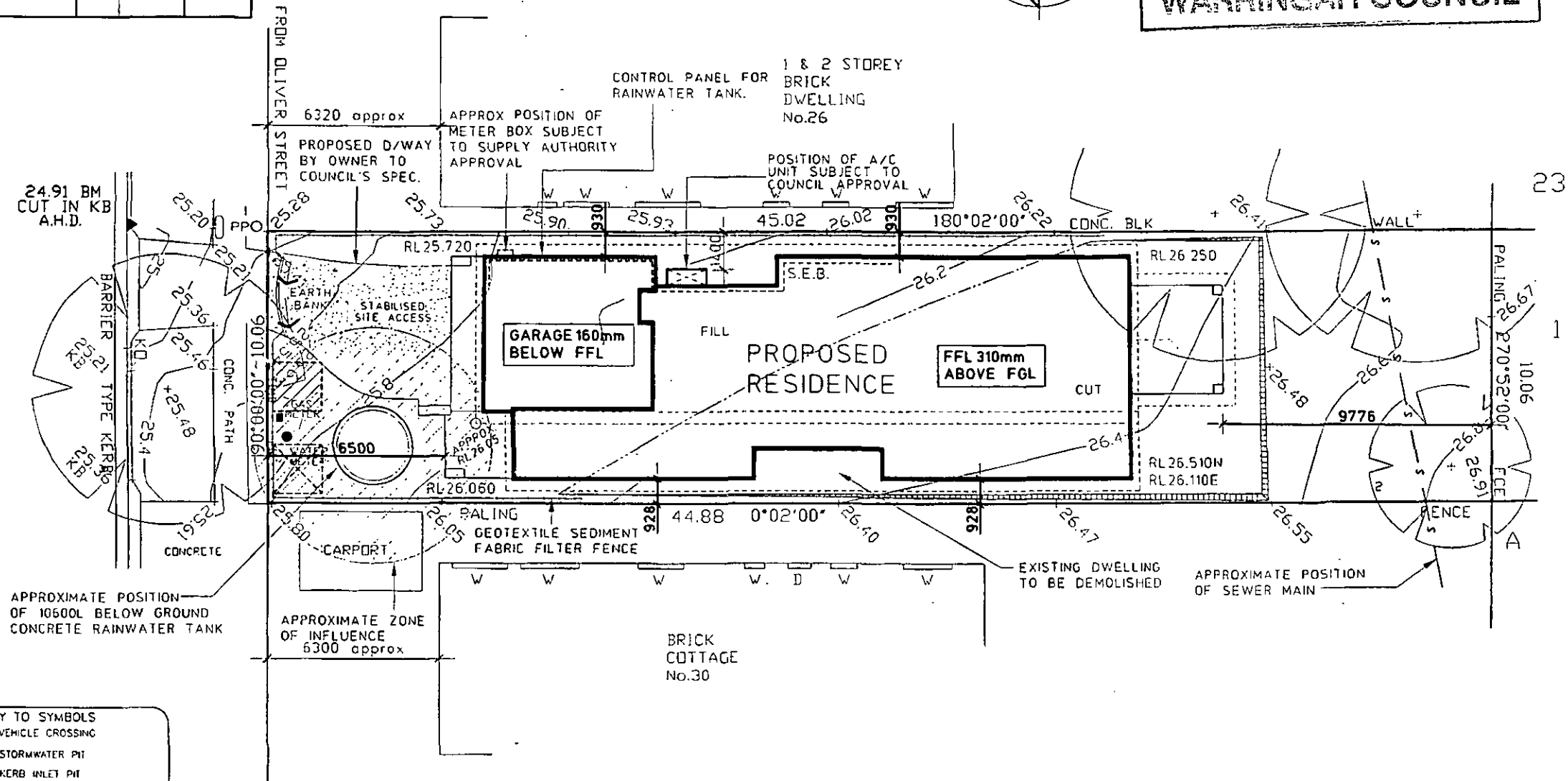


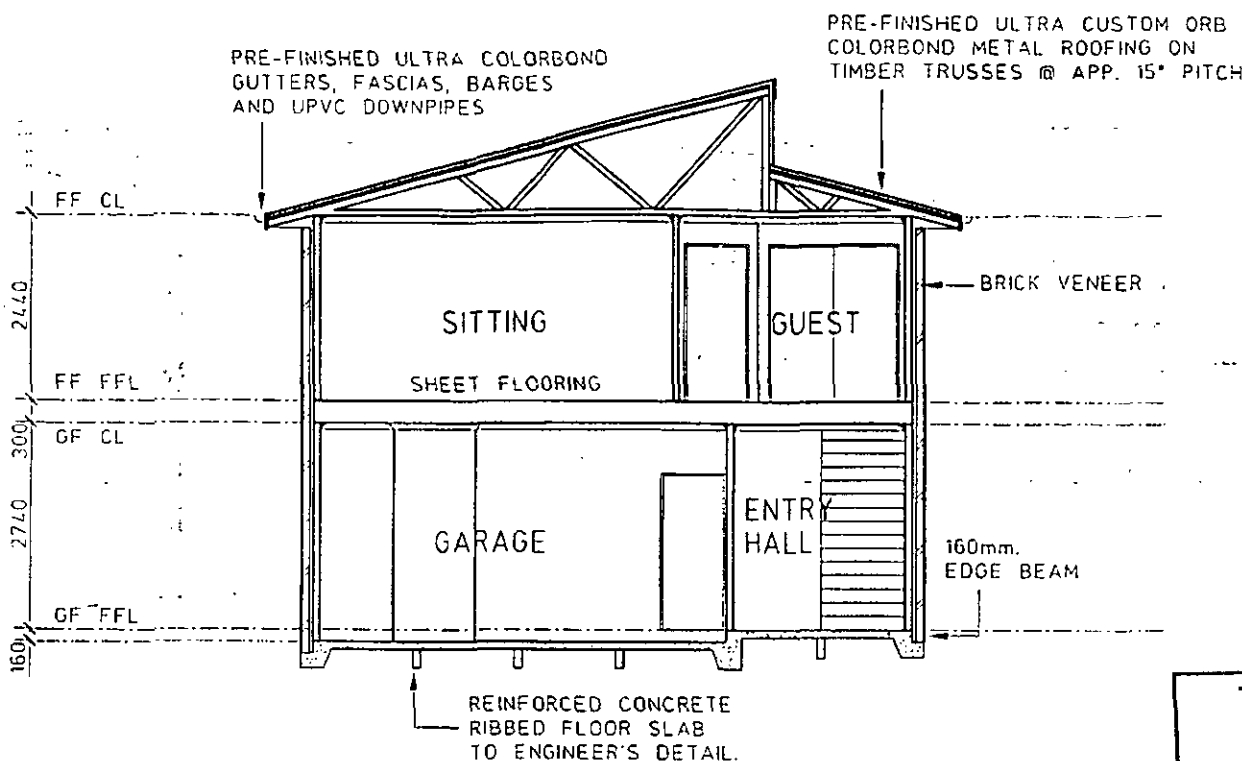
BASIX & SITE INFORMATION	
BASIX CERTIFICATE NUMBER:	---
CONSTRUCTION CERTIFICATE NUMBER:	---
SITE DETAILS	
LOT NUMBER:	1
DP NUMBER:	336187
UBD REFERENCE:	map 177- P16
SITE AREA:	452.10m ²
HOUSE AREAS: MEASURED TO EXISTING WALLS	
GROUND FLOOR:	147.38m ²
FIRST FLOOR:	182.00m ²
GARAGE:	34.61m ²
ALFRESCO:	14.00m ²
PATIO:	6.22m ²
BALCONY:	13.10m ²
DRIVEWAY/PATHS TO BOUNDARY:	35.46m ²
PROJECT DETAILS	
NO. OF BEDROOMS:	5
ROOF AREA:	245.55m ²
TOTAL AREA OF ROOF MEASURED TO THE OUTSIDE OF CUTTERS EXCLUDES PARAPETS & TERRACES TERRACES (OUTSIDE NORTH BOUNDARY)	
GARDEN & LAWNS	214.88m ²
AREAS OF PROPOSED GARDENS & LAWNS	
STORMWATER	
RAINWATER TANK SIZE:	10,600 litre
ROOF AREA CONNECTED TO RAINWATER:	65m ²
RAINWATER USES:	GARDENS, LAUNDRY & ALL TOILETS
REMAINDER OF ROOFWATER & OVERFLOW TO:	STREET
HYDRAULIC DESIGN REQUIRED:	YES
WATER	
KITCHEN TAP FITTING RATING:	4 STAR
SHOWERHEAD RATING:	3 STAR
TOILET RATING: -DUAL FLUSH (3/6 litre)	3 STAR
BATHROOM TAP FITTING RATING:	3 STAR
THERMAL COMFORT/ENERGY	
EXTERNAL WALL SURFACE:	BRICK
EXTERNAL WALL INSULATION:	R1.5
WALL COLOUR:	MEDIUM
ROOFING MATERIAL:	COLORBOND METAL ROOF
ROOF INSULATION:	ANTICON
ROOF COLOUR:	DARK
CEILING INSULATION:	R3.5
AIR CONDITIONING INCLUDED:	YES
EER:	2.5-3.0
HOT WATER SYSTEM:	GAS INSTANTANEOUS
STAR RATING:	5
COMPACT FLUORESCENT LIGHTING:	AS PER BASIX
COOKING APPLIANCES:	GAS C/TOP & ELECTRIC OVEN
CLOTHES DRYING LINE REQUIRED:	AS PER BASIX
WIND DRIVEN VENTILATORS REQUIRED/QT:	N/A
LOCALITY H1 FRESHWATER BEACH	PRIVATE OPEN SPACE
REQUIRED:	60.00m ²
PROVIDED:	119.67m ²
FLOOR SPACE RATIO	RIDGE HEIGHT
ALLOWED:	N/A
PROPOSED:	0.71:1
CARPARKING	CEILING HEIGHT
REQUIRED:	2 SPACES
PROVIDED:	2 SPACES
LANDSCAPING	
REQUIRED:	40% of total site area or 180.84m ²
PROVIDED:	37.1% of total site area or 167.73m ²

DRAWING:	DRAWN:	TENDER:
1 PRESENTATION PLANS	RL 22.01.10	16.12.09
2 COUNCIL SUBMISSION	G.D. 08.03.10	16.02.10
3 AMENDMENT FORM 10	G.D. 09.04.10	07.04.10
4		
5		
6		
7		
8		
9		
10		

SOLDIERS AVENUE



H2 TREATED TIMBER TO FRAME & TRUSSES



FRAMING NOTES

S0: SET OPENINGS TO GROUND FLOOR 2340mm HIGH (UNLESS SPECIFIED ON FLOOR PLANS)
S0: SET OPENINGS TO FIRST FLOOR 2100mm HIGH (UNLESS SPECIFIED ON FLOOR PLANS)

STRENGTHENING OF ROOF TRUSSES AS REQUIRED DUE TO AIR CONDITIONING

PROVIDE TERMITE RESISTANT TREATED TIMBER FRAME AND ROOF TRUSSES (INCLUDING FLOORING IN TWO STOREY DESIGNS).

INSULATION REQUIREMENTS

R1.5 BRADFORD INSULATION BATTS TO EXTERNAL FRAMED WALLS OF LIVING AREAS & INCLUDING WALLS BETWEEN GARAGE & LIVING AREAS

R3.5 BRADFORD INSULATION BATTS TO CEILINGS OF LIVING AREAS (EXCLUDING GARAGE)

ANTICON BLANKET TO THE UNDERSIDE OF THE ROOFING SYSTEM

THIS PLAN IS TO BE READ
IN CONJUNCTION WITH

DA 2010 / 0738

WARRINGAH COUNCIL

WINDOW SCHEDULE

No	TYPE	HEIGHT	WIDTH	GLAZING/REMARK
1	ME5	2390	1675	T. E. F.
2	XD/DD1816	1800	1570	
3	XXD2136	2100	3590	ALFRESCO DOOR
4	XD1206_S	1190	585	(585)
5	DF1	2100	890	T. E. F.
6	XX1524	1460	2410	
7	XXD0624	600	2410	
8	XD/DD1818	1800	1810	
9	XX2136	2100	3590	STACKER DOOR
10	XXD0624	600	2410	
11	XD1016	1030	1570	
12	D1806	1800	610	
13	D1806	1800	610	
14	XD/DD1516	1460	1570	
15	XD1006	1030	610	
16	XXD2136	2100	3590	STACKER DOOR
17	2118 (2L)	2100	1810	
18	FFF1530	1500	3010	SPECIAL
19	XD1512	1460	1210	
20	XD1512	1460	1210	
21	XD1009	1030	850	TOUGH GLASS
22	XD1009	1030	850	TOUGH GLASS
23	XD1216	1200	1570	
24	XD1016	1030	1570	TOUGH GLASS
25	XD1218	1200	1810	

Standard Electrical Schedule For Custom-37142

ROOM	SP	DPP	LIGHT	IN/LIGHT	SD	EX FAN	2WAY	3WAY	WPP	T.D.	TV
Living		3	2								
Dining		2	2								
Kitchen		1	1								
Bed 1		2	3								
Bed 2		1	1								
Bed 3		1	1								
Guest Room		1	1								
Hallway	6	2	1								
Stair		2	1								
Bathroom		1	1								
Powder		1	1								
Ensuite		1	1								
Laundry		1	1								
Garage		1	2								
Entry		1	1								
Hallway 1		1	1								
Hallway 2		1	2								
Stairs				1							
External			2	4							
Mac										2	2
TOTAL	1	6	21	28	5	3	4	1	0	0	2

LEGEND

SP Single Power Point
LIGHT Light Point
EX FAN Exhaust Fan
2WAY 2 Way Switch
3WAY 3 Way Switch
WPP Weather Proof Power Point
TEL Telephone Point

Note: All variations, additions & amendments to the standard Masterton plan do not include Electrical Upgrades. All Upgrades & Amendments to be made at Electrical Selection Stage.

Assessor # 20134 Certificate # 37528436 Issued: 17-Mar-10

Thermal Performance Specifications

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M	Detail
Generic GGG-05-001a	Single clear		Aluminium	6.57	0.74	63.1	As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M	Detail
-----------	------------	-------	-------	---------	------	--------	--------

Any U and SHGC values specified on Certificates issued after 1 May 2007 are according to AS/NZS 100. All values prior to this date are AS/NZS. Alternate products may be used if their U value is lower, and the SHGC value is less than 10% higher or lower.

External walls Construction	Insulation	Colour	Solar absorptance	Detail
Brick Veneer	R1.5	Medium	SA 0.475 - 0.7	As per detail on plans

Internal walls Construction	Insulation	Detail
Plasterboard on studs	None	As per detail on plans

Floors Construction	Insulation	Covering	Detail
Concrete	None	Ceramic Tile	As per detail on plans
Timber	None	Carpet	As per detail on plans

Ceilings Construction	Insulation	Detail
Plasterboard	R3.5	As per detail on plans

Roof Construction	Insulation	Colour	Detail
Metal Deck	Anticon Blanket	Dark - SA > 0.7	As per detail on plans

Window coverings, internal curtains	External (awnings, shutters, etc)	Detail
default	for assessment only	None

Fixed shading (width, incl, gutters, height above windows)	Verandahs, Pergolas (type, description)	Detail
450 0	varying as per plans	Patio/Balcony
		Al fresco

Overshading	Overshading structures	Overshading trees
-------------	------------------------	-------------------

Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north: 0	Living area open to entry: Yes	Ventilated skylights: No
Terrain category: Sub		fire or unflued gas heater: No
Roof ventilation: Unv		ed downlights: No
Cross ventilation: Star		and ceiling vents: No
Subfloor ventilation: On		

ABSA

Ass # 20134 Cert # 37528436

Sign Stephen Hardy

Date 17-Mar-2010

Conditioned floor area: 263.00 m2
Unconditioned floor area: 20.00 m2

CID: 37142-TURNER.dwg 09-04-2010/08.51 1:100 - GOCED

Proposed Residence

For: Mr R. TURNER
Lot No: 1 (No.28) Soldiers Avenue,
Suburb: HARBORD
Council: WARRINGAH

Project Details

Design: CUSTOM DESIGN
Facade: CUSTOM
Edition: DESIGNER

DRAWN BY: R.L.	DATE: 22.01.2010	JOB No: 37142
SHEET TITLE: SECTION	SHEET No: 4/6	
SCALE: 1:100	FINAL PLAN	DATE:

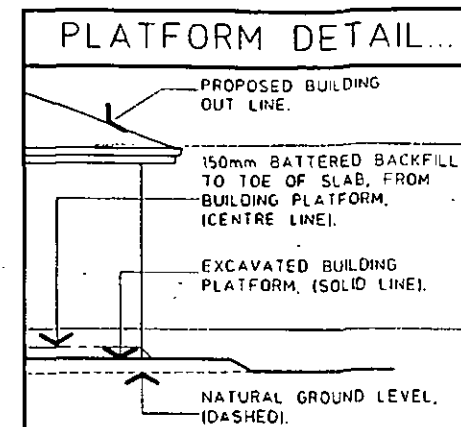
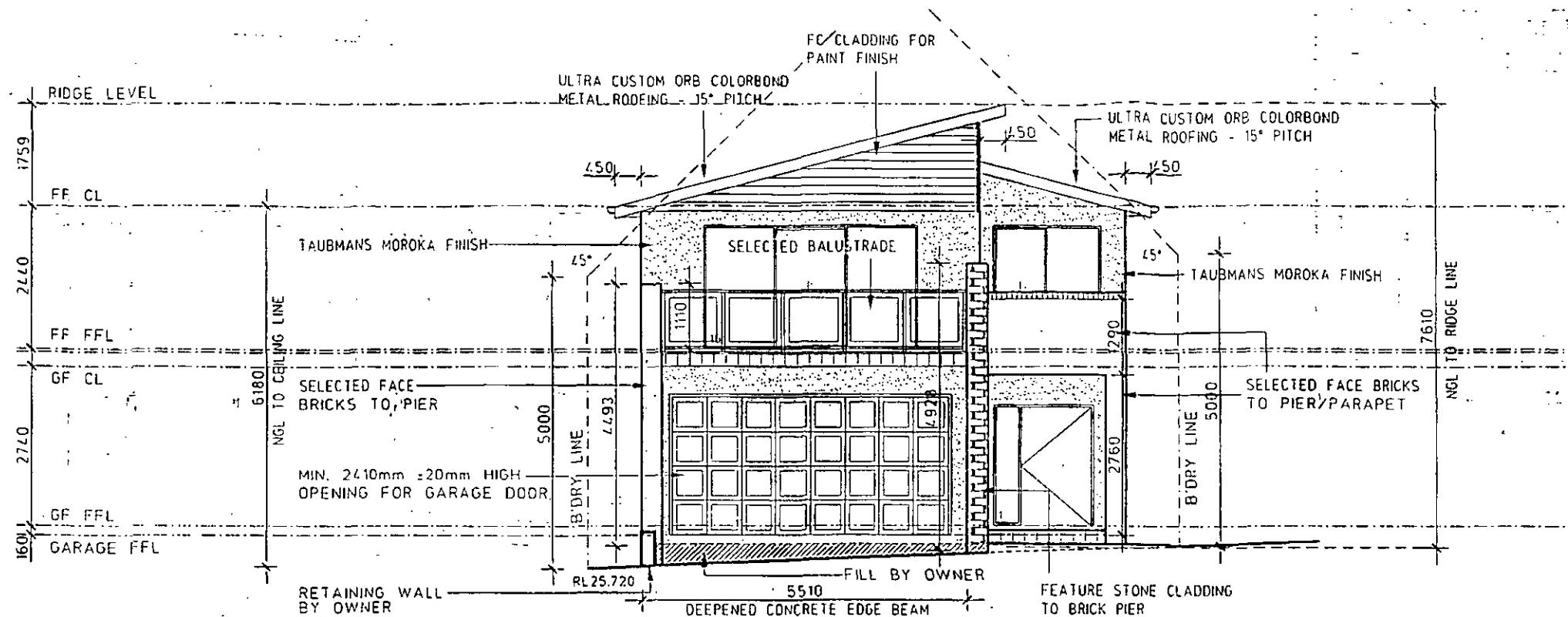
GENERAL NOTES

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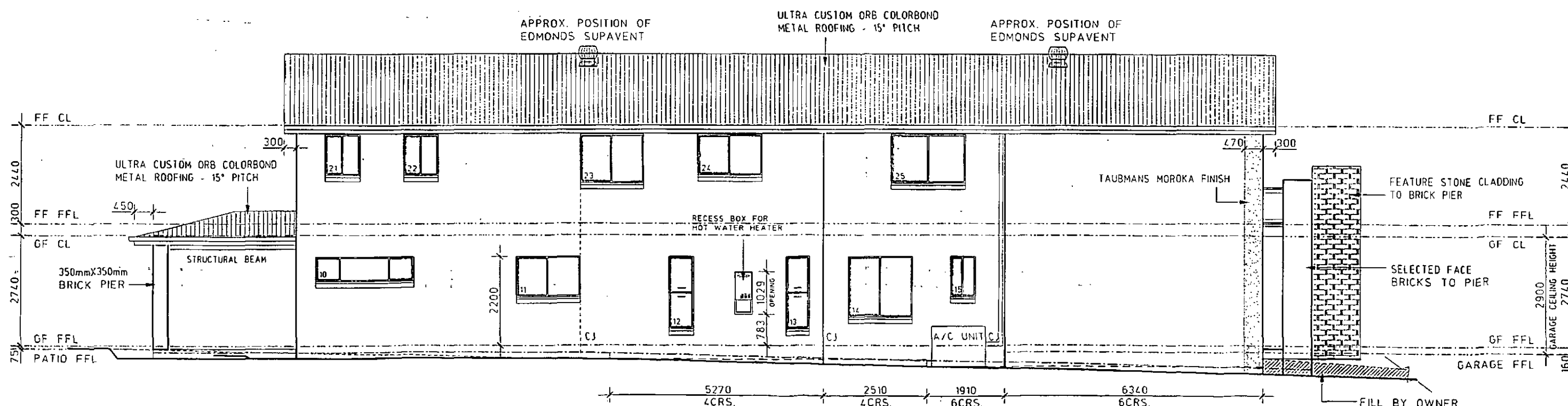
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"FLASHING TO DAMPCOURSE LEVEL TO BE FINISHED FLUSH WITH OUTSIDE FACE OF BRICKWORK"

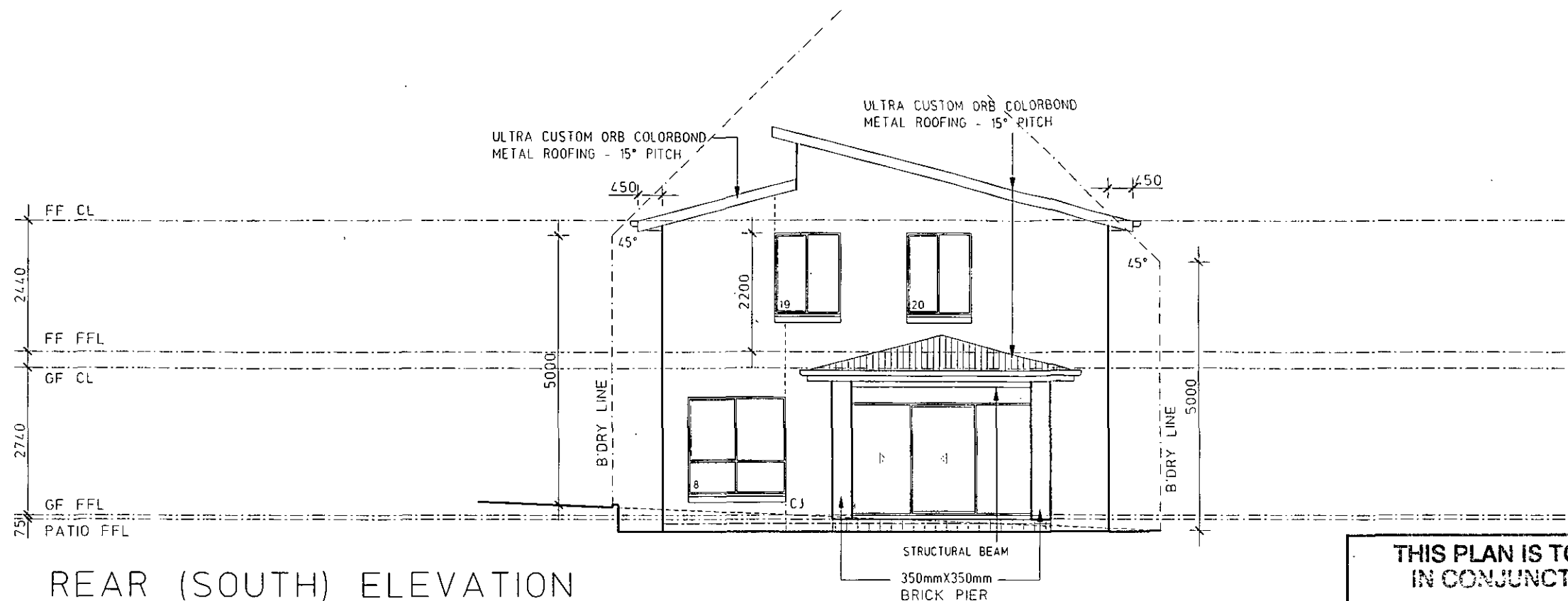
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FRONT (NORTH) ELEVATION

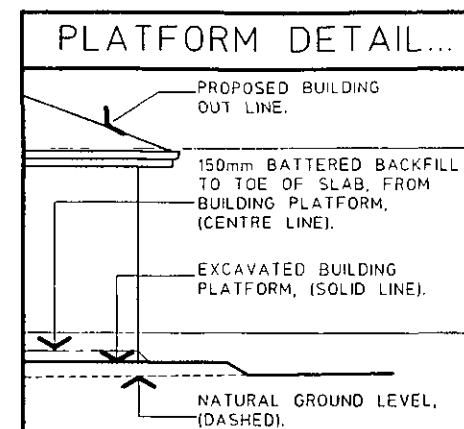


LEFT (EAST) ELEVATION

Proposed Residence For: Mr R. TURNER Lot No: 1 (No.28) Soldiers Avenue, Suburb: HARBORD Council: WARRINGAH	Project Details Design: CUSTOM DESIGN Facade: CUSTOM Edition: DESIGNER	GENERAL NOTES Do not scale drawings use figured dimensions only. Check & verify dimension & levels prior to the commencement of any work. All discrepancies to be reported to the drafting office. COPYRIGHT: Masterton Homes is the legal and beneficial owner of the copyright in this plan and no part of this plan may be reproduced. Unauthorised use, copying, amendment or adaption will be prosecuted.	CID: 37142-TURNER.dwg 09-04-2010/08.51 1:100 - GOCED  Masterton HOMES PH: 1300 4HOMES PH: 1300 446637 Licence. No.: 35558C ABN. 52 002 873 047 www.masterton.com.au
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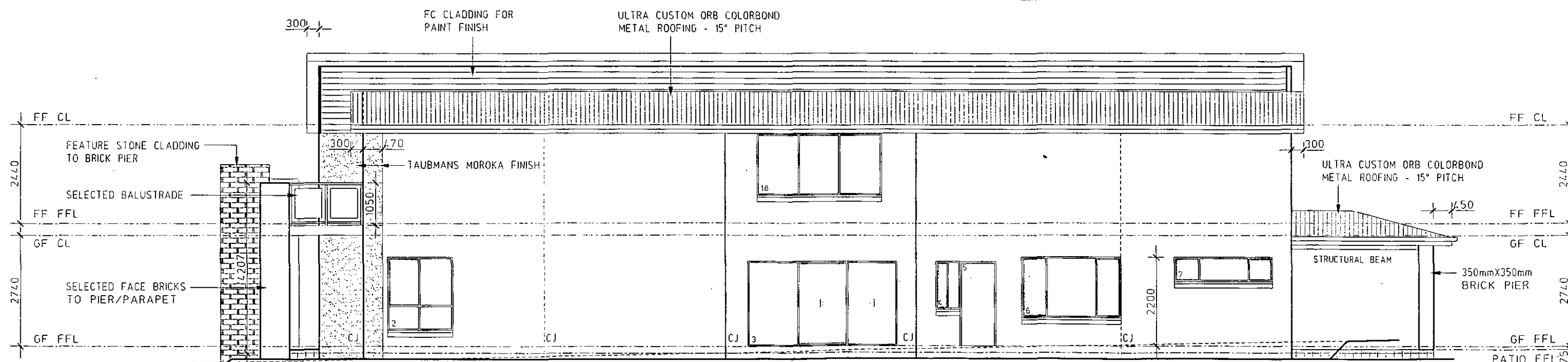


REAR (SOUTH) ELEVATION



"FLASHING TO DAMPCOURSE LEVEL TO BE FINISHED FLUSH WITH OUTSIDE FACE OF BRICKWORK"

THIS PLAN IS TO BE READ
IN CONJUNCTION WITH
DA 2010 / 0738
WARRINGAH COUNCIL



RIGHT (WEST) ELEVATION

CID: 37142-TURNER.dwg 09-04-2010/08.51 1:100 - GOCED

Proposed Residence For: Mr R. TURNER Lot No: 1 (No.28) Soldiers Avenue, Suburb: HARBORD Council: WARRINGAH	Project Details			GENERAL NOTES	
	Design: CUSTOM DESIGN Facade: CUSTOM Edition: DESIGNER	DRAWN BY:	DATE:	JOB No.	Do not scale drawings use figured dimensions only. Check & verify dimension & levels prior to the commencement of any work. All discrepancies to be reported to the drafting office. COPYRIGHT: Masterton Homes is the legal and beneficial owner of the copyright in this plan and no part of this plan may be reproduced. Unauthorised use, copying, amendment or adaption will be prosecuted.
		R.L.	22.01.2010	37142	
		SHEET TITLE:	ELEVATIONS	SHEET No.	
		SCALE	1:100	FINAL PLAN	6/6
		FINAL PLAN	ISSUE:	FINAL PLAN	DATE:

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PH: 1300 446637

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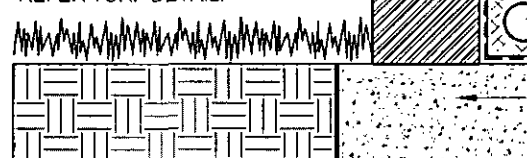
TYPICAL DETAIL. INSTALL WALL TO SUIT SITE LEVELS, TO MANUFACTURE'S SPEC. AND CIVIL ENGINEER'S DETAILS.

CAPPING TO MATCH STYLE AND COLOUR OF WALL.

KEystone OR BLOCKWORK RETAINING WALL AS NOMINATED BY CLIENT.

NOTE: ALL RETAINING WALL WHICH FORM PART OF DRAINAGE WORKS SHALL BE BUILT AS DETAILED BY THE HYDRAULIC ENGINEERS. ALL WALLS EXCEEDING 1m HEIGHT SHALL BE DETAILED BY A QUALIFIED ENGINEER.

REFER TURF DETAIL.



THIS PLAN IS TO BE READ IN CONJUNCTION WITH DA 2010 / 0738

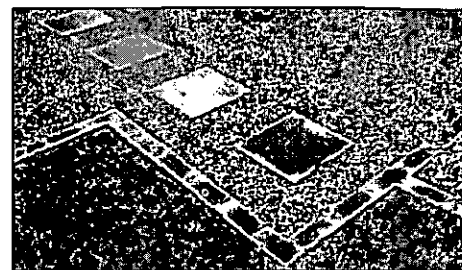
CLEAN, FREE DRAINING CONSOLIDATED MATERIAL TO REAR OF WALL

APPROVED FILTER FABRIC LINER TO REAR OF WALL.

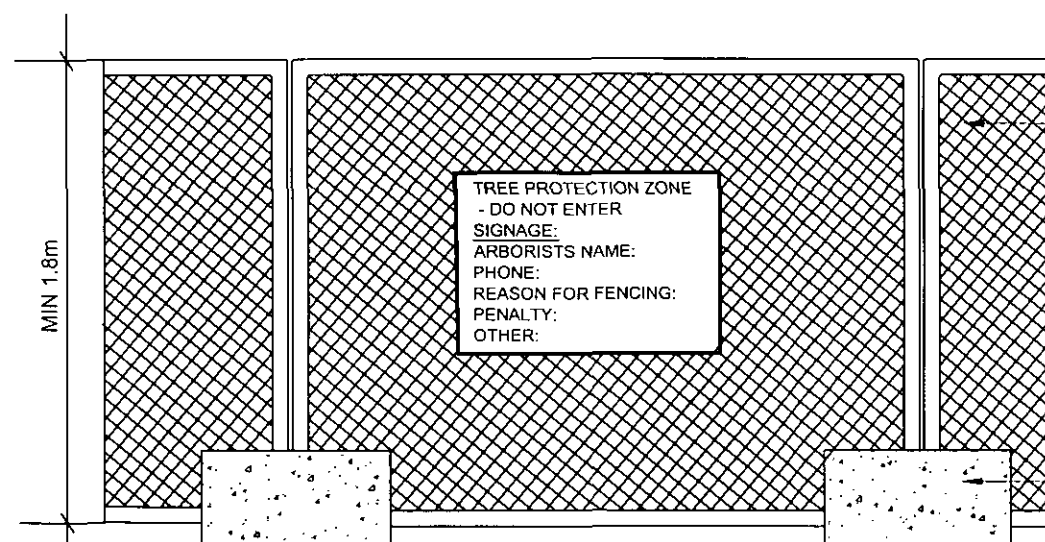
PROVIDED 100mm SLOTTED PIPE AG-LINE TO BASE OF NEW WALLS IN BLUE METAL TRENCH TO DRAIN TO NEW SUMPS / PITS AS SPECIFIED BY HYDRAULIC ENGINEERS. AG-LINE SHALL BE IN APPROVED "SOCK" OR WRAPPED IN FILTER FABRIC TO PREVENT SILTING UP.

ALL FOOTINGS TO ENGINEER'S DETAILS.

NOTE: PROVIDE FENCING AS DETAILED TO ALL TREES PROPOSED TO BE RETAINED ON THE SUBJECT SITE WITHIN 5m OF CONSTRUCTION ZONE, VEHICULAR & MACHINERY MOVEMENT, & DRAINAGE OR SERVICES. FENCING TO BE LOCATED TO THE DRIP LINE OF TREES OR AS INDICATED ON PLANS OR DIRECTED ON-SITE BY ARBORIST. NO STOCKPILING WITHIN FENCE PERIMETERS.



Brick edging to Lawn and Gravel path



GALV CHAIN-WIRE MESH IN 50mm GALV STEEL PIPE FRAMEWORK. MAINTAIN FENCING THROUGHOUT CONSTRUCTION PERIOD.

HEAVY MASONRY FOOTINGS TO SECURE FENCE PANELS OR FIX POSTS INTO GROUND WHERE APPLICABLE.

TREE PROTECTION ZONE
- DO NOT ENTER
SIGNAGE:
ARBORISTS NAME:
PHONE:
REASON FOR FENCING:
PENALTY:
OTHER:

TREE PROTECTION FENCING DETAIL approx 1:10

MASONRY RETAINING WALL DETAIL

approx 1:10

IRRIGATION

The client may choose to have an approved automated drip-irrigation system installed to garden bed areas prior to planting. This system shall be designed and installed by a qualified, licensed irrigation specialist to suit the garden layouts and planting species nominated in the design. Note that endemic and native planting will not require significant watering once established, and that a longer maintenance period should be considered in lieu of irrigation.

Irrigation systems shall be installed in accordance to the latest Sydney Water Irrigation regulations and times, and shall consist of the necessary components to ensure safe, efficient operation. Such components shall include a back-flow prevention valve and moisture sensor to prevent watering during wet periods. The irrigation shall be tested and approved upon completion, and monitored / maintained at 6 monthly periods.

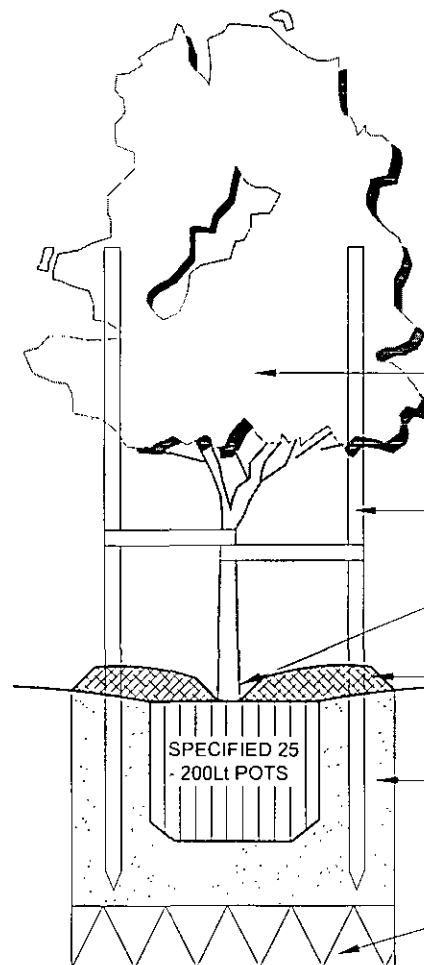
LANDSCAPE MAINTENANCE SCHEDULE

After a landscape compliance certificate has been issued to the Principal Certifying Authority approving the correct installation of landscape construction works and Practical Completion, the maintenance period shall begin.

Consolidation & landscape maintenance shall mean the care and maintenance of the contracted landscape works using acceptable horticultural practices, ensuring that all plants and planting areas experience the optimum growing conditions and are in excellent appearance at all times, as well as the rectification of defects which have resulted from regular use.

The landscape maintenance period shall be a minimum of **3 months (12 weeks) or as required by Council**, or requested by client, from the certificate date, and shall include, but not be limited to the following maintenance works;

- Replacement of dead, damaged, stolen, unhealthy or diseased plants (at the reasonable discretion of client / landscape architect)
- Watering all garden areas as required by hand to ensure plant establishment without loss / irrigation maintenance (monitor soil moisture)
- Clearing litter and other debris from landscaped & lawn areas
- Monitoring for pests and disease & treat as required
- Fertilizing with approved fertilizer at rates applicable to plant species
- Adjusting stakes and ties / removing as tree mature
- Mowing lawn areas, watering, edging and weeding as required (Mowing at period of 18 days during summer & 21 during winter)
- Topping up mulch areas and keeping beds free of weeds
- Making good areas of soil subsistence or erosion & repair problem
- Maintaining all hard and semi permeable areas including topping / raking gravel and decomposed granite areas, cleaning / weeding paving etc)



NOTE: DRIP IRRIGATION MAY BE REQUIRED AS NOMINATED BY CLIENT & DESIGNED BY LICENCED CONTRACTOR. PLANT STOCK SHALL BE SOURCED FROM GROWERS CONFORMING TO NATSPEC. GUIDE 'SPECIFYING TREES' BY ROSS CLARKE. THOROUGHLY WATER IN ALL NEWLY PLANTED STOCK IMMEDIATELY AFTER PLANTING.

QUALITY OF PLANT TO BE APPROVED BY PROJECT MANAGER OR LANDSCAPE ARCHITECT

PROVIDE 3 HARDWOOD STAKES 1.8m X 50mm X 50mm FOR ALL TREES. USE 50mm HESSIAN TIES TO SECURE LOWER TRUNK TO STAKES

PROVIDE SLIGHT DEPRESSION TO ALLOW FOR EFFECTIVE WATERING

75mm FOREST BLEND MULCH OR EQUAL

BACKFILL HOLE WITH CLEAN, TESTED SITE TOP-SOIL BLEND OR IMPORTED SOIL MIX APPROVED BY LANDSCAPE ARCHITECT

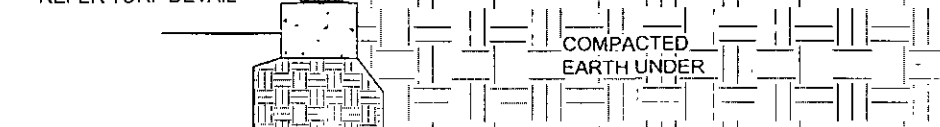
CULTIVATE / BREAK-UP BASE OF HOLE TO PROMOTE ROOT GROWTH

INDIVIDUAL TREE PLANTING DETAIL

approx 1:10

SELECTED BRICK EDGING NOM. BY CLIENT TO MATCH HOUSE BRICK, ON MORTAR BASE TO SUIT

REFER TURF DETAIL



400mm SQ CONCRETE STEPPING STONES SELECTED BY CLIENT
75mm DEPTH OF COMPACTED DECOMPOSED GRANITE IN GAPS BETWEEN STEPPING STONES

STEPPING STONES & BRICK EDGE DETAIL

approx 1:10

SELECTED BRICK EDGING NOM. BY CLIENT TO MATCH HOUSE BRICK, ON MORTAR BASE TO SUIT

"Sir WALTER" BUFFALO

LAY TURF ON MINIMUM 75mm 80 : 20 TOP DRESS SOIL MIX SAND : PULVERIZED MANURE

CULTIVATE TO 100mm

100mm AG line in blue-metal trench

100mm

100mm

100mm

100mm

100mm

100mm

100mm

100mm

100mm

100mm

100mm

100mm

100mm

100mm

100mm

SOIL CONDITIONER :
ADD 100mm OF ORGANIC MATTER EQUAL TO "BOTANY HUMUS MIX" AS SUPPLIED BY ANL. CULTIVATE INTO THE TOP 300mm OF GARDEN BED

MIN 75mm OF LEAF LITTER MULCH

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

MIN 100mm

NOTE: TURF AREAS TO FINISH FLUSH WITH SURROUNDS. ROLL AND WATER IMMEDIATELY AFTER LAYING.

TYPICAL TURFING & GARDEN AREA PREPARATION WITH BRICK EDGE

approx 1:10

Conzept
Landscape Architects

PO Box 416, CREMORNE 2090
79 Atchison Street, CROWS NEST, NSW 2065
Phone: 9438 1744
www.conzept.net.au Fax: 9438 1766
enquiries@conzept.net.au Mob: 0413 861 351

Details Plan
PROPOSED RESIDENCE
28 SOLDIERS AVE,
FRESHWATER

Client: Mr Ray TURNER
Council: WARRINGAH
Scale: 1:200 @ A3
Date: March 2010
Drawing # LPDA 10 - 246 / 2

**TREBLE
STUDIOS**

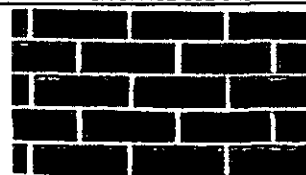
MATERIALS AND FINISHES SELECTION

Tel. 0414 418 695
P.O.Box 134 – Broadway 2007 NSW

Date	17 TH MARCH 2010	Ref: 001TUR
Client	MR RAY TURNER	
Building Address	LOT 18, NO 28 SOLDIERS AVENUE HARBORD NSW	

BRICKS - MANUFACTURER	[To Side and Rear Elevations]
RANGE - PGH - MODERN LIVING	
COLOUR - SMOKE	
Features - [Exposure Grade]	

FOR OFFICE USE ONLY



Are exposure grade bricks/mortar required?

YES

FOR OFFICE USE ONLY

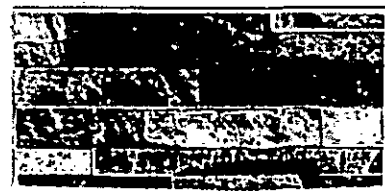
MORTAR COLOUR	Off White
FINISH	Ironed Joints

N/A

PAINTED FEATURE -	[To Front FACADE]
FINISH -	Taubmans Moroka Finish
COLOUR -	Taubmans Taupe Stone



FEATURE STONE CLADDING TO BRICK PIER
PRODUCT - LEISURE STONE [Stack Stone]
FINISH - ALPINE



PANELING -	To FC CLADDING front and side of skillion roof
FINISH -	Exterior Semi Gloss
COLOUR -	Colour match to COLORBOND SURFMIST

ROOF - COLORBOND
RANGE - STANDARD
COLOUR - DUNE

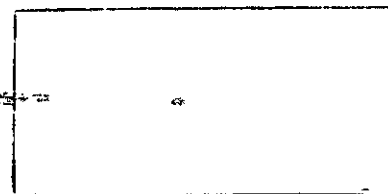
PROFILE - CUSTOM ORB

THIS PLAN IS TO BE READ
IN CONJUNCTION WITH

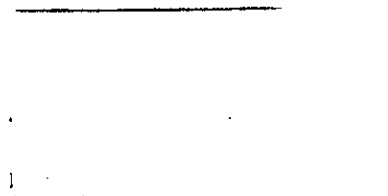
DA-2010 / 0738

WARRINGAH COUNCIL

GARAGE DOOR TYPE - GLIDERAL PANEL-GLIDE	
COLOUR - SURFMIST	
PROFILE - THE HAMPTON	

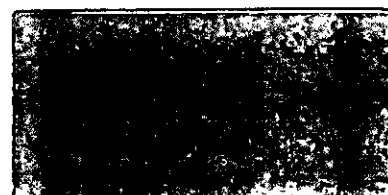


WINDOW FRAMES - Bradnam's	
COLOUR - Pearl White Gloss	

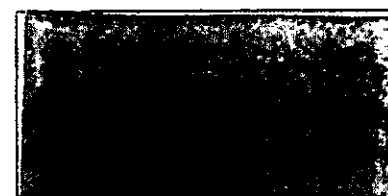


FOR OFFICE USE ONLY

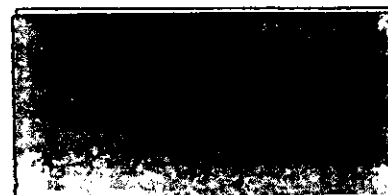
GUTTERING - COLORBOND	
COLOUR - DUNE	



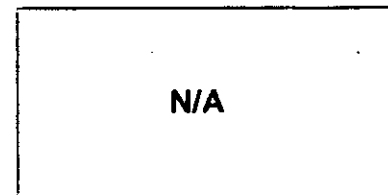
FASCIA - COLORBOND	
COLOUR - DUNE	



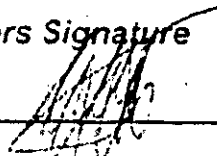
DOWN PIPES AND WATER TANK	
COLOUR - DUNE	



DRIVEWAYS	TYPE -
	COLOUR -



Owners Signature

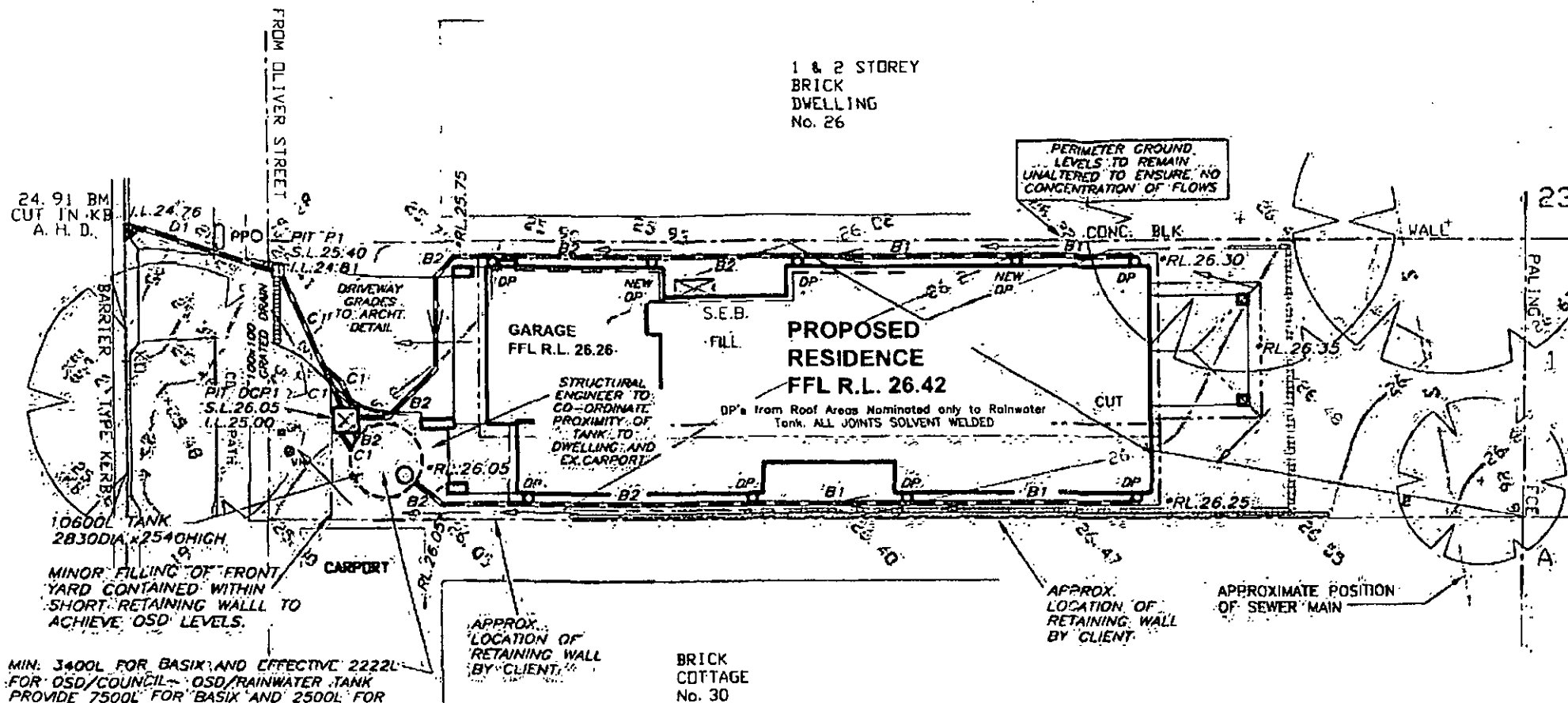

 JAMES TROBLE
 PER MR. DAY FURDER

Date 17/3/2010

COUNCIL STAMP

THIS PLAN IS TO BE READ IN CONJUNCTION WITH DA 2010 / 0738 WARRINGAH COUNCIL

SOLDIERS AVENUE



GROUND FLOOR LAYOUT

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

CALCULATIONS NOTES

Total Site Area Assessed	452.1 sqm
Design Method	Isax/Drains
Area to be routed through OSD	245.55 sqm
Pre Impervious Area	166 sqm
Post Impervious Area	281.01 sqm
Percentage of Impervious Area Routed Through OSD	87.4 %
Percentage of Impervious Area Bypassing OSD	12.6 %
Pre Development PSD's	
5yr ARI Discharge	14 L/s
100yr ARI Discharge	27 L/s
Post Development Discharge	
5yr ARI Discharge	14 L/s
100yr ARI Discharge	24 L/s
Orifice Diameter	80 mm
Volume of storage required	4.44 cu.m
50% volume of storage rebated for Raintank	2.222 cu.m

PIPE SCHEDULE

REFER TO NOTES FOR PIPE CLASS

TAG	PIPE DIA.	MIN. GRADE
B1	100	CHARGED
B2	100	2%
C1	150	2%
D1	150x100 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

LEGEND

RL 0.00 NEW REDUCED LEVEL (NEW FINISHED GROUND LEVEL)	EXISTING LEVEL
SL 0.00 SURFACE LEVEL	INVERT LEVEL
TL 0.00 TOP OF WALL LEVEL	C.F.L. 0.00 GARAGE FLOOR LEVEL
C.F.L. 0.00 FINISHED FLOOR LEVEL	A.B.C. etc. SEE PIPE SCHEDULE
LY PIPE LABEL	PIT P1 SURFACE INLET PIT
PIT QP1 OVERLAND FLOW PIT	90mm AG. LINE
ODP DOWNPIPE-SIZE	REFER TO NOTES FOR DP SIZE
G.P. GULLY PIT	G.P. GARDEN GULLY PIT
OR/W OVERFLOW-200x100	R.W.H. RAIN WATER HEAD
DP WITH SPREADER	B.C. BALCONY GULLY PIT
C.E. CLEANING EYE	G.F. GROUND FALL
))) 100 HIGH EARTH MOUNDING	

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 600 U.N.O., PITS EXCEEDING 1200 DEEP TO BE 900 x 900 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 BENCHED 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 IS 30SQM. WITH A QUAD 115 HI-FRONT GUTTER U.N.O.
- 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 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 TO BE IN ACCORDANCE WITH AS3500.3.2.2.7.
- ALL VALVES TO BE IN ACCORDANCE WITH 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 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.



REVISIONS

THE ON-SITE STORMWATER DETENTION SYSTEM AND/OR DRAINAGE WORKS HAVE BEEN ASSESSED BY THE DEVELOPMENT ENGINEERING SECTION AND ARE:

- ☒ SATISFACTORY ☐ UNSATISFACTORY
- ☐ SATISFACTORY SUBJECT TO AMENDMENTS/ADDITIONS SHOWN IN RED

DEVELOPMENT ENGINEER DATE 9/6/2010

REFER TO CONDITIONS

ISSUE	PRINTS	ISSUED TO	DATE
1	EMAIL	BUILDER/CLIENT	1-4-10

SCALE(A3) 1:200, 100 U.N.O.
SCALE BAR - 1m INTERVALS
DATE APRIL 2010
DRAWN M.I.
DESIGNED M.I.
APPROVED



IBRAHIM STORMWATER CONSULTANTS
CONSULTING CIVIL ENGINEERS

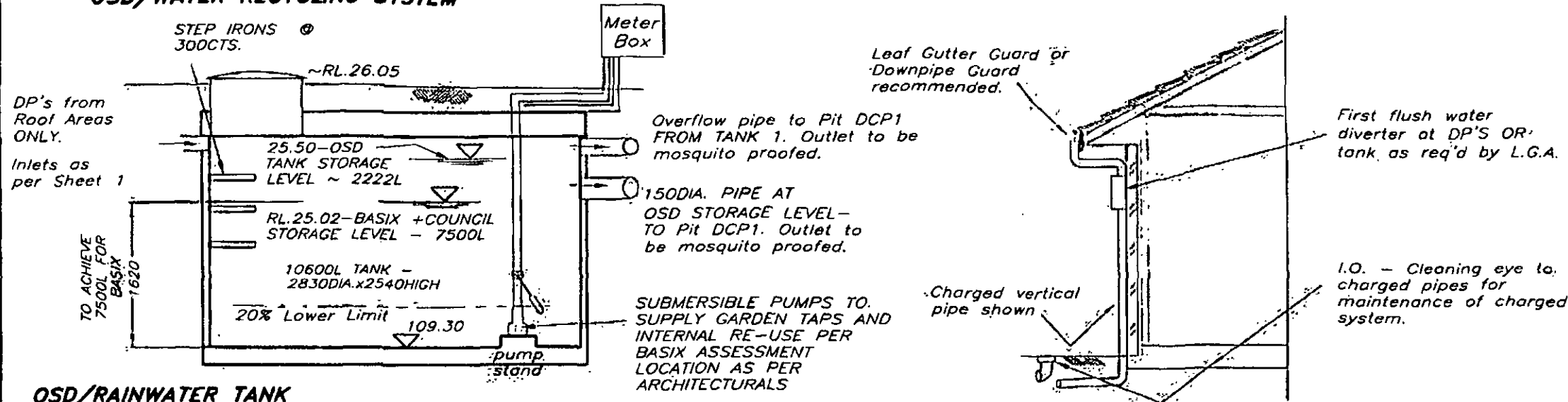
P.O. BOX 400 CHERRYBROOK NSW 2126
TELEPHONE: (02) 9980 5515 FAX: (02) 9980 8114
www.stormwater.net.au

PROJECT
PROPOSED RESIDENCE
AT 28 SOLDIERS AVENUE
HARBORD
FOR MR. TURNER

THIS DRAWING
STORMWATER
LAYOUT SH.1
BUILDER
MASTERTON HOMES

JOB NUMBER
M2515-37142
SHEET No.
1 of 2
REVISION

H.C.T. REINFORCED CONCRETE OSD/WATER RECYCLING SYSTEM



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 lid of DCP Size: 110 mm x 80mm

OSD/RAINWATER TANK

TANK DETAILS SHOWN ARE A SUGGESTED CONFIGURATION ONLY. ANY MODIFICATIONS TO TANK VOLUME OR INLET AND OUTLET LEVELS MUST BE APPROVED BY ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION. TANK SHAPE, & DEVICES SHOWN ARE DIAGRAMMATIC ONLY. MINIMUM OF 450 CLEARANCE (UNLESS L.G.A. REQUIRES LARGER SETBACK) TO SIDE BOUNDARIES MUST BE MAINTAINED. CLIENT IS RESPONSIBLE TO ENSURE COMPLIANCE WITH THIS IN THE INSTALLED STATE.

Stormwater lines from Roof Areas ONLY to rainwater tank.

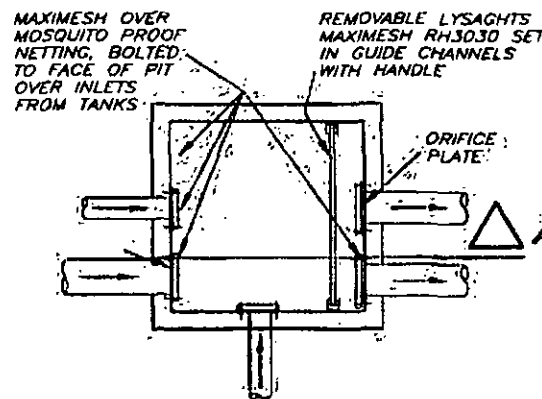
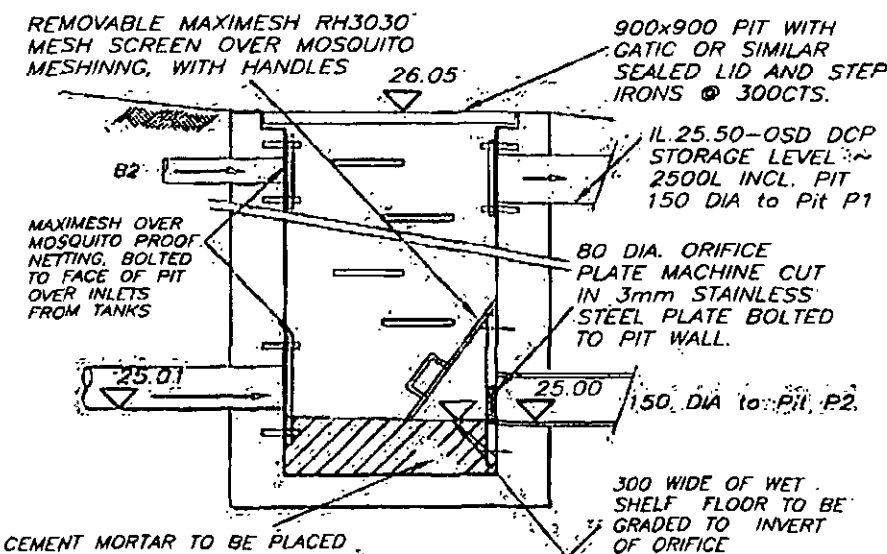
All joints to be solvent welded. All exposed pipework to be painted to withstand external elements.

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 AND DCP1 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.



PIT DCP1

NOT TO SCALE

THE ON-SITE STORMWATER DETENTION SYSTEM AND/OR DRAINAGE WORKS HAVE BEEN ASSESSED BY THE DEVELOPMENT ENGINEERING SECTION AND ARE:

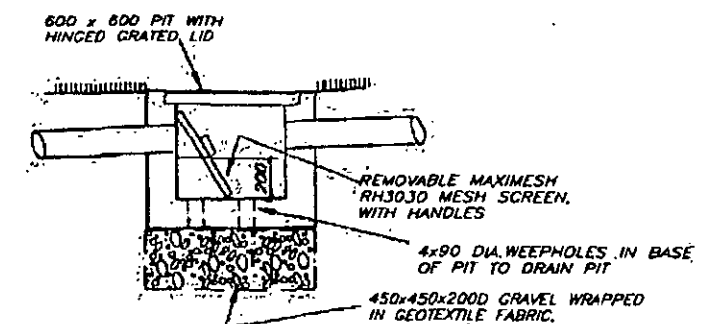
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DEVELOPMENT ENGINEER DATE 9/6/2010

REFER TO CONDITIONS

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.

SILT ARRESTOR PIT - P1



PIT DCP1 - SECTION A

THIS DRAWING IS TO BE USED FOR INFORMATION ONLY. IT IS NOT TO BE USED FOR CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE 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.

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