Drainage Tender: Series 0500 Specification

National Highways

Routes to Market - Delivery Integration Partnership

14 February 2022

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|  | Male engineer with flashlight inspecting steel cylinder |  |  |  |

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| Drainage Tender: Series 0500 Specification | | | |
| Client name: | National Highways | | |
| Project name: | Routes to Market - Delivery Integration Partnership | | |
| Client reference: | [Client reference] | Project no: | [Project number] |
| Document no: | [Document number] | Project manager: | [Project manager] |
| Revision no: | [Revision number] | Prepared by: | [Prepared by] |
| Date: | 14 February 2022 | File name: | Document1 |
| Doc status: | [Doc suitability – Delete row if not applicable] | | |

Document history and status

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Revision | Date | Description | Author | Checked | Reviewed | Approved |
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Contents

[1. Appendix 5/1 – Drainage Requirements 1](#_Toc95809243)

[1.1 General Requirements 1](#_Toc95809244)

[1.2 Pipe Characteristics for Thermoplastic Pipes 1](#_Toc95809245)

[1.3 Joints for Surface Water Drains 1](#_Toc95809246)

[1.4 Precast and Cast in-situ Chambers 1](#_Toc95809247)

[1.5 Chamber Cover Gratings and Frames 1](#_Toc95809248)

[1.6 Gullies 1](#_Toc95809249)

[2. Appendix 5/5 – Combined Drainage and Kerb Systems 2](#_Toc95809250)

[2.1 General Requirements 2](#_Toc95809251)

[2.2 Strength Requirements 2](#_Toc95809252)

[3. Appendix 5/6 – Linear Drainage Channel 3](#_Toc95809253)

[3.1 General Requirements 3](#_Toc95809254)

[3.2 Strength Requirements 3](#_Toc95809255)

[3.3 Special Fittings 3](#_Toc95809256)

[3.4 Weathering Resistance Requirements 3](#_Toc95809257)

Acronyms and abbreviations

HAPAS Highway Authorities Product Approval Scheme

BBA British Board of Agrément

SHW Specification for Highways Works

# Appendix 5/1 – Drainage Requirements

## General Requirements

All products shall have HAPAS BBA Certificate.

Concrete assets shall comply with Class DS-2 precautions as specified in BS 8500-1:2015+A1 2016 and BS EN 206:2013 + A1:2016.

## Pipe Characteristics for Thermoplastic Pipes

Pipe characteristics of structured wall pipes to be in accordance with sub-clause 518.5 of SHW. Thermoplastic pipes shall conform to the following criteria:

* Minimum Pipe Ring stiffness: SN6 (6kNm2)
* Creep Ratio in accordance with EN ISO 9967 shall be less than:
  + 2 – uPVC
  + 4 – PP
  + 4.5 - PE
* Impact resistance: In accordance with BS EN 1411, H50 should be greater than or equal to 1m with 1kg striker with spherical diameter of 25mm.

## Joints for Surface Water Drains

Proposed systems shall have or associated auxiliaries to ensure flexible and watertight joints in accordance with clause 504.2 can be achieved.

## Precast and Cast in-situ Chambers

Pre-cast and cast in-situ chambers shall comply with sub-clause 507.4 of SHW BS 5911-3 and BS EN 1917.

## Chamber Cover Gratings and Frames

Chamber cover gratings and frames shall comply with clause 508.9 and the following requirements:

* A minimum clear rectangular opening of 600mm with a minimum diagonal diameter of 700mm.
* Loading classification of a minimum of Class D400 in accordance with BS EN 124.
* Cover and frame to be a minimum of 150mm deep,

## Gullies

Pre-cast concrete gullies shall be trapped and comply with clause 508.3.

# Appendix 5/5 – Combined Drainage and Kerb Systems

## General Requirements

CDK units shall comply with BS EN 1433 and shall be kite marked.

## Strength Requirements

The units shall be Class D capable of bearing a minimum wheel load of 400kN in accordance with BS EN 124: 2002.

# Appendix 5/6 – Linear Drainage Channel

## General Requirements

Slot-drain/linear drainage channel units shall comply with BS EN 1433 and shall be kite marked.

## Strength Requirements

The units shall be Class D capable of bearing a minimum wheel load of 400kN in accordance with BS EN 124: 2002.

The proposed slot drain/linear drainage channel units shall be Class D capable of bearing a minimum wheel load of 400kN in accordance with BS EN 1433. The Supplier shall provide evidence of the suitability of the proposed system in accordance with sub-clause 517.2. of the SHW – initial source approval testing only.

## Special Fittings

The grating on manufactured preformed linear drainage channels shall be an integral part of the unit and shall be grade D400. Access covers shall be either solid or double triangular, non-rock type to load Class D400 to BS EN 124-1:2015 and BS EN 124- 2:2015.

Any covers on slot drain outfall or access chambers shall be either solid or double triangular, non-rock type to load Class D400 to BS EN 124.

The exposed surface of the slot drain shall be brush finished in accordance with Clause 1026 of the SHW.

## Weathering Resistance Requirements

The slot drain and manufactured preformed linear drainage channel shall comply with the requirements of BS EN 1433 Annex B.