



Walking and cycling route signage

Design guideline manual | 2006

Contents

Section 01 The concept	.01:1
Design criteria: Introduction	.01:1
Design criterion 1: Function	.01:1
Design criterion 2: Compliance	.01:2
Function	.01:3
Symbols: Type 1	.01:5
Symbols: Type 2	.01:6
Symbols: Type 2	.01:7
Symbols: Type 2	.01:8
Symbols: Type 3	.01:9
Design criterion 3: Navigation	.01:10
Logos	.01:11
Section 02 Design criteria details	.02:13
Component 1: signpost	.02:13
Component 2: finial	.02:14
Component 1: signpost	.02:15
Component 2: finial	.02:16
Component 2: finial	.02:17
Component 3: direction sign	.02:18
Component 3: direction sign (pointing left)	.02:19
Component 3: direction sign (pointing left)	.02:20
Component 3: direction sign (pointing left)	.02:22
Component 3: direction sign (pointing left)	.02:23
Component 3: direction sign (pointing right)	.02:26
Component 3: direction sign (pointing right)	.02:27
Section 03 Variants	.03:28
Variant: off NCN47	.03:29
Variant: off NCN47	.03:30
Variant: off NCN47	.03:31
Variant: on NCN47	.03:32
Variant: on NCN47	.03:33
Variant: on NCN47	.03:34
Variant: on NCN47	.03:35
Variant: on NCN47	.03:36
Variant: on NCN47	.03:37

Walking and cycling route signage

Design guideline manual | 2006

Section 01 | The concept

Following a study by Groundwork Caerphilly, in partnership with Caerphilly County Borough Council (CCBC), a section of the National Cycle Network route number 47 (NCN 47) now forms part of a walking and cycling route infrastructure between Crosskeys and Nelson in south Wales.

This route infrastructure is known as **Loops+Links** and benefits the local communities by providing better integration with NCN 47, by stimulating tourism, by providing dedicated safe routes and by encouraging healthy, inexpensive forms of exercise.

The **Loops+Links** signage follows strict design criteria and the purpose of this manual is to give clear guidance about each component of a sign intended for **Loops+Links** and for similar walking and cycling routes.

Design criteria: Introduction

The walking and cycling route signage comprises three general components, listed below.

Component 1: Signpost

The signpost diameter is 89mm and its length – which includes below-ground fixing depth – is approximately 3,000mm. General concept information is given in section 02 of this manual.

Component 2: Finial

The finial is attached on top of each signpost. The finial diameter is 320mm. Specific details are given in section 02 of this manual.

Component 3: Direction sign

The direction sign is attached to the upper section of each signpost. The dimensions of each direction sign are unique and are determined by the information applied. Specific details are given in section 02 of this manual.

There are three categories of design criteria applied to the design of signposts, each of these is explained below.

Design criterion 1: Function

A sign's location determines the information it conveys, giving it a function. There are two general levels of function given to the walking and cycling route signage: **maximum function**, where the design criteria require that **all pertinent** information be applied: and **minimum function**, where the design criteria require that only **direction** information be applied.

Maximum function signs (See diagram 01|01)

Signs which indicate the functional criteria listed on page 2 are usually located outside towns or villages along a walking and cycling route. These maximum function signs direct a user to the next or previous place and give information about distance, time, facilities and, where applicable, attractions of tourist interest. The amount of information will vary because, for example, some places may not have useful amenities or some signs may not be located on a National Cycle Network (NCN) route.

- | Each maximum function sign indicates the name of the next, or previous, place along a route.
- | Each maximum function sign indicates direction and distance to the next, or previous, place along a route.
- | Each maximum function sign indicates journey times to the next, or previous, place along a route when walking or cycling.
- | Each maximum function sign *may* indicate useful amenities within the next, or previous, place along a route.
- | Each maximum function sign *may* indicate attractions of tourist interest along a route.
- | Each maximum function sign indicates a route identity; for example, **Loops+Links** logo, NCN 47 route patch and National Cycle Network text.

Specific details are given in section 02 of this manual.

Minimum function signs (See diagram 01|02)

Signs which indicate only essential functional criteria, as listed below, are usually located within towns or villages and/ or along links to a walking and cycling route. The amount of information will vary because, for example, some signs may be located where the requirement to name a town or village does not apply.

- | Each minimum function sign *may* indicate the direction to, and the name of, a town or village.
- | Each minimum function sign *may* indicate the direction to a walking and cycling route.
- | Each minimum function sign *may* indicate a route identity; for example, **Loops+Links** logo, NCN 47 route patch and National Cycle Network text.

Examples are given in section 03 of this manual.

Design criterion 2: Compliance

The Department for Transport (DfT) *Traffic Signs Manual, Chapter 7, The Design of Traffic Signs, 2003* describes how traffic signs are designed, with reference specifically to the information placed on signs. This manual is available in Portable Document Format (PDF) from the following internet URL; correct at this design guideline manual's publication date, December 2006.

http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index_hcst?n=14633&l=2

The DfT's manual forms the basis for this design criterion 2. The graphic information applied to each direction sign for a walking and cycling route is adapted from DfT guidelines with some adjustments to dimensions.

Typeface, units of measurement

- | The typeface used is named Transport, the font being Transport Medium.
- | The height of a lower-case letter *x* determines the units of measurement used throughout the range of walking and cycling route direction signs. One unit of measure, known as a **stroke width** (sw), is a quarter of an *x* height.
- | Each letter is located within a nominal bounding box, known as a **tile**. The tile height is twice the *x* height, therefore a tile height is 8 sw (4 sw = 1 *x* height, then multiplied by 2 = 8 sw).
- | Each lower-case letter – without ascenders and descenders, e.g a letter *x* – is positioned centrally within its tile. Therefore the gap above a lower-case letter to the top of its tile is 2 sw and below to the base of its tile is also 2 sw.
- | Each capital letter and numeral is 5.6 sw high. Therefore the gap above a capital letter and numeral to the top of the tile is 0.4 sw and below to the base of its tile is 2 sw.
- | The *x*-height of the alphabet throughout the range of walking and cycling route direction signs is **20 mm**. Therefore the stroke width throughout is **5 mm**.

The Transport alphabet drawings **TM1**, **TM2** and **TM3** are available as PDF documents which may be downloaded from the following internet URL; correct at this design guideline manual's publication date, December 2006.

http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index_hcst?n=9430&l=3

Specific details are given in section 02 of this manual.

Function

There are two general levels of function given to the walking and cycling route signage: **maximum function**, where the design criteria require that **all pertinent** information be applied, and; **minimum function**, where the design criteria require that only **direction** information be applied.



Diagram 01|01: Upper

Example of a maximum function direction sign.

Diagram 01|02: Lower

Example of a minimum function direction sign

Symbols (See diagrams 01|03 – 01|18)

The walking and cycling route signs use symbols derived predominantly from the DfT’s published working drawings for approved tourist symbols; *S series*, *T series* and *AT series*. These working drawings are available as PDF documents which may be downloaded from the following internet URL; correct at this design guideline manual’s publication date, December 2006.

http://www.dft.gov.uk/stellent/groups/dft_roads/documents/divisionhomepage/032478.hcsp

There are three types of symbol. Those symbols used in CCBC’s *Loops+Links* direction signs are listed below in a sequence which corresponds to their positioning, where pertinent, on a direction sign.

- 1 | DfT approved symbols which indicate journey times. These symbols are located in the main body of a direction sign against an overall blue background;
- 2 | DfT approved symbols which indicate tourist attractions and public services. These symbols are located within a tourist patch against a brown background;
- 3 | Other symbols which indicate public services. These symbols are located within a tourist patch against a brown background.

Symbol	Indication
1 Bicycle	cycling time
1 Pedestrian	walking time
2 Barge	canalside attraction
2 Trees.	woodland recreation
2 Framed house.	historic building
2 Water wheel.	water mill
2 Factory	industrial heritage
2 Church	ecclesiastical heritage
2 Teacup	light refreshments
2 Bus.	bus stop
2 Rail logo	railway station
2 Country park logo	country park
3 Male, female.	public toilet
3 Beer tumbler	public house
3 Shopping basket	grocery shop
3 Envelope	post office

Specific details are given in section 02 of this manual.

Colours

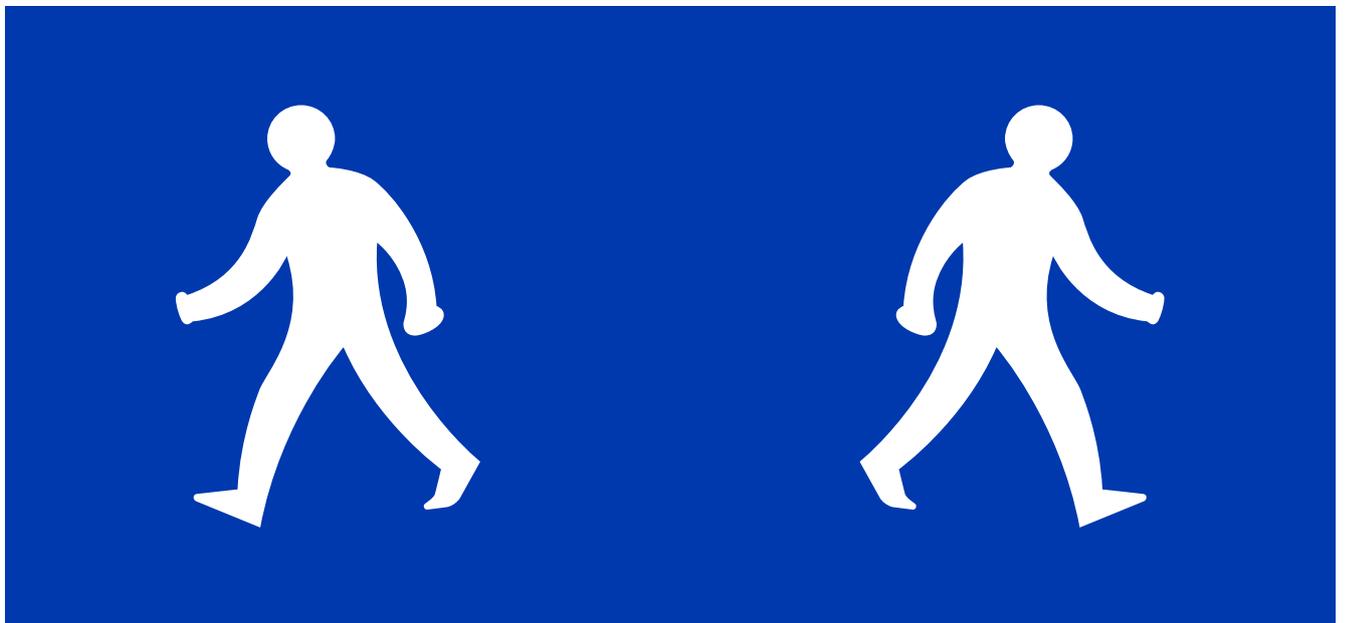
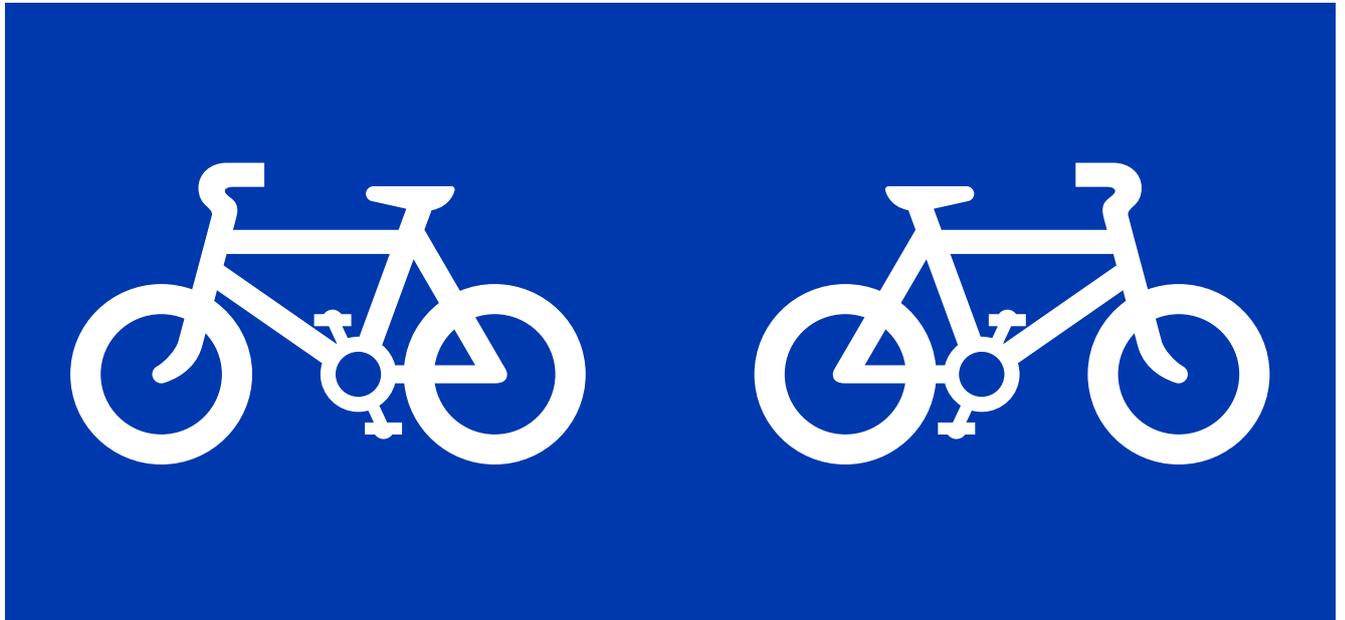
There are four colours, each of which complies with the DfT’s approved colours for traffic signs. Colour-match references are determined by sign manufacturers’ own reference systems for pertinent fabrication materials. Those colours used in CCBC’s *Loops+Links* direction signs are listed below.

Colour	Application
WHITE.	Direction sign border
WHITE.	Direction sign ‘pointer’
WHITE.	Tourist patch border
WHITE.	All text
WHITE.	All symbols
WHITE.	All logo borders
BLUE	Direction sign background
BLUE	Finial outer background
BROWN.	Tourist patch background
RED	Rail logo background

Symbols: Type 1

DfT approved symbols which indicate journey times.

These symbols are located in the main body of a direction sign against an overall blue background.



Symbol type and description. . . . Symbol indication

Diagram 01|03: Upper; to left; to right

1| bicycle. cycling time

Diagram 01|04: Lower; to left; to right

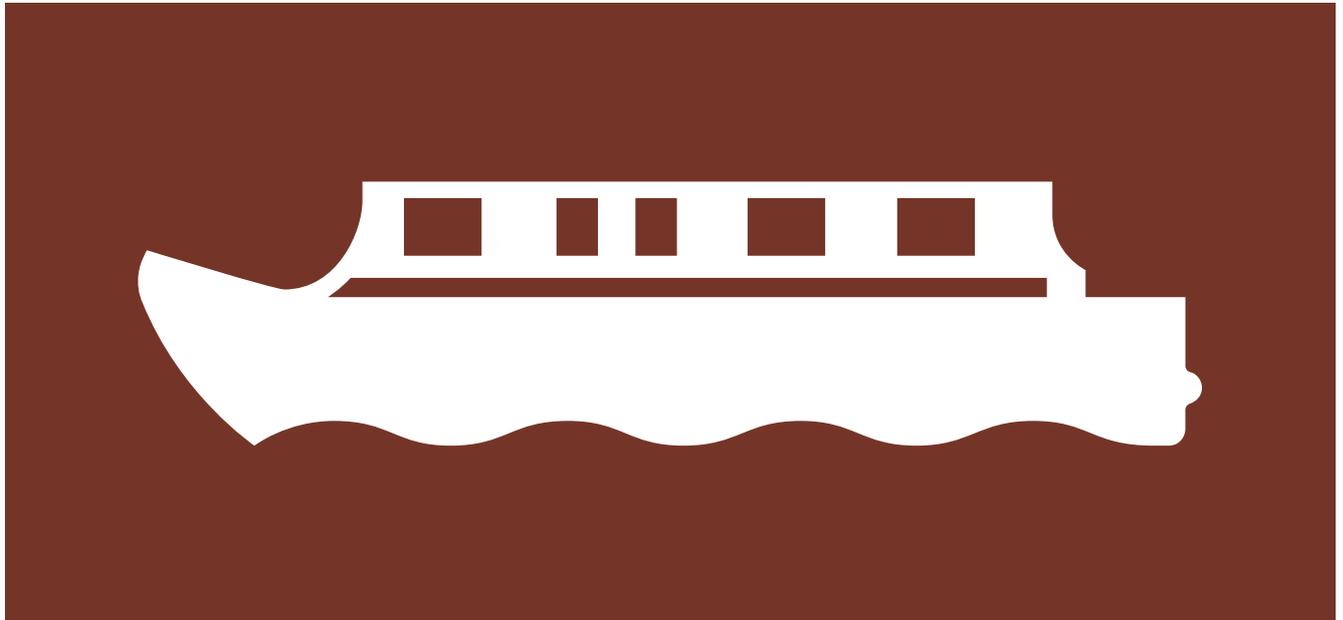
1| pedestrian walking time

Symbols are depicted actual size where sw = 5mm.

Master artwork is supplied in high-resolution Portable Document Format on a separate CD.

Symbols: Type 2

DfT approved symbols which indicate tourist attractions and public services. These symbols are located within a tourist patch against a brown background.



- Symbol type and description.Symbol indication**
Diagram 01|05: Upper
 2 | Bargecanalside attraction
Diagram 01|06: Lower-left
 2 | Trees.woodland recreation
Diagram 01|07: Lower-right
 2 | Framed house.historic building

Symbols are depicted actual size where sw = 5mm.

Master artwork is supplied in high-resolution Portable Document Format on a separate CD.

Symbols: Type 2

DfT approved symbols which indicate tourist attractions and public services. These symbols are located within a tourist patch against a brown background.



Symbol type and description. Symbol indication

Diagram 01|08: Upper-left

2 | Water wheel water mill

Diagram 01|09: Upper-right

2 | Factory industrial heritage

Diagram 01|10: Lower-left

2 | Church ecclesiastical heritage

Diagram 01|11: Lower-right

2 | Teacup light refreshments

Symbols are depicted actual size where sw = 5mm.

Master artwork is supplied in high-resolution Portable Document Format on a separate CD.

Symbols: Type 2

DfT approved symbols which indicate tourist attractions and public services. These symbols are located within a tourist patch against a brown background.

Note: the bus stop symbol pointing left shows an access door and differs from that pointing right where the door is replaced by a small window. This symbol differs from the DfT version in that one window is removed to shorten the overall bus length.



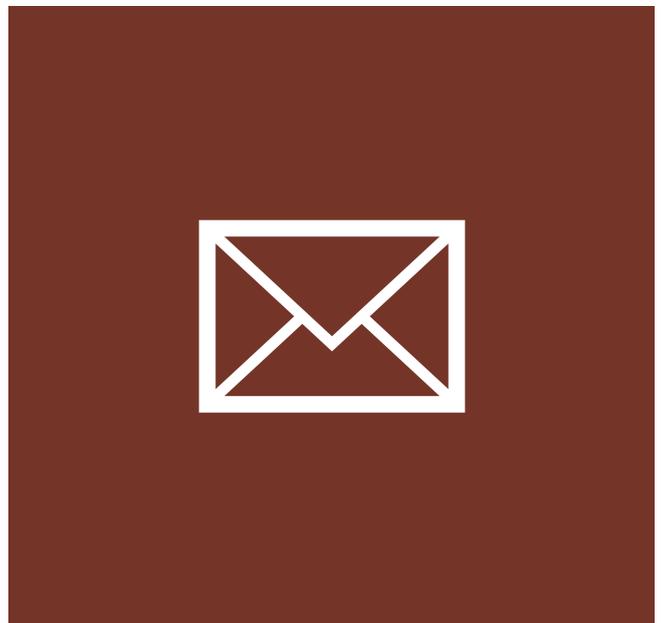
- Symbol type and description. Symbol indication
- Diagram 01|12: Upper; to left; to right
- 2 | Bus.bus stop
- Diagram 01|13: Lower-left
- 2 | Rail logorailway station
- Diagram 01|14: Lower-right
- 2 | Country park logocountry park

Symbols are depicted actual size where sw = 5mm.

Master artwork is supplied in high-resolution Portable Document Format on a separate CD.

Symbols: Type 3

Other symbols which indicate public services. These symbols are located within a tourist patch against a brown background.



- Symbol type and description.Symbol indication**
Diagram 01|15: Upper-left
 3 | Male, female.public toilet
Diagram 01|16: Upper-right
 3 | Beer tumblerpublic house
Diagram 01|17: Lower-left
 3 | Shopping basket.grocery shop
Diagram 01|18: Lower-right
 3 | Envelope.post office

Symbols are depicted actual size where sw = 5mm.

Master artwork is supplied in high-resolution Portable Document Format on a separate CD.

Design criterion 3: Navigation

CCBC's *Loops+Links* walking and cycling route signage uses four methods to communicate navigation.

- | Direction sign angles;
- | Direction sign 'pointers';
- | Logos on direction signs and on signpost finials;
- | 'You are here' place-names on signpost collars.

Direction sign angles

Each signpost is located at a junction of pathways. Each direction sign is attached to the upper section of a signpost at an angle corresponding to the direction of a pathway radiating from a given junction.

The number of direction signs attached to an associated signpost varies according to the location of the sign and the number of pathways radiating from a junction. CCBC's *Loops+Links* signage has a minimum number of one direction sign attached to a signpost and a maximum number of three.

Direction sign 'pointers'

Each direction sign 'points' along a pathway. The shape of the 'pointer' is a semi-circle, the radius of which measures half the height of the applicable direction sign.

Logos (See diagrams 01|19 – 01|22)

There are three logos used in CCBC's *Loops+Links* signage; the *Loops+Links* logo, the NCN route patch and the *Lôn Geltaidd-Celtic Trail* logo.

| The *Loops+Links* logo only is located within the 'pointer' area of a direction sign when that sign's location is **on** NCN 47.

| The NCN route patch and the *Lôn Geltaidd-Celtic Trail* logos only are located in the centre of a signpost finial when that sign's location is **on** NCN 47.

| The *Loops+Links* logo only is located in the centre of a signpost finial when that sign's location is **off** NCN 47.

'You are here' place names

CCBC's *Loops+Links* signage uses a system of collars around each signpost. Each signpost has nine collars attached. Each collar can be rotated manually and carries a name of a place along the *Loops+Links* route. A place name is reproduced four times diagonally around the circumference of each collar.

Concept details are given in section 02 of this manual.

Colours

CCBC's *Loops+Links* signage uses a colour reference system to enhance navigation.

Loops+Links uses green as part of its identity. The colour reference for this green derives from the PANTONE® Matching System.

A signpost collar which conveys the place name nearest a given sign's location is highlighted in green against its corresponding collar's white background. The place names on the remaining eight collars are white against their corresponding collars' green backgrounds.

Colour-match references are determined by sign manufacturers' own reference systems for pertinent fabrication materials but should match the PANTONE® references below as closely as possible.

Colour	Application
PANTONE® 368 GREEN	Loops+Links logo
PANTONE® 368 GREEN	Collar: near place name
PANTONE® 368 GREEN	Collar: other background
PANTONE® 368 GREEN	Finial: centre background
WHITE.	Collar: near background
WHITE.	Collar: other background
WHITE.	Signpost surface coating
WHITE.	Loops+Links logo graphics
WHITE.	NCN patch graphics
WHITE.	Celtic Trail logo detail
PANTONE® 200 RED	NCN patch background

The *Loops+Links* logo, the *Lôn Geltaidd-Celtic Trail* logo and the NCN patch number 47 apply to signage manufactured for CCBC's *Loops+Links* walking and cycling route network. Master artwork for each of these is supplied in high-resolution Portable Document Format on a separate CD.

Logos

There are three logos used in CCBC's *Loops+Links* signage; the *Loops+Links* logo, the NCN route patch and the *Lôn Geltaidd-Celtic Trail* logo.



Diagram 01|19: Upper

The *Loops+Links* logo only is located within the 'pointer' area of a direction sign when that sign's location is **on** NCN 47.

The *Loops+Links* logo only is located in the centre of a signpost finial when that sign's location is **off** NCN 47.

Diagram 01|20: Lower; left; right

The NCN route patch and the *Lôn Geltaidd-Celtic Trail* logos only are located in the centre of a signpost finial when that sign's location is **on** NCN 47.

Logos are depicted actual size where **sw = 5mm**.

Master artwork is supplied in high-resolution Portable Document Format on a separate CD.

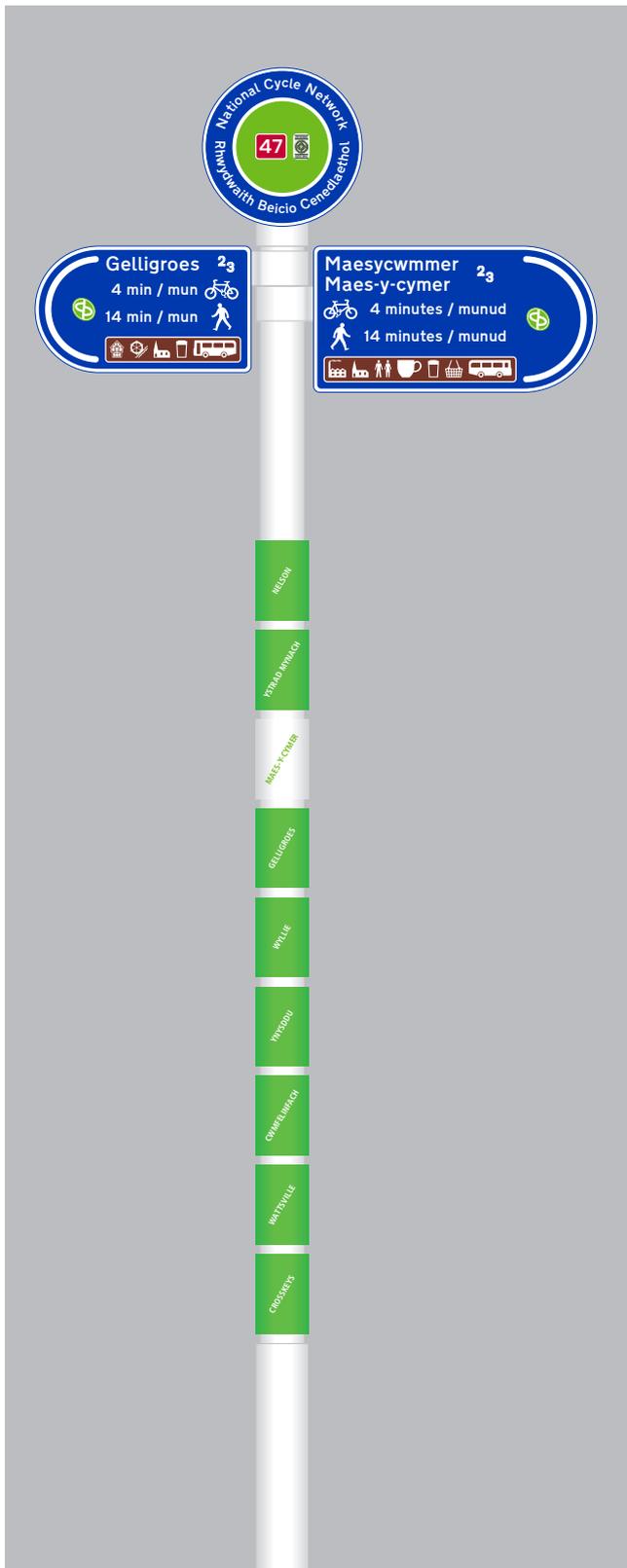


Diagram 01|21: Sign located on NCN 47

The **Loops+Links** logo only is located within the 'pointer' area of a direction sign. The NCN route patch and the *Lôn Geltaidd-Celtic Trail* logos only are located in the centre of a signpost finial.

The place name nearest a given sign's location is highlighted in green against its corresponding collar's white background. The place names on the remaining eight collars are white against their corresponding collars' green backgrounds.

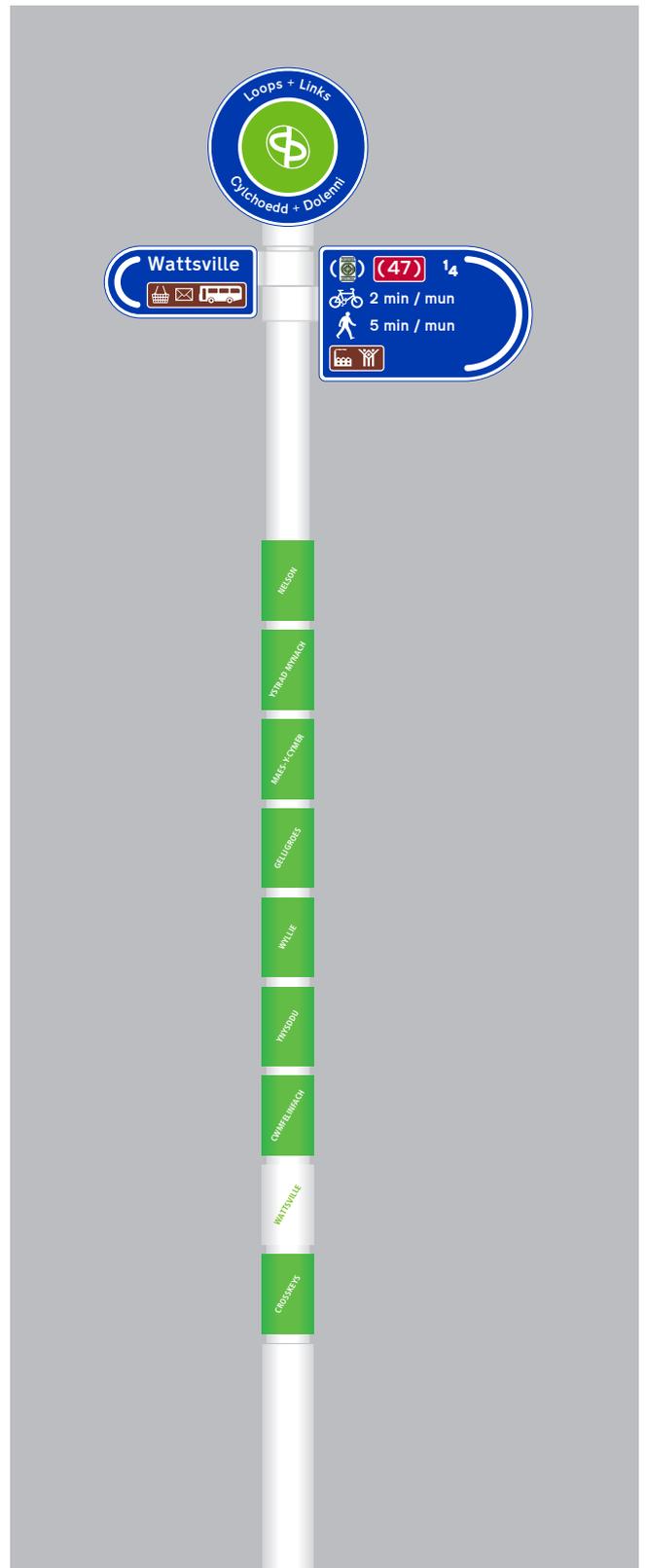


Diagram 01|22: Sign located off NCN 47

The **Loops+Links** logo only is located in the centre of a signpost finial when that sign's location is **off** NCN 47.

The place name nearest a given sign's location is highlighted in green against its corresponding collar's white background. The place names on the remaining eight collars are white against their corresponding collars' green backgrounds.

Section 02 | Design criteria details

The walking and cycling route signage comprises three general components: namely the signpost; the finial; and the direction sign. The signage for Caerphilly County Borough Council's *Loops+Links* walking and cycling route adheres to a Welsh- and English-language bi-lingual policy. Where place names have a Welsh-language identity, translation is required; where place names have the same identity in English and Welsh, translation is not required.

Fabrication materials, manufacturing methods and fixing methods are determined by sign manufacturers' specifications. However, the essential criteria is that all signs must have great durability, longevity, colour-fastness, resistance to weather and resistance to vandalism.

Component 1: signpost

Recommendations for fabrication materials and fixings are not given in this manual. Such information is determined by sign manufacturers' specifications.

The signpost comprises three main components:

| **The core signpost (see diagram 02|23)**, the external diameter of which is 89mm and its length – which includes below-ground fixing depth – is approximately 3,000mm. The actual length is determined by the clearance distance between the base of the largest direction sign and the ground surface. This clearance is nominally 2,500mm, but different sign manufacturers determine a clearance distance according to their own guidelines.

The outer surface of the signpost is coloured white. The application of this colour is determined by the sign manufacturers' recommendations and may be exterior quality vinyl or may be sprayed. The essential requirement, however, is that this colour has great durability and longevity;

| **Fixings (see diagram 02|24)**. There are three items which fix to the core signpost: the finial, by means of a cap which is fixed to the top of the core signpost; each direction sign, by means of a collar attached to one edge of that direction sign and fixed to the upper section of the core signpost and; ground fixings. The construction details of these fixings are determined by sign manufacturers' specifications.

| **Location (or 'you are here') collars (see diagram 02|25)**. CCBC's *Loops+Links* signposts have nine collars which wrap around the core signpost. The external diameter of each collar is nominally 105mm and its height is nominally 160mm. The first collar (lowest on the signpost) is positioned 500mm above ground level. Actual dimensions are determined by sign manufacturers' specifications. Each collar attaches independently to the core signpost and is borne on bearings, allowing the collar to rotate when handled. Place names are applied diagonally around the circumference of each collar, each place name being reproduced four times, on a perpendicular axis to each other. Where a place name has a Welsh-language identity, it is reproduced two times and alternates

with its English-language identity, also reproduced two times. The place-name text colour on eight of the nine collars is white; these collars' outer surfaces are coloured PANTONE® green 368. The ninth collar indicates the place name of the nearest town and is coloured PANTONE® green 368; this collar's outer surface is coloured white. The position of this collar in the sequence of nine, therefore, changes according to the location of the signpost.

Colour-match references are determined by sign manufacturers' own reference systems for pertinent fabrication materials but should match PANTONE® green 368 as closely as possible.

The application of colour is determined by the sign manufacturers' recommendations and may be exterior quality vinyl or may be sprayed. The essential requirement, however, is that each colour has great durability and longevity.

Component 2: finial

Recommendations for fabrication materials and fixings are not given in this manual. Such information is determined by sign manufacturers' specifications.

There are two kinds of finial:

- | for use when signage is located on a NCN route (See diagram 02|26); and
- | for use when signage is located off a NCN route (See diagram 02|27).

Each kind of finial shows the route network name and a logo or motif associated with that route's identity. This information is reproduced on both sides of the finial. In the case of CCBC's *Loops+Links* finials, all text information is Welsh- and English-language bi-lingual.

A finial is a disk, its outer diameter being 320mm.

A central circle forms a background for a route identity's logo or motif. The diameter of this central circle is 185mm and its background colour is PANTONE® green 368. A 15mm white border surrounds the outer edge of this central circle.

An outer circle forms a background to the route network's name. The diameter of this outer circle is 305mm and its background colour is blue. A 15mm white border surrounds the outer edge of this outer circle.

All text colour is white. The typeface used is Transport Medium and the text is layed-out on a circle, visually centred within the blue outer circle and visually centred on the vertical axis of the finial. The height of the text capital letters is 20mm, the x-height being 14.6mm.

Colour-match references are determined by sign manufacturers' own reference systems for pertinent fabrication materials but should match PANTONE® green 368 as closely as possible.

Finials on NCN routes (See diagram 02|26)

Where a finial is attached to signage located on a NCN route, the central green circle contains the standard NCN route number patch. In the case of CCBC's *Loops+Links* route network, this central green circle also contains the *Lôn Geltaidd-Celtic Trail* logo.

The dimensions of the NCN patch follows guidelines indicated in the DfT's *Traffic Signs Manual, Chapter 7, The Design of Traffic Signs, 2003; Page 18*. The unit of measurement in the DfT's manual is a stroke width (sw [see page 01:2 of this manual for information]). The sw used in the *Loops+Links* signage equates to 5mm (see diagrams 02|28 – 02|29).

Finials off NCN routes (See diagram 02|27)

Where a finial is attached to signage located off a NCN route, the central green circle contains a logo associated with that route's identity. In the case of CCBC's *Loops+Links* route network, this central green circle contains the *Loops+Links* logo.

The dimensions of the *Loops+Links* logo are 90mm high and 90mm wide.

Master artwork for each logo is supplied in high-resolution Portable Document Format on a separate CD.

Component 1: signpost

The signpost comprises three main components.

All dimensions indicated on page 02:14 are nominal.
Actual dimensions are determined by sign manufacturers' specifications.

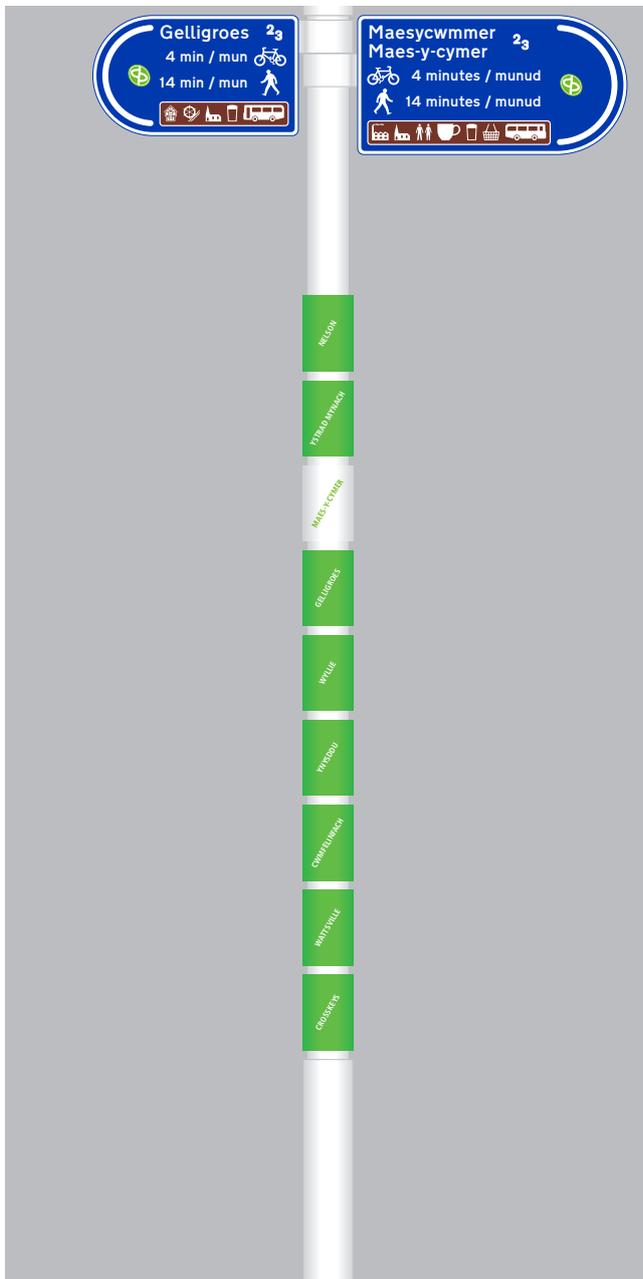


Diagram 02|23: Core signpost

Actual length is determined by the clearance distance between the base of the largest direction sign and the ground surface. This clearance is nominally 2,500mm.

The first location collar (lowest on the signpost) is positioned, nominally, 500mm above ground level.

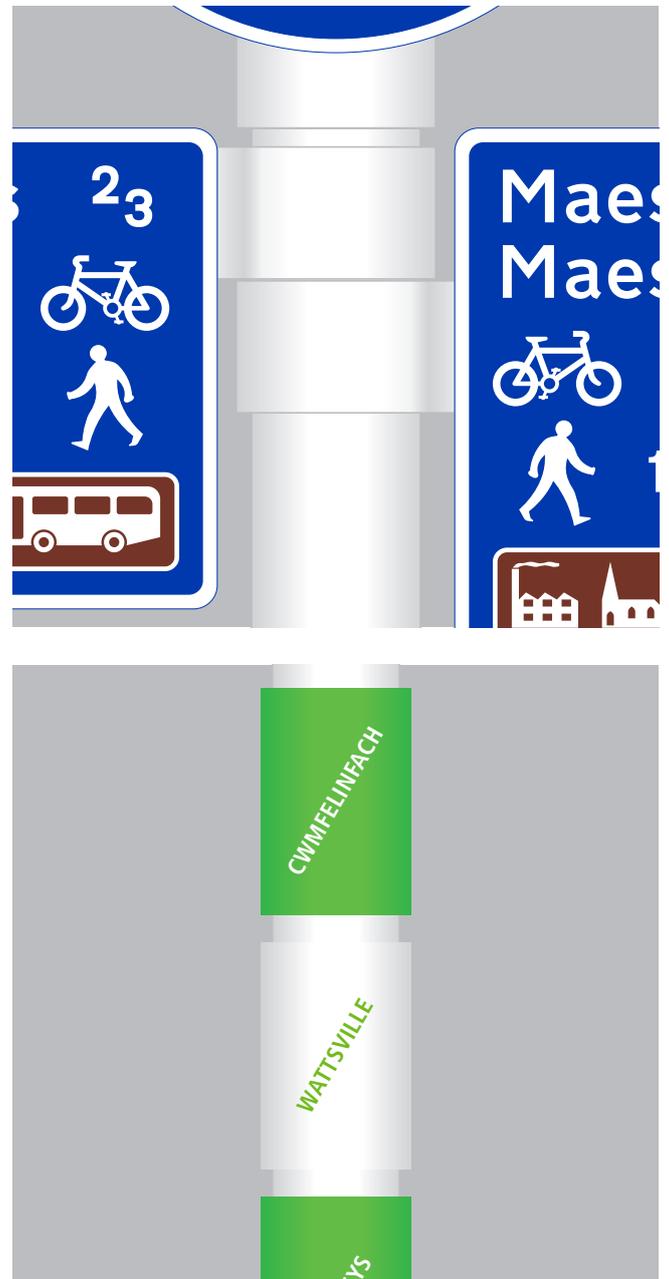


Diagram 02|24: Upper: Fixings

Three items fix to the core signpost: the finial, by means of a cap fixed to the top of the core signpost; each direction sign, by means of a collar fixed to the upper section of the core signpost; and ground fixings (not shown here).

Diagram 02|25: Lower: Location ('you are here') collars

The external diameter of each collar is nominally 105mm and its height is nominally 160mm. The first collar (lowest on the signpost) is positioned, nominally, 500mm above ground level.

Component 2: finial

There are two kinds of finial: for use when signage is located on a NCN route and for use when signage is located off a NCN route. Each kind of finial shows the route network name and a logo or motif associated with that route's identity. This information is reproduced on both sides of the finial.

The typeface used is Transport Medium and the text is layed-out in a circle, visually centred within the blue outer circle and visually centred on the vertical axis of the finial. The height of the text capital letters is 20mm, the x-height being 14.6mm.

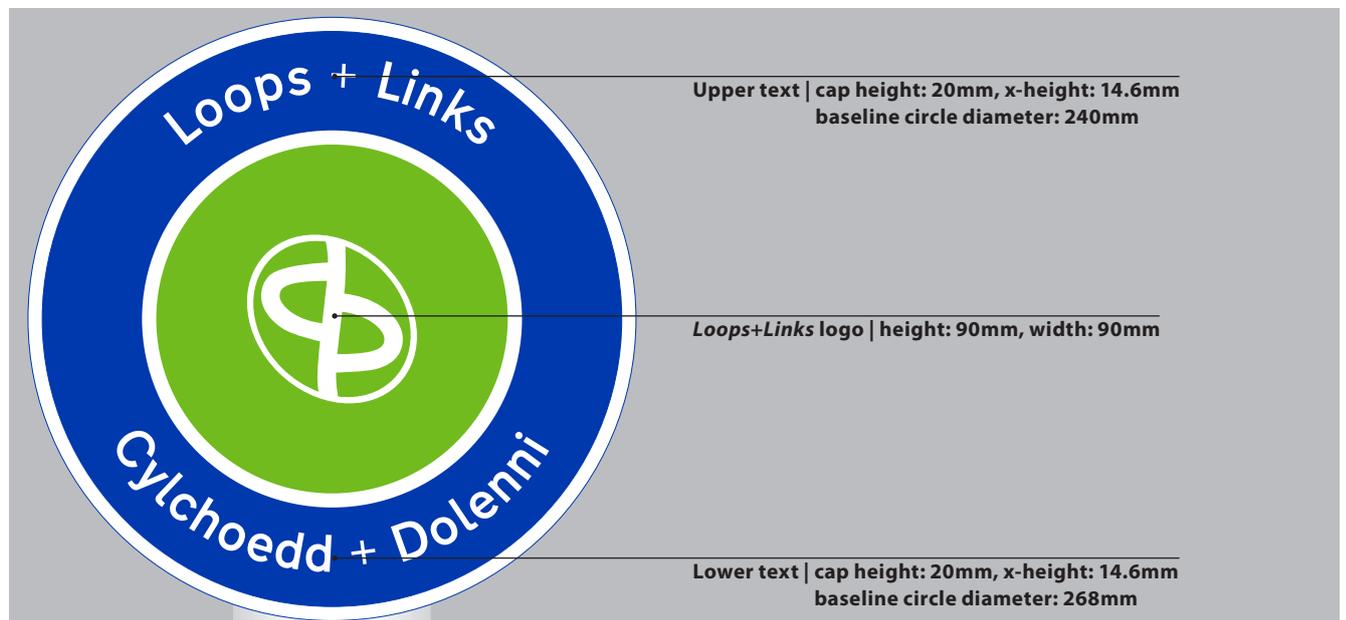
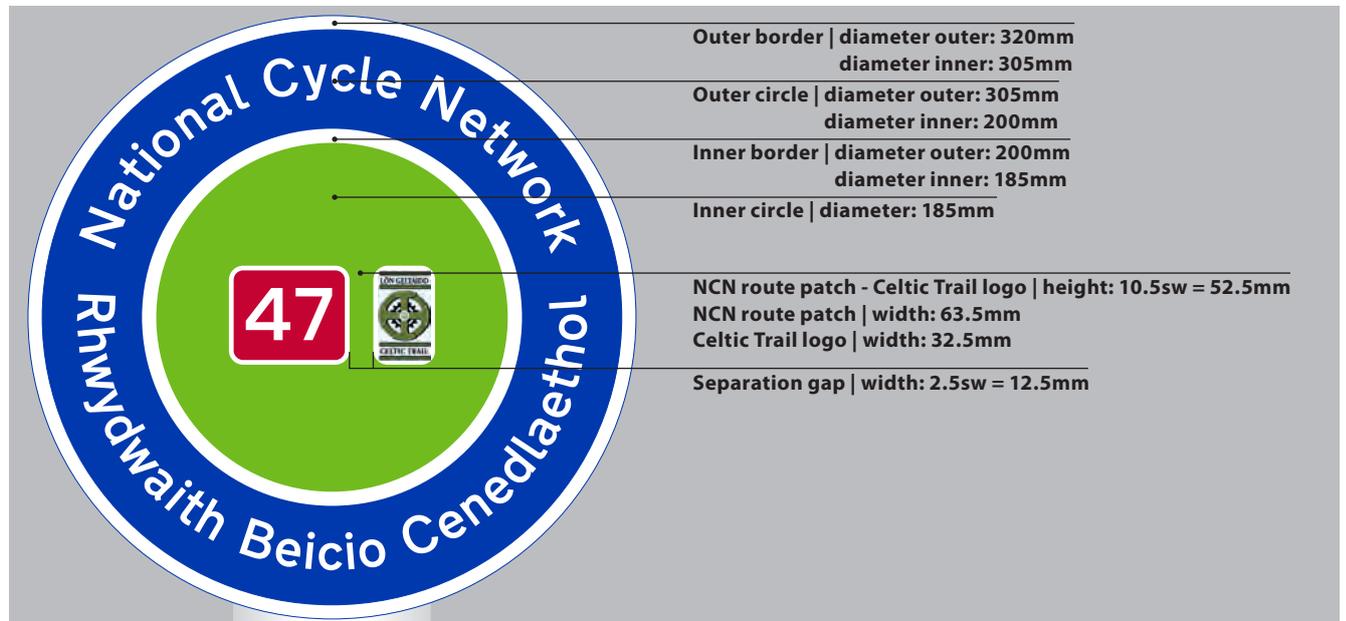


Diagram 02|26: Upper: Finial located on a NCN route
A finial attached to signage located on a NCN route, has a central green circle which contains the standard NCN route number patch. In the case of CCBC's *Loops+Links* route network, this central green circle also contains the *Lôn Geltaidd-Celtic Trail* logo.

The patch and logo are positioned centrally on the horizontal and vertical axes of the central circle.

Diagram 02|27: Lower: Finial located off a NCN route
A finial attached to signage located off a NCN route, has a central green circle which contains a logo associated with that route's identity. In the case of CCBC's *Loops+Links* route network, this central green circle contains the *Loops+Links* logo.

The logo is positioned centrally on the horizontal and vertical axes of the central circle.

Component 2: finial

The dimensions of the NCN patch follows guidelines indicated in the DfT's *Traffic Signs Manual, Chapter 7, The Design of Traffic Signs, 2003; Page 18*. The unit of measurement in the DfT's manual is a stroke width (sw). The sw used in the *Loops+Links* signage equates to 5mm

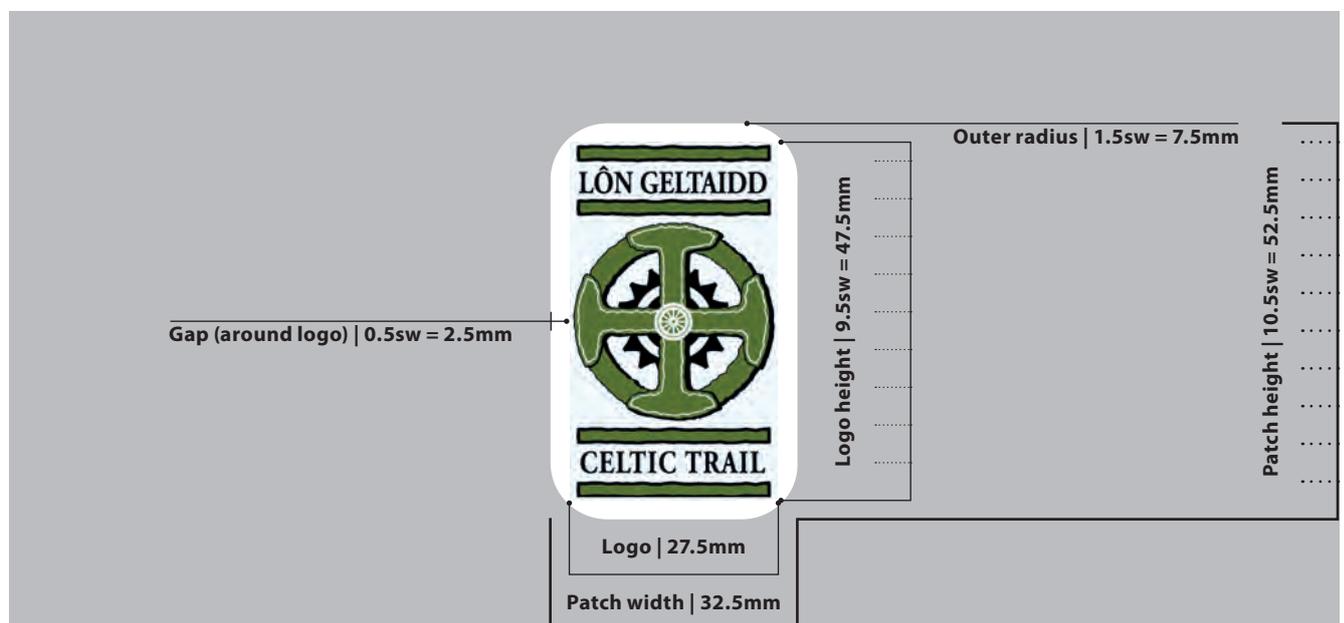
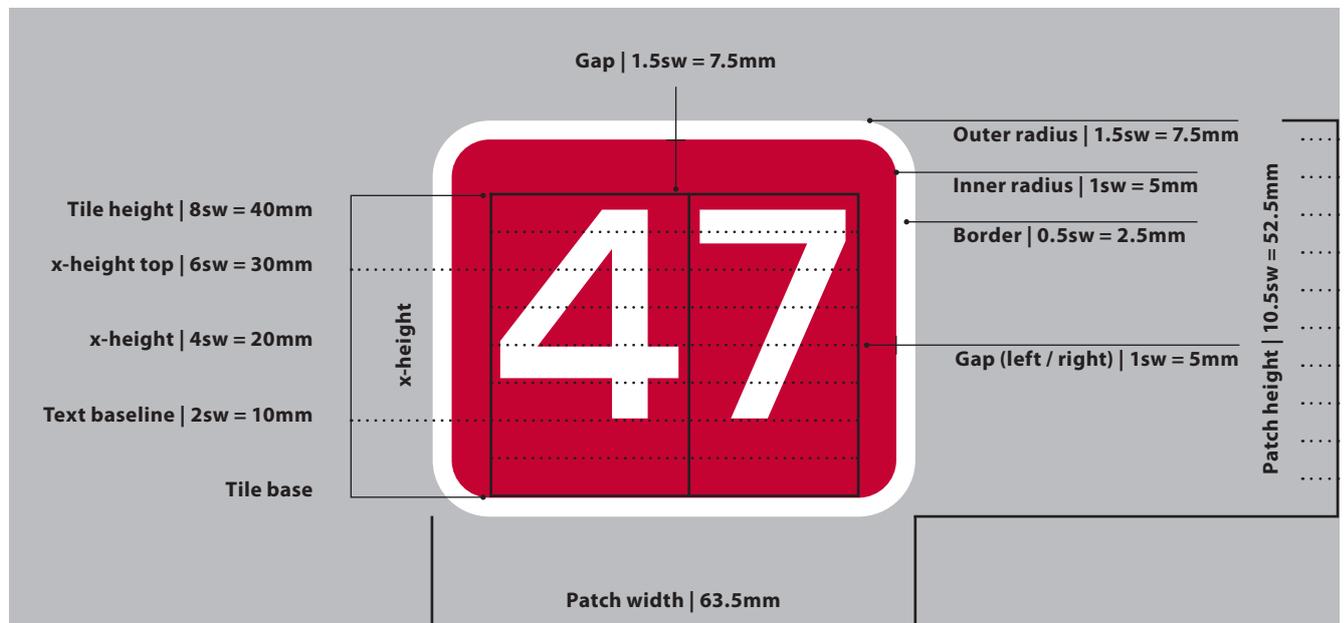


Diagram 02|28: Upper: NCN route patch

Transport Medium characters, i.e. letters, numerals and punctuation are constructed upon an underlying 'tile'. The base of the tile begins $2sw$ ($10mm$) below the baseline of the character. The overall tile height is $8sw$ ($40mm$). The x-height (lower-case letter height) of a character is $4sw$ ($20mm$). There are $2sw$ ($10mm$) above the x-height to the top of the tile. The tile's width is nominal and equates to the natural space to the left and right of a character when that character is typeset. Each tile width butts up to the tile width of a character to its left and right.

Diagram 02|29: Lower: *Lôn Geltaidd-Celtic Trail* logo

CCBC's *Loops+Links* network signage includes the *Lôn Geltaidd-Celtic Trail* logo. Master artwork for this logo is supplied on a separate CD.

The logo artwork is placed centrally within a background patch which complies with the DfT's guidelines.

Component 3: direction sign

The design of each direction sign follows guidelines indicated in the DfT's *Traffic Signs Manual, Chapter 7, The Design of Traffic Signs, 2003*. The unit of measurement in the DfT's manual is a stroke width (sw), which relates to the text height of the Transport Medium alphabet.

The sw used in the *Loops+Links* signage equates to 5mm.

Refer to information given on page 01:2 relating to the Transport Medium alphabet and to the DfT's Transport alphabet drawings *TM1*, *TM2* and *TM3*.

Dimensions of each direction sign varies according to the information placed upon it. In the case of a maximum function sign (see pages 01:1 – 01:3), the following graphics are applied:

- | place name;
- | where applicable, a NCN route patch and the *Lôn Geltaidd-Celtic Trail* logo;
- | distance in increments of 1/4 or 1/3 miles;
- | travel times [cycling 10 mph / walking 3 mph];
- | DfT approved bicycle and pedestrian symbol;
- | bordered brown tourist patch;
- | where applicable, DfT approved symbols which indicate tourist attractions and public services;
- | where applicable, other symbols which indicate public services;
- | where applicable, the *Loops+Links* logo;
- | bordered blue background;
- | 'pointer' semi-circle.

Direction sign artwork

The artwork for a direction sign begins with the place name typeset in Transport Medium. Each Transport Medium character, i.e. a letter, a numeral and a punctuation mark is constructed upon an underlying invisible grid, called a **tile**. The base of the tile begins 2sw (10mm) below the baseline of the character. The x-height of a character is 4sw (20mm). There are 2sw (10mm) above the x-height to the top of the tile. The overall tile height is, therefore, 8sw (40mm) (see **diagram 02|30**).

The tile's width is nominal and equates to the natural space to the left and right of a character when that character is typeset. Each tile width butts up to the tile width of a character to its left and right (see the DfT's Transport alphabet drawings *TM1*, *TM2* and *TM3*).

Direction sign artwork: pointing LEFT

A completed place name is aligned to the left and will have a consequent height and length. Where the place name has a Welsh-language identity, the English identity is positioned above the Welsh identity. The bases of the English place name tiles butt against the tops of the Welsh place name tiles, forming two lines of text (see **diagram 02|30**).

For a direction sign pointing left, other components of the direction sign can be added in the following sequence:

1. the distance in increments of 1/4 or 1/3 miles is placed to the right of the place name. The left-hand edge of a numeral tile is located 7sw (35mm) from the right-hand edge of the last place name tile.
 - | Where the distance is in whole miles, the numeral base-line aligns with the place name base-line.
 - | Where the distance is in fractions of miles, the upper denominator numeral top aligns with the top of the place name tiles. The lower denominator numeral base aligns 0.5sw (2.5mm) below the place name base-line. The fraction numeral tile is formed around both denominators and aligns top and base with the place name tiles (see **diagram 02|31**).
 - | Where the place name has a Welsh-language identity and the distance is in whole miles, the numeral base-line aligns with the top of the Welsh place name x-height; i.e. 2sw (10mm) below the English place name base-line (see **diagram 02|32**).
 - | Where the place name has a Welsh-language identity and the distance is in fractions of miles, the upper denominator numeral base aligns with the base-line of the English place name tiles. The lower denominator

Component 3: direction sign (pointing left)

A completed place name is aligned to the left and will have a consequent height and length. A character tile's width is nominal and equates to the natural space to the left and right when that character is typeset. Each tile width butts up to the tile width of a character to its left and right.

Where the place name has a Welsh-language identity, the English identity is positioned above the Welsh. The bases of the English place name tiles butt against the tops of the Welsh place name tiles, forming two lines of text.

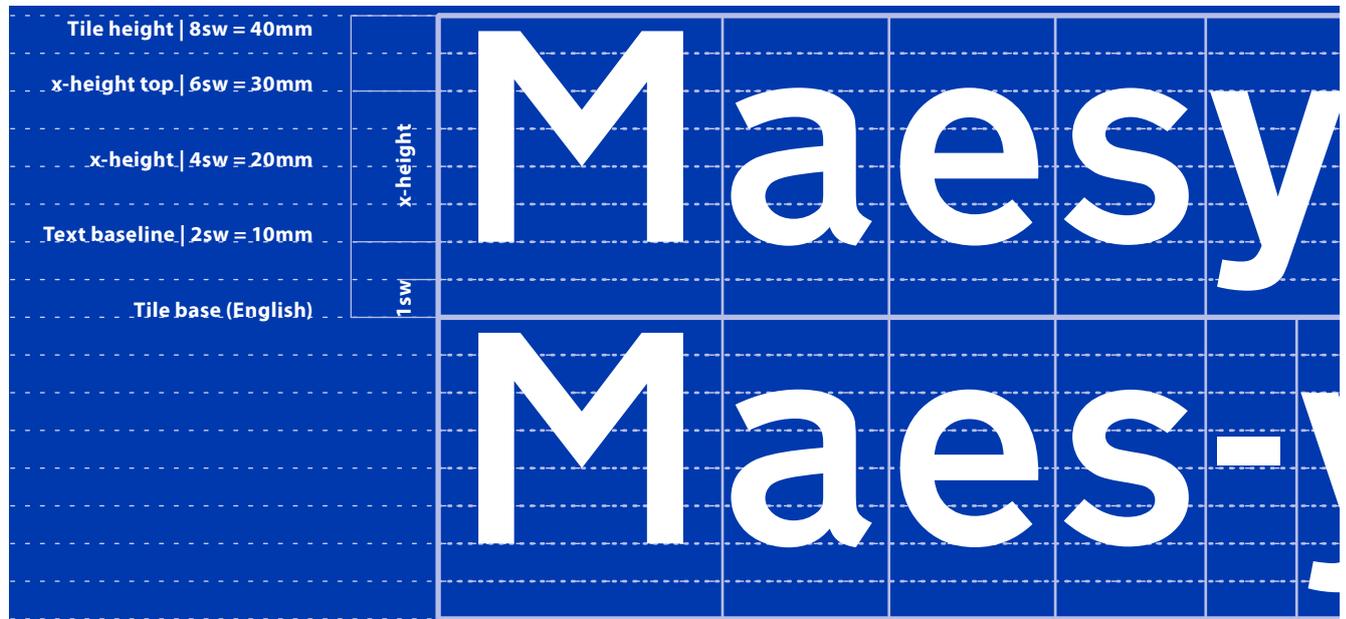


Diagram 02|30: Upper

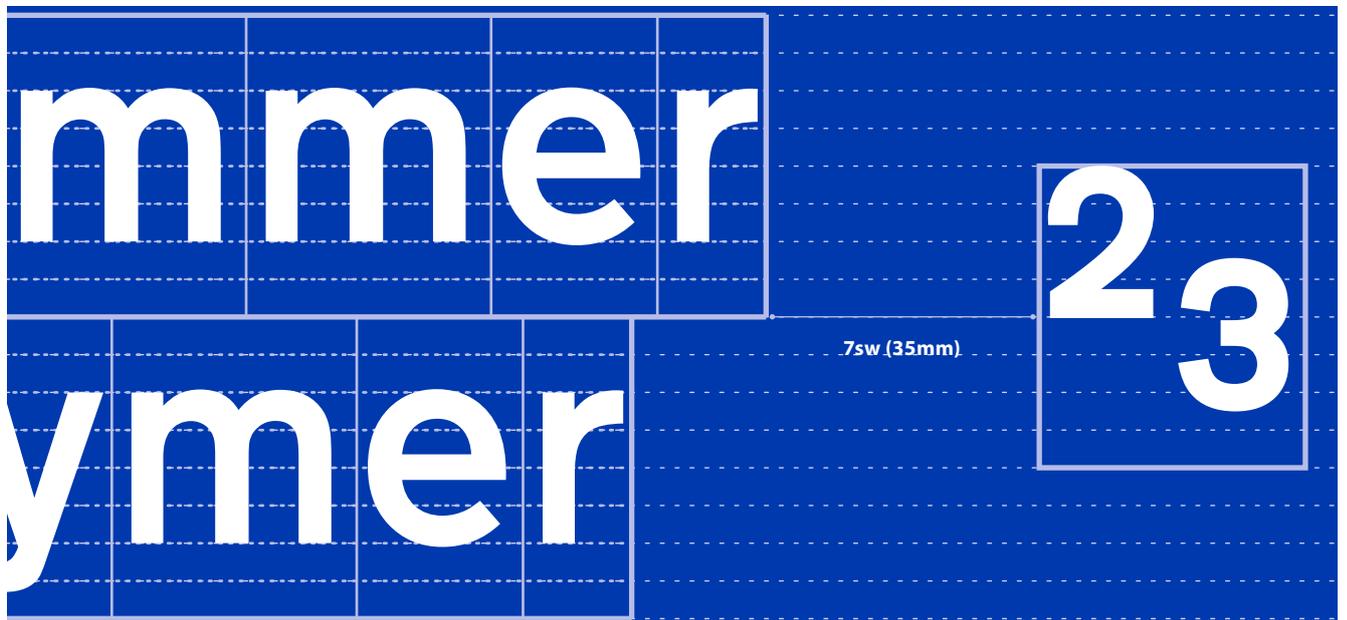
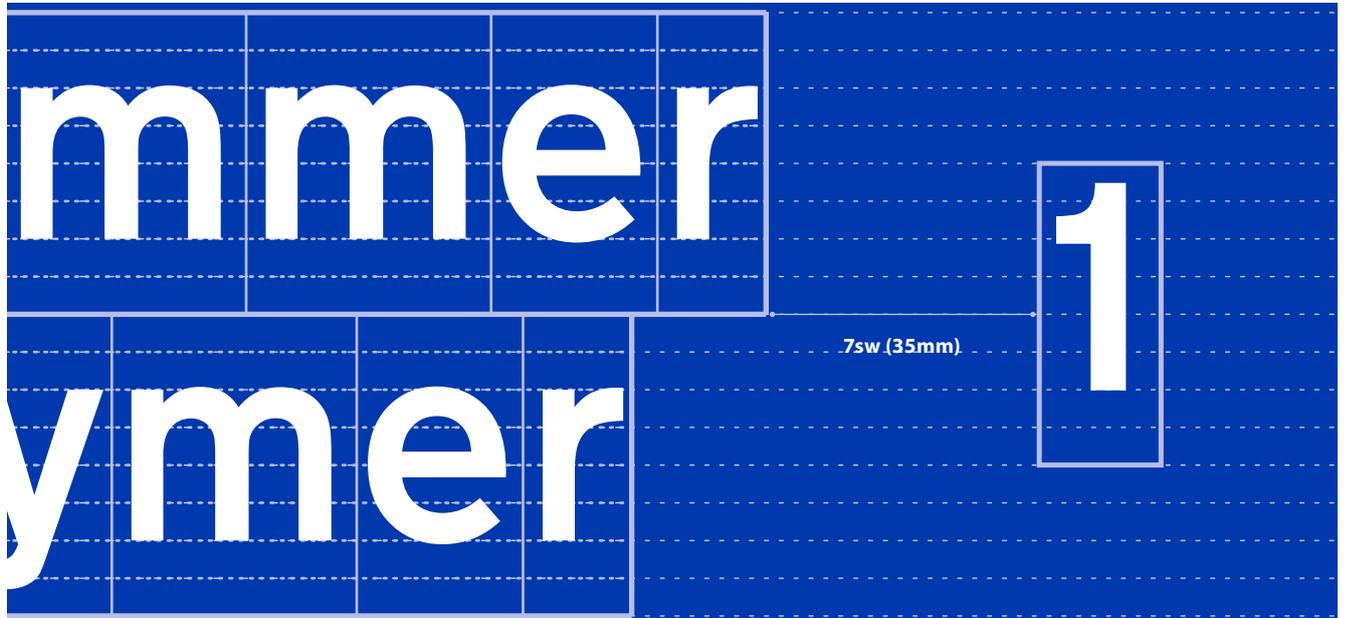
Each Transport Medium character, i.e. a letter, a numeral and a punctuation mark is constructed upon an underlying invisible grid, called a **tile**. The base of the tile begins 2sw (10mm) below the baseline of the character. The x-height of a character is 4sw (20mm). There are 2sw (10mm) above the x-height to the top of the tile. The overall tile height is, therefore, 8sw (40mm).

Diagram 02|31: Lower

Where the distance is in fractions of miles, the upper denominator numeral top aligns with the top of the place name tiles. The lower denominator numeral base aligns 0.5sw (2.5mm) below the place name base-line. The fraction numeral tile is formed around both denominators and aligns top and base with the place name tiles.

Component 3: direction sign (pointing left)

Distances in whole miles and in fractions of miles where a place name has an English- and Welsh-language identity. Where a distance includes a combination of whole and fraction numbers of miles, the left-hand edge of the fraction numeral tile butts against the right-hand edge of the whole numeral tile.

**Diagram 02|32: Upper**

Where the place name has a Welsh-language identity and the distance is in whole miles, the numeral base-line aligns with the top of the Welsh place name x-height; i.e. 2sw (10mm) below the bases of the English place name tiles, or 4sw (20mm) below the English place name text base-line..

Diagram 02|33: Lower

Where the place name has a Welsh-language identity and the distance is in fractions of miles, the upper denominator numeral base aligns with the bases of the English place name tiles. The lower denominator numeral base-line aligns 0.5sw (2.5mm) below the Welsh place name text x-height. The fraction numeral tile is formed around both denominators; its top aligns 4sw (20mm) above the bases of the English place name tiles; its base aligns 4sw below the tops of the Welsh place name tiles.

numeral base aligns 0.5sw (2.5mm) below the Welsh place name x-height. The fraction numeral tile is formed around both denominators and aligns top and base with the place name tiles (see diagram 02|33).

- | 2. The cycling travel time tiles begin aligned left with, and positioned below, the first left-hand edge of the place name tiles (see also point 4 below). The text size is smaller than DfT guidelines, being 80% of the place name text size. This gives an x-height of 16mm and a tile height of 7sw (35mm). The top edges of the cycling travel time tiles are located 2.5sw (12.5mm) below the lower edges of the place name tiles.
- | 3. The left-hand edge of the bicycle symbol is positioned 2.5sw (12.5mm) to the right of the cycling travel time tiles. The height of the bicycle symbol is smaller than DfT guidelines, being 8sw (40mm). Its base aligns with the base-line of the cycling travel time and its top aligns 1.5sw (7.5mm) below the place name base line.
- | 4. The walking travel time tiles are aligned right with, and positioned below, the cycling travel time tiles. The walking travel time is usually longer than the cycling travel time; the left-hand tile edge of the longest travel time aligns with the first left-hand edge of the place name tiles. The text size is 80% of the place name text size. This gives an x-height of 16mm and a tile height of 7sw (35mm). The top edges of the walking travel time tiles are located 4sw (20mm) below the lower edges of the cycling travel time tiles.
- | 5. The horizontal centre of the pedestrian symbol is aligned with the horizontal centre of the bicycle symbol. The height of the pedestrian symbol is smaller than DfT guidelines, being 11sw (55mm). Its base aligns 1.5sw (7.5mm) below the walking travel time base line and its top aligns 1.5sw (7.5mm) below the base of the bicycle symbol.
- | 6. The left-hand edge of the white-bordered brown tourist patch is aligned left with the first left-hand edge of the place name tiles. The height between the outer edges of the border's top and base is 10.5sw (52.5mm). The length varies according to the number of symbols positioned within the tourist patch; its right-hand inner edge being 1.5sw (7.5mm) to the right of the final symbol. The outer edge of the top border is 2.5sw (12.5mm) below the base of the pedestrian symbol.
 - | The width of the border all around is 0.5sw (2.5mm);
 - | the outer radius of each border corner is 1.5sw (7.5mm), the inner radius of each being 1sw (5mm);
 - | the height of the brown inner background area is 9.5sw (47.5mm).
- | 7. Tourist symbols are positioned within the brown area of the patch. Each symbol's top is positioned 1sw (5mm) below the inner edge of the top white border. Each symbol's base is 1.5sw (7.5mm) above the inner edge of the base border. The height of each symbol is smaller than DfT guidelines, being 7sw (35mm).
 - | **There is one exception;** the post office symbol is 7sw (35mm) wide. Its top is positioned 2sw below the inner edge of the top white border. Its base is 2.5sw (12.5mm) above the inner edge of the base border.
 - | The left-hand edge of the first tourist symbol is positioned 1.5sw (7.5mm) to the right of the inner edge of left-hand border;
 - | the next tourist symbol in sequence is positioned to the right of the first symbol. Its left-hand edge is positioned 2.5sw (12.5mm) from the right-hand edge of the first symbol;
 - | the symbol furthest right in sequence determines the length of the tourist patch. The right-hand border's inner edge being 1.5sw (7.5mm) to the right of that symbol's right-hand edge (see diagram 02|34).
- | 8. **The overall height of the direction sign is determined at this point (see diagram 02|34).** A direction sign is surrounded by a white border. The width of this border all around is 1.5sw (7.5mm). The outer radius of the two right-hand corners is 2.5sw (12.5mm). The inner radii are 1.5sw (7.5mm).

Component 3: direction sign (pointing left)

Travel times are calculated assuming a cycling average of 10 mph and a walking average of 3 mph. The left-hand tile edge of the longest travel time (usually the walking travel time) aligns with the left-hand tile edge of the place name. The cycling travel time tiles are then aligned right with the walking travel time tiles.

The word **minutes** and the Welsh translation **munud** are usually typeset in full. These words are abbreviated to **min** and **mun** respectively where a direction sign would become unnecessarily long; for example, where the cycling and pedestrian symbols would become positioned further right than the longest graphic.

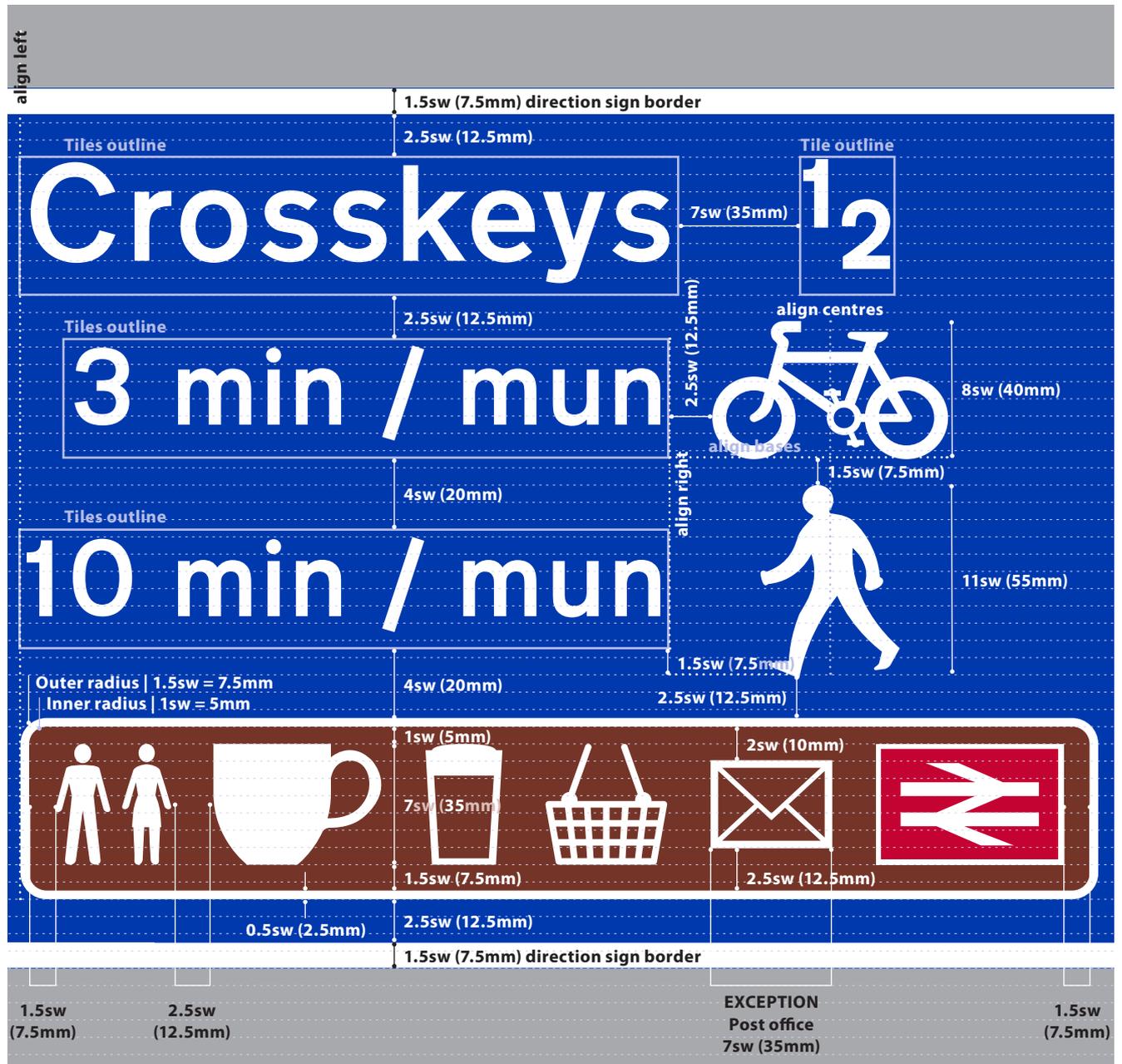


Diagram 02|34: Calculating a direction sign's overall height.

The overall height of a direction sign is determined by positioning, in sequence, each of the elements applicable to that sign's information. Variations which affect overall height may be:

- | or an additional Welsh-language place name;
- | NCN patch and route logo instead of a place name;
- | no distance;
- | no travel times;
- | no tourist patch and symbols.

The left-hand edge of the white-bordered brown tourist patch is aligned left with the first left-hand edge of the place name tiles. The height between the outer edges of the border's top and base is 10.5sw (52.5mm). The length varies according to the number of symbols positioned within the tourist patch.

Note: The bicycle and pedestrian symbols point to the left.

Component 3: direction sign (pointing left)

A direction sign has a semi-circle 'pointer'. The radius of the semi-circle is half the overall height of the direction sign. The centre point of the semi-circle arc is on a vertical axis 2.5sw (12.5mm) to the left of the first left-hand edge place name tiles and half-way down the direction sign's overall height.

A white 'pointer' graphic arc (a curved 'arrow') is positioned within the 'pointer' area of the direction sign. Where a sign is located on NCN 47 the **Loops+Links** logo is added within the semi-circle 'pointer' area. The centre of the logo is positioned half-way down the direction sign's overall height.

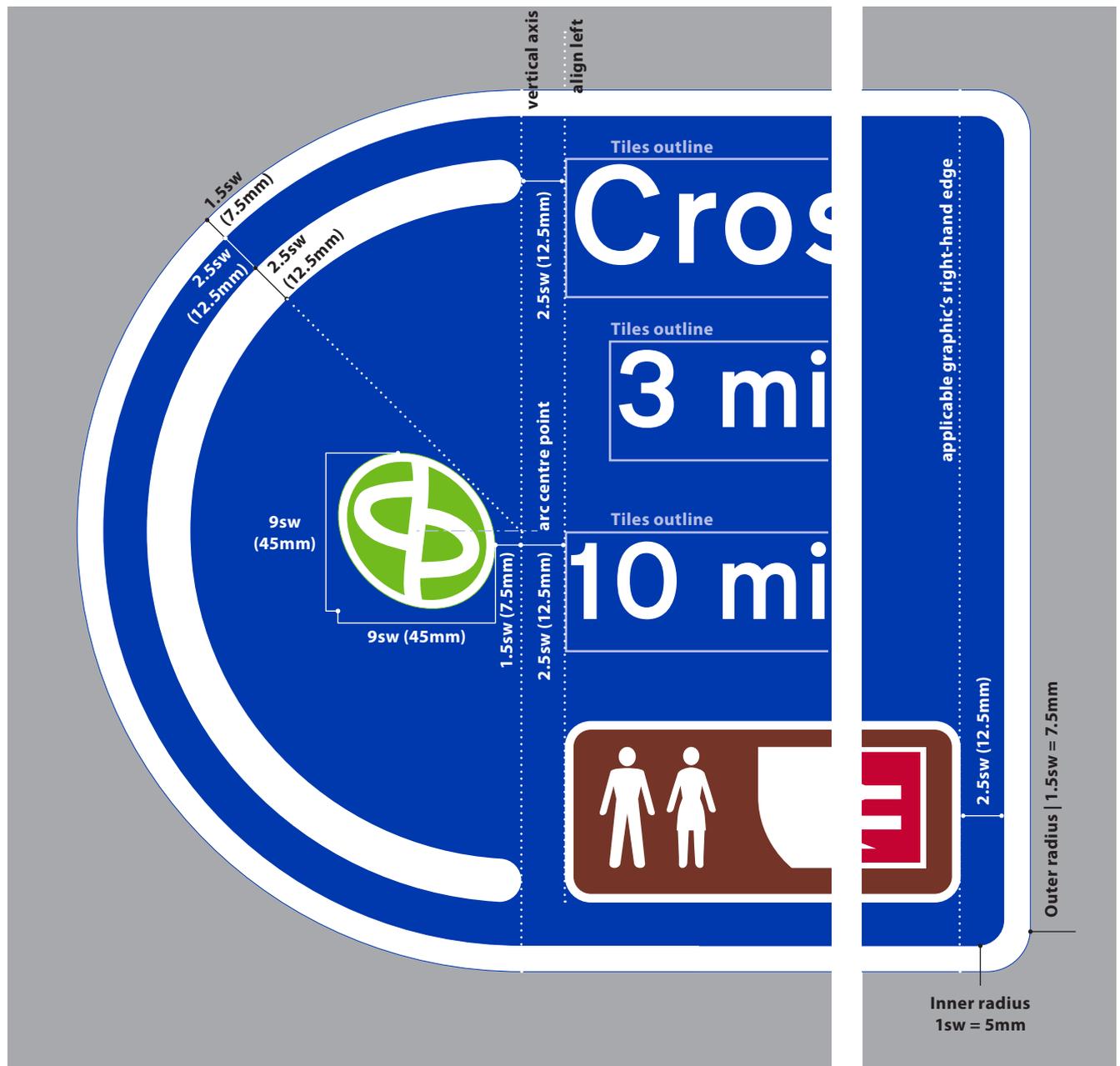


Diagram 02|35: Calculating a direction sign's overall length.

The overall length of a direction sign is determined after establishing its overall height. Variations which affect overall length may be:

- | an additional Welsh-language place name;
- | NCN patch and route logo instead of a place name;
- | no distance;
- | no travel times;
- | no tourist patch and symbols;
- | greater or fewer tourist symbols.

The inner edge of the direction sign's right-hand border is 2.5sw (12.5mm) to the right of a graphic's right-hand edge. A graphic is: the tile of a distance numeral, or a bicycle symbol, or the outer edge of the tourist patch border. A graphic which extends furthest to the right determines the position of the inner edge of the direction sign's right-hand border. The overall length of the direction sign is determined by including the width of its white border; i.e. 1.5sw (7.5mm) to the left and right.

| The inner edge of the direction sign's base border is 2.5sw (12.5mm) below the outer edge of the tourist patch base border;

| The inner edge of the direction sign's top border is 2.5sw (12.5mm) above the top edges of the place name tiles or the top edges of a NCN route patch or other logo, whichever graphic applies;

| The overall height of the direction sign is determined by adding the width of the white border; i.e. 1.5sw (7.5mm) to the top and base.

| 9. **The overall length of the direction sign is determined at this point (see diagram 02|35).**

A direction sign has a semi-circle 'pointer'. The radius of the semi-circle is half the overall height of the direction sign.

| The centre point of the semi-circle arc is on a vertical axis 2.5sw (12.5mm) to the left of the first left-hand edge place name tiles and half-way down the direction sign's overall height;

| The inner edge of the direction sign's right-hand border is 2.5sw (12.5mm) to the right of a graphic's right-hand edge. A graphic is: the tile of a distance numeral, or a bicycle symbol, or the outer edge of the tourist patch border. A graphic which extends furthest to the right determines the position of the inner edge of the direction sign's right-hand border;

| The overall length of the direction sign is determined by adding the width of the white border; i.e. 1.5sw (7.5mm) to the left and right.

| 10. A white 'pointer' graphic arc (a curved 'arrow') is positioned within the 'pointer' area of the direction sign. The width of this graphic arc is 2.5sw (12.5mm).

| The outer curve of the graphic arc is positioned 2.5sw (12.5mm) from the inner edge of the direction sign's border. Its radius varies according to the height of the direction sign;

| the inner curve of the graphic arc is positioned 2.5sw (12.5mm) from its outer curve. Its radius varies according to the radius of the outer curve;

| the centre points of each curve are on a vertical axis 2.5sw (12.5mm) to the left of the first left-hand edge place name tiles and half-way down the direction sign's overall height;

| the circular end caps of the graphic arc are positioned where their right-hand edges are on a vertical axis 2.5sw (12.5mm) to the left of the first left-hand edge place name tiles.

| 11. CCBC's **Loops+Links** route network signage is located either on NCN route 47 or an associated walking and cycling route off NCN 47. Where a sign is located on NCN 47 the **Loops+Links** logo is added within the semi-circle 'pointer' area.

| The height and width of the **Loops+Links** logo are 9sw (45mm);

| the right-hand edge of the logo is 4sw (20mm) to the left of the first left-hand edge place name tiles and half-way down the direction sign's overall height;

| the centre of the logo is positioned half-way down the direction sign's overall height.

Direction sign artwork: pointing RIGHT (see diagram 02|36)

For a direction sign pointing right, the components of the direction sign are added in a slightly different sequence from that listed above for a direction sign pointing left.

For clarity, only those **differences** which require a full description are listed below.

The left-hand edge of a completed place name's first tile is positioned 2.5sw (12.5mm) to the right of the direction sign's left-hand border inner edge.

| 1. the distance in increments of ¼ or ⅓ miles is placed to the right of the place name as detailed in the sequence for a direction sign pointing left.

| 2. The left-hand edge of the bicycle symbol is positioned 2.5sw (12.5mm) to the right of the direction sign's left-hand border inner edge. Its top edge aligns 1.5sw (7.5mm) below the lower edges of the place name tiles. The bicycle 'points' to the right.

- | 3. The cycling travel time tiles begin 2.5sw (12.5mm) to the right of the bicycle symbol' right-hand edge. The top edges of the cycling travel time tiles are located 2.5sw (12.5mm) below the lower edges of the place name tiles and the bases of the cycling travel time tiles align with the base of the bicycle symbol.
- | 4. The walking travel time tiles are aligned right with, and positioned below, the cycling travel time tiles as detailed for a direction sign pointing left.
- | 5. The horizontal centre of the pedestrian symbol is aligned with the horizontal centre of the bicycle symbol as detailed for a direction sign pointing left.
- | 6. The left-hand edge of the white-bordered brown tourist patch is aligned left with the left-hand edge of the bicycle symbol, 2.5sw (12.5mm) to the right of the direction sign's left-hand border inner edge. The height between the outer edges of the border's top and base is 10.5sw (52.5mm). The length varies according to the number of symbols positioned within the tourist patch as detailed in the sequence for a direction sign pointing left.
- | 7. Each tourist symbol is positioned within the brown inner background area of the tourist patch as detailed in the sequence for a direction sign pointing left. An exception is the symbol for a bus stop. The bus symbol which points to the right differs from that pointing to the left, in that the door is replaced by a small window.
- | 8. **The overall height of the direction sign is determined at this point** as detailed for a direction sign pointing left.
- | 9. **The overall length of the direction sign is determined at this point (see diagram 02|37).**
A direction sign has a semi-circle 'pointer'. The radius of the semi-circle is half the overall height of the direction sign.
| The centre point of the semi-circle arc is on a vertical axis 2.5sw (12.5mm) to the right of an applicable graphic's right-hand edge. A graphic is: the tile of a distance numeral, or a bicycle symbol, or the outer edge of the tourist patch border. A graphic which extends furthest to the right determines the position of this centre point;
| The overall length of the direction sign is determined by adding the width of the white border; i.e. 1.5sw (7.5mm) to the left and right.
- | 10. A white 'pointer' graphic arc (a curved 'arrow') is positioned within the right-facing 'pointer' area of the direction sign. The width of this graphic arc is 2.5sw (12.5mm).
| The outer curve of the graphic arc is positioned 2.5sw (12.5mm) from the inner edge of the direction sign's border. Its radius varies according to the height of the direction sign;
| the inner curve of the graphic arc is positioned 2.5sw (12.5mm) from its outer curve. Its radius varies according to the radius of the outer curve;
| the centre points of each curve are on a vertical axis 2.5sw (12.5mm) to the right of an applicable graphic's right-hand edge and half-way down the direction sign's overall height;
| the circular end caps of the graphic arc are positioned where their left-hand edges are on a vertical axis 2.5sw (12.5mm) to the right of an applicable graphic's right-hand edge.
- | 11. CCBC's **Loops+Links** route network signage is located either on NCN route 47 or an associated walking and cycling route off NCN 47. Where a sign is located on NCN 47 the **Loops+Links** logo is added within the semi-circle 'pointer' area.
| The height and width of the **Loops+Links** logo are 9sw (45mm);
| the left-hand edge of the logo is 4sw (20mm) to the right of an applicable graphic's right-hand edge and half-way down the direction sign's overall height;
| the centre of the logo is positioned half-way down the direction sign's overall height.

Component 3: direction sign (pointing right)

Travel times are calculated assuming a cycling average of 10 mph and a walking average of 3 mph. The left-hand tile edge of the walking travel time aligns 2.5sw (12.5mm) to the right of the bicycle symbol's right-hand edge. The cycling travel time tiles are then aligned right with the walking travel time tiles.

The word **minutes** and the Welsh translation **munud** are usually typeset in full. These words are abbreviated to **min** and **mun** respectively where a direction sign would become unnecessarily long; for example, where the travel times would align further right than the longest graphic.

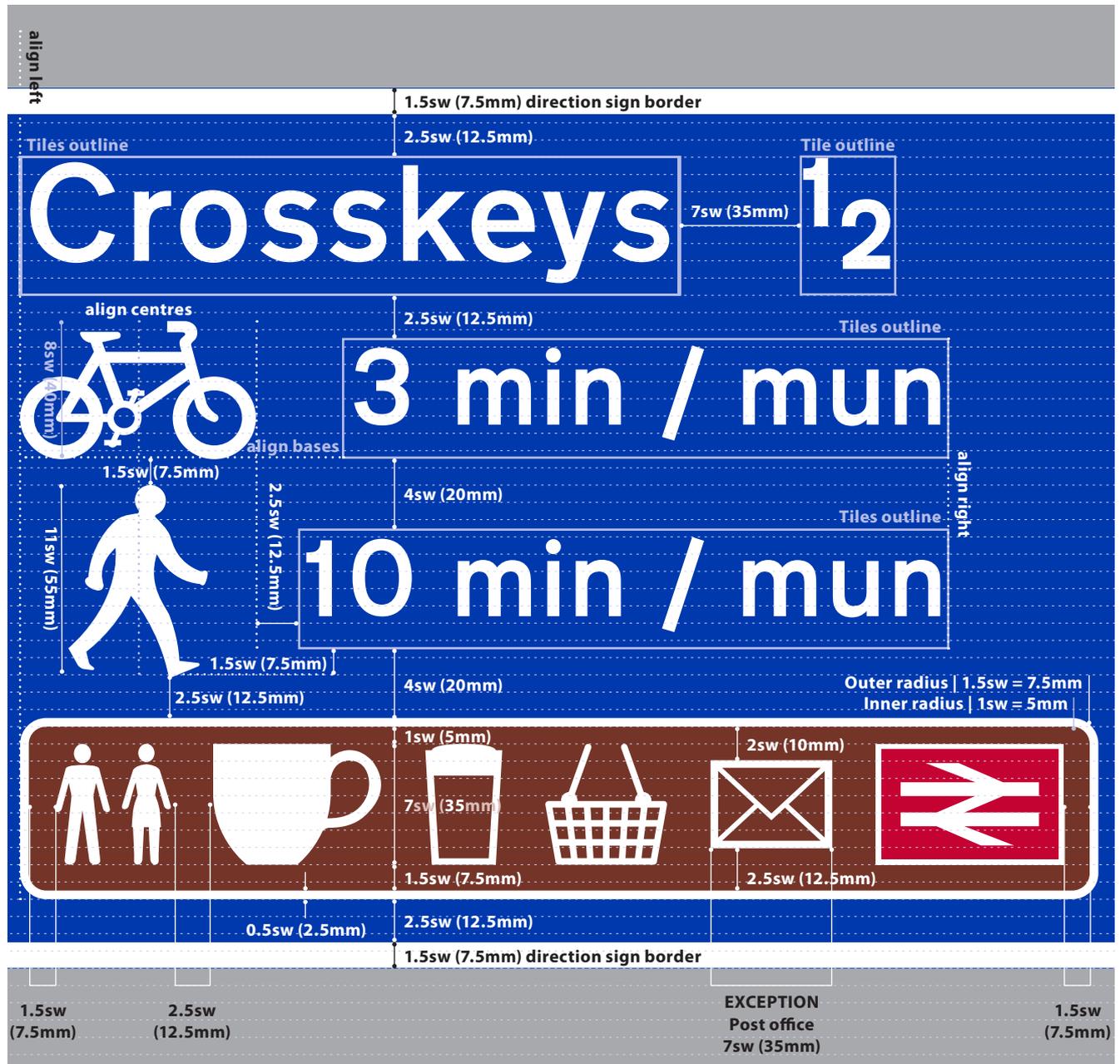


Diagram 02|36: Calculating a direction sign's overall height.

The overall height of a direction sign is determined by positioning, in sequence, each of the elements applicable to that sign's information.

Variations which affect overall height may be:

- | an additional Welsh-language place name;
- | NCN patch and route logo instead of a place name;
- | no distance;
- | no travel times;
- | no tourist patch and symbols.

The left-hand edge of the white-bordered brown tourist patch is aligned left with the left-hand edges of the place name tiles and the bicycle symbol. The height between the outer edges of the border's top and base is 10.5sw (52.5mm). The length varies according to the number of symbols positioned within the tourist patch.

Note: The bicycle and pedestrian symbols point to the right.

Component 3: direction sign (pointing right)

A direction sign has a semi-circle 'pointer'. The radius of the semi-circle is half the overall height of the direction sign. The centre point of the semi-circle arc is on a vertical axis 2.5sw (12.5mm) to the right of an applicable graphic's right-hand edge and half-way down the direction sign's overall height.

A white 'pointer' graphic arc (a curved 'arrow') is positioned within the 'pointer' area of the direction sign. Where a sign is located on NCN 47 the **Loops+Links** logo is added within the semi-circle 'pointer' area. The centre of the logo is positioned half-way down the direction sign's overall height.

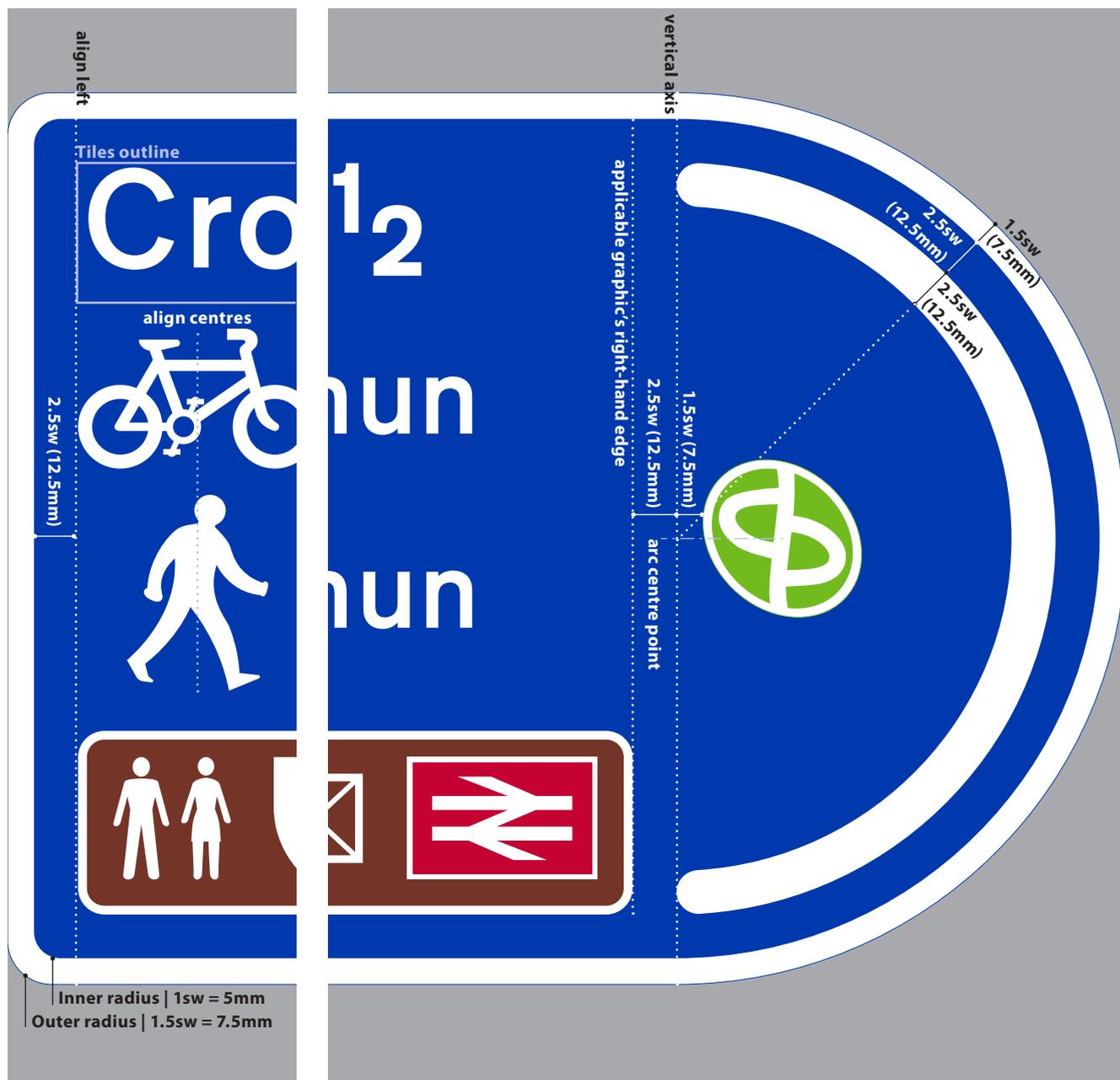


Diagram 02|37: Calculating a direction sign's overall length.
 The overall length of a direction sign is determined after establishing its overall height. Variations which affect overall length may be:

- | an additional Welsh-language place name;
- | NCN patch and route logo instead of a place name;
- | no distance;
- | no travel times;
- | no tourist patch and symbols;
- | greater or fewer tourist symbols.

The centre point of the semi-circle arc is on a vertical axis 2.5sw (12.5mm) to the right of an applicable graphic's right-hand edge. A graphic will be either the tile of a distance numeral, the bicycle symbol or, the outer edge of the tourist patch border. Whichever graphic extends furthest to the right determines the position of this centre point. The overall length of the direction sign is determined by including the width of the white border; i.e. 1.5sw (7.5mm) to the left and right.

Section 03 | Variants

The signage for Caerphilly County Borough Council's **Loops+Links** walking and cycling route is located on the National Cycle Network route number 47, also designated *Lôn Geltaidd-Celtic Trail*, where it passes through the county borough boundaries. In addition, the signage is located on other walking and cycling routes within the county borough which link to the **NCN47 / Lôn Geltaidd-Celtic Trail**.

The following pages give selected examples of direction signs which differ from those illustrated in detail in Section 02 of this manual. Examples are shown of maximum function and minimum function signs ON NCN47 and signs OFF NCN47 (see pages 01:1-3). These are intended to demonstrate the variants listed on pages 02:22–23, 02:26–27 and repeated below.

Variations which affect overall height may be:

- | an additional Welsh-language place name;
- | NCN patch and route logo instead of a place name;
- | no distance;
- | no travel times;
- | no tourist patch and symbols.

Variations which affect overall length may be:

- | an additional Welsh-language place name;
- | NCN patch and route logo instead of a place name;
- | no distance;
- | no travel times;
- | no tourist patch and symbols;
- | greater or fewer numbers of tourist symbols.

Variant: off NCN47

Where a direction sign is located off **NCN47 / Lôn Geltaidd-Celtic Trail**, directions to that route are bracketed as illustrated. Refer to the DfT’s *Traffic Signs Manual, Chapter 7; Page 18* and Transport alphabet drawing *TM2 (lower-case letters)* (see page 01:2 for details). The **Loops+Links** logo appears on the finial only.

Note: NCN47 route patch brackets are placed within the patch border, **Lôn Geltaidd-Celtic Trail** brackets are either side of the logo, as shown. The brackets’ tiles butt against the numerals’ tiles and logo’s sides respectively. The separation distance between the route patch and a logo bracket’s tile is 2.5sw (12.5mm).

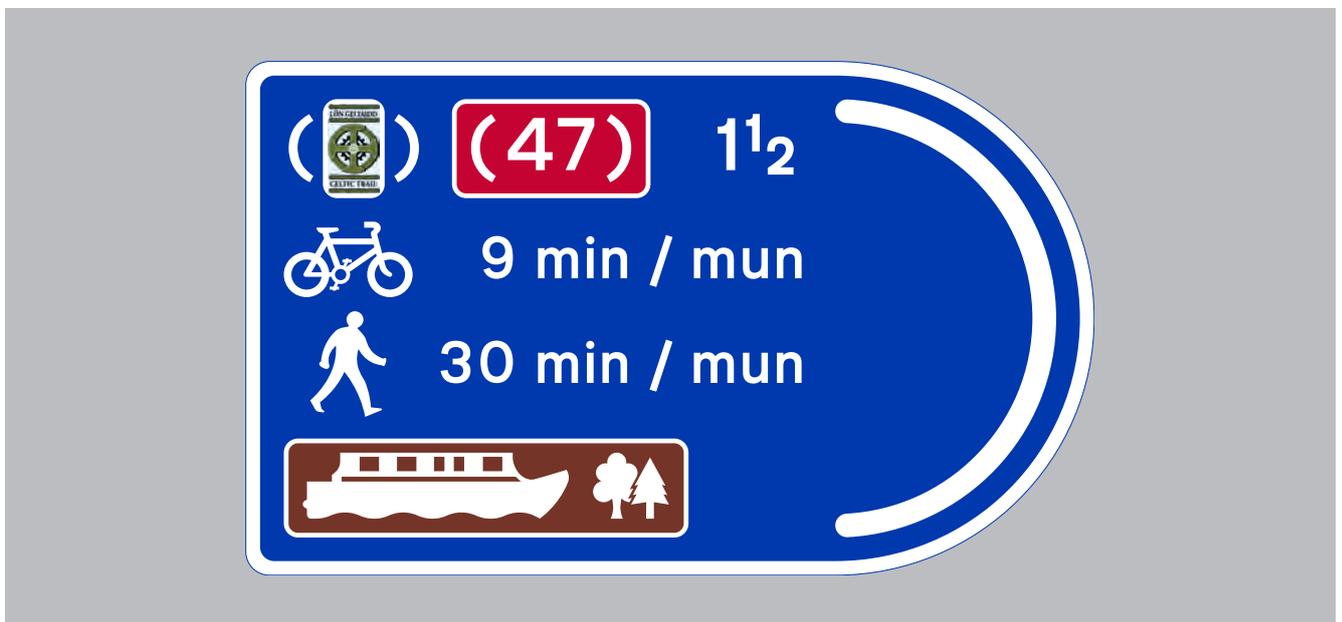


Diagram 03|38: Upper

Maximum function direction sign off NCN47 pointing left.

Variation which affects overall height is:
| NCN47 patch and route logo instead of a place name.

Diagram 03|38: Lower

Maximum function direction sign off NCN47 pointing right.

Variation which affects overall height is:
| NCN47 patch and route logo instead of a place name.

Variant: off NCN47

Where a direction sign is located off **NCN47** / *Lôn Geltaidd-Celtic Trail*, directions to that route are bracketed as illustrated. Refer to the DfT's *Traffic Signs Manual, Chapter 7: page 18* and Transport alphabet drawing *TM2 (lower-case letters)* (see page 01:2 for details). The *Loops+Links* logo appears on the finial only.

Note: NCN47 route patch brackets are placed within the patch border, *Lôn Geltaidd-Celtic Trail* brackets are either side of the logo, as shown. The brackets' tiles butt against the numerals' tiles and logo's sides respectively. The separation distance between the route patch and a logo bracket's tile is 2.5sw (12.5mm).

**Diagram 03|39: Upper**

Minimum function direction sign off NCN47 pointing left.

Variations which affect overall height and length are:
 | NCN patch and route logo instead of a place name;
 | no travel times.

Diagram 03|39: Lower

Minimum function direction sign off NCN47 pointing right.

Variations which affect overall height and length are:
 | NCN patch and route logo instead of a place name;
 | no travel times.

Variant: off NCN47

Where a direction sign is located off NCN47, the *Loops+Links* logo appears on the finial only.

**Diagram 03|40: Upper**

Maximum function direction sign off NCN47 pointing left.

Variation which affects overall height and length is:
| no tourist patch and symbols

Diagram 03|40: Lower

Maximum function direction sign off NCN47 pointing right.

Variation which affects overall height and length is:
| no tourist patch and symbols

Variant: on NCN47

Where a direction sign is located on NCN47, the **NCN** route patch and the *Lôn Geltaidd-Celtic Trail* logo appear in the finial only.

Note: the greater length of this direction sign allows for the words **minutes** and **munud** to be typeset in full.



Diagram 03|41: Upper

Maximum function direction sign on NCN47 pointing left.

Variation which affects overall height is:
| an additional Welsh-language place name.

Diagram 03|41: Lower

Maximum function direction sign on NCN47 pointing right.

Variation which affects overall height is:
| an additional Welsh-language place name.

Variant: on NCN47

Where a direction sign is located on NCN47, the **NCN** route patch and the *Lôn Geltaidd-Celtic Trail* logo appear in the finial only.

Note: the greater length of this direction sign allows for the words **minutes** and **munud** to be typeset in full.



Diagram 03|42: Upper

Maximum function direction sign on NCN47 pointing left.

Variation which affects overall length is:
| greater number of tourist symbols.

Diagram 03|42: Lower

Maximum function direction sign on NCN47 pointing right.

Variation which affects overall length is:
| greater number of tourist symbols.

Variant: on NCN47

Where a direction sign is located on NCN47, the **NCN** route patch and the *Lôn Geltaidd-Celtic Trail* logo appear in the finial only.

Note: the shorter height results in a smaller arc radius being applied to the pointer graphic. The space available for the *Loops+Links* logo is consequently reduced. The minimum distance allowable between the inner edge of the pointer graphic arc and the edge of the *Loops+Links* logo is 1.5sw (7.5mm) as shown here.



Diagram 03|43: Upper

Minimum function direction sign on NCN47 pointing left.

Variations which affect overall height and length are:

- | no travel times;
- | greater number of tourist symbols.

Diagram 03|43: Lower

Minimum function direction sign on NCN47 pointing right.

Variations which affect overall height and length are:

- | no travel times;
- | greater number of tourist symbols.

Variant: on NCN47

Where a direction sign is located on NCN47, the **NCN** route patch and the *Lôn Geltaidd-Celtic Trail* logo appear in the finial only.

Note: the shorter height results in a smaller arc radius being applied to the pointer graphic. The space available for the *Loops+Links* logo is consequently reduced. The minimum distance allowable between the inner edge of the pointer graphic arc and the edge of the *Loops+Links* logo is 1.5sw (7.5mm).

**Diagram 03|44: Upper**

Maximum function direction sign on NCN47 pointing left.

Variation which affects overall height and length is:
| no tourist patch and symbols.

Diagram 03|44: Lower

Maximum function direction sign on NCN47 pointing right.

Variation which affects overall height and length is:
| no tourist patch and symbols.

Variant: on NCN47

Where a direction sign is located on NCN47, the **NCN** route patch and the *Lôn Geltaidd-Celtic Trail* logo appear in the finial only.

Note: some routes are not categorised for cycling. The pedestrian symbol is positioned 2.5sw (12.5mm) from the respective edge of the travel times' tiles.



Diagram 03|45: Upper

Maximum function direction sign on NCN47 pointing left.

Variations which affect overall height and length are:

- | no cycling times;
- | fewer tourist symbols.

Diagram 03|45: Lower

Maximum function direction sign on NCN47 pointing right.

Variations which affect overall height and length are:

- | no cycling times;
- | fewer tourist symbols.

Variant: on NCN47

Where a direction sign is located on NCN47, the **NCN** route patch and the *Lôn Geltaidd-Celtic Trail* logo appear in the finial only.

Note: Where minimal graphics would result in a sign height too short to accommodate the *Loops+Links* logo, the required pointer graphic arc radius determines the overall height of that direction sign. The minimum distance allowable between the inner edge of the pointer graphic arc and the edge of the *Loops+Links* logo is 1.5sw (7.5mm), as shown.

**Diagram 03|46: Upper**

Minimum function direction sign on NCN47 pointing left.

Variations which affect overall height and length are:

- | no distance;
- | no cycling times;
- | fewer tourist symbols.

Diagram 03|46: Lower

Minimum function direction sign on NCN47 pointing right.

Variations which affect overall height and length are:

- | no distance;
- | no cycling times;
- | fewer tourist symbols.

