

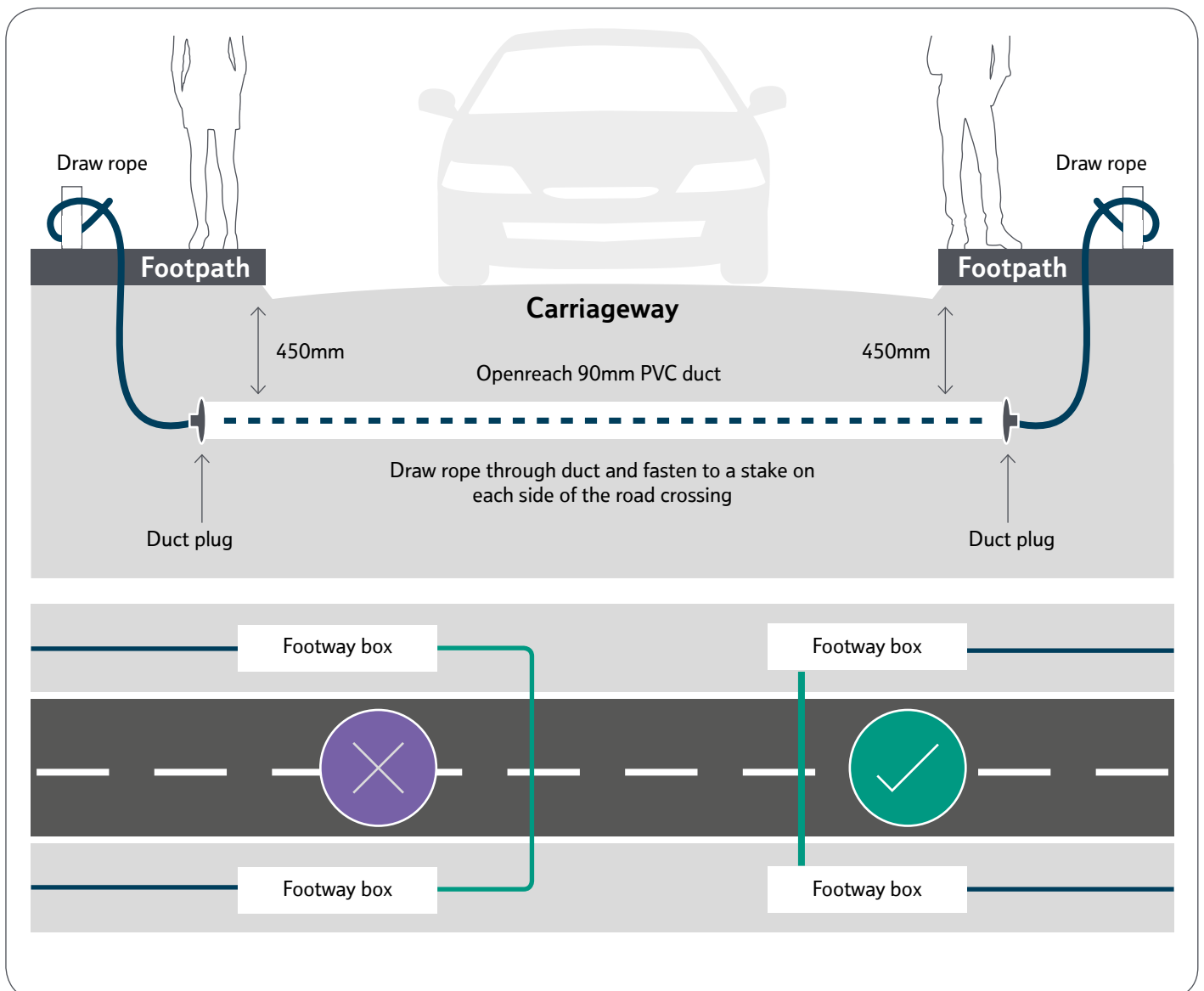
Quick Guide

# Duct laying

## Carriageway Road Crossings

Where our duct crosses a carriageway, adjoining kerbs must be temporarily marked to note positions. Openreach duct must be laid on an outer edge of the service trench to enable box building. A draw rope will be inserted through the duct and secured to the marker posts at both ends of the crossing. The appropriate Plug Duct 4B socket end and 4C Spigot is then fitted.

Duct laid beneath a carriageway crossing must be a minimum of 450mm depth from the cover of the final surface levels and, for engineering reasons (Streetworks UK), separated from other services laid in parallel by 600mm (to permit us to install underground joint boxes without the need for bends).



## Ducting to the building

Duct to the premises/building must be laid at a minimum depth of 250mm and be as straight as possible.

## Ducting general principles

- All runs shall be laid as straight as possible. If needed, you can carefully bend the ducts or use pre-formed bends supplied by Openreach.
- There shall be no more than one pre-formed 90° bend in any single run of duct.
- Pre-formed 90° bends shall not be installed in any duct linking two joint boxes.
- Footpath or service strip ducting must be laid at a minimum of 250mm depth of cover.
- All space alongside the duct must be backfilled with granular fill to a minimum thickness of 75mm.
- For all Single Dwelling Units (SDU) duct must be terminated on the external surface of the property.
- The duct termination point must be in a location that will allow unrestricted access for any future maintenance activity.

- All ducts must be provided with a draw rope after installation, unless it's agreed locally to substitute the draw rope with a cable.
- Please notify your FBC when the duct has been laid and is ready for inspection.

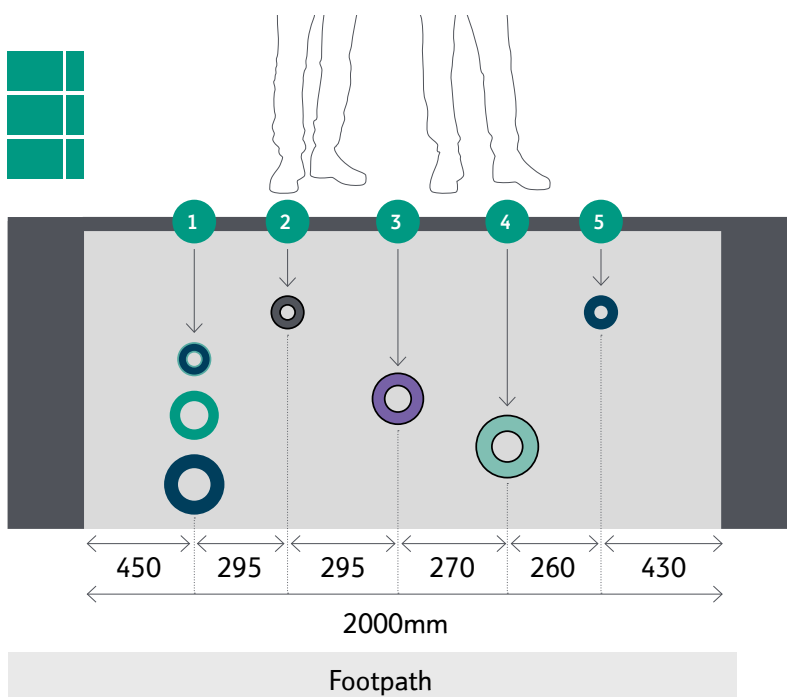
## Commercial unit ducting

- 90mm duct can be laid either externally or internally to the building, with 45 degree angled bend.
- If internally then the duct should be sealed once cabling is complete – the FBC will provide this as a stores item.
- The termination point on a large commercial unit within a commercial only site should be located within 10m of the entry point.

### Please note

The latest information on the positioning of utilities, mains and plant can be obtained from Streetworks UK: [streetworks.org.uk](http://streetworks.org.uk)

## Arrangement of mains services



### Recommend depth of utility apparatus

- 1 Electricity/HV 450 to 1200mm/LV 450mm
- 2 Cable TV and Communications /250 to 350mm
- 3 Gas 600mm
- 4 Water 750mm
- 5 Telecommunications 250mm

# Avoiding damage to the Openreach underground network

Openreach has an extensive underground network that can be located inside / on the perimeter of a site.

This network is vulnerable to excavation related damage unless appropriate precautions are taken.

The precautions for avoiding damage to an underground utility plant are contained within the Health & Safety Guide no. 47: "Avoiding danger from underground services".

This document stresses the need for the availability of utility plans on site and the use of safe digging practices.

**Available here:** [www.hse.gov.uk/pubns/books/hsg47.htm](http://www.hse.gov.uk/pubns/books/hsg47.htm)

Damage to the Openreach network by a third party can be expensive for that party to repair.

**By working together, we want to make sure you avoid the repair and associated cost which can consist of one or more of the following:**

- **Direct Cost** – the cost of repair.
- **Operational Cost** – delays associated with repair.
- **Social Cost** – loss of service to emergency services/centres or the vulnerable in society.

## Typical issues with carriageway road crossings

- Insufficient depth.
- Proximity to other services.

## Impact of issues

You will have to renew duct and this may delay any first occupation date or subsequent occupation dates.

## Click Before You Dig

**To obtain a more precise location of Openreach infrastructure (either within your site or the adjoining land) and avoid costly damage, contact:**

email: [cbyd@openreach.co.uk](mailto:cbyd@openreach.co.uk)

Utilisation of the Openreach "Click Before You Dig" free service has a proven record of minimising the potential for damage and cost.

If you need to move or consult on existing Openreach equipment, contact us on 0800 783 2023 or complete the online webform at [www.ournetwork.openreach.co.uk/help-and-support.aspx](http://www.ournetwork.openreach.co.uk/help-and-support.aspx)

[openreach.co.uk](http://openreach.co.uk)

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