

LEGEND: NBN CONDUITS & PITS

- P100 Proposed 100mm Main Conduit
- P50 Proposed 50mm Lateral Conduit
- P20 Proposed 23mm Service Drop
- Proposed length of bored conduit
- Conduits by Civil Contractor
- Proposed shared trench
- P Service Drop Access Pit
- P Local Network Pit
- P Premises Connection (Houses an MPT)
- P Boundary Pit
- P Cross-Road & Other Premises Connection (No MPT)
- P Local Network Connection Pit
- P Premises Connection & Fibre Splice Closure
- P Distribution / Local Network Connection Pit at entry/exit to estate, @ 250m ccs on distribution conduit
- P Fibre Distribution Hub (FDH) Pit Within 5m of FDH Site
- P Transformer Pad Mount / Pole Mount
- Existing NBN 100mm conduit
- Existing Telstra P100 conduit
- P Existing Telstra Pits (size 2,3,4,5,6,7,8 or 9)
- M Existing Telstra Manholes (Access Chambers)
- X Existing network item to be removed/replaced
- C 'C' communications marker plate



- Telecommunications infrastructure will be provided by NBN™
- NBN™ will own the conduits and pits.
- This installation shall comply with NBN-TE-CTO-194 V11.0

SITE INFORMATION	
TOTAL NUMBER OF LOTS	40
PROPERTY DESCRIPTION	
PROPOSED LOTS 82 - 107, 112 - 115, 133 - 142	
CANCELLING LOTS Let 95 on CA311434 & Lot 96 on SP225226	

ORIGINAL ISSUE

CONSTRUCTION CONTACTS

ELECTRICAL ENGINEER
 ROBIN RUSSELL & ASSOCIATES PTY LTD
 ELECTRICAL DESIGNER
 WILLIAM SCHARDT Ph: 0419 778 552
 SHANE MILLS Ph: 07 3353 4660
 COMMS CONDUIT DESIGNER

CIVIL ENGINEER
 van der Meer Consulting
 CALVIN KIRK Ph: (07) 3021 6600
 CONSTRUCTION COORDINATOR
 SHANE HYDE Ph: 0419 021 772

SURVEYOR
 BPLANNED & SURVEYED
 JIM GOODWIN Ph: (07) 3161 1501

"AS CONSTRUCTED" DOCUMENTS

The electrical contractor shall email the "as constructed" drawing, test results & closure documents to:
 • as.constructed@robusr.com.au

"AS CONSTRUCTED" CERTIFICATION

I certify as follows:
 The installation of NBN conduits and pits has been completed in accordance with this drawing & NBN specification NBN-TE-CTO-194, subject to any changes marked up in red. Mandrel testing of all conduits has been performed as detailed on the attached Mandrel Test Report.
 The minimum depths of conduits are as specified, except as marked up in red.

signature of certifier:
 name of authorised certifier:
 date of certification:
 name of company:
 certifier's position:

NOTES - NBN

NBN conduits and pits shall be installed in compliance with NBN Co specification: NBN-TE-CTO-194 V 11.0 *New Developments: Deployment of the NBN Co Conduit and Pit Network - Guidelines for Developers*. This can be downloaded at: <http://www.nbnco.com.au/develop-or-plan-with-the-nbn/new-developments/design-build-install/pit-and-pipe-build-process.html>

Additional requirements and explanatory information are contained in Robin Russell & Associates' *General Specification for Installation of Electricity Reticulation and Street Lighting - Issue 'AA'*.

For details of trenching and electrical conduits, refer associated RRA works plan.

In residential subdivisions, NBN conduits shall be laid in shared trenches, above electricity conduits. The Civil Contractor shall install road-crossing conduits and other conduits as shown (see legend).

In commercial subdivisions, or where no electricity conduit is present, NBN conduits shall be laid on the standard telecommunications alignment, as specified.

On State roads, the required cover of 1200mm precludes the use of shared trenches.

The installation of white warning tape is NOT required. If conduit is not installed in a shared trench with electricity, brass "C" markers shall be installed in the kerbs directly above road-crossing conduits.

Contractors shall not access existing Telstra pits or conduits.

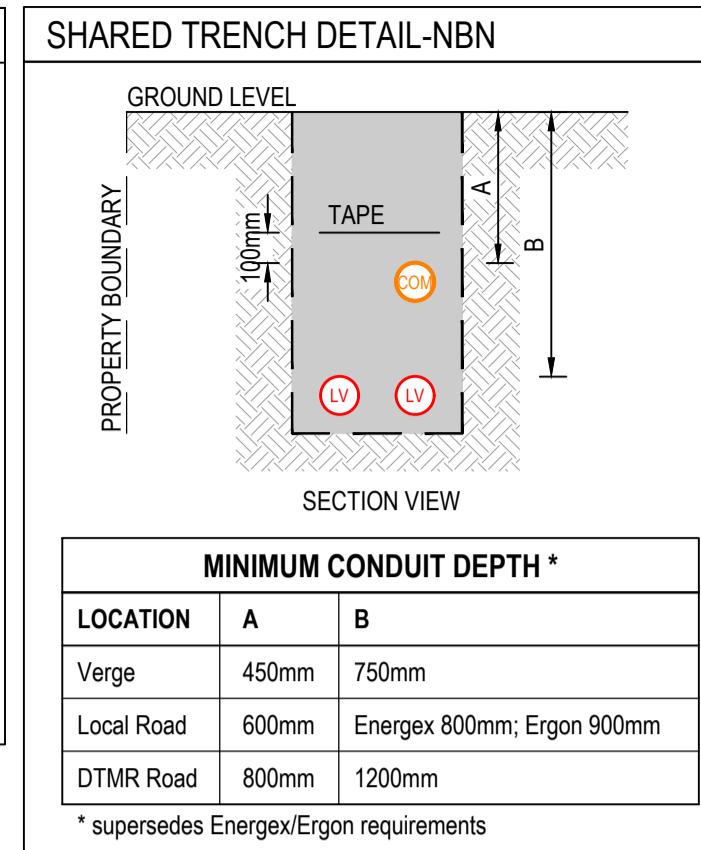
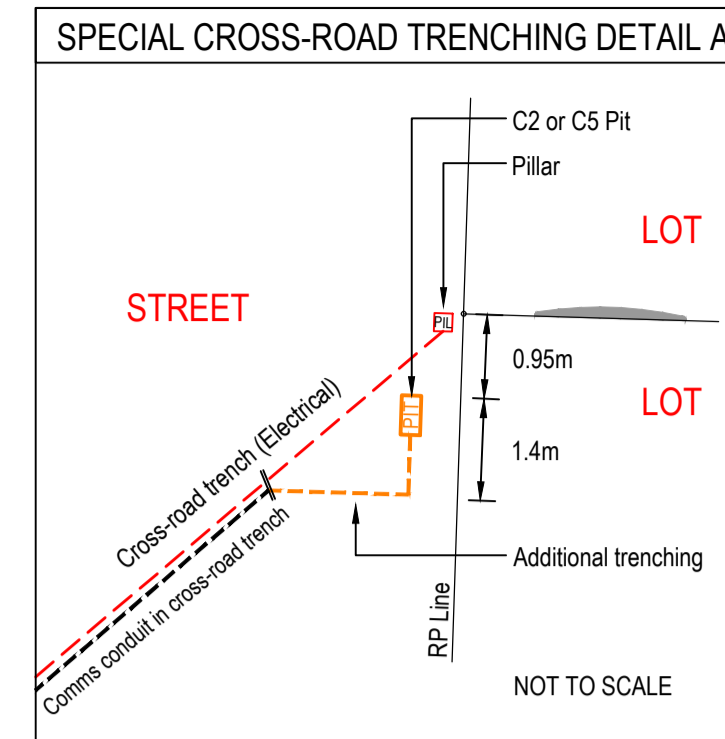
Pits shall be installed relative to the property boundary as shown, immediately outside the exclusion zone of the electricity pillar.

The Electrical Contractor shall ascertain final verge levels from the Civil Contractor before installing conduits & pits.

The Electrical Contractor shall give the Superintendent written notice (a) 10 business days before it anticipates achieving Practical Completion of the conduit and pit installation, and (b) on achieving Practical Completion, to allow the required notices to be given to NBN Co.

Conduit lengths are nominal horizontal distances only. Fibre lengths shall be verified in advance by actual measurement.

The electrical contractor shall perform mandrel testing of all telecommunications conduits, including cross-road and lead-in conduits installed by the civil contractor.



NBN PITS

NBN PITS MUST BE INSTALLED IMMEDIATELY OUTSIDE THE EXCLUSION ZONE (ERCON 400mm & ENERGEX 600mm) OF THE ELECTRICITY PILLAR & EXACTLY 3m FROM CORNER TRUNCATIONS AS PER DETAIL B.



DATE	REV	REVISION	APP.	DATE	REV	REVISION	APP.	CURRENT REVISION CHANGES:
14/02/2023	A	INITIAL ISSUE	RR					

Robinson Russell & Associates Pty Ltd
 CONSULTING ENGINEERS - ELECTRICAL



Robinson Russell & Associates Pty Ltd
 CONSULTING ENGINEERS - ELECTRICAL

COUNCIL	LOCKYER VALLEY	DESIGNED	SHANE MILLS	DESCRIPTION
COUNCIL REF	DA4678	DRAWN	SHANE MILLS	TELECOMMUNICATION
UBD REF	Map Gnd	CHECKED	K.R.	
DWT REV	V48 20210504	APPROVED BY	ROBIN RUSSELL RPEQ 1546	
DATE	14/02/2023	SIGNED	<i>Robinson Russell</i>	
			PARKLANDS AT ADARE Pty Ltd	

LOCATION
PARK LAKE ADARE - STAGES 2 & 3
REDBANK CREEK ROAD
 ADARE, 4343

DRAWING No.
F101-N-01A

NBN ID REQUEST No./TELSTRA AFR SHEET No.
 STG-M000126696 1 OF 2

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SOURCE DOCUMENTS				
CREATOR	DRAWING	DWG No.	REV	DATE
Robin Russell & Associates	ELECTRICAL	F101	-	13/02/2023
van der Meer Consulting	17/07/2022	X-BASE.dwg	-	22/08/2022
van der Meer Consulting	CIVIL	X-BASE	-	31/01/2023

NBN CONDUIT SCHEDULE - CIVIL CONTRACTOR					
CODE	ITEM	Refer: AS/NZS 1477:2006 - Table 4.2(A)			QUANTITY (metres)
		WALL THICKNESS	MEAN OUTSIDE DIA.	MEAN INSIDE DIA.	
P20	SDU service drop	PN12	27mm	24mm	-
P50	MDU service drop	PN12	60mm	54mm	-
P50	road crossing	PN12	60mm	54mm	76
P100	road crossing	PN9	114mm	104mm	183
P100	footpath conduits adj. retaining walls	PN9	114mm	104mm	-
Additional trenching					48

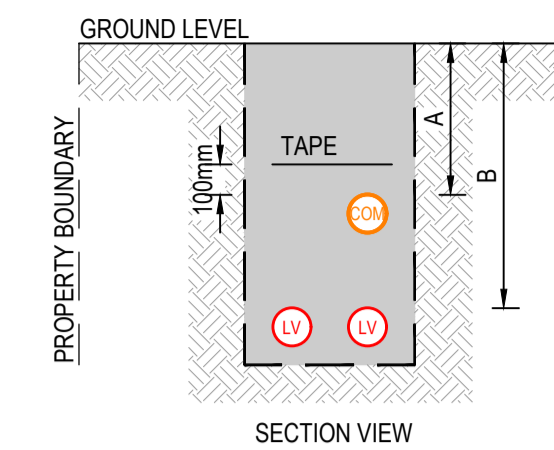
NBN SERVICE CONDUITS IN ACCESS STRIP SCHEDULE - CIVIL CONTRACTOR					
CODE	ITEM	Refer: AS/NZS 1477:2006 - Table 4.2(A)			QUANTITY (metres)
		WALL THICKNESS	MEAN OUTSIDE DIA.	MEAN INSIDE DIA.	
P20	SDU service drop	PN12	27mm	24mm	34
P50	MDU service drop	PN12	60mm	54mm	-
Additional trenching					-

- Consumer's conduits shall be installed prior to construction of driveways to rear lots.
- Minimum clearance of 100mm shall be maintained between all services.
- Civil contractor shall leave the trench open at the end of all consumer's conduits, ensuring all conduits are capped and a suitable heavy duty cover placed over the trench opening.
- Electrical contractor shall mandrel-test, seal, and install draw ropes in all conduits.
- Conduits to extend to front property alignment.
- Electrical contractor shall extend conduits through from boundary to pit.

NBN CONDUIT SCHEDULE - ELECTRICAL CONTRACTOR					
CODE	ITEM	Refer: AS/NZS 1477:2006 - Table 4.2(A)			QUANTITY (metres)
		WALL THICKNESS	MEAN OUTSIDE DIA.	MEAN INSIDE DIA.	
P20	SDU service drop	PN12	27mm	24mm	162
P50	MDU service drop	PN12	60mm	54mm	-
P50	footpath	PN12	60mm	54mm	26
P100	footpath	PN9	114mm	104mm	1580
P100	distribution network	PN9	114mm	104mm	-
Additional trenching					-

NBN PIT SCHEDULE - ELECTRICAL CONTRACTOR			
PIT CODE	ITEM	NOMINAL EXTERNAL DIMENSIONS	QUANTITY
2	service drop access pit	650 x 280 x 565mm	3
5	service/boundary pit (single lid)	700 x 450 x 650mm	19
6	local network connection pit (dual lid)	1360 x 555 x 650mm	2
8	distribution/local network connection pit (dual lid)	1360 x 555 x 860mm	1

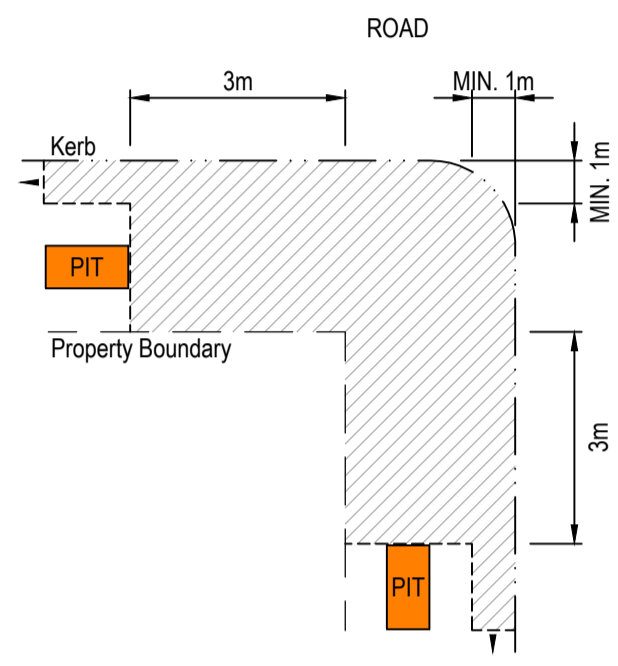
SHARED TRENCH DETAIL-NBN



MINIMUM CONDUIT DEPTH *		
LOCATION	A	B
Verge	450mm	750mm
Local Road	600mm	Energex 800mm; Ergon 900mm
DTMR Road	800mm	1200mm

* supersedes Energex/Ergon requirements

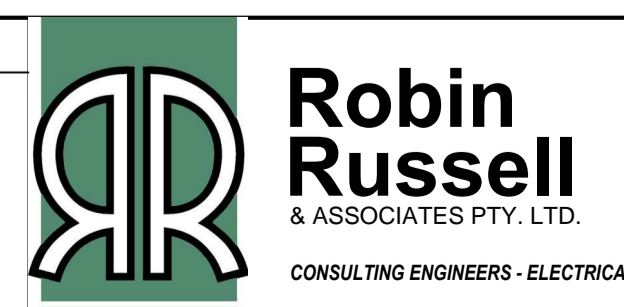
DETAIL B - NO PITS IN THE SHADED AREA



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A.B.N. 78 010 589 661

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DESCRIPTION	TELECOMMUNICATION
CLIENT	PARKLANDS AT ADARE Pty Ltd

LOCATION	PARK LAKE ADARE - STAGES 2 & 3 REDBANK CREEK ROAD ADARE, 4343
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