ASSET DATA DICTIONARY DEFINITION DOCUMENT (AD4)
L152 – DIAPHRAGM WALLS AND SLURRY WALLS

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1 Introduction

1.1 Asset Details

Class Code:	L152
Class Name:	Diaphragm Wall and Slurry Walls
Class Lineage:	Construction Products>Ground treatment and retention>Land/Water retention>Diaphragm Walls and slurry walls>Diaphragm Wall

1.2 Description

Diaphragm walls are reinforced concrete walls constructed in a series of panels using a technique in which trench is excavated for the panel and filled with a bentonite slurry as excavation progresses, such that the trench is permanently full. On completion of the excavation, the cage of reinforcement is lowered into the trench and the bentonite then displaced with concrete.

Diaphragm Walls are constructed of a number of individually poured sections with joints between each section. Each individual section/pour does not constitute an individual asset. The Asset will constitute a continuous run of individual sections/pours. The asset would be deemed to have finished at the last section/pour or where the wall meets a corner (with another wall).

1.3 Related Functions

All information on the configuration of asset classes (L-Class) to functions is contained within the latest revision of the Asset Data Dictionary Master Configuration document (eB ref: CRL1-XRL-Z3-ADDSD-CR001-50186)

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2 Asset Tag Identification Rules

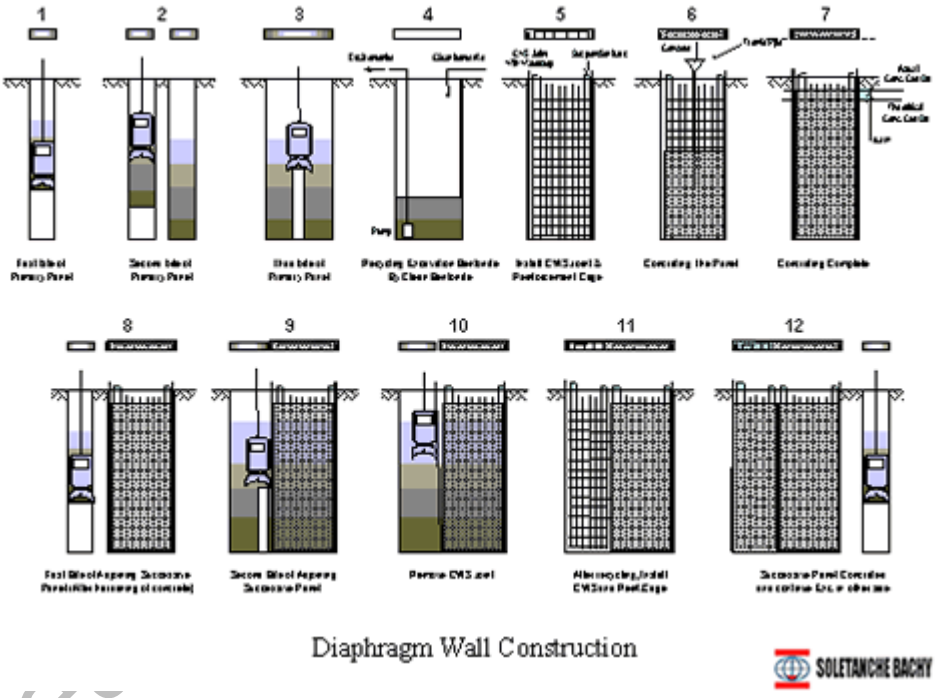
Assets will be identified as required by the Asset Identification Standard (CRL1-XRL-O6-STD-CR001-00031) in the following format:

<LCS Code>-<Function Code>-<Incremental number to ensure uniqueness>

e.g. CR076-BAF-12345

Information and guidance on the standard naming convention for all asset classes is contained within the latest revision of the Asset Naming Convention Document (eB ref: CRL1-XR1-Z3-ADDSD-CR001-50413).

2.1 Example Images



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3 Attributes

3.1 Generic Attributes

All Classes of assets will have a set of Generic Attributes for which data is collected without exception. Full details relating to these assets can be found at:

AD4 – Generic Attributes CRL1-XRL-Z3-ADDSD-CR001-50069

3.2 Class Specific Attributes

Below is a table of the further specific attributes which are associated with this asset class.

Attribute Name	**Base Unit or Formula**	**Value Type** (See Below)	**Decimal Places** (nu Only)	**Defined Values List** (pd only)	**Description**
Area (Square Metres)	Square Metres	NU	2		The total area of the diaphragm Wall
Depth (Metres)	Metres	NU	2		The depth below ground level
Height (Metres)	Metres	NU	2		The total height of the diaphragm wall
Length (Metres)	Metres	NU	2		The total length of the diaphragm wall
Thickness (Metres)	Metres	NU	2		The total thickness of the diaphragm wall
Supported by Windposts		PD		Yes No	Are Windposts fitted to the wall for extra support

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Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
Wall Finish		PD		Aluminium Aluminium Panels Aluminium Panels; Glazed Aluminium Panels; Painted Aluminium; Painted Aluminium; Tiled Aluminum; Enamel Clad Anti-Graffiti Asphalt Blockwork Blockwork; Brick Blockwork; Brick; Concrete Blockwork; Brick; Metal Blockwork; Brick; Painted Blockwork; Brick; Tiled; Paint Blockwork; Concrete Blockwork; Concrete; Metal Blockwork; Concrete; Painted Blockwork; Metal Blockwork; Metal; Painted Blockwork; Painted Blockwork; Tiled Blockwork; Timber Brick Brick; Blockwork; Plasterboard Brick; Concrete Brick; Concrete; Glazed Brick; Concrete; Metal Brick; Concrete; Painted Brick; Enamel Clad Brick; Fence	The finish of the wall

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Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
				Brick; Fibre Glass; Metal Brick; Glazed Brick; Glazed; Metal Brick; Glazed; Metal; Tiled Brick; Glazed; Tiled Brick; Metal Brick; Metal; Painted Brick; Metal; Tiled Brick; Metal; Timber Brick; Painted Brick; Painted; Glazed Brick; Painted; Tiled Brick; Painted; Timber Brick; Plasterboard Brick; Plastered Brick; Rendered Brick; Tiled Brick; Tiled; Timber Brick; Timber Carpeted; Painted Cast Iron Lining Segments Composite Asbestos Tile Concrete Concrete Timber Boarded Concrete; Mesh Concrete; Metal Concrete; Painted Concrete; Painted; Metal Concrete; Painted; Tiled Concrete; Tiled Corrugated Steel Sheeting Panels	

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Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
				Enamel Clad Enamel Clad; Glazed Enamel Clad; Metal Enamel Clad; Metal; Painted; Enamel Clad; Metal; Tiled Enamel Clad; Painted Enamel Clad; Painted; Tiled Enamel Clad; Tiled Fibreboard Fibreglass Gating Gating; Tiled Glazed Glazed; Metal Glazed; Metal; Painted Glazed; Metal; Tiled Glazed; Painted Glazed; Painted; Tiled Glazed; Tiled Glazed; Tiled; Timber Louvres Melamine Cladding Mesh; Tiled Metal Metal Panels Metal; Painted Metal; Painted; Plastered Metal; Painted; Tiled Metal; Plastered Metal; Powder Coated Metal; Tiled	

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Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
				Metal; Timber N/A Paint & Timber Painted Painted Render Painted; Papered Painted; Plasterboard Painted; Plastered Painted; Tiled Painted; Tiled; Timber Painted; Tiled; Varnished Painted; Timber Papered Paving Slab Plasterboard Plastered Plastered; Tiled Plastic Rubber; Varna Store Suspended Tiled Tiled; Shutter Tiled; Timber Timber Varnished Vinyl	
From Meterage (Metres)	Metres	NU	2		The Meterage (Chainage) of the start point of the asset. To be populated only when the start of the asset is located on track.

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Attribute Name	**Base Unit or Formula**	**Value Type** (See Below)	**Decimal Places** (nu Only)	**Defined Values List** (pd only)	**Description**
To Meterage (Metres)	Metres	NU	2		The Meterage (Chainage) of the end point of the asset. To be populated only when the end of the asset is located on track.
Structurally Critical		PD		Yes No	The component is integral to the overall asset's structural integrity
LRS Code		PD		C.EB C.EB.CRW5 C.EB.CR1 C.EB.CR7 C.EB.TBC C.WB C.WB.CRW9 C.WB.CRW6 C.WB.CR2 C.WB.CR5 C.WB.TBA C.WB.TBB CNE.EB CNE.WB CSE.EB CSE.EB.CR11 CSE.WB CSE.EB.CR13 CSE.WB.CR15 Non Track	The Crossrail Linear Referencing Standard code (CRL1-XRL-O6-STD-CR001-00026) where the asset is located. When the asset is not located on track then non track should be selected. The LRS codes are as follows: C.EB - Central Section Eastbound C.EB.CRW5 - Crossover between W5 and W4 Points C.EB.CR1 - Crossover between C1 and C4 Points C.EB.CR7 - Crossover between C7 and C8 Points C.EB.TBC - Turnback C C.WB - Central Section Westbound C.WB.CRW9 - Crossover between W9 and W8 Points C.WB.CRW6 - Crossover between W6 and W3 Points C.WB.CR2 - Crossover between C2 and C3 Points C.WB.CR5 - Crossover between C5 and C6 Points C.WB.TBA - Turnback A C.WB.TBB - Turnback B CNE.EB - Central Section North East Spur Eastbound CNE.WB - Central Section North East Spur Westbound CSE.EB - Central Section South East Spur Eastbound CSE.EB.CR11 - Crossover between C11 and C12 Points CSE.WB - Central Section South East Spur Westbound CSE.EB.CR13 - Crossover between C13 and C14 Points CSE.WB.CR15 - Crossover between C15 and C16 Points Non Track - Non Track Assets

pd = Predefined List (Listed Values Only)
nu = Numeric (dp and number format can be stipulated)
ch = Free text (Max 255 Characters)
da = Date (dd-mm-yyyy)
me = Memo (Free text 1GB Limit)

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4 Performance Data

This section is to be used to specify the performance data to be gathered from this Class of asset when in operation. To be populated once the performance measures have been agreed with the Infrastructure Managers.

5 Labelling

Information and guidance on the standard labelling convention for all asset classes is contained within the latest revision of the Asset Naming and Labelling Convention Document (eB ref: CRL1-XR1-Z3-ADDSD-CR001-50413).

6 Other Information

Not Applicable

7 Reference Material

- Asset Data Dictionary Master Configuration CRL1-XRL-Z3-ADDSD-CR001-50186
- Asset Identification Standard - CRL1-XRL-O6-STD-CR001-00031
- AD4 – Generic Attributes CRL1-XRL-Z3-ADDSD-CR001-50069
- Asset Naming Convention Document - CRL1-XR1-Z3-ADDSD-CR001-50413

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8 Crossrail Technical Approvals

Name	Role	Date
[redacted]	Head of Civil Structures	19-Sep-2014

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