

DK BUILDING CERTIFIERS

PTY LTD
BUILDING REGULATIONS & FIRE SAFETY CONSULTANTS

SUITE 4, 470 SYDNEY ROAD, BALGOWLAH NSW 2093
PO BOX 929 BALGOWLAH NSW 2093
TEL: 9400 2335 FAX: 9400 2405
email: doshannassy@optusnet.com.au
ABN: 96 097 502 700

Our ref: 03023-2/dos

24th July 2003

The General Manager
Pittwater Council
P O Box 882
MONA VALE NSW 1660

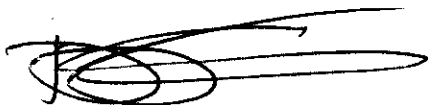
Dear Sir

**Re: 4 ELWYN CLOSE, MONA VALE – ALTS & ADDS, GARAGE & POOL
CONSTRUCTION CERTIFICATE DETERMINATION No 03023-CC
DA No N0823/02**

Please find attached my determination of the Construction Certificate together with a cheque for \$25.00 being the lodgement fee for the above mentioned premises including all relevant details for your records.

If you require any further information or explanation, please do not hesitate to contact me.

Yours faithfully
DK Building Certifiers Pty Ltd



Damian O'Shannassy
Director/Accredited Certifier

Form 11

Construction Certificate Determination

Determination

Approved

date of determination

24th July 2003

Subject land

Address

4 Elwyn Close, Mona Vale NSW 2103

lot no., DP/MPS, etc. volume/folio

Lot 8 DP 223599

Attachments

- Copy of receipt for payment of long service levy of \$460,
- Copy of receipt for payment of crossing application,
- Home Owners Warranty Insurance Certificate No 258879, dated 25.2.03,
- Schedule of finishes,
- Letter from Beecraft Pty Ltd re compliance with DA condition no B25 - driveway access,
- Letter from Beecraft Pty Ltd, dated 24th July 2003 re compliance with DA conditions E35 & E 36,
- Certificate of Structural Adequacy from DA Nielsen & Associates Pty Ltd, dated 14.7.03, ref: 33090
- CC application form

Plans and specifications approved

list plan no.(s) and specifications
reference

Architectural Design Documentation as prepared by Beecraft Pty Ltd, dated 1st August 2002, Drawing No. 57 Rev A & HIA General Housing Specification.

Structural Engineering Design Documentation as prepared by, D.A. Nielsen & Associates Pty Ltd dated 16.3.2003, Reference No 33090, Drawing Nos. D1, D2 & D3 and Swimming Pool details dated 16.3.03, Drawing Nos 1 to 5.

Stormwater Drainage Design as prepared by T J Taylor Consultants Pty Ltd, dated 2.9.02, drawing No 30402.

Applicant

Name

Address

Contact no. (telephone/fax)

Bruce Carey - Beecraft Pty Ltd

6A Larool Road, Terry Hills NSW 2084

Ph: (02) 9450 1530 Fax: (02) 9486 3337 or 0418 239322

Owner

Name

Address

Contact no. (telephone/fax)

Kim & Kay Howitt

4 Elwyn Close, Mona Vale NSW 2103

Ph: (02) 9450 1530 Fax: (02) 9486 3337 or 0418 239322

Certificate

Certificate

I certify that the work, if completed in accordance with these plans and specifications, will comply with the requirements of Section 81A (5) of the *Environmental Planning and Assessment Act, 1979* & Clause 147(1)(e) of the *Environmental planning and Assessment Regulation 2000*.

Signature

date of endorsement

Certificate no.



24th July 2003

03023-CC

Certifying authorityName of certifying authority
if accredited certifier:

Accreditation no.

Contact no.

address

Damian O'Shannassy

Accreditation Number 6175 'Planning NSW'

Ph: (02) 9400 2335 Fax: (02) 9400 2335 or 0402 029963.

Suite 4, 470 Sydney Road

Balgowlah NSW 2093

Development consent

Number and date of determination

Development Application Number N0823/02 (Pittwater)

Date of Determination 22nd November 2002

BCA Classification

1a, 10a & 10b

Pittwater Council

OFFICIAL RECEIPT

20/03/2003 Receipt No 110917

To BEECRAFT PTY LTD

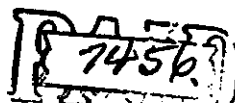
6A LAROOD RD
TERRY HILLS

Applic Reference	Amount
GL Re ESTR-Eng N0823/03 4 ELWYN CL	\$88.00

Total: \$88.00

Amounts Tendered	
Cash	\$0.00
Cheque	\$88.00
Card	\$0.00
Money Order	\$0.00
Agency Rec	\$0.00
Total	\$88.00
Rounding	\$0.00
Change	\$0.00
Nett	\$88.00

Printed 20/03/2003 14:35:22
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 Total
\$548
460+88

Pittwater Council

OFFICIAL RECEIPT

20/03/2003 Receipt No 110918

To BEECRAFT PTY LTD


6A LAROOD RD
TERRY HILLS

Applic Reference	Amount
GL Re GLSL-Buil N0823/03 4 ELWYN	\$460.00

Total: \$460.00

Amounts Tendered	
Cash	\$0.00
Cheque	\$460.00
Card	\$0.00
Money Order	\$0.00
Agency Rec	\$0.00
Total	\$460.00
Rounding	\$0.00
Change	\$0.00
Nett	\$460.00

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Cashier aricha

 Total
\$548
460+88

certificate

of insurance

Beecraft Pty Ltd
6a Larool Road
TERREY HILLS NSW 2084

FORM 1

HOME BUILDING ACT 1989

Section 92

Certificate in respect of insurance

CONTRACT WORK

A contract of insurance complying with Section 92 of the Home Building Act 1989 has been issued by: Royal & Sun Alliance Insurance Australia ACN 005 297 807 ABN 48 005 297 807

In Respect Of: Alteration/Addition

At: Lot No: Unit No: House No: 4
Elwyn Cl
Mona Vale NSW 2103

Carried Out By: Beecraft Pty Ltd
ABN: 44 002 281 263

Subject to the Act and the Home Building Regulation 1997 and the conditions of the insurance contract, cover will be provided to a beneficiary described in the contract and successors in title to the beneficiary.

Signed for and on behalf of the insurer:

AON   Tell made for the trade

HIA INSURANCE SERVICES P/L

ABN 48 005 297 807

An Associated Company of

Australian Mutual Insurance Co Ltd

PO Box 271

Roseville NSW 1585

Telephone (02) 9371 2222

Facsimile (02) 9371 2222

CLAIMS ENQUIRY LINE

1800 651 255

Certificate No: 250000

Local Authority: 250000

Issue Date: 20/02/2003

Policy No: 250000

Australian Mutual Insurance Co Ltd

is a company of the Insurance Co Ltd

Registered in the State of New South Wales

They are not to be taken as a recommendation

by any person or as a recommendation

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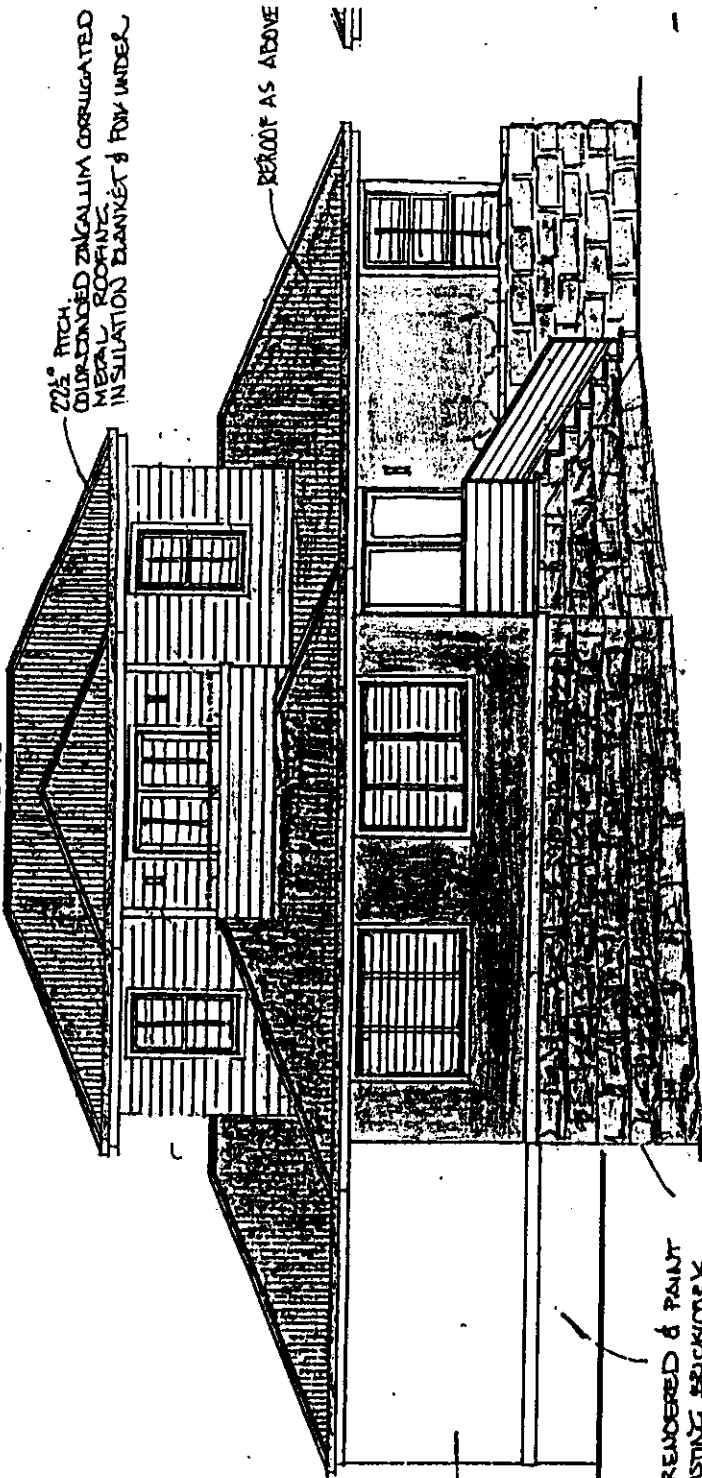
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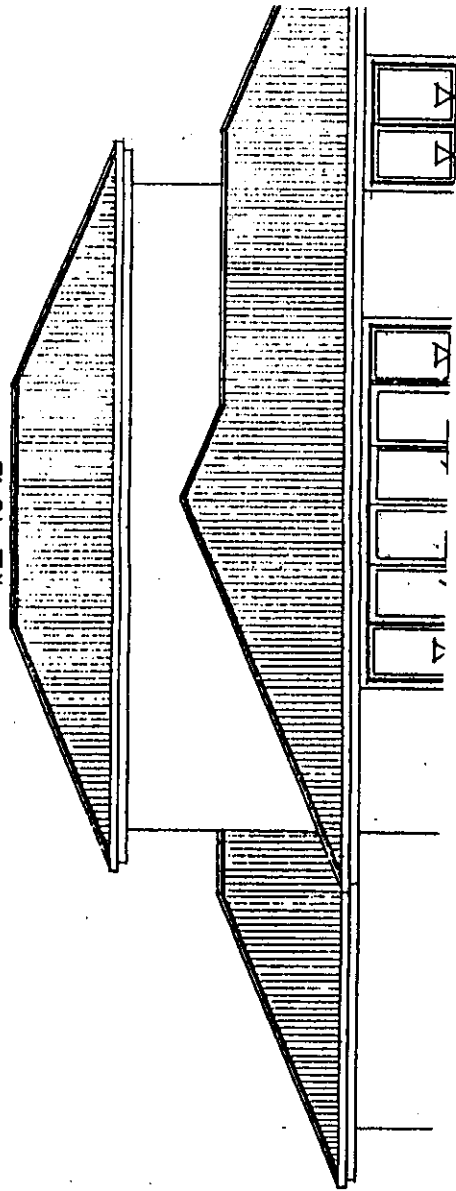
RL 42.70



AT REMOVED & PAINT
5 EXISTING BRICKWORK

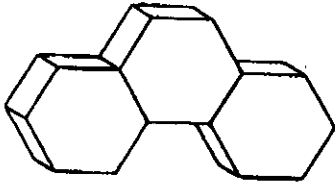
EAST ELEVATION

RL 42.70



"cristwood"

- + Roof: colourbond
Armour Grey
- Facia: White
- Balcony supports: White
- Framing around windows: white
- Aluminium windows: white
- Front door: Aluminium wht
with white laminate glass.



Beecraft

**BUILDING CONTRACTORS,
DESIGNERS & CONSULTANTS**

6A Larool Rd
Terrey Hills
NSW 2084
Licence No. 130095C

Ph: (02) 9450 1530
Fax: (02) 9486 3337
Mobile: 0418 239 322
ABN 44 002 281 263



24th July 2003

Mr Damian O'Shannassy
D.K. Building Certifiers Pty. Ltd.,
P.O. Box 2044
BALGOWLAH. NSW. 2093

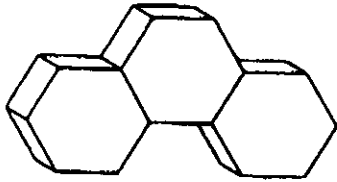
Dear Damian,

RE: 4 Elwyn Close, Mona Vale

This is to certify that the Driveway access to the Garage at the above address
complies with Council's policy D.C.P. No. E3 and AS2890.1-1993.

Yours sincerely

Darren R Mills
Project Manager



Beecraft

**BUILDING CONTRACTORS,
DESIGNERS & CONSULTANTS**

6A Larool Rd

Terrey Hills

NSW 2084

Licence No. 139095C

Ph: (02) 9450 1530

Fax: (02) 9486 3337

Mobile: 0418 239 322

ABN 44 002 281 283



24th July 2003

The General Manager
Pittwater Council
P.O. Box 882
MONA VALE. NSW. 1660

Dear Sir,

RE; 4 Elwyn Close, Mona Vale – Additional Planting

DA Condition E35.

"Two canopy trees are to be provided in the front yard area and 1 in the rear yard area, which at maturity will achieve a canopy height greater than 8.5 metres, to visually reduce the height, bulk and scale of the dwelling. Species selection is to incorporate the dominant tree species growing in the area or locally indigenous species. A replacement street tree shall be provided. Full details in this regard are to be submitted with the Construction Certificate."

Species – *Acmena Smithii*

DA Condition E36

"Screen planting is to be provided, which after three years will, in conjunction with the canopy planting, screen 50% of each garage elevation when viewed the street. Species selection is to incorporate the dominant species growing in the area or locally indigenous species. Full details in this regard are to be submitted with the Construction Certificate."

Species – *Elaeocarpus Reticulatus* – Pink.

Yours faithfully

Bruce J Carey
Builder

TO :
FROM : D A NIELSEN & ASSOC P/L

PHONE NO. : 94863337

JUL. 14. 2003 1:51PM P 1
PHONE NO. : 61 2 94891083

D.A. Nielsen & Associates Pty. Ltd.
Consulting Engineers ABN 32 000 912 309

12 Daly Ave. Wahroonga NSW 2076
Ph. (02) 9489 1314 Fax. (02) 9489 1083
Email: walmex@bigpond.com

14 July, 2003

Reference 33090

Principal Certifying Authority
DK Building Certifiers
18 Condoover St
NORTH BALGOWLAH 2093

Dear Sir,

Alterations & Additions at 4 Elwyn Close Mona Vale

This is to certify the adequacy of the existing building structure at the above property, and its footings, to support the additional loads that will be applied by the proposed additions and alterations, as shown on the approved building drawings and as shown and noted on our details 33090-D1, -D2 & -D3.

Yours Faithfully
D.A. Nielsen & Associates Pty. Ltd.



D.A. Nielsen B.E., C.P.Eng.
Director

DK BUILDING CERTIFIERS

PTY LTD
BUILDING REGULATIONS & FIRE SAFETY CONSULTANTS

SUITE 4, 470 SYDNEY ROAD, BALGOWLAH NSW 2093
PO BOX 929, BALGOWLAH 2093
TEL: 9400 2335 FAX: 9400 2405
Email: oshornassyd@optunet.com.au
ABN: 96 097 502 700

Form 11

Construction Certificate

issued under the *Environmental Planning and Assessment Act, 1979* Sections 109C (1) (b), 81A (2) and 81A (4)

Application

Applicant

Name

Address

Contact no. (telephone/fax/mob)

Signature

BEECRAFT PTY LTD

6A LARROOL RD TERREY HILLS

9450 1530 0418 239 322

FAX 9486 3337

EMAIL admin@beecraft.com.au

Owner

Name

Address

Contact no. (telephone/fax/mob)

KIM & KAY HOWITT

4 ELWYN CL

MONA VALE

Consent of all owner(s)

Signature

I/we consent to this application

Subject land

Address

4 ELWYN CL MONA VALE

lot no., DP/MPS, etc. volume/folio
area of site (m²)

LOT 8 DP 223599

767.1

Description of development

type of work

☒ building work

☐ subdivision work

description

ALTER ADDS TO HOUSE

+ POOL & GARAGE

Development consent

Development consent no.
date of determination

NO 823/02
22.11.03

**Building Code of Australia
Classification**

Nominated on the development consent

B.C.A. class 1a, 10a & 10b

Builder/owner builder

to be completed in the case of proposed
residential building work
name

contractor license no./permit no. in case
of owner builder

BEECRAFT PTY LTD
6A LARROOL RD TERREY HILLS
9450 1530 0418 239 322
FAX 9486 3337
EMAIL admin@beecraft.com.au

32483

**Value of work (including GST)
Building/subdivision**

\$297,000

Required attachments

see Notes 1 and 2

- Note 1 details the information that must be submitted with an application for a construction certificate for proposed subdivision or building works.
- Note 2 details the information that may be submitted with an application for a construction certificate for proposed residential building work.

Schedule

(for building work only)

- The attached schedule is required to be completed for the purposes of providing information to the Australian Bureau of Statistics.

Date of receipt

date received (to be completed by certifying
authority)

10/3/03 at DK BUILDING
CERTIFIERS P/L.

Schedule to application for a construction certificate

Please complete this schedule. The information will be sent to the Australian Bureau of Statistics.

All new buildings

Please complete the following:

- Number of storeys (including underground floors)
- Gross floor area of new building (m²)
- Gross site area (m²)

2
121 + GARAGE
767.1

Residential buildings only

Please complete the following details on residential structures:

- Number of dwellings to be constructed
- Number of pre-existing dwellings on site
- Number of dwellings to be demolished
- Will the new dwelling(s) be attached to other new buildings?
- Will the new building(s) be attached to existing buildings?
- Does the site contain a dual occupancy?
(NB dual occupancy = two dwellings on the same site)

1 EXISTING ADD 2
1
N/A

Yes ☐ No ☐ N/A

Yes ☐ No ☐ N/A

Yes ☐ No ☒

Materials – residential buildings

Please indicate the materials to be used in the construction of the new building(s):

Walls	Code	Roof	Code	Floor	Code	Frame	Code
Brick (double)	<input checked="" type="checkbox"/> 11	Tiles	<input type="checkbox"/> 10	Concrete or slate	<input checked="" type="checkbox"/> 20	Timber	<input checked="" type="checkbox"/> 40
Brick (veneer)	<input type="checkbox"/> 12	Concrete or slate	<input type="checkbox"/> 20	Timber	<input checked="" type="checkbox"/> 40	Steel	<input type="checkbox"/> 60
Concrete or stone	<input type="checkbox"/> 20	Fibre cement	<input type="checkbox"/> 30	Other	<input type="checkbox"/> 80	Aluminium	<input type="checkbox"/> 70
Fibre cement	<input checked="" type="checkbox"/> 30	Steel	<input checked="" type="checkbox"/> 60	Not specified	<input type="checkbox"/> 90	Other	<input type="checkbox"/> 80
Timber	<input type="checkbox"/> 40	Aluminium	<input type="checkbox"/> 70			Not specified	<input type="checkbox"/> 90
Curtain glass	<input type="checkbox"/> 50	Other	<input type="checkbox"/> 80				
Steel	<input type="checkbox"/> 60	Not specified	<input type="checkbox"/> 90				
Aluminium	<input type="checkbox"/> 70						
Other	<input type="checkbox"/> 80						
Not specified	<input type="checkbox"/> 90						



Housing Industry
Association

ADDRESS OF PROPERTY: _____

4 Elwyn Close, Mona Vale

GENERAL HOUSING SPECIFICATIONS

between

Kim & Kay Howitt
OWNER

and

BEECRAFT PTY LTD
6A LARROL RD TERREY HILLS
9450 1530 0418239322

FAX 9486 3007
EMAIL beecraft@bigpond.com

CONTRACTOR LICENCE NO: 32483

BRUCE CAREY

03023-CC 24.7.03

[Signature]
Authorised Signatory

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no portion of this agreement may be reproduced by any
process whatsoever without the written consent of the
Housing Industry Association (NSW) Division.

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GENERAL HOUSING SPECIFICATIONS

(Revised November 2000)

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1.0 INTRODUCTIONS

1.1 General

This Specification details the works to be executed and the materials to be used in carrying out those works at the Site.

This Specification shall be read as a general specification only. The extent of the works shall be governed by the Approved Plans and Special Details where applicable.

Any works not fully detailed shall, where appropriate, be sufficiently performed if carried out in accordance with applicable Manufacturer's Recommendations or Engineer's Recommendations.

1.2 Preliminary Use

This Specification forms part of the Building Contract Documents, and should be read in conjunction with the Building Agreement, Engineer's Reports, Plans and any other special details.

1.3 Prevailing Documents

Where there is a difference between Plan and Specification the Plan will take precedence. The Contractor must at all times maintain a legible copy of the plans and specification bearing the approval of the appropriate authorities.

1.4 Size and Dimensions

All sizes and dimensions given in this Specification are in millimetres unless otherwise stated and are nominal only.

1.5 Prime Cost Items

Prime cost items listed in this Specification are Contractors cost prices, they do not include Builders margins, cost of cartage and freight. Should any of these items not be required, credit will be made at the listed price in the contract's final progress claim.

1.6 Definitions

"Special Details" in respect of any item or part of the works means any drawings, plans, specifications, calculations or other documents (including Engineer's Recommendations) prepared in order to define or detail the work to be done and the materials to be used.

"Engineer's Recommendations" includes any Soil Classification Report, Preliminary Footing Report, Construction Footing Report and any other Report, Recommendation, site or other instruction, calculations or plans prepared by an Engineer in respect of the Works.

Where the words "Local Authority" are mentioned they shall mean the Local Council, or other Governing Authority, or Private Certifier with Statutory responsibility for the compliance of the work performed.

2.0 STATUTORY REQUIREMENTS

2.1 The Works

The Works shall be constructed in accordance with Australian Standards referred to in Section 1 of the BCA 96 Housing Provisions together with any amendment or replacement of those Standards.

2.2 Regulations, Notices and Fees

The Contractor is to comply with the requirements of all legally constituted authorities having jurisdiction over the Works including the provisions of the Home Building Act.

The Contractor is to give all notices, obtain all Permits and pay all fees required by such authorities.

Where referred to in these specifications, regulations shall mean the Building Regulations and Codes (including the Building Code of Australia, as amended) statutorily enforceable at the time application is made for a permit, consent or approval.

2.3 Insurance

Insurance cover of the Works against risk for Fire, Theft, Malicious Damage and Materials on Site are to be effected by the Contractor at the Contractor's expense. The Contractor shall also at his expense adequately insure Public Liability and arrange Worker's Compensation cover in respect of any liability under the Worker's Compensation Act of New South Wales.

2.4 Labour and Materials

The Contractor is to provide all labour and materials to construct and complete the Building to the stage as specified in the contract documents. Materials to be of the standard specified. Workmanship in each trade to be performed by licensed tradespeople in conformity with adequate building practice. Building materials surplus to requirements of the Works shall be and remain the property of the Contractor.

2.5 Electricity

The Contractor is to make arrangements for any electrical power to be used in the erection of the Works and is to pay fees and costs incurred therein. Should additional poles, wiring, service risers or underground wiring etc., be required by the Electricity Authority, this additional cost plus Builder's margin shall be borne by the Owner.

2.6 Sanitary Accommodation

Prior to the commencement of any Works, unless toilet facilities exist on Site, the Contractor shall provide temporary toilet accommodation for the tradespeople. Where the Authority requires the temporary toilet to be connected to sewer mains, the additional cost plus Builder's margin of such shall be borne by the owner. On completion the Contractor shall remove the convenience.

3.0 OWNER'S OBLIGATIONS

3.1 Surveyor's Certificate

If the Building Agreement so indicates, the Owner shall, at the Owner's expense, obtain a certified survey of the Site. If no survey is required, the Owner hereby certifies that the placement of the existing survey pegs or fences on the Site is correct.

3.2 Engineer's Recommendations

If the Building Agreement so indicates, the Owner shall, at the Owner's expense, provide the Contractor with reports and recommendation (including soil classification) as to the foundations and/or footings requirements for the Works prepared by an Engineer.

If the Contractor instructs any party to provide such recommendations, the Contractor does so only as an agent for the Owner.

3.3 Trades Persons Engaged by Owner

The Owner shall not engage or employ any tradesperson, trade-contractor or any other person to work on the Site without the consent of the Contractor which consent may be subject to such terms and conditions as the Contractor may stipulate.

3.4 Items Supplied by Owner

For all items referred to in the Specification to be supplied by the Owner, it is the responsibility of the Owner to arrange payment for delivery of and protection against damage and theft of all these items.

Delivery is to be made when requested by the Builder to the Site. If not available when required the Owner shall be obliged to make an alternative selection.

3.5 Water Supply

The Owner shall, at the Owner's expense, supply adequate water to the Site for construction purposes. Unless otherwise specified, the Contractor shall pay the standard water metre connection fee to the Water Supply Authority providing this service is pre-laid to the Site ready for use. The Owner shall be responsible for any fee to be paid in excess of the standard water metre connection fee.

3.6 Sanitation

Unless otherwise specified, the Owner shall, at the Owner's expense, supply sewerage connection riser or common effluent drainage connection riser on the Site. Unless otherwise specified, the Contractor shall pay the standard sewer connection fee to the Supply Authority providing this service is to pre-laid to the Site and ready for use.

The Owner shall be responsible for any fee to be paid in excess of the Standard sewer connection fee.

3.7 Site Clearance

At the Owner's expense clear only the Site area of building work including vegetation stumps, boulders, rubble and the like to a minimum distance of 1,000mm outside the building or to the boundaries of the allotment, whichever is the less and fill any depressions within the area covered by the building.

4.0 PLANS, PERMITS AND APPLICATION FEES

4.1 Permits and Fees

Unless otherwise agreed, the Contractor shall lodge all necessary application notices, plans and details with the Local Authority for approval prior to commencement of construction.

4.2 Mines Subsidence

In areas affected by mines subsidence the appropriate authority to be consulted and work carried out in accordance with their requirements as a variation, any additional cost plus Builders Margin is to be borne by the Owner.

4.3 Setting Out

The Contractor shall accurately set out the Works in accordance with the Site Plan and within the boundaries of the Site.

5.0 EXCAVATIONS

- 5.1 Subject to Clause 3.7 the Site covered by the Building and an area at least 1,000mm wide around the Building or to boundaries of the Site – whichever is the lesser, shall be cleared and/or graded as indicated on the Site Works Plan.

Top soil shall be cut to a depth sufficient to remove all vegetation

Excavations for all footings shall be in accordance with the Engineer's Recommendation or Part 3.2.2 BCA 96 Housing Provisions.

6.0 FOUNDATIONS AND FOOTINGS

6.1 Underfloor Fill

Underfloor fill shall be in accordance with AS 2870 or Part 3.2 BCA 96 Housing Provisions.

6.2 Termite Risk Management

Termite treatment shall be carried out in accordance with Part 3.1.3 BCA 96 Housing Provisions or AS 3660.1.

6.3 Vapour Barrier

The underfloor vapour barrier shall be in accordance with AS 2870 or Clause 3.2.2.6 BCA 96 Housing Provisions.

6.4 Reinforcement

Reinforcement shall conform and be placed in accordance with AS 3600, AS 2870 and the Engineer's recommendations.

Support to all reinforcement shall be used to correctly position and avoid any undue displacement of reinforcement during the concrete pour.

6.5 Concrete

Concrete shall not be less than Grade N20 except where otherwise approved by the Engineer.

Structural concrete shall be in accordance with AS 3600. Pre-mixed concrete shall be manufactured in accordance with AS 1379 with delivery dockets kept on Site and available for inspection by the Engineer.

Concrete shall be placed and compacted in accordance with good building practice. In hot (above 30 degrees Celsius) and windy conditions concrete must be cured by covering with plastic sheeting, spraying with a curing compound or pouding of water on the surface, or as directed by the Engineer.

6.6 Footings and Slabs on Ground

Concrete slabs and footings shall not be poured until approval to pour concrete is given by the Engineer or the Local Authority.

NOTE: Bench levels and floor levels on the Site Works Plan shall be regarded as nominal, unless specified otherwise.

6.7 Suspended Slabs

All concrete slabs, other than those supported on solid ground or properly compacted filling, shall be constructed as suspended slabs. These slabs shall be constructed in accordance with the Engineer's recommendations.

6.8 Foundation Walls

On footings as previously specified build brick walls to the thickness shown on plan to level underside of floor bearers and/or plates.

6.9 Sub-Floor Ventilation

Provide adequate cross ventilation to the space under suspended ground floor. No section of the under floor area wall to be constructed in such a manner that will hold pockets of still air.

6.10 Sub-Floor Access

Provide access under suspended floors in position where indicated on plan.

6.11 Curing

All slabs shall be cured in accordance with AS 3600.

7.0 RETAINING WALLS

7.1 Retaining Walls

Retaining walls shall be constructed as shown on the plans and/or special details designed by an Engineer and if applicable approved by the Local Authority whether the construction of such shall be the obligation of the Owner or the Contractor.

8.0 EFFLUENT DISPOSAL/DRAINAGE

8.1 In both sewered and unsewered areas, fit bath, wash basin, kitchen, wash tubs, pedestal pan and floor grate to shower recess in positions shown on plan. (Refer to schedule of fittings). Provide waste pipes with traps to the above fittings and connect to the drainage system. The whole of the work to be performed in accordance with the rules and requirements of the Sewerage Authority concerned.

8.2 Septic System

Provide and install a septic system where applicable to the requirements of Local Authority and in accordance with the manufacturer's instructions.

8.3 Storm Water Drainage

Allow for the supplying and laying of storm water drains where shown on Site Plan. Drains to be a minimum of 90mm UPVC pipes laid to an even and regular fall so as to have a minimum cover of 150mm. Drains to discharge into street gutter where possible. Where outlets are shown within the Site they are to discharge at least 3,000mm clear of the building. If the Authority's requirements give rise to a variation, any additional cost plus Builder's margin is to be borne by the Owner.

9.0 TIMBER FRAMING GENERALLY

9.1 Timber Framing

All timber framework sizes, spans, spacing, notching, checking and fixing shall comply with the provisions of AS 1684 or Part 3.4.3 BCA 96 Housing Provisions. Alternative structural framing to Structural Engineer's details and certification.

The work shall be carried out in a proper and tradesperson like manner and shall be in accordance with recognised and acceptable trade practices.

9.2 Floor Framing

All floors not specified to be concrete are to be framed at the level shown. Span and spacing of bearers is to conform to the requirements of the span tables for the appropriate member size. Deep joists to upper floors, where shown are to be fitted with solid blocking or herringbone strutting as required. All sizes and stress grades of timber members and tie down methods are to be in accordance with AS 1684.

9.3 Wall Framing

Plates are to be trenched to a depth not exceeding 10mm to provide uniform thickness where studs occur. Where plates are machine gauged to a uniform thickness, trenching may be omitted. Wall framing is to be erected plumb and straight and securely fastened to floor framing. Provide a clear space of 40mm between outer face of wall frame and inner face of brick veneer walls. Tie brickwork to studs with approved veneer ties. Ties are to slope downwards towards the veneer wall.

Studs in each panel of walling shall be stiffened by means of solid noggings or bridging pieces at not more than 1,350mm centres over the height of the wall. Bottom plates shall be fixed to the concrete slab in accordance with AS 1684.

9.4 Heads Over Opening (Lintels)

All sizes, stress grade and bearing area shall conform to AS 1684 or NSW Timber Framing Manual. Heads exceeding 175mm in depth shall be seasoned or a low shrinkage timber species use. Plywood web lintels conforming to the requirements of Plywood Association of Australia may be used. Glue Laminated beams conforming with AS 1328. If approved by the Lending Authority, Laminated Veneer Lumber beams to manufacturer's specification and data sheets may be used.

9.5 Roof Trusses

Where roof truss construction is used, trusses shall be fabricated in a properly equipped factory and erected, fixed and braced in accordance with the fabricator's written instructions.

9.6 Bracing

Timber frames must be braced in accordance with Clause 3.4.3.8 BCA 96 Housing Provisions. Bracing units shall be determined as appropriate for the design wind velocity for the building or AS 1684. Bracing shall be evenly distributed throughout the building.

9.7 Flooring

Cover floor joists with strip or sheet flooring as shown on plan. Thickness of flooring to be appropriate for the floor joist spacing. With particular regard to ground clearance and installation in wet areas, structural sheet flooring shall be used strictly in accordance with the manufacturer's recommendations or Part 3.4.3 BCA 96 Housing Provisions.

Strip flooring shall be in accordance with AS 1684.

When listed in Schedule of Works, floors shall be sanded to provide an even surface and shall be left clean throughout.

9.8 Roof Framing

Roofs are to be pitched to the slope shown on plan and constructed in accordance with Clause 3.4.3.6 BCA 96 Housing Provisions or AS 1684. Provide tie-down as required for the appropriate design wind velocity and roof covering. Provide all rafters, ridges, hips, valleys, pulins, struts, collar ties and wind bracing as appropriate with all sizes and stress grades in accordance with AS 1684.

Metal fascias shall be installed in accordance with the manufacturer's recommendations.

9.9 Timber Posts

Posts supporting carports, verandas and porches shall be timber suitable for external use, or as otherwise specified, supported on galvanised or treated metal post shoes. Post shall be bolted to all adjoining beams as required by AS 1684 for the wind speed classification assessed for the Site.

9.10 Corrosion Protection

All metal brackets, facing plates and other associated fixings used in structural timber joints and bracing must have appropriate corrosion protection.

9.11 Hot Water Storage Tank Platforms

Where a hot water storage tank is to be installed in the roof space, the tank platform shall be supported directly off the wall plates and must not be supported on ceiling joists.

All hot water services installed in the roof space shall be fitted with an appropriate spill tray and overflow drain pipe.

10.0 STEEL FRAMING GENERALLY

10.1 Steel Framing

Steel floor, wall or roof framing approved by the Local Authority shall be installed in accordance with the manufacturer's recommendations and AS 3623 or Part 3.4.2 BCA 96 Housing Provisions.

11.0 ROOFING

All roof cladding to comply with the relevant structural performance and weathering requirements of BCA 96 Housing Provisions and be installed as per the manufacturer's requirements.

11.1 Tiled Roofing

Concrete and terracotta tiles shall comply with AS 2049 and be installed in accordance with AS 2050. Cover the roof of the dwelling with first quality approved tiles as selected. The tiles are to be fixed to approved battens of sizes appropriate to the spacing of rafters/trusses in accordance with manufacturer's recommendations. Cover hips and ridges with capping and all capping and all necessary starters and apex caps. Capping and verge tiles are to be well bedded and neatly pointed. Roofing adjacent to valleys should be fixed so to minimise as far as practicable water penetration. As roof tiles are made of natural products slight variation in colour is acceptable.

11.2 Roofing

Provide and install a metal roof together with accessories all in accordance with the manufacturer's instructions.

Except where design prohibits, sheet shall be in single lengths from fascia to ridge. Fixings of sheet shall be strictly in accordance with the manufacturer's recommendations. Incompatible materials shall not be used for flashings, fasteners or downpipes.

11.3 Rainwater Goods

Metal Rainwater goods shall be manufactured in accordance with AS 2179. Rainwater goods shall be installed in accordance with AS 2180 or Part 3.5.2 BCA 96 Housing Provisions.

UPVC components to be manufactured in accordance with AS 1273. Rainwater goods to be compatible with other materials used.

11.4 Sarking

Sarking if used under roof coverings must comply and be fixed in accordance with AS/NZS 4200.1 for materials and AS/NZS 4200.2 for installation.

11.5 Sealants

Appropriate sealants shall be used where necessary and in accordance with manufacturer's specifications.

11.6 Weatherproofing

Flashings shall comply with AS 2904, AS 1804, AS 3700 and Part 3.3.4 BCA 96 Housing Provisions.

12.0 MASONRY

12.1 Bricks

All clay bricks and brickwork shall comply with AS/NZS 4455, AS/NZS 4456 and AS 3700. Clay bricks are a natural kiln fired product and as such their size may vary over a small range. Tolerances shall only be applied to the total measurements over 20 units, not to the individual units.

12.2 Concrete Blocks

Concrete blocks are to be machine pressed, of even shape and well cured in accordance with AS 2733.

Autoclaved Aerated Concrete blocks shall be in accordance with the manufacturer's Product Specification at the time the work is being carried out.

12.3 Damp Proof Courses

All damp proof courses shall comply with Part 3.3.4 BCA 96 Housing Provisions, AS 3700 and AS 2904. The damp proof membrane shall protrude to the external face of the masonry member in which it is placed.

12.4 Cavity Ventilation (Weep Holes)

Cavities shall be cleared of all mortar droppings and weep holes shall not exceed 1,200mm centres, be in accordance with AS 3700, or Clause 3.3.4.3 of the BCA 96 Housing Provisions.

12.5 Mortar and Joining

Mortar shall comply with AS 3700 or Part 3.3.1 BCA 96 Housing Provisions. Joint tolerances shall be in accordance with AS 3700.

12.6 Masonry Accessories

Compliance with Part 3.3.3 of BCA 96 Housing Provisions in acceptable construction practices. All wall ties shall be manufactured in accordance with AS 2699 and be installed in accordance with AS 3700. Wall ties to meet corrosion resistant rating of the site. Provide appropriate ties to articulated joints in masonry.

12.7 Lintels

Lintels used to support brickwork opening in walls must be suitable for the purpose under Part 3.3.3 BCA 96 Housing provisions. Provide one lintel to each wall leaf. Where necessary clearance must be allowed at heads of frames to allow for shrinkage of timber frames.

12.8 Cleaning

Clean all exposed brickwork with an approved cleaning system. Care should be taken not to damage brickwork or joints and other fittings.

13.0 CLADDING AND LININGS

13.1 External Claddings and Linings

Sheet materials or other external cladding shall be fixed in accordance with the manufacturer's recommendations and any applicable special details.

13.2 Internal Wall and Ceilings Linings

Provide gypsum plasterboards or other selected materials to walls and ceilings. Plasterboard sheets to have recessed edges and be a minimum of 10mm thick. Internal angles from floor to ceiling to be set. Set corners or provide cornices for ceilings as required. The lining of wet area walls shall be constructed as per AS 3740 or Part 3.8.1 BCA 96 Housing Provisions. Wet area lining to be fixed in accordance with the manufacturer's recommendations.

Where required in open veranda's, porches and eaves soffits, material indicated on the drawing shall be installed. The ceiling access hole shall be of similar material to the adjacent ceiling. Suitable cornice moulds where required shall be fixed at the junction of all walls and ceilings.

13.3 Waterproofing

All internal wet areas and balconies over internal habitable rooms to be water proofed to AS 3740 or Part 3.8.1 BCA 96 Housing Provisions.

14.0 JOINERY

14.1 General

All joinery work (metal and timber) shall be manufactured and installed according to good trade practices.

14.2 Door Frames

External door frames shall be a minimum of 32mm thick fitted with 10mm thick door stops. Internal jamb linings shall be a minimum of 18mm thick fit with 10mm thick door stops. Metal door frames shall be installed where indicated on drawings in accordance with the manufacturer's recommendations.

14.3 Door and Doorsets

All internal and external timber door and door sets shall be installed in accordance with AS 1909. Timber Doors and Door Sets shall be manufactured in accordance with AS 2688 and AS 2689.

14.4 Window and Sliding Doors

Sliding and other timber windows and sliding doors shall be manufactured in accordance with AS 2146 and be installed in accordance with AS 2147.

Aluminium windows and sliding doors shall be installed in accordance with manufacturer's instructions.

All glazing shall comply with AS 1288 or Part 3.6 BCA 96 Housing Provisions.

14.5 Architraves and Skirting

Provide architraves and skirting as nominated on the drawings or listed on the Schedule of Works.

14.6 Cupboards/Kitchens/Bathroom

Units shall be installed to manufacturer's recommendations. Bench tops shall be in a water resistant material.

14.7 Stairs, Balustrades and other Barriers

Provide stairs or ramps to any change in levels, and balustrades or barriers to at least one side of ramps, landings and balconies as per BCA Housing Provisions, Part 3.9.1 for stair construction and 3.9.2 for balustrades.

15.0 SERVICES

15.1 Plumbing

All plumbing shall comply with the requirements of the Supply Authority and the work is to be carried out by a licensed plumber.

Fittings shall be supplied and installed as specified.

15.2 Electrical

Provide all labour and materials necessary for the proper installation of electricity service by a licensed electrician in accordance with AS 3000, AS 3006 and the requirements of the local Supply Authority. unless otherwise specified, the electrical service shall be 240 volt, single phase supply.

15.3 Gas

All installation (including LPG) shall be carried out in accordance with the rules and requirements of the Supply Authority.

15.4 Smoke Detectors

Provide and install smoke alarms manufactured in accordance with AS 3786 as specified or as indicated on plan and in accordance with Part 3.7.2 BCA 96 Housing Provisions.

16.0 TILING

16.1 Materials

Cement mortar and other adhesives shall comply with AS 3958.1 according to trade practices.

16.2 Installation

Installation of tiles shall be in accordance with AS 3958.

All vertical and horizontal joints between walls and fixtures e.g. benchtop, bath etc., to be filled with flexible mould resistant grout. Where practicable spacing between tiles should be even and regular. Provide expansion joints where necessary. As tiles are made of natural products a slight variation in colour is acceptable.

16.3 Walls

Cover wall faces where indicated on the drawings with selected neatly grouted tiles. Tiles are to be fixed to wall sheeting with approved adhesives. Provide all necessary strips, vent tiles and recess fittings.

16.4 Floors

Lay selected floor tiles in sand and cement mortar or approved adhesive to areas indicated on the drawings. If required, fit approved edge strips or metal angle to exposed edges in doorways or hobless showers as per AS 3740. Provide adequate and even fall to wastes where necessary.

17.0 PAINTING

17.1 General

All paint used shall be of a quality suitable for the purpose intended and the application shall be as per the manufacturer's recommendations. The colours used shall be as per Colour Schedule. All surfaces to be painted shall be properly prepared to manufacturer's recommendations.

18.0 PRIME COST ITEMS

List hereunder all P.C. Allowances

Kitchen and Vanity Cupboards (kitchen sink included)		\$.....
Stove/Wall Oven/Hot Plates		\$.....
Bath per item	per item	\$.....
W.C. Suites	per item	\$.....
Laundry Tub		\$.....
Entry Door		\$.....
Door Furniture		\$.....
Garage Door		\$.....
Hot Water System		\$.....
Shower Screen		\$.....
Wall and Floor Tiles supply only		\$...../m
Bricks		\$...../ ,000

19.0 SIGNATURES

This is the specification referred to in the Building Agreement No. Date:

Signed by the said
Owner in the
Presence of

...../...../.....
Witness Owner's Signature Date

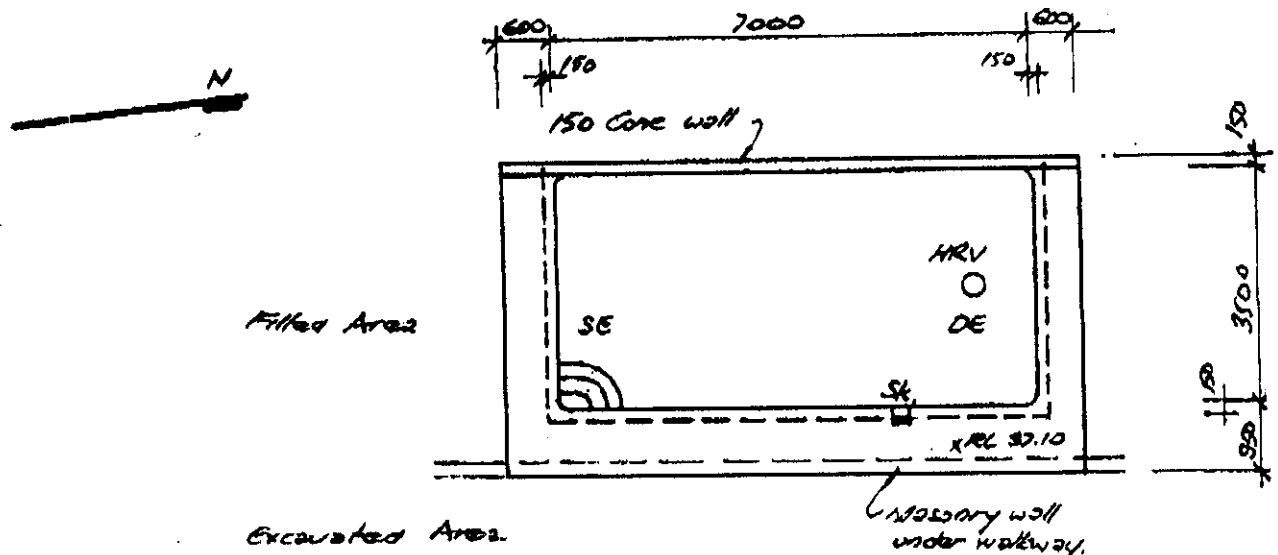
2

...../...../.....
Witness Owner's Signature Date

Signed by the said
Contractor in the
Presence of

...../...../.....
Witness Contractor's Signature Date

Swimming Pool Structural Details



PLAN 1:100

NOTE

Refer to Building Drawings for location of Pool within site and for proposed levels, and location of safety fencing & pool equipment.
Pool is not designed for Diving

03023-CC 24.7.03

PLAN CERTIFICATION I am a qualified Structural Engineer and hold the following qualifications: BE degree; M.I.E. Aust.; C.P. Eng. Further I am appropriately qualified to certify this component of the project. I hereby state that these plans numbered 33090, Sheets 1 to 5 inclusive, comply with the conditions of development consent, the provisions of the Building Code of Australia and of relevant Australian Standards.

Donald Alan Nielsen

Swimming Pool at 4 ELWYN CLOSE MONA VALE

D.A. Nielsen & Associates Pty Ltd
Consulting Engineers

12 Daly Ave Wahroonga 2076 Ph (02) 9489 1314
ABN 32 000 912 309 Fax (02) 9489 1083

Job No 33090 Sheet 1 of 5

Approved

16.3.03

SWIMMING POOL CONSTRUCTION NOTES

GENERAL

- G1 All workmanship and materials are to be in accordance with the Building Code of Australia and current Australian Standards. This design will comply with AS2783-1992 Small Concrete Swimming Pools and AS3600-2001 Concrete Structures.
- G2 Overall dimensions are to be checked and verified on site by the builder. Dimensions shown are concrete sizes and do not include finishes. Any discrepancies or variations are to be referred to the engineer.
- G3 Walkways have been designed for a live load of 3 kilopascals. Unless shown on the drawings, planters or walls or other structures shall not be constructed on walkways.
- G4 Pool walls have been designed to project a maximum of 750 mm above natural ground or sound supporting soil unless shown otherwise.

FOUNDATIONS

- F1 Foundation materials shall be uniform over whole of pool area, and shall have a minimum safe bearing capacity of: **300** Kilopascals on ~~sand~~ stiff clay ~~rock~~
- F2 Any variation in foundation conditions or material from that assumed shall be referred to the engineer.
- F3 Excavations shall not be made within 2 metres of any existing structure without prior approval or recommendations for shoring or underpinning from the engineer.

REINFORCEMENT

- R1 All reinforcing steel is to be fixed by an approved method and supported on appropriately sized chairs. Chair spacing shall not exceed 1000 mm in each direction.
- R2 S- denotes deformed grade 250S bars, with minimum lap 50 bar diameters.
R- denotes round grade 250R bars.
N- denotes deformed grade 500N bars.
F- denotes grade 500 welded wire fabric.

CONCRETE

- C1 The mix shall be proportioned to produce a minimum 28 day compressive strength in accordance with its exposure classification, and shall be suitable for pneumatic application.
Concrete shall have an exposure classification and strength as follows unless noted otherwise:
- | | |
|---|-------------|
| Inland, more than 50 km from large expanse of water- | A1 - 25 Mpa |
| Near coastal, 1 km to 50 km from large expanse of salt water- | B1 - 25 Mpa |
| Coastal, within 1 km of large expanse of salt water- | B2 - 32 Mpa |
| In tidal or splash zone of salt water (sea water pool) - | C - 40 Mpa |
- C2 NO FLY ASH SHALL BE ADDED TO THE CONCRETE MIX.
- C3 Concrete cover shall be as follows unless noted otherwise:
- | | |
|-----------------------------------|-------------------------------|
| Walls and floors | - 50 mm from water face |
| | - 60 mm from earth face |
| Faces exposed to aggressive water | - 70 mm |
| Cantilevered walkways | - 40 mm from finished surface |
| Pipes and conduits | - 50 mm all around. |
- Tie wires shall be bent back clear of cover zone concrete.
- C4 Concrete shall be moist cured for minimum 7 days after placement by use of a soaker hose to provide constant wetting.

EMPTYING POOL

Pool is to be equipped with a pressure relief valve to safeguard against possible flotation due to external water pressure when swimming pool is empty. Despite this provision the approval of the swimming pool contractor should be obtained before emptying the pool.

Swimming Pool at 4 ELWYN CLOSE MONA VALE

D.A. Nielsen & Associates Pty. Ltd.
Consulting Engineers ABN 32 000 912 309
12 Daly Ave Wahroonga 2076
Ph (02) 9489 1314 Fax (02) 9489 1083

Job No **33090** Sheet **2** of **5**

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BEC PG7

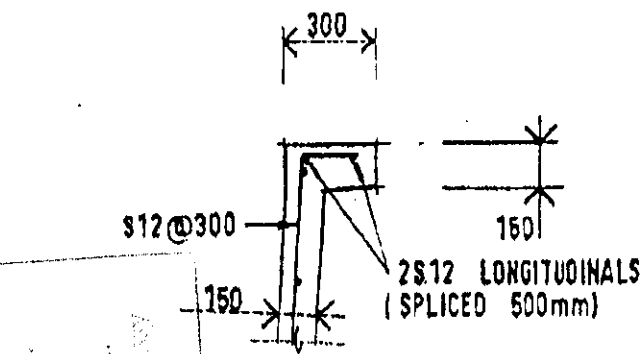
03023-CC

24.7.03

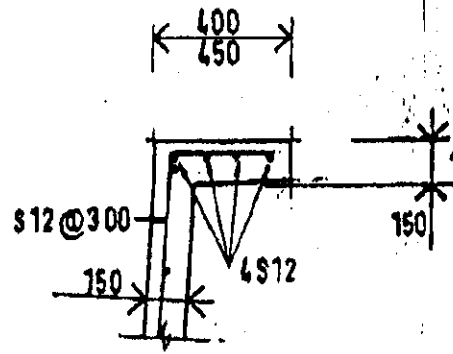
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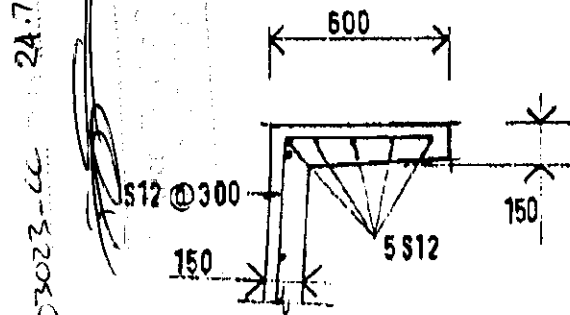
Approved *Samuel* 16.3.05
de 05



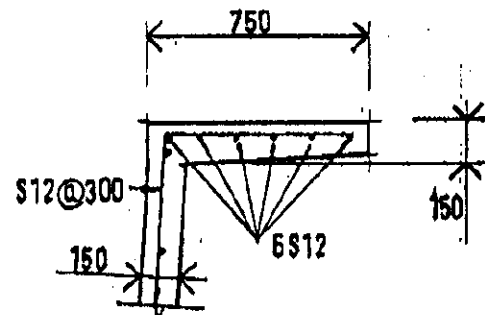
300 mm DETAIL



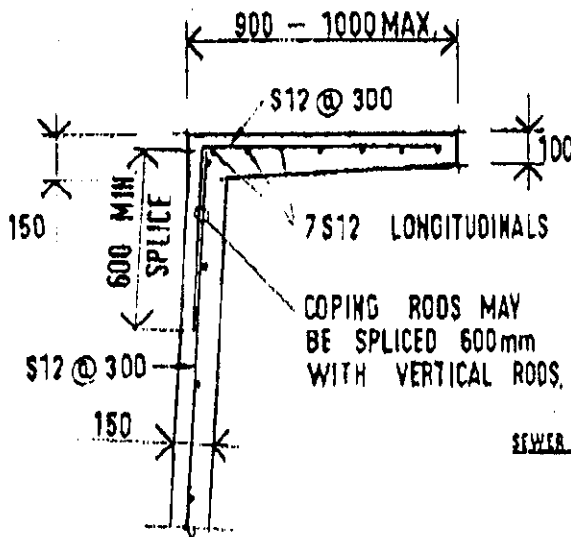
400-450 mm DETAIL



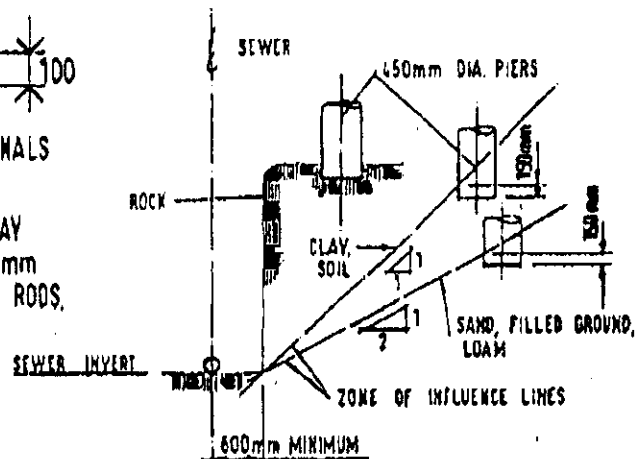
600 mm DETAIL



750 mm DETAIL



900-1000 mm DETAIL



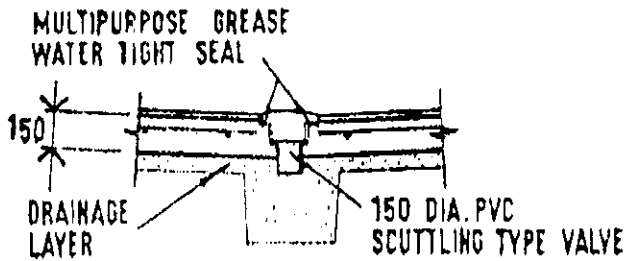
**SYDNEY WATER
SEWER TYPICAL REQ'MTS**

SWIMMING POOL DETAILS

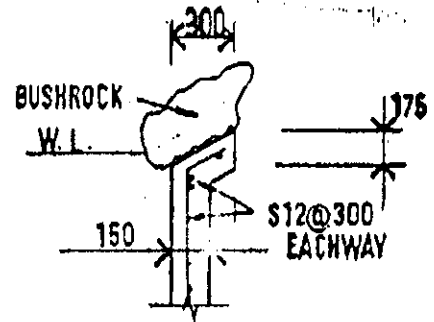
Swimming Pool at **4 ELWYN CLOSE MONA VALE**

D.A. Nielsen & Associates Pty Ltd
12 Daly Ave Wahroonga 2076 Ph (02) 9489 1314
ABN 32 000 912 309 Fax (02) 9489 1083

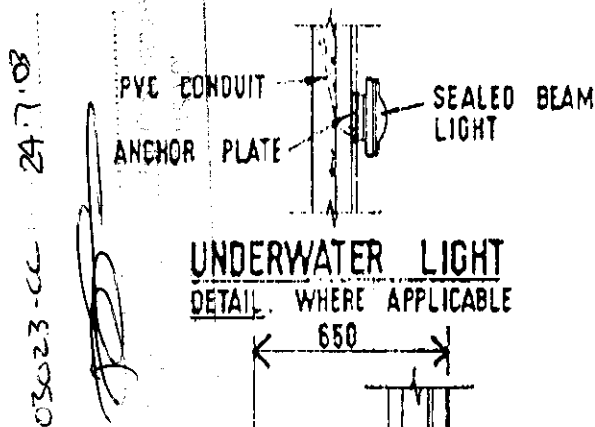
Job No **33090** Sheet **4** of **5**
Approved **[Signature]** 16.3.03



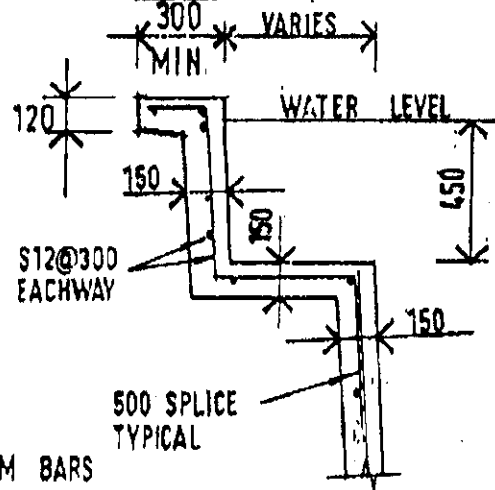
**HYDROSTATIC RELIEF
VALVE DETAIL**



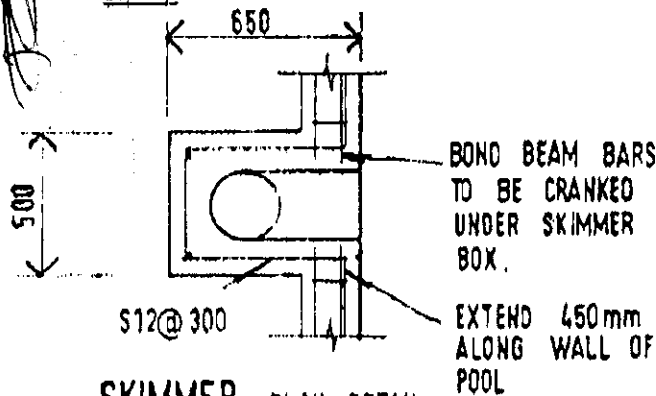
**BUSHROCK COPING
DETAIL, WHERE APPLICABLE**



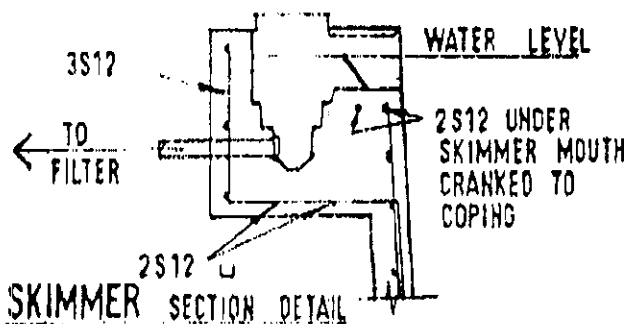
**UNDERWATER LIGHT
DETAIL, WHERE APPLICABLE**



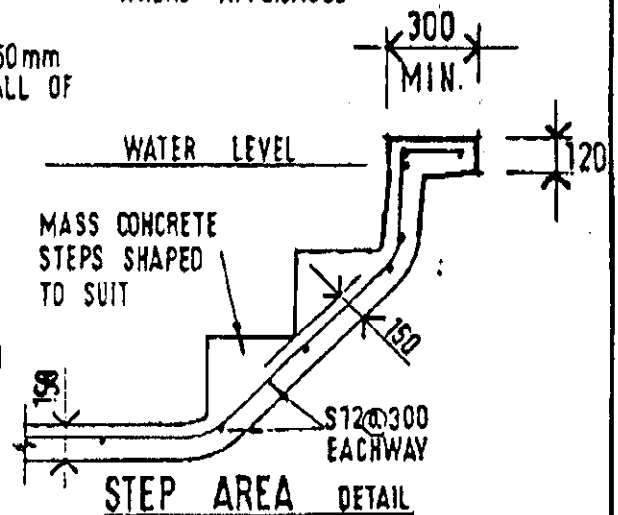
**SWIMOUT DETAIL
WHERE APPLICABLE**



SKIMMER PLAN DETAIL



SKIMMER SECTION DETAIL



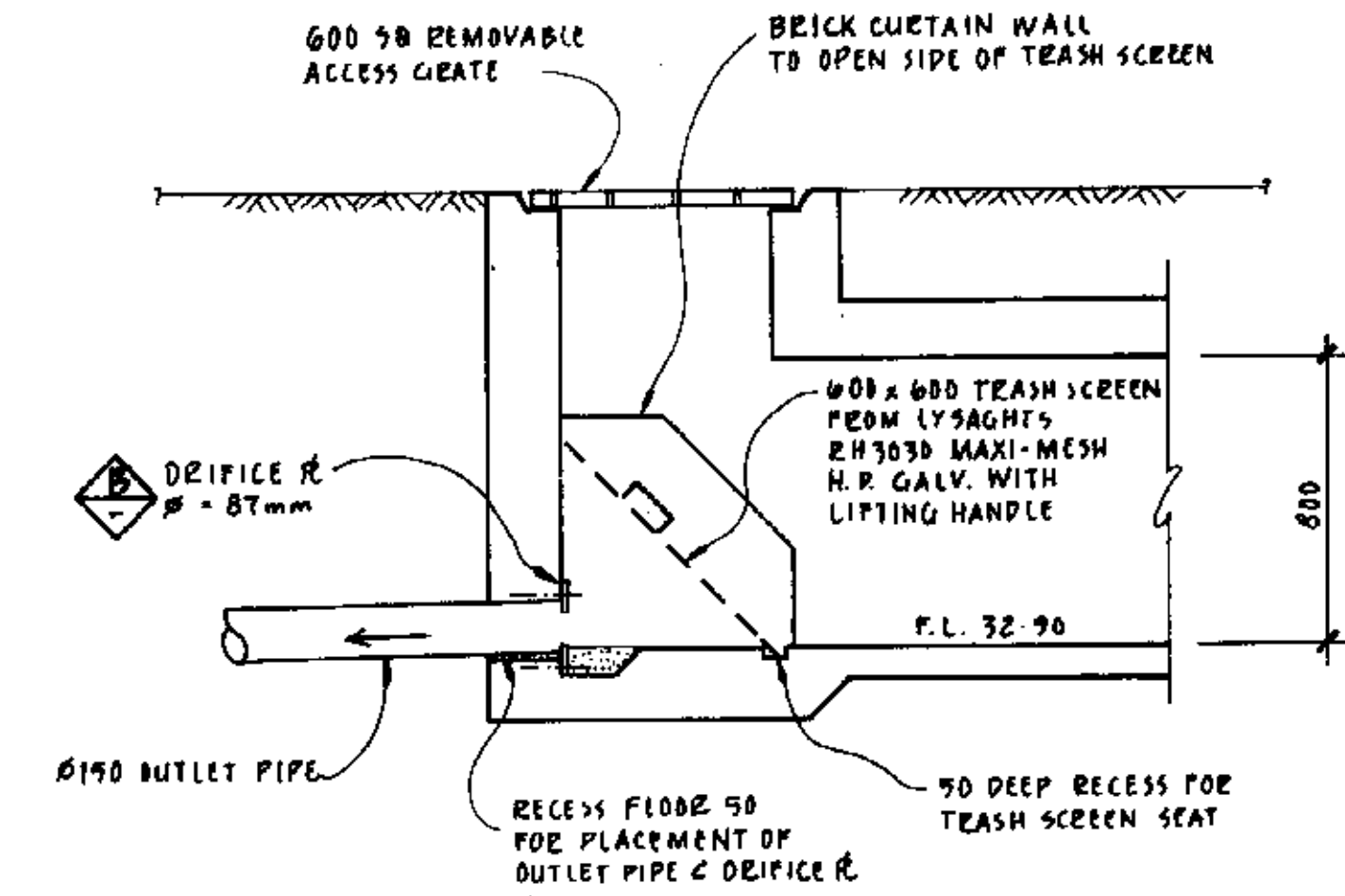
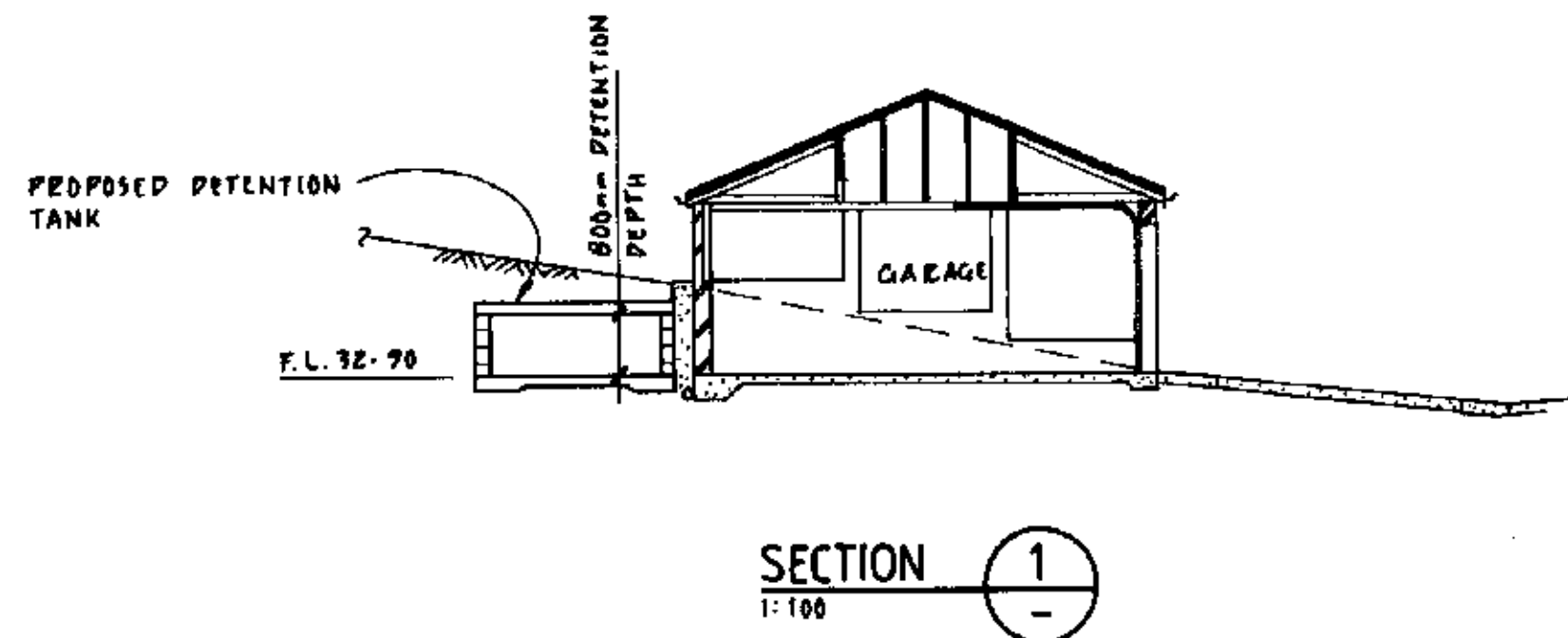
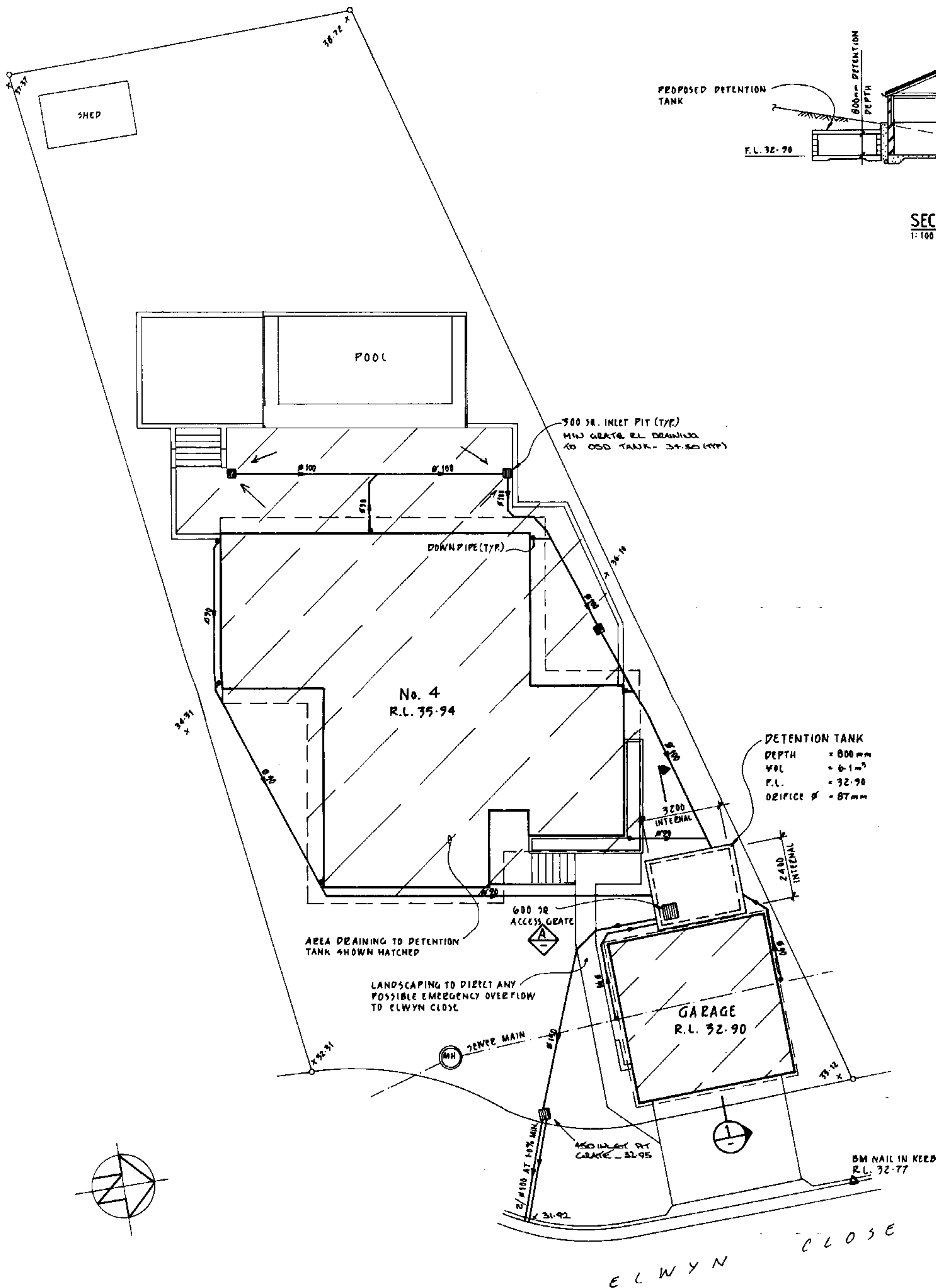
STEP AREA DETAIL

SWIMMING POOL DETAILS

Swimming Pool at 4 ELWYN CLOSE MONA VALE

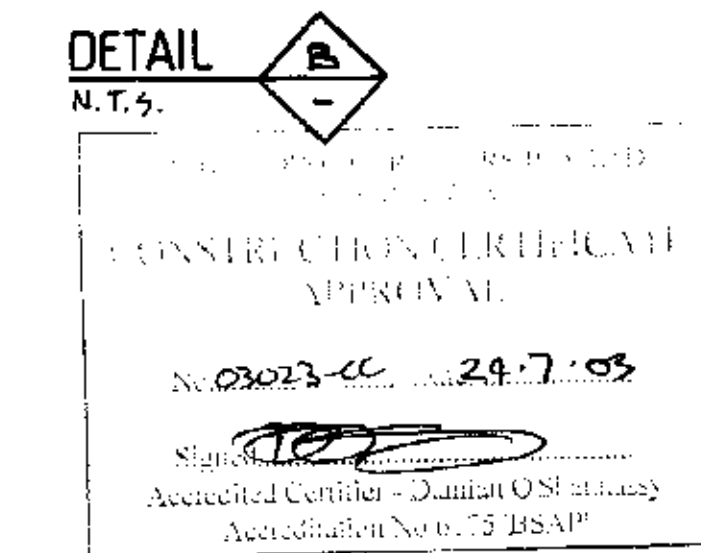
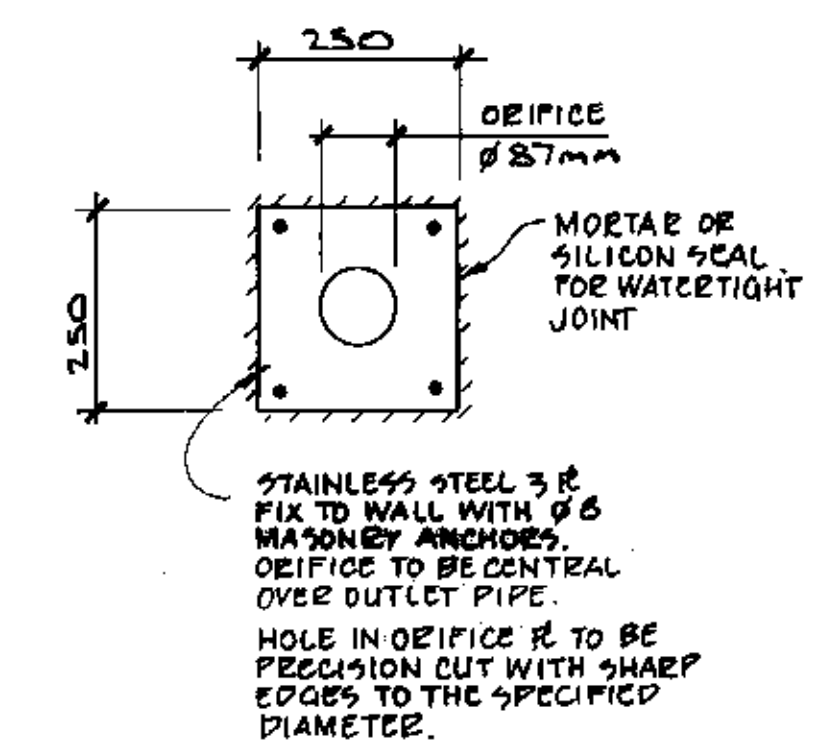
D.A. Nielsen & Associates Pty Ltd
12 Daly Ave Wahroonga 2076 Ph (02) 9489 1314
ABN 32 000 912 309 Fax (02) 9489 1083

Job No **33090** Sheet **5** of **5**
Approved **BOULD RECAP 16.3.03**



NOTE: STRUCTURAL DETAILS OF PIT WALLS, FLOOR & ROOF SLAB TO SEPARATE FUTURE DETAILS

TYPICAL DETENTION OUTLET DETAIL



THE COUNCIL OF PITWATER
APPROVED
DEVELOPMENT CONSENT PLAN

GENERAL - ON SITE DETENTION & STORMWATER DRAINAGE NOTES

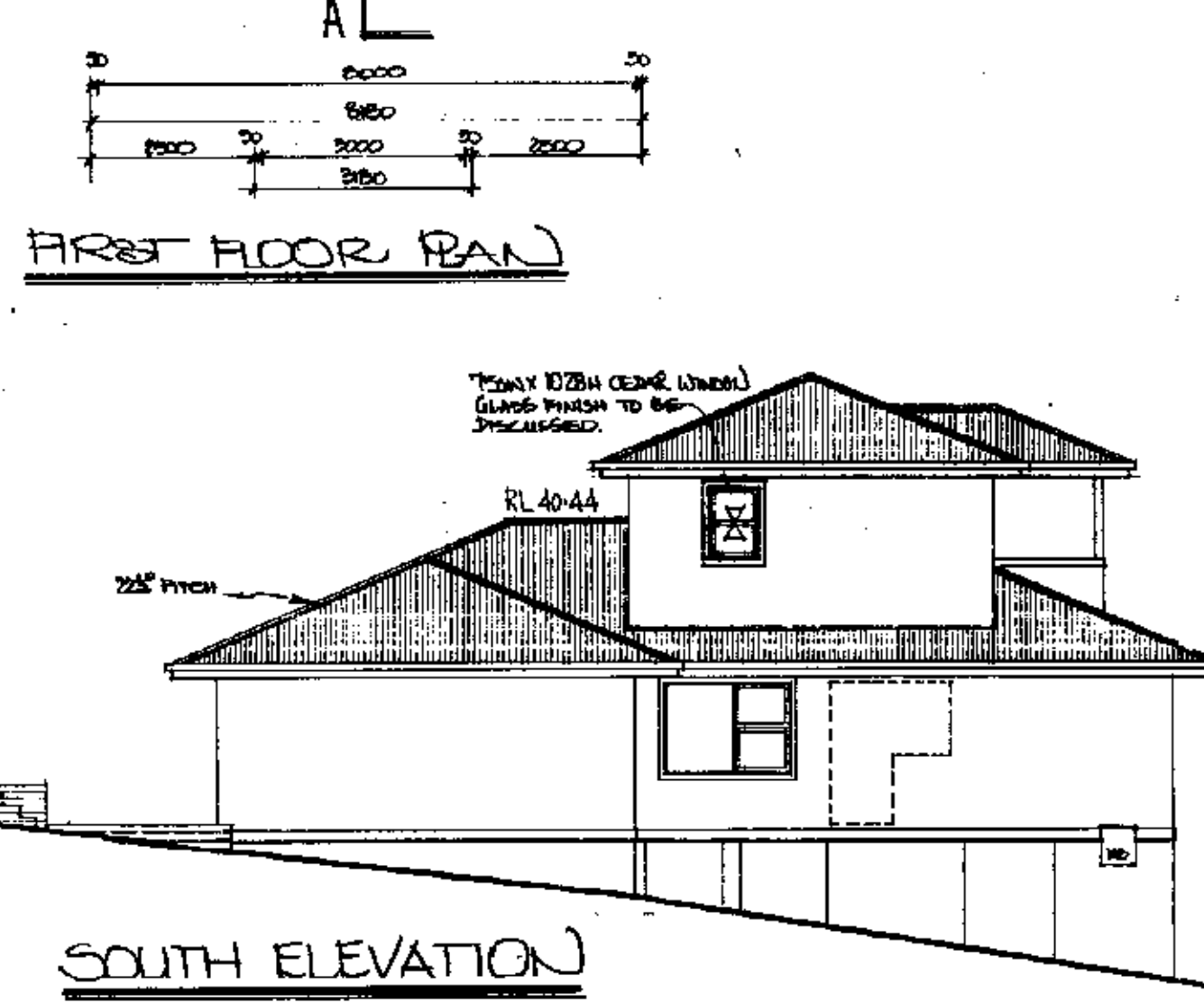
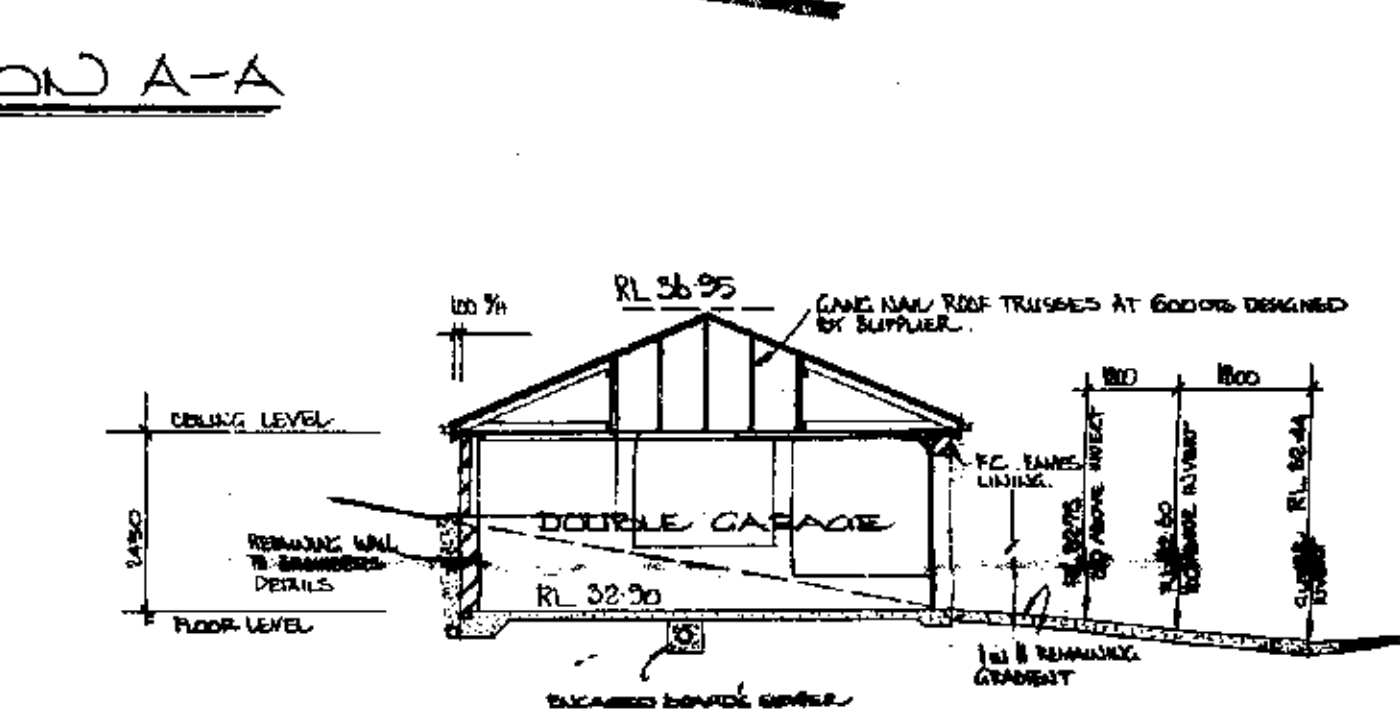
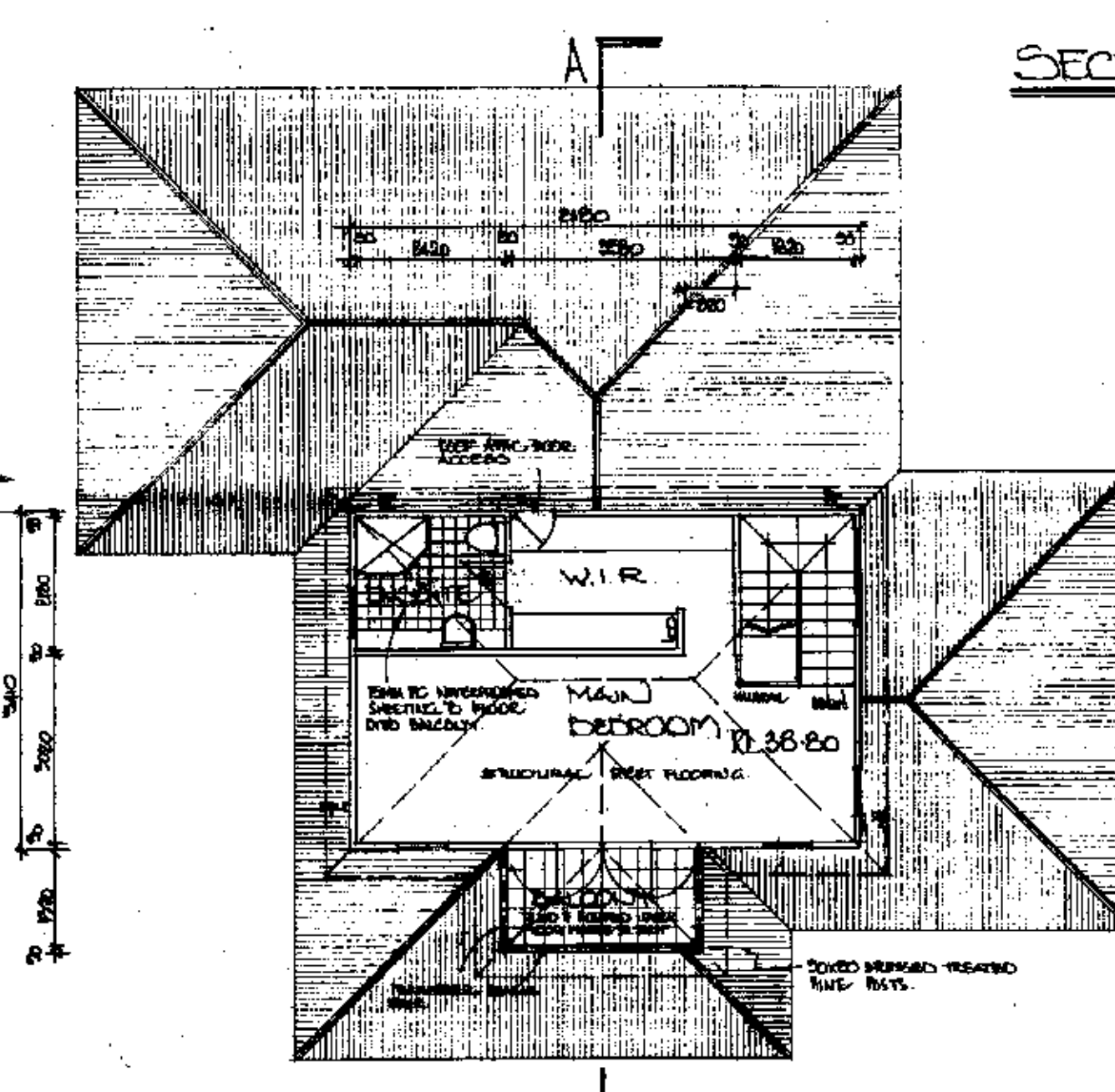
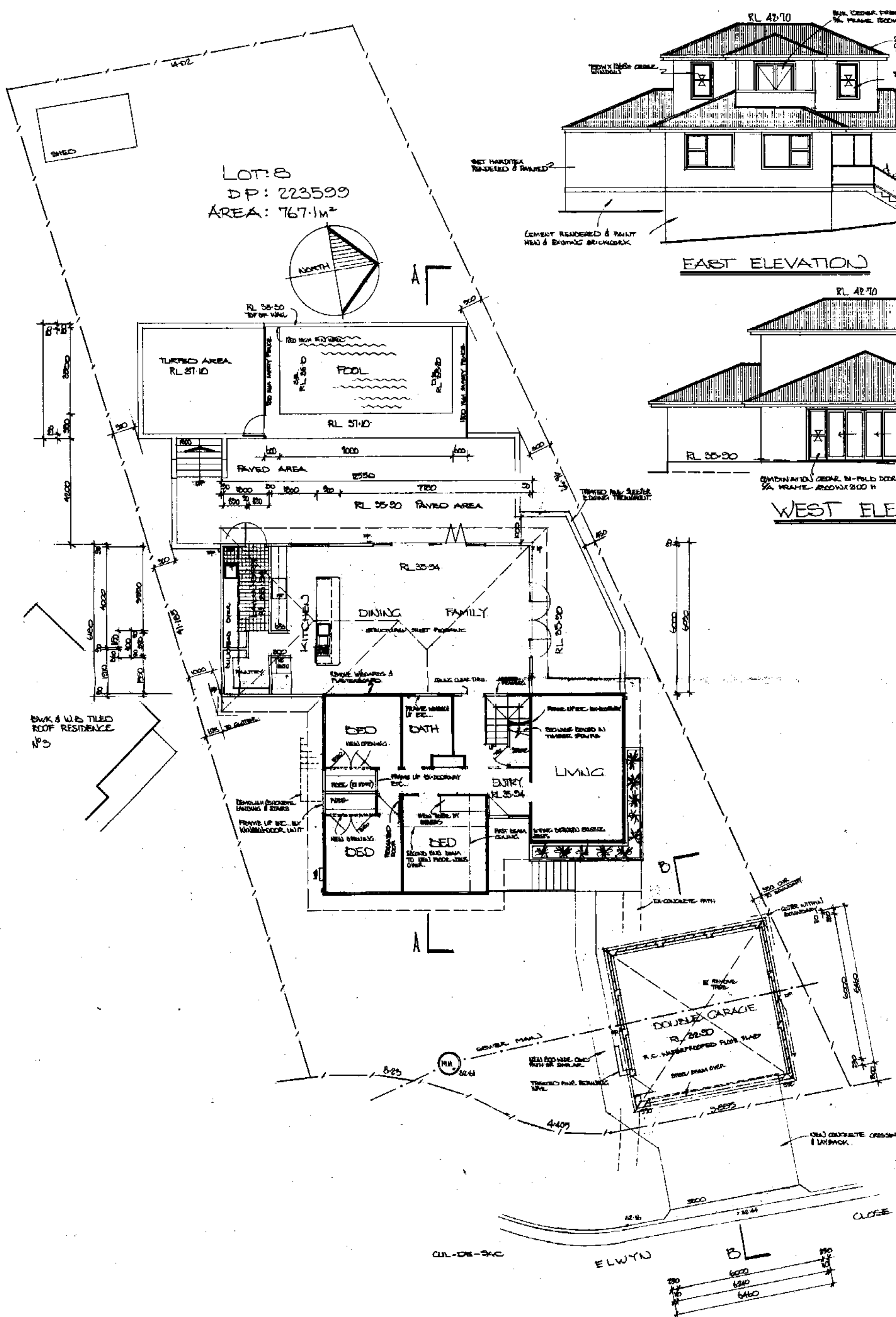
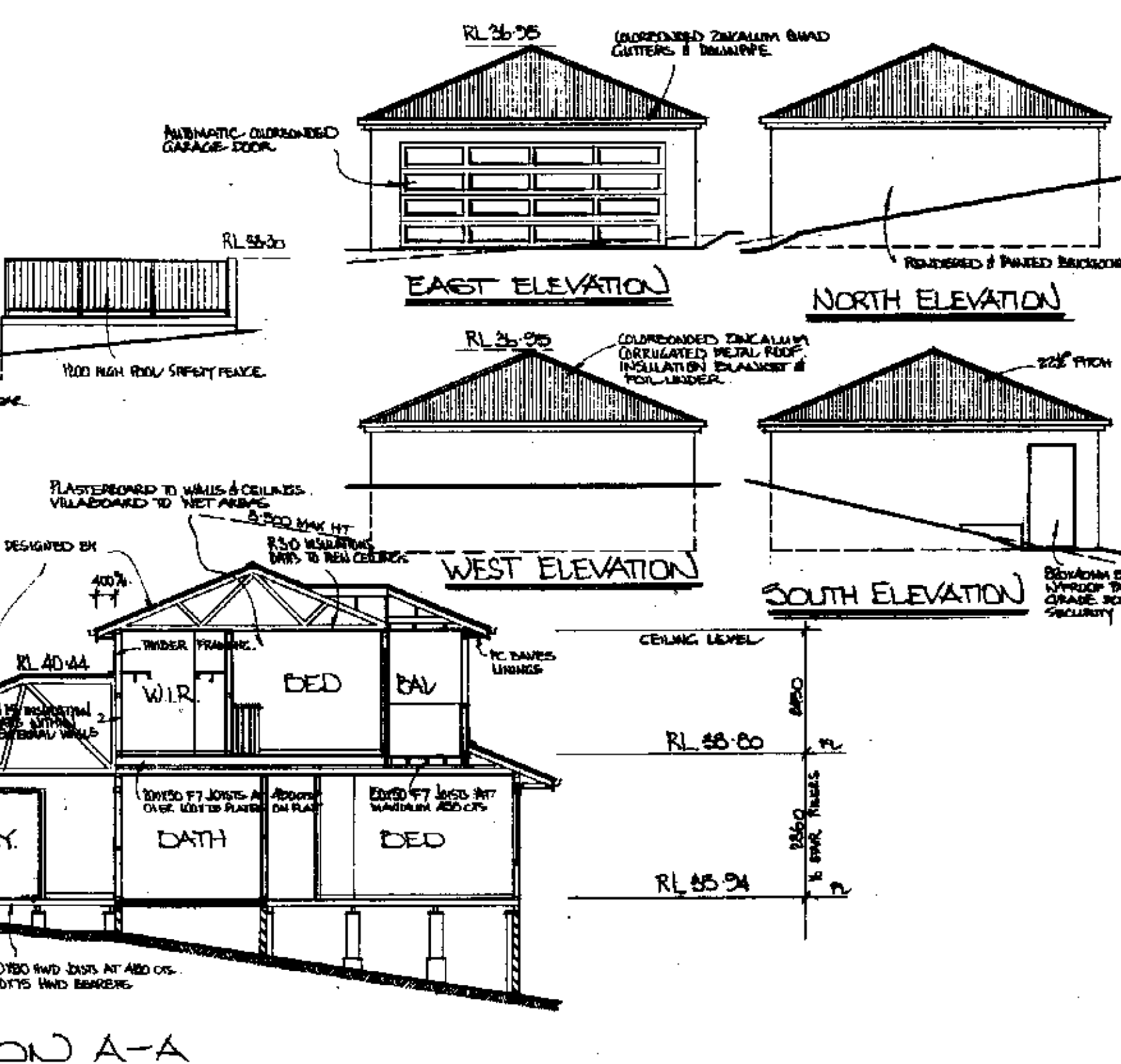
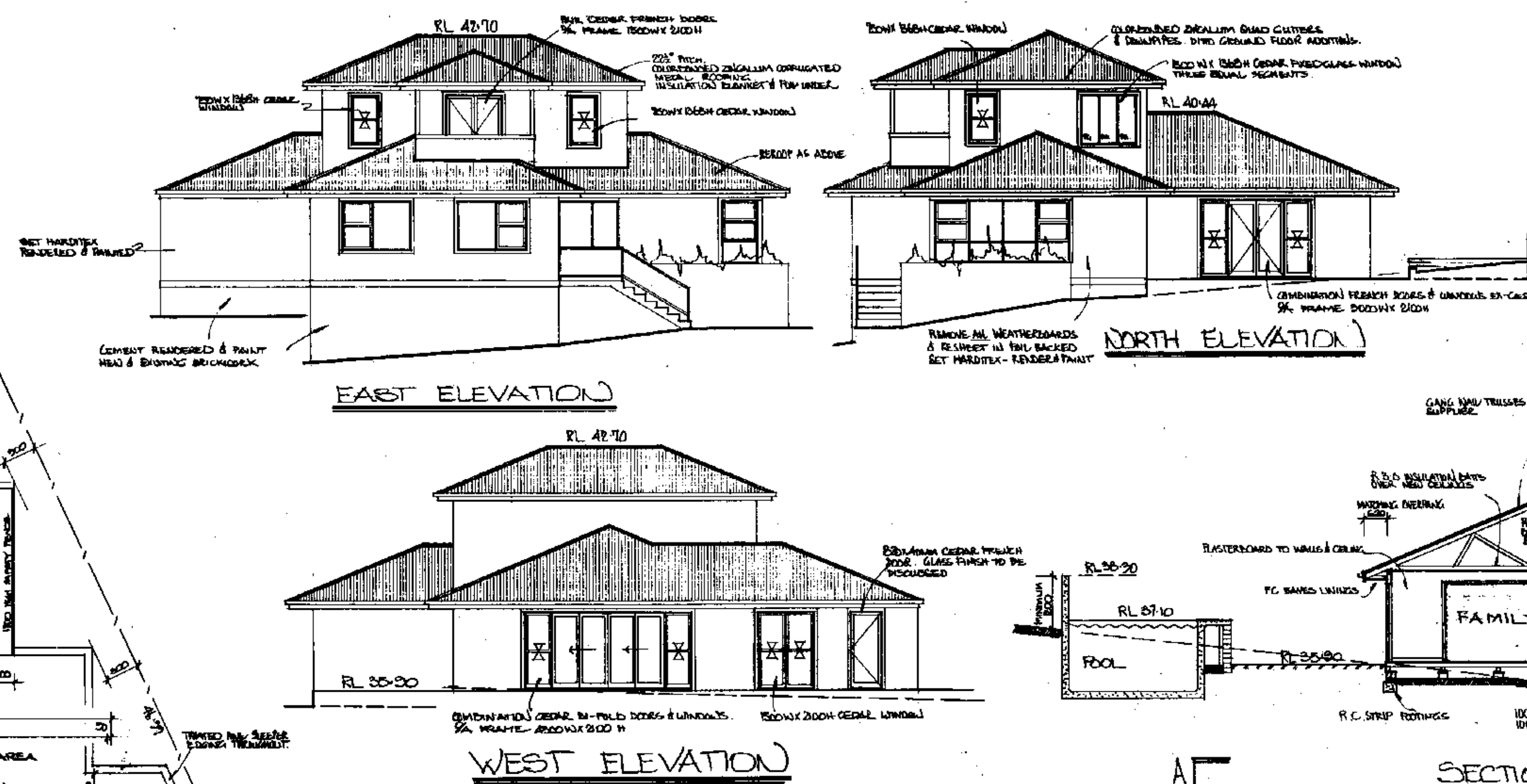
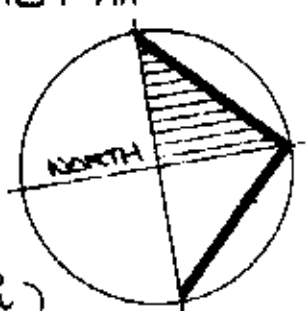
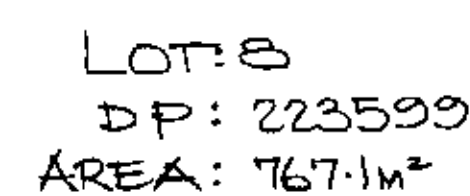
- PIPED STORMWATER DRAINAGE DESIGN CRITERIA
- (a) AREA DATA
- TOTAL SITE AREA = 787 m²
 - PRE-DEVELOPED IMPERVIOUS AREA - ASSUME 20% IMPERVIOUS
 - POST-DEVELOPED IMPERVIOUS AREA TO BE MODELLED - 362 m²
- (b) PRE-DEVELOPMENT FLOWS
- 5 yr ARI SITE DISCHARGE = 25 l/s
 - 100 yr ARI SITE DISCHARGE = 44 l/s
- (c) POST DEVELOPMENT FLOWS WITH OSD
- TOTAL 5 yr ARI SITE DISCHARGE = 23 l/s
 - TOTAL 100 yr ARI SITE DISCHARGE = 38 l/s
- (d) OSD TANK
- PORTION DRAINING TO THE TANK = 314 m² (100% IMPERVIOUS)
 - MAXIMUM 100 yr ARI WL = RL 33.70
 - ORIFICE SIZE = 87 mm
 - SSR = 6.1 m³

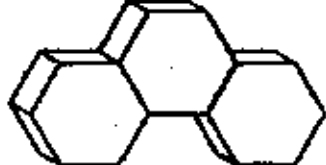
NOTE: All flowrates calculated using 1,5AX

- NOTES
- * DENOTES PROPOSED GROUND LEVEL
+ DENOTES EXISTING GROUND LEVEL
 - FALL STORMWATER PIPES AT 1% MIN UNLESS OTHERWISE NOTED.
 - SURFACE GRATES 300mm UNLESS OTHERWISE NOTED
 - LOCATE AND CHECK LEVEL OF MAINS PRIOR TO ANY DRAINAGE CONSTRUCTION IN ROAD RESERVE OR DEVELOPMENT SITE AS POSITION COULD AFFECT DRAINAGE CONSTRUCTION DETAILS.
 - AREA DRAINING TO OSD STORAGE SHOWN HATCHED.
 - ALL STORMWATER PIPES TO HAVE SOLVENT CEMENT WATERTIGHT JOINTS.
 - TURN STORMWATER PIPES UP WALL TO RL 34.50 MN PRIOR TO CONNECTION OF DOWNPIPES.
 - INSPECTIONS MUST BE UNDERTAKEN BY THIS OFFICE (BY PRIOR ARRANGEMENT WITH ENGINEER) DURING CONSTRUCTION TO ENSURE FULL CERTIFICATION UPON COMPLETION OF WORKS.
 - DETENTION SYSTEM TO BE INSPECTED REGULARLY TO PREVENT BUILDUP OF DEBRIS AND POTENTIAL BLOCKAGE AT TRASHSCREEN AND ORIFICE PLATE OUTLET.

Registered Professional Engineer 230156
Terry J Taylor BSc (Eng) LGE MIE Aust
CPEng
Registered on the NPER in the Categories of
Civil & Structural
I am appropriately qualified to certify this component of
the project.
I hereby state that these plans or details comply with
Council Policy & Guidelines for Greater Protection of
Stormwater & Australian Rainfall & Runoff.
T. J. TAYLOR, 2/9/02

DATE	REVISION	BY	T. J. TAYLOR CONSULTANTS PTY LIMITED Consulting Civil and Structural Engineers 22 Fisher Road, Dee Why, NSW 2099 Telephone: 9982 7092 Fax: 9982 5898			
			STORMWATER DRAINAGE DETAILS 4 ELWYN CL MONA VALE			
			DRAWN	CHECKED	SCALE	DRAWING No.
			S. BONP	2/9/02	1:100 1:20	30402
			AUG. 2002			



<h2 style="text-align: center; margin: 0;">CALCULATIONS</h2> <div style="margin-top: 20px;"> <p>FLOOR AREAS:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">EXISTING FLOOR AREA</td> <td style="text-align: right;">= 24.75 m²</td> </tr> <tr> <td>SEMI ADDITION FLOOR AREA</td> <td style="text-align: right;">= 76.80</td> </tr> <tr> <td>TOP FLOOR ADDITION</td> <td style="text-align: right;">= 44.87</td> </tr> <tr> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">205.84 m²</td> </tr> </table> <p style="margin-top: 10px;">GARAGE FLOOR AREA = 41.75 m²</p> </div> <div style="margin-top: 20px;"> <p>LANDSCAPING:</p> <p>TOTAL HARDCOVERAGE AREA INC. POOL = 575.71 m²</p> <p>LAND AREA = 767.1</p> <p>∴ PROPOSED LANDSCAPE AREA = 301.30 m²</p> <p style="text-align: right;">= 31%</p> </div>	EXISTING FLOOR AREA	= 24.75 m ²	SEMI ADDITION FLOOR AREA	= 76.80	TOP FLOOR ADDITION	= 44.87		205.84 m ²	<div style="margin-top: 10px;"> <p>PROJECT</p> <p>PROPOSED ADDITIONS & DOORWAY GARAGE</p> <p>4 ELWYN CL., MONA VALE</p> </div> <div style="margin-top: 20px;"> <p>CLIENT</p> <p>MR & MRS K. HOWITT</p> </div> <div style="margin-top: 20px;"> <p>DRAWING</p> <p>WORKING DRAWINGS</p> </div> <div style="margin-top: 20px; text-align: center;">  <h1 style="margin: 0;">Beecraft</h1> <p style="margin: 0;">BUILDING CONTRACTORS, DESIGNERS & CONSULTANTS</p> <div style="display: flex; justify-content: space-between; font-size: small; margin-top: 10px;"> <div> <p>6A Lonsell Road Turrey Hills NSW 2061</p> </div> <div> <p>Phone (02) 9230 5230 Licence No. 35483 A.C.N. 082 281 283</p> </div> </div> </div>
EXISTING FLOOR AREA	= 24.75 m ²								
SEMI ADDITION FLOOR AREA	= 76.80								
TOP FLOOR ADDITION	= 44.87								
	205.84 m ²								
<div style="margin-top: 20px;"> <p>SCALES</p> <p style="text-align: center; font-size: 1.5em;">1:100</p> </div> <div style="margin-top: 20px;"> <p>DRAWN BY: PAUL GALLMER</p> </div>	<div style="margin-top: 20px;"> <p>DATE: 1st AUGUST 2002</p> </div>								

TO :
FROM : D.A. NIELSEN & ASSOC P/L

PHONE NO. : 94863337

MAR. 17. 2003 2:36AM P 2
PHONE NO. : 61 2 94891083

Consulting Engineers ABN 32 000 912 309

12 Daly Ave. Wahroonga NSW 2076

Ph. (02) 9489 1314 Fax. (02) 9489 1083

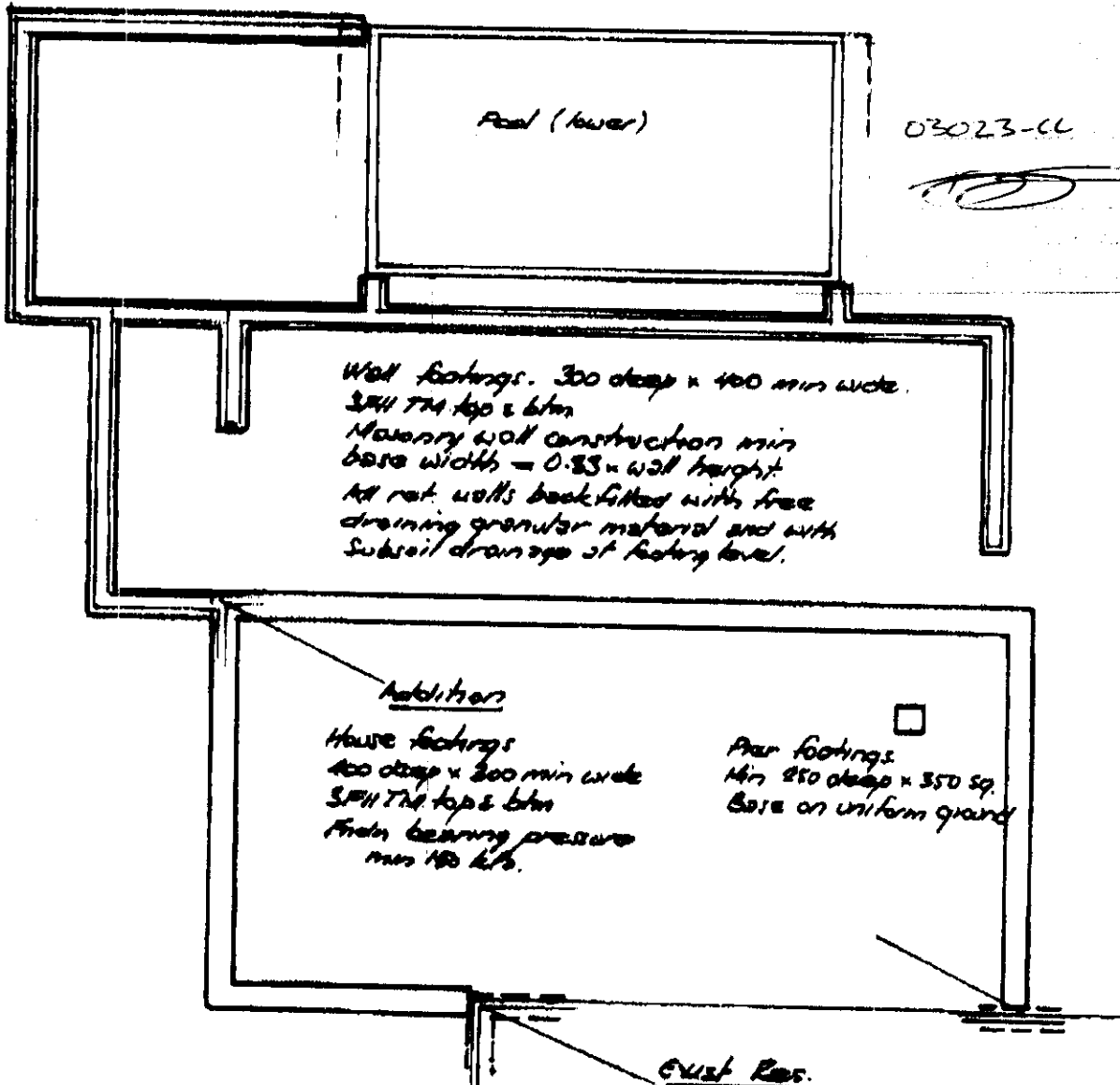
Email: walmax@bigpond.com

33090-D1

Donald Nielsen
17.3.03

ALTN 2 ADDNS AT 4 ELWYN CLOSE MONA VALE

FOOTINGS



FOOTING PLAN 1/400

Concrete grade for footings 20 MPa. Slump 80.
Concrete cover to rebar 50

Footing details to be confirmed on site by Engineer
prior to construction.

PLAN CERTIFICATION I am a Structural Engineer and hold the following qualifications: BE degree; M.I.E. Aust.;
C.P. Eng. Further I am appropriately qualified to certify this component of the project. I hereby state that this plan
numbered 33090-D1 complies with the conditions of development consent, the provisions of the Building Code of
Australia and of relevant Australian Standards.

16.3.03

Donald Alan Nielsen

TO :
FROM : D.A. NIELSEN & ASSOC P/L
Consulting Engineers ABN 32 000 912 309

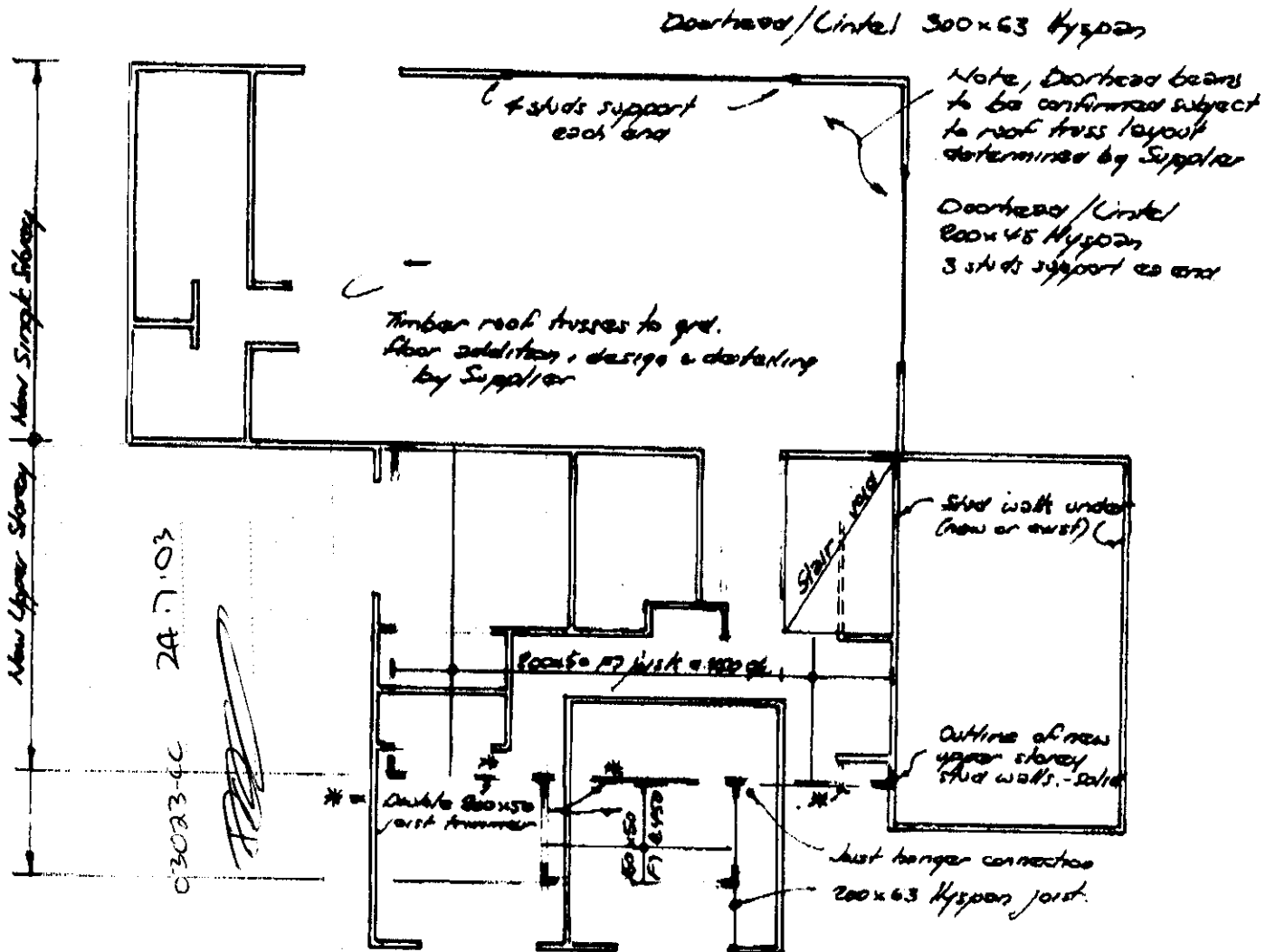
12 Daly Ave. Wahroonga NSW 2076
Ph. (02) 9489 1314 Fax. (02) 9489 1083
Email: walmx@bigpond.com

MAR. 17. 2003 2:37PM P 3
PHONE NO. : 61 2 94891083

33090 - D2

WALM, 16.3.03

ALTNS & ADDNS AT 2 ELWYN CLOSE MONA VALE
UPPER STOREY FRAMING



FRAMING PLAN AT UPPER FLOOR LEVEL 1:100

Note: Timber framing shall comply with AS 1684 Nat. Timber Framing Code. Bracing & tie down shall be provided as required for wind speed 33 mps. - refer AS 1684/AS 4055. Bracing provided by external Harditen cladding complies.

PLAN CERTIFICATION I am a Structural Engineer and hold the following qualifications: BE degree; M.I.E. Aust.; C.P. Eng. Further I am appropriately qualified to certify this component of the project. I hereby state that this plan numbered 33090 - D2 complies with the conditions of development consent, the provisions of the Building Code of Australia and of relevant Australian Standards.

WALM 16.3.03

Donald Ann Nielsen

TO :
FROM : D A NIELSEN & ASSOC P/L
D.A. Nielsen & Associates Pty. Ltd.
Consulting Engineers ABN 32 000 912 309

12 Daly Ave. Wairoonga NSW 2076
Ph. (02) 9489 1314 Fax. (02) 9489 1083
Email: walmax@bigpond.com

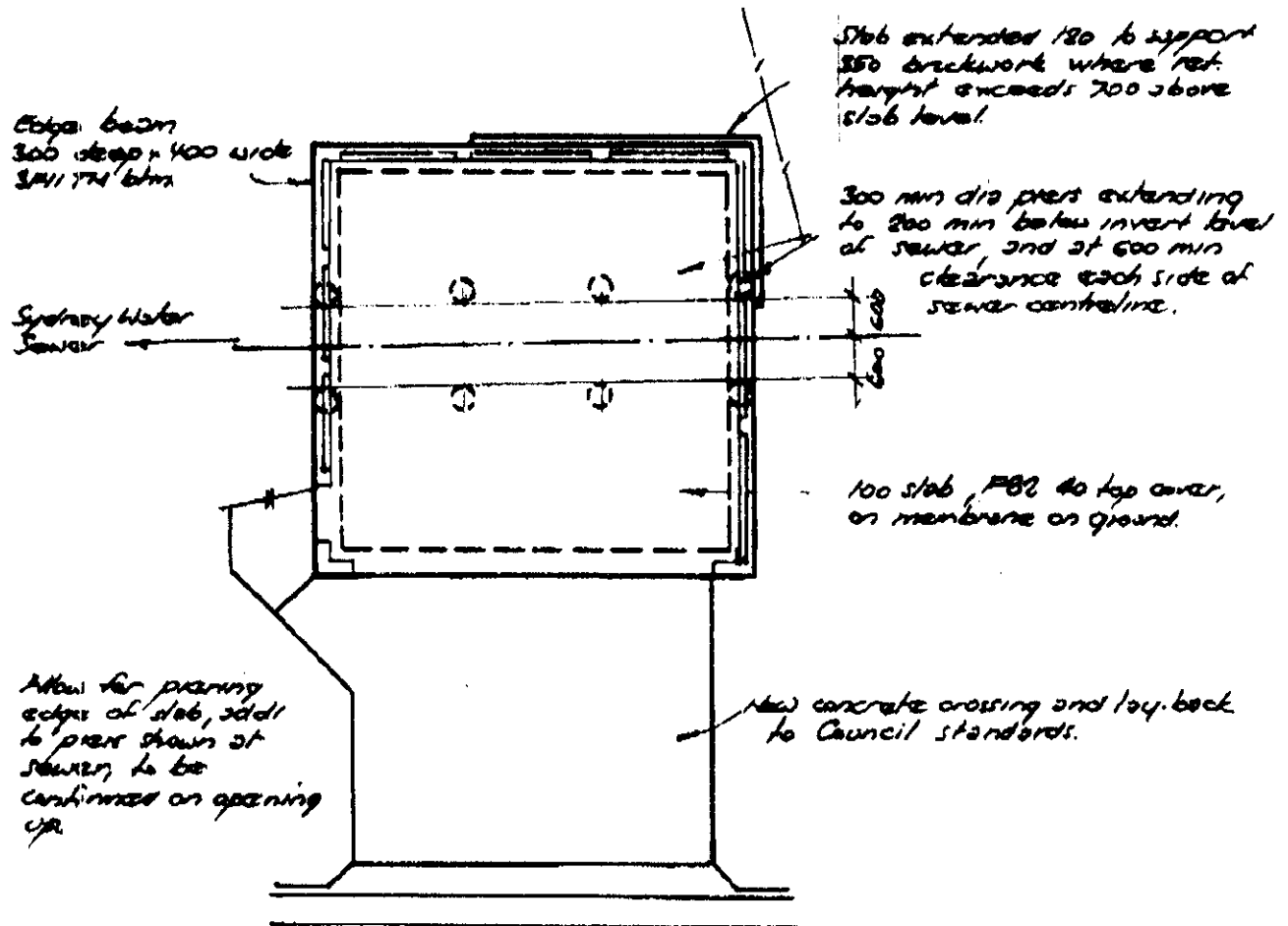
MAR. 17. 2003 2:37AM P 4
PHONE NO. : 61 2 94891083

33090 - D3

Leah 20 CDE
16.7.03

ACTS & ADDNS AT 4 ELWYN CLOSE MONA VALE

GARAGE



GARAGE FLOOR SLAB PLAN 1:100

Note, lintel beam over garage door - Galvalume 9 mm Reinbar.

03023-LL 24.7.03

[Signature]

PLAN CERTIFICATION I am a Structural Engineer and hold the following qualifications: BE degree; M.I.E. Aust. C.P. Eng. Further I am appropriately qualified to certify this component of the project. I hereby state that this plan numbered 33090 - D3 complies with the conditions of development consent, the provisions of the Building Code of Australia and of relevant Australian Standards.

Leah 16.7.03

Donald Alan Nielsen