NTA
Údarás Náisiúnta Iompair
National Transport Authority

Access Control of Active Travel Facilities

July 2022

In association with:

An Roinn Iompair
Department of Transport

Bonneagar Iompair Éireann
Transport Infrastructure Ireland

Active Travel Advice Note:
Access Controls of Active Travel Facilities

Document Control Sheet

Document Type:	Active Travel Advice Note
Document Title:	Access Controls of Active Travel Facilities
Document No:	ATAN-2022-01

Pages:	16	Appendices:	None

Rev.	Status	Date	Author	Reviewed By	Approved By
0	Final	18/07/2022	Roughan & O'Donovan / NTA	NTA	NGSG

KEY PRINCIPLES

- **Active travel facilities are to be welcoming and fully inclusive facilities.**
- **Access points to active travel facilities should be designed to provide Universal Access, with particular emphasis on usability by a wide range of mobility equipment.**
- **Access Points should be attractive and inviting for users of the facility.**
- **There is a presumption against restrictive access control of any type on active travel facilities.**

1. PURPOSE OF THIS ADVICE NOTE

This Advice Note provides guidance for suitable access controls that may be provided only where necessary to prevent inappropriate vehicular access to pedestrian and cycling facilities, including shared greenways and segregated cycleways, to achieve consistent universal access to all such active travel facilities. This advice note also provides examples of typical layouts showing appropriate use of access controls.

Reference should also be made to *IS EN 17210: Accessibility and Usability in the Built Environment – Functional and Technical Specifications.*

2. WHAT IS UNIVERSAL ACCESS?

The built environment should be accessible to all, including young people, older people, and disabled people. Universal access principles mean the avoidance of obstacles and impediments to the use of transport links, including walking and cycling routes. There is a wide range of equipment used by people with disabilities that needs consideration to ensure that adequate width and clearance is provided to enable them to have unimpeded access to pedestrian and cyclist facilities.

Although the provision of access control points may be necessary, it must be provided in a manner which ensures universal access and the free-flow of cycling.

Figure 1: Special Needs Tricycle (1.25m wide)

3. WHAT IS THE PROBLEM?

Access to amenities and public parks, which regularly accommodate higher quality active travel routes, are often controlled by the use of restrictive facilities such as so called “kissing gates” (Fig. 2), closely positioned barriers forming chicanes (Fig. 3), closely positioned bollards and many more items which have the impact of making access difficult for a standard bicycle, and impossible for larger bicycles, such as cargo bikes and various mobility vehicles. Many of these are also difficult, if not impossible, for someone in a wheelchair, or pushing a buggy, to negotiate.

These barriers were generally provided to deter anti-social behaviour, such as using motorcycles and quad bikes in parks (risk to other park users and damage to the park infrastructure), and to secure the public space for the local people. However, these have had the unintended consequence of locking out those people that are reliant on mobility vehicles that are too big to pass through these access control measures.

Figure 2: “Kissing Gates” are a restrictive form of Access Control

Figure 3: Staggered barriers closely space and forming a restrictive chicane

4. WHAT ARE THE TYPES OF CYCLE EQUIPMENT?

Active travel routes in Ireland are now used by a far wider variety of mobility equipment than would have been used in the past, with some examples indicated in Figures 4 to 7 below. This change is to continue with substantial increases in cargo bike, and similar larger bikes, usage predicted over the coming years. In addition the use of larger accessible bikes, by those that can't use a regular bike, is increasing significantly on all of our high quality active travel routes and should be encouraged for the health and social benefits it brings. Accesses to active travel routes must therefore be designed to accommodate all of these mobility devices.

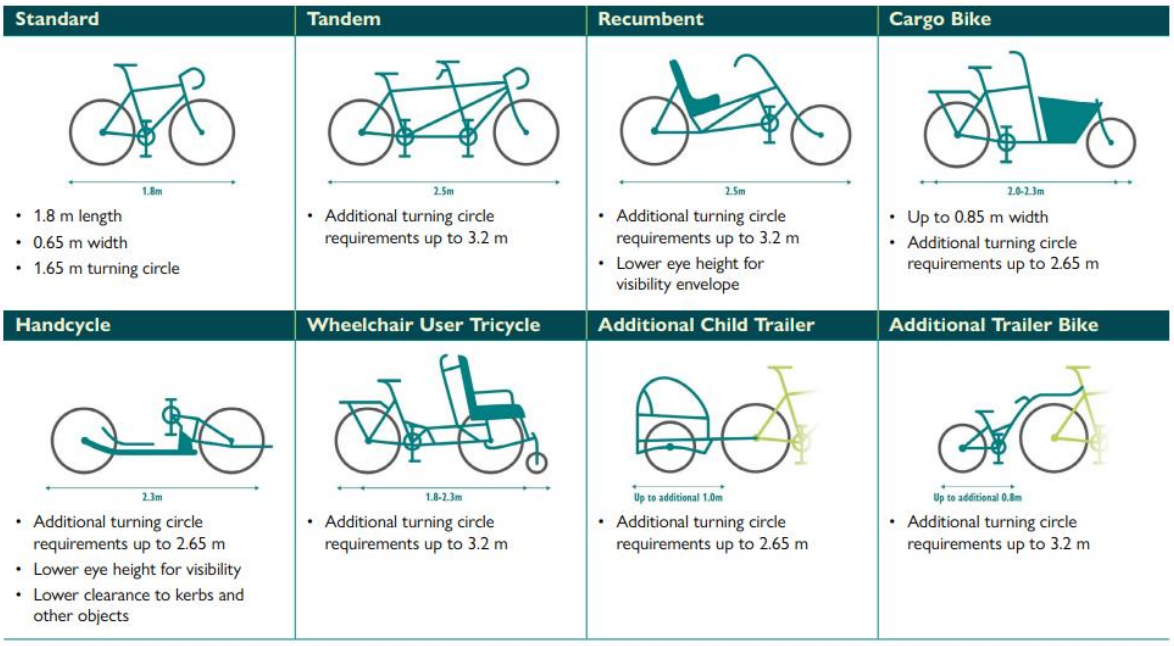


Figure 4: Types of Cycle Vehicles (Cycling by Design, September 2021, Transport for Scotland).

Figure 5: Wheelchair Trike in use in Dun Laoghaire Bike Hub (Typical Dimensions: 2.4m x 1.1m).

Figure 6: Cycling Without Age Trishaw's are increasing in use throughout Ireland (Typical Dimensions: 2.3m x 1.1m)

Figure 7: An Post, and other delivery companies, are using cargo bikes more frequently (Typical Dimensions: 2.6m x 1m)

5. WHY MIGHT ACCESS CONTROLS BE NECESSARY?

Drivers of motorised vehicles may mistake a greenway or a cycleway for a general public road and may seek to enter into the restricted facility. Normally an appropriate traffic sign or road marking should be provided to signify the status of the facility as for the exclusive use of pedestrians and/or

cyclists. At the access point to the facility a further restriction may be desirable to physically reduce the width so that a standard motor vehicle cannot enter.

Access control is also commonly used to reduce the impacts of anti-social behaviour, using mechanised vehicles (typically motorcycles or quad bikes), along routes which is a problem in some locations. Many types of access control measures have been used to limit access by these mechanised vehicles, however these vehicles cannot be effectively excluded by physical means without also inappropriately restricting access by legitimate types of mobility equipment. For this reasons, there should be a **presumption against the use of inaccessible access control measures** unless there is a persistent and significant safety concern resulting from its use by these mechanised vehicles. Where these issues arise the Local Authority, in consultation with An Garda Síochána and the Approving Authority, should firstly consider what other actions could be undertaken to reduce this anti-social behaviour.

In rural areas it may also be necessary to provide linkages between farm lands which may require some means of preventing livestock accessing the Greenways. As per the *Code of Best Practice National and Regional Greenways*, a suitable means of crossing the Greenway will be agreed between the Land Owner and the Project Promotor. This could simply be achieved by fully opening the gates of the agricultural land, which then serve to close across the Greenway while livestock is actively crossing, with no barriers to the Greenway the rest of the time. It is important that Greenway users are not expected to open or close gates as this can be difficult for many. This type of crossing may only be suitable where movements across the Greenway are low in frequency and low in duration.

The use of cattle grids on active travel routes is to be avoided and only used with the prior approval of the Approving Authority. Cattle grids can be slippery and difficult for some to cross so their use must be carefully considered by the Project Promotor so that impact on accessibility is avoided. The designer should consider the positioning of the grid so as to avoid cyclists having to turn on it, they should also consider using a flat bar with anti-slip finish rather than traditional round bar configuration.

6. WHAT TYPE OF ACCESS CONTROL SHOULD BE PROVIDED?

Bollards

While the presumption is against providing barriers, where necessary bollards may be used to demark the entry point to a pedestrian or cyclist facility, but this should provide **a minimum clear width of 1.5m** to accommodate the full range of mobility vehicles and those using cargo bikes. A Departure from Standard/ Derogation is required from the Approving Authority where a clear width of 1.5m cannot be provided.

> Bollards with a minimum spacing of 1.5m are the optimum solution where access control is required. All other forms of access control (gates, barriers etc.) require approval by the Approving Authority before being incorporated into scheme designs.

It is noted that **where the approach to the opening is not direct, additional width (>1.5m) maybe required** for large bicycles to negotiate through the space without having to make tight and uncomfortable turns. This can be assessed using various proprietary swept path analysis software

tools that are available to designers. This assessment must focus on non-standard bicycles.

Bollards should be passively safe in the event of a collision and should have a bright colour, contrasting with surroundings, and have reflective strips for visibility at night. **Bollards must have a minimum height of 1,000 mm** without any tapering of the width at ground level. No links shall be used between bollards. They shall contrast visually with the background against which it will be viewed with a Light Reflectance Values (LRV) value >30 points and **have visual contrasting reflective bands 75mm wide at a height of 900mm to 1000mm**. It is also recommended that thermoplastic road markings are placed around the bollards to make the bollard more visible to approaching cyclists.

For maintenance and emergency vehicle access, it may be appropriate for bollards to be demountable.

Access Gates, Barriers and Walls

Maintaining motion is clearly important for efficient cycling, therefore any access control should be designed to maintain the free flow of cyclists through obstructions. On the approach to points of interaction it is preferable to adjust the horizontal alignment by providing deflection and curves (see Fig. 8) rather than providing chicanes or staggered gates. This will allow cycle users to be fully aware of the interaction point and the need to adjust speed accordingly to give way to pedestrians or motor traffic if required.

Figure 8: A change in direction on the approach to an access point onto a road.
(Source: Access to Routes, Sustrans, November 2019)

Where this is not possible, and with the **approval of the Approving Authority,** access gates may be used in a manner that reduces speeds approaching the interaction point. For example where a Greenway meets a road, staggered gates may be considered, however these should be sufficiently far apart (**5.0m minimum**) to allow all cyclists to negotiate without having to dismount.

Where gates are currently in place on an active travel route these should be opened to provide a gap of 1.5m minimum, taking into consideration the manoeuvrability of larger equipment. These can be retrofitted through the addition of a second socket for the drop bolt to provide a wider spacing that will facilitate ease of access for all type of bicycles (Fig. 9).

Figure 9: Greenway Gate with a second socket for the drop bolt which provides a wider opening

Figures 10 to 14 below show a number of examples of suitable access control arrangements. Appendix A contains standard layouts for access control.

EXAMPLES OF SUITABLE ACCESS CONTROLS

Figure 10: Wide gap with 70mm diameter bollard in the centre, with 1.5m clear space each side. (Note: Contrasting bollard colour recommended)

Figure 11: Optimal arrangement with brightly coloured bollard. (Note: Road markings at the base of bollard recommended)

Figure 12: An example of well positioned demountable bollard using a lamp post as part of the access control arrangement. (Note: Stainless steel can be difficult to see in some conditions and is not recommended)

Figure 13: Example of welcoming access to an active travel route with a gap of 1.8m provided to allow all type of bicycles to pass through.

Figure 14: Example of horizontal deflection with a staggered pair of gates that also provides a distinctive visual character to a greenway.

APPENDIX A

STANDARD LAYOUTS FOR ACCESS CONTROL

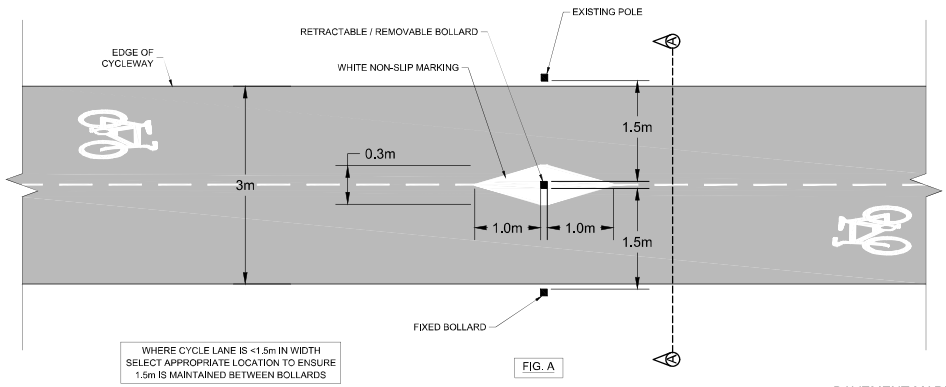


FIG. A

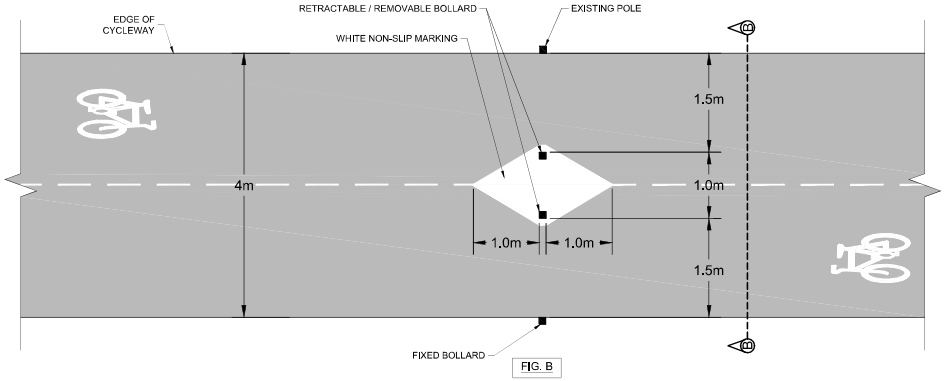


FIG. B

PAVEMENT MARKING DETAILS AT BOLLARD INSTALLATIONS

WHERE CYCLE LANE IS <1.5m IN WIDTH SELECT APPROPRIATE LOCATION TO ENSURE 1.5m IS MAINTAINED BETWEEN BOLLARDS

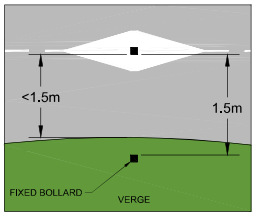
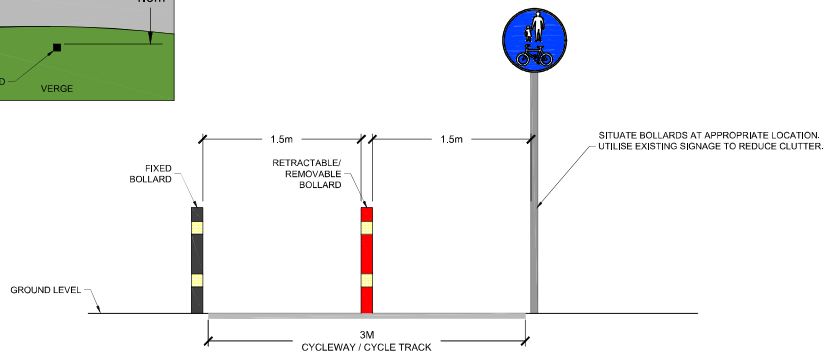
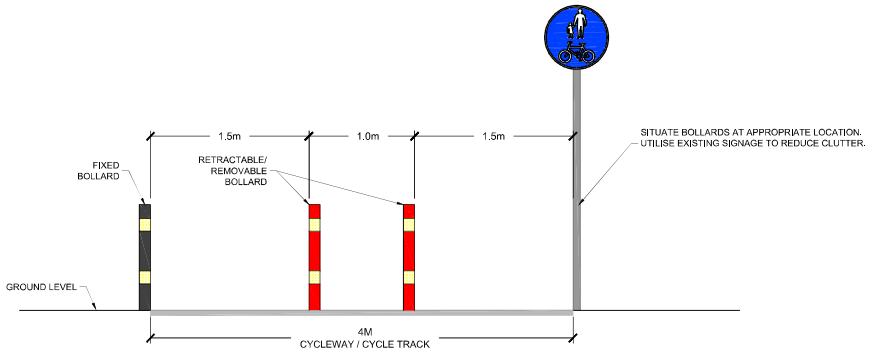


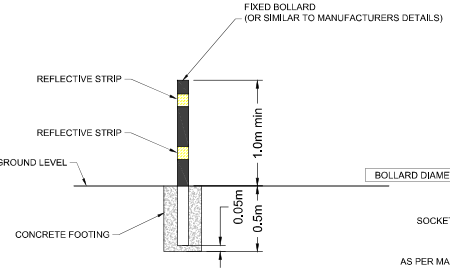
FIG. C



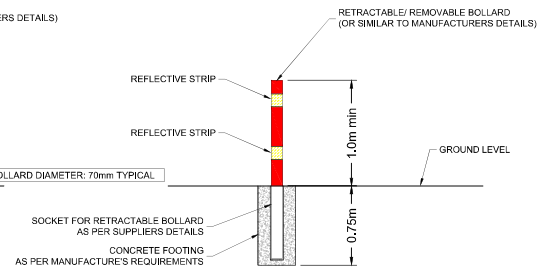
SECTION A - A



SECTION B - B



FIXED BOLLARD - SECTION DETAILS



RETRACTABLE / REMOVABLE BOLLARD - SECTION DETAILS

NOTES:
- BOLLARD SHALL VISUALLY CONTRAST WITH THE BACKGROUND AGAINST WHICH IT WILL BE VIEWED.
- BOLLARD TO HAVE A LRV VALUE > 30 POINTS AND HAVE VISUAL CONTRASTING REFLECTIVE BANDS 75MM WIDE AT A HEIGHT OF 900MM.

DRAFT

No.	Revision	Date	By	Chk'd	App'd
	Stage		Date		App'd
	PRELIMINARY		SMG		
	APPROVAL				
	TENDER				
	CONSTRUCTION				

Údarás Náisiúnta Iompair
National Transport Authority

Designed:	Checked:	Approved:	Status:
SC	SMG	SMG	DRAFT

Project Title: ACCESS FOR CYCLEWAYS

Drawing Title: ACCESS CONTROLS BOLLARD & ROAD MARKING DETAIL

Drawn:	Job No:	Drawing No:	Rev:
SC	22117	001	P01
Scale: (A1) NTS	Date: JULY 2022		

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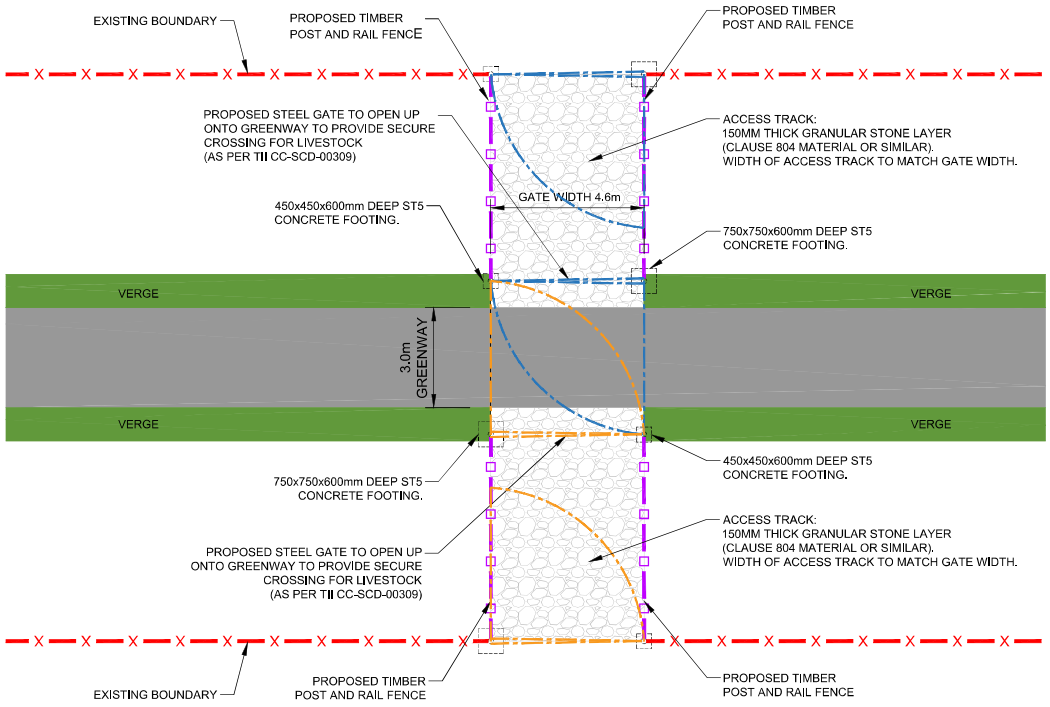
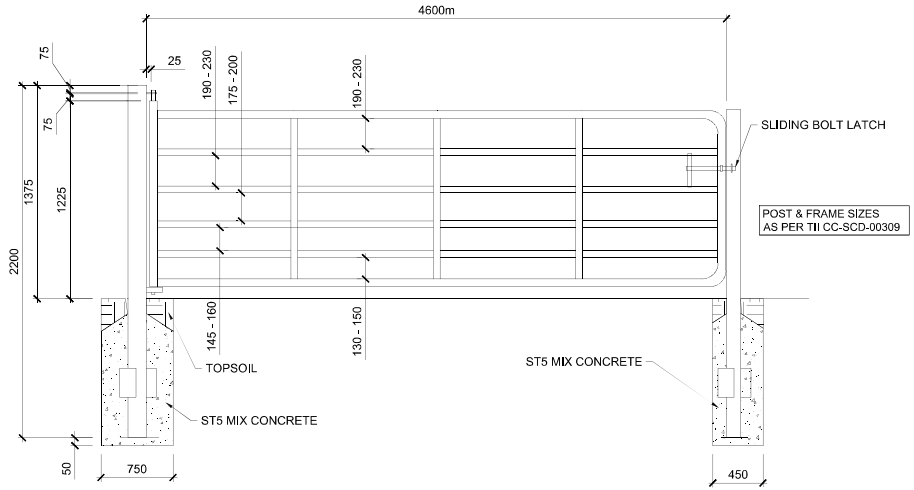


FIELD ACCESS



TYPICAL SINGLE STEEL FIELD GATE
(AS PER TII CC-SCD-00309)
SCALE 1:25 (A1) 1:50 (A3)

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Project Title: ACCESS FOR CYCLEWAYS

Drawing Title: STANDARD ACCESS CONTROLS
FIELD ACCESS CROSSING DETAIL

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Scale: (A1) NTS	Date: JULY 2022		

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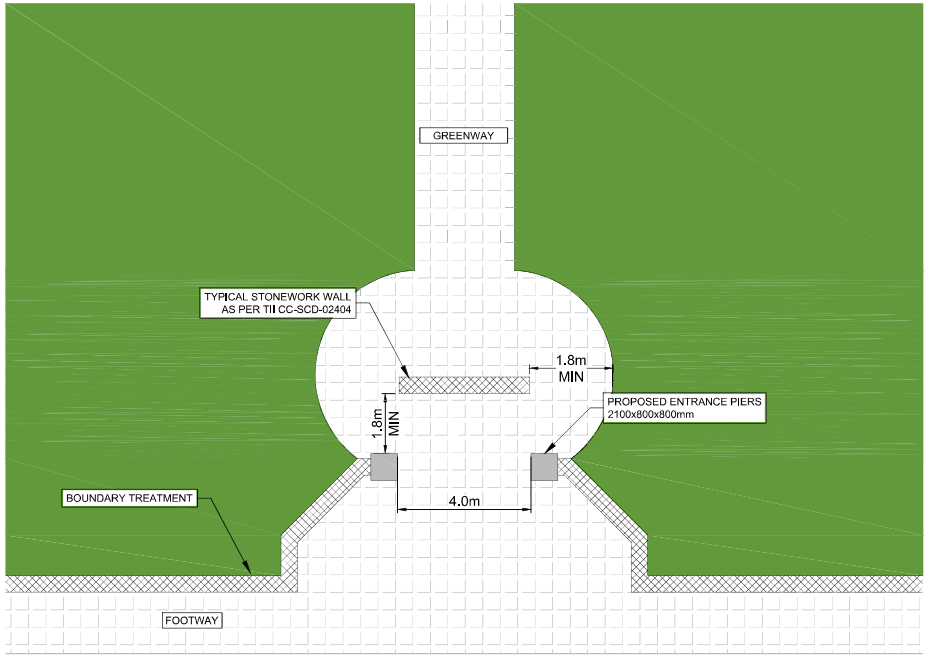

WALLED ACCESS CONTROL

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Project Title: ACCESS FOR CYCLEWAYS

Drawing Title: STANDARD ACCESS CONTROLS
WALLED ACCESS CONTROL DETAIL

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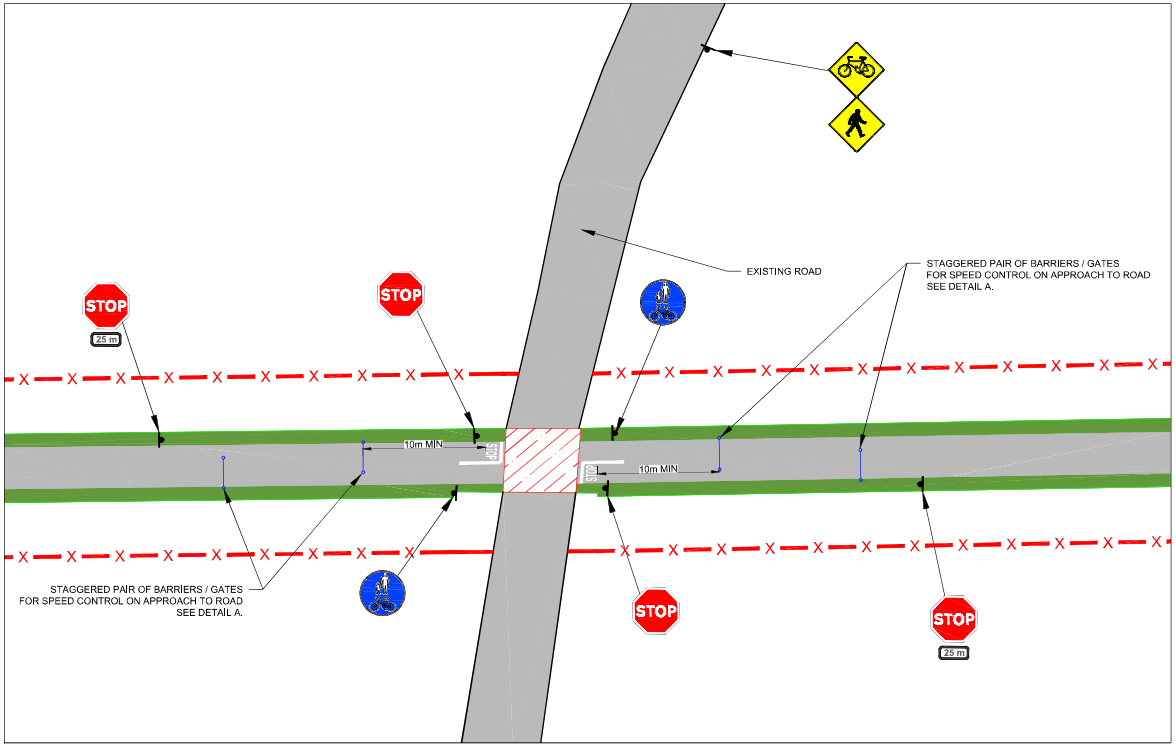
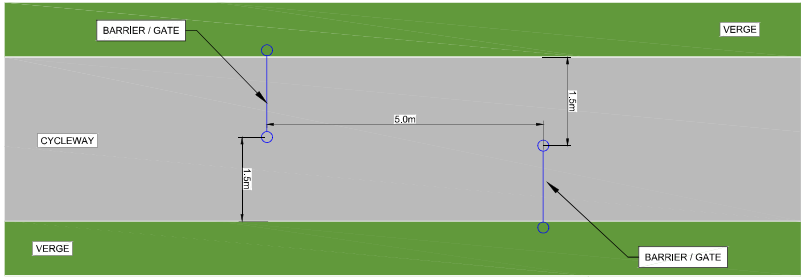


EXAMPLE OF ACCESS CONTROLS
AT A ROAD CROSSING



DETAIL A

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No.	Revision	Date	By	Chk'd	App'd
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	PRELIMINARY				
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	CONSTRUCTION				

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Designed:	Checked:	Approved:	Status:
SC	SMG	SMG	DRAFT

Project Title: ACCESS FOR CYCLEWAYS

Drawing Title: STANDARD ACCESS CONTROLS
SPEED CONTROL BARRIER SYSTEM

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Scale: (A1) NTS	Date: JULY 2022		

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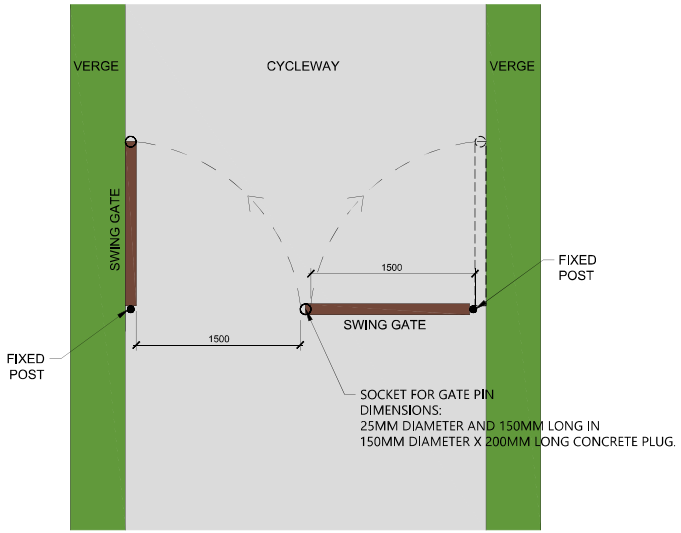
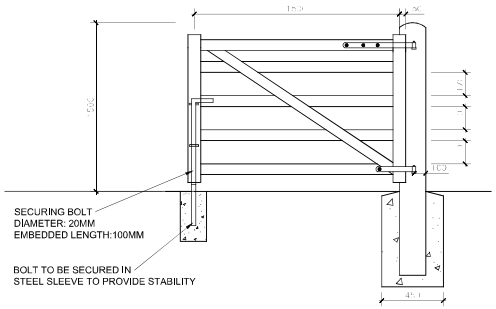


PROPOSED ACCESS GATE LAYOUT



TIMBER SWING GATE DETAIL

DESCRIPTION OF TIMBER MATERIALS	SIZE
HANGING POST	200X200X2100L
SHUTTING POST	175X175X2100L
HANGING STYLE	100X75
SHUTTING STYLE	75X75
TOP RAIL	100X75
UNDER RAILS	75X38
BRACES, HOUSED IN TOP RAIL	75X25

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. GATES SHALL COMPLY WITH APPROPRIATE CLAUSES IN CC-SCD-00300 AND ANY FURTHER REQUIREMENTS IN APPENDIX 1/15 OR 3/1
3. ALL THROUGH TENONS SHALL BE PEGGED WITH 13Ø OAK DOWELS.
4. FOR DETAILS OF FITTINGS FOR HANGINGS AND FASTENING SEE CC-SCD-00313 AND CC-SCD-00314.
5. THE GATE SHALL BE HUNG AS SHOWN FOR SELF CLOSING WITH SELF LATCHING STOP POST AS SHOWN ON CC-SCD-00314.
6. TIMBER TO BE TREATED IN ACCORDANCE WITH IS 435.
7. LOCKING SYSTEM TO BE APPROVED BY ....

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	TENDER				
	CONSTRUCTION				

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SC	SMG	SMG	DRAFT

Project Title: ACCESS FOR CYCLEWAYS

Drawing Title: STANDARD ACCESS CONTROLS TIMBER SWING GATE DETAILS

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