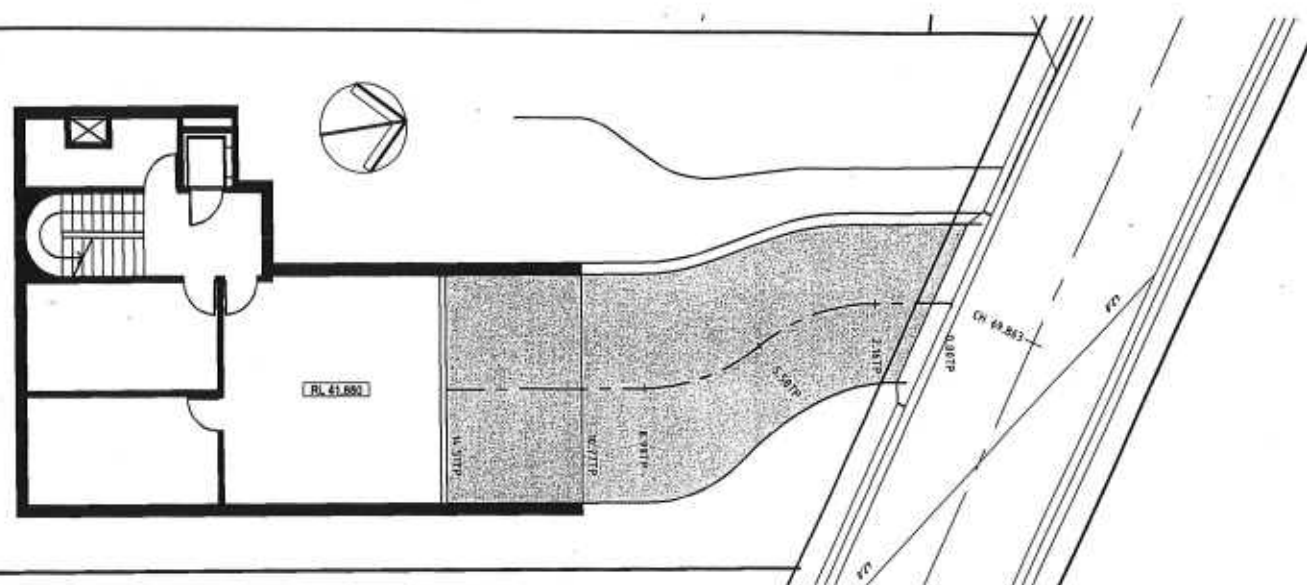
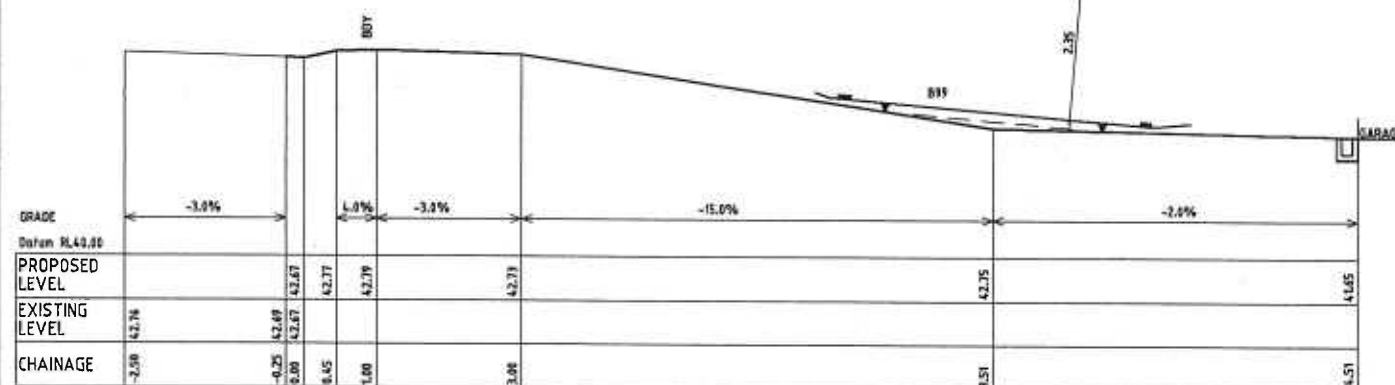




PLAN
LOT 20

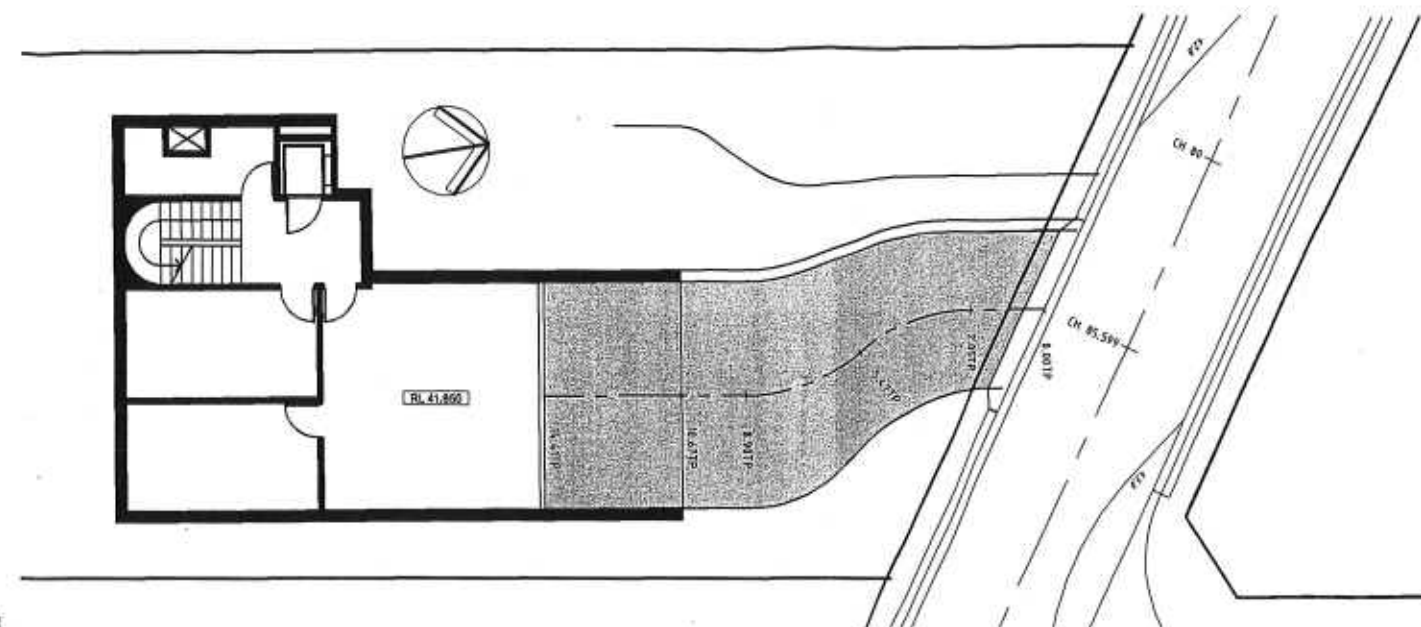
SCALE 1:100



LONGITUDINAL SECTION
SCALE 1:50
DRIVEWAY LOT 20

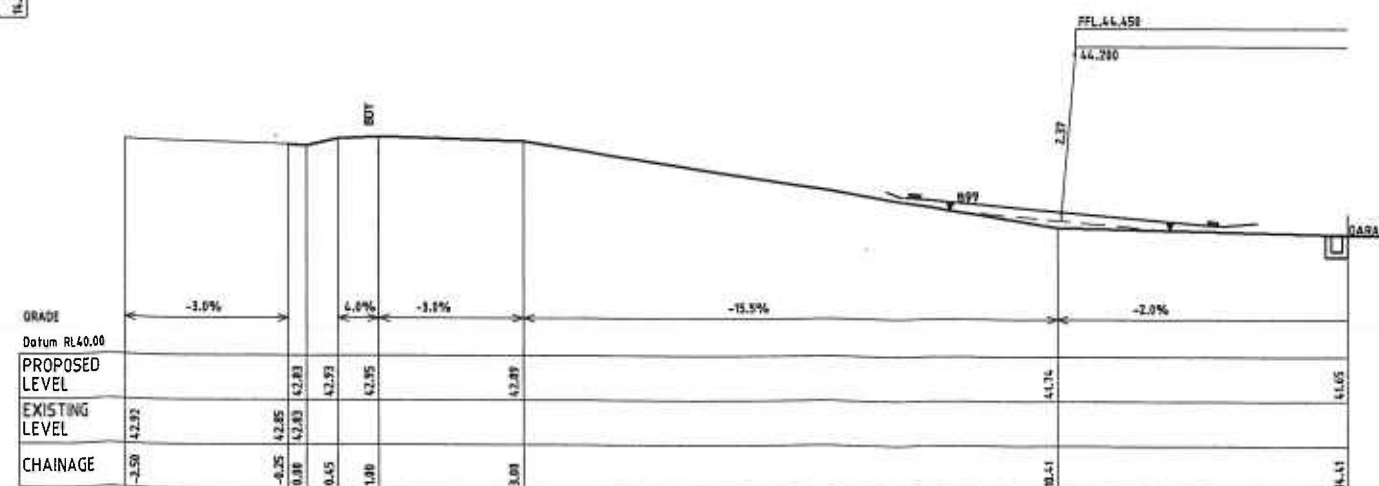
NOTES:

1. REFER TO ENGINEERING PLANS APPROVED BY DEVELOPMENT CONSENT No. 144/03 FOR DETAILS OF ACCESS ROAD.
2. REFER TO LANDSCAPE PLANS FOR SURFACE FINISHES.
3. STORMWATER DRAINAGE TO BE CONNECTED TO STORMWATER PIPELINE IN ACCESS ROAD.

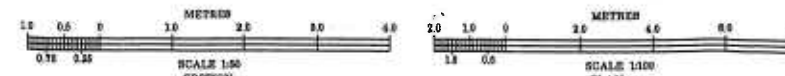


PLAN
LOT 21

SCALE 1:100



LONGITUDINAL SECTION
SCALE 1:50
DRIVEWAY LOT 21



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Project
ST. PATRICKS ESTATE MANLY
PRECINCTS 1 & 13 SITE 20-26

Client
LEND LEASE DEVELOPMENT

Architect / Project Manager
TONY CARO ARCHITECTURE

Drawing Title
DRIVEWAY PLAN AND LONG SECTION
LOTS 20 & 21

Scale
AS SHOWN

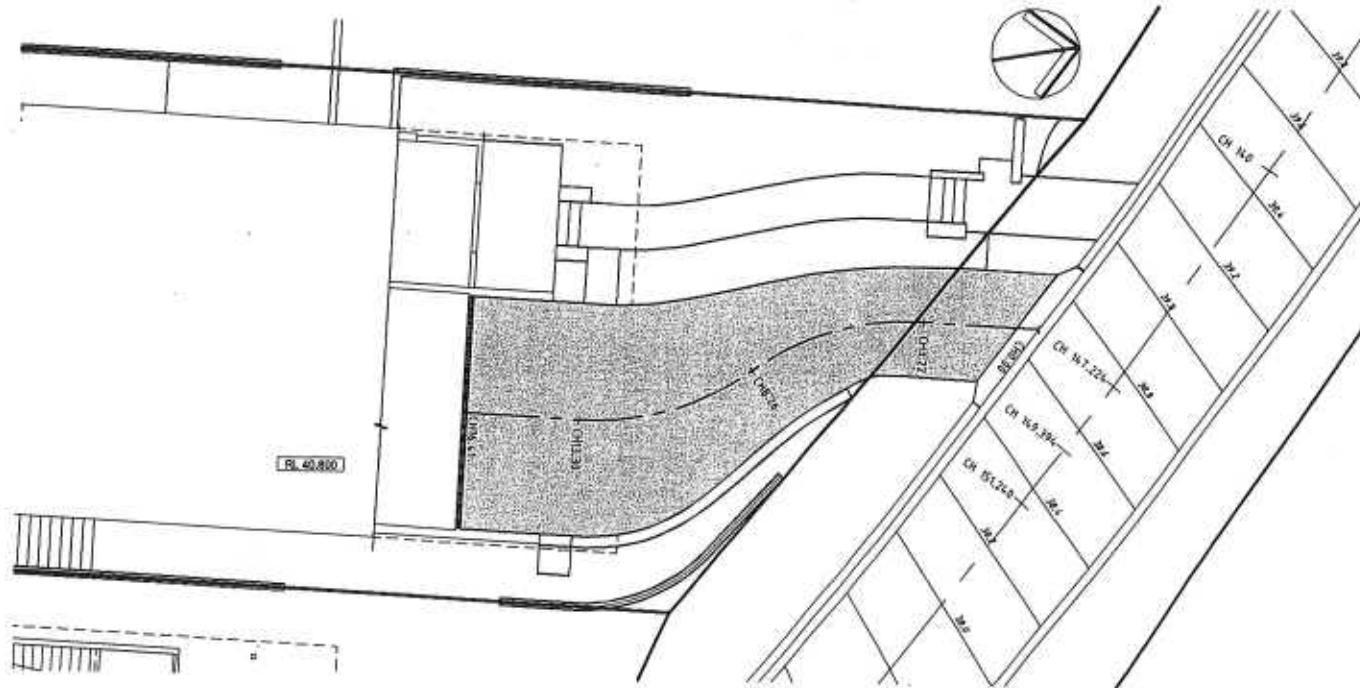
Drawing No.
02S259-DAC44

Client Project No.

Sheet
5 of 5

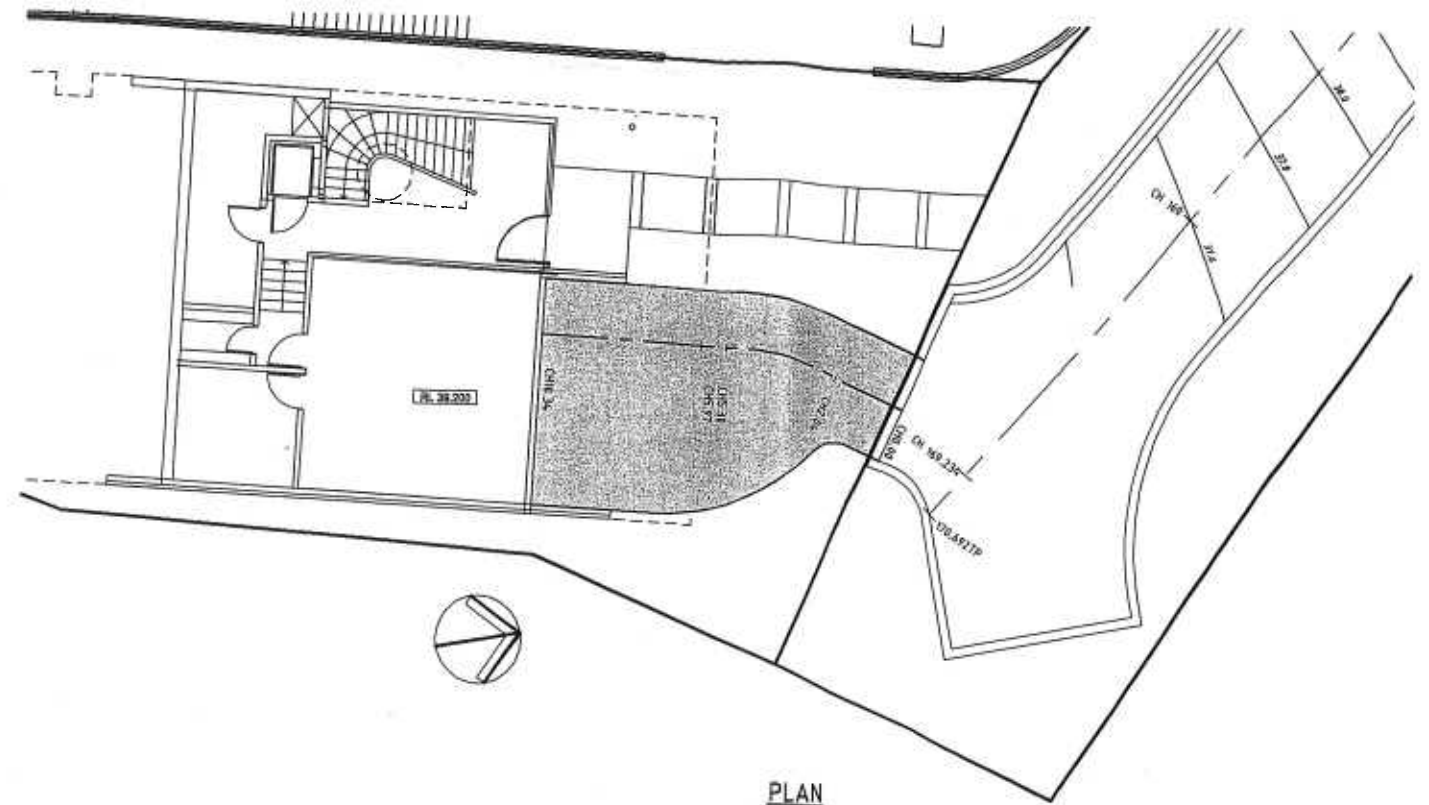
Revision

Revision	Amendment or reason for issue	Issue date	Drawing Completed by	Designed & checked by	Verified by	Issue authorized (*)
E	ISSUED FOR CONSTRUCTION	10.03.11	RAS	RPH	X	
D	ISSUED FOR INFORMATION	03.06.10	RAS	RPH	X	
C	ISSUED FOR INFORMATION	03.06.10	RAS	RPH	X	
B	ISSUED FOR DA	11.12.07	RAS	RPH	X	
A	ISSUED FOR REVIEW	11.03.08	RAS	RPH	X	



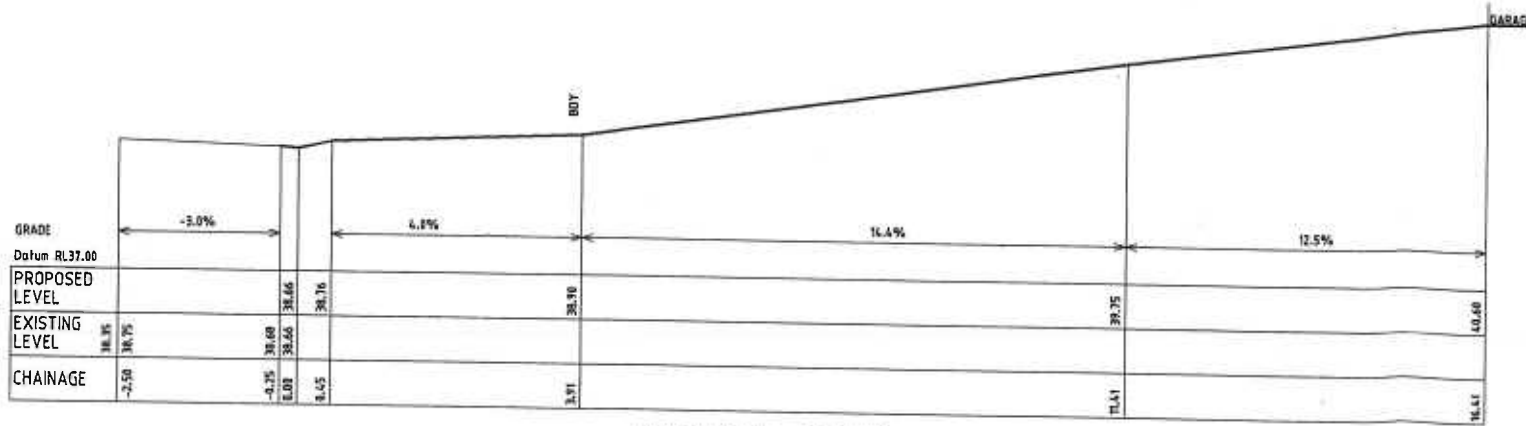
PLAN
LOT 25
SCALE 1:100

FPL 43.60
43.75

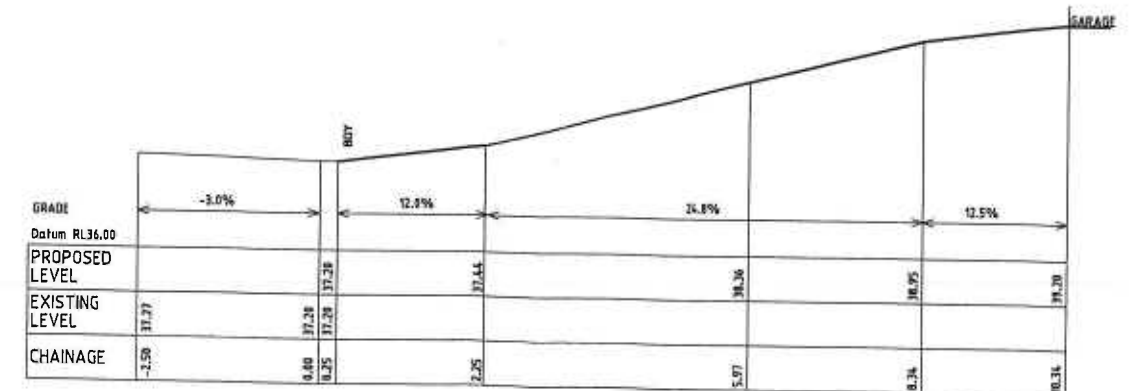


PLAN
LOT 26
SCALE 1:100

FPL 42.60
42.75

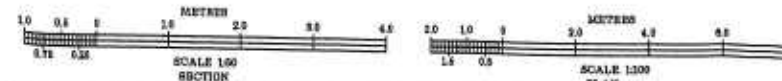


LONGITUDINAL SECTION
SCALE 1:50
DRIVEWAY LOT 25



LONGITUDINAL SECTION
SCALE 1:50
DRIVEWAY LOT 26

- NOTES:**
1. REFER TO ENGINEERING PLANS APPROVED BY DEVELOPMENT CONSENT No. 144/03 FOR DETAILS OF ACCESS ROAD.
 2. REFER TO LANDSCAPE PLANS FOR SURFACE FINISHES.
 3. STORMWATER DRAINAGE TO BE CONNECTED TO STORMWATER PIPELINE IN ACCESS ROAD.



Revision	Amendment or reason for issue	Issue date	Drawing Completed by	Designed & dwg. checked by	Verified by	Issue authorised
0	ISSUED FOR CONSTRUCTION	10.03.11	RAS	RPH	X	
1	ISSUED FOR INFORMATION	03.06.10	RAS	RPH	X	
2	ISSUED FOR INFORMATION	03.06.10	RAS	RPH	X	
3	ISSUED FOR DA	16.12.07	RAS	RPH	X	
4	RE-ISSUED FOR REVIEW	19.12.07	RAS	RPH	X	
5	ISSUED FOR REVIEW	15.12.07	RAS	RPH	X	

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Project
ST. PATRICKS ESTATE MANLY
PRECINCTS 1 & 13 SITE 20-26

Client
LEND LEASE DEVELOPMENT

Architect / Project Manager
TONY CARO ARCHITECTURE

Drawing Title
DRIVEWAY PLAN AND LONG SECTION
LOTS 25 & 26

Scale
AS SHOWN

Client Project No.
02S259-DAC43

Sheet
4 of 5

Revision
0

A1 SHEET

300mm

200mm

100mm

50mm

25mm

12.5mm

6.25mm

3.125mm

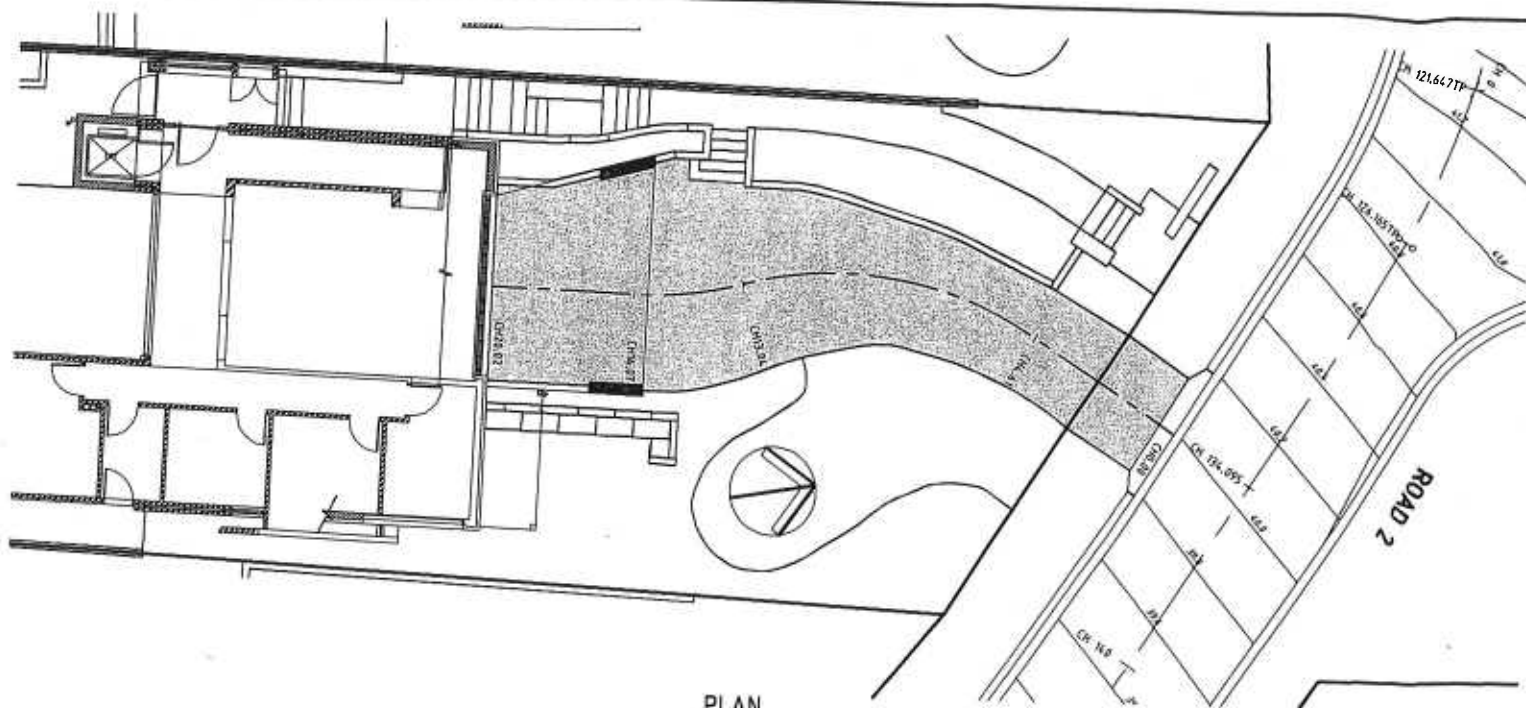
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0.78125mm

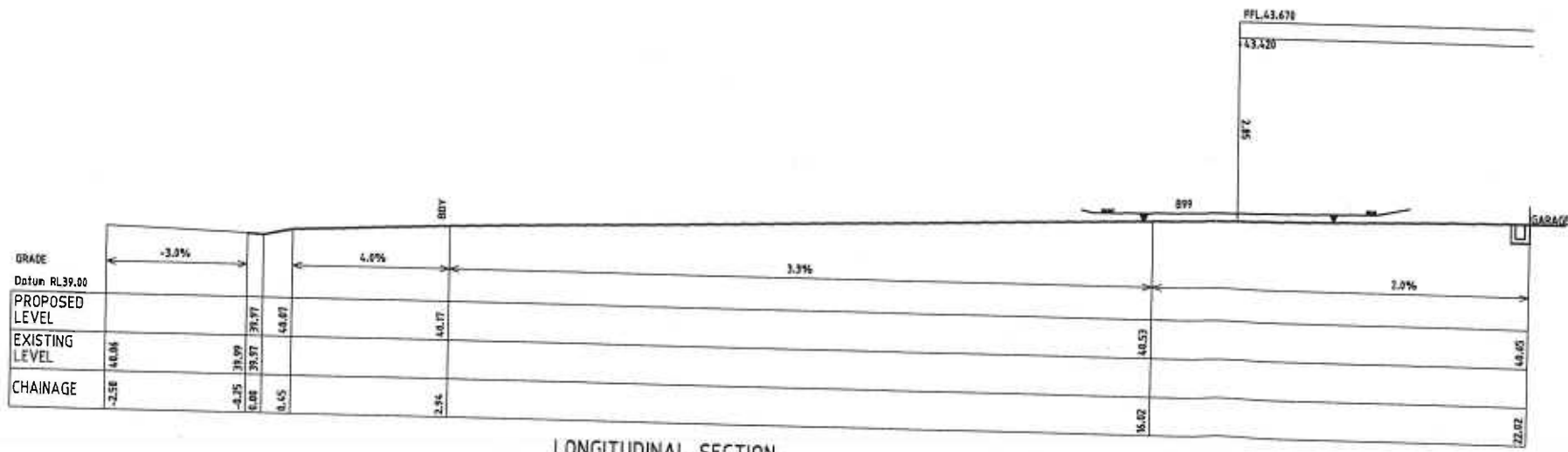
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0.09765625mm

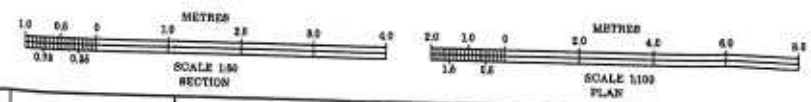


PLAN
LOT 24
SCALE 1:100



LONGITUDINAL SECTION
SCALE 1:50
DRIVEWAY LOT 24

NOTES:
1. REFER TO ENGINEERING PLANS APPROVED BY DEVELOPMENT
CONSENT No. 144/03 FOR DETAILS OF ACCESS ROAD.
2. REFER TO LANDSCAPE PLANS FOR SURFACE FINISHES.
3. STORMWATER DRAINAGE TO BE CONNECTED TO
STORMWATER PIPELINE IN ACCESS ROAD.

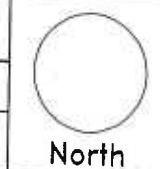


0	ISSUED FOR CONSTRUCTION	10.03.11	RAS	RPH	X	
1	ISSUED FOR INFORMATION	03.04.10	RAS	RPH	X	
2	ISSUED FOR INFORMATION	03.04.10	RAS	RPH	X	
3	ISSUED FOR DA	14.12.07	RAS	RPH	X	
4	ISSUED FOR REVIEW	26.12.07	RAS	RPH	X	
5	ISSUED FOR REVIEW	13.12.07	RAS	RPH	X	
Revision	Amendment or reason for issue	Issue date	Drawing Completed by	Designed & dsg. checked by	Verified by X = Not verified	Issue authorised (*)

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Project
**ST. PATRICKS ESTATE MANLY
PRECINCTS 1 & 13 SITE 20-26**

Client
LEND LEASE DEVELOPMENT

Architect / Project Manager
TONY CARO ARCHITECTURE

Drawing Title
**DRIVEWAY PLAN AND LONG SECTION
LOTS 24**

Scale
AS SHOWN

Client Project No.
02S259-DAC42

Sheet
3 of 5

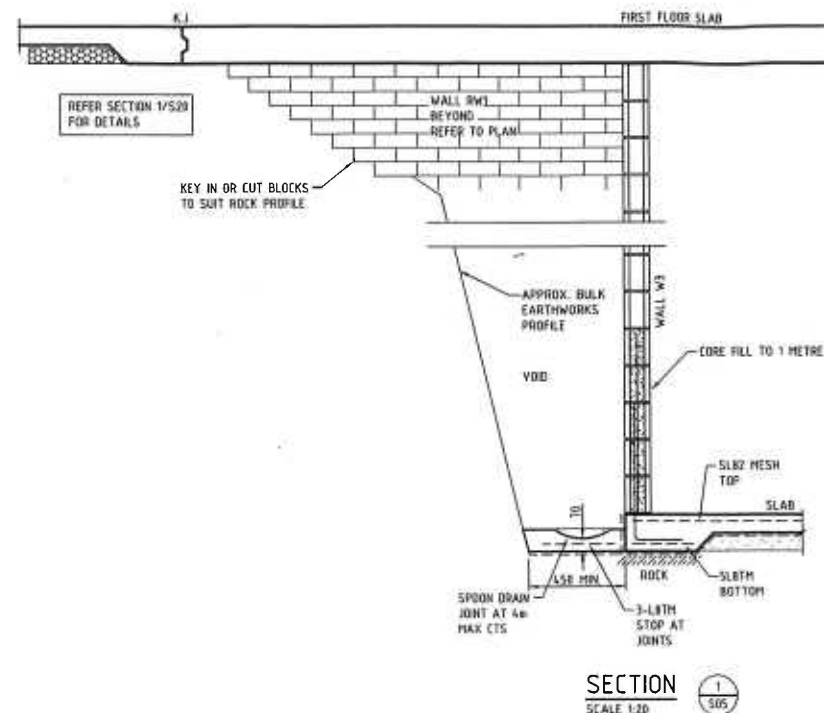
Revision
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DATE: 23/09/08
PLOTTER: HP
BY: sth001

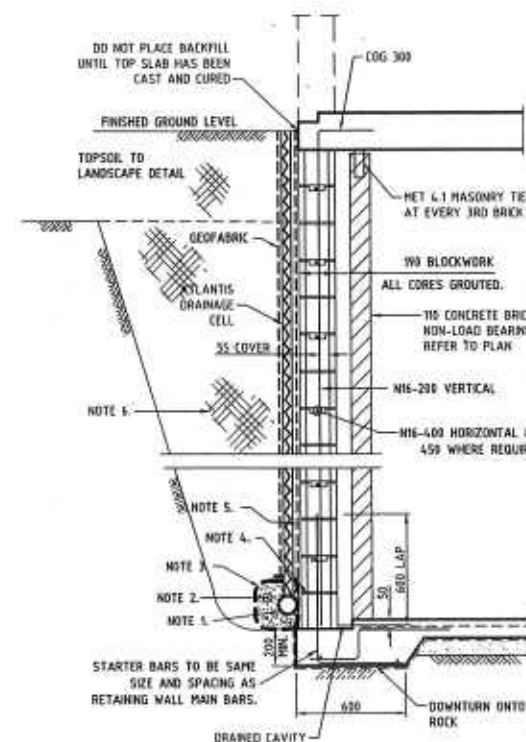
1. #10MM RIBD SLOTTED uPVC SUB-SOL PIPE WITH FILTER SOCK (ON MIN. 0.5% FALL) TO NEAREST AVAILABLE STORMWATER PIT
2. 50MM SURROUND OF 20mm BLUE METAL OR GRAVEL
3. GEOTEXTILE SURROUND TO BE "BUILT" A24 FILTER FABRIC OR APPROVED EQUAL
4. PROVIDE 'E' SHAPED CLEAN-OUT BLOCK AT BASE OF RETAINING WALL. OMIT HORIZONTAL BAR FROM TOP OF THIS BLOCK.
5. TANKING MEMBRANE DESIGN AND CERTIFICATION IS TO BE PROVIDED BY WATERPROOFING SPECIALIST. REFER TO ARCHITECT'S DETAILS FOR SPECIFICATION
6. COURSE FREE DRAINING GRANULAR BACKFILL
7. REFER TO STANDARD BLOCKWORK NOTES

RETAINING WALL SCHEDULE - TYPES RW2 & RW4							
RETAINED HEIGHT	HEIGHT OF 190 BLOCKS	HEIGHT OF 296 BLOCKS	BASE WIDTH 'B'		BAR TYPE	BAR TYPE	BAR TYPE
			BACKFILL CONDITIONS AT TOP OF RETAINING WALL				
			LEVEL	SLOPE 1 IN 4			
1200	1200	0	800	800	R16-400	R16-400	R16-400
1600	1600	0	1200	1200	R16-400	R16-400	R16-400
2000	2000	0	1300	1400	R16-250	R16-400	R16-600
2200	1400	800	1300	1400	R16-400	R16-400	R16-600
2400	1600	1000	1500	2000	R16-200	R16-400	R16-400
3000	2200	1000	1900	2400	R20-300	R16-400	R16-400

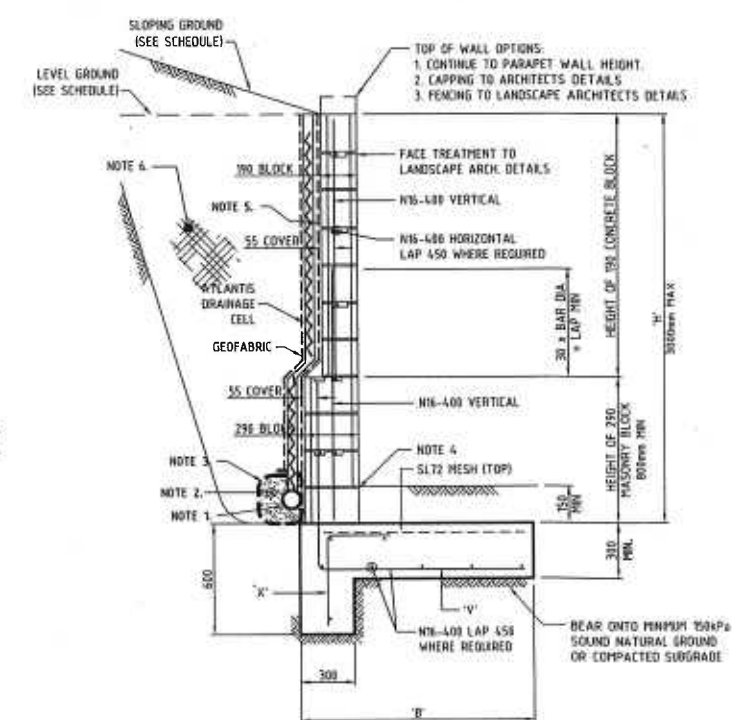
RETAINING WALL SCHEDULE - TYPES RW6							
RETAINED HEIGHT	HEIGHT OF 999 BLOCKS	HEIGHT OF 250 BLOCKS	BASE WIDTH 'B'		BAR TYPE	BAR TYPE	BAR TYPE
			BACKFILL CONDITIONS AT TOP OF RETAINING WALL				
			LEVEL	SLOPE 1 IN 4			
H					'	'	'
1200	1200	0	800	900	NIS-400	NIS-400	NIS-400
1600	1600	0	1000	1400	NIS-400	NIS-400	NIS-400
2000	2000	0	1200	1800	NIS-260	NIS-260	NIS-400
2200	1600	800	1400	2100	NIS-400	NIS-200	NIS-400
2600	1600	1000	1700	2500	NIS-260	NIS-200	NIS-200
3000	2000	1000	2000	3000	NIS-260	NIS-200	NIS-200



SECTION 1
SCALE 1:20



RETAINING WALL - TYPE RW1



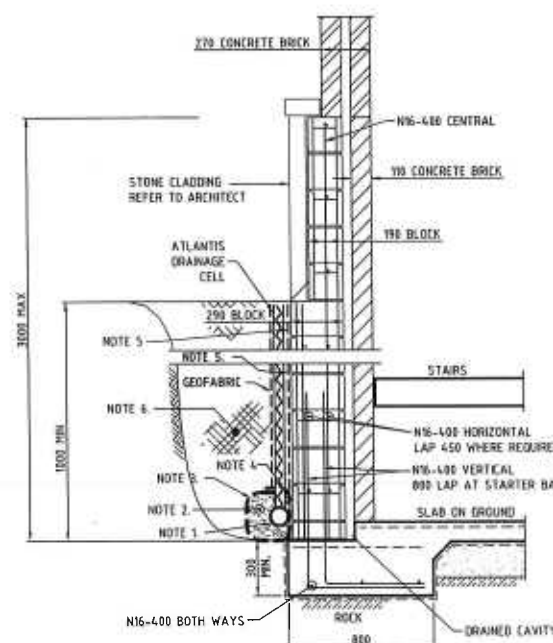
RETAINING WALL - TYPE RW2



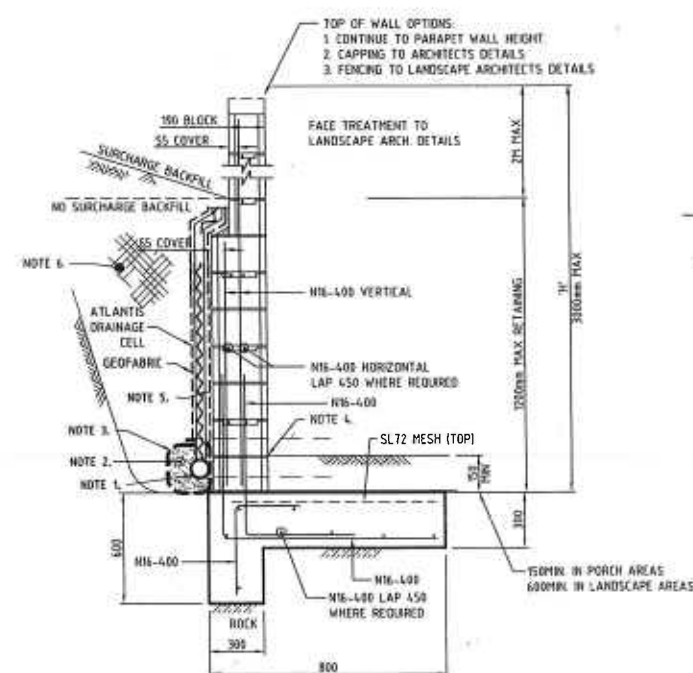
This Plan/Specification forms part of the certification for

J 100146E

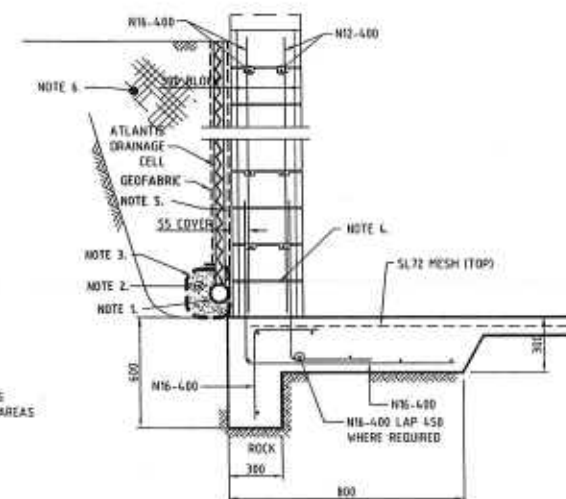
7 1 JUN 2011



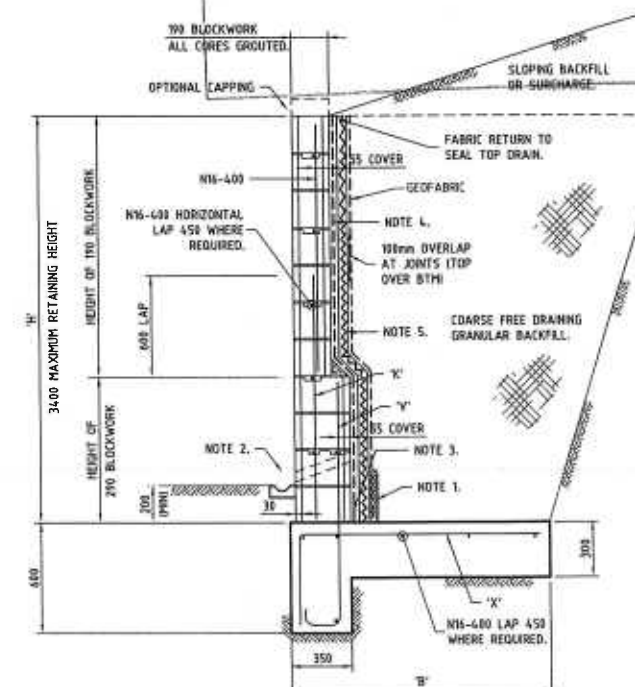
RETAINING WALL - TYPE RW3



RETAINING WALL - TYPE RW4



RETAINING WALL - TYPE RW5



RETAINING WALL - TYPE RW6

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St Leon
Patram
Cass
Wedge M

Project
ST. PATRICKS ESTATE MANLY
PRECINCT 1 STAGE 4

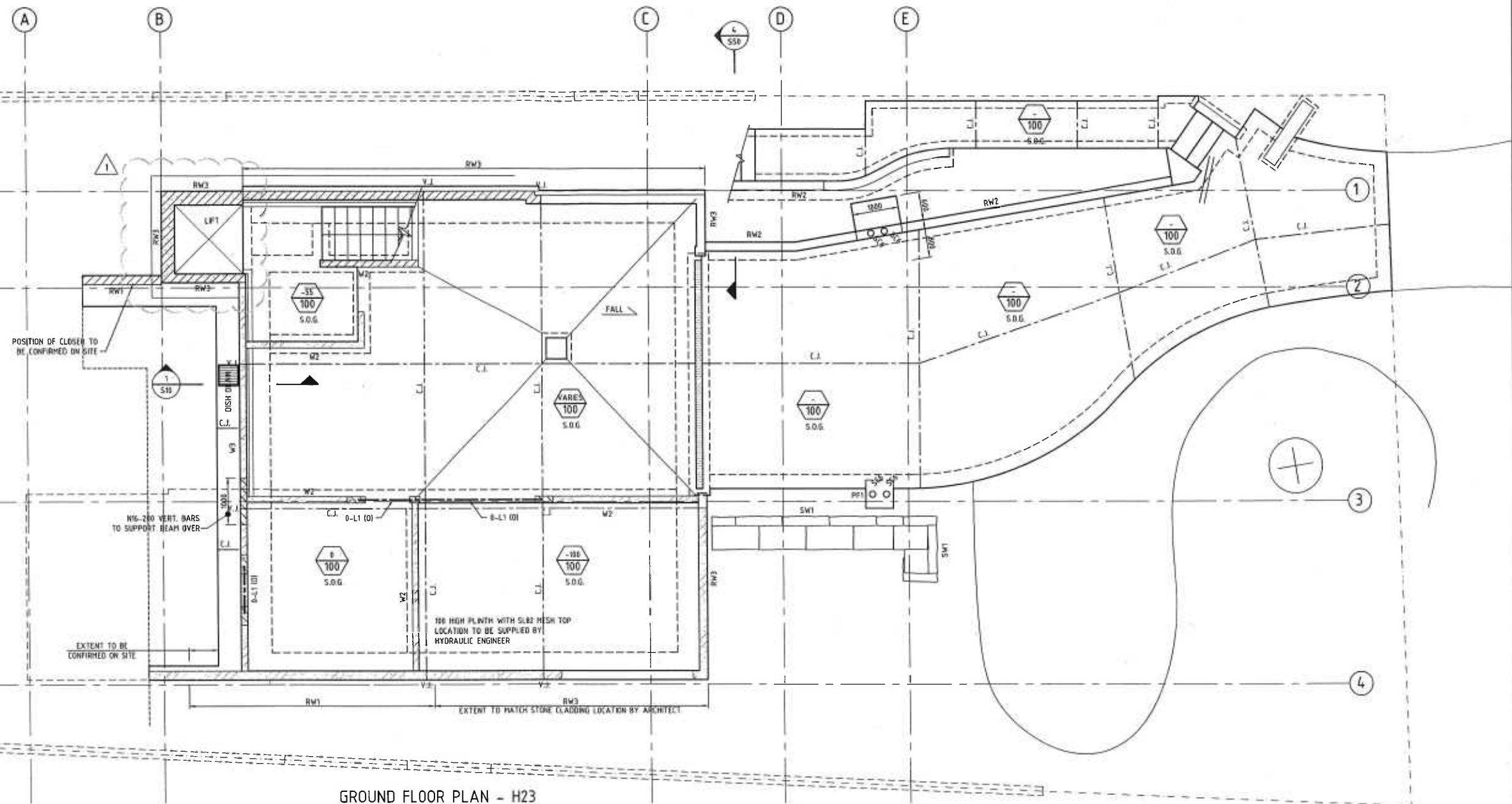
LEND LEASE

Architect/Project Manager:
TANNERS ARCHITECTS

Drawing Title:
RETAINING WALL DETAILS
SHEET 1
HOUSE 23

Drawing No.
10S002-23-S10

[illegible]



GROUND FLOOR PLAN - H23

SCALE 1:50

WALLS & FOOTINGS MEMBER SCHEDULE

PAD FOOTINGS	PF1	400 x 600 x 3000 R.C. PAD WITH N16-250 BTH EACH WAY (TO BEAR ON 1500kPa ROCK)
	PF2	800 x 1500 x 3000 R.C. PAD WITH N16-250 BTH EACH WAY (TO BEAR ON 1500kPa ROCK)
RETAINING WALLS	RW1	190 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
	RW2	190 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
	RW3	290 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
	RW4	290 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
	RW5	290 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
	RW6	190 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
STONE RET. WALLS	SW1	REFER DETAILS ON DWG 530
LIFT WALLS	LW1	190 CORE FILLED BLOCK + 110 BRICK WALL, REINFORCED WITH N16-400 EACH WAY
	LW2	140 CORE FILLED BLOCK + 110 BRICK WALL, REINFORCED WITH N16-400 EACH WAY
WALLS	W1	INTERNAL NON LOADBEARING WALL TO ARCH. DETAIL
	W2	140 CORE FILLED BLOCK, UNREINFORCED
	W3	140 BLOCK, CORE FILLED TO 1M HEIGHT ONLY
	W4	110 BRICK - LOAD BEARING
	W5	270 BRICK CAVITY WALL
	W6	190 CORE FILLED BLOCK REINFORCED WITH N16-400 VERT. + N12-400 HORIZ.
	W7	290 CORE FILLED BLOCK REINFORCED WITH N16-400 VERT. + N12-400 HORIZ. (BOTH FACES)
	W8	140 CORE FILLED BLOCK REINFORCED WITH N12-400 VERT.

SLAB & R.C. BEAMS MEMBER SCHEDULE

SLABS ON GROUND NOTES - 'S.O.G.' ON PLAN

- UNID. INTERNAL SLABS ON GROUND TO BE 100MM THICK.
- UNID. REINFORCE SLAB WITH S182 MESH TOP.
- IF SOUND ROCK IS NOT ENCOUNTERED AT EXCAVATED SLAB LEVELS, SLABS TO BE 150MM THICK WITH S182 MESH TOP AND BOTTOM + EXTRAS AS SHOWN LAID OVER COMPACTED SUBGRADE.
- REFER TO ENGINEER FOR ANY REVISIONS TO CONTROL JOINT.
- PLACE SLAB ON A 300UM WATERPROOF MEMBRANE OVER AN 80MM THICK DRAINAGE LAYER OF 20MM SINGLE SIZE FREE DRAINING GRAVEL.
- SUBGRADE TO BE COMPACTED IN ACCORDANCE WITH SUBGRADE PREPARATION NOTES.
- FOR DRIVEWAY SLABS REFER TO DRG. 514 FOR DRIVEWAY AND EXTERNAL WORKS' DETAILS.

'C.J.' DENOTES CONTROL JOINT - REFER DETAILS

'K.J.' DENOTES KEY JOINT - REFER DETAILS

'V.J.' DENOTES VERTICAL JOINT - REFER DETAILS

2N12 TOP, 1000 LONG TRIMMERS

DENOTES AREA TO HAVE CALTITE ADDITIVE ADDED TO CONCRETE

FIRST FLOOR SUSPENDED SLAB REINFORCEMENT

- 200 & 250 mm INTERNAL SLAB WITH N12-250 T, N12-200 B EACH WAY
- 200 & 250 mm EXTERNAL SLAB WITH N16-250 T&B EACH WAY
- PLUS EXTRA BARS AS SHOWN

LEVEL 1 BEAMS	1-B1	3500p x 600W BEAM WITH 4N20 BTM, 4N12 TOP + N12-200 TIES (2 LEGS)
	1-B2	3500p x 300W BEAM WITH 2N20 BTM, 2N12 TOP + N12-200 TIES (2 LEGS)

SECOND FLOOR SUSPENDED SLAB REINFORCEMENT

- 200 & 250 mm INTERNAL SLAB WITH N12-250 T, N12-200 B EACH WAY
- 200 & 250 mm EXTERNAL SLAB WITH N16-250 T&B EACH WAY
- PLUS EXTRA BARS AS SHOWN

STEEL MEMBER SCHEDULE

STEEL COLUMNS	SC1	100 x 100 x 6 SHS
	SC2	80 x 5.8 CHS (HOT DIP GALV)
	SC3	76.1 x 4.5 CHS (HOT DIP GALV)
	SC4	240 PFC + 105x15x5.6 RHS STUBS FIXED TO CONCRETE (HOT DIP GALV)
	SC5	89x5 SHS + 89x5 SHS STUBS FIXED TO 1-L2
	SC6	140x5 CHS (HOT DIP GALV)
LINTELS	1-L1	140mm REINFORCED BOND BEAM LINTEL IN THE SUPPORTING WALL, PROVIDE 2N16 VERT. BARS PER BLOCK AT EACH END - REFER DETAIL ON S20
	1-L2	200 PFC
	1-L3	80 x 110 ULTRALINTEL
STEEL FRAME	SP1	150 PFC (HOT DIP GALV)

This Plan/Specification forms
part of the certification for
J 1001468 21 JUN 2011

0.5 1 2 3
Plan Scale 1:50

HughesTrueman
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Project
**ST. PATRICKS ESTATE MANLY
PRECINCT 1 STAGE 4**
Client
LEND LEASE
Architect/Project Manager
TANNERS ARCHITECTS

Drawing Title
**GROUND FLOOR PLAN
GENERAL ARRANGEMENT
HOUSE 23**
Drawing No.
10S002-23-S05
Sheet
1

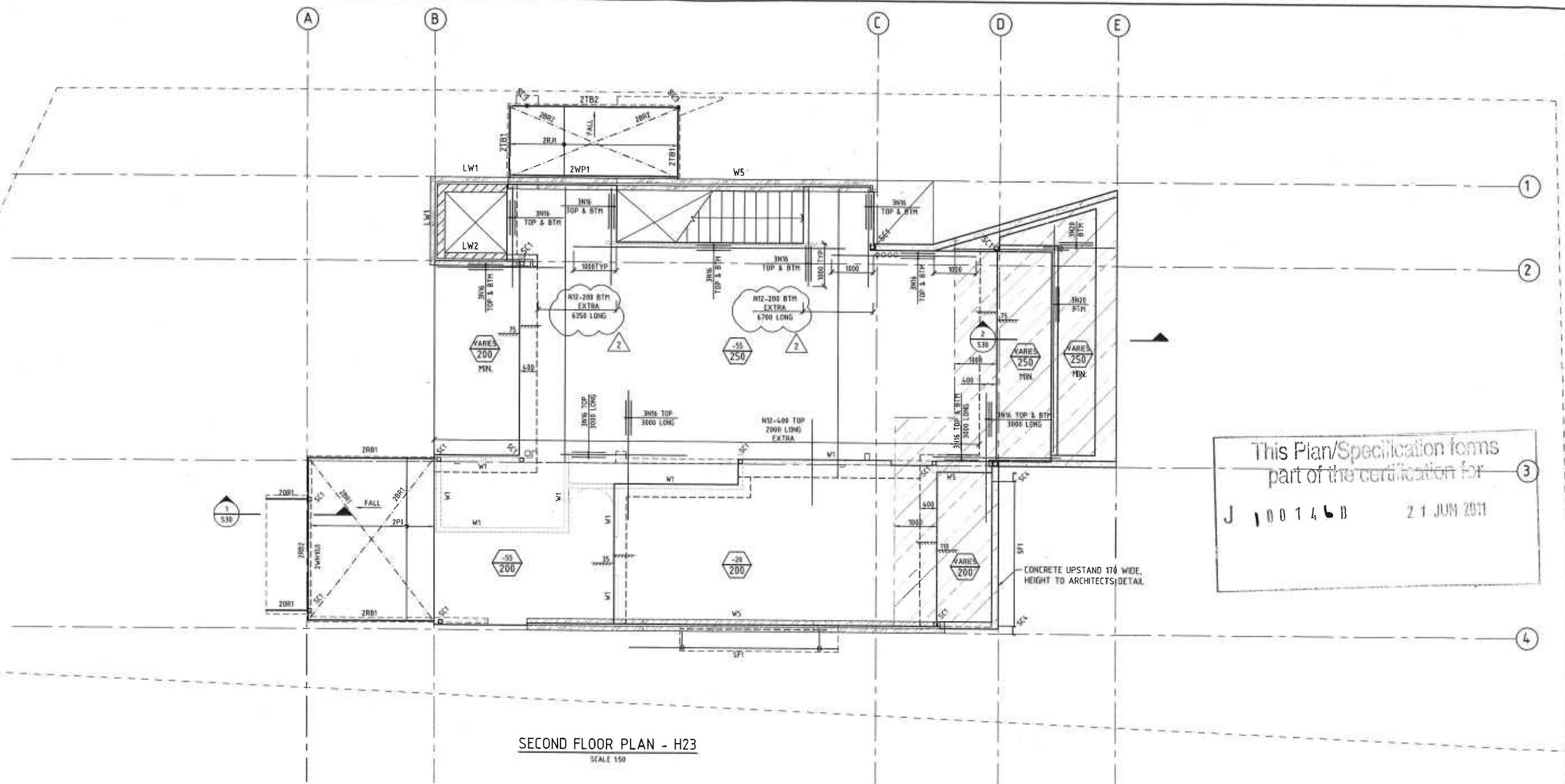
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E	RE-ISSUED FOR CE/FIXED PRICE, LANDSCAPE AREA ADDED	31.05.10	NSF	AW	X	SAW
D	ISSUE FOR CE/FIXED PRICE	10.05.10	NSW	AW	X	SAW
C	ISSUE FOR INFORMATION	30.04.10	NSW	AW	X	SAW
B	ISSUE FOR INFORMATION	16.04.10	AES	AW	X	SAW
A	ISSUED FOR INFORMATION	31.03.10	RBD	AW	X	SAW
Rev	Amendment / Reason For Issue	Date	Drawing Completed by	Designed & Checked by	Verified by	Issue

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SECOND FLOOR PLAN - H23

SCALE 1:50

WALLS & FOOTINGS MEMBER SCHEDULE

PAD FOOTINGS	PF1	600 x 600 x 3000P R.C. PAD WITH N16-250 BTH EACH WAY (TO BEAR ON 1500kPa ROCK)
	PF2	800 x 1500 x 3000P R.C. PAD WITH N16-250 BTH EACH WAY (TO BEAR ON 1500kPa ROCK)
RETAINING WALLS	RW1	190 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
	RW2	190 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
	RW3	290 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
	RW4	290 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
	RW5	290 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
	RW6	190 CORE FILLED BLOCK, REINFORCED - REFER DETAILS
STONE RET. WALLS	SW1	REFER DETAILS ON DWG. S55
LIFT WALLS	LW1	190 CORE FILLED BLOCK, REINFORCED WITH N16-400 VERT. - N16-400 HORIZ.
	LW2	140 CORE FILLED BLOCK + 110 BRICK WALL, REINFORCED WITH N16-400 EACH WAY
WALLS	W1	INTERNAL NON-LOADBEARING WALL TO ARCH. DETAIL
	W2	140 CORE FILLED BLOCK, UNREINFORCED
	W3	140 BLOCK, CORE FILLED TO 1M HEIGHT ONLY
	W4	110 BRICK - LOAD BEARING
	W5	270 BRICK CAVITY WALL
	W6	190 CORE FILLED BLOCK REINFORCED WITH N16-400 VERT. + N12-400 HORIZ.
	W7	290 CORE FILLED BLOCK REINFORCED WITH N16-400 VERT. + N12-400 HORIZ. (BOTH FACES)
	W8	140 CORE FILLED BLOCK REINFORCED WITH N12-400 VERT.

SLAB & R.C. BEAMS MEMBER SCHEDULE

SLABS ON GROUND NOTES - "S.O.G." ON PLAN

- U.N.D. INTERNAL SLABS ON GROUND TO BE 100mm THICK.
- U.N.D. REINFORCE SLAB WITH SL92 MESH TOP.
- IF SOUND ROCK IS NOT ENCOUNTERED AT EXCAVATED SLAB LEVELS, SLABS TO BE 150mm THICK WITH SL92 MESH TOP AND BOTTOM + EXTRAS AS SHOWN LAID OVER COMPACTED SUBGRADE.
- REFER TO ENGINEER FOR ANY REVISIONS TO CONTROL JOINT.
- PLACE SLAB ON A 300um WATERPROOF MEMBRANE OVER AN 80MM THICK DRAINAGE LAYER OF 20mm SINGLE SIZE FREE DRAINING GRAVEL.
- SUBGRADE TO BE COMPACTED IN ACCORDANCE WITH SUBGRADE PREPARATION NOTES.
- FOR DRIVEWAY SLABS REFER TO DRG. S14 FOR 'DRIVEWAY AND EXTERNAL WORKS' DETAILS.

"C.J." DENOTES CONTROL JOINT - REFER DETAILS

"K.J." DENOTES KEY JOINT - REFER DETAILS

— N12 TOP, 1000 LONG TRIMMERS

□ DENOTES AREA TO HAVE CALTITE ADDITIVE ADDED TO CONCRETE + 1M PERIMETER AS SHOWN. WATERPROOF MEMBRANE TO ARCHITECTS DETAILS

FIRST FLOOR SUSPENDED SLAB REINFORCEMENT

- 200 & 250 mm INTERNAL SLAB WITH N12-250 T, N12-200 B EACH WAY
- 200 & 250 mm EXTERNAL SLAB WITH N16-250 T&B EACH WAY
- PLUS EXTRA BARS AS SHOWN

- LEVEL 1 BEAMS
- 1-B1 3500p x 600W BEAM WITH 4N20 BTH, 4N12 TOP + N12-200 TIES (2 LEGS)
 - 1-B2 3500p x 300W BEAM WITH 2N20 BTH, 2N12 TOP + N12-200 TIES (2 LEGS)

SECOND FLOOR SUSPENDED SLAB REINFORCEMENT

- 200 & 250 mm INTERNAL SLAB WITH N12-250 T, N12-200 B EACH WAY
- 200 & 250 mm EXTERNAL SLAB WITH N16-250 T&B EACH WAY
- PLUS EXTRA BARS AS SHOWN

— BARS LAID FIRST & LAST

STEEL MEMBER SCHEDULE

STEEL COLUMNS	SC1	100 x 100 x 6 SHS
	SC2	89 x 5.0 CHS (HOT DIP GALV.)
	SC3	76.1 x 4.5 CHS (HOT DIP GALV.)
	SC4	200 PFC + 125x75x5.0 RHS STUBS FIXED TO CONCRETE (HOT DIP GALV.)
	SC5	89x5 SHS + 89x5 SHS STUBS FIXED TO 1-L2
	SC6	140x5 CHS (HOT DIP GALV.)
LINTELS	0-L1	140mm REINFORCED BOND-BEAM LINTEL IN THE SUPPORTING WALL, PROVIDE 2N16 VERT. BARS PER BLOCK AT EACH END - REFER DETAIL ON S20
	1-L1	140mm REINFORCED BOND-BEAM LINTEL - REFER DETAIL ON S20
	1-L2	200 PFC
	1-L3	90 x 110 ULTRALINTEL
STEEL FRAME	SF1	150 PFC (HOT DIP GALV.)

SECOND FLOOR MEMBER SCHEDULE

ROOF BEAMS	2RB1	100 x 100 x 6 EA
	2RB2	150 PFC LAD PLAT
TIMBER BEAMS	2TB1	140 x 45 F7
	2TB2	240 x 45 F7
WINDOW HEAD	2WH1	100 x 100 x 5 SHS
WALL PLATE	2WP1	120 x 45 F7 M12 BOLT TO BRICKWORK AT 600 MAXIMUM CTS.
ROOF BRACING	2BR1	16# ROD & TURNBUCKLE HOOK BOLT TO PURLIN
	2BR2	BUILDERS STRAP
ROOF PURLINS	2P1	SC15012 AT 900 MAX. CTS.
OUTRIGGER	2OR1	75 PFC
ROOF JOISTS	2RJ1	90 x 35 F1 AT 600 CTS.

2	REISSUE FOR CONSTRUCTION	10.06.11	HSM	AW	x	SAW
1	ISSUE FOR CONSTRUCTION	18.03.11	GM	AW	x	SAW
E	RE-ISSUED FOR CC/FIXED PRICE, LANDSCAPE AREA ADDED	31.05.10	NSF	AW	x	SAW
D	ISSUE FOR CC/FIXED PRICE	10.05.10	HSM	AW	x	SAW
E	ISSUE FOR INFORMATION	30.04.10	HSM	AW	x	SAW
B	ISSUE FOR INFORMATION	16.04.10	AES	AW	x	SAW
A	ISSUE FOR INFORMATION	31.03.10	RBD	AW	x	SAW
Rev	Amendment / Reason for Issue	Date	Drawn Completed by	Designed & Checked by	Verified by	Issue

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Project
**ST. PATRICKS ESTATE MANLY
PRECINCT 1 STAGE 4**

Client
**LEND LEASE
TANNERS ARCHITECTS**

Drawing Title
**SECOND FLOOR
GENERAL ARRANGEMENT
HOUSE 23**

Drawing No.
10S002-23-S07

Sheet
13

Rev
2



FIRST FLOOR PLAN - H23

STEEL MEMBER SCHEDULE

STEEL COLUMNS _____

SC1 _____ 100 x 100 x 6 SHS
SC2 _____ 89 x 5.0 CHS (HOT DIP GALV.)
SC3 _____ 76.1 x 4.5 CHS (HOT DIP GALV.)
SC4 _____ 200 PFC x 125x75x5.0 RHS STUBS FIXED TO CONCRETE (HOT DIP GALV.)
SC5 _____ 89x5 SHS x 89x5 SHS STUBS FIXED TO 1-L2
SC6 _____ 140x5 CHS (HOT DIP GALV.)

LINTELS _____

0-L1 _____ 140mm REINFORCED BONDBEAM LINTEL IN THE SUPPORTING WALL.
PROVIDE ZN16 VERT. BARS PER BLOCK AT EACH END - REFER DETAIL ON S20

1-L1 _____ 140mm REINFORCED BONDBEAM LINTEL - REFER DETAIL ON S20
1-L2 _____ 200 PFC
1-L3 _____ 80 x 110 UTRALINTEL

STEEL FRAME _____

SF1 _____ 150 PFC (HOT DIP GALV.)

J 1001468 21 JUN 2011

Drawing Title FIRST FLOOR PLAN GENERAL ARRANGEMENT HOUSE 23	Sheet of _____	Rev. 2
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STRUCTURAL WORKS - HOUSE 23

GENERAL NOTES

- G1. THESE STRUCTURAL 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. ANY DISCREPANCY SHALL BE REFERRED TO THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE WORK.
- G2. DO NOT COMMENCE CONSTRUCTION USING THESE STRUCTURAL DRAWINGS UNTIL A CONSTRUCTION CERTIFICATE IS ISSUED BY THE PRINCIPAL CERTIFYING AUTHORITY.
- G3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT CURRENT STANDARDS AUSTRALIA CODES AND WITH THE BUILDING CODE OF AUSTRALIA.
- G4. ALL SET OUT DIMENSIONS SHOWN ON THESE STRUCTURAL DRAWINGS SHALL BE VERIFIED BY THE BUILDER ON SITE. DO NOT SCALE THESE STRUCTURAL DRAWINGS FOR DIMENSIONS.
- G5. UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- G6. THE METHOD OF CONSTRUCTION AND THE MAINTENANCE OF SAFETY DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE BUILDER. IF ANY STRUCTURAL ELEMENT PRESENTS DIFFICULTY IN RESPECT OF CONSTRUCTIBILITY OR SAFETY, THE MATTER SHALL BE REFERRED TO THE STRUCTURAL ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- G7. DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERLOADED. THE BUILDER SHALL PROVIDE TEMPORARY BRACING, SHORING AND PROPPING IN ORDER TO KEEP THE BUILDING WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
- G8. THE BUILDER IS RESPONSIBLE FOR THE ADEQUACY OF ALL TEMPORARY WORKS INCLUDING SHORING, PROPPING AND BRACING AND WHERE NECESSARY IS TO ENGAGE A STRUCTURAL ENGINEER TO DESIGN AND CERTIFY HIS TEMPORARY WORKS.
- G9. IF THERE IS A DISCREPANCY IN MEMBER SIZES FOR ANY COMPONENT, ASSUME FOR PRICING PURPOSES ONLY THAT THE LARGER OR MORE EXPENSIVE SIZE IS CORRECT. REFER TO STRUCTURAL ENGINEER FOR DECISION BEFORE DETAILING OR CONSTRUCTION.
- G10. DETAIL AND SECTION IDENTIFICATION
- G11. THE RLS SHOWN IN THESE DRAWINGS ARE APPROXIMATE AND ARE FOR THE SOLE PURPOSE OF ASSISTING THE STRUCTURAL DOCUMENTATION. THEY MUST NOT BE USED FOR CONSTRUCTION.
- G12. UNLESS AGREED OR SPECIFIED OTHERWISE, THE BUILDER IS REQUIRED TO NOTIFY AND ALLOW TIME FOR THE STRUCTURAL ENGINEER TO INSPECT AT THE FOLLOWING POINTS: COMPLETED EXCAVATION, FORMWORK, REINFORCEMENT, MEMBRANES AND EMBEDMENTS PRIOR TO PLACING CONCRETE, COMPLETED ERECTED STRUCTURAL ELEMENTS PRIOR TO COVERING (UNLESS COVERED BY AS1684 NATIONAL TIMBER FRAMING CODE).
- G13. 48 HOURS NOTICE IS REQUIRED FOR INSPECTION. ALL WORK TO BE INSPECTED MUST BE COMPLETED PRIOR TO THE TIME OF INSPECTION.
- G14. SITE INSPECTIONS DO NOT RELIEVE THE BUILDER OF RESPONSIBILITY FOR THE COMPLETENESS AND CORRECTNESS OF HIS WORK.
- G15. INSPECTIONS WILL BE PERIODIC AND REPRESENTATIVE AND WILL NOT NECESSARILY BE MADE OF ALL WORKS. ELECTION TO INSPECT OR OTHERWISE WILL BE AT THE ENGINEER'S DISCRETION. THE BUILDER IS TO ALLOW TIME AND PROVIDE SITE ACCESS FOR THE INSPECTION TO TAKE PLACE AND IS TO HAVE A RESPONSIBLE SITE FOREMAN AVAILABLE TO RECEIVE ANY COMMENT OR DIRECTION FROM THE ENGINEER.
- G16. WHERE STRUCTURAL ELEMENTS ARE DESIGNED AND CERTIFIED BY OTHER PARTIES, THE BUILDER SHALL OBTAIN WRITTEN CERTIFICATION, PRIOR TO PROCEEDING WITH ANY CONSTRUCTION WHICH MAY PREVENT INSPECTION OR REMEDIAL WORKS BEING UNDERTAKEN TO THESE ITEMS.

WATERPROOFING

- W1. WATERPROOFING, TANKING AND ASSOCIATED JOINT SEALANTS AND DRAINAGE ARE TO BE IN ACCORDANCE WITH THE ARCHITECTS AND/OR HYDRAULIC ENGINEERS DETAILS AND SPECIFICATION.
- W2. WHERE THESE ITEMS ARE NOT COVERED BY THE ARCHITECT OR HYDRAULIC ENGINEER THE CONTRACTOR IS TO OBTAIN DESIGN, DOCUMENTATION AND CERTIFICATION BY A SPECIALIST WATERPROOFING SUPPLIER. DESIGN LIFE AND WARRANTIES ARE TO BE TO THE ARCHITECTS APPROVAL.

USE OF PROPRIETARY MATERIALS

- PM1. ALL PROPRIETARY MATERIALS MUST BE USED STRICTLY ACCORDING TO THE MANUFACTURERS INSTRUCTIONS. BUILDER TO OBTAIN CERTIFICATE FROM MANUFACTURER CONFIRMING CORRECT USAGE/INSTALLATION.

FOUNDATIONS

- F1. FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING INTENSITY OF 1500 kPa ON VERY LOW STRENGTH ROCK OR 3000 kPa FOR DRILLED AND DOWELED STARTER BARS, IN ACCORDANCE WITH
- GEOTECHNICAL REPORT NO.: 37811A (23 MARCH 2005) AND 28058A
- PREPARED BY: DOUGLAS PARTNERS
- WHERE DRILLED INTO ROCK STARTER BARS ARE USED 3000 kPa ROCK IS REQUIRED.
- FOUNDATION MATERIAL SHALL BE APPROVED FOR THIS BEARING PRESSURE BEFORE PLACING MEMBRANE, REINFORCEMENT OR CONCRETE.
- F2. FOOTINGS SHALL BE PLACED CENTRALLY UNDER WALLS AND COLUMNS UNLESS NOTED OTHERWISE.
- F3. BEARING MATERIAL AT BASES OF PIERS TO BE CONFIRMED BY AN EXPERIENCED GEOTECHNICAL ENGINEER OR ENGINEERING GEOLOGIST ENGAGED BY THE BUILDER.

SUBGRADE PREPARATION - FOR BUILDINGS AND NON-VEHICULAR PAVEMENTS

- SP1. REMOVE ALL TOPSOIL, VEGETABLE MATTER, RUBBLE OR DELETERIOUS MATERIAL.
- SP2. PROOF ROLL NATURAL SURFACE WITH A VIBRATING ROLLER OF AT LEAST 10 TONNE STATIC WEIGHT. WHERE A VIBRATING ROLLER WOULD PUT AT RISK ADJACENT STRUCTURES USE A NON-VIBRATING ROLLER. WHERE THERE IS INSUFFICIENT ACCESS FOR A ROLLER THE CONTRACTOR IS TO AGREE TO AN ALTERNATIVE METHOD OF PROOF TESTING WITH THE CLIENT'S GEOTECHNICAL CONSULTANT. IF THE CLIENT DOES NOT HAVE A GEOTECHNICAL CONSULTANT TO ADVISE ON SUITABILITY OF THE NATURAL SURFACE OR ALTERNATIVE MEANS OF PROOF TESTING, SUCH ADVICE AND TESTING TO BE AT THE CONTRACTOR'S EXPENSE.
- SP3. REMOVE ANY SOFT AREAS OR AREAS UNSUITABLE TO REMAIN UNDER OR TO BEAR THE NEW CONSTRUCTION.
- SP4. PLACE STABLE, NON-ORGANIC FILL SUITABLE TO REMAIN UNDER OR TO BEAR THE NEW CONSTRUCTION WITH A MAXIMUM PARTICLE SIZE OF 75mm AND COMPACT IN 200mm MAXIMUM THICKNESS LAYERS.
- SP5. COMPACTION IS TO BE CARRIED OUT BY ROLLING AT OPTIMUM MOISTURE CONTENT TO OBTAIN A DENSITY EQUIVALENT OF 98% OF MAXIMUM DRY DENSITY WHEN TESTED BY THE COMPACTION TEST FROM A.S.1289.
- SP6. COMPACTION UNDER GARAGE SLABS WHERE GARAGE SLABS HAVE BEEN EXCAVATED TO ROCK AND BACKFILL IS REQUIRED TO COME BACK UP TO UNDERSIDE OF SLAB LEVEL. THE CONTRACTOR MAY USE CRUSHED EXCAVATED ROCK FROM SITE, WHERE COMPACTION IS RESTRICTED TO VIBRATING PLATE COMPACTORS THE MAXIMUM THICKNESS IN EACH LAYER IS TO BE 100mm AND THE MAXIMUM OVERALL THICKNESS IS TO BE 200mm. THE MAXIMUM PARTICLE SIZE IS TO BE 75mm AND COMPACTION IS TO ACHIEVE A SOUND AND STABLE BASE. FOR THICKNESSES GREATER THAN THIS COMPACTION AND TESTING IS TO BE AS PER NOTES SP1 TO SP5 OR A SUSPENDED SLAB WITH PIERS IS TO BE USED. DOWNTURN SLAB ONTO ROCK UNDER WALLS.

TEMPORARY WORKS

DESIGN AND INSTALLATION OF ALL TEMPORARY WORKS AND PROCEDURES WILL BE THE SOLE RESPONSIBILITY OF THE BUILDER. IN ADDITION THE BUILDER WILL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED TO ADJOINING BUILDINGS AND ROADWAYS DURING THE INSTALLATION OF THE TEMPORARY WORKS AND THE PERMANENT WORKS. ANY TEMPORARY WORK DETAILS AND PROCEDURES GIVEN IN THESE DRAWINGS ARE FOR THE GUIDANCE OF THE BUILDER ONLY.

CONCRETE NOTES

- C1. ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH AS3600 EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.
- C2. CONCRETE QUALITY
- C2.1. ALL CONCRETE SHALL COMPLY WITH AS1379. NO BRECCIA-TYPE AGGREGATE IS TO BE USED.
- C2.2. COMPRESSIVE STRENGTH GRADES:
- | ELEMENT | STRENGTH GRADE (MPa) | CEMENT TYPE TO AS3702 | SLUMP (mm) | MAXIMUM AGGREGATE SIZE (mm) |
|--------------------------------------|----------------------|-----------------------|------------|-----------------------------|
| PIERS, FOOTINGS AND PLANT ROOM SLABS | M25 | OP | 80 | 20 |
| SUSPENDED SLABS AND BEAMS | S40 | SL | 80 | 20 |
| ELSEWHERE | S40 | SL | 80 | 20 |
| MASS CONCRETE | M25 | OP | 80 | 20 |
| GARAGE | G32 | SL | 80 | 20 |

SPECIAL CLASS CONCRETES (PREFIXED 'S' IN THE TABLE) SHALL HAVE THE PROPERTIES OF NORMAL CLASS CONCRETE WITH THE FOLLOWING SPECIAL REQUIREMENTS:

- CLASS S
- SHRINKAGE STRAIN SHALL NOT EXCEED 650×10^{-6} IN ACCORDANCE WITH AS1812.
 - CEMENT SHALL BE TYPE SL TO AS3702.

- C2.3. PROJECT ASSESSMENT OF CONCRETE STRENGTH SHALL BE CARRIED OUT IN ACCORDANCE WITH AS1379.

- C2.4. PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS1379. THE MINIMUM FREQUENCY OF SAMPLING OF EACH TYPE AND GRADE SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE:

NUMBER OF BATCHES PER DAY	NUMBER OF SAMPLES 1 SAMPLE = 2 CYLINDERS
1	1
2 TO 5	2
6 TO 10	3
11 TO 20	4
FOR EACH ADDITIONAL 10	1 ADDITIONAL

- C2.5. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED BY THE ENGINEER IN WRITING.
- C3. CONCRETE PROFILES
- C3.1. BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE THE SLAB THICKNESS.
- C3.2. SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
- C3.3. NO HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN SHOWN IN THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- C3.4. CANTILEVERS - PROVIDE UPWARD CAMBER IN FORMWORK FOR REINFORCED CONCRETE CANTILEVERS OF $L/120$, WHERE L IS THE PROJECTION BEYOND THE COLUMN OR WALL FACE. MAINTAIN THE SLAB AND BEAM DEPTHS SHOWN.
- C3.5. PROVIDE DRIP GROOVES AT ALL EXPOSED EDGES, CHAMFERS, DRIP GROOVES, REGLETS ETC. TO BE TO ARCHITECT'S DETAILS.
- C3.6. CONSTRUCTION JOINTS NOT SHOWN IN THE STRUCTURAL DRAWINGS SHALL BE TO THE WRITTEN APPROVAL OF THE ENGINEER.
- C3.7. SLAB SYMBOLS
- DENOTES SLAB SETDOWN
- DENOTES MIN. SLAB THICKNESS

CONCRETE NOTES (CONT.)

- C4. COMPACT ALL CONCRETE, INCLUDING FOOTINGS AND SLABS ON GROUND, WITH MECHANICAL VIBRATORS.
- C5. CURING OF CONCRETE
- CURE ALL CONCRETE AS FOLLOWS:
- KEEP SURFACES CONTINUOUSLY WET FOR THREE DAYS THEN PREVENT MOISTURE LOSS FOR THE NEXT FOUR DAYS USING POLYTHENE SHEETING OR WET HESSIAN PROTECTED FROM WIND AND TRAFFIC AND THEN
 - ALLOW GRADUAL DRYING OUT CURING COMPOUNDS MAY BE USED PROVIDED THAT THEY COMPLY WITH AS3799 AND THEY DO NOT AFFECT FLOOR FINISHES. PYA-BASED CURING COMPOUNDS ARE NOT ACCEPTABLE.
- C6. SLIP JOINTS TO BE USED ON ALL LOAD-BEARING MASONRY WALLS. USE TWO LAYERS OF GALVANISED FLAT STEEL WITH GRAPHITE GREASE BETWEEN.
- C7. BRICKS USED IN LOAD-BEARING CONSTRUCTION SHOULD HAVE A MINIMUM COMPRESSIVE STRENGTH OF 20 MPa AS DEFINED IN AS1225 AND AS1226 AND MORTAR SHOULD NOT BE WEAKER THAN THE FOLLOWING: 1 CEMENT : 1 LIME : 6 SAND.
- C8. MASONRY WALLS MUST NOT BE CONSTRUCTED ON SUSPENDED CONCRETE UNTIL ALL TEMPORARY SUPPORTS ARE REMOVED AND ALL MASONRY TO BE LAID HAS BEEN STACKED ADJACENT TO PROPOSED POSITION.

REINFORCED CONCRETE BLOCKWORK

- R81. ALL CONCRETE BLOCKWORK SHALL COMPLY WITH AS3700.
- R82. BLOCKS SHALL COMPLY WITH AS4455. BLOCKS SHALL HAVE AN UNCONFINED COMPRESSIVE STRENGTH IFUCI OF 15 MPa IN ACCORDANCE WITH AS4455. ALL BLOCKS SHALL HAVE SHALLOW TOP GROOVES FOR REINFORCEMENT. PROVIDE CLEAROUT HOLES AT THE BASE OF THE WALLS.
- R83. MORTAR SHALL BE 1 CEMENT : 0-1/4 LIME : 3 SAND. NO ADMIXTURES SHALL BE USED WITHOUT WRITTEN APPROVAL OF THE ENGINEER. DO NOT USE BYCOL. A WATER THICKENER (CARBOXY METHYL CELLULOSE) MAY BE USED. MORTAR JOINTS SHALL BE STRUCK FLUSH.
- R84. REMOVE ALL MORTAR DAGS BEFORE FILLING CORES WITH GROUT.
- R85. VERTICAL STARTER BARS TO WALLS SHALL BE POSITIONED WITH TEMPLATES. TIE VERTICAL BARS TO STARTERS.
- R86. COVER TO BARS AS SHOWN ON DETAILS IS FROM EXTERNAL FACE OF BLOCKWORK AND ASSUMES 30MM BLOCK WALL THICKNESS.
- R87. FILL ALL CORES WITH GROUT. STRENGTH GRADE 20. AGGREGATE 10MM MAXIMUM SIZE (NOT MORE THAN 30% BY VOLUME OF GROUT). SLUMP 230 ± 30. MINIMUM CEMENT CONTENT 300 KG/M³.
- R88. VIBRATE OR ROD ALL REINFORCED CORES.
- R89. PROVIDE VERTICAL CONTROL JOINTS AT 8M SPACING OR AS SHOWN ON PLAN. (LOCATIONS TO BE CONFIRMED WITH ARCHITECT WHERE NECESSARY).
- R90. BACKFILL FOR RETAINING WALLS SHALL BE FREE-DRAINING GRANULAR MATERIAL.
- R91. FOR RETAINING WALLS PROVIDE DRAINAGE OF BACKFILL CONNECTED TO SITE DRAINAGE. UNLESS SHOWN OTHERWISE ON DRAWINGS USE EITHER:
- WEEPHOLES AT 1.5M MAXIMUM SPACING WITH GRAVEL SURROUND OR
 - CONTINUOUS AGRICULTURAL DRAIN WITH GRAVEL SURROUND OR
 - ATLANTIC DRAIN CELL AND SUBSOIL DRAIN AT BOTTOM BEHIND WALL CONNECTED TO SITE DRAINAGE - REFER DETAILS

CLAY BRICK MASONRY

- M1. ALL BRICKWORK SHALL COMPLY WITH AS3700.
- M2. BRICKS SHALL HAVE 20 MPa UNCONFINED COMPRESSIVE STRENGTH IFUCI.
- M3. MORTAR SHALL BE 1 CEMENT : 1 LIME : 6 SAND UNLESS NOTED OTHERWISE. NO ADMIXTURES SHALL BE USED WITHOUT WRITTEN APPROVAL OF THE ENGINEER. DO NOT USE BYCOL. DO NOT USE FIRE CLAY. A WATER THICKENER (CARBOXY METHYL CELLULOSE) MAY BE USED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- M4. WALL TIE SPACING
- | LOCATION | WALL TIE SPACING |
|--|---------------------------------|
| GENERALLY | 600MM VERTICALLY & HORIZONTALLY |
| AT RETURN WALLS, COLUMNS AND ON BOTH SIDES OF CONTROL JOINTS | 300mm AVERAGE AND 400mm MAXIMUM |
- M5. WALL TIE QUALITY
- WALL TIES TO COMPLY WITH AS3700 & AS2699.1. TIES TO BE GALVANISED STEEL WITH GALVANISED COATING MASS TO SUIT THE DURABILITY CLASSIFICATION. FOR R3 & R4 DURABILITY CLASSIFICATION, OR IF REQUIRED BY LOCAL AUTHORITY, WALL TIES SHALL BE STAINLESS STEEL GRADE 316 OR 316L TO AS1449.
- M6. BUILDER TO NOTIFY HUGHES TRUEMAN OF CHARACTERISTIC EXPANSION OF BRICK UNITS PRIOR TO CONSTRUCTION.
- M7. VERTICAL JOINTS
- (UNLESS NOTED OTHERWISE ON DRAWINGS) BASED ON BRICKS WITH A POTENTIAL FIVE YEAR EXPANSION OF 1mm/m. BUILDER TO NOTIFY HUGHES TRUEMAN IF CHARACTERISTIC EXPANSION OF BRICK UNITS IS DIFFERENT BY 10% OR MORE.
- M8. PROVIDE VERTICAL JOINTS IN BRICKWORK AT THE FOLLOWING MAXIMUM SPACING
- | LOCATION | WALLS GENERALLY | PARAPETS |
|-------------------------------|-----------------|----------|
| FIRST JOINT FROM CORNER | 5m | 3m |
| GENERAL SPACING | 10m | 6m |
| FIRST JOINT FROM STEP IN WALL | 1m | 1m |
- JOINT LOCATIONS ARE TO BE APPROVED BY THE ARCHITECT.
- M9. IN BUILDINGS WITH COLUMNS, LOCATE JOINTS AT COLUMNS AND TIE BRICKWORK TO COLUMNS WITH APPROVED FLEXIBLE ANCHORS.
- M10. ALL MASONRY SUPPORTING OR SUPPORTED BY CONCRETE FLOORS SHALL BE PROVIDED WITH VERTICAL CONTROL JOINTS TO MATCH ANY CONTROL JOINTS IN THE CONCRETE FLOORS.
- M11. WHERE LOCATION OF JOINTS ABOVE RAISES DOUBT ABOUT STABILITY OF A WALL, REFER TO THE ENGINEER.
- M12. WIDTH OF VERTICAL JOINTS TO BE 15mm, KEEP CLEAR OF MORTAR AND DEBRIS.
- M13. FILL JOINTS WITH FLEXIBLE FOAM SLIGHTLY OVERSIZED. DO NOT USE BITUMEN IMPREGNATED FIBREBOARD.
- M14. SEAL JOINTS WITH APPROVED MASTIC SEALANT RECESSED 15mm FROM FACE OF WALL.
- M15. HORIZONTAL JOINTS
- PROVIDE HORIZONTAL JOINTS AS SHOWN ON DRAWINGS.
- M16. WHERE BRICKWORK IS NON-LOAD BEARING PROVIDE 20mm GAP BETWEEN TOP OF WALL AND UNDERSIDE OF SLAB AND FILL WITH FLEXIBLE FOAM, OR SEALANTS AND FIRE CHAILING TO ARCHITECT'S REQUIREMENTS. PROVIDE M.E.T. 4-3 HEAD RESTRAINT TIES (BY MASONRY TIES P/L) AT EVERY 3RD PERPEND FLEXED SLAB AS PER MANUFACTURERS SPECIFICATIONS.
- M17. WHERE BRICKWORK SUPPORTS CONCRETE SLABS, SLIP JOINTS ARE TO BE USED. REFER TO CONCRETE NOTES.
- M18. JOINTS IN FINISHES ARE TO BE COMPATIBLE WITH JOINTS IN BRICKWORK.
- M19. NO CHASES OR RECESSES ARE PERMITTED IN LOAD BEARING MASONRY WITHOUT THE APPROVAL OF THE ENGINEER.

STRUCTURAL DESIGN LOADINGS

- L1. THE STRUCTURAL COMPONENTS DETAILED ON THESE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RELEVANT STANDARDS AUSTRALIA CODES AND THE BUILDING CODE OF AUSTRALIA FOR THE FOLLOWING LOADINGS. REFER TO ARCHITECTURAL DRAWINGS FOR PROPOSED FLOOR USAGE.
- L2. SUPERIMPOSED LOADS
- | FLOOR USAGE | LIVE LOAD (kPa) | SUPERIMPOSED DEAD LOAD (kPa) |
|----------------------------|-----------------|------------------------------|
| ROOF | 0.25 | - |
| GENERAL FLOOR AREA | 1.5 | 1.0 |
| TERRACES | 2.0 | 1.0 |
| LOBBY | 1.5 | 1.0 |
| PLANT ROOM FLOORS ON GRADE | 2.0 | - |
| STAIRS | 2.0 | - |
- L3. WIND LOADS IN ACCORDANCE WITH AS1170.2
- | REGIONAL WIND SPEED | $V_{20} = 37m/s$ | $V_{500} = 45m/s$ |
|---|------------------|-------------------|
| REGION | A2 | |
| TERMIN CATEGORY | 2 | |
| STRUCTURAL IMPORTANCE LEVEL AS DEFINED IN BCA - PART B1 | 2 | |

DRAWING SCHEDULE

- DWG No. DESCRIPTION
- S01 COVER AND NOTES SHEET 1
- S02 NOTES SHEET 2
- S05 GROUND FLOOR PLAN GENERAL ARRANGEMENT
- S06 FIRST FLOOR PLAN GENERAL ARRANGEMENT
- S07 SECOND FLOOR PLAN GENERAL ARRANGEMENT
- S08 ROOF LAYOUT GENERAL ARRANGEMENT
- S10 RETAINING WALL DETAILS SHEET 1
- S12 LIFT AND STAIR DETAILS SHEET 1
- S14 GROUND FLOOR SECTIONS AND DETAILS SHEET 1
- S20 FIRST FLOOR SECTIONS AND DETAILS SHEET 1
- S30 SECOND FLOOR SECTIONS AND DETAILS SHEET 1
- S40 ROOF SECTIONS AND DETAILS SHEET 1
- S50 LANDSCAPING DETAILS SHEET 1

This Plan/Specification forms part of the certification for

1001438 21 JUN 2011

Hughes Trueman
Consulting Engineers Planners & Managers

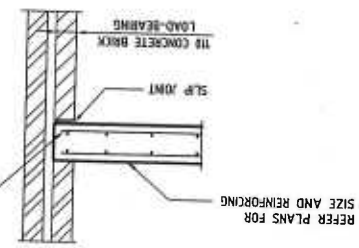
ST. PATRICKS ESTATE MANLY
PRECINCT 1 STAGE 4

Client: LEND LEASE
Architect/Project Manager: TANNERS ARCHITECTS

Drawing Title: COVER & NOTES
SHEET 1
HOUSE 23

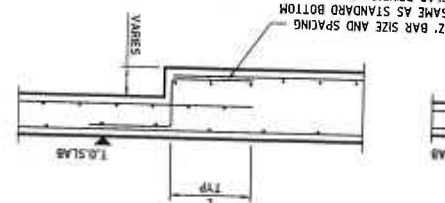
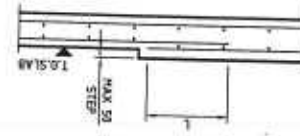
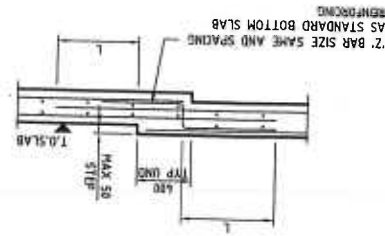
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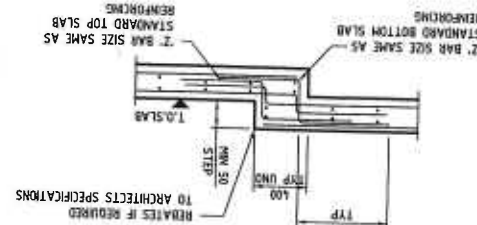
TYP SUSPENDED SLAB ON BRICK WALL

BAR Ø	1	2	3	4	5
LAP SCHEDULE	1	2	3	4	5
500					
750					
1000					
1500					

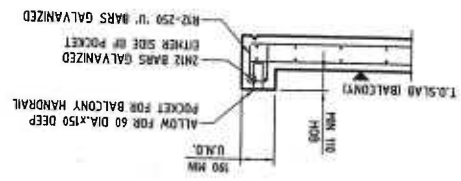


TYP STEPS <50mm IN SUSPENDED SLABS

REFER TO PLANS FOR SLAB THICKNESS AND STANDARD REINFORCING SIZES

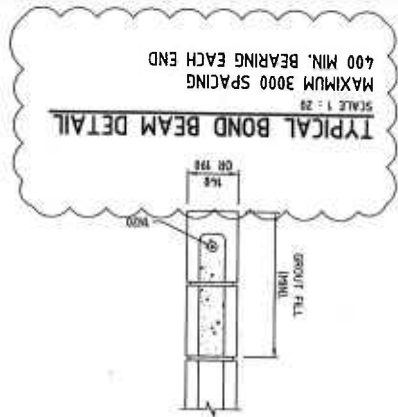


TYP STEP IN SUSPENDED SLABS >50mm

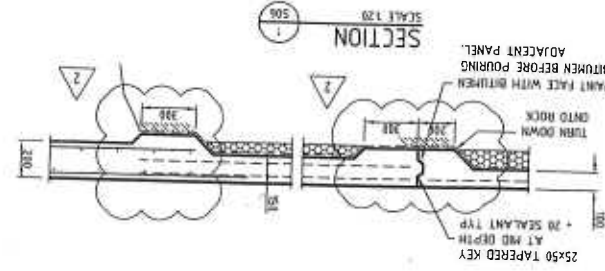


TYP SLAB BALCONY HOB

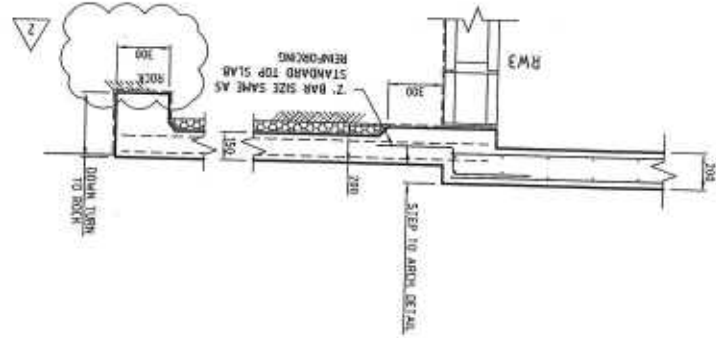
ON PLANS, REFER TO BEAM DETAILS.
NOTE: SOME HOBS ARE STRUCTURAL BEAMS AS MARKED
DENOTED 'HOB' ON PLANS



TYPICAL BOND BEAM DETAIL



SECTION 1



SECTION 2



SECTION 3

Details
Scale 1:20
0.5 0.25 0 0.5 1.0
A1

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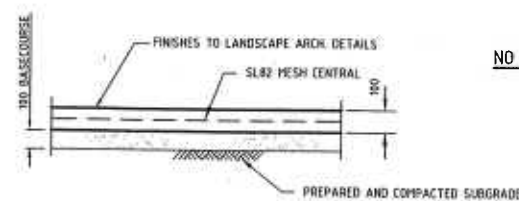
Rev	Amendment / Reason for Issue	Date	Drawn by	Checked by	Designed by	Verified by	Authorised by
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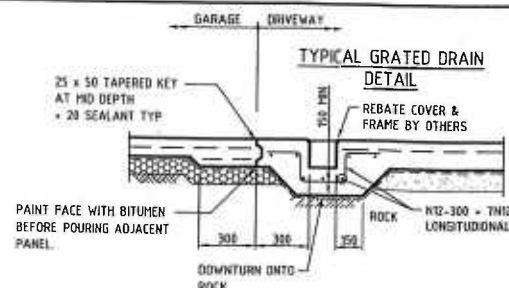
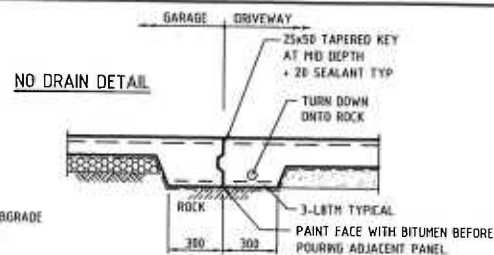
ST. PATRICKS ESTATE MANLY
PRECINCT 1 STAGE 4
FIRST FLOOR
SECTIONS AND DETAILS SHEET 1
HOUSE 23
10S002-23-S20
TANNERS ARCHITECTS
LEND LEASE

This Plan/Specification forms
part of the certification for
2 1 JUN 2011



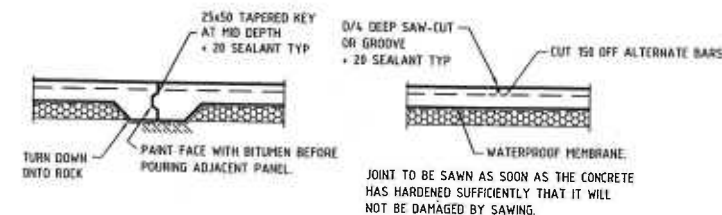
TYPICAL DRIVEWAY SLAB CONSTRUCTION

ALSO REFER TO CIVIL DRAWINGS FOR DRIVEWAY DETAILS



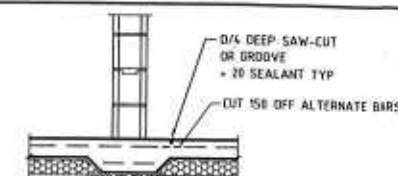
DRIVEWAY TO BUILDING KEY JOINT - K.J.

1:20 DENOTED K.J. ON PLAN.
ALSO REFER TO CIVIL/LANDSCAPE DRAWINGS FOR DRIVEWAY DETAILS



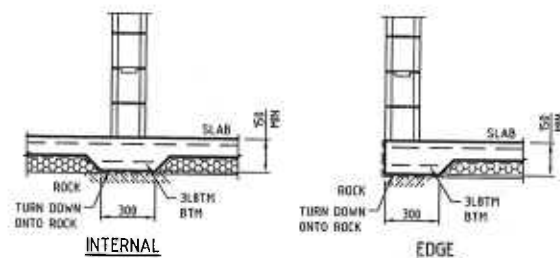
CONTROL JOINT DETAILS

1 : 20
DENOTED (L) ON PLAN.
AT 4m MAX CENTRES UNO

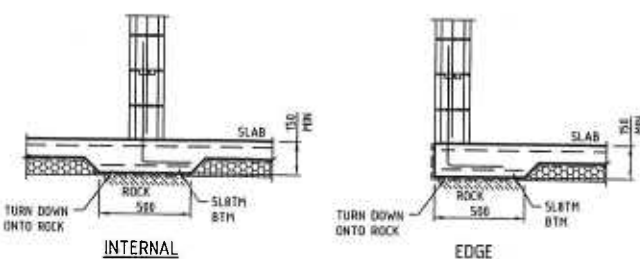


CONTINUOUS POUR AT EDGE OF RIB

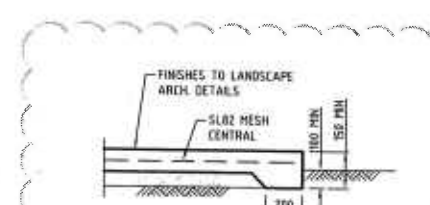
1. CLEAR SITE OF VEGETABLE MATTER AND DELETERIOUS MATERIALS.
2. STRIP TOPSOIL, AND STOCKPILE FOR REUSE.
3. PROOF ROLL, REMOVE AND REPLACE SOFT AREAS WITH COMPACTED SUBGRADE OR BASE MATERIAL.
4. PLACE APPROVED NON ORGANIC FILL WITH A MAXIMUM PARTICLE SIZE OF 75mm AND COMPACT IN 200mm MAX. THICK LAYERS. U.N.O.
5. COMPACTION IS TO BE CARRIED OUT BY ROLLING AT OPTIMUM MOISTURE CONTENT TO OBTAIN A DENSITY EQUIVALENT TO 95% OF MAXIMUM DRY DENSITY WHEN TESTED BY THE STANDARD COMPACTION TEST.
FROM AS 10805.1.1
6. COMPACTION SHALL BE CARRIED OUT WITH A VIBRATING ROLLER WITH AT LEAST 10 TONNE STATIC WEIGHT.
7. TESTING OF THE SUBGRADE SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A. REGISTERED LABORATORY.



TYPICAL SLAB THICKENING DETAILS
BLOCK WORK NOT CORE FILLED ST1



TYPICAL SLAB THICKENING DETAILS
BLOCK WORK CORE FILLED & REINFORCED ST2



TYPICAL DRIVEWAY SLAB
EDGE THICKENING

103

13

This Plan/Specification forms
part of the certification for

J 1 007468

21 JUN 2011

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Details Scale 1:20 (b) A1



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T +61 2 9439 2633 F +61 2 9438 4505 slleonards@hughesstrueman.com.au



ST. PATRICKS ESTATE MANLY
PRECINCT 1 STAGE 4

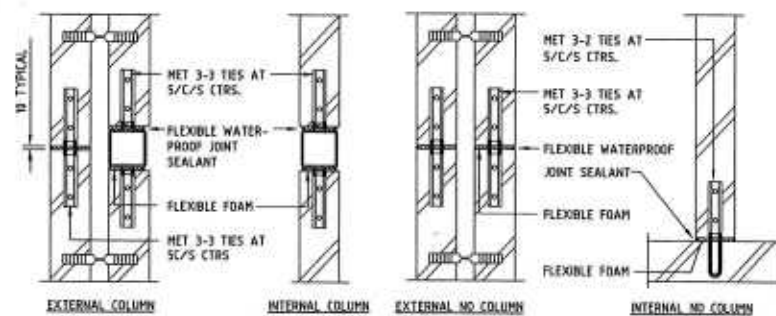
Client
LEND LEASE
Architect/Project Manager
TANNERS ARCHITECTS

GROUND FLOOR
SECTIONS AND DETAILS SHEET 1
HOUSE 23

10S002-23-S14

On 1

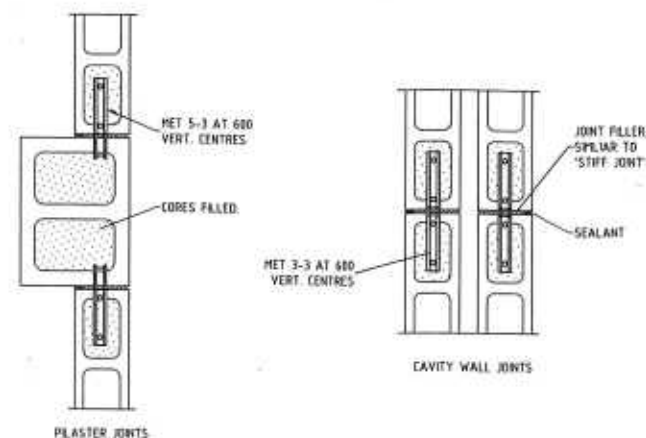
2



BRICK JOINT NOTES

1. REFER TO ARCHITECTS ELEVATIONS, NOTE M8 ON STRUCTURAL DRAWING SHEET 01 AND STEPPED FOOTING DETAILS TO DETERMINE JOINT LOCATIONS. FINAL LAYOUT TO BE CONFIRMED ON SITE. CRITICAL B.J. ARE ALSO INDICATED ON STRUCTURAL PLANS.
2. M.E.T. ANCHORS DISTRIBUTED BY BRUNSWICK SALES P/L.
3. FOR CLAY BRICKS WITH POTENTIAL GROWTH OF 1MM PER METRE.
4. GAP WIDTH 15MM USING CORKJOINT FLEXIBLE FOAM OR EQUIVALENT.

TYPICAL BRICK JOINT DETAILS

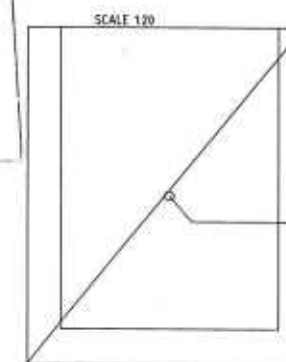
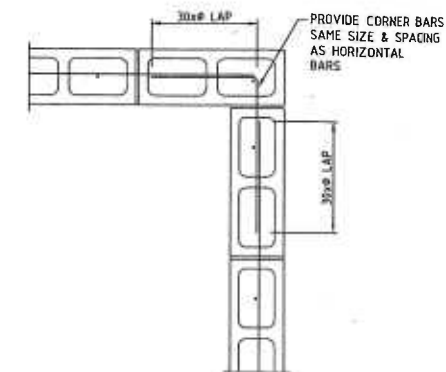


BLOCK JOINT DETAILS

BLOCKWORK VERTICAL JOINT DETAIL

JOINTS AT NOT GREATER THAN 800mm cts.
VERTICAL JOINTS IN WALLS TO ALIGN WITH JOINTS IN SLAB.

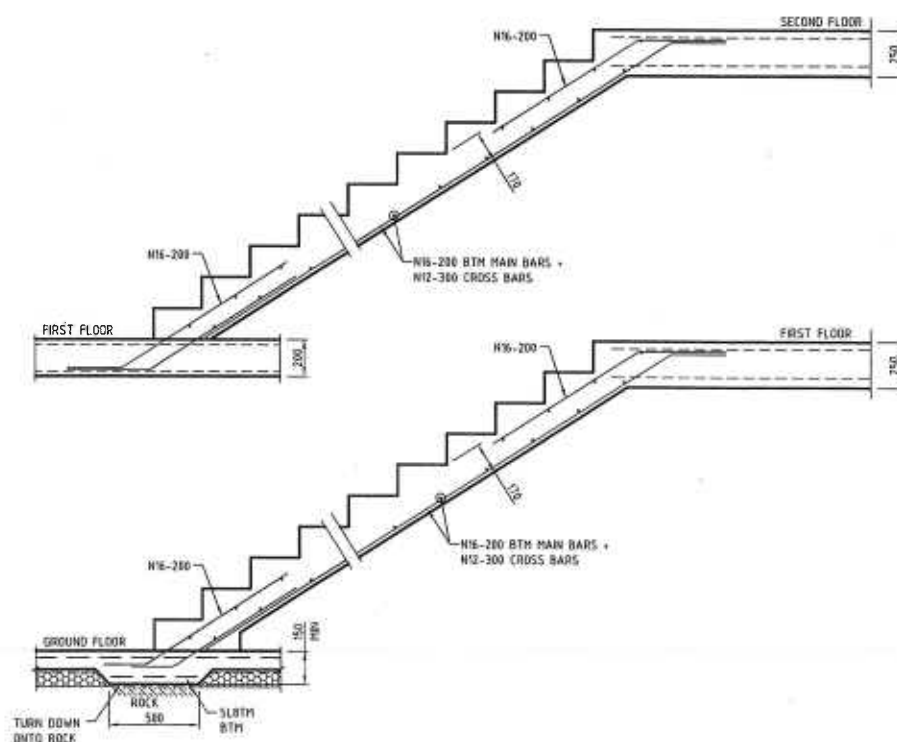
BLOCKWORK CORNER DETAIL



NOTE:
190 BLOCK WALL FOR LIFT GUIDE RAIL SUPPORTS
CAN BE EITHER THE REAR OR ONE SIDE WALL REFER
TO ARCH PLANS FOR SPECIFIED LOCATION

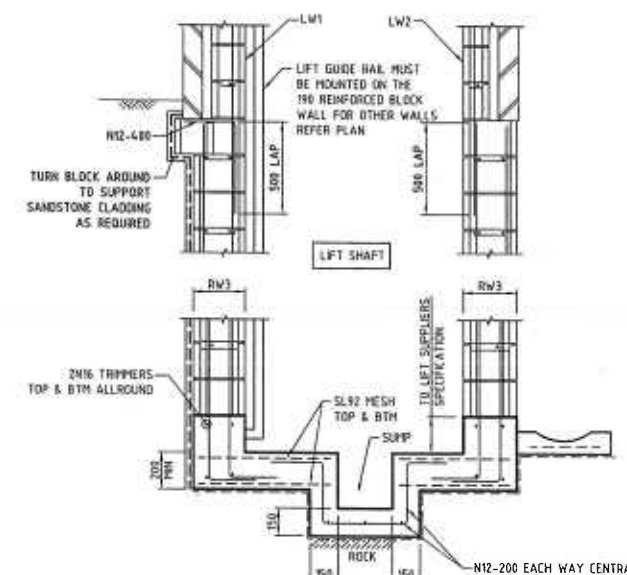
LIFT LID PLAN

SCALE 1:20



TYPICAL STAIR DETAILS

SCALE 1:20



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ST. LEONARD
BAPTIST
CHURCH
COLUMBIA, MISSOURI
1900

ST. LEONARD
BAPTIST
CHURCH
COLUMBIA, MISSOURI
1900

ST. PATRICKS ESTATE MANLY
PRECINCT 1 STAGE 4

ST. PATRICKS ESTATE MANLY
PRECINCT 1 STAGE 4

COND FLOOR
CTIONS & DETAILS SHE

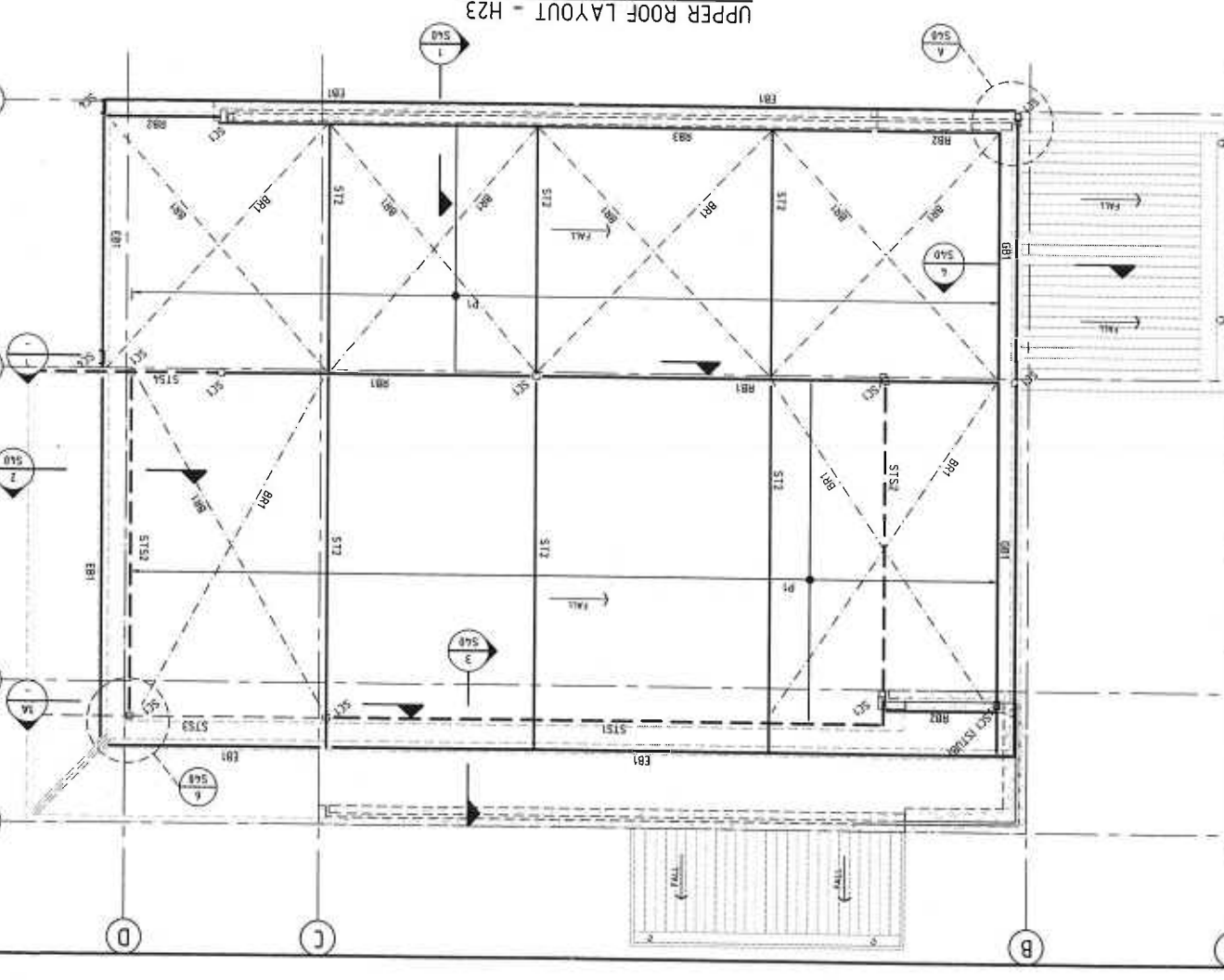
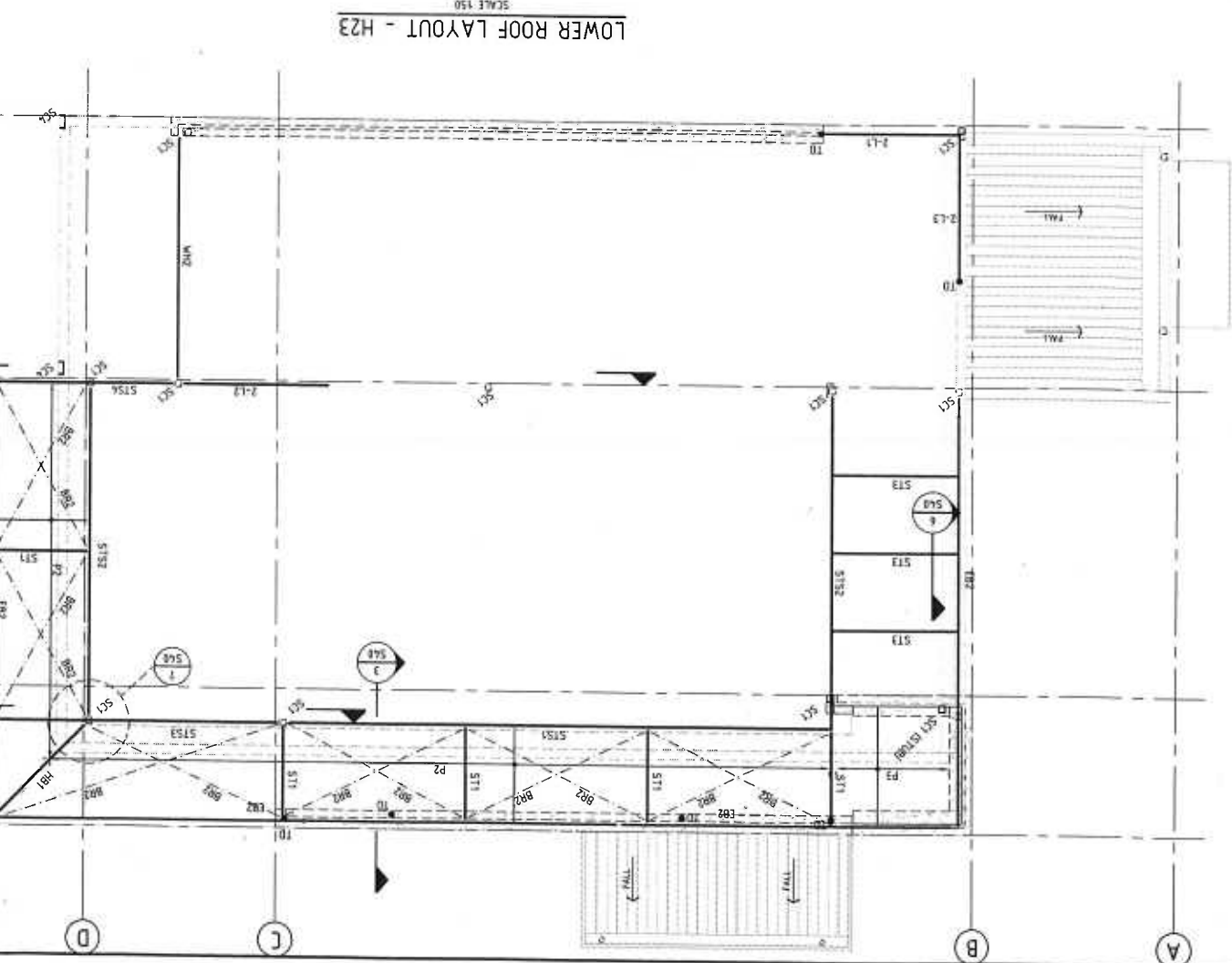
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ST. PATRICKS EST
PRECINCT 1 STAGE
END LEASE
ANSWERS: ANSWERS

↓



This Plan/Specification forms part of the certification for

tanner Architects

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NSW 1500
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Steel
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info@tannerarchitects.com.au
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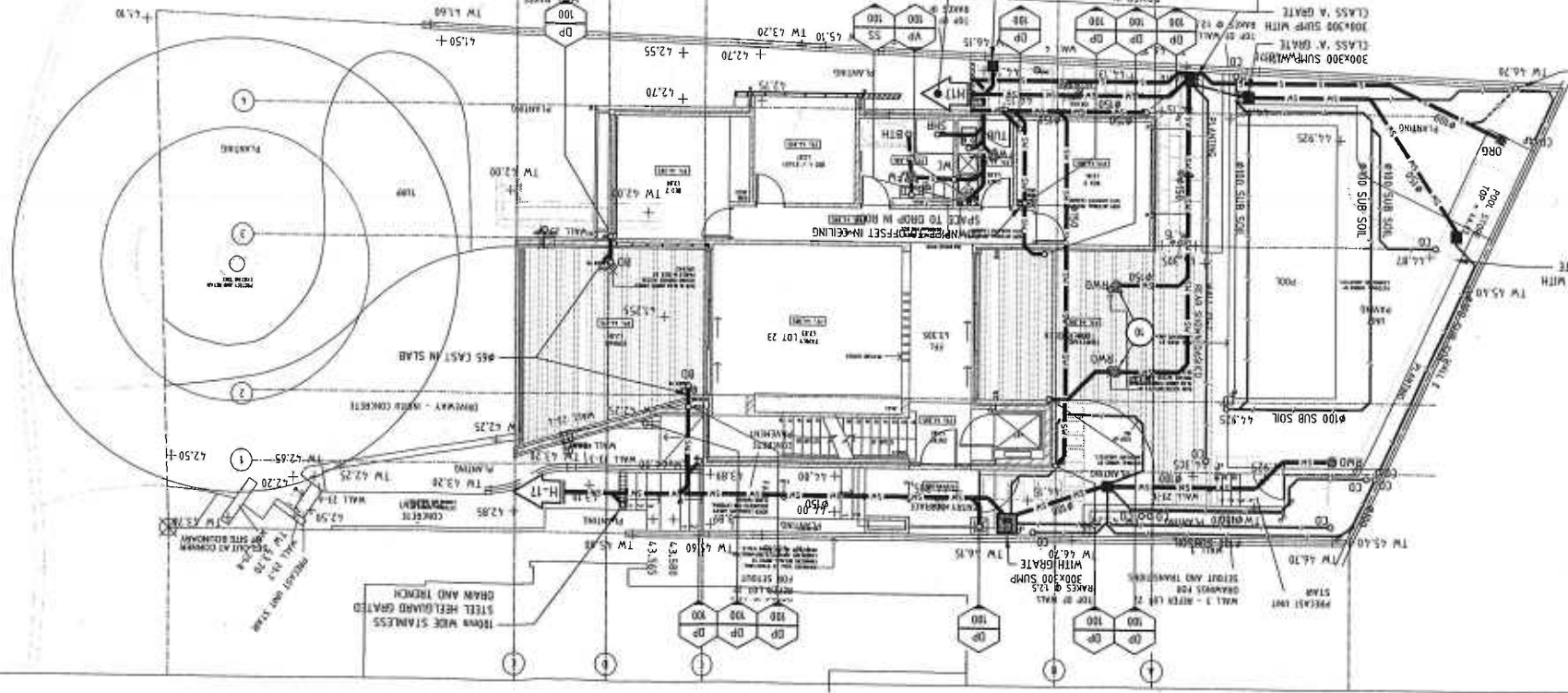


CEVA

105002 H17

HYDRAULIC SERVICES HOUSE 23
GROUND AND FIRST FLOOR PLANS
DRAINAGE

00%



27 JUN 1964

REFER TO DRAWING NO. 901 FOR GENERAL NOTES AND LEGEND.

EXISTING SERVICES HAVE BEEN GUARANTEED FROM SUPPLIED DATA. HUGHES TANKMAN PVT. LTD. DOES NOT GUARANTEE THEIR ACCURACY AND IS THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES SERVING OTHER OPERATIONAL AREAS TO BE RETAINED.

3. CONTRACTOR TO IDENTIFY, MODIFY AND RELOCATE EXISTING SERVICES AS REQUIRED. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT AUTHORITY.

4. THE CONTRACTOR IS RESPONSIBLE FOR THE SITE SURVEY, IDENTIFICATION, DISCONNECTION, REMOVAL AND MODIFICATION OF EXISTING SERVICES. EXACT LOCATION AND SUPPLY POINTS BEFORE PROCEEDING WITH THE WORKS.

5. PROVIDE SUSSEN BEHIND ALL WALLS, FOOTINGS AND SWIMMING POOL etc. OVER AND ABOVE WHAT IS INDICATED ON DRAWINGS.

6. ALL RAINWATER OUTLETS (RWO) SHALL BE SPS 150mm SQUARE OR 150mm ROUND PUSH IN TYPE WITH STAINLESS STEEL GRATE (316).

7. ALL 300x300 STORMWATER PITS SHALL HAVE STAINLESS STEEL GRATE (316).

8. NEW GAS MAIN CONNECTIONS TO BE 425mm.

9. REFER TO HUGHES TANKMAN PVT. LTD. DRAWING 0555377 FOR STORMWATER DETAILS IN HOUSE YERRE TYPICAL FOR ALL HOUSES.

10. ALLOW FOR REMOVABLE ACCESS PANEL IN TERRACE DECK OVER OUTLET. ALLOW TO CO-DRAINAGE WITH ARCHITECT PRIOR TO COMMITMENT.

11. ALL STORMWATER PITS IN GARAGE SHALL BE 450x450mm WITH GALVANISED HINGED GRATE, CLASS 'C'.

12. ALL STORMWATER PITS IN VOID SHALL BE 450x450mm WITH HINGED, GALVANISED GRATE, CLASS 'B'.

13. FLOOR WASTE IN LAUNDRY TO BE CHARGED WITH AN APPROVED TRAP PUMPS DEVICE.

14. BOUNDARY TRAPS TO BE LOCATED SO AS NOT TO CLASH WITH EXISTING STRUCTURAL FEATURES.

15. 50mm SPOON DRAIN ALONG REAR WALL, TYPICAL.

16. SEWER EXTENDS UP TO PROVIDE GULLY FOR POOL EQUIPMENT.

17. 5,000 LITRES. SUBLINE. RAINWATER TANK

18. ALL BOUNDARY TRAPS SHALL TERMINATE WITH SEALED, SCREWED-DOWN, BRASS TOP

19. FOR ALL EXTERNAL LEVELS REFER TO CIVIL DRAWINGS.

20. CONTRACTOR TO ALLOW FOR REFLEX VALVE IN PVC RISER FOR MECHANICAL ROOM AND PLANT ROOM FOR EACH HOUSE, IN ACCORDANCE WITH SYDNEY WATER REQUIREMENTS.

21. ALL RAINWATER OUTLETS IN REAR COURTYARD SHALL BE SPS TRIFLO, INSTALLED UNDER SUSPENDED CEILING WAVES.

22. 450mm OVERFLOW THROUGH SLAB FINISHED 50mm ABOVE SLAB, SUSSEN ON ROCK IN BLUE METAL BED, AS DETAILED ON LANDSCAPING DRAWINGS.

23. ALL STORMWATER PITS SHALL BE 300x300mm WITH STAINLESS STEEL GRATE, UNLESS NOTED OTHERWISE.

24. ALL GATED DRAINS SHALL BE 100mm WIDE WITH STAINLESS STEEL LONGitudINAL REINFORCED GRATE WITH STAINLESS STEEL FRAME. POOL SMART TYPICAL.

25. ALL FLOOR WASTES SHALL BE NO MORE THAN 800mm IN DEPTH OR ALLOW 100mm TO CONNECT ROOM.

26. ALL PEDESTAL CAST IN SLAB SHALL BE WAPPED AND FILLED WITH WATER FROM TO CONNECT ROOM.

27. SEPARATE TRAPPED WASTE PIPE FOR WASHING MACHINE.

28. ALL FLOOR WASTES SHALL BE NO MORE THAN 800mm IN DEPTH OR ALLOW 100mm TO CONNECT ROOM.

29. ALL PEDESTAL CAST IN SLAB SHALL BE WAPPED AND FILLED WITH WATER FROM TO CONNECT ROOM.

30. SWIMMING POOL WASTE DISCHARGE TO SANITARY DRAINAGE SHALL COMPLY WITH AS 3500.2 CLAUSE 10.3 AND FIGURE 10.2

NOTES

NOTES

1. REFER TO DRAWING No. H01 FOR GENERAL NOTES AND LEGEND.
2. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA. HUGHES TRUEMAN PTY. LTD. DOES NOT GUARANTEE THEIR ACCURACY AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES SERVING OTHER OPERATIONAL AREAS TO BE RETAINED.
3. CONTRACTOR TO IDENTIFY, MODIFY AND RELOCATE EXISTING SERVICES AS REQUIRED. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT AUTHORITY.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE SITE SURVEY, IDENTIFICATION, DISCONNECTION, REMOVAL AND MODIFICATION OF EXISTING SERVICES AFFECTED BY THE NEW WORKS. THE CONTRACTOR IS TO VERIFY ON SITE THE EXACT LOCATION AND SUPPLY POINTS BEFORE PROCEEDING WITH THE WORKS.
5. CONTRACTOR TO MAKE ALLOWANCE FOR ROCK EXCAVATION WHERE ENCOUNTERED.
6. CONTRACTOR SHALL PRESERVE EXISTING TREE DURING EXCAVATION AROUND TREE.

STW LINES PLACED WITHIN
BOUNDARY WITHIN REGISTERED 1m
WIDE EASEMENT IN HOUSES 21
AND 22 TO SERVICE
INTERALLOTMENT STW DRAINAGE

ALLOW TO EXCAVATE, LOCATE AND
CONNECT TO EXISTING SERVICE.
MAKE GOOD EXISTING SURROUND.
PAY ALL ASSOCIATED FEES.

CONTRACTOR TO CONFIRM IF
EXISTING RISING MAIN IS
INSTALLED IF NOT, ALLOW TO
INSTALL NEW SERVICE

This Plan/Specification forms
part of the certification for

J 1 0 0 1 4 6 B

21 JUN 2011

5 4 3 2 1 0 5 10
Plan Scale 1:200 @ A1

ISSUED FOR CONSTRUCTION

Rev	Amendment / Reason For Issue	Date	Drawing Completed by	Designed & Checked by	Verified by	Issue	Notes
2	CONSTRUCTION ISSUE	18.03.11	AJ	GL	GL	*	
1	TENDER RE-ISSUE	07.07.10	AJ	CHV	GL	*	
0	TENDER ISSUE	10.05.10	AJ	CHV	GL	*	

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ST. LEONARDS
Parramatta
Crestmont
Ragga Wappa



Project
ST. PATRICKS ESTATE MANLY
PRECINCT 1 STAGE 4

Client
LEND LEASE
Architect/Project Manager

Drawing Title
HYDRAULIC SERVICES
SITE PLAN

Drawing No.
10s002 H03

Sheet
3
OF

Rev
2