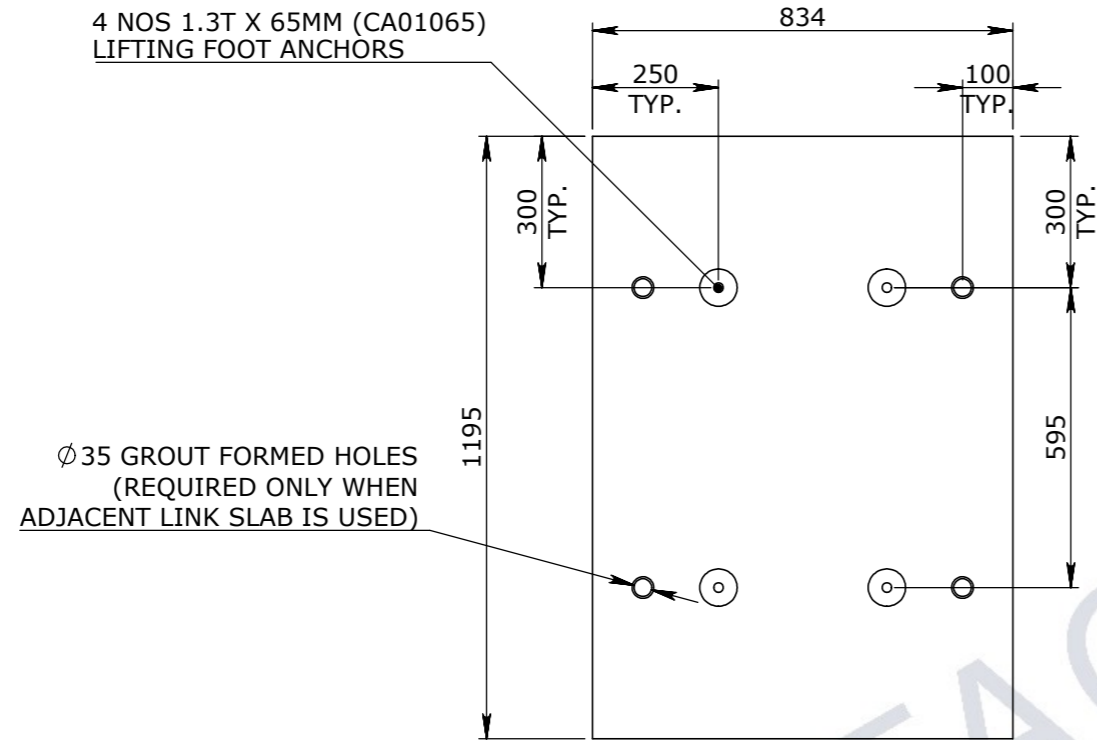


CULVERT NOTES:

1. REFER TO GENERAL TOLERANCES UNO
2. REFER PAGE 2 FOR TMR COMPLIANCE NOTES
3. ALL LIFTING POINTS TO BE USED WHEN LIFTING
4. MINIMUM STRENGTH OF CONCRETE SHALL BE 25MPA AT THE TIME OF LIFTING
5. NOMINAL COVER TO REINFORCEMENT - 35MM
6. REFER TO ANCON LIFTING ARRANGEMENT PLAN
7. BOX CULVERTS COMPLIES TO AS1597.1-2010

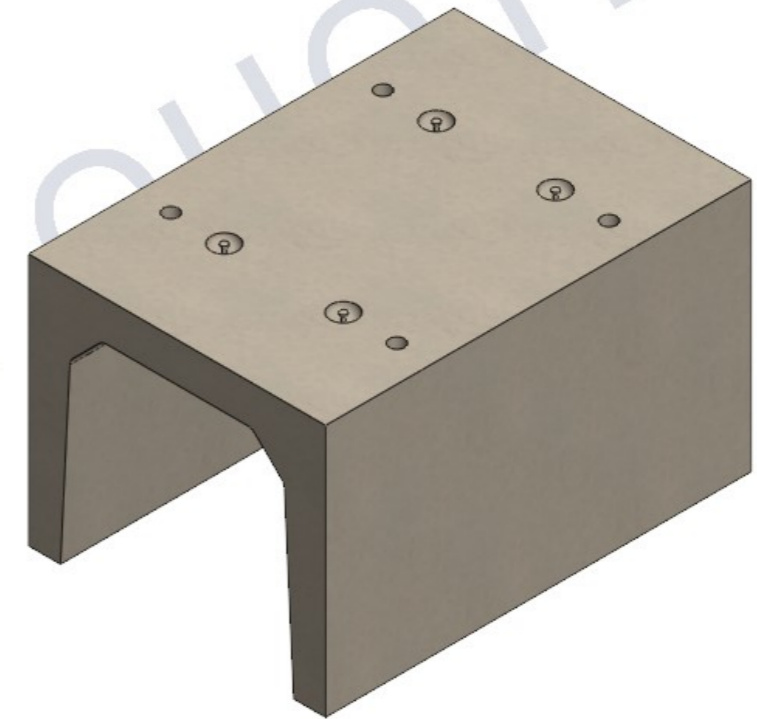
BOM:BOX CULVERT TMR 600x600-2A 1200mm NOMINAL LENGTH

ITEM #	QTY.	PART #	DESCRIPTION	MATERIAL	VOLUME
1	1	50202614	CONCRETE FIBRE 50MPA	CONCRETE 50 MPa	0.27
2	4	50201274	FOOT ANCHOR ZP 1.3Tx65mm	MS GR-250 GALV	



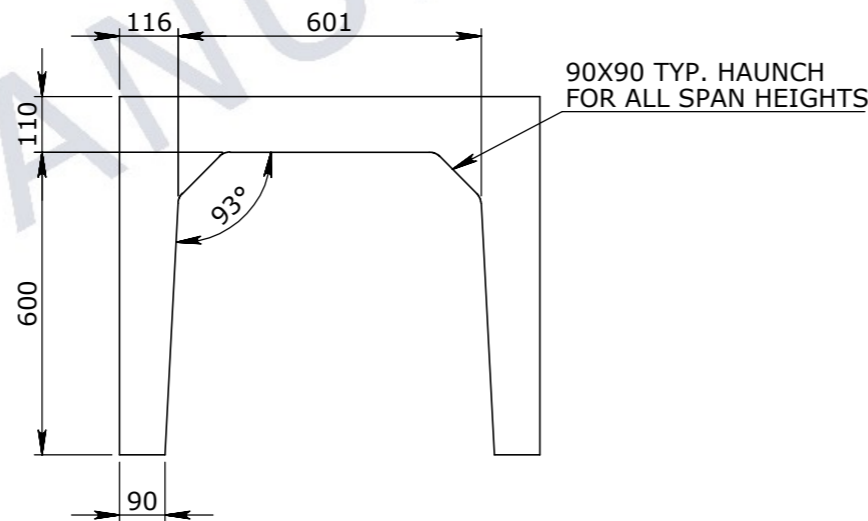
PLAN VIEW

SCALE_1:15



ISOMETRIC VIEW

SCALE_1:15



ELEVATION VIEW

SCALE_1:15



END VIEW

SCALE_1:15

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TOLERANCE NOTES:

1. CONCRETE TOLERANCES TO BE IN CONJUNCTION / ACCORDANCE WITH AS3600 - CONCRETE STRUCTURES
2. WHEN A BROOME FINISH IS REQUIRED THE GENERAL TOLERANCE SUPERCEEDS THE FLATNESS TOLERANCE
3. WALL THICKNESS - DIMENSION AS NOTED IS MINIMUM THICKNESS ONLY
4. CONCRETE GRADE - 40MPA UNLESS NOTED OTHERWISE
5. DIMENSIONS ARE NOT INCLUSIVE OF SEALANTS OF JOINTS
6. SURFACE FINISH - CLASS 4 (AS3610.1)

Rev	DESCRIPTION	DATE	BY	APPROVED
3				
2				
1				

GENERAL TOLERANCES		REVISION CONTROL	
NOMINAL:	UP TO 1000mm	1M AND ABOVE	FLATNESS: (NOT INCLUDING BROOME FINISH)
TOLERANCE:	±5mm	1mm IN 200mm UP TO A MAXIMUM OF 20mm	±4mm PER 1M WIDTH IN 1M LENGTH

CHK / APPR: Revee Lein	DATE: M. Orozco
RPEQ DOCUMENT #:	
WEIGHT:	660.93Kg
MATERIAL:	CONCRETE FIBRE 50MPA
IRF REF:	

Infrastructure Products Australia
A CRH COMPANY

HEAD OFFICE:
1 REEVES COURT
BREAKWATER, VIC 3219
1800 065 356

ENGINEERING & DEVELOPMENT:
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DRAFTED DATE:	24/01/2022
DRAFTED BY:	DPRUSAC
DATE LAST SAVED:	24/02/2023
LAST SAVED BY:	ROROZCO
DRAWN TO AS 1100 DO NOT SCALE FROM SHEET	

PART/PRODUCT #	TMR CULVERT	QUOTE #	ORDER #
REINFORCEMENT COMPUTATION		PIT #	ITEM TYPE
		50207140	BOX CULVERTS
CLIENT	CUBIS SYSTEMS		
PROJECT DESC	BOX CULVERTS		
DRAWING NAME	BOX CULVERT TMR 600x600-2A 1200mm NOMINAL LENGTH		
DRAWING #	PAGE	SHEET SIZE	SCALE
50207140-REO	1 / 2	A3	1:25
REV.	0		

GENERAL NOTES

1. GENERAL NOTES, DESIGN STANDARDS AND SPECIFICATIONS, AND CONSTRUCTION TOLERANCES SPECIFIED BELOW WILL TAKE PRECEDENCE.
2. CONCRETE GRADE TO BE 50 MPA, FIBRE-REINFORCED.
3. FIBRE CONTENT: 5KG/M3, FIBERCON MP47
4. DESIGN LIFE OF 100 YEARS PER AS1597.1-2010
MINIMUM EXPOSURE CLASSIFICATION - B2
NOMINAL COVER TO REINFORCEMENT - 35MM
5. REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND IS DENOTED AS FOLLOWS: BAR NOTATION PREFIX LETTER FOLLOWED BY DIAMETER IN MILLIMETERS.
R - STRUCTURAL GRADE 250 PLAIN ROUND BAR TO AS4671
N - DEFORMED BAR, GRADE 500, ALL BARS TO AS4671
SL/RL - GRADE 500 WELDED MESH TO AS4671
6. DESIGN CAPACITY OF CLASS L REINFORCEMENTS HAS BEEN REDUCED BY 20%.
7. ALLOWABLE SOIL BEARING PRESSURE IS 150 KPA.
8. MINIMUM COMPRESSIVE STRENGTHS FOR:
HANDLING - 20 MPA
TRANSPORTING - 32 MPA
9. TACK WELDS BETWEEN DEFORMED BARS AND MESH MUST COMPLY WITH AS1554.3.

TEST PROCEDURE

1. TESTING OF UNITS SHALL OCCUR AT 28 DAYS FROM THE DATE OF MANUFACTURE.
2. SET UP TESTING APPARATUS IN ACCORDANCE WITH APPENDIX G, AS 1597.1-2010.
3. EACH TEST SPECIMEN WILL BE SUBJECTED TO PROVING TEST LOAD, AND THEN LOADED TO THE ULTIMATE TEST LOAD AFTER PASSING.
4. FOR SERVICEABILITY STATE, EACH SPECIMEN SHOULD SUSTAIN 134.4 KN (1.2 TIMES PROVING TEST LOAD OF 112 KN) WITHOUT DEVELOPING CRACKS GREATER THAN 0.30mm (PROVING TEST LOAD APPLIED) AND 0.20mm (PROVING TEST LOAD REMOVED).
5. FOR ULTIMATE STATE, RECORDED RESULTS SHALL BE MINIMUM OF 262.6 KN VERTICAL LOAD (1.3 TIMES ULTIMATE TEST LOAD OF 202 KN). COEFFICIENT OF VARIATION SHALL NOT BE GREATER THAN 0.15.

DESIGN STANDARDS AND SPECIFICATIONS

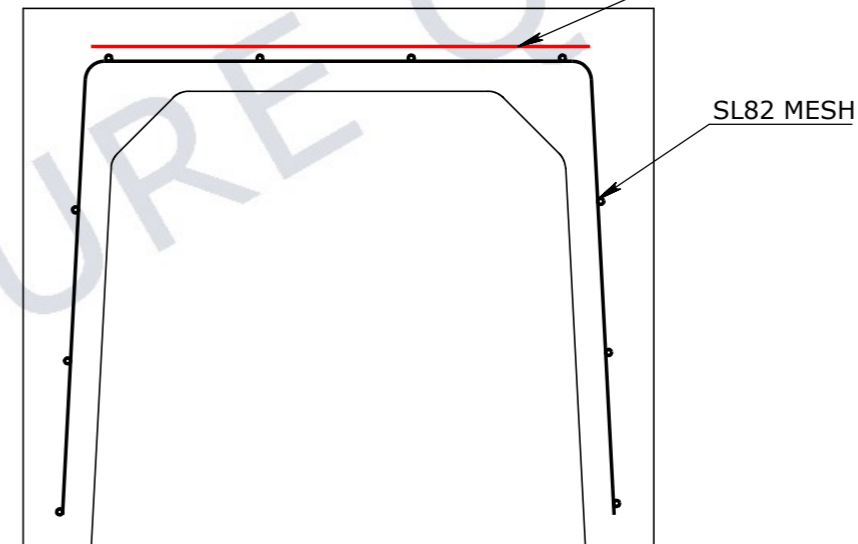
CULVERTS HAVE BEEN DESIGNED AND MANUFACTURED IN ACCORDANCE WITH THE FOLLOWING CODES/STANDARDS/SPECIFICATIONS/DOCUMENTS:

- AS1597.1-2010 (PRECAST REINFORCED CONCRETE BOX CULVERTS PART 1: SMALL CULVERTS)
- AS3600-2018 (CONCRETE STRUCTURES)
- AS5100.5:2017 (BRIDGE DESIGN: CONCRETE)
- MRTS24 DATED JUL 2017 (MANUFACTURE OF PRECAST CONCRETE CULVERTS)
- MRTS70 DATED NOV 2018 (CONCRETE)
- MRTS71 DATED NOV 2021 (REINFORCING STEEL)
- MRTS273 DATED NOV 2020 (FIBRE-REINFORCED CONCRETE)

CONSTRUCTION TOLERANCES

- SPAN: +5, -5
- HEIGHT: +5, -5
- THICKNESS: +5, -3
- LENGTH: +10, -10
- COVER TO REINFORCEMENT: +10, -5

N12-400 HORIZONTAL BARS
(EPICOR NO.: 50207480
REO 12 660mm - QTY: 4 OFF)



REINFORCEMENT ARRANGEMENT

SCALE_1:10

ISSUED FOR CONSTRUCTION

Infrastructure Products Australia A CRH COMPANY	NAME: BOX CULVERT TMR 600x600-2A 1200mm NOMINAL LENGTH	REV 0
	DRAWING No: 50207140-REO	
DRAFTED BY: DPRUSAC	DRAFTED DATE: 21-04-22	PAGE: 2/2
	SHEET: A3	SCALE UNO: 1:25

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