



**LOT 96, H/No.12
PHILLIP AVE,
SEAFORTH**

CUSTOM DESIGN, 'LUXE + PLATINUM' INCLUSIONS
MAJESTIC FACADE
DOUBLE GARAGE

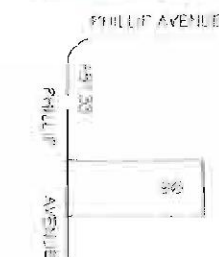
DRAWN BY: M.P.	DATE DRAWN: 07.09.10	CHECKED BY: XX	APPROVED FOR CONSTRUCTION:
COUNCIL AREA: MANLY		SCALE: N/A	
JOB NO: J/001296		DRWG No: 1 / 18	ISSUE: REV A

This is the plan/spec. referred to in
Fitzgerald Certifiers Certificate
Cert. No: 2010/1621 9/9/10
Paul Fitzgerald Accreditation No BPB 0119

DRAWING TITLE
COVER SHEET

LOCATION PLAN

UBD REF: 107, 07



O/H ELEC. TO CONSUMER POLE
THEN UNDERGROUND LINES TO METER BOX
LOCATED ON SIDE WALL OF GARAGE

STORMWATER TO RAINWATER TANK WITH
OVERFLOW TO PITS THEN TO KERB OUTLET
(REFER HYDRAULIC DETAIL)

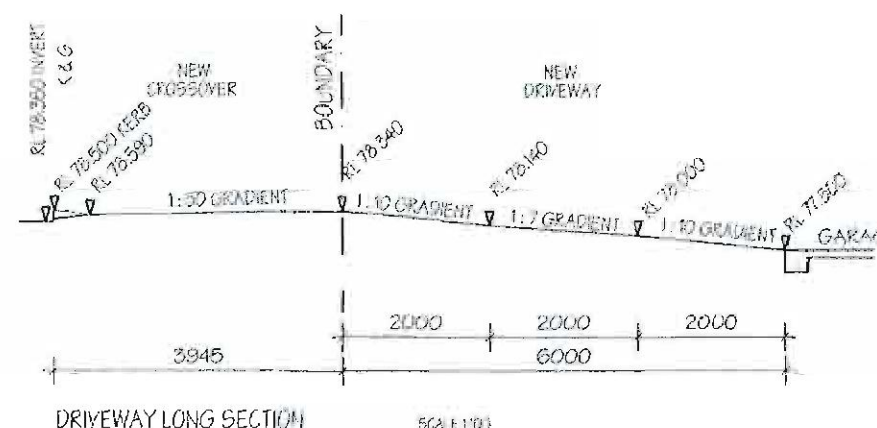
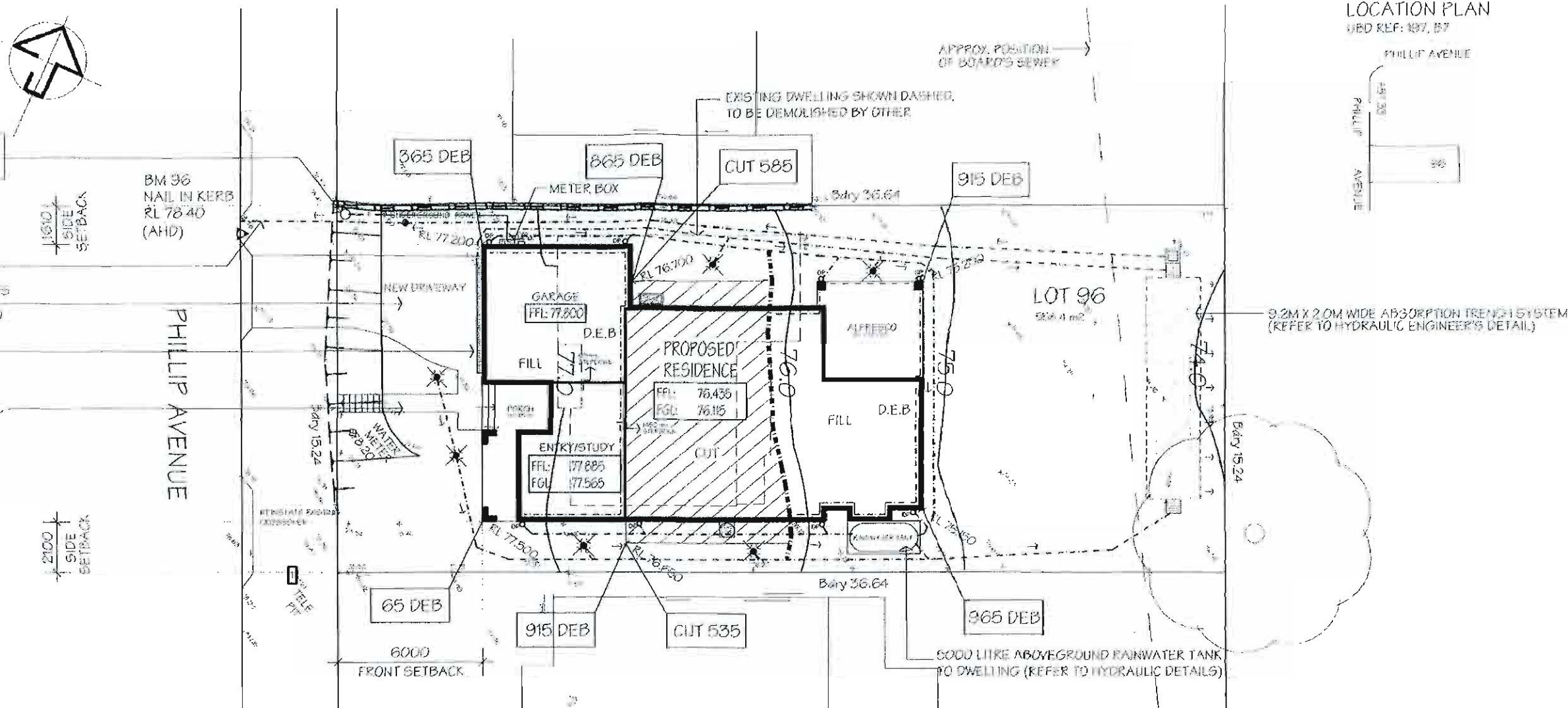
NEW COLOURED CONCRETE DRIVEWAY, PATHS
& PLAIN CONCRETE CROSSOVER ALL WITH
(BROOM FINISHED), TO BE CONSTRUCTED TO
COUNCIL SPECIFICATION (BY BUILDER)

GRADED DRAIN (BY BUILDER)

NEW PLAIN CONCRETE PATH WITH (BROOM
FINISHED), TO BE CONSTRUCTED TO COUNCIL
SPECIFICATION (BY BUILDER)

REFER TO SHEET No.16/16, FOR
SILTATION & EROSION CONTROL

NOTE: RETAINING WALLS AS
REQUIRED (BY OWNER)



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NOTES:

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- * DO NOT SCALE - USE WRITTEN DIMENSIONS

RAWSON HOMES

UNIT 34/11-21 UNDERWOOD ROAD
HOMEBUSH NSW 2140
TELEPHONE 02 9764 6442
FAX 02 9764 6992
Builder's Licence No.334930



CLIENT:

MR MICHAEL MORAN & MS BERNADETTE FOY

SITE ADDRESS:

LOT 96, H/No.12
PHILLIP AVE,
SEAFORTH NSW

HOUSE TYPE:

MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: LUXE + PLATINUM

DRAWING TITLE:

SITE PLAN

DRAWN BY:

M.P.

DATE DRAWN:

07.09.10

CHECKED BY:

XX

APPROVED FOR CONSTRUCTION:

COUNCIL AREA:

MANLY

SCALE:

1:200

JOB No:

J/001296

DRWG No.:

2 / 18

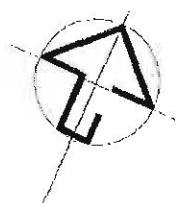
ISSUE:

REV A

4

AC OUFLET & AIR
DIRECTION

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- WIND CLASSIFICATION- N2
- WINDOW OPENING SIZES TO BE CHECKED BEFORE FRAMES ARE CONSTRUCTED
- FRAMES AND TRUSSES TO SATISFY AS 1684-9AA TIMBER FRAMING CODE

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UNIT 34/11-21 UNDERWOOD ROAD
HOMEBUSH NSW 2140
TELEPHONE 02 9764 6442
FAX 02 9764 6992
Builder's Licence No. 33493C



SITE ADDRESS:
LOT 96, H/No.12
PHILLIP AVE,
SEAFORTH NSW

HOUSETYPE:	
MODEL:	CUSTOM DESIGN
FACADE:	MAJESTIC
TYPE:	4 BEDROOM
SPECIFICATION:	'LUXE + PLATINUM'

DRAWING TITLE:
GROUND FLOOR PLAN

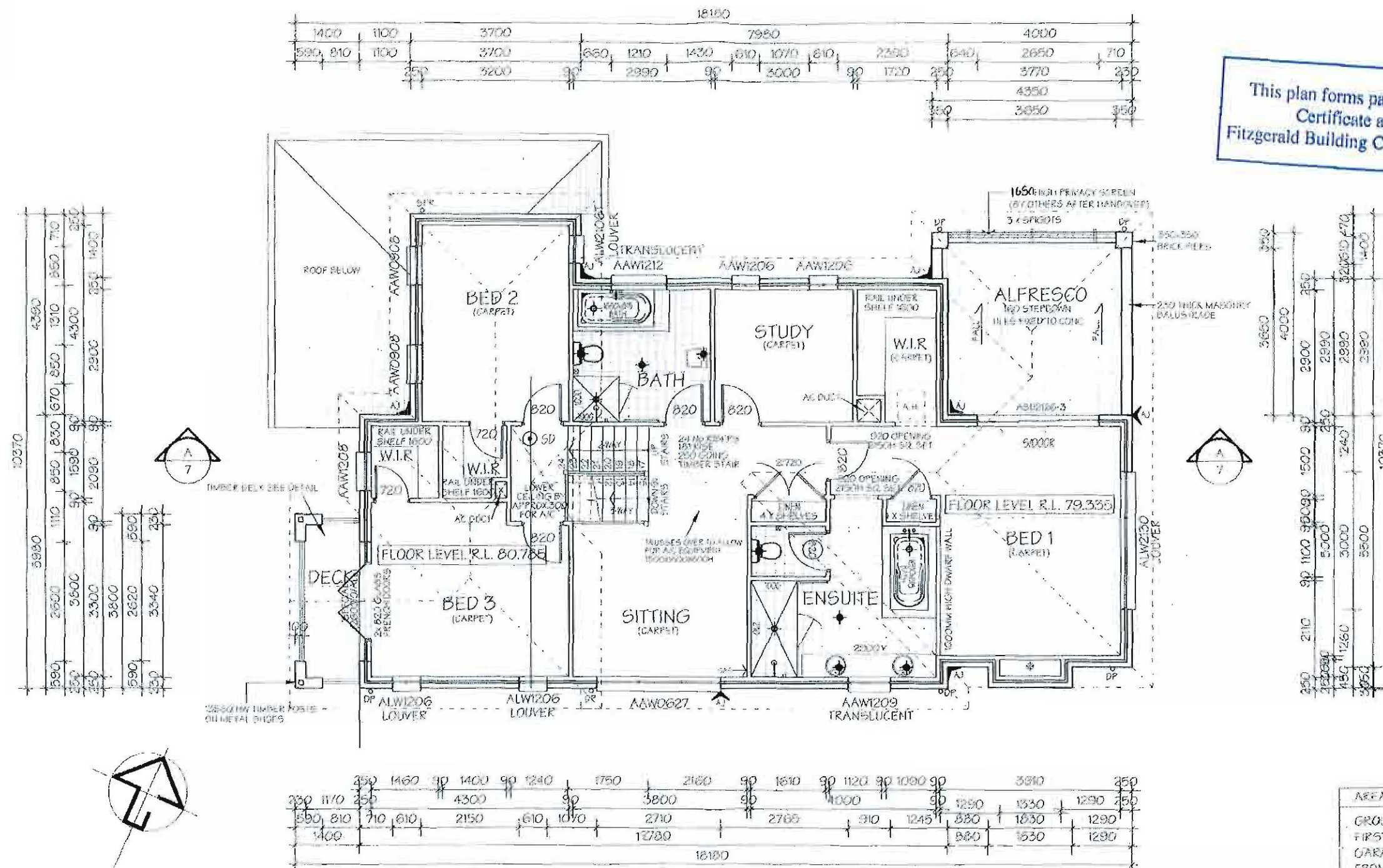
DRAWN BY: M.P.	DATE DRAWN: 07.09.10	CHECKED BY: XX	APPROVED FOR CONSTRUCTION:
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COUNCIL AREA:	SCALE:
MANLY	1:100

JOB No	DRWG No	ISSUE:
J/001296	3 / 18	REV A

(722) LIFT OFF HINGE
(REFER DETAIL)
1/4" = AC OUTLET & AIR
DIRECTION

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AREA:	
GROUND FLOOR LIVING	: 120.38m²
FIRST FLOOR LIVING	: 139.35m²
GARAGE	: 34.97m²
FRONT PORCH	: 10.53m²
ALFRESCO	: 16.35m²
FRONT DECK	: 4.46m²
REAR BALCONY	: 16.35m²
TOTAL	: 342.39m²

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SEAFORTH NSW

HOUSE TYPE:

MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: 'LUXE + PLATINUM'

DRAWING TITLE:

FIRST FLOOR PLAN

DRAWN BY:

M.P.

DATE DRAWN:

07.09.10

CHECKED BY:

XX

APPROVED FOR CONSTRUCTION:

COUNCIL AREA:

MANLY

SCALE:

1:100

JOB No:

J/001296

DRWG No:

4 / 18

ISSUE:

REV A

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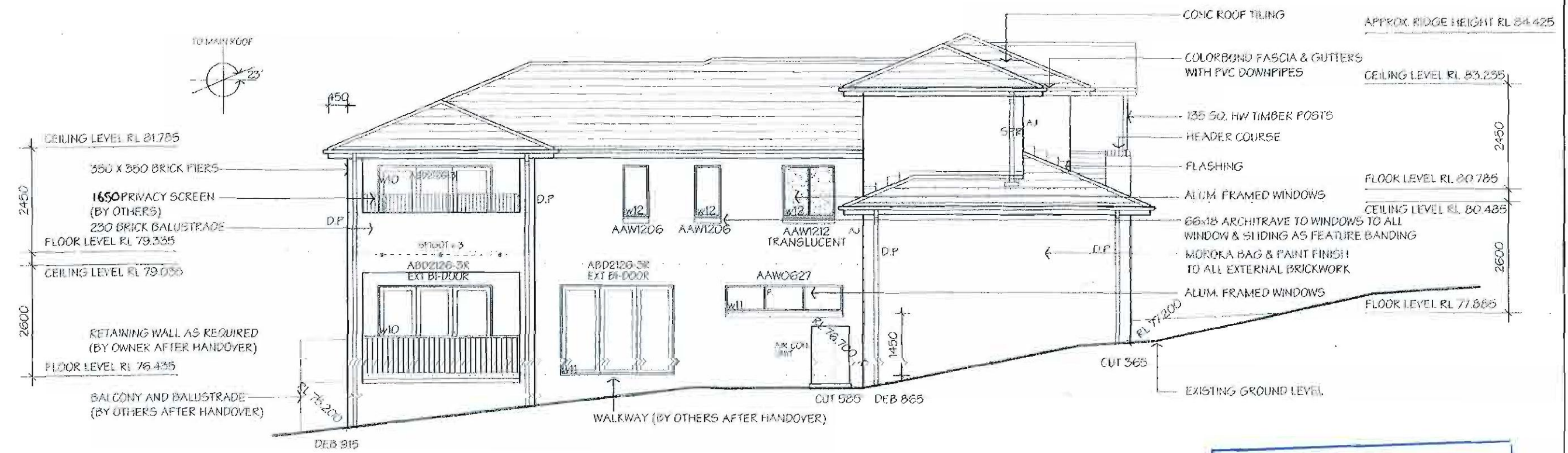
- NOTES:
- WINDOWS TO BE POSITIONED AT HEAD HEIGHT : 2150 OR DIRECTLY UNDER EAVES WHERE APPLICABLE
 - FIRST FLOOR WINDOWS TO BE AT HEAD HEIGHT: 2000 ABOVE FFL ON
 - CLIENTS INSTRUCTION GARAGE DOOR HEAD HEIGHT : 2230

- CONC ROOF TILING
- HARDIES PRIMELINE BOARD PAINT FINISH
- FIRE PLACE DUCT EXHAUST
- COLORBOND FASCIA & GUTTERS WITH PVC DOWNPIPES
- ALUM. FRAMED WINDOWS
- 66x18 ARCHITRAVE TO WINDOWS TO ALL WINDOW & SLIDING AS FEATURE BANDING
- MOROKA BAG & PAINT FINISH TO ALL EXTERNAL BRICKWORK
- ALUM. FRAMED WINDOWS & DOORS
- RETAINING WALL AS REQUIRED (BY OWNER AFTER HANDOVER)
- BALCONY AND BALUSTRADE (BY OTHERS AFTER HANDOVER)



CEILING LEVEL RL 81.785
2450
FLOOR LEVEL RL 79.335
CEILING LEVEL RL 79.035
2600
FLOOR LEVEL RL 76.435

EAST ELEVATION



CEILING LEVEL RL 81.785
2450
350 X 350 BRICK PIERS
1650 PRIVACY SCREEN (BY OTHERS)
230 BRICK BALUSTRADE
FLOOR LEVEL RL 79.335
CEILING LEVEL RL 79.035
2600
RETAINING WALL AS REQUIRED (BY OWNER AFTER HANDOVER)
FLOOR LEVEL RL 76.435
BALCONY AND BALUSTRADE (BY OTHERS AFTER HANDOVER)

CONC ROOF TILING
APPROX. RIDGE HEIGHT RL 84.425
COLORBOND FASCIA & GUTTERS WITH PVC DOWNPIPES
CEILING LEVEL RL 83.235
135 SQ. HW TIMBER POSTS
2450
HEADER COURSE
FLOOR LEVEL RL 80.785
FLASHING
CEILING LEVEL RL 80.435
ALUM. FRAMED WINDOWS
66x18 ARCHITRAVE TO WINDOWS TO ALL WINDOW & SLIDING AS FEATURE BANDING
2600
MOROKA BAG & PAINT FINISH TO ALL EXTERNAL BRICKWORK
FLOOR LEVEL RL 77.865
ALUM. FRAMED WINDOWS
EXISTING GROUND LEVEL

NORTH ELEVATION

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SEAFORTH NSW

HOUSE TYPE:
MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: 'LUXE + PLATINUM'

DRAWING TITLE:
REAR & SIDE ELEVATIONS

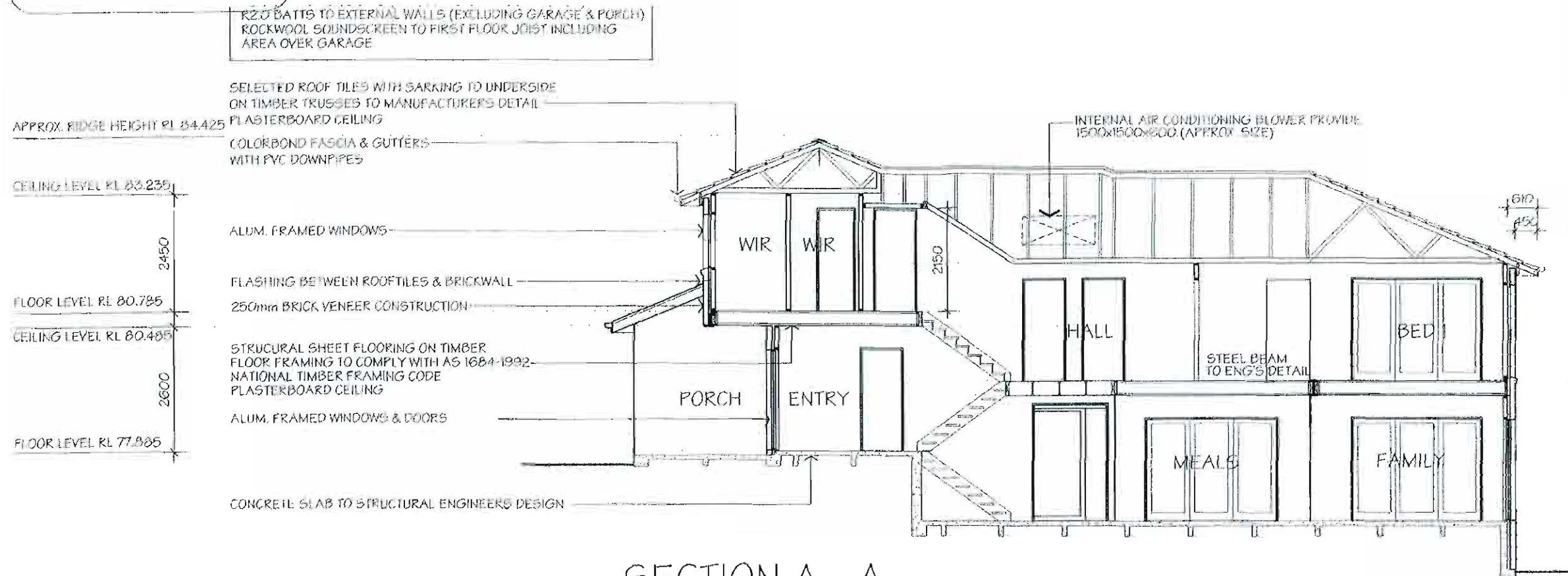
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M.P.	07.09.10	XX	
COUNCIL AREA		SCALE:	
MANLY		1:100	
JOB No:		DWG No:	ISSUE
J/001296		6 / 18	REV A

NOTE:

- SECTION IS DIAGRAMATIC ONLY

NOTES:

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- CLIENTS INSTRUCTION GARAGE DOOR HEAD HEIGHT: 2250



SECTION A - A

BUSHFIRE BAL 12.5

BUSHFIRE REQUIREMENTS

- CONSTRUCTION TO COMPLY WITH AS3959-2009.
- ALUMINIUM MESH FLYSCREENS WITH A MAX. APERTURE SIZE OF 1.8mm TO ALL OPENING WINDOWS, HINGED DOORS & SLIDING DOORS.
- WEEPA SPARK ARRESTORS TO WEEP HOLES
- SARKING TO UNDERSIDE OF METAL ROOF
- METAL GUTTER AND VALLEY GUARD
- WEATHER STRIPS TO EXTERNAL DOORS
- ALL GLAZING TO SLIDING DOORS OR EXTERNAL HINGED DOORS TO BE A MIN 5MM TOUGHENED GLASS
- ALL TIMBER DOOR FRAME SHALL BE MADE FROM BUSHFIRE-RESISTING TIMBER
- GARAGE DOORS SHALL BE FITTED WITH SUITABLE WEATHER STRIPS, DRAUGHT EXCLUDERS/SEALS WITH A MAXIMUM GAP NO GREATER THAN 3 MM

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DRAWING TITLE:
SECTION

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JOB No: J/001296		DRWS NO: 7/18	ISSUE: REV A

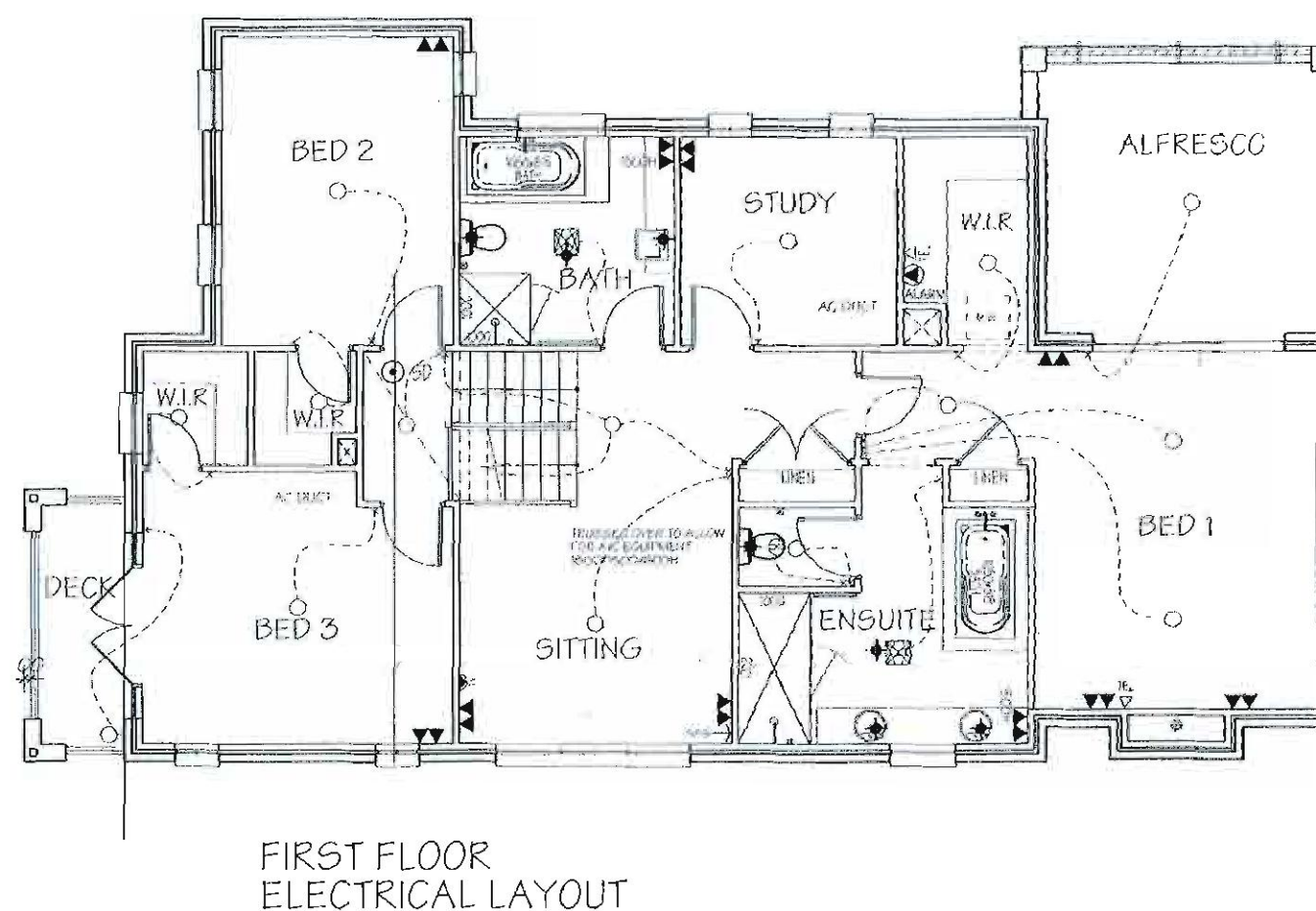
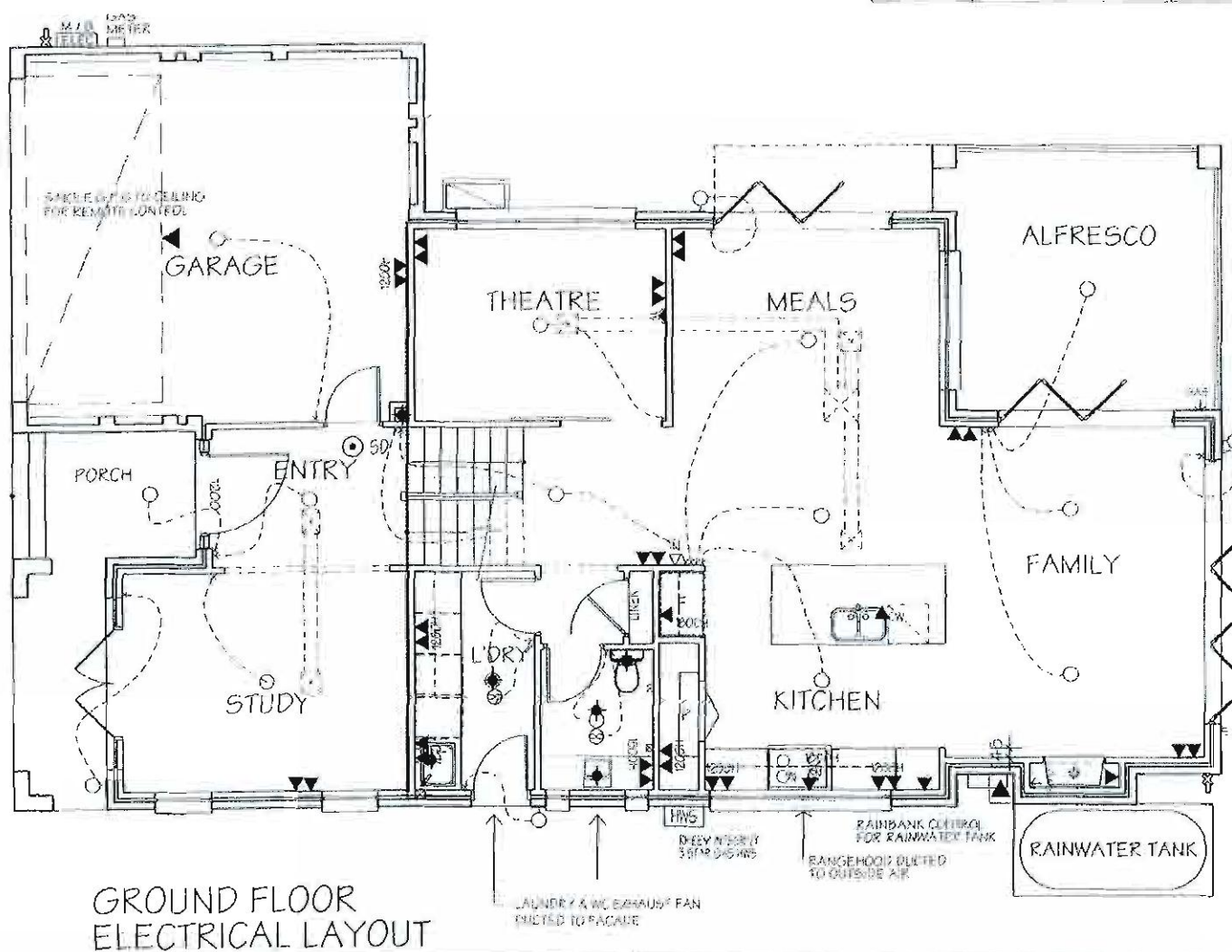
NOTE:

- GPO's IN WET AREAS TO BE
POSITIONED 1500mm HIGH

ELECTRICAL LEGEND

	FLUORESCENT TUBE		GAS POINT		EXHAUST FAN
	CEILING LIGHT POINT		TELEVISION POINT		TELEPHONE POINT
	WALL LIGHT POINT		PERMANENT POWER		DENOTES HEIGHT OF POINT ABOVE FLOOR LEVEL
	DOWN LIGHT POINT		LIGHT SWITCH		EXTERNAL SENSOR LIGHT
	SINGLE GPO 300 HIGH UNO		SMOKE DETECTOR		ADJUSTABLE DOWNLIGHT
	DOUBLE GPO 300 HIGH UNO		I/L LIGHT/HEATER/FAN		
	EXTERIOR SINGLE GPO		AC OUTLET & AIR DIRECTION		

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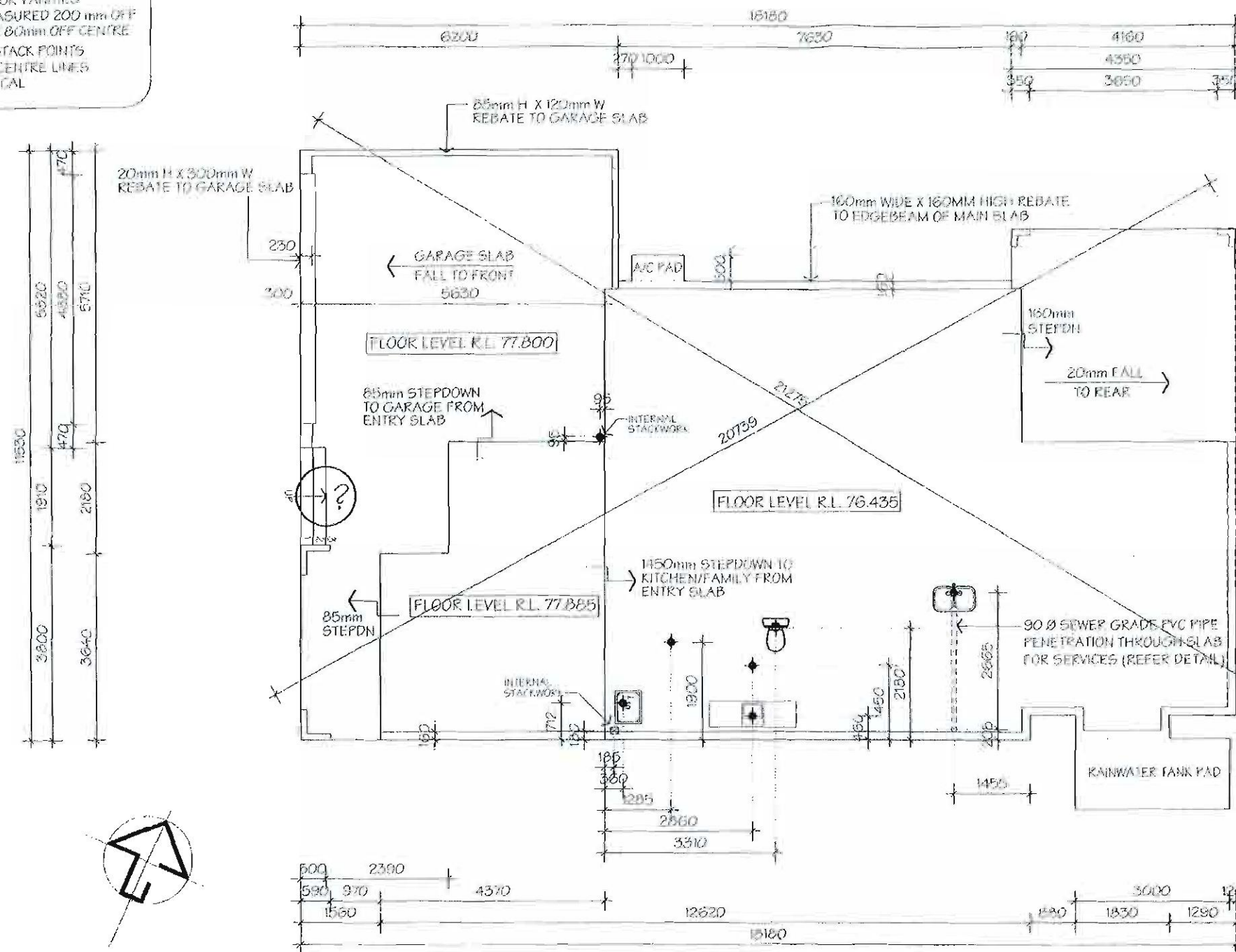
SITE ADDRESS:
LOT 96, H/No.12
PHILLIP AVE,
SEAFORTH NSW

HOUSETYPE:
MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: LUXE + PLATINUM
DRAWING TITLE:
ELECTRICAL PLAN

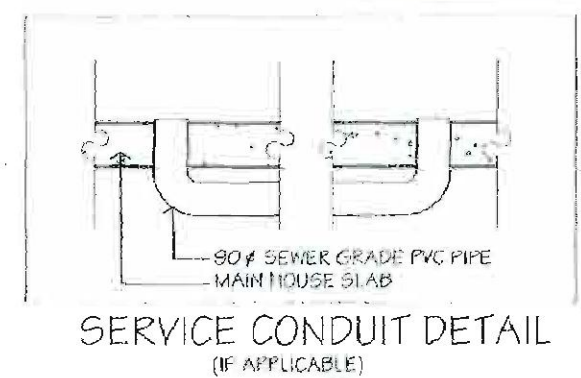
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COUNCIL AREA: MANLY		SCALE: 1:100	
JOB No: J/001296	DRWG No: 8/18	ISSUE: REV A	

NOTE:

- DRAINAGE POINTS FOR VANITIES AND SINKS ARE MEASURED 200 mm OFF INTERNAL WALL AND 80mm OFF CENTRE
- FLOORWASTE AND STACK POINTS ARE MEASURED TO CENTRE LINES HORIZONTAL & VERTICAL



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SERVICE CONDUIT DETAIL
(IF APPLICABLE)

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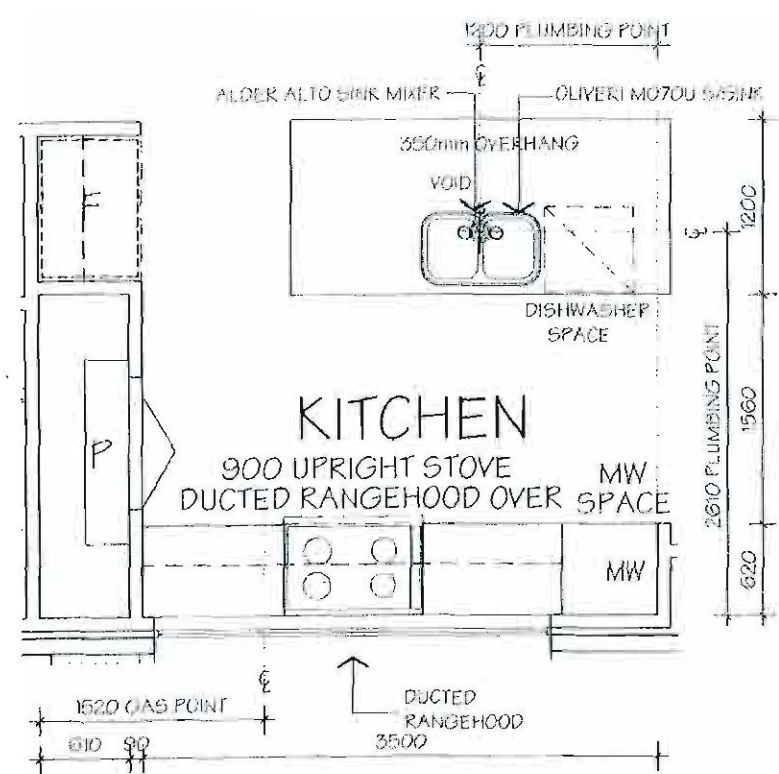


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PHILLP AVE,
SEAFORTH NSW

HOUSETYPE:
MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: 'LUXE + PLATINUM'
DRAWING TITLE:
SLAB LAYOUT

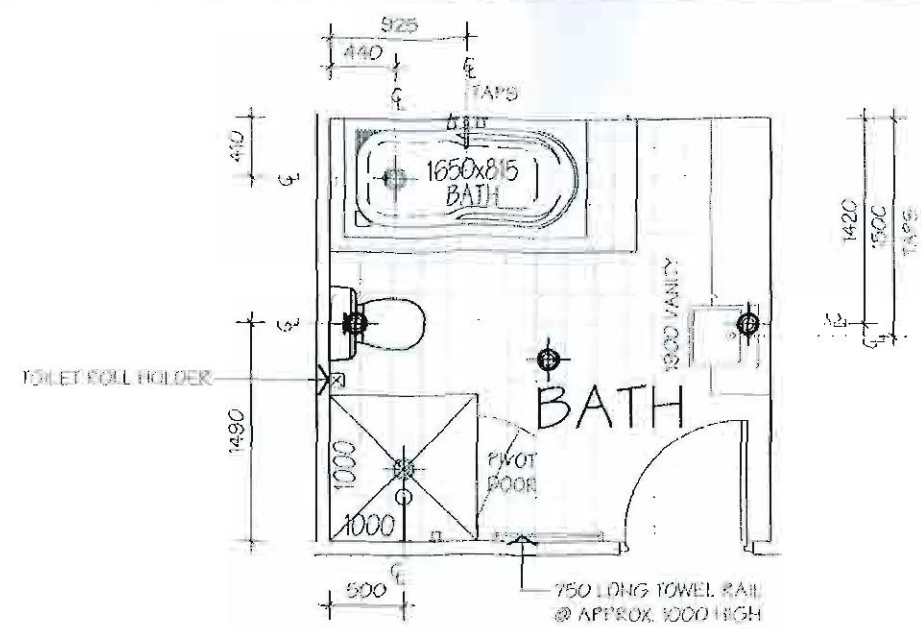
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COUNCIL AREA: MANLY		SCALE: 1:100	
JOB No: J/001296		DATE OF ISSUE: 9/18	ISSUE: REV A

NOTE:
* FLOOR TILING STANDARD TO WET AREAS
* 90MM COVE CORNICE TO BATH & ENSUITE
* NOMINATED HEIGHTS FOR FIXTURES
ARE AN APPROXIMATION ONLY.



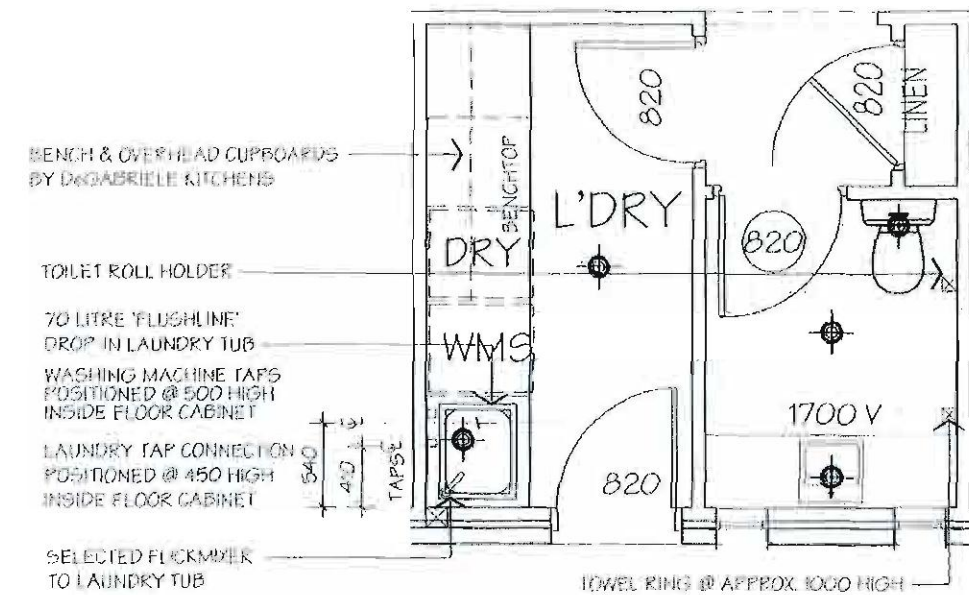
KITCHEN

* REFER TO DeGABRIELE KITCHEN PLANS FOR FULL DETAIL & SPECIFICATION.
* RAW CRAFTWOOD BULKHEADS (SQUARE SET TO CEILING) SUPPLIED & INSTALLED BY DeGABRIELE KITCHENS WITH PAINT FINISH BY BURDER.
* PROVIDE GLASS SPLASHBACK TO 700 HIGH ABOVE KITCHEN BENCH.
* PLUMBING CENTRE LINES DRAWN IN ACCORDANCE WITH DeGABRIELE DETAILS.
NOTE: FLOORING TO BE LAID PRIOR TO INSTALLATION OF CABINETS.



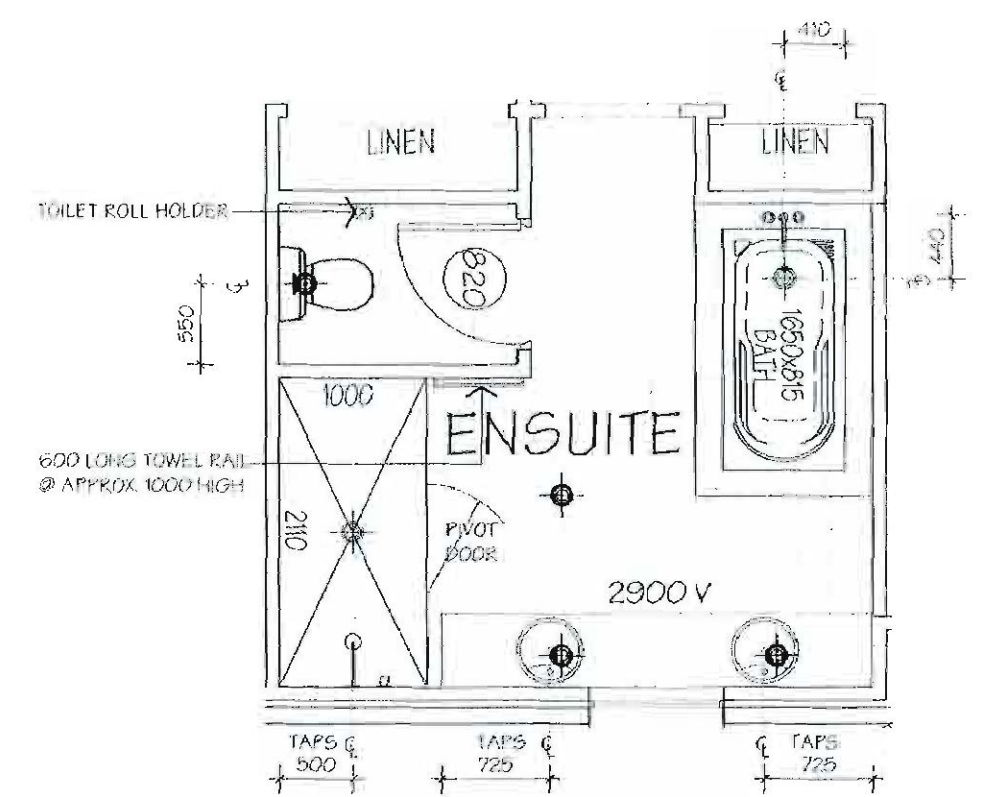
BATHROOM

* PROVIDE WALL TILES TO SHOWER TO BE FULL HEIGHT & SKIRTING TILE TO PERIMETER WALLS.
* PROVIDE TILED SPLASHBACK ABOVE VANITY
* SEMI FRAMELESS SHOWER SCREEN WITH PIVOT DOOR @ 1900 HIGH.
* 1900 x 900 HIGH FRAMELESS POLISHED EDGE MIRROR OVER VANITY



LAUNDRY/WC

* PROVIDE SKIRTING TILE TO PERIMETER WALLS
* TILED SPLASHBACK OVER LAUNDRY TUB & BENCH @ 300 HIGH
* 1700 x 900 HIGH FRAMELESS POLISHED EDGE MIRROR OVER VANITY



ENSUITE

* PROVIDE WALL TILES TO SHOWER TO BE FULL HEIGHT SKIRTING TILE TO PERIMETER WALLS.
* PROVIDE TILED SPLASHBACK ABOVE VANITY
* FRAMELESS SHOWER SCREEN WITH PIVOT DOOR @ 1900 HIGH.
* 2 X 77 x 900 HIGH FRAMELESS POLISHED EDGE MIRROR OVER VANITY.

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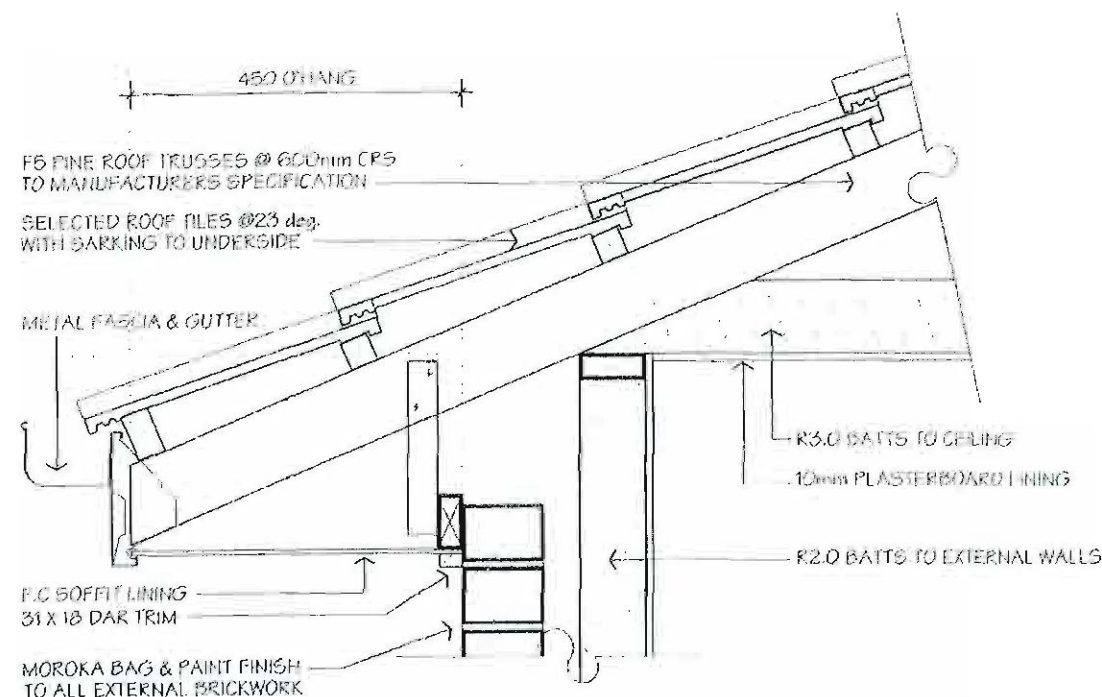
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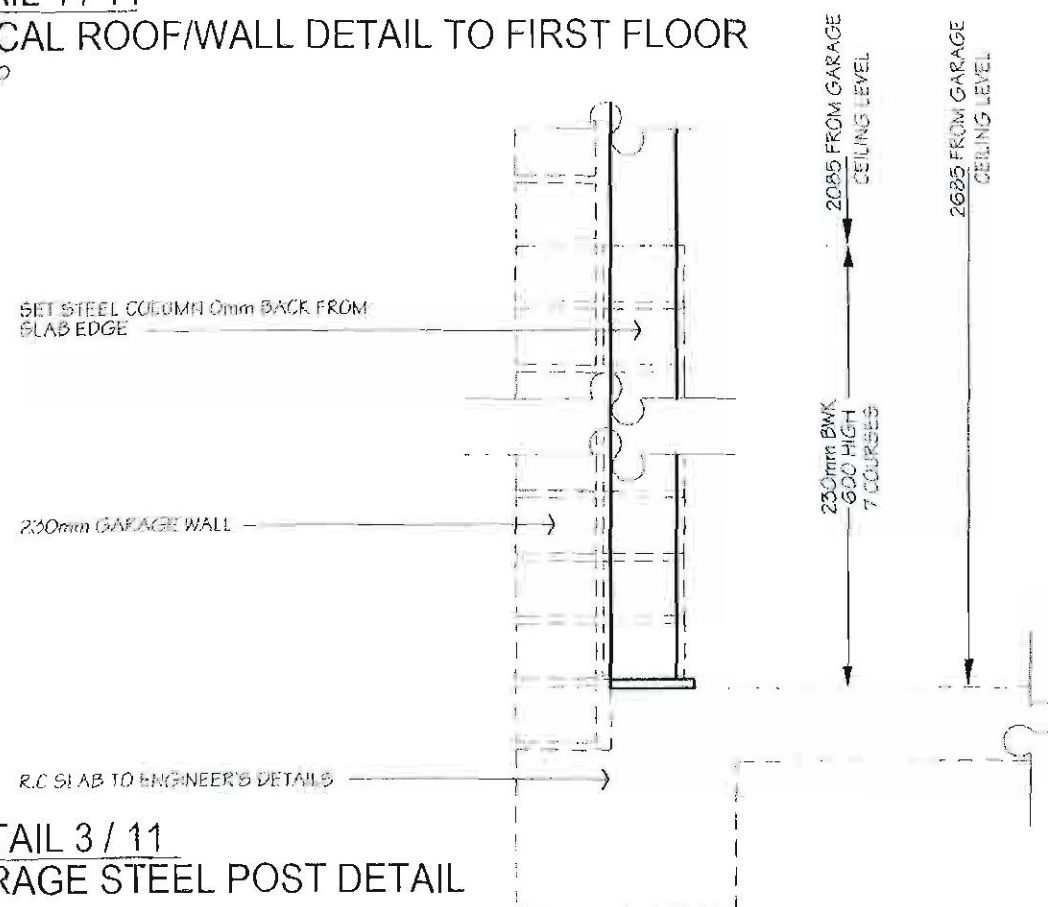
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HOUSETYPE:
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DRAWING TITLE:
KITCHEN/WET AREA DETAILS

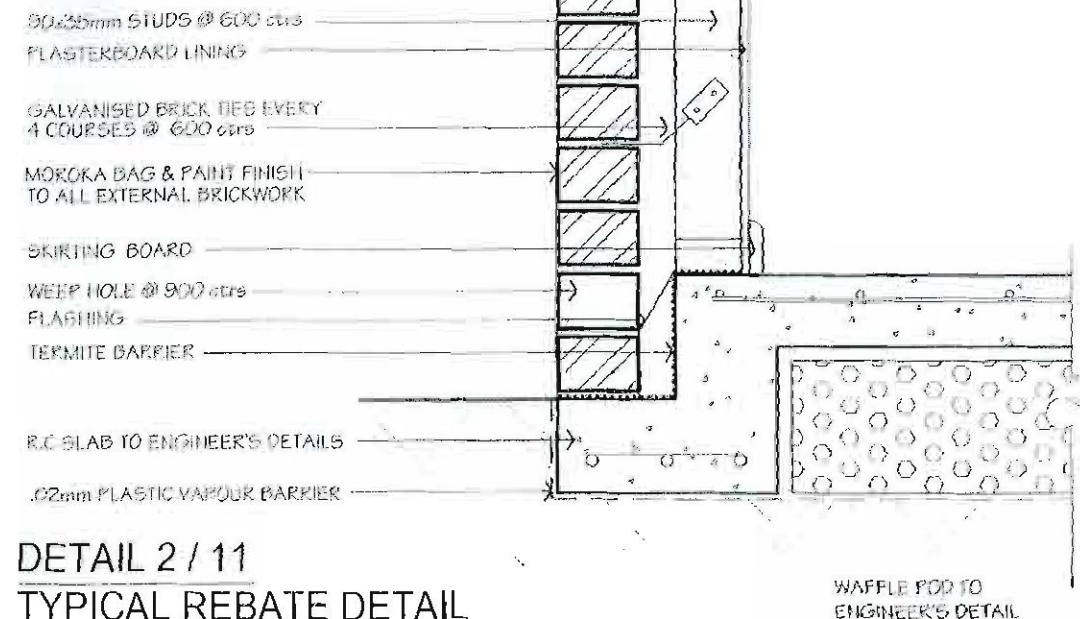
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COUNCIL AREA: MANLY	SCALE: 1:50		
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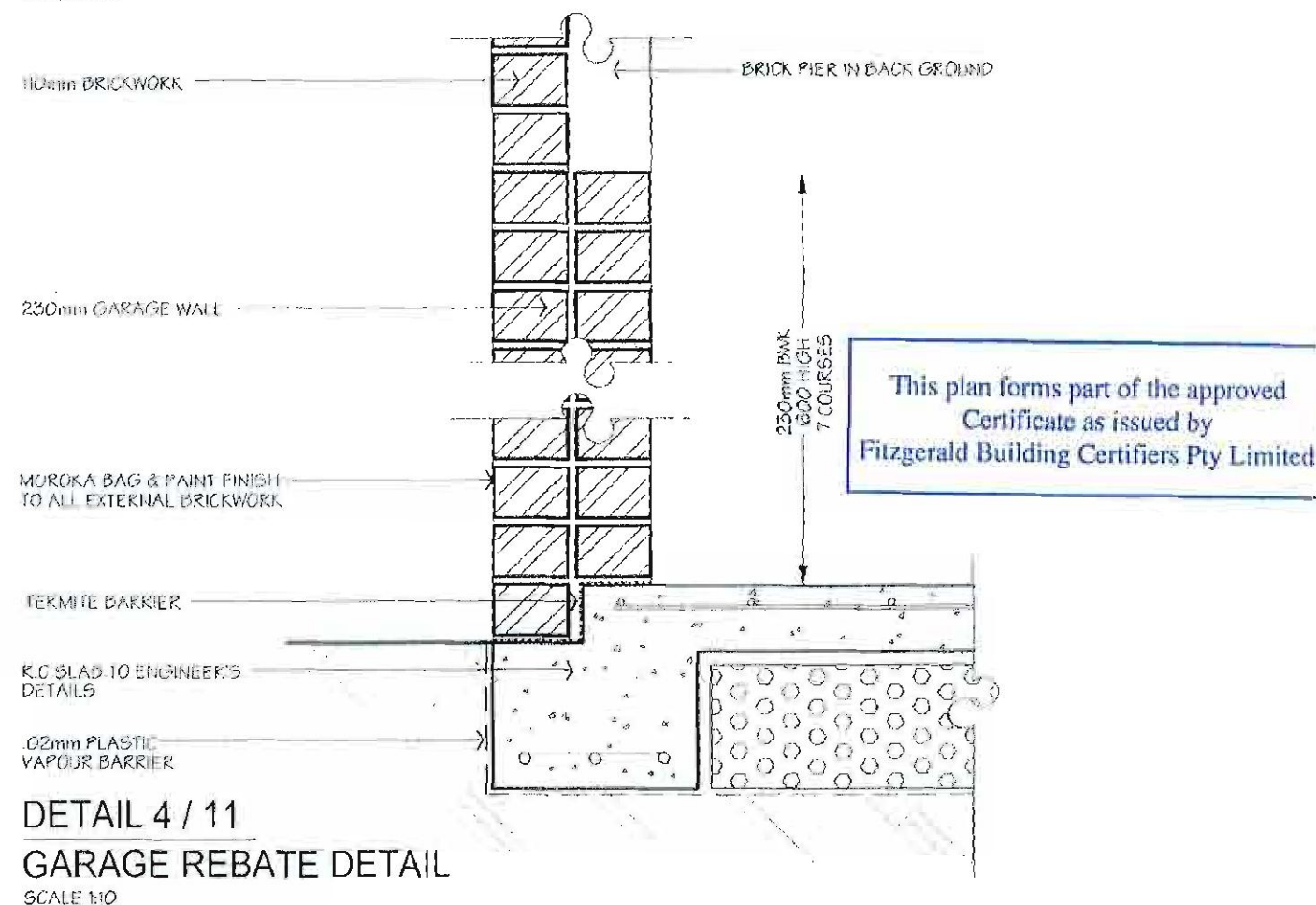
DETAIL 1 / 11
TYPICAL ROOF/WALL DETAIL TO FIRST FLOOR
SCALE 1:10



DETAIL 3 / 11
GARAGE STEEL POST DETAIL
SCALE 1:10



DETAIL 2 / 11
TYPICAL REBATE DETAIL
SCALE 1:10



DETAIL 4 / 11
GARAGE REBATE DETAIL
SCALE 1:10

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RAWSON HOMES

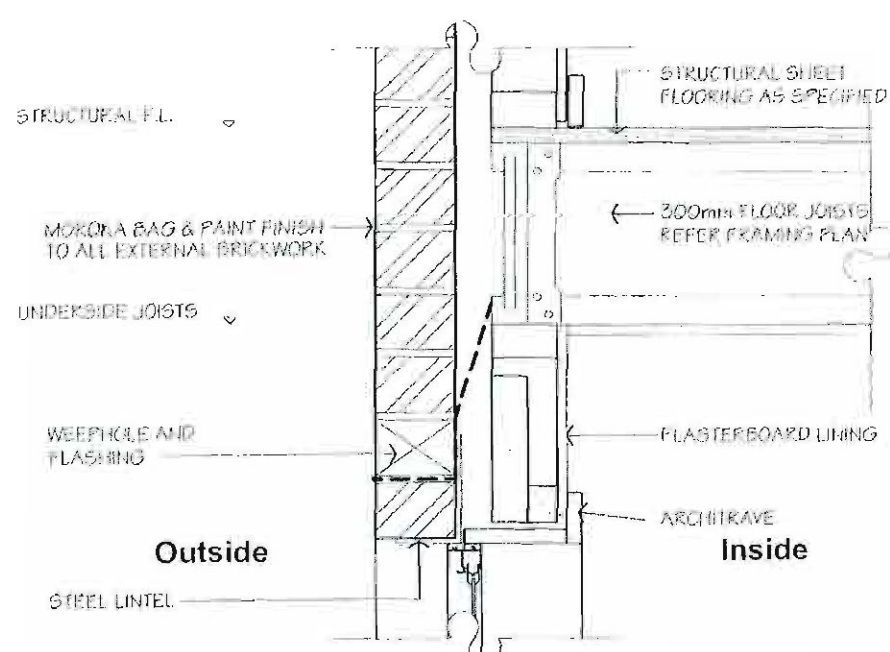
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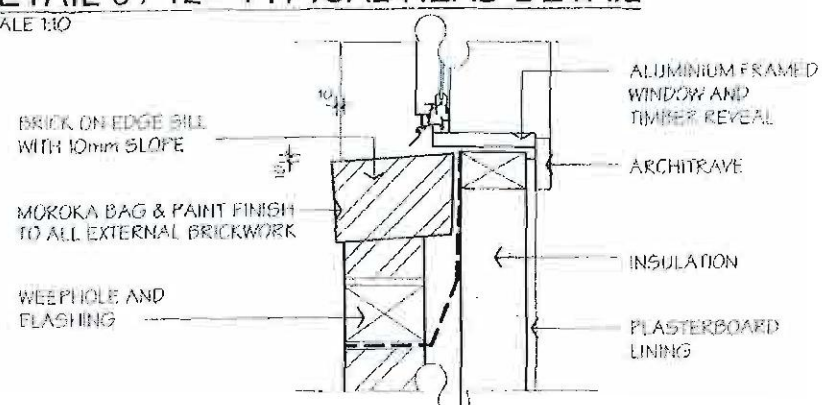
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TYPE: **4 BEDROOM**
SPECIFICATION: **'LUXE + PLATINUM'**
DRAWING TITLE:
DETAILS

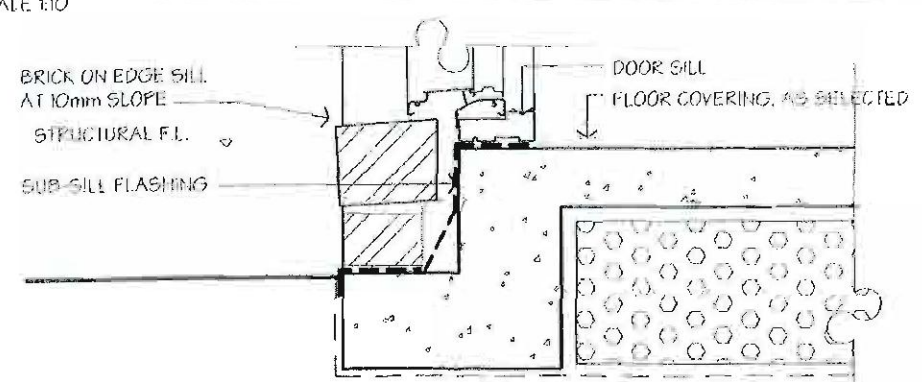
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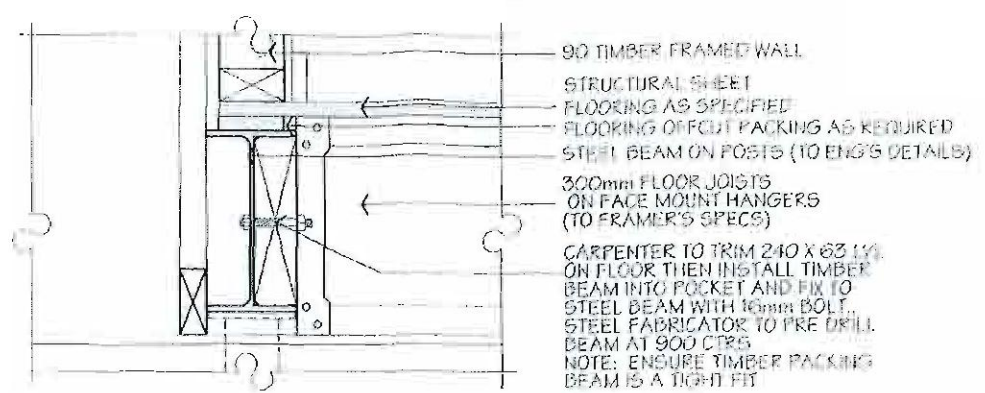
DETAIL 5 / 12 - TYPICAL HEAD DETAIL
SCALE 1:10



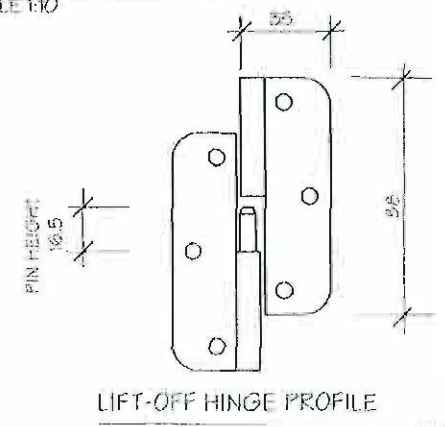
DETAIL 6 / 12 - TYPICAL GROUND FLOOR SILL DETAIL
SCALE 1:10



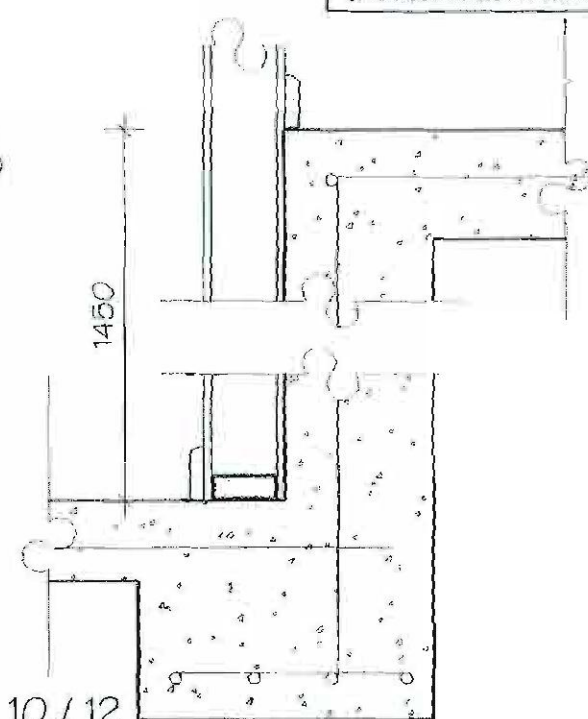
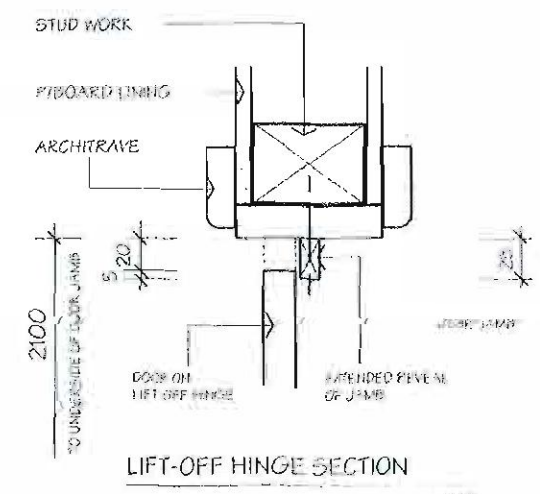
DETAIL 7 / 12 - TYPICAL DOOR SILL DETAIL
SCALE 1:10



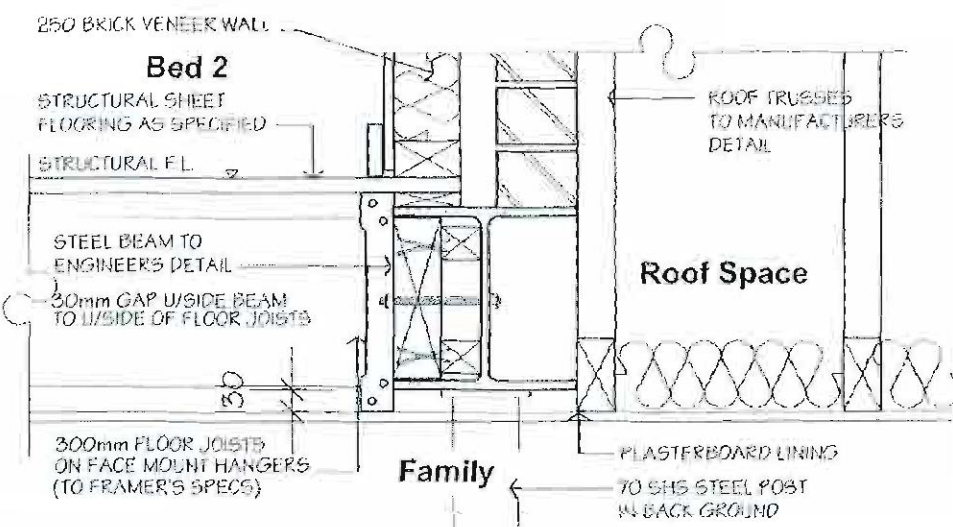
STEEL BEAM SUPPORTING FIRST FLOOR
TIMBER WALLS AND FLOOR
250 UB WITH FACE MOUNT JOISTS
DETAIL 8 / 12
SCALE 1:10



DETAIL 9 / 12 - LIFT OFF HINGE DETAIL
SCALE 1:10



DETAIL 10 / 12
TYPICAL INTERNAL STEP BEAM DETAIL
SCALE 1:10



DETAIL 11 / 12 - CONCEALED BEAM DETAIL
SCALE 1:10

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Fitzgerald Building Certifiers Pty Limited

NOTES:
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* DO NOT SCALE - USE WRITTEN DIMENSIONS

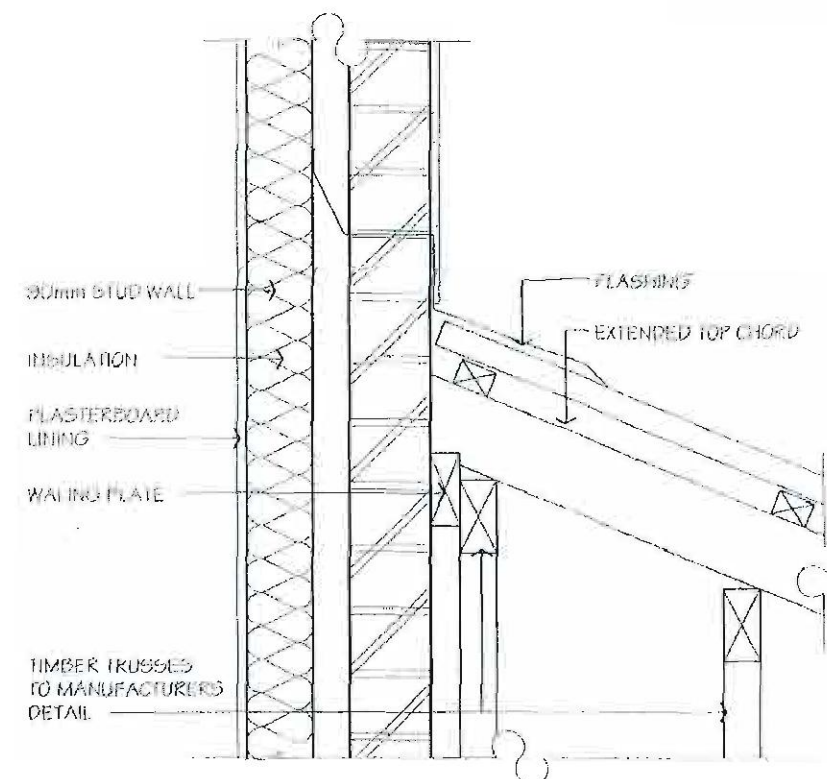
RAWSON HOMES
UNIT 34/11-21 UNDERWOOD ROAD
HOMEBUSH NSW 2140
TELEPHONE 02 9764 6442
FAX 02 9764 6992
Builder's Licence No. 33493C



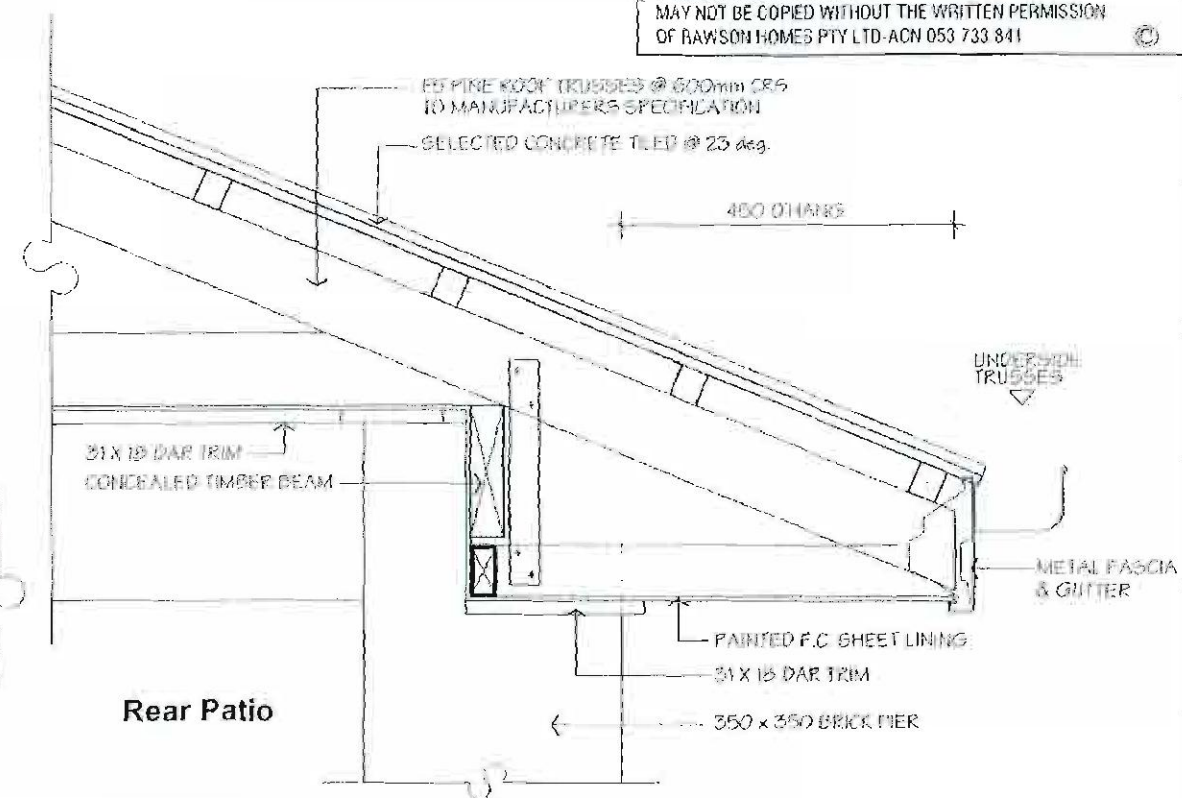
CLIENT:
MR MICHAEL MORAN & MS BERNADETTE FOY
SITE ADDRESS:
LOT 96, H/No. 12
PHILLIP AVE,
SEAFORTH NSW

HOUSETYPE:
MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: 'LUXE + PLATINUM'
DRAWING TITLE:
DETAILS

DRAWN BY M.P.	DATE DRAWN 07.09.10	CHECKED BY XX	APPROVED FOR CONSTRUCTION
COUNCIL AREA MANLY		SCALE 1:30 / 1:20	
JOB No. J/001296		DRWG No. 12 / 18	ISSUE REV A

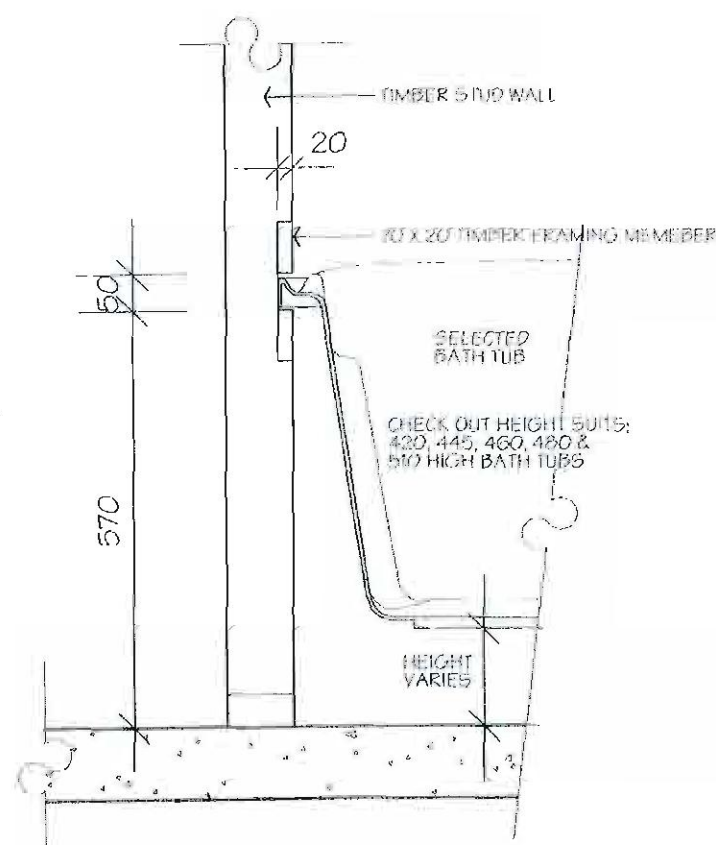


DETAIL 13 / 13 - PATIO ROOF/WALL DETAIL
SCALE 1:10

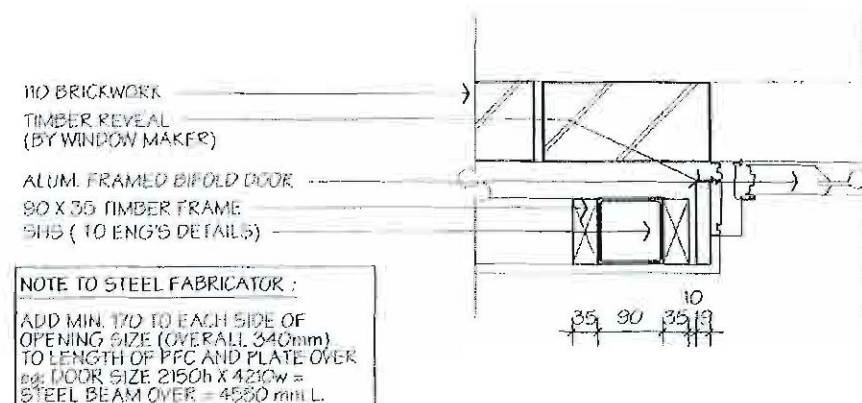


Rear Patio

DETAIL 15 / 13 - REAR PATIO EAVE DETAIL
SCALE 1:10

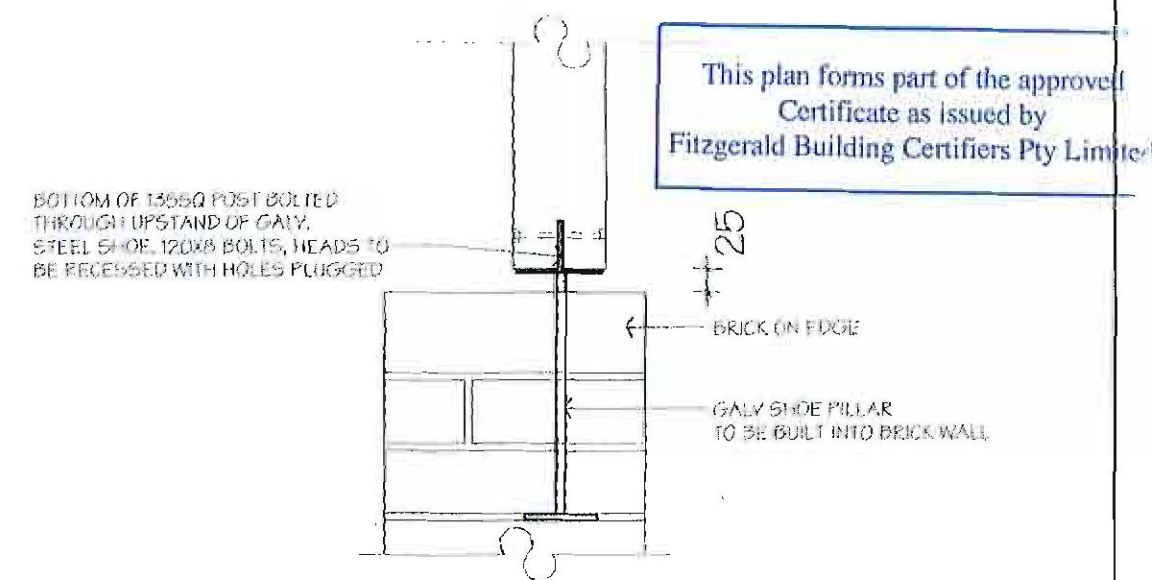


DETAIL 12 / 13
WALL CHECKOUT FOR BATH TUB
SCALE 1:10



NOTE TO STEEL FABRICATOR :
ADD MIN. 170 TO EACH SIDE OF
OPENING SIZE (OVERALL 340mm)
TO LENGTH OF PFC AND PLATE OVER
eg: DOOR SIZE 2150h X 4210w =
STEEL BEAM OVER = 4550 mm L.

DETAIL 14 / 13 - STEEL POST SUPPORTING
PFC OVER DOOR DETAIL
SCALE 1:10



DETAIL 16 / 13
TIMBER POST FIXING DETAIL
SCALE 1:10

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RAWSON HOMES

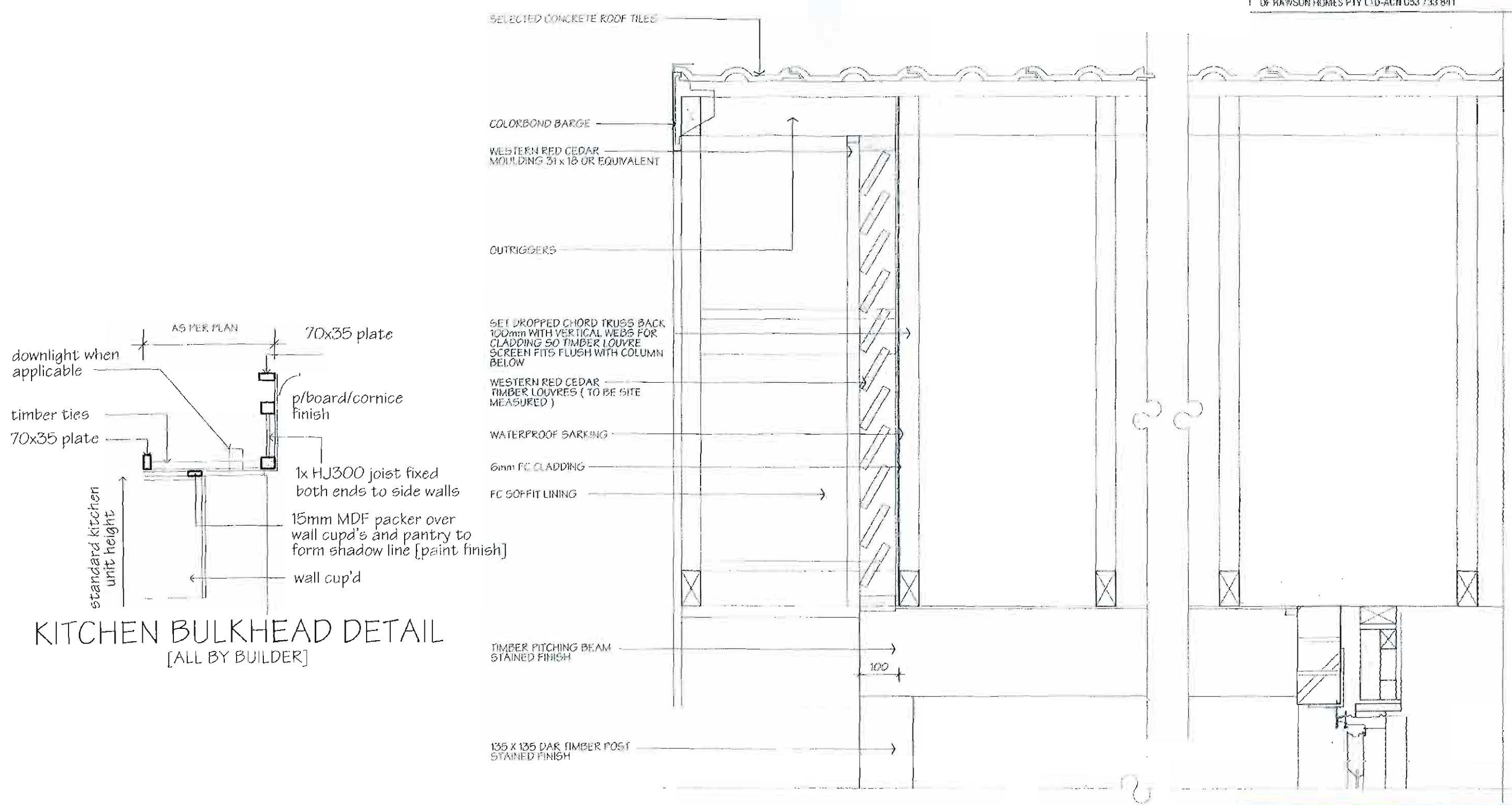
UNIT 34/11-21 UNDERWOOD ROAD
HOMEBUSH NSW 2140
TELEPHONE 02 9764 6442
FAX 02 9764 6992
Builder's Licence No. 334930



CLIENT:
MR MICHAEL MORAN & MS BERNADETTE FOY
SITE ADDRESS:
LOT 96, H/No. 12
PHILLIP AVE,
SEAFORTH NSW

HOUSETYPE:
MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: 'LUXE + PLATINUM'
DRAWING TITLE:
DETAILS

DRAWN BY: M.P.	DATE DRAWN: 07.09.10	CHECKED BY: XX	APPROVED FOR CONSTRUCTION
COUNCIL AREA: MANLY		SCALE: 1:10	
JOB No: J/001296	DRWG No: 13 / 18	ISSUE: REV A	



KITCHEN BULKHEAD DETAIL
[ALL BY BUILDER]

DETAIL 17 / 14
FRONT GABLE TREATMENT DETAIL

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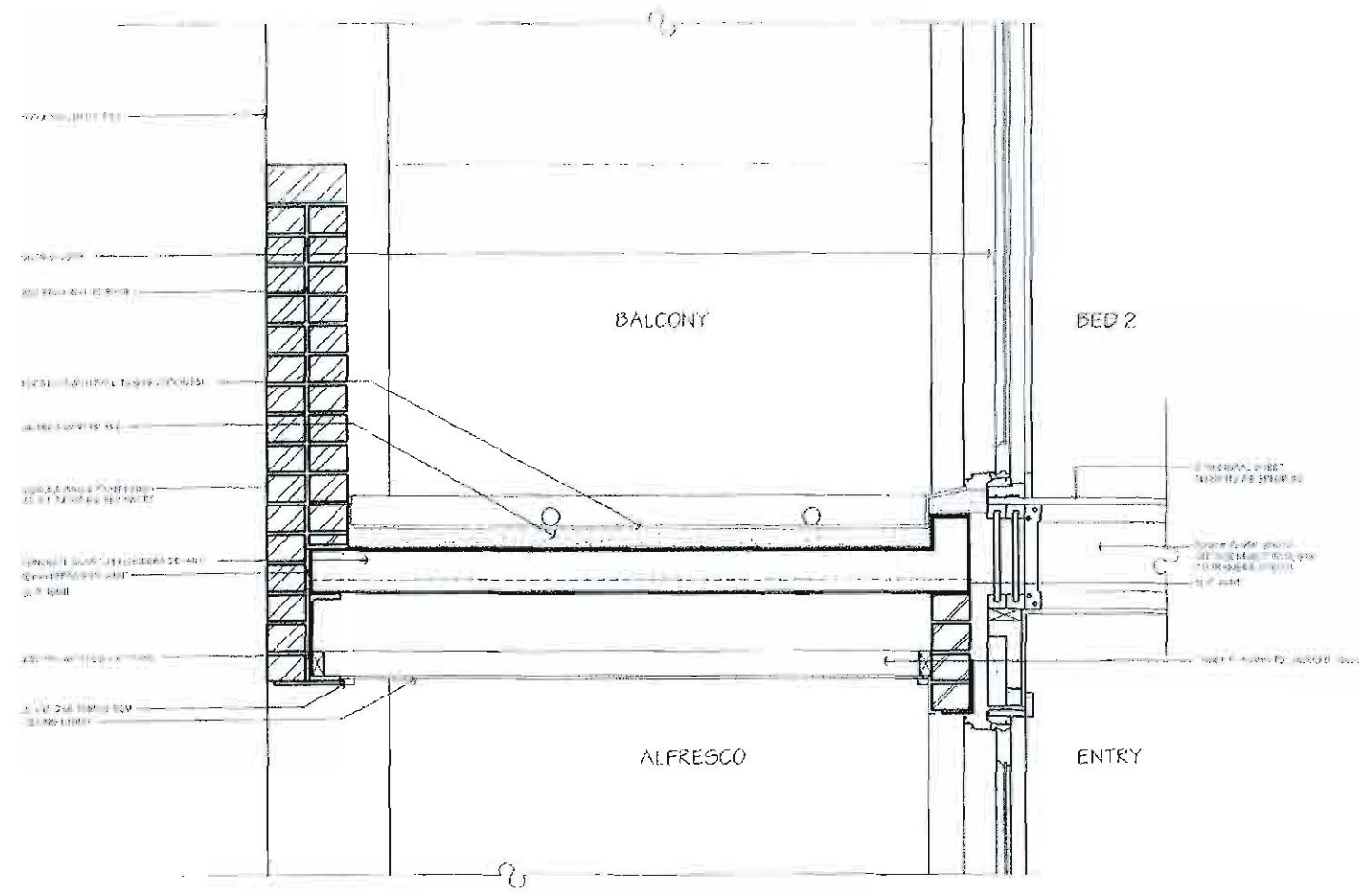
RAWSON HOMES
UNIT 34/11-21 UNDERWOOD ROAD
HOMEBUSH NSW 2140
TELEPHONE 02 9764 6442
FAX 02 9764 6992
Builder's Licence No.33493C



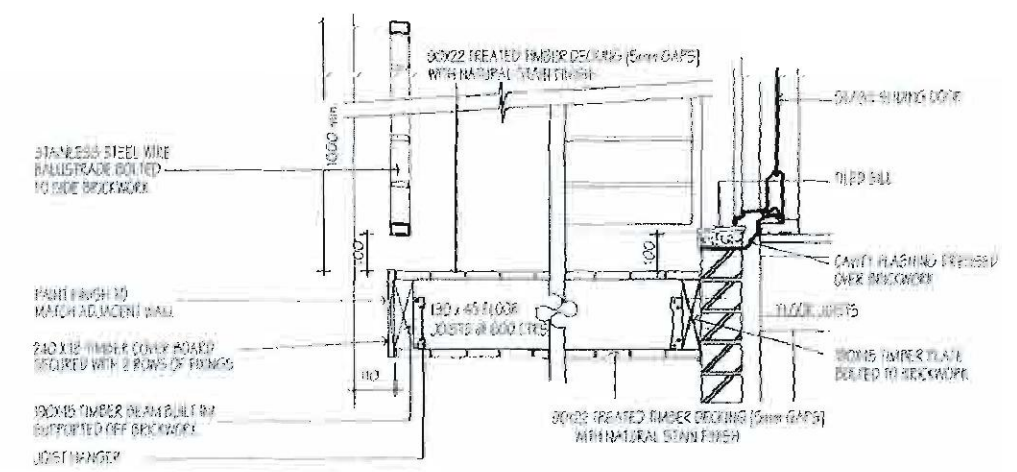
CLIENT:
MR MICHAEL MORAN & MS BERNADETTE FOY
SITE ADDRESS:
LOT 96, H/No.12
PHILLP AVE,
SEAFORTH NSW

HOUSETYPE:
MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: 'LUXE + PLATINUM'
DRAWING TITLE:
DETAILS

DRAWN BY: M.P.	DATE DRAWN: 07.09.10	CHECKED BY: XX	APPROVED FOR CONSTRUCTION:
COUNCIL AREA: MANLY		SCALE: 1:100, 1:20	
JOB No: J/001296	DRWG No.: 14 / 18	ISSUE: REV A	



DETAIL 18 / 15
BALCONY - PORCH AND ENTRY
SCALE 1:20



DETAIL 19 / 15
OPEN TIMBER DECK DETAIL
SCALE 1:20

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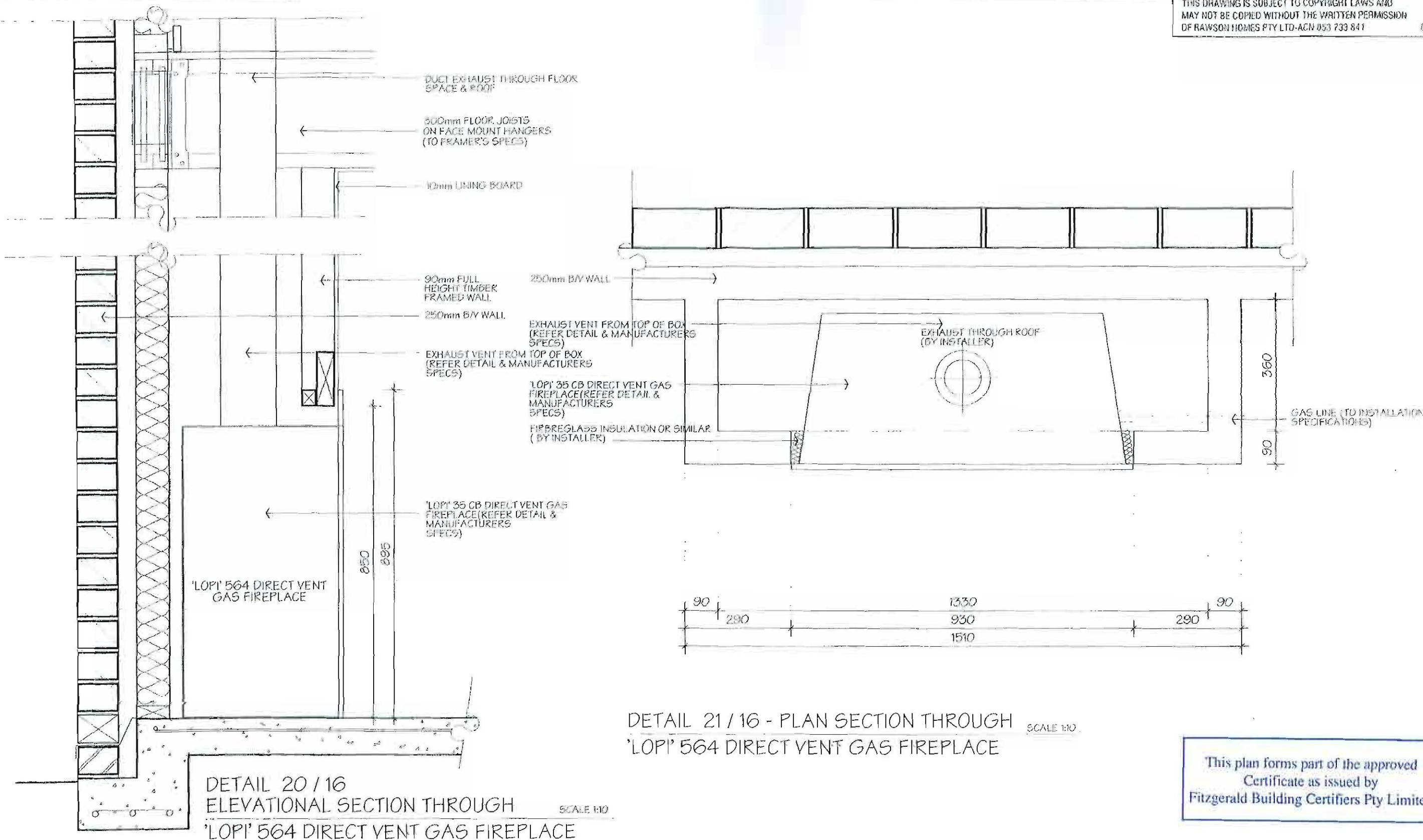
RAWSON HOMES
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CLIENT:
MR MICHAEL MORAN & MS BERNADETTE FOY
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LOT 96, H/No.12
PHILLIP AVE,
SEAFORTH NSW

HOUSE TYPE:
MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: 'LUXE + PLATINUM'
DRAWING TITLE:
DETAILS

DRAWN BY: M.P.	DATE DRAWN: 07.09.10	CHECKED BY: XX	APPROVED FOR CONSTRUCTION
COUNCIL AREA: MANLY		SCALE: 1:100, 1:20	
JOB No: J/001296	ORAW No: 15 / 18	ISSUE: REV A	



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RAWSON HOMES

UNIT 34/11-21 UNDERWOOD ROAD
HOMEBUSH NSW 2140
TELEPHONE 02 9764 6442
FAX 02 9764 6992
Builder's Licence No.33493C



CLIENT:
MR MICHAEL MORAN & MS BERNADETTE FOY

SITE ADDRESS:
LOT 96, H/No.12
PHILLP AVE,
SEAFORTH NSW

HOUSE TYPE:
MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: 'LUXE + PLATINUM'

DRAWING TITLE:
DETAILS

DRAWN BY: M.P.	DATE DRAWN: 07.09.10	CHECKED BY: XX	APPROVED FOR CONSTRUCTION:
COUNCIL AREA: MANLY		SCALE: 1:100, 1:20	
JOB No: J/001296	DRWG No.: 16 / 18	ISSUE REV A	

BASIX - Project details

THIS DRAWING IS SUBJECT TO COPYRIGHT LAWS AND
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OF RAWSON HOMES PTY LTD ACN 053 733 841

Site area	558	m²	ENERGY COMMITMENTS
Conditioned floor area	233	m²	
Unconditioned floor area	36	m²	
Roof area	206	m²	
Number of bedrooms	3		
Total area of vegetation (garden & lawn)	344	m²	HOT WATER
Basix Certificate No: 312110S	ABSA Cert. No: n/a		Gas Instantaneous Hot Water System - performance rating of 5 stars.
Cooling load (MJ/m2.year)	n/a	MJ/m2/pa	COOLING SYSTEM
Heating load (MJ/m2.year)	n/a	MJ/m2/pa	Single phase a/c system in at least 1 living area with energy rating; 2.5 star
			Single phase a/c system in at least 1 bedrooms with energy rating; 2.5 star
			The cooling system must provide for day/night zoning between living areas & bedrooms
WATER COMMITMENTS			HEATING SYSTEM
FIXTURES			Single phase a/c system in at least 1 living area with energy rating; 3 star
Showers head are 3 star rated			Single phase a/c system in at least 1 bedrooms with energy rating; 3 star
Toilets have a 3 star rated flushing system			The heating system must provide for day/night zoning between living areas & bedrooms
Taps in the kitchen and laundry and bathrooms are 3 star rated			
ALTERNATIVE WATER			VENTILATION
Rainwater tank has a capacity of @ least 3,000 litres			Bathroom - individual fan, ducted to facade or roof; manual switch on / off
Rainwater tank to collect min. 140sq metres of rain runoff from roof area			Kitchen - individual fan, ducted to facade; manual switch on / off
Rainwater tank connected to all toilets			Laundry - individual fan, ducted to facade; manual switch on / off
Rainwater connected to the cold water tap of the clothes washer			NATURAL LIGHTING
Rainwater connected to at least one outdoor tap			Windows in 3 x bathrooms / toilet for natural lighting
SWIMMING POOL / OUTDOOR SPA			ARTIFICIAL LIGHTING
not applicable to this project			Artificial lighting to 2 x bedrooms / kitchen, laundry, all hallways & Bathroom (dedicated)
			Artificial lighting to 3 x living / dining room
THERMAL COMFORT COMMITMENTS			OTHER
FLOOR, WALLS CEILING/ROOF			Gas Cooktop
Floor - concrete slab on ground			Electric Oven
External wall - Brick Veneer - Bradford R2.0 rated insulation batts			Fixed outdoor clothes drying line
Ceiling & Roof - Bradford R3.0 rated insulation batts - sarking			Fixed indoor or sheltered clothes drying line
Unventilated; Medium (solar absorptance > 0.70)			
WINDOWS, GLAZED DOORS AND SKYLIGHTS			LANDSCAPE
			The applicant must plant indigenous or low water use planting throughout 50m2
W1-W6 & W8 - W13 - Windows & Doors - Standard Aluminium, Single clear (or U-value: 7.63, SHGC: 0.75)			
W7 - Windows & Doors - Improved Aluminium, Single clear (or U-value: 6.44, SHGC: 0.75)			

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UNIT 34/11-21 UNDERWOOD ROAD
HOMEBUSH NSW 2140
TELEPHONE 02 9764 6442
FAX 02 9764 6992
Builder's Licence No. 33493C



CLIENT:

MR MICHAEL MORAN & MS BERNADETTE FOY

SITE ADDRESS:

LOT 96, H/No.12
PHILLP AVE,
SEAFORTH NSW

HOUSE TYPE:

MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: 'LUXE + PLATINUM'

DRAWING TITLE:

BASIX / ABSA INFO

DRAWN BY:

M.P.

DATE DRAWN:

07.09.10

CHECKED BY:

XX

APPROVED FOR CONSTRUCTION:

COUNCIL AREA:

MANLY

SCALE:

N/A

JOB No:

J/001296

DRWG No:

17 / 18

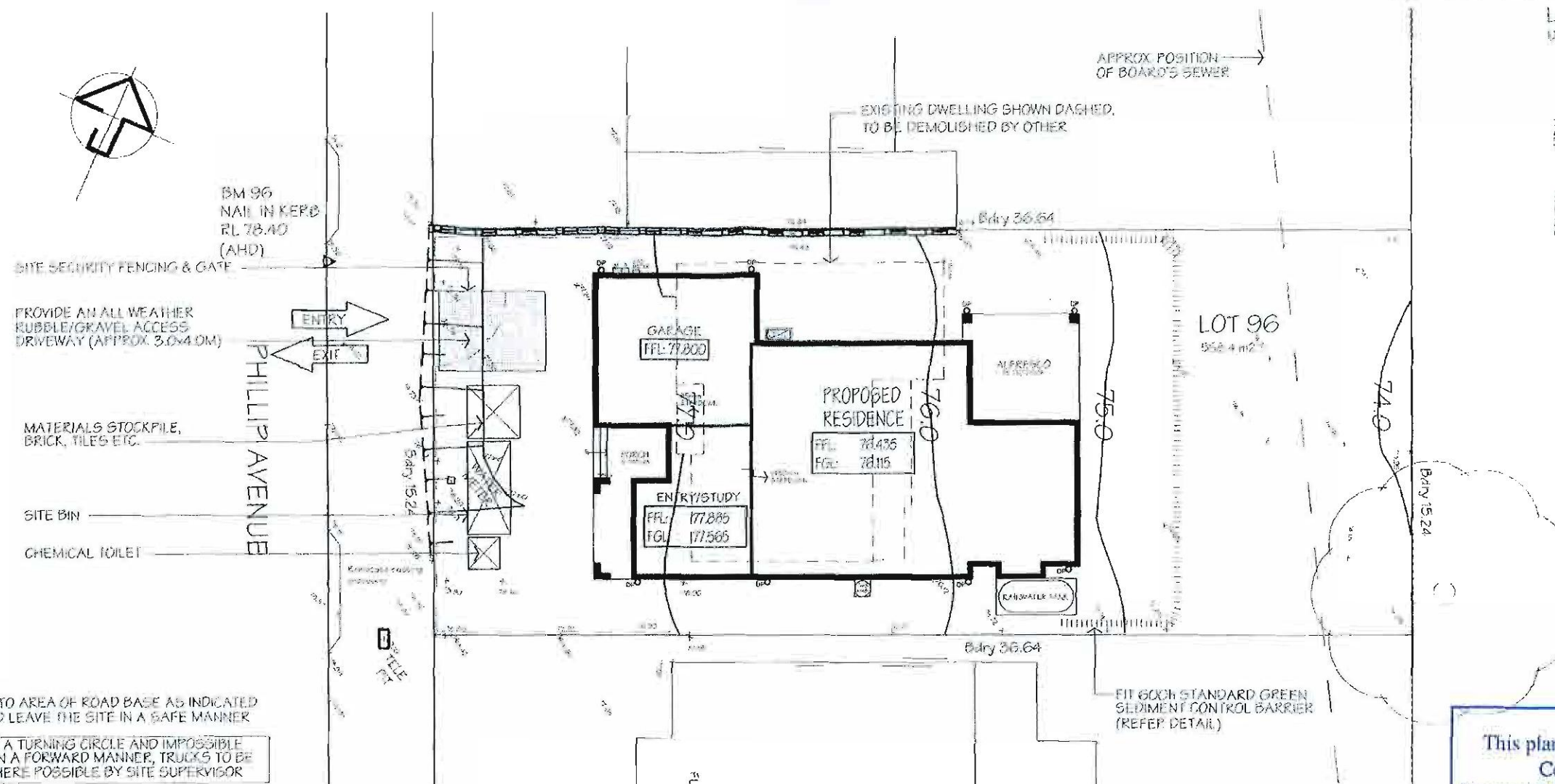
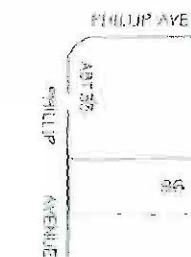
ISSUE:

REV A

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LOCATION PLAN

UBU REF: 197, 87



NOTES:

VEHICLES TO ENTER THE SITE ONTO AREA OF ROAD BASE AS INDICATED
WASHED OFF AS NECESSARY AND LEAVE THE SITE IN A SAFE MANNER

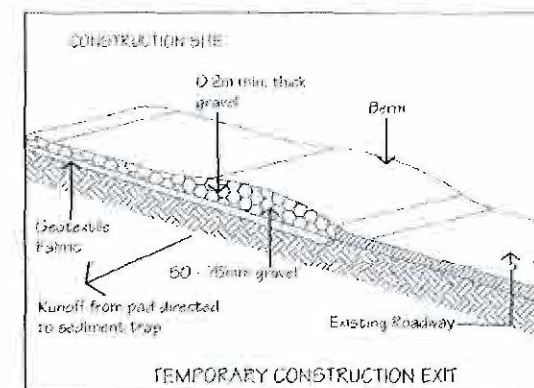
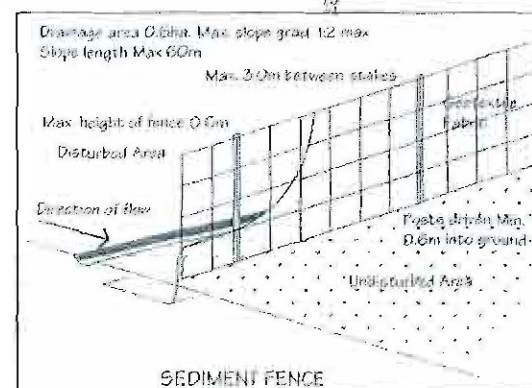
NOTE: AS THERE IS NO ROOM FOR A TURNING CIRCLE AND IMPOSSIBLE
FOR TRUCKS TO LEAVE THE SITE IN A FORWARD MANNER, TRUCKS TO BE
DIRECTED OUT AT ALL TIMES & WHERE POSSIBLE BY SITE SUPERVISOR

DUST CONTROL MEASURES:

- SITE TO BE WET DOWN PRIOR TO ANY DEMOLITION
OR CONSTRUCTION WORK
- AN AREA OF ROAD BASE WILL BE POSITIONED FOR
HEAVY VEHICLES TO REDUCE DUST & PROVIDE
AN AREA TO WASH TRUCKS OFF (IF REQUIRED)

NOISE & VIBRATION MEASURES

- ALL EXCAVATION WILL BE CARRIED OUT BETWEEN THE
TIME STIPULATED IN THE COUNCIL CONDITIONS.
- MACHINERY SIZE WILL BE KEPT TO A MINIMUM
REQUIREMENT FOR THE JOB.



SEDIMENT CONTROL POLICY OBJECTIVE

- To minimise disturbance to soil and vegetation on the site
- To ensure the protection of the environment by adequately controlling
the site to prevent erosion and the export of sediment from the site
- Direct clean up/soil water around the building site
- Limit access to one point and stabilise
- Install sediment fences below the site
- Stockpile and protect stripped topsoil
- Store materials within the sediment fence envelope
- Provide a protected washout area
- Connect stormwater before roof is laid
- Maintain controls
- Respread topsoil and stabilise site

FOR LOCATION OF SEDIMENT CONTROL REFER TO SITE PLAN
EXACT LOCATION TO BE DETERMINED ON SITE

NOTE:- HOURS OF OPERATION:- 7 AM - 5 PM, MONDAY TO FRIDAY. ONLY

NOTES:

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RAWSON HOMES

UNIT 34/11-21 UNDERWOOD ROAD
HOMEBUSH NSW 2140
TELEPHONE 02 9764 6442
FAX 02 9764 6992
Builder's Licence No.33493C



CLIENT:

MR MICHAEL MORAN & MS BERNADETTE FOY

SITE ADDRESS:

LOT 96, H/No.12
PHILLIP AVE,
SEAFORTH NSW

HOUSE TYPE:

MODEL: CUSTOM DESIGN
FACADE: MAJESTIC
TYPE: 4 BEDROOM
SPECIFICATION: 'LUXE + PLATINUM'

DRAWING TITLE:

CON.SITE MANAGEMENT PLAN

DRAWN BY:

M.P.

DATE DRAWN:

07.09.10

CHECKED BY:

XX

APPROVED FOR CONSTRUCTION:

COUNCIL AREA:

MANLY

SCALE:

1:200

JOB No:

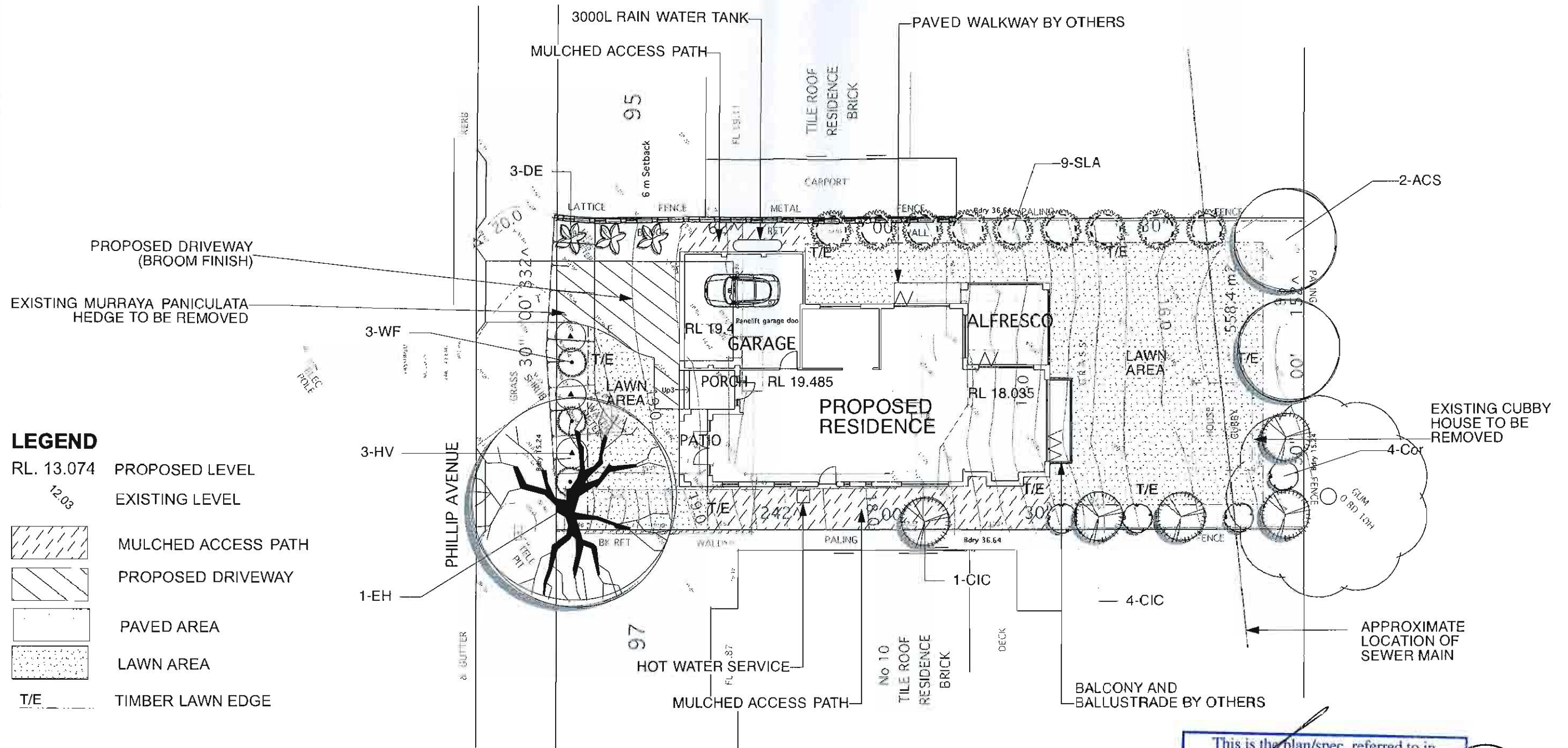
J/001296

DRWG No:

18 / 18

ISSUE:

REV A



- LEGEND**
- RL. 13.074 PROPOSED LEVEL
12.03 EXISTING LEVEL
- MULCHED ACCESS PATH
PROPOSED DRIVEWAY
PAVED AREA
LAWN AREA
T/E TIMBER LAWN EDGE

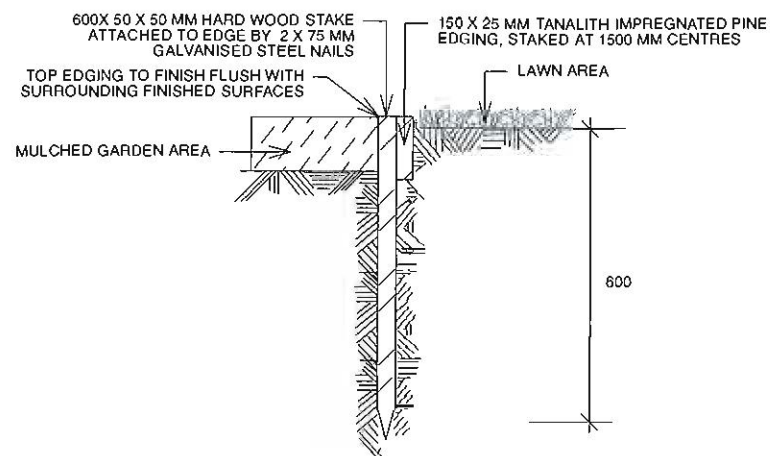
PLANTING SCHEDULE

ID	Latin Name	Common Name	Quantity	Scheduled Size	Spread	Height
ACS	Acmena smithii	Lillypilly	2	25lt	5000	8000
CIC	Callistemon citrinus	Crimson Bottlebrush	5	5LT	2500	2000
Cor	Correa alba	white correa	4	15lt	1500	1500
DE	Doryanthes excelsa	Gymea Lily	3	15lt	1500	1500
EH	Eucalyptus haemastoma	Scribbly Gum	1	25LT	10000	15000
HV	Hardenbergia violacea	Flase Sarsparilla	3	5lt	1500	400
SLA	Syzygium 'Aussie Compact'	Aussie Compact Lilly Pilly	9	15LT	2000	3000
WF	Westringia fruticosa	Coastal Rosemary	3	5lt	1500	1500

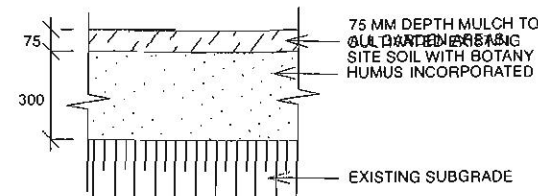
- Notes:**
- All dimensions and levels shall be verified by Contractor on site prior to commencement of work.
 - All detailing of drainage to paved areas shall be by others.
 - All levels shall be determined by others and approved on site by client.
 - Extent, height and position of all retaining walls shall be determined by others and approved on site by client, to Structural Engineers detail.
 - Do not scale from drawings.
 - If in doubt contact the Landscape Architect.
 - All boundaries shall be surveyed prior to commencement of construction works.
 - This plan is for DA purposes only, it has not been detailed for construction.
 - All dimensions, levels and boundaries are nominal only.
 - This design shall not be copied, utilised or reproduced in any way without prior written permission of A Total Concept Landscape Architects.

This is the plan/spec. referred to in
Fitzgerald Certifiers Certificate
Cert. No: 2010/1621
9/9/10
Paul Fitzgerald Accreditation No BPB 0119

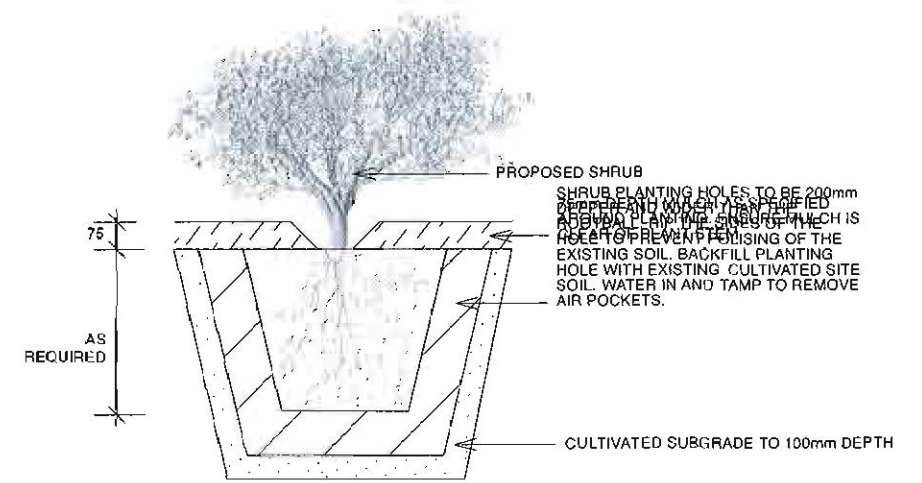
DATE	REVISION
DRAWING PROPOSED LANDSCAPE PLAN	
ADDRESS LOT 96, 12 PHILLIP AVENUE, SEAFORTH	PROJECT # FOY
CLIENT MR & MRS FOY	DATE # 12/05/10 DWG # L/01
SCALE @ A3 1:200	
DRAWN JAL	CHKD JL REVISION A
A Total Concept Landscape Architects & Swimming Pool Designers 65 West Street, North Sydney NSW 2060 Tel: (02) 9957 5122 Fax: (02) 9957 5922	



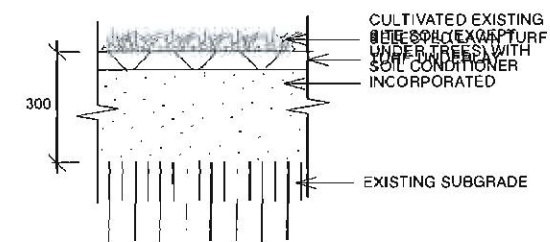
TYPICAL TIMBER EDGE DETAIL
SCALE 1:10
DO NOT SCALE



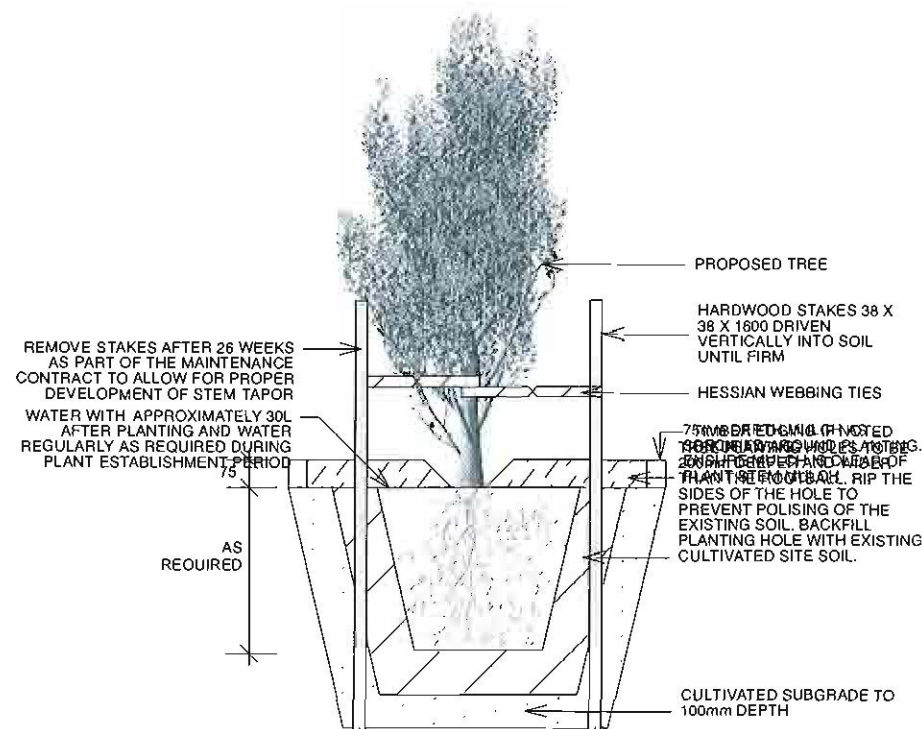
SOIL TO GARDEN AREAS
SCALE 1:20



PLANTING DETAIL
SCALE 1:20



TYPICAL TURF DETAIL
SCALE 1:20



**TREE PLANTING
& STAKING DETAIL**
SCALE 1:20

- Notes:**
1. All dimensions and levels shall be verified by Contractor on site prior to commencement of work.
 2. All detailing of drainage to paved areas shall be by others.
 3. All levels shall be determined by others and approved on site by client.
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DATE	REVISION
DRAWING	LANDSCAPE DETAILS
ADDRESS	LOT 96, 12 PHILLIP AVENUE, SEAFORTH
CLIENT	MR & MRS FOY
DATE #	12/5/10
SCALE @ A3	1:200
DRAWN	JAL
CHKD	JL
REVISION	

A Total Concept Landscape Architects & Swimming Pool Designers
65 West Street, North Sydney NSW 2060
Tel: (02) 9957 5122 Fx: (02) 9957 5922

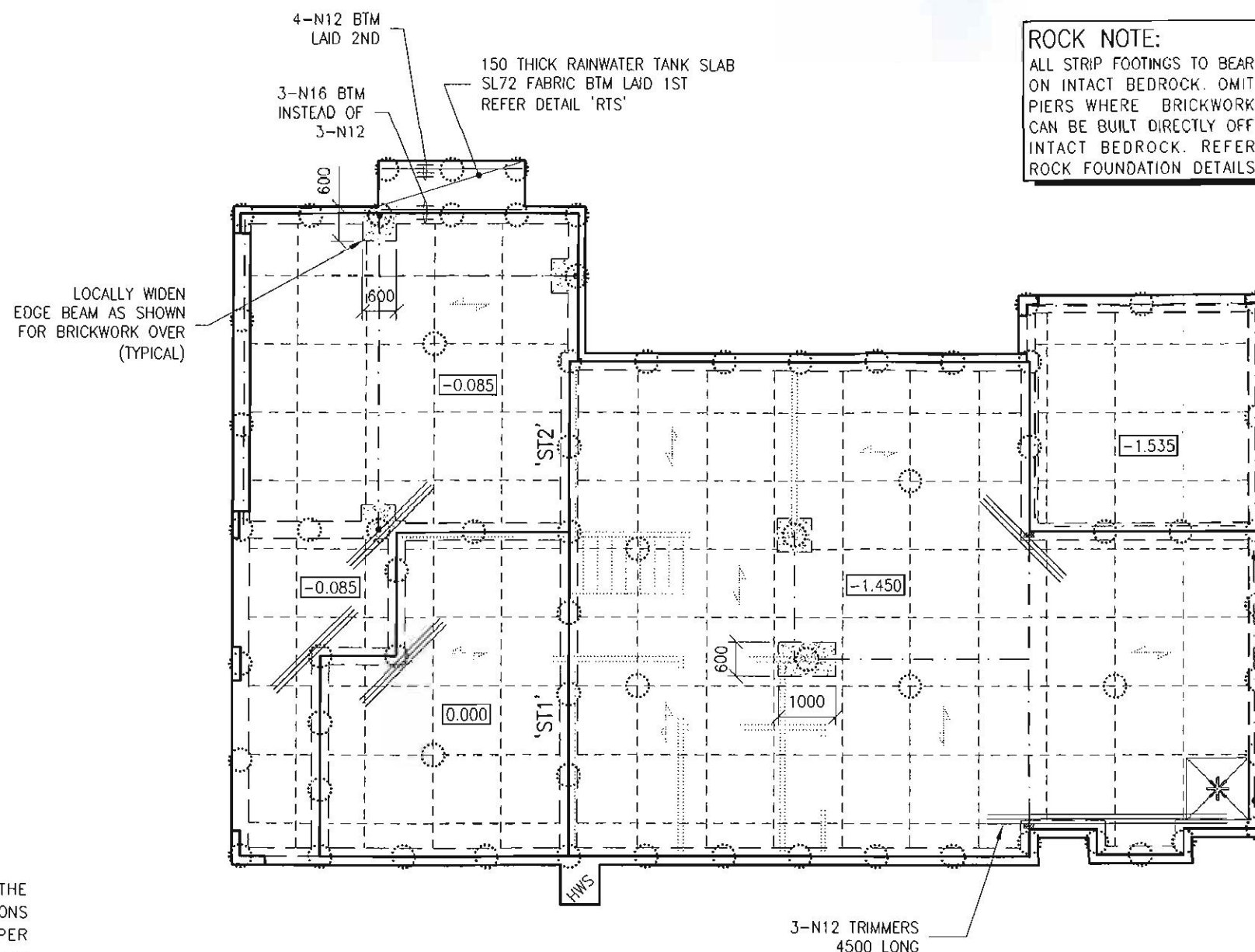
atc
a total concept
landscape architects & swimming pool designers

PROJECT # **FOY**
OWG # **L/02**

	START POD LOCATION
	1090 SQ STANDARD POD
	CENTRE LINE OF RIB
	3-N12 TRIMMERS 2000 LONG
	Ø400 MASS CONCRETE PIERS
	600 SQ (U.N.O.) MASS CONCRETE POD CUT OUT
	FLOOR JOIST DIRECTION OVER BY ENGINEER
	STEEL/TIMBER BEAMS OVER
	WALLS OVER
	DENOTES SLAB LEVELS TAKEN FROM ARCHITECTURAL

- THIS DESIGN IS BASED ON THE FOLLOWING: THE RECOMMENDATIONS FOR SITE MAINTENANCE AS PER APPENDIX "B" OF AS 2870:1996 ARE TO BE ADHERED TO. THE PERFORMANCE EXPECTATIONS AS PER APPENDIX "B & C" OF AS 2870:1996 ARE ACCEPTABLE.
- EXPECTED CONCRETE PIERS REQUIRED TO UNIFORM BEARING. ENGINEER AND COUNCIL TO INSPECT GROUND BEARING/PIERS PRIOR TO POURING OF CONCRETE. PIER SIZES--SEE GENERAL NOTES.
- THIS DRAWING IS SIGNED SUBJECT TO CERTIFICATE OF INSPECTION ISSUED BY ENGINEER.

IF IN DOUBT, CONTACT ENGINEER.



ROCK NOTE:
ALL STRIP FOOTINGS TO BEAR
ON INTACT BEDROCK. OMIT
PIERS WHERE BRICKWORK
CAN BE BUILT DIRECTLY OFF
INTACT BEDROCK. REFER
ROCK FOUNDATION DETAILS

95 THICK SLAB (MAIN RESIDENCE)
85 THICK SLAB (GARAGE & PATIO)
SL72 FABRIC TOP THROUGHOUT

This is the plan/spec. referred to in
Fitzgerald Certifiers Certificate
Cert. No: 2610/1621
Paul Fitzgerald Accreditation No BPB 0119

DRAWN	DATE	AMENDMENT	REV	 RESIDENTIAL ENGINEERING CONSULTING ENGINEERS 1/19 Jonathan Street Greystanes NSW 2145 www.residentialengineering.com.au enquiries@residentialengineering.com.au Tel: 02 9896 5494 Fax: 02 9636 1064	NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	CLIENT: RAWSON HOMES 	FDR: FOY & MORAN	APPROVED BY:  A.W. MCCARTHY B.Sc.(Eng), M.I.E.Aust., N.P.E.R., C.P.Eng. NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	JOB No. RW301	REVISION
					UNIT 34/11-21 UNDERWOOD ROAD HOMEBUSH NSW 2140 TELEPHONE 02 9764 6442 FAX 02 9764 6992 Builder's License No 33493C	SITE ADDRESS: 12 PHILLIP AVENUE SEAFORTH	DATE: 16-8-10		SCALE: 1:100	SHEET No. 1/11
A3	COPYRIGHT - THIS DRAWING REMAINS THE PROPERTY OF RESIDENTIAL ENGINEERING AND MAY NOT BE ALTERED IN ANY WAY WITHOUT RESIDENTIAL ENGINEERING WRITTEN CONSENT.								CLIENT REF: DA0100	DRAWN: B.K.

GENERAL NOTES

- G1. ENGINEERS STRUCTURAL DRAWINGS ARE SIGNED AND ISSUED ON THE UNDERSTANDING THAT THE BUILDER MAINTAINS IN FORCE, PROPER AND ADEQUATE CONTRACT WORKS INSURANCE AND PUBLIC LIABILITY INSURANCE DURING THE FULL COURSE OF THE CONSTRUCTION, AND/OR ANY MAINTENANCE PERIOD. CLAIMS OF DAMAGE TO ANY ADJACENT PROPERTY OR BUILDING IS NOT THE RESPONSIBILITY OF THE ENGINEER.
- G2. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- G3. DURING CONSTRUCTION THE BUILDING SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED AT ANY TIME. TEMPORARY BRACING SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE WORKS DURING CONSTRUCTION.
- G4. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITIONS OF THE SAA CODES AND THERE-BY LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITY.
- G5. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR SET OUT PLAN MEASUREMENTS. ANY SET OUT DIMENSIONS SHOWN ON THIS DOCUMENT SHALL BE VERIFIED BY THE BUILDER.
- G6. ANY DISCREPANCIES/SUBSTITUTION IN THESE DOCUMENTS SHALL BE REFERRED TO THE ENGINEER FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- G7. THE SECTIONS/DETAILS ON THESE DRAWINGS ARE INTENDED TO GIVE THE STRUCTURAL SPECIFICATIONS ONLY. ARCHITECTURAL SECTIONS/DETAILS ON THESE DRAWINGS ARE ILLUSTRATIVE ONLY.
- G8. THESE DOCUMENTS ARE SIGNED SUBJECT TO CERTIFICATE OF INSPECTION BEING ISSUED BY THIS FIRM. ALL PIERS, SLAB AND FOOTING REINFORCEMENT SHALL BE INSPECTED BY THE ENGINEER PRIOR TO THE POURING OF CONCRETE. GIVE 24hrs NOTICE TO THE ENGINEER.

SITE CLASSIFICATION

- C1. THE SITE HAS BEEN CLASSIFIED BY RESIDENTIAL ENGINEERING IN ACCORDANCE WITH AS 2870 RESIDENTIAL SLABS AND FOOTINGS. THESE DOCUMENTS HAVE BEEN PREPARED USING THE ABOVE CODE ON THE BASIS OF A 'M' CLASSIFICATION, HOWEVER, THE SOIL TYPE AND SITE CONDITIONS WILL BE CHECKED BY THIS CONSULTANCY PRIOR TO THE PLACEMENT OF CONCRETE.
- C2. THE FOOTING DETAILS SHOWN ARE FOR THE SITE CLASSIFICATION STIPULATED. WHILE EVERY CARE HAS BEEN TAKEN TO VERIFY THAT THE INFORMATION SHOWN IS CORRECT, RESIDENTIAL ENGINEERING TAKES NO RESPONSIBILITY FOR VARIATIONS WHICH MAY OCCUR IN SITE CONDITIONS SUBSEQUENT TO CONSTRUCTION.
- C3. IF THE SITE HAS BEEN THE SUBJECT OF A GEOTECHNICAL INVESTIGATION REQUIRING ADHERENCE TO PARTICULAR CONSTRUCTION PROCEDURES AND/OR TECHNIQUES, THE REQUIREMENTS OF THE APPROPRIATE QUALIFIED GEOTECHNICAL ENGINEER'S REPORT SHALL BE COMPLIED WITH IN FULL.

ALL REFERENCE TO AUSTRALIAN STANDARDS AND B.C.A TO BE CURRENT EDITION.

IF IN DOUBT CONTACT ENGINEER.

SITE PREPARATION AND DRAINAGE

- D1. STRIP TOPSOIL AND VEGETATION TO A 100mm MINIMUM DEPTH AND STOCKPILE.
- D2. THE SITE IS TO BE BENCHED BY CUT AND FILL TO DESIRED LEVELS.
- D3. ANY FILL USED IN THE CONSTRUCTION OF A SLAB EXCEPT WHERE THE SLAB IS SUSPENDED SHALL CONSIST OF "ROLLED OR CONTROLLED FILL".
 - D3A. ROLLED FILL SHALL BE PLACED IN LAYERS OF 150mm MAXIMUM IN ACCORDANCE WITH AS 2870 CL 6.4.2 AND THOROUGHLY COMPACTED USING AN EXCAVATOR. UNLESS THIS FILL IS COMPACTED IN ACCORDANCE WITH AS 2870 CL 6.4.2 IT IS NOT ADEQUATE FOR THE LONG TERM STRUCTURAL SUPPORT TO THE SLAB/FOOTING SYSTEM, THEREFORE PIERS MUST BE INSTALLED.
 - D3B. CONTROLLED FILL SHALL BE PLACED, TESTED AND CERTIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER AS DEFINED IN AS 3798. THIS IS THEN DEEMED TO BE ADEQUATE TO SUPPORT THE SLAB/FOOTING SYSTEM.
- D4. THE FILL IS TO EXTEND PAST THE EDGE OF THE SLAB BY AT LEAST ONE METRE AND SHALL BE BATTERED OFF NOT STEEPER THAN TWO HORIZONTALLY TO ONE VERTICAL OR RETAINED BY A SUITABLE STRUCTURE PROVIDED BY THE OWNER OR BUILDER AS SOON AS POSSIBLE.
- D5. THE FINISHED LEVELS SHALL ALLOW FOR THE MAIN SLAB TO BE AT LEAST 300mm ABOVE THE ADJACENT GROUND.
- D6. SURFACE DRAINAGE SHALL BE PROVIDED AS REQUIRED TO AVOID THE POSSIBILITY OF WATER PONDING NEAR THE SLAB. A FALL OF 50mm OVER A DISTANCE OF ONE METRE AWAY FROM THE SLAB IS CONSIDERED ADEQUATE. SUBSOIL DRAINS (AGRICULTURAL DRAINS) ARE CONSIDERED DESIRABLE BUT SHOULD BE AVOIDED BEING LOCATED DIRECTLY ADJACENT TO THE FOOTINGS.
- D7. IF ANY FOOTING IS LOCATED SUCH THAT A LINE DRAWN AT 45° FOR CLAY AND 30° FOR SAND FROM ITS BASE INTERSECTS A SERVICE TRENCH THEN PIERS ARE REQUIRED. REFER SERVICE TRENCH DETAIL.

PIERS

- P1. PIER DIAMETER AND LOCATIONS ARE SHOWN ON PLAN. ONLY WITH THE PRIOR APPROVAL OF THE ENGINEER MAY THE PIER DIAMETER BE VARIED AS PER THE "PIER DIAMETER TABLE".
- P2. U.N.O MINIMUM PIER DEPTH IS 600mm BELOW FOOTING TRENCH AND WHEREVER NOMINATED SHOULD BE SOCKETED A MINIMUM 300mm INTO STIFF CLAY.
- P3. ALL PIER HOLES SHALL BE CLEANED AND DE-WATERED PRIOR TO THE PLACEMENT OF CONCRETE.
- P4. ALL PIERS SHALL BE POURED SEPARATE TO RAFT SLAB.
- P5. IT SHOULD BE NOTED THAT IF ANY OF THE FOOTING BEAMS ENCOUNTER ROCK OR SHALE, THEN ALL BEAMS AND LOAD BEARING SPINE BEAMS SHALL BE PIERED TO ROCK OR SHALE. IF PARTIALLY PIERED TO ROCK THEN BRICK JOINTS ARE TO BE PROVIDED AT THE ROCK/NON-ROCK INTERFACE.

PIER DIAMETER TABLE

STRATA	MINIMUM BEARING CAPACITY 'kPa'	SINGLE STOREY	DOUBLE STOREY
STIFF CLAY	250	Ø400 AT 2.0m CTS	Ø450-2.0m CTS OR Ø400-1.5m CTS
ROCK AND SHALE	600	Ø400 AT 2.0m CTS	Ø400-2.0m CTS

FOOTINGS AND FLOOR SLAB

- F1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE PIER TOPS ARE CLEAN OF FOREIGN MATTER PRIOR TO THE PLACEMENT OF THE MEMBRANE AND CONCRETE SLAB. ENGINEER'S SPOT CHECK DOES NOT RELEASE THE CONTRACTOR FROM THIS RESPONSIBILITY.
- F2. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600
- F3. PIPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE CONCRETE COVER TO REINFORCEMENT WITHOUT THE APPROVAL OF THE ENGINEER.
- F4. PIPE PENETRATIONS IN THE EDGE AND SPINE BEAMS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE DETAILS. WHERE SLAB FABRIC IS CUT TO PERMIT PENETRATIONS OF PIPES, A 600 x 600mm PIECE OF FABRIC IS TO BE SPLICED OVER THE PENETRATION.
- F5. FOR 'H' AND 'E' CLASS SITES - ALL PENETRATIONS THROUGH FOOTINGS AND EDGE BEAMS SHALL BE SLEAVED TO ALLOW MINIMUM 20mm ('H' CLASS) AND 40mm ('E' CLASS) MOVEMENT AS PER AS 2870, CLAUSE 5.5.4(A). ALL PLUMBING AND DRAINAGE SERVICES ARE TO BE FITTED WITH FLEXIBLE CONNECTIONS AS PER AS 2870 CLAUSE 5.5.4 (B).
- F6. SUBTERRANEAN TERMITE PROTECTION IS TO BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF AS 3660.1
- F7. A DAMP PROOF MEMBRANE MUST BE PLACED BENEATH THE SLAB SO THAT THE BOTTOM OF THE SLAB IS ENTIRELY UNDERLAIN. THE DAMP PROOF MEMBRANE MUST BE 0.2mm NOMINAL THICKNESS POLYTHENE FILM AND OF HIGH IMPACT RESISTANCE. LAPS SHALL BE 200mm MINIMUM AT JOINTS. ALL PLUMBING PENETRATIONS AND JOINTS ARE TO BE TAPED AND MADE WATERPROOF. THE SITE IS TO BE PROPERLY DRAINED TO ELIMINATE SURFACE AND SUBSOIL WATER FLOW.
- F8. ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON INSULATED STEEL, PLASTIC OR CONCRETE CHAIRS. BAR CHAIRS SHALL BE PLACED SUCH THAT REINFORCEMENT IS ALWAYS POSITIONED WITH SPECIFIED COVER.
- F9. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN. THE WRITTEN APPROVAL OF THE ENGINEER SHALL BE OBTAINED FOR ANY OTHER SPLICES. WHERE LAP LENGTHS ARE NOT SHOWN THEY SHALL SATISFY THE REQUIREMENTS OF AS 3600.
- F10. LAP LENGTHS IN REINFORCEMENT AT 'T' AND 'L' JUNCTIONS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE DETAILS.
- F11. IF SLAB FABRIC IS USED IT IS TO BE SUPPLIED IN FLAT SHEETS AND IS TO BE LAPPED ONE FULL SQUARE PLUS 25mm AT SPLICES AND PLACED ON BAR CHAIRS AT ONE METRE CENTRES BOTH WAYS UNLESS REDUCED SPACING IS SPECIFIED.
- F12. WELDING OF REINFORCEMENT OTHER THAN TACK WELDING FOR PURPOSE OF MAINTAINING BARS IN CORRECT POSITION IS NOT PERMITTED UNLESS SPECIFICALLY NOMINATED ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
- F13. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED. VIBRATORS SHALL NOT BE USED TO SPREAD CONCRETE.
- F14. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY ONLY, IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
- F15. BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS IF ANY. THICKNESS OF APPLIED FINISHES ARE NOT INCLUDED.

CONTROL OF PLASTIC SHRINKAGE AND SLAB MAINTENANCE

- C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 AND AS 2870
- C2. WATER IS NOT TO BE ADDED TO THE CONCRETE ON SITE SO AS TO INCREASE THE SLUMP ABOVE THAT SPECIFIED.
- C3. NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE ELEMENTS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- C4. CURING THE CONCRETE SHALL START IMMEDIATELY AFTER FINISHING BY CONTINUALLY WETTING FOR 7 DAYS MINIMUM. PLASTIC OR WAX LIQUID SPRAYS MAY BE USED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. EXTRA PRECAUTION SUCH AS THE METHOD OF EVAPORATIVE RETARDATION (THE USE OF ALIPHATIC ALCOHOLS) IS RECOMMENDED DURING HOT WEATHER POURS TO HELP AVOID THERMAL RELATED SLAB CRACKING.
- C5. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.
- C6. CAUTION SHOULD BE EXERCISED WHEN APPLYING BRITTLE FINISHES SUCH AS CERAMIC TILES TO THE FLOOR SLAB. BRITTLE FLOOR COVERINGS ARE TO BE LAID ON A SUITABLE FLEXIBLE TYPE BEDDING SYSTEM AND SUPPLIED WITH CONTROL JOINTS AT 400mm CENTRES MAXIMUM. ALTERNATIVELY S192 FABRIC CAN BE USED, AS/IF ADVISED BY THE BUILDER. ALTERNATIVELY FINISHES TO BE DELAYED FOR 3 MONTHS. REFER TO AS 2870 CL 5.3.7 OR AS 3958.
- C7. THE OWNERS ATTENTION SHALL BE DRAWN TO APPENDIX 'A' 'PERFORMANCE REQUIREMENTS AND FOUNDATION MAINTENANCE' OF AS 2870.2 AND CSIRO PUBLICATION 'GUIDE TO HOME OWNERS ON FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE'.

CONCRETE SPECIFICATION TABLE

ELEMENT	SLUMP	MAX SIZE AGGREGATE	F _c AS 3600
STRIP FOOTINGS	100	20	N20
SLAB ON GROUND	100	20	N20
PIERS	80	20	N15

REINFORCEMENT LAP TABLE

NOTE: BAR REINFORCEMENT IS TO BE TIED BENEATH THE FABRIC IF USED OR OTHERWISE PLACED ON BAR CHAIRS AND LAPPED AT SPLICES AS FOLLOWS:

BAR SIZE	N12	N16	N20	N24	N28	N32
LAP LENGTH	450	600	800	1200	1350	1650

REINFORCEMENT COVER TABLE

ELEMENT	SHELTERED AREAS			EXPOSED AREAS		
	TOP	BTM	SIDES	TOP	BTM	SIDES
SLAB	20	40	40	40	40	40
BEAMS	-	40	40	40	40	40
STRIP FOOTINGS	-	-	-	50	50	50
PIERS	-	-	50	-	-	50

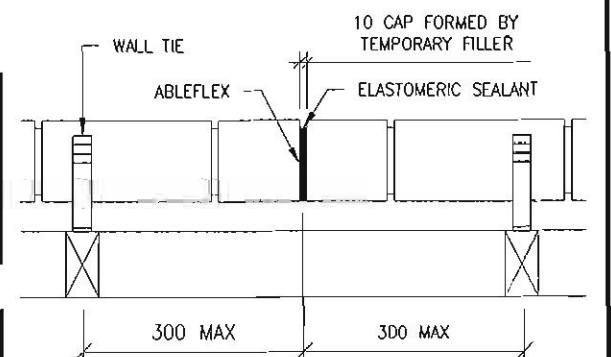
NOTE: BEAMS AND SLAB IN THIS TABLE ARE CONSIDERED TO HAVE AN INTACT MEMBRANE IN CONTACT WITH THE GROUND. BEAMS AND SLABS POURED DIRECTLY AGAINST THE GROUND ARE TO HAVE 50mm CLEAR COVER ALL-ROUND.

NOTES REGARDING SUB-TERRANEAN TERMITE PROTECTION

- T1. ALL WORKS TO BE IN ACCORDANCE WITH AS 3660.1
- T2. ANY FUTURE CRACKING OCCURRING IN THE SLAB IS TO BE ASSESSED BY A QUALIFIED PEST EXPERT AND WHERE DIRECTED BE SEALED BY EPOXY INJECTION.
- T3. INSPECTIONS OF THE RESIDENCE AND IMMEDIATE SURROUNDS TO BE CARRIED OUT BY A QUALIFIED PEST EXPERT ON AN ANNUAL BASIS BY THE HOME OWNER.
- T4. SITE MAINTENANCE IS THE RESPONSIBILITY OF THE HOME OWNER. ALL RECOMMENDATIONS OUTLINED BY THE CSIRO SHEET 10-91 SHOULD BE CARRIED OUT.

MASONRY NOTES

- M1. LOAD BEARING MASONRY SHALL COMPLY WITH AS 3700 AND THE PROJECT SPECIFICATION
- M2. THE MINIMUM CHARACTERISTIC COMPRESSIVE STRENGTH OF THE MASONRY UNITS AS DESCRIBED IN AS 3700 SHALL BE 20MPa U.N.O.
- M3. MORTAR 1:1:6 PROPORTION BY VOLUME OF CEMENT, LIME AND SAND RESPECTIVELY.
- M4. MASONRY SHALL BE ARTICULATED IN ACCORDANCE WITH THE B.C.A CLASS 1 AND 10 BUILDINGS VOLUME 2.
- M6. INTERNAL BRICKWORK BUILT OFF THE SLAB SHALL BE LAID ON TWO LAYERS OF 'ALCOR' OR '3 PLY MALTHOID' OR SIMILAR SLIP JOINT MATERIAL.
- M7. MASONRY WALLS MUST NOT BE BUILT ON CONCRETE SLABS OR BEAMS UNTIL ALL FORMWORK/PROPS SUPPORTING THESE SLABS AND BEAMS HAVE BEEN REMOVED.



ARTICULATION JOINT AND WALL TIE DETAIL

ALL WALL TIES TO BE BUILT IN AND FIXED TO FRAME PROGRESSIVELY AS CONSTRUCTION PROCEEDS SPACED AT EACH SIDE OF EXPANSION JOINTS AND AT EACH THIRD COURSE. THE SPACING OF ALL OTHER TIES SHALL BE AS DESCRIBED IN THE B.C.A CLASS 1 AND 10 BUILDINGS HOUSING PROVISIONS VOLUME 2.

WIND/WALL TIE CLASSIFICATION

WIND CLASS	(V _p)	WALL TIE (DUTY)	HORIZONTAL SPACING	VERTICAL SPACING
N1	W28N1	LIGHT	600mm	600mm
N2	W33N2	MEDIUM	600mm	600mm
N3	W41N3	MEDIUM	600mm	430mm (5 COURSES)

NOTE:

- WALL TIE SPACINGS AROUND OPENINGS 300cts EW.
- POLYMER WALL TIES RATED "LIGHT DUTY ONLY" (W28N1).
- (V_p = PERMISSABLE STRESS METHOD).

DRAWN	DATE	AMENDMENT	REV
A3			

RESIDENTIAL ENGINEERING CONSULTING ENGINEERS

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TELEPHONE 02 9764 6442
FAX 02 9764 6992
Builder's License No 334930

FOR: **FOY & MORAN**

SITE ADDRESS:
**12 PHILLIP AVENUE
SEAFORTH**

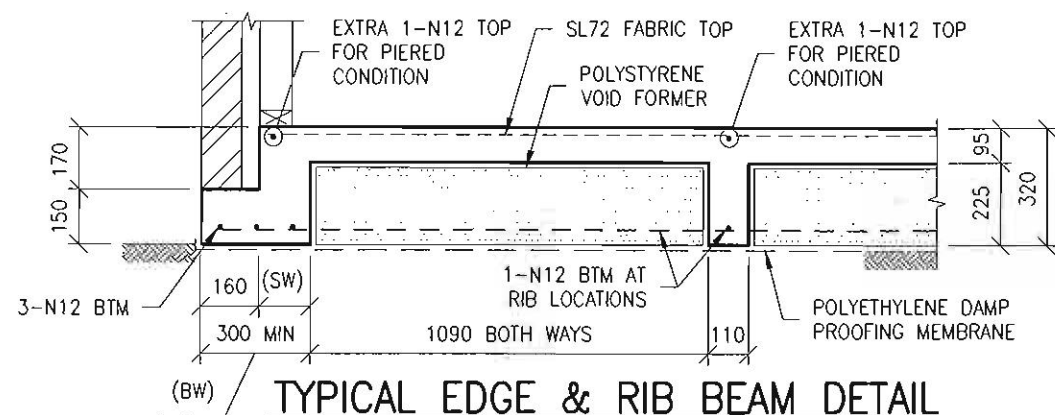
APPROVED BY: *A.W. McCarthy*

A.W. MCCARTHY
B.S. (Eng), M.I.E.Aust., N.P.E.R., C.P.Eng
NSW: BPB 0255
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QLD: RPEQ 4109

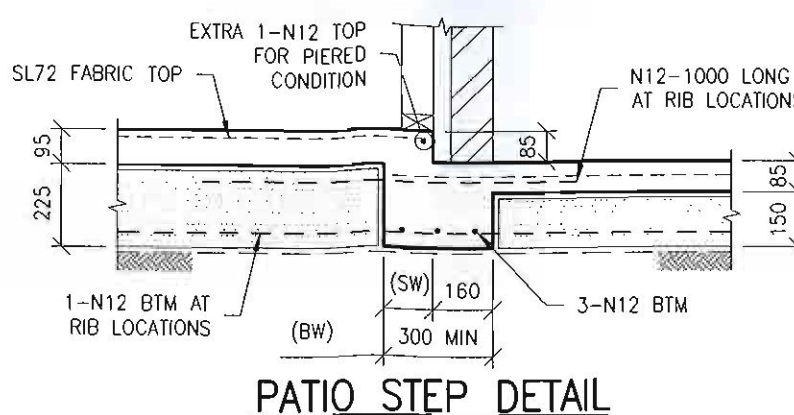
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SHEET No. **2/11**

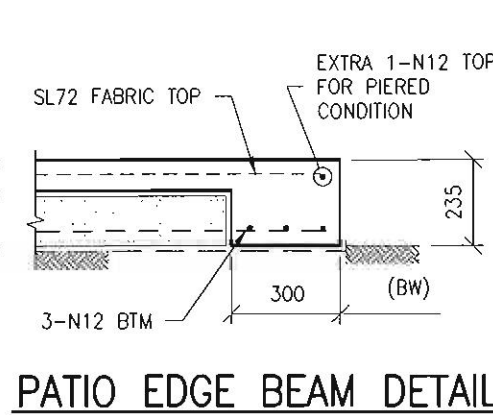
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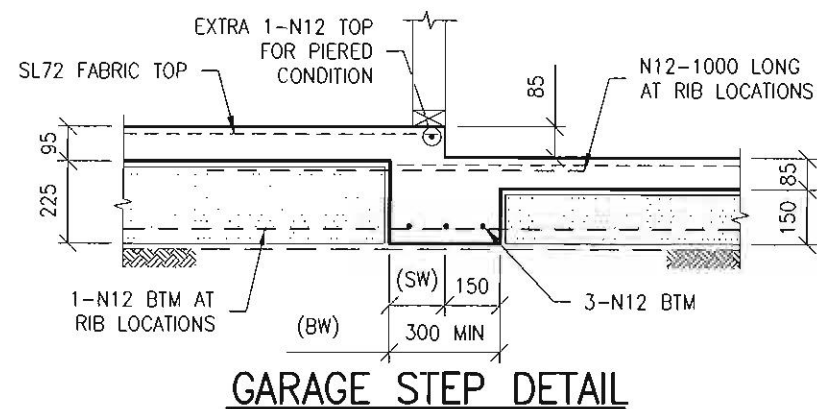
TYPICAL EDGE & RIB BEAM DETAIL



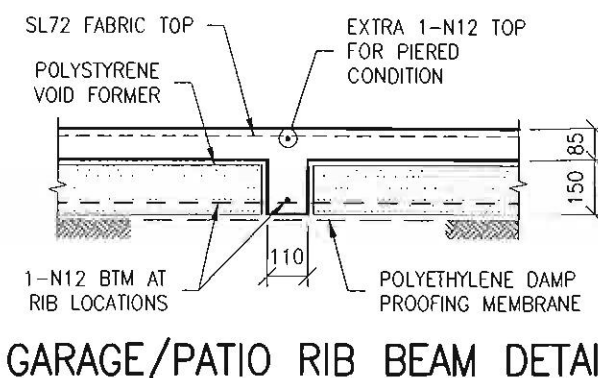
PATIO STEP DETAIL



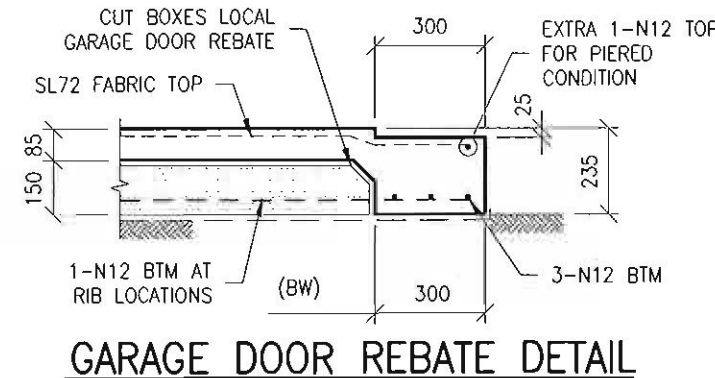
PATIO EDGE BEAM DETAIL



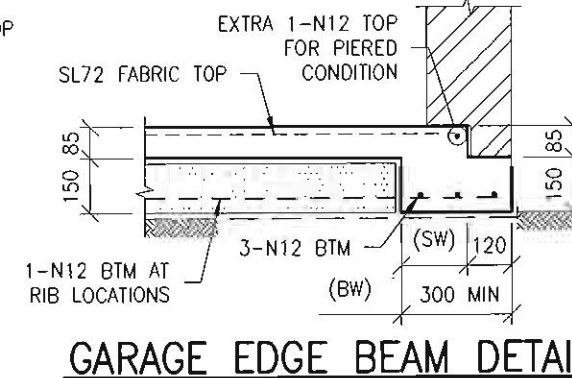
GARAGE STEP DETAIL



GARAGE/PATIO RIB BEAM DETAIL



GARAGE DOOR REBATE DETAIL

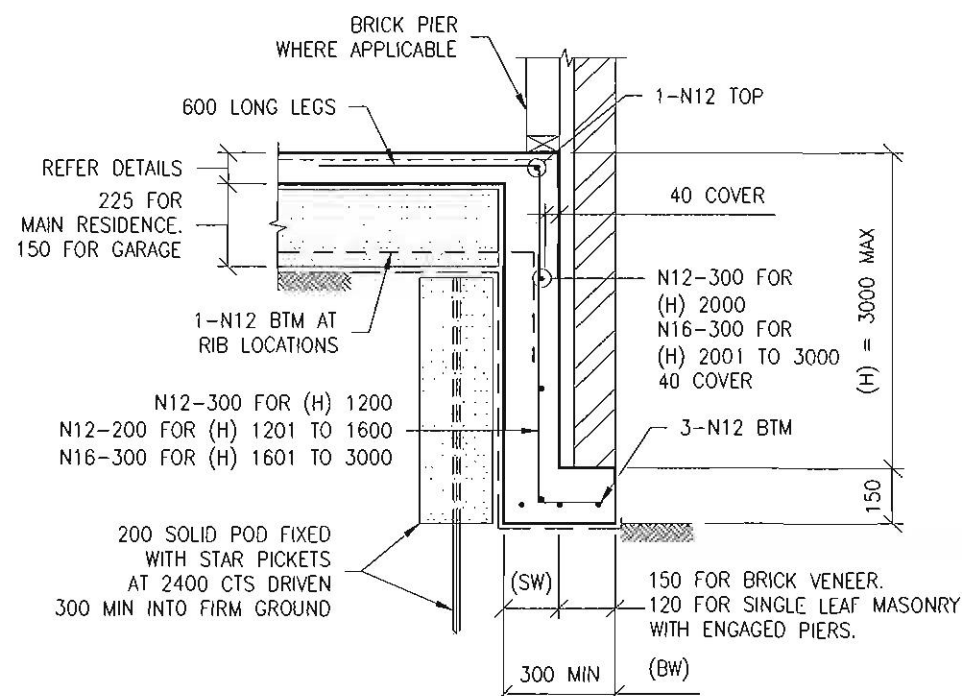


GARAGE EDGE BEAM DETAIL

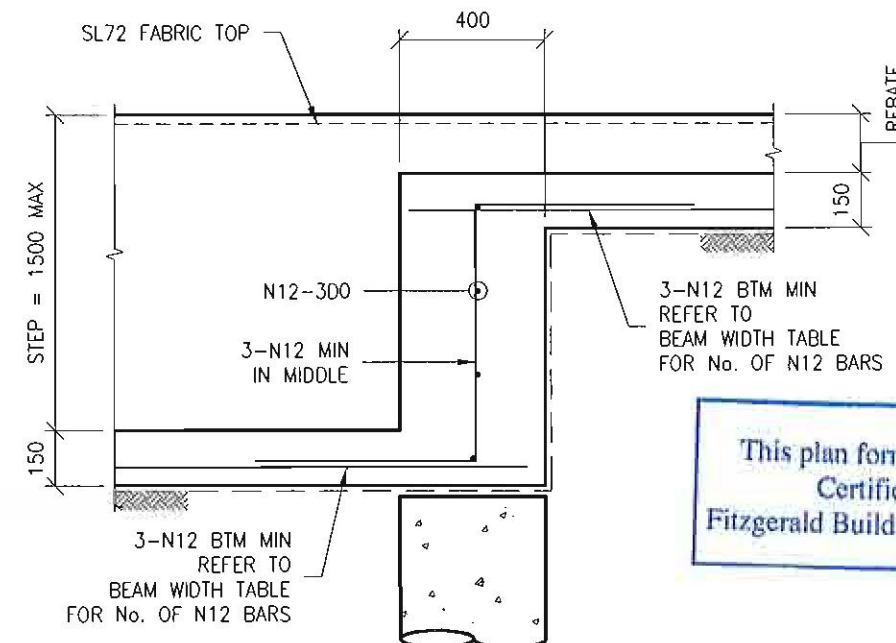
NOTE: RW11 (RIBBED WIRE GRADE 500RW) MAY BE USED IN LIEU OF N12'S

TOTAL REINFORCEMENT REQUIREMENTS WITHIN FOOTING BEAMS. TABLE 3.4 AS 2870	
BEAM WIDTH (BW)	TOTAL BTM STEEL
110 TO 150	1-N12
151 TO 220	2-N12
221 TO 330	3-N12
331 TO 440	4-N12
STEM WIDTH (SW)	ADDITIONAL TOP STEEL IN ADDITION TO SLAB FABRIC
110 TO 150	NIL
151 TO 220	1-N12
221 TO 330	2-N12
331 TO 440	3-N12

STEM WIDTH REQUIREMENTS FOR DEEPENED BEAMS	
MAX HEIGHT (H)	STEM WIDTH (SW)
UP TO 1200	150
1201 TO 1600	200
1601 TO 3000	250



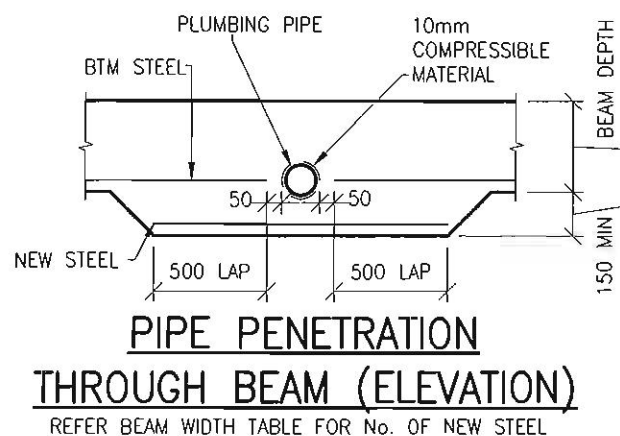
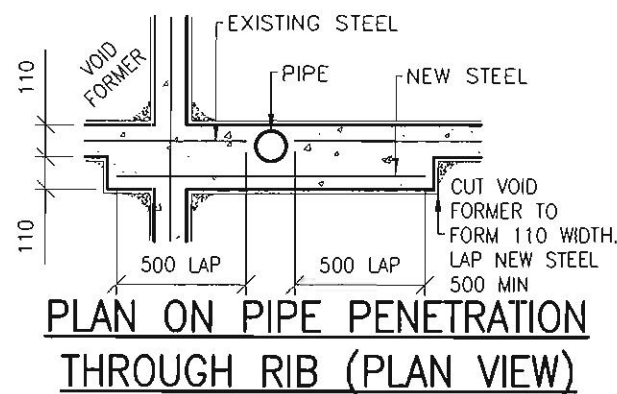
TYPICAL DEEPENED EDGE BEAM DETAIL



DEEPENED EDGE BEAM TRANSITION DETAIL

This plan forms part of the approved Certificate as issued by Fitzgerald Building Certifiers Pty Limited

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A3				1/19 Jonathan Street Greystanes NSW 2145		RAWSON HOMES	FOY & MORAN	<i>A.W. McCarthy</i>	RW301	
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				Tel: 02 9896 5494 Fax: 02 9636 1064		enquiries@residentialengineering.com.au	12 PHILLIP AVENUE SEAFORTH	NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	CLIENT REF: DA0100	DRAWN: B.K.
						Builder's License No.33493C				SHEET No. 3/11



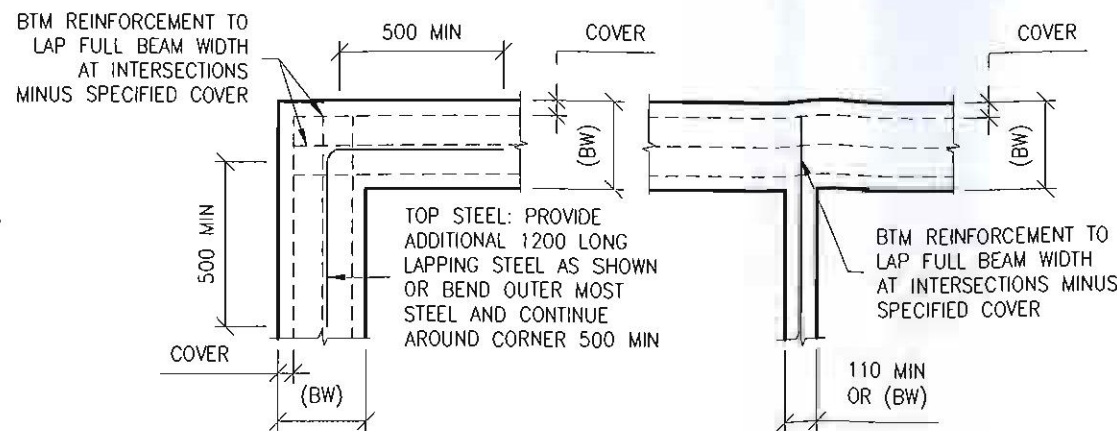
NOTE: RW11 (RIBBED WIRE GRADE 500RW) MAY BE USED IN LIEU OF N12'S

TOTAL REINFORCEMENT REQUIREMENTS WITHIN FOOTING BEAMS. TABLE 3.4 AS 2870

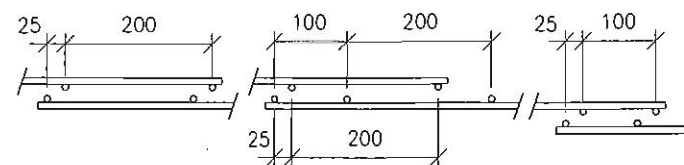
BEAM WIDTH (BW)	TOTAL BTM STEEL
110 TO 150	1-N12
151 TO 220	2-N12
221 TO 330	3-N12
331 TO 440	4-N12
STEM WIDTH (SW)	ADDITIONAL TOP STEEL IN ADDITION TO SLAB FABRIC
110 TO 150	NIL
151 TO 220	1-N12
221 TO 330	2-N12
331 TO 440	3-N12

STEM WIDTH REQUIREMENTS FOR DEEPEEN BEAMS

MAX HEIGHT (H)	STEM WIDTH (SW)
UP TO 1200	150
1201 TO 1600	200
1601 TO 3000	250

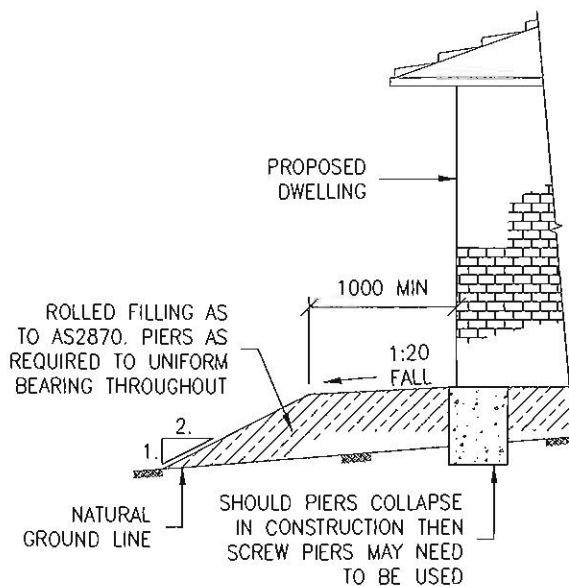


REINFORCEMENT LAPPING DETAIL AT 'L' AND 'T' INTERSECTIONS (PLAN VIEW)



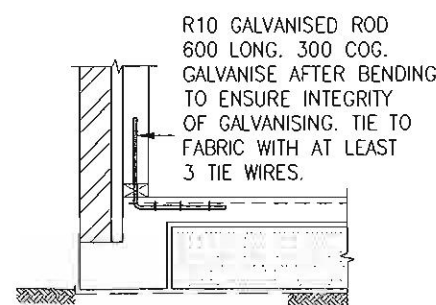
FABRIC LAP DETAIL

SCALE 1:10

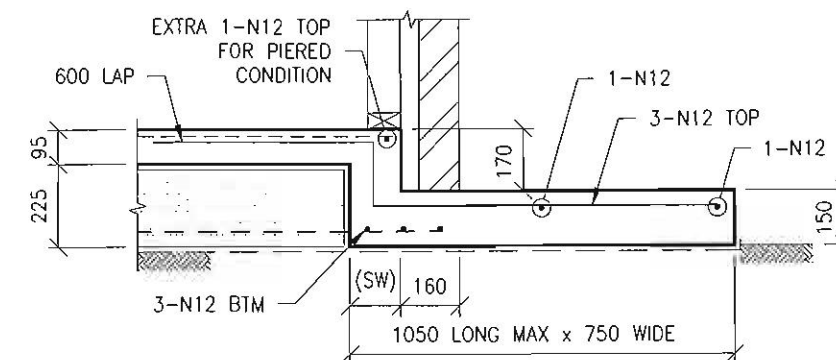


FILLING SPECIFICATION DETAIL

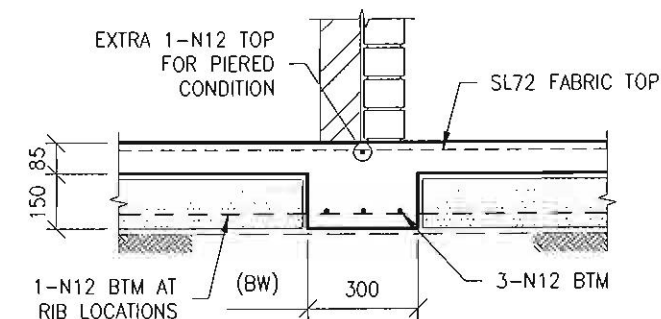
NOT TO SCALE



WET AREA EARTHING DETAIL

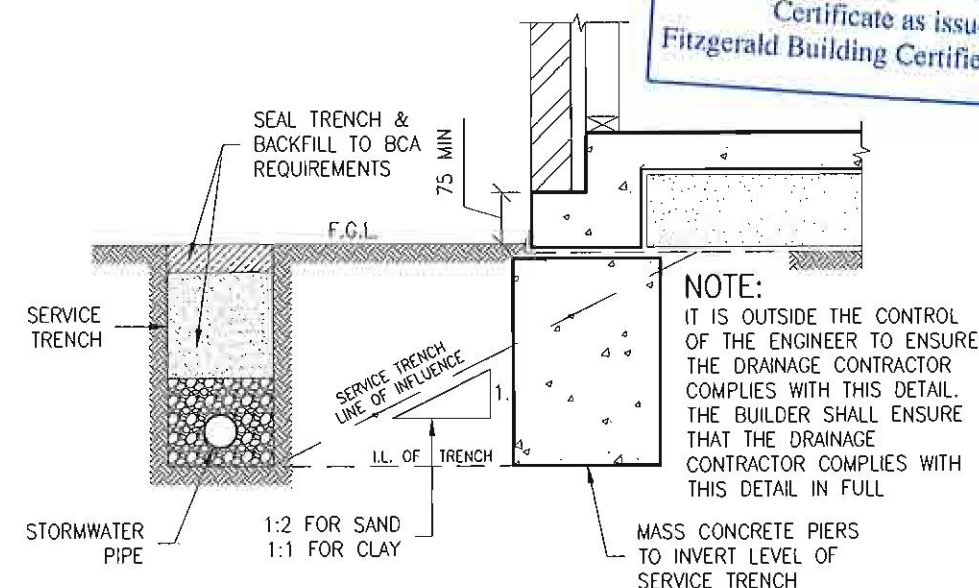


HWS & ACU PAD DETAIL



GARAGE/PATIO BEAM DETAIL

WHERE APPLICABLE

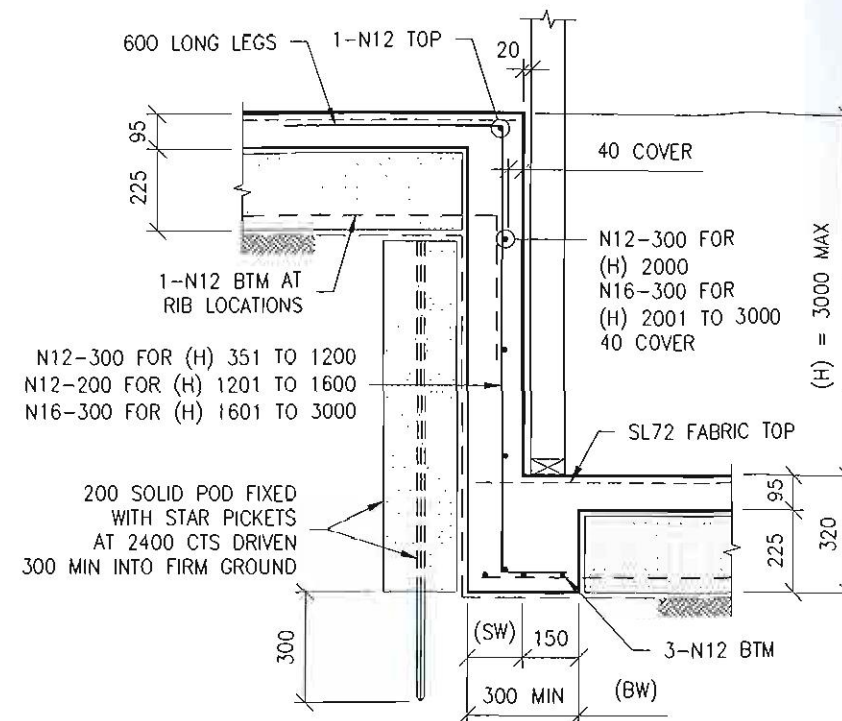


SERVICE TRENCH DETAIL

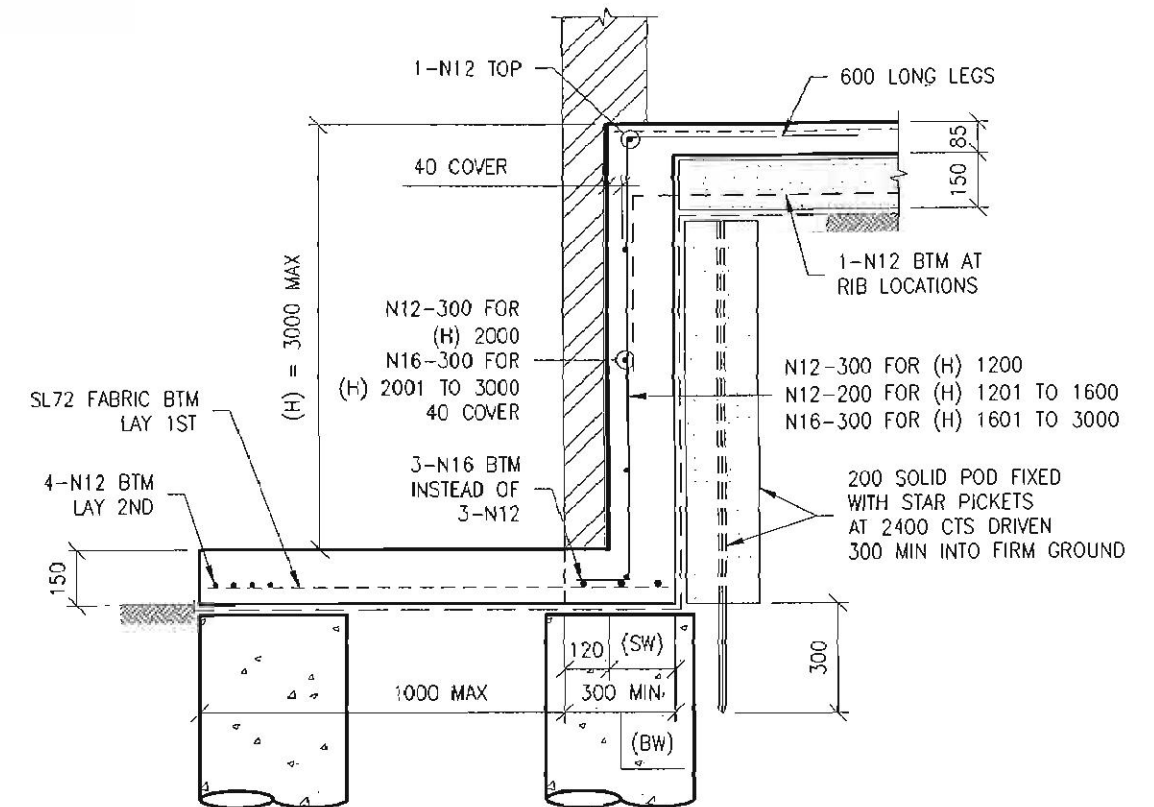
EDGE OF SLAB INSIDE SERVICE TRENCH ZONE OF INFLUENCE

IF IN DOUBT, CONTACT ENGINEER.

DRAWN	DATE	AMENDMENT	REV	CLIENT	FOR	APPROVED BY	JOB No.	REVISION
A3				RAWSON HOMES	FOY & MORAN	A.W. McCarthy	RW301	
COPYRIGHT - THIS DRAWING REMAINS THE PROPERTY OF RESIDENTIAL ENGINEERING AND MAY NOT BE ALTERED IN ANY WAY WITHOUT RESIDENTIAL ENGINEERING WRITTEN CONSENT.				1/19 Jonathan Street Greystanes NSW 2145	12 PHILLIP AVENUE SEAFORTH	A.W. McCarthy B.Sc.(Eng), M.J.E.Aust., N.P.E.R., C.P.Eng. NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	DATE: 16-8-10 CLIENT REF: DA0100	SHEET No. 4/11



DEEPEMED INTERNAL BEAM DETAIL 'ST1'



RAINWATER TANK SLAB 'RTS'

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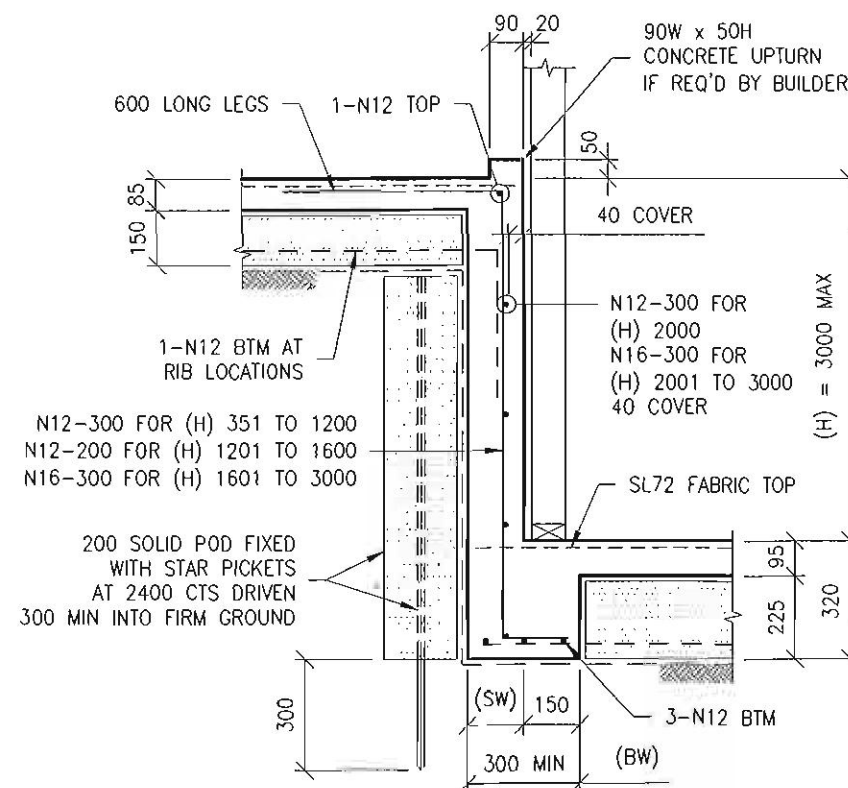
NOTE: RW11 (RIBBED WIRE GRADE 500RW) MAY BE USED IN LIEU OF N12'S

TOTAL REINFORCEMENT REQUIREMENTS WITHIN FOOTING BEAMS. TABLE 3.4 AS 2870

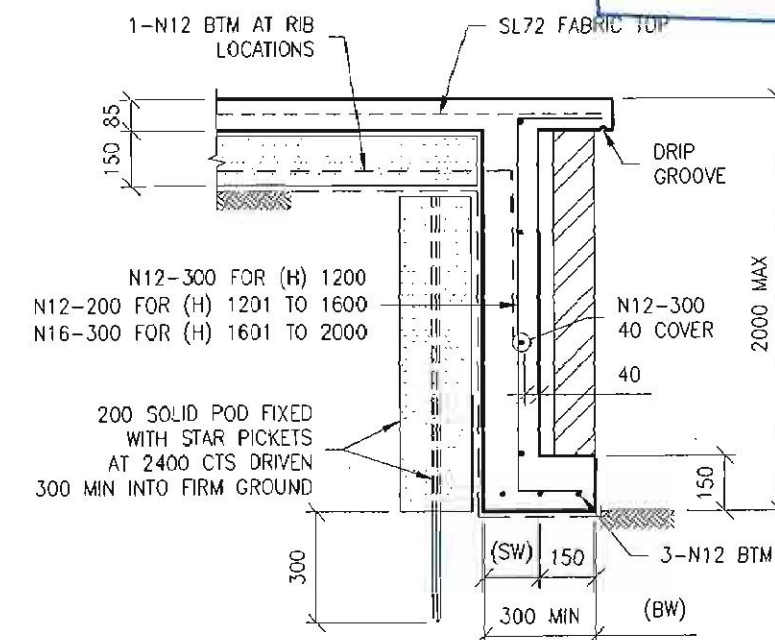
BEAM WIDTH (BW)	TOTAL BTM STEEL
110 TO 150	1-N12
151 TO 220	2-N12
221 TO 330	3-N12
331 TO 440	4-N12
STEM WIDTH (SW)	ADDITIONAL TOP STEEL IN ADDITION TO SLAB FABRIC
110 TO 150	NIL
151 TO 220	1-N12
221 TO 330	2-N12
331 TO 440	3-N12

STEM WIDTH REQUIREMENTS FOR DEEPEMED BEAMS

MAX HEIGHT (H)	STEM WIDTH (SW)
UP TO 1200	150
1201 TO 1600	200
1601 TO 3000	250



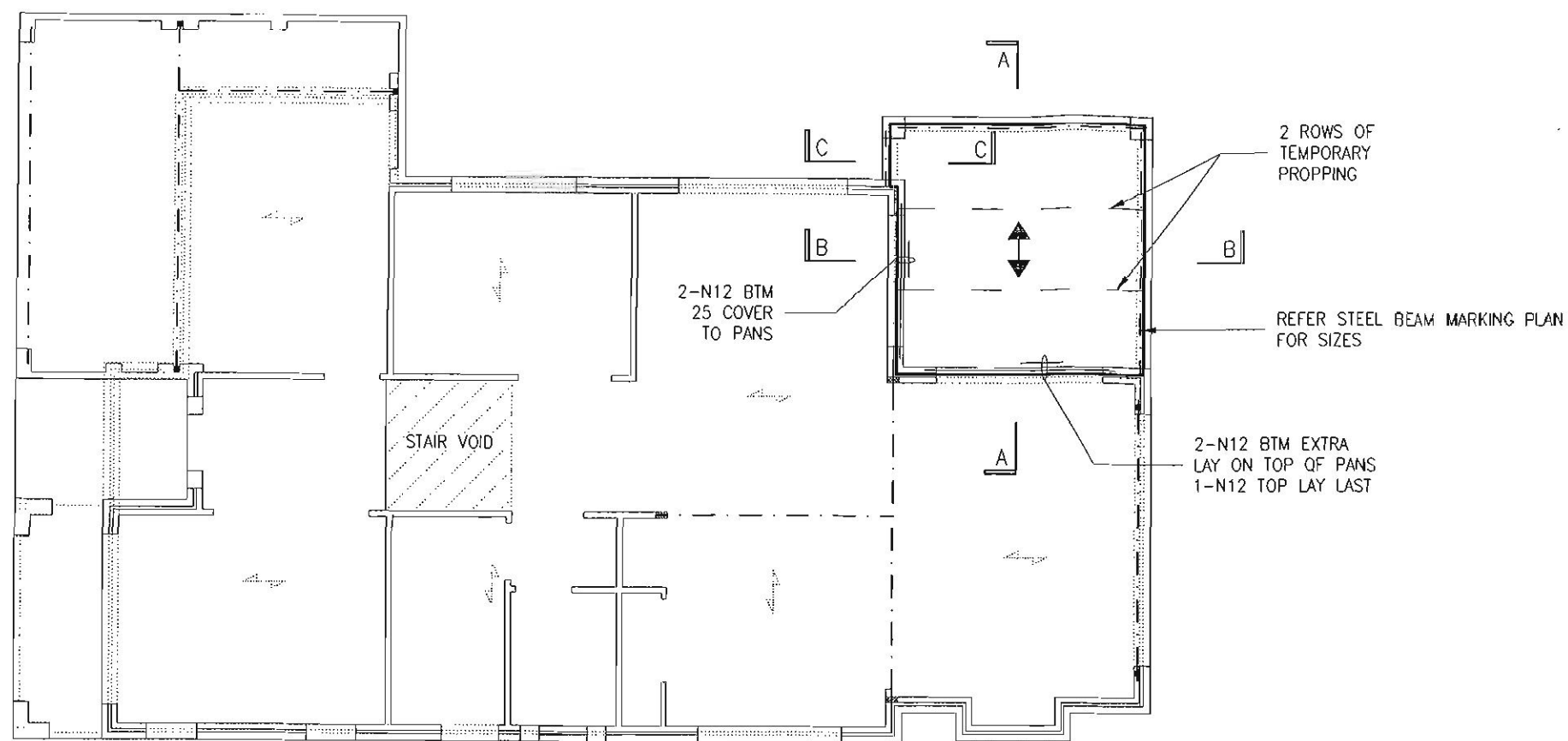
DEEPEMED GARAGE TO MAIN RESIDENCE STEP DETAIL 'ST2'



DEEPEMED PATIO EDGE BEAM DETAIL

IF IN DOUBT, CONTACT ENGINEER.

DRAWN	DATE	AMENDMENT	REV	NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	CLIENT: RAWSON HOMES	FOR: FOY & MORAN	APPROVED BY: <i>A.W. McCarthy</i>	JOB No. RW301	REVISION
				1/19 Jonathan Street Greystanes NSW 2145	UNIT 34/11-21 UNDERWOOD ROAD HOME BUSH NSW 2140 TELEPHONE 02 9764 6442 FAX 02 9764 6992 Builder's License No. 33493C	SITE ADDRESS: 12 PHILLIP AVENUE SEAFORTH	A.W. MCCARTHY E.Sc.(Eng), M.I.E.Aust., N.P.E.R., C.P.Eng. NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	DATE: 16-8-10	SHEET No. 5/11
				www.residentialengineering.com.au enquiries@residentialengineering.com.au	Tel: 02 9896 5494 Fax: 02 9636 1064		SCALE: 1:20	DRAWN: B.K.	



BALCONY SLAB PLAN

170mm THICK SLAB, 32MPa CONCRETE
1.0mm BONDEK BTM
SL82 FABRIC TOP 30mm COVER
EXTRA REINFORCEMENT AS SHOWN



DIRECTION
OF BONDEK

SUSPENDED SLAB NOTES

- SS1. IF SLAB FABRIC IS USED IT IS TO BE SUPPLIED IN FLAT SHEETS AND IS TO BE LAPPED ONE FULL SQUARE PLUS 25mm AT SPLICES AND PLACED ON BAR CHAIRS AT ONE METRE CENTRES BOTH WAYS UNLESS REDUCED SPACING IS SPECIFIED.
- SS2. ALL LOAD BEARING BRICKWORK IS SHOWN IN BROKEN LINE ON THE SLAB PLAN. THE TOP COURSE OF BRICKWORK IS TO BE COVERED WITH TWO LAYERS OF 'ALCOR' OR '3 PLY MALTHOID' OR SIMILAR SLIP JOINT MATERIAL.
- SS3. NON LOAD BEARING WALLS SHALL BE SEPARATED FROM CONCRETE ABOVE BY 20mm THICK CLOSED CELL POLYETHYLENE STRIP.
- SS4. CONCRETE ENCASED STEELWORK SHALL BE WRAPPED IN SL41 FABRIC AND SHALL HAVE 50mm COVER U.N.O ON THE DRAWINGS.
- SS5. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED. VIBRATORS SHALL NOT BE USED TO SPREAD CONCRETE.
- SS6. CURING THE CONCRETE SHALL START IMMEDIATELY AFTER FINISHING BY CONTINUALLY WETTING FOR 7 DAYS MINIMUM. PLASTIC OR WAX LIQUID SPRAYS MAY BE USED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. EXTRA PRECAUTION SUCH AS THE METHOD OF EVAPORATIVE RETARDATION (THE USE OF ALIPHATIC ALCOHOLS) IS RECOMMENDED DURING HOT WEATHER POURS TO HELP AVOID THERMAL RELATED SLAB CRACKING.

SUSPENDED SLAB REINFORCEMENT TABLE MINIMUM COVER U.N.O.

COVER	FINISH	MAIN RESIDENCE (INTERNAL)	PATIO/BALCONY (EXTERNAL)
TOP	TILED	20	30
	NON-TILED	20	45
BTM	TILED	20	20
	NON-TILED	20	20

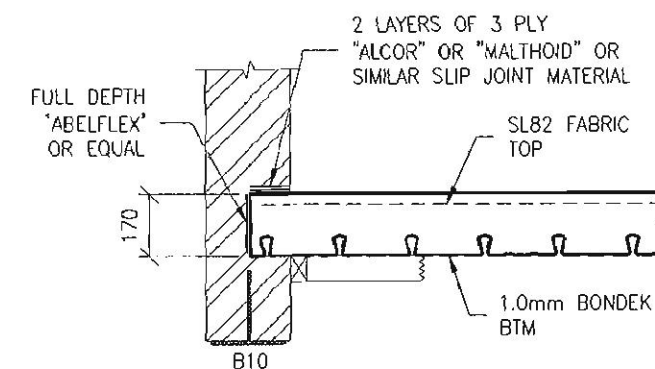
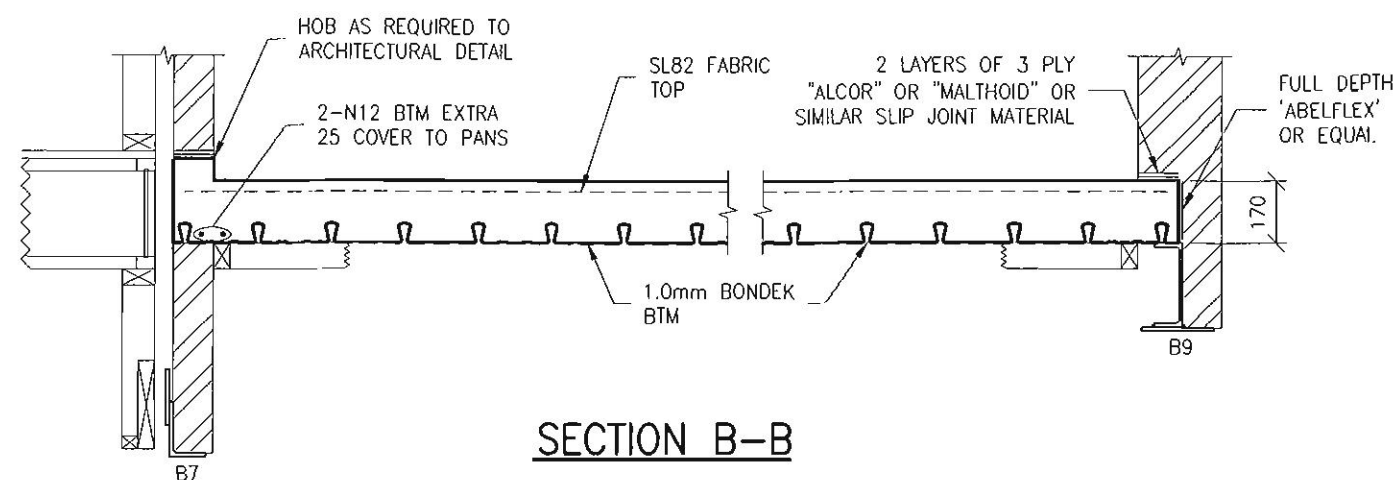
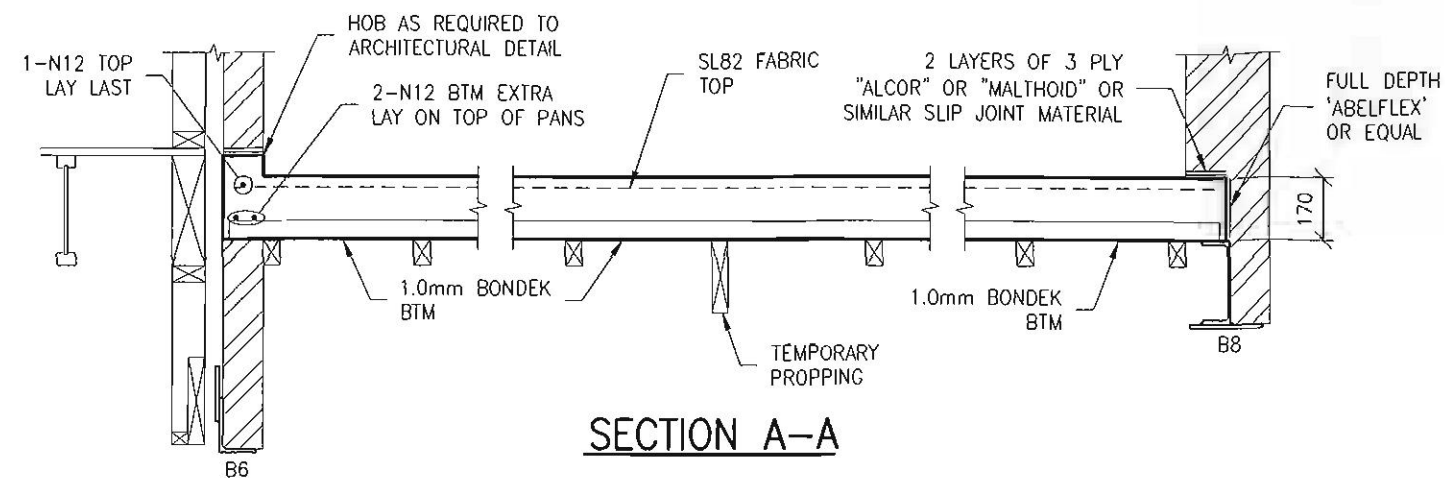
SUSPENDED SLAB CONCRETE SPECIFICATION TABLE

SLUMP	MAX SIZE AGGREGATE	F'C AT 28 DAYS			
		MAIN RESIDENCE (COVERED AREAS)		PATIO/BALCONY (UNCOVERED AREAS)	
80	20	TILED	NON-TILED	TILED	NON-TILED
		N20	N20	N20	N32

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IF IN DOUBT, CONTACT ENGINEER.

DRAWN	DATE	AMENDMENT	REV	 RESIDENTIAL ENGINEERING CONSULTING ENGINEERS 1/19 Jonathan Street Greystanes NSW 2145 www.residentialengineering.com.au enquiries@residentialengineering.com.au Tel: 02 9896 5494 Fax: 02 9636 3064	NSW: B7B 0255 VIC: EC 24609 QLD: RPEQ 4109	CLIENT: RAWSON HOMES 	FOR: FOY & MORAN	APPROVED BY: 	JOB No. RW301	REVISION
A3	COPYRIGHT - THIS DRAWING REMAINS THE PROPERTY OF RESIDENTIAL ENGINEERING AND MAY NOT BE ALTERED IN ANY WAY WITHOUT RESIDENTIAL ENGINEERING WRITTEN CONSENT.				UNIT 34/11-21 UNDERWOOD ROAD HOWESBUSH NSW 2140 TELEPHONE 02 9764 6442 FAX 02 9764 6992 Builder's License No. 33493C	SITE ADDRESS: 12 PHILLIP AVENUE SEAFORTH	A.W. MCCARTHY B.Sc.(Eng), M.I.E.Aust., N.P.E.R., C.P.Eng. NSW: B7B 0255 VIC: EC 24609 QLD: RPEQ 4109	DATE: 16-8-10	SCALE: 1:100	SHEET No. 6/11



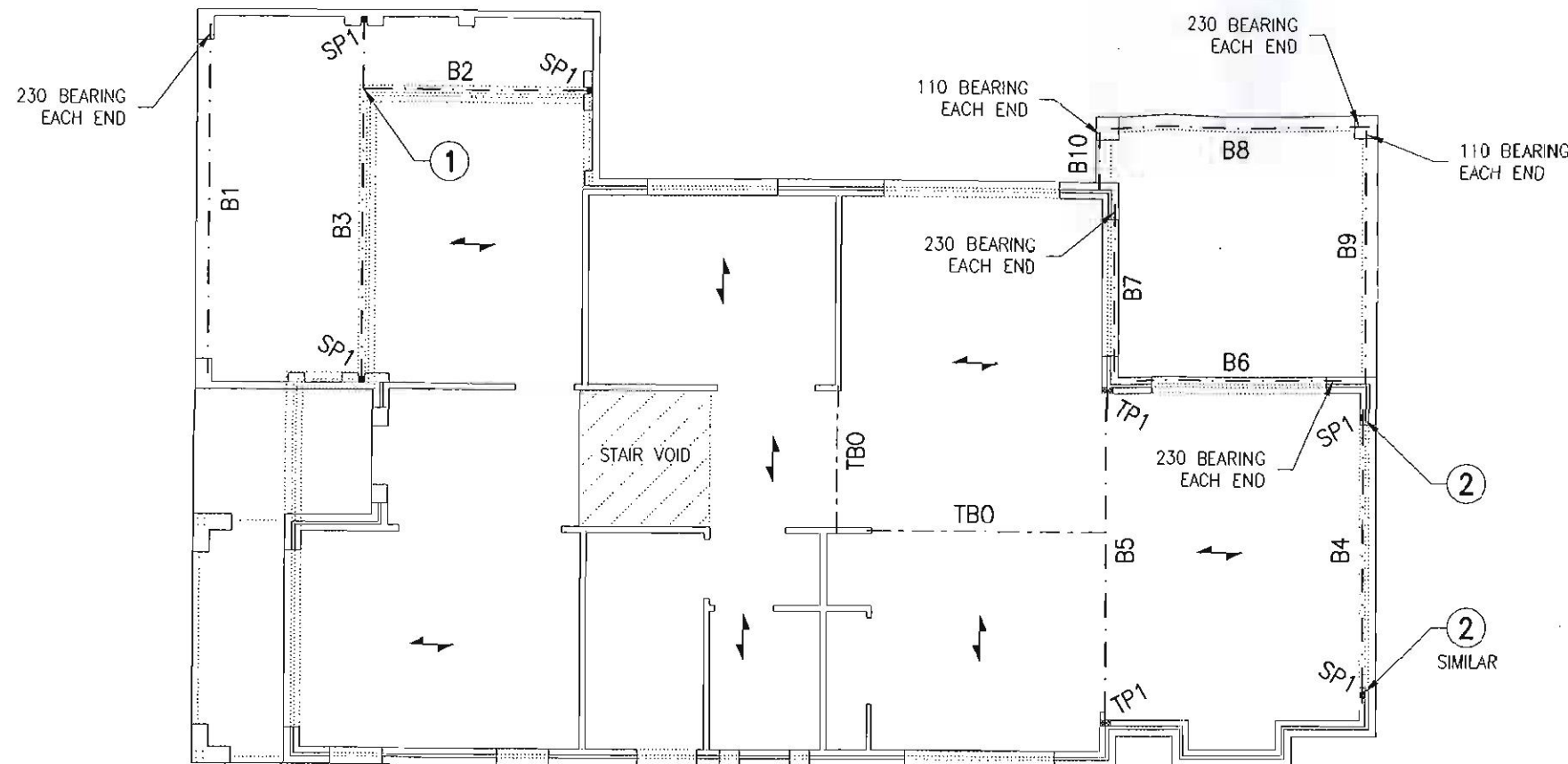
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				1/19 Jonathan Street Greystanes NSW 2145 www.residentialengineering.com.au enquiries@residentialengineering.com.au	NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	SITE ADDRESS: 12 PHILLIP AVENUE SEAFORTH	A.W. MCCARTHY B.Sc.(Eng), M.I.E.Aust., N.P.E.R., C.P.Eng. NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	DATE: 16-8-10 SCALE: 1:20 CLIENT REF: DA0100 DRAWN: B.K.	SHEET No. 7/11
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STEEL BEAM PROFILE NOTE:

THE BEAM(S) SPECIFIED ON THIS DRAWING DOES NOT REPRESENT THE ONLY POSSIBLE STRUCTURAL SOLUTION. PLEASE CONTACT RESIDENTIAL ENGINEERING IF AN ALTERNATIVE BEAM PROFILE WOULD BE PREFERRED FOR ARCHITECTURAL OR CONSTRUCTABILITY REASONS.



GALINTELS AND T-BAR NOTE:

THE INSTALLATION OF GALINTELS AND T-BARS TO BE STRICTLY IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS. PROVIDE 230 MIN END BEARING UNO.

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GROUND FLOOR STEELWORK MARKING PLAN

FLOOR JOIST DIRECTION NOTE:

FLOOR JOIST DIRECTION OVER ASSUMED BY ENGINEER. ENGINEER IS TO BE CONTACTED IF ANY INCONSISTENCIES OR CHANGES TO THE FLOOR JOIST DIRECTION ARE FOUND

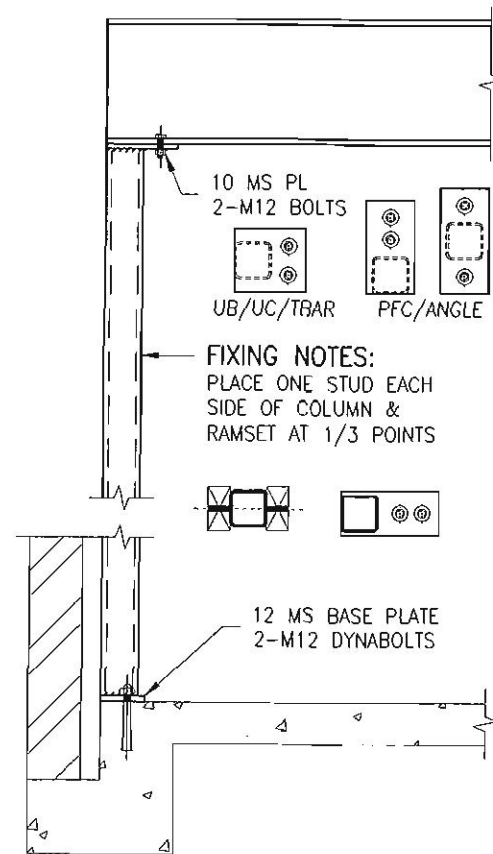
STEEL BEAM SCHEDULE

ITEM	DESCRIPTION
B1	200 PFC + 200 x 10 MS PL
B2	200UB18
B3	310UB46
B4	230 PFC + 200 x 10 MS PL
B5	250UB31
B6	150 x 100 x 10 RSA + 150 x 10 MS PL
B7	150 x 100 x 10 RSA + 150 x 10 MS PL
B8	230 PFC + 200 x 10 MS PL
B9	230 PFC + 200 x 10 MS PL
B10	200 x 200 x 7 GALINTEL 'T' BAR
SP1	75 x 75 x 4.0 SHS
TP1	4 / 90 x 45 MGP10 STUDS
TBO	TIMBER BEAM BY OTHERS

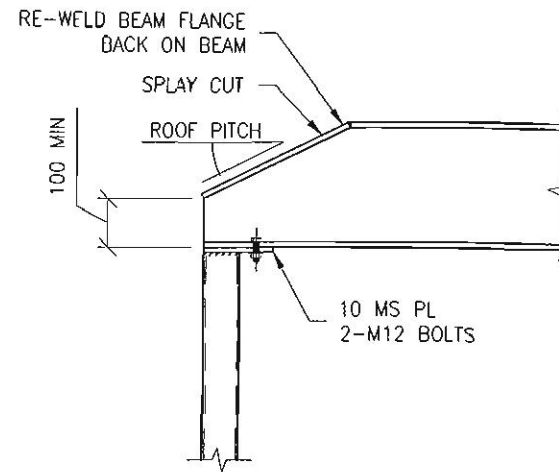
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				1/19 Jonathan Street Greystanes NSW 2145 www.residentialengineering.com.au enquiries@residentialengineering.com.au Tel: 02 9896 5494 Fax: 02 9636 1064	RAWSON HOMES	FOY & MORAN	<i>A.W. McCarthy</i>	RW301	
					UNIT 34/11-21 UNDERWOOD ROAD HOME BUSH NSW 2140 TELEPHONE 02 9764 6442 FAX 02 9764 6992 Builder's License No. 33493C	SITE ADDRESS: 12 PHILLIP AVENUE SEAFORTH	A.W. MCCARTHY B.Sc.(Eng), M.L.E.Aust., M.P.E.R., C.P.Eng. NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	DATE: 16-8-10 SCALE: 1:100 CLIENT REF: DA0100 DRAWN: B.K.	SHEET No. 8/11

IF IN DOUBT, CONTACT ENGINEER.



TYPICAL STEEL POST DETAIL

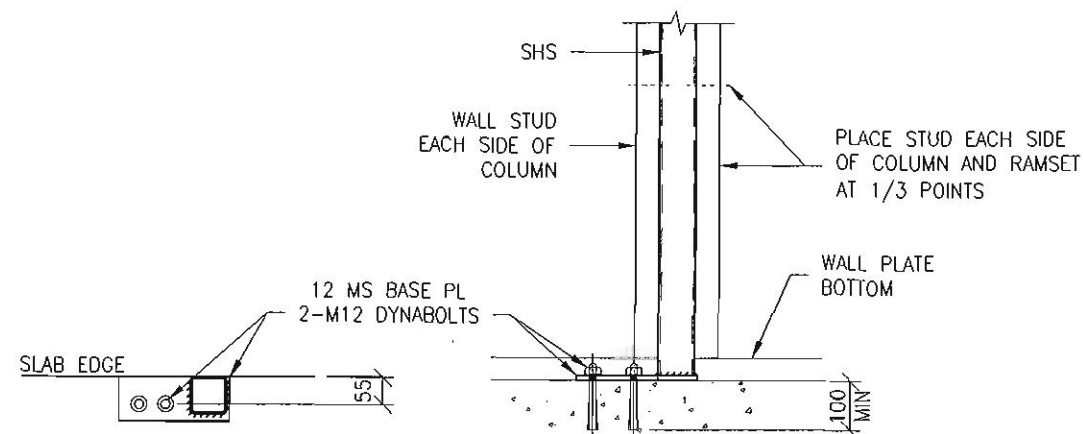


TYPICAL SPLAY DETAIL

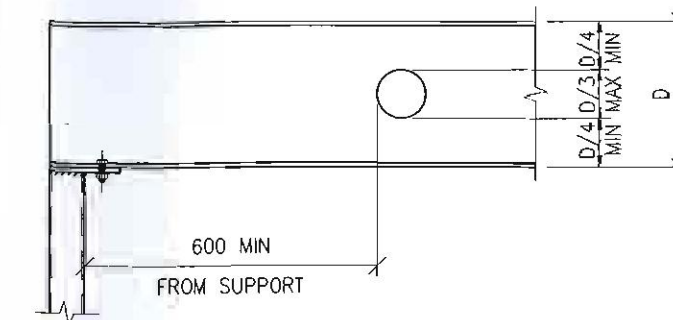
NOTE: THE BUILDER IS TO DETERMINE IF THIS DETAIL IS REQUIRED

NOTE:

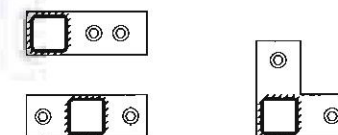
- ALL WELDS TO BE 6mm CFW U.N.O.
- ALL BOLTS TO BE SPANNER TIGHTENED



COLUMN BASE PLATE CONNECTION DETAILS

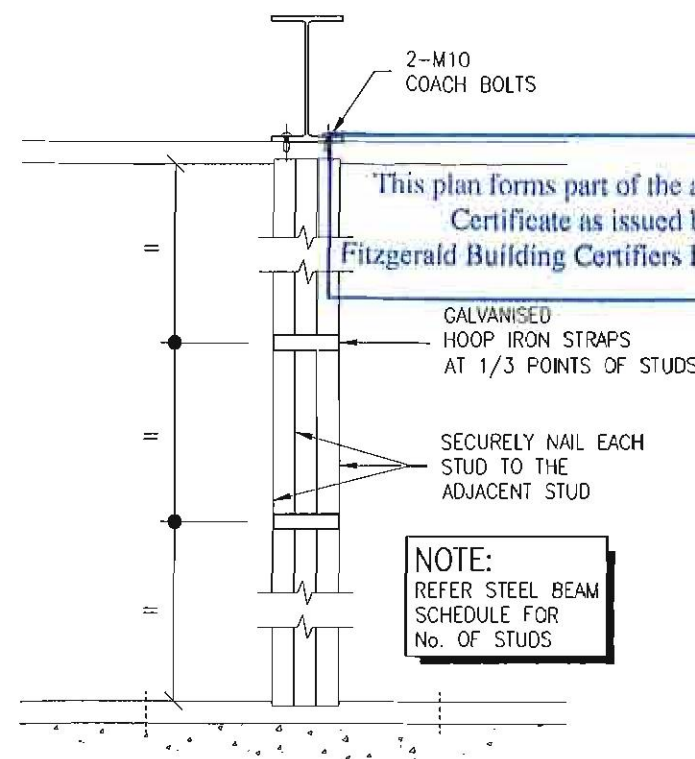


STEEL BEAM PENETRATION DETAIL



COLUMN BASE PLATE DETAILS

- ORIENTATE BASE PLATE TO SUIT WALL LOCATION
- 12mm THICK BASE PLATE U.N.O.
- 2-M12 DYNABOLTS, 100 MIN EMBEDMENT U.N.O.
- 6mm CFW CONNECTION OF COLUMN TO BASE PLATE



TYPICAL TIMBER POST DETAIL

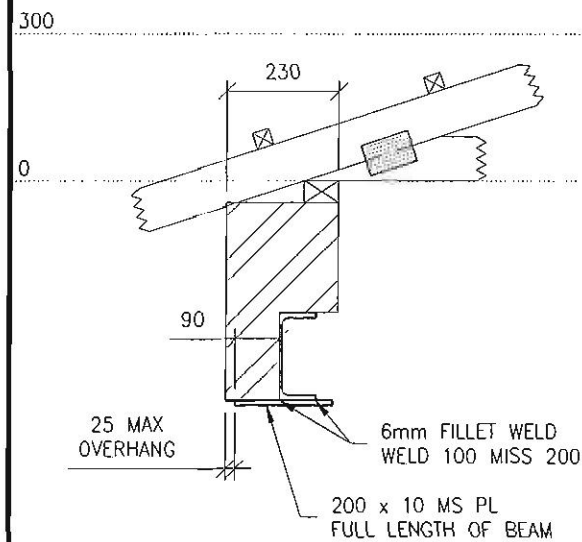
STRUCTURAL STEEL NOTES

- S1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100.
- S2. STEELWORK DESIGNED IN ACCORDANCE WITH AS 4100 "STEEL STRUCTURES CODE" AND AS 1170.1/AS 1170.2 "DEAD AND LIVE LOADS AND WIND LOADS". STRUCTURAL STEEL TO BE GRADE (BHP 300 PLUS)
- S3. SURFACE PREPARATION AND FINISH TO COMPLY WITH AS/NZS 2312 AND BUILDING CODE OF AUSTRALIA CLASS 1 AND 10 BUILDINGS VOLUME 2. THE BUILDER MUST CLARIFY HIS CONTRACTUAL OBLIGATIONS IN THIS REGARD.
- S4. THE INSTALLATION OF GALINTELS AND 'T' BARS TO BE STRICTLY IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
- S5. THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION IS THE BUILDERS RESPONSIBILITY. ADEQUATE TEMPORARY BRACING SHALL BE PROVIDED AS IS NECESSARY TO STABILISE THE STRUCTURE DURING CONSTRUCTION.
- S6. WELDS:
 - ALL WELOS TO BE 6mm CONTINUOUS FILLET WELD U.N.O.
 - BUTT WELDS WHERE INDICATED IN THE DOCUMENTS TO BE COMPLETE PENETRATION BUTT WELDS AS DEFINED IN AS 1554.
 - ALL SHOP WELDS TO BE FULLY WELDED U.N.O.
 - USE E41XX ELECTRODES FOR ALL WELDING U.N.O.
- S7. SITE WELDING OF HOT DIP GALVANISED STEEL IS PERMISSIBLE IF UPON COMPLETION THE WELDS ARE TREATED WITH THE APPROPRIATE COATING FOR SEVERE AS PER THE B.C.A AND AS/NZS 2312.
- S8. BOLT DESIGNATION:
 - 4.6/S - COMMERCIAL BOLT OF GRADE 4.6 TO AS 1111 SNUG TIGHTENED
 - 8.8/S - HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 SNUG TIGHTENED
 - BOLTS TO BE PROVIDED WITH THREADS CLEAR OF SHEAR PLANE.
- S9. ALL BOLTS TO BE COMMERCIAL GRADE U.N.O. NO CONNECTION SHALL HAVE LESS THAN TWO BOLTS. ALL BOLTS AND WASHERS TO BE GALVANISED.
- S10. BEAMS SUPPORTED ON BRICKWORK (BEARING NOTED ON PLAN) TO HAVE INCOMPRESSIBLE PACKING AS REQUIRED UNDER THE ENDS OF THE BEAM TO ENSURE EVEN BEARING ON THE BRICKWORK.
- S11. THE BUILDER SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL TO STEEL AND TIMBER TO STEEL, WHETHER OR NOT DETAILED IN THE DRAWINGS.
- S12. ALL GUSSET PLATES TO BE 10mm THICK U.N.O.
- S13. ALL COLUMNS AND BEAMS SHOWN ON THE DRAWINGS FOR TIMBER FRAMED BUILDINGS SHALL BE LATERALLY RESTRAINED BY THE BUILDING FRAME AT EACH SUPPORT LOCATION THROUGH POSITIVE SCREW FIXING OF WALL STUDS TO THE COLUMNS AND EITHER JOISTS OR NOGGINGS TO THE BEAMS. FOR ARTICULATED FULL MASONRY BUILDINGS, COLUMNS WILL BE LATERALLY RESTRAINED BY BRICKWORK AT EACH SUPPORT LOCATION THROUGH POSITIVE FIXING OF WALL TIES. WHERE A BEAM DIRECTLY SUPPORTS A CONCRETE SLAB NO ADDITIONAL RESTRAINT IS REQUIRED.
- S14. THE BUILDER IS TO MAKE GOOD AND/OR REPAIR ALL DAMAGED SURFACES DURING PERFORMANCE OF THE WORK.

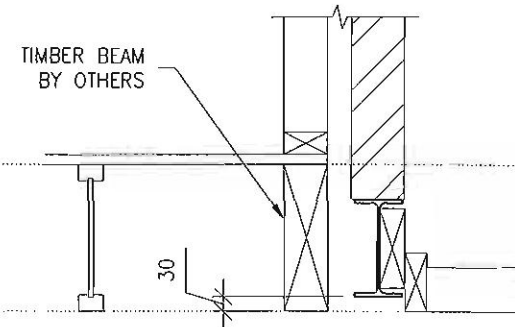
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				RAWSON HOMES	FOY & MORAN	<i>McCarthy</i>	RW301	
				UNIT 34/11-21 UNDERWOOD ROAD HOME BUSH NSW 2140 TELEPHONE 02 9764 6442 FAX 02 9764 6992 Builder's License No. 33493C	SITE ADDRESS: 12 PHILLIP AVENUE SEAFORTH	A.W. MCCARTHY B.Sc. (Eng), M.I.E. Aust., N.P.E.R., C.P.Eng. NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	DATE: 16-8-10 SCALE: 1:15 CLIENT REF: DA0100 DRAWN: B.K.	SHEET No. 9/11
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NOTE:

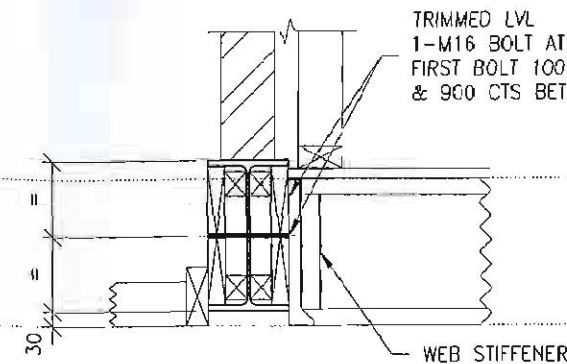
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- ALL BOLTS TO BE SPANNER TIGHTENED



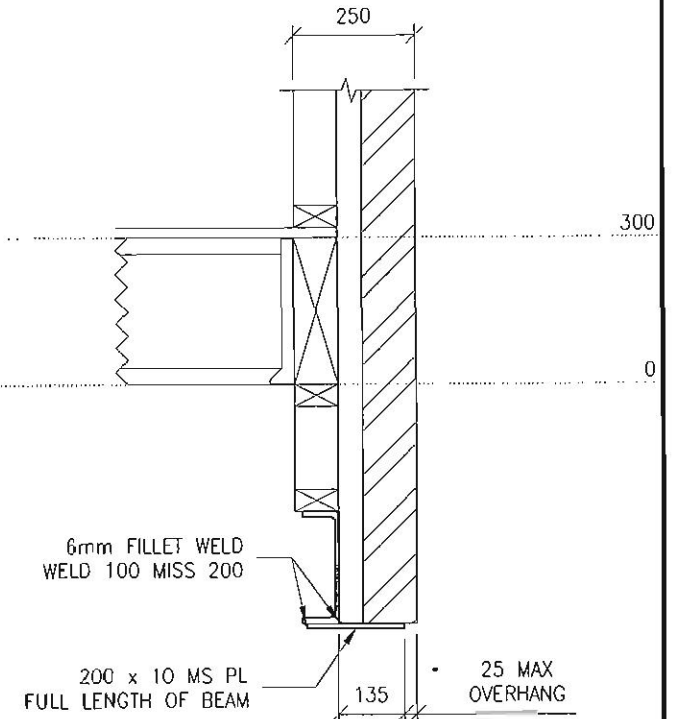
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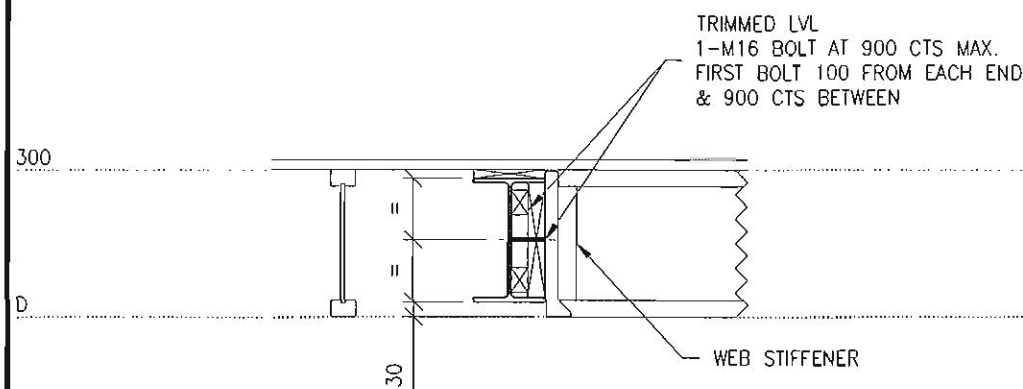
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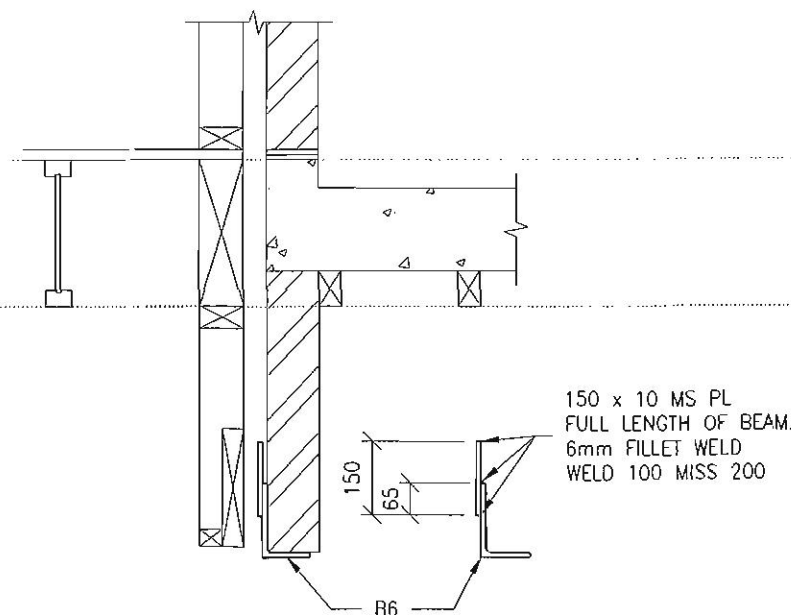
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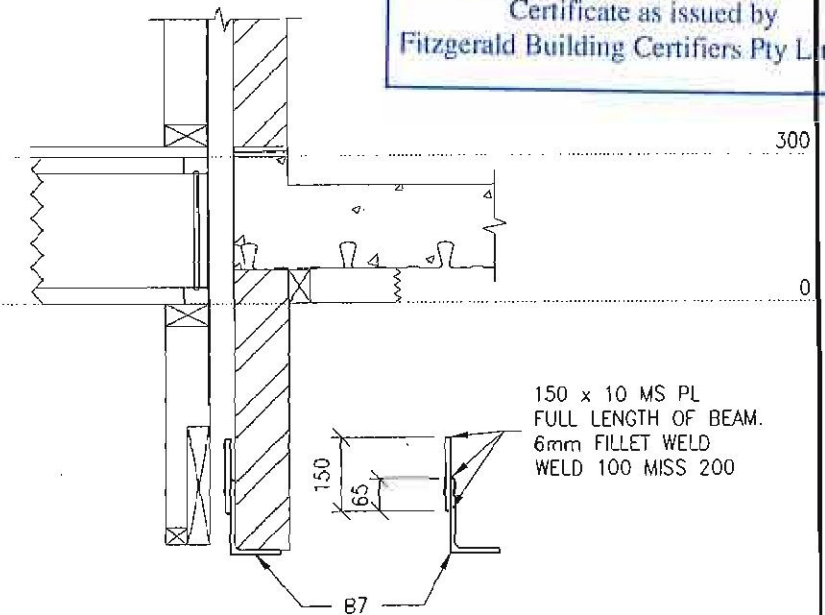
SECTION 'B4'



SECTION 'B5'



SECTION 'B6'



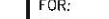
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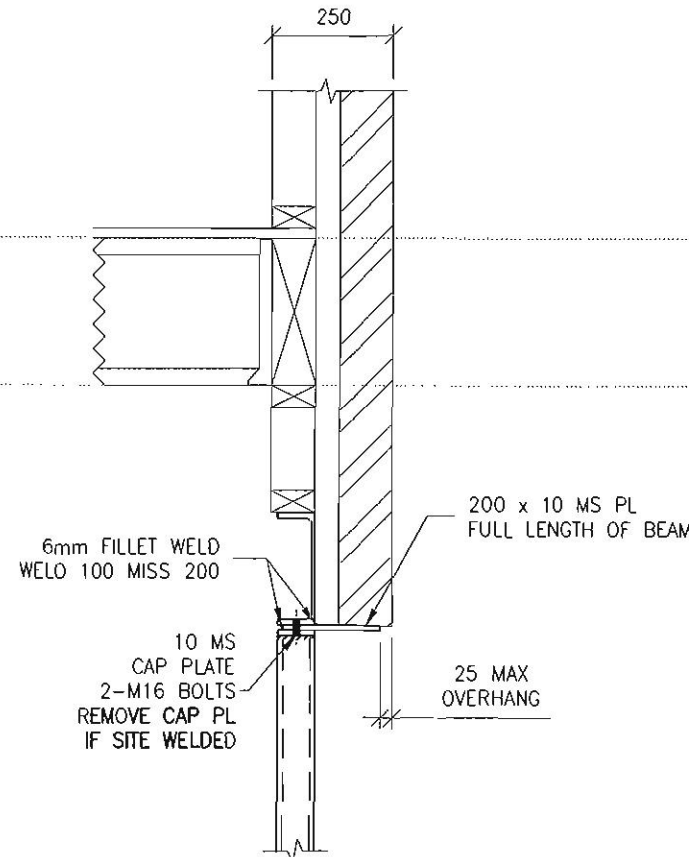
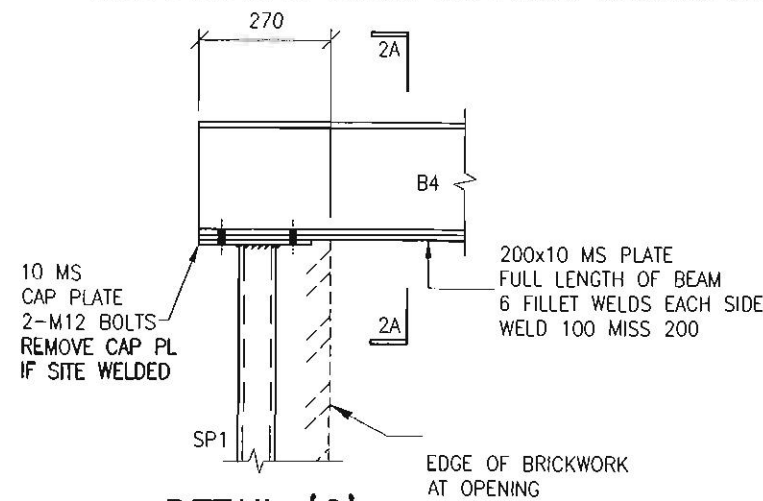
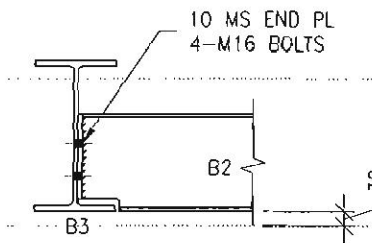
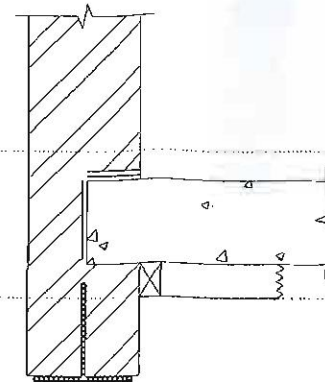
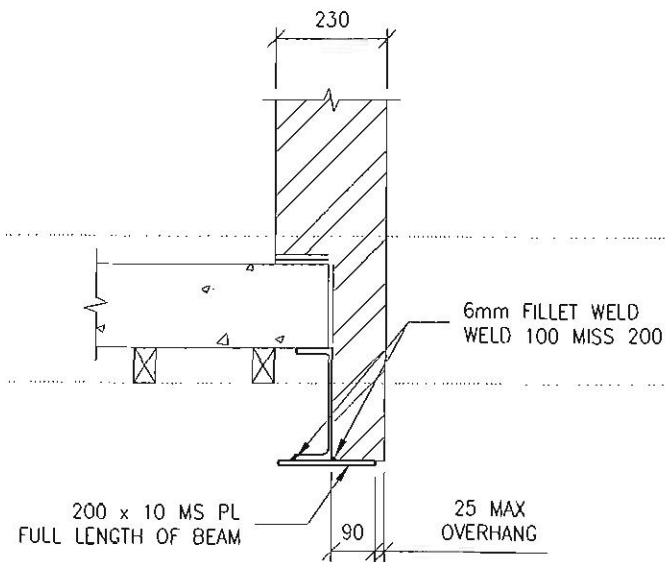
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ALL STEEL BEAM CROSS SECTIONS ARE DIAGRAMMATIC ONLY

- REFER TO THE MANUFACTURERS SPECIFICATIONS FOR INSTALLATION DETAILS OF I-JOISTS, LVL'S AND ROOF TRUSSES WHERE APPLICABLE.
- SOLID TIMBER JOISTS SHALL NOT TO BE NOTCHED IN EXCESS OF THE RECOMMENDATIONS OF AS 1684.1. WHERE NECESSARY PROVIDE TIMBER PLATE OVER STEEL BEAM AND PROVIDE TOP MOUNT JOIST HANGERS. ALTERNATIVELY USE TIMBER BLOCKING BETWEEN FLANGES OF STEEL BEAM SUPPORTING JOISTS AND USE FACE MOUNTED JOIST HANGERS.

IF IN DOUBT, CONTACT ENGINEER.

DRAWN	DATE	AMENDMENT	REV	 RESIDENTIAL ENGINEERING CONSULTING ENGINEERS 1/19 Jonathan Street Greystanes NSW 2145 www.residentialengineering.com.au enquiries@residentialengineering.com.au Tel: 02 9896 5494 Fax: 02 9636 1064	NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	CLIENT: RAWSON HOMES 	FOR: FOY & MORAN	APPROVED BY:  A.W. MCCARTHY B.Sc (Eng), M.I.E.Aust., N.P.E.R., C.P.Eng. NSW: BPB 0255 VIC: EC 24609 QLD: RPEQ 4109	JOB No. RW301	REVISION
					SITE ADDRESS: 12 PHILLIP AVENUE SEAFORTH	DATE: 16-8-10	SCALE: 1:15		SHEET No. 10/11	
					UNIT 34/11-21 UNDERWOOD ROAD HOME BUSH NSW 2140 TELEPHONE 02 9764 6442 FAX 02 9764 6992 Builder's License No 334930					
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NOTE:

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- ALL BOLTS TO BE SPANNER TIGHTENED

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A3				1/19 Jonathan Street Greystanes NSW 2145	www.residentialengineering.com.au enquiries@residentialengineering.com.au	12 PHILLIP AVENUE SEAFORTH		SCALE: 1:15	
								CLIENT REF: DA0100	

GENERAL NOTES:

1. ALL WORKS TO BE IN ACCORDANCE WITH MANLY COUNCIL'S STANDARD SPECIFICATIONS AND TO THE SUPERVISING ENGINEER'S SATISFACTION.
2. THESE PLANS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL PLANS FROM NICHOLAS GRAY (RAWSON HOMES PTY. LTD.) REVISION 00 DATED MAY 2010 (PHONE: (02) 9764 6442) AND THE LANDSCAPE PLANS FROM SITE DESIGN PROJECT No. 10204 REVISION B DATED 15 JUNE 2010.
3. ALL STORMWATER PIPES TO BE 100 DIA UPVC UNLESS NOTED OTHERWISE. PIPES UNDER DRIVEWAY TO BE SEWER GRADE.
4. DEPTH AND LOCATION OF SEWER & SERVICES TO BE CONFIRMED PRIOR TO COMMENCEMENT OF DRAINAGE WORKS.
5. THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENTATION CONTROL MEASURES AS NECESSARY AND TO THE SATISFACTION OF COUNCIL PRIOR TO COMMENCEMENT OF CONSTRUCTION AND DURING CONSTRUCTION.
6. ENSURE FINISHED GROUND LEVELS ARE SLOPPING AWAY FROM THE DEVELOPMENT & INTO PITS OR YARD SUMPS, AS SHOWN ON THE ATTACHED DRAINAGE PLAN.
7. HYDRAULIC PLANS ARE SUBJECT TO COUNCIL APPROVAL.

REVISION A

ARCHITECTURAL & LANDSCAPE PLANS ALTERED
(POOL ADDED AT THE REAR OF THE PROPERTY)
HYDRAULIC PLANS CHANGED ACCORDINGLY.
(REVISION A REFLECT THOSE CHANGES)

CALCULATION FOR ABSORPTION TRENCH

TOTAL AREA INTO ABSORPTION TRENCH = 420m² (APPROX.)
(PLEASE NOTE ALL ROOF WATER TO DRAIN TO TOP OF RWT FIRST & OVERFLOW FROM TOP OF RWT TO BE CONNECTED TO STORMWATER LINE PRIOR TO DISCHARGING TO ABSORPTION TRENCH SYSTEM)

FOR EVERY 15m OF AREA, NEED 1m OF ABSORPTION TRENCHING
(OR 1m² OF AREA NEED 0.015m³ STORAGE)
420/15 = 28m OR 6.30m³

TRY 9.2m LONG 2.0m WIDE ABSORPTION TRENCH

VOLUME PROVIDED

410 JUMBO = $2 \times 9.2 \times 0.41^2 \times \pi/4 = 2.43\text{m}^3$
GRAVEL (ABOVE) = $2 \times 9.2 \times 0.3 \times 0.4 = 2.21\text{m}^3$
GRAVEL (BELOW) = $2 \times 9.2 \times 0.3 \times 0.2 = 1.10\text{m}^3$
PITS VOLUME = $2 \times 0.6 \times 0.6 \times 1.06 = 0.76\text{m}^3$
TOTAL = 6.50m³ > 6.30m³ ...OK

PROVIDE 9.2m LONG 2m WIDE ABSORPTION TRENCH

OSD CALCULATIONS:

MANLY COUNCIL ON THEIR STORMWATER SPECIFICATIONS REQUIRES THE FOLLOWING:
A DETAILED STORMWATER MANAGEMENT PLAN SHALL BE PREPARED TO FULLY COMPLY WITH COUNCIL'S "SPECIFICATIONS FOR ON-SITE STORMWATER MANAGEMENT 2003" AND SHALL BE SUBMITTED WITH THE CONSTRUCTION CERTIFICATE APPLICATION.

USED ILSAX TO CALCULATE OSD VOLUME (REFER TO OSD CALCULATION ATTACHED)
VOLUME REQUIRED = 8.10 m³

EXISTING PSD₅ = 20 l/sec

PROPOSED PSD₅ = 35 l/sec

EXISTING PSD₁₀₀ = 35 l/sec

PROPOSED PSD₁₀₀ = 13 l/sec

COMBINED DETENTION & RETENTION SYSTEMS AND PROVIDED 5,000 LITRES CAPACITY ABOVEGROUND RAINWATER TANK FOR RETENTION SYSTEM AND 6.50 m³ ABSORPTION TRENCH SYSTEM AT REAR OF THE PROPERTY.

CALCULATIONS:

TOTAL SITE AREA = 558.40 m²

TOTAL ROOF AREA INTO RWT = 206.00 m²

TOTAL PROPOSED IMPERVIOUS AREA = 247.90 m² (44.4%)

TOTAL EXISTING IMPERVIOUS AREA = 156.50 m² (28%)
(INCLUDING ROOF, GARAGE, DRIVEWAY AND PAVED AREAS).

BASIX REQUIREMENT:

3000 LITRES CAPACITY
RAINWATER TANK FOR
140 m² OF ROOF AREA.
PROVIDED 5000 LITRES
CAPACITY RWT FOR
TOTAL ROOF AREA.

IMPORTANT NOTES:

1. DISCUSSED THE STORMWATER ISSUES WITH COUNCIL'S ENGINEER ON 18 JUNE 2010. DUE TO THE FALL OF THE LAND AND NOT HAVING A DRAINAGE EASEMENT AT REAR, THE ONLY OPTION AVAILABLE IS AN ABSORPTION TRENCH SYSTEM WITH PUMP OUT TO STREET GUTTER.
2. THE SITE FALLS TO THE REAR. THERE IS NO DRAINAGE EASEMENT AT REAR. COLLECT ALL ROOF WATER INTO RAINWATER TANKS FOR RE-USE OF WATER. THE OVERFLOW FROM TOP OF RWT AND SURFACE WATERS AROUND THE DWELLING TO DRAIN INTO A ABSORPTION TRENCH SYSTEM WITH PUMP OUT SYSTEM PIT AT REAR.
3. AN ABOVEGROUND RAINWATER TANK WITH TOTAL CAPACITY OF 5000 LITRES HAS BEEN PLACED ON SOUTHERN SIDE OF THE DWELLING TO COLLECT ROOF WATER ONLY FOR RE-USE OF WATER SUCH AS TOILET FLUSHING, LAUNDRY AND IRRIGATION SYSTEMS - 100 DIA SEWER GRADE OVERFLOW FROM TOP OF THE RWT TO BE CONNECTED TO STORMWATER LINE AT 1% MIN FALL PRIOR TO DISCHARGING TO ABSORPTION TRENCH SYSTEM AT REAR OF THE PROPERTY. (REFER TO SHEET No.2 FOR DETAILS).
4. ALL SURFACE WATER & OVERFLOW FROM TOP OF RWT TO BE DRIANED TO AN ABSORPTION TRENCH SYSTEM PRIOR TO DISCHARGING TO FRONT BOUNDARY VIA PUMP PIT (PIT ③) AT 10% RISE. FROM FRONT BOUNDARY DISCHARGING TO STREET GUTTER AT 14% RISE.
- 5 LEVELS ARE CRITICAL. PRIOR TO ANY CHANGES CONTACT ENGINEER.
6. PRIOR TO BACKFILLING STORMWATER PIPES & ABSORPTION TRENCH SYSTEM CONTACT ENGINEER FOR AN INSPECTION.

This is the plan/spec. referred to in
Fitzgerald Certifiers Certificate
Cert. No. 2010/1621
9/9/10
Paul Fitzgerald Accreditation No BPB 0119

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J.NASSERI

BE, FIEAust.,

NPER, CPEng.

21 June 2010.

SYMBOLS & NOTATIONS

--- STORMWATER LINES	SL FINISHED SURFACE LEVEL
o DOWNPIPE	FFL FINISHED FLOOR LEVEL
o 100 DIA YARD SUMP	FPL FINISHED PLATFORM LEVEL
225x100 GRATED BOX DRAIN	---X--- SEDIMENT CONTROL BARRIER
INV INVERT LEVEL (PIPE / PIT)	----- PROPOSED BOUNDARY
	---S--- SEWER

ARCHITECTURAL & LANDSCAPE PLANS ALTERED		26.07.2010
ISSUE	AMENDMENTS	DATE
1	CLIENT: RAWSON HOMES (FOY & MORAN)	
2	LOT 96, (H/No.12) PHILLIP AVENUE, SEAFORTH	
DESIGNED	HA	DRAWN HA
CHECKED	JN	SCALE AS SHOWN

HYDRAULIC DETAILS

NOTES, CALCULATIONS & PIT DETAILS

CAD REF. ENG/RAWSON

JOB No. D2406

SHEET No. 1

LOT 96
558.40 m²

PROVIDE SEALED SCREW
CAP AND FLUSHING
INSPECTION POINT
SL 77.60 (APPROX.)
INV. 77.40

CREATE A SWALE OR
EARTH MOUND TO
DIVERT SURFACE
WATER TO PIT ②
(REFER TO DETAIL 2)

100 DIA SEWER GRADE
TO TAKE ROOF WATER
TO TOP OF RWT
(ALL DOWNPIPES TO
BE FULLY SEALED)

600 SQ PUMP PIT
WITH CONCRETE LID
SL 74.10 (APPROX.)
INV. PIT 73.14
(REFER TO DETAILS
ON SHEET No.3)

PLEASE NOTE:
1. THE EXACT LOCATION OF STORMWATER LINE, PITS,
RWT AND ABSORPTION TRENCH MAY ALTER DURING
CONSTRUCTION, TO SUIT THE SITE CONDITION.
2. ENSURE NO DAMAGE OCCURS TO EXISTING TREE
ROOTS WHILE CONSTRUCTING THE STORMWATER SYSTEM.

600 SQ SILT ARRESTOR PIT
SL 74.10 (APPROX.)
INV. PIT 73.14
(REFER TO DETAILS
ON SHEET No.3)

500mm WIDE
LEVEL SPREADER
9.2m LONG x 2.0m WIDE
ABSORPTION TRENCH
SYSTEM (REFER TO
SHEET No.3 FOR DETAILS)

IMPORTANT NOTE:
1. NO PERMANENT STRUCTURE IS
ALLOWED ON TOP OF ABSORPTION
TRENCH (TOP SOIL AND LAWN
ON TOP ONLY)
2. THE ABSORPTION TRENCH MUST
BE PLACED PARALLEL TO THE
EXISTING CONTOUR OF THE LAND.
3. THE ABSORPTION TRENCH MUST
BE PLACED 0.5m (MINIMUM)
AWAY FROM MAIN SEWER.

600 SQ SILT ARRESTOR PIT
SL 74.10 (APPROX.)
INV. PIT 73.14
(REFER TO DETAILS
ON SHEET No.3)

APPROXIMATE
LOCATION OF
SEWER MAIN

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65mm CLASS 2 HIGH PRESSURE
PIPE AT 14% RISE TO STREET
GUTTER (THE EXACT LOCATION
OF THE PIPE TO BE
DETERMINED ON SITE)

SL 78.40 (APPROX.)
INV. 78.25

DRIVEWAY CROSSING
IN ACCORDANCE
WITH COUNCIL'S
REQUIREMENTS

225 x 100 GRATED BOX DRAIN
SL 77.80 (APPROX.)
INV. 77.70
(100 DIA UPVC OUTLET TO BE
CONNECTED TO STORMWATER
LINE AT 1% MIN FALL)

EXISTING VEHICLE CROSSING
TO BE REMOVED & REPLACED
WITH CONCRETE KERB &
GUTTER IN ACCORDANCE WITH
COUNCIL'S SPECIFICATIONS

ENSURE NO WATER PONDAGE
OCCURS AROUND DWELLING—
SLOPE FINISHED GROUND
LEVEL TOWARDS YARD
SUMPS OR PITS (AS SHOWN)

100 DIA YARD SUMP
OR 250 SQUARE
GRATED PIT (TYPICAL)
SL 12.20 (MIN.)

EXISTING BRICK
RETAINING WALL

CREATE A SWALE OR
EARTH MOUND TO
DIVERT SURFACE
WATER TO PIT ①
(REFER TO DETAIL 2)

100 DIA UPVC
TO PIT ① AT
1% MIN FALL

100 DIA SEWER GRADE
TO TAKE ROOF WATER
TO TOP OF RWT
(ALL DOWNPIPES TO
BE FULLY SEALED)

RWT
5000 LITRES CAPACITY
ABOVEGROUND
RAINWATER TANK
(REFER TO ELEVATION A
ON SHEET No.4)

100 DIA SEWER
GRADE OVERFLOW
FROM TOP OF RWT
TO BE CONNECTED
TO STORMWATER LINE
AT 1% MIN FALL

CONCRETE DRIVEWAY/PAVED AREA

LEGEND:

- 100 DIA UPVC OR SEWER GRADE FOR SURFACE WATER DRAINAGE
- 100 DIA SEWER GRADE FOR ROOF WATER DRAINAGE ONLY
- 65 mm CLASS 2 HIGH PRESSURE PIPE

DRAINAGE PLAN
SCALE 1:200

SYMBOLS & NOTATIONS

- STORMWATER LINES
- DOWNPIPE
- 100 DIA YARD SUMP
- 225x100 GRATED BOX DRAIN
- INVERT LEVEL (PIPE / PIT)
- SL FINISHED SURFACE LEVEL
- FFL FINISHED FLOOR LEVEL
- FPL FINISHED PLATFORM LEVEL
- X— SEDIMENT CONTROL BARRIER
- PROPOSED BOUNDARY
- S— SEWER

ISSUE	AMENDMENTS	DATE
A	ARCHITECTURAL & LANDSCAPE PLANS ALTERED	26.07.2010
CLIENT: RAWSON HOMES (FOY & MORAN)		
LOT 96, (H/No.12) PHILLIP AVENUE, SEAFORTH		
DESIGNED	HA	DRAWN
CHECKED	JN	SCALE
AS SHOWN		

HYDRAULIC DETAILS

DRAINAGE PLAN

CAD REF. ENG/RAWSON JOB No. D2406 SHEET No. 2

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INSTALL REMOVEABLE GALVANISED SUMP GRATE

100 DIA. UPVC INLET INV. 73.80

GALVANISED LISAUGHT RH3030 MAXI MESH SCREEN IN GALVANISED STEEL FRAME WITH LIFTING HANDLES
BTM PIT RL 73.14

4 x 100 SEEPAGE OUTLETS PER PIT

PROVIDE OPENINGS IN EACH PIT END THE SAME SIZE AS PLASTIC TRENCH

7000
300 min
OVERFLOW - PROVIDE DOUBLE WATERWAY AREA OF INLET PIPE(S). PIPE INVERTS TO BE HIGHER THAN TOP OF VOID.
INV. 73.85

100min TOPSOIL OVER BACKFILL

100 DIA. UPVC INLET INV. 73.8

600 x 600 min
GRATED PIT COVER

600 x 600 min
SEALED PIT COVER

GATE VALVE

65mm CLASS 2 HIGH PRESSURE OUTLET TO FRONT BOUNDARY & STREET GUTTER AT 10% RISE INV. 73.90 (APPROX.)

REFLUX VALVE

PUMP TO MANUFACTURERS SPECIFICATIONS WITH 3.10m HEAD LOSS TO CARRY 25 l/sec FLOW

PUMP SWITCH ON
PUMP SWITCH OFF

RL 73.14

QUICK RELEASE COUPLING

100mm THICK MASS CONCRETE
PROVIDE PUMP PEDESTAL MIN 150mm HIGH

PROVIDE 14mm CRUSHED AGGREGATE WRAPPED IN GEOTEXTILE FABRIC

4 x 100 SEEPAGE OUTLETS PER PIT

IMPERMIABLE BARRIER

LONGITUDINAL SECTION (N.T.S.)

(DETAIL FOR LANDSCAPE AREA)
NTS

IMPORTANT NOTES

1. WHERE PIT EXTENDS UNDER TRAFFICABLE AREAS, USE CONCRETE BOX CULVERTS INSTEAD OF PLASTIC TRENCH.
2. USE NEEDLE PUNCH GEOTEXTILE FABRIC WITH COEFFICIENT OF PERMEABILITY GREATER THAN $50E-4$ m/s. EITHER BIDUM A14 OR PROPEX 4550 IS SUITABLE.
3. THE REQUIRED VOID VOLUME IS 0.015cu.m per sq.m. OF IMPERVIOUS AREA DRAINED WITH A MINIMUM VOID VOLUME OF 3.0 cu.m.
4. EDGE OF SEEPAGE TRENCH IS TO BE LOCATED A MINIMUM OF 3.0m FROM ANY PROPERTY BOUNDARY AND 3.0m DOWNSTREAM FROM ANY DWELLING OR GARAGE ON SITE.
5. PUMP "SWITCH ON" IS TO BE 100mm BELOW GRATE LEVEL.
PUMP "SWITCH OFF" LOWEST LEVEL IS TO BE LEVEL WITH THE VOID INVERT.
6. SITE SURFACE FLOWPATHS TO BE DIRECTED TO DEPRESSION OVER ABSORPTION PIT.

EVERGLAS SQUARELINE PLASTIC TRENCH OR APPROVED EQUIVALENT

GEOTEXTILE FABRIC
RL 73.80

410
RL 73.39

RL 73.19

PROVIDE 14mm CRUSHED AGGREGATE WRAPPED IN GEOTEXTILE FABRIC

500mm WIDE
LEVEL SPREADER

PROVIDE 100mm TOPSOIL

PROVIDE SAND BACKFILL

LAP GEOTEXTILE FABRIC 500mm MIN AND EXTEND LAP UNDER ARCH EDGES

400 600 600 400
2000

3 X 100 DIA UPVC INTERCONNECTING PIPE

SECTION B

NTS

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SYMBOLS & NOTATIONS

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o DOWNPIPE	FFL FINISHED FLOOR LEVEL
o 100 DIA YARD SUMP	FPL FINISHED PLATFORM LEVEL
225x100 GRATED BOX DRAIN	---X SEDIMENT CONTROL BARRIER
INV INVERT LEVEL (PIPE / PIT)	--- PROPOSED BOUNDARY
	---S SEWER

ARCHITECTURAL & LANDSCAPE PLANS ALTERED		26.07.2010
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HYDRAULIC DETAILS

ABSORPTION TRENCH SYSTEM DETAILS

CAD REF. ENG/RAWSON JOB No. D2406 SHEET No. 3