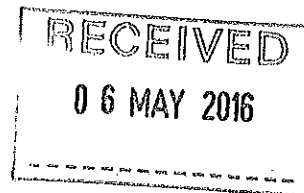


*Borough of Southwark licensing*



**Application for a premises licence to be granted  
under the Licensing Act 2003**

**PLEASE READ THE FOLLOWING INSTRUCTIONS FIRST**

Before completing this form please read the guidance notes at the end of the form. If you are completing this form by hand please write legibly in block capitals. In all cases ensure that your answers are inside the boxes and written in black ink. Use additional sheets if necessary.

You may wish to keep a copy of the completed form for your records.

I/We Peckham Levels Ltd [REDACTED]

*(insert name(s) of applicant)*

apply for a premises licence under section 17 of the Licensing Act 2003 for the premises described in Part 1 below (the premises) and I/we are making this application to you as the relevant licensing authority in accordance with section 12 of the Licensing Act 2003

**Part 1 – Premises Details**

Postal address of premises or, if none, ordnance survey map reference or description			
95a Multi Storey Car Park, [REDACTED] London SE15 4ST Basement (level -1) through to level 6.			
Post town	London	Postcode	SE154ST

**(B) OTHER APPLICANTS**

Please provide name and registered address of applicant in full. Where appropriate please give any registered number. In the case of a partnership or other joint venture (other than a body corporate), please give the name and address of each party concerned.

Name Peckham Levels Ltd

Description of applicant (for example, partnership, company, unincorporated association etc.)  
Limited company

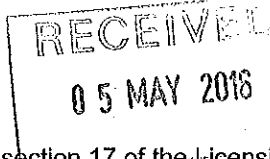
Telephone number (if any)

E-mail address (optional)

Business - Application for a premises licence to be granted under the Licensing Act 2003

05/05/2016

Business - Application for a premises licence to be granted under the Licensing Act 2003  
Ref No. 613534



Name of Applicant

Please enter the name(s) who is applying for a premises licence under section 17 of the Licensing Act 2003 and am making this application to you as the relevant licensing authority in accordance with section 12 of the Licensing Act 2003

	Peckham Levels Ltd
--	--------------------

Premises Details

Non-domestic rateable value of premises in order to see your rateable value click here (opens in new window)

£	33808
	Band D and E only applies to premises which uses exclusively or primarily for the supply of alcohol for consumption on the premises
	No

Postal address of premises or, if none, ordnance survey map reference or description

Address Line 1	95A RYE LANE
Address Line 2	
Town	LONDON
County	
Post code	SE15 4ST
Ordnance survey map reference	TQ 34289 76313
Description of the location	Multi storey car park
Telephone number	

Applicant Details

Please select the capacity in which you are applying to convert your existing licence

	a person other than an individual (limited company, partnership, etc)
--	---

If you applying as an individual or non-individual please select one of the following:-

	I am carrying on or proposing to carry on a business which involves the use of the premises for licensable activities
--	---

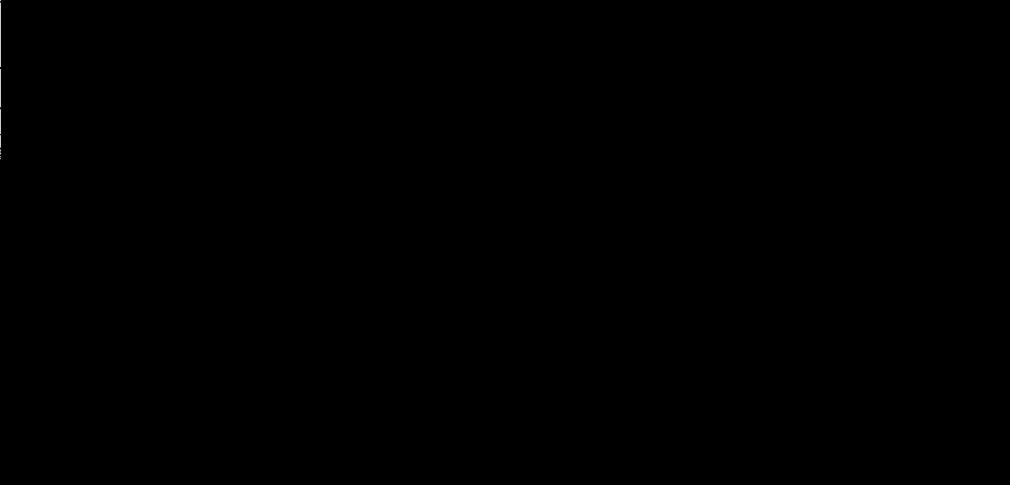
Business - Application for a premises licence to be granted under the Licensing Act 2003

Other Applicants

Personal Details - First Entry

Name	Peckham Levels Ltd
------	--------------------

Address - First Entry

Street number or building name	
Street Description	
Town	
County	
Post code	
Registered number ( where applicable )	
Description of applicant ( for example, partnership, company, unincorporated association etc )	

Contact Details - First Entry

Telephone number	
Email address	

Operating Schedule

When do you want the premises licence to start?

	01/06/2016
--	------------

If you wish the licence to be valid only for a limited period, when do you want it to end?

--	--

General description of premises ( see guidance note 1 )

	<p>Peckham Levels aims to support local talent and enterprise, and also to create a real community asset for Peckham. We want to bring our members together with local people, businesses, groups and schools to share the benefits of the space.</p> <p>All our members will be artists and independent businesses, mostly drawn from the local area, and all of them will participate in a structured programme of community .</p>
--	--

Business - Application for a premises licence to be granted under the Licensing Act 2003

	projects. Our plans include a series of initiatives offering free events space, training, education and employment opportunities for Peckham's residents. 10% of all the project's profits will be used to create a Community Fund that invests in local businesses and social projects.
--	--

Please select the range of the number of people expected to attend the premises at any one time.

	Less than 5000
If 5,000 or more people are expected to attend the premises at any one time. Please state the number expected to attend	

Operating Schedule part 2

What licensable activities do you intend to carry on from the premises?

	(Please see sections 1 and 14 of the Licensing Act 2003 and schedule 1 and 2 to the Licensing Act 2003)
--	---

Provision of regulated entertainment

	a) plays
	b) films
	c) indoor sporting events
	e) live music
	f) recorded music
	g) performance of dance

Provision of late night refreshment

	i) Late night refreshment
--	---------------------------

Supply of alcohol

	j) Supply of alcohol
--	----------------------

A - Plays

Will the performance of a play take place indoors or outdoors or both? ( Please read guidance note 2 )

Business - Application for a premises licence to be granted under the Licensing Act 2003

	Both
--	------

Please give further details here ( Please read guidance note 3 )

	Multiple arts studios located throughout the complex as per the plans attached
--	--

Standard days and timings for Plays ( Please read guidance note 6 )

Day	Start	Finish
Mon	08:00	06:00
	00:00	06:00
Tues	08:00	06:00
	08:00	06:00
Wed	08:00	06:00
	08:00	06:00
Thur	08:00	06:00
	08:00	06:00
Fri	08:00	06:00
	08:00	06:00
Sat	08:00	06:00
	08:00	06:00
Sun	08:00	06:00
	08:00	06:00

State any seasonal variations for performing plays ( Please read guidance note 4 )

--	--

Non standard timings. Where you intend to use the premises for the performance of plays at different times to those listed. ( Please read guidance note 5 )

--	--

B- Films

Will the exhibition of films take place indoors or outdoors or both? ( Please read guidance note 2 )

	Indoors
--	---------

Please give further details here ( Please read guidance note 3 )

	Multiple locations throughout the complex, including arts studios and event spaces as per the plan attached.
--	--

Business - Application for a premises licence to be granted under the Licensing Act 2003

Standard days and timings for Films ( Please read guidance note 6 )

Day	Start	Finish
Mon	08:00	06:00
	08:00	06:00
Tues	08:00	06:00
	08:00	06:00
Wed	08:00	06:00
	08:00	06:00
Thur	08:00	06:00
	08:00	06:00
Fri	08:00	06:00
	08:00	06:00
Sat	08:00	06:00
	08:00	06:00
Sun	08:00	06:00
	08:00	06:00

State any seasonal variations for the exhibition of films ( Please read guidance note 4 )

--	--

Non standard timings. Where you intend to use the premises for the exhibition of films at different times to those listed. ( Please read guidance note 5 )

--	--

C - Indoor Sporting Event

Please give further details here ( Please read guidance note 3 )

	Event spaces outside the complex may host small events throughout the year. These spaces are identified and marked on the the plans
--	---

Standard days and timings for Indoor Sporting Events ( Please read guidance note 6 )

Day	Start	Finish
Mon	08:00	06:00
	08:00	06:00
Tues	08:00	06:00
	08:00	06:00
Wed	08:00	06:00
	08:00	06:00
Thur	08:00	06:00

Business - Application for a premises licence to be granted under the Licensing Act 2003

	08:00	06:00
Fri	08:00	06:00
	08:00	06:00
Sat	08:00	06:00
	08:00	06:00
Sun	08:00	06:00
	08:00	06:00

State any seasonal variations for indoor sporting events ( Please read guidance note 4 )

--	--

Non standard timings. Where you intend to use the premises for indoor sporting events at different times to those listed. ( Please read guidance note 5 )

--	--

E - Live Music

Will the performance of live music take place indoors or outdoors or both? ( Please read guidance note 2 )

	Both
--	------

Please give further details here ( Please read guidance note 3 )

	Studios and event spaces across the complex as per the plan attached
--	--

Standard days and timings for Live Music ( Please read guidance note 6 )

Day	Start	Finish
Mon	08:00	06:00
	08:00	06:00
Tues	08:00	06:00
	08:00	06:00
Wed	08:00	06:00
	08:00	06:00
Thur	08:00	06:00
	08:00	06:00
Fri	08:00	06:00
	08:00	06:00
Sat	08:00	06:00
	08:00	06:00
Sun	08:00	06:00

Business - Application for a premises licence to be granted under the Licensing Act 2003

	08:00	06:00
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State any seasonal variations for the performance of live music ( Please read guidance note 4 )

--	--

Non standard timings. Where you intend to use the premises for the performance of live music at different times to those listed. ( Please read guidance note 5 )

--	--

F - Recorded Music

Will the playing of recorded music take place indoors or outdoors or both? ( Please read guidance note 2 )

	Both
--	------

Please give further details here ( Please read guidance note 3 )

	Provision of background music across the complex.
--	---

Standard days and timings for Recorded Music ( Please read guidance note 6 )

Day	Start	Finish
Mon	08:00	06:00
	08:00	06:00
Tues	08:00	06:00
	08:00	06:00
Wed	08:00	06:00
	08:00	06:00
Thur	08:00	06:00
	08:00	06:00
Fri	08:00	06:00
	08:00	06:00
Sat	08:00	06:00
	08:00	06:00
Sun	08:00	06:00
	08:00	06:00

State any seasonal variations for playing recorded music ( Please read guidance note 4 )

--	--

Business - Application for a premises licence to be granted under the Licensing Act 2003

Non standard timings. Where you intend to use the premises for the playing of recorded music entertainment at different times to those listed. ( Please read guidance note 5 )

--	--

G - Performances of Dance

Will the performances of dance take place indoors or outdoors or both? ( Please read guidance note 2 )

	Both
--	------

Please give further details here ( Please read guidance note 3 )

	Studios and event spaces across the complex
--	---

Standard days and timings for Performance of dance ( Please read guidance note 6 )

Day	Start	Finish
Mon	08:00	06:00
	08:00	06:00
Tues	08:00	06:00
	08:00	06:00
Wed	08:00	06:00
	08:00	06:00
Thur	08:00	06:00
	08:00	06:00
Fri	08:00	06:00
	08:00	06:00
Sat	08:00	06:00
	08:00	06:00
Sun	08:00	06:00
	08:00	06:00

State any seasonal variations for the performance of dance ( Please read guidance note 4 )

--	--

Non standard timings. Where you intend to use the premises for the performance of dance entertainment at different times to those listed. ( Please read guidance note 5 )

--	--

I - Late Night Refreshment

Business - Application for a premises licence to be granted under the Licensing Act 2003

Will the provision of late night refreshment take place indoors or outdoors or both? ( Please read guidance note 2 )

	Both
--	------

Please give further details here ( Please read guidance note 3 )

	To provide food and drink from Restaurants and Bars across the site as per the planning application
--	---

Standard days & timings for Late night refreshment (Late night start time is from 23.00, see guidance notes 6)

Day	Start	Finish
Mon	08:00	06:00
	08:00	06:00
Tues	08:00	06:00
	08:00	06:00
Wed	08:00	06:00
	08:00	06:00
Thur	08:00	06:00
	08:00	06:00
Fri	08:00	06:00
	08:00	06:00
Sat	08:00	06:00
	08:00	06:00
Sun	08:00	06:00
	08:00	06:00

State any seasonal variations for the provision of late night refreshment ( Please read guidance note 4 )

--	--

Non standard timings. Where you intend to use the premises for the provision of late night refreshment at different times, to those listed. Please list, ( Please read guidance note 5 )

--	--

J - Supply of Alcohol

Will the supply of alcohol be for consumption ( Please read guidance note 7 )

	Both
--	------

Business - Application for a premises licence to be granted under the Licensing Act 2003

Standard days and timings for Supply of alcohol ( Please read guidance note 6 )

Day	Start	Finish
Mon	08:00	06:00
	08:00	06:00
Tues	08:00	06:00
	08:00	06:00
Wed	08:00	06:00
	08:00	06:00
Thur	08:00	06:00
	08:00	06:00
Fri	08:00	06:00
	08:00	06:00
Sat	08:00	06:00
	08:00	06:00
Sun	08:00	06:00
	08:00	06:00

State any seasonal variations for the supply of alcohol ( Please read guidance 4 )

--	--

Non standard timings. Where you intend to use the premises for the supply of alcohol at different times to those listed. Please list, ( Please read guidance note 5 )

--	--

Please upload the consent form completed by the proposed premises supervisor

	SKMBT-C22416041510060-DPS.pdf
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Premises Supervisor

Full name of proposed designated premises supervisor

First names	philippe
Surname	castaing

Address of proposed designated premises supervisor

Street number or Building name	
Street Description	

Business - Application for a premises licence to be granted under the Licensing Act 2003

Town	
County	
Post code	

Personal licence number of proposed designated premises supervisor, if any,

Personal licence number ( if known )	
Issuing authority ( if known )	

K

Please highlight any adult entertainment or services, activities, other entertainment or matters ancillary to the use of the premises that may give rise to concern in respect of children ( Please read guidance note 8 )

n/a
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L - Hours premises are open to public

Hours premises are open to the public ( standard timings Please read guidance note 6 )

Day	Start	Finish
Mon	08:00	06:00
	08:00	06:00
Tues	08:00	06:00
	08:00	06:00
Wed	08:00	06:00
	08:00	06:00
Thur	08:00	06:00
	08:00	06:00
Fri	08:00	06:00
	08:00	06:00
Sat	08:00	06:00
	08:00	06:00
Sun	08:00	06:00
	08:00	06:00

State any seasonal variations ( Please read guidance note 4 )

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Non standard timings. Where you intend to use the premises to be open to the public at different times from those listed. Please list, ( Please read guidance note 5 )

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M - Steps to promote four licencing objectives

a) General - all four licensing objectives (b,c,d,e) ( Please read guidance note 9 )

	<ol style="list-style-type: none"> <li>1. The complex will operate as a facility for all forms of entertainment including, Arts, Films, Music and dance. The provision of which shall be closely regulated with regard to licensing objectives (b,c,d,e).</li> <li>2. The Premises license conditions shall be outlined in all tenant contracts and a copy of the license and the conditions therein provided to all tenants.</li> <li>3. All tenants that supply alcohol shall do so with a personal license holder on site and a copy of the conditions of the license on public display.</li> <li>4. The Licensee shall ensure that all promoters, contractors and any other operators involved in the provision of licensable activities shall be made aware of all the conditions of the premises license and provided with a copy prior to carrying out any licensable activities on the site.</li> <li>5. All reasonable steps shall be taken to ensure disabled people have access and facilities throughout the complex in line with the council regulations and guidelines.</li> <li>6. Any serious breach of licensing objectives by any tenant shall result in the forfeiture of their ability to carry on a licensable activity.</li> <li>7. The capacity of the entire complex shall be limited to 3600 during any licensable activity and shall be controlled by security staff using clickers.</li> <li>8. That external waste handling, collections, deliveries and the cleaning of external areas shall only occur between the hours of 08.00 and 20.00.</li> <li>9. That access shall be made available for emergency services at all times.</li> </ol>
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b) the prevention of crime and disorder

	<ol style="list-style-type: none"> <li>1. To provide regular alcohol responsibility and drug awareness training and campaigns throughout the site.</li> <li>2. Offer licensing BIIAB licensing courses through the local authority for all staff throughout the site who are involved in the sale of alcohol.</li> <li>3. The DPS shall ensure that all tenants involved in the supply of alcohol under a tenancy agreement shall have a personal license holder responsible for supervising all licensable activities in compliance with the premises license and the licensing act 2003.</li> <li>4. A CCTV system shall be installed and maintained in good working order and there shall be a trained operative on site at all times during the operation of licensable activities.</li> <li>5. All CCTV recordings shall be kept on site for 31 days and made available for inspection by the relevant authorities.</li> <li>6. Security personnel shall be mandatory for all licensable activities carried on after 9pm.</li> <li>7. The security firms will all be SIA approved contractors.</li> <li>8. The security will have in place procedures whereby they work with the Police and local Authorities to further their objectives with regard to prevention of crime and disorder and regular reviews will be conducted with the local police liaison officer ensure the site takes a pro-active approach to these objectives.</li> <li>9. CCTV will be monitored and radio link used to assist security in preventing crime and disorder.</li> <li>10. The Security firm that is used will be the same as the other tenants in the building and linked via radio to ensure continuity throughout the site and effective prevention of Crime and disorder throughout the building and along the route for the dispersal plan.</li> <li>11. Rye Lane has a history of continual crime and drug use and our plan to lower the crime and disorder encompasses the comprehensive CCTV plan (outlined in the document plan attached), monitored 24 hour SIA security for the complex and the surrounds in line with point 10 above and a late night dispersal plan all of which is outlined in detail in the document attached.</li> <li>12. The late night dispersal plan will encompass a fully managed plan as per document attached which encompasses security all the way from the entry and exit points of the complex out to Rye Lane</li> <li>13. The Manager on Duty must ensure that staff on relevant premises do not carry out, arrange or participate in any irresponsible promotions in relation to the premises.</li> </ol> <p>(2) In this paragraph, an irresponsible promotion means any one or more of the</p>
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	<p>following activities, or substantially similar activities, carried on for the purpose of encouraging the sale or supply of alcohol for consumption on the premises</p> <p>(a) games or other activities which require or encourage, or are designed to require, encourage, individuals to –</p> <p>(i) drink a quantity of alcohol within a time limit (other than to drink alcohol sold or supplied on the premises before the cessation of the period in which the responsible person is authorised to sell or supply alcohol), or</p> <p>(ii) drink as much alcohol as possible (whether within a time limit or otherwise);</p> <p>(b) provision of unlimited or unspecified quantities of alcohol free or for a fixed or discounted fee to the public or to a group defined by a particular characteristic in a manner which carries a significant risk of undermining a licensing objective;</p> <p>(c) provision of free or discounted alcohol or any other thing as a prize to encourage or reward the purchase and consumption of alcohol over a period of 24 hours or less in a manner carries a significant risk of undermining a licensing objective;</p> <p>(d) selling or supplying alcohol in association with promotional poster or flyers on, or in the vicinity of, the premises which can reasonably be considered to condone, encourage or glamorise anti-social behaviour or to refer to the effects of drunkenness in any favourable manner; and</p> <p>(e) dispensing alcohol directly by one person into the mouth of another (other than where that other person is unable to drink without assistance by reason of disability).</p>
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c) public safety

	<ol style="list-style-type: none"> <li>1. Regular patrols by SIA security patrols undertaken to ensure all entry and exit points are clean and clear of obstruction.</li> <li>2. A provision will be made with a local taxi firm for all late night guests are ferried away from the venue in a swift and safe manner/</li> <li>3. Security will also monitor any ques for taxis and travel to ensure public safety and alacrity of process.</li> <li>4. All ques for entry will also be monitored by security to ensure public safety.</li> <li>5. Suitable and sufficient lighting will be provided for all entry and exits from the building.</li> <li>6. Suitable sitemaps and signage will be provided to allow people to ascertain all entry and exit points along with security at all non-emergency points after midnight.</li> <li>7. CCTV will also be used to monitor entry and exit points as well as the ques for transport and radio linkups used to assist security in identifying any potential public safety issues.</li> <li>8. Suitable and sufficient fire plans will be placed throughout the complex to allow public to easily identify exits and mustering points in case of Fire.</li> <li>9. That emergency exits shall be clearly marked with standard emergency exit signs (staircase and ramps).</li> <li>10. There will always be a manager on duty who has basic first aid training.</li> <li>11. no open containers of alcohol or any other drink shall be taken outside of the premises</li> <li>12 A minimum of SIA door staff will be on duty from 8pm on Thursday-Sunday until all members of the public have left the premises at a ratio of no less than 1 SIA Security guard per 100 guests participating in an event where the sale of alcohol is conducted.</li> <li>13. A comprehensive risk assessment to be carried out by a competent person. All findings of the risk assessments shall be made available to this authority or the police and London Fire and Emergency Planning Authority.</li> <li>14. Security systems will be integrated so that the alarm, CCTV and lighting work together in an effective manner.</li> </ol>
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d) the prevention of public nuisance

	<ol style="list-style-type: none"> <li>1. Staff and security will keep the premises and the vicinity clean and tidy, free of rubbish and debris.</li> <li>2. Contracts for sustainable removal of waste shall be made and enforced throughout the complex to ensure prevention of any waste build up and removal of such waste in a sustainable and environmentally friendly manner.</li> <li>3. Public will be asked to leave the area quietly and respect neighbours and local residents. Signage to this effect will be put up throughout the complex with a concentration at exit points.</li> <li>4. Ques into the venue and for transport away from the venue will be monitored by security for both noise levels and anti social behaviour.</li> </ol>
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	<p>5. Measures will be taken to limit any light pollution and residents shall be invited to provide feedback on any light related issues. This feedback will be utilised and addressed by the complex.</p> <p>6. That the volume control for background recorded music shall be closely monitored by the manager on duty at all times to ensure there is no public nuisance caused by noise pollution.</p> <p>7. A comprehensive dispersal policy shall be produced, maintained and updated, and all staff needs to be trained and made aware of any changes, a copy of the dispersal policy shall be made available to the council or police on request. (Please see document attached)</p> <p>9. In the event of failure of main lighting, emergency lighting shall be provided in all areas, customers shall be escorted out of the building safely.</p> <p>10. Floors and traffic routes needs to be kept free of obstacles, obstructions and any other article or substances that may cause person to slip, trip or fall.</p> <p>11. All gas appliances and installations to be used on the premises must be inspected and tested by a competent person who must be a GAS SAFE registered engineer a certificate to be kept on site.</p> <p>12. Emergency numbers shall be displayed for all members of staff where licensable activities are undertaken</p> <p>13. That all patrons will be instructed to leave via the Rye Lane exit and this exit will be monitored by staff and security as per the dispersal plan attached.</p> <p>14. A NICEIC approved electrical inspection report of the premises shall be provided and a copy kept on site.</p> <p>15. an evacuation plan shall be provided in regards to the premises and shall detail steps to be taken should all or any part of the premises need to be evacuated. The evacuation procedure needs to be in writing and made available to the council, police or fire officers on request.</p> <p>16. all premises staff need to be trained in evacuation procedures including wheelchair users and this needs to be documented: a dedicated telephone number shall be provided for local residents to contact the site manager whilst the premises is in operation.</p> <p>17. The alarm should be linked to a system that will notify the police if it is activated.</p> <p>18. Door staff should be easily identifiable by wearing a uniform, high visibility jackets or arm bands.</p> <p>19. Door staff should sign into a register detailing their full SIA licence number, their name, contact details and the time and date their duty commenced and concluded.</p> <p>20. Stewards and other staff at the premises should also be easily identifiable. Stewards must not be used for supervision of the door.</p>
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e) the protection of children from harm

	<p>1. An incident book will be kept at the operation of every licensable activity. This book shall record all the details of any attempts by underage persons to purchase alcohol and shall be available for inspection on demand.</p> <p>2. Signage will be placed throughout the complex and specifically at every point carrying on licensable activities stating that alcohol will not be served to those under 18. Staff shall be trained (records of training available for inspection) to prevent the sale of alcohol to those under 18.</p> <p>3. Security and staff shall be trained to question and demand relevant ID from anyone they suspect to be under 18 and consuming alcohol.</p> <p>4. Valid ID shall be required of anyone who is suspected of being under 18 prior to the sale of alcohol, staff to be trained on the challenge 25 drinkaware program and records to be kept for inspection by the relevant authorities.. Approved forms of identification under this scheme shall include a driving licence, passport or a PASS approved proof of age card such as the Southwark Proof of Age (SPA) card.</p> <p>5. All films to be exhibited on the premises shall be as per the BBF classification and entry shall be monitored according to these classifications.</p> <p>6. A comprehensive dispersal policy shall be produced, maintained and updated, and all staff needs to be trained and made aware of any changes, a copy of the dispersal policy shall be made available to the council or police on request. (Please see document attached)</p> <p>7. In the event of failure of main lighting, emergency lighting shall be provided in all areas, customers shall be escorted out of the building safely.</p> <p>8. Floors and traffic routes needs to be kept free of obstacles, obstructions and any other article or substances that may cause person to slip, trip or fall.</p> <p>9. All gas appliances and installations to be used on the premises must be inspected and tested by a competent person who must be a GAS SAFE registered engineer a certificate to be kept on site.</p>
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Business - Application for a premises licence to be granted under the Licensing Act 2003

	<p>10. Emergency numbers shall be displayed for all members of staff where licensable activities are undertaken</p> <p>11. That all patrons will be instructed to leave via the Rye Lane exit and this exit will be monitored by staff and security as per the dispersal plan attached.</p> <p>12. A NICEIC approved electrical inspection report of the premises shall be provided and a copy kept on site.</p> <p>13. an evacuation plan shall be provided in regards to the premises and shall detail steps to be taken should all or any part of the premises need to be evacuated. The evacuation procedure needs to be in writing and made available to the council, police or fire officers on request.</p> <p>14. all premises staff need to be trained in evacuation procedures including wheelchair users and this needs to be documented.</p> <p>15. Agecheck or 'Challenge 25' signage shall be displayed at entrances to the premises, areas where alcohol is displayed for sale and at points of sale to inform customers that an agecheck 'Challenge 25' policy applies and proof of age may be required</p> <p>16. A register of refused sales of alcohol and if applicable, cigarette sales which is clearly marked with details of the premises, address and name of licence holder shall be maintained in order to demonstrate effective operation of the policy. The register shall be available for inspection at the premises on request by the Council's authorised officers or the Police.</p>
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Please upload a plan of the premises

	P302-Peckham-Levels-floor-plans-Rev-E.pdf
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Please upload any additional information i.e. risk assessments

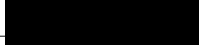
	Peckham-Levels-Combined-PDF-final.1.pdf
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Checklist

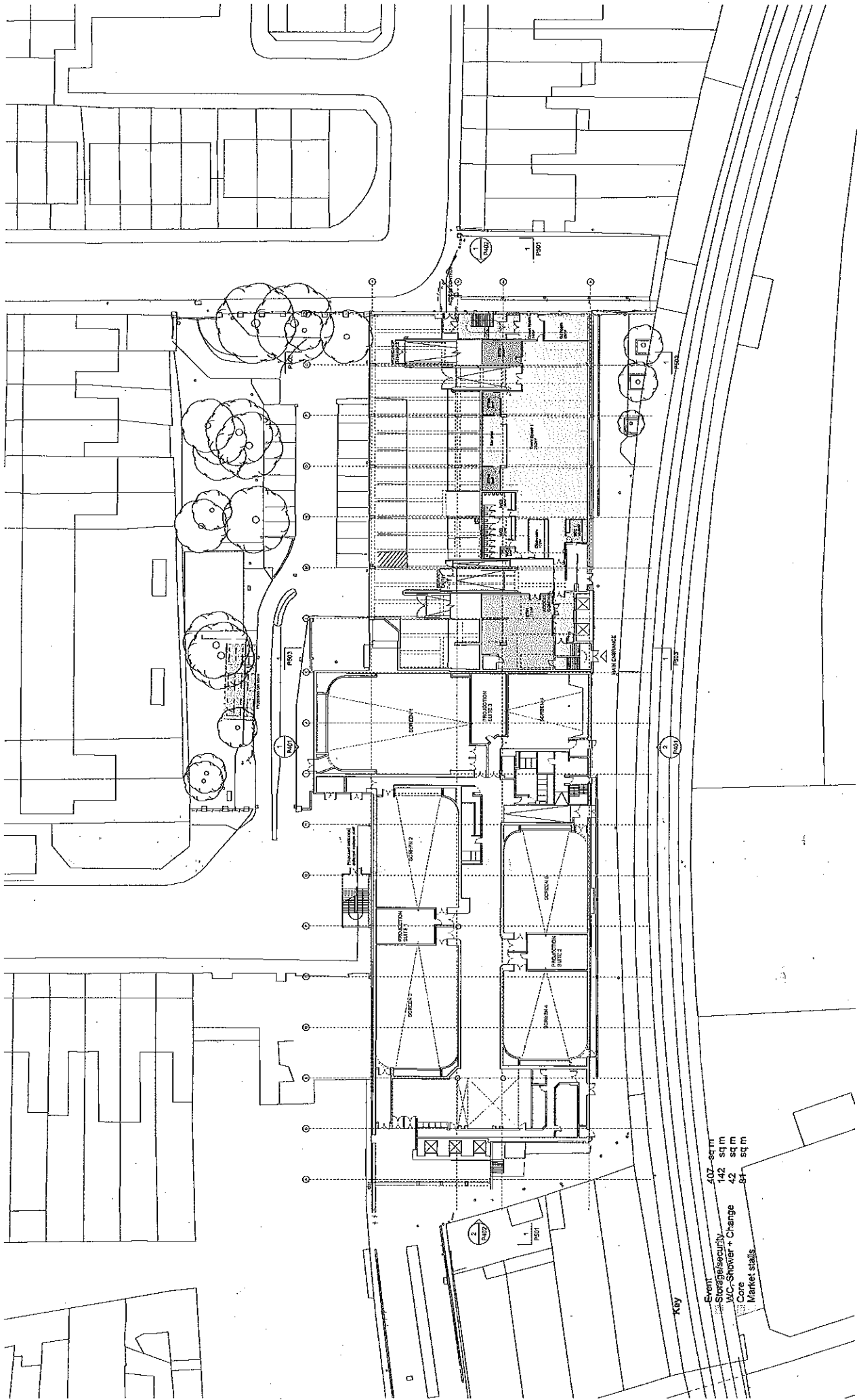
	<p>I have enclosed the plan of the premises.</p> <p>I understand that I must now advertise my application.</p> <p>I understand that if I do not comply with the above requirements my application&lt;br&gt; will be rejected.</p>
--	---

Declaration

I agree to the above statement

	I agree
PaymentDescription	
AuthCode	
LicenceReference	
PaymentContactEmail	

The information you provide will be used fairly and lawfully and Southwark Council will not knowingly do anything which may lead to a breach of the Data Protection Act 1998.



Event 407 sq m  
 Store/Security 142 sq m  
 WC-Shower + Change 42 sq m  
 Core 84 sq m  
 Market stalls

Key

Unit 41-43, 49 Brixton Station Road  
 London SW9 8PQ  
 +44 (0)203 846 1890  
 info@ct-architects.co.uk  
 ct-architects.co.uk

Revision History

Rev	Date	Description
A	12/01/16	Preparation
B	25/01/16	Design development
C	12/02/16	Design development
D	18/02/16	Issued for comment
E	23/03/16	Issued for comment

Orientation & Scale

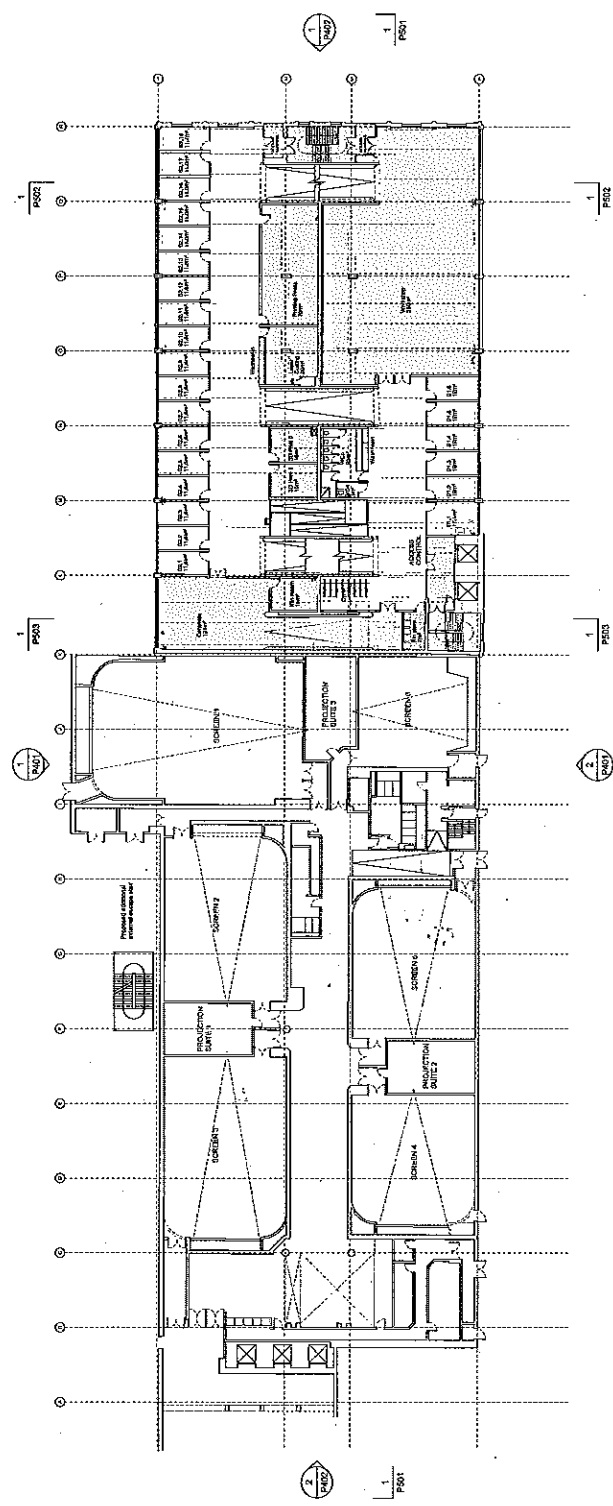
N

0 2 4 6 8 10m

Project Peckham Levels  
 Drawing Title Proposed Level -1 and 0  
 Drawing No. P302

Drawn by EW  
 Date 03 12 2015  
 Scale 1:250 @ A1 / 1:500 @ A3

**Carl  
 Turner  
 Architects**



**Key**

- 268 sq m Studio spaces
- 633 sq m Shared work areas
- 23 sq m W/C, Shower + Change
- 82 sq m Core
- 7 sq m Bill store

**Carl  
Turner  
Architects**

Unit 41-43, 49 Brixton Station Road  
London SW9 8PQ  
+44 (0)203 846 1890  
info@carturnerarchitects.co.uk  
ct-architects.co.uk

**Revision History**

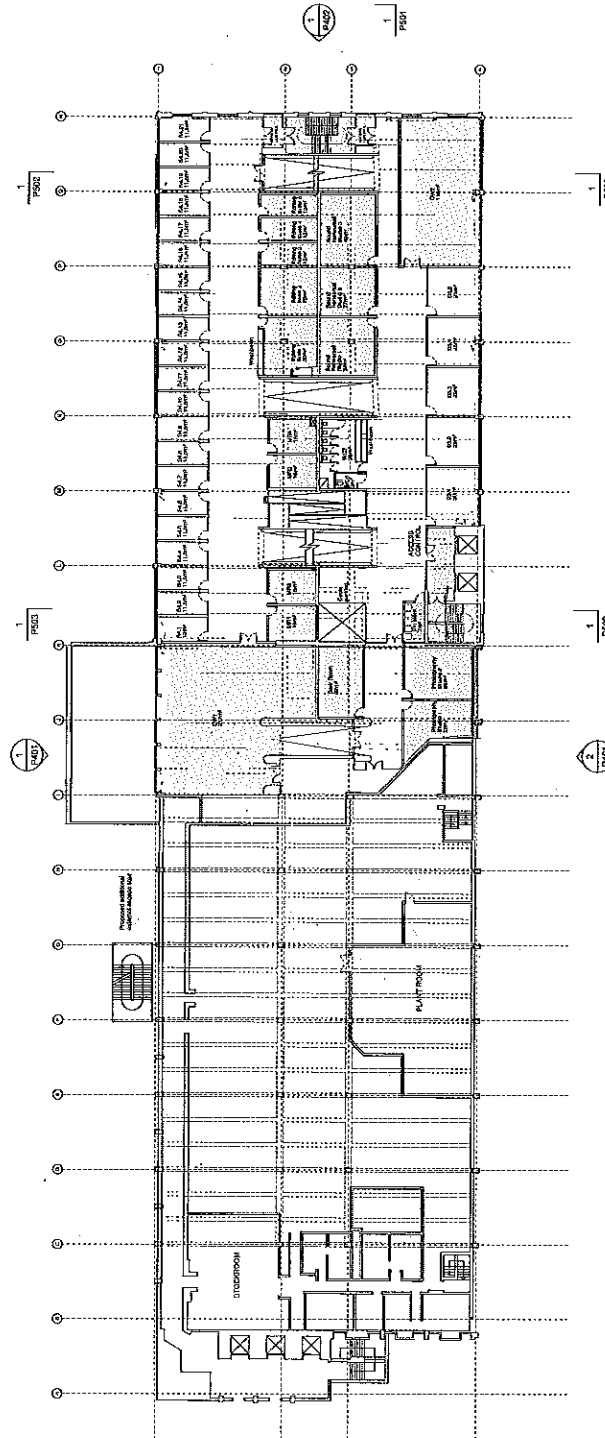
Rev	Date	Description
A	15/01/15	Design development
B	15/02/15	Design development
C	12/02/15	Design development
D	15/02/15	Issued for comment
E	23/03/15	Issued for comment

**Orientation & Scale**

0 2 4 6 8 10m

**Project**  
Peckham Levels  
**Drawing Title**  
Proposed Level 1 and 2  
**Drawing No.**  
P303

**Drawn by**  
EW  
**Date**  
03/12/2015  
**Scale**  
1:250 @ A1 / 1:500 @ A3



**Key**

- 374 sq m Studio space
- 335 sq m Co-working space
- 360 sq m Shared workshops
- 29 sq m W.C. Shower + Change
- 61 sq m Core
- 7 sq m Bin store

**Carl  
Turner  
Architects**

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**Revision History**

Rev.	Date	Description
A	18 01 16	Design development
B	23 02 16	Design development
C	18 02 16	Issued for comment
D	23 03 16	Issued for comment
E		

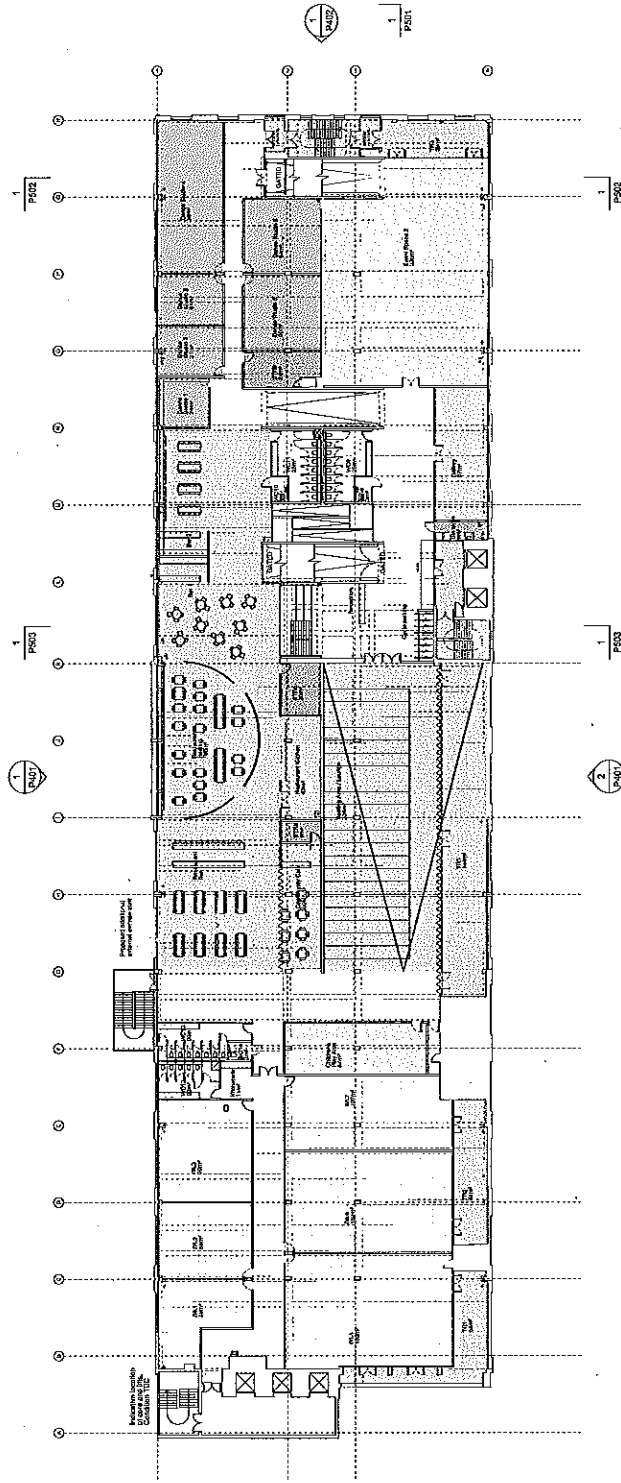
**Orientation & Scale**



0 2 4 6 8 10m

**Project  
Peckham Levels**  
Drawing Title  
Proposed Level 3 and 4  
Drawing No.  
P304

Drawn by  
EW  
Date  
05 12 2015  
Scale  
1:250 @ A1 / 1:500 @ A3



**Key**

- Studio space 676 sq m
- Dance studio 243 sq m
- WC, Shower + Change 120 sq m
- Flexible event space 334 sq m
- Childrens play area 86 sq m
- Gallery 78 sq m
- Outdoor terrace 285 sq m
- Food & Beverage 1090 sq m
- Storage/Bin store 61 sq m
- Core 84 sq m

**Carl  
Turner  
Architects**

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**Revision History**

Rev	Date	Description
A	18.01.16	Design development
B	25.01.16	Design development
C	18.02.16	Design development
E	23.03.16	Issued for comment

**Orientation & Scale**

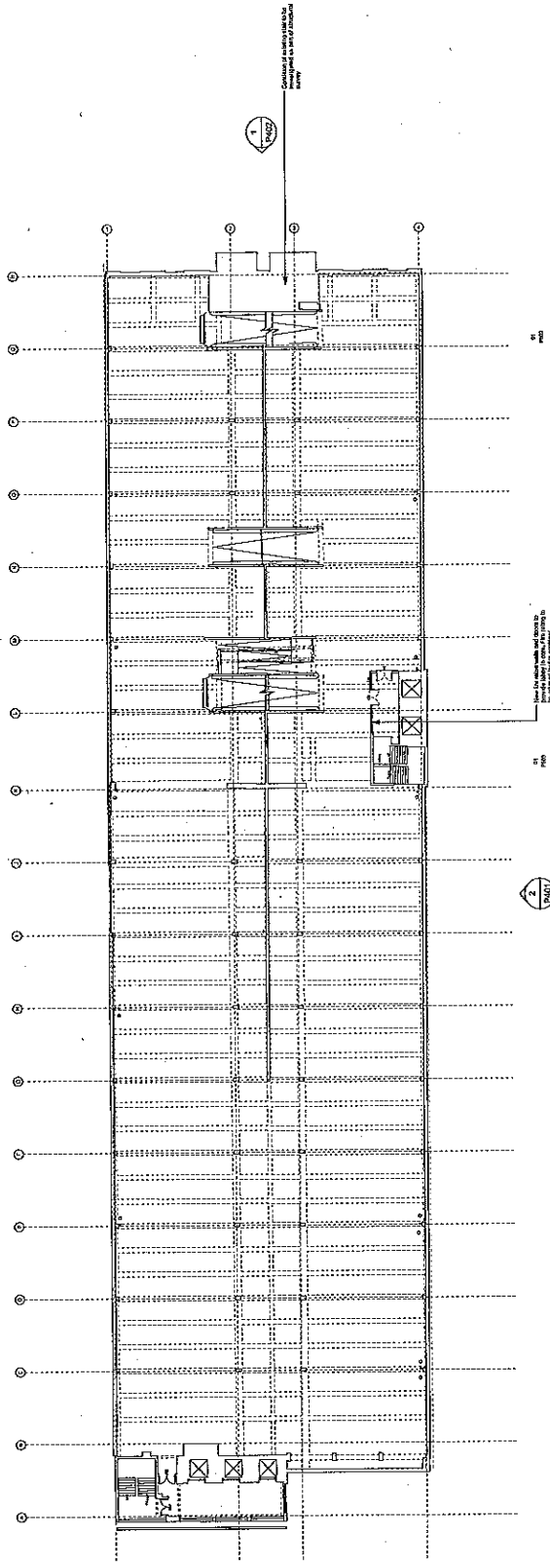


**Project  
Peckham Levels**

Drawing Title  
Proposed Level 5 and 6  
Drawing No.  
P305

Drawn by  
EW

Date  
03.12.2015  
Scale  
1:250 @ A1 / 1:500 @ A3



Drawn by: TW  
 Date: 22.02.2016  
 Scale: 1:250 @ A1 / 1:500 @ A3

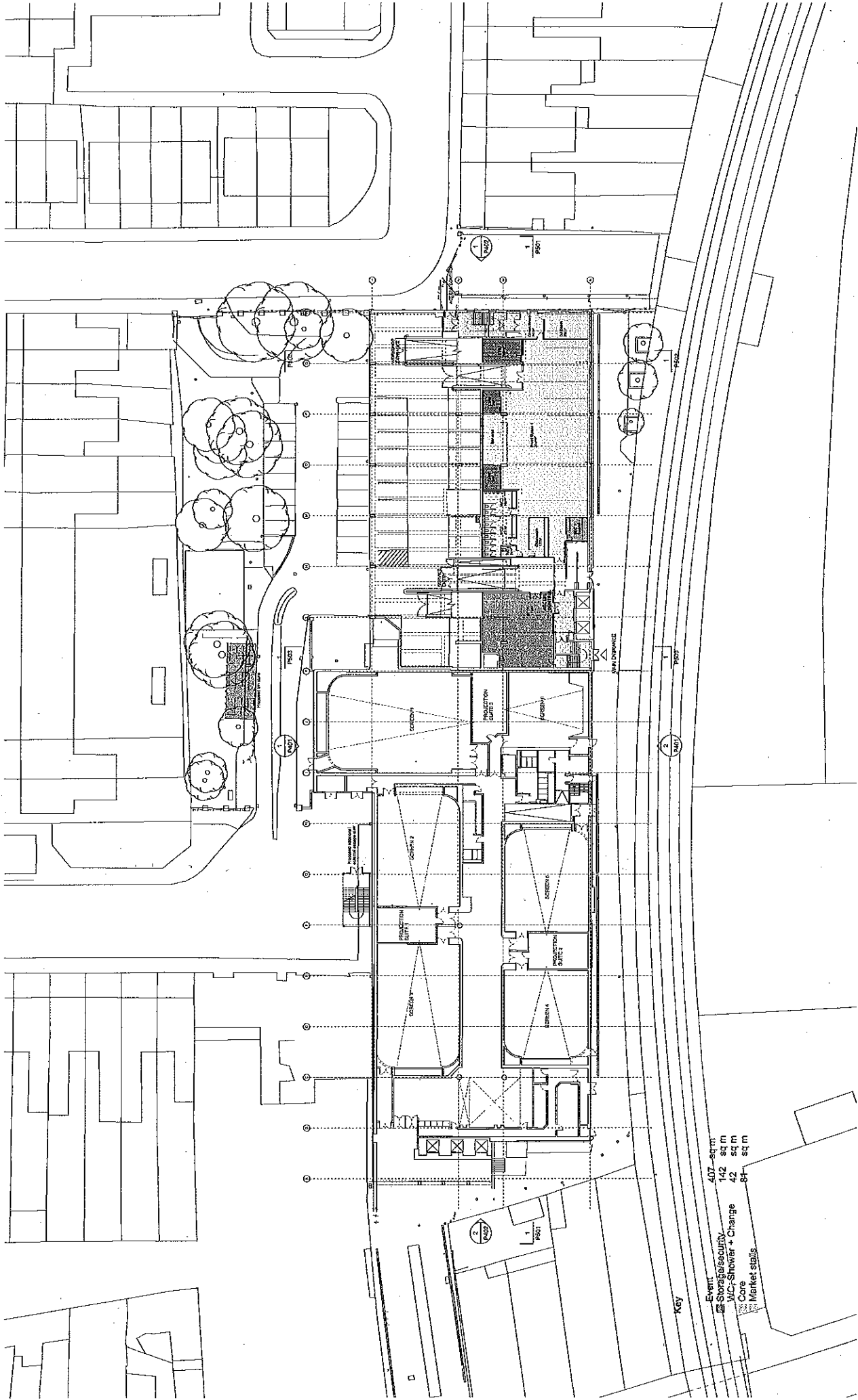
Project: Peckham Levels  
 Drawing Title: Proposed Level 7 and 8  
 Drawing No.: P305

Orientation & Scale  
 N  
 0 2 4 6 8 10m

Revision	History	Description
Ref	Date	

Unit 41-43, 49 Enniskillen Station Road  
 London SW9 9PQ  
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Carl  
 Turner  
 Architects



Event 407 sqm  
 Storage/security 142 sqm  
 WC - Shower + Change 42 sqm  
 Core 42 sqm  
 Market stalls 81 sqm

**Carl  
 Turner  
 Architects**

Unit 41-43, 48 Brixton Station Road  
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+44 (0)203 846 1890  
 info@ct-architects.co.uk  
 ct-architects.co.uk

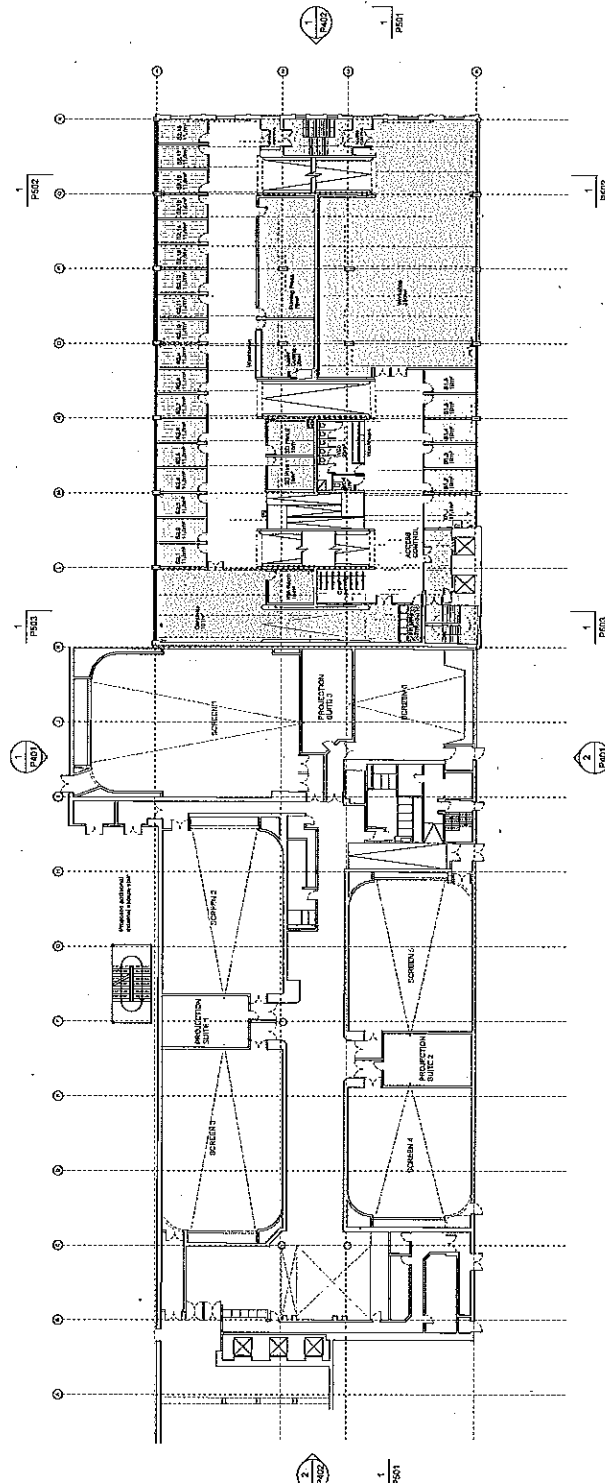
Revision History

Rev	Date	Description
A	25 01 16	Design development
B	13 02 16	Design development
C	18 02 16	Issued for comment
D	23 02 16	Issued for comment

Orientation & Scale

Project Peckham Levels  
 Drawing Title Proposed Level -1 and 0  
 Drawing No. P302

Drawn by EW  
 Date 03 12 2015  
 Scale 1:250 @ A1 / 1:500 @ A3



**Key**

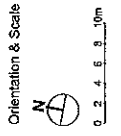
- 286 sq m Studio space
- 633 sq m Shared work areas
- 29 sq m WC, Shower + Change
- 82 sq m Core
- 7 sq m Bin store

**Carl  
Turner  
Architects**

Unit 41-43, 49 Brixton Station Road  
London SW9 8PQ  
+44 (0)203 846 1890  
info@ct-architects.co.uk  
ct-architects.co.uk

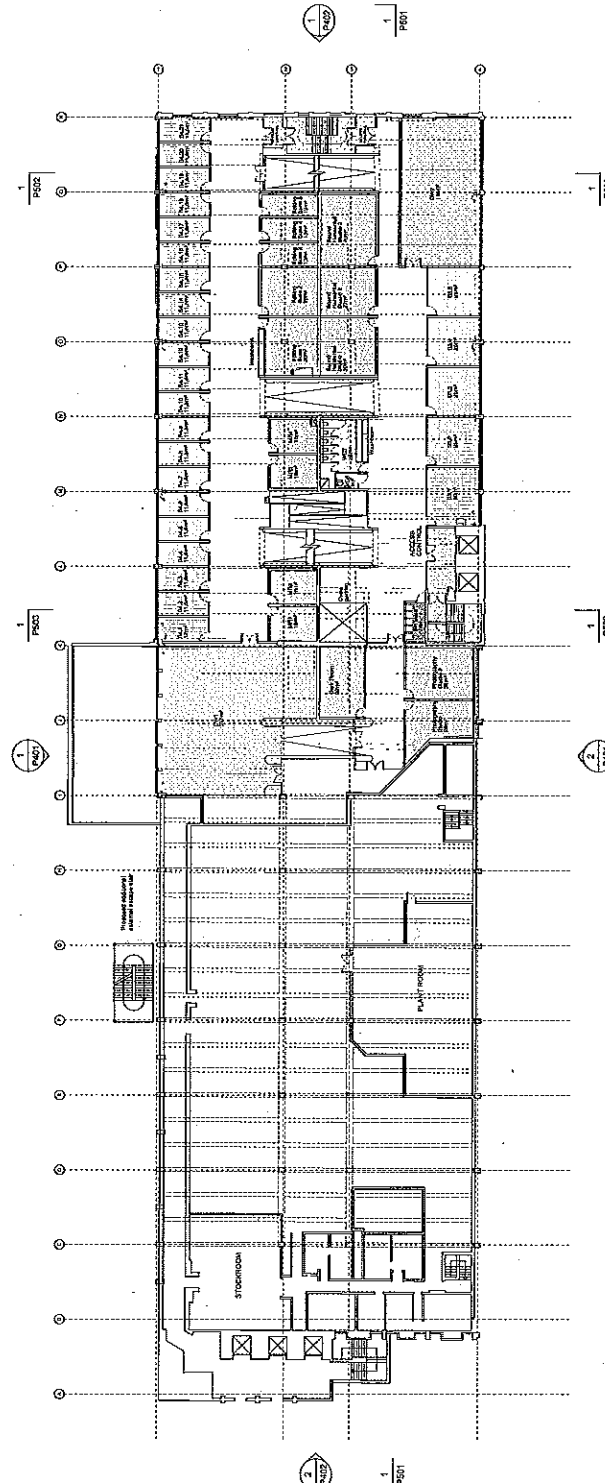
**Revision History**

Rev	Date	Description
A	23 01 16	Design development
B	12 02 16	Design development
C	18 02 16	Issued for comment
D	23 03 16	Issued for comment



**Project**  
Peckham Levels  
Drawing No. Proposed Level 1 and 2  
Drawing No. P303

**Drawn By**  
EW  
**Date**  
03 12 2015  
**Scale**  
1:250 @ A1 / 1:500 @ A3



**Key**

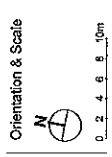
- Studio space 374 sq m
- Co-working space 365 sq m
- Shared workshops 20 sq m
- NWC, Shower + Change 29 sq m
- Care 61 sq m
- Bin store 7 sq m

**Carl  
Turner  
Architects**

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 Lenton SW9 8PQ  
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 info@ct-architects.co.uk  
 ct-architects.co.uk

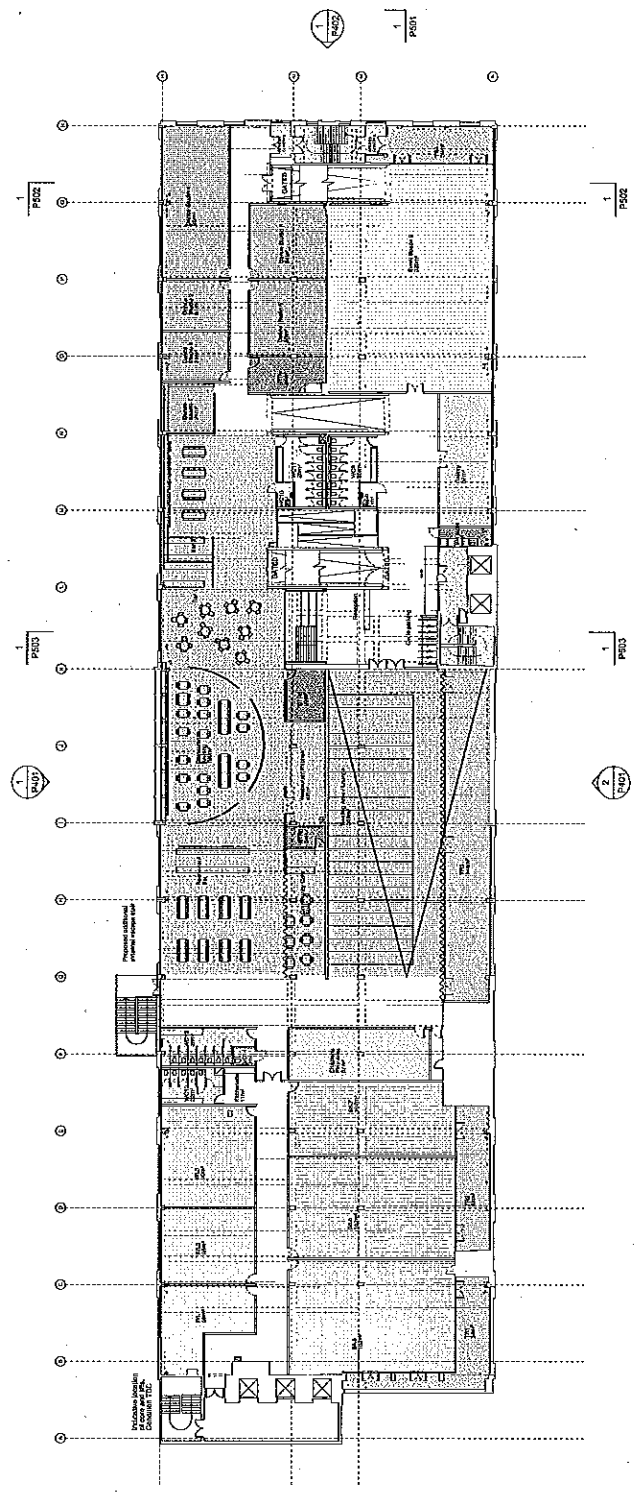
**Revision History**

Rev	Date	Description
A	18 01 16	Design development
B	23 01 16	Design development
C	18 02 16	Issues for comment
D	23 03 16	Issues for comment
E		Issued for comment



**Project**  
 Peckham Levels  
**Drawing Title**  
 Proposed Level 3 and 4  
**Drawing No.**  
 P304

**Drawn by**  
 EW  
**Date**  
 03 12 2015  
**Scale**  
 1:250 @ A1 / 1:500 @ A3



**Key**

- Studio space 678 sq m
- Dance studio 243 sq m
- YC, Shower + Change 120 sq m
- Flexible event space 334 sq m
- Childrens play area 98 sq m
- Gallery 78 sq m
- Outdoor terrace 285 sq m
- Food & Beverage 1060 sq m
- Storage/Bin store 61 sq m
- Cone 84 sq m

**Carl  
Turner  
Architects**

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London SW9 8PQ  
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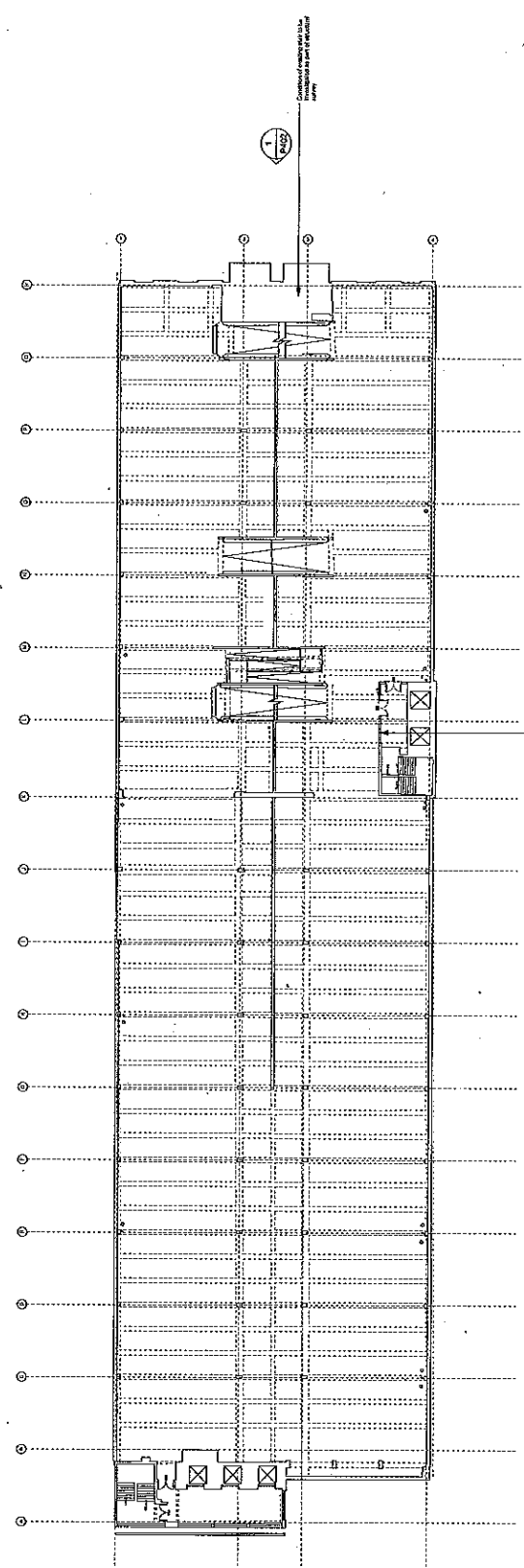
**Revision History**

Rev	Date	Description
A	18.01.16	Design development
B	25.01.16	Design development
C	18.02.16	Issued for comment
D	18.02.16	Issued for comment
E	23.03.16	Issued for comment

**Orientation & Scale**

**Project:** Peckham Levels  
**Drawing Title:** Proposed Level 5 and 6  
**Drawing No.:** P305

**Drawn by:** EW  
**Date:** 03.12.2015  
**Scale:** 1:250 @ A1 / 1:500 @ A3



**Carl  
Turner  
Architects**

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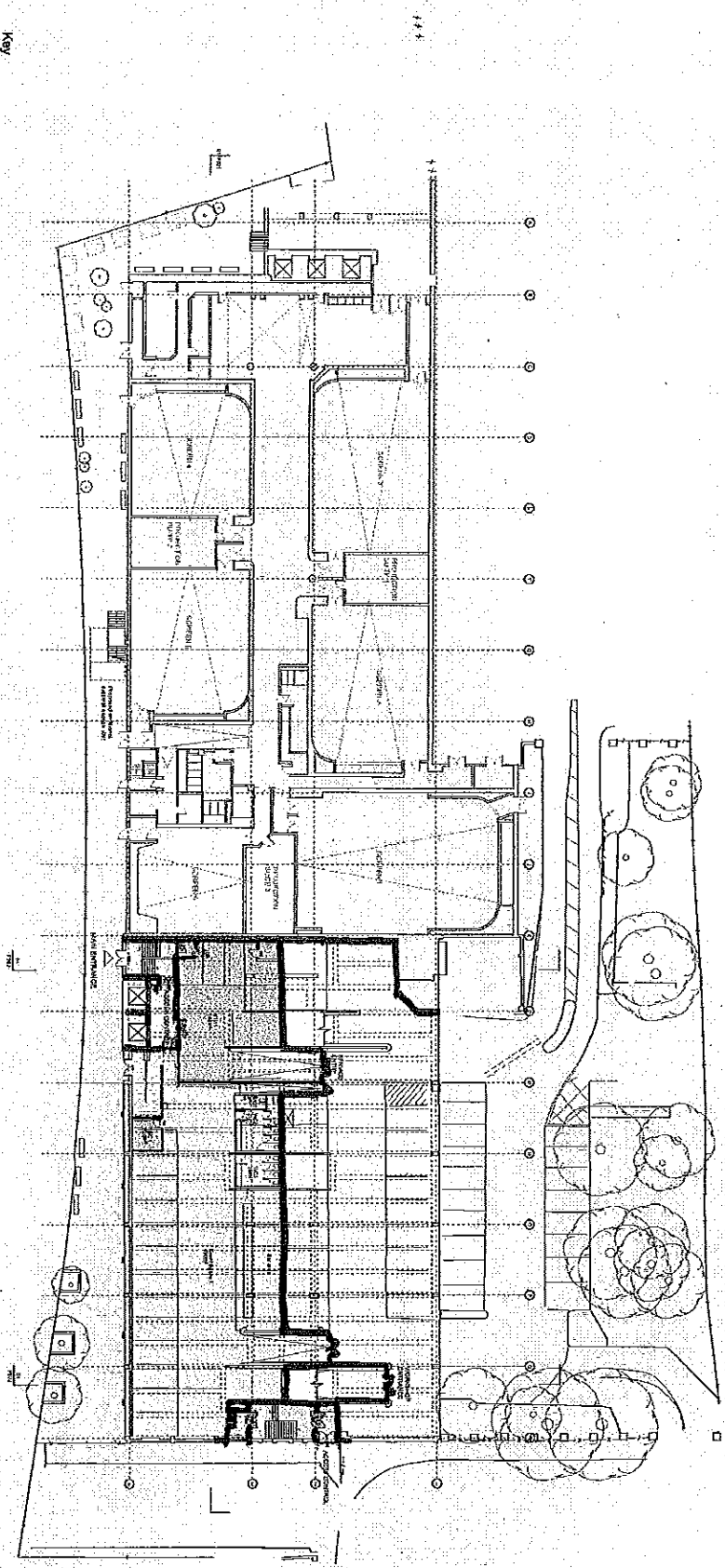
**Revision History**  
Rev. Date Description

**Orientation & Scale**  
N  
0 2 4 6 8 10m

**Project**  
Peckham Levels  
**Drawing Title**  
Proposed Level 7 and 8  
**Drawing No.**  
P305

**Drawn by**  
TW  
**Date**  
22.02.2016  
**Scale**  
1:250 @ A1 / 1:500 @ A3

- 120 mm F.R.  
 - 60 mm F.R.  
 - 30 mm F.R.



Event Storage/Security Core 497 sq m  
 WC 290 sq m  
 Market stalls 40 sq m  
 100 sq m

Key

Carl Turner Architects

Unit 41-43, 49 Brixton Station Road  
 London SW9 8PD  
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 info@ct-architects.co.uk  
 ct-architects.co.uk

Revision History

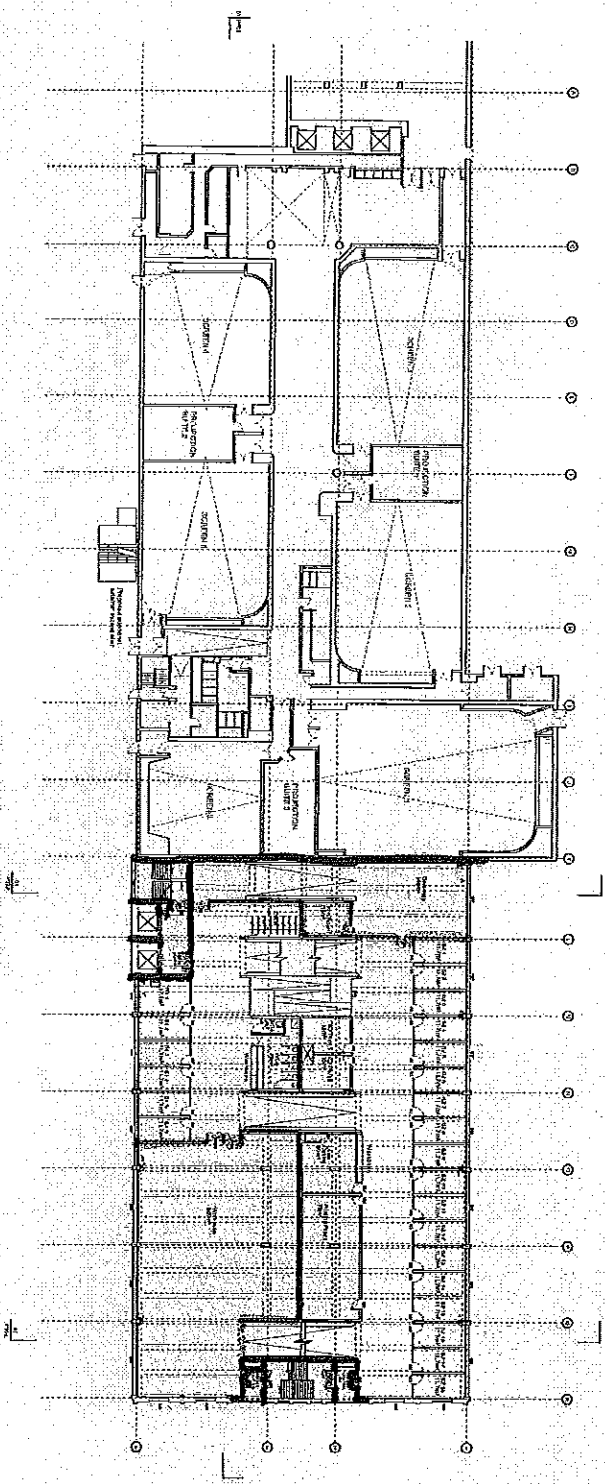
Rev.	Date	Description
A	18.01.15	Design development
B	25.01.15	Design development
C	17.02.15	Design development
D	18.02.15	Issued for comment

Orientation & Scale

Project: Pochkam Levels  
 Drawing Title: Proposed Level -1 and 0  
 Drawing No.: P302

Drawn by: EW  
 Date: 03.12.2015  
 Scale: 1:250 @ A1 / 1:500 @ A3

- 120mms F.R.  
 - 60mms F.R.  
 - 30mms F.R.



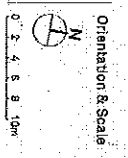
**Key**  
 Studio space 288 sq m  
 Shared work areas 655 sq m  
 WC 28 sq m  
 Core 100 sq m

**Carl  
 Turner  
 Architects**

Unit 41-43, 49 Brixton Station Road,  
 London SW9 9PJ  
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 ct-architects.co.uk

**Revision History**

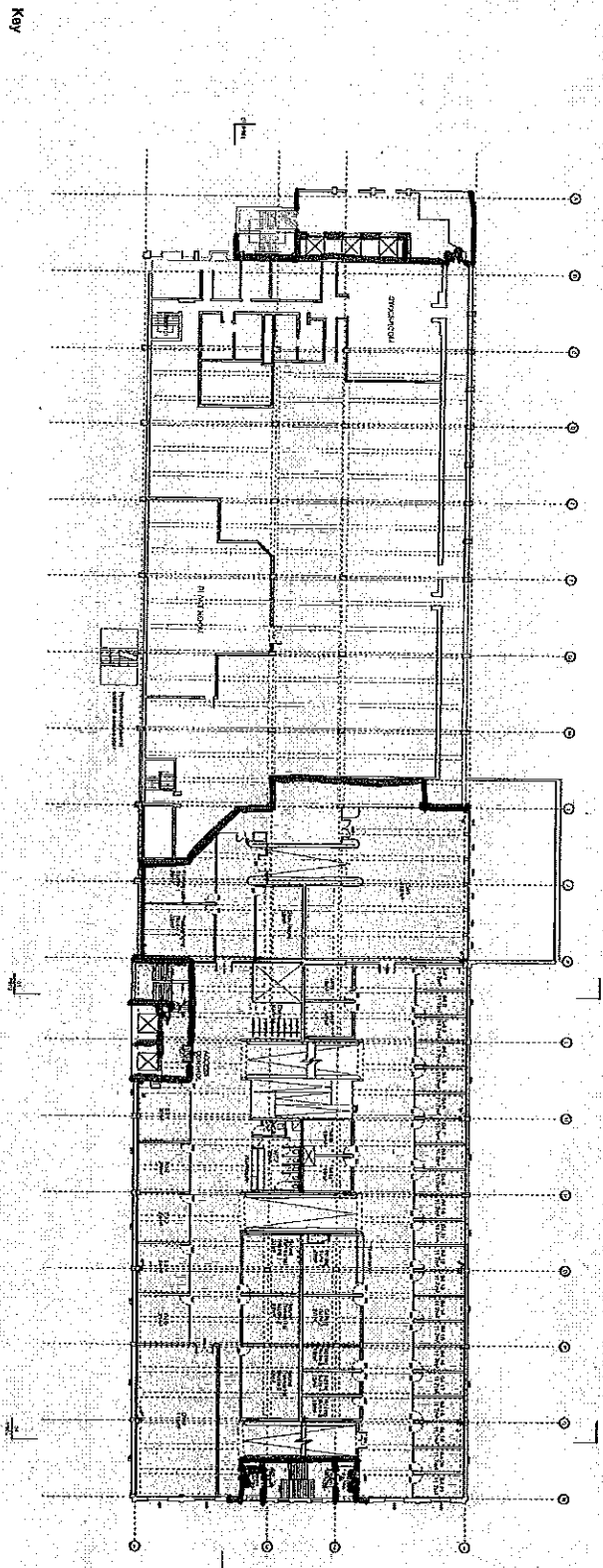
Rev	Date	Description
A	18.01.15	Design development
B	26.01.15	Design development
C	12.02.15	Design development
D	18.02.15	Issued for comment



**Project**  
 Pocham Levels  
 Drawing Title  
 Proposed Level 1 and 2  
 Drawing No.  
 P303

**Drawn By**  
 EM  
**Date**  
 03.12.2015  
**Scale**  
 1:250 @ A1 / 1:500 @ A3

— 120 mm F.R.  
 — 60 mm F.R.  
 S.D. 04.1001 F.R.



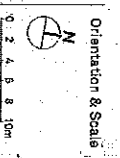
Key

- Studio space 378 sq m
- Co-working space 330 sq m
- Shared workshope 362 sq m
- WC 28 sq m
- Core 100 sq m

Carl  
 Turner  
 Architects

Unit 41-43, 49 Brixton Station Road  
 London SW9 8PQ  
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 info@ct-architects.co.uk  
 ct-architects.co.uk

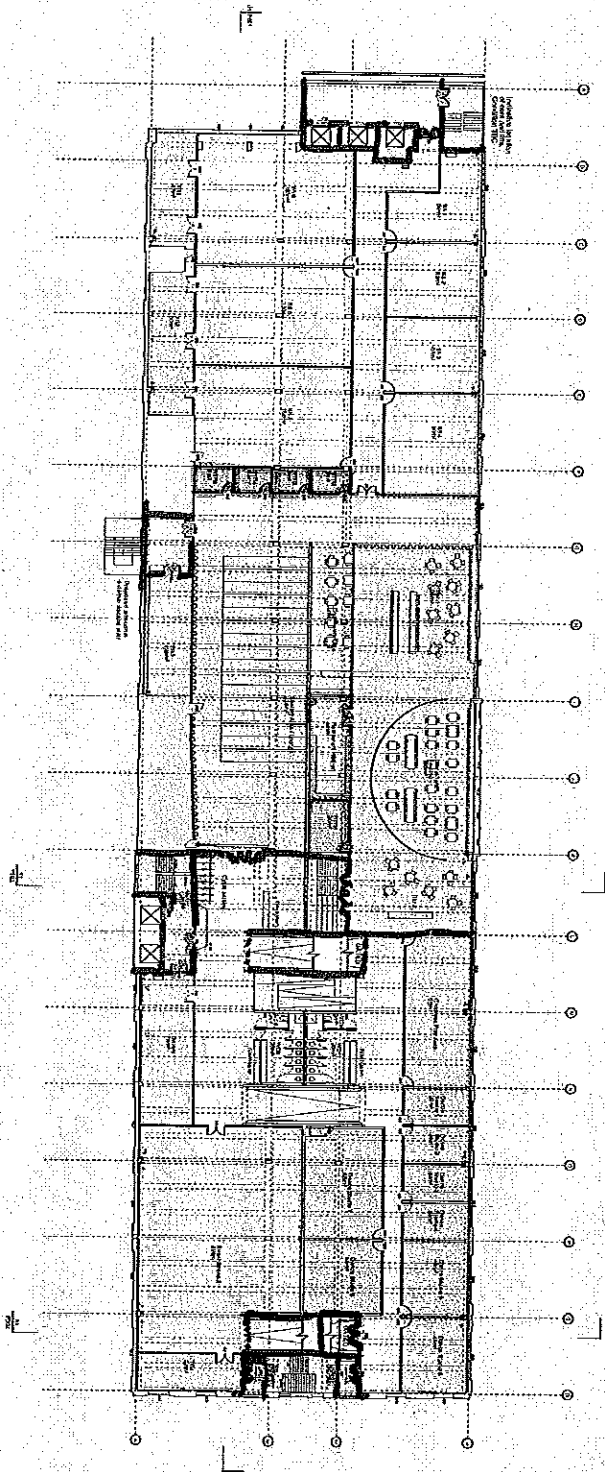
Rev.	Date	Description
A	25.07.15	Design development
B	12.07.15	Design development
C	18.02.16	Revised for comment
D		



Project:  
 Peckham Levels  
 Drawing Title:  
 Proposed Level 3 and 4  
 Drawing No.  
 P304

Drawn by:  
 EW  
 Date:  
 03/12/2015  
 Scale:  
 1:250 @ A1 / 1:500 @ A3

- 120 mins F.R.  
 - 60 mins F.R.  
 - 30 mins F.R.



Key

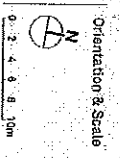
Studio space	774 sq m
Dance studio	330 sq m
WC	58 sq m
Flexible event space	326 sq m
Children's play area	98 sq m
Gallery	78 sq m
Outdoor terrace	278 sq m
Food & Beverage	525 sq m
Storage	35 sq m
Core	100 sq m

Carl  
 Turner  
 Architects

Unit 41-43, 49 Brickton Station Road  
 London SW9 8PC  
 +44 (0)203 846 1890  
 info@ct-architects.co.uk  
 ct-architects.co.uk

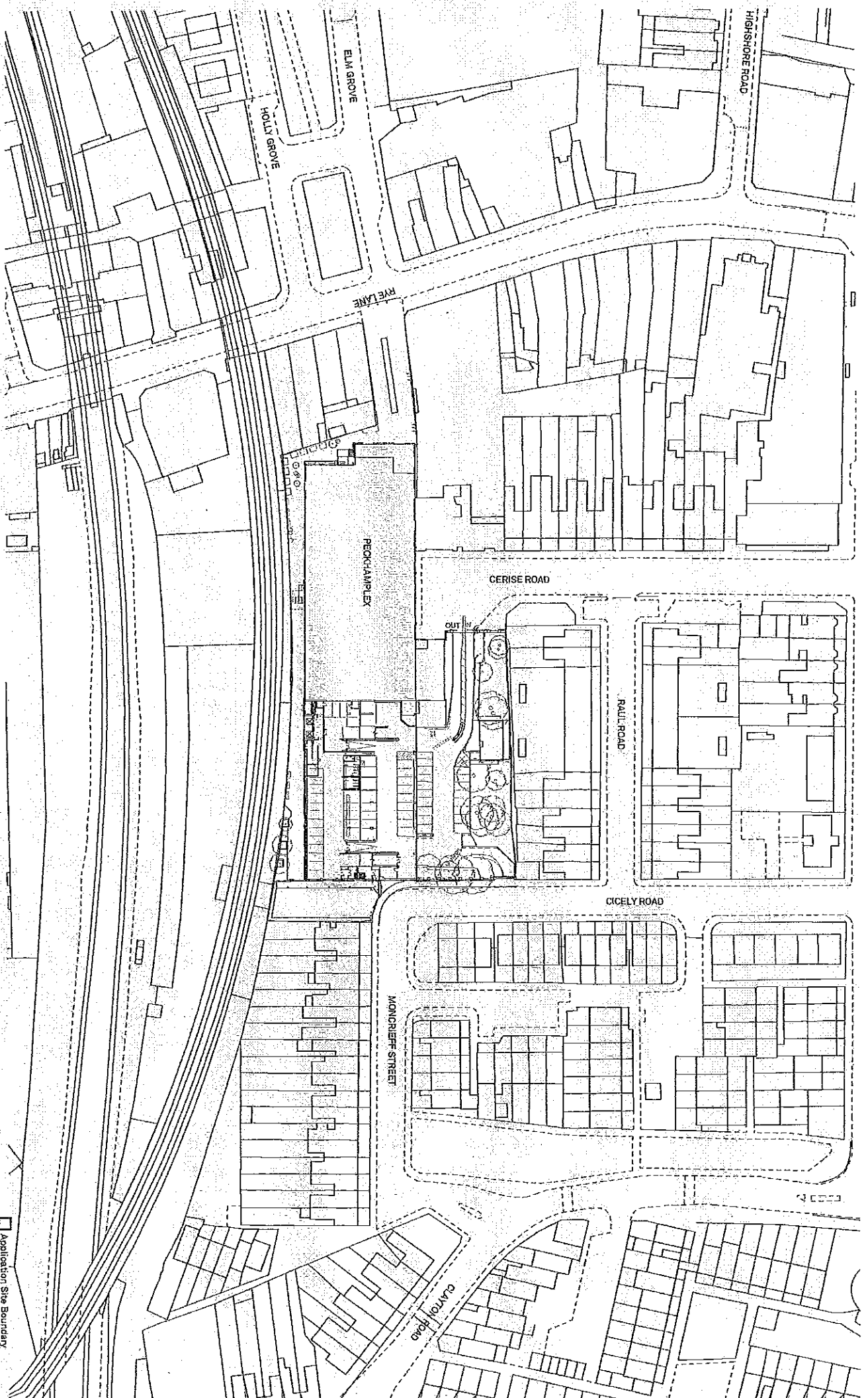
Revision History

Rev.	Date	Description
A	18.01.15	Design development
B	23.07.15	Design development
D	15.02.16	Issued for construction



Project:  
 Peckham Levels  
 Drawing Title:  
 Proposed Levels 5 and 6  
 Drawing No.  
 P305

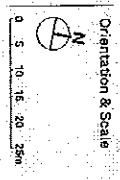
Drawn by:  
 EN  
 Date:  
 03/12/2015  
 Scale:  
 1:250 @ A1 / 1:500 @ A4



**Carl  
Turner  
Architects**

Unit 41-43, 49 Brixton Station Road  
London SW9 8PD  
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ct-architects.co.uk

Revision History  
A 17/02/16 Design development

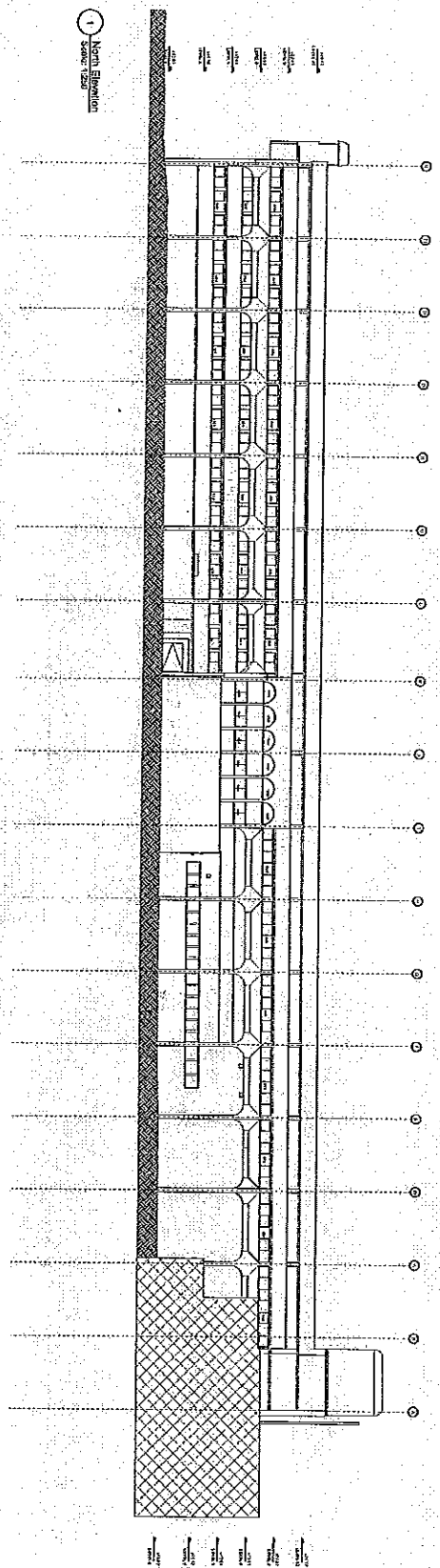


Project:  
Peckham Levels  
Proposed Site Plan  
Drawings:  
PT01

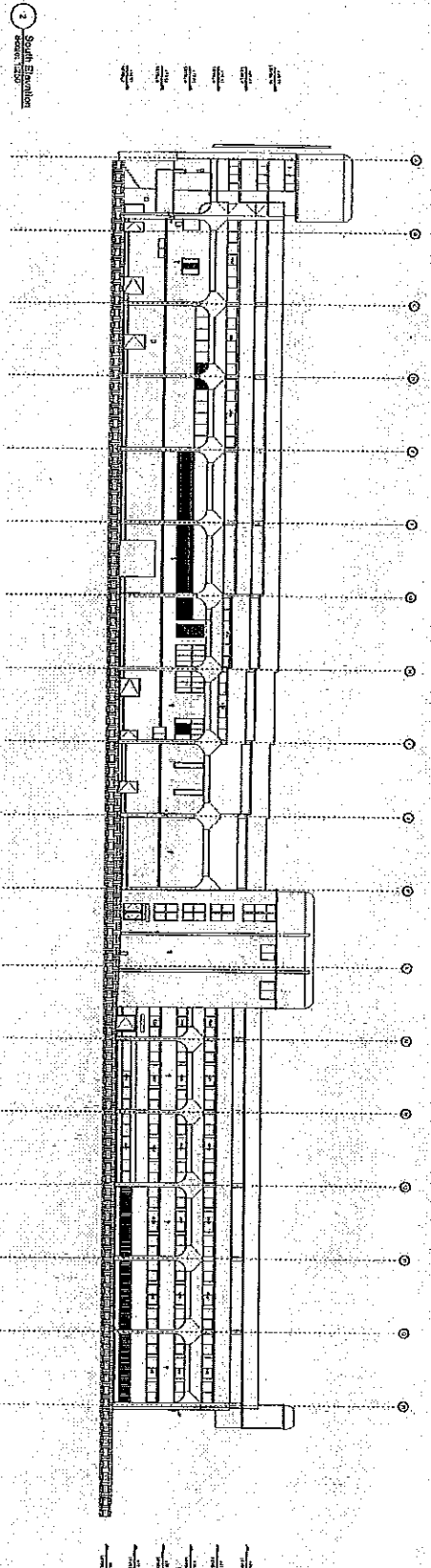
Application Site Boundary

Drawn by:  
TW  
Date:  
22.12.2015  
Scale:  
1:500 @ A1 / 1:1000 @ A3

1 North Elevation  
Scale: 1:500



2 South Elevation  
Scale: 1:500



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London SW9 9PQ

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Revision History  
Rev. A  
17.02.16  
Level hatched added

Orientation & Scale  
0 2 4 6 8 10m

Project:  
Peckham Levels  
Drawing Title:  
Proposed North and South Elevations  
Drawing No.  
P401

Drawn by:  
EW  
Date:  
12.02.2016  
Scale:  
1:250 @ A1 / 1:500 @ A3

Carl  
Turner  
Architects

**Carl  
Turner  
Architects**

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info@car-turner-architects.co.uk  
ct-architects.co.uk

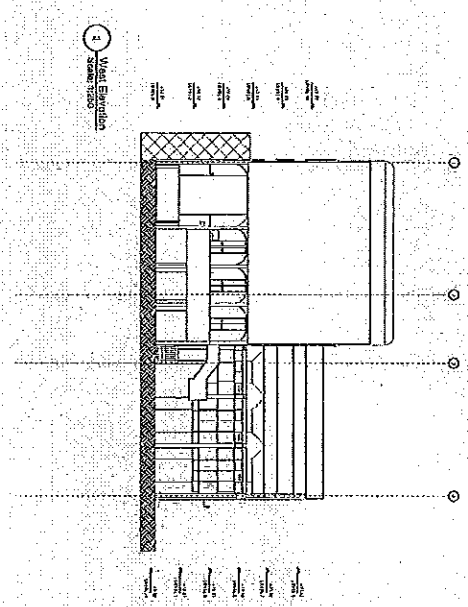
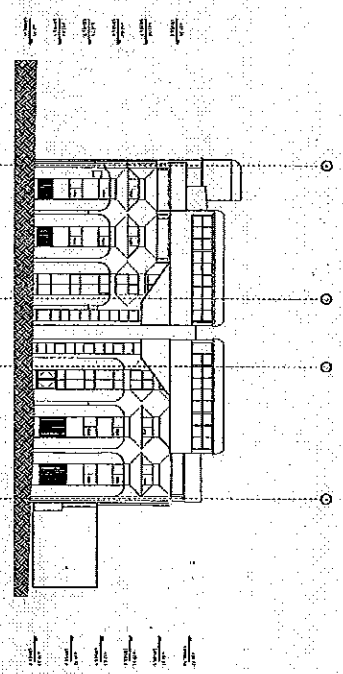
**Revision History**  
Rev Date Description  
A 17.02.16 Level markers added

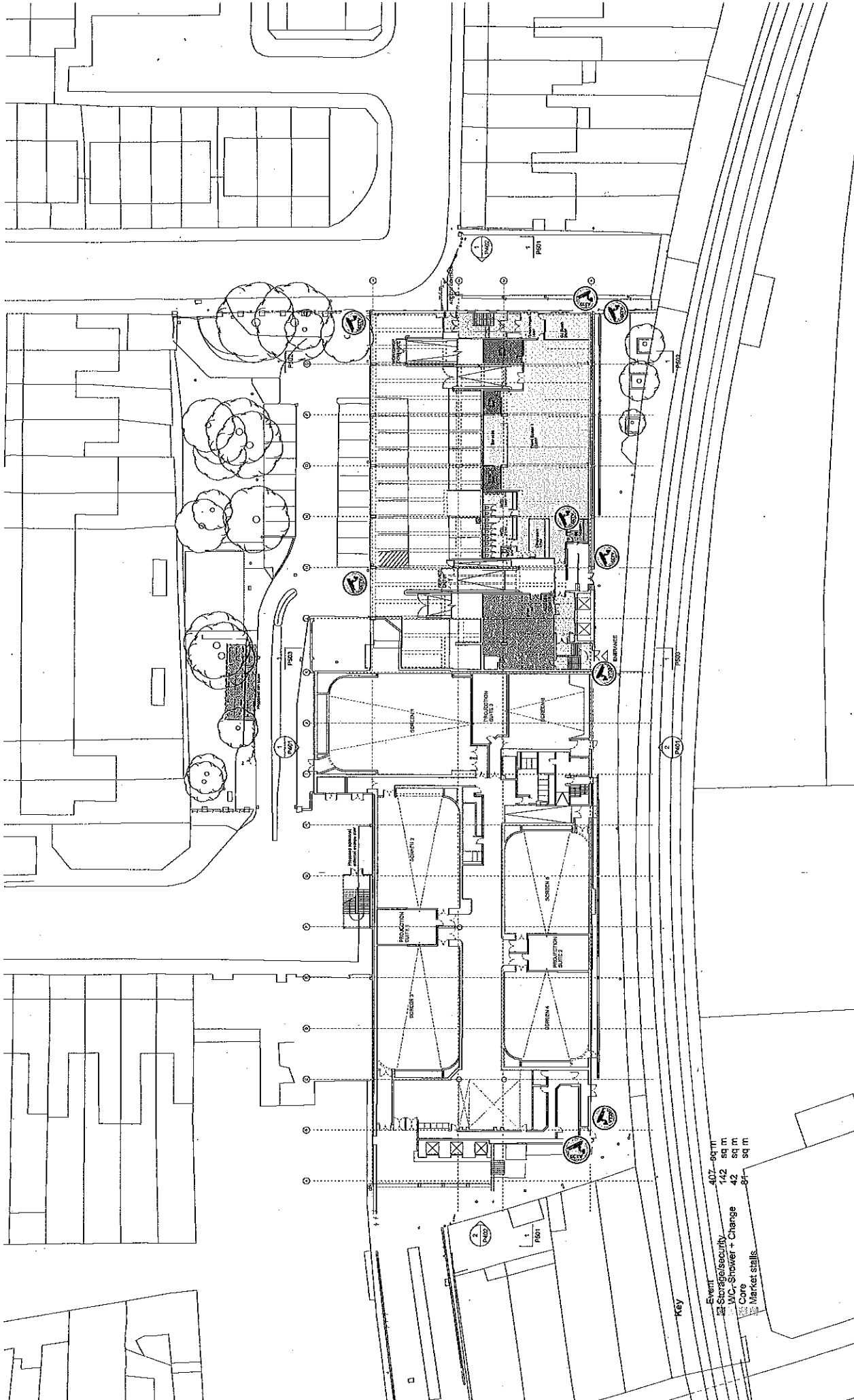
**Orientation & Scale**



**Project:** Peckham Levels  
**Drawing Title:** Proposed East and West Elevations  
**Drawing No.:** P402

**Drawn by:** EJV  
**Date:** 12.02.2016  
**Scale:** 1:250 @ A1 / 1:500 @ A3





Event 407 sq m  
 Storage/Security 142 sq m  
 WC, Shower + Change 42 sq m  
 Core 42 sq m  
 Market stalls 81 sq m

Key

Drawn by  
 EW  
 Date  
 03.12.2015  
 Scale  
 1:250 @ A1 / 1:500 @ A3

Project  
 Peckham Levels  
 Drawing Title  
 Proposed Level -1 and 0  
 Drawing No.  
 P302

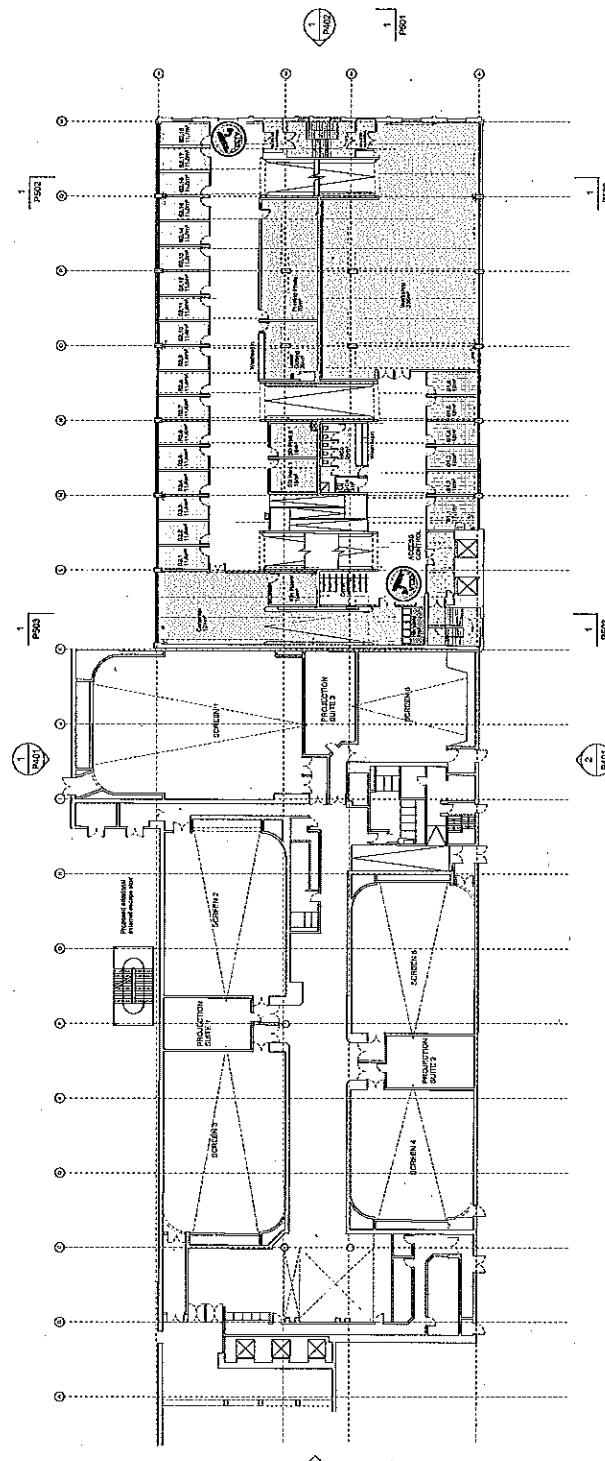
Orientation & Scale

Revision History

Rev	Date	Description
A	18.01.16	Concept
B	25.01.16	Design development
C	15.02.16	Design development
D	16.02.16	Design development
E	23.03.16	Issued for comment

Unit 41-43, 49 Brixton Station Road  
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 ct-architects.co.uk

**Carl  
 Turner  
 Architects**



**Key**

- 286 sq m Studio space
- 533 sq m Shared work areas
- 29 sq m W.C, Shower + Change
- 82 sq m Conc
- 7 sq m Bin store

286 sq m  
533 sq m  
29 sq m  
82 sq m  
7 sq m

**Carl  
Turner  
Architects**

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London, SW9 8PQ  
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ct-architects.co.uk

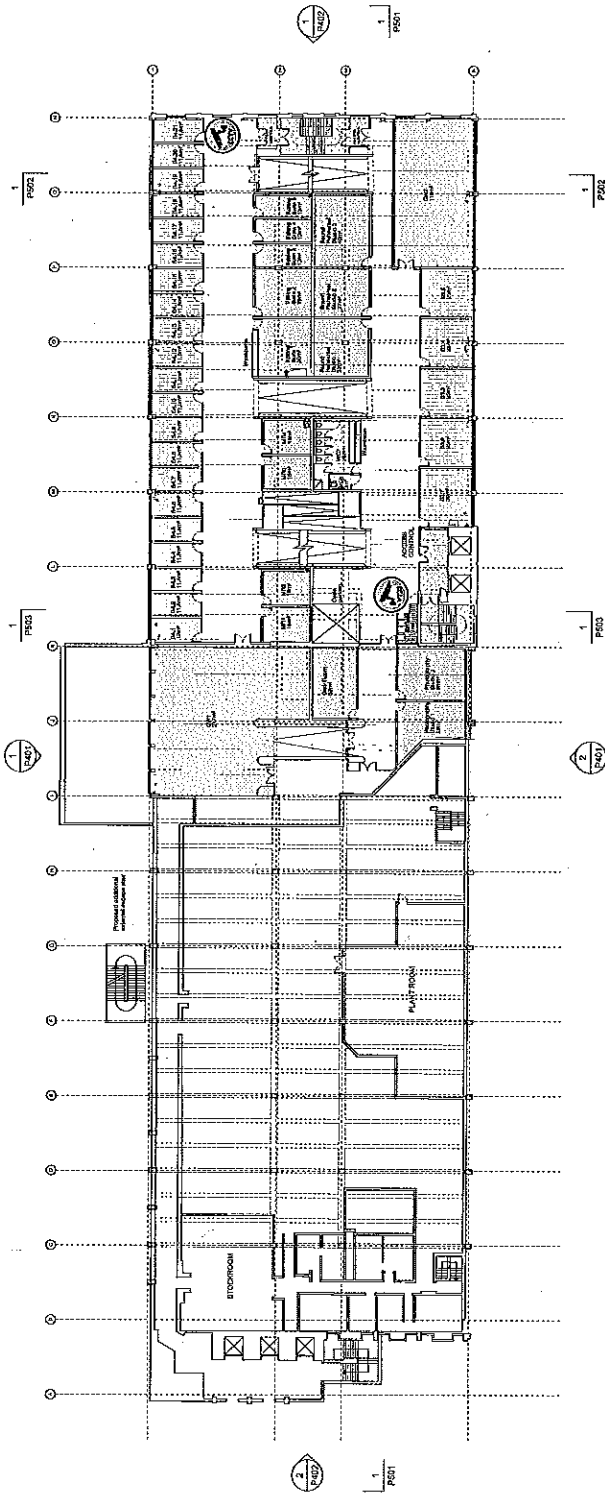
**Revision History**

Rev	Date	Description
A	18 01 16	Design development
B	22 01 16	Design development
C	12 02 16	Design development
D	18 02 16	Issued for comment
E	23 03 16	Issued for comment

**Orientation & Scale**

**Project**  
Peckham Levels  
Drawing Title  
Proposed Level 1 and 2  
Drawing No.  
P305

**Drawn by**  
EW  
**Date**  
03.12.2015  
**Scale**  
1:250 @ A1 / 1:500 @ A3



**Key**

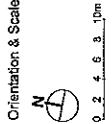
- 374 sq m Studio space
- 335 sq m Co-working space
- 360 sq m Shared workshops
- 29 sq m WC, Shower + Change
- 81 sq m Core
- 7 sq m Bin store

**Carl  
Turner  
Architects**

Unit 41-43, 49 Brixton Station Road  
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info@ct-architects.co.uk  
ct-architects.co.uk

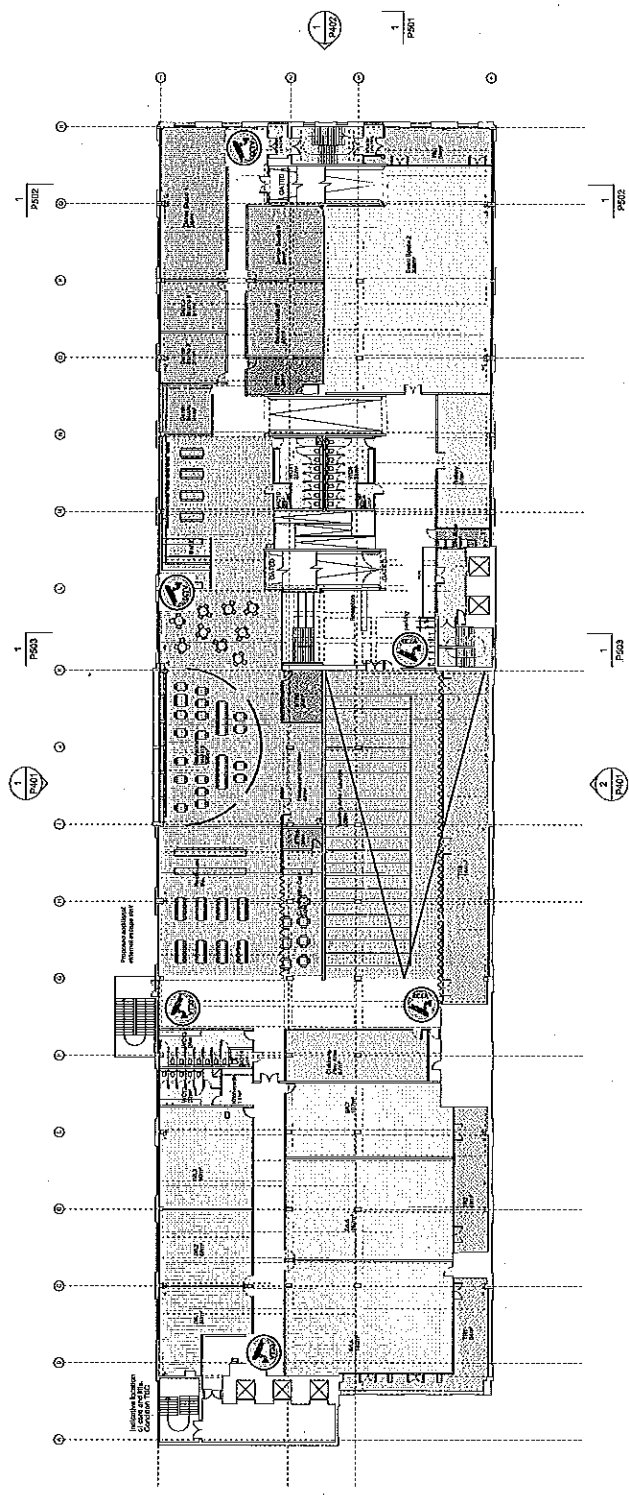
**Revision History**

Row	Date	Description
A	18.01.16	Design development
B	25.01.16	Design development
C	12.02.16	Design development
D	23.03.16	Issued for comment



**Project**  
Peckham Levels  
**Drawing Title**  
Proposed Level 3 and 4  
**Drawing No.**  
P304

**Drawn by**  
EYW  
**Date**  
03.12.2015  
**Scale**  
1:250 @ A1 / 1:500 @ A3



**Key**

- 1 Studio space 678 sq m
- 2 Dance studio 243 sq m
- 3 M/C, Shower + Change 120 sq m
- 4 Flexible event space 334 sq m
- 5 Childrens play area 58 sq m
- 6 Gallery 76 sq m
- 7 Outdoor terrace 285 sq m
- 8 Food & Beverage 1180 sq m
- 9 Storage/Bin store 61 sq m
- 10 Core 84 sq m

- 11 678 sq m
- 12 243 sq m
- 13 120 sq m
- 14 334 sq m
- 15 58 sq m
- 16 76 sq m
- 17 285 sq m
- 18 1180 sq m
- 19 61 sq m
- 20 84 sq m

**Carl  
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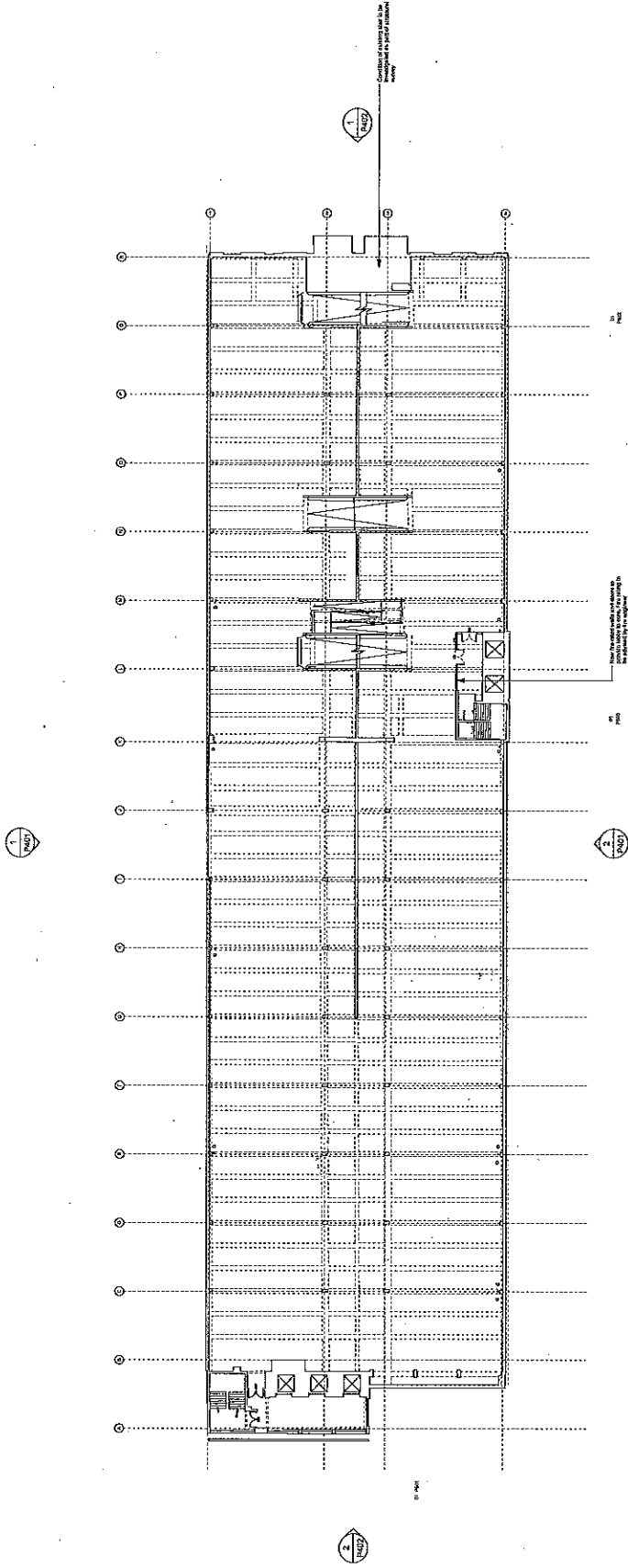
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**Orientation & Scale**

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**Drawing Title**  
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**Drawing No.**  
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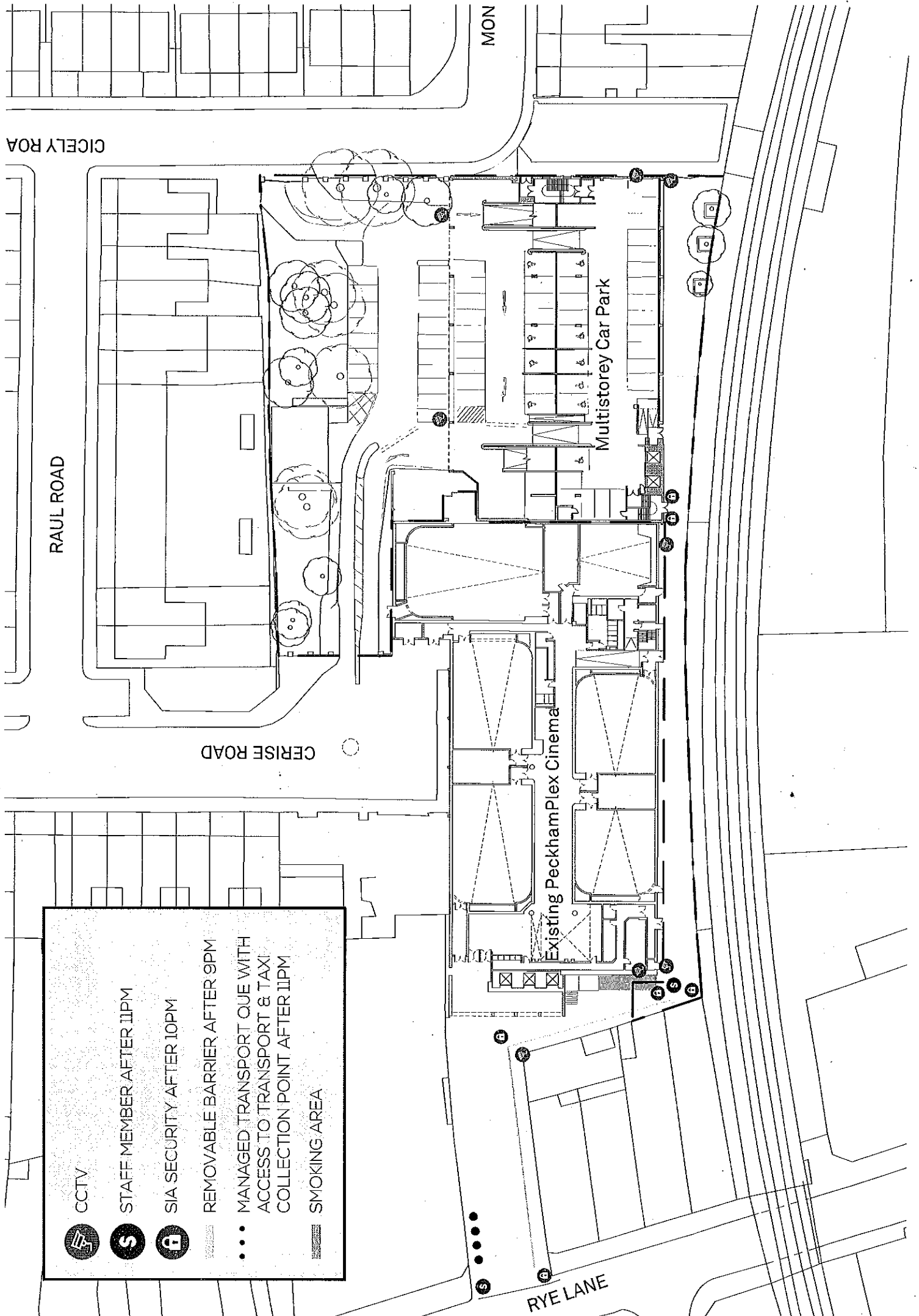
Project  
Peckham Levels  
Drawing Title  
Proposed Level 7 and 8  
Drawing No.  
P306







Orientation & Scale  
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Rev	Date	Description

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	CCTV
	STAFF MEMBER AFTER 11PM
	SIA SECURITY AFTER 10PM
	REMOVABLE BARRIER AFTER 9PM
	MANAGED TRANSPORT QUEUE WITH ACCESS TO TRANSPORT & TAXI COLLECTION POINT AFTER 11PM
	SMOKING AREA

RAUL ROAD

CERISE ROAD

MON

Multistorey Car Park

Existing Peckham Plex Cinema

RYE LANE

CICELY ROAD

# Peckham Levels, London

## Fire Strategy Report Issue 3

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**DOCUMENT CONTROL & NOTES**

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 Notes:

This report is prepared for the exclusive use of the Peckham Levels project and client team and a third party shall not rely upon the information that it contains. CUK will not accept any responsibility for matters arising because of use by a third party. The recommendations and conclusions of the report should not be applied to any other building and may not be relevant if the report contents are not implemented into the design.

This report is formulated on the basis of the information and experience available at the time of preparation. It is applicable to the above-mentioned project only in accordance with the client's instructions. It is only valid provided no other modifications are made other than those for which a formal opinion has been sought and given by Compliance UK.

**DOCUMENT HISTORY**

Issue	Date	Amendment Details	Author	Checked
1	10/02/16	Initial report for comment	BW	AL
2	23/02/16	Including design team feedback	BW	AL
3	16/03/16	Including building control comments	BW	AL

Note: All amendments to the fire strategy since the previous issue are indicated with a vertical line in the right hand margin of the document.

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## 1.0 INTRODUCTION

### 1.1 Report Scope and Objectives

- 1.1.1 Compliance UK (CUK) has been appointed to produce the fire strategy for refurbishment project known as the Peckham Levels.
- 1.1.2 This preliminary report has been created to describe the initial fire strategy concepts and also to present a series of options to be discussed within the design team, on this project the options mainly relate to methods of maximising the occupancy levels within the building. It is intended that this document is a discussion document which following feedback from the design team will be developed into a formal fire strategy report for Building Regulations submission.
- 1.1.3 This report is based on the guidance in British Standard BS9999<sup>1</sup>.
- 1.1.4 The report follows the main sections in BS9999, however in some specific areas fire engineering has been used to demonstrate deviations from the guidance. Such deviations are explained in each section as appropriate.
- 1.1.5 The findings and opinions expressed are based on the conditions encountered and the information reasonably available at the date of issue of this document, and shall be applicable only to the circumstances envisaged herein.
- 1.1.6 As this document forms a concept approach for fire matters, it is assumed that the fire safety systems and facilities have been implemented according to recognised standards and competently maintained such that the concept outlined in this document is maintained.

### 1.2 Building Description

- 1.2.1 The existing building is an existing multi-screen cinema with adjoining car park that has been previously been developed on the two uppermost floors into an events space known as Bold Tendencies.
- 1.2.2 The Bold Tendencies accommodation has a maximum existing agreed capacity of 1800 people with their escape routes being the three main escape staircases plus access down to level 6 via one of the existing car park vehicle ramps with escape then leading back into the adjacent escape staircase (this was due to the associated staircase flight between Levels 6 and 7 being unusable in the existing condition).
- 1.2.3 The existing cinema is completely independent of the proposed area of works and has independent escape routes with no reliance on the areas being discussed in this report.
- 1.2.4 The works proposed within this project involve the changing of the car parking accommodation on Levels 0 to 6 into artists' studio and events space. The refurbished accommodation on Levels 1 to 4 will mainly consist of workshops, studios and back of house space with the events space being on Levels 0 & -1 plus Levels 5 & 6. Within these works it will also be necessary to address some fire safety features for the Bold Tendencies demise, for example fire alarm systems will need to be interfaced, the existing staircase at the east end of the building will need to be reinstated at all levels and the fire safety management provisions will need to be coordinated.
- 1.2.5 The project has a limited budget and lifespan with this accommodation currently being designed based on a five year life span. To facilitate the funding model for the project the client requires a potential occupancy over the accommodation of 3600 people. These project constraints have been a key part of the form of how this fire strategy has developed.

### 1.3 Building Risk Profile

- 1.3.1 Following the guidance given in BS 9999 a risk profile can be established for the building based on a combination of the occupancy characteristic and the fire growth rate.

1.3.2 Occupancy Characteristic

1.3.3 The occupancy characteristic is principally determined according to whether occupants are familiar or unfamiliar with the building and to whether they are awake or asleep. The following is the characteristic occupancy applicable to this building as referenced from Table 2 of BS9999.

Occupancy Characteristic	Description
Events Space - B	Occupants who are awake and unfamiliar with the building

1.3.4 Fire Growth Rates

1.3.5 The fire growth rate is an estimation of the rate at which a fire will grow given the typical use to which the room will be put to. The fire growth rate is not necessarily related to the fire load density within the room. The following is the fire growth rate applicable to this building as referenced from Table 3 of BS9999.

Category	Fire Growth Rate	Fire Growth Parameter (kJ/s <sup>3</sup> )
2	Medium	0.012

1.3.6 From considering the above tables the following Risk Profile has been established.

Occupancy Characteristic	Fire Growth Rate	Risk Profile
B	2 – 0.012kJ/s <sup>3</sup>	B2

1.3.7 As the risk profiles for the two areas differ the fire strategy for the works has been based on the new commercial units being full separate fire compartments such that their treated as independent compartments with their own risk profiles applied independently.

2.0 **LEGISLATION**

2.0.1 The main fire legislation applicable to this building includes, The Building Regulations and The Regulatory Reform (Fire Safety) Order 2005.

2.0.2 This document forms a concept approach for fire matters, the design team must ensure the contents of this report are incorporated in the building. This concept will not prevent a fire occurring and good housekeeping will be encouraged to reduce the risk. This strategy is mainly concerned with getting occupants out of the building safely and providing measures, where necessary, to assist the fire fighters in their operations.

2.0.3 The concept is only valid where the systems are designed correctly and maintained in an operating condition. If there is a failure in the management approach and a fire occurs, this concept may not reduce the impact on contents and building damage.

2.0.4 Following occupation, the management of the premises are required under current legislation to carry out a fire risk assessment. This document will be developed following completion of the fit out works and will form part of the fire manuals developed for the premises (BS9999 provides appropriate guidance in this area).

2.1 **Building Regulations**

2.1.1 The construction or modification of any building in England & Wales needs to comply with the statutory requirements of the Building Regulations. These regulations deal with the minimum standards of design and building work for the construction of domestic, commercial and industrial buildings. The Building Regulations contain a list of requirements, referred to as Schedules, which are designed to ensure the health and safety of people in and around buildings. There are 14 Parts, which cover subjects such as structure, fire safety, ventilation, drainage, etc.

2.1.2 In the case of fire, the regulations are dealt with under the functional requirements B1 to B5 of Schedule 1 of the Building Regulations. There are a number of prescriptive documents, which can be adopted to show compliance with the Schedules. These include Approved Document B<sup>2</sup> and various British Standards (most notably BS9999 for fire safety design purposes). These guides are considered as adequate to provide general guidance for the more common buildings. An alternative approach is to adopt Fire Safety Engineering, which integrates fire engineering calculations, life safety systems, building inherent features and professional judgement, to produce a fire strategy that achieves appropriate levels of safety to a specific building and use.

## 2.2 Regulatory Reform (Fire Safety) Order 2005

2.2.1 A full risk assessment covering general health and safety as well as fire safety will be required on occupation of the building to meet the Regulatory Reform Order and will allow the ongoing control to be monitored to ensure safe escape can be achieved.

## 2.3 Construction, Design and Management Regulations

2.3.1 Projects undertaken in the UK are subject to the requirements of the Construction (Design and Management) Regulations 2015 (CDM), or within the European Union, that particular country's interpretation of the European Union Directive.

2.3.2 This report defines the strategy for meeting the functional and performance requirements for fire safety in the finished building. It is intended to form part of the submission for approval under the Building Regulations, Part B (Fire safety). Where any conclusions or recommendations contained within this report specify particular materials, products or forms of construction these will have been assessed, in accordance with CDM Regulations 9 and 11 (duties for designers).

2.3.3 In the event that these involve significant residual risks or health and safety critical assumptions, this information will be made available to the Principle Designer. Where the architect or other consultants use all or part of this report to specify works, they are understood to be competent in alerting the Client, Principle Designer, Designers, Contractors and Building Occupier of issues arising under the CDM Regulations.

## 3.0 **MEANS OF ESCAPE**

3.0.1 Schedule 1 of the Building Regulations requires the following functional requirements to be met in respect of B1, Means of warning and escape:

*"The building shall be designed and constructed so that there are appropriate provisions for the early warning of fire, and appropriate means of escape in case of fire from the building to a place of safety outside the building capable of being safely and effectively used at all material times."*

3.0.2 The following discusses the implications of this proposed building design and seeks to demonstrate that a satisfactory standard of fire safety is achieved.

### 3.1 Evacuation Strategy

3.1.1 As the building is essentially becoming an Assembly and Recreation use prescriptive guidance recommends that the evacuation should be based on a simultaneous basis. As a result, this philosophy forms the starting premise for the discussions on means of escape.

3.1.2 Based on the above in the event of a fire in the building the new accommodation and the Bold Tendencies accommodation will both evacuate simultaneously. Due to exit width proposals for this building it is proposed that a short investigation / pre-evacuation period is incorporated primarily to allow staff to get into position to efficiently management and evacuation.

3.1.3 In this case in the event of a single smoke detector activating then a maximum 30s acknowledgement period will commence in which staff have the opportunity to acknowledge the fire alarm at the main fire alarm panel. Once the fire alarm has been acknowledged then staff will have a further three minutes in order to establish the location of the fire and also move staff into positions to be able to manage occupants to the most appropriate exits.

- 3.1.4 In the event that either of the acknowledgement or investigation periods time out without action or a second smoke detector or a single heat detector or manual call point activates then any delay would be cancelled and the evacuation signal would be given throughout the accommodation.
- 3.1.5 It should be noted that this cause and effect would be applicable to both the new accommodation and also to the Bold Tendencies demise due to the interconnection of the escape routes. Discussions will be required with Bold Tendencies to ensure that these interfaces can be achieved.

**3.2 Travel Distances and Escape Protection**

3.2.1 The travel distances will be limited to those discussed in the table below. In each case the travel distances will be measured from the furthest point in the accommodation to the nearest storey or final exit door along the actual route of escape.

	Travel in one direction	Travel in more than one direction
<b>General Accommodation</b>	23m <sup>A</sup>	57.5m <sup>A</sup>

Notes: <sup>A</sup> – The distances quoted are based on the minimum travel distances plus a 15% allowance for the inclusion of the enhanced automatic fire alarm and detection systems.

- 3.2.2 The travel distances recommended above are met from all areas of the accommodation.
- 3.2.3 There are a number of inner rooms present in the accommodation however those present are considered acceptable due to the following principles being present:
  - Each inner room maintains the travel distances to a storey exit as recommended earlier.
  - Each inner room and access room is covered by the automatic fire detection and alarm system.
  - No inner room is accessed from a special fire hazard room.
  - The occupancy of the inner rooms are limited to a maximum of 60 people.
- 3.2.4 All dead end corridors longer than 2m in length will be enclosed in 30minute fire resisting construction with FD30S self-closing doors.
- 3.2.5 All doors needed for escape are openable with a single action and without the use of a key. Any access control devices fitted to doors will be interlinked to the fire alarm system such that they disengage on the activation of the fire alarm system. Additionally a manual override device is positioned locally by each door needed for escape that includes access controls.
- 3.2.6 All escape routes maintain a minimum height clearance of 2m.
- 3.2.7 The staircase discharge routes are maintained unobstructed and free of fire load.

**3.3 Occupancy Loads and Escape Widths**

3.3.1 As stated earlier the existing events space on the levels above this accommodation currently have a maximum occupant capacity of 1800 people. Similarly this project has a funding requirement for potentially up to 3600 people overall, of which the following distribution has been proposed:

Floor	Occupancy
Level -1/0	1000 People
Level 1/2	300 People
Level 3/4	300 People
Level 5/6	2000 People

- 3.3.2 One of the key findings to this fire strategy was that the original existing staircases were insufficient under either Approved Document B or BS9999 standard principles to support arguably the existing occupancy levels let alone any new development. On the back of this finding within these works an additional external staircase is being added to assist with the occupancy levels however beyond this a fire engineered alternative solution has been proposed to address the shortfall in the escape widths.
- 3.3.3 The following sections describe the basic means of escape parameters applicable to this building based on BS9999 recommendations and subsequently the maximum occupant capacities for the floors and building based on these prescriptive principles. Following this a further section then discusses the proposals for mitigating the additional occupancy levels proposed and the facilities present in order to manage this evacuation process.

### 3.3.4 BS9999 Escape Width Parameters

3.3.5 From Table 13 of BS9999 the minimum door width per person recommended with the minimum fire protection measures is 4.1mm (B2 profile). A minimum door clear width of 800mm applies to all escape doors and a 1200mm minimum clear width for corridors.

3.3.6 The building design has a series of half levels that have access into the staircases therefore in our opinion to correct correlation with prescriptive guidance (i.e. to accurately reflect stacking of occupants within the staircases) each pair of levels should be considered as a single floor with respect to the floors served for staircase capacity purposes. Based on this rationale Table 15 recommends a minimum stair width of 2.9mm per person for each of the three internal staircases with the minimum fire protection measures. Similarly the external staircase is assumed to not serve the existing top floor accommodation and therefore has a minimum stair width of 3.4mm per person. A minimum stair width of 1000mm applies to downward travel on the staircases.

3.3.7 In respect of vertical escape it is considered that the automatic fire alarm and detection system is a significant benefit for the greater escape design and therefore it is proposed to take this feature as an additional benefit for the escape widths. This therefore gives a 15% reduction to give a figures of 3.485mm per person for storey exits and 2.465mm per person and 2.89mm per person respectively.

### 3.3.8 Prescriptive BS9999 Exit Width Application for Horizontal Escape

3.3.9 From the existing plans each staircase width is 1800mm therefore this has been assumed as the limiting factor for the storey exits (as in some cases there are multiple storey exits that lead onto the same stair flight). From the exit parameters discussed in Section 3.3.4 above this results in each 1800mm wide exit being able to support up to 516 people.

3.3.10 Level 5 and 6 is a larger floor plate than the lower floors due to the space oversailing the cinema. This level has access to the three existing staircases plus an extra new staircase. From the discussion above the storey exits are considered to be limited to 1800mm wide with the potential of dual routes into these staircases resulting in a maximum of four exits being available after the largest exit has been discounted. Based on the four exits available this gives a potential maximum occupancy of 2064 people.

3.3.11 On Levels 1 to 4 the accommodation has access to two staircase routes which again have a limiting width of the staircases at 1800mm. Therefore, based on one exit into the staircases being discounted due to the fire individually each pair of levels (e.g. Levels 1 & 2 or Levels 3 & 4) can potentially cater for up to 1032 people.

3.3.12 At Levels -1 and 0 the accommodation has potential access into the two main staircases, a direct final exit to outside plus escape via the ramps into the car park. With the ramp routes assumed to be 1000mm wide with the other three routes affording 1800mm widths the potential maximum occupancy of this level could be up to 1600 people and therefore this exceeds the design occupancy for this space to maximise the building occupancy on the upper floors it is proposed that these areas do not escape via the main staircases and instead escape via the car park or direct final exits as applicable. In this case there are two exits available that both maintain a clear opening width of at least 1000mm therefore the aggregate occupancy of these two levels can be up to 1000 people.

3.3.13 It should be noted that all doors on the escape routes open in the direction of escape. The doors into individual rooms that have an occupancy of less than 60 people are acceptable opening in either direction but the door opening widths must be at least 800mm wide.

3.3.14 Rooms with single exits should be limited to 60 people. Rooms with two exits can have a potential occupancy of up to 600 people, if this upper limit was observed then the two exit doors would need clear widths of 2091mm each. For information a single 800mm exit door that opens in the direction of escape can cater for up to 229 people.

3.3.15 It should be noted that none of the discussions above consider the potentially of using the former car park ramps as a further means of escape.

3.3.16 Prescriptive BS9999 Exit Width Application for Vertical Escape

3.3.17 For vertical escape it is proposed that all staircases will be lobby protected and therefore it is not necessary to discount a staircase where a storey exit has previously been discounted.

3.3.18 The overall accommodation has potentially three internal staircases which can access all floors plus one external staircase which serves up to Level 6. Based on each staircase being 1800mm clear and using the parameters discussed in paragraph 3.3.7 the available staircases give a total building occupancy of 2812 people. This is composed of three internal staircases that each have a capacity of 730 people plus one external staircase that has a capacity of 622 people.

3.3.19 To support this prescriptive occupancy the staircase routes, the final exit routes and final exit doors from the staircases should maintain the widths of the staircases, i.e. 1800mm.

3.3.20 Occupancy Increases

3.3.21 The prescriptive calculations discussed above demonstrate that there is sufficient horizontal storey exits at each level to locally support the occupancy levels expected on each floor. However, the staircases present are only sufficient to support up to 2812 people by prescriptive measures, this leaves an over capacity of 2015 people on the upper floors (Note: The 2015 person figure has been established as follows: The overall building when including the Bold Tendencies figures has an occupancy of 5400 people. From the vertical escape section above the staircases have a total capacity of 2812 people, leaving a surplus of 2588 people. But, the 5400 total capacity includes occupants on Levels -1/0 which would also access to other exit routes beyond the staircases therefore these occupants have been further deducted from the surplus 2588 people, leaving the 2015 people extra that are reliant on the staircases for escape. On the level 0 accommodation there is a direct final exit of approximately 1800mm, then two exits that discharge into the car park of approximately 1500mm and 800mm respectively. After discounting the largest exit the two remaining exits can accommodate over 600 people. At this point as these additional exits are new and need to be developed onsite the capacity escaping via these separate routes has been reduced to slightly to allow for construction tolerances which gives the 2015 person over capacity).

3.3.22 Within the building it is known that the vast proportion of the excess occupants will be located on Levels 5 and 6 plus within the Bold Tendencies demise above. As the occupancy excess is on an upper storey and therefore reliant on a staircase being available for escape it is proposed that to achieve an adequate level of safety there would need to be sufficient resilience present within the escape routes to allow the occupants to wait the additional time to evacuate. In prescriptive settings there are parallels to this concept with both phased evacuation and progressive horizontal evacuation whereby enhancements to early warning, compartmentation assist with creating additional time to for escape.

3.3.23 In a phased evacuation building that is less than 30m high phased evacuation would be based on the lifts and stairs being lobbied, all floors being compartment floors, a minimum L3 fire alarm and detection system being provided and an internal speech communication system being present to allow fire wardens to control the evacuation.

3.3.24 In this building for a fire in the top floor tenancy it is likely to take a considerable period before this escalates to start affecting the escape routes from the levels below. Similarly, a fire in the new accommodations on levels 0 to 4 actually still leaves the main occupied floors with access to two completely independent staircases due to the natural distribution of the building accommodation that oversails the discreet cinema. On this basis the worst case would potentially be a fire on Level 5 which would have a direct impact on the occupants on that level and it would also potentially have access to all of the staircases that serve the top floor accommodation.

3.3.25 Following on from the above, if Levels 5 and 6 were sub-divided into two fire compartments (notionally with the sub-division line along the line of the cinema party wall this would ensure that two staircases were available in each compartment zone). With the sub-division forming a formal compartment scenario with 60minutes fire resistance and FD60S self closing doors then these compartments could be used as temporary refuge area where occupants could queue in relative safety. Supporting this each compartment would be able to accommodate the entire occupancy for the floor.

- 3.3.26 In addition to the basic compartmentation this proposal would require full fire alarm and detection coverage of the accommodation, well trained management and facilities to allow clear communications to all occupants in the building. Discussions between the respective accommodation management teams are already underway to assess the impact on their management operations with remedial actions being established.
- 3.3.27 Based on the discussions above in order to support a concept of extending the evacuation period within this building the following facilities are proposed:
- A 60minute compartment floor will be introduced above and below Levels 5 and 6
  - Levels 5 & 6 will be sub-divided centrally into two compartments by a 60minute fire resistant wall
  - Each compartment on Levels 5 & 6 will accommodate queuing space for the entire occupancy of this floor.
  - All lifts and staircases will be lobbied off from the accommodation at each level.
  - The building will be covered by a minimum L2 standard automatic fire alarm and detection system with voice alarm system.
  - Additional trained staff will be provided on all occasions where the building occupancy exceeds 2812 people.
- 3.3.28 Given the above facilities it is not considered likely that the staircases would be impeded during the evacuation period however there is potential that the access routes from the floor plates into all of the staircases could be affected, especially later in the evacuation. In order to gain an understanding of the potential evacuation extensions that could occur in the building the following calculations have explored different fire scenarios.
- 3.3.29 From prescriptive staircase calculations the upper floors can support 2812 people in accepted normal evacuation periods, leaving a further 2015 people present in the building still needing to evacuate to outside via the staircases. At the point of the extended evacuation time the staircases already have occupants queuing in the staircases and therefore the limiting factor for the evacuation becomes how long it takes for the occupants to flow through the staircase final exits at ground floor level.
- 3.3.30 BS7974 Part 6 recommends that occupants can flow through an exit at a rate of 1.3persons/m/s. In this case each staircase exit is 1.8m wide and therefore each final exit can support a flow rate of 2.34 persons/s. The table below gives a summary of the additional evacuation time that would be required based on the excess occupancy have access to different numbers of staircases.

<b>No. of Staircases Available for Escape</b>	<b>Exit Time Extension</b>
One Staircase	862s (14.4minutes)
Two Staircases	431s (7.2minutes)
Three Staircases	287s (4.8minutes)
Four Staircases	216s (3.6minutes)

- 3.3.31 Although considered in the table above it is highly unlikely that a single fire event could impede more than two of the staircases due to the compartmentation present through the building. On this basis the realistic worst case situation would be an evacuation extension of 7.2minutes. It should be noted that these calculations do not consider any occupant evacuation via the internal circulation ramps and where more than two staircases are available then the evacuation extension could be further reduced.
- 3.3.32 With regards to the Bold Tendencies accommodation they will not have access to the new staircase that is being added to serve Levels 5 and 6 and therefore they will have access to the three existing staircases only from their accommodation. Notwithstanding this they also have internal access between their accommodation levels and their top floor which has access to all three available staircases is also in the open air.

**3.4 Persons of Reduced Mobility (PRM) Evacuation**

- 3.4.1 The evacuation of disabled occupants plays an important role in the overall evacuation of the building. The building operates on several levels above ground and therefore, where escape is not direct to outside, provisions are required for disabled occupants to reach a place of refuge before being fully evacuated by staff.

- 3.4.2 At present it is not intended that the lifts within the building be used as part of the means of escape for disabled occupants. Where possible, the exits have been arranged so that escape is either direct to outside (where practicable) or into a refuge on the upper floors.
- 3.4.3 The refuges comprise of a notional area, 1400mm x 900mm located out of the path of escape within the stair or staircase lobby enclosures. In accordance with BS9999, the refuges will contain a means for occupants to communicate to the building management that they are in need of assistance. The emergency communication system will conform to BS 5839 Part 9<sup>3</sup> and consist of Type B outstations. This will be provided within the refuge with an indication at a suitable management area (proposed at this stage as within the protected stair enclosure at ground floor level).
- 3.4.4 The building management (in this context both the tenants and landlord management) forms an integral part of the design and on-going functionality of the building. The building should have an overall management system whereby assigned responsibilities will include ensuring that the fire safety strategy is adopted and enforced, which will include the production of the emergency management strategy discussed above.
- 3.4.5 The emergency management strategy should include information on staff training, staff resource levels, details of any additional facilities (e.g. evacuation chairs, fire warden radios etc.), how disabled occupants will be evacuated in the event of a fire and identify key roles in ensuring they are assisted in a fire situation.

### **3.5 Fire Alarm and Detection Systems**

- 3.5.1 The minimum fire alarm and detection system standard for an assembly building is a simple manual system, however as part of the building design a higher than minimum standard of fire alarm and detection system has been provided. In this case the building will include an automatic fire alarm and detection system that provides a minimum L2, Grade A standard as described in BS 5839 Part 1<sup>4</sup>. Further to the general fire alarm system specification it is also recommended that the system also includes a voice alarm facility.
- 3.5.2 The system should comprise of a fire alarm panel, manual call points at storey and final exits, appropriate automatic fire detection and sounders in all escape routes, rooms opening onto escape routes and all special fire hazard rooms. Due to the interrelationship between the existing Bold Tendencies space and the new accommodation it is proposed that these fire alarm principles apply to both accommodations.
- 3.5.3 The fire alarm panel will be located by the main entrance to the building. This enables the fire service to review the panel information in addition to possessing further details on the building facilities prior to entering further into the building. Depending on the status of the existing fire alarm systems within the Bold Tendencies space it may be necessary for an additional fire alarm repeater panel to be provided in their accommodation.
- 3.5.4 Fire sounders will be provided to ensure a sound level of 65dbA or 5dbA above ambient background noise, whichever is the greater. It is recommended that the fire alarm systems are linked to the sound systems within the accommodation such that the sound systems are shutdown automatically on the fully activation of the fire alarm and detection system.
- 3.5.5 As mentioned earlier the building will be evacuated simultaneously on the full activation of the fire alarm and detection system, following a 30s acknowledgement period and three minute investigation period (See Section 3.1 for further discussion on this process).
- 3.5.6 On activation of the fire alarm and detection systems the following facilities occur:
- All HVAC plant shuts down.
  - An automatic solenoid valve shuts down any gas supplies to the building (if applicable).
  - Any doors held open on electromagnetic door hold open devices release.
  - All lifts return to the ground level however, if the fire is detected at ground level then the lifts are intelligent to recognise this and return to the first floor level to allow occupants to evacuate in safety.
  - All access control devices to the fire exit routes release.
  - All automatic fire dampers close.
  - Any audio-visual sound systems in the entertainments and events areas should be isolated.

**3.6 Emergency Lighting Systems**

3.6.1 To facilitate normal working the lighting levels throughout the building will be excellent. In the event of a fire within the building, it is very unlikely that the power to the normal lighting circuit would be lost in the early stages while the occupants are escaping. This is based upon the fact that the electric supply to the light fittings would initially be away from a fire and would continue to operate. However, assuming a power failure, emergency lighting has been provided as a secondary backup, complying with the requirements of BS5266: Part 1<sup>5</sup>. This includes coverage as per following.

<b>General Accommodation</b>	<ul style="list-style-type: none"> <li>• All internal escape routes</li> <li>• All external escape routes</li> <li>• Areas directly outside the final exits</li> <li>• Toilets with a floor area over 8m<sup>2</sup></li> <li>• Switch gear/battery room for the emergency lighting system</li> <li>• Electricity/generator rooms</li> <li>• Underground or windowless accommodation</li> <li>• Open plan areas of more than 60m<sup>2</sup></li> </ul>
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Note – Lighting to escape staircases should be on a separate circuit from that supplying any other part of the escape route.

3.6.2 The lighting comprises luminaries in all identified areas, with the type of fitting appropriate to the space they serve.



**3.7 Emergency Signage**

3.7.1 Illuminated escape signage is provided above all exit routes, storey and final exit doors within the building.



3.7.2 The signs are in accordance with BS 5499: Part 4<sup>6</sup> and BS ISO 3864 Part 1: 2011<sup>7</sup>, Health and Safety (Safety Signals and Signs) Regulation 1996.

3.7.3 Any doors in the lines of fire resistance are provided with appropriate fire signage. In general doors to staircases and sub-division corridor doors are provided with 'Fire door keep shut' signage. Doors to cleaner's cupboards, stores, plant rooms and service risers are provided with 'Fire door keep locked' signage.

3.7.4 Examples of the signage mentioned above that is dependent on their method of closure are given below.

Method of Closure	Signage	Sign Diameter	Letter Height
Self-closing device		60mm	5mm
Kept locked shut		60mm	5mm

3.7.5 Examples of the signage mentioned above that are applicable to exit doors and escape routes are given below.

Signage	Sign Diameter	Letter Height
	60mm	5mm
		

### 3.8 Fire Extinguishers

- 3.8.1 Manual fire fighting equipment is not necessary under Building Regulations however the Regulatory Reform (Fire Safety) Order 2005 does request that first aid fire fighting facilities should be provided in places of work.
- 3.8.2 Based on the above the accommodation should be provided with hand held fire fighting equipment to the following minimum scale:
- 1 x 13A rated water type extinguisher per 200m<sup>2</sup> of floor space with at least 2 per floor.
  - 1 x 34B rated extinguisher adjacent to any electrical apparatus presenting a risk.
  - 1 x Fire blanket adjacent to any kitchen facilities.
- 3.8.3 In principle, fire points should be established adjacent to fire exits from the respective accommodation and call points such that persons will have to move towards the fire exit in order to obtain a fire extinguisher before tackling a fire. A review of the portable fire-fighting equipment should be undertaken when the building and individual tenant Fire Risk Assessments are undertaken and reviewed.

### 4.0 FIRE SPREAD AND CONTROL

- 4.0.1 Schedule 1 of the Building Regulations requires the following functional requirements to be met in respect of B2, Internal fire spread (linings):

*(1) To inhibit the spread of fire within the building the internal linings shall-*

- (a) adequately resist the spread of flame over their surfaces; and  
(b) have, if ignited, a rate of heat release which is reasonable in the circumstances.*

*(2) In this paragraph 'internal linings' means the materials lining any partition, wall, ceiling or other internal structure.*

- 4.0.2 Schedule 1 of the Building Regulations requires the following functional requirements to be met in respect of B4, External fire spread:

*(1) The external walls of the building shall adequately resist the spread of fire over the walls and from one building to another, having regard to the height, use and position of building.*

*(2) The roof of the building shall adequately resist the spread of fire over the roof and from one building to another, having regard to the use and position of the building.*

- 4.0.3 The following sections discuss the implications of the proposed building design and seek to demonstrate that a satisfactory standard of fire safety is achieved with respect to both requirements stated above.

#### 4.1 Linings

- 4.1.1 The wall and ceiling linings within the building meet the recommendations of BS9999 Section 35 and Table 35, as shown below.

Location	National Class*	European Class <sup>#</sup>
Small Rooms of area <30m <sup>2</sup>	3	D-s3,d2
Other Rooms	1	C-s3,d2
Other circulation spaces (including corridors, staircases, lobbies etc.)	0	B-s3,d2

Note: \* = National Classifications are based on tests in BS 476 Part 4, 6 and 7.  
# = The European classifications are described in BS EN 13501-1:2000.

- 4.1.2 The class of linings recommended in the table above can be downgraded (but not less than Class 3 or D-S3, d2) in walls of rooms providing the total area of those parts in any one room does not exceed one half of the floor area of the room and subject to a maximum of 60m<sup>2</sup>.

**4.2 Unprotected Areas**

- 4.2.1 The works improve the compartmentation internally within the accommodation and the new accommodation falls into the same space separation categories as the original car park use therefore these works are an improvement over the existing situation with respect to space separation. Notwithstanding this as the building has a floor more than 15m in height under Building Regulations as a change of use it is necessary to address any shortfalls in unprotected areas as would be the case for a new building.
- 4.2.2 Based on the rationale above the potential for external fire spread beyond the building site boundaries has been assessed directly via the space separation methods described in BRE Guide 187<sup>8</sup>, "External fire spread: building separation and boundary distances". This assessment is summarised in the table below.

Facade	Actual Worst Case Rectangle	Enclosing Rectangle	Actual Boundary Distance	Minimum distance to be fully unprotected	Comments
North Elevation (Level 5&6)	78m x 2.9m	80m x 3m	27m	4.5m	100% unprotected (* See noted below)
North Elevation (Level -1 to 4)	53.2m x 7m	60m x 9m	27m	9.4m	100% unprotected (* See noted below)
South Elevation (Level 5&6)	78m x 2.9m	80m x 3m	10m	4.5m	100% unprotected
South Elevation (Level -1 to 4)	53.2m x 7m	60m x 9m	10m	9.4m	100% unprotected
East Elevation (Level 5&6)	33.3m x 2.9m	40m x 3m	5.5m	4.0m	100% unprotected
East Elevation (Level -1 to 4)	33.3m x 7m	40m x 9m	5.5m	8.0m	40% unprotected (i.e. max. 144sqm)
West Elevation (Level 5&6)	33.3m x 2.9m	40m x 3m	2.5m	4.0m	50% unprotected (i.e. max. 60sqm)

Notes: \* = The north elevation has a party wall with an adjacent property between gridlines A and E where the façade is located on the boundary line. Beyond gridline E the building boundary increases up to 27m based on the site car park and the Cerise Road highway.

- 4.2.3 Based on the table above some areas of each elevation will need to be fire protected in order to maintain adequate separation onto neighbouring properties. In this case the fire resistance needed for the areas to be considered as protected will be 60minutes integrity with 15minutes insulation from the inside face of the construction. The only exception to this is for the north elevation between gridlines A and E where the façade is on the land boundary and therefore the façade in this zone should be fire rated to a 60minute standard (integrity and insulation) from both sides of the construction.
- 4.2.4 The actual extent of the façade areas that need fire protection will be established once details of the site boundaries are available.

**4.3 External Wall Construction**

- 4.3.1 As the building is less than 18m in height the surface finishes for the external walls of the building should achieve a minimum Class O (National Class) or B-s3, d2 (European Class) surface spread of flame rating. This specification will be adopted for all modifications to the external wall construction associated with these works.
- 4.3.2 As the building does not include a floor over 18m in height there are no limitations on any cavity wall insulations used within the external wall build ups to any new or modified areas.

**4.4 External Roof Construction**

4.4.1 There are no works proposed to the roof of the building and therefore the existing roof construction is considered acceptable.

**5.0 CONSTRUCTION**

5.0.1 Schedule 1 of the Building Regulations requires the following functional requirements to be met in respect of B3, Internal fire spread (structure):

*(1) The building shall be designed and constructed so that, in the event of fire, its stability will be maintained for a reasonable period.*

*(2) A wall common to two or more buildings shall be designed and constructed so that it adequately resists the spread of fire between those two buildings.*

*(3) To inhibit the spread of fire within the building, it shall be sub-divided with fire resisting construction to an extent appropriate to the size and intended use of the building.*

*(4) The building shall be designed and constructed so that the unseen spread of fire and smoke within concealed spaces in its structure and fabric is inhibited.*

5.0.2 The following sections discuss the implications of these requirements on the proposed design of the building.

**5.1 Elements of Structure**

5.1.1 Elements of structure will achieve the fire resistance as shown in the below table.

Height (m)	Period of fire resistance (min)
Less than 18m	60minutes

5.1.2 Any new or modified elements of structure associated with the works will adopt the recommendations discussed above.

**5.2 Compartmentation**

5.2.1 Based on the B2 risk profile Table 30 of BS9999 recommend a limit of 8000sqm as the maximum compartment size on the individual floors and therefore no sub-division of the individual floors is needed.

5.2.2 Similarly, as the existing building has no compartment floors and with respect to unprotected areas the fire classification of the building use is unchanged it is not considered necessary to introduce compartment floors as part of these works.

5.2.3 Notwithstanding the comments above in order to support the means of escape strategy proposed for the building it is recommended that the following compartmentation is introduced to the accommodation:

- The new accommodation should be fully fire separated from all existing adjacent accommodation by 60minutes fire resistance and FD60S self closing doors.
- The Bold Tendencies accommodation and the floor that separates Levels 5 and 6 from the new accommodation below will be a compartment floor affording 60minutes fire resistance with FD60S self closing doors.
- On Level 5 and 6 a central compartment wall will be introduced to split the floor plate into two halves, with each compartment possessing at least two staircases. The compartment wall proposed will afford at least 60minutes fire resistance with FD60S self closing doors.

5.2.4 As part of the change of use the accommodation needs to be served by internal fire fighting shafts therefore the two remote staircases will be upgraded to fire fighting shafts (excluding fire fighting lifts). In this case these two shafts (the staircase and lobbies collectively) will be separated from the accommodation by 120minutes fire resistance and FD60S self closing doors. Internal construction within the shafts (i.e. separation between the staircase and the lobbies) will afford at least 60minutes fire resistance with FD30S self closing doors.

- 5.2.5 The remaining non-fire fighting staircases will maintain should afford 60minutes fire resistance with FD60S self closing doors. Lobbies onto the staircases should afford at least 30minutes fire resistance with FD30S self closing doors.
- 5.2.6 All lift shafts should afford 60minutes fire resistance with FD30 doors.
- 5.2.7 All party walls and floors that separate the newly refurbished accommodation from the rest of the building should afford 60minutes fire resistance with FD60S self closing doors.
- 5.2.8 As compartment floors are partially proposed service risers that pass through these compartment floors will be fire stopped to a 60minute standard. The service risers that pass through the intermediate floors strictly do not need to be fire stopped except where risers leave the party walls / floors of the accommodation, at which point these should be fire stopped to a 60minute standard. Notwithstanding this it is recommended that intermediate service risers are also enclosed with at least 30minutes fire resistance with FD30 doors (no self closers or smoke seals are needed). Service riser cupboards are also locked shut.

**5.3 Fire Doors**

5.3.1 Fire doors are provided with protection in accordance with the below table:

Locations	When tested in accordance with BS476-22 <sup>9</sup>	When tested in accordance with BS EN 1634 – 1 <sup>10</sup>
Staircase doors (Non-fire fighting)	FD30S Self Closing	E30S Self Closing
Staircase lobby doors (Non-fire fighting)	FD30S Self Closing	E30S Self Closing
Staircase doors (Fire fighting)	FD30S Self Closing	E30S Self Closing
Staircase lobby doors (Fire fighting)	FD60S Self Closing	E60S Self Closing
Service riser doors	FD30	E30
Lift doors	FD30	E30
Cross corridor doors	FD20S Self Closing	E20S Self Closing
Plant room doors	FD30 Self Closing	E30 Self Closing
Store doors	FD30 Self Closing	E30 Self Closing
Special fire hazard rooms	FD60 Self Closing	E60 Self Closing
Refuse store doors	FD60 Self Closing	E60 Self Closing

- 5.3.2 All doors are provided with self closers, except service riser and small cupboard doors which are kept locked shut and signed as such.
- 5.3.3 It is acceptable to provide doors on electromagnetic door hold open devices which release on the operation of the fire alarm and detection system. Any smoke detectors included to assist with providing early closure of these doors should be located suitably close to the doors.
- 5.3.4 Doors generally open in the direction of escape unless the occupancy using the door is less than 60 people.
- 5.3.5 All doors necessary for escape which are provided with access controls are provided with a suitable override facility. Any changes to such ironmongery should be agreed with the approving authorities.

**5.4 Places of Special Fire Risk**

- 5.4.1 Plant and refuse rooms achieve at least 60 minutes fire resistance with FD60 self closing doors.
- 5.4.2 Any electrical sub-stations will be fully separated from the adjacent accommodation spaces by at least 60 minutes fire resisting construction, although these requirements are likely to be superseded by the electricity supplier's requirements, which are typically based on 4 hours fire separation.
- 5.4.3 Refuse rooms accessed internally are approached via a protected lobby which is provided with 0.2sqm permanent natural smoke ventilation that discharges directly to outside.

5.4.4 Storage areas less than 450m<sup>2</sup> (excluding refuse stores), kitchens, low voltage transformer/switchgear and battery rooms are enclosed in 30 minutes fire resistance with FD30 self closing doors.

**5.5 Fire Stopping**

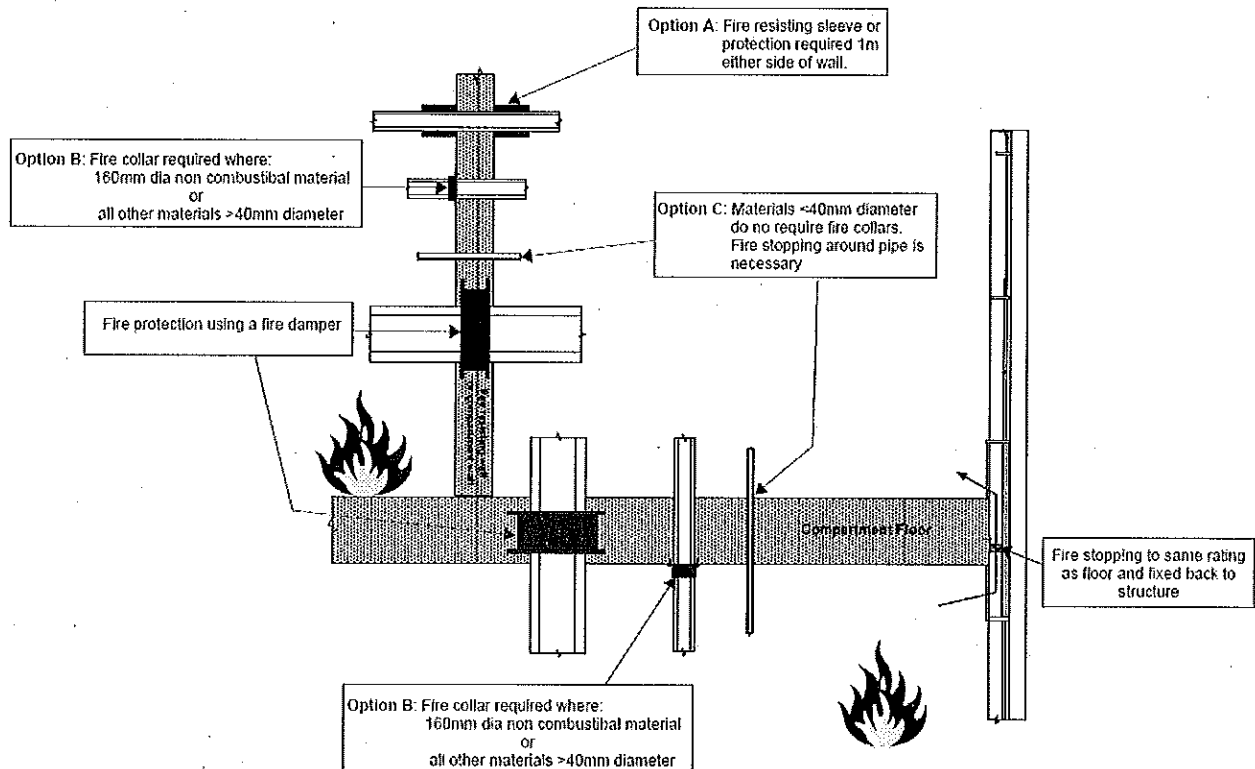
5.5.1 Ductwork passing through compartment/fire resistant walls is either contained within fire resisting construction or provided with fire dampers.

5.5.2 As non-sleeping accommodation fusible link type fire dampers are generally acceptable to all ductwork which breaches a line of fire compartmentation within the building. The only exception to this is ductwork that serves the staircase or staircase lobbies, which will be protected with fire and smoke dampers that are operated automatically on the activation of the fire alarm and detection system.

5.5.3 All fire dampers will be tested to BS EN 1366-2: 1999<sup>11</sup> and be classified to BS EN 13501-3: 2005<sup>12</sup>. They will have an E classification equal to, or greater than, the period of the wall or floor within which they are installed. All fire and smoke dampers will be tested to BS EN 1366-2: 1999 and be classified to BS EN 13501-3: 2005. They will have an ES classification equal to, or greater than, the period of the wall or floor within which they are installed.

5.4.3 Any openings for services (exceeding the dimensions discussed in Table 33 of BS9999, as shown below) breaching compartment walls or floors are fire stopped (unless protected throughout their entire length with fire resisting material) in accordance with Section 33.4 of BS9999. This is to prevent the passage of fire and to assist in retarding the movement of smoke. Joints between elements of structure that serve as barriers to fire are fire stopped to prevent the passage of fire and smoke.

Situation	Pipe material and maximum nominal internal diameter (mm)		
	(a) Non-combustible material	(b) Lead, Aluminium, aluminium alloy, UPVC, fibre cement	(c) Any other material
Structure (but not a wall separating buildings) enclosing a protected shaft which is not a staircase or a lift shaft	160	110	40
Any other situation	160	40	40



## 5.5 Cavity Barriers

5.5.1 Cavity barriers are included in large cavity with the potential for extensive unseen fire spread. The key areas that require cavity barriers are as follows:

- At the junction between an external cavity wall and a compartment wall that separates buildings; and at the top of such an external cavity wall.
- At the junction between an external cavity wall and every compartment floor and compartment wall.
- At the junction between a cavity wall and every compartment floor, compartment wall, or other wall or door assembly that forms a fire-resisting barrier.
- In a protected escape route, above and below any fire-resisting construction that is not carried full storey height.
- Where the corridor will be sub-divided to prevent fire or smoke affecting two alternative escape routes simultaneously.
- Within the void behind the external face of rainscreen cladding at every floor level, and on the line of compartment walls abutting the external wall of buildings
- At the edges of cavities (including around openings).

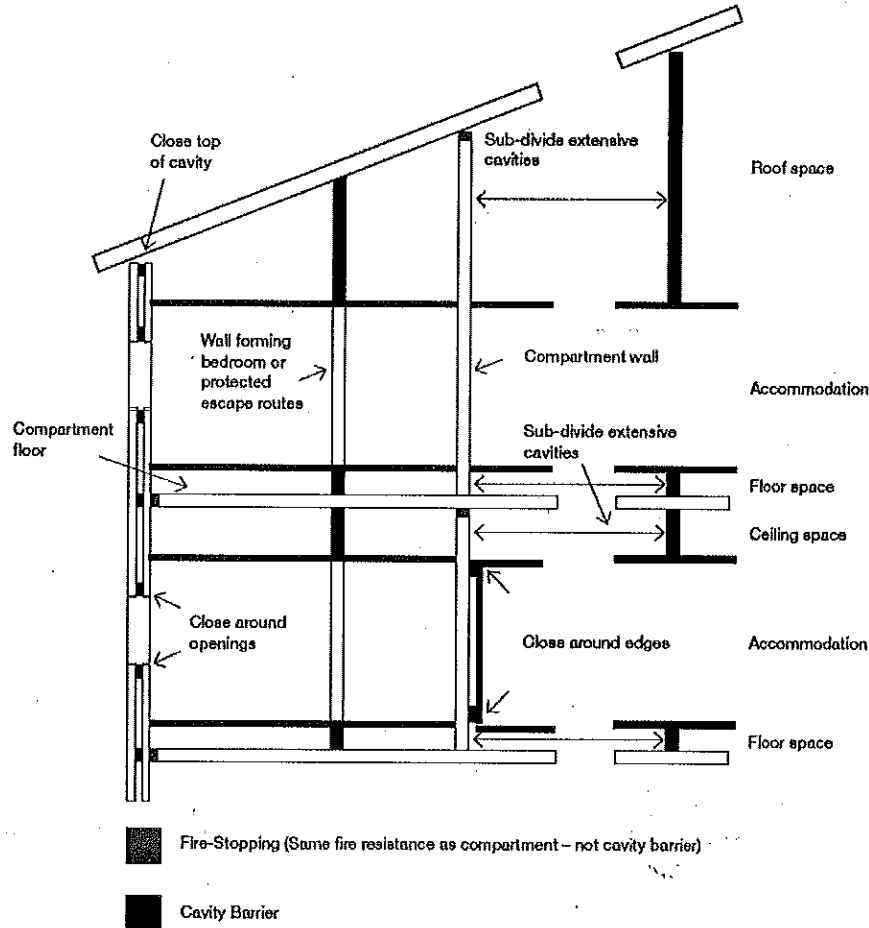
5.5.2 In addition to the above locations cavity barrier are also normally required in cavities (including ceiling voids and under floor service voids) where the cavity exceeds 20m. However BS9999 makes the recommendation that such cavity barriers (including dampers in air conditioning ductwork) can be omitted, resulting in unlimited cavity sizes, providing the criteria outlined in last paragraph of Section 34.3 of BS9999 are adopted, as summarised below.

BS9999 Recommendations from Section 34.3	
A)	The room and the cavity together are compartmented from the rest of the building.
B)	An automatic fire detection and alarm system meeting the relevant recommendations of BS5839 Part 1 is fitted in the building (however detectors are not required in the cavity)
C)	The cavity is used as a plenum and the recommendations about re-circulating air distribution systems in BS5588 Part 9: 1999 <sup>13</sup> are followed.
D)	The surface of the ceiling exposed in the cavity is Class O and the supports and fixings in the cavity are non-combustible construction
E)	The flame spread rating of any pipe insulation system is Class 1
F)	Any electrical wiring in the void is laid in metal trays, or in metal conduit
G)	Any other materials in the cavity are of limited combustibility

5.5.3 The cavity barriers will provide a 30-minute fire rating (i.e. 30 minutes integrity and 15 minutes insulation). Any penetrations through the cavity barriers will be either;

- Fitted with a proprietary sealing system.
- Pipes of limited diameters that are sealed with fire-stopping, or sealed with sleeving of non-combustible pipe material.

5.5.4 The specification of cavity barriers should not be confused with the specification of fire stopping between fire resisting elements, e.g. walls and floors, which will afford the same level of fire resistance as the fire resisting elements themselves. These principles are illustrated in the diagram below.



## 6.0 FIRE SERVICE ACCESS

6.0.1 Schedule 1 of the Building Regulations requires the following functional requirement to be met in respect of B5, Access and facilities for the fire service:

(1) *The building shall be designed and constructed so as to provide reasonable facilities to assist fire fighters in the protection of life.*

(2) *Reasonable provisions shall be made within the site of the building to enable fire appliances to gain access to the building.*

6.0.2 The following discusses the implications of these requirements on the proposed design with regard to access and facilities for the Fire Service within and around the building.

**6.1 Fire Fighting Access**

- 6.1.1 Under Building Regulations as a change of use fire service access should be improved to current standards. Following BS9999 recommendations the building overall is less than 18m but more than 7.5m in height with a floor area greater than 900sqm and therefore fire service access is should be based on internal access via fire fighting shafts that serve all levels. However, as the building is less than 18m in height it is proposed that the upgrades to the fire fighting access consider the new accommodation in isolation and fire fighting lifts do not need consideration.
- 6.1.2 Based on the above premise it is proposed that the two remote end staircases serving Levels 5 and 6 are each upgraded to fire fighting shafts that exclude fire fighting lifts. Each fire fighting shaft will consist of a fire fighting staircase, fire fighting lobbies at each level, smoke clearance and a dry rising water main. The fire fighting shaft will be designed in accordance with BS9999.
- 6.1.3 All parts of the refurbished accommodation will be covered within 60m of a dry rising main outlet that is located in a fire fighting lobby. Fire service vehicle access will be available to within 18m of the dry rising main inlet points, with the inlets visible from the fire appliance.
- 6.1.4 It is understood that the building currently has an existing dry rising water main present in one of these staircases and therefore it is proposed that this dry main is refurbished rather than a completely new main being provided for this fire fighting shaft.
- 6.1.5 Plans for the building should be kept by the fire alarm panel in ground floor entrance with ideally an additional set located in the entrance to each escape staircase.
- 6.1.6 Any access/security measures in and around the site (especially any bollards preventing vehicle access) are bypass-able by the fire service.
- 6.1.7 The external vehicle access provisions to the site access roads will adopt the recommendations from ADB Table 20 as outlined below:

Min Width of road between kerbs	Minimum width of gateways	Minimum turning circle between kerbs	Minimum turning circle between walls	Minimum clearance height	Minimum carrying capacity
3.7m	3.1m	16.8m	19.2m	3.7m	14tonnes*

Notes: \* = This has been increased from the 12.5tonnes discussed in ADB to reflect LFEPA Guidance Note, GN\_29, which notes that the minimum carrying capacities for London Fire Brigade appliances has increased since the ADB guidance was produced.

**6.3 Fire Suppression Systems**

- 6.3.1 No fire suppression systems are present within the existing building and none are proposed within this project.

**6.4 Smoke Venting Systems**

**6.4.1 General Accommodation**

- 6.4.2 No smoke venting facilities are recommended or present to the general accommodation areas in this building based on the recommendations within BS9999. It should however be noted that the building is likely to include windows on the general accommodation floors that could be used for smoke clearance purposes during fire fighting operations.

**6.4.3 Fire Fighting Shafts**

- 6.4.4 The two fire fighting shafts will be provided with smoke clearance ventilation as part of the fire service access measures. In accordance with BS9999 this ventilation will be in the form of either a 1sqm remotely openable vent from the head of the fire fighting staircase or 1sqm manually openable windows at each storey level in the staircase. In addition each fire fighting lobby will be provided with a 1.5sqm manually openable window vent to outside.

#### 6.4.5 Car Park

6.4.6 Smoke clearance and environmental ventilation is needed from car parks. BS9999 recommends that a car park be provided with ventilation to two sides equally to achieve a minimum natural vent area of 2.5% of the floor area. However, the environmental ventilation requirements override this. Approved Document F (ADF) recommends that permanent ventilation to two sides equally is provided. This ventilation should achieve a free vent area of at least 5% of the floor area.

6.4.7 In this case the car park is expected to be ventilated naturally by permanent openings in the façade that achieve in excess of 5% natural ventilation. It would appear likely that the ventilation would be one-sided rather than by crossflow however this is considered to be acceptable on the basis that the car park is not considerably deep (i.e. the cars would be relatively close to the vents) and the ventilation would be higher than the minimum 5% vent area recommended.

#### 6.5 Emergency Power Supplies

6.5.1 In the event of a failure of the mains power supply a secondary backup power supply will be provided to feed all life safety systems that require electricity to function as intended. The secondary supply will be appropriate for the life safety system concerned. The following life safety systems include a backup power supply:

- Any illuminated emergency signage
- Emergency lighting
- Automatic fire alarm and detection system
- All fire alarm interlinked fire/smoke dampers
- Automatic fire curtains (if applicable)

6.5.2 Where sliding or power opening doors are used for escape from the accommodation each door should include a backup power supply to ensure that they can be used in the event of a mains power failure.

6.5.3 It should be ensured that all power and control cabling required for life safety equipment within the building is specified and installed in accordance with BS 8519<sup>14</sup>.

#### 6.6 Fire Fighting Lifts

6.6.1 As discussed earlier no fire fighting lifts are present or proposed within these works.

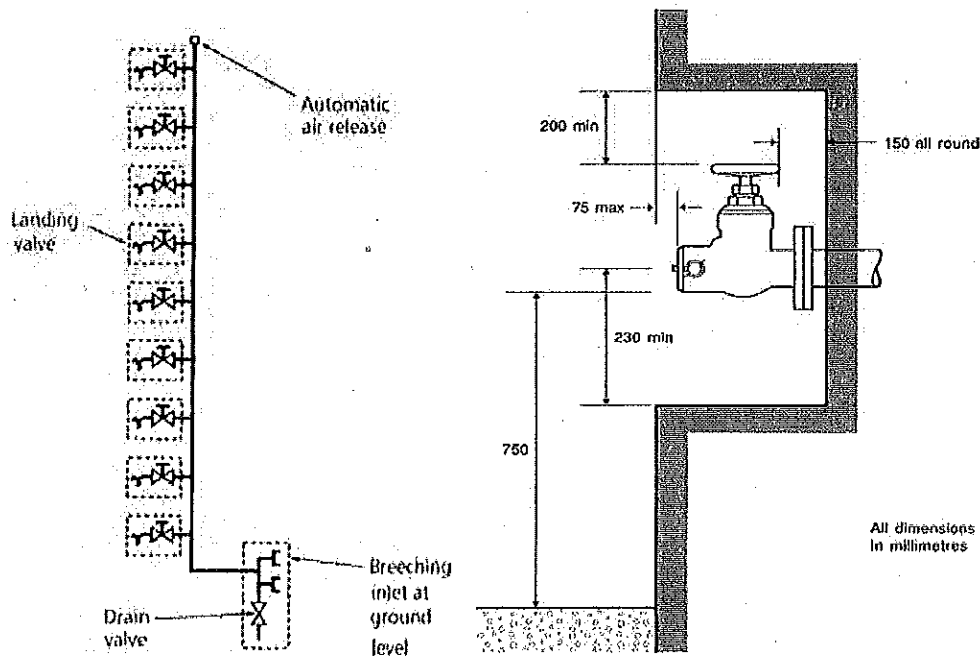
6.6.2 In accordance with BS EN 81-73<sup>15</sup> the passenger lifts will be provided with a means of grounding the lifts. As the building includes an automatic fire alarm system the British Standard recommends that the grounding facility should be by automatic means. In this case it is recommended that the lifts ground automatically on the activation of the fire alarm system.

#### 6.7 Wet and Dry Risers

6.7.1 As discussed in Section 6.1 the two fire fighting shafts proposed will each include a dry rising water main as part of the fire fighting shaft facilities. The dry rising water mains will have outlets located in the fire fighting lobbies at each level and the dry main inlet will ideally be located adjacent to the fire fighting shaft entrances but ultimately these will be within 18m of a fire appliance parking position and also visible from the fire appliance.

6.7.2 All parts of the new accommodation will be covered within 60m of a dry main outlet located in the fire fighting lobbies.

6.7.3 The dry mains will be designed and installed in accordance with BS 9990<sup>16</sup>. Particularly attention will be paid to the fixing heights and recess requirements for landing valves as detailed below.



## 6.8 Hydrants

- 6.8.1 Until April 2007 the Building Regulations did not include requirements to provide additional fire hydrants beyond what was already provided in the public highways, however recent amendments to Approved Document B have included a recommendation to consider this as part of the development of the building design.
- 6.8.2 As the works within this project do not create any new compartments larger than 280sqm there is no requirement to consider the provision of any additional fire hydrants within the project.

## 7.0 FIRE SAFETY MANAGEMENT

- 7.0.1 The primary focus of this strategy is on two groups, the persons present in the building and the provisions associated with ensuring safe egress, and on fire-fighter protection. It is considered that in addressing these any impact on the environment and other persons will be minimised to a reasonable level. It is believed that the strategy outlined in the previous sections together with an effective fire manual and risk assessment developed from this strategy provide a template for effective fire management of these premises.
- 7.0.2 Regulation 38 of the Building Regulations require that the fire strategy be brought to the attention of building management and incorporated into the risk assessment that should be carried out under the Regulatory Reform (Fire Safety) Order together with staff training, systems maintenance etc. and documented.
- 7.0.3 The Regulatory Reform (Fire Safety) Order 2005 requires that systems provided for fire safety are maintained in good working order at all times. This includes fire fighting equipment together with other facilities to be provided for the safety of people in the building and to help fire fighters.
- 7.0.4 Appendix G of the current Approved Document B (Regulation 38) requires information to be passed onto the responsible person on completion of the project. This project is considered a complex building and therefore the following information is required where applicable:
- This fire strategy
  - All design assumptions relating to the management of the building (where not included in the fire strategy)
  - Escape routes, escape strategy and muster points
  - Details of all passive fire safety measures including compartmentation, cavity barriers, fire doors, self closing fire doors and other doors equipped with relevant hardware (e.g. access controls), duct dampers and fire shutters.
  - Fire detector hears, smoke detector heads, alarm call-points, detection/alarm control panels, alarm sounders, emergency communication systems, CCTV, fire safety signage, emergency lighting, fire extinguishers, dry and wet risers and other fire fighting equipment, other interior facilities for the fire

service, emergency control rooms, location of hydrants outside the building, other exterior facilities for the fire service.

- Details of all active fire safety measures including:
  - Sprinkler system(s) design, including isolating valves and control equipment
  - Smoke control system(s) (or HVAC system with a smoke control function) design, including mode of operation and control systems.
- Any high risk areas (e.g. heating machinery) and particular hazards
- As built plans of the building showing the locations of the above items.
- Specifications of any fire safety equipment provided, including operational details, operators manuals, software, system zoning and routine inspection, testing and maintenance schedules. Records of any acceptance or commissioning test.
- Any provision incorporated into the building to facilitate the evacuation of disabled people.
- Any other details appropriate for the specific building.

7.0.5 This information is mainly provided in the form of as built plans, but supplemented in this case by the fire strategy i.e. this document. Marked up as-built plans will be provided by the architect on completion.

7.0.6 Using this information and the original fire strategy the "responsible person" should ensure a fire risk assessment is carried out for each tenancy with the overall landlord of the building coordinating the risk assessments as well as providing their own overarching landlord's fire risk assessment. In each case it is recommended that the risk assessments are recorded, kept with the other information indicated in this document and updated on an annual basis or if any significant change is made to the fire risk or facilities in these areas.

7.0.7 It is suggested that a fire manual (see BS 9999) should be developed for the building bringing together all aspects needed for the effective fire safety management of the building.

## 8.0 CONCLUSIONS & RECOMMENDATIONS

8.0.1 The proposals outlined in this document seek to demonstrate a level of fire safety equal to or greater than the general standard implied by compliance with the recommendations in BS9999. This level of safety therefore satisfies the functional requirements of the Building Regulations relating to fire safety.

8.0.2 The fire strategy described in this report can be summarised as follows:

- Means of escape will be based on simultaneous evacuation of all areas of the building (i.e. both the new accommodation and the existing Bold Tendencies accommodation) on the full operation of the fire alarm and detection system. Due to the exit arrangements in the building on the upper floors it is proposed that an acknowledgement and investigation period is included in the event of a single smoke detector activating in order to assist the management of an evacuation.
- Integral to the design is the inclusion of temporary places of safety within the new Levels 5 and 6 events space. This area will be separated off as a standalone compartment floor plus the floor will be sub-divided into two approximately equal fire compartments. Each of the fire compartments will contain adequate queuing space for the entire occupancy on the floor plate and each compartment will have access to at least two staircases. Underpinning this holding philosophy will be an L2 standard automatic fire alarm and detection system plus a high degree of trained staff present.
- As noted the building will include an automatic fire alarm and detection system, which will be designed and installed to a category L2 Standard as described in BS5839 Part 1, including voice alarm system. The fire alarm system will function as a single entity with respect to the existing Bold Tendencies and the new accommodation. No interlinks are proposed with the adjacent cinema.
- All elements of structure will afford a minimum of 60 minutes fire resistance. As part of the escape justification the new accommodation will be separated from both the cinema and Bold Tendencies with compartment walls or floors that afford 60 minutes fire resistance. In addition Levels 5 and 6 of the new accommodation will also include a 60minute compartment floor separation from Levels 3 and 4 below. Additionally Levels 5 and 6 will include a 60minute compartment wall to sub-divide the floor plate into two approximately equal halves. The two remote end staircases on Levels 5 and 6 will be upgraded to fire fighting shafts that will afford 120 minutes fire resistance with FD60S self closing doors. Internal separation within the fire fighting shafts will afford 60 minutes fire resistance with FD30S self closing doors.

- Fire fighting access will primarily be achieved by the upgrading of the two most remote end staircases to fire fighting shafts that exclude fire fighting lifts. Each fire fighting shaft will therefore consist of a fire fighting staircase, fire fighting lobbies smoke clearance ventilation and a dry rising water main. All parts of the new accommodation are covered within 60m of a dry rising main outlet within a fire fighting lobby.

8.0.3 Based upon the above proposals it is considered that adequate measures are provided to meet the functional requirements of the Building Regulations.

## 9.0 LIMITATIONS AND ASSUMPTIONS

9.0.1 The information limitations and assumptions used in the preparation of this report are described below.

### 9.1 Information Provided

9.1.1 This document is based on the drawings and supporting information issued to Compliance UK by the design team.

### 9.2 Building Regulations

9.2.1 This report considers Building Regulations which deal with life safety only. Property protection, business continuity and insurance issues are not addressed in this report.

### 9.3 Other Limitations

9.3.1 Complying with the recommendations of this report will not guarantee that a fire will not occur.

9.3.2 This report has been prepared for the sole benefit, use and information of the Peckham Levels project and client team and the liability of Compliance UK, its directors and employees in respect of the information contained in the report will not extend to any third party.

### 9.4 References

1. BS 9999: 2008, Code of practice for fire safety in the design, management and use of buildings
2. Building Regulations, Approved Document B – Volume 2, April 2007, Fire Safety: Buildings other than dwelling houses
3. BS 5839 Part 9: 2011, Fire detection and fire alarm systems for buildings. Code of practice for the design, installation, commissioning and maintenance of emergency voice communication systems
4. BS 5839 Part 1: 2013, Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises
5. BS 5266 Part 1: 2011, Emergency lighting. Code of practice for the emergency lighting of premises
6. BS 5499 Part 4: 2013, Safety signs, including fire safety signs – Part 4: Code of practice for escape route signing
7. BS ISO 3864 Part 1: 2011, Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs
8. BRE Guide 187: 2014, External fire spread: building separation and boundary distances
9. BS 476 Part 22: 1987, Fire tests on building materials and structures. Methods for determination of the fire resistance of non-loadbearing elements of construction
10. BS EN 1634 Part 1: 2008, Fire resistance and smoke control tests for door, shutter and, openable window assemblies and elements of building hardware. Fire resistance tests for doors, shutters and openable windows.
11. BS EN 1366 Part 2: 1999, Fire resistance tests for service installations. Fire dampers

12. BS EN 13501 Part 3: 2005 + A1: 2009, Fire classification of construction products and building elements. Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers
13. BS 5588 Part 9: 1999, Fire precautions in the design, construction and use of buildings. Code of practice for ventilation and air conditioning ductwork
14. BS 8519: 2010, Selection and installation of fire-resistant power and control cable systems for life safety and fire fighting applications. Code of practice
15. BS EN 81-73: 2005, Safety rules for the construction and installation of lifts. Particular applications for passenger and goods passenger lifts. Behaviour of lifts in the event of fire
16. BS 9990: 2006, Code of practice for non-automatic fire fighting systems in buildings

# Peckham Levels Southwark

## Environmental Noise Survey and Noise Impact Report

22938/ENS1

30 March 2016

For:



**Hann Tucker Associates**  
Consultants in Acoustics Noise & Vibration


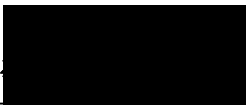
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Hann Tucker Associates

## Environmental Noise Survey and Noise Impact Report 22938/ENS1

### Document Control

Rev	Date	Comment	Prepared by	Authorised by
0	30/03/2016		 James Mackenzie Assistant consultant BSc(Hons), MA, AMIOA	 John Ridpath Director BSc(Hons), MIOA, MIEnvSc

This report has been prepared by Hann Tucker Associates Limited (HTA) with all reasonable skill, care and diligence in accordance with generally accepted acoustic consultancy principles and the purposes and terms agreed between HTA and our Client. Any information provided by third parties and referred to herein may not have been checked or verified by HTA unless expressly stated otherwise. This document contains confidential and commercially sensitive information and shall not be disclosed to third parties. Any third party relies upon this document at their own risk.



**Hann Tucker Associates**

## **Environmental Noise Survey and Noise Impact Report 22938/ENS1**

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### **Attachments**

Appendix A – Acoustic Terminology

This report has been prepared by Hann Tucker Associates Limited (HTA) with all reasonable skill, care and diligence in accordance with generally accepted acoustic consultancy principles and the purposes and terms agreed between HTA and our Client. Any information provided by third parties and referred to herein may not have been checked or verified by HTA unless expressly stated otherwise. This document contains confidential and commercially sensitive information and shall not be disclosed to third parties. Any third party relies upon this document at their own risk.



## 1.0 Introduction

The conversion of an existing multi-storey car park in Peckham into creative works space and events venue has been proposed. The development includes a number of proposals which may lead to noise being emitted to the local surroundings including functions in the main event space and new air conditioning plant.

A detailed environmental noise survey is therefore required to establish the existing background noise environment around the site.

This report presents the survey methodology and findings. The survey data has been/may be used as the bases for various acoustic design/assessment purposes.

## 2.0 Objectives

To establish, by means of detailed fully manned environmental noise monitoring, the existing A-weighted (dBA)  $L_{90}$ ,  $L_{eq}$  and  $L_{max}$  environmental noise levels at selected accessible street positions.

To measure  $L_{eq}$  and  $L_{max}$  octave band spectra noise levels for typical daytime periods at each measurement position in order to obtain a more detailed description of the noise climate.

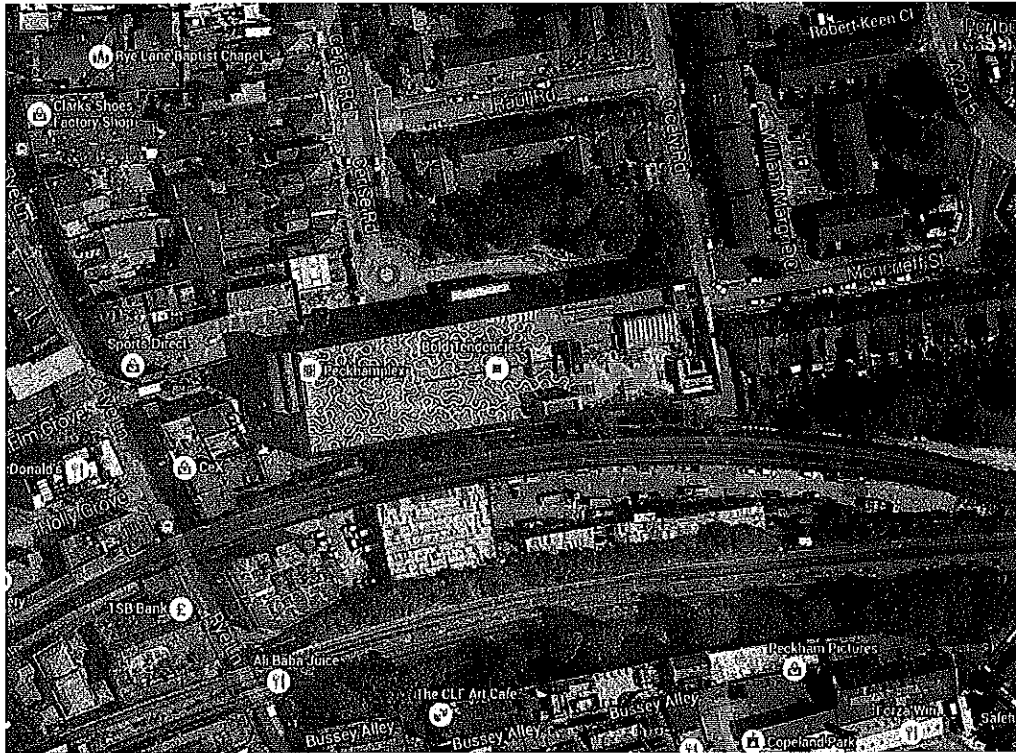
Based on the results of the noise survey, and with reference to the requirements of the Local Authority, to recommend suitable plant noise emission criteria. To assess the proposed building services plant noise emissions to the nearest noise sensitive receptor.

To assess the likely noise emissions to the nearest noise sensitive receptor when the main event space is in use.

## 3.0 Site Description

### 3.1 Location

The site is located at the southern end of Cerise Road and falls within Southwark Borough Councils jurisdiction. See Location Map below.



Location Map (Imagery 2016 Bluesky, Digital Globe, Getmapping plc, Infoterra & Bluesky)

### 3.2 Description

The site is occupied by a multi-storey car park extending from level -1 up to level 8 (top deck). The site is surrounded to the south by a railway line and private residencies to the north, west and east. The western half of the building is occupied by Peckamplex, a multiscreen cinema facility.

### 4.0 Acoustic Terminology

For an explanation of the acoustic terminology used in this report please refer to Appendix A enclosed.

### 5.0 Methodology

The survey was undertaken by James Mackenzie BSc (Hons).

#### 5.1 Procedure

Fully manned environmental noise monitoring was undertaken between the following times:



Day/s	Time
Wednesday 24 <sup>th</sup> February 2016 – Thursday 25 <sup>th</sup> February 2016	21:00 – 02:00
Friday 26 February 2016	14:00 – 16:00
Saturday 28 <sup>th</sup> February 2016 – Sunday 29 <sup>th</sup> February 2016	22:00 – 02:00

During the survey periods the wind conditions were light and the sky was generally overcast. There was no rain during the survey. Road surfaces were dry throughout the survey periods. These conditions are considered suitable for obtaining representative measurement results.

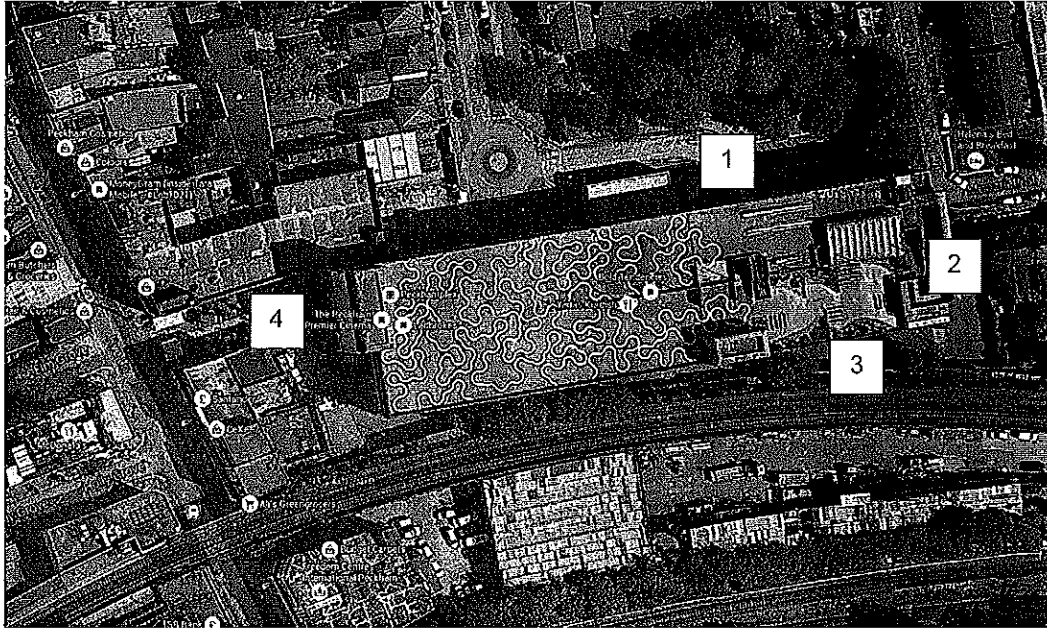
Measurements were taken of the A-weighted (dBA)  $L_{90}$ ,  $L_{eq}$  and  $L_{max}$  sound pressure levels over periods of not less than 10 minutes in each hour. Atypical noises were excluded as far as reasonably possible. The noise levels measured are therefore assumed to be representative of the noise climate during the hour in which the measurements were taken

## 5.2 Measurement Positions

The noise level measurements were undertaken at three positions as described in the table below.

Position No	Description
1	The sound level meter was located to the north of the eastern end of the car park, away from reflective surfaces. The microphone was located approximately 1.2m above ground level.
2	The sound level meter was located to the east of the car park, away from reflective surfaces. The microphone was located approximately 1.2m above ground level.
3	The sound level meter was located to the south of the eastern end of the car park, away from reflective surfaces. The microphone was located approximately 1.2m above ground level.
4	The sound level meter was located to the west of the western end of the car park, away from reflective surfaces. The microphone was located approximately 1.2m above ground level.

The positions were selected in order to assess typical noise levels incident at the building façade during the daytime for subsequent use in calculating the acoustic requirements of the external building fabric. The positions were also selected in order to assess the lowest noise levels at the development site for subsequent use in setting plant noise emission criteria and are shown on the plan below.



Plan Showing Manned Measurement Positions (Imagery 2016 Bluesky, Digital Globe, Getmapping plc, Infoterra & Bluesky)

### 5.3 Instrumentation

The instrumentation used during the surveys is presented in the table below:

Description	Manufacturer	Type	Serial Number	Calibration
Type 1 Precision Sound Level Meter	Brüel and Kjær	2260	2114994	Salford Uni calibration on 12/03/2015
Type 1 Calibrator	Brüel and Kjær	4231	2095100	Salford Uni Calibration on 09/03/2015

The sound level meter was mounted on a tripod and was fitted with a Brüel and Kjær microphone windshield.

The sound level meter, was calibrated prior to and on completion of the surveys. No significant changes were found to have occurred (no more than 0.1 dB).



## 6.0 Results

The fully manned survey measurements are recorded below.

Position	Day / Time		Sound Levels dBA		
			L <sub>90</sub>	L <sub>eq</sub>	L <sub>max</sub>
1	Wednesday 24 <sup>th</sup> Feb	21:00 – 22:00	43	52	68
		22:00 – 23:00	42	50	68
		23:00 – 00:00	43	54	76
	Thursday 25 <sup>th</sup> Feb	00:00 – 01:00	39	48	60
		01:00 – 02:00	38	49	70
	Friday 26 <sup>th</sup> Feb	14:00 – 15:00	44	51	72
		15:00 – 16:00	43	51	73
	Saturday 28 <sup>th</sup> Feb	22:00 – 23:00	43	48	69
		23:00 – 00:00	44	47	66
	Sunday 29 <sup>th</sup> Feb	00:00 – 01:00	44	47	65
01:00 – 02:00		42	49	78	
2	Wednesday 24 <sup>th</sup> Feb	21:00 – 22:00	43	52	66
		22:00 – 23:00	42	57	77
		23:00 – 00:00	42	45	62
	Thursday 25 <sup>th</sup> Feb	00:00 – 01:00	39	49	66
		01:00 – 02:00	39	46	59
	Friday 26 <sup>th</sup> Feb	14:00 – 15:00	47	52	64
		15:00 – 16:00	47	55	78
	Saturday 28 <sup>th</sup> Feb	22:00 – 23:00	47	53	69
		23:00 – 00:00	46	51	65
	Sunday 29 <sup>th</sup> Feb	00:00 – 01:00	46	53	73
01:00 – 02:00		45	52	62	
3	Wednesday 24 <sup>th</sup> Feb	21:00 – 22:00	40	61	81
		22:00 – 23:00	40	54	75
		23:00 – 00:00	39	53	78
	Thursday 25 <sup>th</sup> Feb	00:00 – 01:00	38	52	73
		01:00 – 02:00	37	51	73
	Friday 26 <sup>th</sup> Feb	14:00 – 15:00	44	54	75
		15:00 – 16:00	44	55	76
	Saturday 28 <sup>th</sup> Feb	22:00 – 23:00	45	50	68
		23:00 – 00:00	44	51	67
	Sunday 29 <sup>th</sup> Feb	00:00 – 01:00	43	50	65
01:00 – 02:00		42	53	74	
4	Wednesday 24 <sup>th</sup> Feb	21:00 – 22:00	43	53	75
		22:00 – 23:00	43	54	77
		23:00 – 00:00	42	56	78
	Thursday 25 <sup>th</sup> Feb	00:00 – 01:00	41	53	73
		01:00 – 02:00	40	50	71
	Friday 26 <sup>th</sup> Feb	14:00 – 15:00	-	-	-
		15:00 – 16:00	-	-	-
	Saturday 28 <sup>th</sup> Feb	22:00 – 23:00	45	53	75
		23:00 – 00:00	46	54	69
	Sunday 29 <sup>th</sup> Feb	00:00 – 01:00	45	54	72
01:00 – 02:00		43	52	68	



## 7.0 Discussion Of Noise Climate

The background noise level was dominated by local road traffic movements at each measurement location with the addition of intermittent train movement noise to the south of the site.

## 8.0 Noise Emission Criteria

We understand the London Borough of Southwark require the following:

### Plant Noise

The rated noise level from any plant, together with any associated ducting, shall be 10 dB(A) or more below the measured LA90 level at the nearest noise sensitive premises. The method of assessment shall be carried in accordance with BS4142:1997 'Rating industrial noise affecting mixed residential and industrial areas'

### Operational Noise Breakout

We have received confirmation from London Borough of Southwark that the criteria applied to plant noise should also be applied to operational noise breakout.

We therefore propose the following plant/operational noise emission limits:

Position	Daytime (07:00 – 23:00)	Night Time (23:00 – 07:00)
1	32	28
2	32	29
3	30	27
4	33	30

## 9.0 Noise Impact Assessments

We have reviewed the proposed area uses and have identified the following areas as potentially generating high internal noise levels:

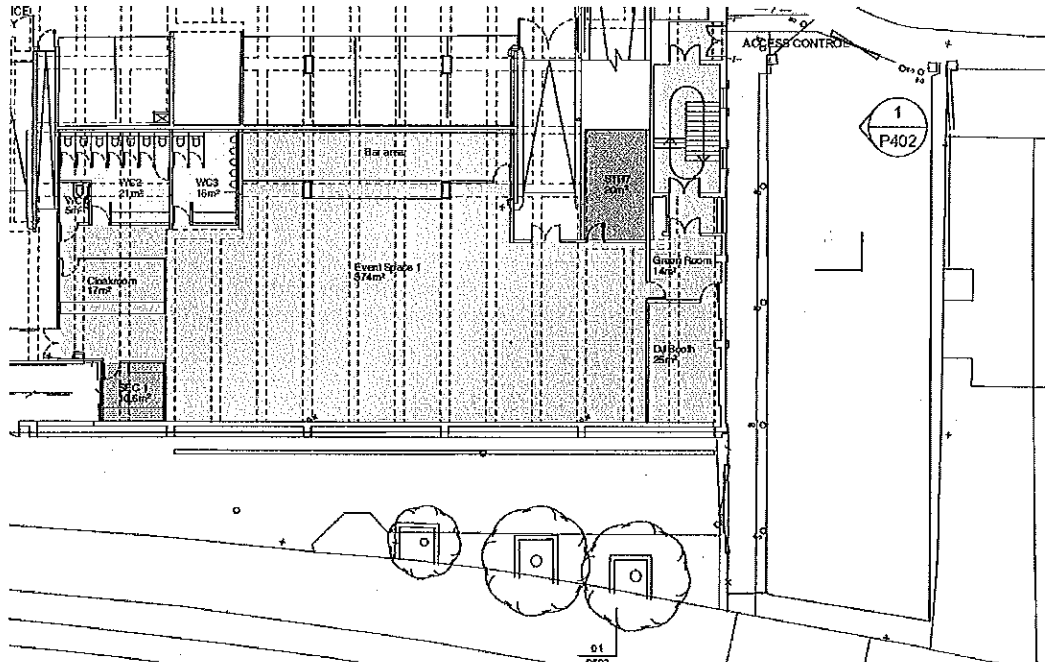
- Level -1 Event Space (Live Bands / Amplified Music)
- Levels 1 & 2 Workshops (Electrical Tools)
- Level 6 Dance Studio

We have also assessed the noise emissions of the proposed ventilation fans.



### 9.1 Music Event Noise Assessment

We understand that live music / amplified music events could be held in the Level -1 Event Space which is located on the eastern end of the building (see following floor plan):



We have assessed the likely noise breakout from one of these events based on an internal noise level of approximately 100dBA (L<sub>Aeq</sub>). The octave band noise level used in our calculations are as follows and were measured in a noisy bar/club:

	Leq Sound Pressure Level (dB) @ Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1k	2k	4k	8k	
Noisy Bar/Club Noise	95.9	95.5	97.9	99.9	94.6	85.3	79.6	76.8	100

The external wall construction is proposed as follow:

- Existing brickwork
- 2x15mm cement particle board lining
- 50mm acoustic Insulation in 100mm cavity
- 140mm thick medium density blockwork

We have calculated the likely contribution from noise through the wall to the nearest residential premises located on Moncrieff Street.



We have used the following equation for Inside to Outside sound reduction:

$$L_{p(out)} = L_{p(inside)} - 6 - 8 - R - 20\log_{10}r + 10\log_{10}A$$

R = composite sound reduction of wall

r = distance from radiating part of wall to window (assumed 11m in calculation)

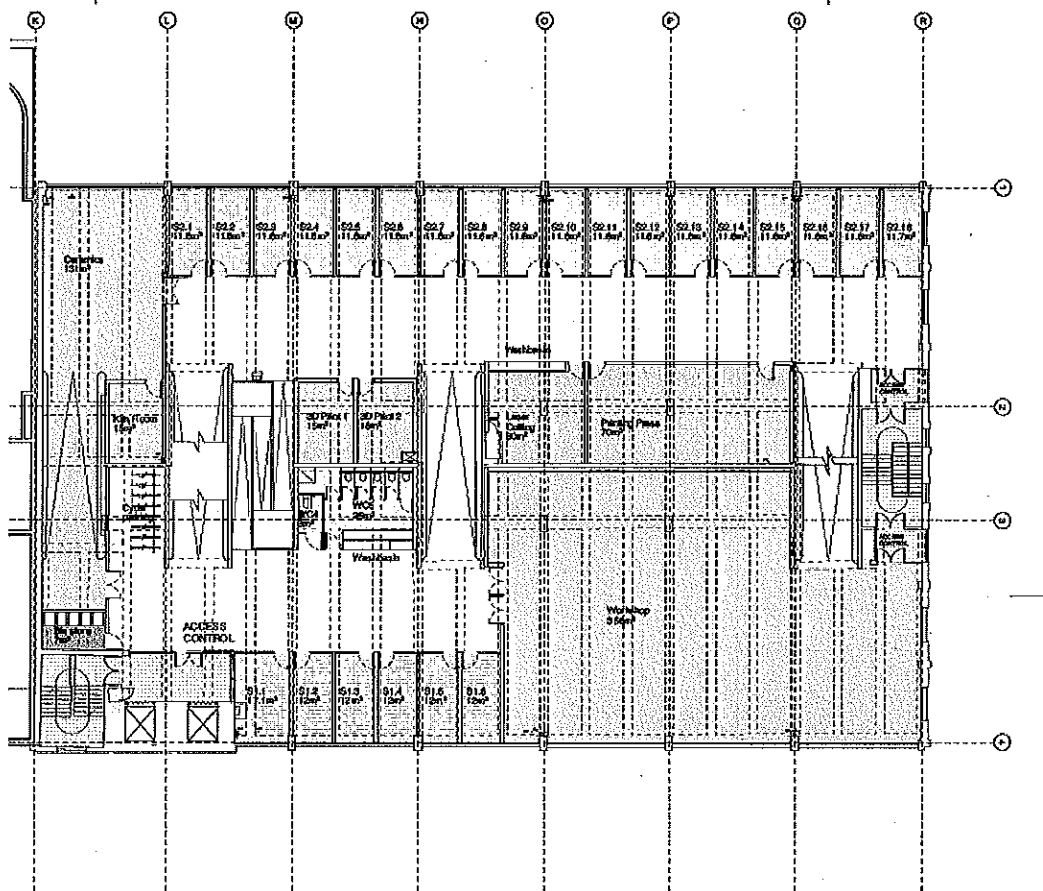
A = area of radiating wall (height x width)

	Sound Pressure Level @ Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1000	2000	4000	8000	
Lp(Inside)	95.9	95.5	97.9	99.9	94.6	85.3	79.6	76.8	100
-6	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0	
-8	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0	
-R	-38.0	-50.0	-60.0	-60.0	-60.0	-60.0	-60.0	-60.0	
-20Log10r (11m)	-20.8	-20.8	-20.8	-20.8	-20.8	-20.8	-20.8	-20.8	
+10Log10A	12	12	12	12	12	12	12	12	
Directivity	5.0	5.5	6.0	6.0	6.0	6.0	6.0	6.0	
Result	40.1	28.2	21.1	23.1	17.8	8.5	2.8	0	23.7

The above calculation indicates compliance with the proposed daytime and night time noise emission limit based on the assumed internal reverberant sound level.

### 9.2 Workshop Noise Assessment

We understand that the proposed Workshop space on Levels 1 and 2 could contain drilling / cutting machinery. The Level 1 Workshop is proposed for location in the south eastern corner of the building (within gridlines N-R, 2-4). The workshop windows on the eastern façade face the residencies on Moncrieff Street (see following floor plan):



We have assessed the likely noise breakout from this area based on an internal noise level of approximately 78dBA ( $L_{Aeq}$ ). The octave band noise level used in our calculations are as follows and were measured in a professional drilling workshop:

	Leq Sound Pressure Level (dB) @ Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1k	2k	4k	8k	
Drilling Workshop (3 min Leq drill operating)	71.2	71.9	75.1	77.5	72.3	69.0	67.0	57.2	78

The external wall construction is proposed as follow:

- Existing concrete wall (100mm minimum assumed)
- Rw32dB Glazing

We have calculated the likely contribution from noise through the wall to the nearest residential premises located on Moncrieff Street.



We have used the following equation for Inside to Outside sound reduction:

$$L_{p(out)} = L_{p(inside)} - 6 - 8 - R - 20\log_{10}r + 10\log_{10}A$$

R = composite sound reduction of wall (windows shut)

r = distance from radiating part of wall to window (assumed 11m in calculation)

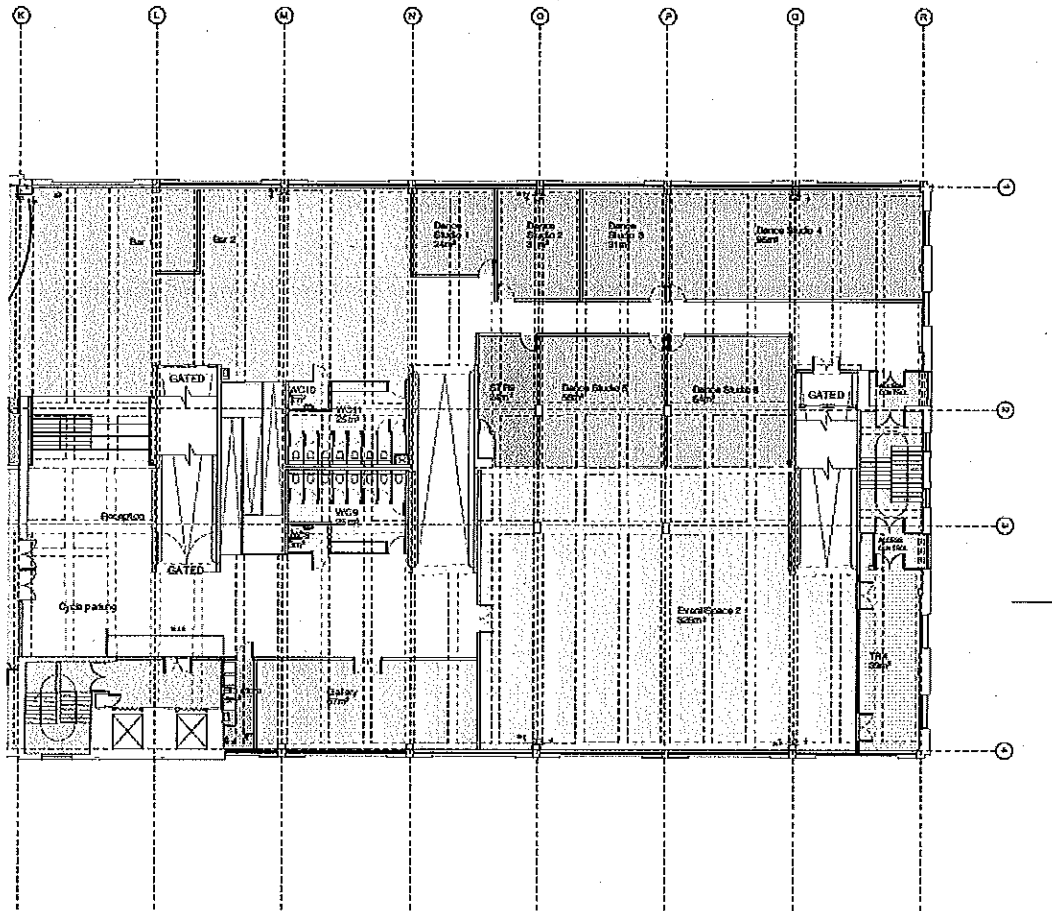
A = area of radiating wall (height x width)

	Sound Pressure Level @ Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1000	2000	4000	8000	
Lp(Inside)	71.2	71.9	75.1	77.5	72.3	69.0	67.0	57.2	78
-6	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0	
-8	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0	
-R	-22.1	-25.2	-24.3	-31.3	-42.0	-41.1	-42.9	-42.9	
-20Log10r (11m)	-20.8	-20.8	-20.8	-20.8	-20.8	-20.8	-20.8	-20.8	
+10Log10A	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	
Assumed on 50% Within Hour	-3	-3	-3	-3	-3	-3	-3	-3	
Directivity	5	5.5	6	6	6	6	6	6	
Result	31.3	29.4	34.0	29.3	13.5	11.2	7.3	0	29.1

The above calculation is based on the windows being shut and indicates compliance with the proposed daytime noise emission limit of 32dBA based on the assumed internal reverberant sound level.

### 9.3 Fitness Studio Noise Assessment

We understand that amplified music could be played in the Level 6 Dance Studios located on the north eastern end of the building (see following floor plan).



We have assessed the likely noise breakout from this area (Dance Studio 4) based on an internal noise level of approximately 81dBA (L<sub>Aeq</sub>). The octave band noise level used in our calculations are as follows and were measured in a fitness class with amplified music:

	Leq Sound Pressure Level (dB) @ Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1k	2k	4k	8k	
Fitness Class – Amplified Music (5 min Leq)	77.9	77.5	80.0	76.5	78.6	69.3	66.9	63.4	80.8

The external wall construction is proposed as follow:

- Existing concrete wall (100mm minimum assumed)
- Rw32dB Glazing

We have calculated the likely contribution from noise through the wall to the nearest residential premises located on Cicely Road.



We have used the following equation for Inside to Outside sound reduction:

$$L_{p(out)} = L_{p(inside)} - 6 - 8 - R - 20\log_{10}r + 10\log_{10}A$$

R = composite sound reduction of wall (windows shut)

r = distance from radiating part of wall to window (assumed 18m in calculation)

A = area of radiating wall (height x width)

	Sound Pressure Level @ Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1000	2000	4000	8000	
Lp(Inside)	77.9	77.5	80.0	76.5	78.6	69.3	66.9	63.4	80.8
-6	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0	
-8	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0	
-R	-23.0	-26.1	-25.3	-32.2	-42.8	-41.9	-43.6	-43.6	
-20Log10r (18m)	-25.1	-25.1	-25.1	-25.1	-25.1	-25.1	-25.1	-25.1	
+10Log10A	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	
Directivity	3	3.5	4	4	4	4	4	4	
Result	36.0	33.0	36.8	26.4	17.9	9.5	5.4	1.9	29.8

The above calculation is based on the windows being shut and indicates compliance with the proposed daytime noise emission limit of 32dBA based on the assumed internal reverberant sound level.

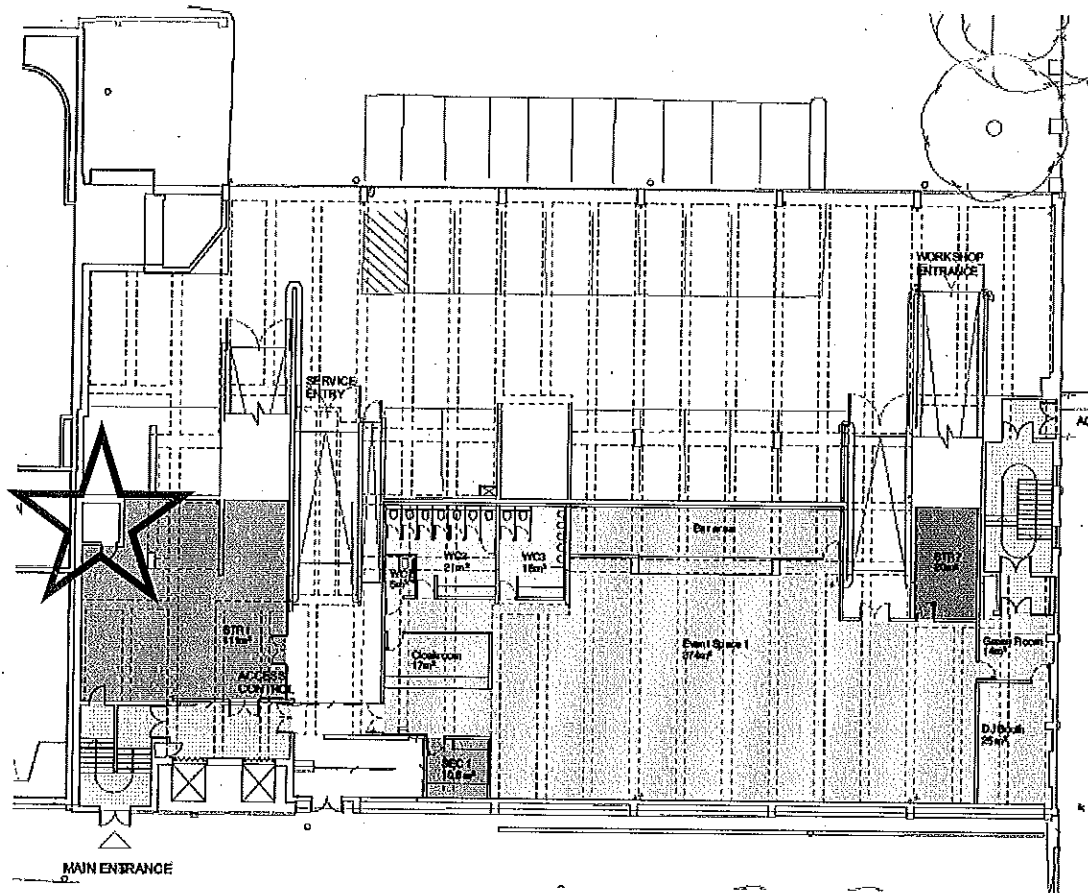
If higher internal noise than those used in our calculations are required, remedial works should be introduced to provide sufficient sound attenuation. This may include introducing blockwork across window openings on the eastern end of building. Any remedial works should be assessed by a suitably qualified acoustic consultant.

### 9.4 Plant Noise Assessment

The mechanical services plant proposed for this development includes the following:

- 4 x condenser units
- Multiple extract fans, extracting through northern and southern elevations

The condenser units are proposed for location in a Level -1 plant area:



The upper section of the wall to the rear of the plantroom will be open to the car park space. Each condenser unit has an acoustic rating of 59dBA @ 1m. Our calculations indicate the cumulative condenser noise level at the nearest residency, located approximately 45 metres to the north should comply with the proposed plant noise emission criteria.

Each extract fan will be fitted with an in-duct sound attenuator to ensure compliance with the plant noise emission criteria.

### 9.5 Visitor Noise (External To Site)

The proposed main route for visitors is from Rye Lane to the rear (south) of the building.



This route will allow the visitors to reach the site / a main road with minimal contact with residential buildings. We believe there are a small number of residential units at 1<sup>st</sup> floor level overlooking the proposed pedestrian route between Rye Lane and the proposed entrance to the site. We recommend the proposed pedestrian route is carefully managed, especially during the later hours of operation to reduce any adverse noise impact.

## 10.0 Conclusions

A detailed environmental noise survey has been undertaken in order to establish the currently prevailing environmental noise climate around the site.

Noise emission criteria have been recommended based on the results of the noise survey and with reference to the requirements of the Local Authority.

Operational noise has been assessed to the nearest noise sensitive premises. The assessment has determined that the operational noise emissions (based on assumed internal noise levels) should comply with the proposed noise criteria.

The proposed visitor route between the site entrance and Rye Lane will require managing, especially during the later hours of operation to reduce any adverse noise impact on overlooking residences.

All mechanical extract fans will be fitted with in-duct attenuation to ensure compliance with the plant noise emission criteria.



## Appendix A

The acoustic terms used in this report are defined as follows:

**dB** Decibel - Used as a measurement of sound level. Decibels are not an absolute unit of measurement but an expression of ratio between two quantities expressed in logarithmic form. The relationships between Decibel levels do not work in the same way that non-logarithmic (linear) numbers work (e.g.  $30\text{dB} + 30\text{dB} = 33\text{dB}$ , not  $60\text{dB}$ ).

**dBA** The human ear is more susceptible to mid-frequency noise than the high and low frequencies. The 'A'-weighting scale approximates this response and allows sound levels to be expressed as an overall single figure value in dBA. The <sub>A</sub> subscript is applied to an acoustical parameter to indicate the stated noise level is A-weighted

It should be noted that levels in dBA do not have a linear relationship to each other; for similar noises, a change in noise level of 10dBA represents a doubling or halving of subjective loudness. A change of 3dBA is just perceptible.

**L<sub>90,T</sub>** L<sub>90</sub> is the noise level exceeded for 90% of the period *T* (i.e. the quietest 10% of the measurement) and is often used to describe the background noise level.

**L<sub>eq,T</sub>** L<sub>eq,T</sub> is the equivalent continuous sound pressure level. It is an average of the total sound energy measured over a specified time period, *T*.

**L<sub>max</sub>** L<sub>max</sub> is the maximum sound pressure level recorded over the period stated. L<sub>max</sub> is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the L<sub>eq</sub> noise level.

**L<sub>p</sub>** Sound Pressure Level (SPL) is the sound pressure relative to a standard reference pressure of  $2 \times 10^{-5}$  Pa. This level varies for a given source according to a number of factors (including but not limited to: distance from the source; positioning; screening and meteorological effects).

**L<sub>w</sub>** Sound Power Level (SWL) is the total amount of sound energy inherent in a particular sound source, independent of its environment. It is a logarithmic measure of the sound power in comparison to a specified reference level (usually  $10^{-12}$  W).

## **Dispersal Procedure Document**

1. During the last 30 mins of any licensable activity that continues after midnight we will reallocate staff from service points thus slowing the sale of alcohol and reallocate them to cloak room and customer service points in order to ensure the safe and swift dispersal of Patrons.
2. We will ensure that the dispersal plan (attached) is strictly adhered to and managed for any licensable activity that continues after midnight.
3. Managed transport call point will allow patrons to disperse in a speedy and orderly fashion.
4. The Security staff on duty inside the complex will be moved to the outside to assist patrons and aid in the dispersal plan.
5. Door supervisors and staff will remain in the area for 15 mins after the last patron has left to clean and clear rubbish and barriers
6. Cloakroom will be operated with in an efficient manner with in order to assist in rapid dispersal of patrons
7. All exit lighting and notices shall be well lit and maintained.
8. Door staff will ensure that no patrons exit the premises with Glass or bottles after midnight.
9. Door supervisors and staff will encourage patrons leaving the venue to keep the noise levels to a minimum and be respectful of neighbours.
10. Security and staff will encourage patrons not to assemble outside the venue and direct them either to the smoking area (outlined on the plan) or the transport call point.