Certified By: (BLOCK LETTERS) (SIGNATURE) (DATE)

GENERAL NOTES

GN1. THESE NOTES SHALL BE READ IN CONJUNCTION WITH ALL ENGINEERING DRAWINGS, THE DEPARTMENT OF TRANSPORT AND PLANNING (DTP) CONTRACT SPECIFICATION, OTHER CONTRACT SPECIFIC DESIGN DRAWINGS AND WRITTEN INSTRUCTIONS FORMING PART OF THE CONTRACT.

GN2. THE SPECIFICATION SHALL TAKE PRECEDENCE OVER ANY RELEVANT STANDARDS. THESE ENGINEERING DRAWINGS SHALL TAKE PRECEDENCE OVER THE SPECIFICATION. THE FULL DOCUMENT HIERARCHY SHALL BE IN ACCORDANCE WITH DEPARTMENT OF TRANSPORT AND PLANNING (DTP) STANDARD SPECIFICATION SECTION 175.

GN3. ALL DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT FOR RESOLUTION BEFORE PROCEEDING WITH WORK.

GN4. UNLESS NOTED OTHERWISE:
(a) ALL DIMENSIONS ARE IN MILLIMETRES.
(b) ALL REDUCED LEVELS ARE IN METRES.
(c) ALL SET OUT CO-ORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA)
(d) ALL LEVELS ARE IN METRES AND TO AUSTRALIAN HEIGHT DATUM (AHD)
(e) ALL CHAINAGES ARE MEASURED ALONG ROAD DESIGN LINE ARE IN METRES.

GN5. ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE CONFIRMED AND VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION AND CONSTRUCTION. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE SUPERINTENDENT. DO NOT OBTAIN DIMENSIONS BY SCALING FROM ENGINEERING DRAWINGS.

GN6. ALL UNDERGROUND AND/OR OVERHEAD SERVICES SHALL BE LOCATED ON SITE BEFORE CONSTRUCTION ACTIVITY COMMENCES.

GN7. CONSTRUCTION WORKS SHALL NOT COMMENCE UNTIL APPROVAL IS PROVIDED BY THE RELEVANT AUTHORITIES.

GN8. THE DRAWINGS DO NOT DETAIL TEMPORARY WORKS. CONSTRUCTION METHODS AND TEMPORARY WORKS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

DESIGN REQUIREMENTS

DR1. THE STRUCTURAL ELEMENTS SHOWN ON THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH AS.5100-2017 BRIDGE DESIGN FOR THE FOLLOWING IMPOSED LOADINGS.

STANDARD	DESIGN CRITERIA	LOADING CONDITION
AS.5100.2	VEHICULAR TRAFFIC LOADS	SM1600
AS.5100.5	DEAD LOAD - CONCRETE DENSITY	26 kN/m^3
AS.5100.2	SUPERIMPOSED DEAD LOADING - ASPHALT DENSITY	22 kN/m^3
AS.5100.1	ON STRUCTURE BARRIER PERFORMANCE LEVEL	TL4
AS.5100.1	OFF STRUCTURE BARRIER PERFORMANCE LEVEL	TL4
AS.1597.2	SOIL LOADING - SOIL DENSITY	20 kN/m^3
AS.1597.2	SOIL LOADING - FRICTION ANGLE	30°

CONCRETE

CO1. ALL MATERIAL AND WORKMANSHIP SHALL COMPLY WITH DEPARTMENT OF TRANSPORT AND PLANNING (DTP) CONTRACT SPECIFICATION AND THE APPROPRIATE AUSTRALIAN STANDARDS.

CO2. CONCRETE SHALL BE SPECIAL CLASS PERFORMANCE CONCRETE AS SPECIFIED IN DEPARTMENT OF TRANSPORT AND PLANNING (DTP) SPECIFICATION FOR BRIDGEWORKS. CONCRETE GRADE AND MINIMUM COVER TO REINFORCEMENT SHALL BE AS NOTED BELOW UNLESS NOTED OTHERWISE ON THE DRAWINGS.

STRUCTURAL ELEMENTS	EXPOSURE CLASSIFICATION	MINIMUM CONCRETE GRADE	CHARACTERISTIC COMPRESSIVE STRENGTH AT 28 DAYS (MPa)	COVER (mm)			
				CAST AGAINST FORMS	CAST AGAINST BLINDING	CAST AGAINST GROUND	PRECAST[1]
BASE SLAB	TOP - C2 BOTTOM - B1/B2[2]	VR 470/55	55	80	N/A	B1-50 B2-60	N/A
APRON SLAB	TOP - C2 BOTTOM - B1/B2[2]	VR 470/55	55	80	N/A	B1-50 B2-60	N/A
CROWN UNIT	B1/B2[2]	VR 470/55	55	N/A	N/A	N/A	B1-30 B2-40
WINGWALL	B1/B2[2]	VR 400/40	40	N/A	N/A	N/A	B1-35 B2-50
ENDWALL	B1/B2[2]	VR 400/40	40	B1-45 B2-60	N/A	B1-55 B2-70	N/A
FRICTION SLAB	B1/B2[2]	VR 400/40	40	B1-45 B2-60	N/A	B1-55 B2-70	N/A
BLINDING	N/A	N/A	15	N/A	N/A	N/A	N/A

*NOTE:- 1 - DENOTES REQUIRED RIGID FORMWORK AND INTENSE COMPACTION.
NOTE:- 2 - WHERE LOCATION IS WITHIN 1 km OF COASTAL ZONE, EXPOSURE CLASSIFICATION SHALL BE B2.

CO3. COVER IS THE DISTANCE BETWEEN THE OUTSIDE OF THE REINFORCING STEEL OR TENDONS AND THE NEAREST PERMANENT SURFACE OF THE MEMBER EXCLUDING ANY SURFACE FINISH.

CO4. ALL CORNERS SHALL HAVE A 20 x 20 mm FILLETS OR CHAMFERS UNLESS NOTED OTHERWISE.

CO5. WHERE CURING COMPOUNDS ARE USED, THE COVER SHALL BE INCREASED BY 5 mm FOR CLASSIFICATIONS A AND B1 AND 10 mm FOR OTHER CLASSIFICATIONS.

REINFORCEMENT

RE1. THE STEEL REINFORCEMENT SHALL COMPLY WITH THE REQUIREMENT OF DEPARTMENT OF TRANSPORT AND PLANNING (DTP) CONTRACT SPECIFICATION AND AS.5100 UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.

RE2. REINFORCEMENT SHOWN ON THE DRAWINGS IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN TRUE SCALE.

RE3. SPACING: - TAKEN AS EQUAL UNLESS NOTED OTHERWISE.

RE4. WELDING:- REFER DEPARTMENT OF TRANSPORT AND PLANNING (DTP) SPECIFICATION SECTION 611 FOR BENDING SPLICING AND WELDING OF GRADE 500 REINFORCEMENT.

RE5. THE CONTRACTOR IS REQUIRED TO DEMONSTRATE TO THE SUPERINTENDENT THAT THE PERSON DRILLING AND CLEANING DOWEL HOLES AND MIXING AND PLACING EPOXY ADHESIVE AND DOWELS IS APPROPRIATELY TRAINED AND CERTIFIED TO UNDERTAKE THIS WORK.

RE6. BENDS, HOOKS, COGS AND FITMENTS FOR GRADE 500 REINFORCEMENT SHALL BE TO AS.5100 AND DEPARTMENT OF TRANSPORT AND PLANNING (DTP) SPECIFICATION SECTION 611.

RE7. LAPS, SPLICES AND ANCHORAGE DETAILS FOR GRADE 500 REINFORCEMENT SHALL BE TO AS.5100 AND DEPARTMENT OF TRANSPORT AND PLANNING (DTP) SPECIFICATION SECTION 611.

RE8. ANY BAR WHICH IS LESS THAN STOCK LENGTH SHALL NOT BE SPLICED UNLESS SHOWN ON THE DRAWINGS.

RE9. BAR DIAMETERS AND APPLICABLE LAP LENGTHS DEPENDENT ON EXPOSURE, CHARACTERISTIC CONCRETE STRENGTH AND COVER

BAR DIAMETER	BAR LAP LENGTH (mm)
N12	400
N16	500
N20	750
N24	1000
N28	1250
N32	1500
N36	1800
N40	MECHANICAL SPLICE ONLY

NOTES:-
(a) LAPS BASED ON 45 mm COVER AND CHARACTERISTIC CONCRETE STRENGTH OF 55 MPa.
(b) THE MINIMUM LAP LENGTH SHOWN SHALL BE INCREASED BY 30% FOR HORIZONTAL BARS WITH 300 mm OR MORE OF CONCRETE CAST BELOW.
(c) SPLICES TO ALTERNATE AND NOT MORE THAN 50% OF THE BARS SHALL BE SPLICED AT ANY ONE SECTION UNLESS NOTED OTHERWISE.
(d) WHERE STAGGERED BAR SPLICES ARE NOT POSSIBLE THE MINIMUM LAP LENGTH SHALL NOT BE LESS THAN 1.3 TIMES THE STANDARD LAP LENGTH
(e) THE LAP LENGTHS OF BUNDLED BARS SHALL BE INCREASED FROM STANDARD LENGTH BY THE FOLLOWING VALUES:- 3 BARS BUNDLED - 20% AND 4 BARS BUNDLED - 33%
(f) INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE TERMINATED AT DIFFERENT POINTS STAGGERED BY AT LEAST 40 TIMES THE DIAMETER OF THE LARGER BAR.

RE10. REINFORCEMENT GRADES ARE TO AS.4671:-
L: (GRADE D500L) DEFORMED HOT ROLLED REINFORCING BAR (LOW DUCTILITY)
N: (GRADE D500N) DEFORMED HOT ROLLED REINFORCING BAR (NORMAL DUCTILITY)
R: (GRADE R250N) ROUND HOT ROLLED REINFORCING BAR (NORMAL DUCTILITY)
W: (GRADE R500L) ROUND COLD DRAWN REINFORCING WIRE (LOW DUCTILITY)
E: (GRADE D500E) DEFORMED HOT ROLLED REINFORCING BAR (EARTHQUAKE DUCTILITY)
TM: (GRADE D500L) DEFORMED WIRE REINFORCING TRENCH MESH (LOW DUCTILITY)
RL: (GRADE D500L) DEFORMED WIRE REINFORCING RECTANGULAR MESH (LOW DUCTILITY)
SL: (GRADE D500L) DEFORMED WIRE REINFORCING SQUARE MESH (LOW DUCTILITY)

RE11. TYPICAL REINFORCEMENT NOMENCLATURE
EXPLANATION OF REINFORCING BARMARKING SYSTEM.

2N16-200	2	No. OF BARS
	N	GRADE/MATERIAL
	16	BAR DIAMETER
	200	SPACING IN mm

RE12. THE CONTRACTOR SHALL PROVIDE THE SUPERINTENDENT WITH ACRS (AUSTRALIAN CERTIFICATION AUTHORITY FOR REINFORCING STEEL LTD) CERTIFICATION OF COMPLIANCE WITH AS.4671 FOR ALL REINFORCEMENT. THE CONTRACTOR SHALL PROVIDE THE SUPERINTENDENT WITH CERTIFICATION OF COMPLIANCE WITH AS.4672 FOR ALL PRESTRESSING STRANDS.

RE13. HEATING OR WELDING TO REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE DESIGN ENGINEER AND THE SUPERINTENDENT.

RE14. PERMITTED WELDING OF REINFORCEMENT SHALL BE TO THE REQUIREMENTS OF DEPARTMENT OF TRANSPORT AND PLANNING (DTP) STANDARD SPECIFICATION SECTION 611.

RE15. ALL REINFORCEMENT SHALL BE SECURELY TIED WITH WIRE TIES AND ALL TIE ENDS SHALL BE TURNED INTO THE MEMBER CLEAR OF THE COVER ZONE.

RE16. REINFORCEMENT SHALL NOT BE CUT OR BENT ONSITE UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE DESIGN ENGINEER AND THE SUPERINTENDENT. CUTTING AND BENDING SHALL BE TO THE REQUIREMENTS OF DEPARTMENT OF TRANSPORT AND PLANNING (DTP) STANDARD SPECIFICATION SECTION 611.

RE17. BARS SHALL BE BENT TO THE SHAPES SHOWN ON THE DRAWINGS.

RE18. THE LENGTH AND SHAPES OF BARS ALLOWING FOR BENDING TOLERANCE SHALL BE SUCH AS TO PROVIDE THE NOMINAL COVERS AS SET OUT ON THE DRAWINGS.

RE19. TOLERANCE ON THE NOMINAL COVERS FOR FIXING THE REINFORCEMENT SHALL COMPLY WITH DEPARTMENT OF TRANSPORT AND PLANNING (DTP) STANDARD SPECIFICATION TABLE 610.471.

PROPRIETARY ITEMS

PI1. NOMINATION OF PROPRIETARY ITEMS DOES NOT INDICATE EXCLUSIVE PREFERENCE, BUT INDICATES REQUIRED PROPERTIES OF ITEM, SIMILAR ALTERNATIVES HAVING REQUIRED PROPERTIES MAY BE OFFERED TO THE SUPERINTENDENT FOR APPROVAL.

PI2. PROPRIETARY ITEMS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURERS REQUIREMENT AND RECOMMENDATIONS.

PI3. THE APPROVAL OF A SUBSTITUTION PROPRIETARY ITEM IS NOT AN AUTHORISATION FOR A VARIATION TO THE CONTRACT. ANY VARIATION MUST BE DISCUSSED WITH THE SUPERINTENDENT BEFORE THE WORK IS COMMENCED.

BOLTS AND THREADED RODS

BT1. BOLTING CATEGORIES ARE DEFINED AS FOLLOWS:
(a) 4.6/S - COMMERCIAL GRADE 4.6 TO AS.1111 TIGHTENED SNUG TIGHT
(b) 8.8/S - STRUCTURAL GRADE 8.8 TO AS/NZS.1252 TIGHTENED SNUG TIGHT
(c) 8.8/TB - STRUCTURAL GRADE 8.8 TO AS/NZS.1252 FULLY TENSIONED FOR BEARING
(d) 8.8/TF - STRUCTURAL GRADE 8.8 TO AS/NZS.1252 FULLY TENSIONED FOR FRICTION.

BT2. NUTS SHALL BE SNUG TIGHTENED TO AS.5100 UNLESS NOTED OTHERWISE.

BT3. FULL TENSIONING SHALL BE ACHIEVED BY EITHER THE PART-TURN METHOD, TORQUE CONTROL METHOD OR LOAD INDICATOR METHOD. FULLY TENSIONED BOLTS SHALL NOT BE RE-USED UNDER ANY CIRCUMSTANCES.

BT4. ALL BOLTS, THREADED RODS, NUTS AND LOCK NUTS SHALL BE HOT DIP GALVANIZED TO AS.1214. WASHERS SHALL BE HOT DIP GALVANIZED TO AS/NZS. 4680

BT5. LOCK NUTS SHALL BE PROVIDED AS REQUIRED ON THE DRAWINGS. LOCK NUTS SHALL BE INSTALLED TO A SNUG TIGHT CONDITION AFTER PLACEMENT OF THE WASHER. THE STANDARD NUT SHALL THEN BE INSTALLED TO A SNUG TIGHT CONDITION PRIOR TO BEING FULLY TENSIONED WHILE THE LOCK NUT IS PREVENTED FROM TURNING.

BT6. MINIMUM BOLT LENGTH SHALL PROVIDE AT LEAST ONE FULL THREAD EXPOSED BEYOND THE NUT IN THE TIGHTENED CONDITION.

BT7. THE BOLT HOLES SHOULD BE MADE LARGER THAN THE NOMINAL DIAMETER BY:-
(a) 2 mm FOR M12, M16, M20 AND M24 BOLTS FOR NON BASE PLATE CONNECTIONS
(b) 3 mm FOR BOLTS LARGER THAN M24 FOR NON BASEPLATE CONNECTIONS WITH 4 mm MINIMUM THICK PLATE WASHERS.
(c) NOT MORE THAN 6 mm FOR ALL BOLT HOLES IN BASE PLATES FOR ALL BOLT SIZES WITH 4 mm MINIMUM THICK PLATE WASHERS.

BT8. SLOTTED BOLT HOLES SHALL HAVE 8 mm MINIMUM THICKNESS PLATE WASHERS COMPLETELY COVERING THE HOLE.

BT9. FLAME CUTTING OF HOLES IS NOT PERMITTED.

GENERAL ARRANGEMENT

GA1. FINISHED SURFACE LEVELS ARE TO MATCH EXISTING.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_NOTES.DGN

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DESIGNED BY	INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES	APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.	SCALE OF METRES HOR / VER
SHEET SIZE A3	SCALE

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COORD SYSTEM | SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		
ROAD No. / SITE No.		
STRUCTURE No.		

STANDARD DRAWING
STOCK UNDERPASS
SINGLE AND DOUBLE CELL OPTIONS

GENERAL NOTES - PART 1

CONTRACT No.	SHEET No.	DRAWING No.	REV.
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BASE SLAB

BS1. THE BASE SLAB DRAWINGS ON SHEETS 6, 7 AND 8 HAVE BEEN DESIGNED TO VARYING SERVICEABILITY PRESSURES. ADOPTION OF THE 250 kPa, DESIGN TABLES REQUIRES DEMONSTRATION TO THE SUPERINTENDENT'S SATISFACTION THAT THE FOUNDING SOIL MEETS DESIGNATED MINIMUM BEARING PRESSURE AS PART OF THE APPROVAL PROCESS.

BS2. BEDDING FOR THE CAST IN PLACE CONCRETE BASE SLAB SHALL CONSIST OF A COMPACTED LAYER OF 20 mm CLASS 3 CRUSHED ROCK, OF NOT LESS THAN 150 mm COMPACTED THICKNESS.

BS3. WHERE THE FOUNDATION HAS A BEARING CAPACITY OF LESS THAN NOMINATED BEARING CAPACITY THE SOFT MATERIAL SHALL BE EXCAVATED AND SHALL BE PLACED ON 40 mm CLASS 3 CRUSHED ROCK, SPREAD IN LAYERS NOT EXCEEDING 150 mm COMPACTED THICKNESS, IN ACCORDANCE WITH DEPARTMENT OF TRANSPORT AND PLANNING (DTP) STANDARD SPECIFICATION SECTION 626.

PRECAST CROWN UNITS

CU1. DESIGN OF CROWN UNITS HAS CONSIDERED CONSTRUCTION LOADING.

CU2. CROWN UNITS HAVE BEEN DESIGNED IN ACCORDANCE WITH BTN016.

CU3. CROWN UNITS SHALL BE INSTALLED IN ACCORDANCE WITH DEPARTMENT OF TRANSPORT AND PLANNING (DTP) STANDARD SPECIFICATION SECTION 626.

FRICTION SLAB LAYOUT

FS1. THE CONTRACTOR SHALL CHECK AND ADJUST THE LAYOUT OF THE FRICTION SLAB HORIZONTALLY PRIOR TO ANY CONSTRUCTION OR FABRICATION. ANY CHANGES REQUIRED SHALL BE SUBMITTED O THE SUPERINTENDENT FOR REVIEW.

FS2. LEVELS TO BE DETERMINED AND SET BY THE CONTRACTOR TO PROVIDE A SMOOTH VERTICAL PROFILE. THE PROFILES SHALL BE SUBMITTED TO THE SUPEINTENDENT FOR REVIEW PRIOR TO ANY CONSTRUCTION OR FABRICATION.

MORTAR LEVELLING LAYER

ML1. EPOXY MORTAR LEVELLING LAYER TO OBTAIN A MINIMUM STRENGTH OF 50 MPa. AT 28 DAYS.

DRAINAGE

D1. DRAINAGE IS TO BE DETERMINED BY CONTRACTOR ON SITE.

STOCK UNDERPASS AND OFF-STRUCTURE BARRIER

BR1. BARRIER POSTS SHALL BE ERECTED AS PER MANUFACTURERS REQUIREMENTS.

BR2. DISTANCES SHOWN ARE HORIZONTAL DISTANCES UNLESS NOTED OTHERWISE.

BR3. ALL DISTANCES SHALL BE CHECKED BY THE CONTRACTOR PRIOR TO THE FABRICATION OF RAILING.

BR4. THE CONTRACTOR SHALL CHECK AND ADJUST THE LAYOUT OF THE BARRIERS HORIZONTALLY PRIOR TO ANY FABRICATION OR CONSTRUCTION. ANY CHANGE REQUIRED SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR REVIEW.

BR5. LEVELS TO BE DETERMINED BY THE CONTRACTOR TO PROVIDE A SMOOTH VERTICAL PROFILE. THE PROFILE SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR REVIEW PRIOR TO ANY CONSTRUCTION AND FABRICATION.

BR6. BARRIER ARRANGEMENT ON A PARTICULAR SITE MUST MEET MANUFACTURERS REQUIREMENTS, AND MEET THE LAYOUT SPECIFIED IN THESE STANDARD DRAWINGS.
SITE SPECIFIC ALTERATIONS WILL REQUIRE A BARRIER DESIGN BY A PREQUALIFIED ENGINEER.

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COORD SYSTEM	SUITABILITY

STRUCTURAL

LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.	
STRUCTURE No.	

STANDARD DRAWING
STOCK UNDERPASS
SINGLE AND DOUBLE CELL OPTIONS
GENERAL NOTES - PART 2

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	2 OF 16	SD7002	A

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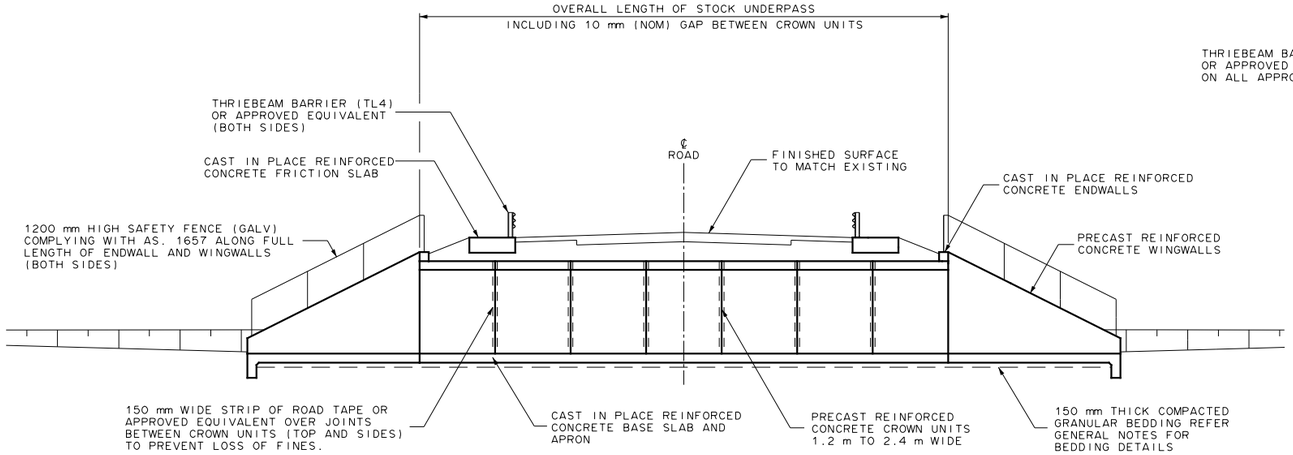

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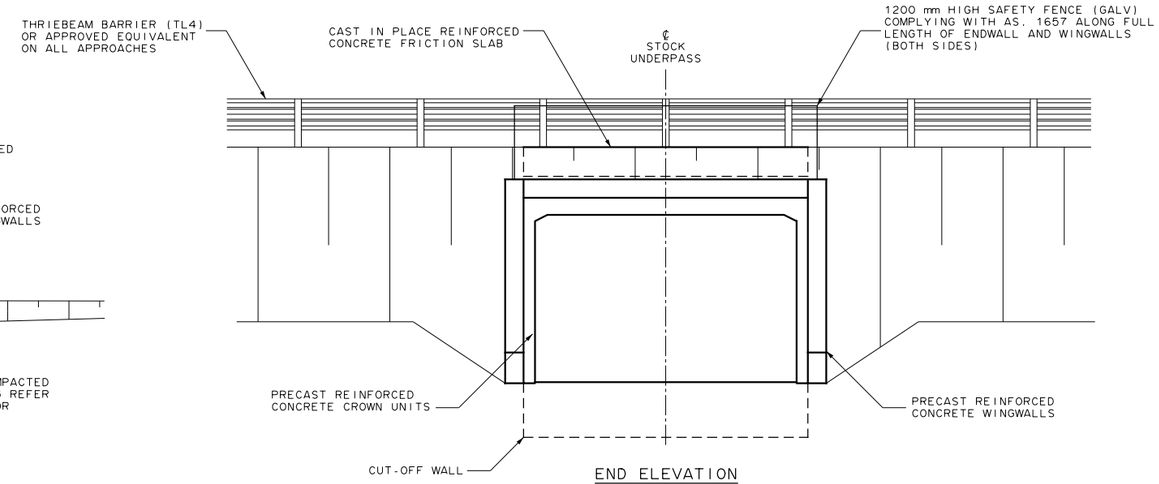

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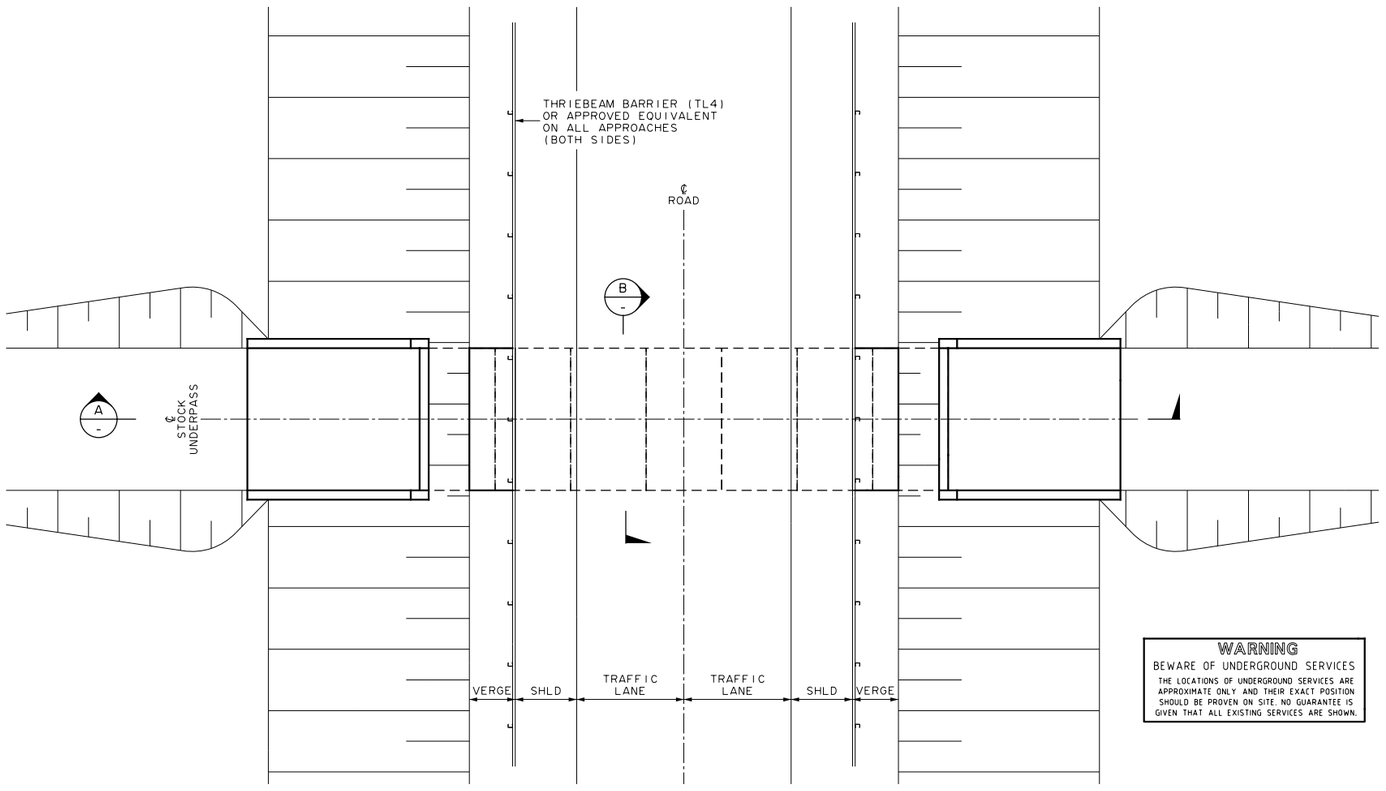
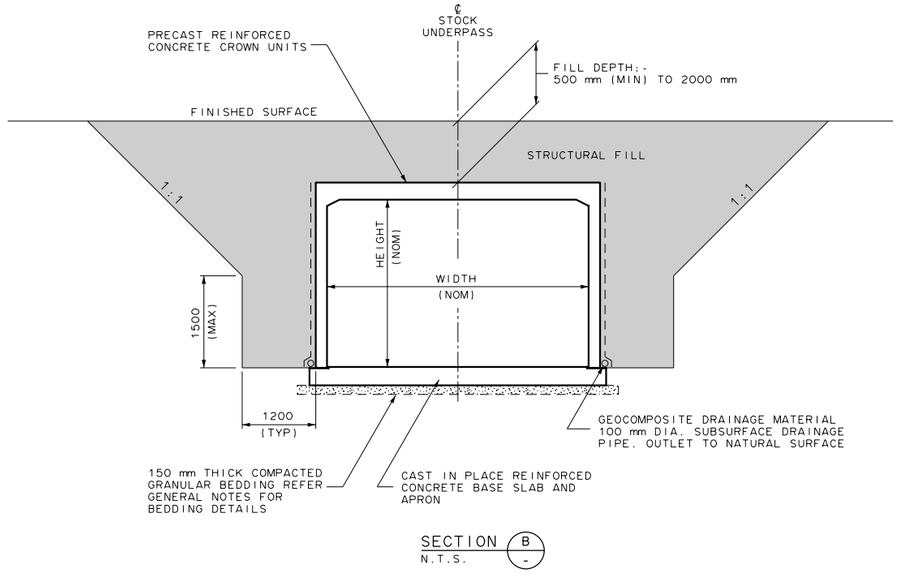


PLAN
N.T.S.

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.



SECTION B
N.T.S.

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_GA.DGN

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SHEET SIZE A3	SCALE

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COORD SYSTEM	SUITABILITY

STRUCTURAL

LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.	
STRUCTURE No.	

STANDARD DRAWING
STOCK UNDERPASS
SINGLE CELL OPTION
GENERAL ARRANGEMENT

CONTRACT No.	SHEET No.	DRAWING No.	REV.
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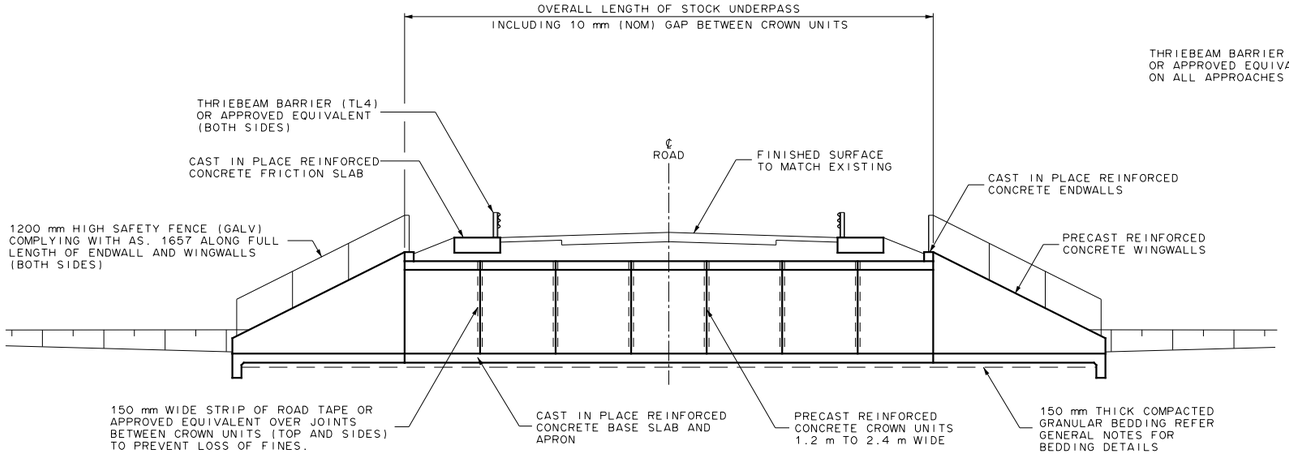

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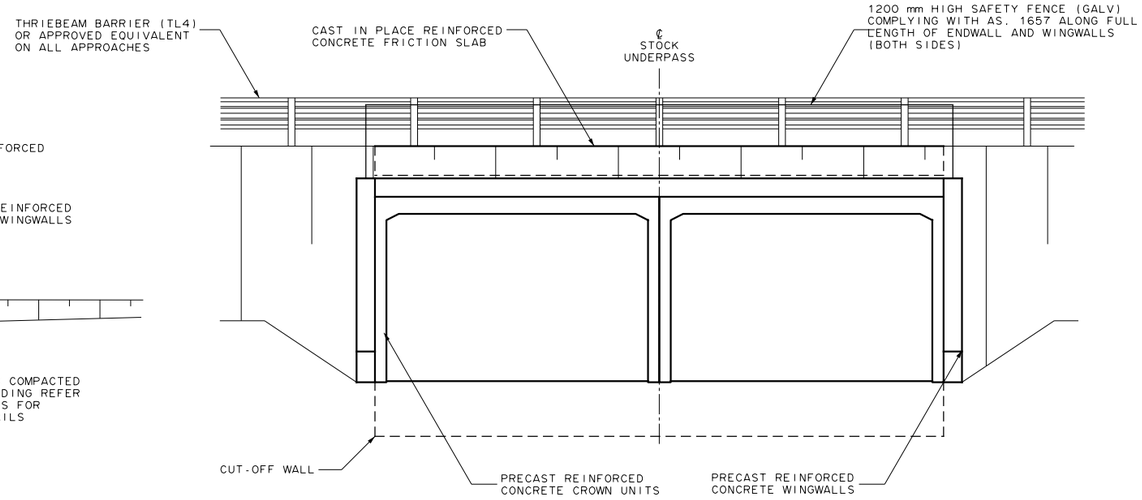

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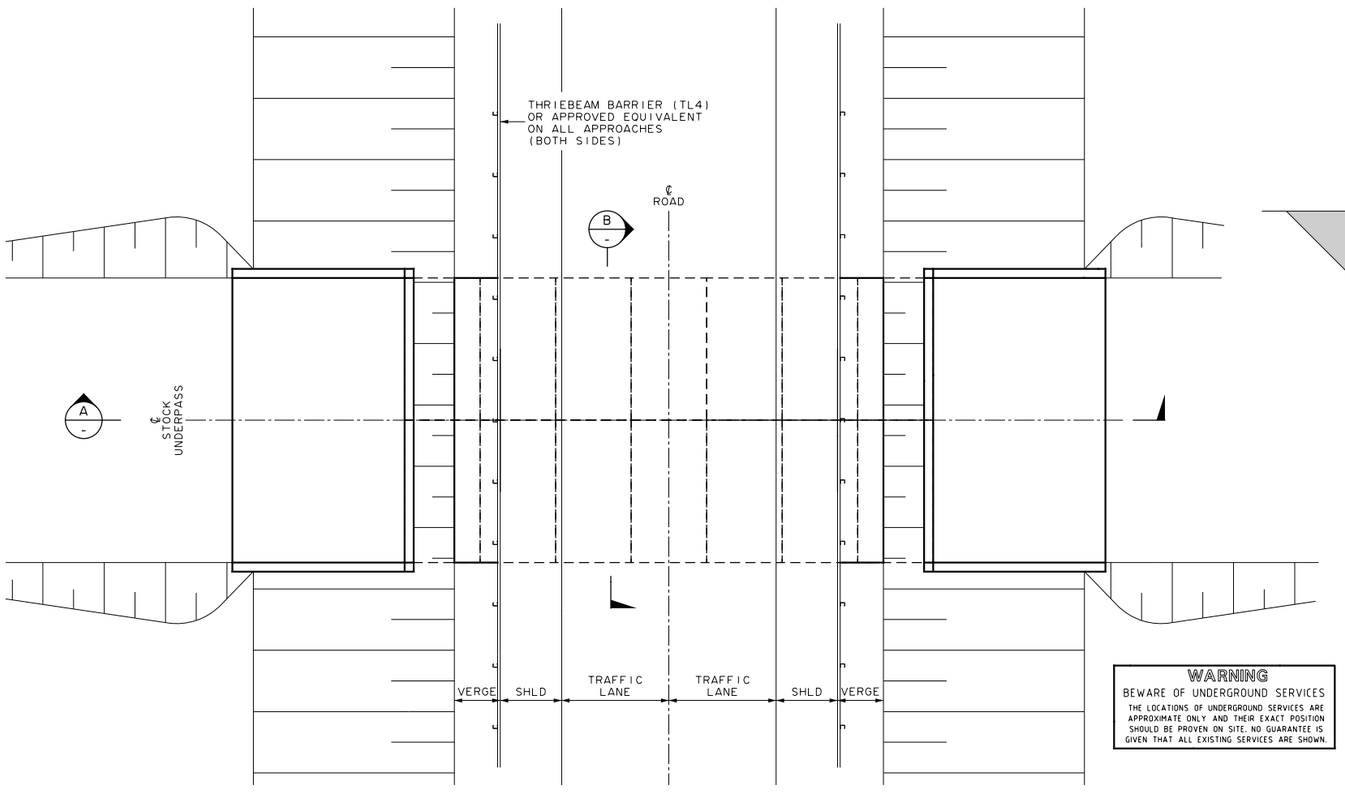

PLAN
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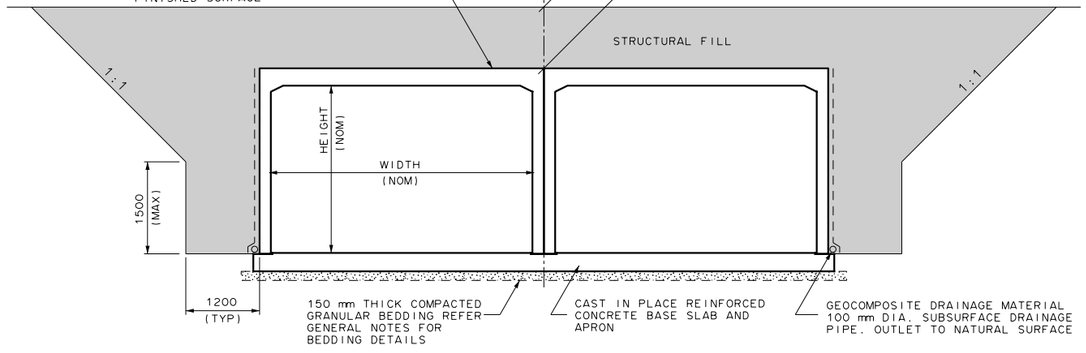

SECTION B
N.T.S.

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_GA.DGN

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RPEV NAME & No.	SCALE OF METRES HOR / VER
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COORD SYSTEM	SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
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ID No.		

ROAD No. / SITE No.	
STRUCTURE No.	

STANDARD DRAWING
STOCK UNDERPASS
DOUBLE CELL OPTION
GENERAL ARRANGEMENT

CONTRACT No.	SHEET No.	DRAWING No.	REV.
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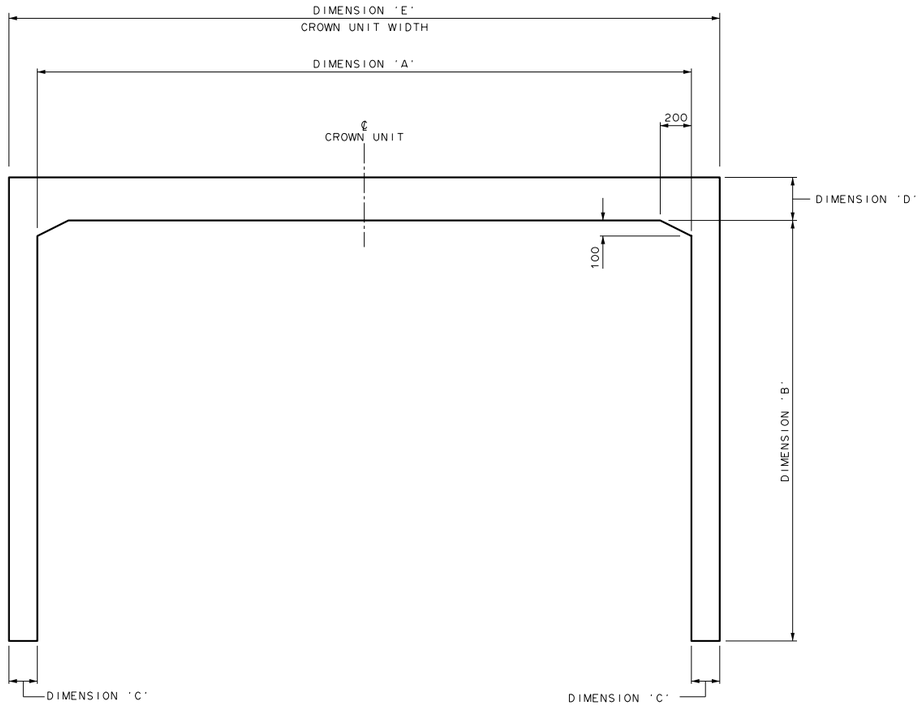

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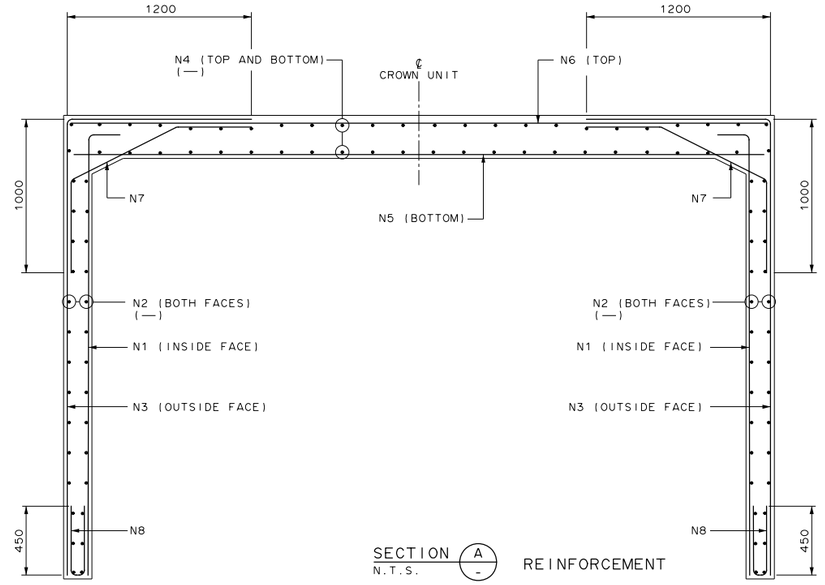

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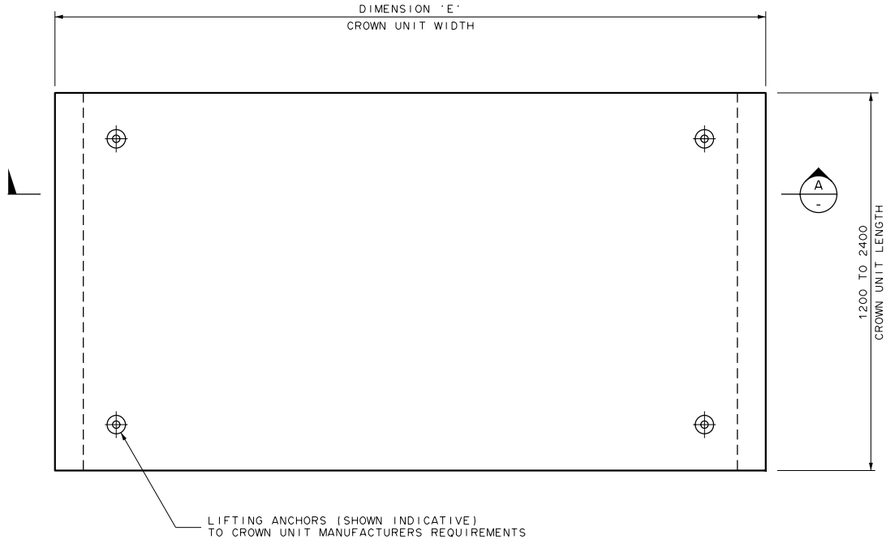

PLAN N.T.S.

TABLE OF DIMENSIONS										
	NOMINAL SIZE (mm)	3000 x 2100	3000 x 2400	3000 x 2700	3600 x 2100	3600 x 2400	3600 x 2700	4200 x 2100	4200 x 2400	4200 x 2700
CONCRETE	DIMENSION 'A' (mm)	3000	3000	3000	3600	3600	3600	4200	4200	4200
	DIMENSION 'B' (mm)	2100	2400	2700	2100	2400	2700	2100	2400	2700
	DIMENSION 'C' (mm)	200	200	200	200	200	200	200	200	200
	DIMENSION 'D' (mm)	230	230	230	250	250	250	280	280	280
	DIMENSION 'E' (mm)	3400	3400	3400	4000	4000	4000	4600	4600	4600
REINFORCEMENT	DIAMETER N1 (mm)	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
	DIAMETER N2 (mm)	N12-200 mm CRS	N12-200 mm CRS	N12-200 mm CRS	N12-200 mm CRS	N12-200 mm CRS	N12-200 mm CRS	N12-200 mm CRS	N12-200 mm CRS	N12-200 mm CRS
	DIAMETER N3 (mm)	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N20-200 mm CRS	N20-200 mm CRS	N20-200 mm CRS	N20-150 mm CRS	N20-150 mm CRS	N20-150 mm CRS
	DIAMETER N4 (mm)	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
	DIAMETER N5 (mm)	N24-200 mm CRS	N24-200 mm CRS	N24-200 mm CRS	N24-200 mm CRS	N24-200 mm CRS	N24-200 mm CRS	N24-150 mm CRS	N24-150 mm CRS	N24-150 mm CRS
	DIAMETER N6 (mm)	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
	DIAMETER N7 (mm)	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
	DIAMETER N8 (mm)	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.
2. ALTERNATIVE PRECAST CROWN UNITS MAY ALSO BE ACCEPTED, PROVIDED THAT THESE UNITS HAVE BEEN DESIGNED BY ENGINEERS PREQUALIFIED AT THE SIMPLE STRUCTURES LEVEL, AND PROOF ENGINEERED BY ENGINEERS PREQUALIFIED AT THE PROOF ENGINEER LEVEL.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_CROWN.DGN

DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY	INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES	APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.	SCALE OF METRES HOR / VER
SHEET SIZE A3	SCALE

VICTORIA State Government

OFFICIAL

COORD SYSTEM	SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.
STRUCTURE No.

STANDARD DRAWING
STOCK UNDERPASS
SINGLE AND DOUBLE CELL OPTIONS

PRECAST CROWN UNIT

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	5 OF 16	SD7005	A

Default SUP_crown.dgn
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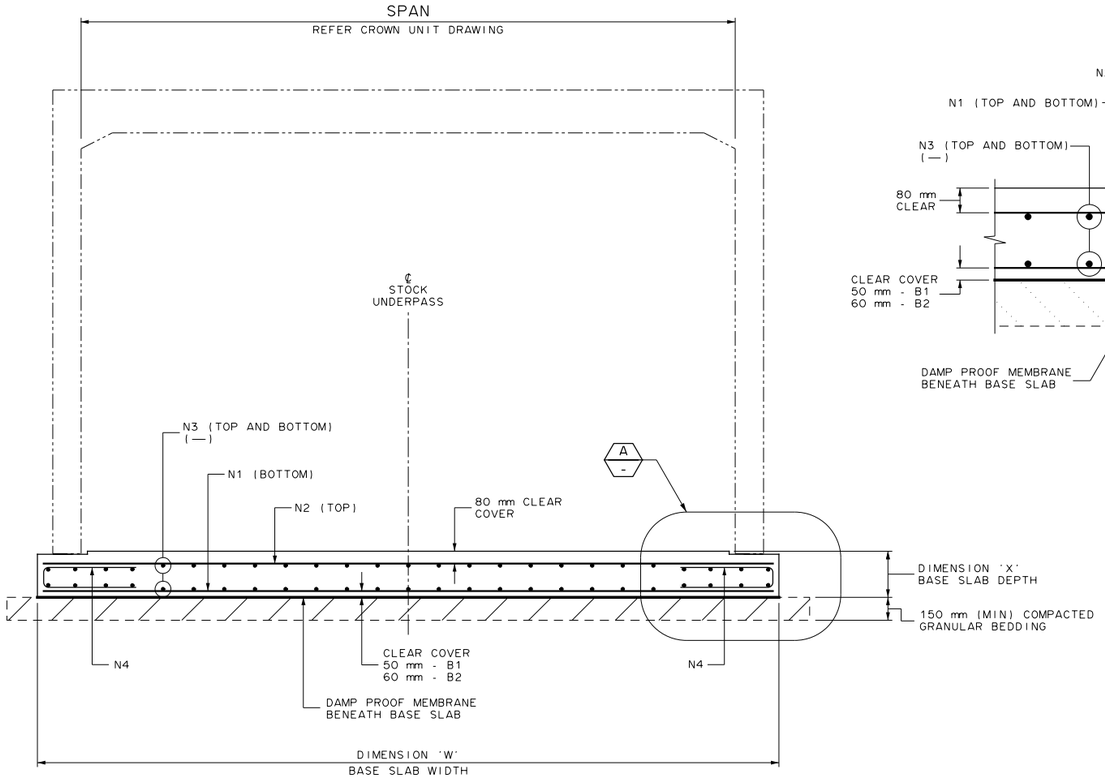
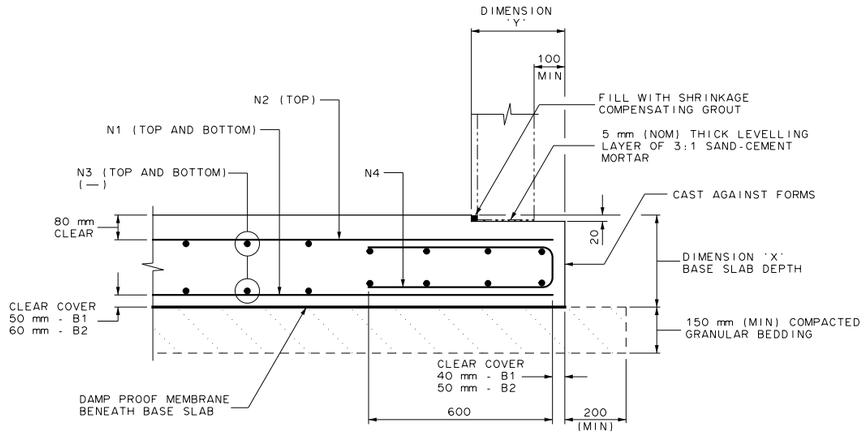
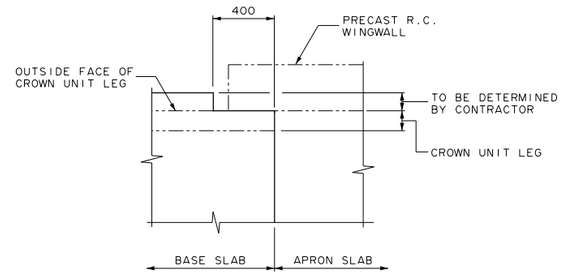
Certified By: (BLOCK LETTERS) (SIGNATURE) (DATE)



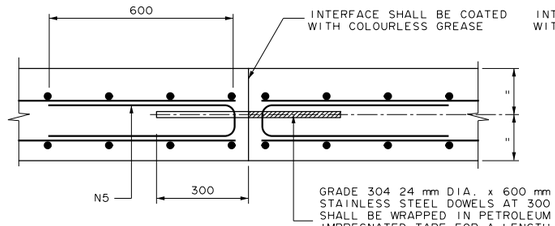
TYPICAL SECTION
N.T.S.



DETAIL A
SCALE 20

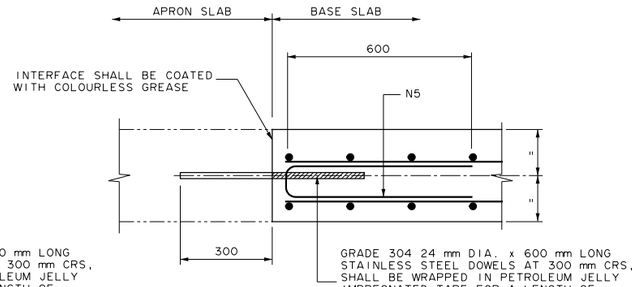


DETAIL D
SCALE 40

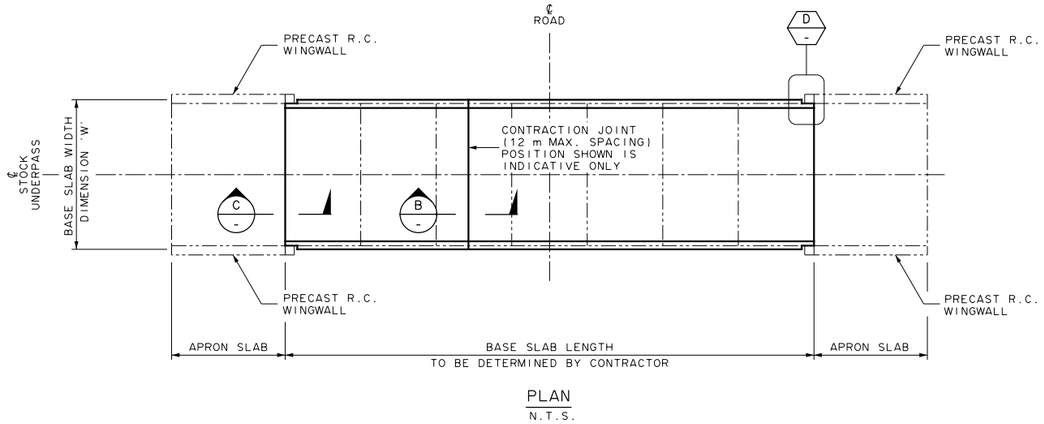


SECTION B
SCALE 20

CONTRACTION JOINT



SECTION C
SCALE 20



PLAN
N.T.S.

FOUNDATION BEARING PRESSURE - 100 kPa									
TABLE OF DIMENSIONS									
CONCRETE				REINFORCEMENT					
SPAN (mm)	DIMENSION 'W' (mm)	DIMENSION 'X' (mm)	DIMENSION 'Y' (mm)	DIAMETER N1 (mm)	DIAMETER N2 (mm)	DIAMETER N3 (mm)	DIAMETER N4 (mm)	DIAMETER N5 (mm)
3000	3600	280	325	N16-150 mm CRS	N24-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
3600	4200	300	325	N16-150 mm CRS	N24-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
4200	4800	330	325	N16-150 mm CRS	N24-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS

FOUNDATION BEARING PRESSURE - 250 kPa									
TABLE OF DIMENSIONS									
CONCRETE				REINFORCEMENT					
SPAN (mm)	DIMENSION 'W' (mm)	DIMENSION 'X' (mm)	DIMENSION 'Y' (mm)	DIAMETER N1 (mm)	DIAMETER N2 (mm)	DIAMETER N3 (mm)	DIAMETER N4 (mm)	DIAMETER N5 (mm)
3000	3600	280	325	N16-200 mm CRS	N20-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
3600	4200	300	325	N16-200 mm CRS	N20-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
4200	4800	330	325	N16-200 mm CRS	N20-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_BASE_SLAB.DGN

DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY	INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES	APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.	SCALE OF METRES HOR / VER
SHEET SIZE A3	SCALE

VICTORIA State Government

OFFICIAL

COORD SYSTEM | SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.

STRUCTURE No.

STANDARD DRAWING
STOCK UNDERPASS
SINGLE CELL OPTION
BASE SLAB - FLAT INVERT

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	6 OF 16	SD7006	A

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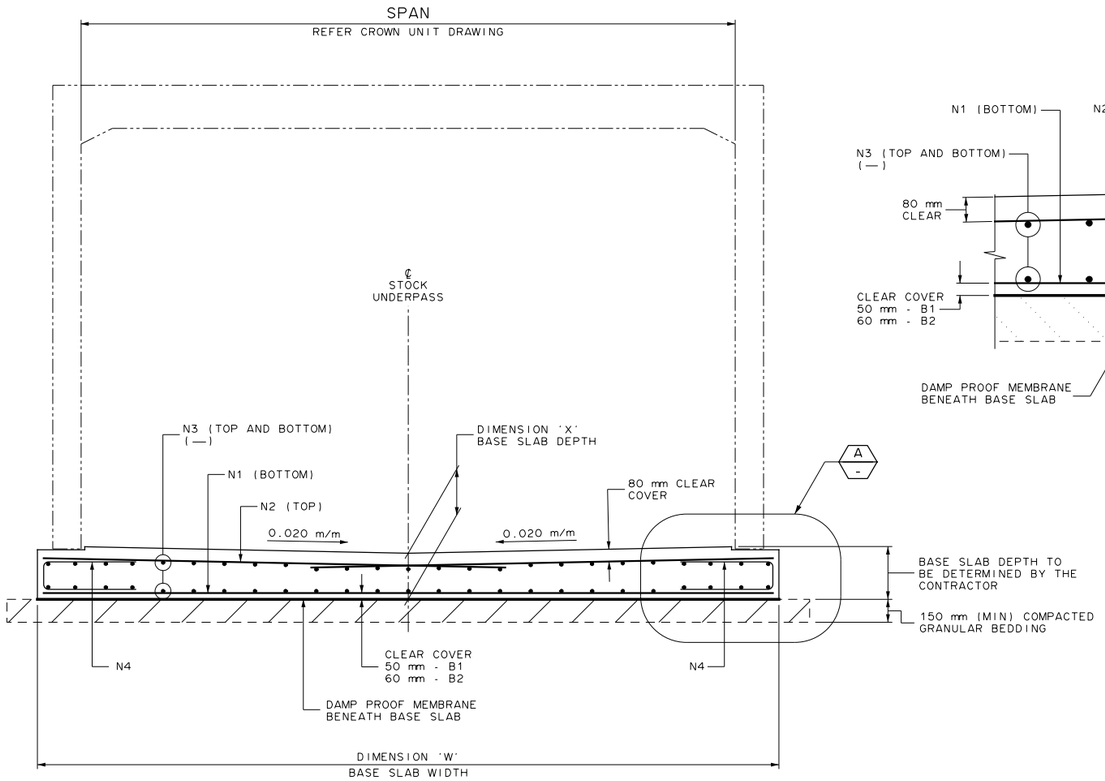
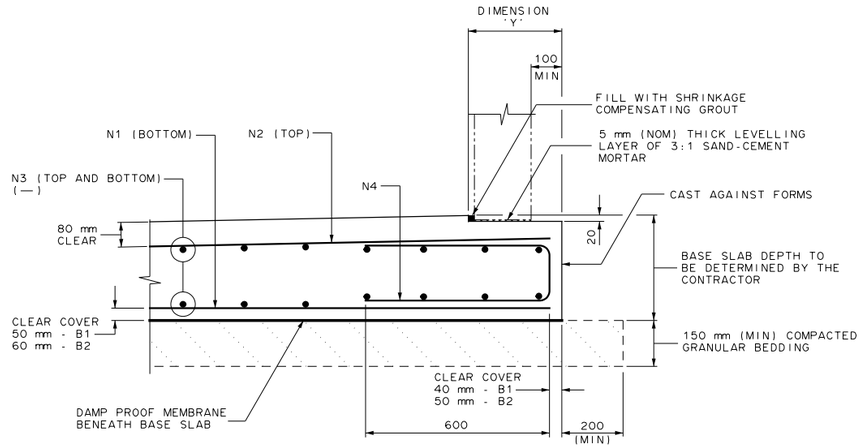
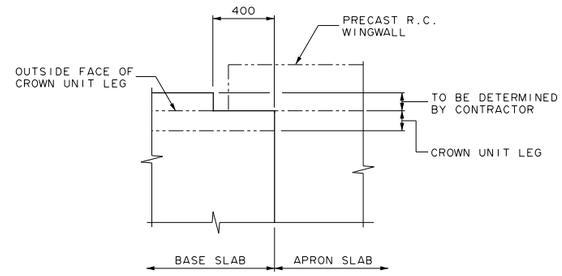
Certified By: (BLOCK LETTERS) (SIGNATURE) (DATE)



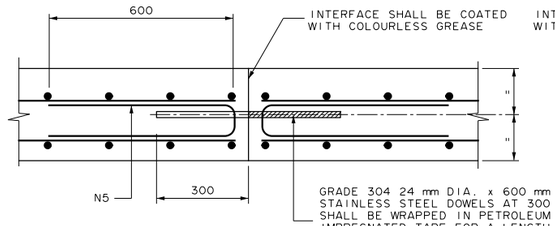
TYPICAL SECTION
N.T.S.



DETAIL A
SCALE 20

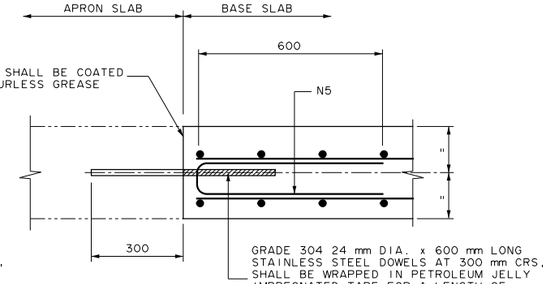


DETAIL D
SCALE 40

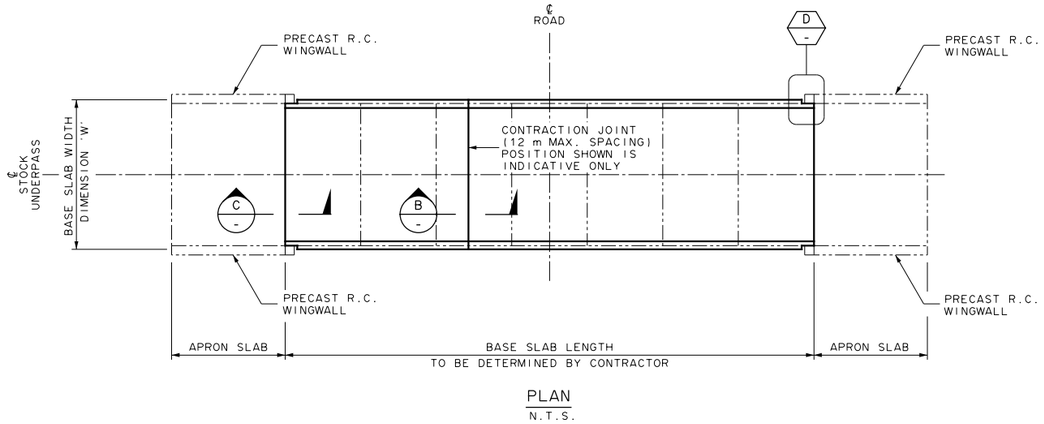


SECTION B
SCALE 20

CONTRACTION JOINT



SECTION C
SCALE 20



PLAN
N.T.S.

FOUNDATION BEARING PRESSURE - 100 kPa									
TABLE OF DIMENSIONS									
CONCRETE				REINFORCEMENT					
SPAN (mm)	DIMENSION 'W' (mm)	DIMENSION 'X' (mm)	DIMENSION 'Y' (mm)	DIAMETER N1 (mm)	DIAMETER N2 (mm)	DIAMETER N3 (mm)	DIAMETER N4 (mm)	DIAMETER N5 (mm)
3000	3600	280	325	N16-150 mm CRS	N24-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
3600	4200	300	325	N16-150 mm CRS	N24-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
4200	4800	330	325	N16-150 mm CRS	N24-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS

FOUNDATION BEARING PRESSURE - 250 kPa									
TABLE OF DIMENSIONS									
CONCRETE				REINFORCEMENT					
SPAN (mm)	DIMENSION 'W' (mm)	DIMENSION 'X' (mm)	DIMENSION 'Y' (mm)	DIAMETER N1 (mm)	DIAMETER N2 (mm)	DIAMETER N3 (mm)	DIAMETER N4 (mm)	DIAMETER N5 (mm)
3000	3600	280	325	N16-200 mm CRS	N20-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
3600	4200	300	325	N16-200 mm CRS	N20-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
4200	4800	330	325	N16-200 mm CRS	N20-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

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REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_BASE_SLAB.DGN

DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY

INDEPENDENT REVIEW BY

CHECKED BY: PE - STRUCTURES

APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024

RPEV NAME & No.

SCALE OF METRES HOR VER

SHEET SIZE A3

SCALE

VICTORIA State Government

OFFICIAL

COORD SYSTEM

SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.

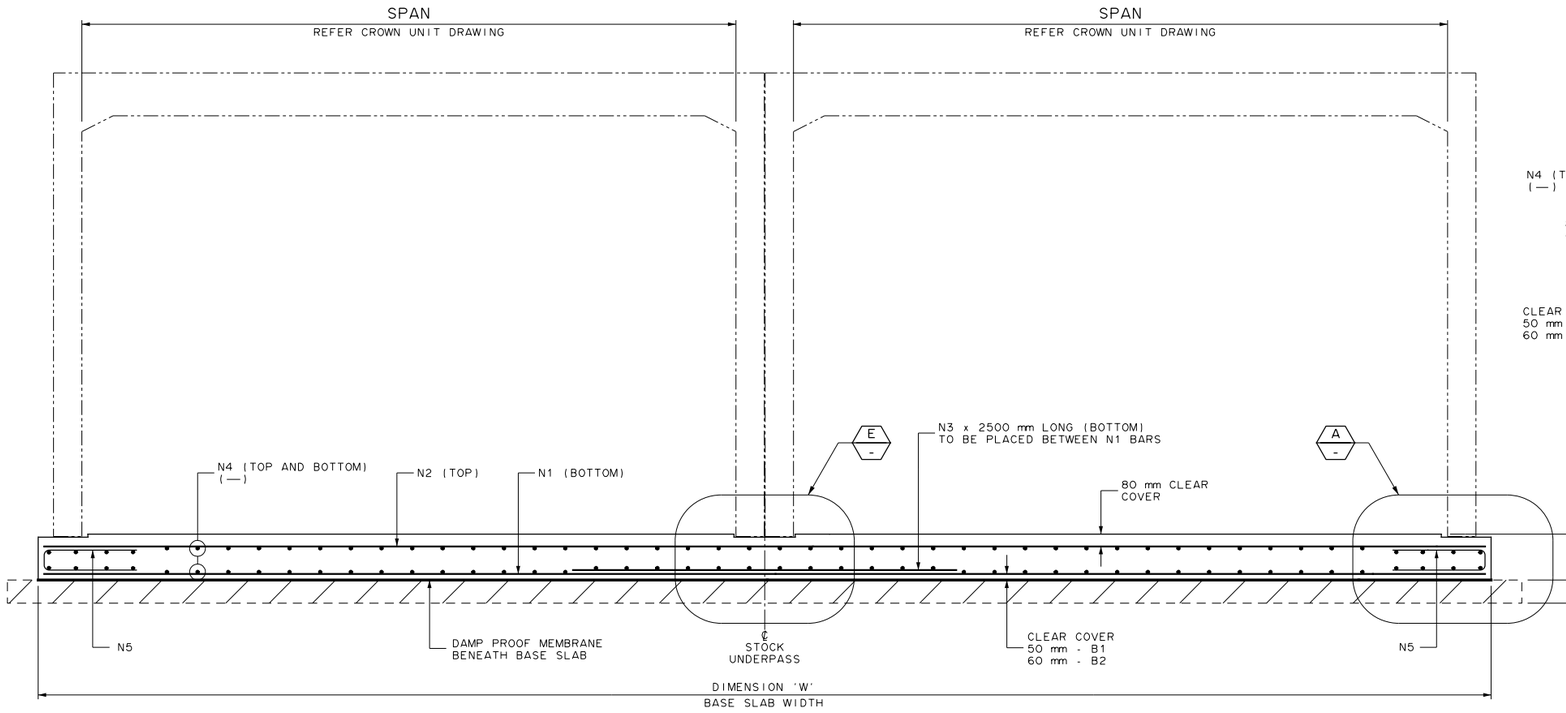
STRUCTURE No.

STANDARD DRAWING
STOCK UNDERPASS
SINGLE CELL OPTION

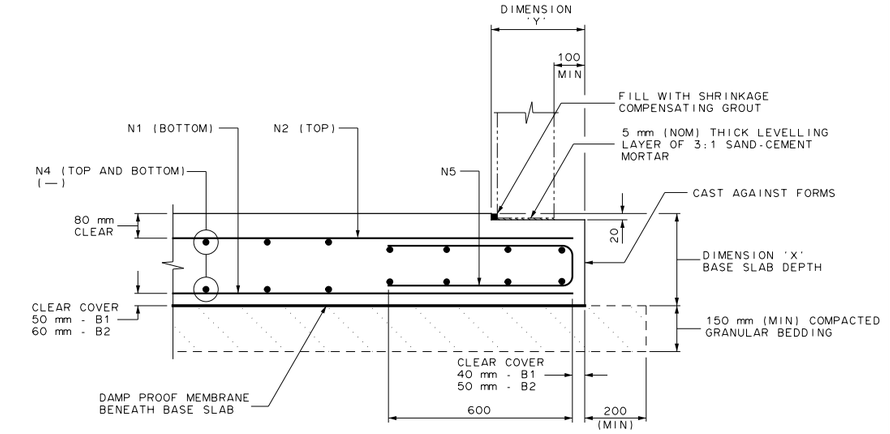
BASE SLAB - SLOPED INVERT

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	7 OF 16	SD7007	A

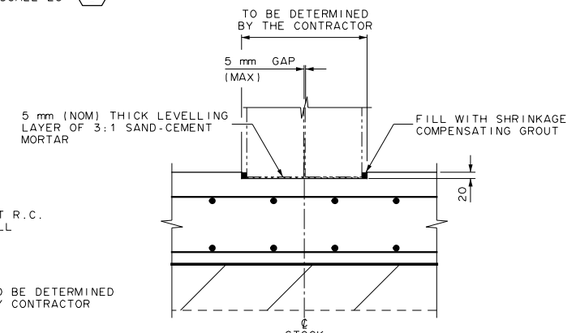
Certified By: (DATE) (SIGNATURE) (BLOCK LETTERS)



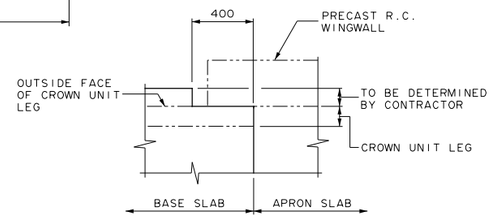
TYPICAL SECTION
N.T.S.



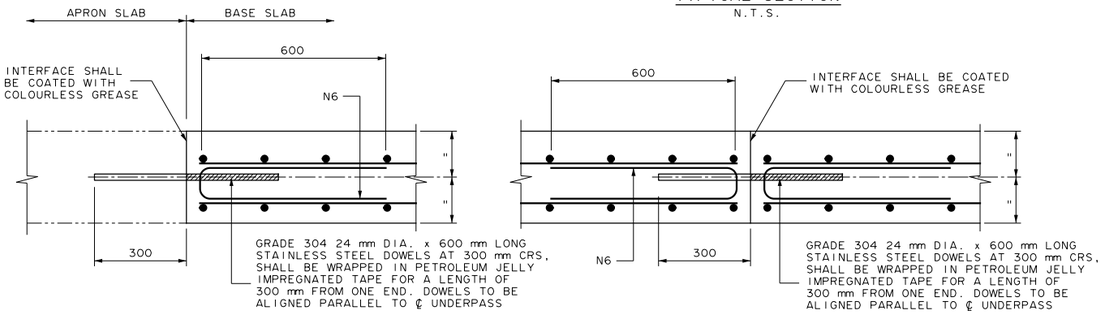
DETAIL A
SCALE 20



DETAIL E
SCALE 20



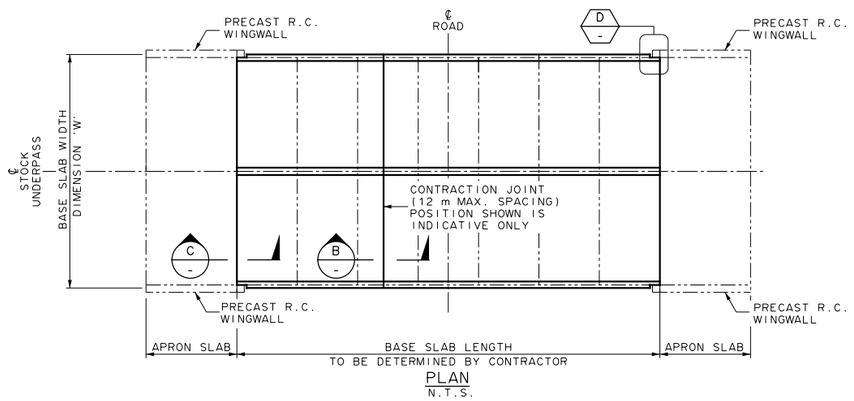
DETAIL D
SCALE 40



SECTION C
SCALE 20

SECTION B
SCALE 20

CONTRACTION JOINT



PLAN
N.T.S.

FOUNDATION BEARING PRESSURE - 100 kPa										
TABLE OF DIMENSIONS										
CONCRETE				REINFORCEMENT						
SPAN (mm)	DIMENSION 'W' (mm)	DIMENSION 'X' (mm)	DIMENSION 'Y' (mm)	DIAMETER N1 (mm)	DIAMETER N2 (mm)	DIAMETER N3 (mm)	DIAMETER N4 (mm)	DIAMETER N5 (mm)	DIAMETER N6 (mm)
3000	7000	280	325	N16-200 mm CRS	N24-150 mm CRS	N24-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
3600	8200	300	325	N16-200 mm CRS	N24-150 mm CRS	N24-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
4200	9400	330	325	N16-200 mm CRS	N24-150 mm CRS	N24-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS

FOUNDATION BEARING PRESSURE - 250 kPa										
TABLE OF DIMENSIONS										
CONCRETE				REINFORCEMENT						
SPAN (mm)	DIMENSION 'W' (mm)	DIMENSION 'X' (mm)	DIMENSION 'Y' (mm)	DIAMETER N1 (mm)	DIAMETER N2 (mm)	DIAMETER N3 (mm)	DIAMETER N4 (mm)	DIAMETER N5 (mm)	DIAMETER N6 (mm)
3000	7000	280	325	N16-200 mm CRS	N20-200 mm CRS	N20-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
3600	8200	300	325	N16-200 mm CRS	N20-200 mm CRS	N20-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS
4200	9400	330	325	N16-200 mm CRS	N24-200 mm CRS	N20-150 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP2_BASE_SLAB.DGN

DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY	INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES	APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.	SCALE OF METRES HOR / VER
SHEET SIZE A3	SCALE

VICTORIA State Government

OFFICIAL

COORD SYSTEM	SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.	
STRUCTURE No.	

STANDARD DRAWING
STOCK UNDERPASS
DOUBLE CELL OPTION
BASE SLAB - FLAT INVERT

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	8 OF 16	SD7008	A

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19/06/2024
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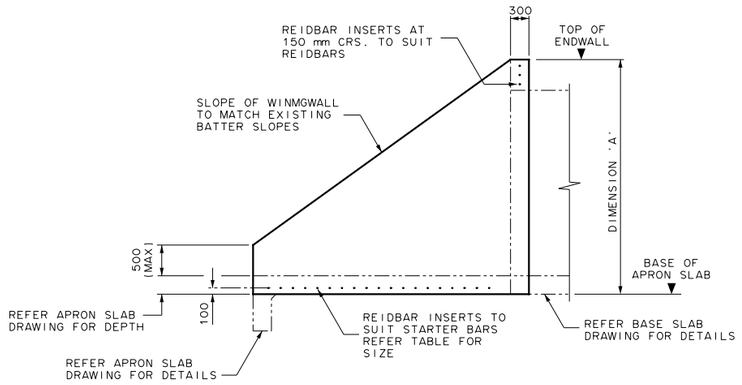
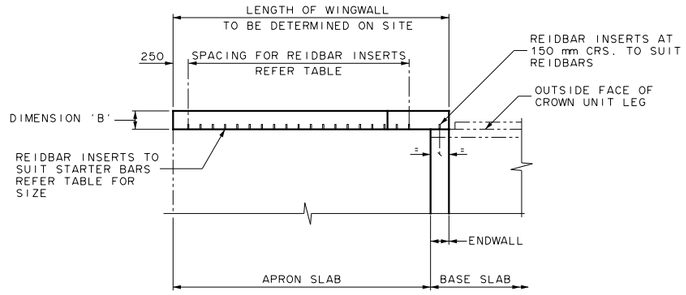
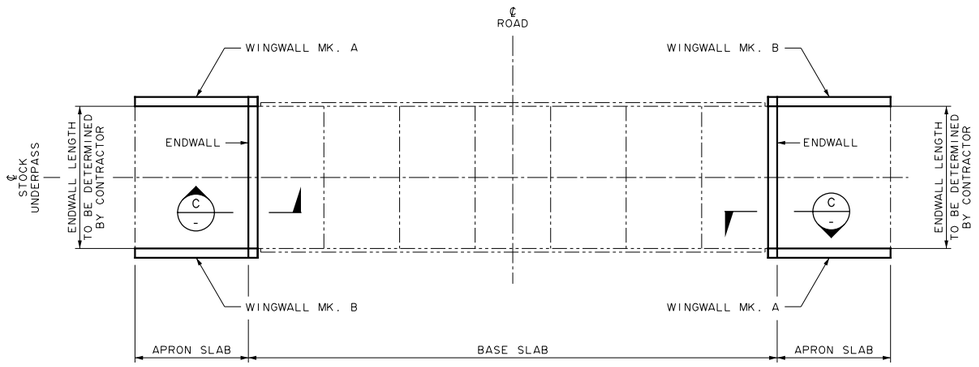
Certified By: (BLOCK LETTERS) (SIGNATURE) (DATE)



WINGWALL FRONT ELEVATION
SCALE 100

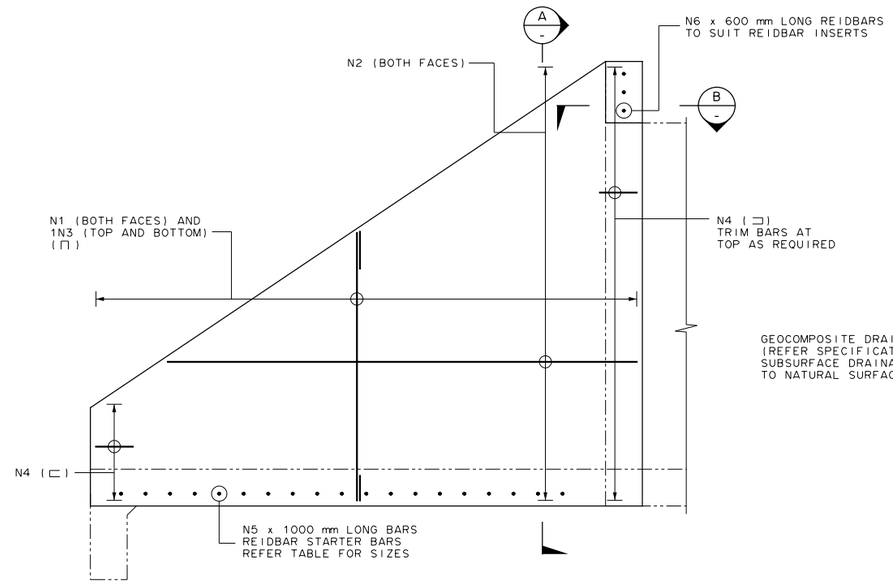


PLAN
WINGWALL MK. A - AS DRAWN
WINGWALL MK. B - OPPOSITE HAND
SCALE 100



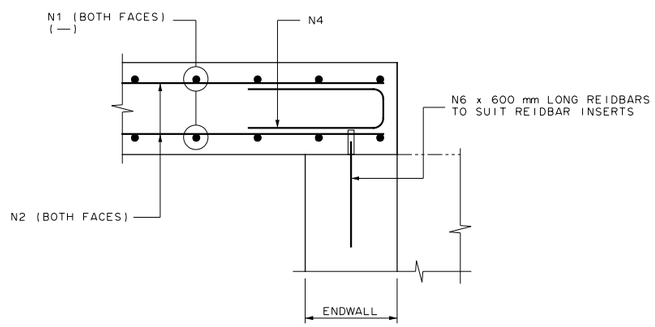
PLAN
N.T.S.

NOTE:
SINGLE CELL OPTION SHOWN
DOUBLE CELL OPTION SIMILAR

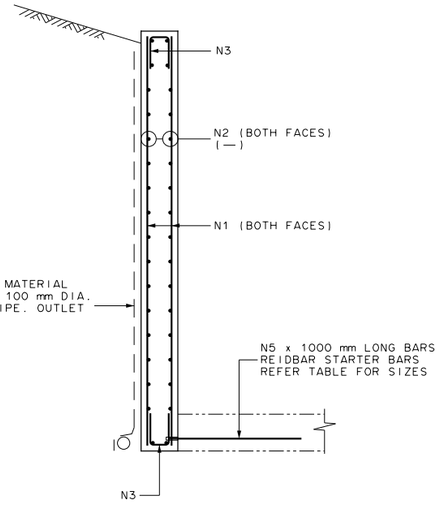


ELEVATION - REINFORCEMENT
SCALE 50

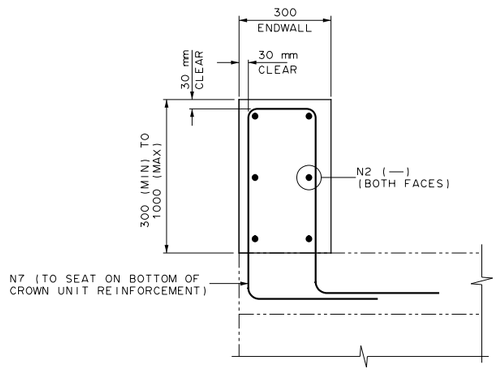
NOTE:
WINGWALL MK. A SHOWN
WINGWALL MK. B SIMILAR



SECTION B
SCALE 20



SECTION A
SCALE 50



SECTION C
SCALE 20

TABLE OF DIMENSIONS

CONCRETE			REINFORCEMENT						
DIMENSION 'A' (mm)	DIMENSION 'B' (mm)	REIDBAR INSERTS	DIAMETER N1 (mm)	DIAMETER N2 (mm)	DIAMETER N3 (mm)	DIAMETER N4 (mm)	DIAMETER N5 (mm)	DIAMETER N6 (mm)	DIAMETER N7 (mm)
3000	250	RBA16TI - 200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	RBA16-200 mm CRS	RB25-150 mm CRS	N16-150 mm CRS
4000	300	RBA20TI - 200 mm CRS	N20-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	RBA20-200 mm CRS	RB25-150 mm CRS	N16-150 mm CRS
5000	350	RB25TI - 150 mm CRS	N24-150 mm CRS	N16-200 mm CRS	N16-150 mm CRS	N16-200 mm CRS	RB25-150 mm CRS	RB25-150 mm CRS	N16-150 mm CRS

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_WINGWALL.DGN

DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY	INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES	APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.	SCALE OF METRES HOR / VER
SHEET SIZE A3	SCALE

VICTORIA State Government

OFFICIAL

COORD SYSTEM	SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.	
STRUCTURE No.	

STANDARD DRAWING
STOCK UNDERPASS
SINGLE AND DOUBLE CELL OPTIONS

PRECAST WINGWALLS AND CIP ENDWALLS

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	9 OF 16	SD7009	A

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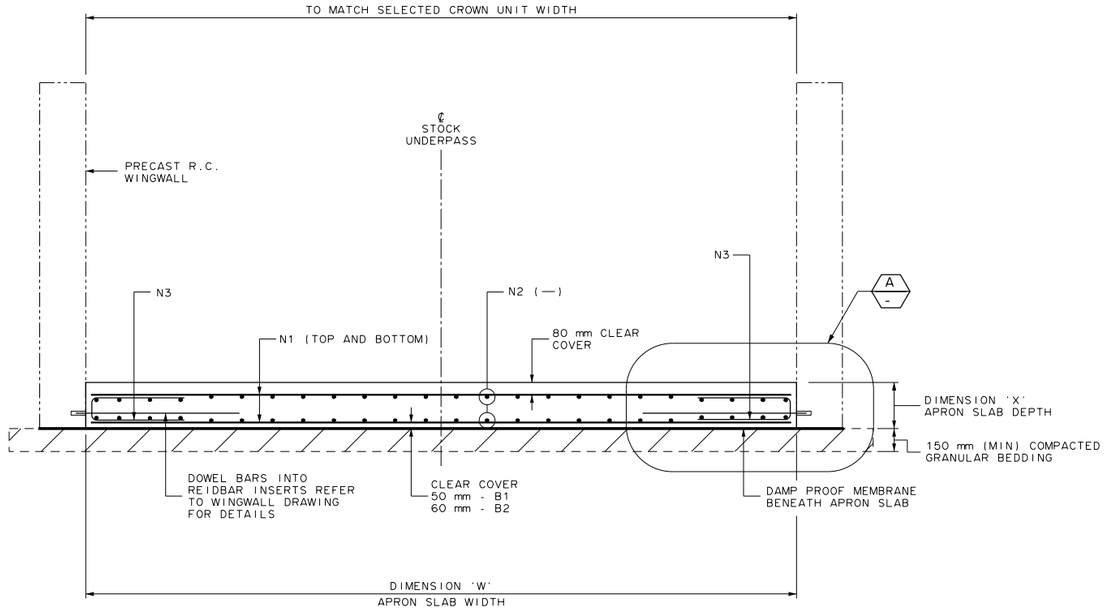
Certified By: (DATE) (SIGNATURE) (BLOCK LETTERS)



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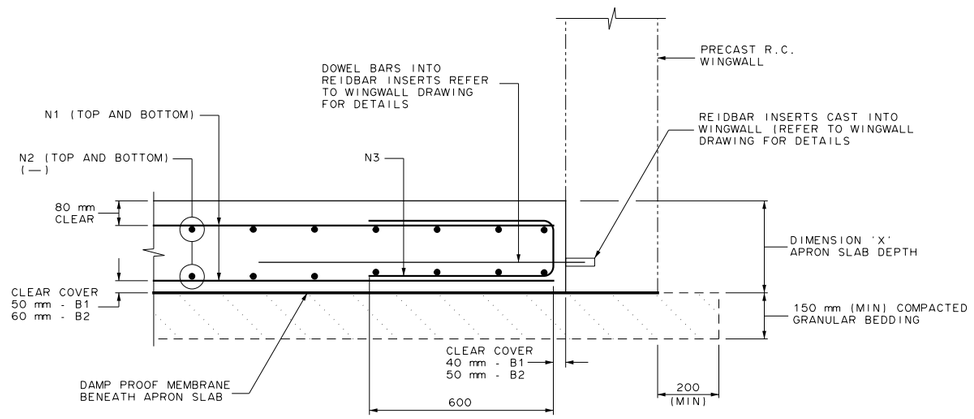
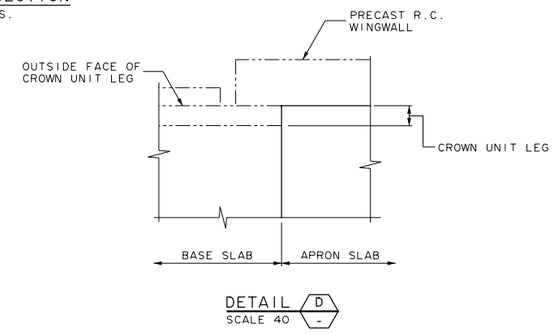
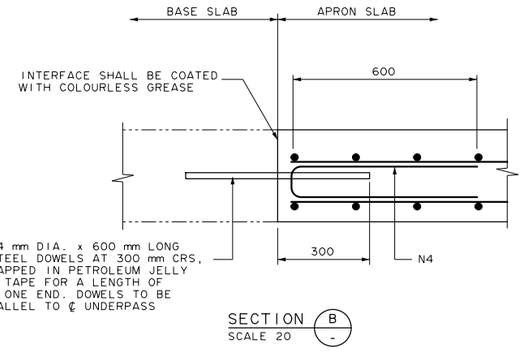
N.T.S.



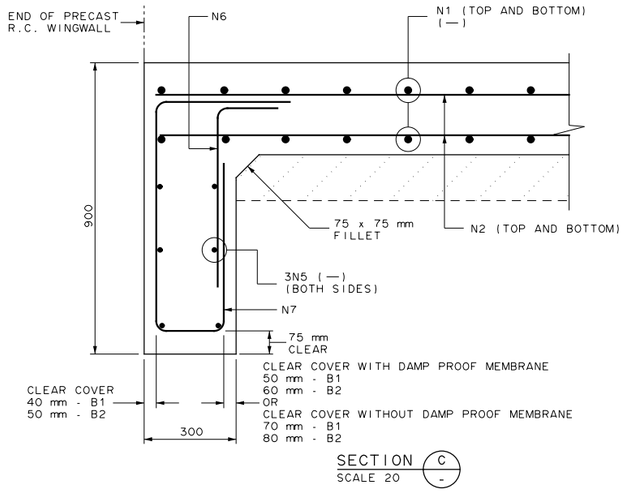
DETAIL A
SCALE 20



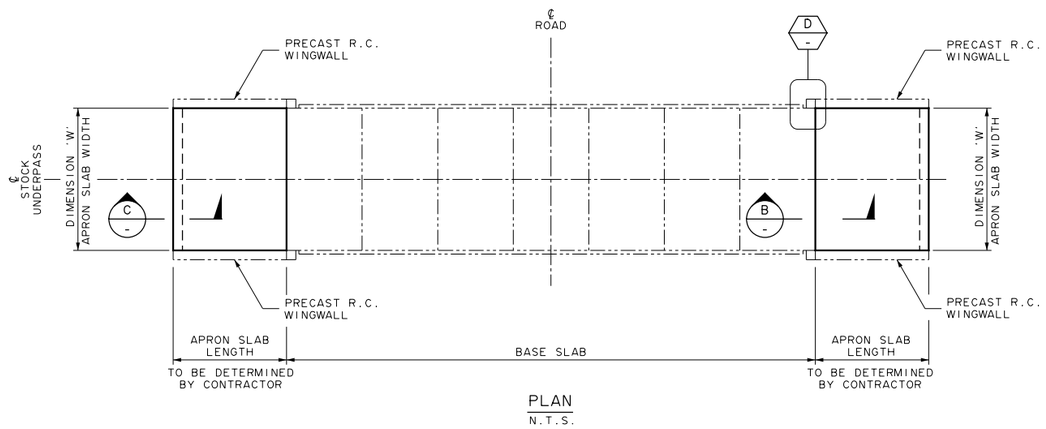
DETAIL D
SCALE 40



SECTION B
SCALE 20



SECTION C
SCALE 20



PLAN
N.T.S.

TABLE OF DIMENSIONS

CONCRETE			REINFORCEMENT						
SPAN (mm)	DIMENSION 'W' (mm)	DIMENSION 'X' (mm)	DIAMETER N1 (mm)	DIAMETER N2 (mm)	DIAMETER N3 (mm)	DIAMETER N4 (mm)	DIAMETER N5 (mm)	DIAMETER N6 (mm)	DIAMETER N7 (mm)
3000	3400	280	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N12	N16-200 mm CRS	N16-200 mm CRS
3600	4000	300	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N12	N16-200 mm CRS	N16-200 mm CRS
4200	4600	330	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N12	N16-200 mm CRS	N16-200 mm CRS

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_APRON_SLAB.DGN

DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY	INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES	APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.	SCALE OF METRES HOR / VER
SHEET SIZE A3	SCALE

VICTORIA State Government

OFFICIAL

COORD SYSTEM	SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.	
STRUCTURE No.	

STANDARD DRAWING STOCK UNDERPASS SINGLE CELL OPTION

APRON SLAB - FLAT INVERT

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	10 OF 16	SD7010	A

Default SUP_Apron_slab.dgn
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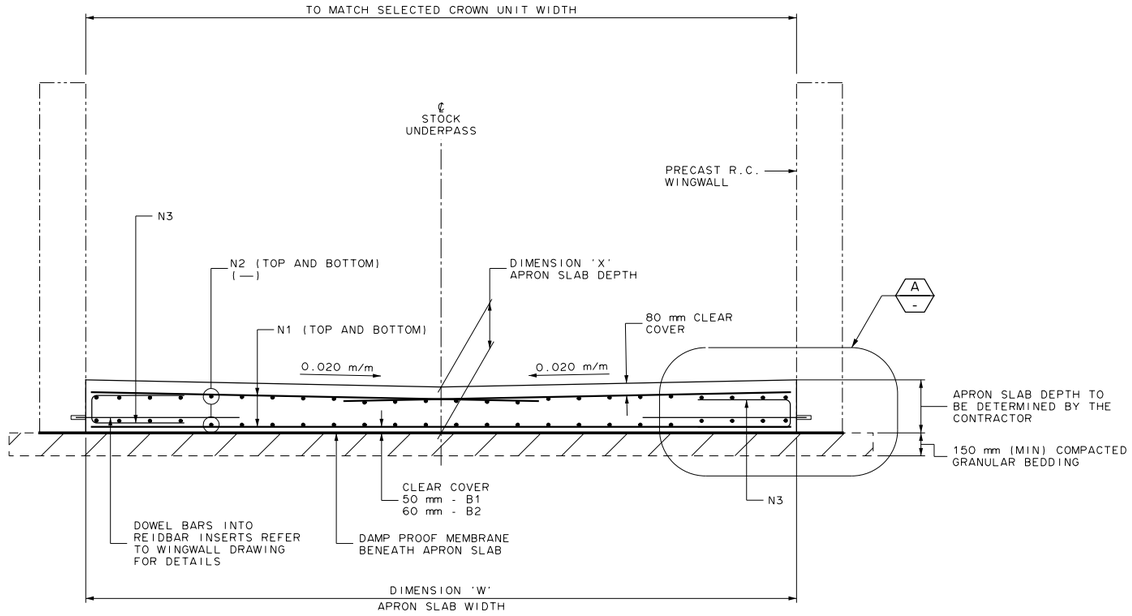
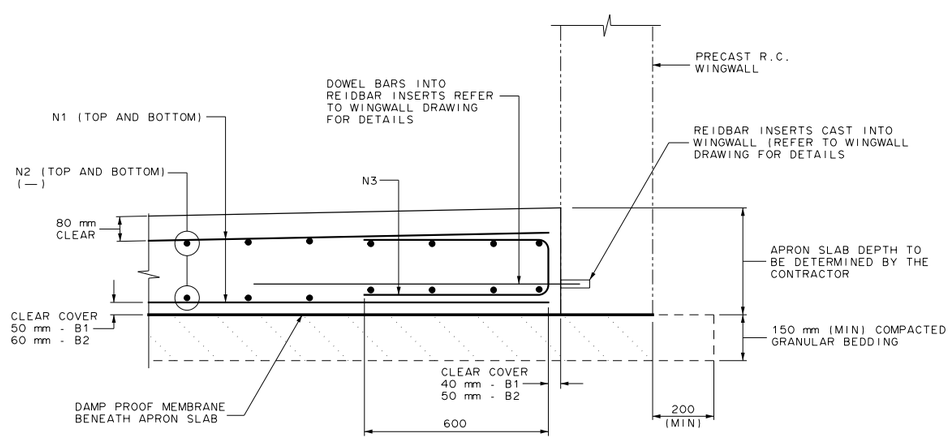
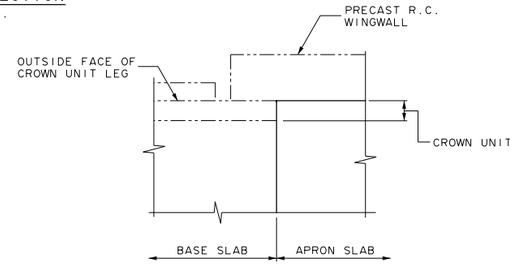
Certified By: (DATE) (SIGNATURE) (BLOCK LETTERS)



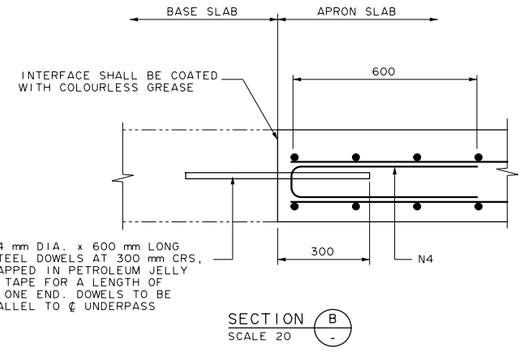
TYPICAL SECTION
N.T.S.



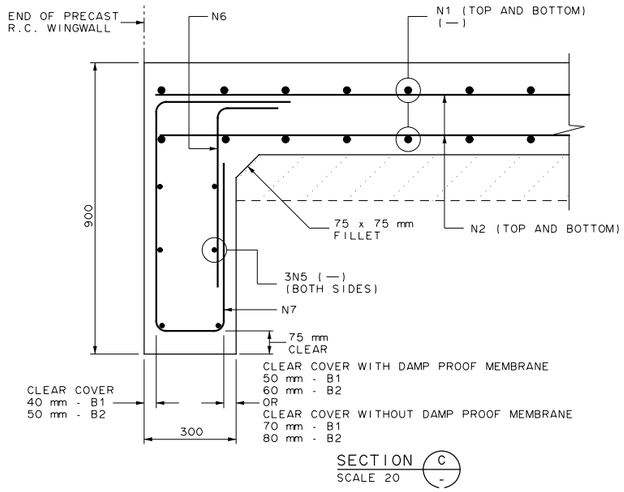
DETAIL A
SCALE 20



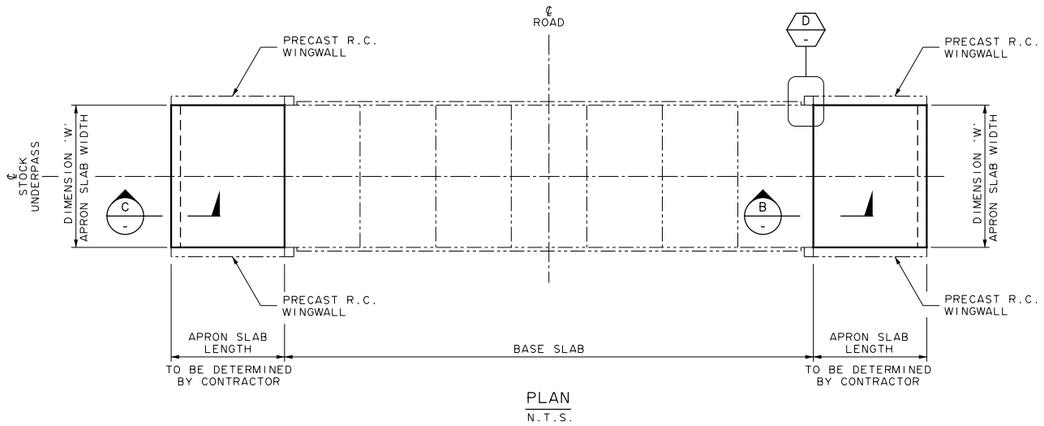
DETAIL D
SCALE 40



SECTION B
SCALE 20



SECTION C
SCALE 20



PLAN
N.T.S.

TABLE OF DIMENSIONS

CONCRETE			REINFORCEMENT						
SPAN (mm)	DIMENSION 'W' (mm)	DIMENSION 'X' (mm)	DIAMETER N1 (mm)	DIAMETER N2 (mm)	DIAMETER N3 (mm)	DIAMETER N4 (mm)	DIAMETER N5 (mm)	DIAMETER N6 (mm)	DIAMETER N7 (mm)
3000	3400	280	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N12	N16-200 mm CRS	N16-200 mm CRS
3600	4000	300	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N12	N16-200 mm CRS	N16-200 mm CRS
4200	4600	330	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N12	N16-200 mm CRS	N16-200 mm CRS

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_APRON_SLAB.DGN

DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY	INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES	APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.	SCALE OF METRES HOR / VER
SHEET SIZE A3	SCALE

VICTORIA State Government

OFFICIAL

COORD SYSTEM | SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.

STRUCTURE No.

STANDARD DRAWING
STOCK UNDERPASS
SINGLE CELL OPTION
APRON SLAB - SLOPED INVERT

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	11 OF 16	SD7011	A

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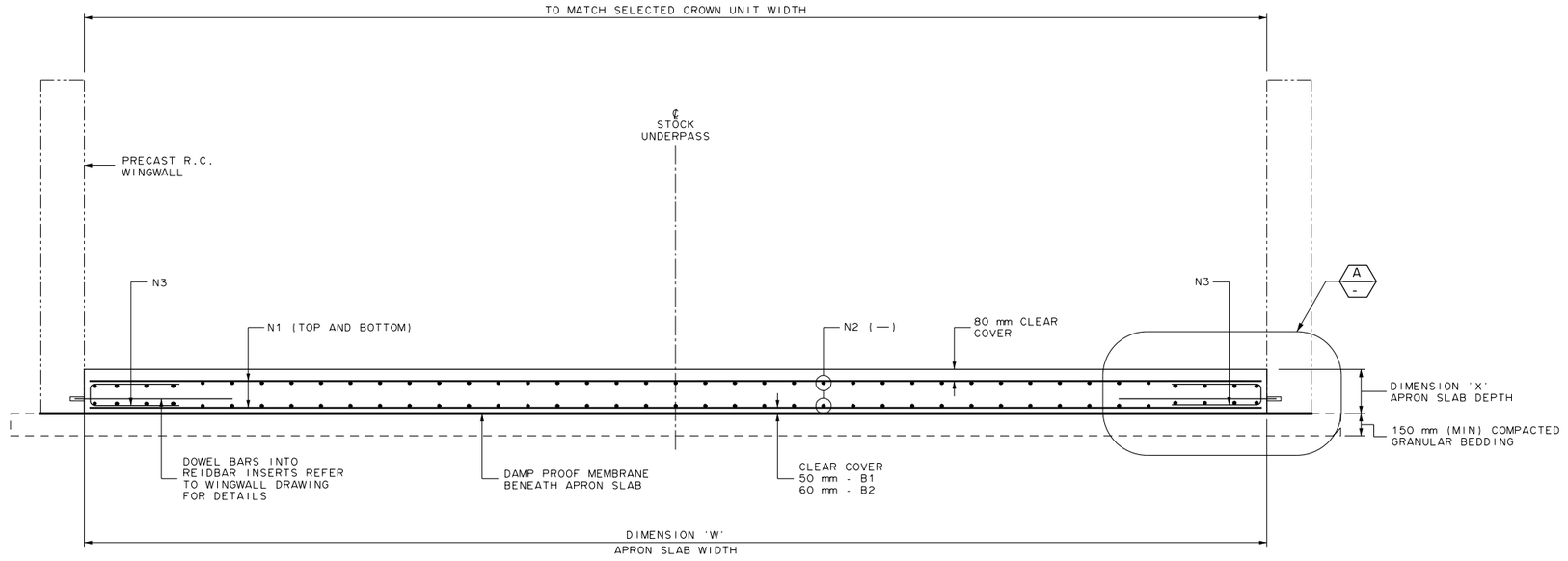
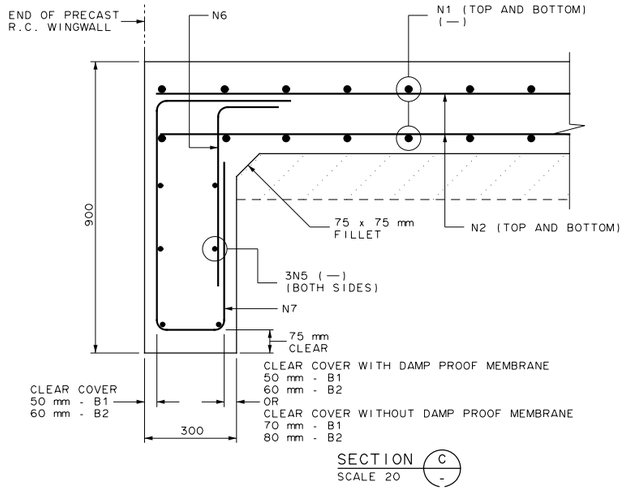
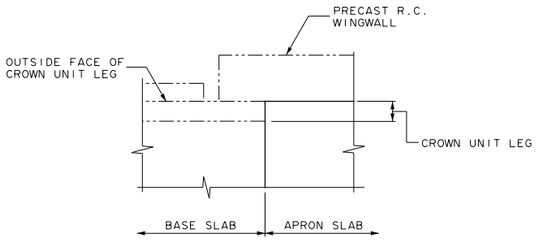
Certified By: (DATE) (SIGNATURE) (BLOCK LETTERS)



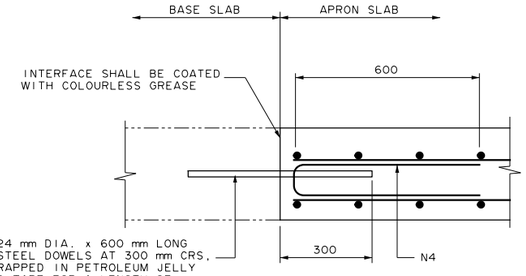
TYPICAL SECTION
N.T.S.



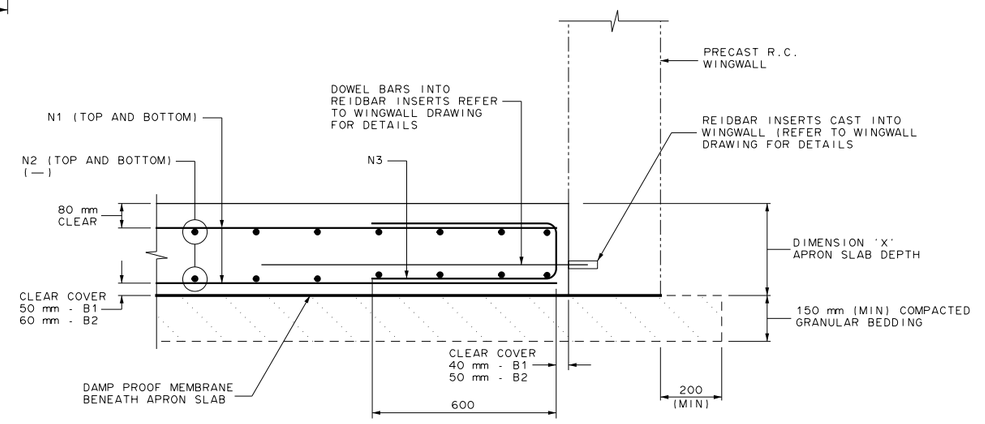
SECTION C
SCALE 20



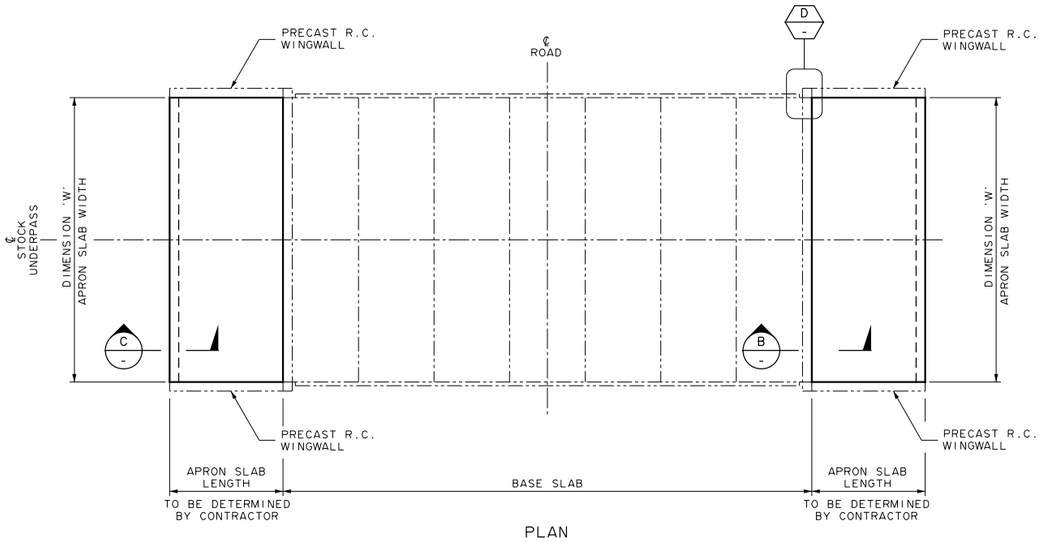
DETAIL D
SCALE 40



SECTION B
SCALE 20



DETAIL A
SCALE 20



PLAN
N.T.S.

TABLE OF DIMENSIONS

CONCRETE			REINFORCEMENT						
SPAN (mm)	DIMENSION 'W' (mm)	DIMENSION 'X' (mm)	DIAMETER N1 (mm)	DIAMETER N2 (mm)	DIAMETER N3 (mm)	DIAMETER N4 (mm)	DIAMETER N5 (mm)	DIAMETER N6 (mm)	DIAMETER N7 (mm)
3000	6800	280	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N12	N16-200 mm CRS	N16-200 mm CRS
3600	8000	300	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N12	N16-200 mm CRS	N16-200 mm CRS
4200	9200	330	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N16-200 mm CRS	N12	N16-200 mm CRS	N16-200 mm CRS

NOTES

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REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

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FILENAME BRIDGE_PROJ/81003/SUP2_APRON_SLAB.DGN

DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY	INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES	APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.	SCALE OF METRES HOR / VER
SHEET SIZE A3	SCALE

VICTORIA State Government

OFFICIAL

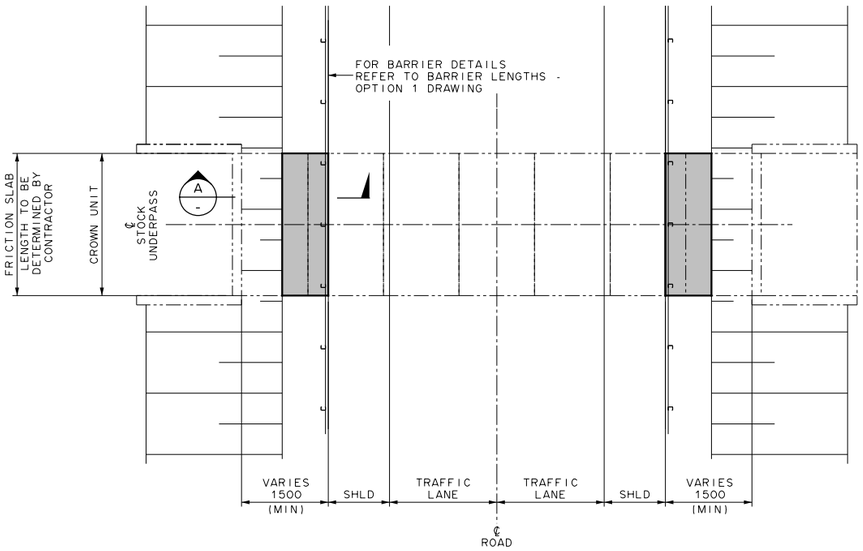
COORD SYSTEM	SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		
ROAD No. / SITE No.		
STRUCTURE No.		

STANDARD DRAWING
STOCK UNDERPASS
DOUBLE CELL OPTION
APRON SLAB - FLAT INVERT

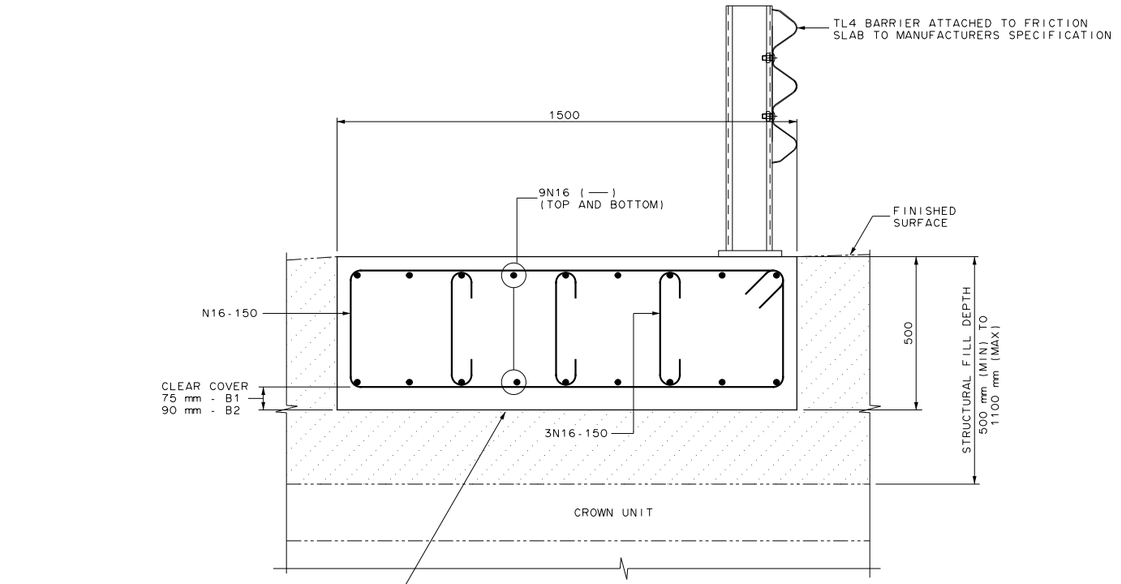
CONTRACT No.	SHEET No.	DRAWING No.	REV.
	12 OF 16	SD7012	A

Certified By: (BLOCK LETTERS) (SIGNATURE) (DATE)



PLAN
N.T.S.

NOTE:
SINGLE CELL OPTION SHOWN
DOUBLE CELL OPTION SIMILAR



SECTION A-A
SCALE 20

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_FRICTION_SLAB.DGN

DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY	INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES	APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.	SCALE OF METRES HOR / VER
SHEET SIZE A3	SCALE

VICTORIA State Government

OFFICIAL

COORD SYSTEM	SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.	
STRUCTURE No.	

STANDARD DRAWING
STOCK UNDERPASS
SINGLE AND DOUBLE CELL OPTIONS
FRICTION SLAB

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	13 OF 16	SD7013	A

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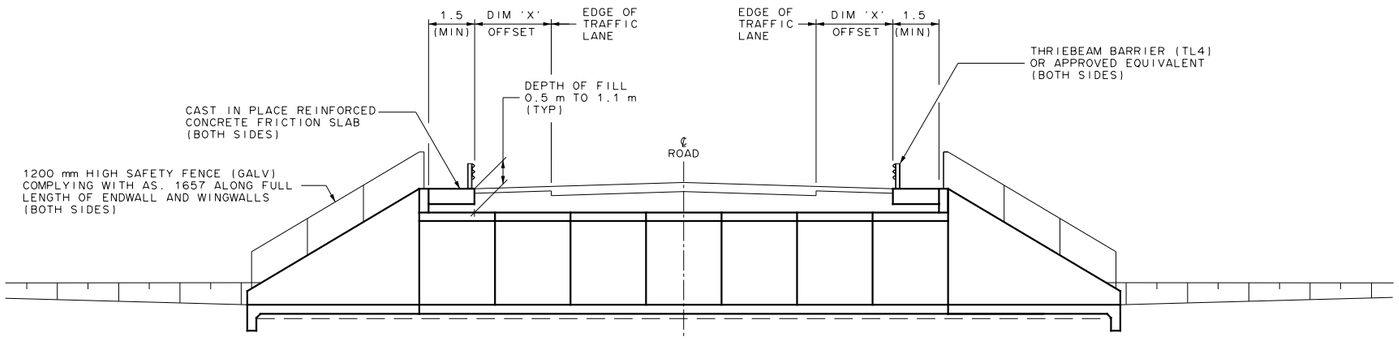
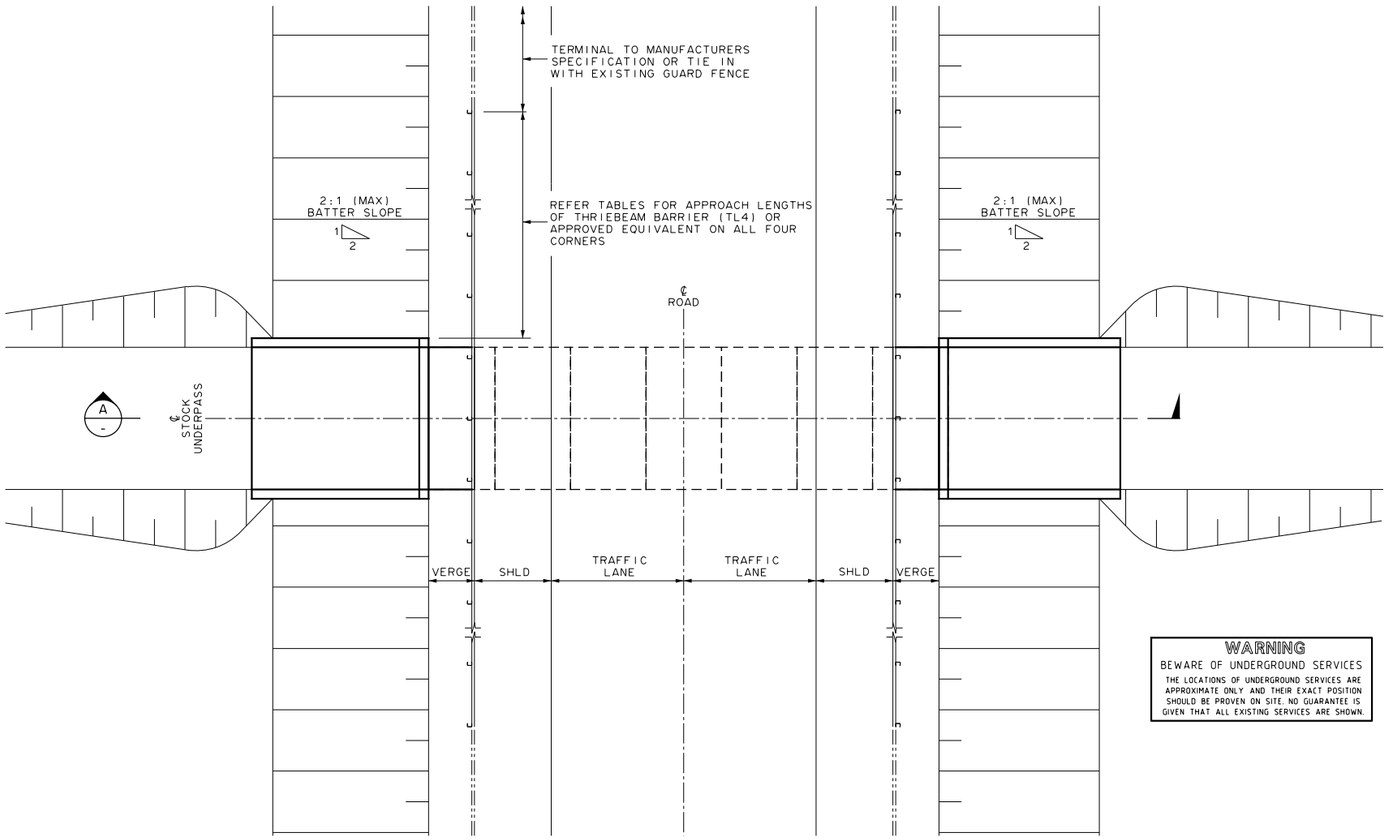


SECTION A-A
N.T.S.



PLAN
N.T.S.

NOTE:
SINGLE CELL OPTION SHOWN
DOUBLE CELL OPTION SIMILAR

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

BARRIER LENGTHS

SPEED (Km/h)	OFFSET DIMENSION 'X' (m)	
	1.5 TO 2.5	
	AADT < 750	AADT 751-1500
⩽80	48 m	48 m
90	48 m	48 m
100	48 m	54 m

BARRIER LENGTHS AADT: 1501-6000 VEHICLES

SPEED (Km/h)	OFFSET DIMENSION 'X' (m)		
	1.5	2.0	2.5
⩽80	48 m	48 m	48 m
90	54 m	48 m	48 m
100	60 m	60 m	54 m

NOTE:

1. BARRIER LENGTHS HAVE BEEN DETERMINED ACCORDING TO THE FOLLOWING ASSUMPTIONS
   (a) AVERAGE HEIGHT OF BATTERS IS 4 m.
   (b) SLOPE OF BATTERS ASSUMED TO BE AT A MAXIMUM SLOPE OF 2:1.
2. SHORTER BARRIER LENGTHS MAY BE ACCEPTED, PROVIDED THAT A SITE SPECIFIC DESIGN MEETS BRIDGE TECHNICAL NOTE:- BTN001 REQUIREMENTS.
3. TOTAL BARRIER LENGTHS MAY NOT BE LESS THAN MANUFACTURERS MINIMUM REQUIREMENTS.
4. FOR SITES WITH AADT > 6000 VEHICLES, A SITE SPECIFIC BARRIER DESIGN IS REQUIRED. BARRIER DESIGN MUST BE DESIGNED IN ACCORDANCE WITH BRIDGE TECHNICAL NOTE:- BTN001 AND VICROADS SUPPLEMENT TO AUSTROADS GUIDE TO ROAD DESIGN - PART 6.

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

(DATE)
(SIGNATURE)
(BLOCK LETTERS)
Certified By:

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_BAR.DGN
DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY
INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES
APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.
SCALE OF METRES HOR / VER
SHEET SIZE A3
SCALE

VICTORIA State Government
OFFICIAL
COORD SYSTEM
SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.
STRUCTURE No.

STANDARD DRAWING
STOCK UNDERPASS
SINGLE AND DOUBLE CELL OPTIONS
BARRIER LENGTHS - OPTION 1

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	14 OF 16	SD7014	A

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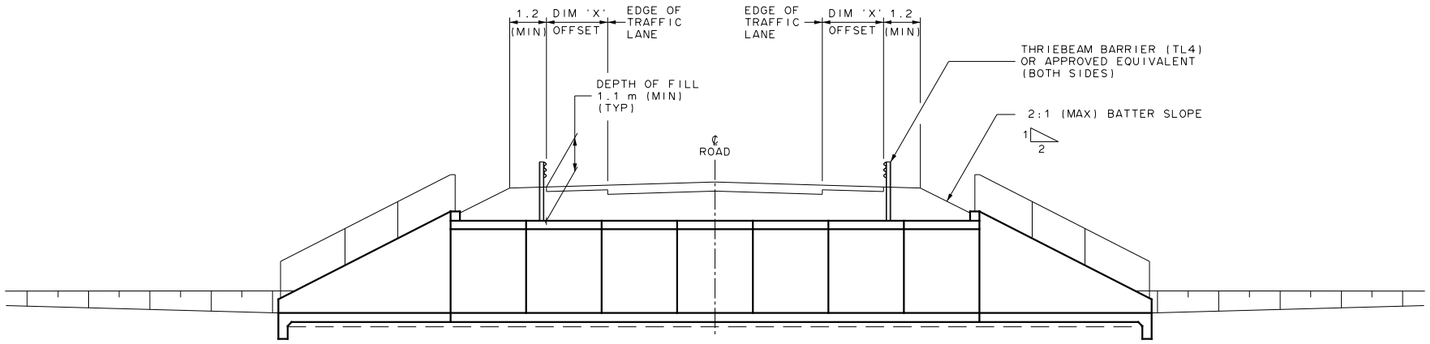
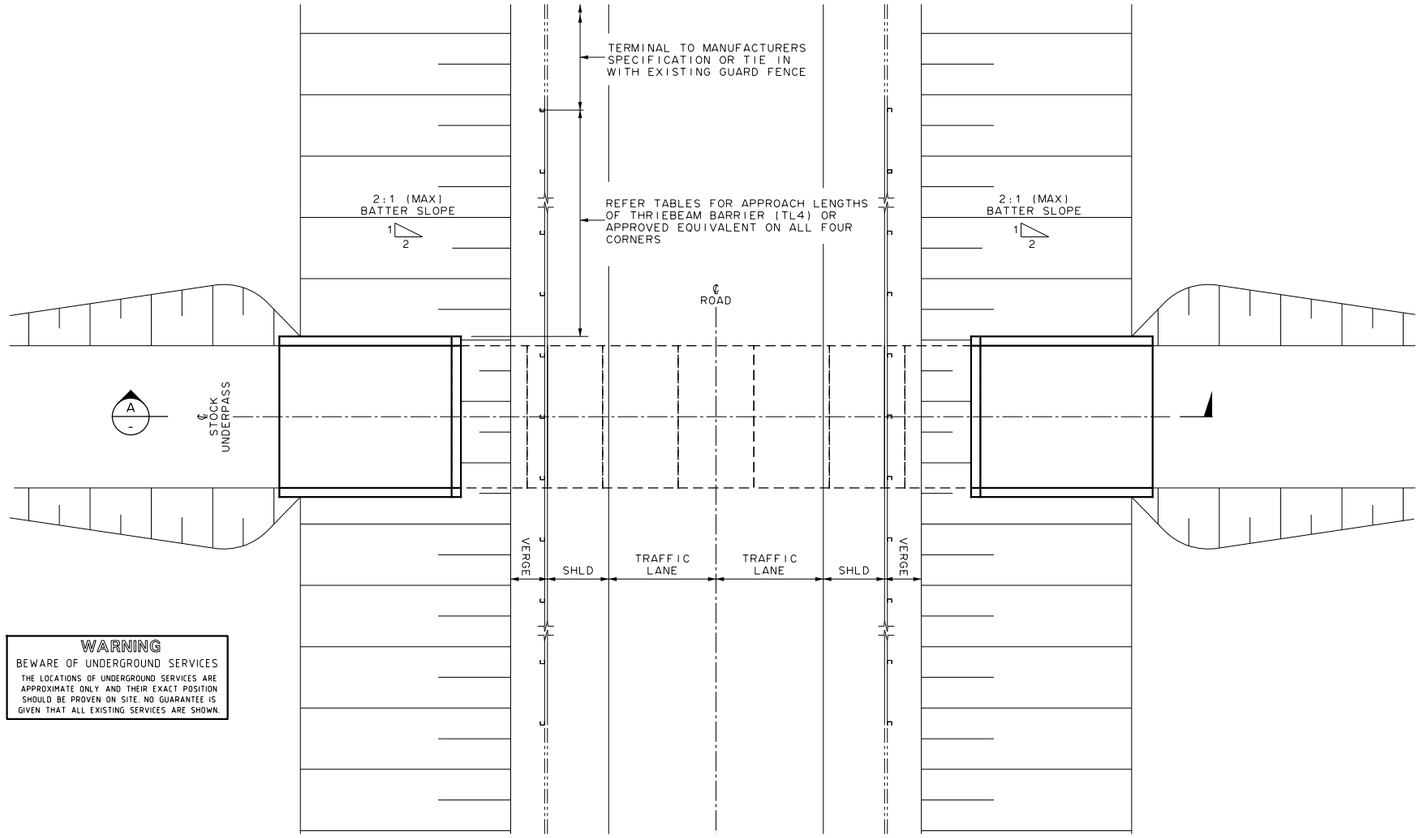


SECTION A
N.T.S.

BARRIER LENGTHS		
SPEED (Km/h)	OFFSET DIMENSION 'X' (m)	
	1.5 TO 2.5	
	AADT < 750	AADT 751-1500
⩽80	48 m	48 m
90	48 m	48 m
100	48 m	54 m



WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

PLAN
N.T.S.

NOTE:
SINGLE CELL OPTION SHOWN
DOUBLE CELL OPTION SIMILAR

BARRIER LENGTHS AADT: 1501-6000 VEHICLES			
SPEED (Km/h)	OFFSET DIMENSION 'X' (m)		
	1.5	2.0	2.5
⩽80	48 m	48 m	48 m
90	54 m	48 m	48 m
100	60 m	60 m	54 m

NOTE:

1. BARRIER LENGTHS HAVE BEEN DETERMINED ACCORDING TO THE FOLLOWING ASSUMPTIONS
   (a) AVERAGE HEIGHT OF BATTERS IS 4 m.
   (b) SLOPE OF BATTERS ASSUMED TO BE AT A MAXIMUM SLOPE OF 2:1.
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NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

Certified By: (DATE) (SIGNATURE) (BLOCK LETTERS)

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_BAR.DGN
DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY
INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES
APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.
SCALE OF METRES: HOR / VER
SHEET SIZE A3
SCALE

VICTORIA State Government
OFFICIAL
COORD SYSTEM
SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		

ROAD No. / SITE No.
STRUCTURE No.

STANDARD DRAWING
STOCK UNDERPASS
SINGLE AND DOUBLE CELL OPTIONS
BARRIER LENGTHS - OPTION 2

CONTRACT No.
SHEET No. 15 OF 16
DRAWING No. SD7015
REV. A

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SUP_bar.dgn
19/06/2024
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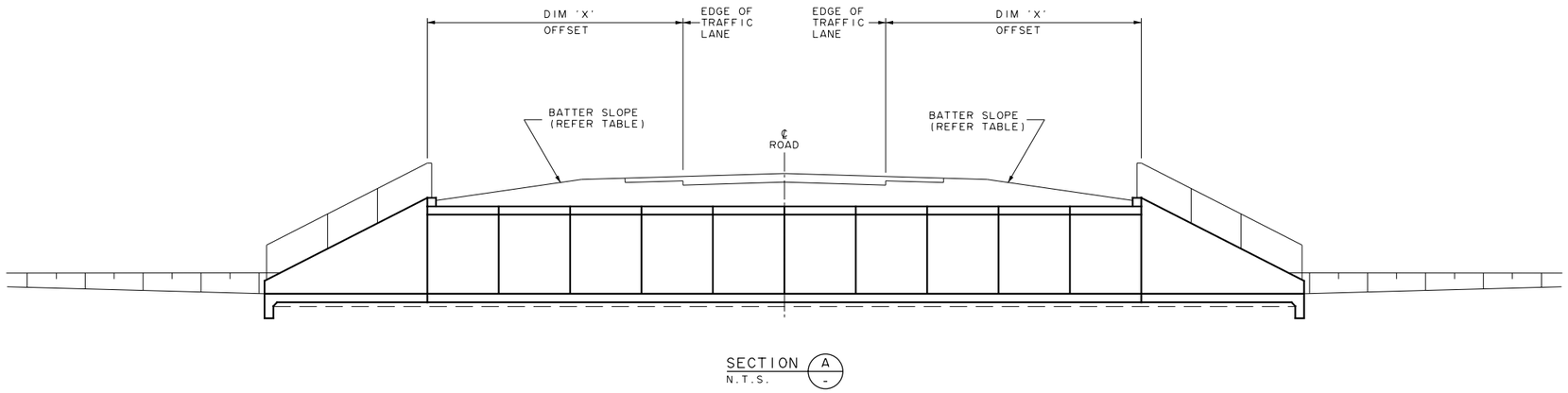
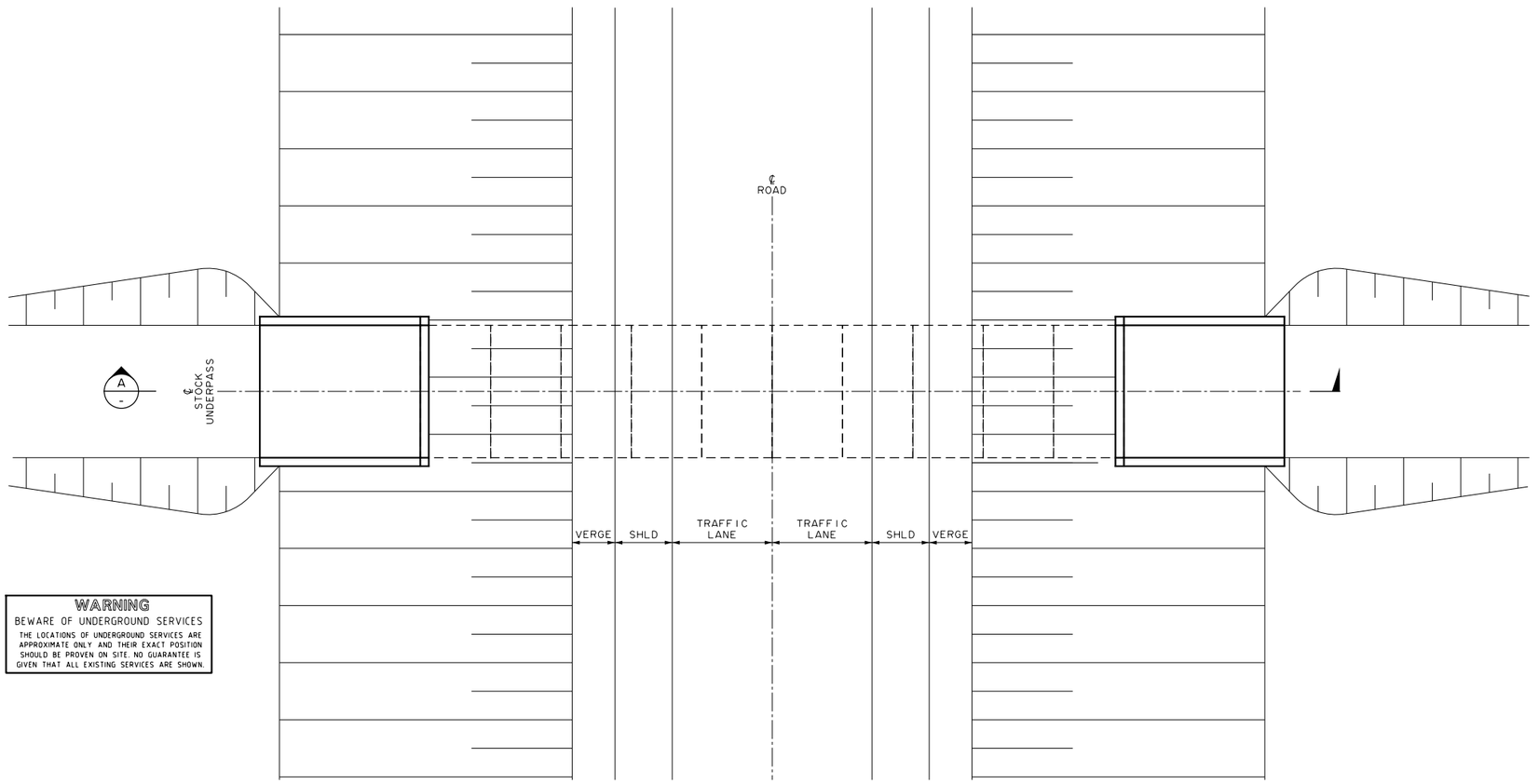
Certified By: (BLOCK LETTERS) (SIGNATURE) (DATE)



SECTION A
N.T.S.



WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

PLAN
N.T.S.

NOTE:
SINGLE CELL OPTION SHOWN
DOUBLE CELL OPTION SIMILAR

MIMIMUM OFFSET DIMENSION 'X' (m)		
SPEED (Km/h)	BATTER SLOPES	
	6:1 OR FLATTER	4:1 TO 6:1
≤80	5.5 m	8 m
90	6.5 m	9 m
100	9 m	12 m

NOTE:

SLOPES STEEPER THAN 4:1 SHALL REQUIRE A RISK ASSESSMENT PERFORMED IN ACCORDANCE WITH BRIDGE TECHNICAL NOTE:-BTN001 AND VICROADS SUPPLEMENT TO AUSTROADS GUIDE TO ROAD DESIGN PART 6

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES DRAWINGS.

REV	DESCRIPTION	DESIGNED	CHECKED	IND REV	APP'D	DATE
A	INITIAL ISSUE				CE-RD	20/06/24

FILENAME BRIDGE_PROJ/81003/SUP_BAR.DGN

DOT-NTS-012-DMS FOR DISCLAIMER

DESIGNED BY	INDEPENDENT REVIEW BY
CHECKED BY: PE - STRUCTURES	APPROVED BY AND DATE: CHIEF ENGINEER ROADS 20/06/2024
RPEV NAME & No.	SCALE OF METRES HOR / VER
SHEET SIZE A3	SCALE

VICTORIA State Government

OFFICIAL

COORD SYSTEM	SUITABILITY

STRUCTURAL		
LOCATION	UP	DOWN
EAST		
NORTH		
ID No.		
ROAD No. / SITE No.		
STRUCTURE No.		

STANDARD DRAWING
STOCK UNDERPASS
SINGLE AND DOUBLE CELL OPTIONS

NO BARRIER OPTION

CONTRACT No.	SHEET No.	DRAWING No.	REV.
	16 OF 16	SD7016	A

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SUP_bar.dgn
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