

KILDARE COUNTY COUNCIL
TAKING IN CHARGE POLICY & SPECIFICATIONS

Appendix 7

Traffic Infrastructure Technical Specification

Q2 2023

TRAFFIC INFRASTRUCTURE TECHNICAL SPECIFICATION

Note: This specification needs to be read closely in conjunction with Appendix 6 of the Taking In Charge Policy.

- 1. Traffic Infrastructure** encompasses all infrastructure that is associated with the provision of vehicular, pedestrian and sustainable modes of travel.

Examples of such are the following (non-exhaustive list): infrastructure for sustainable modes of travel, traffic restraint measures, traffic signal equipment, fixed time junctions, signalised junctions monitored on the remote monitoring system (RMS) or urban traffic control system (UTC), vehicle activated (VA) junctions, Microprocessor Optimised Vehicle Actuation (MOVA) junctions, signage, road markings, cycle and pedestrian facilities, traffic calming measures, traffic signals, and all associated underground and overground equipment. Traffic control outstations, traffic control cabinets, controllers, RAG controllers, pedestrian controllers, bollards, School crossings, Zebra, Pelican, Puffin and Toucan pedestrian crossings and all associated equipment, pedestrian refuges, Traffic CCTV cameras and all associated equipment, bicycle and scooter parking, vehicle activated signs (speed display, flashing signs, warning signs) ducting and chambers.

- 2. All Traffic Infrastructure** shall be designed and constructed in accordance with the appropriate ONLINE edition of the standards and documents listed below in effect at the time of commencement:

- Transport Infrastructure Ireland (TII) Publications (Standards) which includes the NRA Design Manual for Roads and Bridges (NRA DMRB) and Manual of Contract Documents for Road Works (NRA MCDRW)
- TII Publications (Technical) including Pedestrian Crossing Specification & Guidance
- Design Manual for Urban Roads and Streets, Department of Transport, Tourism and Sport
- National Cycle Manual, National Transport Authority
- Traffic Signs Manual, Department of Transport, Tourism and Sport
- Building for Everyone, National Disability Authority
- Kildare County Council's standard layouts & specification for Traffic Signals and ITS Equipment

Any deviation from the above standards and documents shall only be permitted by prior written agreement with the Traffic Management Section, Kildare County Council (Contact tmc@kildarecoco.ie).

- 3. All Traffic Control Equipment Infrastructure** shall be designed and approved, constructed and maintained in accordance with the requirements of the Traffic Management Section, Kildare County Council.
- 4. Traffic Control Ducting requirements** for interconnectivity of traffic signals and

facilitating CCTV camera installations: Prior to work commencing on the installation of all ducting, traffic CCTV camera installations, CCTV cameras, fibre ducting, interconnected traffic signals and traffic signals, all details regarding specification, layout and location are to be agreed with the Traffic Management Section, Kildare County Council.

- 5. Traffic Ducting & Chamber Specification:** Developer shall liaise with Traffic Management Section, Kildare County Council, with regard to current standards and specifications required for Traffic Ducting & Chamber Specification (Contact tmc@kildarecoco.ie). Reference Traffic Management Drawing TMC 004 for required standards & specifications.

5.1 Ducting: Traffic ducting requirements along the routes shall consist of:

- Road Crossings 4 No. traffic ducts, Diameter 100/110mm (nominally referred to as a 110mm duct) HDPE, Green in colour for Communications, Orange in colour for traffic signals at junctions, single wall ducting to be provided along the road, in the footpath or verge where possible.
- Loop Detector infrastructure require 1 No. traffic ducts, Diameter 100/110mm (nominally referred to as a 110mm duct) HDPE, Green in colour for Communications, Orange in colour for traffic signals at junctions, single wall ducting. To be provided along the road, in the footpath or verge where possible.
- Ducts to be stamped "Traffic" in 9mm high white lettering along the outside at intervals not exceeding 1m, at 0, 120, 240 degrees around the duct.
- Impact resistant, impervious to water and sufficiently flexible to accommodate undulations in the trench.
- When installed shall be properly jointed or sleeved to provide a continuous smooth internal bore with the printed words "Traffic" uppermost.
- Ducts bends to be slow radius, no greater than 11.25 degrees unless otherwise agreed with the Traffic Management Section, Kildare County Council.
- Duct fittings and accessories to be provided in accordance with the manufacturer's requirements, such as end caps, couplers, sleeves etc.
- Ducts shall be brushed, mandrelled and roped.
- Where damage has occurred to an insitu length of duct that cannot be removed/replaced, a proprietary duct repair kit shall be used.
- All ducting is to be terminated in a junction box. Where this is not possible/practical and ducting is terminated without a junction box, agreement must be reached with the Traffic Management Section, Kildare County Council and the coordinates of the ducting termination points are to be issued to the Traffic Management Section, in AutoCAD format.
- Proving and Testing of Ducts should be carried out on complete duct lengths i.e. from chamber to chamber.

5.2 Chambers

- Chambers are to be placed at no more than 50m intervals (or as agreed), in the footpath or verge unless otherwise agreed with the Traffic Management Section, Operations & Maintenance Section.

- Chambers are to be provided in accordance with Drawing No. TMC 004 consistent with the overall projects or with minimum internal size 914mmx445mm in Straight lines/runs. For change in direction and at the foot of transmission cabinet and traffic controller locations, chambers consistent with the project are to be used or with minimum internal size 910mmx910mm, unless otherwise agreed with the Traffic Management Section.
- Chambers are to be placed at either side of a road crossing.
- All junction boxes to be provided with covers stamped "Traffic"
- All chamber covers and frames should be Grade D400 in Carriageway and D400 in remote locations in Verge/footpaths for loop/detector chambers refer to Drawing TMC 004 for details.
- Where it is necessary to provide chambers in the carriageway, these chambers are to be placed out of the wheel track as per the Guidelines for Managing Openings in Public Roads aka 'Purple Book' unless otherwise agreed with the Traffic Management Section and the Roads Municipal District Engineer.
- All Chambers are to be installed to ensure none or limited water ingress and measures put in place to ensure water can egress from the base of the chamber to prevent water ponding.
- Digital as constructed drawings (ACDs) of the infrastructure above to be provided in an AutoCAD format to the Traffic Management Section.

5.3 Traffic Interconnectivity and Control Requirements

During the project planning stage, discussion should consider specific locations for CCTV equipment, to include, but not limited to:

- CCTV locations,
- Transmissions cabinets, Traffic controller, ESB mini pillar locations, foundations, configurations and associated chamber requirements.
- Power supply
- Chamber placement (preferably off carriage way to minimise disruption due to future access/requirement for licences)
- Requirements to subduct (4 No. 32mm diameter subducts in 1 No. 110mm duct)
- Requirements for loop detection locations and loop boxes.

6. **Traffic infrastructure shall be taken in charge** in conjunction with other infrastructure including roads, water mains, sewers, drains and open spaces. No piece of traffic infrastructure shall be taken in charge unless all associated underground traffic infrastructure is inspected, roped & mandrelled and passed in advance, i.e. all utility services are inspected, tested, passed and fully operational for the existing development and future associated developments. Certificates are to be provided to the Traffic Management Section, Kildare County Council, by their inclusion in the Safety File.
7. **For developments** where Kildare County Council will be taking responsibility for future maintenance, digital as constructed drawings of the traffic, ducting, fibre and CCTV infrastructure are to be provided in an AutoCAD format to the Traffic Management Section by their inclusion in the Safety File.

8. All Traffic Control Equipment Infrastructure Certification shall be provided and verified by a suitably qualified professional with an appropriate level of professional indemnity insurance. The minimum level of professional indemnity insurance for any project will depend on the scale and type of development but in general shall not be less than €2,500,000, the exact level of which shall be agreed in writing with Kildare County Council prior to commencement.
9. **All traffic road markings** shall be in accordance with the aforementioned Traffic Signs Manual.

Queries and submissions at all stages of the Planning Process regarding the above can be addressed to the Traffic Management Section, Kildare County Council (Contact tmc@kildarecoco.ie).