

TYPICAL SET OUT TABLES & MEMBER CALCULATIONS FOR MODIFIED WINGWALLS AND TRAVERSABLE GRATE - MAX SPAN OF 2m

TABLE 1: RCP CULVERT - 1V:4H (WINGWALL ANGLES α = 5°)

TABLE 2: RCP CULVERT - 1V:4H (WINGWALL ANGLES α = 10°)

TABLE 3: RCP CULVERT - 1V:4H (WINGWALL ANGLES α = 15°)

TABLE 4: RCP CULVERT - 1V:6H (WINGWALL ANGLES α = 5°)

TABLE 5: RCP CULVERT - 1V:6H (WINGWALL ANGLES α = 10°)

TABLE 6: RCP CULVERT - 1V:6H (WINGWALL ANGLES α = 15°)

TABLE 7: RCBC CULVERT - 1V:4H (WINGWALL ANGLES α = 5°)

TABLE 8: RCBC CULVERT - 1V:4H (WINGWALL ANGLES α = 10°)

TABLE 9: RCBC CULVERT - 1V:4H (WINGWALL ANGLES α = 15°)

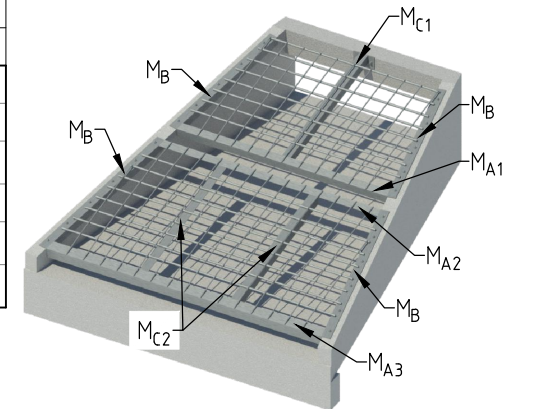
TABLE 10: RCBC CULVERT - 1V:6H (WINGWALL ANGLES α = 5°)

TABLE 11: RCBC CULVERT - 1V:6H (WINGWALL ANGLES α = 10°)

TABLE 12: RCBC CULVERT - 1V:6H (WINGWALL ANGLES α = 15°)

- NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. 2. THIS STANDARD DRAWING IS PROVIDED TO ASSIST SETOUT AND QUANTITIES FOR CULVERTS WHICH WILL FEATURE MODIFIED WINGWALLS AND A TRAVERSABLE GRATE UP TO A MAXIMUM SPAN OF 2m. THE BELOW STANDARD DRAWING SHOULD BE READ IN CONJUNCTION WITH THIS SHEET: 2.1. CS3127 & CS3128 - QUANTITY CALCULATIONS FOR RCP CULVERTS 2.2. CS3129 & CS3130 - QUANTITY CALCULATIONS FOR RCP CULVERTS 2.3. CS3133 - NOTE 1 - USE OF THE GRATE 2.4. CS3133 - WINGWALLS SETOUT & DIMENSION REFERENCES (H), (D), (A), (B), (C) 2.5. CS3134 - TRAVERSABLE GRATE MAX 2m SPAN & 1V:4H BATTER 2.6. CS3135 - TRAVERSABLE GRATE MAX 2m SPAN & 1V:6H BATTER 2.7. CS3138 - GRATE SETOUT REFERENCES (#), (MA1), (MA2), (MA3), (MB), (MC1), (MC2). 3. SETOUT DIMENSIONS ARE NOT PROVIDED AS THE MAXIMUM SPAN WILL EXCEED 2m. REFER TO CS3140 FOR SPANS UP TO 4m MAXIMUM.

TYPICAL GRATE SETOUT DIMENSIONS ARE PROVIDED ON THE FOLLOWING: RCP - 1 RCP CELL OF (D) DIAMETER RCBC - 1 RCBC CULVERT CELL OF 1200mm WIDTH AND (D) DEPTH. REFER BELOW CALCULATIONS FOR SETOUT OF WINGWALL GRATE FOR MULTIPLE RCP CELLS / RCBC FOR A SPECIFIC WIDTH (W): # = ((A) - 700mm) / 2 [FOR 1V:4H] = ((A) - 850mm) / 2 [FOR 1V:6H] MA1 = (W) + (2 x (#) + 400mm) x TAN [α] MA2 = (W) + (2 x (#) + 650mm) x TAN [α] MA3 = (W) + (2 x ((2 x #) + 650mm) x TAN [α] MB = (#) / COS [α] MC1 = (#) + 150mm MC2 = (#) WHERE THE CALCULATED VALUE OF MA3 EXCEEDS 2m, REFER NOTE 3.



3D VISUALISATION - WINGWALL & GRATE NOT TO SCALE

Drawn: J. COOK Date: MAY 2023; Checked: S. HATZI Date: MAY 2023; Design Project Leader: DIPL; NTG Project Manager: DIPL; Northern Territory Government logo

STANDARD DRAWINGS DRAINAGE TRAVERSABLE CULVERT WINGWALL & GRATE SETOUT DIMENSIONS - MAX 2m SPAN NTG Project No., NTG Asset No., Sheet Reference 07 OF 08, NTG Drawing No. CS3139, Amendment 0 A1

Table with 5 columns: No., AMENDMENT DESCRIPTION, DATE, INIT., DEPT/COMPANY. Row 0: ISSUED AS A STANDARD DRAWING, JUN 2023, J. COOK, TCS / DIPL