

PROJECT NORTH

FIGURED DIMENSIONS TO BE USED IN PREFERENCE TO SCALING FROM DRAWINGS. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE & REPORT ANY DISCREPANCY TO THE PRINCIPAL OR DELEGATE BEFORE PROCEEDING WITH WORK. ALL BOUNDARY DIMENSIONS & BEARINGS TO BE VERIFIED BY LICENCED SURVEYOR PRIOR TO PROCEEDING WITH WORK.

DATE	CODE/NOTES	SA	PA	PM	REV
16.05.14	PRELIMINARY ISSUE FOR CONSULTANT COORDINATION				P1
17.03.14	PRELIMINARY ISSUE FOR DA				P2
19.07.14	ISSUE FOR DA				A

- LEGEND:**
- GENERAL:**
- SITE BOUNDARY
 - EX. LEVELS TO REMAIN OR GRADE TO NATURAL FALL
 - EX. EXISTING
 - ITEMS TO BE DEMOLISHED
 - EX. TREES/LANDSCAPING TO REMAIN
 - EX. LEVEL TO REMAIN
 - EX. SPOT LEVEL TO REMAIN
 - EX. SPOT LEVEL TO BE DEMOLISHED
 - EX. ELECTRICAL POWER LINE



ORIGIN OF SURVEY:
 HEPSTEAD & ASSOCIATES, PO BOX 288, PENNANT HILLS, NSW 1715
 P. 9875 4500 F. 9875 4833
 SURVEY DWG REF. NO. 5552

PROJECT
PROPOSED DEMOLITION & EARTHWORKS
 Lot 136 DP 31912
 53-59 Christie Street
 St Marys NSW 2760

TITLE
EXISTING/DEMOLITION SITE PLAN

SCALE @ B1	1:200	DRAWN	APPROVED	AK
SCALE @ A3	1:500	KT1	STATUS	DAD C&T WDS
NOM. RESP. ARCHITECT	KATE ISAACS	NEW REG. NO.	8891	

PROJECT NO.	DRAWING NO.	REV.
1778:13	DAD 1.02	A

Nicholas Associates Architects Pty Ltd.
 ARCHITECTS
 LEVEL 21, TOWER BUILDING, 101 ORATION STREET
 BONDI JUNCTION, NSW, 2022
 A.B.N. 69 073 174 071
 PH 02 95893546 FAX 02 95893421
 FILE REF: Y:\PROJECTS\1778\Drawings\DA\1778 DAD 1.02.dwg

1 EXISTING/DEMOLITION SITE PLAN
 1:200



PROJECT NORTH

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DATE	COORDINATES	SA	PA	PM	REV
15.05.14	PRELIMINARY ISSUE FOR CONSULTANT COORDINATION				P1
15.06.14	ISSUE FOR COORDINATION				P2
19.07.14	ISSUE FOR DA				A

- LEGEND:**
- GENERAL:**
- SITE BOUNDARY
 - EX. LEVELS TO REMAIN OR GRADE TO NATURAL FALL
 - EX. EXISTING
 - EX. TREES/LANDSCAPING TO REMAIN
 - PROPOSED BATTER AT MAX. 30°
 - ϕ RL19.000 EX. LEVEL TO REMAIN
 - + 26.35 EX. SPOT LEVEL TO REMAIN
 - EX/EL EX. ELECTRICAL POWER LINE
 - ϕ RL18.000 PROPOSED LEVEL



ORIGIN OF SURVEY:
 HEPSTEAD + ASSOCIATES, PO BOX 288, PENNANT HILLS, NSW 1715
 P. 9875 4500 F. 9875 4833
 SURVEY DWG. REF. NO. 5552

PROJECT
PROPOSED DEMOLITION & EARTHWORKS
 Lot 136 DP 31912
 53-59 Christie Street
 St Marys NSW 2760

EXTERNAL WORKS/ SITE PLAN

SCALE @ B1	1:200	DRAWN	APPROVED	AK
SCALE @ A3	1:500	KT1	STATUS	DAD COT WDS
NOM. RESP. ARCHITECT	KATE SAMCS	NEW REG. NO.	8981	

PROJECT NO.	DRAWING NO.	REV.
1778:13	DAD 1.03	A

Nicholas Associates Architects Pty. Ltd.
 ARCHITECTS
 LEVEL 21, TOWER BUILDING 1101 GRAYTON STREET
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FILE REF: Y:\PROJECTS\1778-13\Drawings\DA\1778 DAD 1.03 External Works Plan.dwg

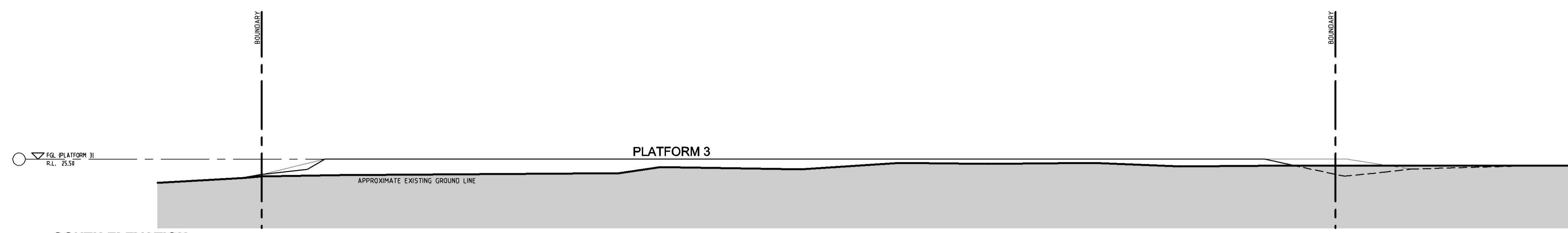
EXTERNAL WORKS/ SITE PLAN
 1:200

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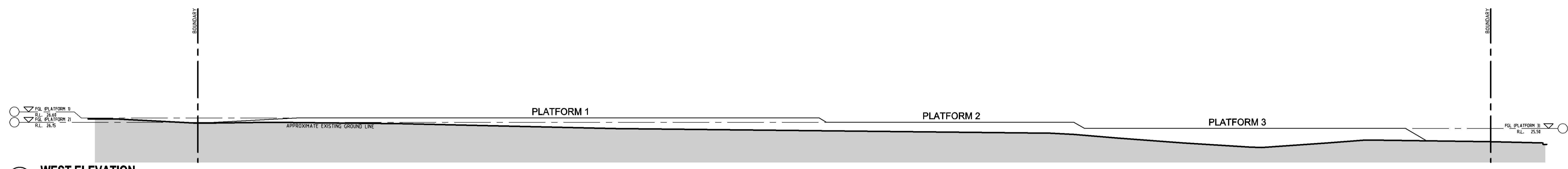
PROJECT NORTH

FIGURED DIMENSIONS TO BE USED IN PREFERENCE TO SCALING FROM DRAWINGS. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE & REPORT ANY DISCREPANCY TO THE PRINCIPAL OR DELEGATE BEFORE PROCEEDING WITH WORK. ALL BOUNDARY DIMENSIONS & BEARINGS TO BE VERIFIED BY LICENCED SURVEYOR PRIOR TO PROCEEDING WITH WORK.

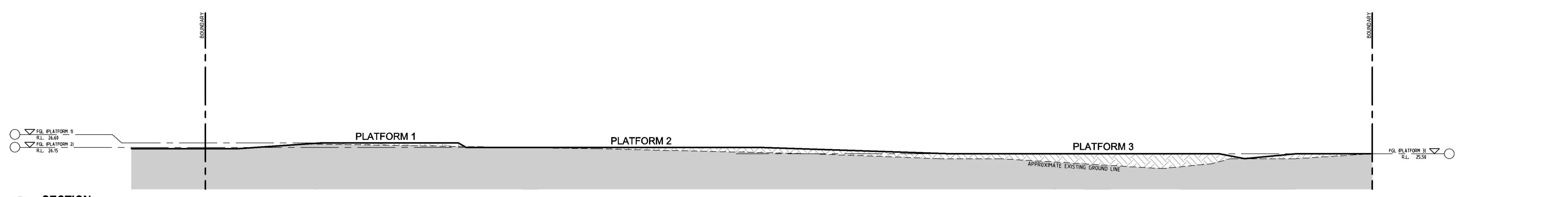
DATE	CODE/NOTES	SA	PA	PM	REV
01.07.14	PRELIMINARY ISSUE FOR DA				P1
01.07.14	ISSUE FOR DA				A



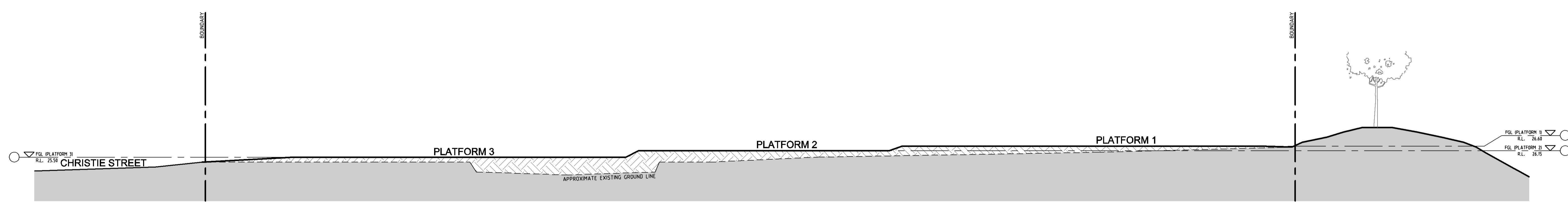
1 SOUTH ELEVATION
1:200 - VIEW FROM CHRISTIE STREET



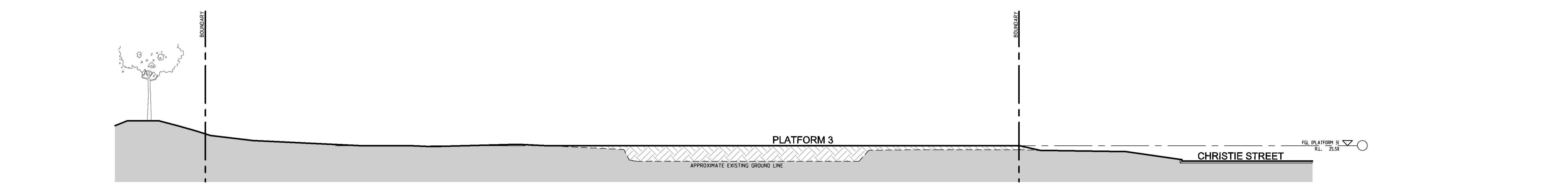
2 WEST ELEVATION
1:200



A SECTION
1:200



B SECTION
1:200



C SECTION
1:200

LEGEND:
GENERAL:
--- DENOTES SITE BOUNDARY
[Hatched Area] DENOTES EXTENT OF PROPOSED FILL
FGL FINISHED GROUND LEVEL



PROPOSED DEMOLITION & EARTHWORKS
Lot 136 DP 31912
53-59 Christie Street
St Marys NSW 2760

ELEVATIONS & SECTIONS

SCALE @ B1	1:200	DRAWN	APPROVED	AK
SCALE @ A3	1:500	KT1	STATUS	DAD COT WDS
NOM. RESP. ARCHITECT	KATE SBACCH	NWB REG. NO.	8891	

PROJECT NO.	DRAWINGS NO.	REV.
1778:13	DAD 1.04	A

Nicholas Associates Architects Pty. Ltd.
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53-59 CHRISTIE STREET ST MARYS



HYDRAULIC SERVICES

NOTE: THIS DRAWING IS DIAGRAMMATIC ONLY AND HAS BEEN PREPARED FOR THE PURPOSE OF INDICATING THE DESIGN INTENT AND SCOPE OF WORKS OF THE HYDRAULIC AND FIRE PROTECTION SERVICES. INSTALLATION AND SHOULD NOT BE INTERPRETED AS BEING DEFINITIVE. IT IS THE RESPONSIBILITY OF THE BUILDER AND/OR SUBCONTRACTOR TO INVESTIGATE AND COORDINATE BEFORE AND DURING THE CONSTRUCTION PHASE ALL EXISTING SERVICES AND STRUCTURE WHICH WILL AFFECT THE INSTALLATION OF THESE SERVICES. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HYDRAULIC AND FIRE SERVICES SPECIFICATION. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT CODES AND STANDARDS. POSITION AND LEVELS OF AUTHORITIES MAINS AND/OR EXISTING SERVICES ARE INDICATIVE ONLY AND ARE TO BE CHECKED PRIOR TO COMMENCING ANY WORK. DO NOT SCALE FROM THIS DRAWING. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSION SETOUT. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS. ALL RIGHTS RESERVED. THIS WORK IS COPYRIGHT AND CANNOT BE REPRODUCED OR COPIED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF AJ WHIPPS CONSULTING GROUP. ANY LICENSE, EXPRESSED OR IMPLIED, TO USE THIS DOCUMENT FOR ANY PURPOSE WHATSOEVER IS RESTRICTED TO THE TERMS OF AGREEMENT BETWEEN AJ WHIPPS CONSULTING GROUP & THE INSTRUCTING PARTY.

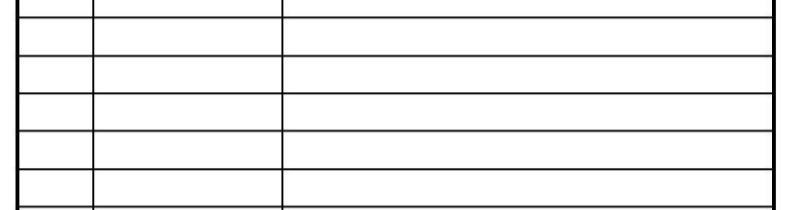
Discipline	Dwg. No.	Date	Revisions
ARCHITECTURAL	UND 1.03	23/04/2014	PS
STRUCTURAL			
MECHANICAL			
ELECTRICAL			
CIVIL			
LANDSCAPE			
OTHER			

THIS DRAWING HAS BEEN PREPARED IN CONJUNCTION WITH THE FOLLOWING DRAWINGS:



Discipline	Dwg. No.	Date	Revisions
ARCHITECTURAL	UND 1.03	23/04/2014	PS
STRUCTURAL			
MECHANICAL			
ELECTRICAL			
CIVIL			
LANDSCAPE			
OTHER			

CORPORATE MEMBER



THE ASSOCIATION OF HYDRAULIC SERVICES CONSULTANTS AUSTRALIA (NSW)

Discipline	Dwg. No.	Date	Revisions
ARCHITECTURAL	UND 1.03	23/04/2014	PS
STRUCTURAL			
MECHANICAL			
ELECTRICAL			
CIVIL			
LANDSCAPE			
OTHER			

FOR APPROVAL

30.06.14

Details

Amendments

0 10 20 30 40 50mm

Architect

Nicholas Associates Architects

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sydney@ajwhipps.com.au

ajwhipps.com.au

Project

Proposed Earthworks

53-59 Christie St St MARYS

(Penrith Council)

Drawing

HYDRAULIC SERVICES

STREET LOCATION PLAN

Status

DEVELOPMENT APPLICATION: NOT FOR CONSTRUCTION

Project No.

2013-0277v1

Drawing No.

HDA01 / P1

Drawn

IV

Date

JUN 2014

Design

IV

Scale

1:500

Verified

No in set: 2

Project No.

2013-0277v1

Drawing No.

HDA01 / P1

Drawn

IV

Date

JUN 2014

Design

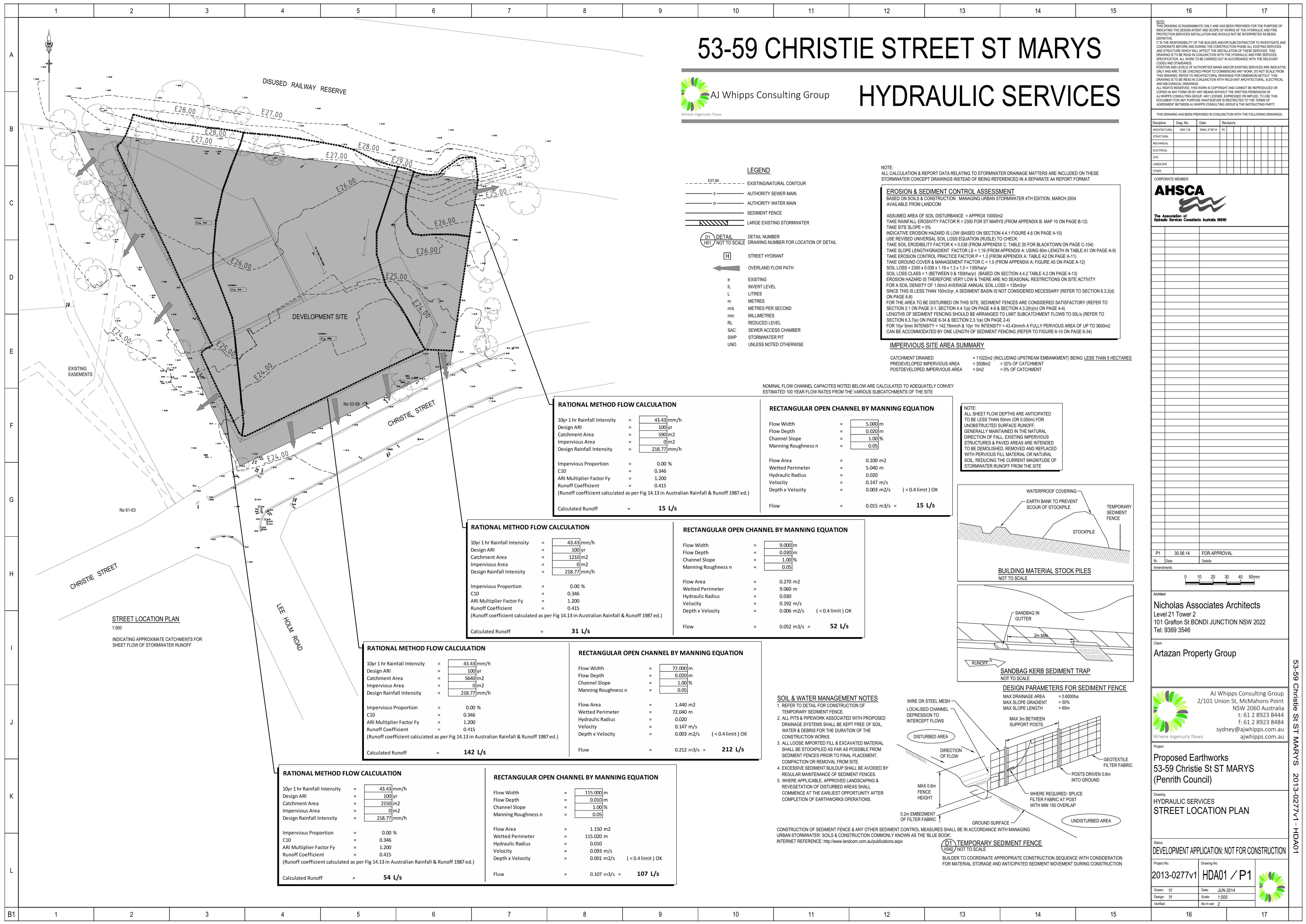
IV

Scale

1:500

Verified

No in set: 2



LEGEND

- E27.00 - EXISTING NATURAL CONTOUR
- S - AUTHORITY SEWER MAIN
- W - AUTHORITY WATER MAIN
- - SEDIMENT FENCE
- - LARGE EXISTING STORMWATER
- D1 DETAIL - DETAIL NUMBER
- H01 NOT TO SCALE - DRAWING NUMBER FOR LOCATION OF DETAIL
- H - STREET HYDRANT
- ← - OVERLAND FLOW PATH
- e - EXISTING
- IL - INVERT LEVEL
- L - LITRES
- m - METRES
- ms - METRES PER SECOND
- mm - MILLIMETRES
- SAC - SEWER ACCESS CHAMBER
- SWP - STORMWATER PIT
- UNO - UNLESS NOTED OTHERWISE

NOTE: ALL CALCULATION & REPORT DATA RELATING TO STORMWATER DRAINAGE MATTERS ARE INCLUDED ON THESE STORMWATER CONCEPT DRAWINGS INSTEAD OF BEING REFERENCED IN A SEPARATE A4 REPORT FORMAT

EROSION & SEDIMENT CONTROL ASSESSMENT

BASED ON SOILS & CONSTRUCTION - MANAGING URBAN STORMWATER 4TH EDITION, MARCH 2004 AVAILABLE FROM LANDCOM

ASSUMED AREA OF SOIL DISTURBANCE = APPROX 10000m²
 TAKE RAINFALL EROSION FACTOR R = 2300 FOR ST MARYS (FROM APPENDIX B: MAP 10 ON PAGE B-12)
 TAKE SITE SLOPE = 5%
 INDICATIVE EROSION HAZARD IS LOW (BASED ON SECTION 4.4.1 FIGURE 4.6 ON PAGE 4-10)
 USE REVISED UNIVERSAL SOIL LOSS EQUATION (RUSLE) TO CHECK:
 TAKE SOIL ERODIBILITY FACTOR K = 0.038 (FROM APPENDIX C: TABLE 20 FOR BLACKTOWN ON PAGE C-104)
 TAKE SLOPE LENGTH GRADIENT FACTOR LS = 1.19 (FROM APPENDIX A: USING 80m LENGTH IN TABLE A1 ON PAGE A-9)
 TAKE EROSION CONTROL PRACTICE FACTOR P = 1.3 (FROM APPENDIX A: TABLE A2 ON PAGE A-11)
 TAKE GROUND COVER & MANAGEMENT FACTOR C = 1.0 (FROM APPENDIX A: FIGURE A5 ON PAGE A-12)
 SOIL LOSS = 2300 x 0.038 x 1.19 x 1.3 x 1.0 = 135t/ha/yr
 SOIL LOSS CLASS = 1 (BETWEEN 0 & 150t/ha/yr) (BASED ON SECTION 4.4.2 TABLE 4.2 ON PAGE 4-13)
 EROSION HAZARD IS THEREFORE VERY LOW & THERE ARE NO SEASONAL RESTRICTIONS ON SITE ACTIVITY FOR A SOIL DENSITY OF 1.00Mg/m³ AVERAGE ANNUAL SOIL LOSS = 135m³/yr
 SINCE THIS IS LESS THAN 150m³/yr, A SEDIMENT BASIN IS NOT CONSIDERED NECESSARY (REFER TO SECTION 6.3.2(d) ON PAGE 6-8)
 FOR THE AREA TO BE DISTURBED ON THIS SITE, SEDIMENT FENCES ARE CONSIDERED SATISFACTORY (REFER TO SECTION 2.1 ON PAGE 2-1, SECTION 4.4.1(i) ON PAGE 4-9 & SECTION 4.3.2(i)(ii) ON PAGE 4-4)
 LENGTHS OF SEDIMENT FENCING SHOULD BE ARRANGED TO LIMIT SUBCATCHMENT FLOWS TO 50L/s (REFER TO SECTION 6.3.7(e) ON PAGE 6-34 & SECTION 2.3.1(e) ON PAGE 2-4)
 FOR 10yr 5min INTENSITY = 142.78mm/h & 10yr 1hr INTENSITY = 43.43mm/h A FULLY PERVIOUS AREA OF UP TO 3600m² CAN BE ACCOMMODATED BY ONE LENGTH OF SEDIMENT FENCING (REFER TO FIGURE 6-10 ON PAGE 6-34)

IMPERVIOUS SITE AREA SUMMARY

CATCHMENT DRAINED	= 11022m ²	(INCLUDING UPSTREAM EMBANKMENT) BEING LESS THAN 5 HECTARES
PREDEVELOPED IMPERVIOUS AREA	= 3508m ²	= 32% OF CATCHMENT
POSTDEVELOPED IMPERVIOUS AREA	= 0m ²	= 0% OF CATCHMENT

NOMINAL FLOW CHANNEL CAPACITIES NOTED BELOW ARE CALCULATED TO ADEQUATELY CONVEY ESTIMATED 100 YEAR FLOW RATES FROM THE VARIOUS SUBCATCHMENTS OF THE SITE

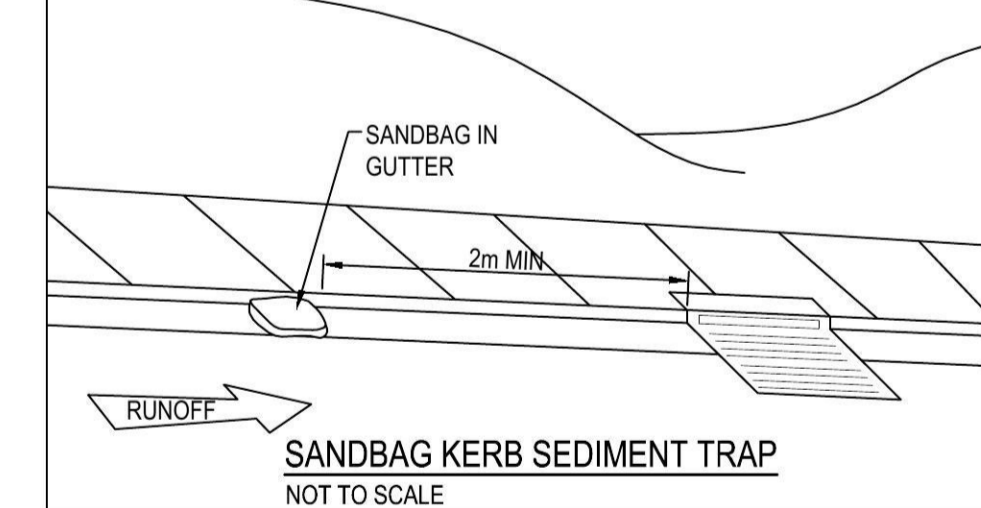
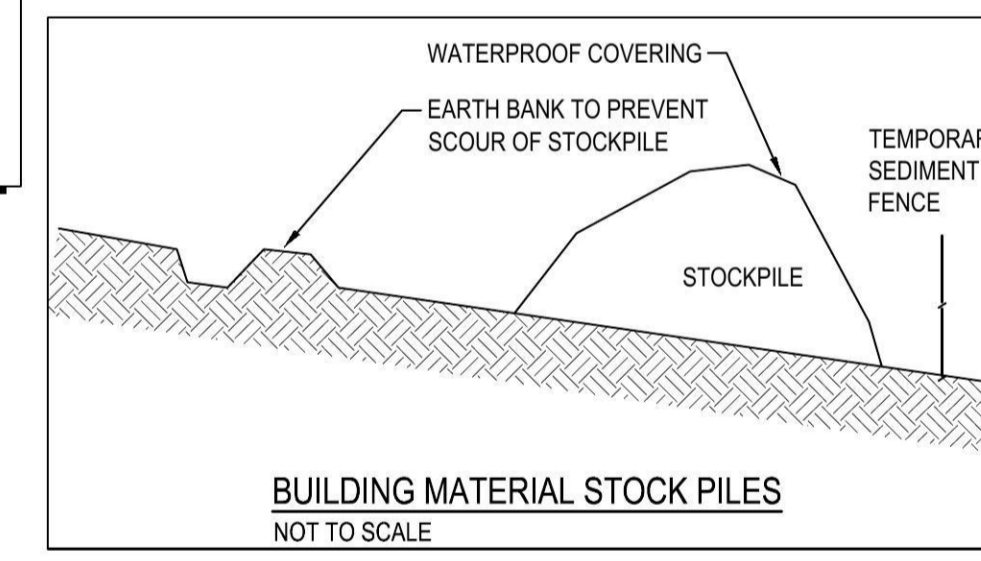
RATIONAL METHOD FLOW CALCULATION

10yr 1 hr Rainfall Intensity	= 43.43 mm/h
Design ARI	= 100 yr
Catchment Area	= 590 m ²
Impervious Area	= 0 m ²
Design Rainfall Intensity	= 218.77 mm/h
Impervious Proportion	= 0.00 %
C10	= 0.346
ARI Multiplier Factor Fy	= 1.200
Runoff Coefficient	= 0.415
(Runoff coefficient calculated as per Fig 14.13 in Australian Rainfall & Runoff 1987 ed.)	
Calculated Runoff	= 15 L/s

RECTANGULAR OPEN CHANNEL BY MANNING EQUATION

Flow Width	= 5.000 m
Flow Depth	= 0.020 m
Channel Slope	= 1.00 %
Manning Roughness n	= 0.05
Flow Area	= 0.100 m ²
Wetted Perimeter	= 5.040 m
Hydraulic Radius	= 0.020
Velocity	= 0.147 m/s
Depth x Velocity	= 0.003 m ² /s (< 0.4 limit) OK
Flow	= 0.015 m ³ /s = 15 L/s

NOTE: ALL SHEET FLOW DEPTHS ARE ANTICIPATED TO BE LESS THAN 50mm (OR 0.050m) FOR UNSTRUCTURED SURFACE RUNOFF. GENERALLY MAINTAINED IN THE NATURAL DIRECTION OF FALL. EXISTING IMPERVIOUS STRUCTURES & PAVED AREAS ARE INTENDED TO BE DEMOLISHED, REMOVED AND REPLACED WITH PERVIOUS FILL MATERIAL OR NATURAL SOIL, REDUCING THE CURRENT MAGNITUDE OF STORMWATER RUNOFF FROM THE SITE



RATIONAL METHOD FLOW CALCULATION

10yr 1 hr Rainfall Intensity	= 43.43 mm/h
Design ARI	= 100 yr
Catchment Area	= 1210 m ²
Impervious Area	= 0 m ²
Design Rainfall Intensity	= 218.77 mm/h
Impervious Proportion	= 0.00 %
C10	= 0.346
ARI Multiplier Factor Fy	= 1.200
Runoff Coefficient	= 0.415
(Runoff coefficient calculated as per Fig 14.13 in Australian Rainfall & Runoff 1987 ed.)	
Calculated Runoff	= 31 L/s

RECTANGULAR OPEN CHANNEL BY MANNING EQUATION

Flow Width	= 9.000 m
Flow Depth	= 0.030 m
Channel Slope	= 1.00 %
Manning Roughness n	= 0.05
Flow Area	= 0.270 m ²
Wetted Perimeter	= 9.060 m
Hydraulic Radius	= 0.030
Velocity	= 0.192 m/s
Depth x Velocity	= 0.006 m ² /s (< 0.4 limit) OK
Flow	= 0.052 m ³ /s = 52 L/s

RATIONAL METHOD FLOW CALCULATION

10yr 1 hr Rainfall Intensity	= 43.43 mm/h
Design ARI	= 100 yr
Catchment Area	= 5640 m ²
Impervious Area	= 0 m ²
Design Rainfall Intensity	= 218.77 mm/h
Impervious Proportion	= 0.00 %
C10	= 0.346
ARI Multiplier Factor Fy	= 1.200
Runoff Coefficient	= 0.415
(Runoff coefficient calculated as per Fig 14.13 in Australian Rainfall & Runoff 1987 ed.)	
Calculated Runoff	= 142 L/s

RECTANGULAR OPEN CHANNEL BY MANNING EQUATION

Flow Width	= 72.000 m
Flow Depth	= 0.020 m
Channel Slope	= 1.00 %
Manning Roughness n	= 0.05
Flow Area	= 1.440 m ²
Wetted Perimeter	= 72.040 m
Hydraulic Radius	= 0.020
Velocity	= 0.147 m/s
Depth x Velocity	= 0.003 m ² /s (< 0.4 limit) OK
Flow	= 0.212 m ³ /s = 212 L/s

RATIONAL METHOD FLOW CALCULATION

10yr 1 hr Rainfall Intensity	= 43.43 mm/h
Design ARI	= 100 yr
Catchment Area	= 2150 m ²
Impervious Area	= 0 m ²
Design Rainfall Intensity	= 218.77 mm/h
Impervious Proportion	= 0.00 %
C10	= 0.346
ARI Multiplier Factor Fy	= 1.200
Runoff Coefficient	= 0.415
(Runoff coefficient calculated as per Fig 14.13 in Australian Rainfall & Runoff 1987 ed.)	
Calculated Runoff	= 54 L/s

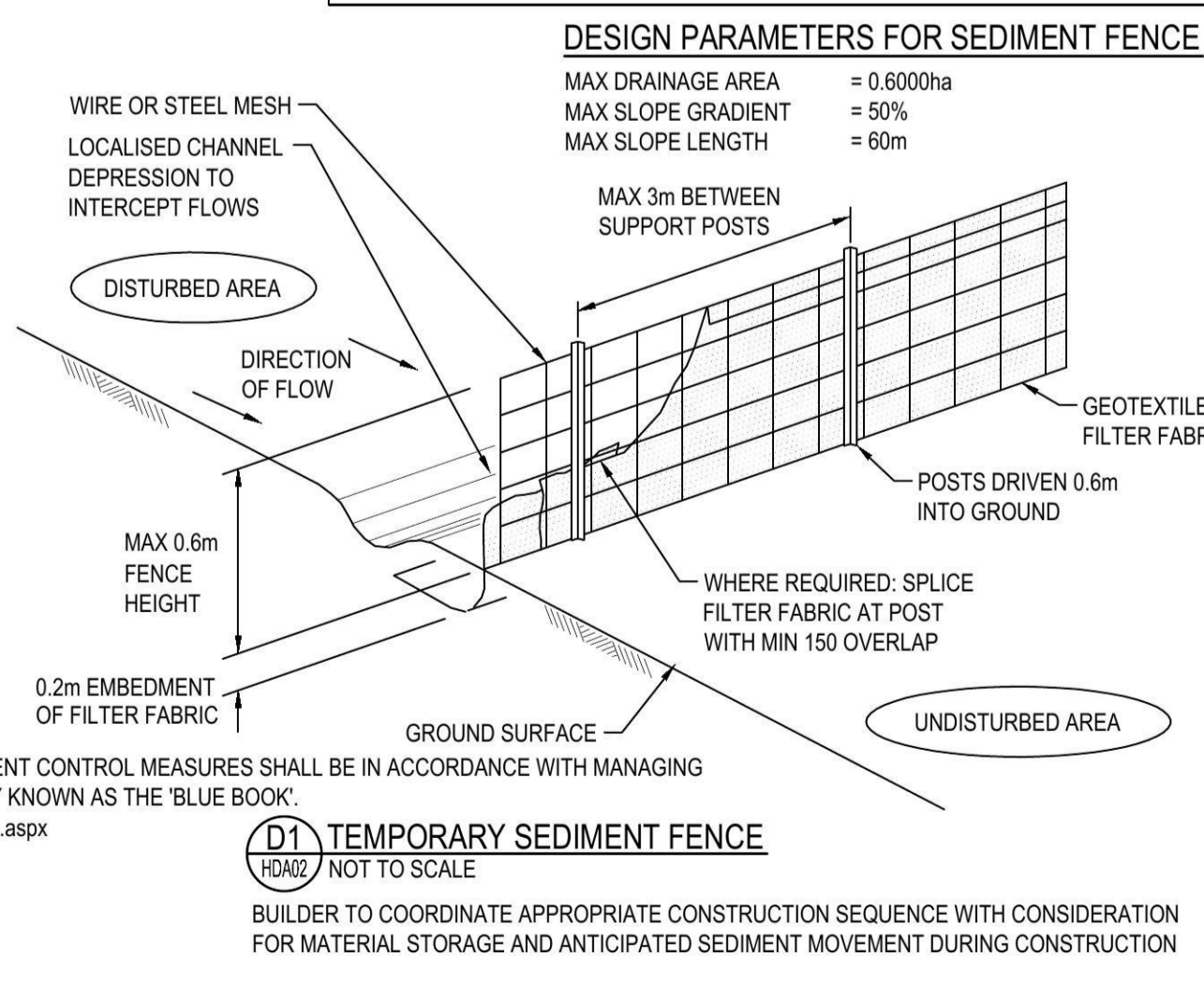
RECTANGULAR OPEN CHANNEL BY MANNING EQUATION

Flow Width	= 115.000 m
Flow Depth	= 0.010 m
Channel Slope	= 1.00 %
Manning Roughness n	= 0.05
Flow Area	= 1.150 m ²
Wetted Perimeter	= 115.020 m
Hydraulic Radius	= 0.010
Velocity	= 0.093 m/s
Depth x Velocity	= 0.001 m ² /s (< 0.4 limit) OK
Flow	= 0.107 m ³ /s = 107 L/s

SOIL & WATER MANAGEMENT NOTES

- REFER TO DETAIL FOR CONSTRUCTION OF TEMPORARY SEDIMENT FENCE.
- ALL PITS & PIPEWORK ASSOCIATED WITH PROPOSED DRAINAGE SYSTEMS SHALL BE KEPT FREE OF SOIL, WATER & DEBRIS FOR THE DURATION OF THE CONSTRUCTION WORKS.
- ALL LOOSE IMPORTED FILL & EXCAVATED MATERIAL SHALL BE STOCKPILED AS FAR AS POSSIBLE FROM SEDIMENT FENCES PRIOR TO FINAL PLACEMENT, COMPACTION OR REMOVAL FROM SITE.
- EXCESSIVE SEDIMENT BUILDUP SHALL BE AVOIDED BY REGULAR MAINTENANCE OF SEDIMENT FENCES.
- WHERE APPLICABLE, APPROVED LANDSCAPING & REVEGETATION OF DISTURBED AREAS SHALL COMMENCE AT THE EARLIEST OPPORTUNITY AFTER COMPLETION OF EARTHWORKS OPERATIONS.

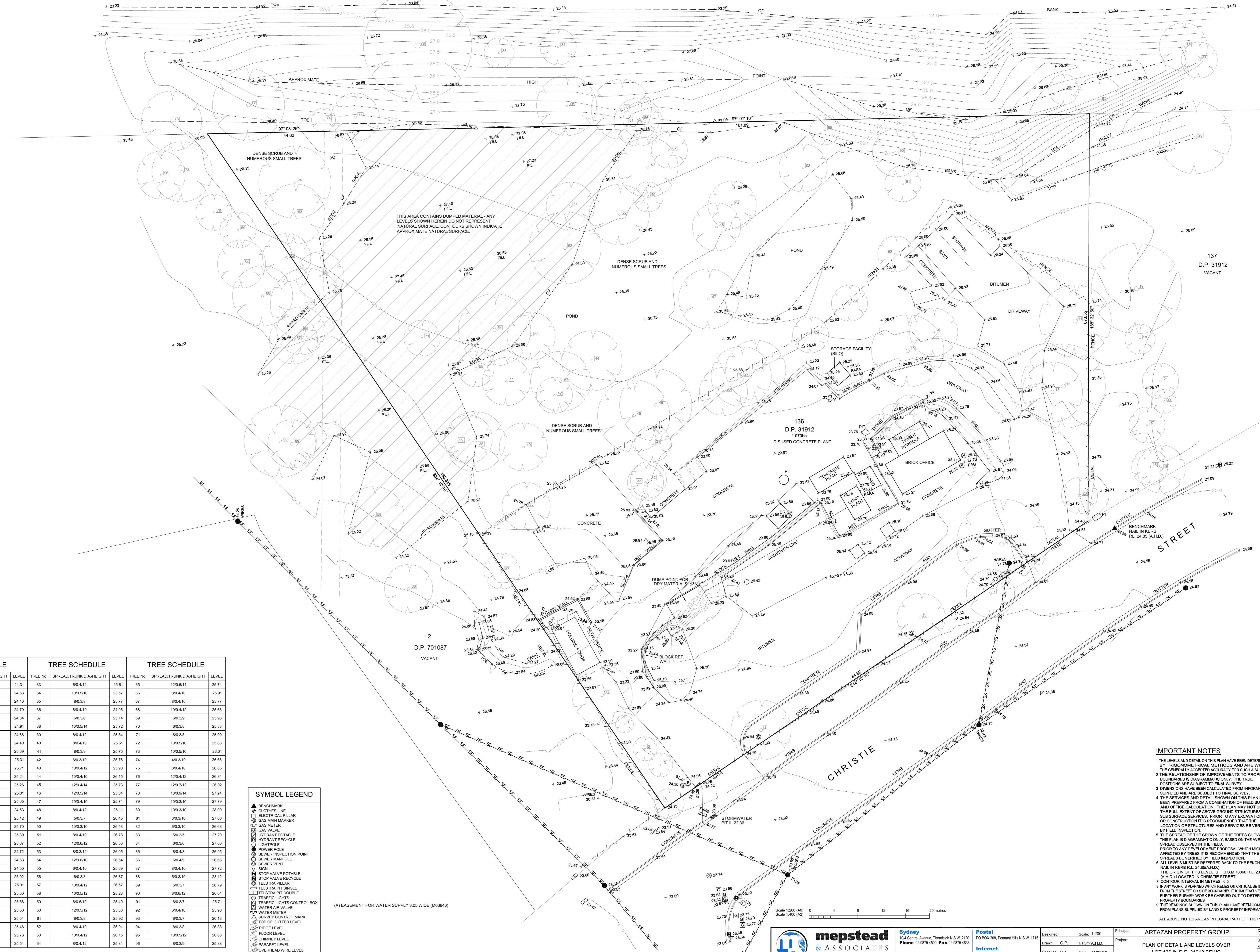
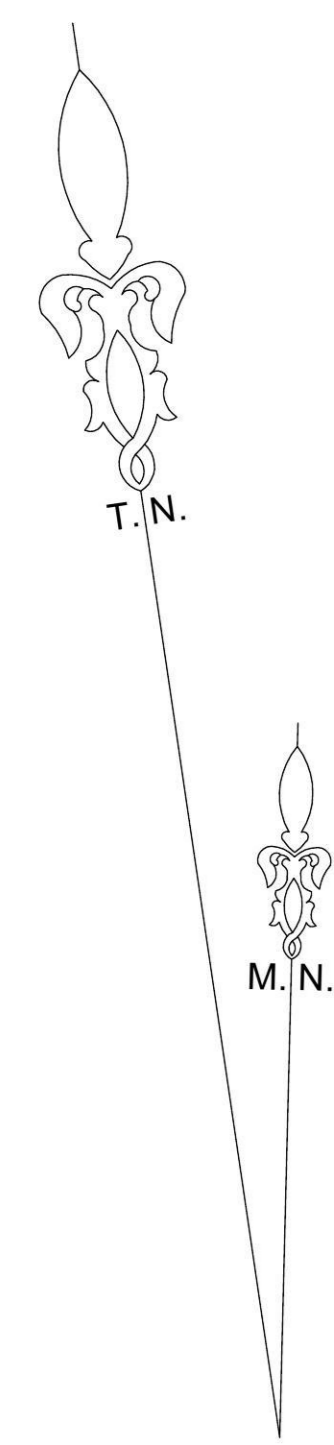
CONSTRUCTION OF SEDIMENT FENCE & ANY OTHER SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH MANAGING URBAN STORMWATER: SOILS & CONSTRUCTION COMMONLY KNOWN AS THE 'BLUE BOOK'. INTERNET REFERENCE: <http://www.landcom.com.au/publications.aspx>



D1 TEMPORARY SEDIMENT FENCE

NOT TO SCALE
 BUILDER TO COORDINATE APPROPRIATE CONSTRUCTION SEQUENCE WITH CONSIDERATION FOR MATERIAL STORAGE AND ANTICIPATED SEDIMENT MOVEMENT DURING CONSTRUCTION



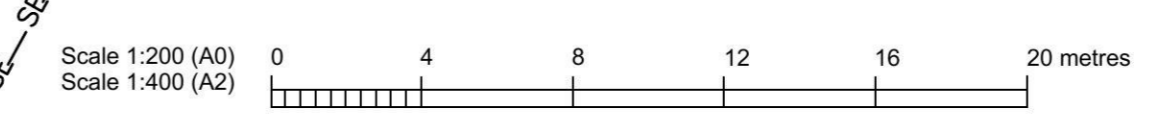


TREE SCHEDULE				TREE SCHEDULE				TREE SCHEDULE			
TREE No.	SPREAD/TRUNK DIA./HEIGHT	LEVEL		TREE No.	SPREAD/TRUNK DIA./HEIGHT	LEVEL		TREE No.	SPREAD/TRUNK DIA./HEIGHT	LEVEL	
1	3.0/2.9	24.31	33	6.0/4.12	25.61	65	12.0/6.14	25.74			
2	4.0/2.8	24.53	34	10.0/5.10	23.57	66	8.0/4.10	25.91			
3	4.0/2.8	24.46	35	8.0/3.9	25.77	67	8.0/4.10	25.77			
4	10.0/5.10	24.79	36	8.0/4.10	24.05	68	10.0/4.12	25.66			
5	8.0/5.12	24.84	37	6.0/3.8	25.14	69	6.0/3.9	25.96			
6	15.0/7.17	24.91	38	10.0/5.14	25.72	70	6.0/3.8	25.88			
7	8.0/4.12	24.68	39	8.0/4.12	25.84	71	6.0/3.8	25.99			
8	5.0/3.7	24.40	40	8.0/4.10	25.61	72	10.0/5.10	25.88			
9	8.0/3.8	25.69	41	8.0/3.9	25.75	73	10.0/5.10	26.01			
10	12.0/6.12	25.31	42	6.0/3.10	25.78	74	4.0/3.10	26.66			
11	12.0/7.18	25.71	43	10.0/4.12	25.90	75	8.0/4.10	26.85			
12	14.0/7.20	25.24	44	10.0/4.10	26.15	76	12.0/4.12	26.34			
13	10.0/6.15	25.26	45	12.0/4.14	25.73	77	12.0/7.12	26.92			
14	6.0/3.58	25.01	46	12.0/5.14	25.84	78	18.0/9.14	27.24			
15	8.0/5.12	25.05	47	10.0/4.10	25.74	79	10.0/3.10	27.79			
16	6.0/3.10	24.53	48	8.0/4.12	26.11	80	10.0/3.10	28.09			
17	6.0/3.10	25.12	49	5.0/3.7	26.45	81	8.0/3.10	27.00			
18	5.0/3.7	25.70	50	10.0/3.10	26.53	82	6.0/3.10	26.68			
19	15.0/7.20	25.69	51	8.0/4.10	26.78	83	5.0/3.5	27.29			
20	12.0/5.12	25.67	52	12.0/6.12	26.50	84	6.0/3.6	27.00			
21	6.0/3.7	24.72	53	6.0/3.12	26.05	85	8.0/4.8	26.95			
22	4.0/3.9	24.63	54	12.0/6.10	26.54	86	6.0/4.9	26.66			
23	6.0/5.10	24.50	55	6.0/4.10	25.69	87	8.0/4.10	27.72			
24	6.0/3.8	25.02	56	6.0/3.8	26.87	88	5.0/3.10	28.12			
25	6.0/3.8	25.01	57	10.0/4.12	26.57	89	5.0/3.7	26.79			
26	8.0/3.10	25.50	58	10.0/5.12	25.28	90	8.0/6.12	26.04			
27	10.0/4.10	25.58	59	8.0/5.10	25.40	91	6.0/3.7	25.71			
28	10.0/3.10	25.50	60	12.0/5.12	25.30	92	6.0/4.10	25.90			
29	6.0/4.10	25.54	61	8.0/3.8	25.92	93	8.0/3.7	26.18			
30	6.0/3.7	25.48	62	8.0/4.10	25.94	94	8.0/3.8	26.38			
31	6.0/3.10	25.73	63	10.0/4.12	26.15	95	10.0/5.12	26.88			
32	6.0/3.7	25.54	64	8.0/4.12	25.84	96	8.0/3.9	25.88			

SYMBOL LEGEND

- ▲ BENCHMARK
- ⊕ CLOTHES LINE
- ⊕ ELECTRICAL PILLAR
- ⊕ GAS MAIN MARKER
- ⊕ GAS METER
- ⊕ GAS VALVE
- ⊕ HYDRANT POTABLE
- ⊕ HYDRANT RECYCLE
- ⊕ LIGHTPOLE
- ⊕ POWER POLE
- ⊕ SEWER INSPECTION POINT
- ⊕ SEWER MANHOLE
- ⊕ SEWER VENT
- ⊕ SIGN
- ⊕ STOP VALVE POTABLE
- ⊕ STOP VALVE RECYCLE
- ⊕ TELSTRA PILLAR
- ⊕ TELSTRA PIT SINGLE
- ⊕ TELSTRA PIT DOUBLE
- ⊕ TRAFFIC LIGHTS
- ⊕ TRAFFIC LIGHTS CONTROL BOX
- ⊕ WATER AIR VALVE
- ⊕ WATER METER
- ⊕ SURVEY CONTROL MARK
- ⊕ TOP OF GUTTER LEVEL
- ⊕ RIDGE LEVEL
- ⊕ FLOOR LEVEL
- ⊕ CHIMNEY LEVEL
- ⊕ PARAPET LEVEL
- ⊕ OVERHEAD WIRE LEVEL
- ⊕ PIPE INVERT 600 DIA.

(A) EASEMENT FOR WATER SUPPLY 3.05 WIDE (M63846)



mepstead & ASSOCIATES
 REGISTERED SURVEYORS AND DEVELOPMENT CONSULTANTS

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 104 Central Avenue, Thornleigh N.S.W. 2120
 Phone 02 9675 4500 Fax 02 9675 4633

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Designer: C.P.	Scale: 1:200	Principal: ARTAZAN PROPERTY GROUP	Dwg. No. 5024/11
Checked: C.A.	Date: 11/07/13	Project: PLAN OF DETAIL AND LEVELS OVER LOT 136 IN D.P. 31912 BEING OVER	Sheet No. 1 of 1 sheets
L.G.A. PENRITH	AD	No. 53-59 CHRISTIE STREET ST MARYS	Our Ref. 5052

IMPORTANT NOTES

- THE LEVELS AND DETAIL ON THIS PLAN HAVE BEEN DETERMINED BY TRIGONOMETRICAL METHODS AND ARE WITHIN THE GENERALLY ACCEPTED ACCURACY FOR SUCH A SURVEY.
- THE RELATIONSHIP OF IMPROVEMENTS TO PROPERTY BOUNDARIES IS DIAGNOSTIC ONLY. THE TRUE POSITIONS ARE SUBJECT TO FINAL SURVEY.
- DIMENSIONS HAVE BEEN CALCULATED FROM INFORMATION SUPPLIED AND ARE SUBJECT TO FINAL SURVEY.
- THE SERVICES AND DETAIL SHOWN ON THIS PLAN HAVE BEEN PREPARED FROM A COMBINATION OF FIELD SURVEY AND OFFICE CALCULATION. THE PLAN MAY NOT SHOW THE FULL EXTENT OF ABOVE GROUND STRUCTURES AND SUB SURFACE SERVICES. PRIOR TO ANY EXCAVATION OR CONSTRUCTION IT IS RECOMMENDED THAT THE LOCATION OF STRUCTURES AND SERVICES BE VERIFIED BY FIELD INSPECTION.
- THE SPREAD OF THE CROWN OF THE TREES SHOWN ON THIS PLAN IS DIAGNOSTIC ONLY, BASED ON THE AVERAGE SPREAD OBSERVED IN THE FIELD. PRIOR TO ANY DEVELOPMENT PROPOSAL WHICH MIGHT BE AFFECTED BY TREES IT IS RECOMMENDED THAT THE TREE SPREADS BE VERIFIED BY FIELD INSPECTION.
- ALL LEVELS MUST BE REFERRED BACK TO THE BENCHMARK NAIL IN KERB R.L. 24.85(A.H.D.).
- THE ORIGIN OF THIS LEVEL IS S.S.M.78866 R.L. 23.507 (A.H.D.) LOCATED IN CHRISTIE STREET.
- CONTOUR INTERVAL IN METRES: 0.5
- IF ANY WORK IS PLANNED WHICH RELIES ON CRITICAL SETBACKS FROM THE STREET OR SIDE BOUNDARIES IT IS IMPERATIVE THAT FURTHER SURVEY WORK BE CARRIED OUT TO DETERMINE PROPERTY BOUNDARIES.
- THE BENCHMARKS SHOWN ON THIS PLAN HAVE BEEN COMPILED FROM PLANS SUPPLIED BY LAND & PROPERTY INFORMATION.

ALL ABOVE NOTES ARE AN INTEGRAL PART OF THIS PLAN