

STORMWATER LAYOUT NOTES

-PITS UP TO 600 DEEP TO BE 450 x 450 U.N.O., PITS UP TO 900 DEEP TO BE 600 x 600 U.N.O., PITS UP TO 1200 DEEP TO BE 900 x 900 U.N.O., PITS EXCEEDING 1200 DEEP TO BE 900 SQ. U.N.O. PITS TO BE PRECAST CONCRETE OR RENDERED BRICK WITH CONCRETE HEAVY DUTY GRATES. U.N.O. LIGHT DUTY PITS AND GRATES MAY BE USED ONLY IN LIGHT/FOOT TRAFFICABLE AREAS. U.N.O. ALL PITS TO BE BENCH TO DISCHARGE PIPES U.N.O. GAL. STEP IRONS TO ALL PITS EXCEEDING 900 DEPTH.

-COVER AND SUMP GRATES SHALL COMPLY WITH AS2733 & AS4198.

-DOWNPIPES TO BE 90 DIA IF CHARGED AND 100 x 50 BOX IF GRAVITY. U.N.O. DP'S SHALL BE INSTALLED IN ACCORDANCE WITH AS3500.3.2.4.11 & AS4198. MAX. ROOF AREA PER DOWNPIPE WITH A NOMINATED GUTTER SIZE TO BE DETERMINED USING MANUFACTURERS SPECIFICATIONS WITH OVERFLOW PROVISIONS BY INSTALLERS.

-PIPES TO HAVE 1% MIN.GRADE U.N.O. BY PIT INVERTS. PIPES TO BE V.C. CLASS 'X' OR U.P.V.C. CLASS STORMWATER PIPE TO AS1254.1260,1273,1477,2179.2 AND WHERE EXPOSED TO DIRECT SUNLIGHT TO HAVE ADEQUATE PROTECTION TO U.V. RADIATION IN ACCORDANCE WITH AS2032. SEWER GRADE/GAL. PIPES AND KERB ADAPTORS TO BE USED WHERE COUNCIL POLICY OR CONSENT REQUIRE SUCH.

-GUTTER OUTLETS SHALL BE FITTED VERTICALLY TO THE SOLE OF THE EAVE GUTTERS. RAINHEADS TO HAVE AN OVERFLOW DUCT OR WEIR 50mm BELOW THEIR CREST.

-PROVIDE OVERFLOW SPITTERS TO ALL COVERED BALCONIES/TERRACES. NOT TO BE DIRECTED ON TO ROOF SURFACES

-RISING MAINS (PRESSURE PIPE) TO BE IN ACCORDANCE WITH AS3500.1.2

-SUBSOIL DRAINS TO BE IN ACCORDANCE WITH AS2439.1 CLASS 100 TO BE USED ONLY IN SINGLE DWELLINGS.

-ALL PIPE JOINTS, VALVES TO BE IN ACCORDANCE WITH AS3500.3.2.2.7 & AS3500.3.2

-EXPANSION JOINTS SHALL COMPLY WITH AS3500.3.2:TABLE 4.1 PVC JOINTS AND ACCESSORIES TO COMPLY WITH AS2179.2 & AS4198.

-ALL TRENCHES TO BE IN ACCORDANCE WITH AS3500.3.2:7.2.8-14. EMBEDMENT MATERIAL AND TRENCH FILL TO ALL PIPES & SUBSOIL DRAINS TO BE IN ACCORDANCE WITH AS3500.3.2:7. ALL WORKS TO BE IN ACCORDANCE WITH AS1254, 1741, 2032, 2733, 2865, 3996, 1260, 1477, 2179.1 & 2,2566, 6367, 8301, ARR97 & BCA.

-IT IS THE BUILDER'S RESPONSIBILITY TO CONFIRM THAT LEVELS AND SURVEYS ARE IN ACCORDANCE WITH LEVELS ON SITE & ARE APPROVED BY COUNCIL & ARCHITECT BEFORE COMMENCING WORK.

-NO SEWER VENTS, GULLY PITS OR SIMILAR TO BE LOCATED BELOW THE MAXIMUM WATER SURFACE LEVEL IN DETENTION BASINS. ALL BASIN WALLS TO BE WATERTIGHT & STRUCTURALLY DESIGNED BY A STRUCTURAL ENGINEER.

-ALL FENCES WHICH MAY DIVERT FLOW FROM PROPOSED DIRECTION TO BE RAISED 100mm.

-BUILDER TO ENSURE ALL DRAINAGE AREAS INCLUDING EXPOSED BALCONIES TO HAVE OVERFLOW MECHANISM IN PLACE IN THE EVENT OF BLOCKAGE WITH ADEQUATE OVERFLOW SECTION THROUGH PLANTERS, PARAPETS ETC.

-ALL EXTERIOR FINISHED GROUND LEVELS TO BE SLOPING AWAY FROM PERIMETER WALLS IN ALL CASES.

-ALL HEADROOM CLEARANCES TO BE COORDINATED BETWEEN BUILDER & ARCHITECT. NOTIFY ENGINEER FOR APPROVAL IF ANY CHANGES OCCUR.

-ALL GULLY POSITIONS ARE DIAGRAMMATIC ONLY- BUILDER SHOULD CONSULT ARCHITECTURALS FOR DIMENSIONS TO LOCATE STORMWATER ELEMENTS U.N.O.

-FIRE RATING TO ARCHITECT'S SPECIFICATION.

-ALL FINISHED FLOOR LEVELS ARE NOMINATED BY ARCHITECT.

-ALL SITE SAFETY MEASURES AND WORK METHOD STATEMENTS PREPARED BY BUILDER/SUB-CONTRACTORS ARE TO BE IMPLEMENTED DURING CONSTRUCTION. NO WORK IS TO COMMENCE UNTIL ALL WORKERS CARRY OUT SITE INDUCTION. PREPARED AND CARRIED OUT BY BUILDER. ANY HAZARD IDENTIFICATION TO BE REPORTED IMMEDIATELY TO SITE SUPERVISOR TO CARRY OUT NECESSARY PROCEDURES TO ELIMINATE HAZARD, PRIOR TO PROCEEDING WITH WORK. STRUCTURAL AND GEOTECHNICAL ADVICE SHOULD BE SOUGHT IN ALL CASES.

-CONFINED SPACES SIGNAGE TO BE INSTALLED IN ACCESSIBLE UNDERGROUND TANKS TO WORK COVER SPECIFICATIONS. ALL PITS EXCEEDING 600mm DEPTH TO HAVE 'U' BOLTS OR SIMILAR INSTALLED TO GRATES.

-MAINTENANCE DEVICES REQ'D BY AUTHORITIES ARE NOT TO BE ASSUMED SHOWN ON DRAWINGS.

-EARTH MOUNDING SHOWN AS TEMPORARY MEASURE UNTIL LANDSCAPING COMPLETED TO DIRECT FLOWS AS SHOWN.

PIPE SCHEDULE

REFER TO NOTES FOR PIPE CLASS

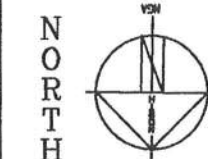
TAG	PIPE DIA.	MIN.GRADE
B1	100	CHARGED
B2	100	1%
C1	150	1%
D1	200x100 GAL. PIPE	1%

ALL OTHER SURFACE WATERS TO BE STRICTLY CONNECTED TO A SEPARATE SYSTEM BY OWNER IN ACCORDANCE WITH AS 3500.3:2003 AND BCA PART 3.1.2.3.

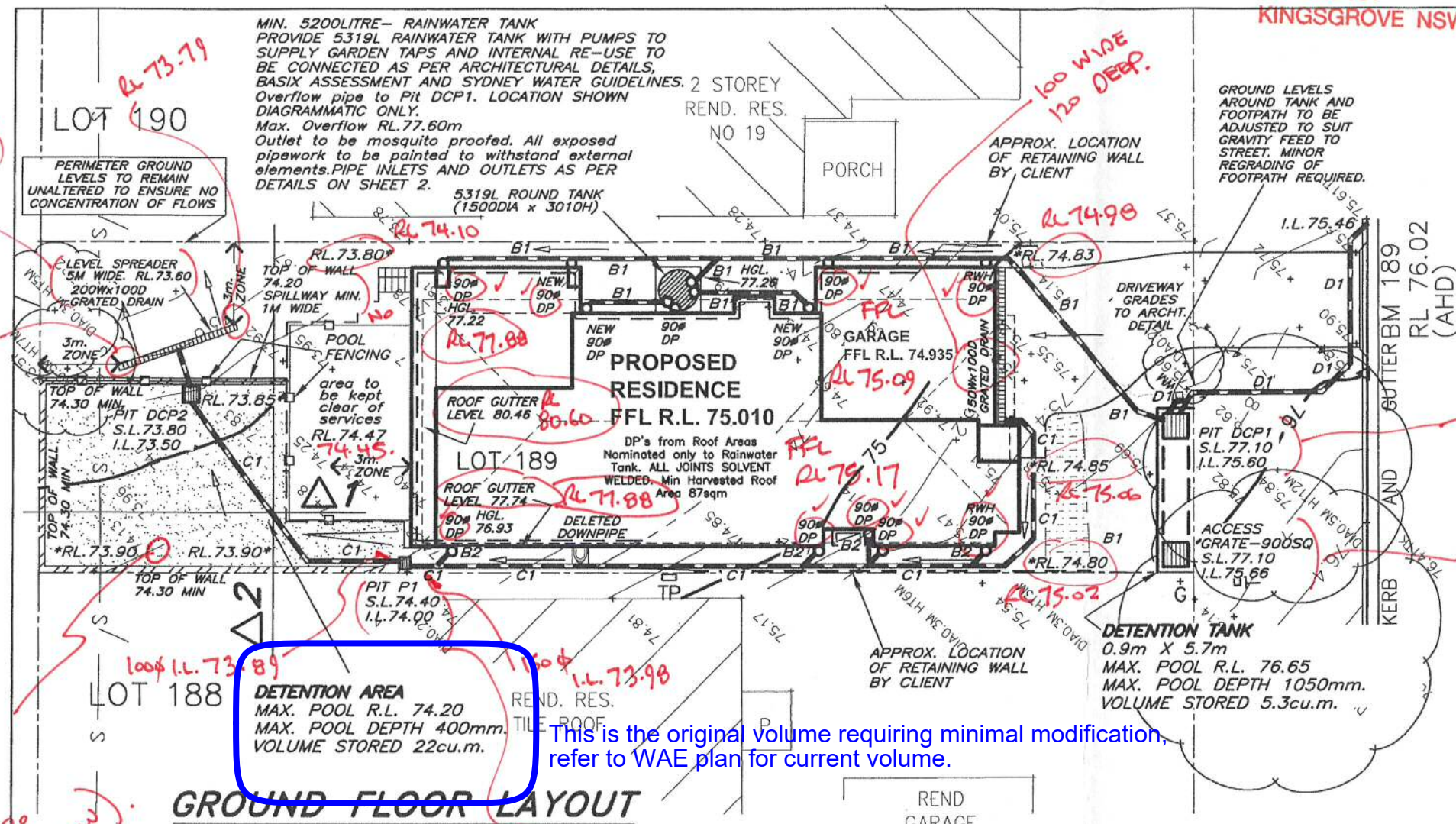
RAINWATER TANKS WITH PUMPS TO SUPPLY GARDEN TAPS AND INTERNAL RE-USE AS PER BASIX ASSESSMENT

GRATED DRAIN BY OWNER

R.L.	NEW REDUCED LEVEL (NEW FINISHED GROUND LEVEL)
+00.00	EXISTING LEVEL
S.L. 0.00	SURFACE LEVEL
I.L. 0.00	INVERT LEVEL
T.O.W.	TOP OF WALL LEVEL
G.F.L. 0.00	GARAGE FLOOR LEVEL
F.F.L. 0.00	FINISHED FLOOR LEVEL
A,B,C etc.	SEE PIPE SCHEDULE
L1	PIPE LABEL
PIT P1	SURFACE INLET PIT
PIT OP1	OVERLAND FLOW PIT
-g--g-	90mm. AG. LINE
ODP	DOWNPIPE-SIZE
REFER TO NOTES FOR DP SIZE	
GP	GULLY PIT
GP	GARDEN GULLY PIT
O/F	OVERFLOW-200x100
RWH	RAIN WATER HEAD
SP	DP WITH SPREADER
BG	BALCONY GULLY PIT
CE	CLEANING EYE
---	GROUND FALL
))))	100 HIGH EARTH MOUNDING



REVISIONS	
A	Redesigned per council advice



GROUND FLOOR LAYOUT

REFER TO SHEET 2 FOR RAINWATER TANK DETAILS. LEAF GUTTER GUARDS OR SIMILAR SCREENING RECOMMENDED TO ALL GUTTERS.

WHS HAZARD IDENTIFICATION: TRENCHING-ALL PERSONS TO FOLLOW THEIR APPROVED SWMS IN RELATION TO BARRICADING DEEP TRENCHES AND WEARING APPROPRIATE CLOTHING. ANY PERSON WORKING INSIDE A TRENCH MUST BE SUPERVISED BY ANOTHER PERSON. DIAL BEFORE YOU DIG 1100 MUST BE CHECKED BEFORE ANY TRENCHING COMMENCES ON SITE. ANY WORKS NEAR IDENTIFIED SERVICES TO BE CARRIED OUT IN ACCORDANCE WITH THE TRADES SWMS.

INSTALLATION OF DOWNPIPES AND GUTTERING TO BE CARRIED OUT IN ACCORDANCE WITH INSTALLERS APPROVED SWMS.

Notes

- * all work as executed shown in red.
- * datum as per this drawing.
- * date of survey 22-04-20
- * engineer to certify all structures and hydraulics

David Burton. B. Surv. M.I.S. N.S.W.
Surveyor Registered under the Surveying Act, 2002.

ISSUE	PRINTS	ISSUED TO	DATE
1	EMAIL	BUILDER/CLIENT	16-6-14
2	EMAIL	BUILDER/CLIENT	6-11-14

SCALE(A3) 1:200,100 u.n.o.
SCALE BAR - 1m INTERVALS
DATE JUNE 2014
DRAWN M.I.
DESIGNED M.I.
APPROVED



IBRAHIM STORMWATER CONSULTANTS
CONSULTING CIVIL ENGINEERS
P.O. BOX 400 CHERRYBROOK NSW 2126
TELEPHONE: (02) 9980 5515 FAX: (02) 9980 5114
www.stormwater.net.au email: mail@stormwater.net.au

PROJECT
PROPOSED RESIDENCE
AT 21 KALAU STREET
NORTH BALGOWLAH
FOR MR & MRS HENDERSON.

THIS DRAWING
STORMWATER
LAYOUT SH.1
BUILDER
METRICON HOMES

JOB NUMBER
M5173-659350
SHEET No. **1 of 3** REVISION **A**



Charged stormwater lines from Roof Areas ONLY to rainwater tank.
All joints to be solvent welded. All exposed pipework to be painted to withstand external elements.
First flush water diverter at tank to comply with Sydney Water and council DCP's. An approved switch system similar to 'Rainbank' to be used via mains. Pumps to manuf. specs.
Rain Tank to be installed and maintained to manufacturers specifications and to comply with all Sydney Water Guidelines.
Client to be responsible for maintenance system of charged pipelines. Debris accumulation significantly affects systems performance. Maintenance program essential.
Structural details for tank base by manufacturer or others.

TANK TO STRUCTURAL ENGINEER DETAILS.

600 X 600

5.400

10.930

600 X 600

OVERFLOW I.L. 76.65

ORIFICE PLATE

900SQ GRATED PIT WITH HINGED GRATE & LOCK DOWN SYSTEM.

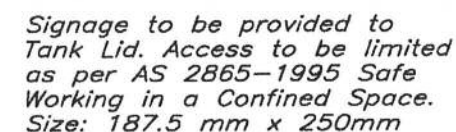
REMOVABLE TRIANGULAR SCREEN HOT DIPPED GALV. LYSAGHT MAXIMESH TYPE RH.3030 WITH HANDLE

ALL NEARBY SERVICES TO BE LOCATED PRIOR EXCAVATIONS.
ALL PIPES TO BE CUT FLUSH WITH PIT WALLS AND SPARGED.
PITS EXCEEDING 800mm IN DEPTH TO HAVE LOCK DOWN MECHANISM.
SAFETY GEAR TO BE WORN AT ALL TIMES. INCLUDING FOOTWEAR, CLO
AND GLOVES AS PER SWMS.

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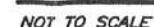
BUILDER/CLIENT TO ENSURE THAT ALL SAFETY MEASURES ARE TAKEN DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, SAFETY FENCING, SIGNAGE, OBTAINING STRUCTURAL AND GEOTECHNICAL ADVICE WHERE EXCAVATIONS ARE NEAR STRUCTURES OR SERVICES, SAFETY MEASURES RECOMMENDED BY PRODUCT SUPPLIERS ETC.

David Burton. B. Surv. M.I.S. N.S.W.
Surveyor Registered under the Surveying
Act, 2002.



THIS PLATE MUST NOT BE REMOVED

Signage to be provided
adjacent tanks Size: 110 mm
x 80mm



REVISIONS	
A	Redesigned per council advice

SCALE(A3) 1:200, 100 u.n.o.
SCALE BAR - 1m INTERVALS
DATE JUNE 2014
DRAWN M.I.
DESIGNED M.I.
APPROVED



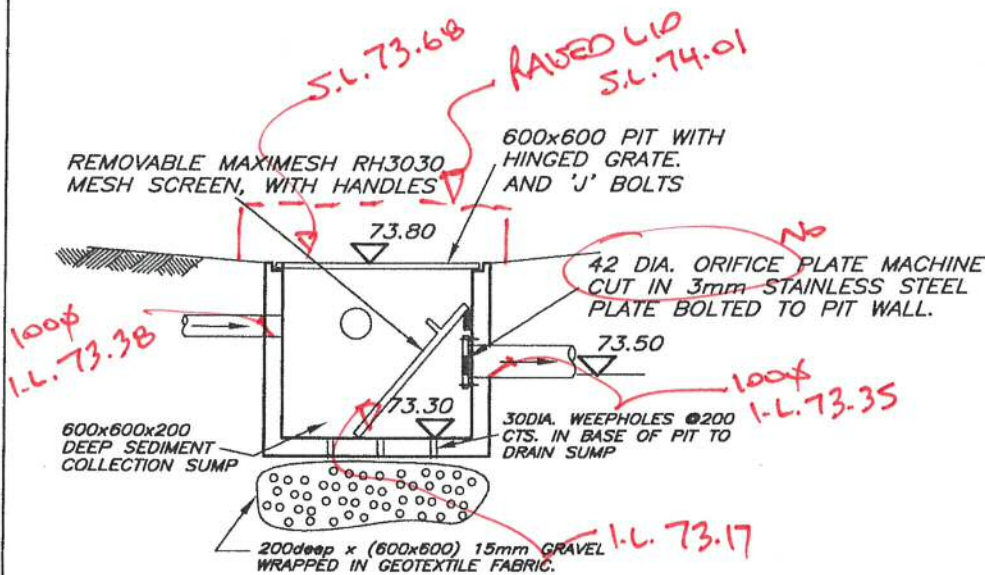
P.O. BOX 400 CHERIYBROOK NSW 2126
TELEPHONE: (02) 9980 5515 FAX: (02) 9980 6114
www.stormwater.net.au email: mail@stormwater.net.au

PROJECT
PROPOSED RESIDENCE
AT 21 KALAU STREET
NORTH BALGOWLAH
FOR MR & MRS HENDERSON.

THIS DRAWING
**STORMWATER
DETAILS SH. 1**
BUILDER
METRICON HOMES

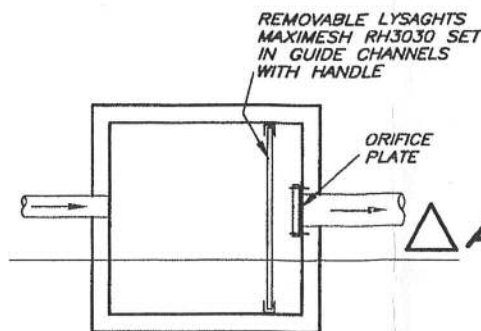
JOB NUMBER
M5173-659350

SHEET No. **2 of 3** REVISION **A**



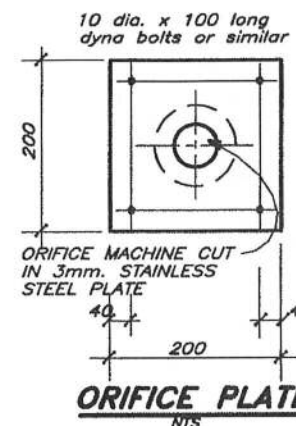
PIT DCP2 -SECTION A

NOT TO SCALE



PIT DCP2

NOT TO SCALE

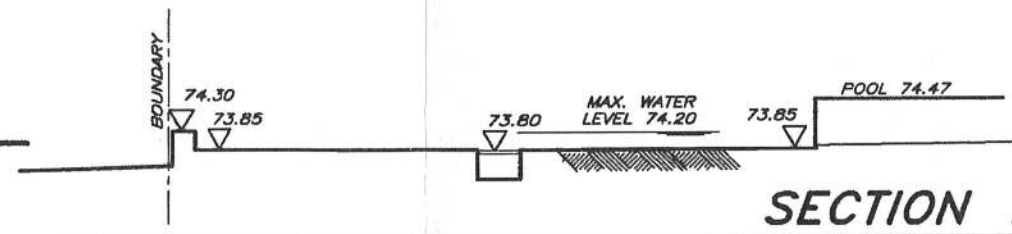


ORIFICE PLATE
NTS

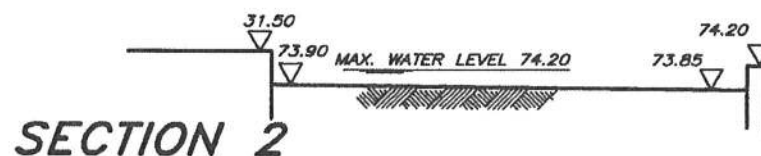
THIS IS AN
**ON-SITE STORMWATER
DETENTION SYSTEM**
REQUIRED BY YOUR LOCAL COUNCIL

IT IS AN OFFENSE TO REDUCE THE
VOLUME OR TO INTERFERE WITH THE
ORIFICE PLATE THAT CONTROLS THE
OUTFLOW
THE BASE OF THE OUTLET CONTROL
PIT AND DEBRIS SCREEN MUST BE
CLEANED OF DEBRIS AND SEDIMENT
ON A REGULAR BASIS BY THE OWNER.
THIS PLATE MUST NOT BE REMOVED

Signage to be provided
adjacent tanks Size: 110 mm
x 80mm



SECTION 1



SECTION 2

Aspect Development & Survey Pty Ltd
PO Box 161
KINGSGROVE NSW 1480

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(Signature)

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NORTH BALGOWLAH
FOR MR & MRS HENDERSON.**

THIS DRAWING
**STORMWATER
DETAILS SH.2**
BUILDER
METRICON HOMES

JOB NUMBER
M5173-659350
SHEET No. 3 of 3
REVISION 4