ASSET DATA DICTIONARY DEFINITION DOCUMENT (AD4)
L756110 – DUCTS

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7.0	27-Aug-2015				Labelling Section Updated
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9.0	11-May-2016	[redacted]	[redacted]	[redacted]	Attribute added
10.0	30-Aug-2016				Attribute Added
11.0	20-Apr-2017				Attribute Replaced

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12.0	25-Apr-2017	[redacted]	[redacted]	[redacted]	LRS Codes Updated

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1 Introduction

1.1 Asset Details

Class Code:	L756110
Class Name:	Ducts
Class Lineage:	Construction Products>Services>Climate control plant and equipment (HVAC)>Distribution>Ductwork, ducts>Ducts

1.2 Description

Ducts refer to a group or system of tubular ducts, used in HVAC to deliver & supply air, return air, and exhaust & remove air. Ducts can be circular or square/rectangular made of rigid materials, such as metal or can be flexible. A ductwork system may have many branches with changes in cross section adjacent to branches.

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)

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).

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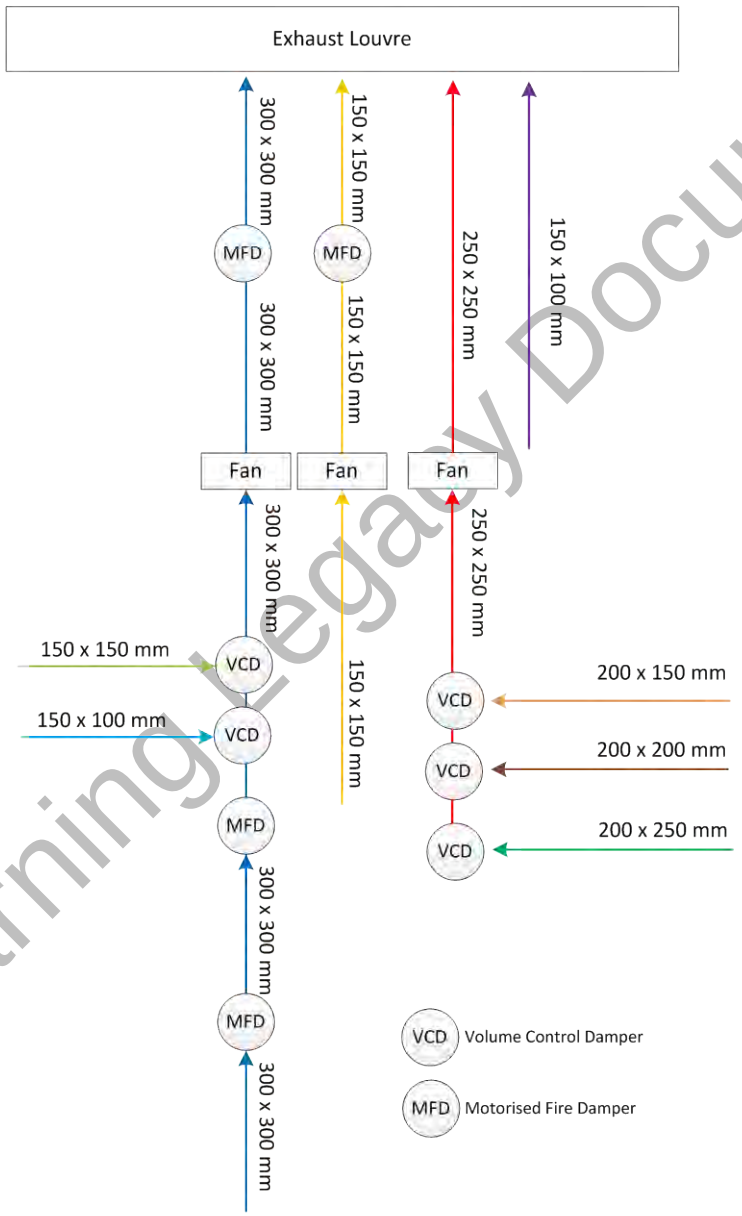
A new tag for an exhaust system duct is only required under the following circumstance:

- Change in duct size
- Change in material (e.g. fire rated)
- Ductwork intrudes another asset (e.g. a damper)

Using the above guidance the following diagram has been developed for the Exhaust Louvre work in the WTH, using the Dean Street / Western Ticket Hall Exhaust System Schematic (C422-LAO-P-DDE-N105_Z-21700) provided by the contractor.



From the above 16 ductwork assets have been identified.

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The contractor is also advised that labelling needs to be carefully considered and that the number of labels needed is likely to be significant higher than the number of asset tags.

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
Cladding		CH			A description of the Cladding put none of not cladded
Cross Section		PD		Circular Flat Oval Rectangular	Description of the cross sectional shape
Duct Fire Rating		CH			Fire rating of ductwork (not fired rated or hours @ temperature for stability integrity and insulation)
Duct Material Type		CH			A description of the Duct Material Type
Insulated		PD		Yes No	Is the asset insulated
Length (Metres)	Metres	NU	2		The overall length of ducting in the ductwork asset
Pressure Category		PD		Low Medium High	Refer to DW/144
Sealant		CH			A description of the sealant used
System Use		CH			A description of the System Use
Thermal Insulation Type		CH			A description of the Thermal Insulation Type

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Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
Thickness (Millimetres)	Millimetres	NU	0		The thickness of the main duct material (gauge thickness)
Meterage (Metres)	Metres	NU	0		Meterage (Chainage) location of asset. To be populated only when the asset is located on track.
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)

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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
- DW144 – HVCA Specification for sheet metal ductwork;
- Asset Naming Convention Document - CRL1-XR1-Z3-ADDSD-CR001-50413

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8 Crossrail Technical Approvals

Name	Role	Date
[redacted]	Lead Mechanical & Electrical Plant (MEP) Engineer	19-Sep-2014

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