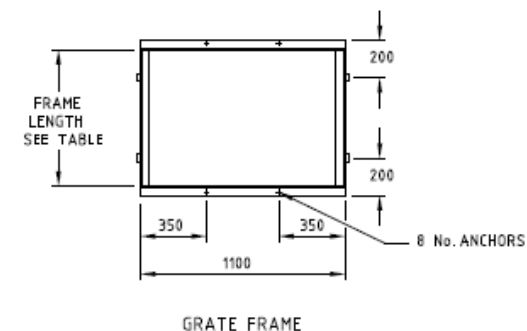


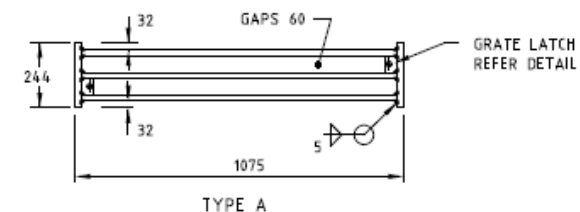
GRATE LATCH DETAIL - TYPICAL
(SEE NOTE 9)

NOTES:

- TYPE B GRATES SHALL BE USED IN AREAS SUBJECT TO PEDESTRIAN AND BICYCLE TRAFFIC.
- IN AREAS SUBJECT TO BICYCLE TRAFFIC, BARS SHALL BE ORIENTED AT 90° TO THE DIRECTION OF TRAFFIC.
- MAX. LOADING - EACH GRATE UNIT WILL SUPPORT A 150 kN LOAD.
- GRATE FRAME SHALL BE CONSTRUCTED FROM 75x50x5 MS ANGLE. CORNER JOINTS SHALL BE WELDED ON UNDERSIDE OF HORIZONTAL LEG AND ON THE INSIDE OF THE VERTICAL LEG WITH SIZE 5 FILLETS.
- GRATE UNITS SHALL BE MADE FROM 75x20x1035 MS BARS. THE TOP AND BOTTOM EDGES OF THE BAR ENDS SHALL BE CHAMFERED 5mm x 5mm BEFORE CONTINUOUSLY WELDING ALL AROUND AND GROUND FLUSH BEFORE GALVANIZING.
- BOTH GRATE AND GRATE FRAME SHALL BE HOT DIP GALVANIZED TO AS/NZS 4680 UNLESS SPECIFIED OTHERWISE.
- ANCHOR SPACING SHALL NOT EXCEED 400 mm.
- EXPOSED CONCRETE EDGES SHALL HAVE 10x10 CHAMFERS.
- THE LATCH SHALL BE INSTALLED SO THAT THE TONGUE ENGAGES THE SUPPORTING ANGLE WHEN THE SPRING IS COMPRESSED TO 50 % OF ITS LENGTH.
- CONCRETE SHALL BE NORMAL-CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.



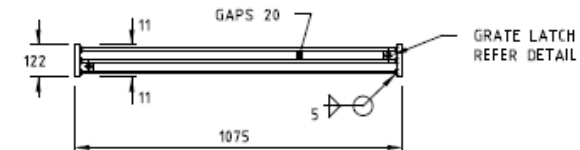
GRATE FRAME



TYPE A



TYPICAL SECTION



TYPE B

GRATE UNITS

PIT, FRAME AND GRATE DETAILS

PIT TYPE	PIT TOP INTERNAL DIM		FRAME LENGTH	NUMBER OF GRATE UNITS	
	LENGTH	WIDTH		TYPE A	TYPE B
1	750	1000	750	3	6
2	1000	1000	1000	4	8
3	1500	1000	1500	6	12
4	2000	1000	2000	8	16
5	2500	1000	2500	10	20

DISCLAIMER (APRIL '23): THIS DRAWING IS IN THE PROCESS OF BEING UPDATED. FOR ALL STRUCTURAL REQUIREMENTS REFER BRIDGE TECHNICAL NOTE (BTN) 033: STRUCTURAL REQUIREMENTS FOR REINFORCED CONCRETE DRAINAGE PITS. GEOMETRIC DIMENSIONS SHOWN ON THIS DRAWING MAY BE USED AS A GUIDE AND MODIFIED WHERE NECESSARY TO ACHIEVE COMPLIANCE.

REV	APP'D	DATE	AMENDMENT
E	J.B.	1/8/02	AMENDMENT TO NOTE 6 AS/NZS 4680
D	J.B.	OCT'98	GRATE LATCH DETAILS AMENDED
C	J.C.	1.2.90	AMENDMENT TO NOTE 10, CONCRETE STRENGTH GRADES.
B	J.C.	1.7.95	STRENGTH & LENGTH OF ANCHOR BARS, MAX. LOADING OF GRATE
A	J.C.	1.9.94	GENERAL NOTE 5, NOTES 6, 9 & 10, GRATE LATCH & INVERT DEPTH

GENERAL NOTES	
1. STANDARD PITS DIMENSIONING AND SETTING OUT DETAILS	SD 1001
2. UNHAUNCHED PITS	SD 1011
3. HAUNCHED PITS	SD 1021
4. STEP IRONS	SD 1041
5. ALL DIMENSIONS ARE IN MILLIMETRES	

DESIGNED PRINCIPAL ROAD DESIGN ENGINEER	SD 1001
APPROVED	SD 1011
CATALOG: PRED	SD 1021
PROJECT: sddgnw	SD 1041

vkroak design ENGINEERING & TECHNOLOGY CONSULTANTS	COMPUTER FILE sd-1431e.dgn	SCALE OF METRES	HDR NOT TO SCALE VER
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STANDARD DRAWING GRATED PIT FLUSH STEEL GRATE	FILE NO.	CONTRACT NO.	SHEET NO.	DRAWING NO. SD 1431	ISSUE E
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