

29 April 2016

DEXUS Wholesale Management Limited (ACN 159 301 907)
as trustee for DEXUS Quarry West Subtrust (ABN 65 043 801 812)
c/- Tactical Project Management
Attention: Mr Terry Timso
Level 15
124 Walker Street
NORTH SYDNEY NSW 2060

Dear Sir

**Re: Lot 18 DP 270644, Greystanes Southern Employment Land (Boral Land)
Section 96 Application SSD_6801**

We provide this letter relating to a proposed Section 96 application to the Greystanes Southern Quarry West project approved under SSD_6801. Specifically this letter covers the civil engineering aspects of the amendment.

The Section 96 Application is for an amendment to the approved layout defined in SSD_6801. The main component of the amendment is for an adjustment to the approved masterplan lot layout and minor changes to warehouse levels in Precincts A and B.

A set of civil engineering drawings were completed by Costin Roe Consulting during 2015. The following drawings have been updated to show the new masterplan layout and adjustments to the engineering design:

- Co10529.34-DA40 [E] Site Masterplan
- Co10529.34-DA41 [E] Civil Works Plan Sheet 1
- Co10529.34-DA42 [E] Civil Works Plan Sheet 2
- Co10529.34-DA46 [G] Stormwater Management/Water Quality

We have also provided a summary of the engineering components of the development which will change from, or remain consistent with, the approved SSD_6801 development. The summary of design elements are as follows:

1. Development Layout:

The development layout differs from the previous submission in that the arrangement of the development lots on the northern side of Dolorite Close within Precincts A and B have been adjusted.

The adjustments mainly relate to Warehouse B1 and Warehouse A2. The lot layouts to the east and south of the estate road are generally consistent with the approved SSD_6801. Some minor changes to car park arrangement to the north of Warehouse B2 have also been made.

2. Bulk Earthworks:

The floor levels for warehouse B1 and B2 have had some minor adjustments to suit a balance of cut to fill earthworks and to better facilitate access to the development sites.

Warehouse B1 floor level has been lowered from 59.3 to 59.00m while Warehouse B2 has been raised from 59.30 to 59.90m.

3. Stormwater Management & Layout:

The Stormwater Management Strategy for the site will remain generally consistent with the approved configuration produced by Costin Roe in 2015 and the overall Quarry Estate Management defined by GHD in 2006. The overall impervious surface area also remains generally consistent with the approved masterplan layout, hence stormwater runoff rates remain consistent with the approval and overall Quarry Estate Management Plan.

Minor adjustments to the locations of the bio-retentions within the site have been made. The basin to the north of Warehouse B2 & Warehouse B3 has been adjusted as a result of the carpark arrangement specified above. It can be confirmed that the minimum required 3000m² of bio retention, as defined in SSD_6801, has been provided.

Additionally an extra stormwater outlet pipe and stub has been provided to the north of Warehouse B1. This is the result of the adjusted development layout and boundary location specified above. The majority of the approved drainage outlets have now been constructed, therefore an additional outlet pipe is required to facilitate drainage of Warehouse B1 without the need for easements within adjoining lots. This change does not affect the ability for the western drainage swale to convey the required 1 in 100 year ARI design storm.

All stormwater runoff will remain being directed to the perimeter drainage channel on the western boundary of the development which ultimately conveys stormwater to the estate level detention basin provided off site and known as the Widemere East basin.

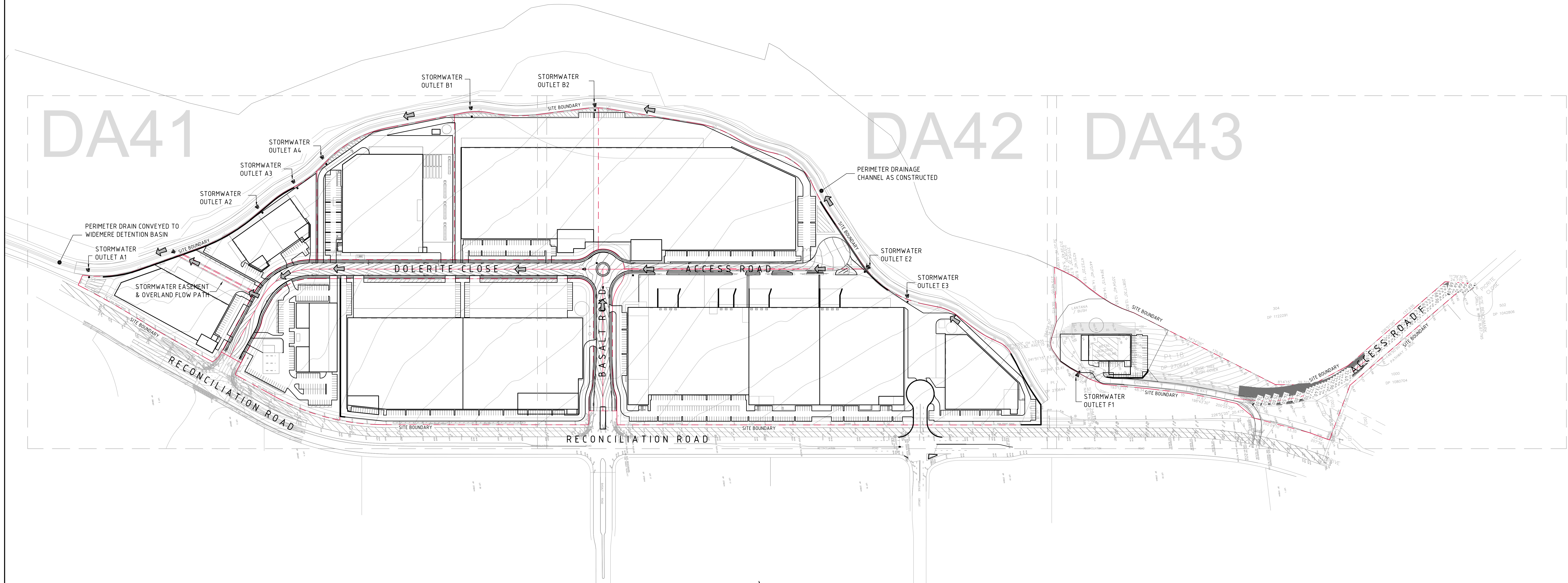
We trust the above information meets your current needs. Please do not hesitate in contacting the undersigned if any further clarification is required.

Yours faithfully,

COSTIN ROE CONSULTING PTY LTD



MARK WILSON MIEAust CPEng NER
Director



SITE MASTERPLAN
SCALE 1:1500

LEGEND:

LEVELS DATUM IS AHD.

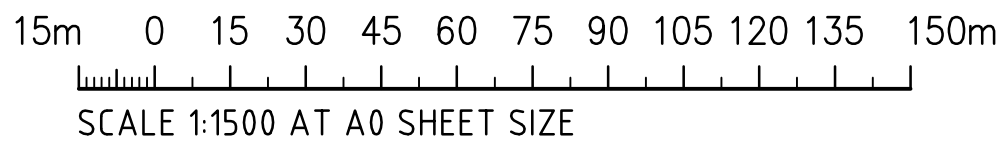
EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY
INFORMATION PROVIDED BY LAND PARTNERS DATED 11.05.14

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- DRAINAGE LINE
- FINISHED PAVEMENT CONTOUR (MAJOR)
0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR)
0.1m INTERVALS

WATER QUALITY NOTE:

ALL DEVELOPMENT SITES TO PROVIDE AN END-OF-LINE GROSS POLLUTANT TRAP
PRIOR TO CONNECTION TO ESTATE INFRASTRUCTURE SYSTEM OR TO PERIMETER
DRAINAGE CHANNELS.

FOR S96 MODIFICATION



ISSUED FOR S96 MODIFICATION			29.04.16	F							ARCHITECT			CLIENT			PROJECT			Costin Roe Consulting Pty Ltd. Consulting Engineers			DRAWING TITLE		
ISSUED FOR S96 MODIFICATION			22.04.16	E													QUARRY WEST RECONCILIATION DRIVE PEMULWUY, NSW						SITE MASTERPLAN		
ISSUED FOR DEVELOPMENT APPLICATION			01.07.15	D																					
ISSUED FOR DEVELOPMENT APPLICATION			20.03.15	C																					
ISSUED FOR DEVELOPMENT APPLICATION			11.02.14	B																					
ISSUED FOR REVIEW			28.11.14	A																					
AMENDMENTS			DATE	ISSUE	AMENDMENTS			DATE	ISSUE	AMENDMENTS			DATE	ISSUE	DESIGNED			SCALE	CHECKED	DATE	SCALE	DATE	SCALE		
															M.W			A0	M.C	06.05.14	A0	06.05.14	A0	06.05.14	
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PIT SCHEDULE

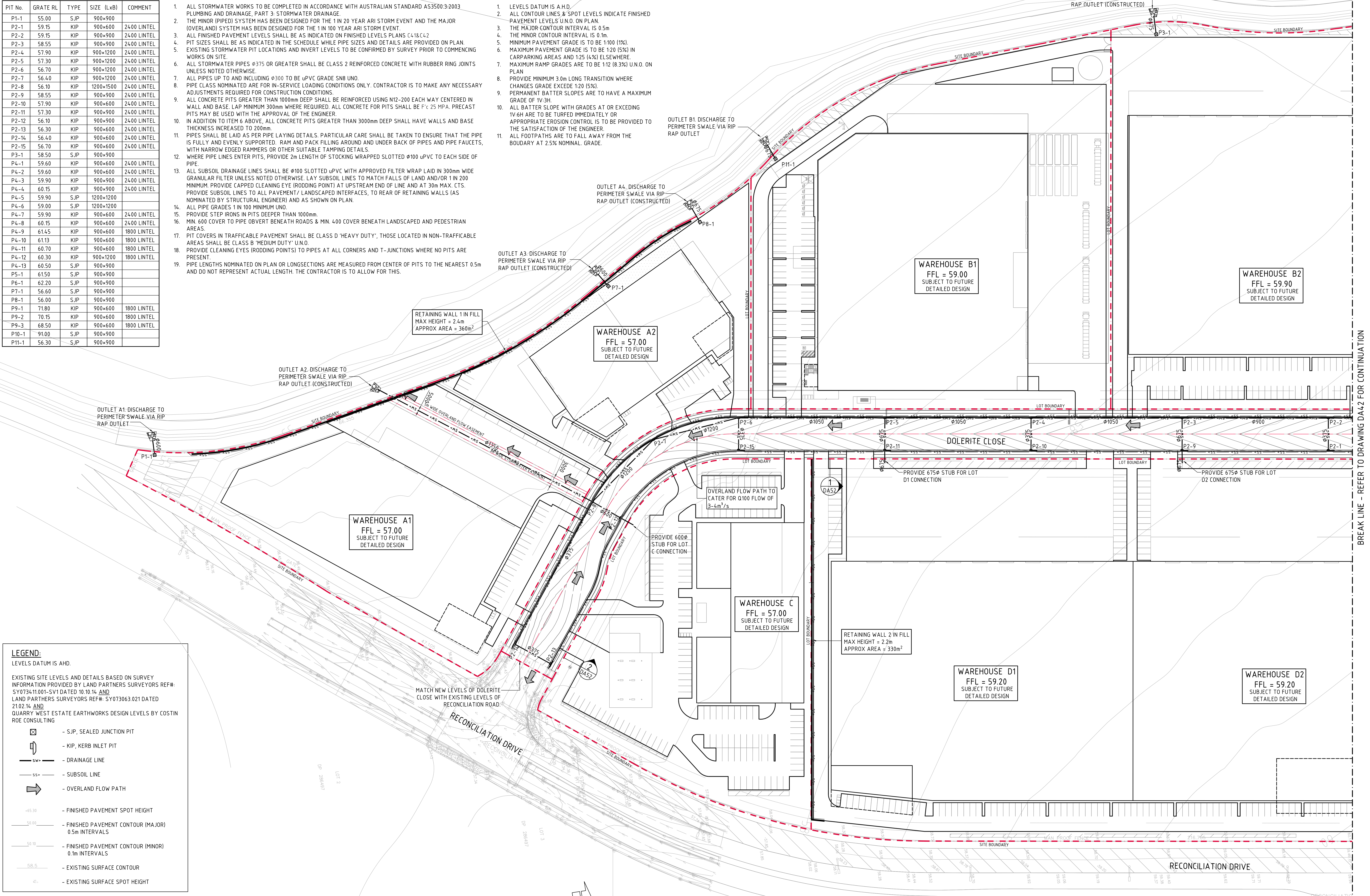
PIT No.	GRATE RL	TYPE	SIZE (LxB)	COMMENT
P1-1	55.00	SJP	900x900	
P2-1	59.15	KIP	900x600	2400 LINTEL
P2-2	59.15	KIP	900x900	2400 LINTEL
P2-3	58.55	KIP	900x900	2400 LINTEL
P2-4	57.90	KIP	900x1200	2400 LINTEL
P2-5	57.30	KIP	900x1200	2400 LINTEL
P2-6	56.70	KIP	900x1200	2400 LINTEL
P2-7	56.40	KIP	900x1200	2400 LINTEL
P2-8	56.10	KIP	1200x1500	2400 LINTEL
P2-9	58.55	KIP	900x900	2400 LINTEL
P2-10	57.90	KIP	900x600	2400 LINTEL
P2-11	57.30	KIP	900x900	2400 LINTEL
P2-12	56.10	KIP	900x900	2400 LINTEL
P2-13	56.30	KIP	900x600	2400 LINTEL
P2-14	56.40	KIP	900x600	2400 LINTEL
P2-15	56.70	KIP	900x600	2400 LINTEL
P3-1	58.50	SJP	900x900	
P4-1	59.60	KIP	900x600	2400 LINTEL
P4-2	59.60	KIP	900x600	2400 LINTEL
P4-3	59.90	KIP	900x900	2400 LINTEL
P4-4	60.15	KIP	900x900	2400 LINTEL
P4-5	59.90	SJP	1200x1200	
P4-6	59.00	SJP	1200x1200	
P4-7	59.90	KIP	900x600	2400 LINTEL
P4-8	60.15	KIP	900x600	2400 LINTEL
P4-9	61.45	KIP	900x600	1800 LINTEL
P4-10	61.13	KIP	900x600	1800 LINTEL
P4-11	60.70	KIP	900x600	1800 LINTEL
P4-12	60.30	KIP	900x1200	1800 LINTEL
P4-13	60.50	SJP	900x900	
P5-1	61.50	SJP	900x900	
P6-1	62.20	SJP	900x900	
P7-1	56.60	SJP	900x900	
P8-1	56.00	SJP	900x900	
P9-1	71.80	KIP	900x600	1800 LINTEL
P9-2	70.15	KIP	900x600	1800 LINTEL
P9-3	68.50	KIP	900x600	1800 LINTEL
P10-1	91.00	SJP	900x900	
P11-1	56.30	SJP	900x900	

STORMWATER DRAINAGE NOTES:

- ALL STORMWATER WORKS TO BE COMPLETED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500.3:2003 PLUMBING AND DRAINAGE, PART 3: STORMWATER DRAINAGE.
- THE MINOR (PIPED) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 20 YEAR ARI STORM EVENT AND THE MAJOR (OVERLAND) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 100 YEAR ARI STORM EVENT.
- ALL FINISHED PAVEMENT LEVELS SHALL BE AS INDICATED ON FINISHED LEVELS PLANS C41&C42
- PIT SIZES SHALL BE AS INDICATED IN THE SCHEDULE WHILE PIPE SIZES AND DETAILS ARE PROVIDED ON PLAN.
- EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
- ALL STORMWATER PIPES Ø375 OR GREATER SHALL BE CLASS 2 REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
- ALL PIPES UP TO AND INCLUDING Ø300 TO BE uPVC GRADE SN8 UNO.
- PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
- ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12-200 EACH WAY CENTERED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE F'c 25 MPA. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
- IN ADDITION TO ITEM 6 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
- PIPES SHALL BE LAID AS PER PIPE LAYING DETAILS. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE IS FULLY AND EVENLY SUPPORTED. RAM AND PACK FILLING AROUND AND UNDER BACK OF PIPES AND PIPE FAUCETS, WITH NARROW EDGED RAMMERS OR OTHER SUITABLE TAMPING DETAILS.
- WHERE PIPE LINES ENTER PITS, PROVIDE 2m LENGTH OF STOCKING WRAPPED SLOTTED Ø100 uPVC TO EACH SIDE OF PIPE.
- ALL SUBSOIL DRAINAGE LINES SHALL BE Ø100 SLOTTED uPVC WITH APPROVED FILTER WRAP LAID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAY SUBSOIL LINES TO MATCH FALLS OF LAND AND/OR 1 IN 200 MINIMUM. PROVIDE CAPPED CLEANING EYE (RODDING POINT) AT UPSTREAM END OF LINE AND AT 30m MAX. CTS. PROVIDE SUBSOIL LINES TO ALL PAVEMENT / LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
- ALL PIPE GRADES 1 IN 100 MINIMUM UNO.
- PROVIDE STEP IRONS IN PITS DEEPER THAN 1000mm.
- MIN. 600 COVER TO PIPE OBVERT BENEATH ROADS & MIN. 400 COVER BENEATH LANDSCAPED AND PEDESTRIAN AREAS.
- PIT COVERS IN TRAFFICABLE PAVEMENT SHALL BE CLASS D 'HEAVY DUTY', THOSE LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS B 'MEDIUM DUTY' UNO.
- PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
- PIPE LENGTHS NOMINATED ON PLAN OR LONGSECTIONS ARE MEASURED FROM CENTER OF PITS TO THE NEAREST 0.5m AND DO NOT REPRESENT ACTUAL LENGTH. THE CONTRACTOR IS TO ALLOW FOR THIS.

FINISHED LEVELS PLAN NOTES:

- LEVELS DATUM IS A.H.D.
- ALL CONTOUR LINES & SPOT LEVELS INDICATE FINISHED PAVEMENT LEVELS U.N.O. ON PLAN.
- THE MAJOR CONTOUR INTERVAL IS 0.5m
- THE MINOR CONTOUR INTERVAL IS 0.1m.
- MINIMUM PAVEMENT GRADE IS TO BE 1:100 (1%).
- MAXIMUM PAVEMENT GRADE IS TO BE 1:20 (5%) IN CARPARKING AREAS AND 1:25 (4%) ELSEWHERE.
- MAXIMUM RAMP GRADES ARE TO BE 1:12 (8.3%) U.N.O. ON PLAN.
- PROVIDE MINIMUM 3.0m LONG TRANSITION WHERE CHANGES GRADE EXCEED 1:20 (5%).
- PERMANENT BATTER SLOPES ARE TO HAVE A MAXIMUM GRADE OF 1V:3H.
- ALL BATTER SLOPE WITH GRADES AT OR EXCEEDING 1V:6H ARE TO BE TURFED IMMEDIATELY OR APPROPRIATE EROSION CONTROL IS TO BE PROVIDED TO THE SATISFACTION OF THE ENGINEER.
- ALL FOOTPATHS ARE TO FALL AWAY FROM THE BOUDARY AT 2.5% NOMINAL GRADE.



LEGEND:

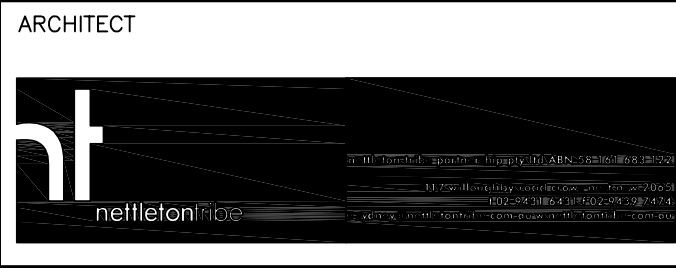
- LEVELS DATUM IS AHD.
- EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY INFORMATION PROVIDED BY LAND PARTNERS SURVEYORS REF#: SY073411001-SV1 DATED 10.10.14 AND LAND PARTNERS SURVEYORS REF#: SY073063.021 DATED 21.02.14 AND QUARRY WEST ESTATE EARTHWORKS DESIGN LEVELS BY COSTIN ROE CONSULTING
- SJP, SEALED JUNCTION PIT
 - KIP, KERB INLET PIT
 - DRAINAGE LINE
 - SUBSOIL LINE
 - OVERLAND FLOW PATH
 - FINISHED PAVEMENT SPOT HEIGHT
 - FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
 - FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
 - EXISTING SURFACE CONTOUR
 - EXISTING SURFACE SPOT HEIGHT

FOR S96 MODIFICATION

CIVIL WORKS PLAN - SHEET 1
SCALE 1:500

ISSUED FOR S96 MODIFICATION	29.04.16	F
ISSUED FOR S96 MODIFICATION	22.04.16	E
ISSUED FOR DEVELOPMENT APPLICATION	01.07.15	D
ISSUED FOR DEVELOPMENT APPLICATION	20.03.15	C
ISSUED FOR DEVELOPMENT APPLICATION	11.12.14	B
ISSUED FOR REVIEW	28.11.14	A

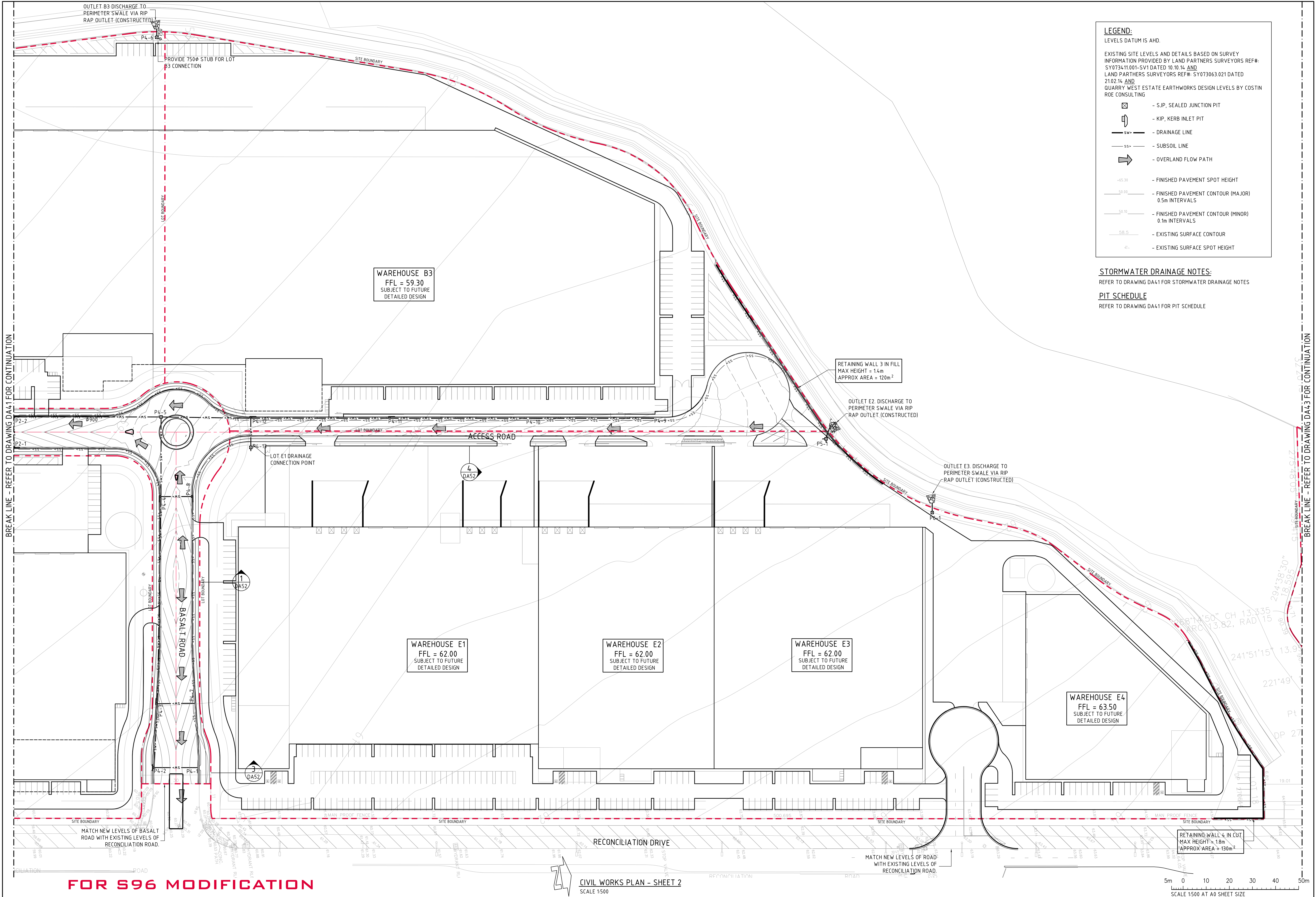
AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE



PROJECT	QUARRY WEST RECONCILIATION DRIVE PEMULWUY, NSW
DESIGNED	DRW: M.C.
CHECKED	CHK: M.C.
DATE	06.05.16
SCALE	AS SHOWN
CAD REF:	C010529.34 - DA41



DRAWING TITLE	CIVIL WORKS PLAN SHEET 1
DRAWING No	C010529.34-DA41
ISSUE	F



LEGEND:
LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY INFORMATION PROVIDED BY LAND PARTNERS SURVEYORS REF#: SY073411.001-SV1 DATED 10.10.14 AND LAND PARTNERS SURVEYORS REF#: SY073063.021 DATED 21.02.14 AND QUARRY WEST ESTATE EARTHWORKS DESIGN LEVELS BY COSTIN ROE CONSULTING

- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
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- SUBSOIL LINE
- OVERLAND FLOW PATH
- FINISHED PAVEMENT SPOT HEIGHT
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- EXISTING SURFACE CONTOUR
- EXISTING SURFACE SPOT HEIGHT

STORMWATER DRAINAGE NOTES:
REFER TO DRAWING DA41 FOR STORMWATER DRAINAGE NOTES

PIT SCHEDULE
REFER TO DRAWING DA41 FOR PIT SCHEDULE

BREAK LINE - REFER TO DRAWING DA41 FOR CONTINUATION

BREAK LINE - REFER TO DRAWING DA43 FOR CONTINUATION

FOR S96 MODIFICATION

CIVIL WORKS PLAN - SHEET 2
SCALE 1500

ISSUED FOR S96 MODIFICATION				29.04.16				F			
ISSUED FOR S96 MODIFICATION				22.04.16				E			
ISSUED FOR DEVELOPMENT APPLICATION				01.07.15				D			
ISSUED FOR DEVELOPMENT APPLICATION				20.03.15				C			
ISSUED FOR DEVELOPMENT APPLICATION				11.02.14				B			
ISSUED FOR REVIEW				28.11.14				A			
AMENDMENTS				DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE
ARCHITECT				CLIENT				PROJECT			
								QUARRY WEST RECONCILIATION DRIVE PEMULWUY, NSW			
DESIGNED				DATE	CHECKED	SCALE	CAD REF	COSTIN ROE CONSULTING PTY LTD.			
M.W.				06.05.14	AS SHOWN	AS SHOWN	DA42	Consulting Engineers			
								Level 1, 9 Windmill Street			
								Wahah Bay, Sydney NSW 2000			
								Tel: (02) 9251-7899 Fax: (02) 9241-3721			
								email: mail@costinroe.com.au			
								DRAWING TITLE			
								CIVIL WORKS PLAN			
								SHEET 2			
								DRAWING No			
								C010529.34-DA42			
								ISSUE			
								F			

