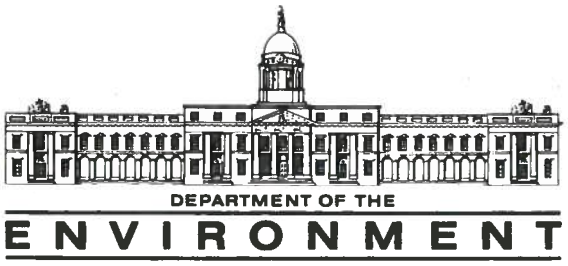

2. DIRECTIONAL INFORMATION SIGNS NATIONAL, REGIONAL AND LOCAL ROADS

CHAPTER 2

DEPARTMENT OF THE ENVIRONMENT

Chapter 2 Directional Information Signs National, Regional and Local Roads

DEPARTMENT OF THE ENVIRONMENT

Chapter 2 Directional Information Signs - National, Regional and Local Roads

Figure 2.1
Advance Direction Sign

Figure 2.2
Direction Sign

Figure 2.3
Route Confirmatory Sign

2.1 Introduction

2.1.1 This chapter describes the directional information signs for use on national, regional and local roads. Directional Signs for Motorway and other information signs are outlined in Chapters 3 and 4, respectively.

2.1.2 Directional information signs belong to one of three major groups:

(i) Advance direction signs giving road users information about destinations available from a junction ahead (see Figure 2.1);

(ii) Direction signs giving route information at a junction (see Figure 2.2);

(iii) Route confirmatory signs giving confirmatory and information about the destinations ahead after a road junction (see Figure 2.3).

2.1.3 On national routes directional signing will encompass advance direction, direction and route confirmatory signs. On other routes it is not necessary to use all three types. Details are given in section 2.2 of this chapter on the principles of directional signing and the circumstances in which each type of directional information sign should be provided.

2.1.4 The guidelines contained in this chapter describe the technical standards which should be adopted in the majority of situations. Some relaxation of the standards may be accepted for specific junctions because of geometry or other reasons. A layout of signs for a particular junction should satisfy these basic requirements:

- the colour of directional signs will be appropriate to the route indicated. The relationship between the road hierarchy and colour coding of signs is defined in section 2.2 Examples of coloured sign faces are contained in the appendix;

- a destination, once shown on a sign, should appear on all subsequent signs along the route until either the destination itself is reached or a turning off to it is passed;

- when routes have numbers they should always be indicated. The consistency of route number signing is particularly important to enable through traffic on main routes to negotiate the dense urban areas of the larger cities and towns.

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2.2 General Principles Of Design

2.2.1 This section defines the general principles of design for directional information signs.

2.2.2 The design rules will ensure that a clearly legible message is conveyed and that drivers will be in no doubt as to the route they need to follow in order to reach their destination.

THE ROAD HIERARCHY AND COLOUR CODING

2.2.3 The foreground and background colours of directional information signs depend on the classification of the road along which a destination is reached.

2.2.4 The present road classifications are:

(i) **National Primary Roads**
These are the major long distance through routes linking principal ports, airports, cities and large towns. They serve major geographical regions and a high percentage of the total population. They are designated by an N prefix. Motorways are essentially part of the national primary route system and are designated by an M prefix. (e.g. M50).

(ii) **National Secondary Roads**
These are medium distance through routes serving medium to large geographical areas. (They are designated by an N prefix.)

(iii) **Regional Roads**
These are the main feeder routes for national primary and national secondary routes. (They are designated with an R prefix.)

(iv) **Local Roads**
These include all remaining rural and urban roads.

2.2.5 Table 2.1 indicates the colour schemes to be used for these different classifications.

Table 2.1 - Colour Schemes for Directional Signs

Route Indicated	Background Colour	Colour of Text, Borders, Arrows and Chevrons	Colour of Route Number
National Primary	GREEN	WHITE	YELLOW
National Secondary	GREEN	WHITE	YELLOW
Regional	WHITE	BLACK	BLACK
Local	WHITE	BLACK	BLACK

WHEN TO PROVIDE DIRECTIONAL SIGNS

2.2.6 It is not necessary to provide all three types of sign for every junction on the road network. The provision of signs depends upon the type of junction.

2.2.7 Table 2.2 gives guidance as to the signs which should be provided at the different types of junctions. The guidance given in the table is not definitive and judgement should be exercised in particular circumstances.

THE SELECTION OF DESTINATIONS

2.2.8 Directional information signs direct road users around the road network by informing drivers of the destinations which are available on the routes leaving a junction.

2.2.9 Consistency of destinations displayed is important. A destination mentioned on one sign should be repeated on all subsequent signs until it is reached.

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Table 2.2 - When to Provide Directional Signs

Type of Junction	Type of Sign											
	Advance direction signs on			Direction signs pointing along			Confirmatory signs on exit on			Route Marker signs on exit on		
	National	Regional	Local	National	Regional	Local	National	Regional	Local	National	Regional	Local
National/National	YES	-	-	YES	-	-	YES	-	-	NO	-	-
National/Regional	YES	YES	-	YES	YES	-	NO	NO	-	YES	YES	-
National/Local	NO	-	NO	NO	-	YES	NO	-	NO	NO	NO	-
Regional/Regional	-	NO*	-	-	YES	YES	-	NO	-	-	NO	-
Regional/Local	-	NO	NO	-	YES	YES	-	NO	NO	-	NO	NO
Local/Local	-	-	NO	-	YES	YES	-	-	NO	-	-	NO

* Except important junctions leading to major centres of population or National Routes

2.2.10 The selection of the destinations to be displayed is determined by the classification of the route to be signed. Table 2.3 indicates the type of destinations to be displayed on all directional signs according to the classification of the route. Specific rules exist for route confirmatory signs which can show more than two destinations and details of these are given in the next section.

2.2.11 When the destinations have been selected they should be arranged in distance order with the furthest at the top of the list of place-names for each direction.

Table 2.3 - Destinations to be Shown

Classification of Route to be Signed	Advance Direction Signs	Direction Signs
National Primary	Terminal destination plus terminal of spur route	As for ADS plus nearest town
National Secondary	Terminal destination or major intermediate town	As for ADS plus nearest town.
Regional	Nearest significant town or village	As for ADS plus other local destination where warranted
Local	-	Nearest town or village

Terminal Destinations

2.2.12 Terminal destinations of national primary and national secondary roads are shown in Figure A2.1 in the appendix. They are towns, cities or ports at the terminals of national routes or at the terminals of the extended route in the case of cross border routes. Tables A2.2 and A2.3 present the list of recognised terminal destinations for national primary and national secondary roads respectively.

2.2.13 Destinations shown on national primary roads may include terminal destinations of spur routes. Examples of spur routes include:

(i) the N5 and N6 which branch from the N4;

(ii) the N8 and N9 which branch from the N7.

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Other Destinations

2.2.14 These destinations will usually be a county town or town of sizeable population. Such locations need not be on the actual route if they have been by-passed. In the case of national secondary roads, where no significant location exists between the junction to be signed and the end of the route, the nearest significant location on the route to which it joins should be displayed. The incorporation of tourist resorts or places of scenic or historic interest as "significant destinations" on directional signs is demonstrated in chapter 4.

Compass Point Directions

2.2.15 Occasionally the arrangement of the road network may require that three or even four destinations ought to be displayed for each direction if the rules are followed. This will commonly occur in and around Dublin where the road network converges. In this area destinations may be aggregated to a single "compass point" direction. This may be done on the basis of allocating the general direction to each route as follows:

(i) N1, N2, N3 - "The North"; "An Tuaisceart";
(ii) N4, N5, N6 - "The West"; "An t-Iarthar";
(iii) N7, N8, N9 - "The South"; "An Deisceart";
(iv) N11 - "The South East"; "An t-Oirdheisceart.

ALPHABETS

2.2.16 The alphabet prescribed for use on directional informatory signs is that known as "Transport Heavy". The only exceptions in the use of this type face are the upper case 'A', 'M' and 'N' and the lower case 'a' and 'i' letters in the Irish script for which a special form is prescribed. The Irish script also includes an accent where applicable over upper and lower case vowels. Two sizes of the English upper case 'N' are used to signify national routes where these are indicated on signs located on such routes.

Common Dimensions

2.2.17 The 'x'-height and stroke width (s/w) are the common dimensions used when designing sign faces. The "x" height is the height of the lower case 'x' in the English alphabet. The stroke width is the dimension used when specifying clearances between the different elements of the sign face. It is equal to one quarter of the 'x'-height.

2.2.18 All upper and lower case letters, numerals and associated characters are placed on individual "tiles" to assist in the correct

spacing of text. The tile height is twice the 'x'-height. The ratio, therefore, of stroke width to 'x'-height to tile height is 1:4:8. This relationship is illustrated in Figure 2.4.

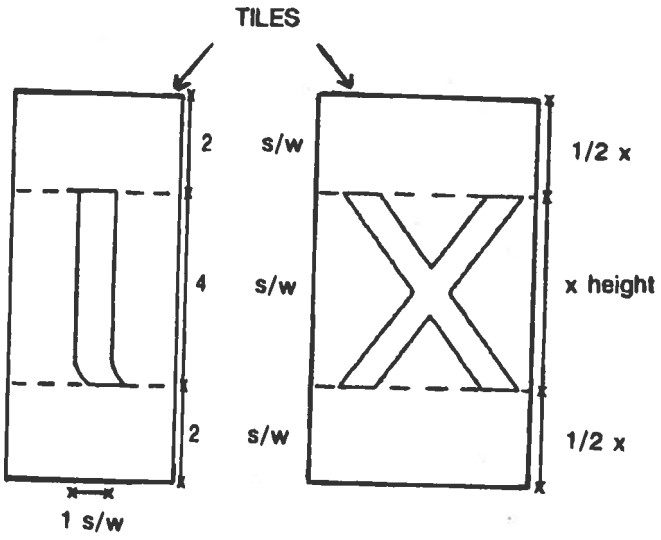

Figure 2.4
'x' Height And Stroke Width (s/w)

2.2.19 The tile embodies the recommended horizontal clearances in the total space occupied by each character of the "Transport Heavy" type face. Consequently each character has its own tile width and this is expressed as a percentage of the 'x'-height. Figures A2.2 to A2.7 in the appendix show how the characters are placed on tiles. They also indicate the special tiles of lesser width for the letters T, V or Y when they are followed by a, e, g, o, r, u,. A specially increased tile width for the upper case 'W' to be used when it is followed by any other upper case letter is also defined.

2.2.20 The size of a sign is determined by its'x'-height. The recommended 'x'-heights appropriate for different speed categories of road are given in Table A2.1 in the appendix. The sign face is designed by arranging the different elements of the sign according to dimensions of borders, tiles and symbols and the recommended clearances stipulated later in this section. The overall sign size can be calculated by applying the selected 'x'-height.

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LETTER AND BLOCK SPACING

2.2.21 Each character available in the English and Irish script is illustrated mounted on a tile in the appendix. The English script is mounted on square or rectangular tiles that stand upright. As the Irish script is inclined at 15 degrees, letters in the Irish language stand on slanted tiles.

2.2.22 Words in either language are formed by butting tile edges together. The tile width for each character has been designed to ensure that when the edges of tiles for adjacent characters are butted together the correct spacing between the characters will result. The assembly of a number of tiles to form a word or of a number of words, place-names or route numbers which are associated, is called a block. See Table 2.4. Note that spacings are measured between tiles.

Table 2.4 - Spacings Between Words, Route Numbers and Distances

Description of Horizontal Clearance	Dimension S/W
Between related words	3
Between letters and directly associated numerals (N17, R403, 500m)	1
Between Place-names and associated Route Numbers	3
Between Place-names and associated distances	3
Between different Route Numbers on same line	3

2.2.23 For bilingual signs, Irish script should always be positioned above its English equivalent. A clearance between the top of the English tiles and the bottom of the Irish tiles should be maintained. This clearance is normally 0.5 s/w but varies according to the type of sign and the destinations displayed, and is defined later in this chapter. Bilingual blocks will usually be formed by justifying both sets of tiles to the left. The Irish tiles should be offset so that the mid-point of the slanted side of the Irish tile is in line with the left side of the English tile as shown in Figure 2.5.

Figure 2.5
Forming Bilingual Blocks

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2.2.24 The Irish and English language versions of place-names may be different in length. Where this difference is excessive and would lead to uneconomic design the following alternatives may be used:

(i) **Abbreviation**: (See Figure 2.6) Either the Irish or English place-names may be abbreviated but only to the approved versions issued by the Department Of the Environment.

Figure 2.6
Abbreviation

(ii) **Condensing:** (See Figure 2.7) This may be used to reduce the length of the place-name by reducing the width of the appropriate tiles to 80% of their normal size.

Figure 2.7
Condensing

(iii) **Indentation:** (See Figure 2.8) In order to reduce the overall width of a place-name, the Irish or English script may follow onto a second line. This should only be done if the place-name is made up of two or more words.

Figure 2.8
Indentation

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PATCHES AND LEGEND PANELS

2.2.25 Patches and legend panels are used on signs to indicate the status of routes reached directly or indirectly from a junction ahead.

2.2.26 A legend panel should be used on advance direction signs where a route leaving the junction ahead has a different status to the road on which a sign is placed. The legend panel should contain both place-name(s) and route number and will have a colour scheme in accordance with Table 2.1.

2.2.27 Legend panels should be designed so that the space between tile edges and the edge of the panel is 2 s/w. The legend panel corners should be radiused to 1 s/w. A white border of 0.5 s/w is added to the dark coloured legend panels if placed on dark backgrounds. The design of legend panels is illustrated in Figure 2.9.

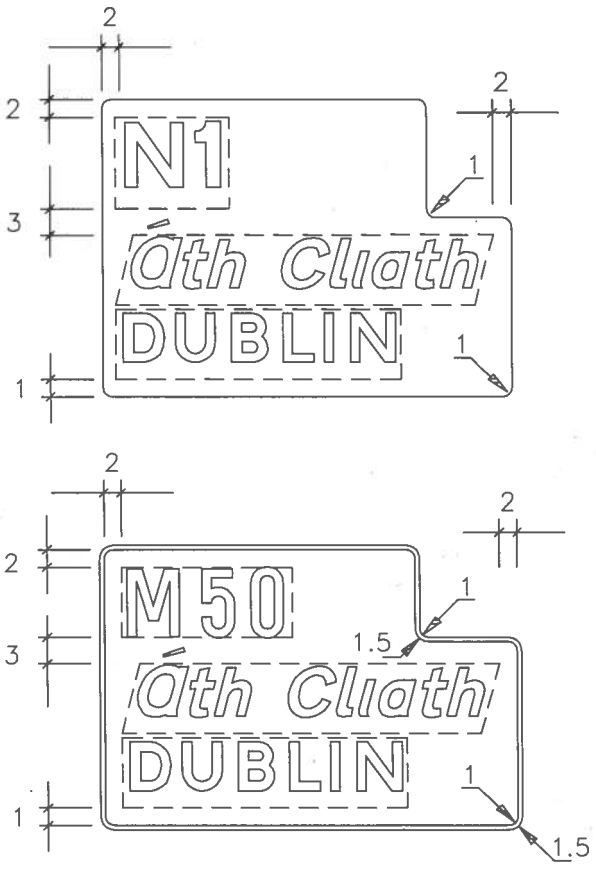

Figure 2.9
Legend Panel Design

2.2.28 A patch is used to indicate a road of a different status which can be reached at some distance along a route. The patch should contain a route number only, enclosed by brackets, and should be in the colour scheme appropriate to the class of road indicated.

2.2.29 National route numbers shown on a patch should be 6 s/w high. Patches should be drawn 1 s/w from the edge of the letters themselves (not the tiles) and corners radiused to 1 s/w. A white border of 1 s/w should be added when a dark patch is placed on a dark background. Patch design is illustrated in Figure 2.10.

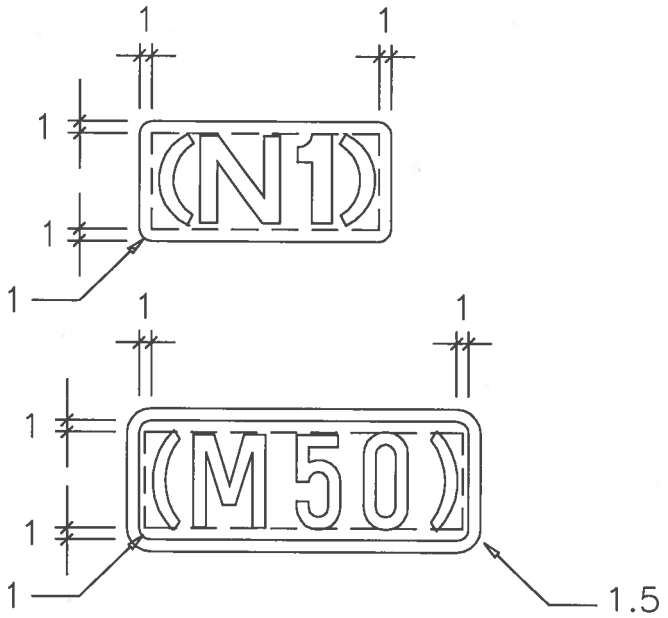

Figure 2.10
Patch Design

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2.3 Sign Face Design

ADVANCE DIRECTION SIGNS

2.3.1 There are four basic types of advance direction signs:

(i) Stack type
(ii) Route Direction
(iii) Map type
(iv) Lane Destination

Stack Type Signs

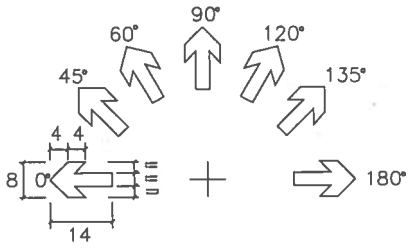

Figure 2.11
Design And Orientation Of Arrows

2.3.2 Stack type signs have directional panels indicating the route number and destinations for each direction (Directional panels should not be confused with legend panels described in the previous section). Each directional panel is coloured in accordance with the route indicated. The direction is indicated by an appropriately orientated arrow. The standard design and orientation of the arrows are shown in Figure 2.11.

2.3.3 The straight ahead directional panel is always on the top, irrespective of route classification. When there are more than two directional panels on a sign, panels of the same colour should be grouped together. Where there are directional panels of different colours, a grey strip should be provided between them. Alternatively, separate signs may be constructed for each group of panels having the same background colour.

2.3.4 Stack type signs should be designed in accordance with the rules defined in Table 2.5 and demonstrated in Figures 2.12 to 2.14. When it is necessary to show more than one destination for each direction, the second destination will appear underneath the first. Where this destination is reached by another route after the junction, the route number should be shown in brackets underneath the arrow and route number for the first destination. If both destinations are reached via the same route then the route number and arrow should be centred vertically alongside the two place-names.

Table 2.5 - Dimensions for Stack Type Signs

Dimension	Multiples of S/W
Border Width	1.5
Inner Radius of Border	4.0
Outer Radius of Border	2.0
Internal Border	1.0
Horizontal Gap to Side Border	3.0
Vertical Gaps to Bottom Border	1.5
Vertical Gap to Top Border (from text tiles)	2.5
Vertical Gap to Top Border (from Arrow)	1.5
Vertical Gap between English and Irish Versions of Place-Name	0.5
Vertical Gap between Separate Destinations	3.0
Horizontal Gap between Arrow and Route Number	3.0
Vertical Gap between Arrow and Route Number	1.5
Gap between Panels of Different Colours	3.0

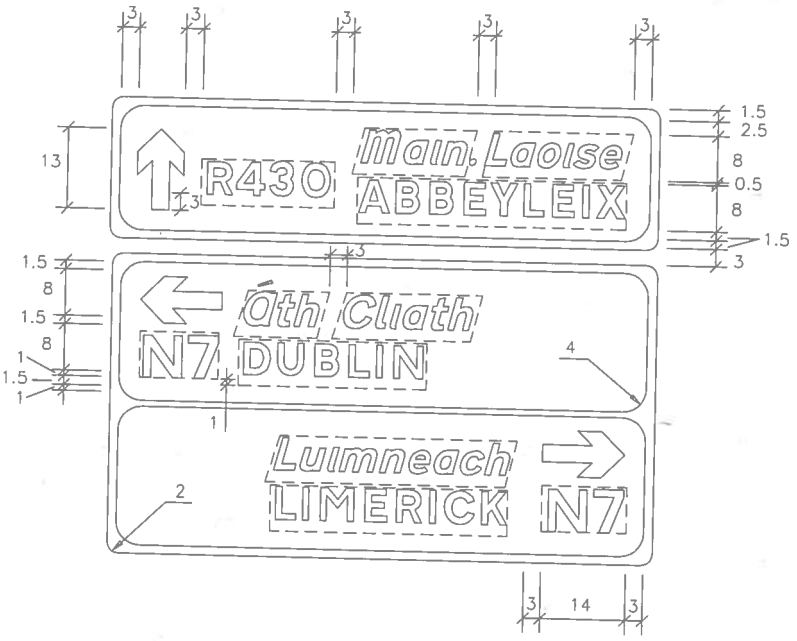

Figure 2.12
Design Of Standard Stack Type Sign

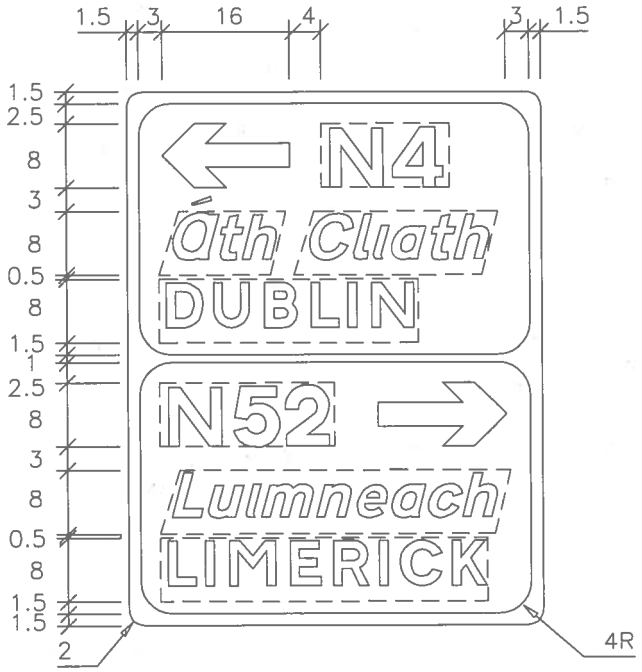

Figure 2.13
Alternative Design Of Stack Type Sign

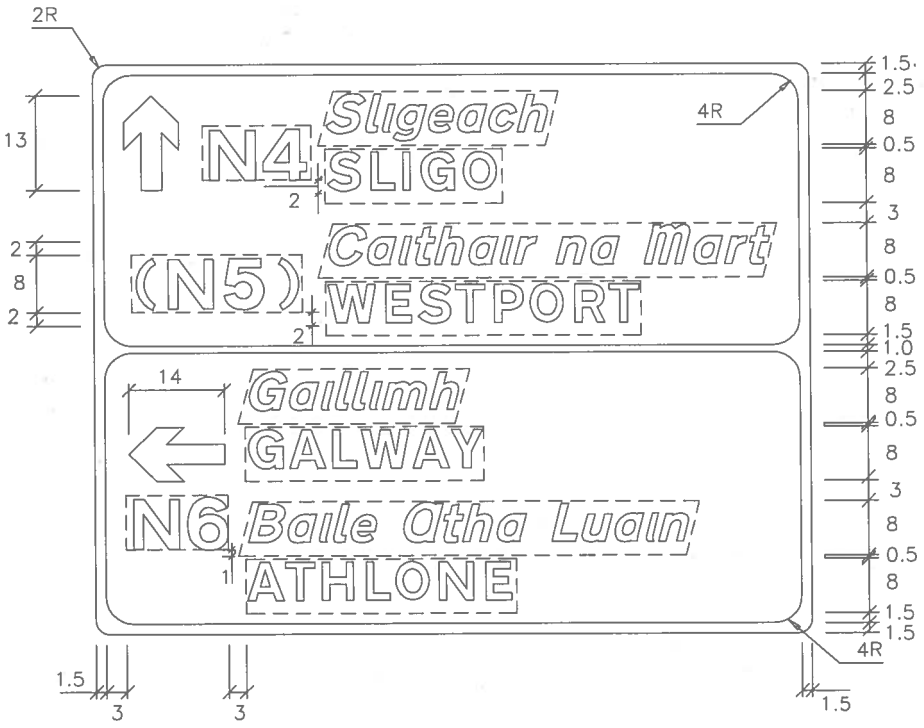

Figure 2.14
Design Of Stack Type Sign (More Than One Destination Per Direction)

Route Direction Signs

2.3.5 In some urban areas it may not be feasible to accommodate stack type signs. In these cases route direction signs can be used instead. These signs are similar to stack type signs. They have directional panels which are coloured according to the route indicated and use the same arrows as stack type signs.

2.3.6 Route direction signs do not show any destinations but they display route numbers of routes which may be reached directly or indirectly from the junction ahead. All the route numbers are unbracketed.

2.3.7 Table 2.6 indicates the design rules normally used for route direction signs. Where more than one route is available in any direction the route numbers are enclosed by boxes and are 6 s/w high. Where a single route number is shown for a direction the gaps to borders are increased from 3 s/w to 4 s/w and the numbers are 8 s/w high.

Table 2.6 - Dimensions for Route Direction Signs

Dimension	S/W
Border Width	1.0
Inner Radius of Border	4.0
Outer Radius of Border	2.0
Internal Border Width	0.25
Horizontal Gap to Side Border	4.0/3.0
Horizontal Gap to Internal Border	4.0/3.0
Vertical Gap to Top Border	4.0/3.0
Vertical Gap to Bottom Border	4.0/3.0
Vertical Gap to Internal Border	4.0/3.0
Horizontal/Vertical Gap Between Arrow and Route Number	4.0

Note:

1. Gaps to Borders are 3 s/w where more than one route number is indicated for a direction, otherwise 4 s/w is used.

2.3.8 Example route direction signs are shown in Figures 2.15 and 2.16.

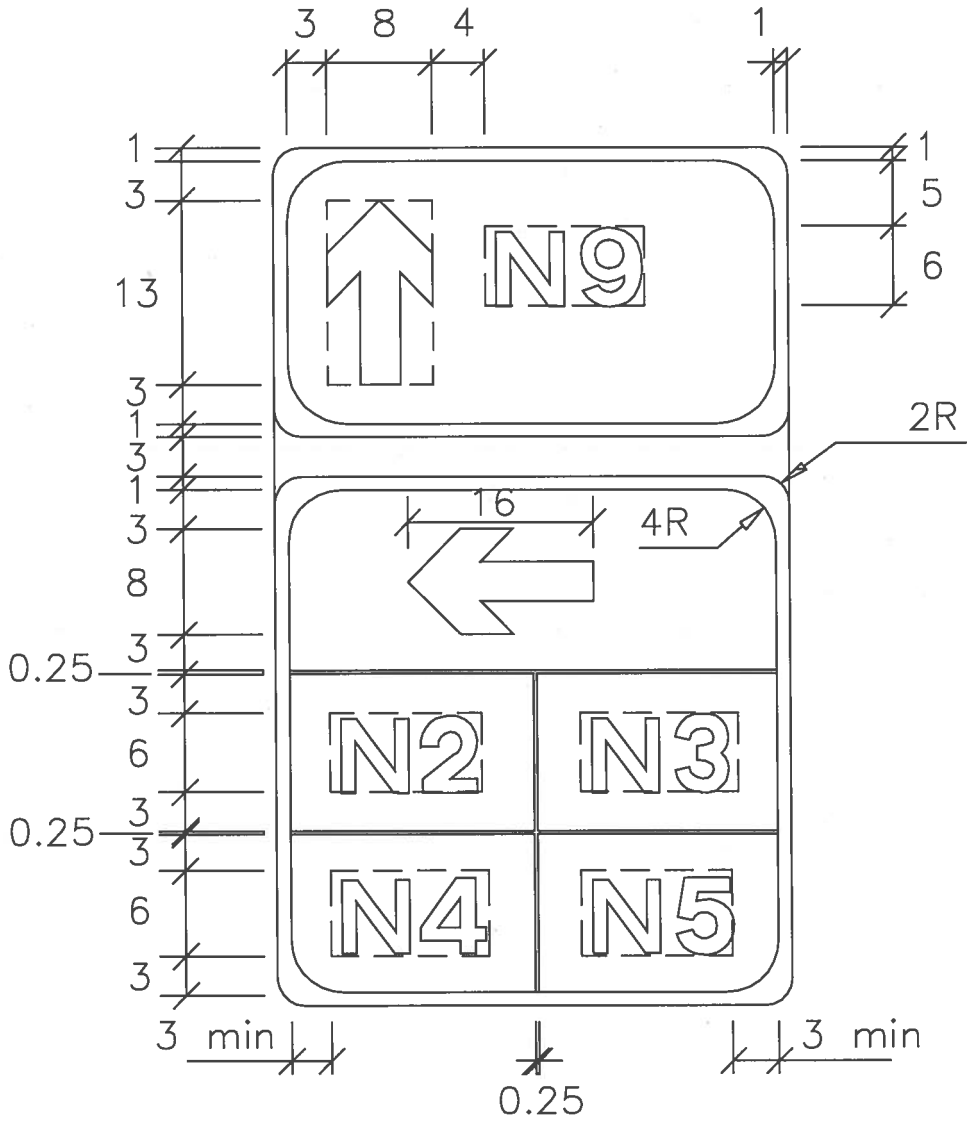

Figure 2.15
Design Of Route Direction Sign

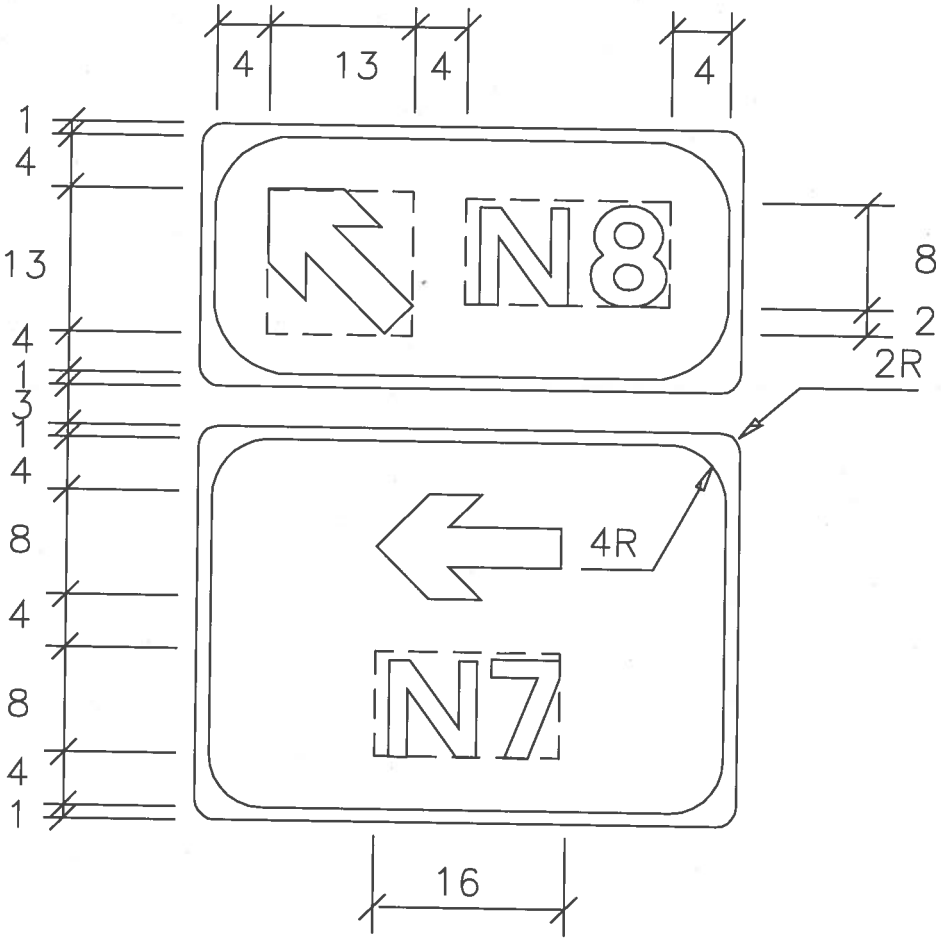

Figure 2.16
Design Of Route Direction Sign

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Map Type Signs for Roundabouts

2.3.9 Map type signs should only be used where it is important to provide the driver with a representation of the road layout at more complex junctions. Map type signs should be used in advance of grade separated junctions and roundabouts. The signs may incorporate colour legend panels to reflect the classification of the route indicated. The sign background retains the colour scheme for the classification of route on which it is located.

2.3.10 The roundabout symbol is used to represent the junction layout. The dimensions to be used when designing the symbols are given in Table 2.7. Roundabout symbols incorporate an arrow head on the ends of each of the exit arms unless no information is displayed for an exit in which case a stub end may be used.

Table 2.7 - Dimensions for Roundabout Route Symbols

Dimension	S/W
Width of Route Symbol	4.0
Inner Diameter of Roundabout	14.0
Outer Diameter of Roundabout	22.0
Exit Arm Length	5.0
Entry Arm Length (Minimum)	8.0
Exit Stub Arm Length	3.0
Width of Arrow Head	3.0
Distance of Entry Route Symbol from Bottom Border	2.0
Distance of Arrow (Inner Angle) from Centre of Exit arm	2.5

2.3.11 There should always be a break in any roundabout symbol to the right hand side of the entry arm. This is illustrated in Figure 2.17 and is formed by:

(i) measuring angles of 30° and 60° anti-clockwise from the centre of the circular symbol;

(ii) forming the ends of the break using the lines formed by these angles when drawn across the lower portion of the circular symbol.

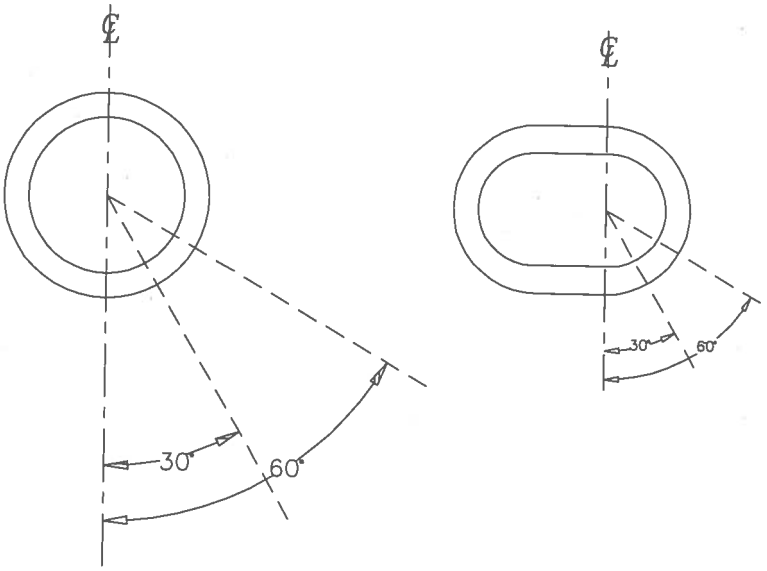

Figure 2.17
Forming Break in Roundabout Symbol

2.3.12 Once the route symbols have been designed the rest of the information can be added to the sign. Table 2.8 indicates the design rules to be used when designing roundabout signs. For the straight ahead arms the route number may be placed on either side of the arrow for optimum layout (Fig 2.18). Then the destination(s) may be positioned above and justified with the route number. Another arrangement such as positioning the route number directly above the arrow head may sometimes produce a more effective design.(Fig 2.19).

Table 2.8 - Dimensions for Map Type Signs of Roundabouts

Dimensions	S/W
Border Width	1.5
Inner Radius of Border	4.0
Outer Radius of Border	2.0
Horizontal Gaps to Side Border	3.0
Vertical Gaps to Bottom Border	2.0
Vertical Gap to Top Border	3.0
Vertical Gap Between English and Irish Versions of Place-Name	0.5
Vertical Gap Between Different Place-Names	3.0
Horizontal Gap Between Arrow and Route Number (or legend panel)	3.0
Vertical Gaps Between Route Number and Place-Name	3.0
Horizontal Gap Between Side Destination Place-Names and the Furthest Horizontal extent of Roundabout Symbol	2.0

2.3.13 For side destinations the route number should normally be centred alongside the arrow head. In the interests of economic and balanced sign design the destination(s) may appear above or below the route number. The number of arms will normally dictate the type of design that is suitable. In all cases information for different exits should not be closer than 12 s/w to each other.

2.3.14 Exits from the roundabout that cannot be represented accurately by horizontal or vertical arms should be shown by arms at angles of 45°, 135°, 225°, or 315° from the vertical. In the latter case the break in the roundabout symbol should then occur between 330° and 350° from the vertical.

2.3.15 Figures 2.18 to 2.20 show example map type signs for roundabouts.

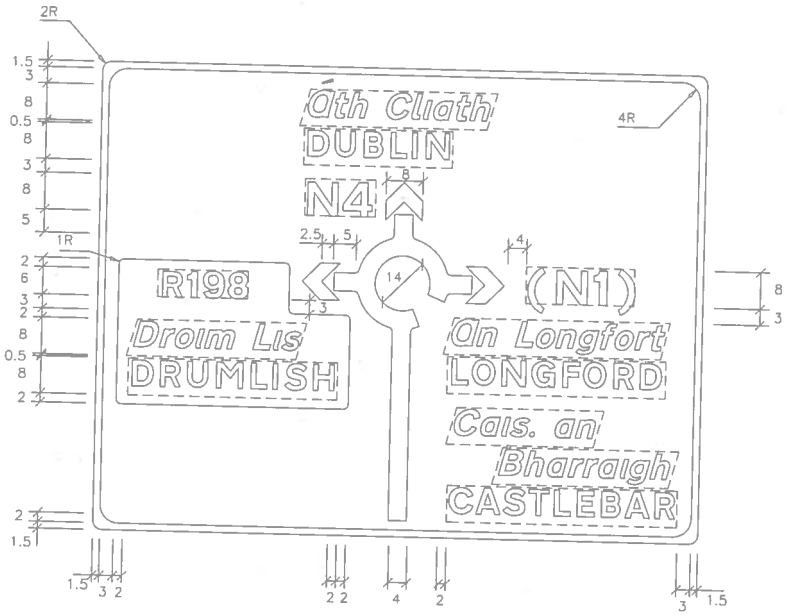

Figure 2.18
Design Of Roundabout Map Type Sign

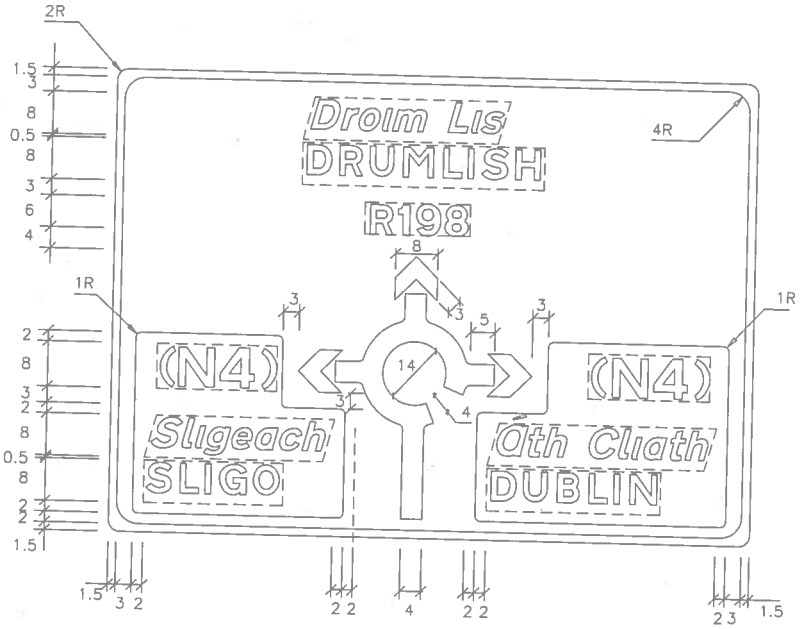

Figure 2.19
Design Of Roundabout Map Type Sign

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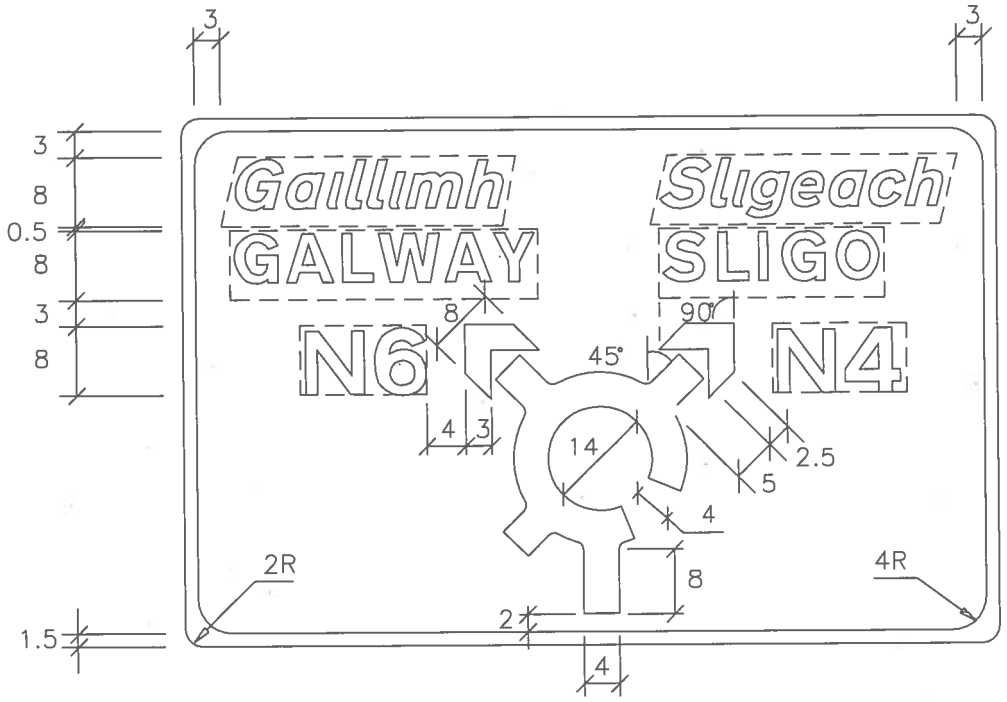

Figure 2.20
Design Of Roundabout Map Type Sign

Map Type Signs For Junctions With Free Flow Off Slips

2.3.16 The dimensions to be used when designing map type signs for grade separated junctions are given in Table 2.9. For the main route, the route number may be shown to the left of the ahead route symbol. The top of the route number tiles will be aligned with the point of the ahead route symbol. Ahead destinations will then be shown immediately above.

Table 2.9 - Dimensions for Map Type Signs For Junctions With Free Flow Off Slips

Dimension	S/W
Width of Route Symbol	5.0
Distance of Entry Route Symbol from Bottom Border	3.0
Border Width	1.5
Inner Radius of Border	4.0
Outer Radius of Border	2.0
Horizontal Gap to Left Border	3.0
Horizontal Gap to Right Border	5.0
Vertical Gap to Bottom Border	2.0
Vertical Gap to Top Border	3.0
Vertical Gap Between English and Irish Versions of Place-Name	0.5
Vertical Gap Between Different Place-Names	3.0
Vertical Gap Between Route Number and Place-Name	3.0
Horizontal Gap to any Route Symbol	3.0
Standard length of ahead Route Symbol	46.0
Minimum length of exit Route Symbol	24.0

2.3.17 All points of route symbols should form an angle of 90°. All exit arm route symbols will be orientated at an angle of 60° from the vertical. All the route numbers available by turning off the main route at the junction will be shown on one line and centred with the tip of the exit arm. The destinations will then be shown underneath.

2.3.18 When the route reached by turning off at the junction is of a different classification to the main route a coloured legend panel should be used. Different combinations of messages may dictate a different layout in the interests of clarity. Example layouts are shown in Figures 2.21 and 2.22.

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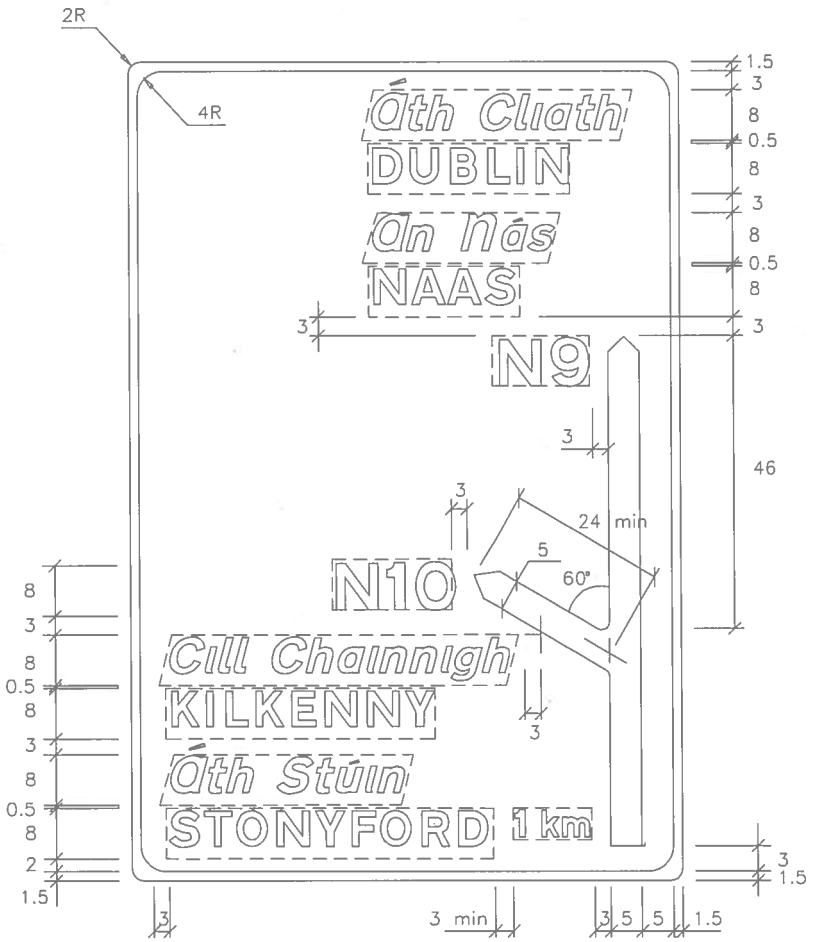


Figure 2.21
Design Of Map Type Sign For Free Flow Off Slips

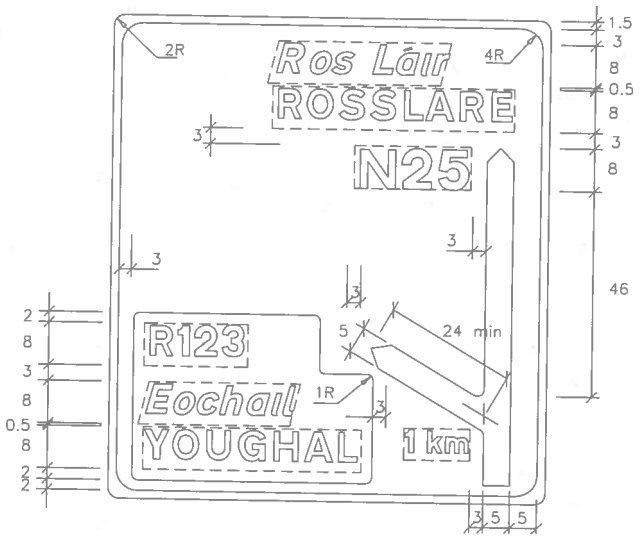


Figure 2.22
Design Of Map Type Sign With Legend Panel For Grade Seperated Junction

2.3.19 The distances to the junction may be indicated in tiles of 75% normal size at the bottom of the sign adjacent to the entry arm.

DEPARTMENT OF THE ENVIRONMENT

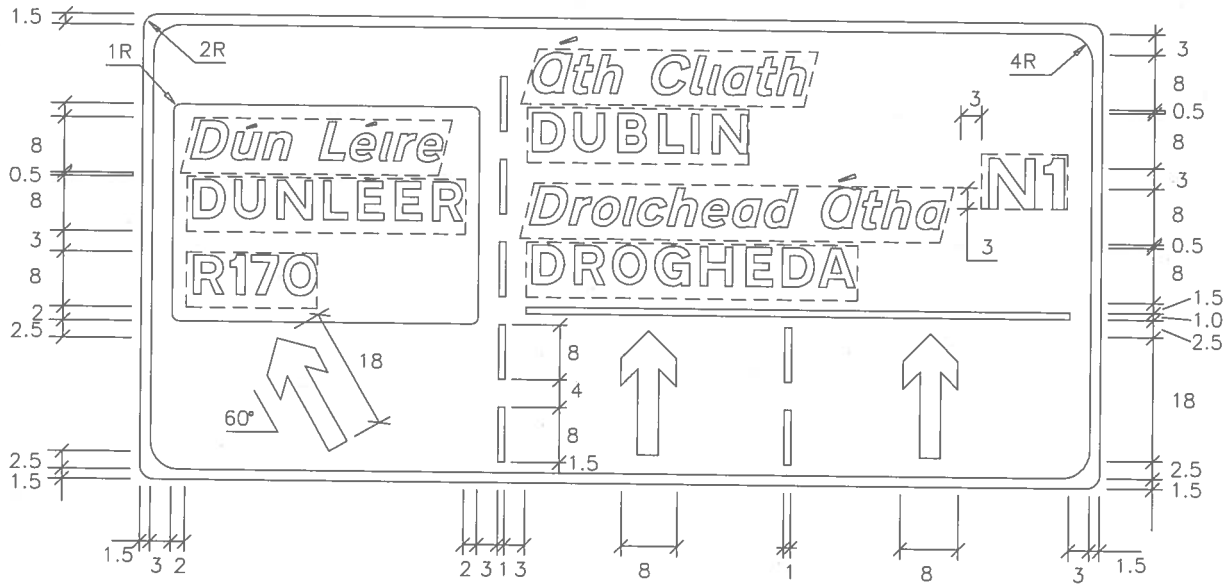
Lane Destination Signs

2.3.20 Lane destination signs should only be used before junctions where movements can only be made from specific lanes. In urban areas, lane destination signs will be of substantial assistance in guiding vehicles into the most appropriate lane at junction approaches. Lane destination signs reflect the colour schemes for different classifications of road on legend panels.

2.3.21 Lane destination signs use arrows and lane markings to guide motorists into the correct lane for their destination on approaching junctions. The dimensions to be used when designing lane destination signs are given in Table 2.10. The arrows are the same as those used on stack type signs although their standard length is 18 s/w. Arrows at 60o, 90o and 120o from the vertical can be used in addition to curved versions for left or right turns. These are shown in the example layouts in Figures 2.23 and 2.24.

Table 2.10 - Dimensions for Lane Destination Signs

Dimension	Multiple of S/W
Border Width	1.5
Inner Radius of Border	4.0
Outer Radius of Border	2.0
Vertical Gap to Top Border	3.0
Vertical Gap to Bottom Border	2.5
Horizontal Gap to Side Border	3.0
Lane Line Width	1.0
Length of Lane Line Segments	8.0
Length of Gap Between Lane Line Segments	4.0
Vertical Gap Above or Below Lane Lines	1.50
Link Line Width	1.0
Vertical Gap Above Link Line	1.50
Vertical Gap Below Link Line	2.50



Note: In the interests of optimisation of sign layout, the route no. N1 could be resited beside the Áth Cliath/DUBLIN tiles.

Figure 2.23
Design Of Lane Destination Sign

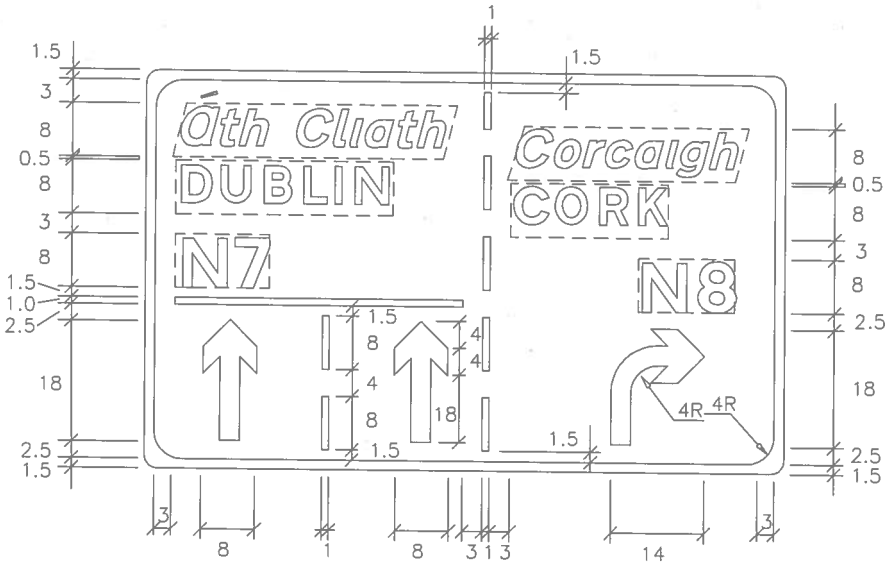


Figure 2.24
Design Of Lane Destination Sign

2.3.22 A link line is a horizontal line separating destinations from the lane lines or arrows below. A link line should be used only if two or more lanes related to the same destination(s) can be reached via more than one lane.

2.3.23 Single arrows referring to a destination ahead should be centred on the legend to which they refer (In the case of curved arrows their full width should be centred). However, when two arrows relate to the same destination, each arrow should be centred between the adjacent lane lines or border.

2.3.24 Lanes leading to the same destination should be depicted as having equal width. No single lane width should be more than twice the width of the narrowest lane. Where the lengths of legend are so different that they exceed the above ratio the width of the narrowest lane must be increased. When this is done the horizontal spacing rules do not change except that the gaps to the side border are increased (the legend being centred horizontally on the sign). Alternatively, the largest destination in the widest lane may be condensed, indented or abbreviated.

2.3.25 Where a lane line is truncated at the top of the sign, the minimum length should be 3 s/w. Where this cannot be achieved, the line should be omitted.

2.3.26 Route numbers should normally appear underneath destinations and be justified left. Route numbers may be justified right, if they are associated with right turn lanes. When two destinations are shown in the same direction, the route number may appear alongside the destinations.

DIRECTION SIGNS

2.3.27 Direction signs are located at the road junction itself and point along exits from the junction. They perform two main functions:

(i) they indicate the location of the junction;

(ii) they show the destinations on the routes indicated.

2.3.28 Direction signs should be positioned at the junction so that they point as clearly as possible to the route to which they refer. Preferably they should be on the nearside of the carriageway. It is important that direction signs are correctly sized and are clearly visible to approaching drivers. Table A2.1 in the appendix indicates the recommendations for sizes and clear visibility distance for different speed categories of the road.

2.3.29 Direction signs are coloured in accordance with the route indicated. At the pointed end of the sign there is normally a chevron which emphasises the direction of travel.

2.3.30 The basic dimensions to be used when designing direction signs are shown in Table 2.11. Some dimensions vary according to the number of destinations displayed and whether they are shown only in Irish or in both languages. These dimensions are indicated separately in Table 2.12.

Table 2.11 - Dimensions for Designing Direction Signs

Description	S/W
Border Width	1.5
Inner Border Radius[1]	1.0
Outer Border Radius	2.5
Outer Border Radius of Top and Bottom Corners at Pointed End[1]	2.0
Outer Border Radius of Point[1]	1.5
Horizontal Gap Between Place-names and Side Border	2.5
Chevron Width[1]	4.0
Gap Between Chevron and Top Border	1.5
Gap Between Chevron and Side Border	2.5
Gap Between Chevron and Bottom Border	1.5
Horizontal Gap Between Place-Names and Route Numbers and Chevron	3.0

Notes:
1. The inner border is not radiused at the pointed end of the sign.
2. End radii greater than those above will with the approval of the engineer be accepted where extruded section framing dictates.

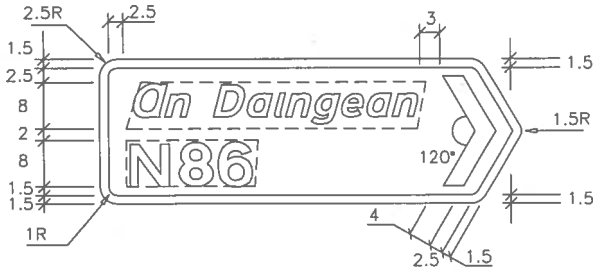
Table 2.12 - Spacing According to Language and Number of Destinations Shown

Description	Type of Information Shown			
	One Destination		Two Destinations	
	Irish Only	Bilingual	Irish Only	Bilingual
Vertical Gap Between Irish and English Version of Place-Name	-	1.0	-	0.5
Vertical Gap Between Separate Destinations	-	-	1.5	2.0
Vertical Gap Between Place-Name and Top Border	5.0	2.5	2.5	2.5
Vertical Gap Between Place-Name and Bottom Border	5.0	1.5	1.5	1.5

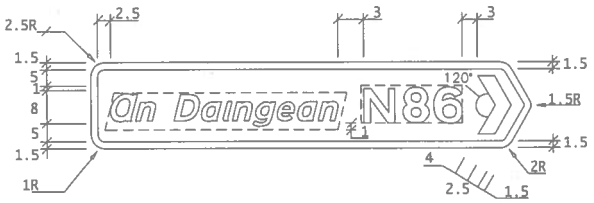
DEPARTMENT OF THE ENVIRONMENT

Direction Signs For National Routes

2.3.31 Direction signs pointing along national routes should show the route number and terminal destination. Direction signs indicating the next town may show the distance in kilometres. Examples of these types of signs are shown in Figures 2.25 to 2.28 which illustrate the positioning of the route number in relation to the destinations shown.



(a)



(b)

Figure 2.25
Design Of Direction Sign For National Route
(One Irish Destination, With Route Number)

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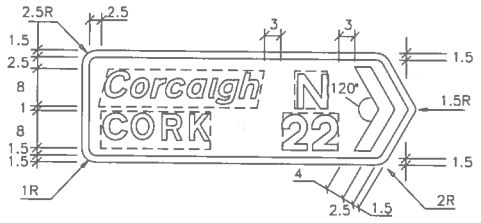
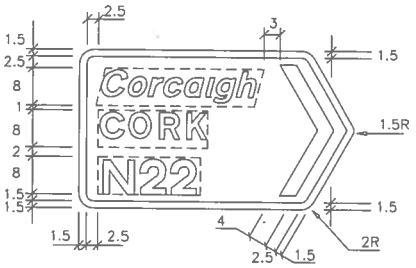
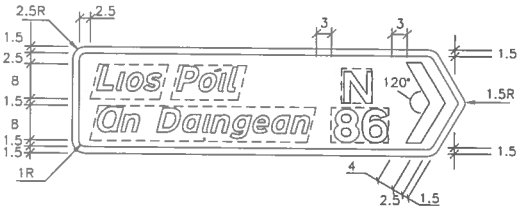


(a)

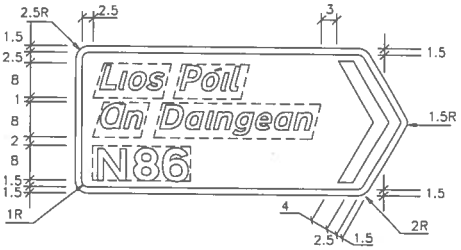


(b)

Figure 2.26
Design Of Direction Sign For National Route
(One Bilingual Destination, With Route Number)

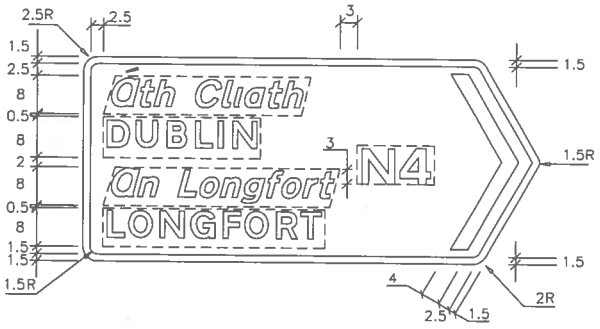


(a)



(b)

Figure 2.27
Design Of Direction Sign For National Route
(Two Irish Destination, With Route Number)



Note: It is often more advantageous to split a sign such as this into two separate signs- one showing the terminal destination and route number (e.g. fig. 2.26) and the other showing a closer destination and distance only.

Figure 2.28
Design Of Direction Sign For National Route
(Two Bilingual Destinations)

DEPARTMENT OF THE ENVIRONMENT

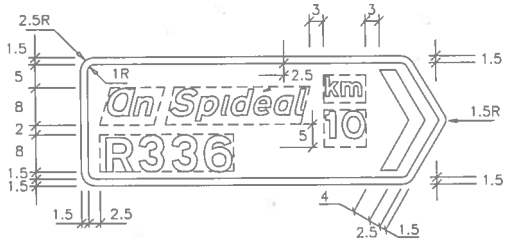
Direction Signs For Regional Routes

2.3.32 Direction signs pointing along regional routes may have to show distances as well as the route number and destinations. If a route confirmatory sign exists on the regional road after the junction it is not necessary to indicate distances on the direction sign. See fig. 2.30(b). The use of more than one destination on bilingual signs on regional routes is not recommended.

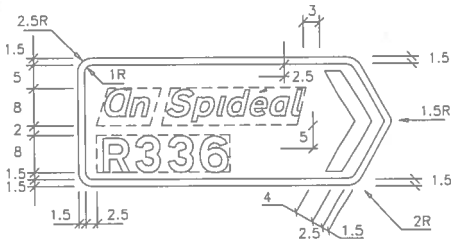
2.3.33 When distances have to be shown they are always accompanied by the abbreviation "km" which should be shown in lower case English tiles at 75% of the normal size. The position of the "km" and distances vary according to the number and language of destinations shown and are demonstrated on the signs in Figures 2.29 to 2.31. The route number is always indicated at the bottom of the sign and aligned with the start of the text.

2.3.34 Where existing signs, which do not incorporate a route number, are to be left in place, a separate sign indicating the route number should be provided above the main sign as indicated in Figure 2.32. Alternatively, this route number sign may be mounted below the main sign.

2.3.35 For high level direction signs, mounted on a single pole and where distances must be shown, the chevron can be omitted to reduce the length of the sign.



(a)



(b)

Figure 2.29
Design Of Direction Sign For Regional Route
(One Destination, Irish Only)

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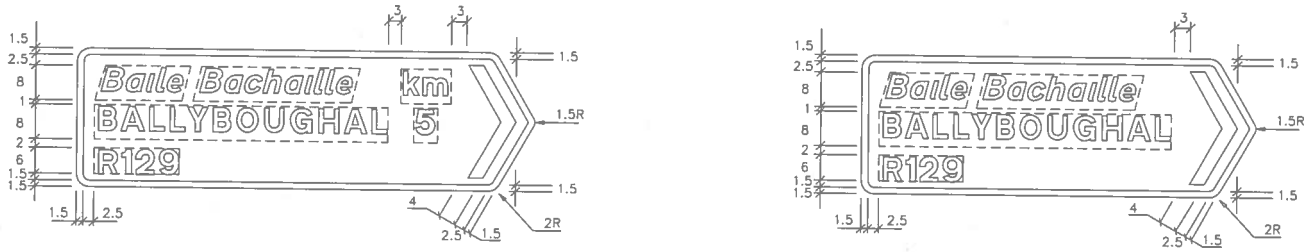

(a) (b)

Figure 2.30
Design Of Direction Sign For Regional Route
(One Bilingual Destinationr)

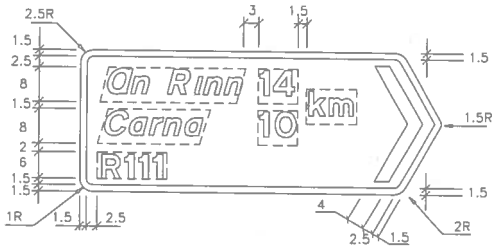

Figure 2.31
Design Of Direction Sign For Regional Route
(Two Irish Destinations)

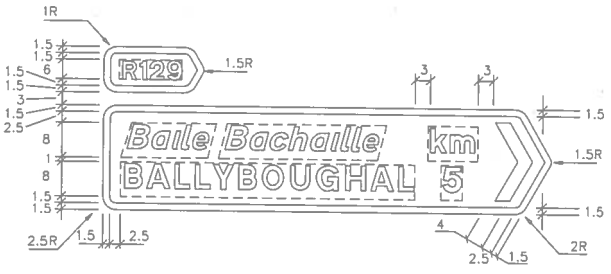

Figure 2.32
Design Of Direction Sign For Regional Route

DEPARTMENT OF THE ENVIRONMENT

ROUTE CONFIRMATORY SIGNS

2.3.37 Route Confirmatory signs may be located after road junctions. They serve two purposes;

(i) to confirm to road users that they have taken their intended route;

(ii) to give additional information about the road ahead.

2.3.38 Confirmatory signs can show more than two destinations ahead but they must duplicate the destinations indicated previously on advance direction signs and direction signs for the route. The additional destinations may be towns of lesser importance on the route and need not be included on subsequent direction signing until they become relevant.

2.3.39 Significant destinations that can be reached by turning off the route from a junction ahead can be displayed in brackets.

2.3.40 Route confirmatory signs are coloured over their entire area according to the status of the road on which they are located. This is regardless of whether destinations reached by turning off onto another classification of route are mentioned.

2.3.41 Route confirmatory signs must be correctly sized and be clearly visible to approaching drivers if the information is to be read and understood. Recommendations on size and clear visibility distance of route confirmatory signs are provided in Table A2.1 in the appendix to this chapter.

2.3.42 There are two types of route confirmatory signs:

(i) route number with place-names and respective distances;

(ii) route marker.

2.3.43 The first type has the route number placed centrally at the top of the sign followed by a list of destinations arranged in distance order with the furthest appearing at the top. Distances in kilometres should be shown adjacent to each respective destination. Any destinations located off the main route, such as terminal destinations on spur routes should be shown in brackets. The position of bracketed destinations on confirmatory signs is governed by the distance to the junction at which the road user must turn off the main route to reach that destination, irrespective of the overall distance to the destination itself.

2.3.44 Where only one destination is shown, the route number appears within the sign (See Fig. 2.35). When multiple destinations are shown, the route number is displayed separately on a route marker sign which is centred 1 s/w above the main sign. All the dimensions used are defined in Table 2.13.

2.3.45 On bilingual signs, the top of the letters "km" are aligned with the top of the letters of the Irish version of the first place-name indicated. On Irish only signs, the "km" tiles appear 3 s/w above the first distance indicated. This is illustrated in the example signs shown in Figure 2.33 and 2.34.

2.3.46 On Irish only signs, distances appear alongside the place-name. On bilingual signs, distances appear alongside the English version of the place-name. Distances are always accompanied by the abbreviation "km" in tiles 75 percent the normal size. The "km" tiles appear at the top of the sign centred over the top distance mentioned.

Table 2.13 - Dimensions for Route Confirmatory Signs

Dimensions	Multiples of S/W	
	Main Sign	Route Marker Sign
Border Width	1.5	1.0
Inner Radius of Border	4.0	3.0
Outer Radius of Border	2.0	2.0
Gap Between Route Number and Side Borders	-	2.0
Gap Between Route Number and Top or Bottom Borders	-	2.0
Gap to Top Border	3.0	-
Gap to Side Border	3.0	-
Horizontal Gap Between Place-Names and Distances	4.0	-

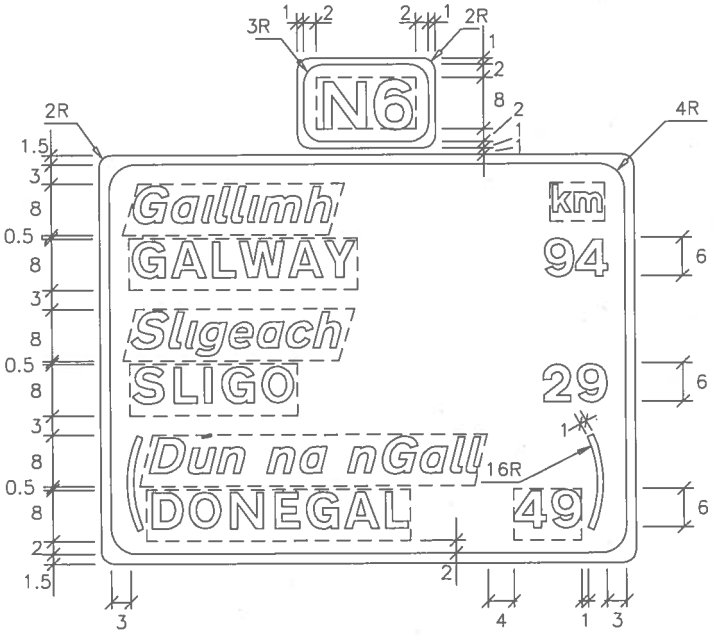

Figure 2.33
Design Of Route Confirmatory Sign (Bilingual)

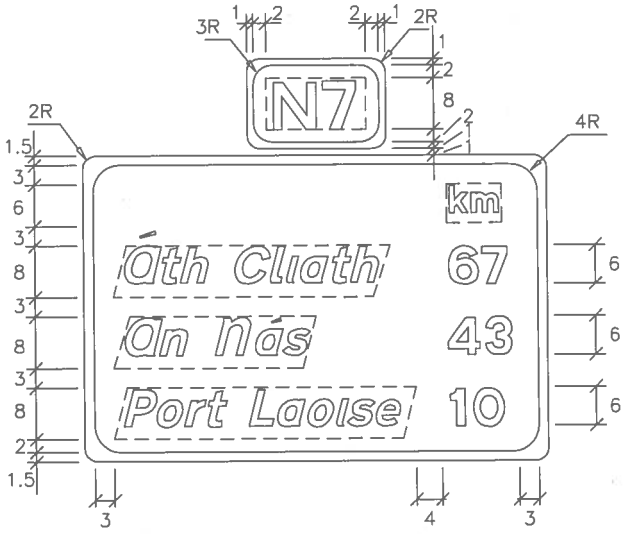

Figure 2.34
Design Of Route Confirmatory Sign (Irish)

2.3.47 The route marker sign can be erected on its own without the main sign as shown in Figure 2.36. This may be justified in dense urban areas where junctions are frequent and it is not possible to provide full route confirmatory signs. The route marker sign is also useful on rural routes where junctions are significant distances apart. They should also be provided after every regional road junction with a national route, where other confirmatory signing is not provided.

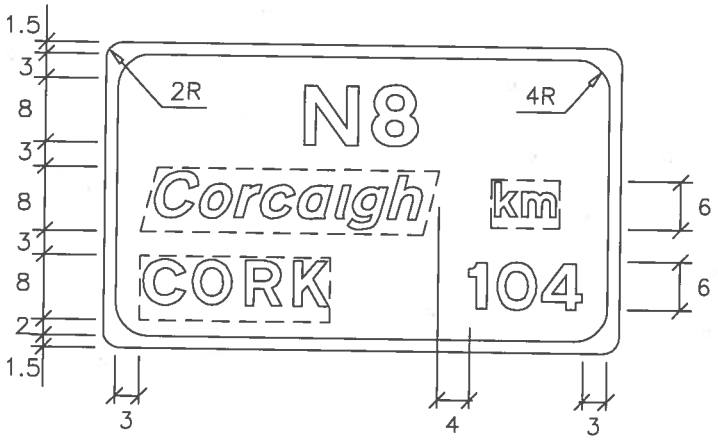

Figure 2.35
Design Of Route Confirmatory Sign With One Destination

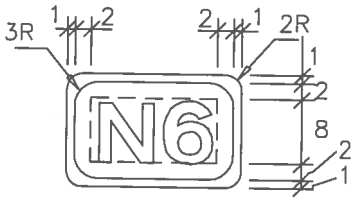

Figure 2.36
Route Marker Sign

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Table A2.1 - Letter Sizes and Siting Details of Directional Information Signs

Type of Road	Advance Direction Signs			Direction Signs		Route Confirmatory Signs	Route Direction Sign	Route Marker Sign	Town and Village Sign
	x-height (mm)	Distance of Sign from Intersection (m)	Clear Minimum Visibility Distance of Sign (m)	x-height (mm)	Clear Minimum Visibility Distance of Sign (m)	x-height (mm)	x-height (mm)	x-height (mm)	x-height (mm)
(i) Motorways	250 (200)	Standard Siting	180	200 (150)	140	200 (150)	-	-	-
(ii) Dual Carriageway roads built to near motorway standards	200 (150)	Standard Siting	180	200 or 150 (Note 2)	110	150	-	120 (150)	-
(iii) Unrestricted dual carriageways and single three-lane carriageways.	200 (150)	230 (Note 1)	140	150 or 100	110 (75)	150	-	120 (150)	-
(iv) Other dual and single carriageway roads on National Routes.	150 (120)	150 (Note 1)	110	100 (Note 3)	75	120 (150)	100 (80)	120 (100)	100
(v) Other roads.	100 (80)	50	60	100 (80) (50)	30	100 (80)	100 (80)	-	100 (80)
(vi) Slip roads leading from the through carriageway at grade seperated junctions	100 (80)	50 or halfway along slip road/which ever is less	60	100 (Note 3)	60	-	-	-	-

Notes

1. These distances apply to level roads: they should be decreased on uphill gradients and increased on down hill gradients.
2. The smaller sizes may be used at junctions where traffic speeds are generally less than on the open road, for example at roundabout exits or where there is real difficulty in siting the larger size.
3. In lieu of the 100mm x-height a specially reduced 80mm x-height can be used if lack of space forbids the use of the larger size: for advance direction signs other than roundabout signs if a map type sign with 100mm x-height is too large a100mm stack type sign is to be preferred to a 80mm x height map type sign.
4. The route marker sign follows the normal rules for route confirmatory signs: height at 50mm should only be used at local road junctions or restrictive junctions.

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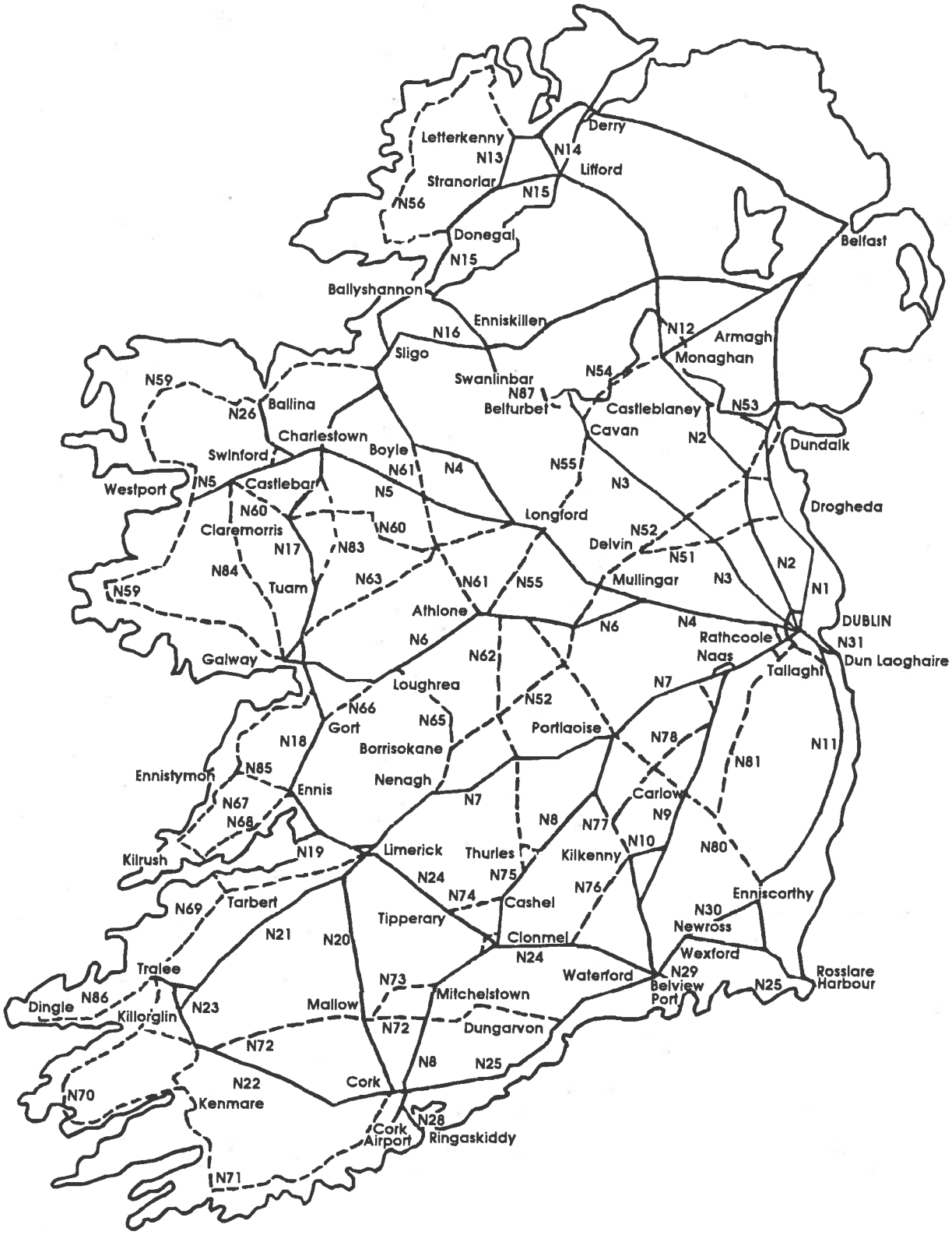

Figure A2.1 Terminal Destinations For National Routes

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Table A2.2 - Terminal Destinations for National Routes : National Primary Routes

National Route Number	Terminal Destinations	
N1	Belfast (Béal Feirste)	Dublin (Áth Cliath)
N2	Derry (Doire)	Dublin (Áth Cliath)
N3	Ballyshannon (Béal Átha Seanaidh)	Dublin (Áth Cliath)
N4	Sligo (Sligeach)	Dublin (Áth Cliath)
N5	Westport (Cathair na Mart)	Longford, Dublin (An Longfort, Áth Cliath)
N6	Galway (Gaillimh)	Dublin (Áth Cliath)
N7	Limerick (Luimneach)	Dublin (Áth Cliath)
N8	Cork (Corcaigh)	Port Laoise, Dublin (Port Laoise, Áth Cliath)
N9	Waterford (Port Láirge)	Naas, Dublin (An Nás, Áth Cliath)
N10	Kilkenny (Cill Chainnigh)	Waterford, Dublin (Port Láirge, Áth Cliath)
N11	Wexford (Loch Garman)	Dublin (Áth Cliath)
N12	Monaghan (Muineachán)	Armagh (Ard Mhacha)
N13	Stranorlar (Srath an Urláir)	Derry (Doire)
N14	Letterkenny (Leitir Ceanainn)	Lifford, Dublin (Leifear, Áth Cliath)
N15	Sligo (Sligeach)	Derry, Lifford (Doire, Leifear)
N16	Sligo (Sligeach)	Enniskillen (Inis Ceithleann)
N17	Sligo (Sligeach)	Galway (Gaillimh)
N18	Galway (Gaillimh)	Limerick (Luimneach)
N19	Shannon Airport (Aerfort na Sionainne)	Limerick, Galway (Luimneach, Gaillimh)
N20	Limerick (Luimneach)	Cork (Corcaigh)
N21	Limerick (Luimneach)	Tralee (Trá Lí)
N22	Tralee (Trá Lí)	Cork (Corcaigh)
N23	Limerick (Luimneach)	Killarney (Cill Airne)
N24	Limerick (Luimneach)	Waterford (Port Láirge)
N25	Cork (Corcaigh)	Rosslare Harbour (Calafort Ros Láir)
N26	Ballina (Béal an Átha)	Swinford (Béal Átha na Muice)
N27	Cork (Corcaigh)	Cork Airport (Aerfort na Chorcaí)
N28	Cork (Corcaigh)	Ringaskiddy (Rinn an Scidígh)
N29	Waterford (Port Láirge)	Belview Port (Port Belview)
N30	New Ross (Ros Mhic Thriúin)	Enniscorthy (Inis Córthaidh)
N31	Blackrock, All Routes (An Charraigh Dhubh, Gach Treo)	Dún Laoghaire

Note : For practical purposes it may be necessary in some cases to include the names of destinations other than those listed above. See Table 2.3 in section 2.2 for general guidelines.

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Table A2.3 - Terminal Destinations for National Routes : National Secondary Routes

National Route Number	Terminal Destinations	
N51	Delvin (Dealbhna)	Drogheda (Droichead Átha)
N52	Nenagh (An tAonach)	Dundalk (Dún Dealgan)
N53	Castleblaney, Derry (Baile Na Lorgan, Doire)	Dundalk (Dún Dealgan)
N54	Monaghan (Muineachán)	Cavan (An Cabhán)
N55	Athlone (Baile Átha Luain)	Cavan (An Cabhán)
N56	Donegal (Dún na nGall)	Letterkenny (Leitir Ceanainn)
N57	Ballina (Béal an Átha)	Swinford (Béal Átha na Muice)
N58	Foxford (Béal Easa)	Castlebar (Caisleán an Bharraigh)
N59	Sligo (Sligeach)	Galway (Gaillimh)
N60	Castlebar (Caisleán an Bharraigh)	Roscommon (Ros Comáin)
N61	Boyle (Mainistir na Búille)	Athlone (Baile Átha Luain)
N62	Athlone (Baile Átha Luain)	Cashel (Caiseal)
N63	Galway (Gaillimh)	Longford (An Longfort)
N64	Claregalway (Baile Chláir)	Oranmore (Órán Mór)
N65	Galway (Gaillimh)	Borrisokane (Buiríos Uí Chéin)
N66	Gort (An Gort)	Loughrea (Baile Locha Riach)
N67	Galway (Gaillimh)	Kilrush (Cill Rois)
N68	Kilrush (Cill Rois)	Ennis (Inis)
N69	Tralee (Trá Lí)	Limerick (Luimneach)
N70	Tralee (Trá Lí)	Kenmare (Neidín)
N71	Killarney (Cill Airne)	Cork (Corcaigh)
N72	Killorglin (Cill Orglan)	Dungarvon (Dún Garbhán)
N73	Mallow (Mala)	Mitchelstown (Baile Mhistéala)
N74	Tipperary (Tiobraid Árann)	Cashel (Caiseal)
N75	Thurles (Durlas)	Dublin, Cork (Áth Cliath, Corcaigh)
N76	Clonmel (Cluain Meala)	Kilkenny (Cill Chainnigh)
N77	Kilkenny (Cill Chainnigh)	Port Laoise (Port Laoise)
N78	Kilkenny (Cill Chainnigh)	Naas (An Nás)
N79	New Ross (Ros Mhic Thriúin)	Enniscorthy (Inis Córthaidh)
N80	Athlone (Baile Átha Luain)	Enniscorthy (Inis Córthaidh)
N81	Dublin (Áth Cliath)	Enniscorthy (Inis Córthaidh)
N82	Tallaght (Tamhlacht)	Rathcoole (Ráth Cúil)
N83	Tuam (Tuaim)	Charlestown (Baile Chathail)
N84	Galway (Gaillimh)	Castlebar (Caisleán an Bharraigh)
N85	Ennis (Inis)	Ennistimon (Inis Díomáin)
N86	Tralee (Trá Lí)	Dingle (An Daingean)
N87	Belturbet (Béal Tairbirt)	Swanlinbar (An Muileann Iarainn)

Note : For practical purposes it may be necessary in some cases to include the names of destinations other than those listed above. See Table 2.3 in section 2.2 for general guidelines.

DEPARTMENT OF THE ENVIRONMENT

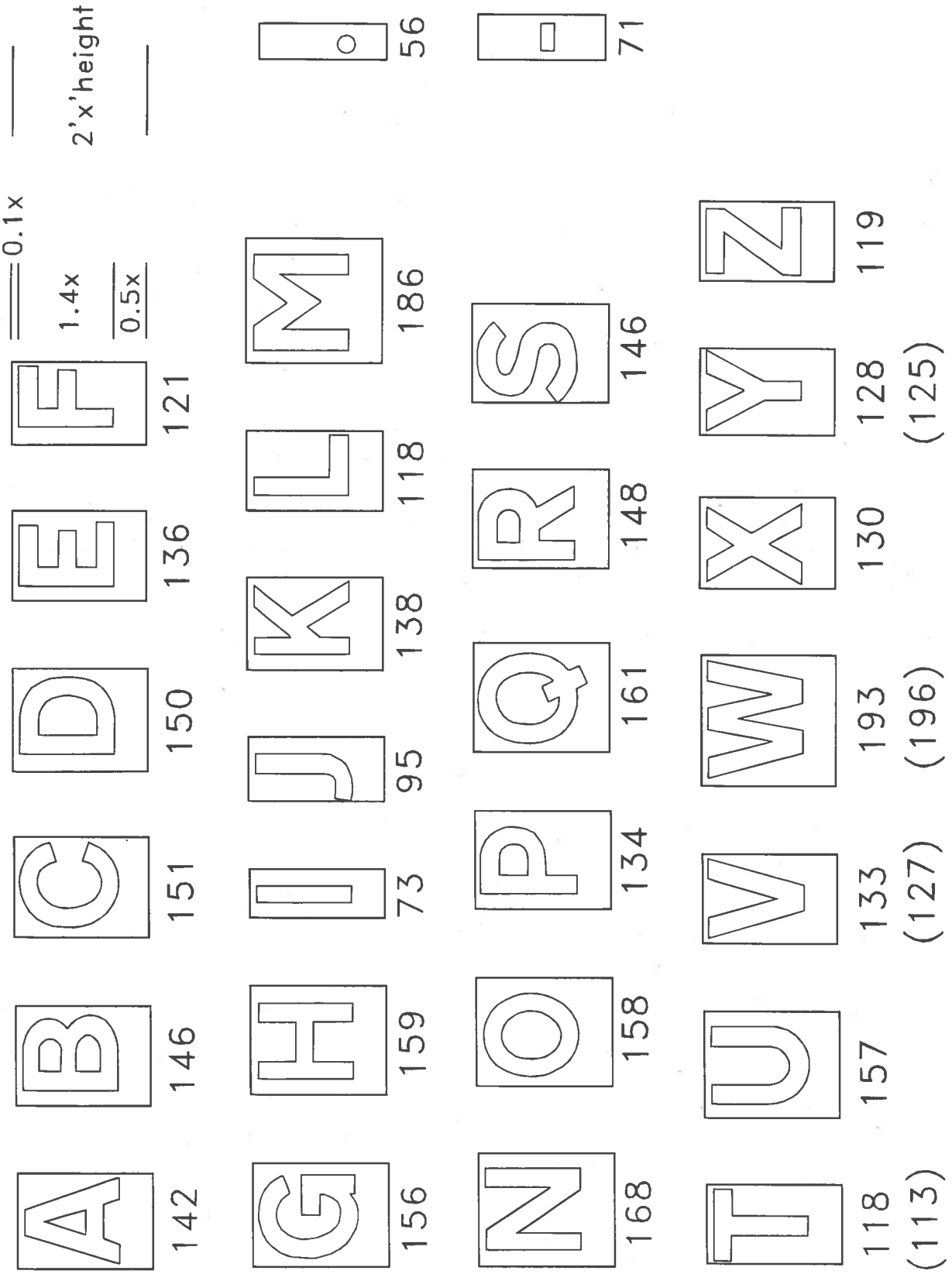

Figure A2.2 English Upper Case Alphabet

DEPARTMENT OF THE ENVIRONMENT

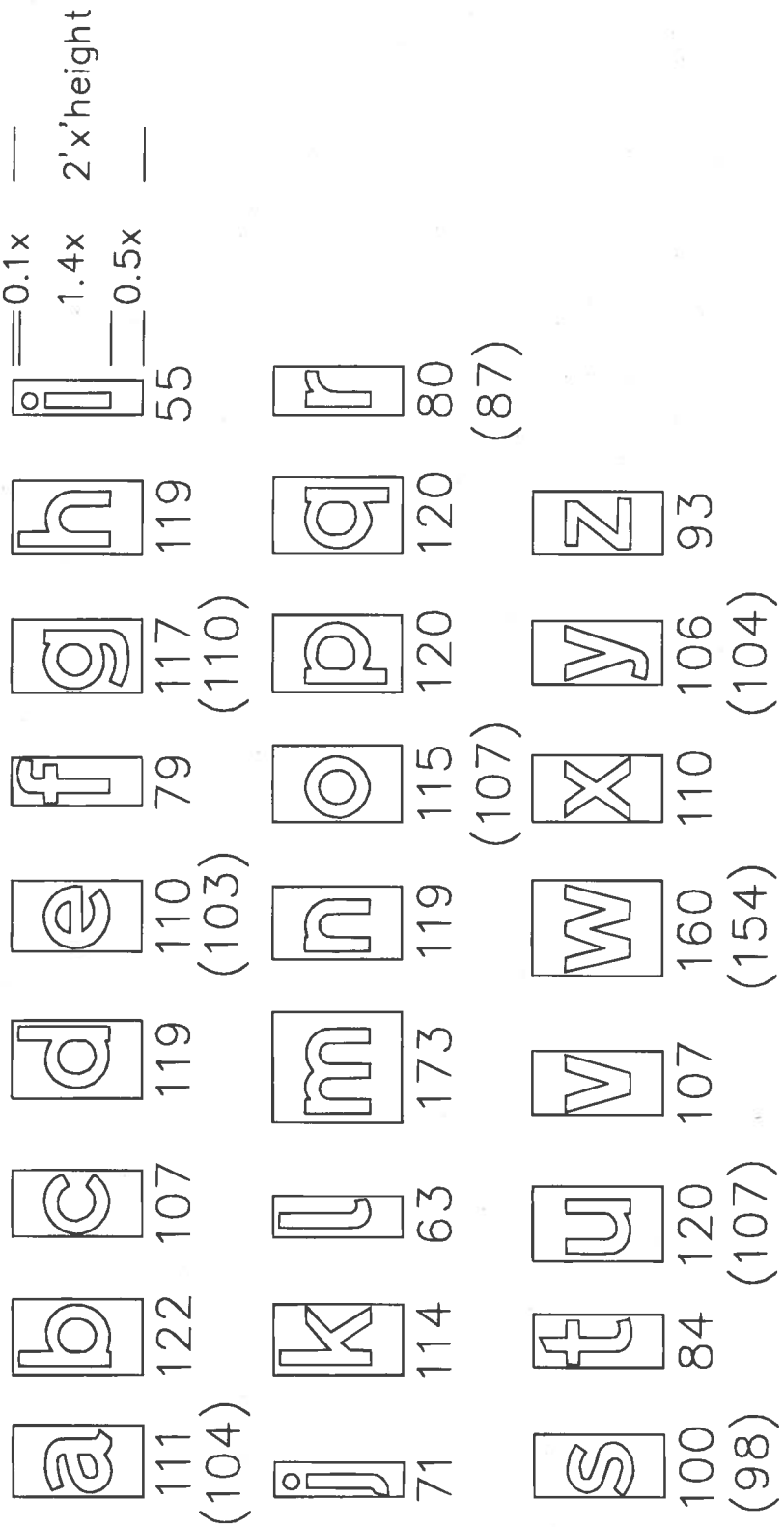

Figure A2.3 English Lower Case Alphabet

DEPARTMENT OF THE ENVIRONMENT

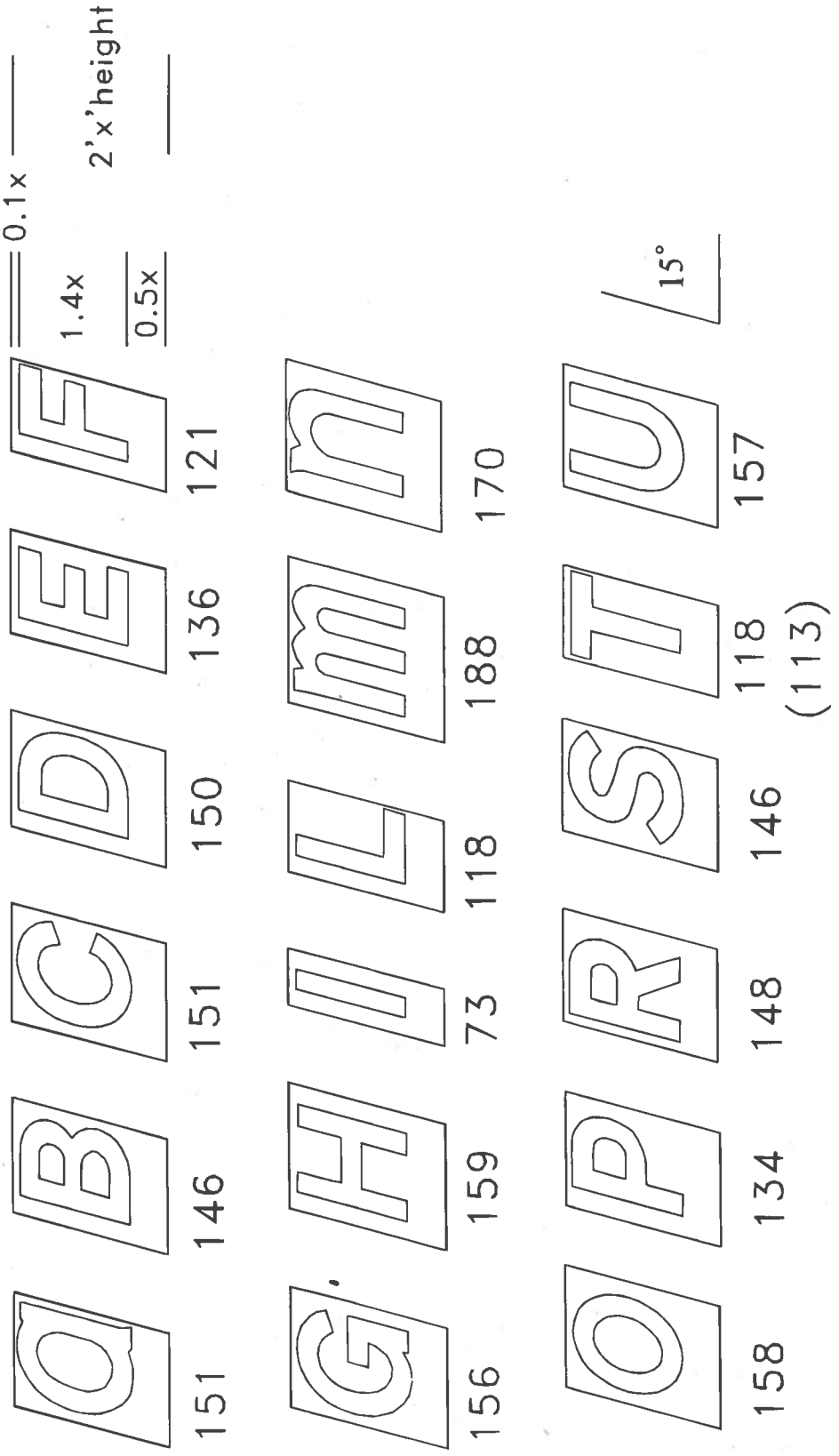

Figure A2.4 Irish Upper Case Alphabet

DEPARTMENT OF THE ENVIRONMENT

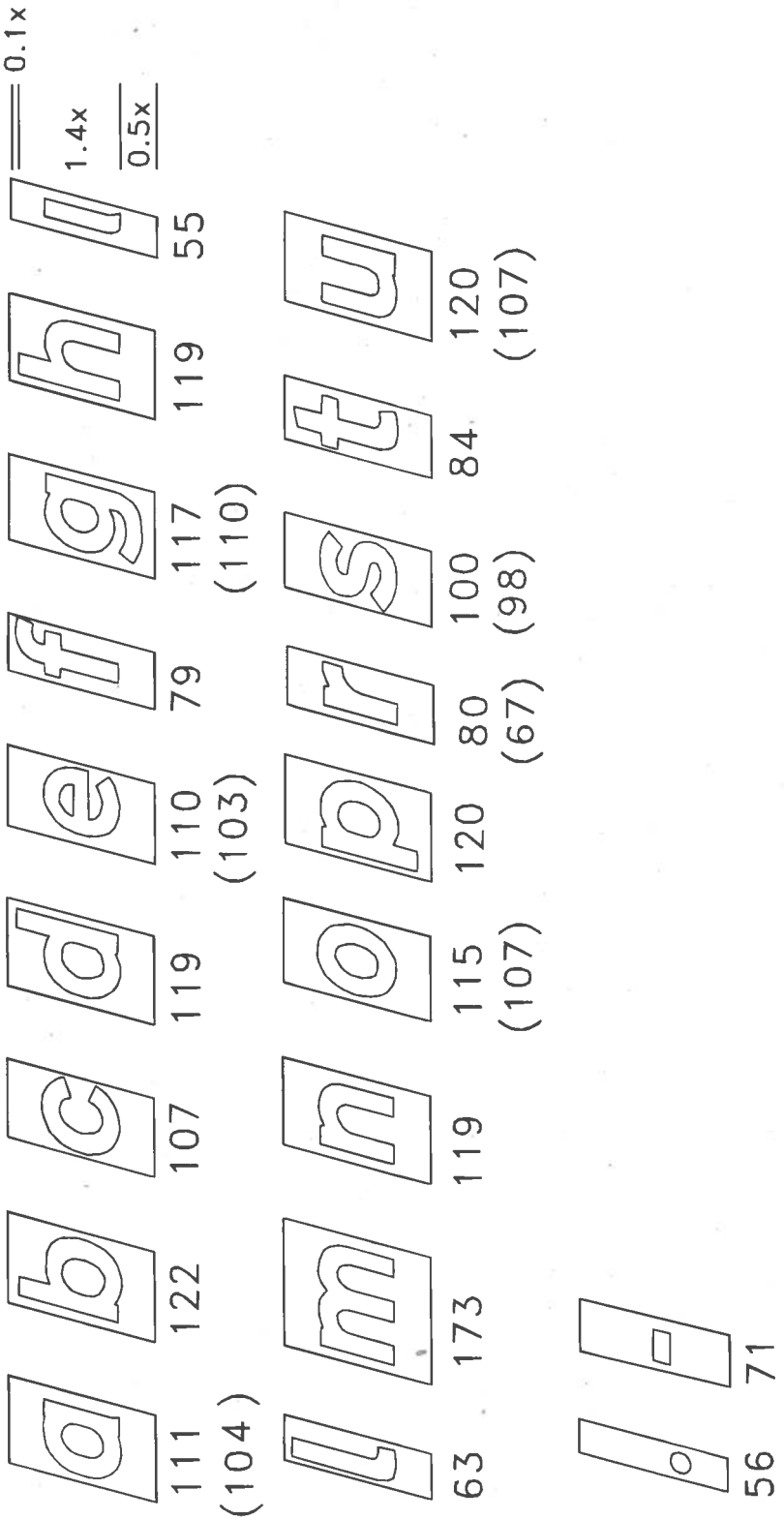

Figure A2.5 Irish Lower Case Alphabet

DEPARTMENT OF THE ENVIRONMENT

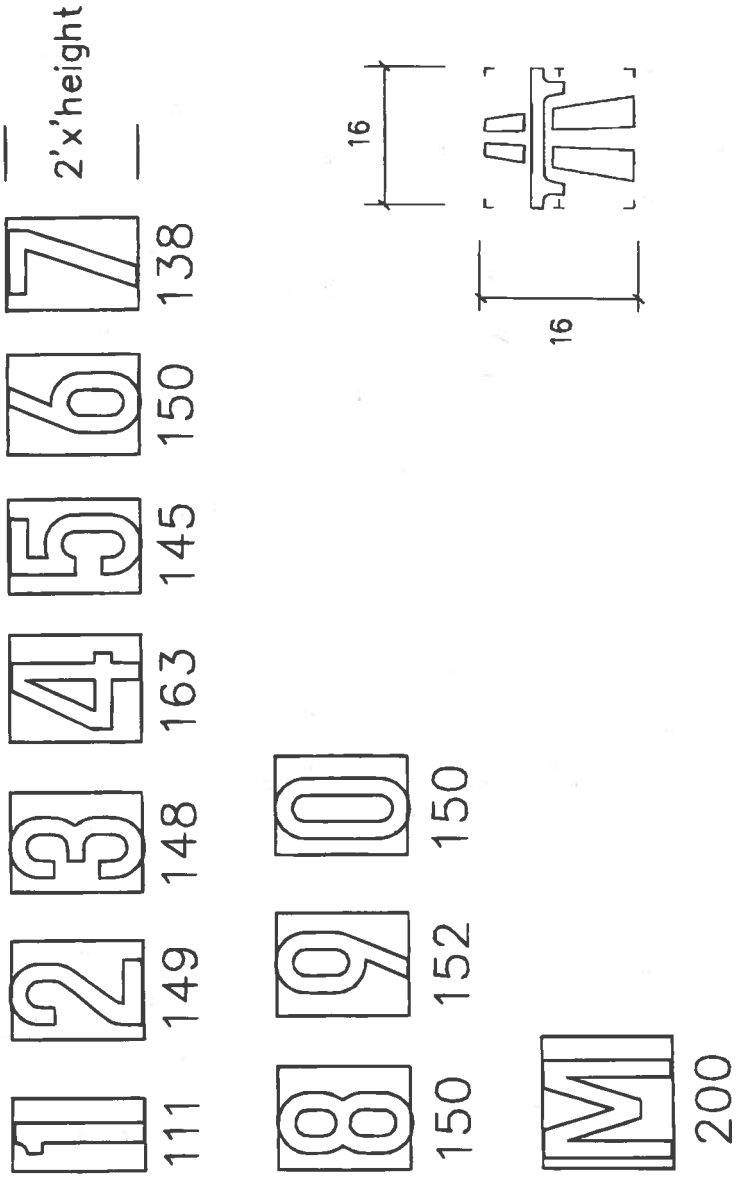

Figure A2.6 Motorway Text

DEPARTMENT OF THE ENVIRONMENT

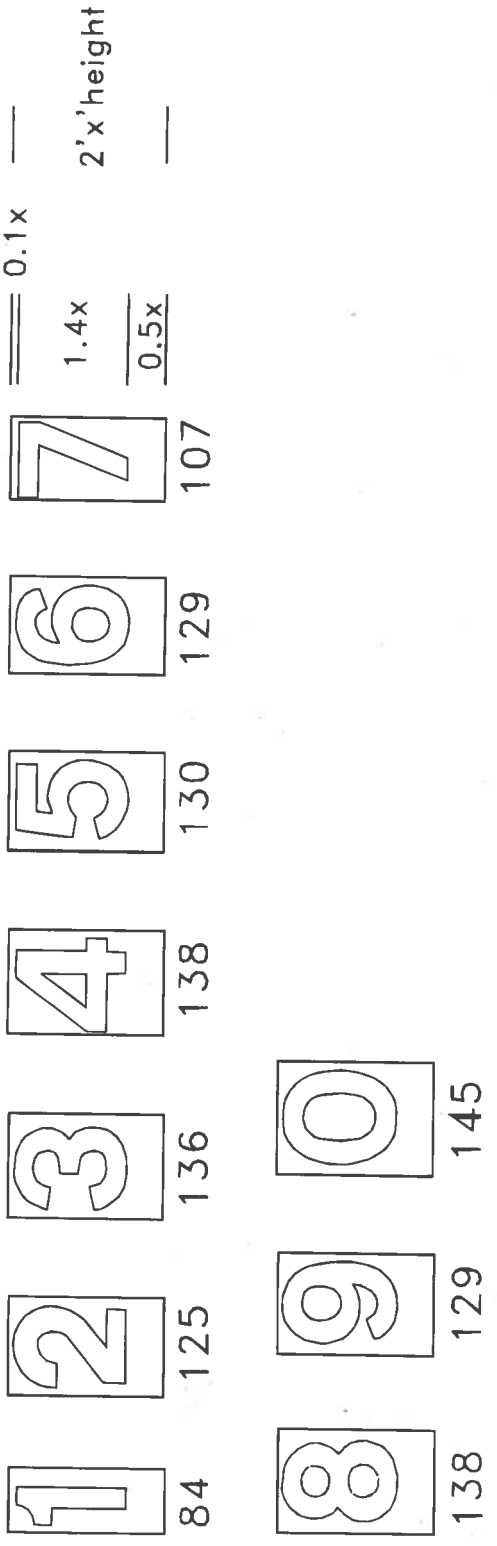

Figure A2.7 Numerals

DEPARTMENT OF THE ENVIRONMENT

Figure A2.8 Route Number Format And Accent

DEPARTMENT OF THE ENVIRONMENT

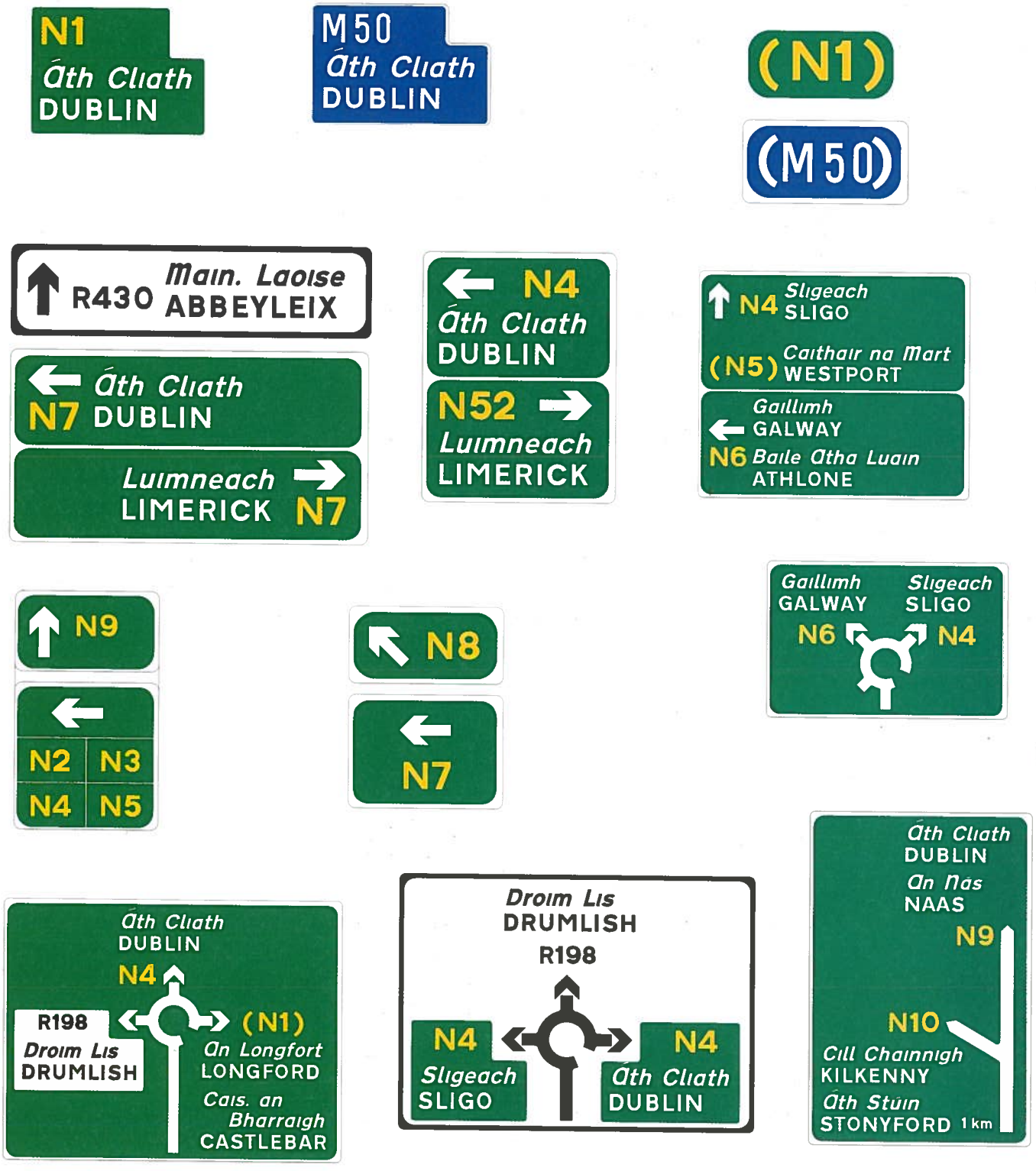

Figure A2.9 Examples Of Coloured Sign Faces

DEPARTMENT OF THE ENVIRONMENT

Figure A2.10 Examples Of Coloured Sign Faces

DEPARTMENT OF THE ENVIRONMENT

Figure A2.11 Examples of Coloured Sign Faces