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## Introduction

7.0.1 This Guide embodies the joint views of the Suffolk Statutory Undertakers and augments:

- DoE and DTp Design Bulletin 32 'residential roads and footpaths' and
- The National Joint Utilities Group (N.J.U.G.) Publication No.2 'Provision of Mains and Services by Public Utilities on Residential Estates
- NJUG No.7

The NJUG documents are the main source of guidance on service requirements and copies should be available from any of the service authorities, or direct from The NJUG telephone 071 344 5720.

7.0.2 Services are an integral part of housing estate design and fundamental to the well being of future residents. It is important that all concerned are familiar with the views of the Statutory Undertakers in order to minimise difficulty or conflict at a later stage in the design of layouts, although Statutory Undertakers will always be prepared to discuss, preferably jointly, all proposals.

7.0.3 Where housing layouts are approved by local planning authorities without details of the service routes, the subsequent provision of these services can have a significant adverse effect upon the appearance of the estate. It will not be acceptable to delete landscaping in order to accommodate services such as electricity sub-stations and gas governors which the developers should have planned for at the outset. Applicants will therefore be required to show service corridors at the planning application stage.



## Principles

7.1.1 The principles set out below should be followed when considering service provision for housing estates.

- A balance should be struck between housing, planning, highway and utility interests.
- All parties involved should work closely together to ensure services become an integral part of the initial design process
- Resident's requirements for statutory services should be met efficiently and economically.
- Innovative solutions to design problems should be encouraged while having regard to future maintenance implications.
- The risk of damage to utility plant, apparatus and underground services particularly from vehicles should be minimised. Mains and services adjacent to carriageways and parking areas should normally be located under paved footways or be otherwise protected when there would be a risk of damage from vehicle parking on soft ground.

## Powers of Statutory Undertakers

7.2.1 Statutory Undertakers have powers to break open streets and lay and maintain apparatus in public highways and other public land. The New Roads and Street Works Act 1991 and other specific enactments give powers to ensure that the Undertakers have adequate facilities for immediate repair and maintenance. Statutory Undertakers prefer to maintain these rights by laying their mains within the public highway other than in the carriageway.





## Design Considerations

7.3.1 Layouts for developments may well create special problems for plant installation, for example, the location of electricity sub-stations at the correct load centre and gas regulator locations. Planners and developers must establish early liaison with individual Statutory Undertakers to ensure that their requirements can adequately be catered for.

7.3.2 Developers must clearly indicate on plans the footpaths, service strips and carriageways which will be adopted by the highway authority before plant is installed.

7.3.3 Ducts for cable TV will be required on all new estates; the position of ducts will need to be agreed between local N.J.U.G. representatives and the highway authority.

## Routes for Main Services

7.4.1 Utilities prefer to route their services and locate plant within land forming part of the adopted public highway. There are three main categories of road which can be used for this purpose, namely:

- Local Distributor Roads
- Access Roads
- Shared Surface Roads

## Distributor Roads

7.4.2 These roads will normally consist of a carriageway, verges and footways. To prevent the visual sterility associated with such large vehicular corridors it will in future be a requirement that the verges are primarily used for planting, particularly trees. The future growth of planting and trees need to be carefully considered. Services will therefore need to be located either within carriageways (only foul and surface water sewers) or under footways (all other services). If at a later stage services are required and it is impracticable to include them in the footway due to congestion it may be necessary to place them in the verge.



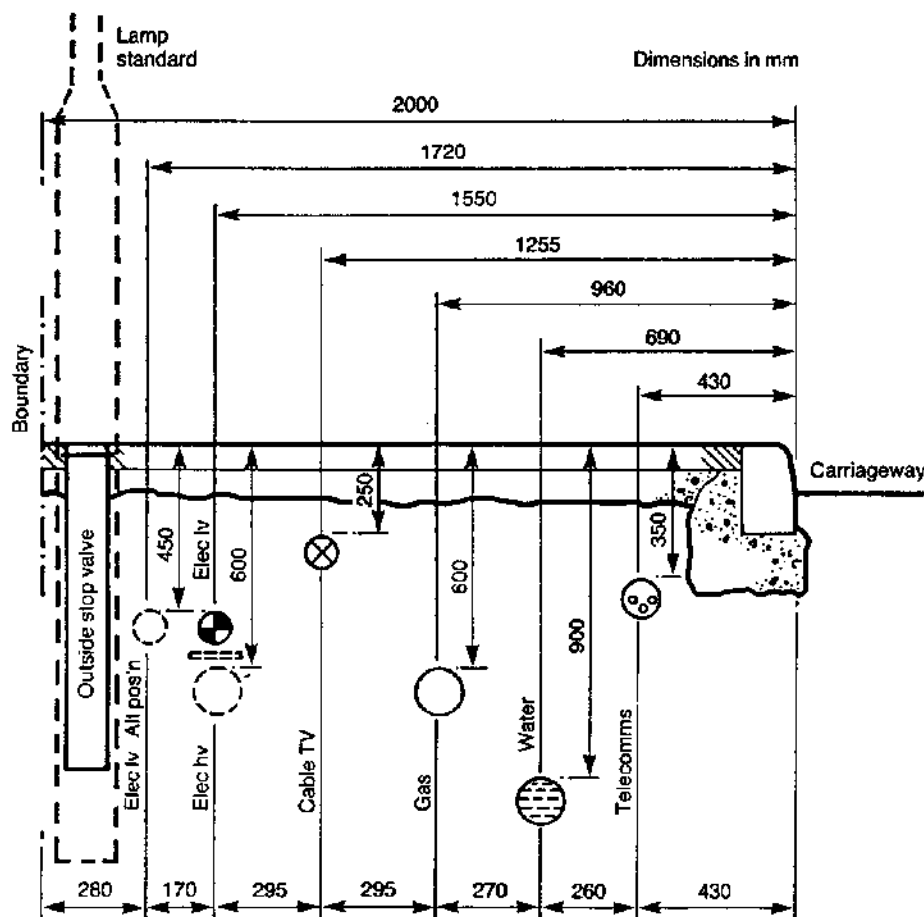


Figure 7.1

7.4.3 Provision of plant in the carriageway is costly to install and to maintain. It can cause access and road safety problems and result in high reinstatement costs, considerable excavations often being necessary. Therefore, it is undesirable from the viewpoints of residents, street authorities/managers and statutory undertakers for mains and services to be located in the carriageway.

7.4.4 The preferred location for all services on distributor roads is within the footways. Where this is not possible verges should be widened from the usual width of 2 metres to allow for adequate planting to co-exist with services.

7.4.5. Footways normally require a clear minimum width of 1.8 metres. This assumes no excessive overspill of concrete for the edging or kerb haunch and that satisfactory arrangements can be made for the provision of lighting columns and road signs where appropriate without obstructions to the services.

7.4.6 Where services are laid at an early stage care needs to be taken with the setting out in order to avoid service area encroachment on private properties.

7.4.7 The layout and depth of main services as shown in Figure 7.1 (NJUG Publication 7) shows the recommended arrangement. It is advisory and should not be relied upon as an accurate indication of either existing or future dispositions. Excavations in the vicinity of underground services should be carried out in accordance with HSE Guidance Booklet HS(g)47 "Avoiding Danger for Underground Services".

### Access Roads

7.4.8 These consist of a carriageway plus footways and the general principles outlined in Paragraphs 7.4.3 - 7.4.7 above also apply to such roads.





## Shared Surface Roads

7.4.9 These roads consist of a carriageway shared by vehicles and pedestrians plus appropriate verges/service strips. The services will usually be accommodated within the service strips which should have a minimum width of 2 metres. It should not normally be necessary to provide a 2 metre service strip on both sides of the road and a reduced width will be acceptable in some circumstances subject to discussion and agreement.

7.4.10 It is essential that only plants with shallow root systems should be planted within service strips on top of service runs. Where service strips accommodate existing vegetation they should be widened to avoid damage to the retained landscaping. Banks or mounds in adjoining landscape areas should not encroach on service strips. Levels should not be altered over Undertaker's equipment without prior consultation with the Undertakers concerned.

7.4.11 Service strips must be defined by the developer in agreement with the highway authority. Developers are required to make it clear to purchasers that service strips are not conveyed to the property. As a further safety precaution Statutory Undertakers may wish to attach a note to each meter board warning against digging or plating in the margin and indicating the position of services.

7.4.12 Where a shared surface road consists only of the carriageway, it will be essential to provide mains and services in a manner whereby repair and maintenance can be carried out without excavating or blocking the carriageway. This situation can be met by consultation between all concerned at the outset.



### **Routes other than Highways**

7.4.13 It should be very rare for services to be located other than in the public highway. Where this is unavoidable developers should seek early liaison with the Statutory Undertakers and the local planning authority. Services located under footpaths or public open space should conform to the general design principle applicable to footways and service strips. Where services are laid in land which will not ultimately form part of the adopted highway the utilities are likely to require permanent easements and access rights.

### **Street Furniture**

7.5.1 A great deal of time, consideration and effort which goes into the layout of a housing estate can be ruined because of lack of thought with regard to the location of street name plates, telephone kiosks, Utility Service cabinets, litter bins, etc. The position of lamp columns is covered under the section on street lighting. Likewise, bus shelters are covered under the section on public transport.

7.5.2 On large estates the location of an information board close to, but not immediately within, the entrance to the estate is a useful feature and should be combined with the provision of a layby.

7.5.3 Suggested combinations of street furniture for successful layouts include the provision of telephone kiosks and post boxes adjacent to bus shelters that are on main footway/footpath links and, in addition, street name plates affixed to property are likely to suffer less from vandalism and generally makes for much less clutter on the highway.