

City Airport Development Programme (CADP1)

Condition 70: Waste Management Strategy



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1 Introduction

1.1 The City Airport Development Programme (CADP1) planning application (13/01228/FUL) was granted planning permission by the Secretaries of State for Communities and Local Government and Transport in July 2016 following an appeal and public inquiry which was held in March/April 2016.

1.2 Condition 70 requires that:

'No Phase of the Development shall commence until a Waste Management Strategy for that Phase has been submitted to and approved in writing by the local planning authority. Each Waste Management Strategy shall seek to maximise the use of the River Thames and other waterways for the transport of waste materials from the Airport and shall be implemented on Commencement of the Development of the relevant Phase.'

Reason: To ensure that the Development accords with the aims and objectives of promoting the use of sustainable transport.'

1.3 The Airport submitted a Construction Phasing Plan to LBN pursuant to Condition 4 of the CADP1 permission in February 2017. It was proposed to build out CADP1 as a single uninterrupted period of construction over 5 years split into two distinct phases. Consistent with terminology used in the UES, the two phases were referred to as the 'Interim Works' and the 'Completed Works' – each delivering different parts of the CADP infrastructure. The Interim Works would be delivered first and would be immediately followed by the Completed Works. This Construction Phasing Plan was approved by LBN in March 2017 (ref. 17/00500/AOD) and the details pursuant to Condition 70 for the 'Interim Works' were also approved at the same time (ref. 17/00507/AOD).

1.4 Ahead of the commencement of construction of CADP1, the Airport's Delivery Partner have identified a number of programme efficiencies and improvements to the 5 year build which would reduce the duration of the construction programme by 14 months and deliver the full CADP1 infrastructure in an accelerated single phase (*2017 Accelerated Construction Phasing Plan*). The new *2017 Accelerated Construction Phasing Plan* has been submitted to LBN pursuant to Condition 4 under separate cover.

1.5 At the request of LBN Officers, new text added to the previously approved details (17/00507/AOD) has been distinguished in blue text in this document.

1.6 This submission seeks approval of details pursuant to Condition 70 for all of the approved CADP1 infrastructure to be delivered by the new *2017 Accelerated Construction Phasing Plan*.

1.7 As there are some common principles with Condition 60: Use of the River Thames for Construction, this Strategy should be read in conjunction with the separate report submitted to LBN to discharge that condition.

2 Overview of Waste Management Strategy

- 2.1 This document sets out the strategy for managing waste during the CADP1 works, which will follow the principles set out in the Waste Framework Directive (2008/98/ES) and other legislative and policy requirements listed in Annex 2.
- 2.2 Reduction of waste will be promoted, where practicable, at source through the careful design and management of materials. All Contractors will be required to investigate opportunities to minimise and reduce waste generation, such as:
- Agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme;
 - Implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste;
 - Attention to material quantity requirements, to avoid over-ordering and generation of waste materials;
 - Segregation of waste at source where practical; and
 - Reuse and recycling of materials off-site where re-use onsite is not practical (e.g. through use of an off-site waste segregation facility and re-sale for direct reuse or reprocessing).
- 2.3 Effective waste management will be facilitated through segregation and storage facilities being provided within the dedicated construction compound and lay down areas to the south of KGV dock (as shown in Annex 3) and within other working compounds in the West Service Yard (WSY).
- 2.4 Only in the last instance will material be sent to landfill, such as with non-treatable hazardous waste.

Tools and Methods for Construction Waste Management

- 2.5 As described below, LCA will adopt best practice by implementing a Site Waste Management Plan (SWMP), which will be used to satisfy Condition 70, in order to successfully manage; record and identify potential reductions in the waste during construction of CADP1. The SWMP will evolve during the delivery of CADP1.
- 2.6 DEFRA's Non-statutory guidance for SWMP (2008) recommends the adoption of such a plan to achieve two key principles:
- 'A). improving materials resource efficiency, by promoting the economic use of construction materials and methods so that waste is minimised and any waste that is produced can be re-used, recycled or recovered in other ways before disposal options are explored; and*
- B). reducing fly-tipping, by restricting the opportunities available for the illegal disposal of waste by ensuring compliance with existing legal controls and providing a full audit trail of any waste that is removed from the construction site.¹*
- 2.7 This in turn will ensure any subsequent waste management method prescribed in the SWMP allows for a BATNEEC approach i.e. Best Available Technique Not Entailing Excessive Cost.
- 2.8 For instance, the management of waste arising from the sediments removed from the base of King George V Dock during piling will need careful attention and specialist equipment because this will take place in a marine environment. Moreover, the sediment material may be contaminated to some degree

¹ <http://webarchive.nationalarchives.gov.uk/20130123162956/http://archive.defra.gov.uk/environment/waste/topics/construction/pdf/swmp-guidance.pdf>

due to the industrial history of the Dock. Therefore, the following steps will be taken to ensure the safe removal and disposal of this material (pending appointment of a Contractor). This replicates the approach that was successfully used in the construction of the Eastern Apron in 2007/2008.

- 1 The Contractor will ensure that when purging pile casings of water (which will be pumped back into the dock) that care is taken not to disturb the underlying sediments;
 - 2 As the water level reaches the base of the pile casing, a separate pump will be installed to suck up the soft silt materials and these will be pumped into a barge or directly to the landside construction compound. The appointed Contractor may install a filter system which collects the silt materials and pumps excess water back into the dock;
 - 3 The sediment will be left to settle and dry out in a designated and bunded area on the Dockside OR in a dedicated stationary barge;
 - 4 Waste Acceptance Criteria (WAC) testing will be completed at regular occasions and also when the sediment shows any visual or olfactory evidence of contamination (e.g. sulphurous smells or oil sheens etc);
 - 5 Any contaminated material will be segregated for off-site disposal and such material may need to be transported by road for any significantly contaminated material to avoid potential cross contamination with a body of water; unless transported in completely sealed containers where practical;
 - 6 Excavated sediment will be kept separate from the landside excavated spoil;
 - 7 When sufficient quantities of waste silts have accumulated (i.e. to fill a barge) this will be sent by river to an appropriately licensed waste disposal site or recycling facility; and
- 2.9 Waste transfer notes and other records will be maintained by the Contractor in accordance with legal requirements.

3 Site Waste Management Plan Approach

Responsibility and Accountability of the SWMP

- 3.1 LCA will be responsible for implementing the SWMP and ensuring that the SWMP is updated as works progress, with the Contractor being accountable to ensure all associated construction activities are in line with the requirements of the SWMP.
- 3.2 The core principles of the SWMP, as outlined in this Waste Management Strategy, will apply throughout all parts of the CADP1 works. The SWMP will then be updated when necessary by the appointed Contractors, in order to address any specific requirements and/or types of construction waste (e.g. from demolition, landside excavations and construction, and dock piling etc.).
- 3.3 Specific requirements and responsibilities of the SWMP are listed below, based on the guidance provided by Non-statutory Guidance for Site Waste Management Plans (DEFRA, 2008).
- 3.4 A template of a SWMP is in Annex 3.

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- 3.5 LCA and its consultants (RPS and TPS) have previously estimated the approximate amount and types of waste generated by the whole CADP. These figures were detailed in Chapter 15: Waste, of the Updated Environment Statement (UES). The targets outlined in Section 4 below are based on this initial waste study and the success of SWMP will be measured against these targets. However, as the SWMP will be a live document, estimates will be reassessed against actual quantities and refined where necessary by the Contractor in-conjunction with LCA. The overall percentage targets in this Waste Management Strategy (see Chapter 4) will not be reduced as part of this process, but these could be increased if more proactive measures to reduce, re-use and recycle waste are identified once the Contractor is on board.

The Contractor

- 3.6 The Contractor will be responsible to make subsequently appointed sub-contractors aware of the SWMP and associated targets outlined in this Strategy. This includes the archiving of all relevant waste documentation related to the phase in question which can then be made available for auditing at the request of the LCA and/or LBN; this is detailed further in Chapter 5.
- 3.7 As with LCA, the Contractor is responsible for engaging in the review of the SWMP.

Stakeholder and Regulator Engagement

- 3.8 The Contractor of the phase in question will be required to liaise with stakeholders and statutory regulators for waste, where applicable. In addition, LCA will be involved in these discussions where required.

4 Phasing and Associated Targets

- 4.1 This section is predicated by the 'Assessment of Likely Significant Effects' for waste as set out in the UES Chapter 15 (p18, paragraph 15.95). This section of the UES compared the predicted volumes of waste to be generated during the demolition, piling and earthworks and construction phases of the development against baseline conditions (i.e. annual quantities of operational waste from the Airport). Targets presented in this Waste Management Strategy are based on the predicted waste volumes detailed in this section of the UES.
- 4.2 The only significant wastes from the CADP1 works will come from:
- Excavation of the basement for the West Energy Centre (WEC) and flood attenuation tanks installed near the West Terminal Extension (WTE);
 - Arisings from the piles beneath the WTE, WEC, East Terminal Extension (ETE), East Energy Centre (EEC) and Decked Car Park and within the Dock
 - Excavation of pavements and necessary re-grading for forecourt reconfiguration, car parking, car hire parking and taxi feeder park.
- 4.3 There will also be some demolition waste from the removal of the single 'Dolphin' structure and from the cutting down the Dock. Other wastes will comprise 'typical' inert construction materials (e.g. timber, asphalt, glass, concrete etc.).

Key Areas of Significance

- 4.4 Three distinctive sources of 'significant' waste were identified in Chapter 15 of the UES. For the purpose of this Waste Management Strategy, in order for it to form an overarching and evolving document, these waste sources are the focal points of the Strategy which will then be added to in the SWMP for particular construction activities.
- 4.5 These three sources during the CADP1 works are as follows:

A) Site preparation/enabling works (demolition)

Removal of pavements and necessary re-grading.

Removal of one of the dolphin structures and break away of the dock wall.

B) Piling and earthworks

General site excavations, piling in the Dock, construction of foundations of the WTE, WEC, ETE and EEC including pile arisings, excavations for drainage runs, oil separators and AGL ducting and pits.

C) Construction waste

The majority of this waste will be generated from off-cuts of fitting materials, spent materials and packaging and will typically comprise materials such as concrete, metal, timber, glass and plastic.

- 4.6 With the input of the Contractor, these waste streams will be further broken down to reflect operational requirements and other guiding factors within the SWMP.

Targets

- 4.7 LCA, through this Strategy, has set out targets for the management and recycling of the above wastes for the period of the [CADP1 works](#) (and CADP 1 as a complete project) which will be achieved through the implementation of the SWMP. Achieving these targets is the responsibility of LCA with progress being reported annually.
- 4.8 In addition, as set out in Section 1, both this condition (70) and condition 60 require a strategy for maximizing the use of the River Thames for transporting materials (including waste). Full details on the method and execution of this strategy will be included in appropriate Construction Method Statements (CMS) that will be produced once a Contractor is appointed.

A) Site preparation/enabling works (demolition)

Target Ref	Target
SP1	Where possible, provide on-site processing of demolition materials in order for them to be reused as part of CADP. Consideration must be given if any such processing activities could cause noise impacts e.g. crushers. At least 10% of material should be reused in this way.
SP2	Processing demolition waste at off-site facilities as detailed in the regional Joint Waste Development Plan Document ² for use in other development projects. Such off-site facilities include other local developments or local mineral processing sites. Consideration should especially be given to sites whereby waste can be transported by the River Thames. At least 70% of material should be reused in this way.

B) Piling and earthworks

Target Ref	Target
PE1	15% of clean earthworks, excavation and piling spoil to be re-used as engineering fill off site.
PE2	15% of clean earthworks, excavation and piling spoil to be re-used as engineering backfill on site as part of CADP.
PE3	All clean earthworks excavation and piling, which are not reused as backfill on site, needs to be transported through the River Thames network.

C) Construction

Target Ref	Target
C1	For the Contractor to provide suitable site induction, information and training for employees and sub-contractors that is specific to this development.
C2	90% of waste material is to be re-cycled, re-used or otherwise diverted away from landfill.
C3	Agreement with suppliers for a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste.
C4	Agreement with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme.
C5	During the procurement of materials; where possible, ensure they are sustainably and locally sourced.

² Further explanation in Annex 1.

5 Checking and Reporting

5.1 In order to ensure the SWMP operates as intended, assurance audits will be carried out by LCA and recorded as part of LCA's Environment Management System (EMS). The Contractor is also required to undertake its own audits and checking.

5.2 Requirements and responsibilities for each party are described below:

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5.3 It is the responsibility of LCA to undertake periodic checking to ensure that, in the first instance, the SWMP has been implemented and disseminated to all Contractors and associated staff. This includes but is not restricted to:

- Copies of training materials used in site inductions;
- Training records;
- Regular dialogue with the responsible person for the management of the SWMP (on behalf of the Contractor) to understand how the SWMP has been implemented and how waste management techniques have been employed on site; and
- Assurance audits against the requirements as denoted in this Waste Management Strategy and the SWMP.

5.4 LCA will feedback potential weakness or deficiencies as part of the assurance audit process to the Contractor, so that any necessary changes can be implemented against a prescribed timescale. All assurance audits will be recorded using the process identified in the airports EMS³.

5.5 LCA will undertake a physical examination of the following elements related to the SWMP:

- Consignment notes related to all waste produced, transported or processed as part of the project;
- Evidence of Waste Carrier, Duty of Care and other applicable waste documentation required by law (including those associated to nominated disposal depots and/or sites);
- Visual inspection of on-site and off-site waste facilities and the promulgation of the targets set out in this Strategy; and
- Check adequate monitoring data associated to the SWMP is being kept and reported in a reasonable time frame.

5.6 It will be the responsibility of LCA, through the undertaking of these assurance audits, to report any identified non-compliances as a result of the Contractor's (and by definition their sub-contractors) actions to the relevant regulatory body.

Contractor

5.7 It is the responsibility of the Contractor that all items detailed above are kept up to date and made available on request by either the LCA or a regulatory authority such as LBN.

5.8 The Contractor will have in place internal systems for checking and auditing practices related to Health, Safety and Environment. Such procedures should include the auditing of the SWMP as well as efforts made towards the achievement or exceedance of the targets detailed in this strategy.

³ EMP4.5.5 EMS Internal Audits

5.9 It is the responsibility of the Contractor to:

- Report on progress of the targets within this Strategy and any other targets bestowed through the SWMP or subsequent audits (including LCA and regulatory assurance audits);
- Highlight any concerns or issues to which they are aware to LCA, which may prevent such targets from being met, even if such issues have not been identified through the clients auditing and checking regime; and
- To provide an open book appraisal of the SWMP to LCA or regulatory body on request.

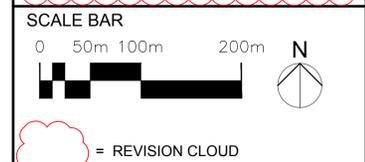
Annex 1: Extent of CADP1 Works

Note:
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- All information shown outside the Proposal Boundary is for illustrative purposes only.
- Base building survey information by LCY and MSA
- Access Roads and Parking Areas detail approved pursuant to Condition 73

REVISION NOTES:

- West Pier updated to show 'as-built' under Permitted Development
- Revised Eastern Terminal Extension
- Revised forecourt configuration
- Revised Western Terminal Extension and Service Yard



- LEGEND**
- EXISTING BUILDINGS
 - PROPOSED BUILDINGS
 - OUTLINE OF WORKS OVER DOCK
 - EXISTING DLR VIADUCT
 - PROPOSED DEVELOPMENT BOUNDARY LINE

B	ER	16.08.17	Issued for Planning
Previously issued as LCY P+W 4486 B SI20002			
A	SW	16.06.15	Issued for Planning Appeal
-	MN	01.07.13	Issued for Planning
Rev	Dm	Date	Description

FOR INFORMATION



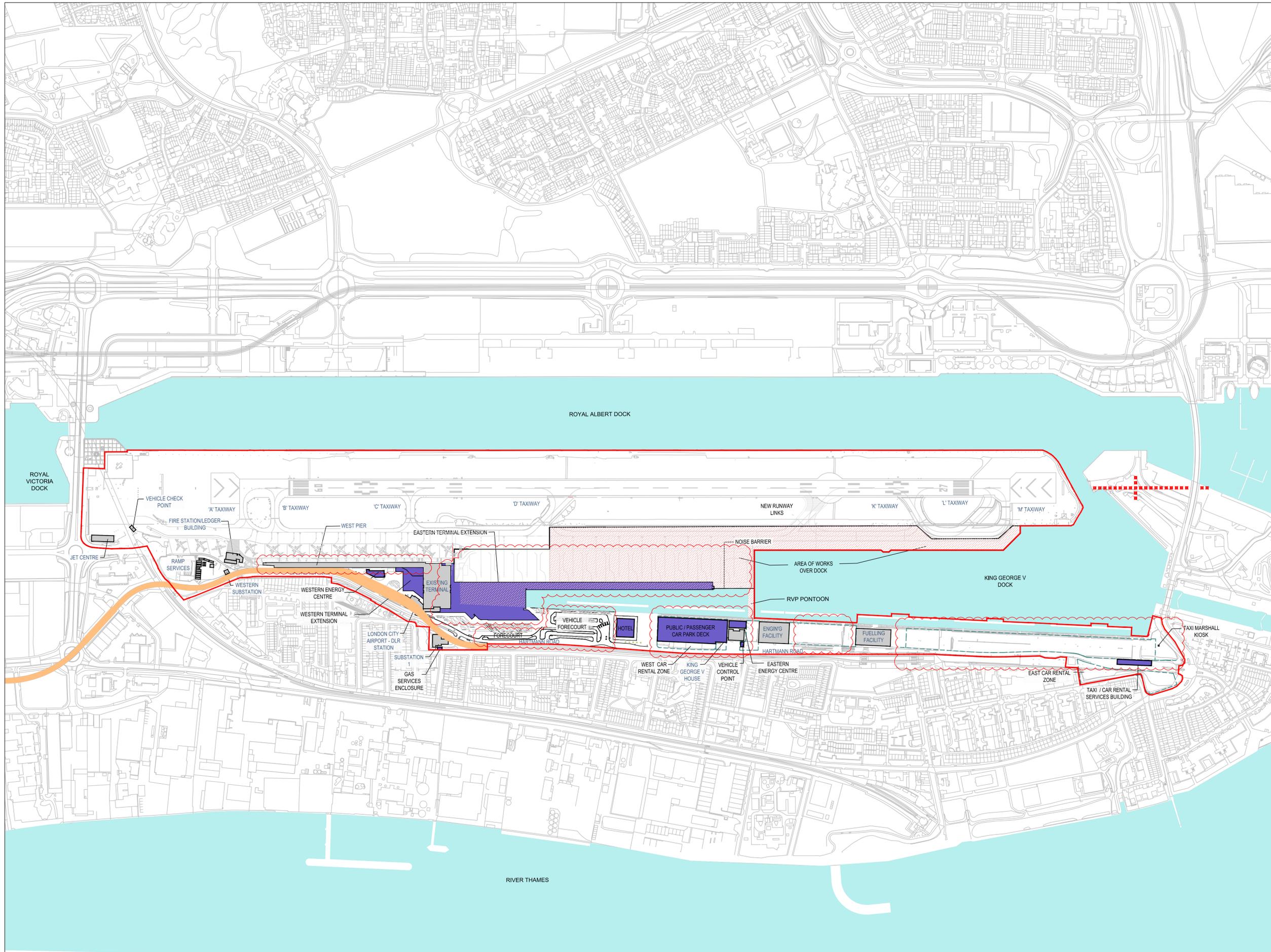
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Client:
LONDON CITY AIRPORT
 Project Name:
CITY AIRPORT DEVELOPMENT PROGRAMME

Title:
4.0 ILLUSTRATIVE SITE PLAN

Discipline	Project Phase		
Architecture	PLANNING		
Drawing Originator	Originator's Job No.		
Pascal+Watson architects	4486		
Checked By	Checked Date	Drawn By	Drawn Date
SW	16.08.2017	ER	16.08.2017
Approved By	Approval Date	Scale	
MN	16.08.2017	1:3500 @ A1	
Building Grid Reference			
SITE			

Proj. Code	Orig.	Disc.	Zone	Level	Type	Subtype	Org. Series/No.	Rev.	Status
A400PAW	A	14	XXX	DR	GA	900-002	B	S2	



1 PROPOSED SITE PLAN
 1:3500

Annex 2: Legislative, National and Local Policy context

This section sets out the legal and policy background that the Waste Management Strategy for the construction of CADP will adhere to.

EU legislation

The EU Waste Framework Directive (2008/98/EC) provides the overarching legislative framework for the collection, transport, recovery and disposal of waste, and includes a common definition of waste. It encourages the prevention and reduction of harmful waste by requiring that Member States have control regimes in place. This Directive repealed Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste (the codified version of Directive 75/442/EEC as amended), the Hazardous Waste Directive 91/689/EEC, and the Waste Oils Directive 75/439/EEC.

Waste is defined under the Article 3.1 of the Directive as any substance or object which the holder discards intends to discard or is required to discard

The Waste Framework Directive introduced the “waste hierarchy” (Figure 15.1), which sets out five steps for dealing with waste, ranked according to environmental impact. The hierarchy requires prevention of waste generation in the first instance and reducing, as far as possible, the volume requiring disposal once the waste has been produced.



Figure 1 - The Waste Hierarchy (EU Waste Framework Directive 2008/98/EC)

The EC Landfill Directive (1999/31/EC) aims to prevent; or reduce as far as possible, negative effects on the environment from the landfilling of waste. Under this legislation, waste is generally subdivided into four broad categories – municipal, inert, non-hazardous and hazardous, as described below:

- a) *Municipal waste means waste from households, as well as other waste which, because of its nature or composition, is similar to waste from households.*
- b) *Inert waste does not undergo any significant physical, chemical or biological transformations (e.g. brick, concrete and glass). Demolition, piling, earthworks and construction waste produced by the proposed CADP will be predominantly inert in nature.*
- c) *Hazardous waste means any waste which is covered by Article 1(4) of Council Directive 91/689/EEC of 12 December 1991 on hazardous waste (replaced by 2008/98/EC) and has*

properties which are considered harmful to human health and/ or the environment (e.g. some remedial waste, asbestos, batteries and fluorescent tubes). Hazardous waste will comprise the smallest proportion of waste produced from the proposed CADP.

d) Non-hazardous waste is any waste not covered by c). It may be reactive but is not considered harmful to human health and/ or the environment (e.g. organic matter in general waste).

The Directive sets out three different types of landfills, those for hazardous waste, non-hazardous waste and inert waste. Hazardous waste must be deposited only in a hazardous waste landfill, inert waste landfills may only accept inert waste and the Directive states that a non-hazardous waste landfill must be used for municipal and non-hazardous waste.

National Legislation

The Waste (England and Wales) (Amendment) Regulations (2014) classifies waste as industrial, commercial or household waste and also provides information for local authorities on whether they can charge for the collection and disposal of individual waste types.

The Environmental Protection Act (EPA) (1990) addresses areas of significant environmental concern including waste disposal. Waste management issues are considered under Part II of the EPA. Controlled waste includes commercial, industrial (including agricultural waste from 2006) and household waste. Under the EPA, the deposition of waste to land without a licence or breaching licence conditions is an offence. The EPA is also designed to prevent environmental pollution or harm to human health by prohibiting treatment, storage and disposal of controlled wastes without a licence or in breach of a licence.

The Environmental Permitting (England and Wales) Regulations 2010 (as amended in 2015) introduced a new streamlined system of environmental permitting in England and Wales for certain installations, waste operations and mobile plant. Activities under these regimes are covered by a single form of Environmental Permit governed by one set of regulations. This provides a system for environmental permits and exemptions for industrial activities, mobile plant, waste operations, mining waste operations, water discharge activities, groundwater activities and radioactive substances. It also sets out the powers, functions and duties of the regulators. Notably, the requirements of the Landfill Directive and Waste Management Licensing are applied under these regulations. These regulations would be relevant during the construction phase of the proposed CADP.

The Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991 (as amended 1998) introduced a registration system for carriers of controlled waste, whereby all waste to be transported off-site must be disposed of by registered waste carriers, using vehicles licensed for the transport of waste, and taken to an appropriately licensed waste management facility. Furthermore, the Control of Pollution (Amendment) Act (1989) requires carriers of controlled waste to register with the Environment Agency (EA) and outlines the penalties (including seizure and disposal) for vehicles shown to have been used for illegal waste disposal. The Controlled Waste (England & Wales) Regulations (2012) define household, industrial and commercial waste for the purposes of Part 2 of the EPA.

The above policies and statutes link closely with the Environmental Protection (Duty of Care) Regulations (1991), which require any organisation disposing of waste to be able to account for all of its waste and demonstrate that disposal was carried out legally.

The Site Waste Management Plans Regulations (2008) were repealed on the 1st of December 2013 by The Environmental Noise, Site Waste Management Plans and Spreadable Fats etc. (Revocations and Amendments) Regulations 2013. The Site Waste Management Plans Regulations (2008) aim was to make the construction industry more sustainable by ensuring that those responsible for development projects are

aware of the waste being produced so that it can be reduced. These regulations made it an offence to fail to prepare and implement a Site Waste Management Plan (SWMP) for certain construction projects that have an estimated cost of more than £300,000 (excluding VAT). Although no longer required by legislation, it is recognised that an SWMP could support the identification of actions to minimise construction waste from the CADP being sent to landfills. Accordingly, a project specific SWMP will be implemented by the Contractor as an internal waste management and monitoring tool, and as a means of implementing best practice.

The Landfill (England and Wales) Regulations (2002) (amended in 2005) required a reduction of biodegradable waste sent to landfill. These regulations implemented the EC Landfill Directive, detailed above, which aimed to prevent, or reduce as far as possible, negative effects on the environment from the landfilling of waste by introducing stringent technical requirements for waste and landfills. This Act was repealed in 2007 by the Environmental Permitting (England and Wales) Regulations 2007. The Landfill (Maximum Landfill Amount) Regulations 2011 specify the maximum amount of biodegradable municipal waste that can be sent to landfill sites within the United Kingdom in each target year.

New definitions for hazardous waste and non-hazardous waste are given by the Hazardous Waste (England and Wales) Regulations (Amended 2009). These regulations aim to track and control hazardous waste movements. Under these regulations, a consignment note is required prior to the removal of any waste and a waste producer who produces over 500kg of hazardous waste a year must notify the EA.

The Contaminated Land (England) Regulations (2012) set out provisions relating to the identification and remediation of contaminated land. These regulations also determine sites which require regulation as 'special sites' and include land contaminated by radioactive substances in this classification.

The Environment Act (1995) requires provision of appropriate waste disposal technologies and the prevention or reduction of waste through reuse, recycling and the use of waste as an energy source.

The Producer Responsibility Obligations (Packaging Waste) Regulations 2007 as amended apply to businesses that handle more than 50 tonnes of packaging or packaging materials a year and have an annual turnover of more than £2m per financial year. The aim is to require 'producers' of packaging waste to meet packaging waste recycling and recovery targets.

The Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 aim to reduce the volume of WEEE waste being taken to landfill sites by allowing separate collection, recovery, treatment, recycling and safe disposal of the waste. Producers of electrical and electronic equipment (EEE) are required to join schemes responsible for financing and ensuring WEEE is treated at an authorised facility. The producers and distributors of EEE are also required to make sure household WEEE products can be returned free of charge and treated in an appropriate way

The Waste Batteries and Accumulators Regulations (2009) set out requirements for waste battery collection, treatment, recycling and disposal for all battery types. The National Planning Policy Framework (NPPF, 2012) sets out the Government's planning policies for England and how these will be applied.

The framework does not contain specific waste policies, as these have been included as part of the National Waste Management Plan for England published on the 12th of December 2013 and the National Planning Policy for Waste published in October 2014.

The National Planning Practice Guidance (NPPG) was launched on the 6th of March 2014 and provides a web-based resource in support of the NPPF. The NPPG includes guidance for Local Authorities to ensure they have regard to national planning policy for waste and help to deliver the Waste Hierarchy, including inter alia:

- a) *Integrating local waste management opportunities in proposed new development;*

- b) *Considering, where relevant, the likely impact of proposed, non-waste related development on existing waste management sites and on sites and areas allocated for waste management;*
- c) *Promoting sound management of waste from any proposed development, such as encouraging on-site management of waste where this is appropriate, or including a planning condition to encourage or require the developer to set out how waste arising from the development is to be dealt with; and*
- d) *Including a planning condition promoting sustainable design of any proposed development through the use of recycled products, recovery of on-site material and the provision of facilities for the storage and regular collection of waste.” (Paragraph ID: 28-010-20141016)*

The Waste Management Plan for England (WMPE) (2013) supersedes The Waste Strategy (2007), and meets the requirements of Article 28 of the revised Waste Framework Directive (WFD) 2008/98/EC, Waste management plans, as well as other required content set out in Schedule 1 of the Waste (England and Wales) (Amendment) Regulations (2014). The WMPE meets the specific requirements under Article 28 of the revised WFD.

Planning Policy Statement 10 (PPS10): Planning for Sustainable Waste Management (revised March 2011), has been superseded by the National Planning Policy for Waste (NPPW), published in October 2014. The NPPW outlines the national planning policy aimed at ensuring the sustainable management of waste. It considers the role of local planning authorities in ensuring that all development is designed to take account of waste arising. All new development should complement sustainable waste management and include the provision of appropriate storage and segregation facilities to facilitate high quality collections of waste.

The main objective of Government policy on sustainable waste management is to protect human health and the environment by producing less waste and by using waste as a resource wherever possible. This means a step-change in the way waste is handled and significant new investment in waste management facilities. The planning system is pivotal to the adequate and timely provision of the new facilities that will be needed.

Where there is residual waste, this should be managed in line with the principles of the waste hierarchy, and be disposed of in one of the nearest appropriate installations to minimise environmental impacts and actively contribute to the social and economic goals of sustainable development. The disposal of waste in one of the nearest appropriate installations encourages the management of waste close to its place of generation, thus reducing the impacts of transporting waste over long distances and promoting management of the waste within its region of origin. It is also recognised that the movement of waste across regional boundaries is an option where this meets other objectives (e.g. movement of waste up the hierarchy) or is otherwise considered appropriate in planning terms.

The UK Sustainable Development Strategy (March 2005) builds upon the 1999 strategy with a more explicit focus on environmental limits and contained four agreed priorities including sustainable consumption and production, climate change, natural resource protection and sustainable communities. Part of the strategy involved undertaking a review of the waste strategy, with increased emphasis on reducing waste at source and making use of it as a resource.

The Strategy for Sustainable Construction (2008) aimed to deliver the policies set out in the UK's Sustainable Development Strategy. It is a joint industry and government initiative and is intended to promote leadership and behavioural change, as well as delivering benefits to both the construction industry and the wider economy. The strategy aimed to reduce construction, demolition and excavation waste to landfill by 50% by 2012, compared to 2008 levels.

Regional Planning Policy

The London Plan (2015) was introduced by the Mayor and the Greater London Authority in 2004 and is a strategic plan setting out an integrated social, economic and environmental framework for the future development of London. The London Plan states that the Mayor is committed to a policy framework for waste management which starts from the position that the best approach is to reduce the amount of waste that arises in the first place. Where this is not possible, he supports an approach based on the waste hierarchy. The Mayor believes that making better use of waste has a major role to play in tackling climate change and that London's waste is potentially a valuable resource that can be exploited for London's benefit and not solely a disposal problem. London should manage as much of the capital's waste within its own boundaries as practicable, enabling London and Londoners to receive environmental and economic benefits from its management.

The plan states that increasing London's waste processing capacity is a major mayoral priority. The Mayor will work with all parties to achieve this. Through the London Waste and Recycling Board (LWaRB), he will collaborate with boroughs and other partners to make the capital a global beacon of best practice in waste management.

A number of specific policies within the plan relate to waste and these are summarised below:

Policy 5.16 (Waste Net Self-Sufficiency) of the plan states that the Mayor will work with London boroughs and waste authorities, the LWaRB, the Environment Agency, the private sector, voluntary and community sector groups, and neighbouring regions and authorities to: manage as much of London's waste within London as practicable, working towards the equivalent of 100 per cent of London's waste within London by 2026; create positive environmental impacts from waste processing and work towards zero biodegradable or recyclable waste to landfill by 2026.

The London Plan sets out a number of strategies for achieving the targets of Policy 5.16, including:

- a) *Minimising waste;*
- b) *Encouraging the reuse of and reduction in the use of materials;*
- c) *Exceeding recycling/ composting levels in municipal solid waste (MSW); exceeding recycling/composting levels in local authority collected waste (LACW) of 45 per cent by 2015, 50 per cent by 2020 and aspiring to achieve 60 per cent by 2031;*
- d) *Exceeding recycling/ compositing levels in commercial and industrial (C&I) waste of 70% by 2020;*
- e) *Exceeding recycling and reuse levels in construction, excavation and demolition (CE&D) waste of 95 per cent by 2020;*
- f) *Improving London's net self-sufficiency through reducing the proportion of waste exported from the capital over time; and*
- g) *Working with neighbouring regional and district authorities to coordinate strategic waste management across the greater south-east of England.*

Policy 5.17 (Waste Capacity) states that the Mayor supports the need to increase waste processing capacity in London. He will work with London boroughs and waste authorities to identify new opportunities for introducing new waste capacity, including strategically important sites for waste management and treatment, and resource recovery parks/ consolidation centres, where recycling, recovery and manufacturing activities can co-locate. The London Plan sets out planning policy for achieving the increase in waste capacity and states that the following will be supported:

- a) *Developments that include a range of complementary waste facilities on a single site;*
- b) *Developments for manufacturing related to recycled waste;*
- c) *Developments that contribute towards renewable energy generation, in particular the use of technologies that produce a renewable gas; and*
- d) *Developments for producing renewable energy from organic/ biomass waste.*

Policy for preparation of Local Development Frameworks (LDFs) is also included within Policy facilities to manage the tonnages of waste apportioned to them in the Plan. Boroughs may achieve this in collaboration by pooling their apportionment requirements. Land to manage borough waste apportionments should be brought forward through:

- a) *Protecting and facilitating the maximum use of existing waste sites;*
- b) *Identifying sites in strategic industrial locations, particularly waste transfer facilities and landfill sites;*
- c) *Identifying sites in locally significant employment areas;*
- d) *Safeguarding wharves with an existing or future potential for waste management.*

Policy 5.18 (Construction, Excavation and Demolition Waste) relates specifically to construction, excavation and demolition (CE&D) waste and states that new CE&D waste management facilities should be encouraged at existing waste sites, including safeguarded wharves, and supported by: Policy 5.18 also states that LDFs should require developers to produce site waste management plans to arrange for the efficient handling of CE&D waste and materials.

- a) *Using mineral extraction sites for CE&D recycling; and*
- b) *Ensuring that major development sites are required to recycle CE&D waste on-site, wherever practicable, supported by planning conditions;*

Waste should be removed from construction sites, and materials brought to the site, by water or rail transport wherever practicable.

With regard to CE&D waste and materials, the London Plan states that a combination of on-site mobile facilities on construction sites, effective use of existing waste processing sites and, where appropriate, safeguarded wharves, and the provision of recycling facilities at aggregate extraction sites, should be capable of meeting the anticipated requirement within London to achieve a more beneficial re-use of this material.

Policy 5.19 (Hazardous Waste) states that the Mayor has prepared a Hazardous Waste Strategy for London and will work in partnership with the boroughs, the Environment Agency, industry and neighbouring authorities to identify the capacity gap for dealing with hazardous waste and to provide and maintain direction on the need for hazardous waste management capability. The policy states that LDFs should:

- a) *Make provision for hazardous waste treatment plants to achieve, at regional level, the necessary waste management requirements;*
- b) *As part of meeting waste apportionment identify suitable sites for the storage, treatment and reprocessing of relevant or a range of hazardous waste streams; and*
- c) *Identify sites for the temporary storage, treatment and remediation of contaminated soils and demolition waste during major developments.*

Policy 5.20 (Aggregates) states that the Mayor will work with all relevant partners to ensure an adequate supply of aggregates to support construction in London. This directly relates to the policies on waste, set out above, since the Mayor plans to achieve this in part by encouraging reuse and recycling of CD&E waste within London and to use 80% of this recycled material as aggregates by 2020.

The London Plan Implementation Plan (January 2013) provides further detail on how the targets set out in the London Plan will be achieved. Relating to waste, the London Plan Implementation Plan recognises the need for significant investment in infrastructure and sets out a number of potential options for funding the future expansion of waste management capacity in London.

LBN has prepared a Core Strategy (2012) to form the overarching development plan in the Local Development Framework (LDF). The strategy sets out long-term spatial vision and policies for the borough. Notably, policy SC1 (climate change) lists measures to mitigate and adapt for climate change, which include “reusing and recycling waste arising from demolition and construction, and utilising materials produced and/or sourced locally”.

Local Planning Policy

Policy INF3 (Waste and Recycling) of the Core Strategy sets out the objective to manage Newham’s waste in accordance with the waste apportionment set out in the London Plan (2011) and the aim of moving from landfill to waste minimisation by moving up the waste hierarchy.

LBN is producing a Local Plan (formerly called the Local Development Framework) for Newham that will include the Core Strategy and eventually replace the Unitary Development Plan (UDP). A number of policies from the UDP have been saved and are currently used to inform planning decisions. This includes the objective to promote clean, efficient and effective waste management, including waste minimisation and the recycling of materials in new development.

In accordance with Policy 5.17 of the London Plan, the East London Waste Authority (ELWA), boroughs of Barking and Dagenham, Havering, Newham and Redbridge, have produced a Joint Waste Development Plan Document (JWDPD) for these boroughs. The purpose of the document is to set out a planning strategy to 2020 for sustainable waste management, which enables the adequate provision of waste management facilities (including disposal) in appropriate locations for municipal and commercial and industrial waste, having regard to the London Plan Borough level apportionment. Construction, excavation and demolition and hazardous wastes are also covered by the JWDPD. The JWDPD forms part of the LDF for each borough and helps deliver the relevant elements of the Sustainable Community Strategy for each borough. The JWDPD was adopted by the London Borough of Newham in February 2012.

Guidance

The Waste & Resources Action Programme (WRAP) assists the UK Government to meet national and international commitments and to support resource efficiency in the UK. This is achieved by helping businesses and individuals within the UK to benefit from reducing waste, develop sustainable products and use resources in an efficient way. WRAP provides guidance to the construction industry on the use of Site Waste Management Plans, use of materials, and resource efficient construction.

Contaminated Land: Applications in Real Environments (CL:AIRE) is an independent, non-profit organisation that aims to encourage the sustainable remediation of contaminated land and groundwater throughout the UK for effective social and economic use. This is achieved by increasing awareness and confidence in practical, sustainable remedial solutions.

CL:AIRE introduced The Definition of Waste: Development Industry Code of Practice (DoWCoP), an initiative to improve the sustainable and cost effective development of land. The DoWCoP provides a clear, consistent and streamlined process which enables the legitimate reuse of excavated materials on-site or their movement between sites with a significantly reduced regulatory burden. In many instances the DoWCoP can provide an alternative to Environmental Permits or Waste Exemptions when seeking to reuse excavated materials.

The DoWCoP enables the direct transfer and reuse of clean naturally occurring soil materials between sites. It creates the conditions to support the establishment and operation of fixed soil treatment facilities, which have a key role to play in the future of sustainable materials management. It allows the reuse of both contaminated and uncontaminated materials on the site of production and between sites within defined Cluster projects.

The DoWCoP requires a staged approach which includes the production of a Materials Management Plan for the reuse or movement of material. This must be signed off by a “Qualified Person” as set out in the Code. The DoWCoP has allowed the Environment Agency to step back from the detailed auditing and quality assurance of many earthworks projects which pose little or no risk to the environment. In establishing a role for a “Qualified Person” the Environment Agency has enabled the private sector to step up and take responsibility for implementing good practice and promoting sustainable materials management.

CL:AIRE is keeping a register of materials and services which fall within the DoWCoP. This aims to link material holders with service providers or organisations requiring materials in order to make the process of finding project partners more efficient.

The Building Research Establishment (BRE) is a provider of expert, impartial research, knowledge and advice for the built environment sector and beyond. It provides guidance on reducing and managing construction waste.

London City Airport Waste Policy

LCA’s waste practices are managed and monitored through its Environmental Management system (EMS) accredited to ISO14001 standards.

The EMS implements a number of high level waste targets, these are further established within the Sustainability Strategy and Sustainability Action Plan (2012) (the “Airport Sustainability Strategy”) progress on such targets are reported annually through the Annual Performance Report

Airport ensures that suppliers comply with its sustainability objectives through contractual mechanisms and has developed a system for monitoring and checking performance as part of the EMS audit process, with an aim of annual improvement. The practical implementation of these objectives with regard to waste for the Airport as a whole, as presented in the Airport Sustainability Strategy , includes:

- a) Prevention - The careful design of enabling and earthworks activities to achieve (where possible) a neutral cut and fill balance, thereby reducing the potential to generate excess spoil requiring removal from site during construction works. Construction activities and the ordering of materials will be planned to minimise waste including packaging. Adoption of best practice construction methods and consultation with the Waste and Resources Action Programme (WRAP) will ensure waste minimisation.*
- b) Preparation for Re-use - Efforts will be made to reuse materials during all developments at the Airport. The reuse of material through a waste inventory will be encouraged; for example,*

whole units, materials, fabrics and components could potentially be reused elsewhere at the Airport, or sold locally.

c) Recycling - Waste from demolition, construction and operational activities which is not suitable for reuse will be sent to an appropriate Material Recycling Facility (MRF). All workers will be actively encouraged to recycle and this will be monitored accordingly.

d) Other Recovery - Food waste will be sent to a composting facility or anaerobic digestion plant, where available. Waste remaining after being sent for recycling, composting and to anaerobic digestion plants (i.e. residual waste) could also be sent to an Energy from Waste (EfW) facility for energy recovery.

e) Disposal - Only in the last instance will material be sent to landfill (e.g. non-treatable hazardous wastes).

Annex 3: Example Site Waste Management Plan (SWMP) Pro-forma

Site Waste Management Plan

NB. Information highlighted in grey is required only for projects exceeding £500k in value.

Responsibility

Name of client	
Name of principal contractor	
Name of person who drafted plan	
Notes, amendments	

Construction Project

Location (address, postcode if appropriate)	
Estimated project cost	
Notes, amendments	

Materials Resource Efficiency

Describe here any methods adopted during the conception, design and specification phase to reduce the amount of waste arising.	
Method	Resource saving (quantify if possible)

Waste Management

Declaration
The client and principal contractor will take all reasonable steps to ensure that – (a) all waste from the site is dealt with in accordance with the waste duty of care in section 34 of the Environmental Protection Act 1990 and the Environmental Protection (Duty of Care) regulations 1991; and (b) materials will be handled efficiently and waste managed appropriately.
Signatures

Waste type	Quantity (m3 or tonnes)							
	Re-use on-site	Re-use off-site	Recycling on-site	Recycling off-site	Other form of recovery on-site	Other form of recovery off-site	Sent to landfill	Other disposal
<i>Estimates</i>								
Inert								

Non-hazardous								
Hazardous								
Totals (m3 or tonnes)								
<i>Actual</i>								
Inert								
Non-hazardous								
Hazardous								
Totals (m3 or tonnes)								
Difference between estimates and actual								

Waste Records

Date removed	Waste type	Identity of the person removing the waste	Site the waste is being taken to and whether licensed or exempt	Waste carrier and registration number*	Confirmation of delivery*

* Evidence of waste carrier registration and waste transfer or hazardous waste consignment notes for each removal of waste should be provided either as part of the plan, or filed and cross-referenced.

Post-Construction

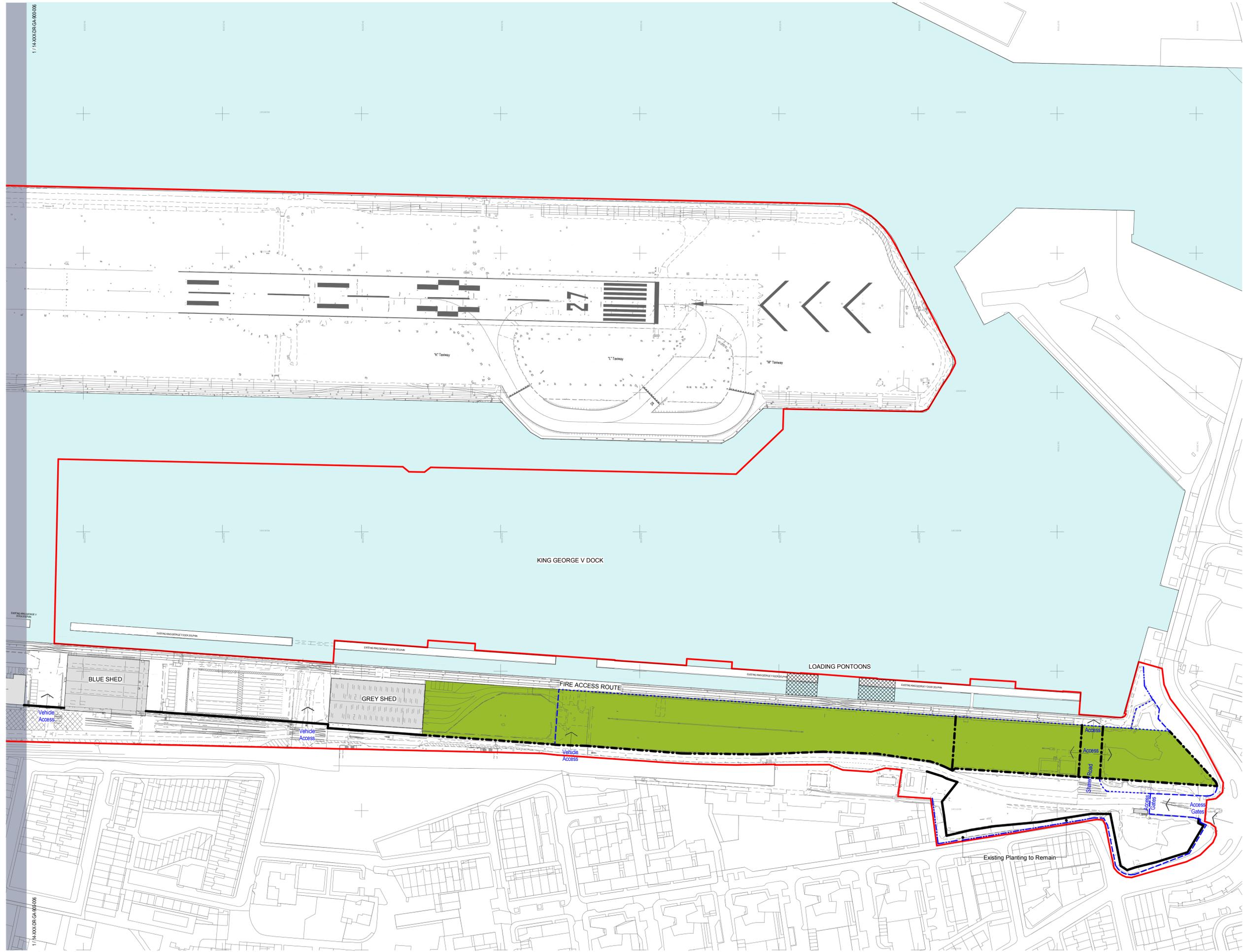
[Within three months of the construction work being completed]

Confirmation
This plan has been monitored on a regular basis to ensure that work is progressing according to the plan and has been updated to record details of the actual waste management actions and waste transfers that have taken place.
Signature

Issue	Details
Explanation of any deviation from the planned arrangements	
Waste forecasts – exceeded	
Waste forecasts – not met	
Cost savings achieved	

Annex 4: Construction Compound Layout

1/14000DRGA90006



- Note:
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The signed control copy of this drawing is held at the offices of PASCALL+WATSON Limited.
- All information shown outside the Proposal Boundary is for illustrative purposes only.
 - Internal layouts are for illustrative purposes only.
 - Base building survey information by LCY and MSA.
- Legend**
- Indicative Contractors Compound Area: 2.05073 hectares
 - Temporary Barge Berths & Crane Platforms
 - Existing Timber Palisade
 - Existing Metal Palisade
 - Proposed Mesh Fence
 - Proposed Construction Noise Barrier - 3 metres
 - Proposed Construction Compound Timber Hoarding and Noise Barrier - 3 metres
 - Application Boundary



D	MDS	09/01/18	For Approval
C	MDS	02/12/16	For Approval
B	MDS	10/11/16	For Planning Approval
A	MDS	25/10/16	For Planning Approval
Rev	Drn	Date	Description

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Client: LONDON CITY AIRPORT
Project Name: CITY AIRPORT DEVELOPMENT PROGRAMME

Title: CADD Condition 96
Figure 2: Construction Compound & Details

Discipline: Architecture	Purpose of Issue: For Approval			
Drawing Originator: Pascall+Watson architects	Originators Job No.: 5077			
Checked By: TA	Checked date: 09/01/18	MS	Drawn By: MS	Drawn Date: 25/10/16
Approved By: MN	Approval Date: 09/01/18	Scale: @ A1	1 : 1250	

Building Grid Reference: CADD

Proj Code	Orig	Disc Zone	Level	Title	Subtype/Drp Series/NO	Rev	Status
A400PAW	A	14XXXX	DR	GA900-007	D	S3	