

PROJECT:	BUNNINGS WAREHOUSE, PENRITH		
RAINFALL DATA:	RICHMOND RAAF FROM 1984 TO 1993		
DESIGNER	WW		
DATE:	11-Mar-15		

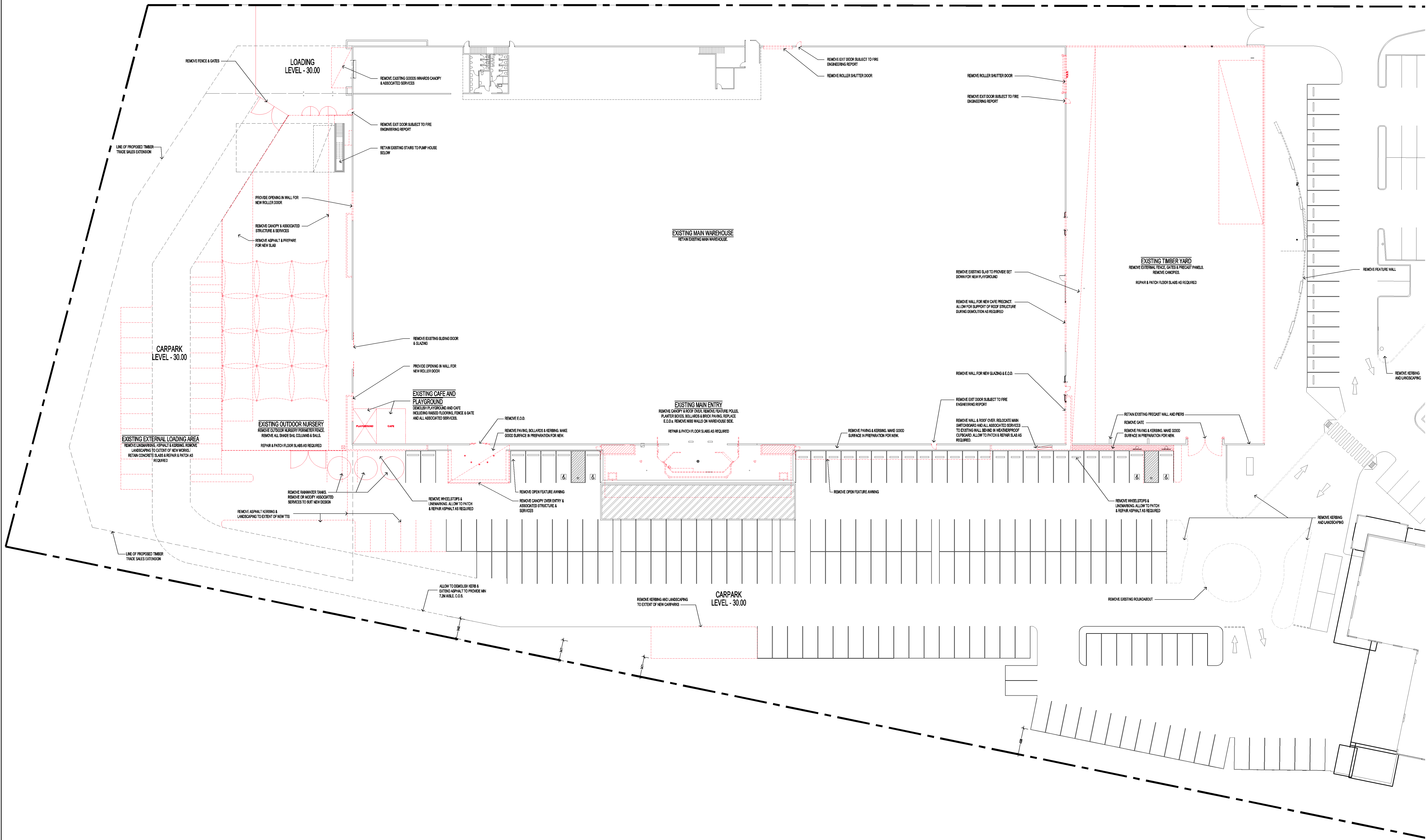
ROOF AREA (Ha)	0.18
NON-ROOF AREA (Ha)	0
FRACTION IMPERVIOUS	0
PERVIOUS LOSS COEFF	0
Max Tank/pond Capacity (m3)	100
Average Surface Area (m2)	0
Pond base area (m2)	0
Average Infiltration rate (mm/hr)	0
Porosity of soil (%)	0%

Usage:	
Total Number of occupants	30
Toilet Flushing (l/d/person)	30
Laundry (l/d/person)	0
Other usage (l/d/person)	0
Total Domestic Usage (m3/d)	0.90
Irrigation Area (m2)	940
Max Irrigation Rate (mm/day)	1.5
No irrigation if rainfall > (mm)	1
Max Irrigation Usage (m3/d)	1.41
Daily Infiltration (m3)	0.00
% Irrigation water re-collected	0

SUMMARY RESULTS	
Average Annual Rainfall (mm)	880
Total No. Days:	3653
Total # days with empty tank	307
Percentage:	8.4%
Total # days with overflow/full tank	368
Percentage:	10.1%
Total Annual Runoff Collected (KL)	1584
Average Annual Rainwater Usage (KL)	655
% Reuse	41.3%
Total Average Annual Water Demand (KL)	728
Average Annual Portable Water Required (KL)	74
Portable Water Usage (%)	10.2%



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Michael Carr Architect Pty. Ltd.
AC008 01 216

88 Tope Street, South Melbourne 3205
PH 03 9546 3025 Fax 03 9506 4304
Email adam@mcarchitect.com.au



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DATE FEBRUARY 2015

FILE

DESIGNED

DRAWN CG

CHECKED

PROJECT No.

13054

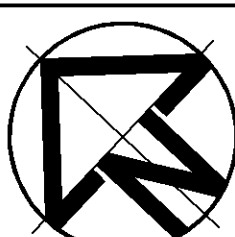
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THIS DRAWING HAS BEEN REVIEWED & VERIFIED BY

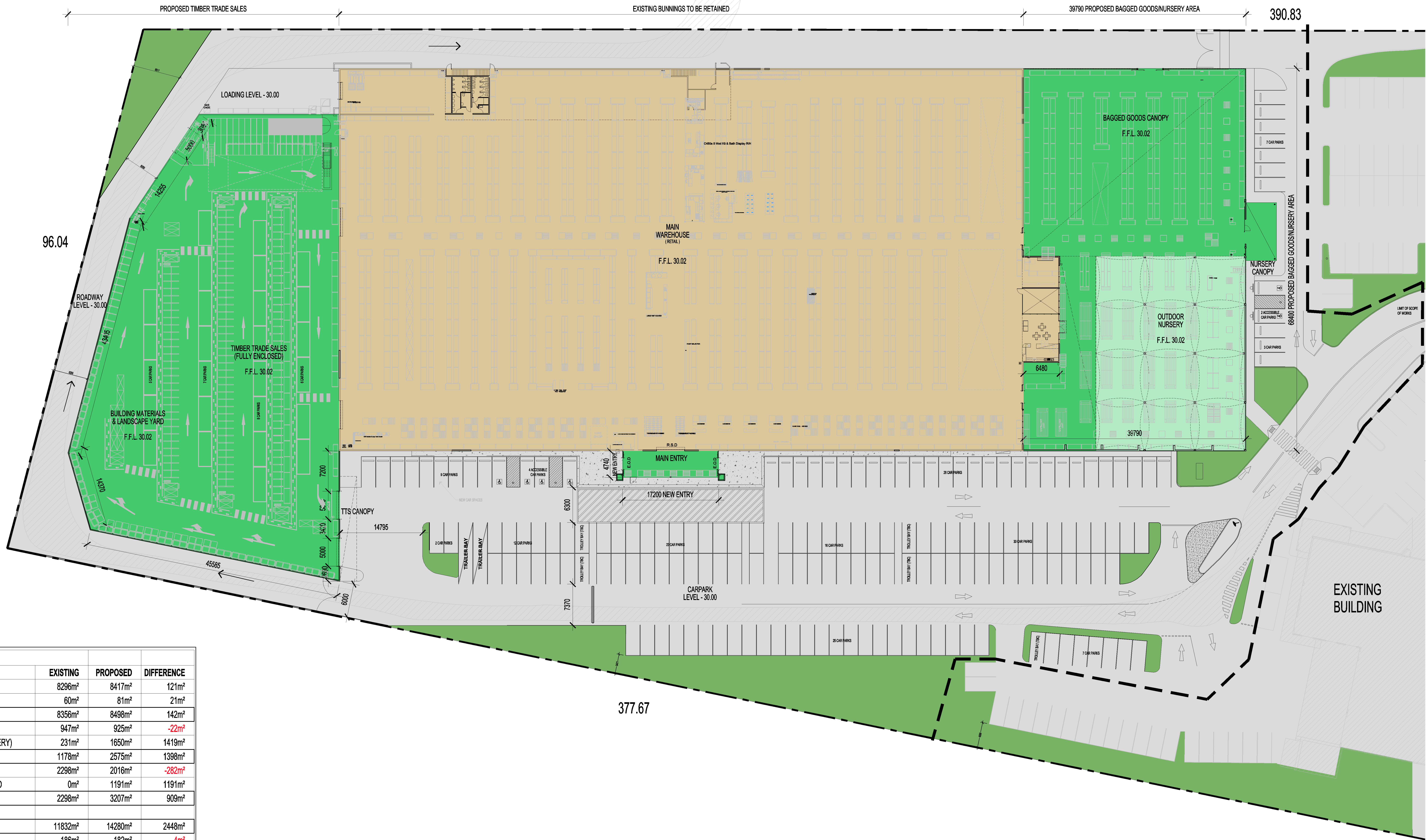
DRAWING No.

TP-02

REVISION

P3





AREA ANALYSIS			
	EXISTING	PROPOSED	DIFFERENCE
MAIN WAREHOUSE	8296m ²	8417m ²	121m ²
MAIN ENTRY	60m ²	81m ²	21m ²
WAREHOUSE AREA	8356m ²	8498m ²	142m ²
OUTDOOR NURSERY	947m ²	925m ²	-22m ²
OUTDOOR BAGGED GOODS CANOPY (NURSERY)	231m ²	1650m ²	1419m ²
TOTAL NURSERY AREA	1178m ²	2575m ²	1398m ²
TIMBER TRADE SALES	2298m ²	2016m ²	-282m ²
BUILDING MATERIALS AND LANDSCAPE YARD	0m ²	1191m ²	1191m ²
TOTAL TIMBER TRADE AREA	2298m ²	3207m ²	909m ²
TOTAL RETAIL AREA	11832m ²	14280m ²	2448m ²
GOODS INWARDS CANOPY	188m ²	182m ²	-4m ²
MEZZANINE OFFICES	450m ²	450m ²	0m ²
TOTAL AREA	12468m ²	14912m ²	2444m ²
STANDARD CARPARKS (WITHIN SCOPE OF WORKS)	189	187	-2
DISABLED BAYS, 1:50 MIN	4	6	2
TRAILER BAYS	0	2	2
TOTAL SITE CARPARKS	193	195	2
TROLLEY BAYS	3	5	2

PROPOSED SITE PLAN
SCALE 1:250

15/04/15	PD	PRELIMINARY ISSUE	AZ
15/04/15	PD	PRELIMINARY ISSUE	AZ
17/04/15	PD	PRELIMINARY ISSUE	MC
02/04/15	PD	PRELIMINARY ISSUE	MC
31/03/15	PD	PRELIMINARY ISSUE	TY
30/03/15	PD	PRELIMINARY ISSUE	MC
11/03/15	PD	PRELIMINARY ISSUE	CG
02/03/15	PD	PRELIMINARY ISSUE	CG
26/02/15	PD	PRELIMINARY ISSUE	CG
23/02/15	PD	PRELIMINARY ISSUE	CG
DATE	REV	AMENDMENT	BY

PLANNING ISSUE

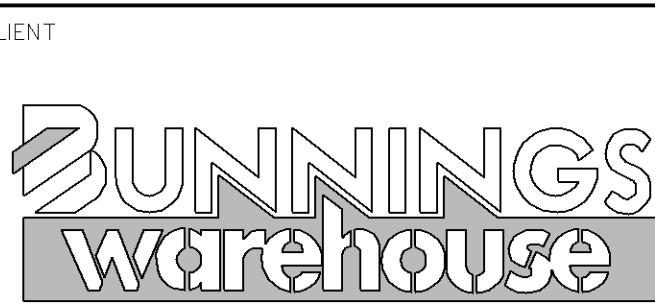
CONTRACTOR TO CHECK ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK OR PREPARING ANY SHOP DRAWINGS

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ARCHITECT

Michael Carr Architect Pty Ltd
ACN 008 01 216

88 Tope Street, South Melbourne 3205
PH 03 9541 3025 FAX 03 9555 4304
Email: acm@mcararchitect.com.au



CLIENT

FOR TOWN PLANNING PURPOSES ONLY

PROJECT

BUNNINGS WAREHOUSE PENRITH
301-335 MULGOA ROAD
JAMISONTOWN NSW 2750

DRAWING TITLE

PROPOSED SITE PLAN

SCALE

AS SHOWN @ A3

DATE

FEBRUARY 2015

FILE

DESIGNED

DRAWN

CG

CHECKED

PROJECT No.

13054

VERIFICATION

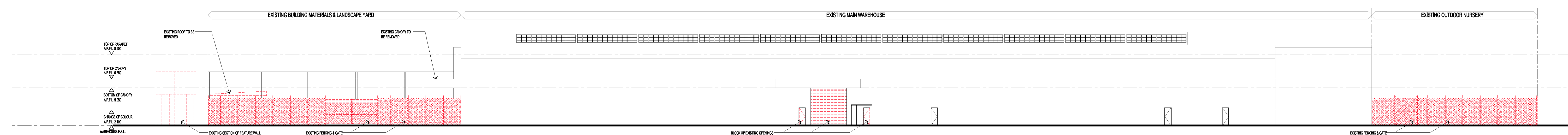
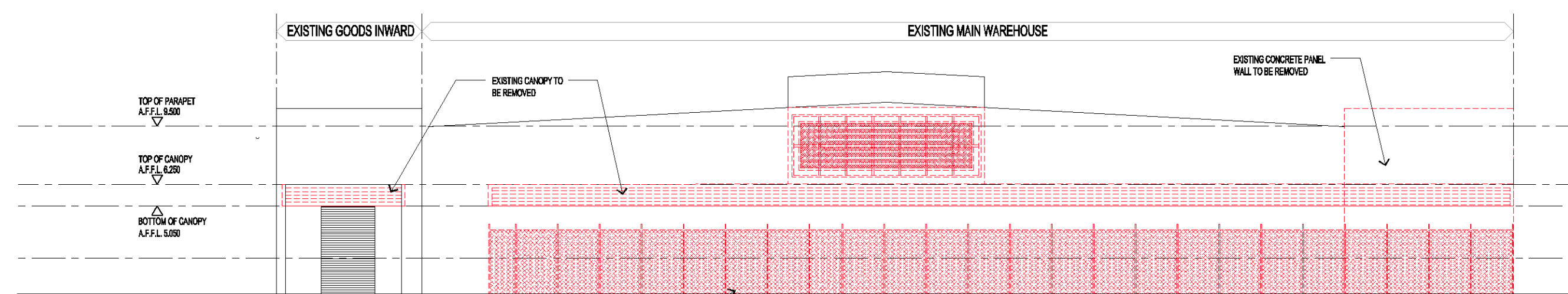
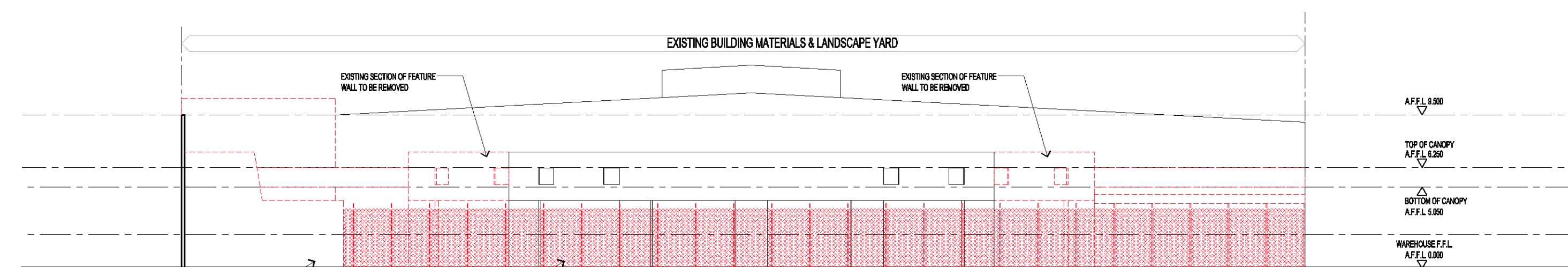
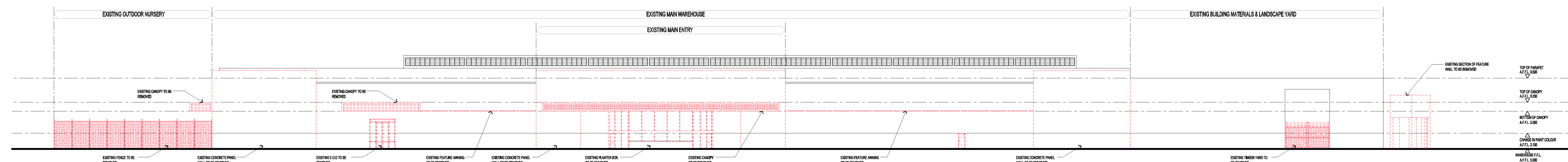
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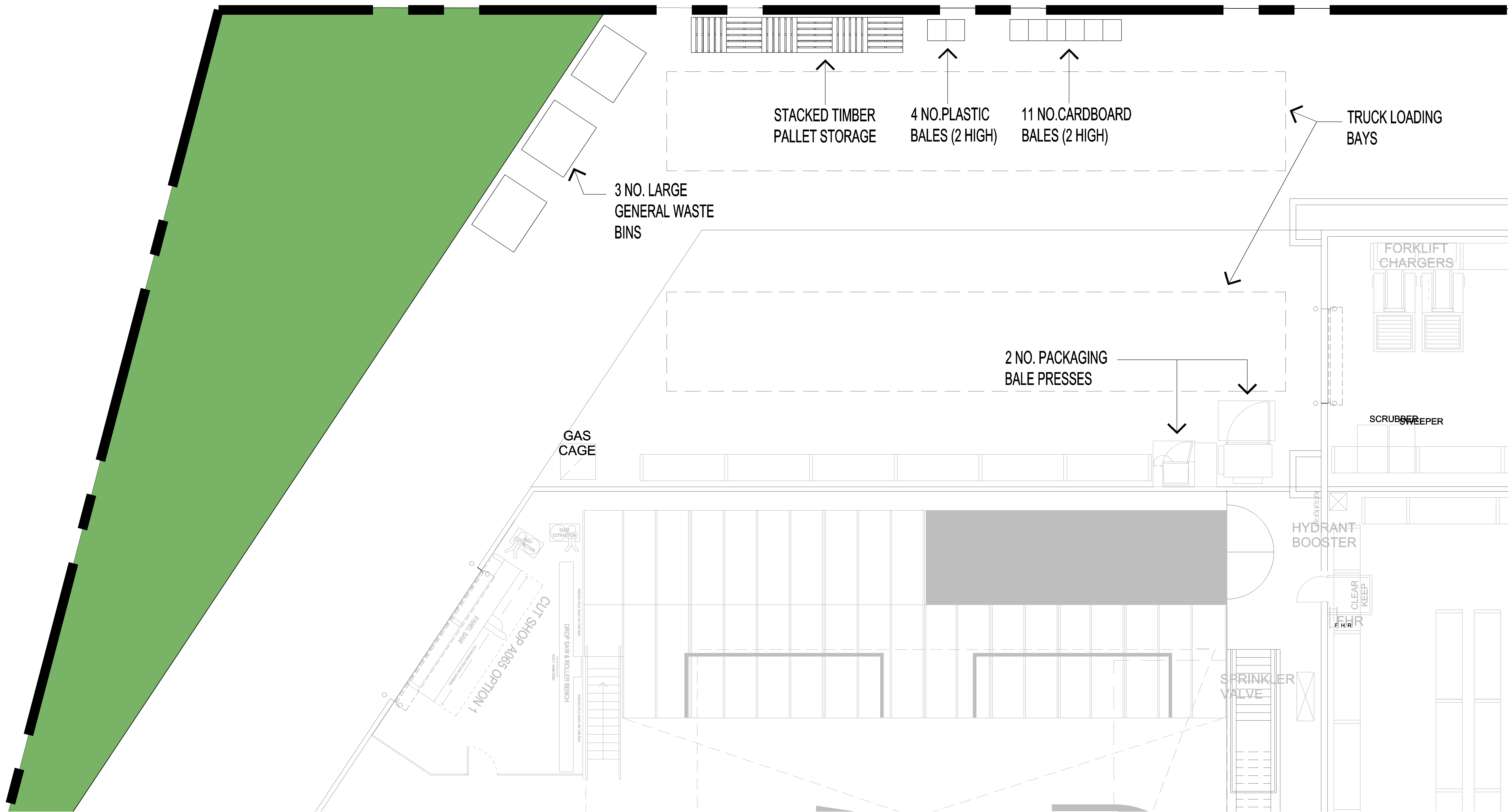
TP-03



P10



Document Set ID: 6570085
Version: 1, Version Date: 29/04/2015



WASTE MANAGEMENT PLAN
SCALE 1:50

DATE	REV	AMENDMENT	BY	DATE	REV	AMENDMENT	BY
20/04/2015	1	PRELIMINARY ISSUE					

PLANNING ISSUE

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ARCHITECT
Michael Carr Architect Pty Ltd
A010610126

88 Tope Street, South Melbourne 3205
Ph (03) 9841 3025 Fax (03) 9805 4204
Email adam@mcarchitect.com.au

CLIENT
BUNNINGS
warehouse

FOR TOWN PLANNING PURPOSES ONLY

PROJECT	DRAWING TITLE
BUNNINGS WAREHOUSE PENRITH 301-335 MULGOA ROAD JAMISONTOWN NSW 2750	WASTE MANAGEMENT PLAN

SCALE	AS SHOWN @ A0
DATE	FEBRUARY 2015
FILE	
DESIGNED	
DRAWN	CG
CHECKED	

PROJECT No.	13054
VERIFICATION	THIS DRAWING HAS BEEN REVIEWED & VERIFIED BY
DRAWING No.	TP-06

REVISION	P1
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BUNNINGS WAREHOUSE PENRITH

301-335 MULGOA ROAD, JAMISONTOWN

CIVIL ENGINEERING WORKS FOR DEVELOPMENT APPLICATION



LOCALITY

NOT FOR CONSTRUCTION

DRAWING LIST	
SHEET No.	SHEET TITLE
01155__100	COVER SHEET & DRAWING LIST
01361__110	SITE LAYOUT PLAN
01361__201	GENERAL ARRANGEMENT PLAN
01361__202	GENERAL ARRANGEMENT PLAN
01361__351	TYPICAL SECTIONS
01361__701	SEDIMENT & EROSION CONTROL PLAN AND DETAILS

GENERAL NOTES:

- ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PENRITH CITY COUNCIL'S TECHNICAL SPECIFICATION.
- THE CONSTRUCTOR SHALL PREPARE A DILAPIDATION REPORT FOR THE EXISTING INFRASTRUCTURE WITHIN THE ROAD RESERVE, INCLUDING BUT NOT LIMITED TO KERBS, GUTTERS, FOOTPATHS, VEHICULAR CROSSINGS, STREET SIGNS, SERVICE FITTING COVERS, ETC.
- THE CONSTRUCTOR SHALL REVIEW, BE AWARE AND AT ALL TIMES COMPLY WITH THE SPECIFIC REQUIREMENTS FOR THIS DEVELOPMENT AS SET OUT IN THE DEVELOPMENT APPROVAL FOR THE PROJECT.
- ANY CHANGES MADE BY THE CONSTRUCTOR TO ANY LEVEL, DIMENSION, LOCATION, POSITION, ALIGNMENT ETC., OF ANY OF THE WORKS SHOWN ON THE DRAWINGS WITHOUT THE WRITTEN CONSENT OF C&M CONSULTING ENGINEERS PTY. LTD. AND OR THE PRINCIPAL CERTIFYING AUTHORITY IS DONE SO AT THE CONSTRUCTORS OWN RISK.
- THE CONSTRUCTOR SHALL ALLOW TO LIAISE WITH AND PROVIDE SUFFICIENT NOTICE TO THE PRINCIPAL CERTIFYING AUTHORITY TO ENSURE THAT ALL WORKS ARE INSPECTED TO ENABLE COMPLIANCE CERTIFICATES TO BE ISSUED THROUGHOUT THE CONSTRUCTION PERIOD. THE CONSTRUCTOR SHALL LIAISE WITH THE PRINCIPAL CERTIFYING AUTHORITY PRIOR TO ANY CONSTRUCTION WORKS COMMENCING AND PREPARE AN INSPECTION AND TEST PLAN WITH A MUTUALLY AGREED WITNESS AND HOLD POINTS FOR THE CONSTRUCTION WORKS.
- IF THE PRINCIPAL CERTIFYING AUTHORITY IS NOT PENRITH CITY COUNCIL'S COUNCIL, THEN THE CONSTRUCTOR MUST CONTACT PENRITH CITY COUNCIL'S COUNCIL'S WORKS DIVISION TO ENABLE THEIR INSPECTION OF ALL WORKS (INCLUDING EROSION AND SEDIMENT CONTROL MEASURES) WITHIN THE ROAD RESERVE AREA.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL ACCESS TO THE SITE. THE ACCESS SHALL BE ALL WEATHER SAFE ACCESS TO THE CONTRACTOR'S SITE FACILITIES AT ALL TIMES FOR THE DURATION OF THE CONTRACT.
- A TEMPORARY HOARDING OR FENCE OF MINIMUM 1.5m HIGH IS TO BE PROVIDED AROUND THE SITE TO PROTECT THE PUBLIC PRIOR TO COMMENCEMENT OF WORKS. HOARDINGS OR FENCES ARE TO BE STRUCTURALLY ADEQUATE. THE CONTRACTOR SHALL OBTAIN AN APPROVAL FROM COUNCIL PRIOR TO ERECTING THE HOARDING OR FENCE.
- ALL NEW WORKS SHALL MAKE A SMOOTH CONNECTION WITH ANY FORMATIONS, STRUCTURES, ETC.
- ALL ALTERATIONS AND/OR ADDITIONS TO EXISTING WORK, THE CONTRACTOR SHALL VERIFY THE DIMENSIONS OF THE EXISTING WORK BEFORE PROCEEDING AND NOTIFY THE SUPERINTENDENT OF DISCREPANCIES.
- THE CONTRACTOR SHALL USE MANUFACTURED ITEMS IN THE WORK ONLY IN ACCORDANCE WITH THE CURRENT PUBLISHED
- THE WORKS SHALL BE CONSTRUCTED IN SUCH A MANNER THAT THERE IS MINIMUM DISTURBANCE TO EXISTING TREES AND VEGETATION.
- THE PUBLIC FOOTWAY AND ROADWAY FRONTING THE SITE SHALL BE MAINTAINED IN A SAFE AND UNOBSTRUCTED MANNER AT ALL TIMES DURING THE CONSTRUCTION WORKS.
- THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR REPAIRING TO THE SATISFACTION OF THE ASSET OWNER, ANY DAMAGE CAUSED TO ANY EXISTING INFRASTRUCTURE WITHIN THE ROAD RESERVE, INCLUDING BUT NOT LIMITED TO KERBS, GUTTERS, FOOTPATHS, VEHICULAR CROSSINGS, STREET SIGNS, SERVICE FITTING COVERS, ETC.
- THE SITE SHALL BE KEPT IN A TIDY CONDITION AT ALL TIMES. LITTER RUBBISH AND BUILDING RUBBLE SHALL BE PLACED IN CONTAINERS OR BINS AND REGULARLY REMOVED FROM SITE AS REQUIRED.

STORMWATER NOTES:

- STORMWATER DESIGN CRITERIA:
MINOR STORM ARI: 50 YEARS
MAJOR STORM ARI: 100 YEARS
- PIPES DN375 AND LARGER TO BE STEEL REINFORCED CONCRETE PIPES CLASS '2' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS U.N.O.
- PIPES DN300 AND SMALLER SHALL BE GRADE SH (SEWER GRADE) uPVC WITH RUBBER RING JOINTS.
- EQUIVALENT STRENGTH FIBRE REINFORCED CONCRETE PIPES MAY BE USED UP TO DN450.
- PIPES FOR SUB-SOIL DRAINS SHALL BE SLOTTED 100MM DIAMETER CLASS 1000 WRAPPED IN GEOFABRIC, U.O.N, COMPLYING WITH THE REQUIREMENTS OF AS 2439.
- PRECAST PITS, WHERE ALLOWED, AND THE INSITU BASE SHALL COMPLY WITH THE REQUIREMENT OF THE MANUFACTURER.
- ALL MILD STEEL FIXTURES INCLUDING GRATES, FRAMES, STEP IRONS, LADDERS, ETC., SHALL BE HOT DIP GALVANISED. GALVANISING SHALL COMPLY WITH THE REQUIREMENTS OF AS 1214 OR AS 1650, AS APPROPRIATE.
- GEOFABRIC FILTER SHALL BE PERMEABLE, NON-WOVEN FABRIC MANUFACTURED FROM A POLYMER SUCH AS POLYPROPYLENE OR POLYESTER OF MASS NOT LESS THAN 135G/M2.
- THE MINIMUM TRENCH WIDTHS SHALL BE AS FOLLOWS:
CONCRETE AND FRC PIPES: EXTERNAL PIPE DIAMETER PLUS 400MM.
uPVC PIPE: EXTERNAL DIAMETER OF PIPE PLUS 200MM.
SUBSOIL PIPE: 250MM.
- ALL PIPES SHALL BE PLACED CENTRALLY WITHIN THE TRENCH WITH EQUAL CLEARANCE EACH SIDE.
- PIPE BEDDING MATERIAL SHALL BE CLEAN COARSE RIVER SAND WITH DEPTH AS FOLLOWS:
CONCRETE AND FRC PIPES: 100MM (175MM IN ROCK)
UPVC PIPE: 75MM (100MM IN ROCK)
SUBSOIL DRAINS: 50MM
- ALL PIPES SHALL BE BACKFILLED WITH GRANULAR MATERIAL SUCH AS QUARRY FINES OR COARSE RIVER SAND TO A MINIMUM OF 150MM ABOVE THE PIPE. THE GRANULAR MATERIAL SHALL BE PLACED IN 150MM THICK MAXIMUM LAYERS AND COMPACTED TO ACHIEVE A DENSITY INDEX (ID) OF 70%. FREQUENCIES OF COMPACTION TESTS FOR TRENCHES SHALL BE 1 TEST PER 2 LAYERS PER 40 LINEAR METRE.
- BACKFILL THE REMAINDER OF THE TRENCH ABOVE THE SAND TO SUBGRADE LEVEL WITH TRENCH MATERIAL. PLACE AND COMPACT MATERIALS IN LAYERS NOT EXCEEDING 150MM LOOSE THICKNESS. MATERIAL LOWER THAN 500MM BELOW SUBGRADE LEVEL SHALL BE COMPACTED TO AT LEAST 95% OF STANDARD MAXIMUM DRY DENSITY. THE TOP 500MM BELOW PAVEMENT SUBGRADE LEVELS SHALL BE COMPACTED TO AT LEAST 100% STANDARD MAXIMUM DRY DENSITY.
- FILTER MATERIAL FOR SUBSOIL SHALL BE COARSE SAND OR CRUSHED STONE COMPLYING WITH ONE OF THE GRADINGS IN THE TABLE BELOW. WHERE NOTED ON THE DRAWINGS THE 7MM CRUSHED ROCK FILTER MATERIAL SHALL BE ENCLOSED WITHIN FILTER FABRIC SHEET AS SPECIFIED. FILTER MATERIAL SHALL BE PLACED IN 250MM LAYERS AND COMPACTED TO DENSITY INDEX (ID) OF 60%.

AS SIEVE		
SIZE (mm)	SAND	7mm ROCK
9.5	100	100
6.7	-	75-100
4.75	90-100	20-55
2.36	75-100	0-15
1.18	50-90	
0.6	20-60	
0.3	10-30	
0.15	2-10	
0.075	0-3	0-2
- UNLESS OTHERWISE DETAILED OR PERMITTED, THE MINIMUM GRADE OF ALL PIPE WORKS SHALL BE 1.0%, AND HAVE MINIMUM 300mm COVER.

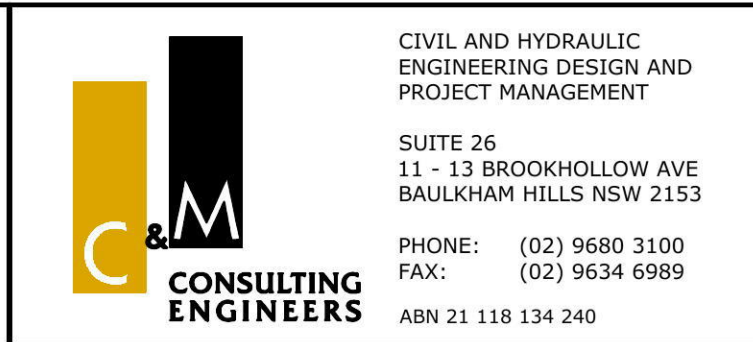
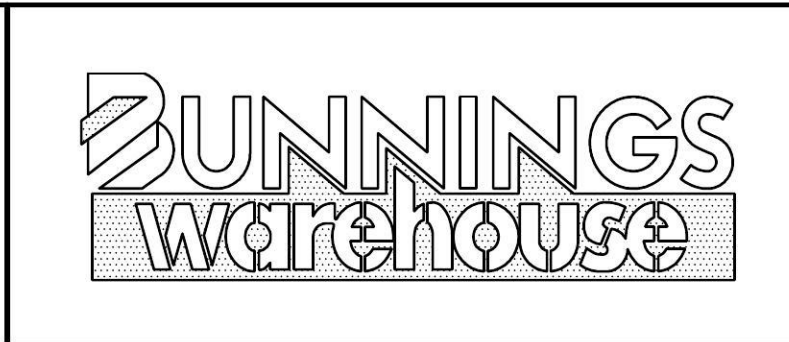
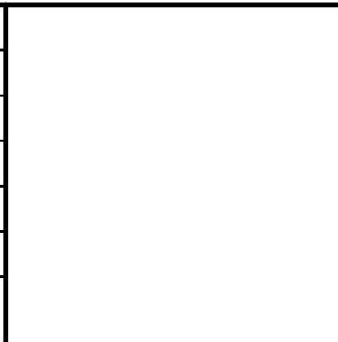
EARTHWORKS NOTES:

- THE CONTRACTOR SHALL STRIP THE MATERIAL CLASSIFIED AS TOPSOIL OR MATERIAL CONTAINING ORGANIC MATTER TO A LEVEL APPROVED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER AND THE SUPERINTENDENT. THE STRIPPED TOPSOIL SHOULD BE REMOVED AND STOCKPILED PRIOR TO ANY EARTHWORKS OPERATIONS.
- THE CONTRACTOR SHALL STRIP THE MATERIAL CLASSIFIED AS TOPSOIL OR MATERIAL CONTAINING ORGANIC MATTER TO A LEVEL APPROVED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER AND THE SUPERINTENDENT. THE STRIPPED TOPSOIL SHOULD BE REMOVED AND STOCKPILED PRIOR TO ANY EARTHWORKS OPERATIONS.
- THE MAXIMUM HEIGHT OF TOPSOIL STOCKPILES SHALL NOT EXCEED 2.5M AND THE MAXIMUM BATTER SLOPE SHALL NOT EXCEED 2H : 1V.
- ALL EARTHWORKS OPERATIONS SHALL BE CARRIED OUT TO LEVEL 1 SUPERVISION IN ACCORDANCE WITH AS3798 - 2007. THE CONTRACTOR SHALL ISSUE A WRITTEN LETTER FROM THE GEOTECHNICAL CONSULTANT THAT THEY HAVE BEEN ENGAGED ACCORDINGLY AND TAKES FULL RESPONSIBILITY OF THE EARTHWORKS OPERATION.
- THE CONTRACTOR SHALL OVER-EXCAVATE TO REMOVE ALL UNACCEPTABLE FILL MATERIAL CONTAINING DELETERIOUS MATERIALS SUCH AS ORGANIC MATTER AND CONSTRUCTION MATERIALS. ALL OVER-EXCAVATED AREAS SHALL BE REPLACED WITH SUITABLE MATERIAL WITH A CBR AT LEAST EQUAL TO THE SPECIFIED SUBGRADE CBR, SOURCED FROM ON SITE, IF AVAILABLE, OR IMPORTED.
- WET MATERIAL WILL NOT BE REGARDED AS UNSUITABLE. SHOULD WET MATERIAL BE ENCOUNTERED, THE CONTRACTOR SHALL DRY THE MATERIAL SUFFICIENTLY BY RE-WORKING, OR SPREADING IT TO ALLOW DRYING. ALL ASSOCIATED COSTS SHALL BE BORNE BY THE CONTRACTOR.
- ALL EXCESS EARTHWORKS MATERIALS, INCLUDING EXCESS MATERIALS FROM THE STORMWATER AND SERVICE TRENCH EXCAVATIONS SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE BY THE CONTRACTOR AT THE CONTRACTOR'S COST.
- ALL BATTER SLOPES SHALL BE A MAXIMUM OF 1V:5H (U.N.O.)
- UNLESS NOTED OTHERWISE OR APPROVED ALL FILL MUST BE CONSTITUTED OF VIRGIN EXCAVATED NATURAL MATERIAL (VENM).
- THE CONTRACTOR SHALL EXCAVATE AND/OR PLACE AND COMPACT FILL TO CONFORM TO THE LINES, GRADES, CROSS SECTIONS, AND DIMENSIONS SHOWN ON THE DRAWINGS, ALLOWING FOR PAVEMENT/SLAB AND TOPSOIL LAYERS.
- FREQUENCIES OF COMPACTION TESTS FOR EARTHWORKS SHALL BE AS FOLLOWS (WHICHEVER IS GREATER NUMBER):
 - 1 TEST PER 500 M3 DISTRIBUTED AREA, OR
 - 1 TEST PER LAYER OR 200MM THICKNESS, OR
 - 3 TESTS PER VISIT.
- COMPACTION REQUIREMENTS FOR EARTHWORKS SHALL BE AS FOLLOWS:
 - GENERAL FILL : 95% OF SMDD
 - TOP 500MM UNDER PAVEMENT OR STRUCTURE: 100% OF SMDD
 - BACKFILL WITHIN 2M OF STRUCTURES: 100% OF SMDD
- MOISTURE CONTENT TO BE IN THE RANGE OF - 2% TO +2% OF THE OPTIMUM MOISTURE CONTENT.
- ALL COMPACTION TEST RESULTS SHALL BE PROVIDED TO THE SUPERINTENDENT.
- ALL SITE REGRADED AREAS AFTER FORMATION, SHALL BE COVERED WITH A 150MM SELECT TOPSOIL LAYER. TOPSOIL STOCKPILED PRIOR TO EARTHWORKS OPERATIONS CAN BE REUSED FOR THIS PURPOSE PROVIDED ANY DELETERIOUS MATERIAL IS REMOVED PRIOR TO PLACING.
- ALL DISTURBED AND DENUDED AREAS SHALL BE REGRASSSED WITHIN 7 DAYS AFTER THE COMPLETION OF EARTHWORKS FORMATION. REFER LANDSCAPE PLAN L1003 FOR DETAIL OF REGRASS.

SERVICES NOTES:

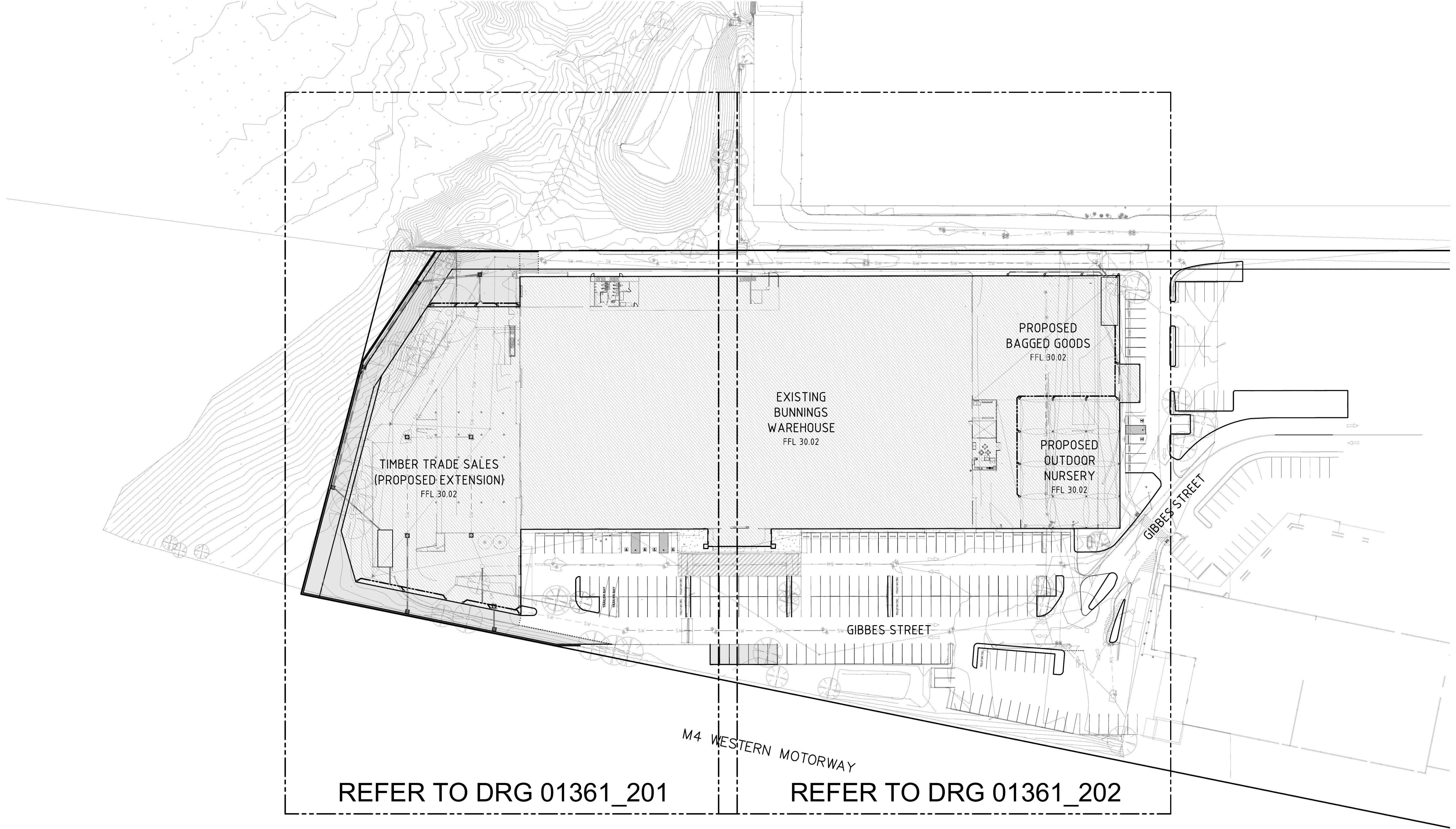
- IT IS THE CONSTRUCTORS RESPONSIBILITY TO NOTIFY THE RELEVANT SERVICES AUTHORITIES OF THE WORKS AND VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO ANY CONSTRUCTION ACTIVITIES COMMENCING.
- THE CONSTRUCTOR SHALL LIAISE AND COORDINATE THE TIMING OF THE CONSTRUCTION OF THE WORKS WITH THE RELEVANT SERVICES AUTHORITIES AND/OR OTHER CONSTRUCTORS INSTALLING SERVICES CONCURRENTLY AT THIS SITE.
- THE LOCATION OF ALL EXISTING SERVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND HAVE BEEN TAKEN FROM INFORMATION PROVIDED BY THE RELEVANT SERVICE AUTHORITIES.
- THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE CAUSED TO EXISTING SERVICES AS A RESULT OF THE CONSTRUCTION WORKS.

02	W.W.	01/04/15	E.S.	01/04/15	ISSUE FOR APPROVAL
01	W.W.	17/03/15	E.S.	17/03/15	ISSUE FOR REVIEW
REV.	DES.	DATE	VER.	DATE	DESCRIPTION



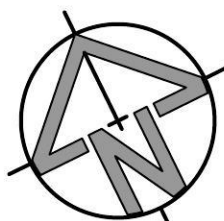
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VERIFIED	A.MANCONCONE	DATE	11/03/2015
DRAWN	M.STOKER	SCALE @ A1	1:250

BUNNINGS WAREHOUSE PENRITH			
COVER SHEET & DRAWING LIST			
STATUS	DEVELOPMENT APP.	DRAWING No.	01155__100
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01	W.W.	17/03/15	E.S.	17/03/15	ISSUE FOR REVIEW



CIVIL AND HYDRAULIC
ENGINEERING DESIGN AND
PROJECT MANAGEMENT

SUITE 26
11 - 13 BROOKHOLLOW AVE
BAULKHAM HILLS NSW 2153

PHONE: (02) 9680 3100
FAX: (02) 9634 6989
ABN 21 118 134 240

DESIGNED	W.WEBB	DATE	11/03/2015
VERIFIED	A.MANCONE	DATE	11/03/2015
DRAWN	M.STOKER	SCALE @ A1	1:500
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BUNNINGS WAREHOUSE PENRITH			
SITE LAYOUT PLAN			
STATUS	DEVELOPMENT APP.	DRAWING No.	01361_110
		REVISION	02

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PRELIMINARY

LEGEND

88.4 EXISTING SURFACE CONTOUR

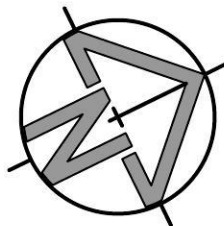
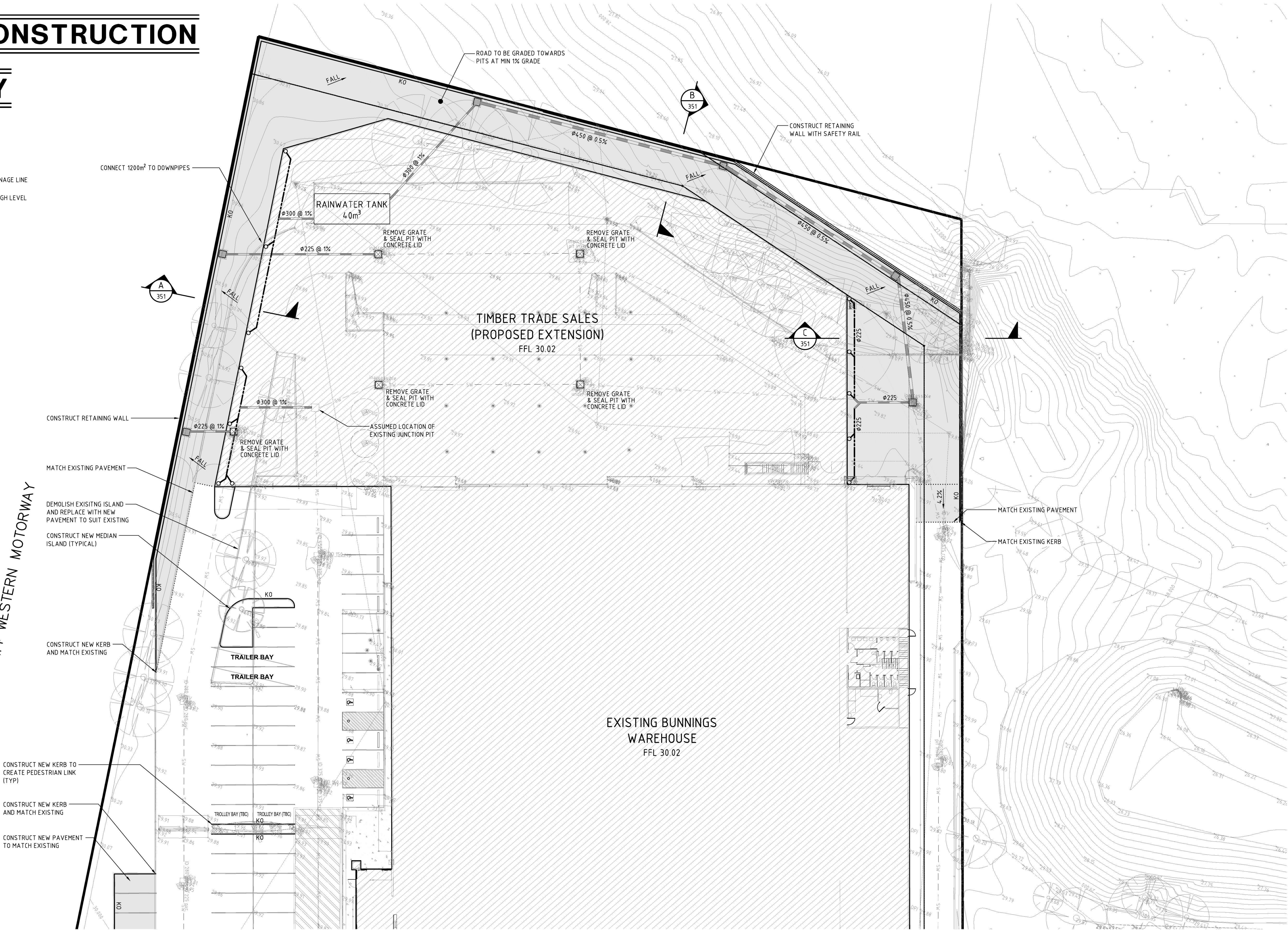
PROPOSED STORMWATER DRAINAGE LINE

PROPOSED STORMWATER AT HIGH LEVEL

GSP JP STORMWATER DRAINAGE PITS

DPO DOWNSPIPE

M4 WESTERN MOTORWAY



CIVIL AND HYDRAULIC
ENGINEERING DESIGN AND
PROJECT MANAGEMENT

SUITE 26
11 - 13 BROOKHOLLOW AVE
BAULKHAM HILLS NSW 2153

PHONE: (02) 9680 3100
FAX: (02) 9634 6989
ABN 21 118 134 240

DESIGNED	W.WEBB	DATE	11/03/2015
VERIFIED	A.MANCONE	DATE	11/03/2015
DRAWN	M.STOKER	SCALE @ A1	1:250
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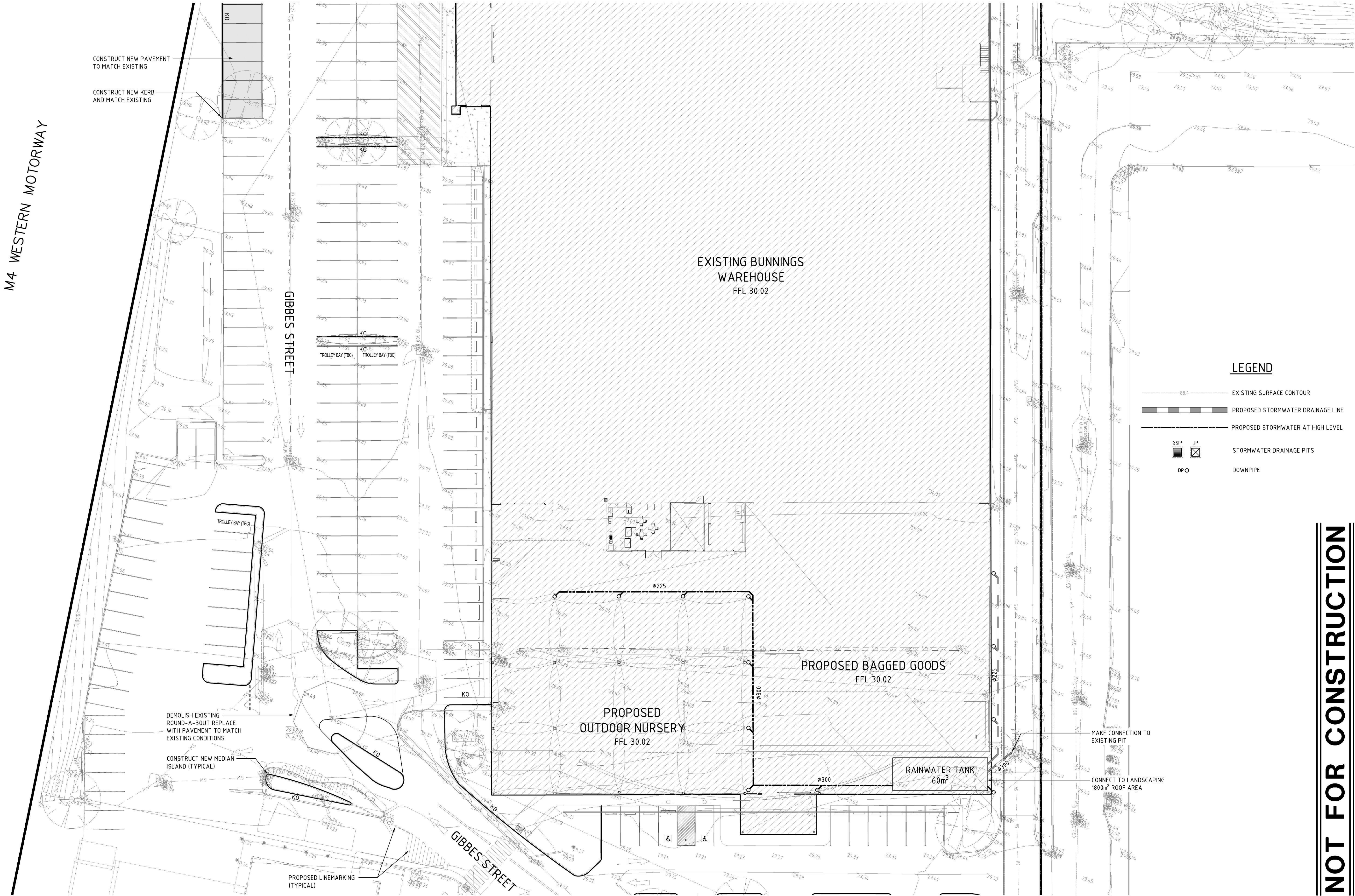
BUNNINGS WAREHOUSE PENRITH

GENERAL ARRANGEMENT PLAN

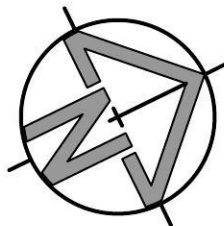
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REV.	DES.	DATE	VER.	DATE	DESCRIPTION

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CIVIL AND HYDRAULIC
ENGINEERING DESIGN AND
PROJECT MANAGEMENT

SUITE 26
11 - 13 BROOKHOLLOW AVE
BAULKHAM HILLS NSW 2153

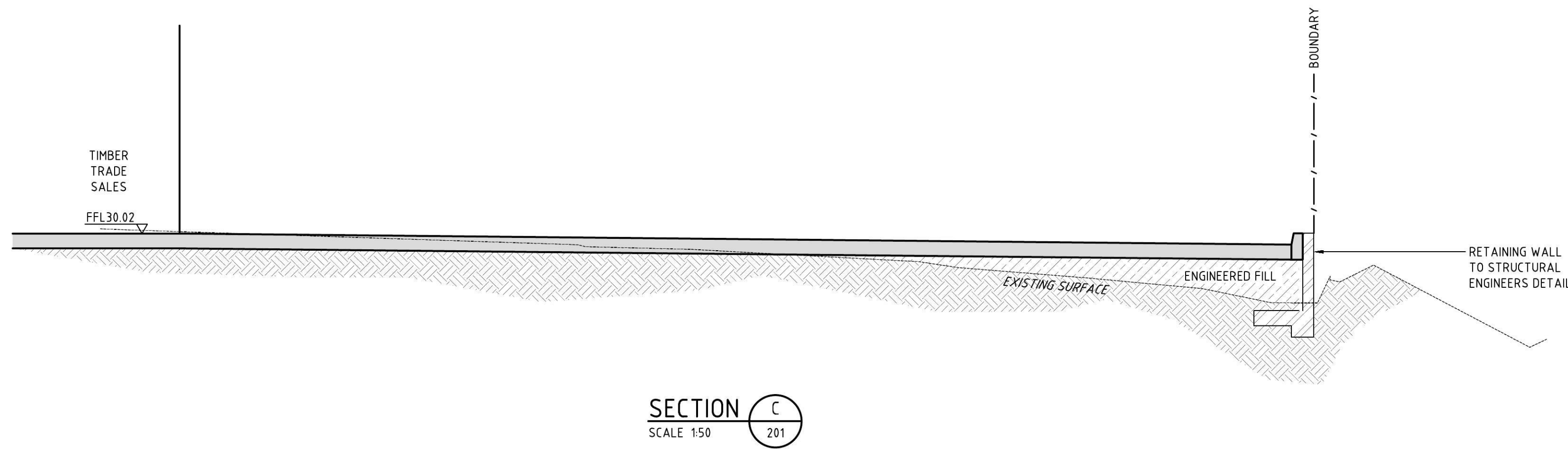
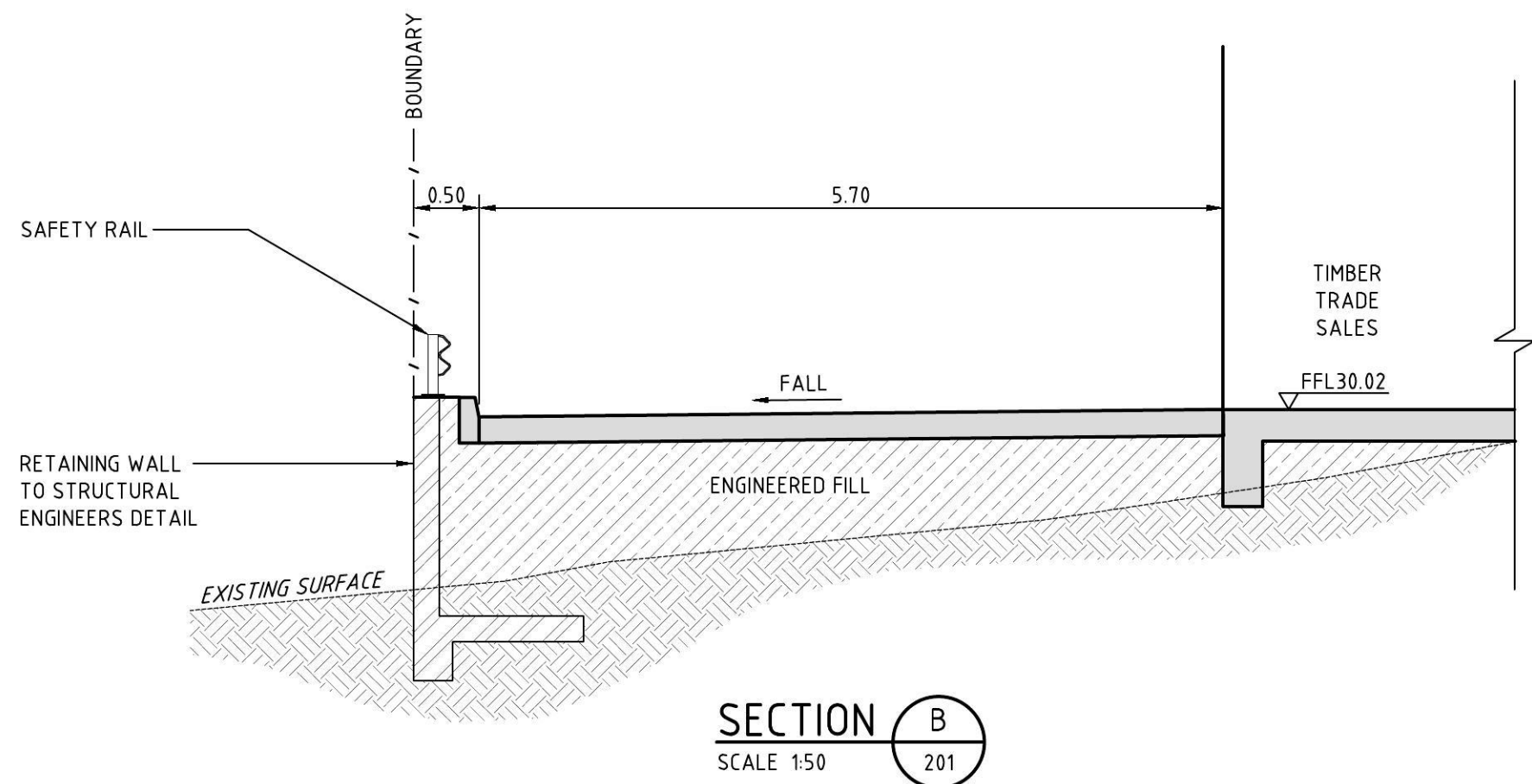
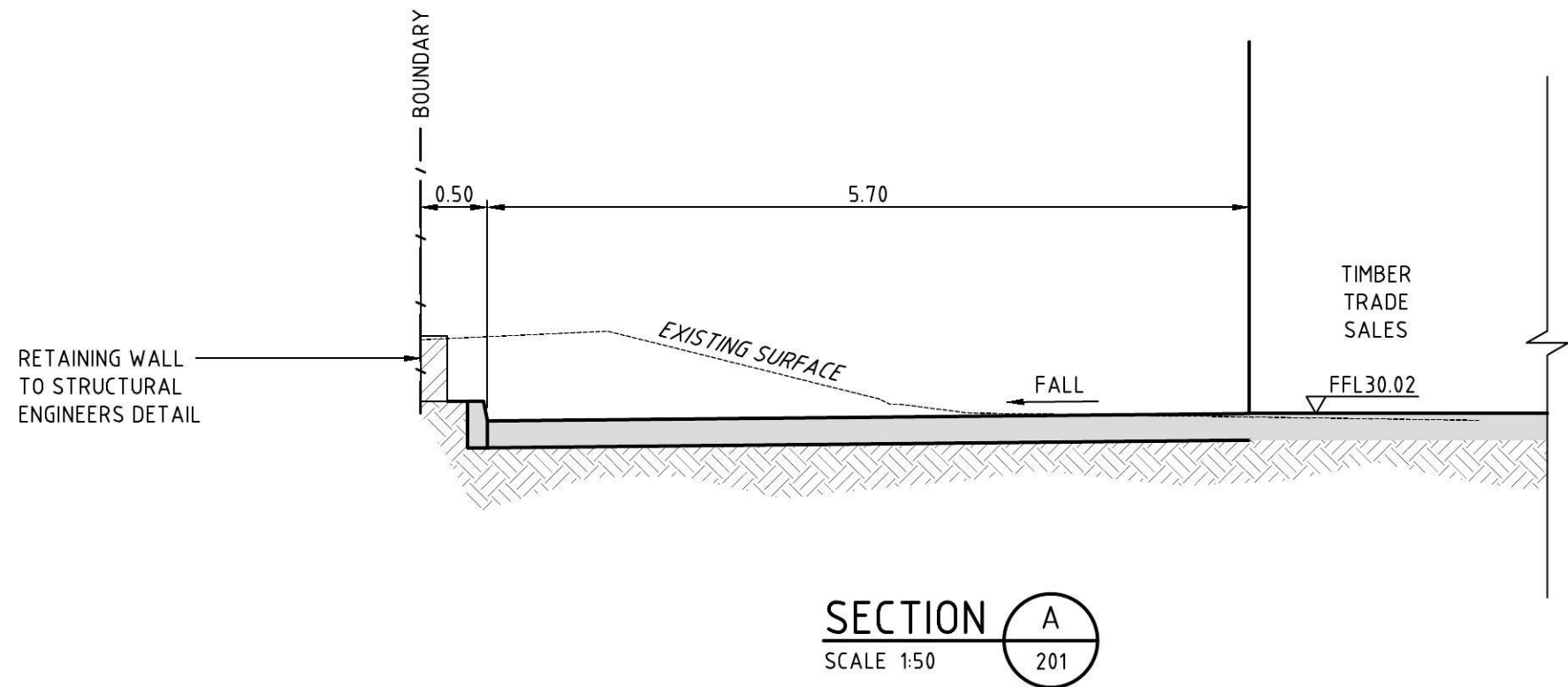
PHONE: (02) 9680 3100
FAX: (02) 9634 6989
ABN 21 118 134 240

DESIGNED	W.WEBB	DATE	11/03/2015
VERIFIED	A.MANCONE	DATE	11/03/2015
DRAWN	M.STOKER	SCALE @ A1	1:250

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BUNNINGS WAREHOUSE PENRITH			
GENERAL ARRANGEMENT PLAN			
STATUS	DEVELOPMENT APP.	DRAWING No.	01361_202
		REVISION	02

NOT FOR CONSTRUCTION



NOT FOR CONSTRUCTION

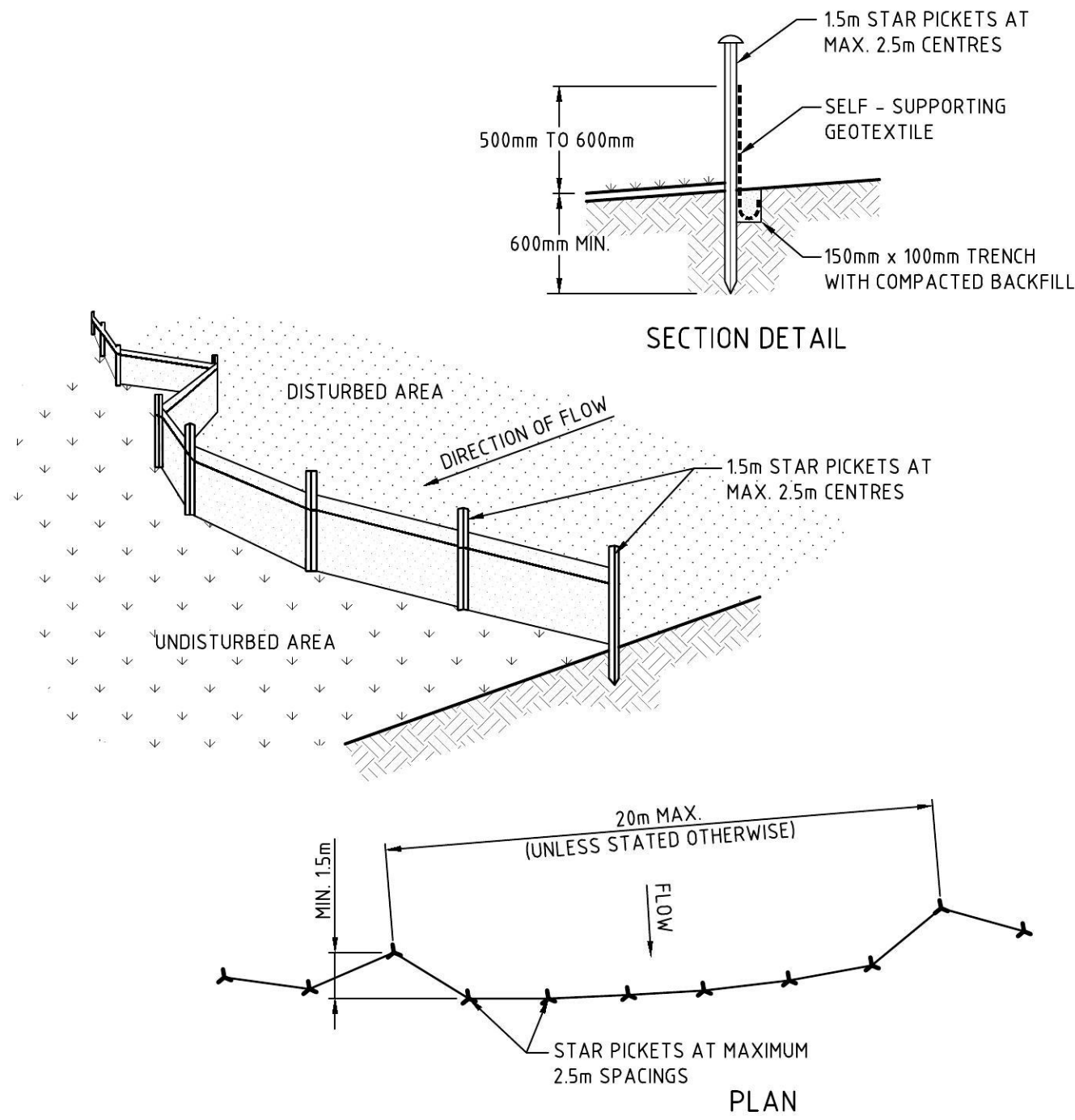
REV.	DES.	DATE	VER.	DATE	DESCRIPTION
02	W.W.	01/04/15	E.S.	01/04/15	ISSUE FOR APPROVAL
01	W.W.	17/03/15	E.S.	17/03/15	ISSUE FOR REVIEW



CIVIL AND HYDRAULIC
ENGINEERING DESIGN AND
PROJECT MANAGEMENT
SUITE 26
11 - 13 BROOKHOLLOW AVE
BAULKHAM HILLS NSW 2153
PHONE: (02) 9680 3100
FAX: (02) 9634 6989
ABN 21 118 134 240

DESIGNED	W.WEBB	DATE	11/03/2015
VERIFIED	A.MANCONE	DATE	11/03/2015
DRAWN	M.STOKER	SCALE @ A1	AS SHOWN
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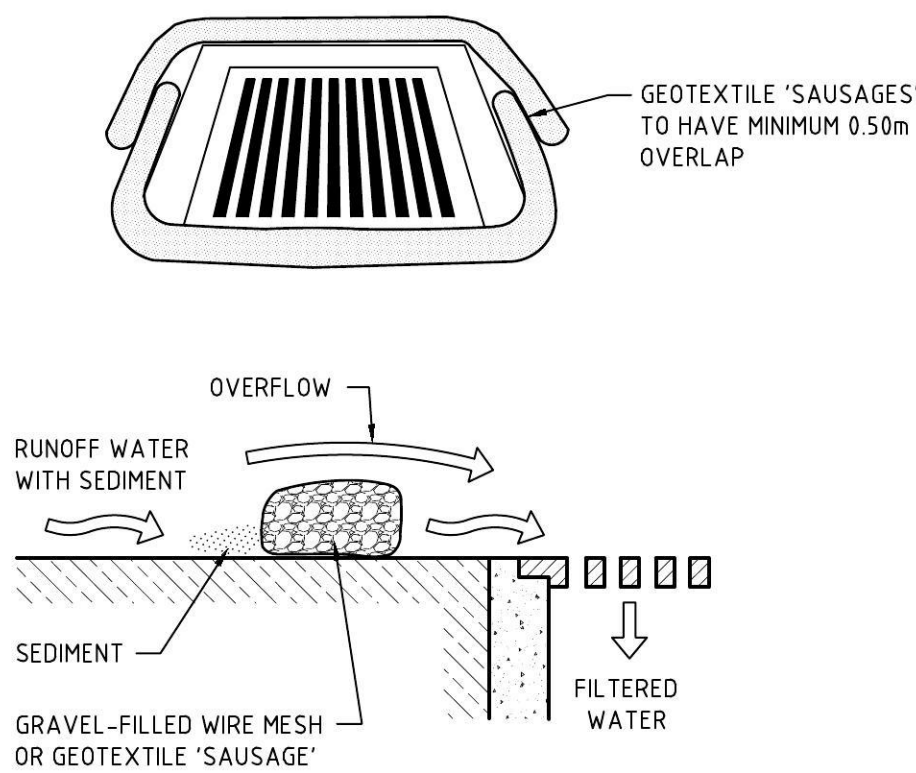
BUNNINGS WAREHOUSE PENRITH			
TYPICAL SECTIONS			
STATUS	DEVELOPMENT APP.	DRAWING No.	01361_351
		REVISION	02



- CONSTRUCTION NOTES:**
1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
 2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
 3. DRIVE 15 METRE LONG STAR PICKETS INTO THE GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
 4. FIX SELF SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
 5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150-mm OVERLAP.
 6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE DETAIL

NOT TO SCALE

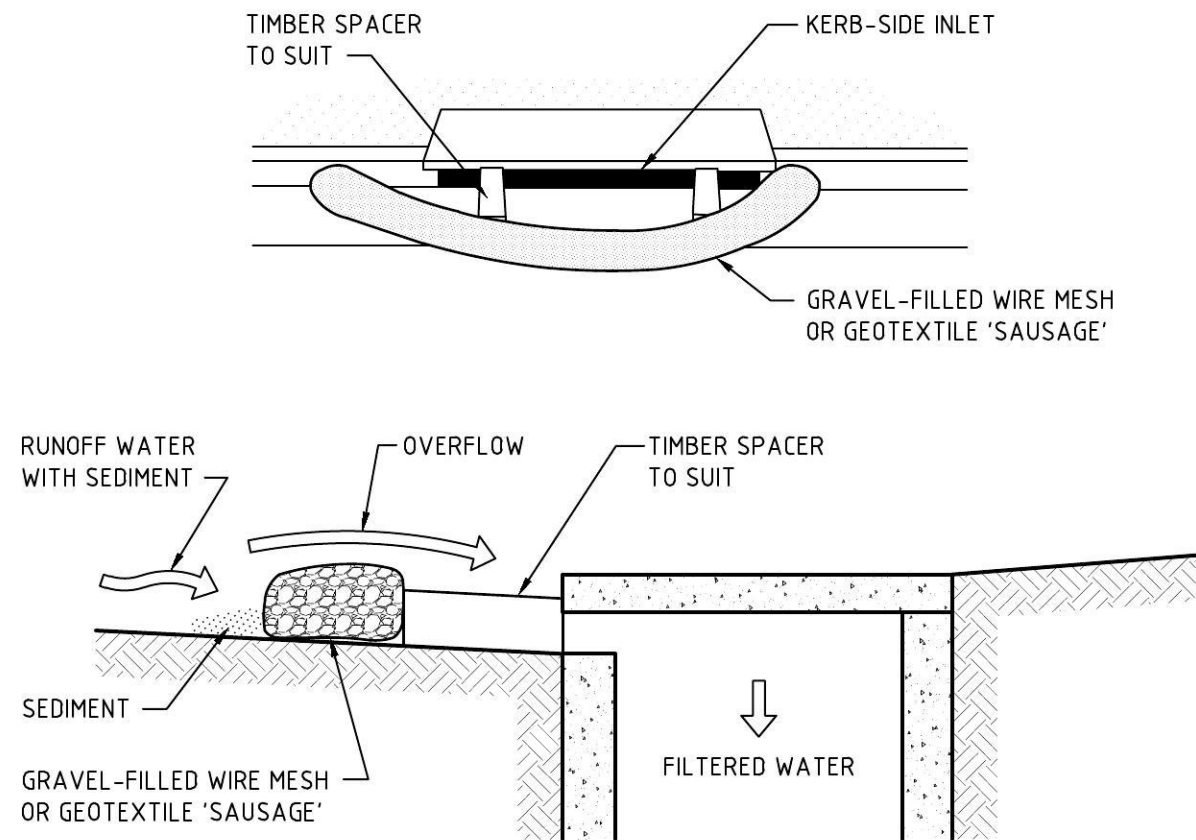


- CONSTRUCTION NOTES:**
1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
 2. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER DETAIL

FOR PITS WITHIN PAVEMENT AREAS

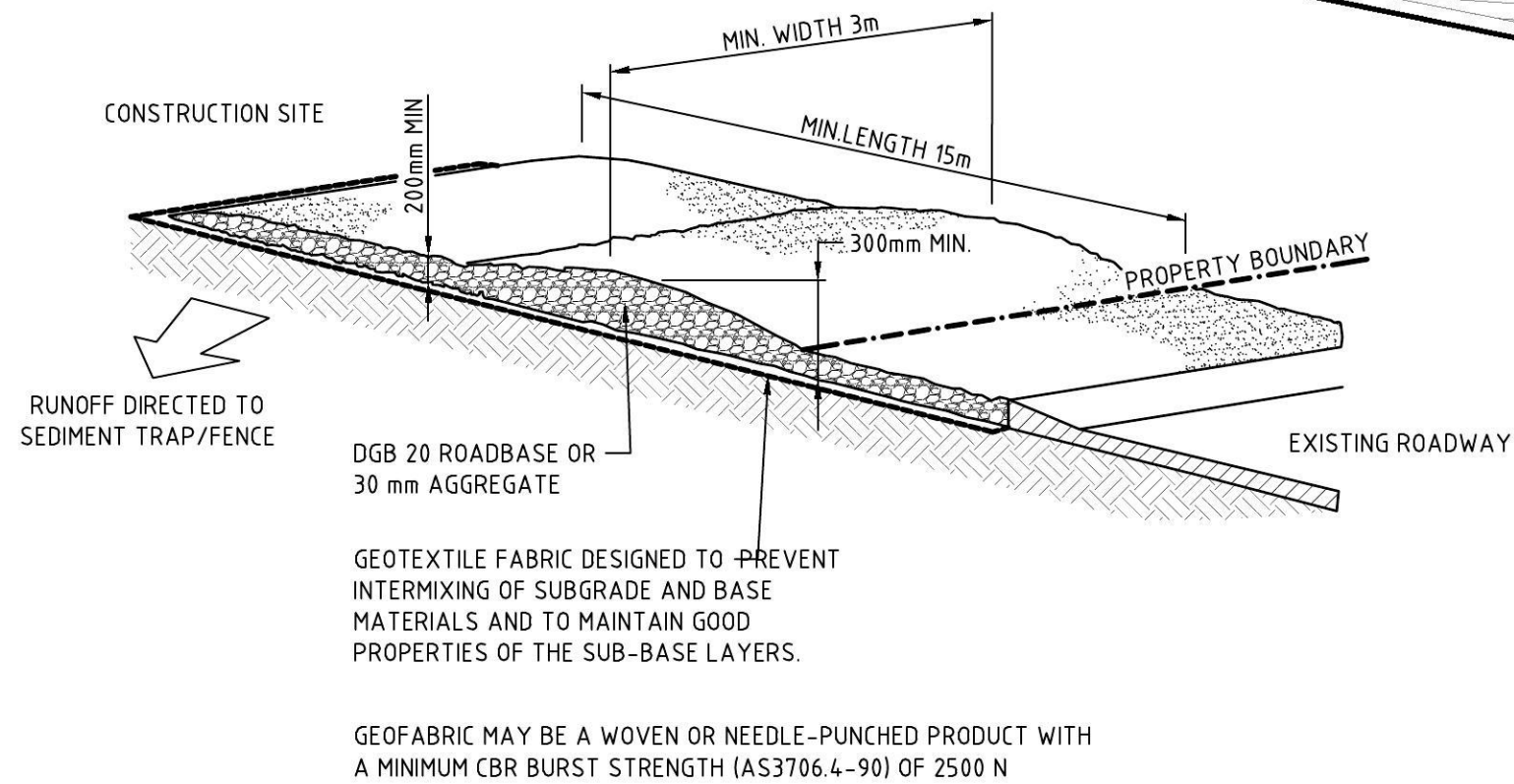
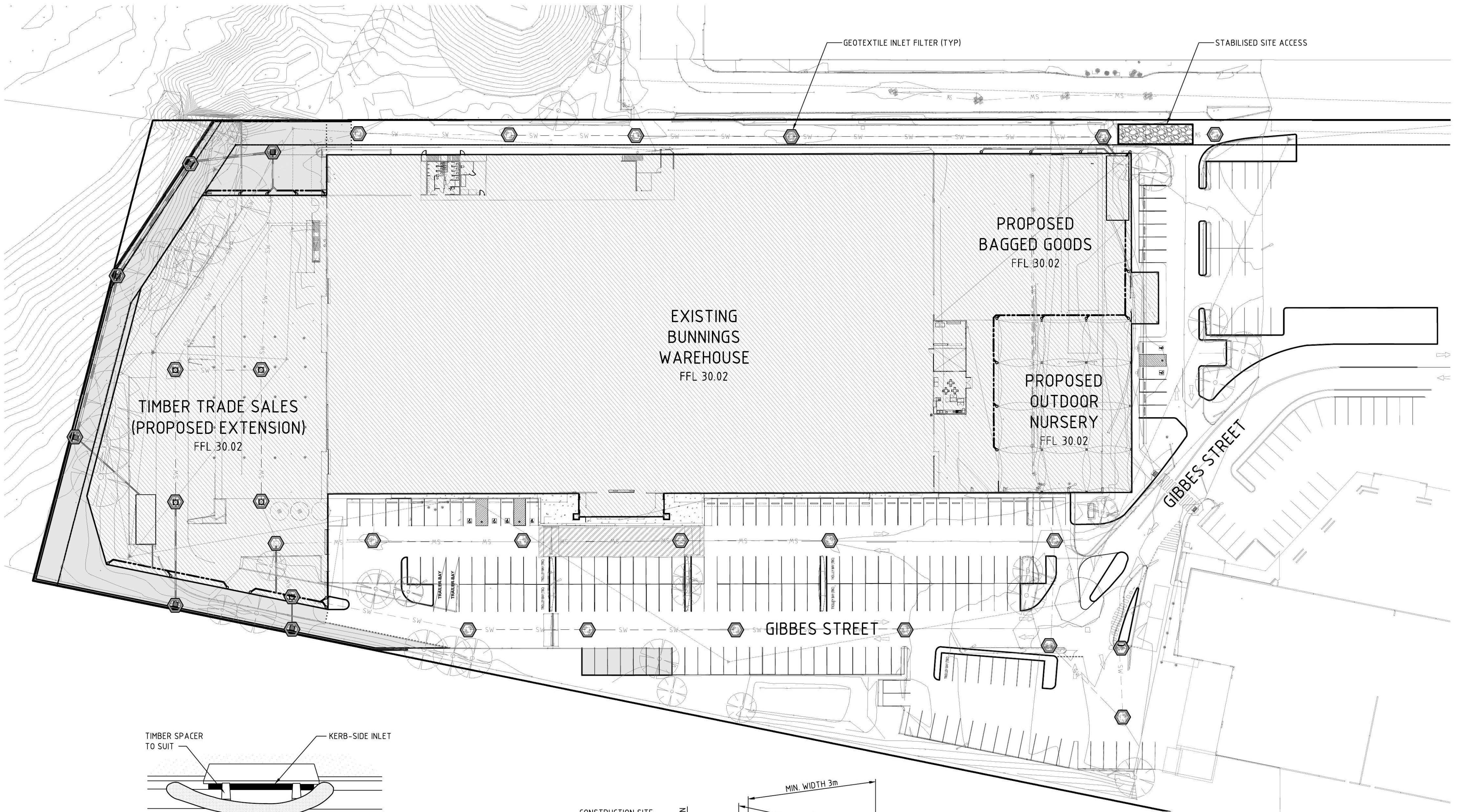
NOT TO SCALE



- CONSTRUCTION NOTES:**
1. INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS.
 2. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
 3. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
 4. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
 5. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
 6. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

MESH AND GRAVEL INLET FILTER DETAIL

NOT TO SCALE

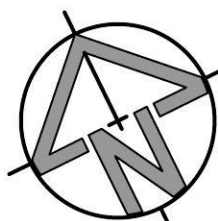


- CONSTRUCTION NOTES:**
1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
 2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
 3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
 4. ENSURE THE STRUCTURE IS AT LEAST 15m LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3m WIDE.
 5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

STABILISED SITE ACCESS DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION



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DESIGNED	W.WEBB	DATE	11/03/2015
VERIFIED	A.MANCONE	DATE	11/03/2015
DRAWN	M.STOKER	SCALE @ A1	1:500

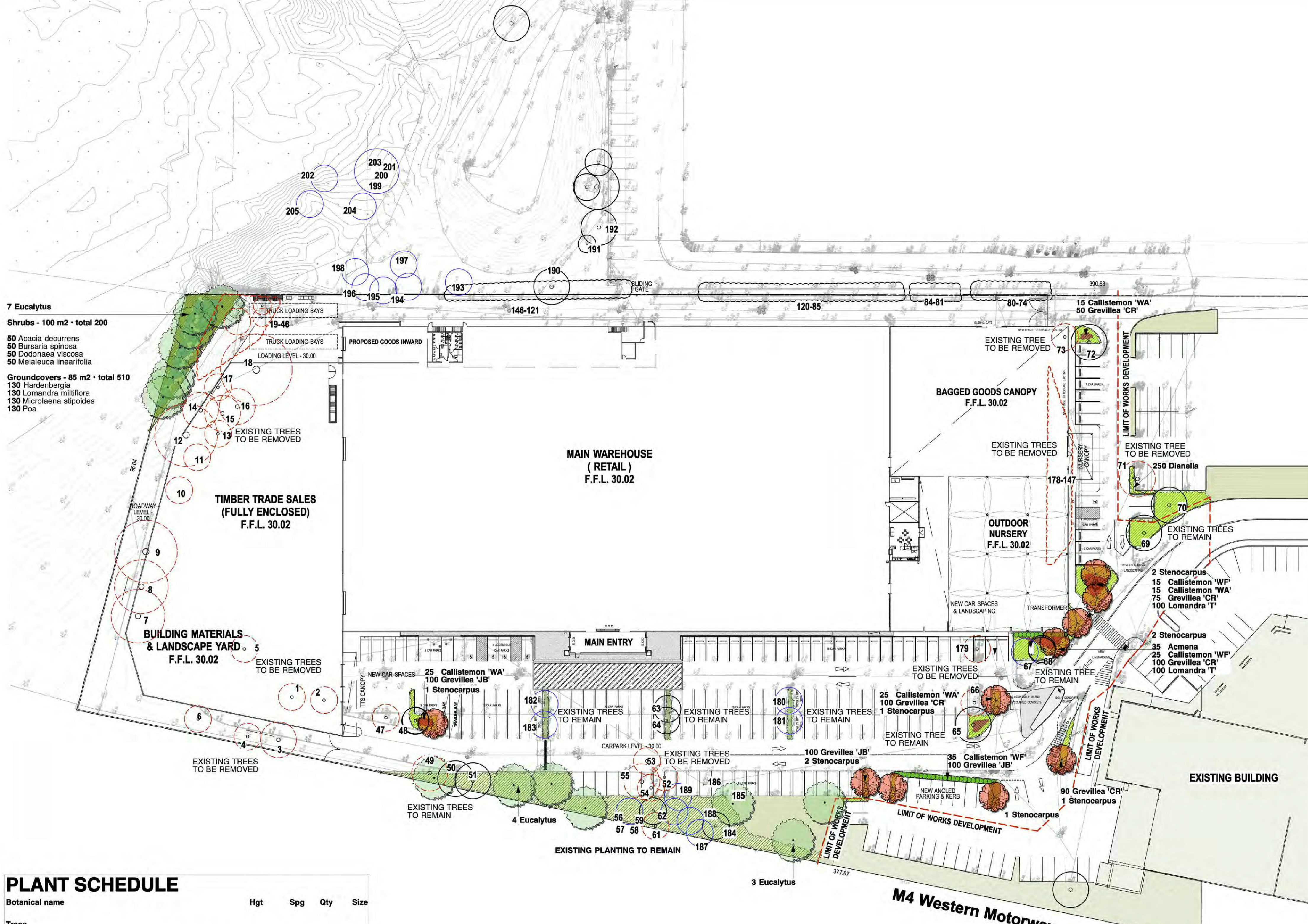
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BUNNINGS WAREHOUSE PENRITH

SEDIMENT & EROSION CONTROL
PLAN AND DETAILS

STATUS DEVELOPMENT APP. DRAWING No. 01361_701 REVISION 02

REV.	DES.	DATE	VER.	DATE	DESCRIPTION
02	W.W.	01/04/15	A.M.	01/04/15	ISSUE FOR APPROVAL
01	W.W.	17/03/15	E.S.	17/03/15	ISSUE FOR REVIEW



PLANT SCHEDULE

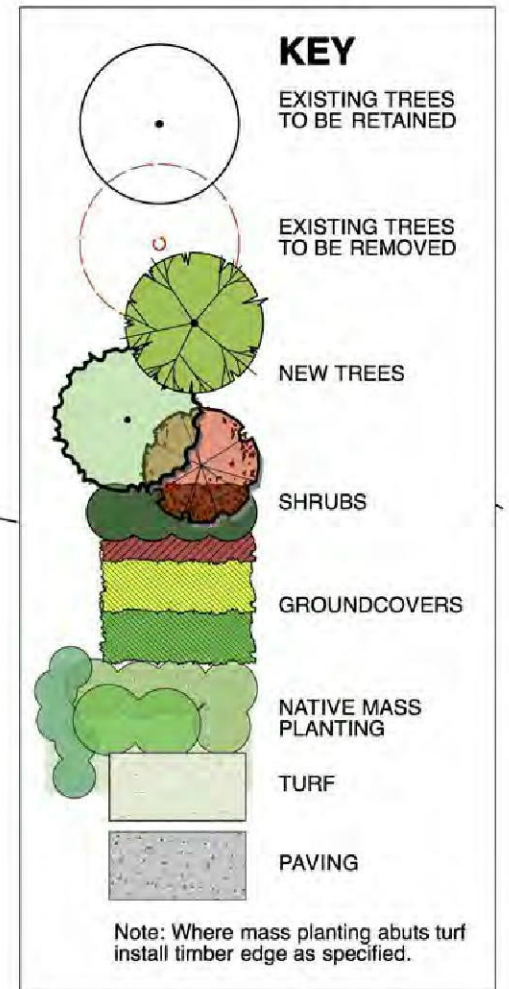
Botanical name	Hgt	Spg	Qty	Size
Trees				
Eucalyptus tereticornis	Forest Red Gum	25m	7	75L
Stenocarpus sinuatus	Firewheel Tree	10m	10	200L
Shrubs				
Acacia decurrens		2m	1.5/m2	50 150mm
Acmena "Red Tips"		2m	500mm	35 200mm
Bursaria spinosa		2m	1.5/m2	50 150mm
Callistemon 'White Anzac'	White Bottlebrush	1m	500mm	70 150mm
Callistemon 'Wildfire'		1m	500mm	85 150mm
Dodonaea viscosa		2m	1.5/m2	50 150mm
Melaleuca linearifolia	Flax-leaved Paperbark	2m	1.5/m2	50 150mm
Grasses + Groundcovers				
Dianella 'Revelation'		1m	6/m2	250 tube
Grevillea 'Cherry Ripe'		1m	6/m2	415 tube
Grevillea 'Jelly Bean'		1m	6/m2	300 tube
Hardenbergia violacea	False Sarsaparilla	1m	6/m2	130 tube
Lomandra longifolia	Wattle Matrush, Iron Grass	1m	6/m2	130 tube
Lomandra 'Katie Belles'		1m	6/m2	200 tube
Microlaena stipoides	Weeping Rice Grass	1m	6/m2	130 tube
Poa labillardieri	Tussock Grass	1m	6/m2	130 tube

EXISTING TREE SCHEDULE

NOTE - Refer to Arborist Report:
ABEL ECOLOGY, 2015, for full report & descriptions

#	Species	Hgt	Diam. at base (cm)	DBH (cm)	Condition	Viability	Comments
1	Melia azedarach	8	28	37	G	G	
2	Melia azedarach	4	4	4	F	F	
3	Eucalyptus tereticornis	13	44	46	E	E	REMOVE
4	Eucalyptus tereticornis	14	36	44	E	E	REMOVE
5	Melia azedarach	7	37, 17, 32	51	F	G	REMOVE
6	Corymbia cummiferia	9	20, 12, 14, 10		G	F	REMOVE
7	Eucalyptus tereticornis	13	20, 24, 29, 20		F	F	REMOVE
8	Eucalyptus tereticornis	16	42	60	G		REMOVE
9	Eucalyptus tereticornis	12	19, 19, 47		E	F	REMOVE
10	Melia azedarach	6	22	31	G	G	REMOVE
11	Eucalyptus tereticornis	8	18	22	G	E	REMOVE
12	Eucalyptus tereticornis	14	36, 13, 30	55	G	G	REMOVE
13	Eucalyptus tereticornis	9	22	28	G		REMOVE
14	Eucalyptus tereticornis	13	37	45	G	G	REMOVE
15	Eucalyptus tereticornis	12	34	38	G	G	REMOVE
16	Eucalyptus tereticornis	8	34	36	F	P	REMOVE
17	Eucalyptus tereticornis	9	20, 27		G		REMOVE
18	Eucalyptus tereticornis	14	49	59	G	G	REMOVE
19	Casuarina glauca	10	17, 10	34	G	G	REMOVE
20	Casuarina glauca	10	11	19	G	G	REMOVE
21	Casuarina glauca	15	24	37	G	G	REMOVE
22	Casuarina glauca	8	9	16	F		REMOVE
23	Casuarina glauca	14	22	34	E	G	REMOVE
24	Casuarina glauca	6	7, 8	F	P		REMOVE
25	Casuarina glauca	7	7, 13, 4.5	F	F		REMOVE
26	Casuarina glauca	10	14	21	G		REMOVE
27	Casuarina glauca	14	21	35	G	G	REMOVE
28	Casuarina glauca	9	10	G	F		REMOVE
29	Casuarina glauca	10	Multiple st		G	G	REMOVE
30	Casuarina glauca	12	9	14	P		REMOVE
31	Casuarina glauca	10	14	24	P		REMOVE
32	Casuarina glauca	9	9	16	F		REMOVE
33	Casuarina glauca	9	10	18	G		REMOVE
34	Casuarina glauca	11	11	17	F	G	REMOVE
35	Casuarina glauca	11	18	26	G		REMOVE
36	Casuarina glauca	12	11	17	G	G	REMOVE
37	Casuarina glauca	12	15	20	G	G	REMOVE
38	Casuarina glauca	15	16	28	G	G	REMOVE
39	Casuarina glauca	13	13	19	F	G	REMOVE
40	Casuarina glauca	9	9	20	F		REMOVE
41	Casuarina glauca	14	16	24	G	F	REMOVE
42	Casuarina glauca	12	13	22	F		REMOVE
43	Casuarina glauca	11	11	16	F	G	REMOVE
44	Casuarina glauca	16	20	29	G		REMOVE
45	Tecoma stans	4	7	11	G	G	REMOVE
46	Tecoma stans	4	8	11	G		REMOVE
47	Melia Azedarach	7	21, 27	37	E	G	REMOVE
48	Melia Azedarach	6	25	32	G		REMOVE
49	Eucalyptus tereticornis	13	35	35	E		REMOVE
50	Eucalyptus tereticornis	15	34	45	F		REMOVE
51	Eucalyptus tereticornis	13	29	33	F	F	REMOVE
52	Corymbia maculata	20	44	58	G		REMOVE
53	Acacia fimbriata	6	10	20	G	F	REMOVE
54	Eucalyptus tereticornis (7	13	G	G		REMOVE
55	Acacia fimbriata	4	9	12	F	P	REMOVE
56	Acacia fimbriata	7	12	15	G	F	REMOVE
57	Acacia fimbriata	7	12	15	G	F	REMOVE
58	Acacia fimbriata	6	11	G	F		REMOVE
59	Acacia fimbriata	7	7	G	F		REMOVE
60	Acacia fimbriata	7	7	9	G	F	REMOVE
61	Grinnemomum camphora	2	Multiple st		F	P	REMOVE
62	Eucalyptus tereticornis	11	29	33	F		REMOVE
63	Melia azedarach	5	15, 17	19	G	G	
64	Melia azedarach	6	27	35	G	G	
65	Melia azedarach	7	31, 22	44	G	G	
66	Melia azedarach	6	21	36	G	F	REMOVE
67	Corymbia maculata	12	16	25	P		REMOVE
68	Corymbia maculata	19	31	42	E	E	REMOVE
69	Corymbia maculata	20	31	40	E	E	REMOVE
70	Corymbia maculata	22	44	54	E	E	REMOVE
71	Corymbia maculata	22	36	49	G		REMOVE
72	Corymbia maculata	19	32	46	E		REMOVE
73	Corymbia maculata	14	22	31	E		REMOVE
74	Casuarina glauca	15	18, 8	25	G	F	REMOVE
75	Casuarina glauca	16	26	31	G		REMOVE
76	Casuarina glauca	13	24	32	G	G	REMOVE
77	Casuarina glauca	12	23	29	F	G	REMOVE
78	Casuarina glauca	14	18	23	G	G	REMOVE
79	Casuarina glauca	12	12	16	G	G	REMOVE
80	Casuarina glauca	11	17	24	G		REMOVE
81	Casuarina glauca	6	11	15	G	F	REMOVE
82	Casuarina glauca	10	13	19	F	F	REMOVE
83	Casuarina glauca	5	6	9	F	F	REMOVE
84	Casuarina glauca	9	14	21	P		REMOVE
85	Casuarina glauca	10	10	16	P		REMOVE
86	Casuarina glauca	7	12	17	G	F	REMOVE
87	Casuarina glauca	11	14	22	G	F	REMOVE
88	Casuarina glauca	10	13	19	G	G	REMOVE
89	Casuarina glauca	7	8	12	P		REMOVE
90	Casuarina glauca	9	19	27	G	F	REMOVE
91	Casuarina glauca	8	14	20	G	F	REMOVE
92	Casuarina glauca	7	9, 6, 10, 7		G	F	REMOVE
93	Casuarina glauca	6	7	11	F	G	REMOVE
94	Casuarina glauca	12	25	36	G		REMOVE
95	Casuarina glauca	12	12, 6, 17	G	P		REMOVE
96	Casuarina glauca	9	7	7	G	F	REMOVE
97	Casuarina glauca	8	8	8	G	G	REMOVE
98	Casuarina glauca	14	20	28	G		REMOVE
99	Casuarina glauca	7	9	10	F	G	REMOVE
100	Casuarina glauca	11	14, 11		G	F	REMOVE
101	Casuarina glauca	10	7, 9, 11		G	G	REMOVE
102	Casuarina glauca	13	17	21	G	G	REMOVE
103	Casuarina glauca	10	10	15	G	G	REMOVE
104	Casuarina glauca	10	17	22	G	G	REMOVE
105	Casuarina glauca	8	11	15	F	G	REMOVE
106	Casuarina glauca	10	10	14	G	G	REMOVE
107	Casuarina glauca	12	14	19	G	F	REMOVE
108	Casuarina glauca	11	13	18	F		REMOVE
109	Casuarina glauca	9	13	19	G	F	REMOVE
110	Casuarina glauca	12	9, 4, 18, 14		G	F	REMOVE
111	Casuarina glauca	9	10		G	F	REMOVE
112	Casuarina glauca	10	11	19	G	F	REMOVE
113	Casuarina glauca	10	7, 10		G	G	REMOVE
114	Casuarina glauca	11	12, 10, 11		G	G	REMOVE
115	Casuarina glauca	3	6	10	F	P	REMOVE
116	Casuarina glauca	10	11, 10		G	G	REMOVE
117	Casuarina glauca	11	16	22	G	G	REMOVE
118	Casuarina glauca	11	23	31	E	G	REMOVE
119	Casuarina glauca	11	20	29	G		REMOVE
120	Casuarina glauca	6	8	G	F		REMOVE
121	Casuarina glauca	14	16, 19		G	G	REMOVE
122	Allantus altissima	10	28	36	G	G	REMOVE
123	Casuarina glauca	12	19	27	G	G	REMOVE
124	Casuarina glauca	5	8	10	F	F	REMOVE
125	Casuarina glauca	7	8	10	F	F	REMOVE
126	Casuarina glauca	7	8	11	G	G	REMOVE
127	Casuarina glauca	11	19	26	G	G	REMOVE
128	Casuarina glauca	11	12	15	G	G	REMOVE
129	Casuarina glauca	12	18	23	F		REMOVE
130	Casuarina glauca	8	6	8	F	F	REMOVE
131	Casuarina glauca	9	8	7	F	F	REMOVE
132	Casuarina glauca	8	7, 5, 6		F	F	REMOVE
133	Casuarina glauca	12	19	29	G	G	REMOVE
134	Casuarina glauca	13	17	26	G		REMOVE
135	Casuarina glauca	13	16	23	F	G	REMOVE
136	Casuarina glauca	11	14	20	F	G	REMOVE
137	Casuarina glauca	7	9	15	F	F	REMOVE
138	Casuarina glauca	13	18	25	F	F	REMOVE
139	Casuarina glauca	12	18	27	G	F	REMOVE
140	Casuarina glauca	11	14	20	G	F	REMOVE

140 Casuarina glauca	11	14	20	G	G
141 Casuarina glauca	9	13	10	14	G F
142 Casuarina glauca	11	12	15	16	G G
143 Casuarina glauca	8	8	9	9	G F
144 Casuarina glauca	10	13	F	G	
145 Casuarina glauca	10	12	18	G	F
146 Casuarina glauca	10	21	32	G	G
147 Eucalyptus microcorys	13	23	46	E	G
148 Casuarina glauca	9	13	22	F	G
149 Casuarina glauca	10	18	26	G	F
150 Casuarina glauca	11	22	33	G	G
151 Casuarina glauca	15	8	21	F	F
152 Casuarina glauca	11	12	6	G	F
153 Casuarina glauca	12	23	38	G	F
154 Eucalyptus microcorys	14	25	31	G	F
155 Casuarina glauca	12	21	27	F	F
156 Casuarina glauca	6	10	15	G	F
157 Casuarina glauca	8	9	13	G	F
158 Casuarina glauca	10	14	21	G	F
159 Casuarina glauca	13	14	21	F	G
160 Casuarina glauca	12	13	15	G	F
161 Eucalyptus microcorys	10	22	28	F	F
162 Casuarina glauca	9	14	19	G	F
163 Casuarina glauca	13	14	19	P	G
164 Casuarina glauca	13	18	27	F	G
165 Casuarina glauca	17	17	22	G	F
166 Casuarina glauca	10	11	15	P	F
167 Eucalyptus microcorys	10	17	23	F	G
168 Casuarina glauca	9	20	32	G	G
169 Casuarina glauca	12	19	28	G	F
170 Casuarina glauca	11	12	15	P	F
171 Casuarina glauca	11	20	30	F	G
172 Casuarina glauca	10	8	10	G	G
173 Casuarina glauca	12	15	23	F	G
174 Casuarina glauca	11	14	19	G	F
175 Casuarina glauca	12	18	26	G	F
176 Casuarina glauca	11	15	21	G	F
177 Casuarina glauca	12	22	31	G	P
178 Casuarina glauca	8	13	20	G	F
179 Melia azedarach	7	37	45	G	F
180 Melia azedarach	5	12	22	37	G G
181 Melia azedarach	6	16	14	9	32 G G
182 Melia azedarach	6	20	28	G	G
183 Melia azedarach	6	20	29	G	G
184 Eucalyptus tereticornis	13	26	35	G	G
185 Acacia fimbriata	4	8	7	5	E G
186 Eucalyptus tereticornis	13	14	24	23	G G
187 Eucalyptus tereticornis	5	7	11	G	F
188 Hakea salicifolia	5	5	14	22	G G
189 Eucalyptus tereticornis	12	23	18	7	G F
190 Casuarina glauca	12	33	51	E	G
191 Casuarina glauca	8	16	32	G	G
192 Corymbia maculata	10	32	39	E	G
193 Casuarina glauca	6	18	G	F	
194 Casuarina glauca	13	50	67	E	G
195 Tecoma stans	6	11	15	G	G
196 Tecoma stans	5	6	X<10	G	G
197 Allantus altissima	6	19	26	G	G
198 Tecoma stans	5	15	15	15	G G
199 Acacia parramattensis	7	10	7	9	G F
200 Allantus altissima	4	6	10	G	G
201 Allantus altissima	5	8	10	G	G
202 Populus sp.	19	30	36	G	G
203 Allantus altissima	6	10	15	F	G
204 Acacia parramattensis	7	22	31	G	E
205 Populus sp.	13	30	G	G	REMOVE



B

DA ISSUE

16/04/2015

A

PRELIMINARY ISSUE

10/04/2015

revision

description

date

client:

architect:

Michael Carr Architect Pty. Ltd.
88 Tope Street, South Melbourne 3205
Ph 03 9645 5635 Fax 03 9686 4064
Email admin@mccarchitect.com.au

landscape architect:

JOHN LOCK & associates
LANDSCAPE ARCHITECTURE

Suite 3, 5 Earl Street, Mosman NSW 2088
p.02 9969 9866 e.landscape@bigpond.com

project:

Bunnings Warehouse Penrith
301-335 Mulgoa Road
Jamisontown NSW 2750

scale:

1:500 @ A1
1:1000 @ A3

date:

10/04/2015

drawing #:

2208 LP - 01

0

5

10

20

30

50 m

Document Set ID: 6570085

Version: 1, Version Date: 29/04/2015

SPECIFICATION NOTES

zSITE PREPARATION / SOIL WORKS
ALL EXISTING TREES MARKED FOR RETENTION SHALL BE PROTECTED FOR THE DURATION OF THE BUILDING WORKS. REMOVE FROM SITE ALL PERENNIAL WEEDS SUCH AS OXALIS, ONION WEED AND THE LIKE.

NO REGRADING IS TO BE CARRIED OUT WITHIN THE DRIPLINE OF THE TREES TO BE RETAINED. WHERE EXCAVATION IS NECESSARY, USE HAND METHODS TO AVOID DAMAGE TO THE ROOT SYSTEM. DO NOT CUT ROOTS GREATER THAN 50MM. CUT ROOTS CLEANLY WITH A SAW AND DO NOT SEAL THE WOUND.

TREE PROTECTION
PROTECT ALL EXISTING TREES AS NOTED ON THE DRAWINGS FOR THE DURING OF THE BUILDING WORKS.

TAKE ALL NECESSARY PRECAUTIONS, INCLUDING THE FOLLOWING:

Tree Protection fence:
INSTALL A TREE PROTECTION FENCES AT THE MAXIMUM RADIUS ALLOWABLE TO ACCOMMODATE THE PROPOSED DEVELOPMENT. MAINTAIN THE FENCE FOR THE DURATION OF THE BUILDING WORKS.

CONSTRUCT THE FENCE 1.8 M HIGH WITH CHAINWIRE MESH ON STEEL POSTS. ALL AREAS WITHIN THE PERIMETER OF THE FENCE ARE TO BE COVERED TO A DEPTH OF 100MM WITH WOODCHIP MULCH.

Temporary Irrigation:
INSTALL A TEMPORARY IRRIGATION SYSTEM TO ALL TREES TO BE RETAINED. INSTALL DRIP EMITTERS ON POLY LATERALS. THE IRRIGATION SYSTEM IS TO BE CONTROLLED BY A GALCON OR SIMILAR AUTOMATIC CONTROLLER.

Harmful materials:
DO NOT STORE, STOCKPILE, DUMP OR OTHERWISE REPLACE UNDER OR NEAR TREES, BULK MATERIALS AND HARMFUL MATERIALS INCLUDING PAINT, WASTE CONCRETE, CLEARINGS, SOULDERS AND THE LIKE. DO NOT PLACE SPOIL FROM EXCAVATIONS AGAINST TREE TRUNKS, EVEN FOR SHORT PERIODS. PREVENT WIND-BLOWN MATERIALS SUCH AS CEMENT FROM HARMING TREES AND PLANTS.

Damage:
PREVENT DAMAGE TO TREE BARK. DO NOT ATTACH STAYS, GUYS AND THE LIKE TO TREES.

Work under trees:
DO NOT REMOVE TOPSOIL FROM WITHIN THE DRIP LINE OF TREES UNLESS OTHERWISE SPECIFIED. IF IT IS NECESSARY TO EXCAVATE WITHIN THE DRIP LINE, USE HAND METHODS SUCH THAT ROOT SYSTEMS ARE PRESERVED INTACT AND UNDAMAGED.

Roots:
DO NOT CUT TREE ROOTS EXCEEDING 50 MM DIAMETER UNLESS PERMITTED BY THE SUPERINTENDENT TO CUT TREE ROOTS. USE A CHAIN SAW OR SIMILAR MEANS SUCH THAT THE CUTTING DOES NOT UNDULY DISTURB OR ROCK THE REMAINING ROOT SYSTEM. IMMEDIATELY AFTER CUTTING, APPLY AN APPROVED BITUMINOUS FUNGICIDAL SEALANT TO THE CUT SURFACE TO PREVENT THE INCURSION OF ROT OR DISEASE.

Compacted Ground:
AVOID COMPACTION OF THE GROUND UNDER TREES. IF THE GROUND UNDER TREES HAS BEEN UNDULY COMPACTED DURING THE WORK UNDER THE CONTRACT, FOR EXAMPLE BY THE OPERATION OF HEAVY CONSTRUCTIONAL PLANT, LOOSEN THE SOIL BY CORING.

SOIL WORKS
THOROUGHLY CULTIVATE THE SUBSOIL TO A DEPTH OF 150MM. SUPPLY AND INSTALL TO A DEPTH OF 300 MM THE FOLLOWING SOIL MIX:

SOIL DEPTH	150MM
TURF PLANTING	300MM
SOIL MIX	
BLACK LOAM	60%
COARSE WASHED RIVER SAND	40%

ORGANIC LAYER 50 MM DEEP
CULTIVATE A 50MM LAYER OF ORGANIC ADDMIX INTO THE TOP 100MM OF SOIL MIX

Addmix composition	
TREATED HARDWOOD SAWDUST	30%
PINE PARK FINES	40%
COMPOSTED MANURE	30%

TREE PLANTING AREAS TO BE MOUNDED 300 MM ABOVE THE EXISTING GROUND LINE TO IMPROVE DRAINAGE FROM PLANTING HOLES. TREE HOLES TO BE EXCAVATED 2 TIMES LARGER THAN THE ROOTBALL AND BACKFILLED WITH SOIL MIX AS SPECIFIED ABOVE.

MULCH
SUPPLY AND PLACE 75 MM LAYER OF HARDWOOD HORTICULTURAL GRADE MULCH, (GRADED IN SIZE 16 MM X 15MM X 15MM, FREE FROM WOOD SLIVERS). SET DOWN 25MM FROM ADJACENT PAVING.

TURFED AREAS
APPLY SHIRLEYS NO17 LAWN FERTILISER TO SOIL APPLIED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. TURF SHALL BE:

o **Green Leas Park Couch** WITH AN EVEN THICKNESS OF 30MM.

DO NOT LET TURF DRY OUT. LIGHTLY TOP DRESS TURF 6 WEEKS AFTER LAYING WITH 10MM IMPORTED TOPSOIL THATCH TO BE LAID WITH STAGGERED JOINTS, FLUSH WITH PATHWAY LEVELS.

TIMBER EDGE
ALL MASS PLANTED AREAS WHERE THEY ABUT GRASSED AREAS SHALL HAVE A TREATED TIMBER EDGE, 100 X 38 MM NOMINAL EDGING, 50 MM HW STAKES. SET EDGING FLUSH WITH ADJOINING SURFACES AS SHOWN ON THE DRAWINGS TO DEFINE PLANTING AND OR GRASSED AREAS. FIX EDGING WITH GALVANISED NAILS, TWO PER STAKE. DRIVE STAKES 400 MM INTO GROUND AT 1200 MM CENTRES ON THE PLANTING SIDE OF THE EDGING WITH THE TOP FLUSH WITH THE EDGING.

PLANT MATERIALS
ALL PLANTS SHALL BE TRUE TO TYPE, OF HEALTHY GROWTH DISEASE FREE NURSERY STOCK AND NOT DISPLAYING RESTRICTED GROWTH PATTERNS. SHOULD THERE BE A REQUIREMENT FOR SUBSTITUTIONS THEY SHALL NOT CHANGED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT. NO VARIEGATED STRAIN SHALL BE USED. ALLOW FOR SLOW RELEASE FERTILISER TO ALL PLANTS APPLIED AT THE MANUFACTURERS RECOMMENDED RATE TO BE SAME OR SIMILAR TO OSMOCOTE.

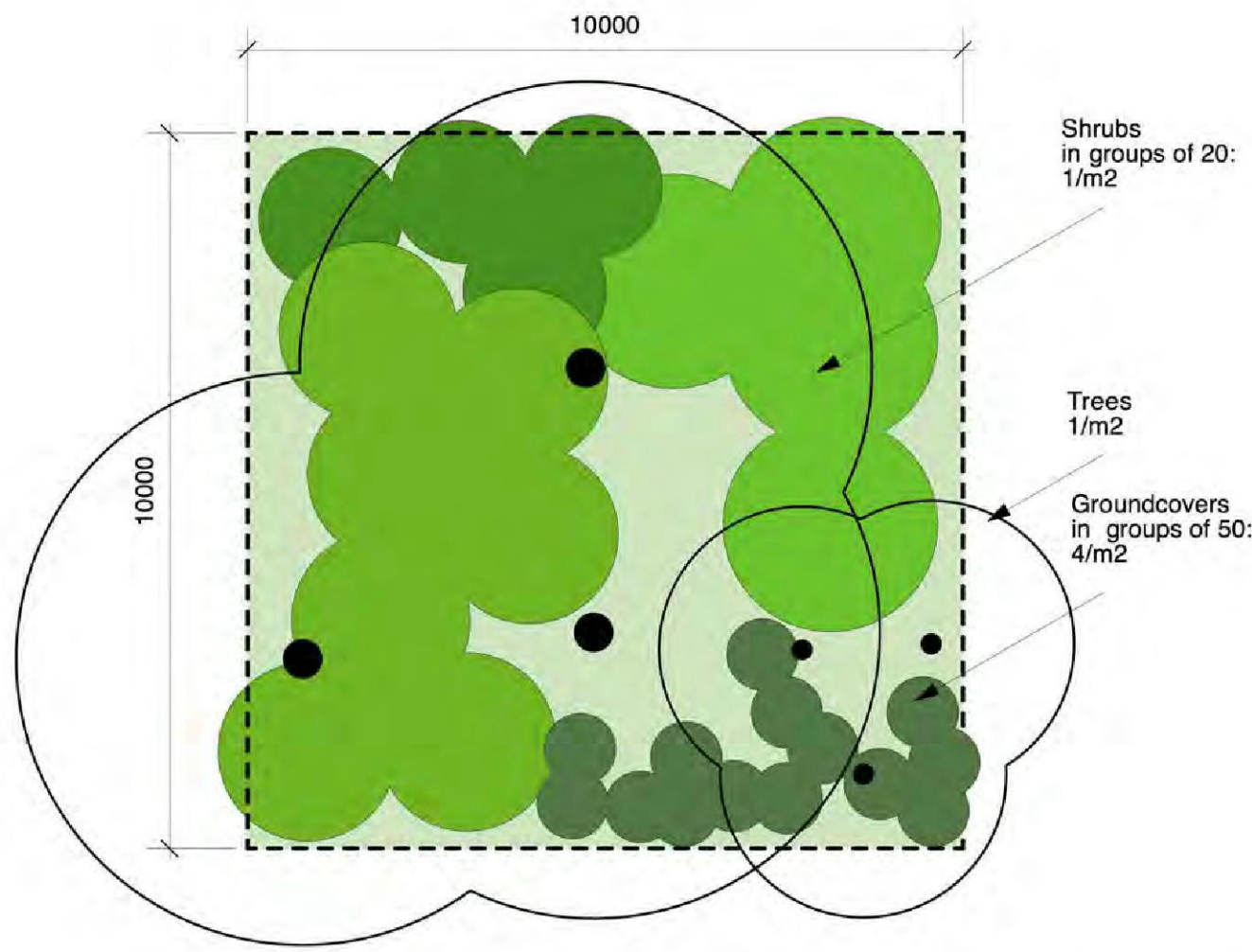
FERTILIZER:
MASS PLANTED AREAS : ALLOW 2 SHIRLEYS SLOW RELEASE KOKEI PELLETS PER 5 - 35 LITRE PLANT AND ONE PER 150MM PLANT TURF AREAS : ALLOW SHELLEYS NO.17 LAWN FERTILIZER OR EQUIVALENT, APPLIED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

STAKES AND TIES
DURABLE HARDWOOD, STRAIGHT, SIZE SHALL BE 50X50X1800 WITH TIES SPACED APPROXIMATELY 300MM APART. DRIVE STAKES 600MM INTO THE GROUND ON THE WINDWARD SIDE OF THE PLANT. TIES SHALL BE 50MM HESSIAN WEBBING FIXED IN A FIGURE OF EIGHT PATTERN.

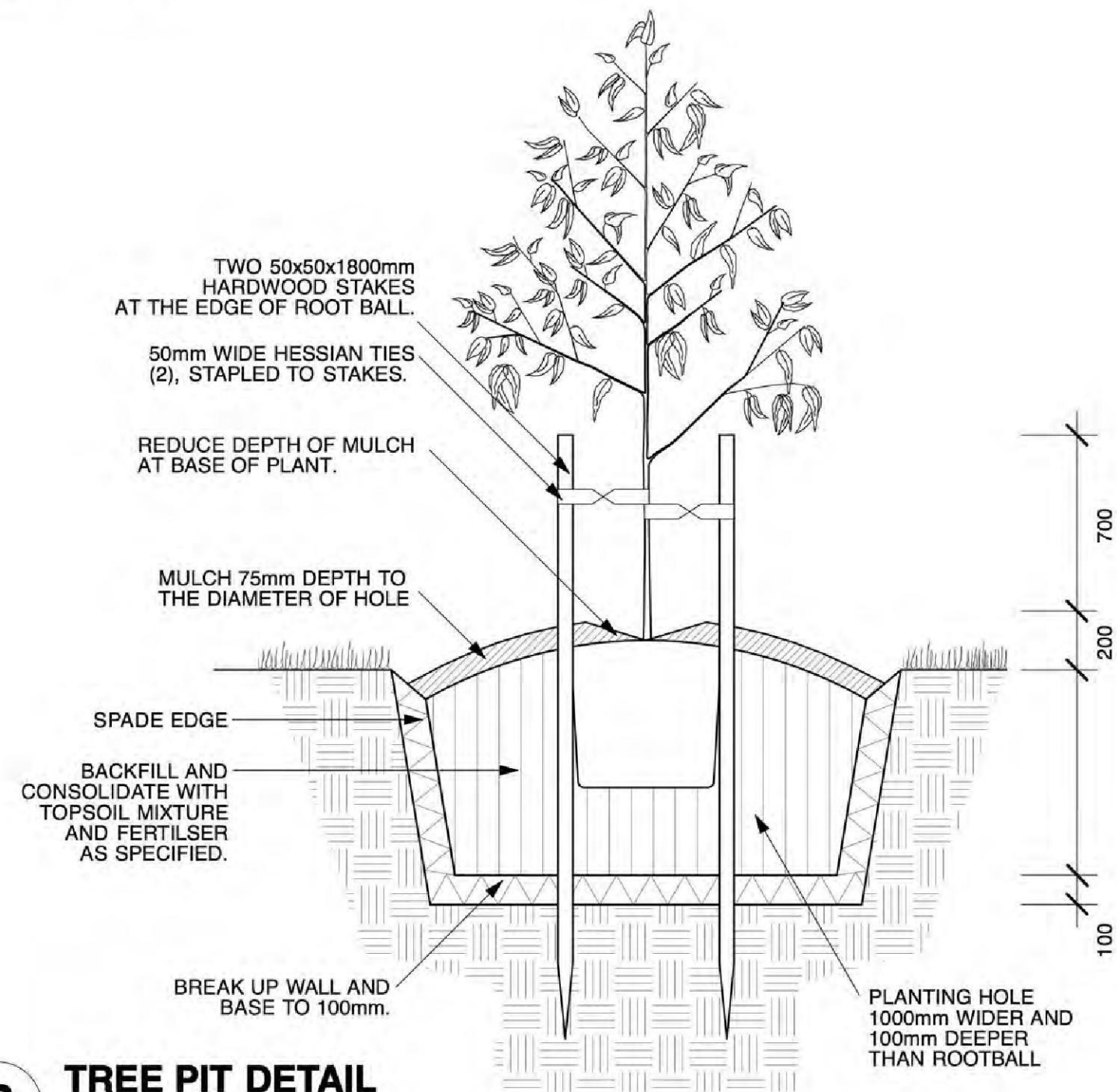
PLANT ESTABLISHMENT PERIOD
FROM THE DATE OF PRACTICAL COMPLETION, THERE SHALL BE A PERIOD OF 52 WEEKS FOR THE PLANTING ESTABLISHMENT PERIOD. ANY FAILED PLANTS SHALL BE REPLACED WITH THE SAME TYPE AND SPECIES. THE MULCHED SURFACES SHALL BE MAINTAINED IN A NEAT AND TIDY CONDITION. STAKES AND TIES SHALL BE ADJUSTED AS REQUIRED AND THE TURF SHALL BE REGULARLY MOWED TO MAINTAIN A HEALTHY GROUND COVER. A CONSTANT WATER REGIME SHALL BE MAINTAINED TO ENSURE HEALTHY GROWTH OF ALL PLANT MATERIAL.

IRRIGATION
ALL PLANTING AREAS TO BE SUPPLIED WITH A FULLY AUTOMATIC DRIP IRRIGATION SYSTEM EQUIVALENT TO THE IRRIGATION SYSTEM SHOWN ON THE DRAWINGS. THE REQUIREMENTS OF THE WATER AND ELECTRICITY SUPPLY AUTHORITY AND RELEVANT AUSTRALIAN STANDARDS. PROVIDE RICHEL OR SIMILAR APPROVED CONTROLLER. CONNECTION TO SYDNEY WATER MAINS TO BE THROUGH AN APPROVED REDUCED PRESSURE ZONE DEVICE. INSTALLED TO WATER REGULATIONS.

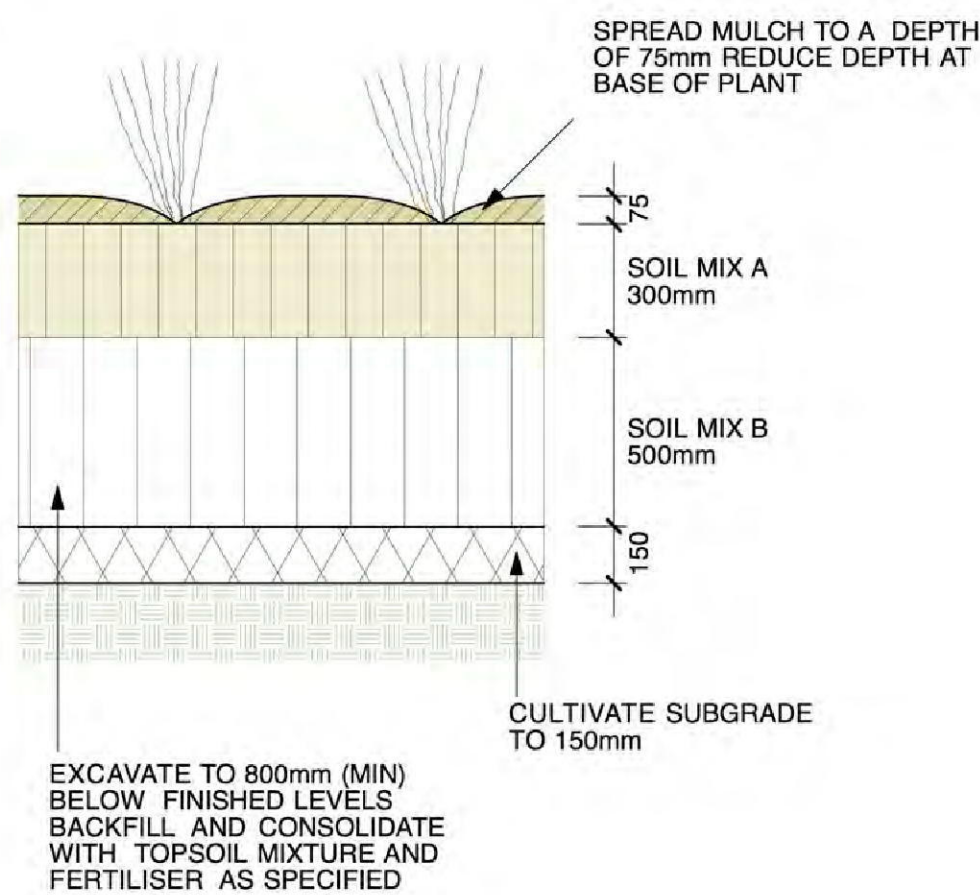
BANK STABILIZATION - Geoweb
MANUFACTURER: GEOFABRICS AUSTRALASIA PTY LTD
PH 02 9821 3277
STANDARD PANEL SIZE: 2.95M X 8.1M
DEPTH: 200MM



A PLANTING MATRIX - MASSED NATIVE SHRUBS + GRASSES DETAIL 1:100@A1

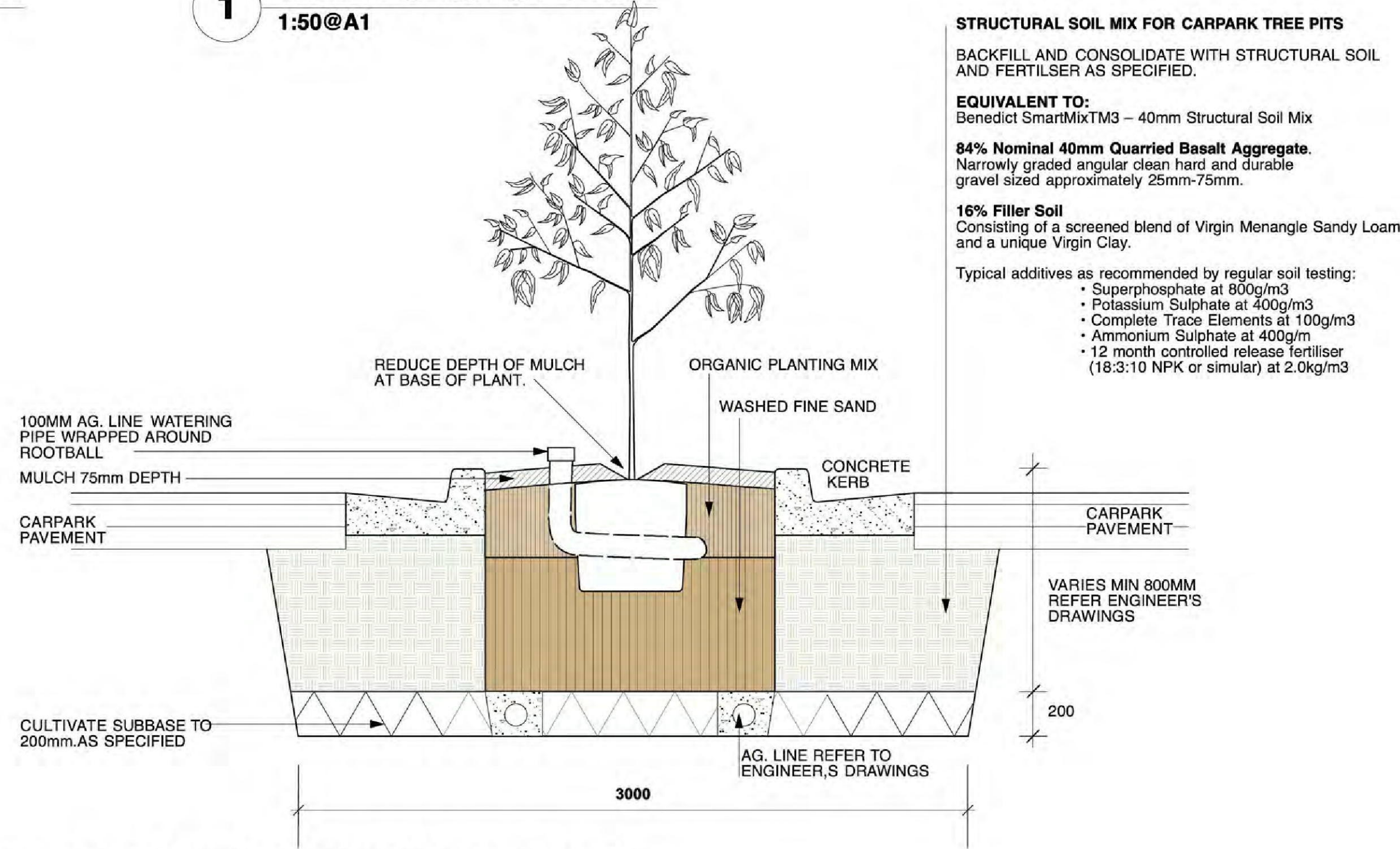


B TREE PIT DETAIL 1:20@A1

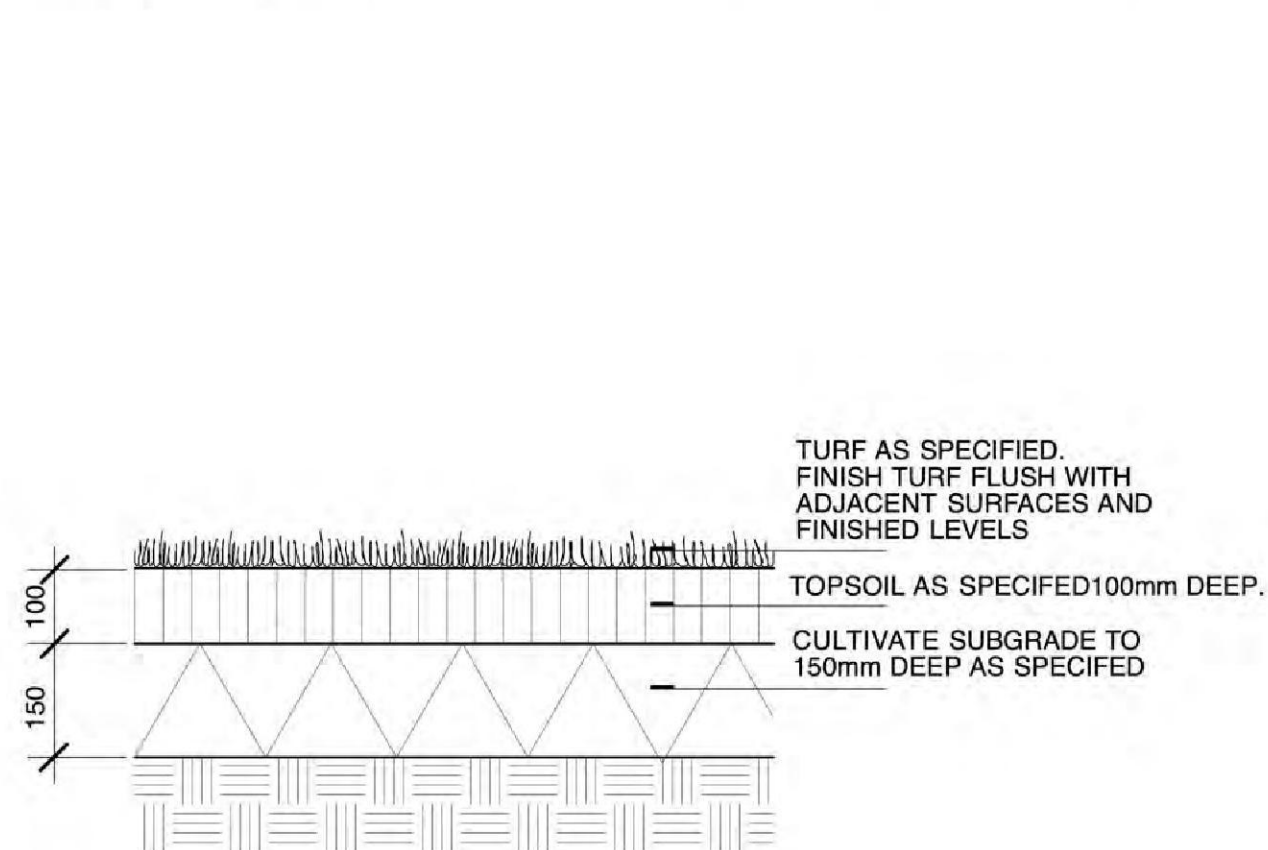


D MASS PLANTING DETAIL 1:20@A1

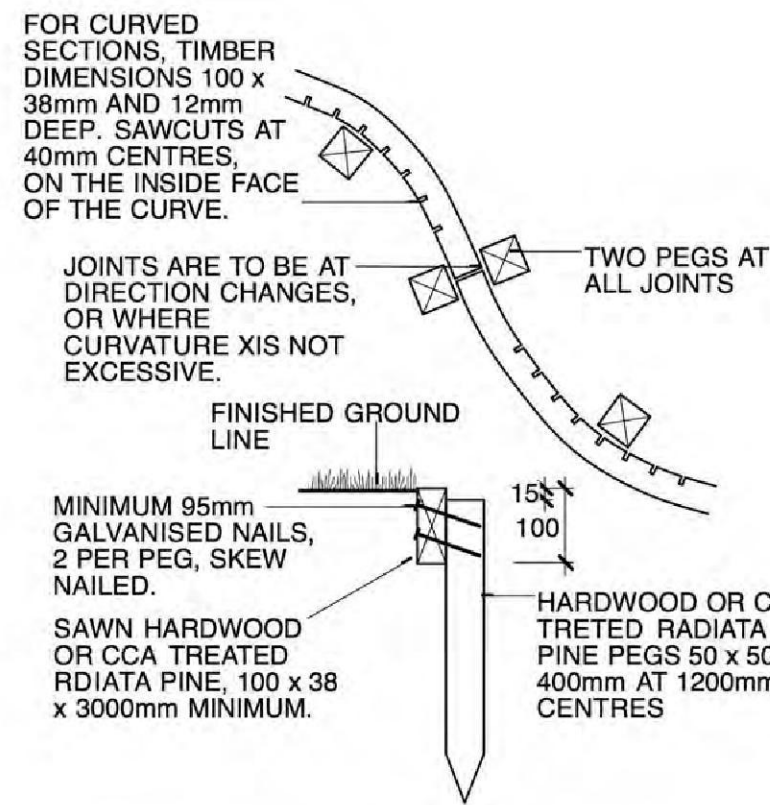
1 TREE PROTECTION DETAIL 1:50@A1



C TREE PIT + MEDIAN IN CAR PARK DETAIL 1:50@A1



E TURF DETAIL 1:10@A1

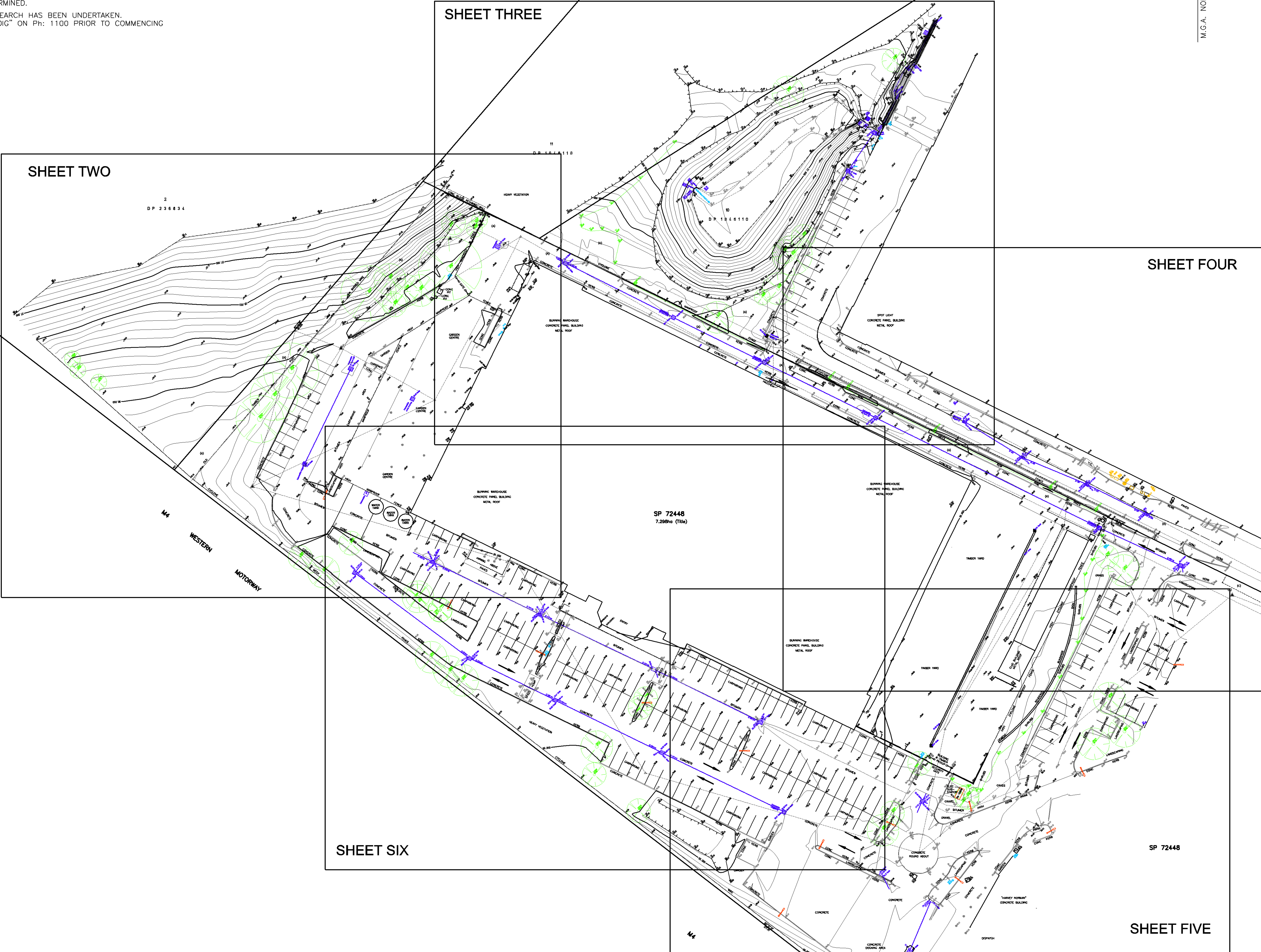


F TIMBER EDGE DETAIL 1:10@A1

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M.G.A. NORTH (ZONE 56)



CLIENT

BUNNINGS GROUP LIMITED

PROJECT

DETAIL SURVEY OF LOT 322 IN DP 1037757 (SP 72448)

303 MULGOA ROAD PENRITH

NOTES

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PPP/CF	LPL	DD/MM/YY	COMMENT

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LANDPARTNERS
built environment consultants

Sydney Office
Level 2, 23-29 South Street
Rydalmere NSW 2116
PO Box 1144
Dundas NSW 2117

(02) 9685 2000
(02) 9685 2001
sydney@landpartners.com.au
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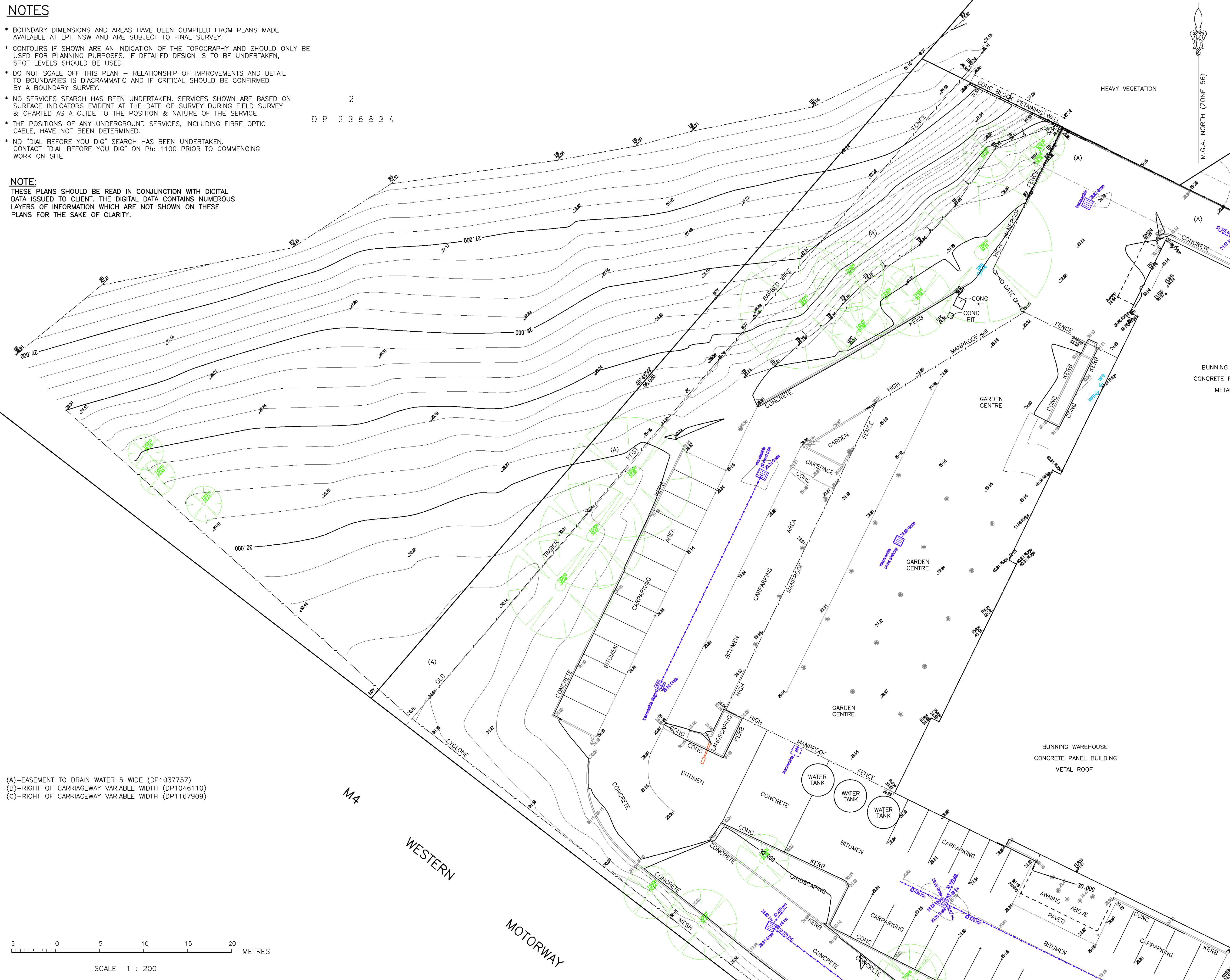
ISO 9001:2008
FS 85503

HEIGHT DATUM AHD	LOCAL AUTHORITY PENRITH COUNCIL	
HEIGHT ORIGIN SSM 32517 RL 30.813	SCALE N.T.S. (A1)	
MERIDIAN 56	CONTOUR INTERVAL 0.2 Metre	
CO-ORD SYSTEM MGA	SURVEYOR MF	DATE OF SURVEY 19/01/15
CCAD FILE 73560	DRAWN LJMc	DATE 22/01/15
AUTOCAD FILE 73560	CHECKED M	DATE 22/01/15
ARCHIVE FILE 73560	APPROVED GKO	DATE 22/01/15
PLAN NUMBER SY073560.000	SHEET 1 OF 6	

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(A)-EASEMENT TO DRAIN WATER 5 WIDE (DP1037757)
(B)-RIGHT OF CARRIAGEWAY VARIABLE WIDTH (DP1046110)
(C)-RIGHT OF CARRIAGEWAY VARIABLE WIDTH (DP1167909)

CLIENT

**BUNNINGS GROUP
LIMITED**

PROJECT

**DETAIL SURVEY
OF
LOT 322 IN DP 1037757
(SP 72448)**

**303 MULGOA ROAD
PENRITH**

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LEGEND

	Bench Mark
	State Survey Mark
	Traverse Station
	Drill Hole & Wing
	Bolard
	Sign
	Power Pole & Light
	Gate
	Unidentified PH Lid
	Unidentified Service
	Sewer Manhole Cover
	Sewer Lamphole
	Gully Pit Grate Cents
	Drainage Junction Manhole
	Tree
	T=Top
	C=4.0m Dia Diameter Of Trunk
	Gr=10m High
	Tree Shrub
	Water Meter
	Water Hydrant
	Water Stop Valve
	WTP

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Sydney Office
Level 2, 23-29 South Street
Rydalmere NSW 2116
PO Box 1144
Dundas NSW 2117

† (02) 9685 2000
f (02) 9685 2001
e sydney@landpartners.com.au
w www.landpartners.com.au

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FS 535063

HEIGHT DATUM AHD	LOCAL AUTHORITY PENRITH COUNCIL	
HEIGHT ORIGIN SSM 32517 RL 30.813	SCALE 1:200 [A1]	
MERIDIAN 56	CONTOUR INTERVAL 0.2 Metre	
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SY073560.000

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5 0 5 10 15 20 METRES

SCALE 1 : 200

M.G.A. NORTH (ZONE 56)

CLIENT

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- Gate
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- Unidentified Service
- Sewer Manhole Cover
- Sewer Lamphole
- Gully Pit Grate Centre
- Drainage Junction Manhole
- T=Tree
05-0.5m Diameter Of Trunk
0.0m-1.0m High
- Tree Shrub
- Water Meter
- Water Hydrant
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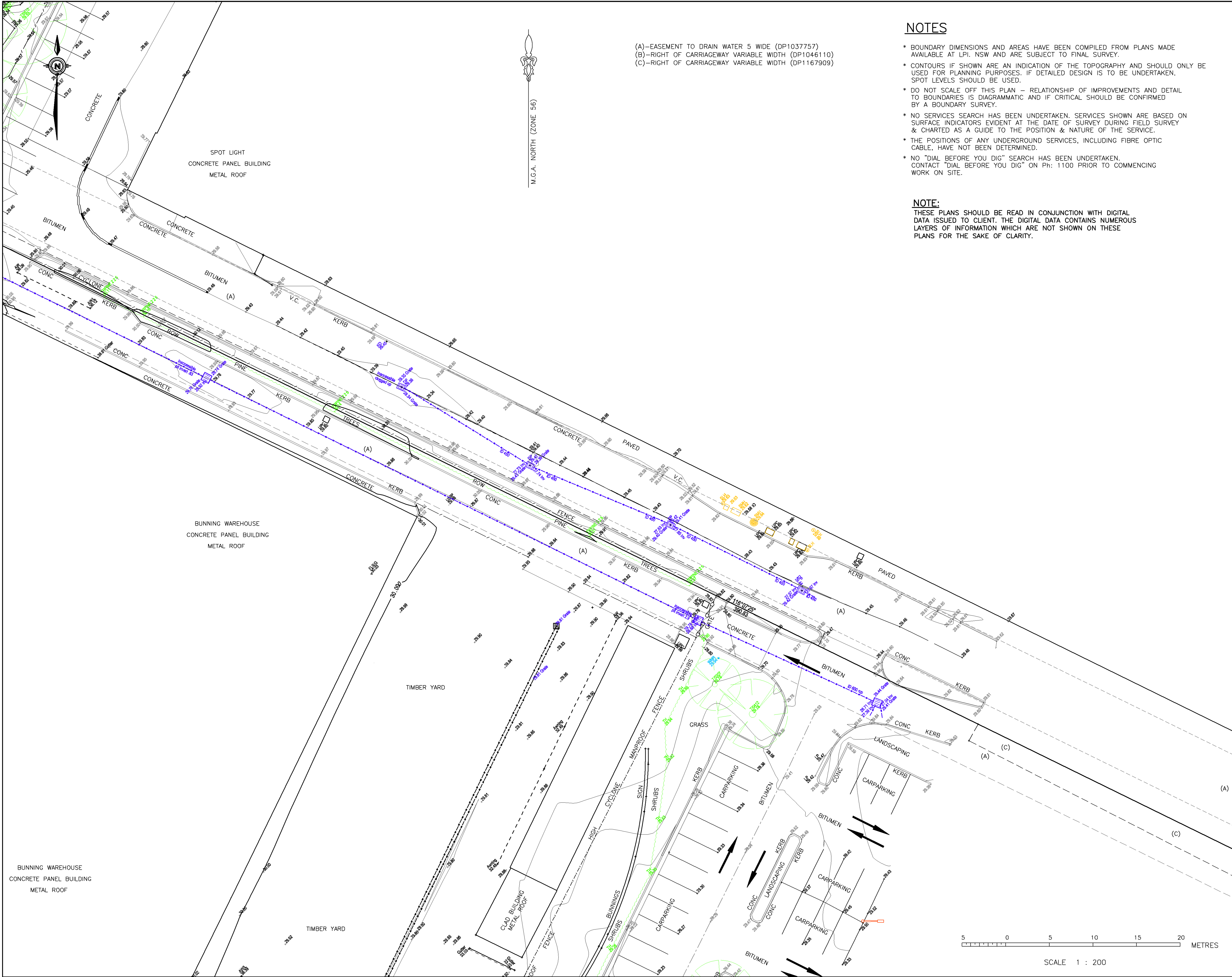
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PLAN NUMBER
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SHEET 3 OF 6

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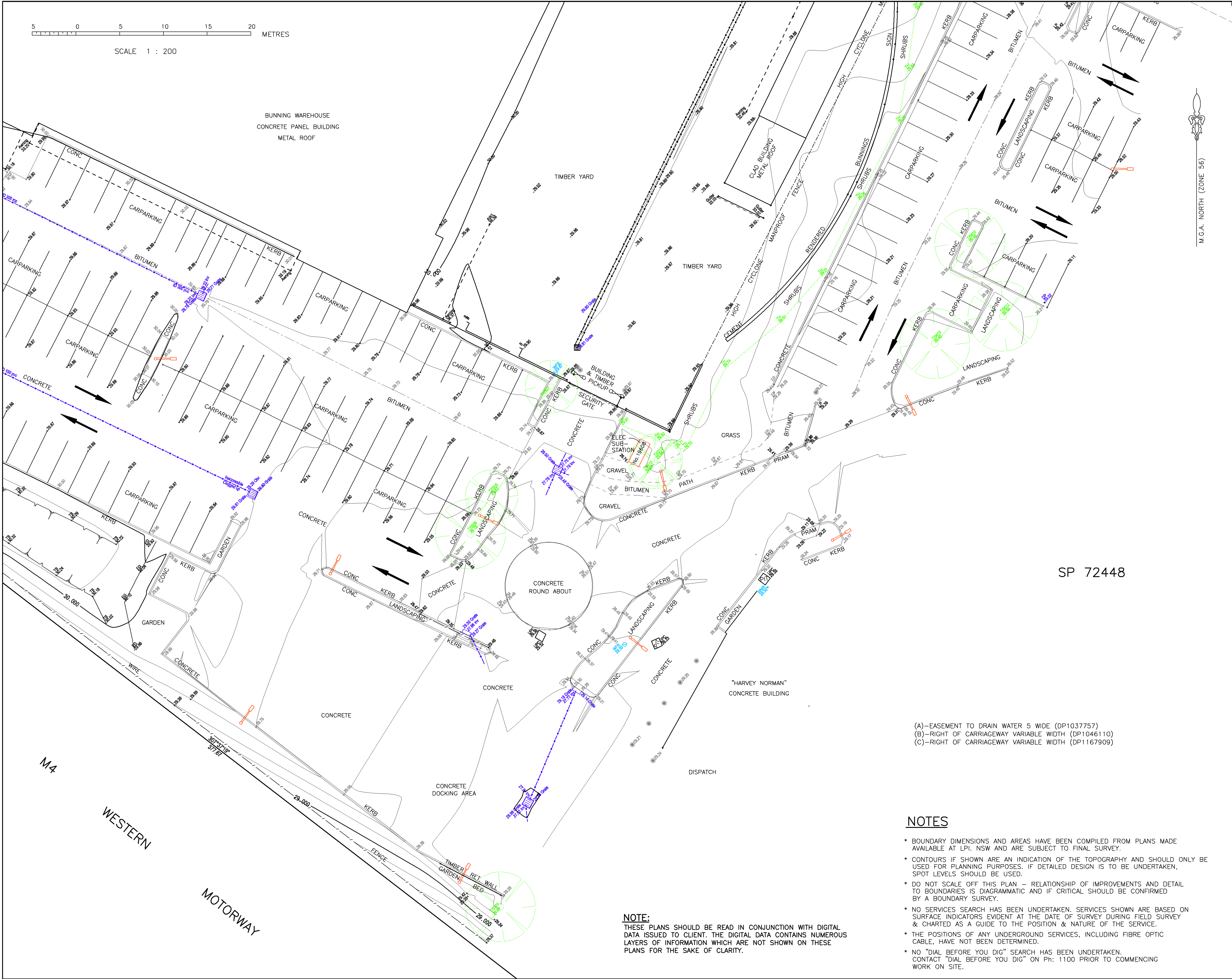


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MERIDIAN 56	CONTOUR INTERVAL 0.2 Metre	
CO-ORD SYSTEM MGA	SURVEYOR MF	DATE OF SURVEY 19/01/15
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HEIGHT DATUM	LOCAL AUTHORITY	
AHD	PENRITH COUNCIL	
HEIGHT ORIGIN	SCALE	
SSM 32517 RL 30.813	1:200 (A1)	
MERIDIAN	CONTOUR INTERVAL	
56	0.2 Metre	
CO-ORD SYSTEM	SURVEYOR	DATE OF SURVEY
MGA	MF	19/01/15
CCAD FILE	DRAWN	DATE
73560	LJMc	22/01/15
AUTOCAD FILE	CHECKED	DATE
73560	M	22/01/15
ARCHIVE FILE	APPROVED	DATE
73560	GKO	22/01/15
PLAN NUMBER		
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NOTE:

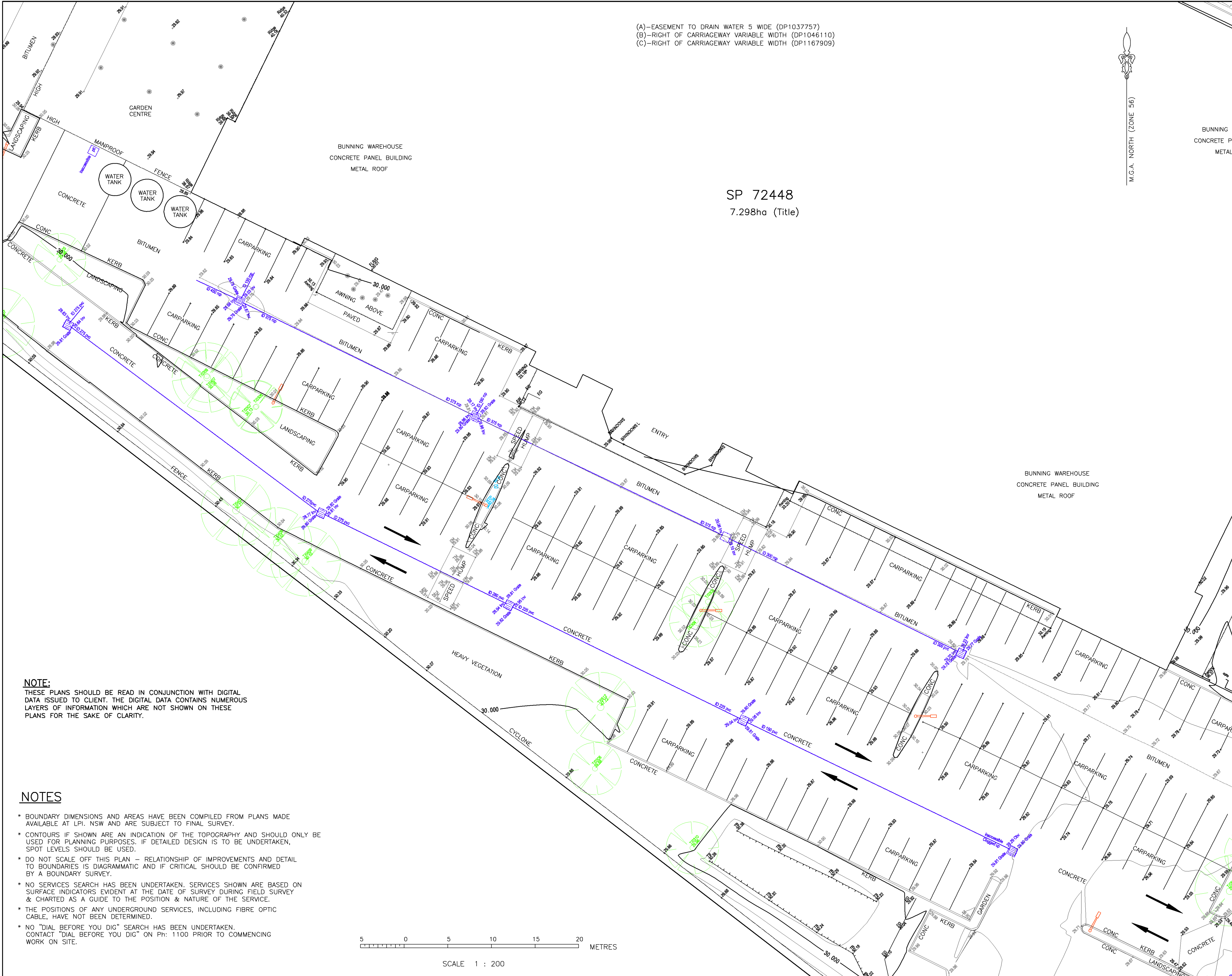
THESE PLANS SHOULD BE READ IN CONJUNCTION WITH DIGITAL DATA ISSUED TO CLIENT. THE DIGITAL DATA CONTAINS NUMEROUS LAYERS OF INFORMATION WHICH ARE NOT SHOWN ON THESE PLANS FOR THE SAKE OF CLARITY.

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SHEET 6 OF 6



(A)–EASEMENT TO DRAIN WATER 5 WIDE (DP1037757)
(B)–RIGHT OF CARRIAGEWAY VARIABLE WIDTH (DP1046110)
(C)–RIGHT OF CARRIAGEWAY VARIABLE WIDTH (DP1167909)

SP 72448
7.298ha (Title)

CLIENT

BUNNINGS GROUP LIMITED

PROJECT

DETAIL SURVEY
OF
LOT 322 IN DP 1037757
(SP 72448)
303 MULGOA ROAD
PENRITH

NOTES

The title boundaries shown hereon were not marked at the time of survey and have been determined by plan dimensions only and not by field survey.
Services shown hereon have been located where possible by field survey. If not able to be so located, services have been plotted from the records of relevant authorities where available and have been noted accordingly on the plan. Where such records do not exist or are inadequate a notation has been made hereon.
Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services.

A	LJMc	22/01/15	ISSUED FOR COMMENT
PPP/CF	LPL	DD/MM/YY	COMMENT

LEGEND

Bench Mark

State Survey Mark

Traverse Station

DHI Hole & Wing

Bolt

Sign

Power Pole & Light

Gate

Unidentified Pit Lid

Unidentified Service

Sewer Manhole Cover

Sewer Lamp

Gully Pit Grate Centre

Drainage Junction Manhole

T=Tree
05-0.5m Diameter Of Trunk
0.0m High

Tree Shrub

Water Meter

Water Hydrant

Water Stop Valve

Symbols shown are indicative only. The symbol size and orientation does not necessarily represent the real size or orientation of the feature.

LANDPARTNERS
built environment consultants

Sydney Office
Level 2, 23-29 South Street
Ryde NSW 2116
PO Box 1144
Dundas NSW 2117

(02) 9685 2000

(02) 9685 2001

sydney@landpartners.com.au

www.landpartners.com.au

ISO 9001:2015

HEIGHT DATUM AHD	LOCAL AUTHORITY PENRITH COUNCIL
HEIGHT ORIGIN SSM 32517 RL 30.813	SCALE 1:200 (A1)
MERIDIAN 56	CONTOUR INTERVAL 0.2 Metre
CO-ORD SYSTEM MGA	SURVEYOR MF
DATE OF SURVEY 22/01/15	DATE 22/01/15
CCAD FILE 73560	CHECKED M
AUTOCAD FILE 73560	DATE 22/01/15
ARCHIVE FILE 73560	APPROVED GKO
DATE 22/01/15	DATE 22/01/15

PLAN NUMBER
SY073560.000

SHEET 6 OF 6

NOTE:

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NOTES

- * BOUNDARY DIMENSIONS AND AREAS HAVE BEEN COMPILED FROM PLANS MADE AVAILABLE AT LPI. NSW AND ARE SUBJECT TO FINAL SURVEY.
- * CONTOURS IF SHOWN ARE AN INDICATION OF THE TOPOGRAPHY AND SHOULD ONLY BE USED FOR PLANNING PURPOSES. IF DETAILED DESIGN IS TO BE UNDERTAKEN, SPOT LEVELS SHOULD BE USED.
- * DO NOT SCALE OFF THIS PLAN – RELATIONSHIP OF IMPROVEMENTS AND DETAIL TO BOUNDARIES IS DIAGRAMMATIC AND IF CRITICAL SHOULD BE CONFIRMED BY A BOUNDARY SURVEY.
- * NO SERVICES SEARCH HAS BEEN UNDERTAKEN. SERVICES SHOWN ARE BASED ON SURFACE INDICATORS EVIDENT AT THE DATE OF SURVEY DURING FIELD SURVEY & CHARTED AS A GUIDE TO THE POSITION & NATURE OF THE SERVICE.
- * THE POSITIONS OF ANY UNDERGROUND SERVICES, INCLUDING FIBRE OPTIC CABLE, HAVE NOT BEEN DETERMINED.
- * NO "DIAL BEFORE YOU DIG" SEARCH HAS BEEN UNDERTAKEN. CONTACT "DIAL BEFORE YOU DIG" ON PH: 1100 PRIOR TO COMMENCING WORK ON SITE.

