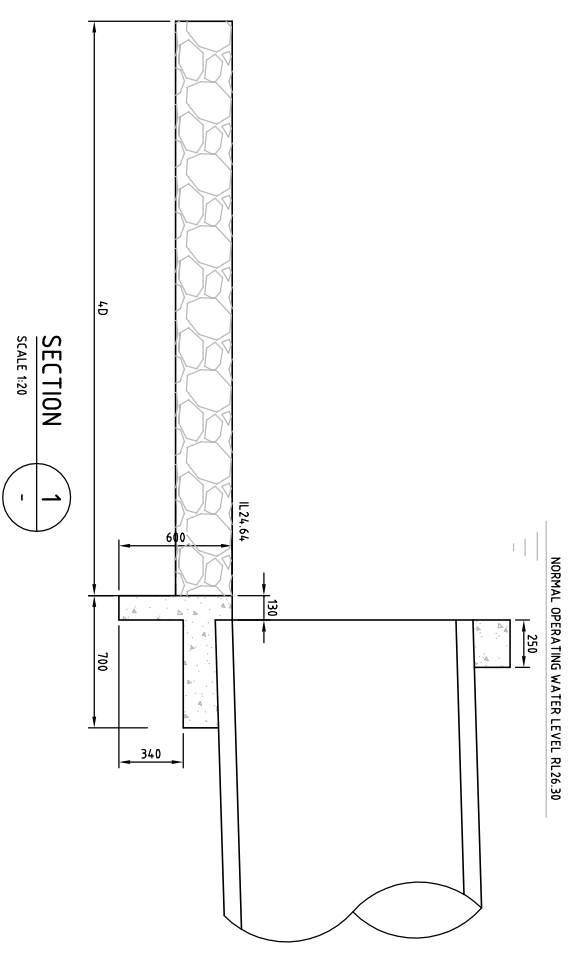
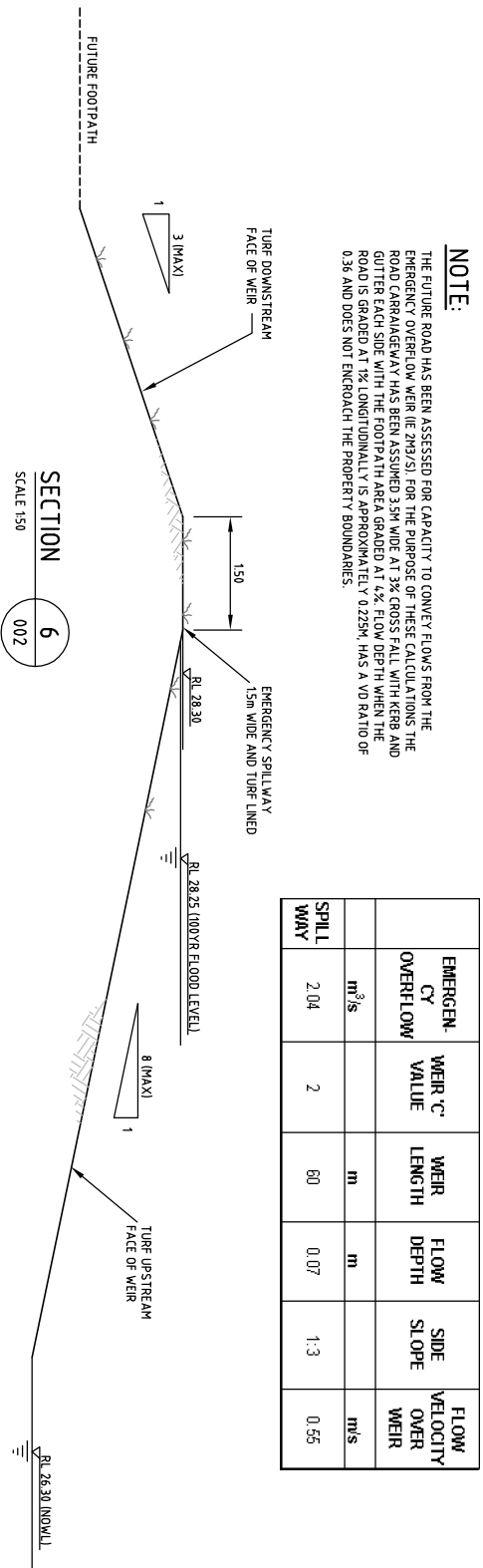


TYPICAL HEADWALL DETAIL
 SCALE 1:20



SECTION 1
 SCALE 1:20



TYPICAL EMERGENCY SPILLWAY
 SCALE 1:50

NOTE:
 THE FUTURE ROAD HAS BEEN ASSESSED FOR CAPACITY TO CARRY FLOWS FROM THE
 EMERGENCY OVERFLOW WEIR. THE FUTURE ROAD DESIGN IS BASED ON THE
 DESIGN FLOWS FROM THE EMERGENCY OVERFLOW WEIR. THE FUTURE ROAD DESIGN
 IS BASED ON THE DESIGN FLOWS FROM THE EMERGENCY OVERFLOW WEIR. THE
 ROAD IS GRADED AT 1% LONGITUDINALLY IS APPROXIMATELY 0.225M HAS A V0 RATIO OF
 0.36 AND DOES NOT ENCRoACH THE PROPERTY BOUNDARIES.

SPILLWAY CALCULATION TABLE

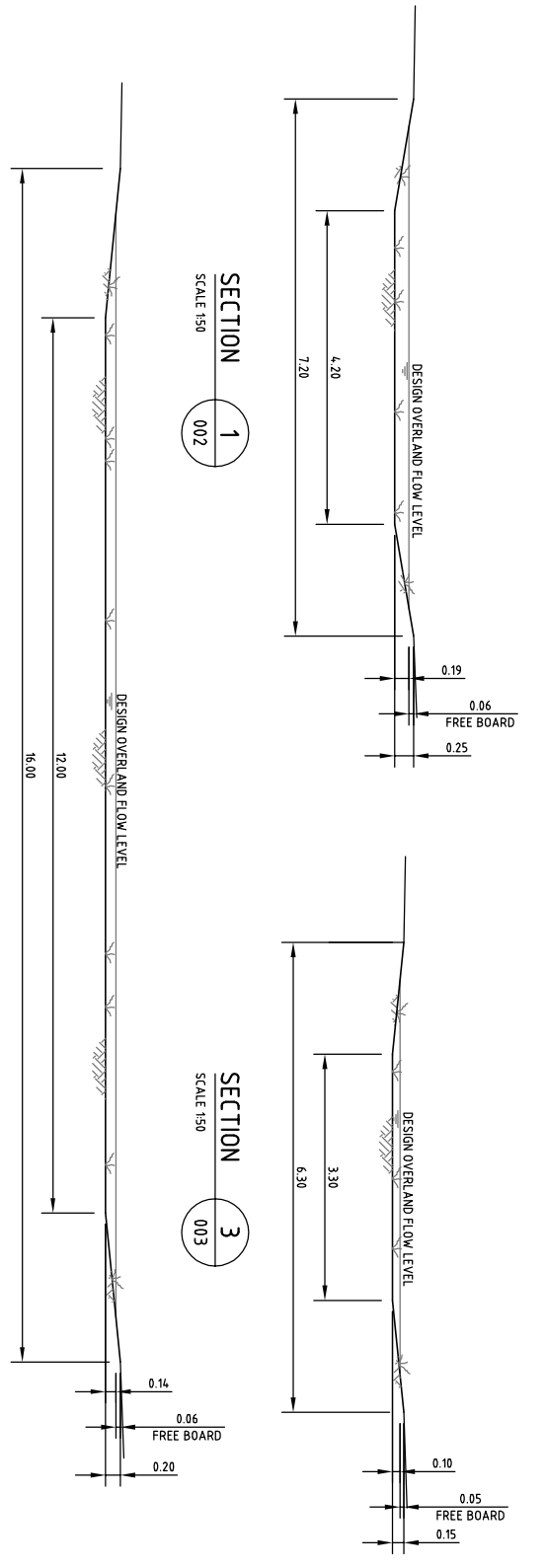
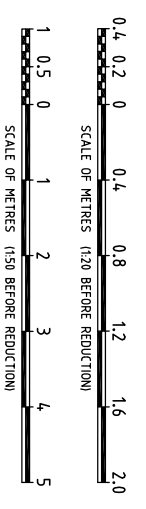
EMERGENCY OVERFLOW	WEIR 'C' VALUE	WEIR LENGTH	FLOW DEPTH	SIDE SLOPE	FLOW VELOCITY OVER WEIR
2.04 m ³ /s	2	60 m	0.07 m	1:3	0.55 m/s

FLOWPATH CALCULATION TABLE

FLOW OVERLAND PATH	Q ₁₀₀ OVERLAND FLOW	50% BLOCKAGE Q ₁₀₀ PIPED FLOW	Q ₁₀₀ TOTAL OVERLAND FLOW	CHANNEL LONGITUDINAL GRADE	MANNINGS 'n'	CHANNEL BASE WIDTH (BW)	CHANNEL TOP WIDTH (TW)	CHANNEL FLOW DEPTH (D)	CHANNEL DEPTH (H)	SIDE SLOPE	FLOW VELOCITY (V)	V/D	MAX V/D	FREE BOARD	CAPACITY (Q)	
1	1.00	0.50	1.50	2.50	0.03	4.20	6.48	7.20	0.19	0.25	1.6	1.5	0.29	0.29	0.06	1.56
2	3.33	0.19	3.52	5.00	0.03	12.00	14.80	16.00	0.14	0.20	1.10	1.9	0.26	2.26	0.06	3.53
3	0.08	0.79	0.87	10.70	0.03	3.30	5.30	6.30	0.10	0.15	1.10	2.0	0.20	0.22	0.05	0.88
4	0.06	1.87	1.93	2.00	0.03	5.60	8.00	8.60	0.20	0.25	1.6	1.4	0.29	0.29	0.05	1.96
5	0.06	1.87	1.93	7.80	0.03	8.00	9.32	10.40	0.11	0.20	1.6	2.0	0.22	0.23	0.09	1.94

NOTES:

1. MAX V/D ADOPTED FROM ITEM 8.7.1 IN RYDE COUNCIL DCP2006.
2. EMERGENCY SPILLWAY SIZED BY APPLYING 50% BLOCKAGE FACTOR TO MAIN BASIN OUTLET.
3. EMERGENCY OVERFLOWS IN 50% BLOCKAGE CASE ARE FULLY CONTAINED WITH FUTURE ROAD CROSS SECTION.



SECTION 1
 SCALE 1:50

SECTION 2
 SCALE 1:50

SECTION 3
 SCALE 1:50

SECTION 4
 SCALE 1:50

SECTION 5
 SCALE 1:50

REV	DATE	DESCRIPTION	BY	CHECKED
A	16/04/2008	FOR APPROVAL	VP	RC
B	16/04/2008	PROJECT APPLICATION ISSUE	VP	RC

ARCHITECT	DESIGNED	CHECKED
Cardno (NSW) Pty Ltd	VP	RC

PROJECT DIRECTOR	DATE	PROJECT MANAGER	DATE

DESIGNED	CHECKED
VP	RC

PELTON GROUP	FOR APPROVAL
ROYAL REHABILITATION CENTRE SYDNEY CHARLES STREET, RYDE DETENTION BASIN & ASSOCIATED STORMWATER INFRASTRUCTURE MISCELLANEOUS DETAILS	600110-D-016

DRIVING STATUS	REV
FOR APPROVAL	B