

#### GENERAL - ON-SITE DETENTION & STORMWATER DRAINAGE NOTES

1. ORIGIN OF LEVELS SHOWN ARE TO AUSTRALIAN HEIGHT DATUM (AHD) UNLESS NOTED OTHERWISE ON THE DRAWING(S)
  2. PIPED STORMWATER DRAINAGE DESIGN CRITERIA:
    - (a) TOTAL SITE AREA=1571sqm  
DEVELOPMENT SITE AREA=1571sqm  
UNDEVELOPED SITE AREA=0sqm
    - (b) PRE-DEVELOPMENT FLOWS FROM DEVELOPMENT AREA  
PERMISSIBLE SITE DISCHARGE (5 Yr ARI)=28 l/s (20 Yr ARI)=47 l/s  
100 Yr ARI SITE DISCHARGE=77 l/s
    - (c) POST DEVELOPMENT FLOWS WITH OSD  
TOTAL 5 Yr ARI DISCHARGE=27 l/s  
TOTAL 20 Yr ARI DISCHARGE=32 l/s  
TOTAL 100 Yr ARI DISCHARGE=37 l/s  
REFER TO DRAINS INPUT & OUTPUT FILES
  3. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES AND GRADES SHOWN ARE NOT TO BE REDUCED, LEVELS ARE NOT TO BE ALTERED, WITHOUT THE APPROVAL OF THE DESIGNER
  4. 100 YEAR TOTAL SITE RUNOFF = 77L/s  
OSD OVERFLOW WEIR CAPACITY = 99L/s
- (d) OSD TANK  
PORTION DRAINING TO TANK = 100%  
MAXIMUM 100 yr ARI WL=17.98  
WEIR OVERFLOW LEVEL=18.20  
150 sqm x 0.9m DEEP  
ALL DPs & HARD PAVED AREAS EXCLUDING BASEMENT GARAGE DIRECTED TO OSD TANK  
REQUIRED STORAGE VOLUME=60 m<sup>3</sup>, (100 Yr ARI) ORIFICE SIZE=160 DIA

## STAGE 2 GROUND FLOOR DRAINAGE CONCEPT PLAN

ALL PIPES TO BE Ø100 UPVC @ 1% FALL, TYPICAL U.N.O.

SCALE 1:100

- DENOTES STORMWATER PIPE
- DENOTES SUBSOIL DRAIN
- 100Ø DENOTES PIPE DIAMETER IN MM

**NOTE:** WHERE DETENTION STORAGE EXTENDS UNDER RETAIL SPACES A DOUBLE SLAB & AIR GAP HAS BEEN PROVIDED TO PREVENT DAMPNES. REFER TO SECTION 3 ON DRAWING SW15

**PRELIMINARY**  
**NOT FOR CONSTRUCTION**

ARCHITECT: CRAWFORD ARCHITECTS

CLIENT: DEVELOPMENT LINK

PROJECT: Mixed use Development  
8 Oaks Avenue, Dee Why NSW

TITLE: GROUND FLOOR DRAINAGE  
CONCEPT PLAN

DEMLAKIAN  
ENGINEERING  
Intelligent Thinking in Engineering

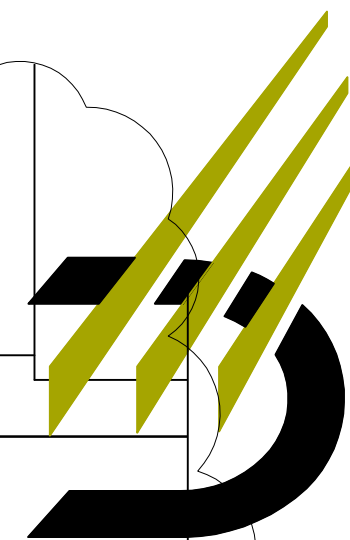
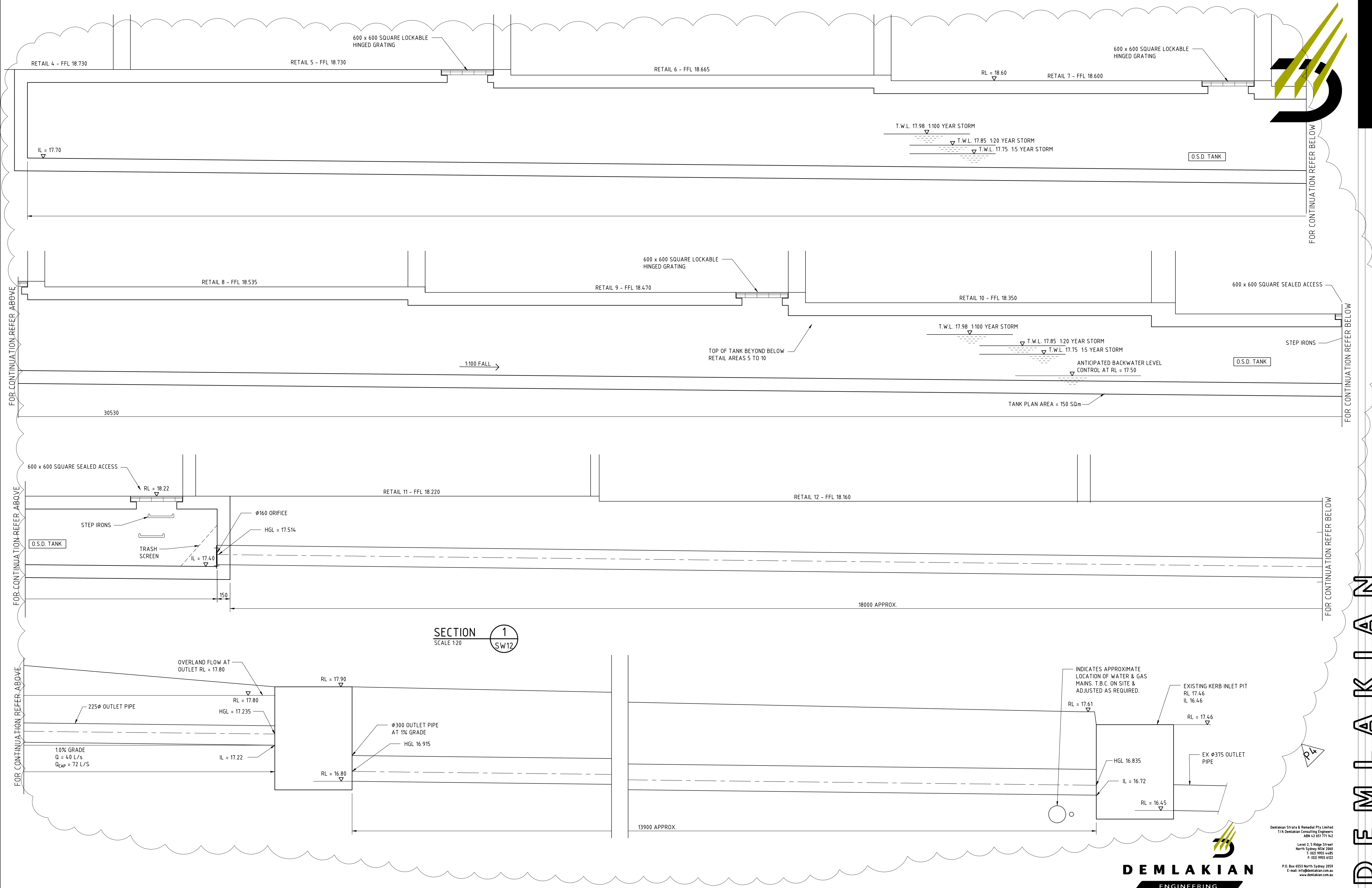
ORIGINAL: A1 DWG

	P5	20.08.19	SHOP LAYOUT REVISED	RAL
	P4	18.03.19	LAYOUT AMENDED	RAL
	P3	06.11.18	SITE ADDRESS AMENDED	RAL
	P2	10.10.18	PRELIMINARY ISSUE	RAL
	REV.No	DATE	REVISION	BY

**NOTE:** This drawing must be read in conjunction with ALL other drawings for this project including but not limited to all construction notes.

DESIGNED: DW	DATE: SEP 2017
DRAWN: RAL	CHECKED: DW
217130	
DRAWING: SW12	REVISION: P5





Denlakian Strata & Remedial Pty Limited  
T/A Denlakian Consulting Engineers  
ABN 42 651 771 542  
Level 2, 5 Ridge Street  
North Sydney NSW 2060  
T: (02) 9955 4445  
F: (02) 9955 6122  
P.O. Box 6553 North Sydney 2059  
E-mail: info@denlakian.com.au  
www.denlakian.com.au

**DEMLAKIAN**  
ENGINEERING  
Intelligent Thinking in Engineering

ORIGINAL: A1 DWG

REV.No	DATE	REVISION	BY
P4	20.08.19	SECTIONS REVISED	RAL
P3	06.11.18	SITE ADDRESS AMENDED	RAL
P2	10.10.18	PRELIMINARY ISSUE	RAL

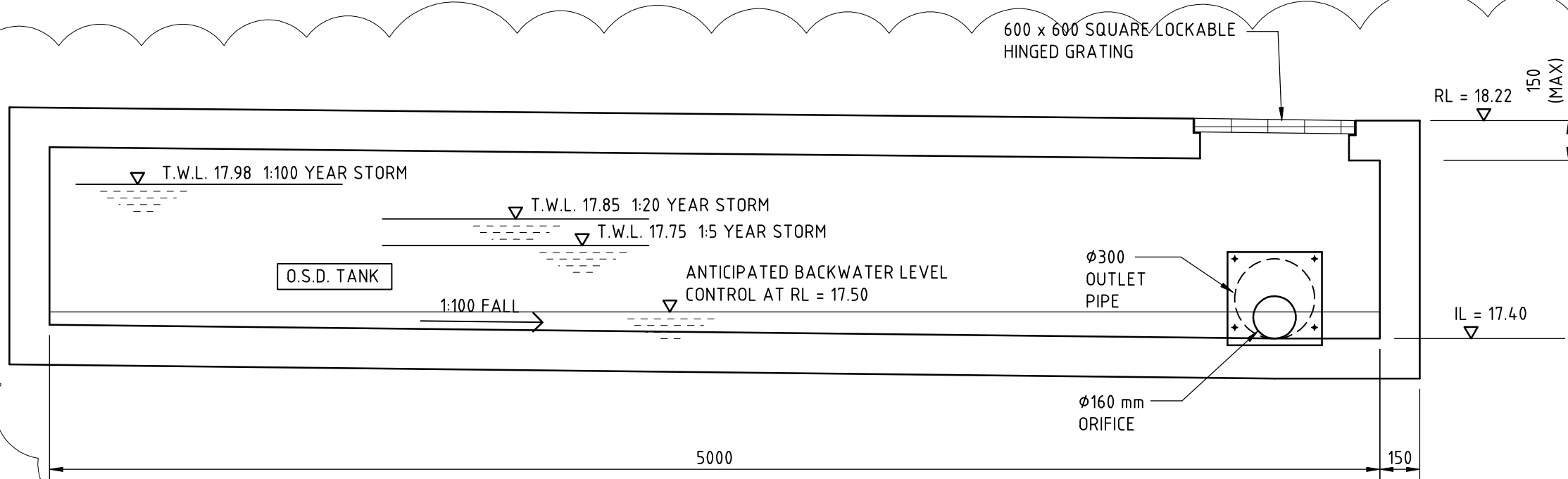
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**PRELIMINARY**  
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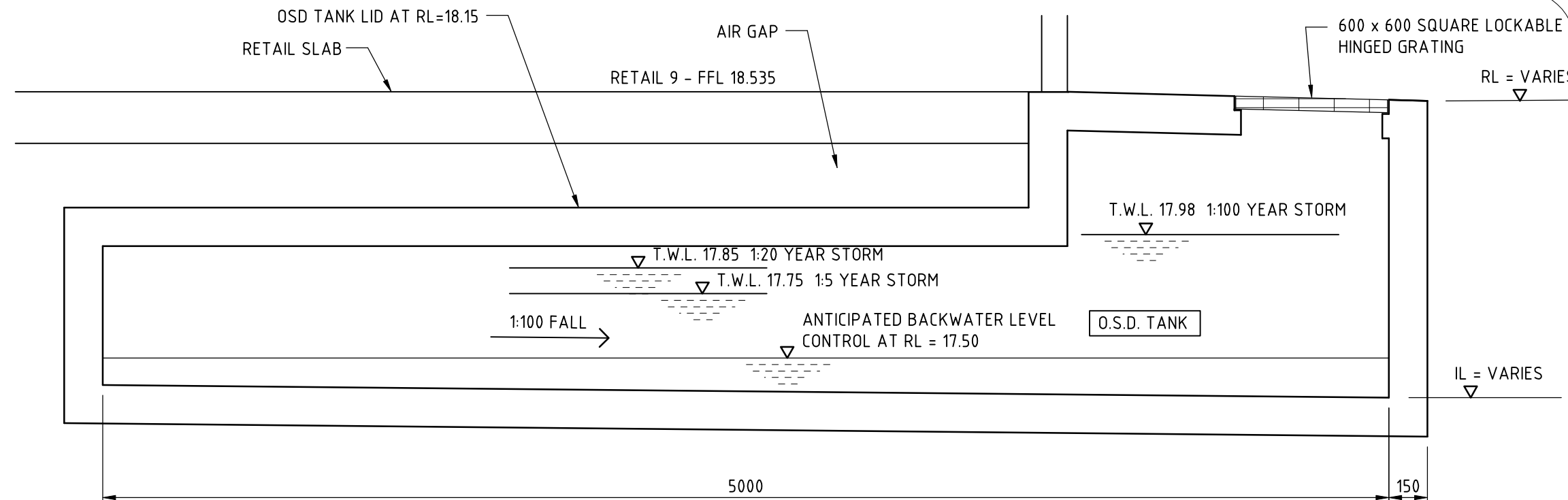
ARCHITECT: CRAWFORD ARCHITECTS  
CLIENT: DEVELOPMENT LINK

PROJECT: Mixed use Development  
8 Oaks Avenue, Dee Why NSW  
TITLE: DRAINAGE DETAILS SHEET 1

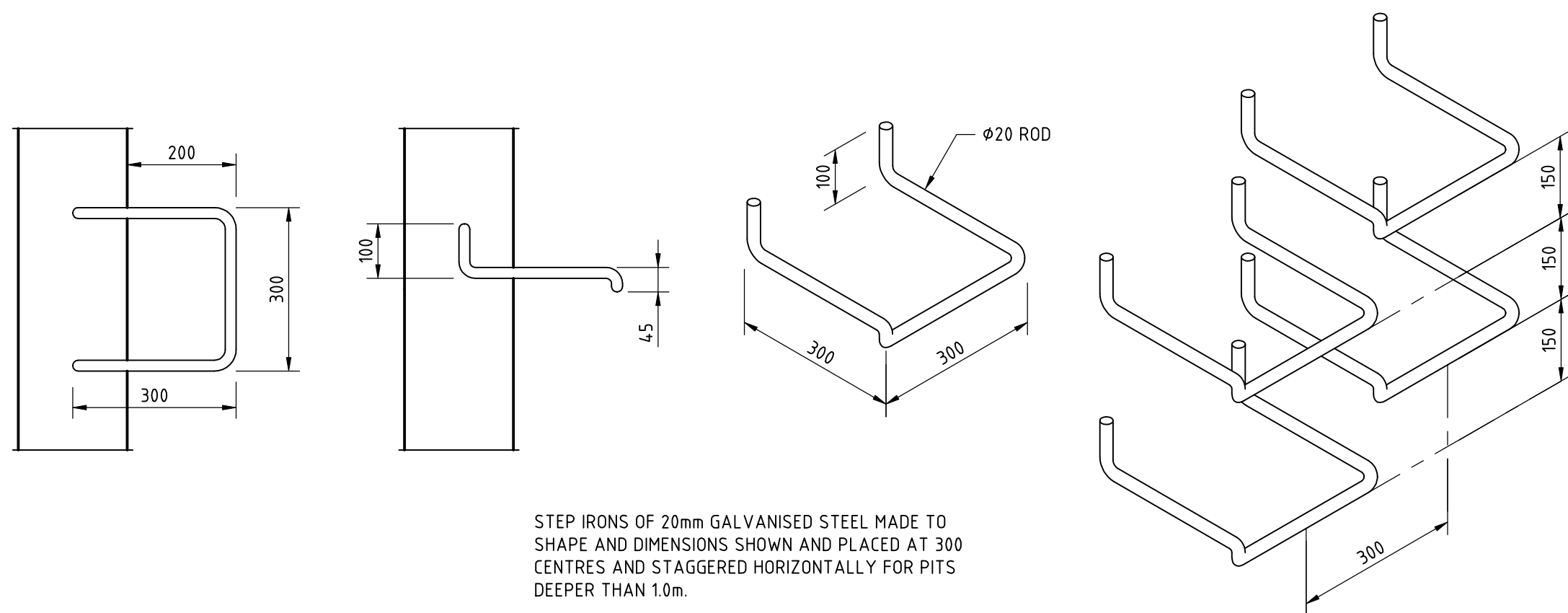
DESIGNED: DW	DATE: SEP 2017
DRAWN: RAL	CHECKED: DW
217130	
DRAWING: SW14	REVISION: P4



SECTION 2  
SCALE 1:20  
SW12



SECTION 3  
SCALE 1:20  
SW12



STEP IRONS OF 20mm GALVANISED STEEL MADE TO SHAPE AND DIMENSIONS SHOWN AND PLACED AT 300 CENTRES AND STAGGERED HORIZONTALLY FOR PITS DEEPER THAN 1.0m.

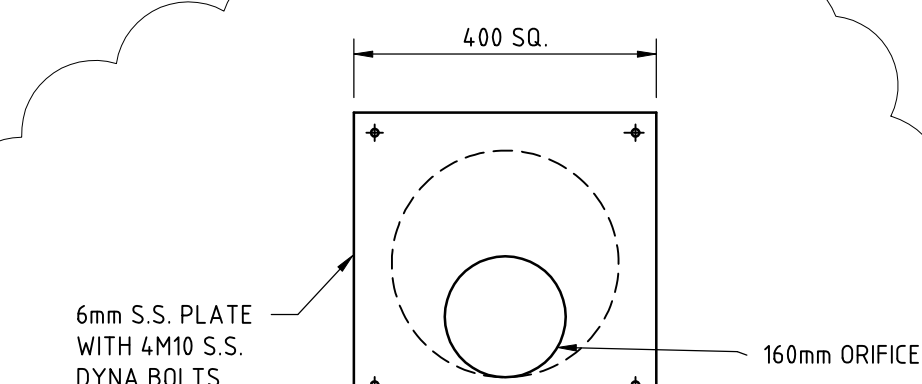
STEP IRON DETAIL  
SCALE 1:10



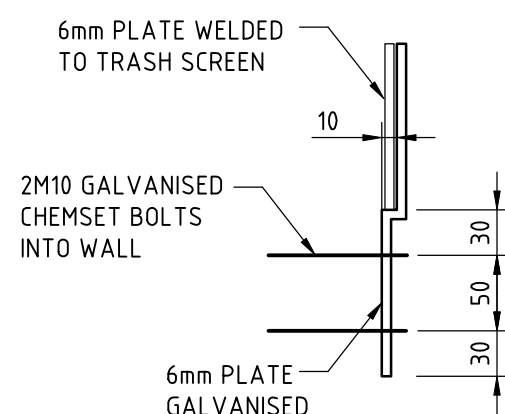
MARKER PLATE

MARKER PLATE TO BE INSTALLED IN A PERMANENT PROMINENT POSITION  
PLATE TO BE MADE OF NON CORROSIVE METAL OR 4mm THICK LAMINATED PLASTIC

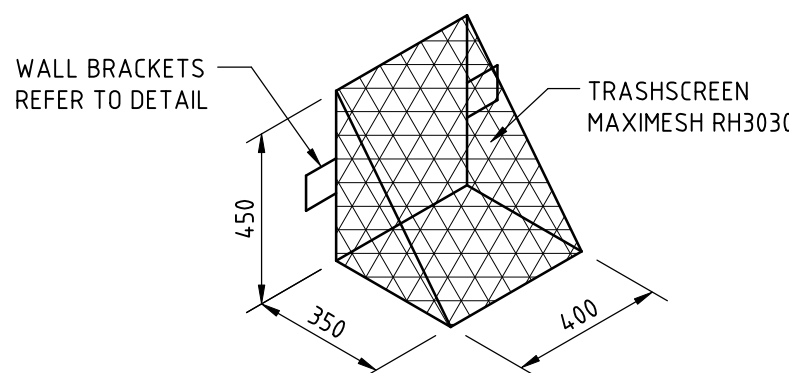
STORMWATER DISCHARGE RATES		
	PRE DEVELOPED	POST DEVELOPED
5yr	28 L/s	27 L/s
20yr	47 L/s	32 L/s
100yr	77 L/s	37 L/s



ORIFICE PLATE DETAIL FOR OSD - PART 1  
SCALE 1:10



TRASH SCREEN  
WALL BRACKET DETAIL  
SCALE 1:5



TYPICAL TRASH SCREEN  
SCALE 1:20

REV.No	P4	20.08.19	SECTIONS REVISED	RAL	NOTE: This drawing must be read in conjunction with ALL other drawings for this project including but not limited to all construction notes.	ARCHITECT: CRAWFORD ARCHITECTS	PROJECT: Mixed use Development 8 Oaks Avenue, Dee Why NSW	DESIGNED: DW	DATE: SEP 2017
	P3	06.11.18	SITE ADDRESS AMENDED	RAL				DRAWN: RAL	CHECKED: DW
	P2	10.10.18	PRELIMINARY ISSUE	RAL				217130	
	REV.No	DATE	REVISION	BY				DRAWING: SW15	REVISION: P4

**PRELIMINARY**  
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