Frequently Asked Questions

New Developments: Deployment of the nbn Conduit and Pit Network Guideline NBN-TE-CTO-194

Disclaimer

This FAQ should be read in conjunction with the latest release of NBN-TE-CTO-194 v6. If you have any further questions please contact your Deployment Specialist by emailing developerliaison@nbnco.com.au.

nbn has prepared this document as a guideline to the installation of pit and conduit infrastructure in new developments (also known as Greenfields developments). You should also refer to all relevant legislation, including the requirements in relation to fibre-ready facilities contained in the *Telecommunications Act 1997.*

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This document is accurate as at 24th September 2015.

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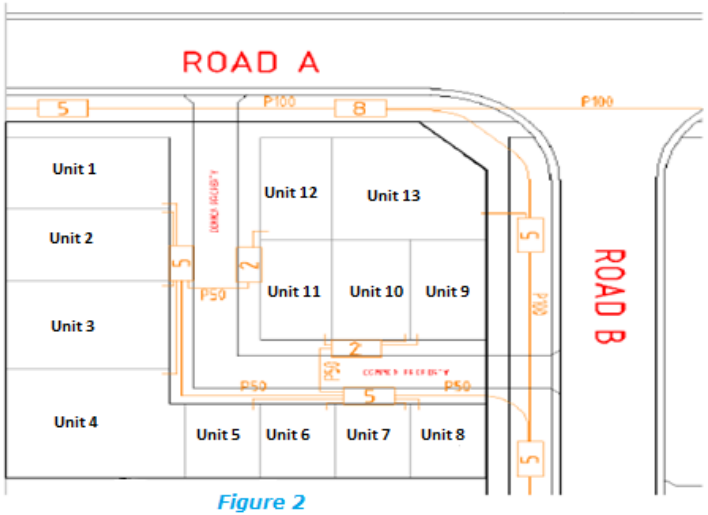
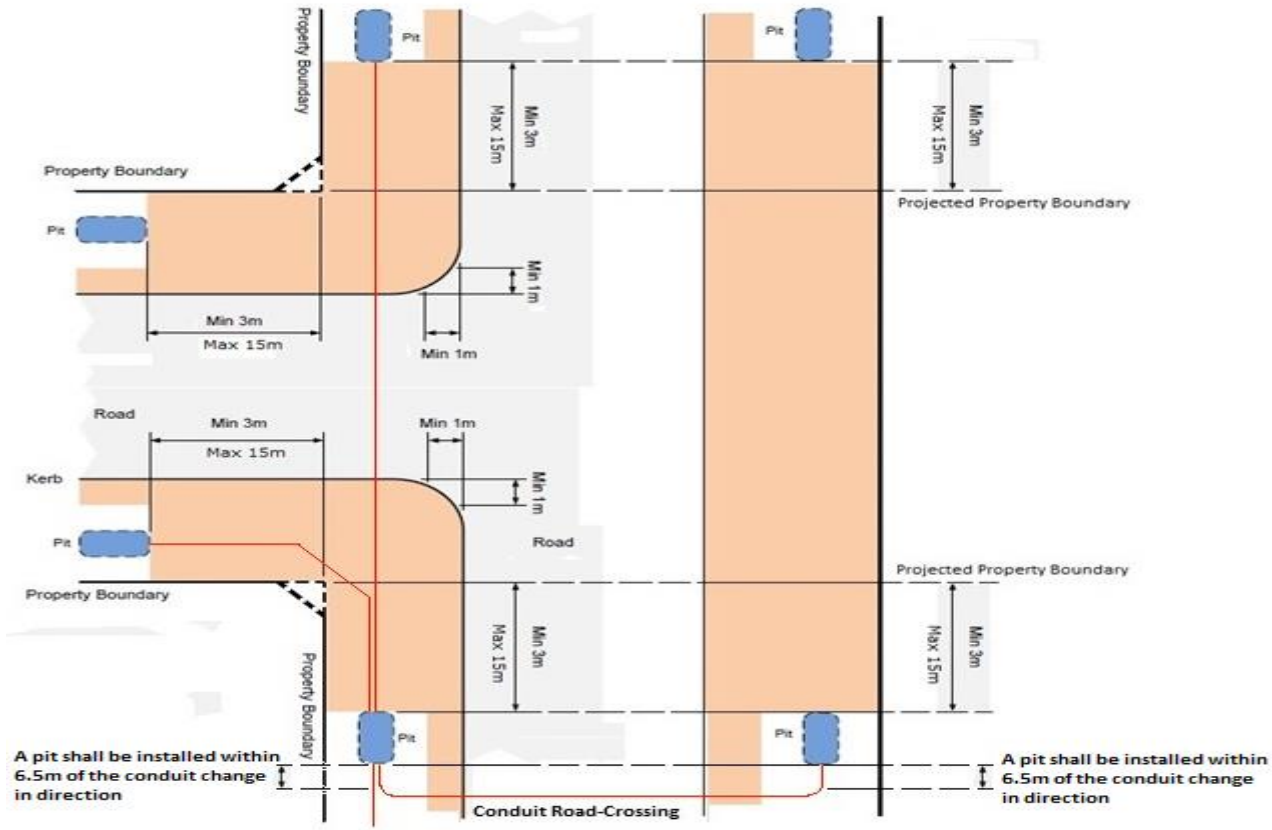
no	Question	Section	Answer
1	I am unable to find any reference to As-built standard documentation is it available on the **nbn** website?	3.2 Asset Identification	Please see section 3.2 New Development Pit & Pipe Design Guidelines.
2	What is **nbn's** position on trafficable lids?	4.5.7 Super Lot Pit & Conduit Internal Reticulation.	Pits in trafficable areas or proposed driveways are not supported by **nbn** in new developments. The guidelines can negate the need to install pits in these locations.
3	Can **nbn** pits be installed in service easements or are they required to be installed on the customer boundary? Refer Figure 6 in NBN-TE-CTO-194 v5.	4.7.3.3 Rear Loaded Deployment	**nbn** pits can be installed in a services easement within common property. Pits are to be accessible by nbn at all times and not installed behind individual private fencing.
4	What provision would need to be made if a Super Lot layout (lot boundaries, internal roads, etc.) is unknown at the time of external road design/construction?	4.7.4 Super Lot	Internal roads for the Super Lot will not be known at the construction of the development (stage) as Super Lots are generally on-sold. P100 and pits would need to be installed where external road reserve is available for all street fronting sides of the super lot to accommodate for the future development of the lot.
6	Is the Super Lot pit and conduit internal reticulation limited by the service drop conduit P23 max 25m.	4.7.5 Super Lot	The P20 x 25m limit is for the service drop conduit distance in the road reserve from the pit to the closest boundary of the Lot.
7	Super Lot Pit and Conduit Internal Reticulation: - Does Figure 2 (below) comply if the P50 is not connected through to Road A?	4.7.5 Super Lot	The pit and pipe configuration in figure 2 is acceptable for single side deployment that is outlined in the section 4.7.2.1.

	 *Figure 2*		
8	Super Lot Pit and Conduit Internal Reticulation: - If Figure 2 is compliant, then am I able to utilise this design method in council roads?	4.7.5 Super Lot	The configuration in figure 2 if applied to a council road would need to meet the requirement of a Cul-de-sac solution as outlined in Section 4.7, i.e. the last section of the pit and pipe can utilise P50 to a P5 or P2 pit, if no further network is required and the road does not continue.
9	The Provision of Barrier Kerb might be difficult to achieve in tight rear loaded lanes, will bollards suffice?	4.7.6 Barrier Kerb	Barrier Kerb is for use within a Super Lot only. Bollards are currently not acceptable as a solution as they impose a maintenance and or replacement cost on the body corporate.
10	Can raised barrier kerbs be used in public road reserves?	4.7.6 Barrier Kerb	The barrier kerb is not to be used in public roadways or reserves.
12	Is there only one supplier approved for Barrier Kerb?	4.7.6 Barrier Kerb	No. Barrier Kerb type B1 or **similar** can be used and installed.

13	In the document, a Super Lot situation Figure 7 shows 150mm behind the barrier kerb for a pit to be located. Would the barrier kerb have to be hand formed?	4.7.6 Barrier Kerb	In some cases the barrier kerb may need to be hand formed, this would be due to the location of the pit. Please note: - Barrier kerb is not to be used in public roadways or reserves.
14	How many lots can be serviced from an FDH?	4.7.7 Fibre Distribution Hubs	Depending on the total volume of Lots within the development For an above ground FDH nbn as a minimum, may choose to service 172 Lots from a single FDH.
15	Will **nbn** provide a master plan of the development showing the proposed FDH locations or will **nbn** review developer's master plans showing FDH locations?	4.7.7 Fibre Distribution Hubs	The express run for a development would be installed in the main thoroughfare of the development. The first and subsequent FDH's would be serviced off or along the express run. **nbn** planning will review the development master plan, reflecting the proposed express conduit rout including the stage/s requiring an FDH.
16	The FDH location of 15m and 20m from intersections may impact the potential subdivision of a corner Lot/s, how can this be avoided?	4.7.8 FDH Location	In reference to the 15m from any road intersection or roundabout and 20m from a signalised intersection. This is a minimum distance required for siting an FDH and is derived from the Australian Road Rules and nbn's HS&E responsibilities. Design consultants need to select an appropriate location for the FDH it is not mandatory to locate the FDH near a street corner.
17	1) Should the FDH be located away from house frontages? 2) The installation of FDH's in the verge of a new urban renewal project may impaction the services to allotments and will govern verge works.	4.7.8 FDH Location	1) The developers design consultant has the ability to design the FDH to the most appropriate location; Section 4.7.8. 2) **nbn** has the responsibility of installing the FDH to its final location. **nbn** would utilise its carrier powers where appropriate to achieve this.

18	How will the conduit bedding requirement be audited?	5.2.7 Conduit Installation	In progress audits conducted by **nbn** deployment specialists.
20	Could you define service drop conduit requirements for industrial/commercial premises?	5.2.8 Service Drop Conduits	For small commercial premises i.e. small strip shops, one P20 service drop conduit is required per premises. For all other commercial/industrial premises, a minimum P50 service drop conduit is required per premises. For a vertical Multi Dwelling Unit (such as an apartment building or office block) of up to 60 internal premises, a P50 service drop conduit is required per premises. For a vertical MDU with more than 60 internal premises, a P100 service drop conduit required.
21	What type of draw rope and draw cord is required when roping the conduits?	5.2.8 Service Drop Conduits	The draw rope shall reflect: - 6 - 6.5mm rot proof rope rated at a **minimum** 595kg break force or equivalent. A draw cord shall reflect: - 3mm rot proof cord rated at a **minimum** 90kg break force or similar. A draw cord is used in P20 service drop conduits. A draw rope is used in P100 and P50 conduits.
22	Is labelling and stringing of the P20 starter pipe required?	5.2.8.1 Service Drop Installation	The stringing and labelling (tagging) of the starter conduit is required. The tag references the Lot number and the offset location of the service drop conduit inside the Lot from either the left or right boundary.
23	Is the small section of P50 under the retaining wall optional?	5.2.8.2 Retaining Walls	The P50 is optional; it is used to protect a P20 installed under a footing or through the retaining wall.
24	Can the P20 be installed under footings of retaining wall?	5.2.8.2 Retaining Walls	Yes, however the P20 could be susceptible to damage. In the case of damage nbn is only responsible for the service drop from the pit to the property entry point boundary.
25	Can **nbn** provide a figure highlighting requirements for a retaining wall?	5.2.8.2 Retaining Walls	**nbn** has provided 3 options for retaining walls and embankments in the update guidelines.

26	In section 5.3.3.1 figure 13 of NBN-TE-CTO-194; the example of the Pit alignments for road-crossings and street corners. The diagram shows exclusion zones where pits are not to be installed at the end of a "T" intersection. Pits must be offset and installed outside of this zone with lead-ins extended into the lots. In some cases lead-in distance of up to 25m; by running such long lead-ins into Lots is there potential that they could be damaged by other utilities?	5.3.3 Pit Installation	The 25m service drop conduit is an acceptable distance. The depth of cover required for a 25m service drop conduit shall be 450mm. Other utilities crossing the comm's alignment must take due care in installing their equipment. The reason for the exclusion zone is based on the HS&E and the Australian Road Rules for the parking of vehicles and access to **nbn™** network.
27	The offset requirement for a pit from a property boundary is 350mm; this will create significant restrictions, in particular with Body Corporate developments?	5.3.3.1 Location	The reference states where practical and is in relation to pits located in the road-reserve, the longest side of the pit is to be offset 350mm from the street facing property boundary. This is dependent on the width of the road-reserve and the telecommunications alignment. Having a pit installed at the property boundary would impact the end user installing fence post/s or footings; it will also impact any future maintenance of the pit by nbn. Potential undermining of fence post/s or footings.
28	The guidelines state that a Pit shall be installed 6.5m from the conduit change of direction. Does a developer have a choice?	5.3.3.1 Location	The Statement reflects within 6.5m from change in direction. Please see figure 3 below in this document reflecting the conduit road-crossing change in direction.
29	In section 5.3.3.1 sub section "(b) bends around a street corner then pit(s) should be installed not less than 3m and no further than 15m, along the alignment, from the corner of the adjacent property – refer to Figure 13." could this be shown in a diagram?	5.3.3.1 Location	Yes please see figure 3 below. The minimum is 3m and the maximum is 15m, the location is correct. The 3m too 15m location also applies to the distribution and local network conduit continuing in a straight line on the same side of the road.

Comment 29 figure 3	 ***Figure 3***		
30	Is a pit required on the other side of an intersection despite that there are no lots to serve and no change of direction of the P100?	5.3.3.1 Location	Yes a pit is required if a conduit is installed under the intersection; as per section 5.3.3.1 dot-point 12 (a) Continues into a street crossing. Please refer to Comment 20 Figure 3 above.

31	"Pit risers shall not be used on any pit within a new development." Are there some special circumstances where a riser can be used? For example, where existing P100 was installed deep and cannot be raised, i.e. alignment under a parking bay.	5.3.3.1 Location	**nbn** understands that errors can occur; risers are an additional cost to the industry that can be avoided with good work practices. That being said It is expected in new developments the conduit depth of cover meets the guidelines. **nbn** will take a sensible approach in dealing with these limited instances on a case by case basis..
32	Can pits that do not house joints reside in an EPR Zone?	5.3.3.1 Location	No in new developments nbn adheres to Australian Standards and it's HS&E responsibilities.. AS/CA S009:2013 Table H1 note 1(a)(b) & Table H2 note 2(a)(b) indicates "The distance may be reduced if— (a) the power utility has determined that the extent of the EPR hazard zone at a particular site is a lesser distance; or (b) the installation is part of an engineered design in accordance with Clause 6.1.3.
33	In relation to parking bays it states pits shall not be installed On road edges - including parking bays. Could you please define a parking bay, especially when they encroach on available road reserve in a residential situation?	5.3.3.1 Location	A parking bay is the reduction of the road reserve (nature Strip) to accommodate a vehicle parallel parking off the thoroughfare. Installing a pit close to the back of kerb in these instances impacts HS&E.
34	Some of the **nbn** diagrams in the document show pits installed in the middle of Lot boundaries. This type of installation may place pits in driveways if the development has unknown driveway locations.	5.3.3.1 Location	The diagram in reference is indicative and not exact to the location, Figure 6 of NBN-TE-CTO-194 is displayed to represent a possible laneway solution only and are sited with other utility metering etc. In SDU's pits can be offset to avoid potential driveways; by increasing the change of direction from 4.5m to 6.5m, this should assist the design consultant to ensure pits avoid driveways or potential driveways.
35	Pit slip resistance, how do I know if the pit lid meets the specified requirements of AS 4586.	Section 5.3.2	If you are in doubt a certificate of compliance could be sourced from the pit lid supplier; this can be used as evidence, if requested by **nbn**.