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PROPOSED ARCHIVE FACILITY AND OFFICES FOR THE CHA

FEASIBILITY STUDY

FOR

CAMBRIDGESHIRE COUNTY COUNCIL

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1.0 INTRODUCTION AND BACKGROUND

Arcus have been commissioned by Cambridgeshire County Council on the 13th May 2014 to assess the feasibility of converting the existing bowling alley in Ely to an Archive Facility and Offices for the CHA.

The commission to be treated as confidential and commercially sensitive.

1.2 A detailed brief was supplied for both the Archive requirements and that of the CFA. The brief intimated that a mezzanine floor would need to be provided and if necessary an extension. (Appendix A)

1.3 Arcus were instructed not to make contact with the Planners at this stage.

A joint meeting was held with the representatives of the council to review the exiting accommodation in Huntingdon.

2.0 AIMS AND OBJECTIVES

2.1 Arcus were asked to review the information provided and prepare outline proposals for the conversion. This would include outline plans and costs. Separate costs were to be provided for the strip out element of the conversion.

2.3 Based on the brief this report outlines the proposed conversion highlighting any issues that may require clarification or further investigation.

3.0 THE EXISTING BUILDING

3.1 The existing building was originally constructed as a warehouse / depot in an 'L' shaped configuration. The main structure comprises a steel portal frame clad with composite metal sheeting. The floor is a solid concrete slab. The building sits within a site bounded by other commercial properties and has its own carparking and pedestrian access. There is pedestrian walkway to the rear of the building that links to an adjacent development, it is not clear if this is constitutes a formal 'Right of Way. The site sits in a 'Medium' flood risk area but close to an area with no flood risk as does the adjacent Tesco Superstore.

3.2 It would appear the building was converted to its exiting use as a bowling alley in 2004. The conversion involved the raising of the floor throughout the building to accommodate the bowling alley lanes, a raised viewing gallery and drainage.

3.3 In addition to the bowling alley the accommodation included a bar, restaurant, reception, catering and food preparation areas and general seating for the public.

3.4 As the building was originally constructed as a warehouse / depot, the conversion incorporates suspended ceilings, internal wall linings and raised floors. The building was heated and vented using ducted air handling system that provided heating and comfort cooling, the main plant and ductwork being located at high level and externally.

3.5 The building was generally felt to be in good condition with only superficial damage being noted to the external cladding as a result of impact damage.

3.6 The exiting drainage is locate to the side of the building and appears to be limited to two outlets into the below ground drainage system. This leads to a 'Bio-Plus' chamber located to the rear of the site. At this stage the planners have not been consulted with respect to the drainage provision, it is recommended that further investigation is undertaken to assess the capacity of the existing drainage systems.

3.8 As the conversion will necessitate the complete removal of the internal fixtures, fittings and structure no detailed assessment has been made of the condition of those elements. Nor has an assessment been made of the condition of the M&E installations as they also would be removed if the conversion was to take place.

4.0 OUTLINE PROPOSALS AND DESIGN CONSIDERATION

4.1 Strip Out

As previously outlined the existing internal finishes, fixtures, fittings and M&E installations would be removed entirely to facilitate the conversion to an Archive Store and Offices for the CFA. Separate costs are identified in the cost report as requested in the brief.

4.2 Internal Linings and Finishes.

An allowance has been made for increasing the thermal performance of the walls and roof to meet current building regulations and to provide an environment that meets the design brief. Within the archive storage areas this would comprise concrete blocks and cavity wall insulation to maximise the thermal mass. The provision of a solid internal wall around the perimeter of Zone 1 can additionally be used to mitigate any flood risk. Elsewhere the insulation could be provided using a light weight insulation system.

An allowance has been made for a robust fully clipped suspended ceilings 2.500m above the floor of the upper level of the archive areas due to the height to the underside of the roof (7.500m to ridge) This would reduce the volume of the first floor, reducing the load on both the air handling plant and the fire suppression systems. The incorporation of a suspended ceiling will allow the thermal insulation of the roof to be enhanced. An allowance has been made also for the ceiling voids to be vented to reduce the risk of condensation.

Floor coverings to the office area would be carpeted, to specialist area slip resistant sheet flooring. To the floors in Zone the flooring would be raised to ensure the mobile shelving rails do not present a trip hazard. This would help to mitigate the risk associated with flooding due to the building being located in a Medium Risk flood area.

4.3 Archive Storage.

To accommodate the volume of storage outlined in the brief of 1500m^3 we have allowed for the installation of manually operated mobile racking. To achieve the level of storage required 166no back to back bays 9.000m long and 2.000m high will be required. If these were located on the ground floor only this would equate to an area of approx 1400m^2, more than 75% of the ground floor. As the building has an eaves height of 7.5m an additional floor can easily be accommodated. The proposal therefore allows for the storage to be located on two floors. The additional cost of creating a mezzanine floor in this area has been costed separately. An allowance has been made floor to be constructed over a steel frame based on a 10.000m grid with steel columns extending down to the ground floor slab, all fire protected.

Walkways between the mobile shelving have been allowed for along with fixed units to restrict the number of units that can be moved in any one bay. Increased space has also been allowed for to allow trolleys to move safely between the rows of racking. To the sides of the facility fixed wall storage has been allowed for the storage of maps etc.

As no structural information is available describing the structure of the ground floor slab we have assumed at this stage that it would be adequate to support the imposed loads as the building was originally constructed as a warehouse / depot. It is recommended further investigation be carried out on site to determine the actual construction, this is likely to involve intrusive opening up which was not possible as part of this assessment.

4.4 **Drainage Considerations.**

As the existing drainage is located to the side of the building only, the provision for toilets, catering facilities and general staff facilities has been located adjacent to this existing provision with an allowance for forming new connections as appropriate Reference has previously been made to the 'Bio-Plus' chamber to the rear of the site. This infers the drainage discharges into a dedicated water treatment plant which may have limited capacity; further investigation with the Planners / local authority is recommended.

An allowance has been included for enhancing the perimeter surface water drainage to mitigate the risk of flooding.

4.5 **Internal Access**

Separation and linking of Zones 1 to 4 have been allowed for in accordance with the brief.

Zone 1 — Access is predominantly via the staff accommodation in Zone 2. Access to the upper level of Zone 1 can be either via the passenger / goods lift or via the dedicated staircase. Air locks are provided at both levels to maintain the environmental conditions that need to be maintained in Zone 1.

Zone 2 — Can be accessed from the main entrance lobby or via the secure area in Zone 3

Zone 3 — Access to the Zone 3 by the public is via a secure entrance. Staff can access the achieve store directly or from the Zone 2 offices. The layout of the offices and coridors ensures the environmental conditions required in Zone 3 can be maintained through to the main archive store (Zone 1)

Zone 4 — General public access to the seating and reception areas would be from the main entrance.

CHA Offices — Access to the CFA offices would be predominantly via the main entrance, Access to the upper floor would be via the lift or the staircase. The lift would be configured to facilitate disabled access and movement of the documents etc. to the archive store. The lift doors would open both sides to allow both access to the upper floor offices and the archive store. Access to the archive store could be restricted to only those staff authorised to access the archive store. (by electronic key fob)

4.6 **Main Entrance / External Access**

Although the main entrance to the building would be in the same location the removal of the existing suspended floors within the building will result in the floor levels being reduced

throughout. This will result in the main entrance being redesigned allowing level access to the interior.

4.7 **Environmental Considerations.**

It is assumed that the environment within the entire building would be maintained to the levels outlined in the brief using ducted air handling plant with the external chillers etc. being located on the rear elevation. Sufficient space exists within the ceiling voids to locate both plant and ductwork. No wet services are to be located in Zone 1 to reduce the risk of water/liquid damage. A large plant room is located to the rear / side elevation to accommodate the meters, central plant and controls.

An alternative form of heating could be provided to the CHA accommodation based on a wet system. At this stage the cost of heating to the whole building will be provided by ducted system.

4.8 **Natural Light & Means of Escape.**

Additional windows and doors have been allowed to improve the natural lighting of the offices and public areas and provide adequate means of escape in case of fire. No windows have been provided in Zone 1 both to maintain security and help maintain a constant environmental state.

All external means of escape will be protected with alarms and the doors will be to an improved security specification and steel faced.

Flood barriers have been included in the proposal for all external and internal doors to Zone 1.

4.9 **Alarm Systems.**

Internally the building will be covered by an automatic fire detection system with smoke and heat detection as appropriate. The alarm system to Zone 1 will include a VESDA type early warning detection system in addition to a fire Suppression system, the storage of gas bottles and the control equipment will be conveniently located adjacent to the archive store on the ground floor with direct access to the exterior.

Intruder alarms to be provided internally and zoned to reflect the different uses and occupants of the building.

CCTV would be provided internally to all areas accessed by the public and externally around the perimeter.

Flood Warning systems have been incorporated in the costs to provide an early warning of increases in the water table.

5.0 PROPOSAL & SCOPE OF WORKS

5.1 The proposal outlined allows for a comprehensive remodelling of the building and its conversion to an archive store and offices. The cost of conversion is contained within Appendix B which is summarised as follows:

Strip out Costs	£48,825.00
Works Cost	£1,848,286.25
Preliminaries, Contractors Overheads and Profit	£393,531.27
Risk Contingency	£168,951.05
Fees	£123,518.92
Total (Excluding Vat)	**£ 2,582,537.49**

Proposed layouts outlining the subdivision of the building and use of individual spaces is attached in Appendix D.

The accommodation provided is in accordance with the brief except for the CHA Offices. The brief indicated that an area of 450m2 should be allowed for the office space, reception room and meeting rooms, there is also reference to occupancy of upto 70 staff. It is our view this could not all be accommodated within the 450m^2 we have the fore utilised more of the first floor space to maximise the accommodation available to the CFA.

The areas where further investigation is required which will enable the scheme to be developed further are as follows:

- Consultation with the user groups regarding the proposals.
- Approval of the Planners to the proposed change of use.
- Assessment of the load bearing capacity of the ground floor slab.
- Investigate the below ground drainage systems.
- Ensuring the incoming services can accommodate the additional load.
- Further clarification from the Environment Agency regarding the specific flood risk of the site.

6.0 CONCLUSION

6.1 The building can be converted to the proposed new use and can achieve the requirements of the brief. Further consultation with the user groups may result in cost reductions subject to the results of the further investigations.

APPENDIX A

Client Brief & Space Requirements

Specification of the Archives requirements for a new archives building

Prepared by:	Alan Akeroyd, Archives and Local Studies Manager
Date:	May-14

Note 1: **The new archives repository must meet the requirements laid out in PD5454:2012 *Guide for the storage and exhibition of archival materials*. Users of this specification are expected to be familiar with PD5454's contents.**

Note 2: "Staff" below are defined as Archives staff. CCC staff who are not Archives staff are defined as "the public."

Note 3: The racking arrangements will be worked out by a racking company.

Note 4: Details in this specification may change.

Ref	Desirability	Specification	Justification
1.0		**General building arrangement**	
		The archives building should contain four zones:	
1.1	Essential	Zone 1: secure archives storage	Standard for Record Repositories 2004
1.2	Essential	Zone 2: staff accommodation, accessible only by identified staff	Standard for Record Repositories 2004
1.3	Essential	Zone 3: secure public areas, where public are admitted on production of ID and are supervised	Standard for Record Repositories 2004
1.4	Essential	Zone 4: fully open public areas	Standard for Record Repositories 2004
1.5	Essential	Zone 1 should only open into Zone 2. There should be no access directly between Zone 1 and Zone 3, nor between Zone 1 and Zone 4.	Good working practice
1.6	Desirable	The routes between Zone 1 and Zone 3 should nevertheless be as short as possible, with a minimum of corners, as trolleys and documents will need to be transported through those areas	Good working practice
2.0		**Zone 1: secure archives storage**	

2.1	Essential	The archive storage areas should have enough capacity for a minimum of 1,500 cubic meters of archives (650 m3 currently held at Shire Hall, plus 350 m3 at Cottenham, plus 500 m3 for 20 years' accrual). Assuming a rack height of 2 metres, and assuming that mobile racking will take up 75% of the room, this results in a total storage area of 1,000 m2 minimum.	TNA self-assessment Q105; PD5454:2012 Section 5.3
2.2	Essential	Temperature and relative humidity in archive storage areas, search room and staff work areas to be continuously monitored	TNA self-assessment Q98
2.3	Essential	All archive storage areas to be held inside the range 13-20 degrees Centigrade; fluctuations within this range are acceptable as long as they are gradual	TNA self-assessment Q100, 101; PD5454:2012 Sections 4.2.2, 4.2.4
2.4	Essential	All archive storage areas to be held inside the range 35-60% relative humidity; fluctuations within this range are acceptable as long as they are gradual	TNA self-assessment Q102, 103; PD5454:2012 Sections 4.2.2, 4.2.4
2.5	Desirable	The preference is that these environmental conditions should be achieved through high thermal inertia, low air infiltration rates and hygroscopic buffering, thereby keeping active air conditioning to a minimum; we would rather have as simple an aircon system as possible	PD5454:2012: Section 4.6.1, 6.3
2.6	Essential	The air infiltration rate should not exceed two air changes per day	PD5454:2012 Section 6.3.2
2.7	Desirable	An enclosed space, with a door at either end, between areas within the building which have different environments (e.g. to staff and public areas)	PD5454:2012 Section 6.3.4
2.8	Essential	The structural elements of the repository, including the doors, should be designed to provide four hours of fire resistance against a fire occurring either inside the repository, in any adjacent compartment of the building or from sources outside the building	PD5454:2012 Section 6.4.2
2.9	Desirable	The store may be divided into compartments, in such a way that fire, water and smoke are prevented from spreading into a neighbouring compartment	PD5454:2012 Section 6.4.3
2.10	Essential	Air-conditioning plant (if needed), heating, electricity, water supplies and drainage should be situated outside the archive storage areas and not in a position that is accessible only through it.	PD5454:2012 Section 4.7.1 and elsewhere
2.11	Essential	Either no windows (ideal) or small, unopenable, strengthened, double-glazed and barred windows (acceptable)	PD5454:2012 Section 5.2.6
2.12	Essential	No roof lights	PD5454:2012 Section 5.2.6
2.13	Essential	Strongly constructed lockable doors, the lock to be easily reachable without stretching or stooping	PD5454:2012 Section 5.2.7; lessons from other reposities
2.14	Essential	Floors and doorways should be level and uninterrupted by steps, sills, grilles etc in order to allow the easy passage of trolleys	PD5454:2012 Section 6.7
2.15	Desirable	False ceilings to be avoided	PD5454:2012 Section 6.9
2.16	Essential	The air in the storage areas should be kept free of pollution, dust etc and must have sufficient movement to avoid stagnation	PD5454:2012 Section 4.7

2.17	Desirable	General illuminance in the archives storage areas should be between 100 and 300 lux. High frequency dimmable tubular fluorescent lamps are recommended. Lighting should not emit UV radiation	PD5454:2012 Section 6.13
2.18	Essential	All archive storage areas to be equipped with automatic fire extinguishing systems (eg gas suppressant)	TNA self-assessment Q94; PD5454:2012 Section 7.5.5
2.19	Essential	Circuits: switches should be placed outside the repository to isolate the electrical circuitys that serve the repository. Electrical circuits should not pass through the repository unless they serve it	TNA self-assessment Q94; PD5454:2012 Section 6.13.5, 7.3.1
2.20	Essential	None of the archive storage areas should have water or other liquid-bearing pipes passing through or immediately above them	TNA self-assessment Q95
2.21	Desirable	Archive storage areas are equipped with water sensors or alarms (or these are unnecessary because of other measures)	TNA self-assessment Q95
2.22	Desirable	Archive storage areas are equipped with emergency drainage to cope with water arising from flooding or fire extinguishing	TNA self-assessment Q95; PD5454:2012 Section 6.5
2.23	Desirable	Electricity power points to be evenly distributed around the storage space to maximise flexibility of use	Lessons from other repositories
2.24	Essential	The store can be on more than one floor. The floors of upper storeys must be constructed solidly enough so that they take the full loading of heavy mobile racking.	
2.25	Essential	If the building is located in a flood plain, the building must be designed in a way which minimises the risk to the storage from flooding	
		<u>Specialist areas within Zone 1</u>	
2.26	Essential	Specialist room for photographic, audio visual and electronic media, with cool storage (between 5-18 C, 30-50% relative humidity), area 25 m2	PD5454:2012 Section 4.3
2.27	Essential	Separate sorting/reception area for new accessions of documents, within the environmental conditions laid out in 2.3 and 2.4 above, area 15 m2	Good working practice
2.28	Essential	Physically separate room/building for storage of nitrate photographs. These photographs are highly flammable. Space 10 m2. Cool storage (between 5-18 C, 30-50% rH). Power sockets to run freezers and PCs. Fire suppression must be able to activate independently of fire suppression in rest of the building.	
2.29	Essential	Separate secure area for Registration records, 20 m2. (It may be possible to achieve this through having a caged area in the racking rather than a permanent building fixture.)	Registration service requirements
3.0		**<u>Zone 2: staff facilities</u>**	
3.1	Essential	Cataloguing and project room: 100 square metres minimum	CALS current working team
3.2	Essential	Conservation unit: 50 square metres minimum	CALS current

			working team
3.3	Essential	Conservation unit to have plumbed water supply	CALS current working team
3.4	Essential	Digitisation studio: 50 square metres. If there are windows they must be able to be entirely blacked-out when necessary. The studio to have as stable a floor as possible in the building (eg concrete)	CALS current working team
3.6	Essential	Room for the secure copying of register entries by Registration staff, big enough for 2 desks, adjacent to a small room where the public can visit (4.6 below)	Registration service requirements
3.7	Essential	Staff meeting room(s)	CALS current working team
3.8	Essential	Staff toilets	CALS current working team
3.9	Essential	Staff common room or area	CALS current working team
4.0		**Zone 3: secure public facilities**	
4.1	Essential	Space for consulting documents ("searchroom") with constant staff supervision, good staff sightlines across the room, reception facilitites: 100 square metres minimum	TNA self-assessment Q106
	Essential	This space to be within the range 40-65% relative humidity, and a temperature not exceeding 25 degrees C	PD5454:2012: Section 4.10.2
4.2	Essential	Dedicated space for consulting maps/outsize documents within or adjacent to searchroom: 40 square metres minimum	TNA self-assessment Q106
4.3	Essential	Microfilm and microfiche consulting area within or adjacent to searchroom: 10 square metres minimum	TNA self-assessment Q106
4.4	Essential	Space for public access PCs (for Internet and other digital resources) within or adjacent to searchroom: 10 square metres minimum	TNA self-assessment Q106
4.5	Essential	Equipment designed or adapted for users with disabilities within searchroom	TNA self-assessment Q106
4.6	Essential	A small room adjacent to the regisrtation room in 3.6	Registration service requirements
5.0		**Zone 4: fully open public facilities**	
5.1	Desirable	Exhibition space	TNA self-assessment Q107
5.2	Desirable	This space to be within the range 13-22 C and 35-60% relative humidity	PD5454:2012 Section 4.10.3
5.3	Desirable	Meeting room	TNA self-assessment Q107
5.4	Essential	Common room for public use	TNA self-assessment Q107
5.5	Desirable	Restaurant or coffee bar facility (an ideal, but a major request of our users)	TNA self-assessment Q107; PSQG user survey 2011
5.6	Essential	Toilets for use by public visitors	TNA self-assessment Q107
5.7	Essential	Physical access to all public areas to meet DDA requirements	Disability

			Discrimination Act/s
		Entire building (not zone-specific):	
6.0		**Fire prevention and detetction**	
6.1	Essential	All parts of the building to be fitted with fire and smoke detectors and alarms	TNA self-assessment Q94; PD5454:2012 Section 7.5.2
6.2	Essential	Detectors linked to a 24 hour monitoring service or direct to the fire service	TNA self-assessment Q94; PD5454:2012 Section 7.5.3
6.3	Essential	Smoke alarms of the VESDA type	TNA self-assessment Q94
6.4	Essential	All wiring in building is flame retardant	TNA self-assessment Q94; PD5454:2012 Section 7.3.4
6.5	Essential	Doors should be self-closing in the event of a fire	PD5454:2012 Section 6.4.4
6.6	Essential	Stairways, lift shafts and other vertical openings should be enclosed by walls, doors, dampers etc of material with an appropriate fire resistance	PD5454:2012 Section 6.4.5
7.0		**Water supply**	
7.1	Desirable	Risk of damage to documents whether in the archives storage areas or in any other parts of the building is minimised	PD5454:2012 Section 6.5
8.0		**Security**	
8.1	Essential	Entire building protected by intruder alarms	TNA self-assessment Q96; PD5454:2012 section 5.2
8.3	Desirable	Building has recorded external and internal CCTV coverage	TNA self-assessment Q96; PD5454:2012 Section 5.2
9.0		**Materials and construction**	
9.1	Desirable	Walls, floors and ceilings should be made of a material with high thermal and hygroscope capacity	PD5454:2012 Section 6.3.3
9.2	Essential	Floors and floor coverings should be hard-wearing, easy to clean, not prone to creating dust, non-slippery, light coloured and sound-deadening	PD5454:2012 Section 6.3.3

9.3	Essential	Materials, paints and coatings should be of a sort that minimises the emission of harmful substances in the event of fire and avoid acidic gases and volatile organic compunds arising through gradual detioration	PD5454:2012 Section 6.3.3
9.4	Essential	Possible entry points for vermin, insects, birds etc should be sealed with appropriate screens, blockings or filters	PD5454:2012 Section 6.6
10		**Upper storeys access**	
10.1	Essential	If the building is to use lifts, the lifts must be large enough to take trolleys	
10.2	Essential	At least one lift and at least one set of stairs must be within Zone 2, so that staff can move documents in a non-public area.	

CFA Office Requirement

Approx 450 sq.m Net Internal Area office accommodation to include a public reception area, conference room and 3 secure interview rooms.

The FM guidance for office accommodation is listed as follows:

Basic IT info is included. More detailed info i.e. Network connection, comms rooms etc - contact IT.

We use a very rough 'rule of thumb' of c£3k to set up one workstation, (furniture, IT, move staff in etc) and c£3k p.a. to run it IT costs (hardware, software, licences etc) and Property costs (lease, maintenance, utilities, cleaning etc).

Approximately 5.0 to 6.0sqm per workstation. (This area includes walkways and storage etc.)

Walkways to comply with fire regulations and accessibility regs. Min 1800mm between work-faces of workstations.

Workstations are all standard configuration to allow flexible working/hot-desking.

Target occupancy is 10 people to 5 workstations.

Mainly open plan space where possible, no cellular offices.

Aim for banks of workstations out from walls, dado trunking for power and data. Maintain access to windows.

One data socket per workstation plus 10%.

Workstations hard-wired with rcd protection. 3 accessible power sockets on the work-surface of each desk.

'Cleaners' sockets on separate circuits.

1600mm rectangular desk. (No pedestals)

One 'Cambridge' operators chair per workstation.

One CCC std build pc, lcd monitor and one voip phone per workstation.

One metre of filing shelving per person.

Filing in cupboards 2m (max) high. (No 4 drwr filing cabinets). Located against walls or back-to-back.

One locker per person. (Probe lockers - in blocks of 4 or 8) located near each bank of desks.

Target meeting room space, c0.8 sqm per person.

Meeting rooms to be a mixture of sizes from (min) 4 people to 12.

Small meeting rooms to have one voip phone and one data point and white board.

Large meeting rooms (over 12 people) as small meeting rooms plus ceiling projector, screen and power/data for video conference.

MFD ratio of one to approximately 50 people. One power and one data socket per mfd. One cupboard for storage of stationery and paper per mfd.

Kitchen to have one hydro-boil, two fridges and three power points for c70 people.

APPENDIX B

Cost Plan

ORDER OF COST ESTIMATE
for
CAMBRIDGESHIRE COUNTY COUNCIL

for

Project Title: Ely Archive Facility

Date: August 2014

ACCOMODATION MIX				
Description	**Number in Type**		**G.I.F.A. per Dwelling (m2)**	**G.I.F.A. (m²)**
Archive area - 2 levels	2	Nr	690.00	1380.00
Ground Floor Office area	1	Nr	1,063.00	1063.00
First Floor Office area	1	Nr	948.00	948.00
TOTAL				**3,391.00**

GROUP	CONSTITUENT	QUANTITY	UNIT	£/UNIT	ELEMENTAL COST
0	**FACILITATING WORKS**				**£ -**
	BUILDING WORKS				**£ 1,896,536.25**
1	**Substructure**				**£ -**
1.1	Strip foundations; PCC ground floor slab	0	m²	75.00	£ -
2	**Superstructure**				**£ 1,821,111.25**
2.1.1	RC Floors and steel frame structure - Mezzanine to office	1063	m2	94.25	£ 100,187.75
2.1.2	Mezzanine floor to archive area	1	item	65,000.00	£ 65,000.00
2.1.3	Assume load bearing capacity sufficient for mezzanine	1	Prov	5,000.00	£ 5,000.00
2.1.4	Roof	0	m2	170.00	£ -
2.1.5	RC Stairs to rchive area	1	nr	6,250.00	£ 6,250.00
2.1.6	Timber stairs - offices area	3	nr	2,125.00	£ 6,375.00
2.1.7	External walls - general repairs to cladding	1	item	10,000.00	£ 10,000.00
2.1.8	External doors - double	6	nr	1,650.00	£ 9,900.00
2.1.9	External windows - renew existing	9	nr	300.00	£ 2,700.00
2.1.10	External windows - form new oppenings	32	nr	875.00	£ 28,000.00
2.1.11	External walls - redecoration	1615	m2	5.10	£ 8,236.50
2.1.12	Internal walls - new brick/block solid wall construction	3391	m2	37.50	£ 127,162.50
2.1.13	Extra Over - cavity insulation to external walls	1615	m2	10.00	£ 16,150.00
2.1.14	Internal doors - fire rated single leaf	19	no.	1,200.00	£ 22,800.00
2.1.15	Internal doors - double leaf	13	no.	1,500.00	£ 19,500.00
2.1.16	Internal Wall finishes - decoration	4270	m2	5.10	£ 21,777.00
2.1.17	Extra Over Fire proofing - archive area	690	m2	25.00	£ 17,250.00
2.1.18	Ceilings - medium quality concealed grid excl. archive area	2011	m2	40.00	£ 80,440.00
2.1.19	Ceilings - decoration	780	m2	6.00	£ 4,680.00
2.1.20	Ceilings - Extra over for insulation to archive ceiling at roof level	690	m2	17.50	£ 12,075.00
2.1.21	Flooring - carpert to zones 2, 3, 4	2011	m2	12.50	£ 25,137.50
2.1.22	Flooring archive area - specialist non slip	1380	m2	25.00	£ 34,500.00
2.1.23	Plumbing and Sanitary fittings & RWG	1	Prov	20,000.00	£ 20,000.00
2.1.24	Mechanical Installations	1	item	150,000.00	£ 150,000.00
2.1.25	Gas suppression system	2	item	275,000.00	£ 550,000.00
2.1.26	Kitchen & WC ventillation	7	nr	815.00	£ 5,705.00
2.1.27	Electrical Installations and lighting	3391	m2	25.00	£ 84,775.00
2.1.28	Fire and intruder alarm installations	3391	m2	10.00	£ 33,910.00
	Internal fittings				
2.1.29	Manually operated mobile racking system	1494	units	200.00	£ 298,800.00
2.1.30	Floor mounted 600mm deep shelving	160	m	155.00	£ 24,800.00
2.1.31	Provide workstations - allowed for no. no. workstations	10	no.	3,000.00	£ 30,000.00

3	**Services**				**£**	**-**
	Included in 2.1					
4	**Prefabricated buildings and building units**				**£**	**-**
	n/a					
5	**Work to existing buildings**				**£**	**43,825.00**
5.1	Strip out existing structure and dispose of rubble	1,753.00	m2	25.00	£	43,825.00
6	**External Works**				**£**	**31,600.00**
6.1	**Site Preparation**				**£**	**-**
6.2	**Landscaping**				**£**	**12,500.00**
6.2.1	Improvements to Car Parking	1	PS	12,500.00	£	12,500.00
6.5	**External Lighting**				**£**	**2,000.00**
6.5.1	Allowance for external lighting	1	PS	2,000.00	£	2,000.00
6.6	**Drainage**				**£**	**7,500.00**
6.6.1	Site Drainage	1	PS	7,500.00	£	7,500.00
6.7	**Statutory Services**				**£**	**9,600.00**
6.7.1	**Aletrations to Existing Connections**					
6.7.1.1	Electricity	1	Nr	3,200.00	£	3,200.00
6.7.1.2	Gas	1	Nr	5,000.00	£	5,000.00
6.7.1.3	Water	1	Nr	1,100.00	£	1,100.00
6.7.1.4	BT	1	Nr	300.00	£	300.00
6.7	**Diversions**				**£**	**-**
	-					
0 - 6	**SUB TOTAL FACILITATING WORKS & BUILDING WORKS**				**£**	**1,896,536.25**
7	**Main contractor's preliminaries**	**15%**			**£**	**284,480.44**
0 - 7	**SUB TOTAL FACILITATING WORKS & BUILDING WORKS (Including Preliminaries)**				**£**	**2,181,016.69**
8	**Main contractor's overheads and profit**	**5%**			**£**	**109,050.83**
0 - 8	**TOTAL BUILDING WORKS ESTIMATE**				**£**	**2,290,067.52**
9	**Project or design team fees**				**£**	**123,518.92**
9.1	**Design fees**					
	Planning Fees	1	nr	385.00	£	385.00
	Planning discharge fees	1	Item	750.00	£	750.00
	Building Regulations	1	Item	1,778.00	£	1,778.00
	Architect 3.6%	1	Item	78,516.60	£	78,516.60
	Structural Engineer 1.9%	1	Item	41,439.32	£	41,439.32
	Energy performance certificates and SAP calculations	1	nr	100.00	£	100.00
	Air testing;	1	nr	200.00	£	200.00
	Sound testing;	1	nr	350.00	£	350.00
10	**Other development or project costs**				**£**	**-**
	n/a					
9 - 10	**TOTAL PROJECT OR DESIGN TEAM FEES AND OTHER DEVELOPMENT OR PROJECT COSTS**				**£**	**123,518.92**

0 -10	**BASE COST ESTIMATE**				**£**	**2,413,586.44**
11	**Risk**					
11.1	Design development risk	3.5%		84,475.53	£	84,475.53
11.2	Employer changes risk	3.5%		84,475.53	£	84,475.53
11	**TOTAL RISK ALLOWANCE**				**£**	**168,951.05**
0 - 11	**COST LIMIT (excluding inflation)**				**£**	**2,582,537.49**
12	**Inflation**				**£**	**-**
	n/a					
12	**TOTAL INFLATION ALLOWANCE**				**£**	**-**
0 - 12	**ROUNDED COST LIMIT (excluding V.A.T. assessment)**				**£**	**2,582,537.49**
13	**VAT ASSESSMENT (if applicable)**				**£**	**-**

Exclusions

1. Professional and design fees incurred prior to the appointment of the Main Contractor
2. Any applicable VAT and other taxation elements and/or levy amounts.
3. Any property and land acquisition costs that may be applicable.
4. All financing and acquisition charges payable.
5. Costs arising out of site specific restrictions such as archaeological investigation costs, the presence of contamination, abnormal ground conditions, deleterious materials, access and egress problems, working hours restrictions, asbestos and the like etc.
6. Costs associated with over sailing rights and licenses.
7. Costs relating to works outside of the site boundary.
8. Costs associated with the specific requirements of any Section Agreements such as for example s106, s278 etc.
9. Costs associated with loose furniture, fittings and works of art.
10. Costs arising out of any matters in connection with the discovery of contaminated materials such as asbestos.
11.Marketing, sales and legal fees.
12. Costs associated with road closure fees and the like.
13. Costs associated with decanting.
14. Commuted sums and contribution amounts requested by the Local Planning Authority (LPA).
15. Costs arising out of any matters in connection with potential party wall issues.

Qualifications and/or Assumptions

1. The rates assume that works will be carried out during normal working hours and as continuous operations on site.
2. We are not in receipt of a Structural Engineers design/report, thus a typical foundation solution has been allowed for.
3. It is assumed that the works are based on a design and build form of procurement, utilising a standard form of building contract.
4. A specification of works has not been provided
5. The costs included are reflective of competitive tenders being obtained during 1Q2014.
6 We are not in receipt of a drainage survey or a detailed drainage design and have therefore included a typical allowance for new foul and surface water drainage.
7. No allowance has been included for white goods.
8. No allowance has been included for the requirements of the revisions to Part L of the Approved Documents in relation to the Buildings Regulations.
9. No allowance has been included for the specific requirements of Secured by Design.
10. In the absence of detailed services information we have included for service connections only based on published cost data available to us. We would recommend that quotations are obtained at the appropriate juncture.
11. It has been assumed that new external lighting columns are required.
prepared. A commitment to progress the works should not be made on the basis of this order of cost.
12 No allowance has been made for the specific requirements of the Local Planning Authority or Building Control at this stage

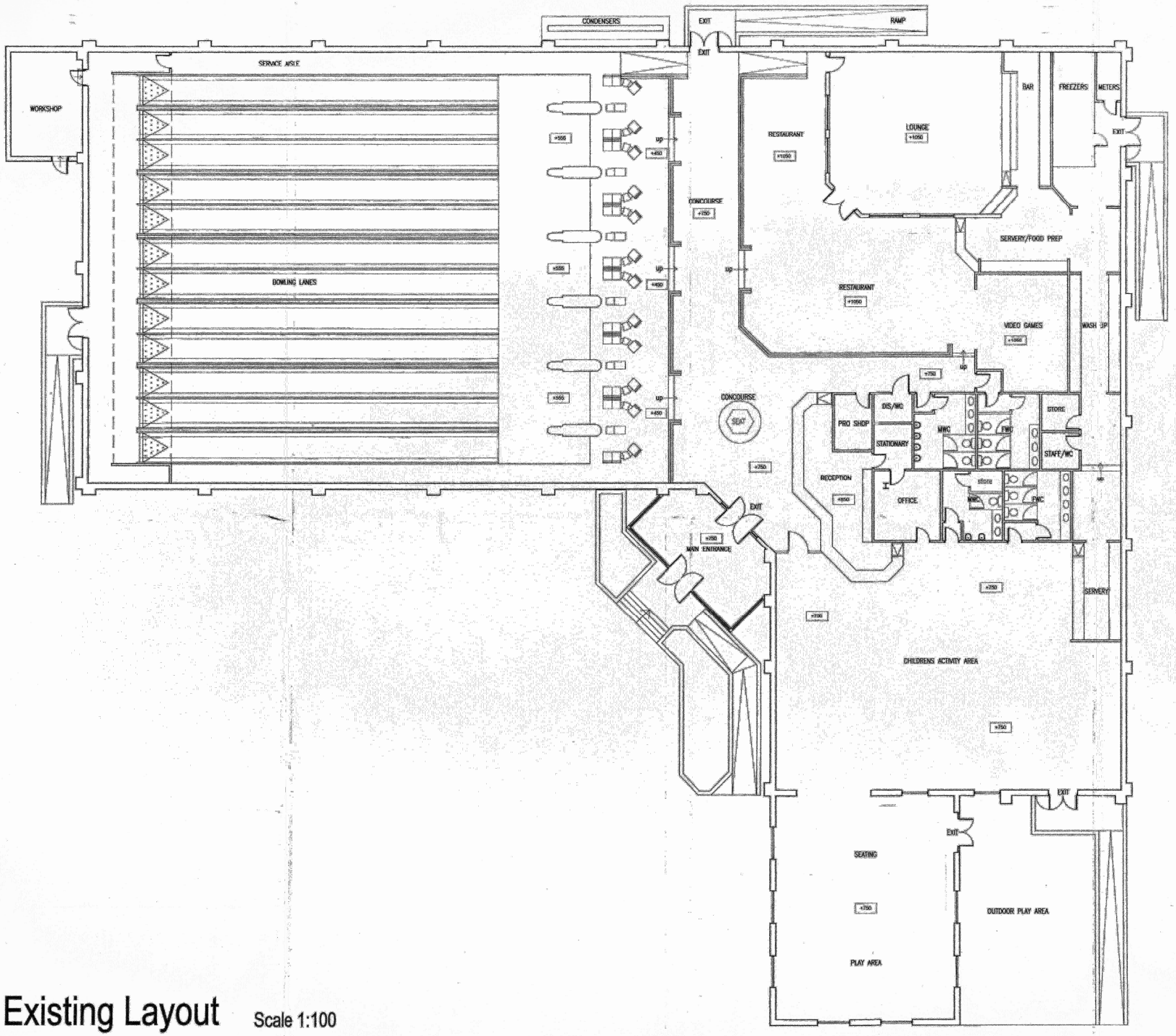
Information Used

1. Arcus Drawings

No. 01 - Proposed Site Plan
Ground floor plan
First floor plan

APPENDIX C

Existing Layout



Existing Layout

Scale 1:100

NOTE

This drawing is to read in conjunction with all other Architects drawings and all Structural Engineers drawings details and calculations.

It is the contractors responsibility to check all dimensions prior to fabrication or construction, any discrepancies to be reported to the Architect.

B (07.12.05) BUILDING REGULATION ISSUE.
A (15.08.05) ACCORDING TO SITE SURVEY, FLOOR LEVELS REVISED, SEAT ADDED IN CONCOURSE AREA, SANITARY ADDED IN TOILETS, PARTITION WALL AND DOORS ADDED BETWEEN WASH UP AND BAR AREA. BW.

KIRKMAN
ARCHITECTS

GREYSTONE HOUSE
MOSS LANE, ALTRINCHAM
CHESHIRE WA15 8HF
TEL: 0161 926 3838
FAX: 0161 926 7788

Project
AMERICAN AMUSEMENTS,
STRIKES BOWLING CENTRE,
ELY

Drawing
EXISTING LAYOUT

Date Jan 2004 | Drawn By sr | Scale 1:100

Drawing Status: BUILDING REGS. | Drawing No. 1172-01 | Rev No. 'B'

APPENDIX D

Proposed Layout

GROUND FLOOR

1:200 @A3

Rev	Date	Description
XX	XX:XX:XX	XXXX

Arcus Consulting LLP
Wakefield 0192 466 9000 Manchester 0161 905 3222 Cambridge 0122 325 7706
Liverpool 0151 708 1080 Newcastle 0191 272 5781 info@arcus.uk.com
www.arcus.uk.com

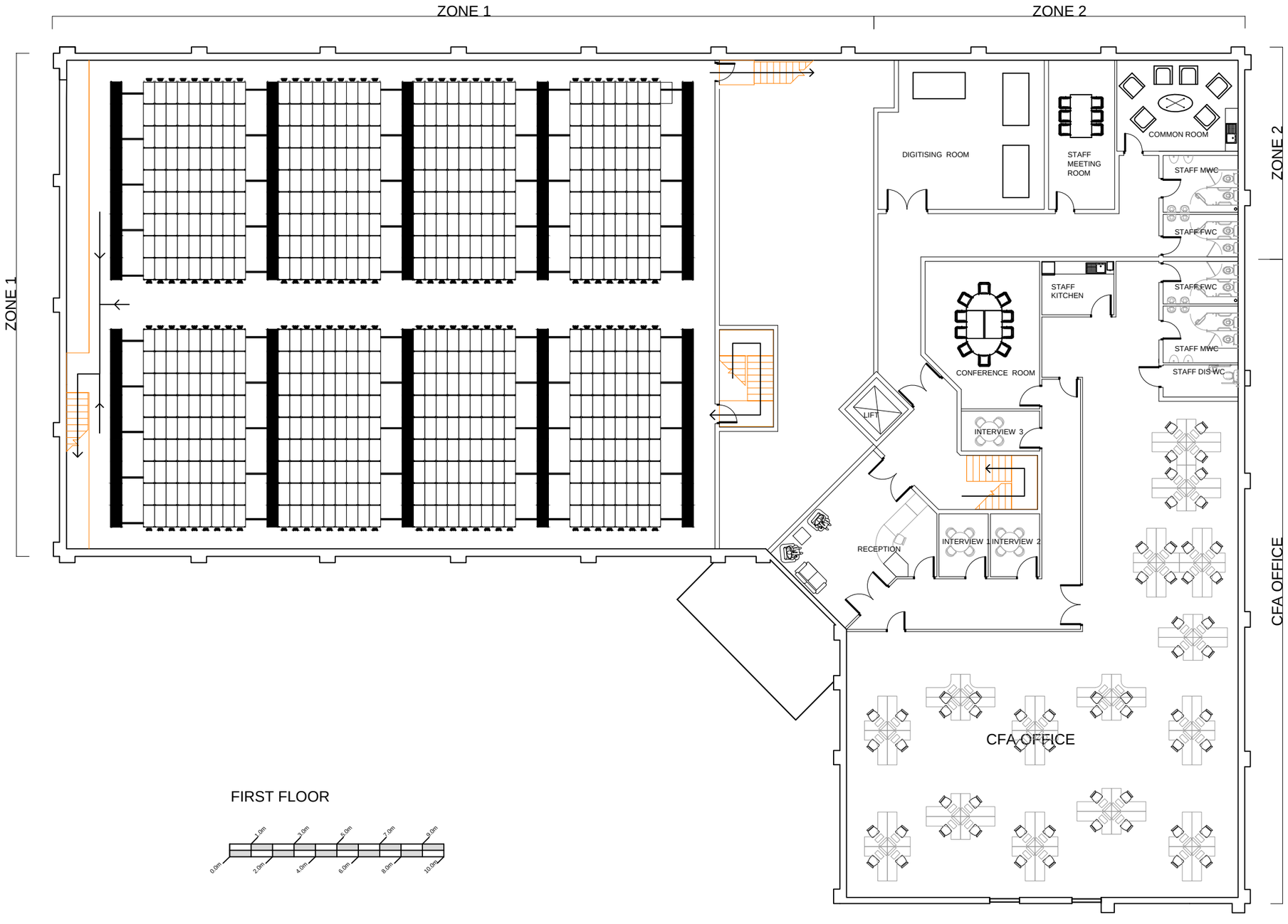
Client
CAMBRIDGESHIRE COUNTY COUNCIL

Project
ELY ARCHIVE CENTRE

Title
FEASIBILITY STUDY 1
GROUND FLOOR PLAN

Scale	Date	Stage
1:200@A3	20.08.14	F
Job No	Drawing No	Rev
XXXX	F.101	XX
Drawn	Approved	
RAC	AR	

Rev	Date	Description



FIRST FLOOR

1:200 @A3

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Client
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Project
ELY ARCHIVE CENTRE

Title
FEASIBILITY STUDY 1
FIRST FLOOR PLAN

Scale	Date	Stage
1:200@A3	20.08.2014	F

Job No	Drawing No	Rev
	F.102	

Drawn	Approved
RAC	AR

GROUND FLOOR

1:200 @A3

Rev	Date	Description
XX	XX:XX:XX	XXXX

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Project
ELY ARCHIVE CENTRE

Title
FEASIBILITY STUDY 2
GROUND FLOOR PLAN

Scale	Date	Stage
1:200@A3	20.08.14	F
Job No	Drawing No	Rev
XXXX	F.201	XX
Drawn	Approved	
RAC	AR	

Rev	Date	Description

FIRST FLOOR

1:200 @A3

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Client
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Project
ELY ARCHIVE CENTRE

Title
FEASIBILITY STUDY 2
FIRST FLOOR PLAN

Scale	Date	Stage
1:200@A3	20.08.2014	F

Job No	Drawing No	Rev
	F.202	

Drawn	Approved
RAC	AR