THE BARBICAN

Listed Building Management Guidelines Volume IIIA The Barbican Arts Centre

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- Exhibition Hall plans showing conversion works, 2015

References

Report to the Court of Common Council of the Corporation of the City of London on residential development within the Barbican area, prepared on the instructions of the Barbican Committee by Chamberlin, Powell & Bon, Architects, April 1959. Referred to as Architects' Report, April 1959 Barbican Arts Centre, CPB Report 1968 English Heritage, Conservation Principles (2008) Harwood, Elain Space, Hope and Brutalism, Yale UP, 2015 Harwood, Elain Chamberlin Powell & Bon, RIBA Publishing, 2011, p. 99 ff. Heathcote, David Barbican Penthouse over the City, John Wiley & Sons, 2004 Honer, John Notes on the Barbican Arts Centre Concert Hall (LSO) 1982 Honer, John Notes on the Barbican Arts Centre Theatre (RSC) 1982 Kenyon, Nicholas, The City of London Thames & Hudson, 2012 The Barbican Arts Centre, The Architectural Review Special, vol. 170, no. 1016, 1981, pp.240-254

http://www.barbican.org.uk/buildingthebrutal Photographic archive by Peter Bloomfield

John Honer – Original notes, 1982

BARBICAN REDEVELOPMENT ARTS CENTRE: CONCERT HALL (LSO)

The Concert Hall, accommodating an audience of approximately 2,000, was designed to the specific requirements of the London Symphony Orchestra, who prescribed that a 'rich' and 'full' quality of sound be produced. To achieve this the Corporation's Acoustic Consultant, Hugh Creighton, determined that the volume of the hall be not less than 300 Cu.Ft. of space per seat, since he interpreted the London Symphony Orchestra's requirements as necessitating an average reverberation time of approximately 2 seconds.

Bearing in mind the extremely restricted site available, and the need to respect levels of circulation already established by previous phases of the Barbican Redevelopment, it was necessary to include the spaces defined by the roof beams within the volume of the hall to achieve the required quality of sound. This, however, presented further problems in that sound being reflected from the sides of the 12' deep roof beams would produce unacceptable echos within the hall. It was therefore necessary to diffuse the sound and to this end a large number of perspex spheres were suspended within the roof spaces, which although primarily introduced for acoustic reasons were exploited to decorative effect, some of which accommodate the house lighting.

In order to test the effect of the materials incorporated within the design of the hall an eighth full-size model was constructed for this purpose. By this means it was possible to assess the quality of sound at any selected position in the hall.

The stage of the Barbican Hall has been designed to accommodate an orchestra of 120 players, and is capable of forward extension by approximately 80 to accommodate a choir of 200 in addition to the orchestra. The canopy over the stage has been profiled to reflect the sound towards the audience and the rear and side walls of the stage area are lined with reverberation boxes, concealed by a perforated decorative screen.

A nine-month tuning period was allowed for in the construction programme during which a number of test concerts were carried out and minor adjustments made. These tests revealed a deficiency in the reverberation time at lower frequencies requiring adjustment to the spheres and to the construction of the seats.

The prime purposes of the hall is for symphonic music which requires no amplification. A secondary purpose is served by the use of the hall for Conferences. Because of the inherent incompatibility between the acoustic requirements for music and those for speech, a sound amplification system has been introduced for conference use only.

All construction details were verified by the Acoustic Consultant who was extremely influential in determining internal finishes, the type of upholstery and fabric of which seats are constructed, the construction of the stage floor and canopy etc.

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BARBICAN REDEVELOPMENT ARTS CENTRE: THEATRE (RSC)

In 1955 Chamberlin, Powell and Bon, Architects, were commissioned to carry out a feasibility study for the Corporation of London to demonstrate the potential for housing on the Barbican site. Included in their proposals were new facilities for the Guildhall School of Music and Drama which is administered by the Corporation of London. This included a Theatre and Concert Hall. This particular scheme was rejected by the London County Council on planning grounds because they considered the density of housing to be too high.

In 1956 Chamberlin, Powell and Bon submitted alternative proposals to the Corporation of London for housing on an enlarged site at a slightly reduced density. This scheme not only included accommodation for the Guildhall School of Music and Drama but also new premises for the City of London School (for boys) and The City of London School for Girls. In an attempt to provide a whole which was greater than the sum of its parts, the assembly halls of the boys and girls schools, and the Theatre and Concert Hall of the Guildhall School were grouped around a court to form a cultural centre for the benefit of the residential community as well as for the students of the three schools.

By 1959 various changes in requirements were made including the abandonment from the Barbican scheme of the boys school. This of course invalidated CPB previous proposals. At this time the Corporation appointed Dr. Richard Southern as a specialist consultant to advise them on the detailed requirements of the Guildhall School Theatre and Concert Hall so that these would be suitable to accommodate public performances by professional companies as well as to serve the school. His proposals included the provision of a 700 seat theatre with proscenium stage and orchestra pit suitable for Opera, and for Restoration, Georgian, Victorian and Modern drama. They also included the provision of a 1,000 seat concert hall which could not only accommodate a full orchestra and choir but which could also be adapted for those types of drama for which the proscenium theatre is unsuitable such as for Theatre in the Round and for Elizabethan (forestage) productions.

Between 1959 and 1969 the residential phases of construction were set under way. During this period also the Corporation of London sought further advice, this time from Mr. Anthony Besch concerning the commercial and technical viability of the constituant elements of the Arts Centre, Mr. Besch's report of 1964 recommended the following:-

- The Guildhall School of Music and Drama to be provided with separate accommodation suitable for its own particular requirements.
- ii) The provision of a Theatre to seat approximately 1,200 persons.
- iii) The provision of a Concert Hall to seat approximately 2,000 persons.
- iv) The inclusion of accommodation for the City's principal Lending Library and Art Gallery.
 - v) The inclusion of an extensive range of catering facilities.
- vi) The provision of appropriate circulation space and services.

Mr. Besch was influential in convincing the City Corporation of the merits of designing the Theatre and Concert Hall to the specific requirements of existing well established companies. Consequently the Concert Hall was designed to meet the specific requirements of the London Symphony Orchestra, and the Theatre to meet those of the Royal Shakespeare Company.

The Barbican Theatre is intended to replace the Royal Shakespeare Company's current use of the Aldwych Theatre in London. It is the policy of the Royal Shakespeare Company in it's use of the Aldwych Theatre to concentrate primarily on productions of Shakespeare and on 19th Century and Modern drama.

In the design of the Barbican Theatre considerable attention has been given to the provision of good sight lines from every seat in the auditorium and to achieving as close a proximity of all seats to the stage as possible. No seat is further than 65' from the point of command, being a position in the centre of the stage 8' behind the front edge of the stage from which an actor can encompass the whole of the auditorium in his peripheral vision.

The volume of the auditorium has been reduced to the minimum possible by:-

- i) excluding all circulation space in the form of gangways from within the auditorium enclosure which would otherwise occupy space better suited to favourably placed seats. The auditorium is approached by means of stepped Foyers from which the seat row is selected, access being obtained by means of a door at the end of each row.
- ii) the provision of three balconies containing only two rows each projecting forward towards the stage thus incurring a reduction rather than an increase in headroom. The balconies also step down towards the stage around the sides of the auditorium.
- iii) the design of the main beams which support the roof to the auditorium which are upstanding beams and are therefore external to the volume of the auditorium. Furthermore, these beams, being hollow, provide the means by which the conditioned air is supplied to the auditorium, the vitiated air being extracted via plenum ducts beneath the seats. Most of the air supply and extract ducts are therefore also external to the volume of the auditorium.

The distribution of seats, which are fixed (not tip-up), is as follows:-

Stalls: 726 Seats 1st Balcony: 196 Seats 2nd Balcony: 141 Seats 3rd Balcony: 137 Seats

Total:1,200

Longest Row (rear of stalls) : 50 Seats
Shortest Row (front of stalls) : 24 Seats
Row Spacing (back to back) : 3'4"
Clear space between seats (front to back): 1'4"

Critical dimensions of the Stage are as follows:-

Proscenium Opening	:	73
Opening between fixed front masking	screens:	44.
(rear masking screens are flown)		
Stage depth	:	48 *
Proscenium Height		30 1
Stage Rake (fixed)		1:18

A "double height" Flytower is provided to enable the flats within the company's repetoire to be stored at the top of the tower as well as for the intermediate level to serve the current production. The height of the tower is 110' from stage to underside of grid, from which are suspended 76 scene bars operated by motorised winches.

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Acknowledgements and Consultation

Avanti Architects wish to acknowledge the valuable assistance of the following people and organisations in the preparation of this document -

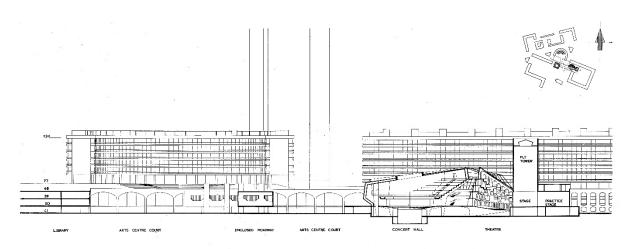
- Sir Nicholas Kenyon, Managing Director The Barbican Arts Centre
- John Honer, Project Architect of the Arts Centre, formerly of Chamberlin, Powell & Bon
- Jonathon Poyner, Director of Operations & Buildings, Barbican and Guildhall School
- Michael Dick, Helen Kearney, Laura Whitticase, Jim Turner, Christopher Bate, Maria Sommer, Barbican Arts Centre
- Petra Sprowson, Paul Robertshaw, Clive Cornwell, City of London Department of Planning and Transportation
- Ashley Pickles, The Barbican Theatre
- Carol Boswarthack, The Barbican Library
- Peter Morris, Alford Hall Monaghan & Morris, Architects

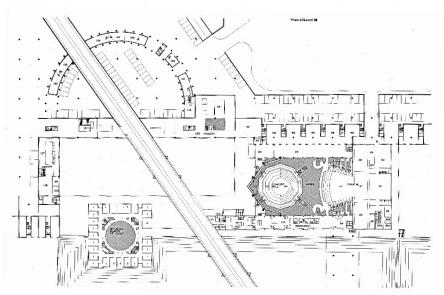
The following stakeholders have also been consulted in the process of finalizing this document -

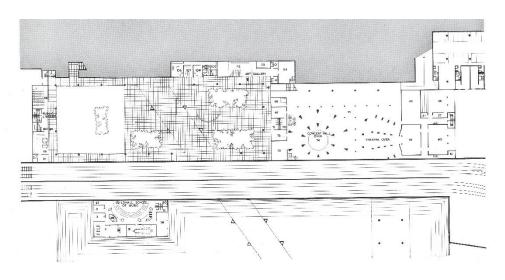
- The Barbican Residents' Association
- Historic England
- The Twentieth Century Society

Drawings

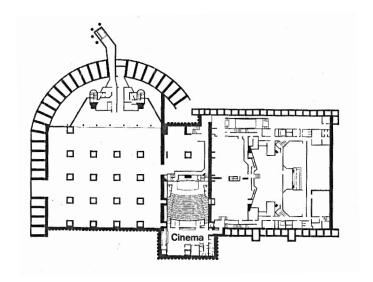
Early CPB drawings of the Arts Centre (1959)



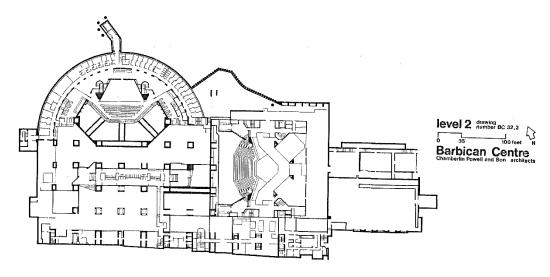


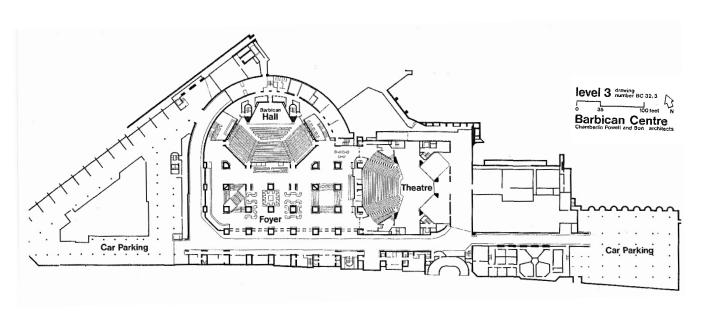


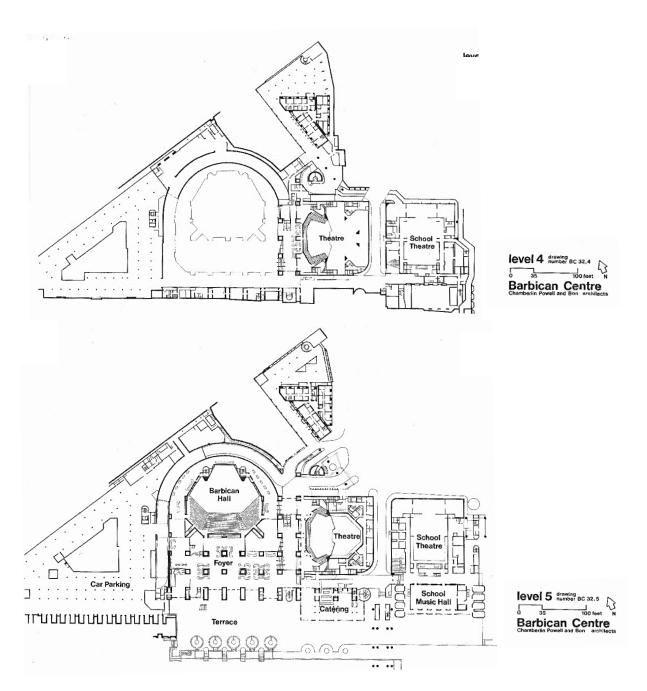
Plans as built

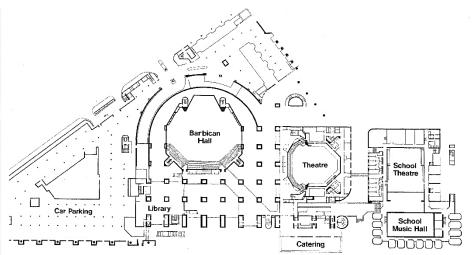




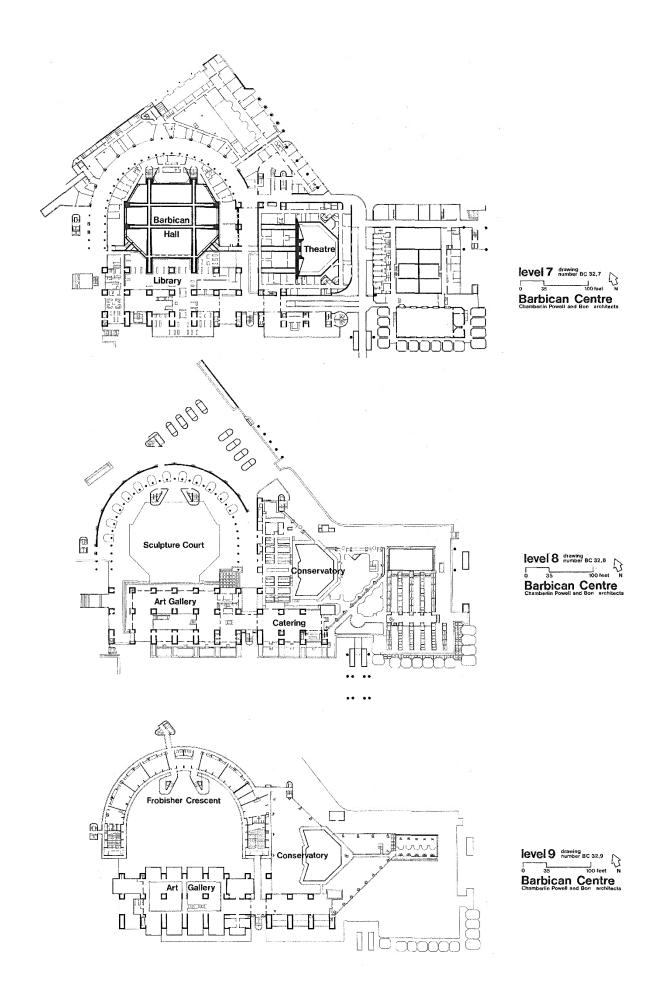








level 6 drawing BC 32,6 Comment BC 32,6 No Month Powell and Bon architects



Floor Plans and Occupancy Details (August 2010)



Barbican Arts and Conference Centre

Floor Plans and Occupancy Details

Produced August 2010

Information compiled by City Surveyors Department Corporate Property Review Team.

This document will be periodically revised.

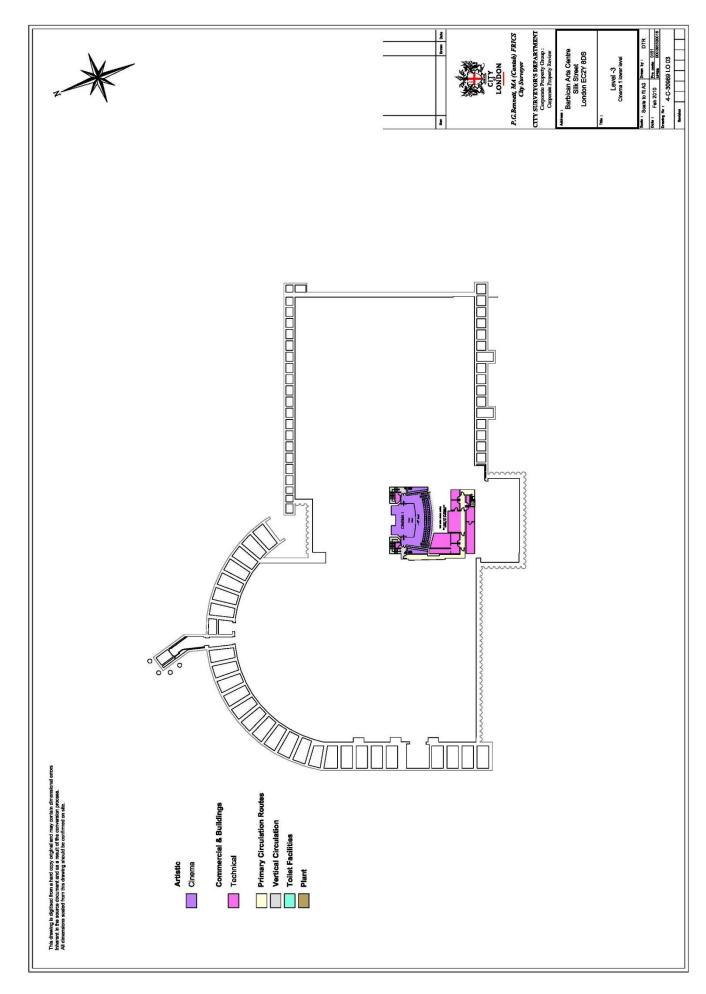
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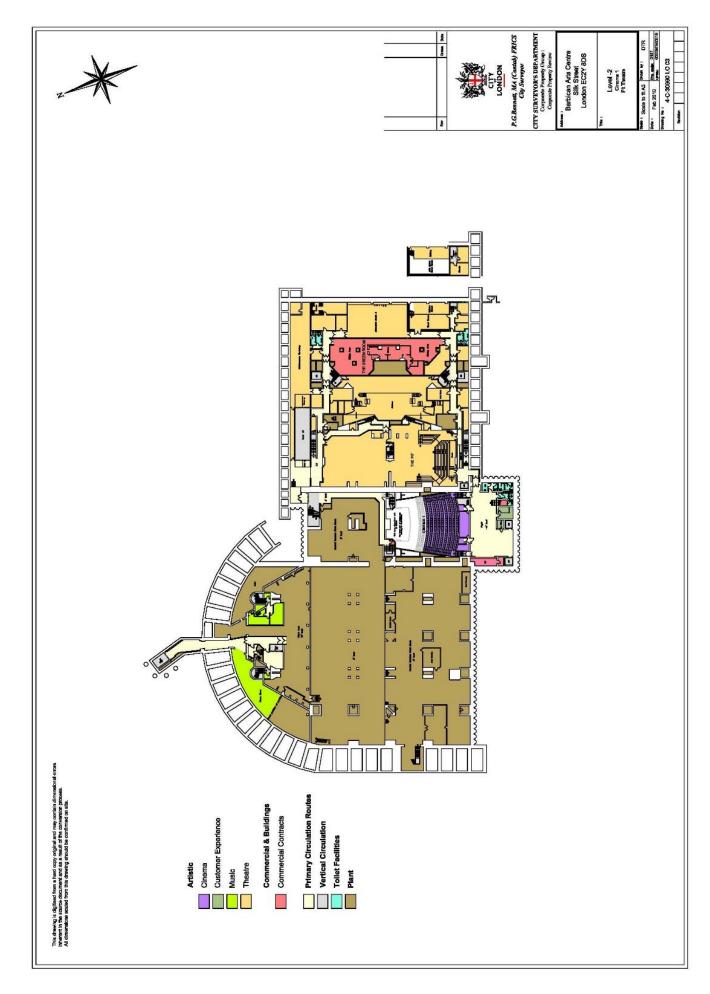
David Rawlings Tel: 020 7332 1077

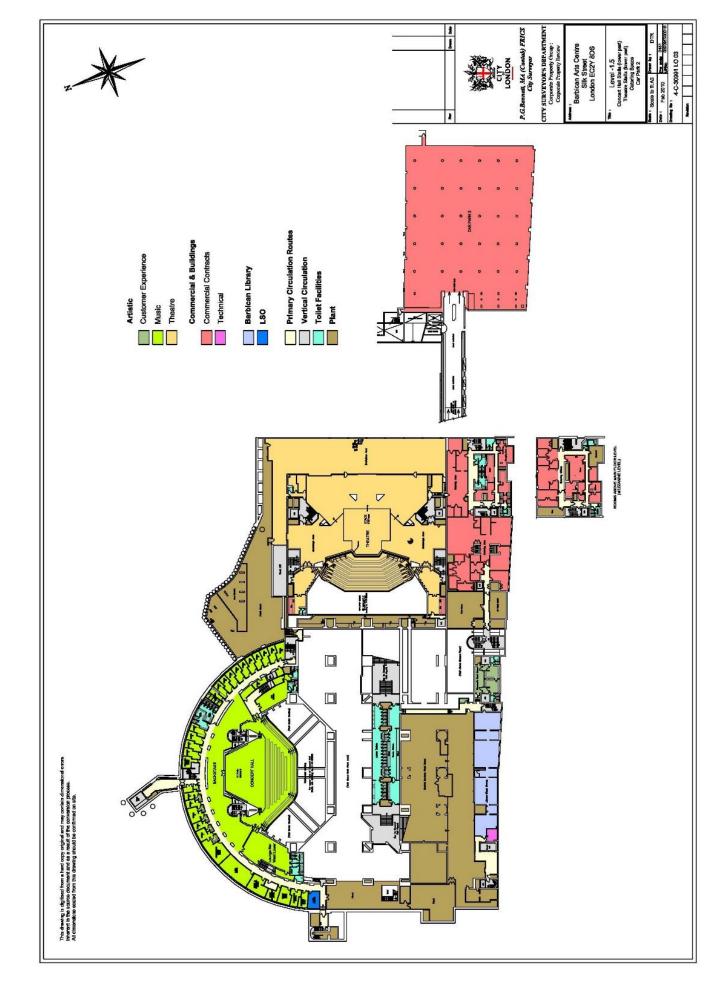
david.rawlings@cityoflondon.gov.uk

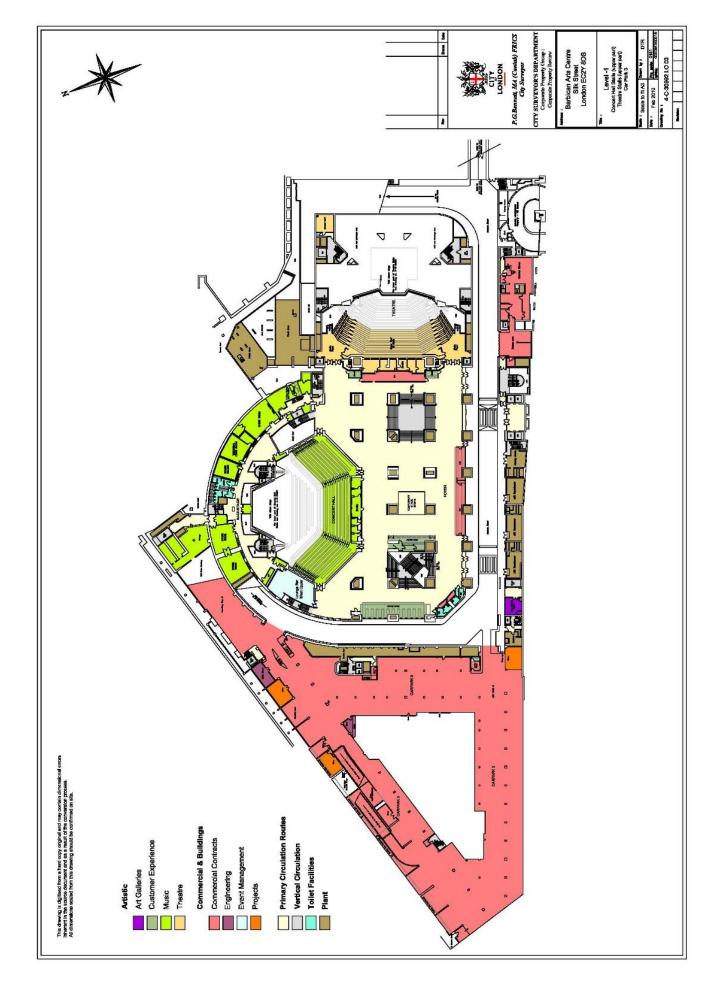
Schedule of Plans

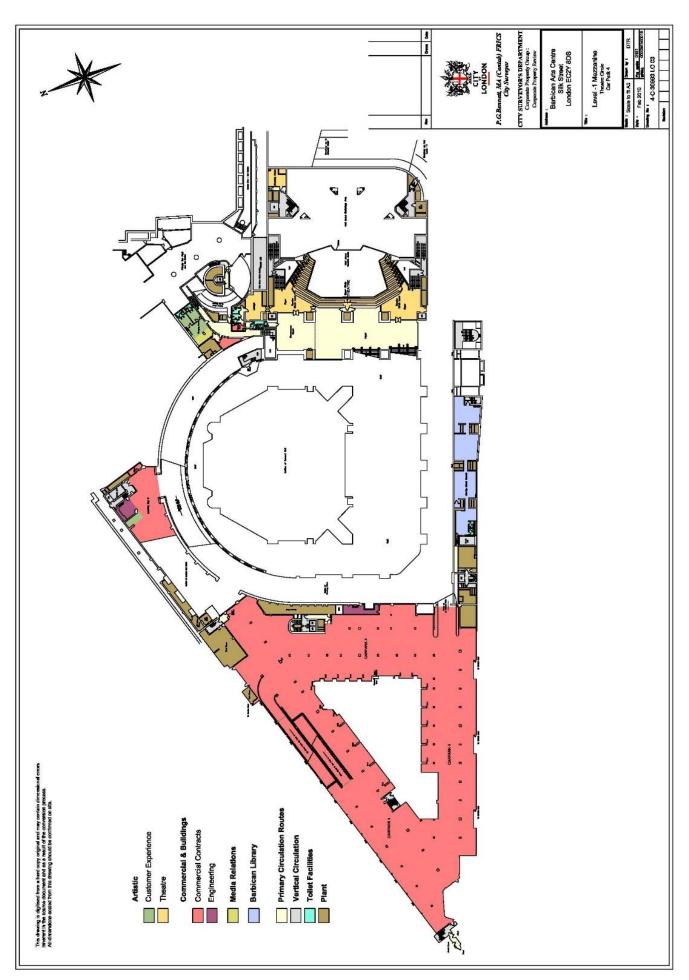
Level	Facilities	Drawing Number	Revision	Date
Level -3	Cinema 1 (lower part)	4-C-30989 LO 03		June 2010
Level -2	Cinema 1	4-C-30990 LO 03		June 2010
	Pit Theatre			
Level -1.5	Barbican Hall Stalls (lower part)	4-C-30991 LO 03		June 2010
	Theatre Stalls (lower part)			
	Catering Admin and Kitchens			
	Car Park 2			
	Barbican Hall Stalls (upper part)	4-C-30992 LO 03		June 2010
	Theatre Stalls (upper part)			
	Car Park 3	1.0.000001.0.00		
Level -1 Mezzanine	Theatre Circle	4-C-30993 LO 03		June 2010
	Car Park 4			
Level 0	Silk Street Reception and Main Foyer	4-C-30994 LO 03		June 2010
	Barbican Hall Circle			
	Theatre Upper Circle			
	Curve Gallery			
	Waterside Café Lakeside Terrace			
	Car Park 5			
Level 1	Barbican Hall Balcony	4-C-30995 LO 03		June 2010
Lever 1	Theatre Gallery	4-C-30995 LO 03		June 2010
	Barbican Music Library			
	Balcony Café			
Level 2	Barbican Library	4-C-30996 LO 03		June 2010
Level 2	Barbican Centre Main Office Level	4-C-30996 LO 03		June 2010
	Searcy's Restaurant			
Level 3	Art Gallery	4-C-30997 LO 03	A	June 2010
	Conservatory	4-0-30997 10 03	1 ^ 1	Julie 2010
	The Garden Room			
Level 4	Art Gallery (upper level)	4-C-30998 LO 03		June 2010
Level 4	Cinemas 2 and 3	4-0-00990 20 00		Julie 2010
	Conservatory Terrace			
	Conference Rooms			
Level 5	Cinemas 2 and 3 (upper part)	4-C-30999 LO 03		June 2010
Level 6	Frobisher Crescent Offices	4-C-31000 LO 03	В	August 2010
Level 7	Frobisher Crescent Residential Development	4-C-31001 LO 03		June 2010
Level 8	Frobisher Crescent Residential Development	4-C-31002 LO 03		June 2010
Level 9	Frobisher Crescent Residential Development	4-C-31003 LO 03		June 2010
Roof Level	Frobisher Crescent Roof Level	4-C-31004 LO 03		June 2010
Exhibition Hall 1 Lower Level	Exhibition Hall	4-C-31005 LO 03		June 2010
Exhibition Hall 1 Upper Level	Exhibition Hall	4-C-31006 LO 03	A	June 2010
Exhibition Hall 2 Lower Level	Exhibition Hall	4-C-31007 LO 03		June 2010
Exhibition Hall 2 Upper Level	Exhibition Hall	4-C-31008 LO 03	A	June 2010

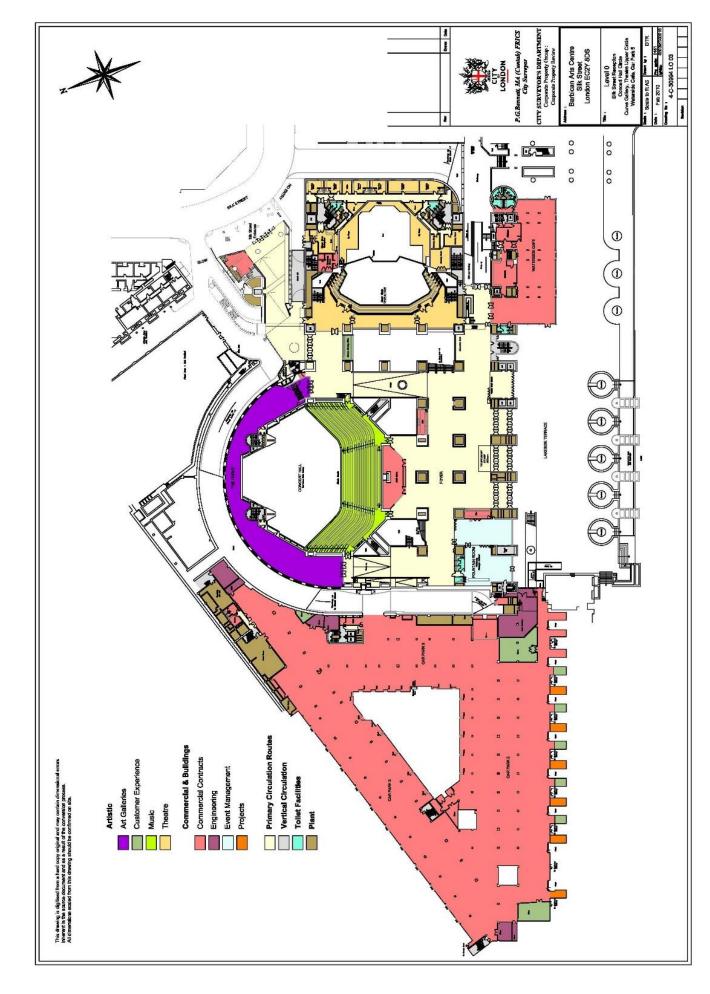


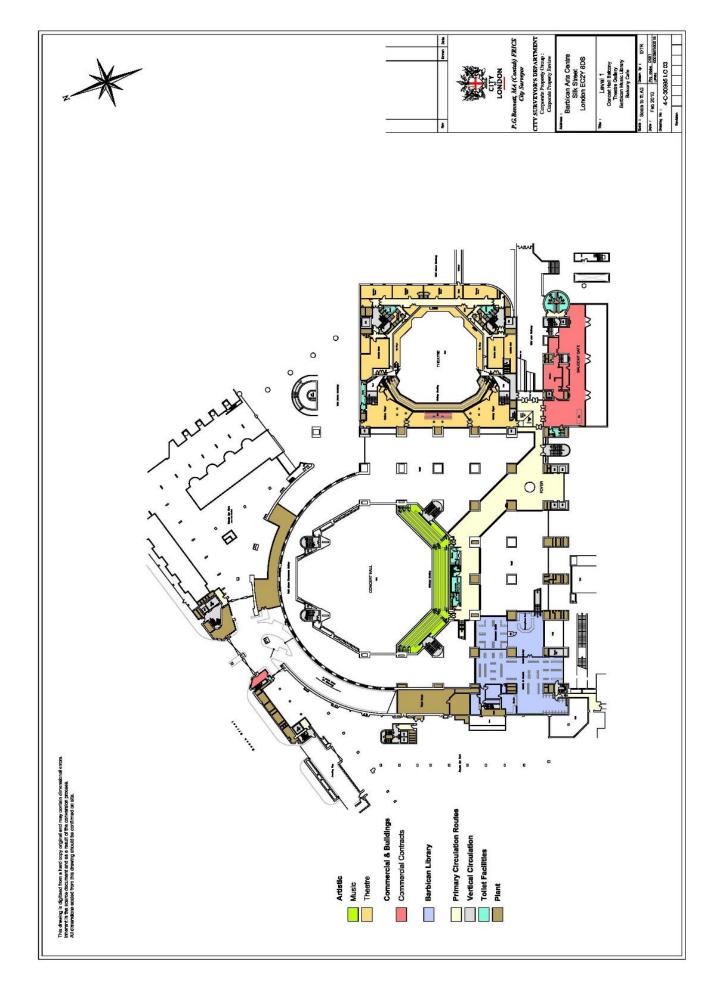


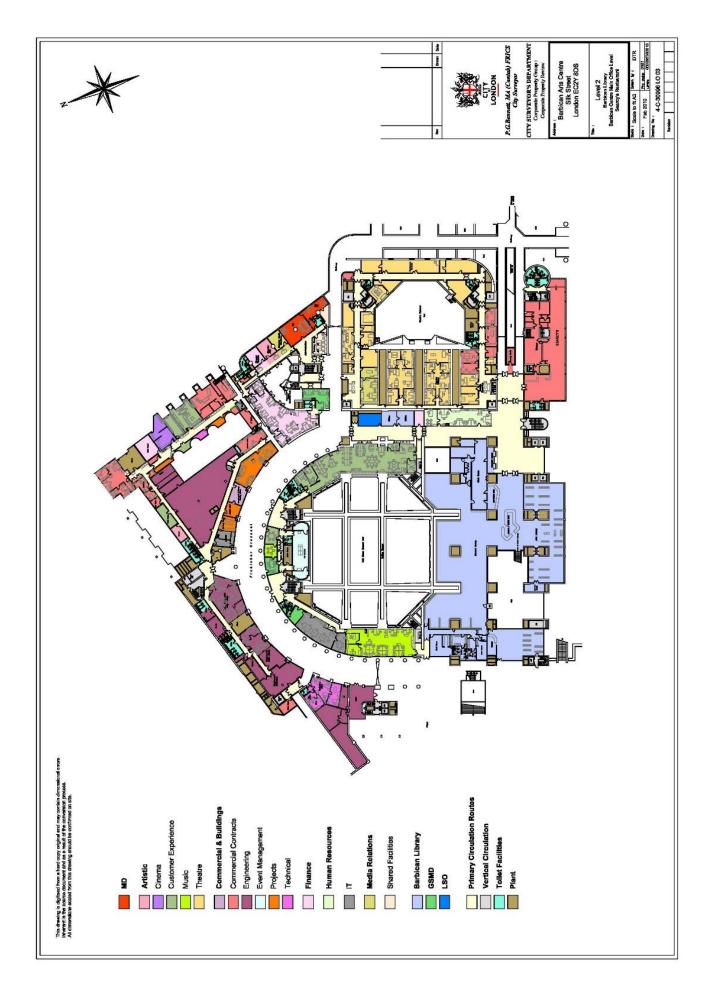


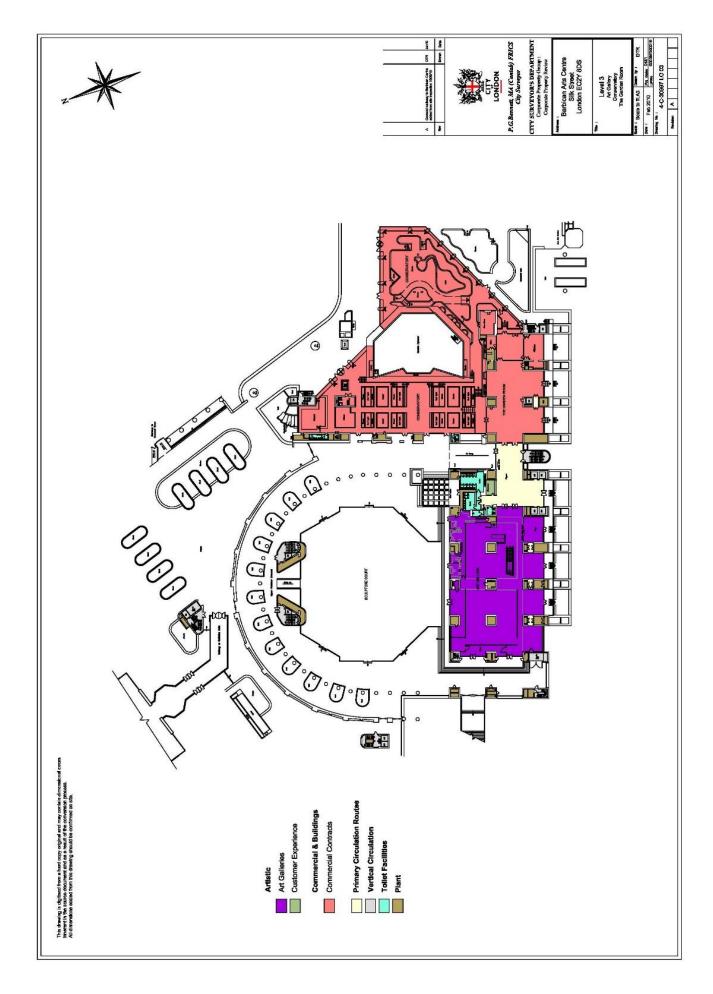


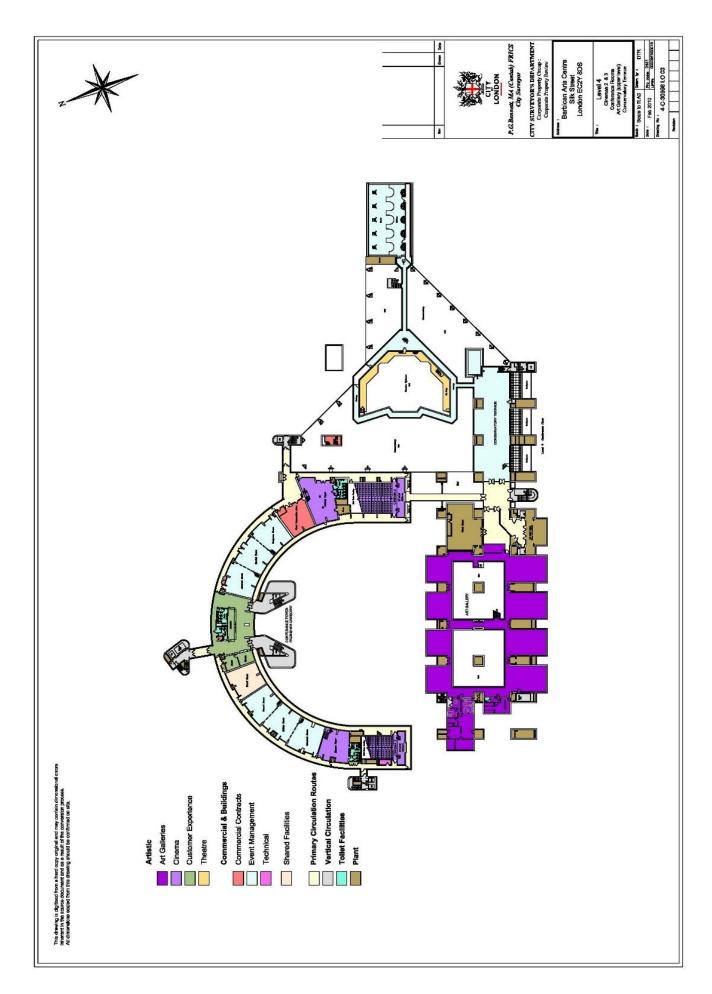


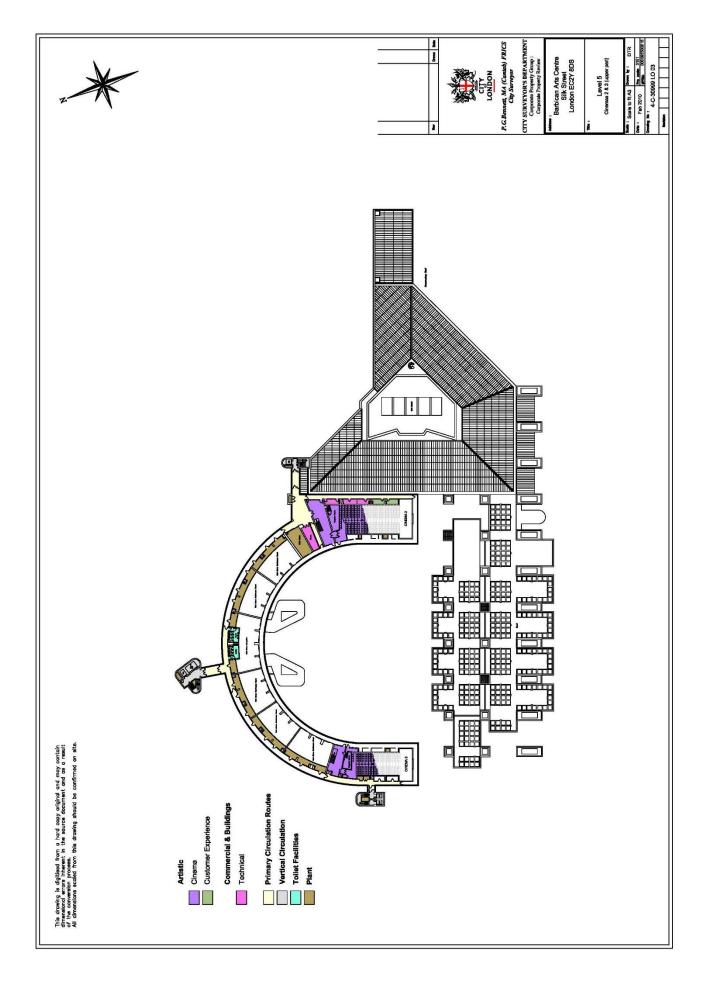


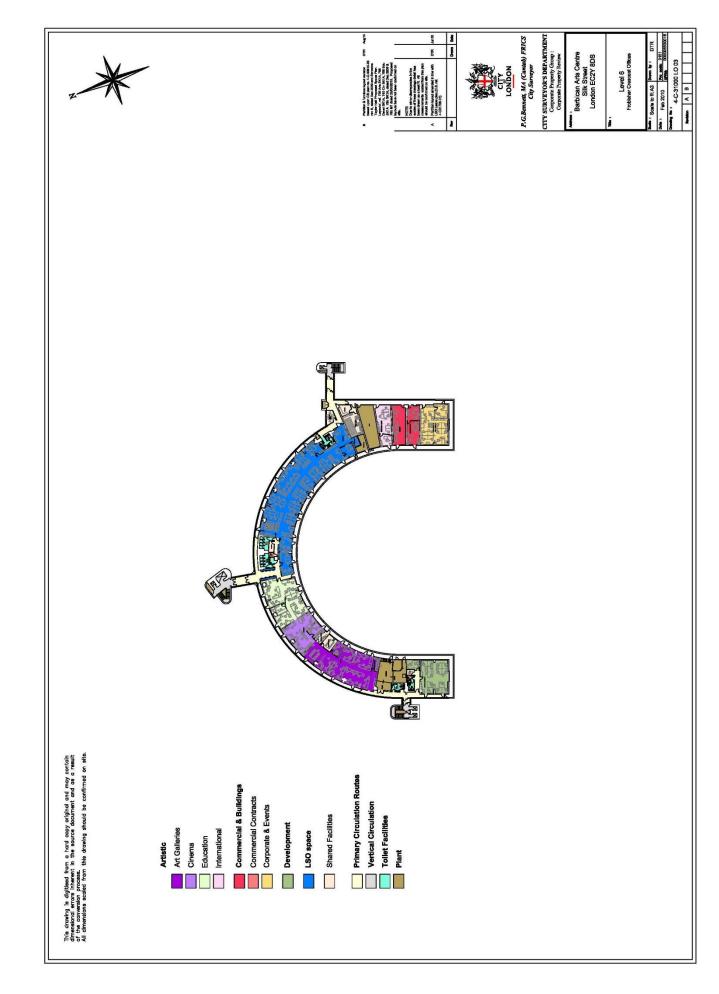




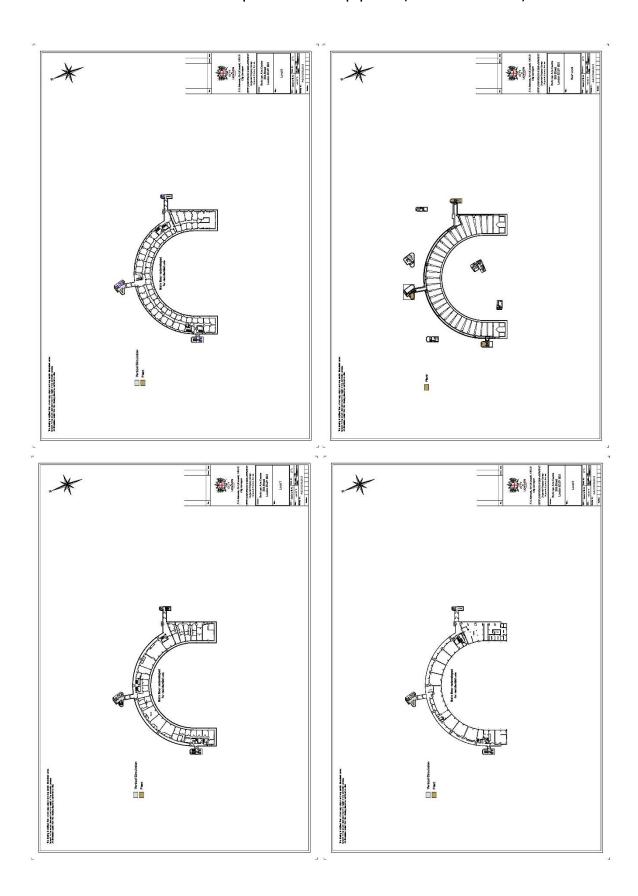


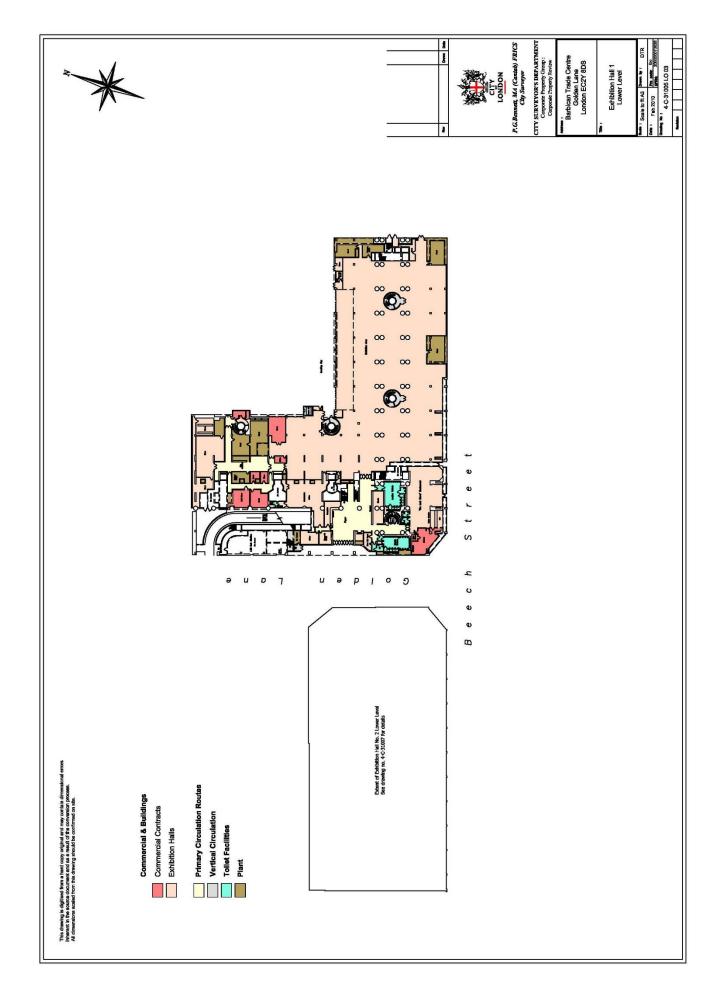


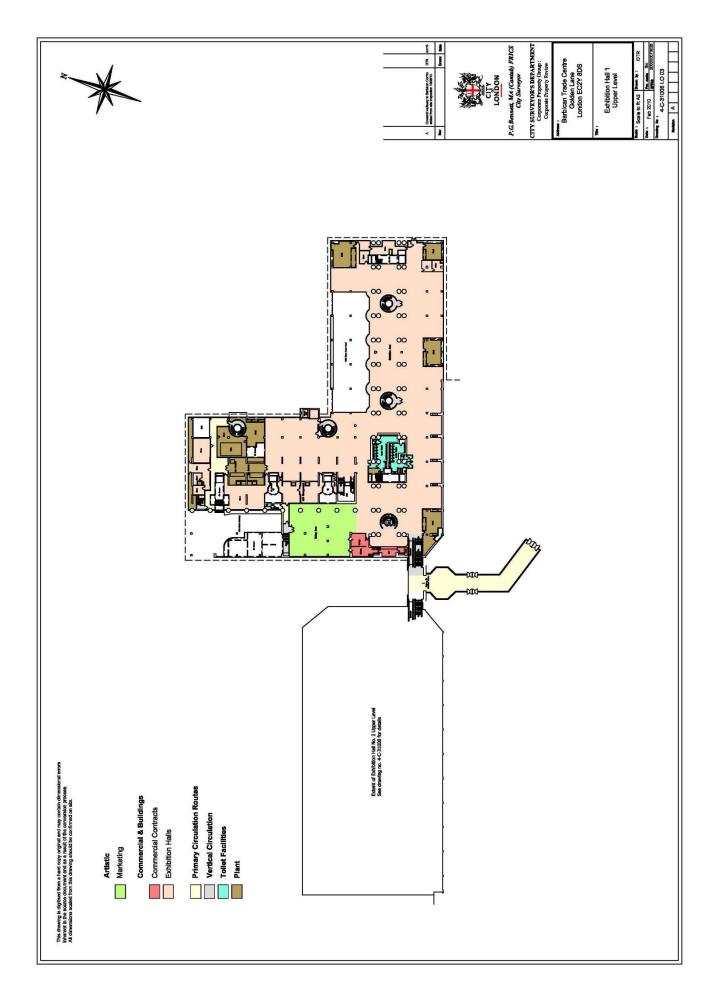


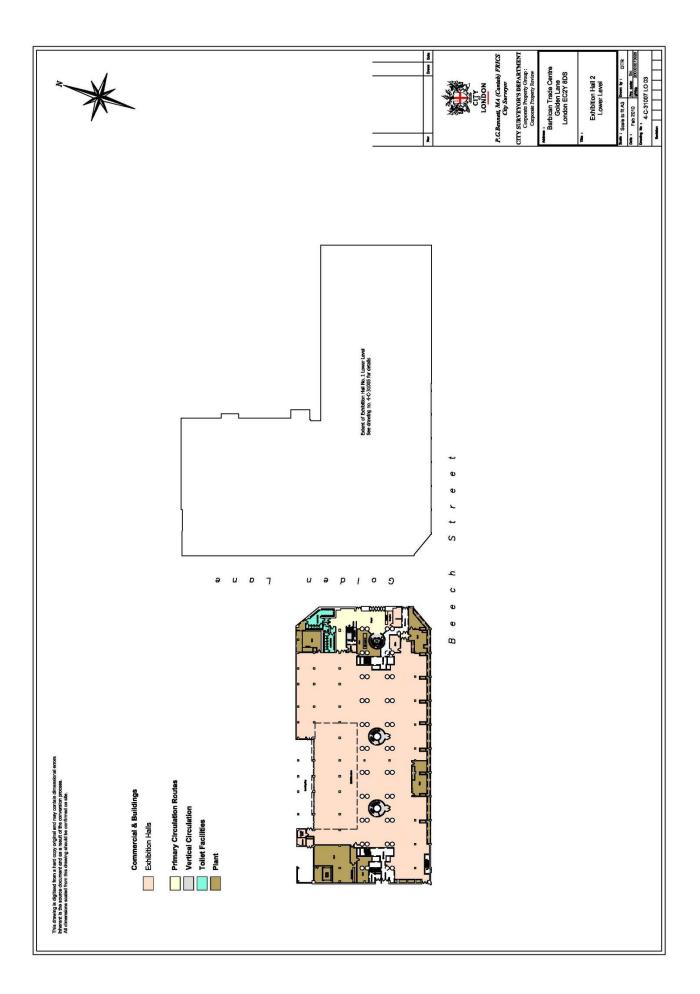


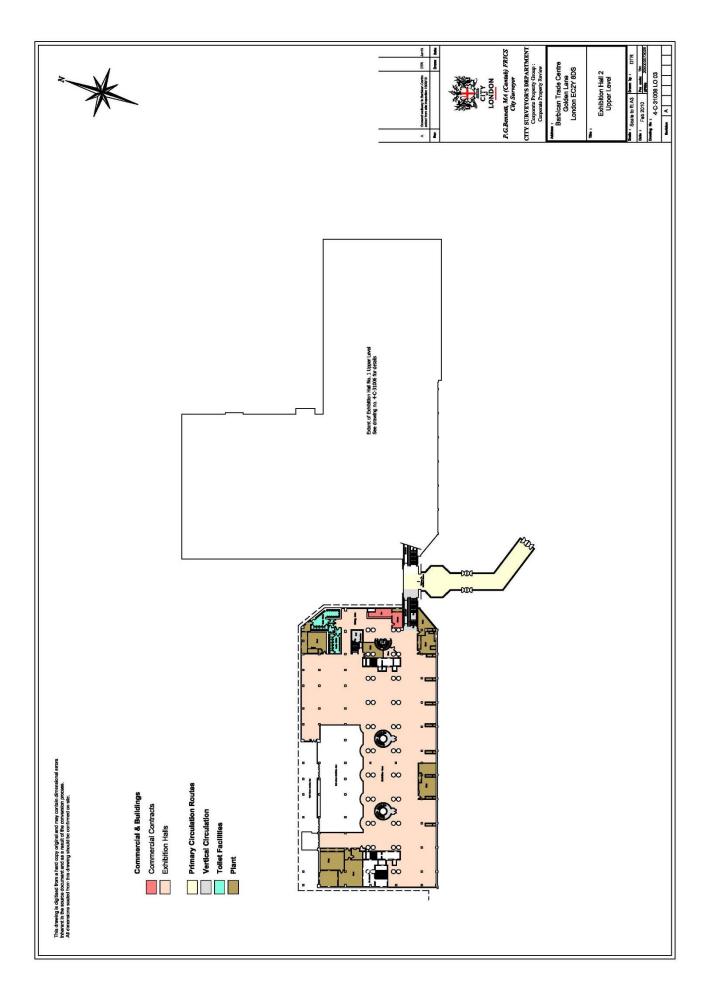
Frobisher Crescent plans at upper (residential) levels



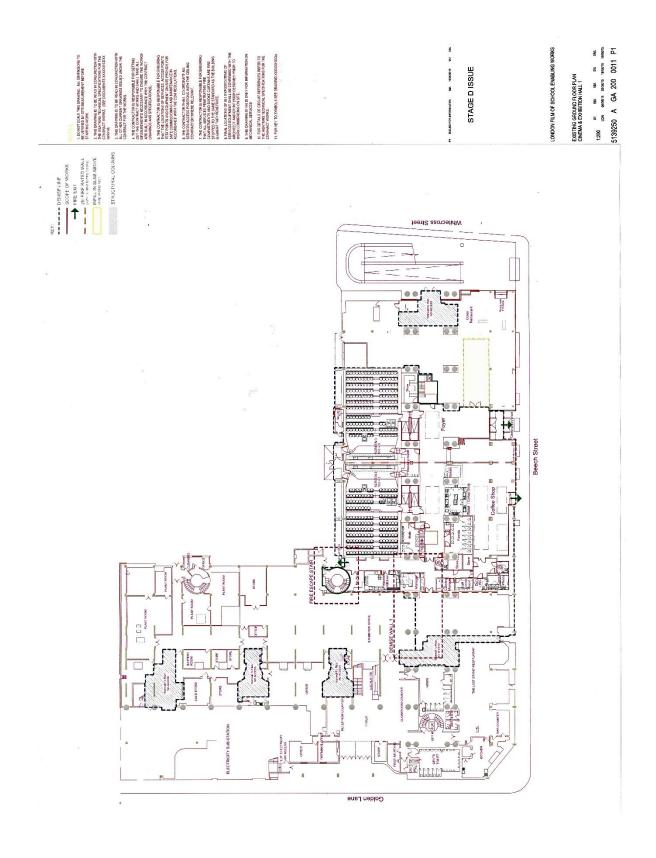


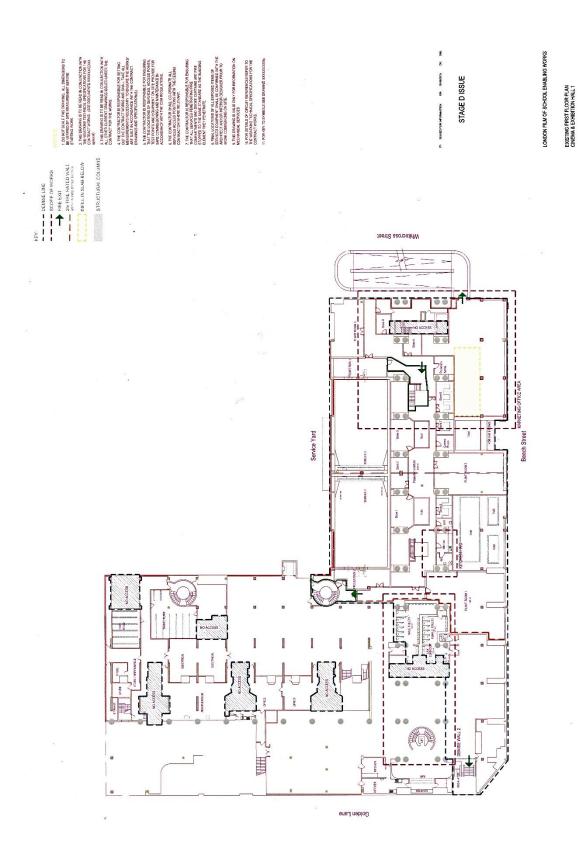






Exhibition Hall plans showing conversion works, 2015





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