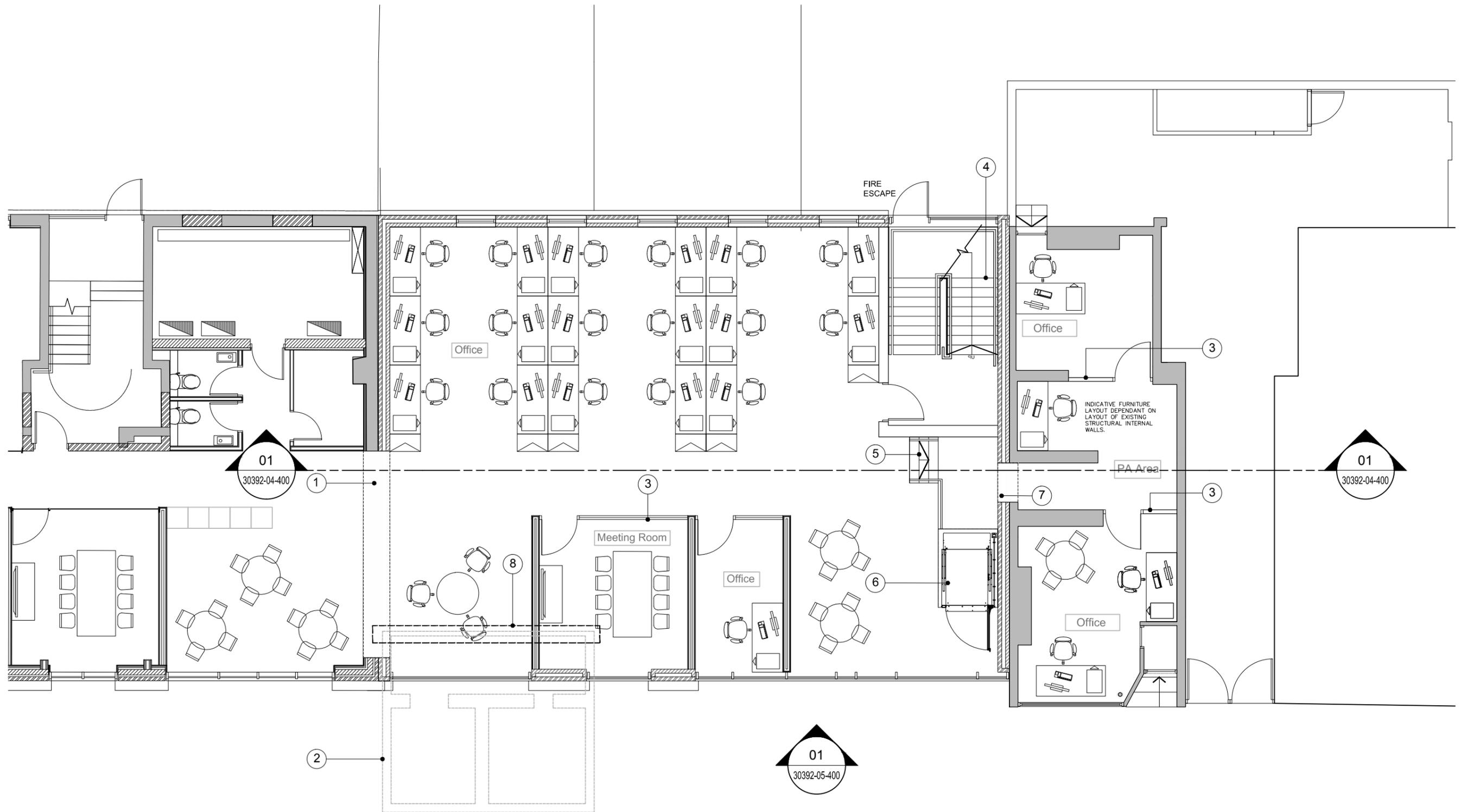


8.4 Design Option 04

Overview

Demolition / Public Sculpture

- Demolition of the listed building No. 29
- Salvaging of the tiled shop front for relocation near to existing site as a free-standing piece of public sculpture
- Demolition of No. 31 & 33 to allow for new building extension
- Retention/restoration of the whole existing fabric of No. 35 for integration with new Anson House building extension.



- 1. Enlarged opening to allow for continuation of open plan arrangement.
- 2. Outline of basement below - Due to limited headroom the basement floor has not been shown in this option as it is not a usable space.
- 3. New internal partition
- 4. New circulation stair.
- 5. New stair - +0.680

- 6. New platform lift - +0.680
- 7. New opening - minimal width to reduce impact on existing building fabric.
- 8. Specialist removal and re-location of listed tiled shop front.

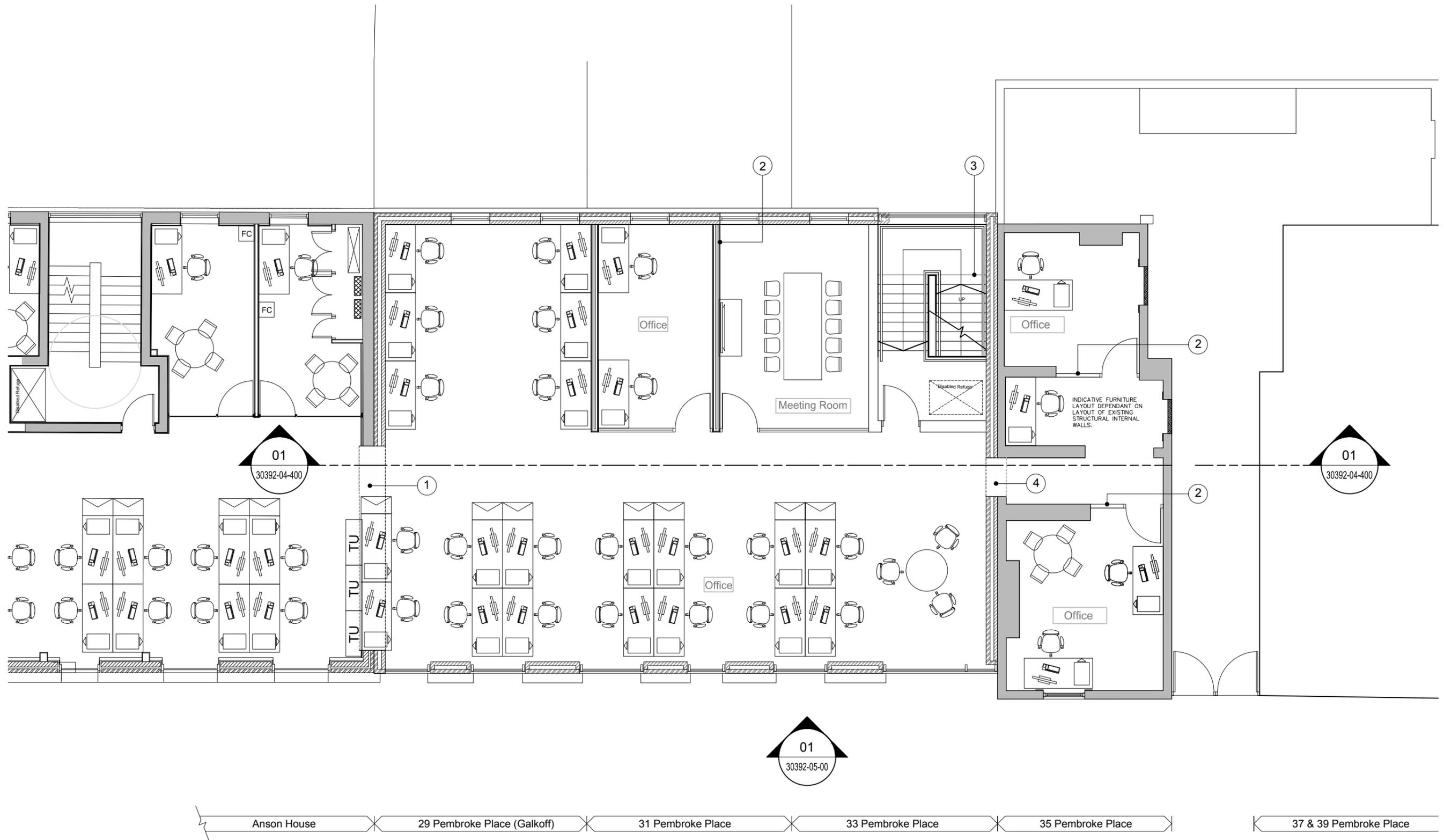
Option 04 Ground Floor Plan 1:100



- 1. Enlarged opening to allow for continuation of open plan arrangement.
- 2. Removal of paintings that are listed as significant interest.
- 3. New internal partitions.
- 4. New circulation stair.
- 5. New opening - minimal width to reduce impact on existing building fabric.

Option 04 First Floor Plan 1:100



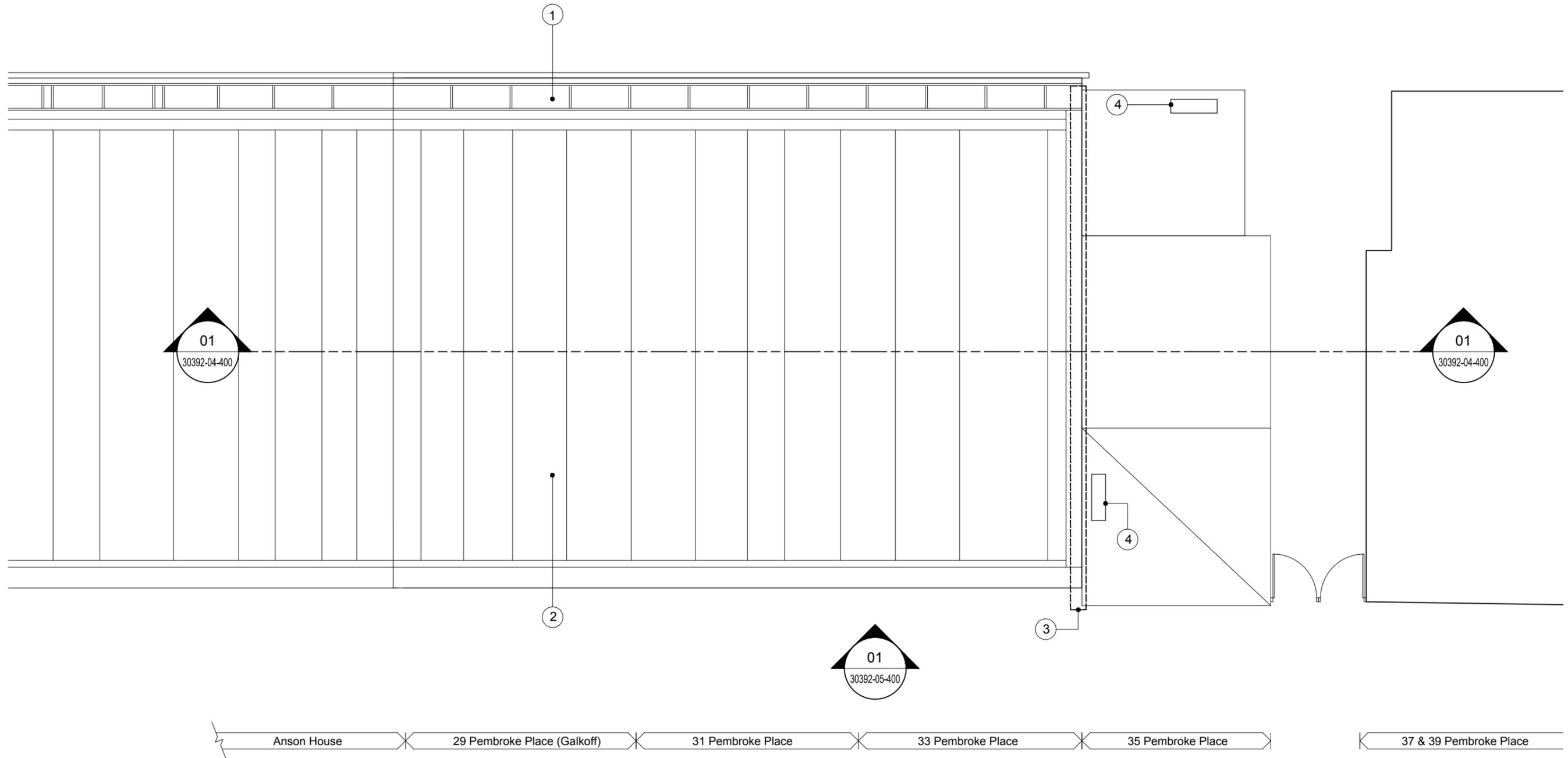


- 1. Enlarged opening to allow for continuation of open plan arrangement.
- 2. New internal partitions.
- 3. New circulation stair.
- 4. New opening - minimal width to reduce impact on existing building fabric.

Option 04 Second Floor Plan 1:100

Galkoff Extension Design Options



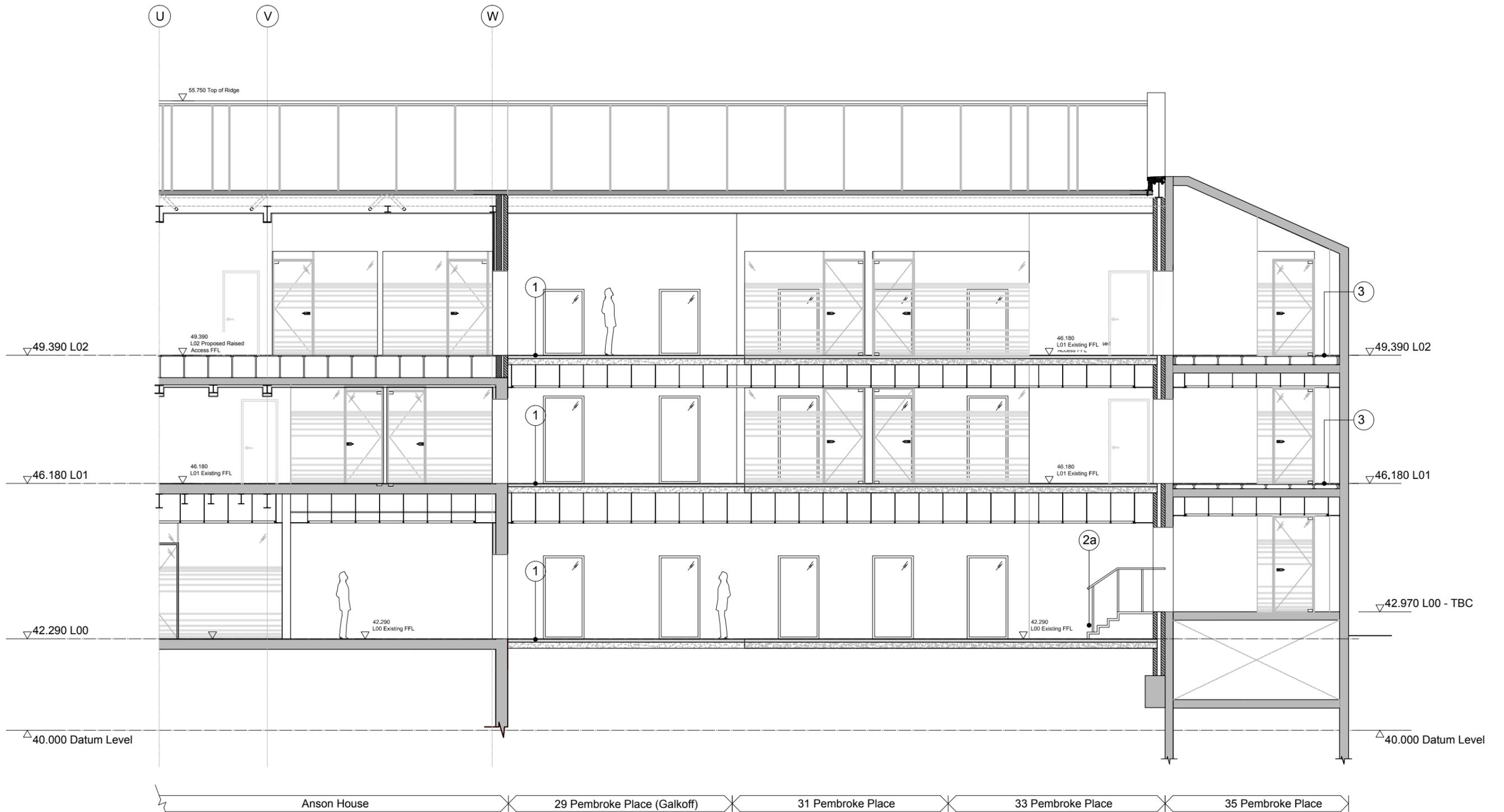


1. -

Option 04 Roof Plan 1:100

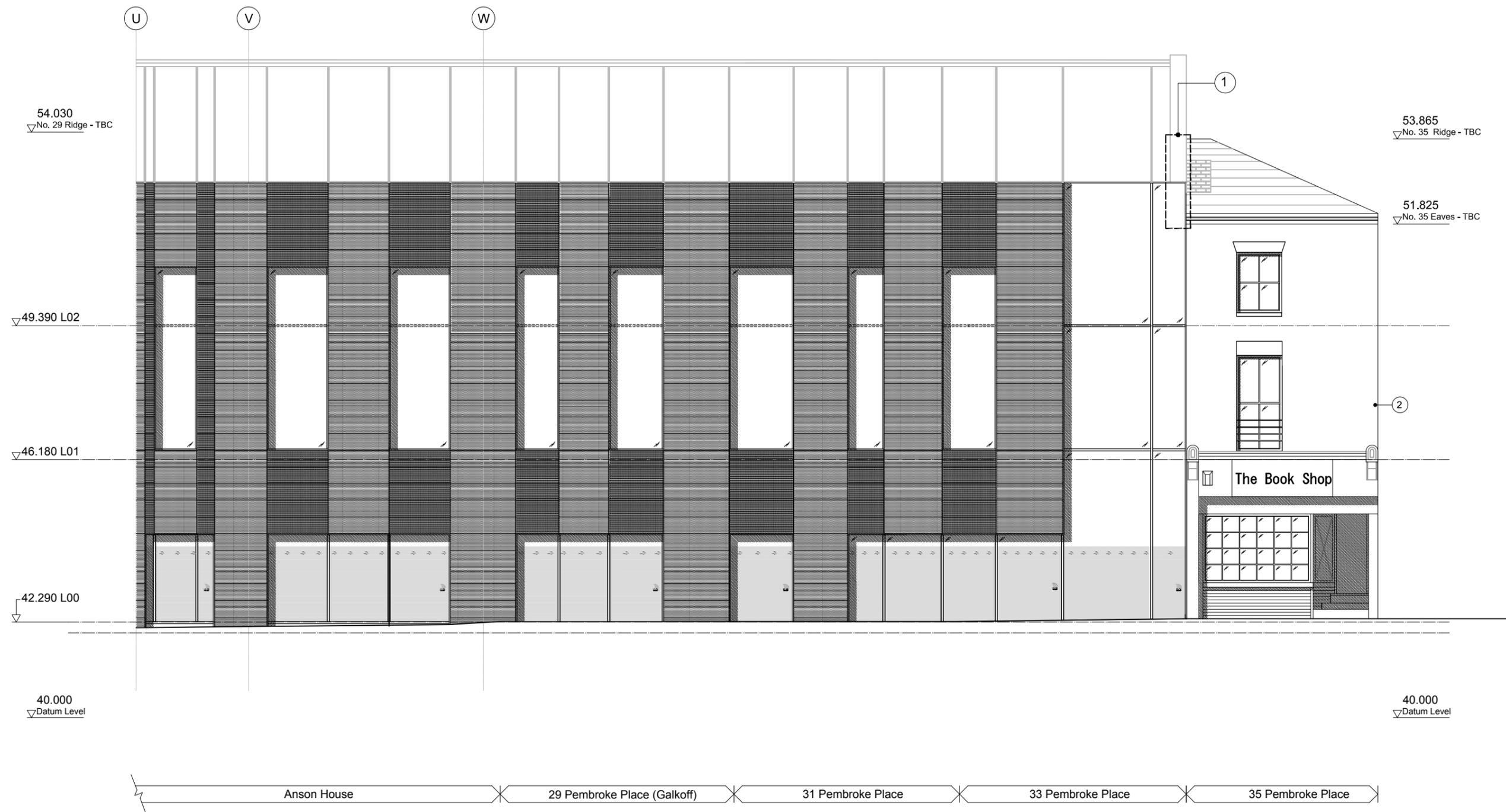
Galkoff Extension Design Options





- 1. New floor - see structural report for floor construction
- 2. New stair
a - +0.680m
- 3. New raised floor built on existing floor.

Option 04 Section 1:100

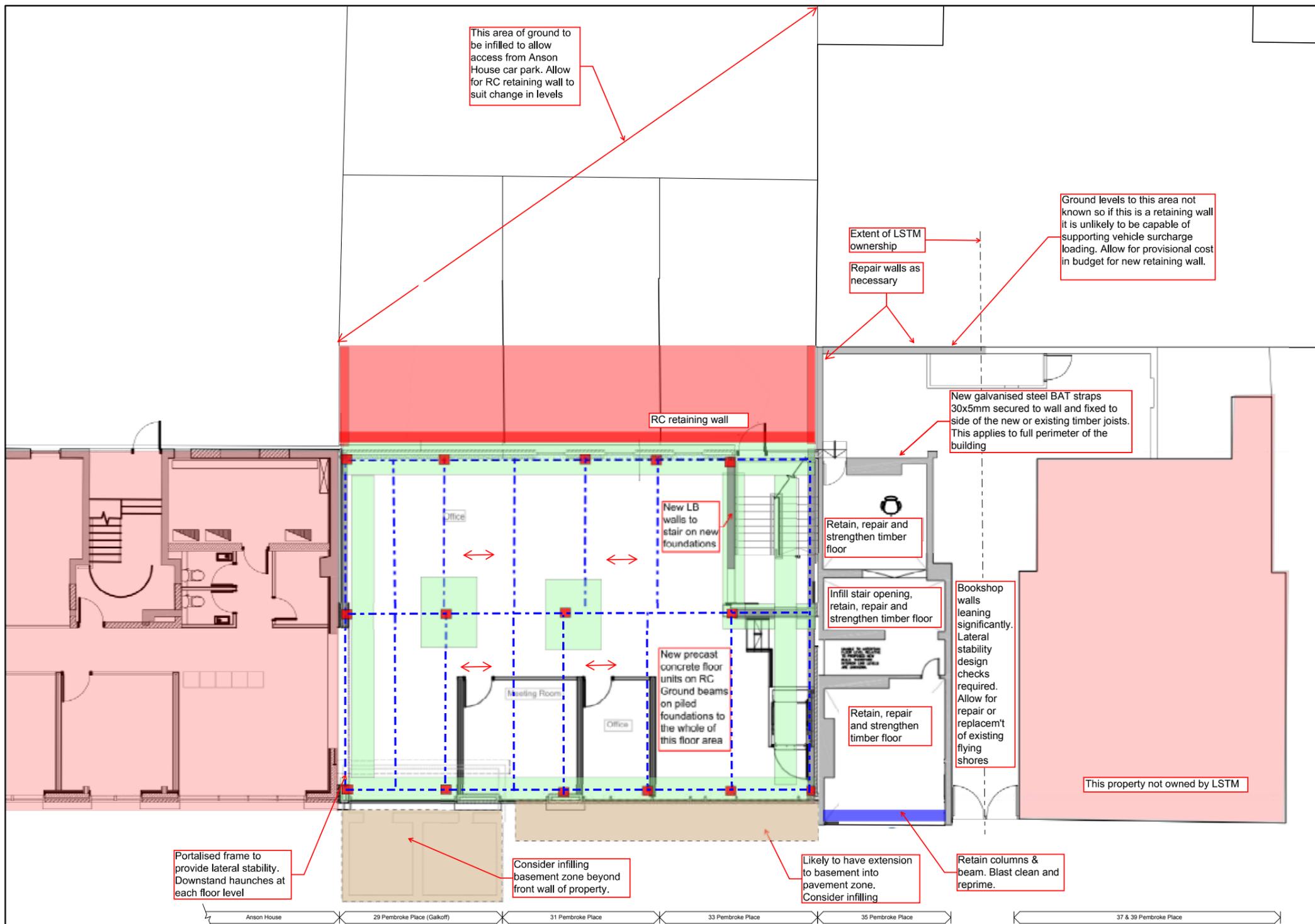


- 1. Roof Alteration for flashing junction.
- 2. No. 35 will be fully refurbished for future use and its history interpreted through further consultation with Liverpool City Council and English Heritage.

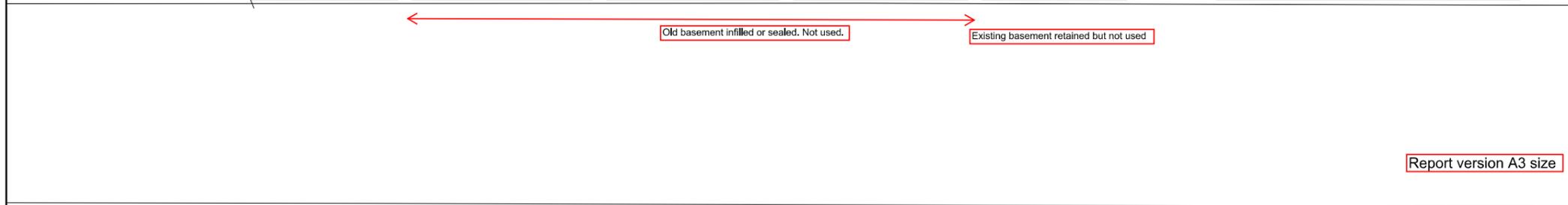
Option 04 South Elevation 1:100



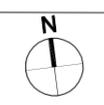
NOTES:



Rev.	Description:	Date:	By:	Chkd:
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Status: INFORMATION				
Project: Galkoff Extension				
Drg Title: Option 4 - Proposed Ground Floor Plan				
Scale:	Size:	First Issue:	Drawn:	Checked:
1:100	A2		AM	AC
Drg No: CH1012-04-02				Rev: /
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Report version A3 size



1 Option 04 - Ground Floor Plan - 29-31 & 35 Pembroke Place
 Scale 1:100

Option 04

Pros & Cons

Pros

- Allows for full retention and restoration of existing Galkoffs tiled shop frontage and maximises its future use and enjoyment in a more accessible public realm zone. The retained façade will be enhanced with interpretation boards providing information of the importance and the history related to the façade, its past setting and its importance to the city's past.
- Provides full open plan working at all levels.
- Removes any physical separation between Anson House and the new development as greater openings can be created with original fabric now removed.
- Maximises usable floor space for office accommodation.
- The need for ramps at all levels is removed
- No loss of accommodation within Anson House to accommodate opening locations
- No loss of floor space at 2nd floor level as now roof will be installed to match Anson House.
- The extensive structural repairs and maintenance required for retaining the existing building will be removed as it will all be new construction.
- New concrete floor construction will remove all head height and acoustic issues encountered with previous schemes
- The elevation aesthetics are considerably improved as a continuous, unified façade that will integrate with the language of the current Anson House development can be achieved. The fragmented language evident in option 1, 2 and 3 is removed.
- Balustrading to windows will not be required as new glazing and framework can be provided to match with Anson House

Cons

- All original building fabric will be lost. Existing paintings at 1st floor will be lost due to demolition (as in options 1,2 &3) Existing Marble counter would be lost due to demolition (as in options 1,2 &3)
- Galkoffs tiled shop front would be removed from its original location.
- The existing tiled shop front will need to be fully protected and carefully removed prior to demolition and then repaired and refurbished off site. Before work can begin consultation is required with a ceramic specialist. All work to be undertaken by specialist sub-contractor. Significant cost will be associated due to the nature of this work.

Structural implications are listed below:

- Stability checks will be required to access the temporary condition of No.35 whilst constructing the extension.

BroadwayMalyan^{BM}

8.5 Design Options

Summary & Conclusions

Option 01 Summary

Based on the options appraisals carried out and the issues arising from this we feel that OPTION 1 is not a viable option for the successful development of the site. Whilst there are positives to the proposals, it is our opinion the negatives far outweigh these in terms of a practical development solution. Other than the retention of the tiled shop front, most of the other features of the building would be lost during works to make the building usable. The issues with staircases and floor levels would significantly limit the building practicality as office accommodation and would not meet the requirements needed by LSTM.

Conclusion

Not a viable solution

Option 02 Summary

Based on the options appraisals carried out and the issues arising from this we feel that OPTION 2 is also not a viable option for the successful development of the site. Whilst there are positives to the proposals such as increase in usable floor area, it is our opinion the negatives still far outweigh the positives in terms of a practical development solution. Other than the retention of the tiled shop front, most of the other important features of the building would be lost during works to make the building usable. As with OPTION 1, other than the tiled shop frontage the remaining fabric is of very little historic value. The structural implications of retaining the existing fabric whilst replacing the floors is extensive and impractical and we would still not achieve a full open flexible working space as we still create a physical separation between the two blocks which would limit the flexibility and use of the space. The elevation aesthetic issues will still remain and will be further compounded with the addition of internal balustrading to existing windows

Conclusion

Not a viable solution

Option 03 Summary

Based on the options appraisals carried out and the issues arising from this we feel that OPTION 3 is also not a viable option for the successful development of the site. Whilst there are significantly more positives to this proposal when compared to option 1 & 2 it is our opinion the negatives still far outweigh the positives in terms of a practical development solution. Other than the retention of the tiled shop front, all of the other important features of the building would be lost during works to make the building usable. This would also be the case on options 1&2. Other than the tiled shop frontage the remaining fabric is of very little historic value and the questions must be asked whether it is still appropriate to retain what is left of the original building as shown in this option. To retain the full façade in this option we would incur significant difficulties and costs for protection, stabilisation, repair and refurbishment of the full front elevation. Of this elevation, only the tiled shop front is of any historical significance.

Although cost is not a main driver for the options appraisal, it cannot be ignored that this option is proving to be most expensive and also provides the lowest usable floor area of the 4 proposals.

Additionally, the elevation aesthetic issues will still remain. The new roof will now span over the retained façade and the new cladding will span over the top linking the two new build areas. The retained façade will be set back into the new elevation and the scale of the new building will continue to overpower and undermine the setting of No. 29. It is our opinion that retaining the facade within the proposal will not only reduce the impact and quality of the new scheme; it will also further reduce the quality of No. 29 and in particular the retained tiled frontage to Galkoffs reducing its prominence as a unique historical feature.

Conclusion

Not a viable solution.

Option 04 Summary

Based on the options appraisals carried out and the issues arising from this we feel that OPTION 4 is the best option for the successful development of the site. Whilst there are still a number of 'cons' associated with it, primarily the full demolition of No. 29 Pembroke place, it should be considered that in each option the value of the retention of the building is considerably reduced. There are a number of existing features of importance in the building such as the existing paintings at first floor level, the marble counter and of course the tiled Galkoffs shop frontage. On every option in redevelopment two of the three most important features will be lost. It is not possible to make the building work structurally or architecturally without the loss of the paintings and marble counter.

We are then left to retain and enhance the significantly more important shop frontage, the impact of which arguably becomes more and more undermined and the options progress through 1, 2 and 3. In option 4, the proposal to carefully remove, repair and reinstate the façade as a feature in a new public realm within the Knowledge Quarter enhance and improve its significance much more than it would if lost within the façade of a new building. The new Galkoffs feature will also include interpretation boards, providing the public with information of the importance and the history related to the façade, its past setting and its importance to the city's past.

Additionally, the elevation aesthetic issues will be resolved. Option 4 provides a continuous, unified façade that will integrate with the language of the current Anson House development. The fragmented language evident in option 1, 2 and 3 is removed and we achieve an attractive building that links well with Anson House and its surroundings and addresses the street frontage to Pembroke Place.

Conclusion

Taking into account all the points above and those relating to options 1, 2 and 3 we feel that option 4 represents the most viable solution for the redevelopment of the site.

BroadwayMalyan^{BM}

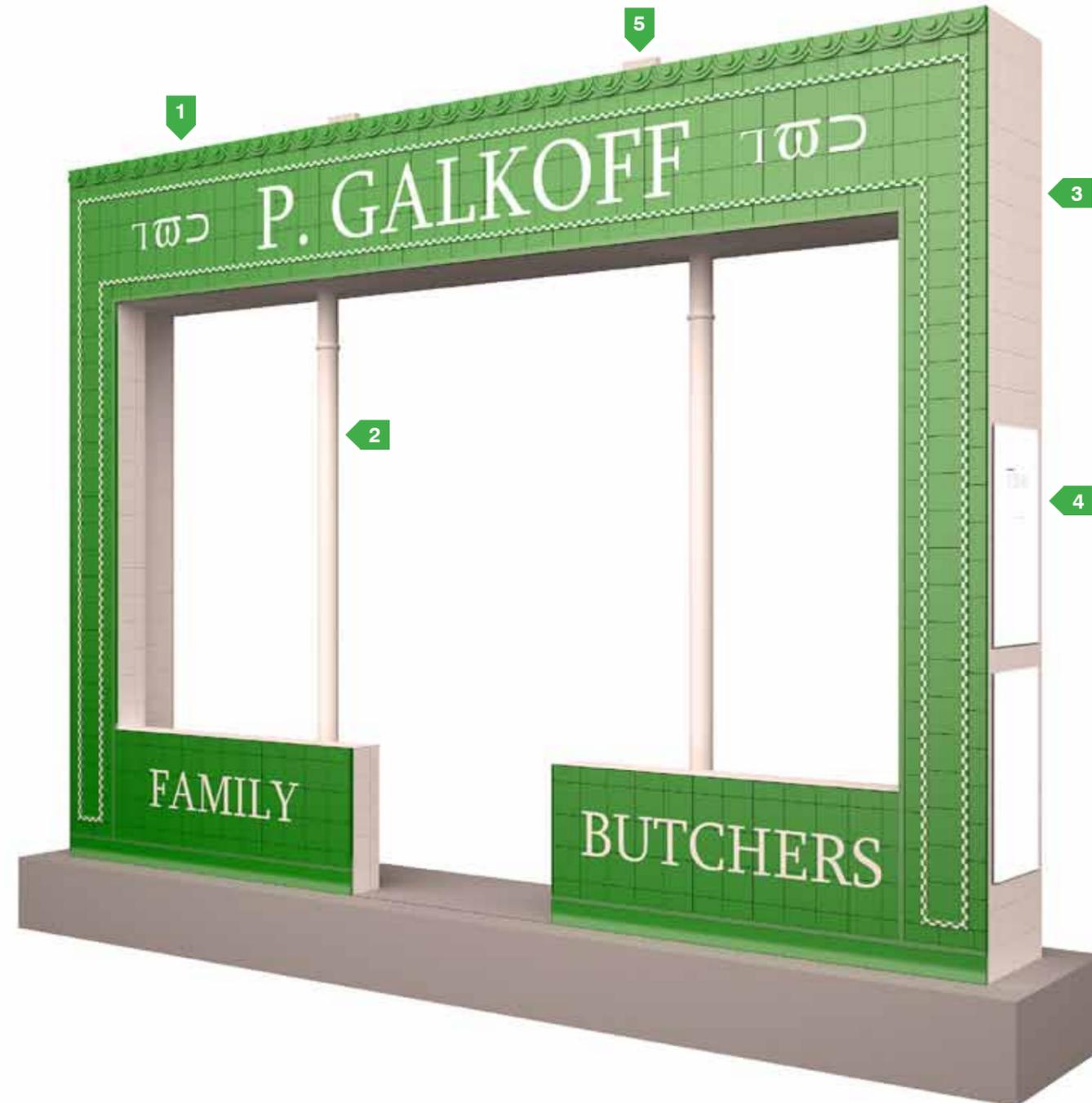
9. Tiled Sculpture

Design

It is proposed to carefully remove, repair and reinstate the façade as a feature in a new public realm within the Knowledge Quarter. In turn it will enhance and improve its significance much more than it would if lost within the façade of a new building. The new Galkoffs feature will also include interpretation boards, providing the public with information of the importance and the history related to the façade, its past setting and its importance to the city's past.

Key

- | |
|---|
| 1. Restoration of original Galkoff tiles |
| 2. Restoration and integration of original structural columns |
| 3. Replacement of white tiles to match existing |
| 4. Interpretation panels |
| 5. Lifting eyes to allow for repositioning |

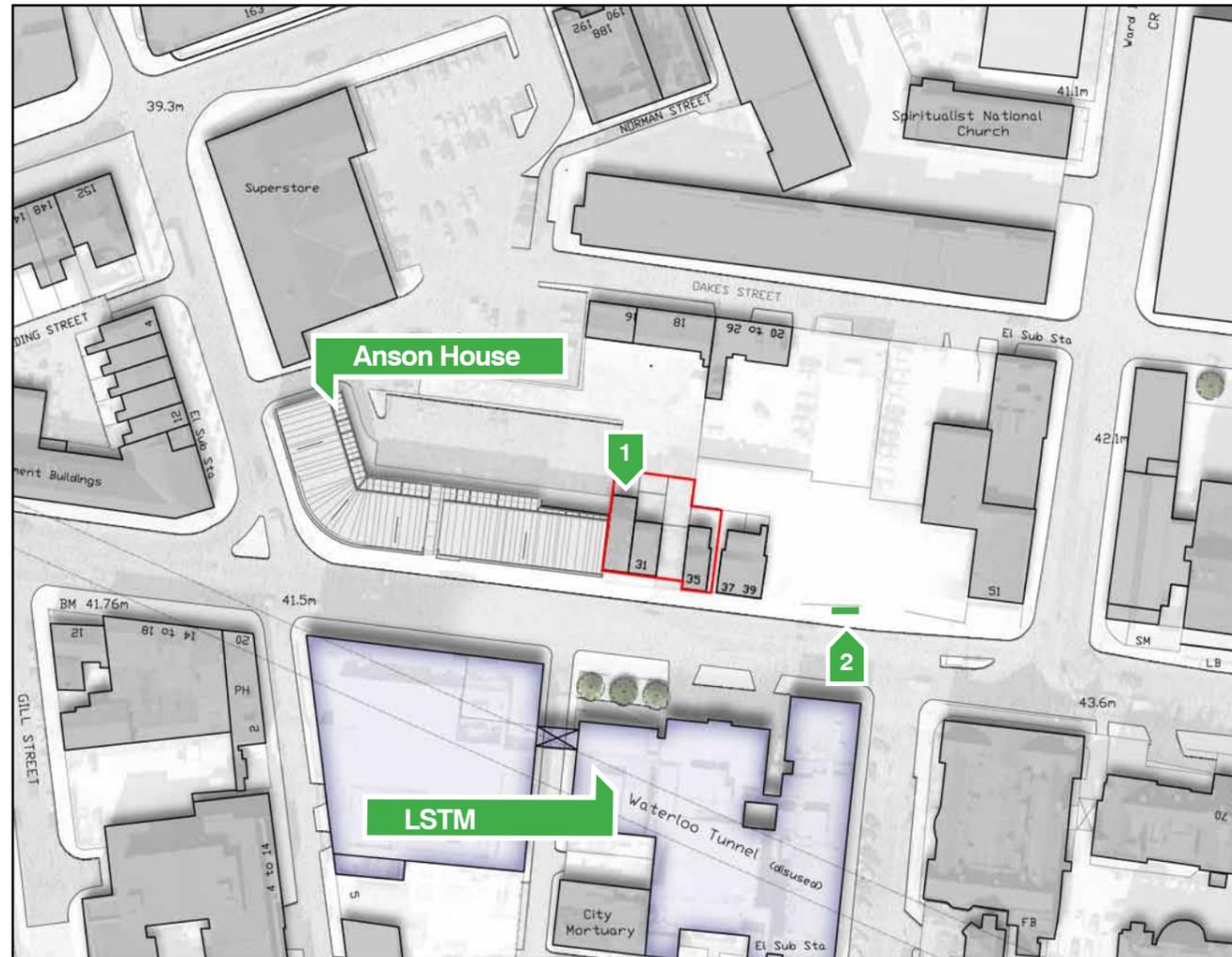


Tiled Sculpture

Temporary Location

Key

- 1. P. Galkoff Butchers (29 Pembroke Place)
- 2. Proposed location of Galkoff tiled public sculpture



As a temporary proposal we would look to relocate the sculpture within the street frontage further along Pembroke Place where it will be safe for the public to view whilst maintaining a safe distance from the heavily trafficked highway.

An earlier option was to position the sculpture directly in front of its current location within the pavement. However, this has been deemed unsuitable in past discussions for a number of reasons:

- Limited space for public to enjoy and experience. As previously proposed the best views would be from the opposite side of the road which would not be practical.
- Safety of sculpture would be a high priority due to its proximity to the highway. There is a risk of damage potentially from any vehicle that mounts the kerb.

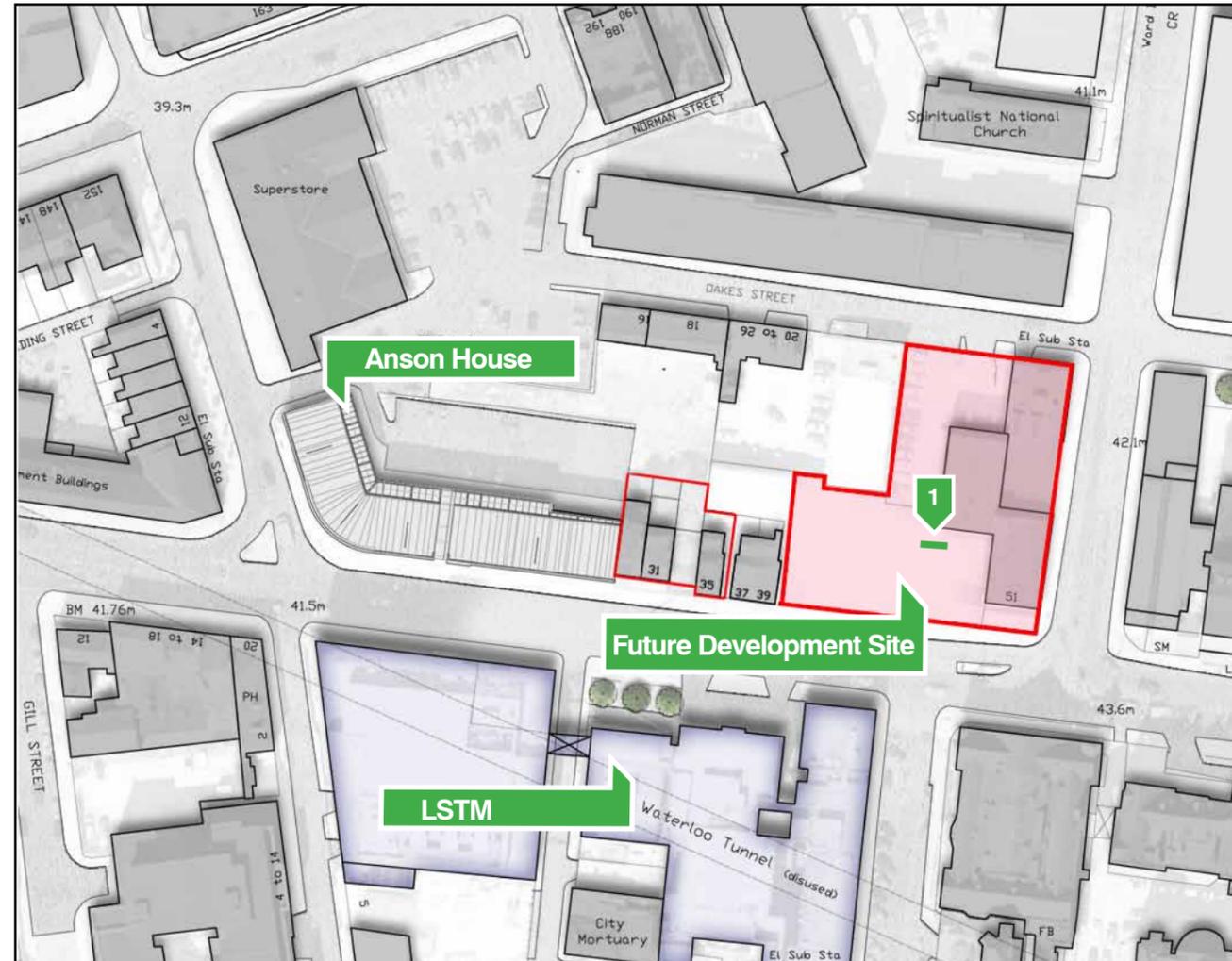
The proposed temporary position of the sculpture would allow it to be located safely away from the highway to avoid the above risk of collision. Position 2 would also allow for a greater space for public integration and enjoyment.

Tiled Sculpture

Future Location

Key

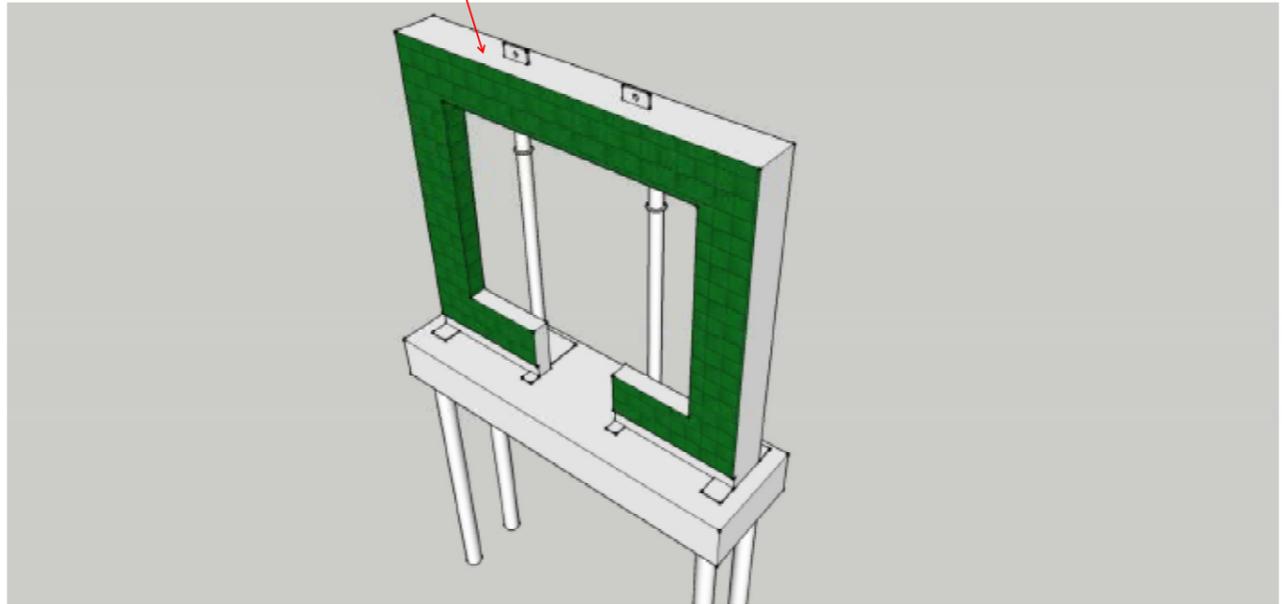
1. Proposed future location of Galkoff tiled public sculpture to be located within new public realm area of future development site. Detail of final location to be agreed during scheme development.



Out proposal for the final position of the Galkoff facade is to be located within the site of LSTMs proposed CAHRD Development. The CAHRD scheme would act as gateway anchor into the developing Knowledge Quarter between LSTM, The Royal Liverpool Hospital and Bio Campus sites.

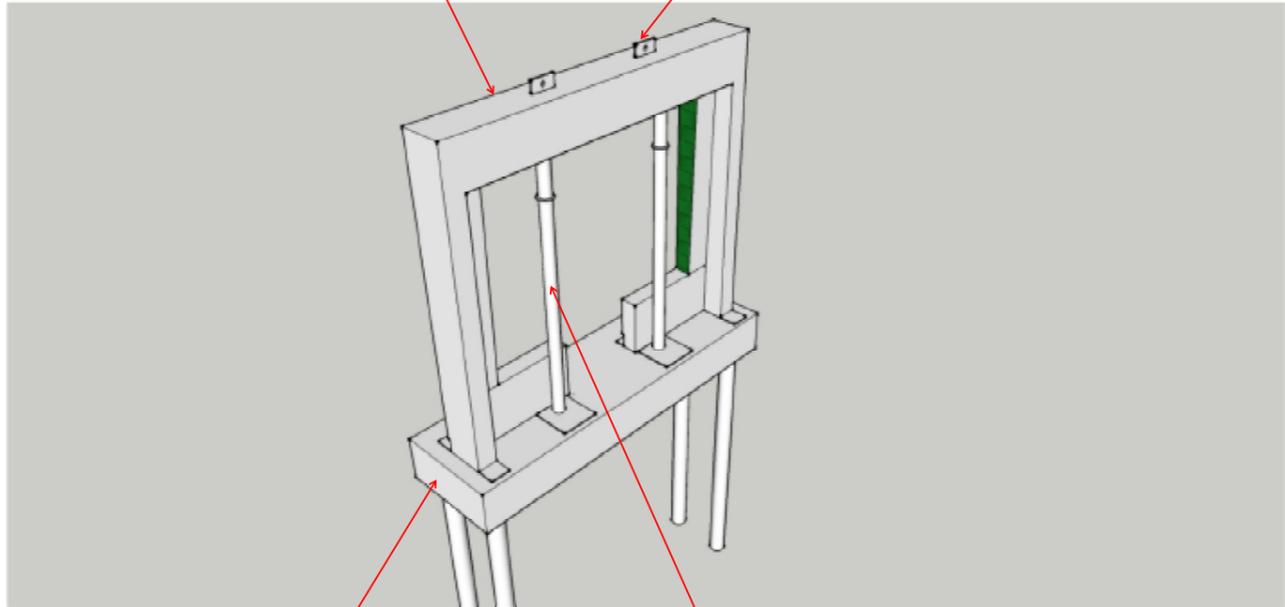
BroadwayMalyan^{BM}

Backing structure to comprise an RC wall to match the existing brickwork profile. Tiles to be carefully removed from old wall and then fixed to this backing structure. Repair / manufacture new tiles to suit. This whole structure is to be demountable to allow for up to two relocations to suit phasing of the construction works



RC wall and cross beam. Existing iron beam to be inspected to establish if it is to be built in and encased in concrete or discarded

Lifting points built into RC wall to allow relocation at a later date



Foundation likely to be RC piled ground beam. Provide cast in bolts to allow the RC wall and cast iron columns to be fixed

Existing cast iron columns to be retained and built into this backing frame but as discrete structural items. Alterations to head and base may be required

Report version A3 size

NOTES:

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Status: **INFORMATION**

Project: **Galkoff Extension**

Drng Title: **Option 4 - Backing structure to support Galkoff tiles**

Scale: NTS	Size: A2	First Issue:	Drawn: AM	Checked: AC
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Drng No: CH1012-04-01	Rev: /
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10. External Landscape

Option 01 & 02

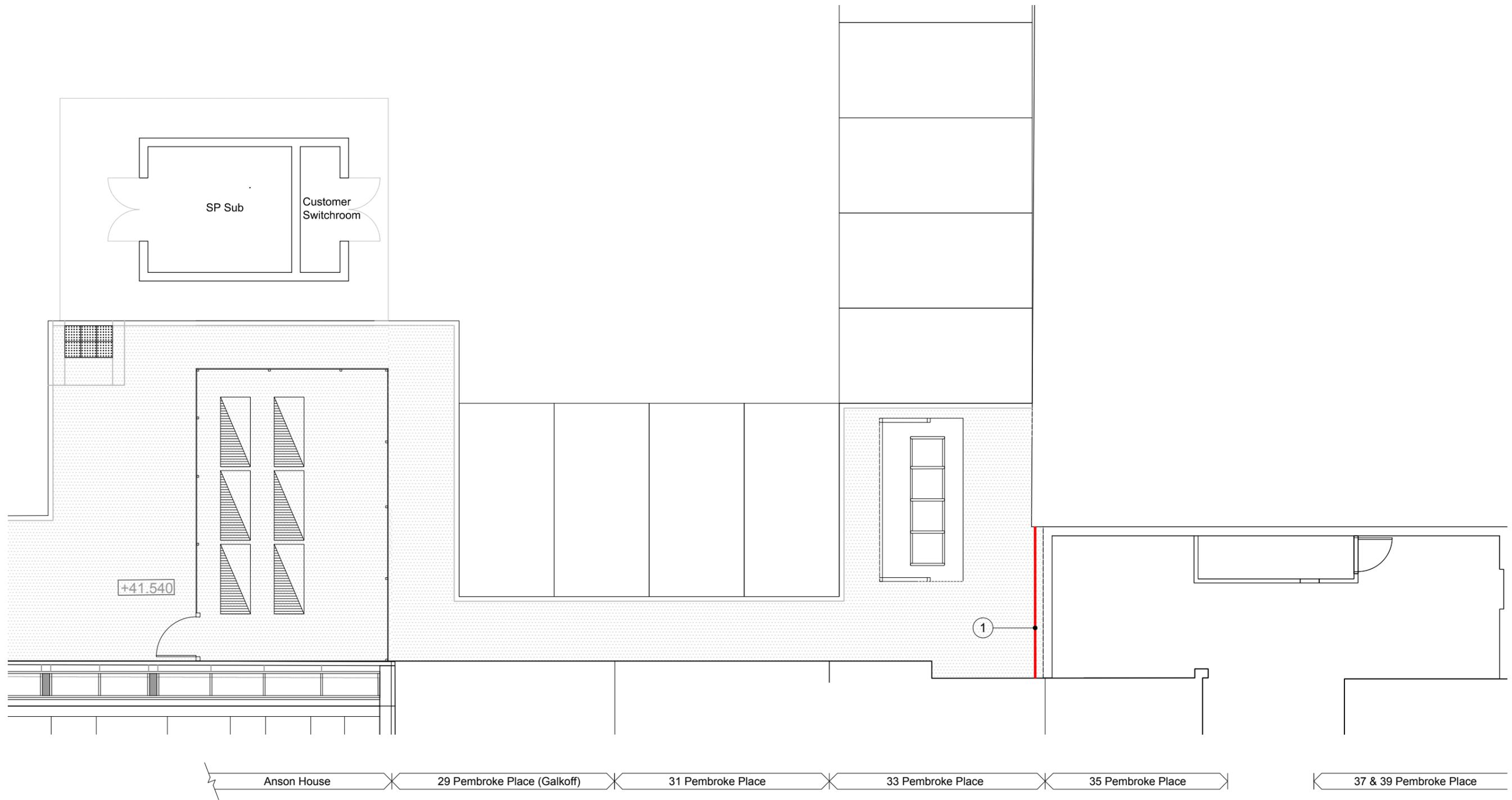


1. Location of retaining wall

Option 01 & 02 External Landscape 1:100

External Landscape

Option 03 & 04



1. Location of retaining wall

Option 03 & 04 External Landscape 1:100

11. Structure

Options Appraisal

Summary of the proposed options

The architect has presented four options for the extension of the property which are as follows:

Option 1

Both listed buildings are retained and repaired. Nos 31 and 33 are cleared allowing new build construction of the office in the vacant area; conservation repair and reuse of the bookshop. Existing basement sealed, vented and not used.

Option 2

Galkoffs building load bearing walls are retained but since floor levels differ to Anson House, the floors are removed and replaced. Further assessment is required to establish if the roof can be retained. Existing basement sealed, vented and not used.

The bookshop building load bearing walls and ground floor are retained. Subject to further checks the upper floors and the roof will be retained and repaired.

Nos 31 and 33 are cleared allowing new build construction of the office in the vacant area; conservation repair and reuse of the bookshop

Option 3

Galkoffs building front façade is retained and all the rest of the structure is demolished.

The bookshop building load bearing walls and ground floor are retained. Subject to further checks the upper floors and the roof will be retained and repaired.

No's 31 and 33 are cleared allowing new build construction of the office in the vacant area.

Option 4

Galkoffs building front façade is carefully dismantled. The green tiles and cast iron columns are retained for reconstruction elsewhere. The rest of the structure is demolished.

The bookshop building load bearing walls and ground floor are retained. Subject to further checks the upper floors and the roof will be retained and repaired.

No's 31 and 33 are cleared allowing new build construction of the office in the vacant area

Curtins drawings are presented for each option to highlight the structural issues at ground level and first floor level. The second floor is likely to be similar to the first floor. The roof is affected by the proposed architectural changes and is not covered in any detail in this appraisal.

Factors affecting the development

The following factors need to be considered in options 1, 2 and 3

a. There is a change in use for these buildings in which higher imposed floor loads are required for commercial office use compared with the original intended use. To BS 6399-1 the imposed loads are as follows:

Residential Use	1.5 kN/m ²
Retail Use	2.5 kN/m ²
Office use	2.5 kN/m ²

It should be noted that there was no recognised guidance for the design of structural elements in the 1830s when some of these buildings were constructed. In our experience however the floor elements would have a higher load capacity at ground floor than the upper floors. Their design would be based not just on functional use but also the frequency of use.

Therefore it is quite likely that when full design checks are prepared for the retention of the existing structure that some strengthening will be required. As a guide we would expect 1st and 2nd floor structure will require strengthening. This could be achieved by removing the floor boards and inserting additional joists in the space between the existing joists or by creating a stressed skin floor. This would require the floor boards to be removed and replaced with ply sheathing. A significant number of screw fixings are then installed to connect the ply boards to the timber joists. This creates a stronger member with each joist acting like a Tee section. It is also possible in some cases to retain the tongued and grooved floor boards and to apply the ply sheathing on the top face. Whilst this retains the historic fabric it will affect all the staircases and reduce the clear height between floors.

b. The change in use will affect not just the floor construction which most likely will require

strengthening but also all structural members that support the floors. The existing slender cast iron columns in Galkoffs and the bookshop look vulnerable. The isolated pier in the middle of the basement may require strengthening. The walls will be subject to increased load and this could affect the foundations. It is not uncommon to find that buildings of this period have foundations that overstress the ground that supports them. There is some evidence of movement in Galkoffs but this is most likely to be due to lack of lateral restraint rather than settlement. The additional loads are small compared with the total load from dead and imposed loading but need to be considered. Therefore until the existing foundation widths are checked there remains a risk that some underpinning is required.

c. In options 2 and 3, the removal of the floors during the construction period will destabilise the load bearing walls. The floor structure provides lateral support to the walls. Consequently it will be necessary to install temporary support. Two main options are available:

c-i. Support from the outside. Typically this would be vertical frames with inclined members built off the ground / pavement. The reaction from these frames may load the basement walls and thereby require additional propping to be installed in the basement. In this particular case there is insufficient room in the pavement width so it will be necessary to request a lane closure on the highway. In addition the basement extends under the pavement so this section will require back propping.

c-ii.

Internal propping in the form of braced horizontal frames (flying shores) with corner braces. These frames are usually placed just below or just above the floor that is to be removed. With a frame above the floor, then installation is simplified provided that safe access to the floor is possible. Installation of the new floor is compromised. With temporary shores below the floor then access equipment may be required to lift the shores into place. If the floor is defective then back-propping may be required.

d.

The architect is currently showing the car park and access route to the rear of the building running through at the same level as the car park in Anson House. There is a step in the ground at the junction of Anson House and Galkoffs. Beyond this point we have been unable to access the ground as we were warned that drug addicts had been using the area and redundant needles were evident. In the absence of any topographical levels we are unable to state exactly where retained ground would exist. We have assumed for the purposes of this appraisal that the ground behind Galkoffs and No's 31 to 33 and possibly 35, needs to be built up. Retaining walls will be needed along the length of change in level. The rear wall to the bookshop may be an existing retaining wall but is unlikely to have been subjected to lateral forces from vehicles. We noted that some repairs are required to this wall. Further assessment is needed when the ground levels are established.

e.

The replacement floors onto existing structure will need to be kept as lightweight otherwise the walls will need underpinning. With option 1 the proposal is to reinstate timber floors. With option two, the structural preference is to maintain timber albeit stronger sections will be needed. We understand that the architect would prefer the new floors to be in concrete which in turn will increase the dead weight onto supporting structure. Checks will be needed on

the existing walls and substructure. Underpinning is likely to be required if concrete floors are installed. If timber floors are reinstated then lightweight methods of attenuating sound will be required to ensure that the floor self-weight does not increase significantly.

f.

Where a new floor such as in No's 31 - 33 is to be supported at the junction of an old wall and a new construction then we would recommend that additional walls are installed on the new build side. This is needed so that all new loads are applied to new foundations and not onto the historic substructure. The new foundations will need to consider adjacent basements and existing foundation widths. Offsetting the foundation away from the old wall will require ground floor level beams to cantilever up to the historic wall. Differential movement will need to be considered in the design of all new structure and the specification of floor / wall finishes.

g.

Retention of the flying shores between Nos 35 and 37 will be required in all schemes. We understand that another consultant is considering the adequacy of these shores. Some repairs are likely to be required to these structural members.

h.

Checks will be needed on all pavement light structure and materials stored within the spaces.

i.

Appraisal of debris on the garden areas behind the buildings will be required.

j.

All chimney stacks that are to be retained will need closer inspection with consideration for sealing / venting.

Discussion on the proposed options for extension

The structural works required under each option are shown on Curtins drawings referenced as follows:

Option 1	CH1012 01 01 & 02
Option 2	CH1012 02 01 & 02
Option 3	CH1012 03 01 & 02
Option 4	CH1012 04 01 (showing new RC structure for the Galkoff façade) & 02

Comments specific to Option 1

(to be read in conjunction with the above drawings)

a.

This option creates architectural issues mainly due to the variation in the floor levels. This therefore requires a series of ramps to cross the floors which not only occupies floor space but will apply additional dead load. The existing first and second floors are likely to require strengthening (in the manner described above) since the joists will have both increased dead and imposed loads. To reduce the amount of strengthening the ramps should be timber construction.

b.

At the rear of the Galkoff property the floors are saturated and will require replacement.

c.

There are a series of defects on the walls particularly at ground level where past alterations have been made. Local rebuilding and strapping is required. The chimney breast will require rebuilding.

d.

There is evidence of movement of the front gable wall of Galkoffs with respect to the party walls. Cracking crosses one of the paintings that is included in the building Listing. Unfortunately straps need to be installed across this defect and this will obliterate the painting. Currently the architect is showing a door opening in this area. This is a critical interface but can't be relocated. Portalised structure plus strapping is needed.

e.

Any basement structure that may exist in building Nos 31 and 33 will need consideration for infilling or venting. This will affect the new build foundations.

f.

Sequence of alteration needs to be considered by the contractor. No 31 may well afford lateral support to Galkoffs. Additional temporary works required to support Galkoffs whilst No 31 is demolished

g.

Assessment of the condition and adequacy of the beam at first floor level over the shop front will be required on both Galkoffs and No. 35.

h.

We would conclude that the Galkoff's building has been subjected to a series of changes since its original construction which may be summarised as follows:

- I.* Half of the ground floor has been lowered
- II.* The shop front has been formed within the front wall and the cast iron columns introduced.
- III.* The rear wall has been modified to introduce an outrigger constructed with 20th century materials.
- IV.* The main staircase has been modified and the supporting walls removed so that it starts at 1st floor and not the basement. The remainder of the staircase is now saturated and will require replacement.
- V.* The lower section of the fireplace walls have been removed and left in a vulnerable state.
- VI.* The green tiles are unlikely to be original and cover the shop front entrance beam. To treat this beam for longevity will require local removal of some of the tiles.

In addition the present condition of the structure is such that:

- VII.* There is evidence of plant growth in the walls and roof structure. Repairs will be required.
- VIII.* The roof around the rear skylight is saturated and there is evidence of dishing of the roof plane.

IX. Many of the rear slates are loose and some are missing.

X. Much of the front roof pitch has slates that have been covered with a bitumastic material presumably to control water ingress.

XI. The roof is therefore likely to need replacement.

To achieve the layout shown on the architectural drawings for the change of use will require:

XII. The floor boards to be lifted to allow for new restraint straps to be fixed to preserve the lateral stability of the masonry walls.

XIII. The floor joists are likely to need strengthening to suit the change of use for the upper floors.

XIV. Some of the paintings will be damaged if strapping repairs are instigated.

XV. An assessment will be required to establish if the column and basement level isolated pier are capable of supporting the increased load in their current condition.

We would conclude that a substantial amount of the existing ground floor the original structural features of this building have either been modified or will be needed to be undertaken on this property.

Comments specific to Option 2

(to be read in conjunction with the above drawings)

a. The removal of the floors will require temporary lateral support to the walls as described above.

b. Items c-e & g in option 1 will apply to option 2 as well.

c. All of the items in h in option 1 except for h I, XII and XIII will apply to option 2 as well.

Comments specific to Option 3

(to be read in conjunction with the above drawings)

a. The removal of the floors and load bearing walls other than the front elevation to Galkoffs will require temporary lateral support to the roadside wall as described above. A short return on the party walls would be beneficial.

b. Consideration of the lateral stability of the bookshop will be required when other structure is removed.

c. Item d in option 1 will require special consideration.

d. Items e & g in option 1 will apply to option 3 as well

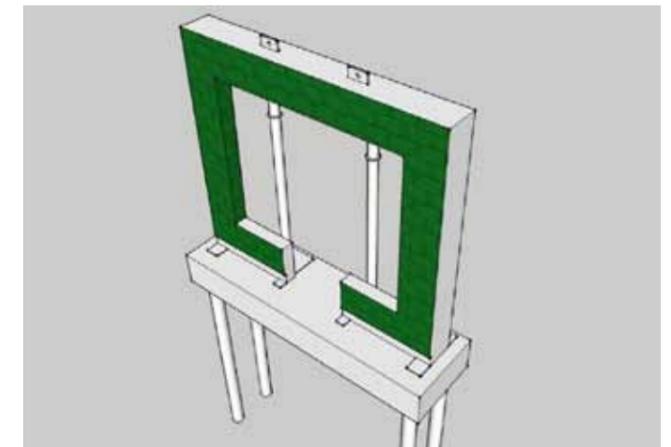
e. Option 1 items in h VI, XI, XIV and XV will apply to option 3 as well.

Comments specific to Option 4

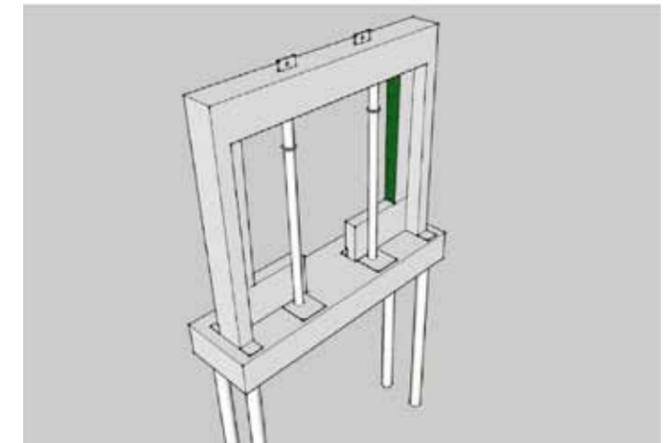
(to be read in conjunction with the aforementioned drawings)

a. This option requires new construction to all buildings except the bookshop. Stability checks will be needed to assess the temporary condition whilst constructing the other buildings.

b. The tiles to Galkoffs need to be carefully removed. Before this can be undertaken specialist ceramic advice is needed to determine how this can be achieved. We understand that the architect is proposing that the faced is “rebuilt” in a temporary location before moving to a permanent position along Pembroke Place. A new RC structure is therefore proposed that is demountable from any foundation. Details of the mountable wall to support the Galkoff tiles are shown below and with notes on drawing numbered CH1010 04 01



Front view on RC wall and piled foundation



Rear view on RC wall and piled foundation

12. Floor Areas

Options - Advantages and Disadvantages

Advantage	Disadvantage
Option 1 <ul style="list-style-type: none"> • Best option from a conservation point of view • Least effect on historic foundations 	Option 1 <ul style="list-style-type: none"> • Strengthening of structure required to meet change in use. • Enhanced lateral restraint required at all wall / floor / roof junctions. • Disproportionate collapse resistance is lower and may require additional structure to meet the Building Regulations.
Option 2 <ul style="list-style-type: none"> • 2nd best option from a conservation point of view in that the façade and some walls are retained 	Option 2 <ul style="list-style-type: none"> • If concrete floors are adopted then underpinning of the retained walls will be required. • If timber floors adopted then strengthening of structure required to meet change in use.
Option 3 <ul style="list-style-type: none"> • 3rd best option from a conservation point of view in that the façade is retained 	Option 3 <ul style="list-style-type: none"> • If concrete floors are adopted then underpinning of the retained walls will be required. • If timber floors adopted then strengthening of structure required to meet change in use.
Option 4 <ul style="list-style-type: none"> • Most flexible use of the space to achieve a modern office extension 	Option 4 <ul style="list-style-type: none"> • Half the conservation elements of the project are lost.

	Option 01	Option 02	Option 03	Option 04
Gross Internal Floor Area (m ²)	672	672	679	696
Internal Usable Floor Area (m ²) (omits circulation cores)	501	612	631	649
Percentage of Usable Floor area to GIFA (%)	73	91	93	93

Summary

Option 01

This option has the largest floor area however due to the extent of ramps required to circulate between the varying floor levels the amount of usable office space is greatly reduced. It is further more compounded on the second floor where there is likely to be reduced headroom limiting the functionality of the interior space. The retention of the existing structure also means the usable floor areas do not meet LSTMs requirements for large open plan flexible work spaces promoting collaborative working across departments.

Option 02

Removing the internal fabric in No. 29 including the floors and replacing them with new floor in fills at the same level as Anson House omits the requirements for additional ramps to circulate through the extension. This results in a large increase in usable floor area. There is still an issue of reduced head room on the second floor due to the original roof being retained. The retention of the existing structure also means the usable floor areas do not meet LSTMs requirements for large open plan flexible work spaces promoting collaborative working across departments.

Option 03

Demolishing the majority of external fabric of No. 29 and replacing it with a newly constructed extension will reduce the overall floor area due to the reduced size of the building line to the rear on the ground and first floor. However the newly constructed extension will provide large open plan flexible work spaces promoting collaborative working across departments.

Option 04

With the entire fabric of No. 29 being demolished there is no longer a step in the facade where the front elevation of Galkoffs is retained as in option 03. This has resulted in an increase in total GIFA and usable office floor area. This option will also maximise usable floor area and provide full open plan flexible working spaces to meet LSTMs requirements.

13. Costs

ANSON HOUSE EXTENSION

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item	Element	Option 1	Option 2	Option 3	Option 4
0	Alterations and Demolitions	199,000	215,000	238,000	243,000
1	Substructures	57,000	57,000	72,000	64,000
2	Superstructures	445,000	447,000	480,000	486,000
3	Internal Finishes	61,000	61,000	60,000	62,000
4	Fittings	17,000	17,000	17,000	17,000
5	Services	223,000	223,000	225,000	230,000
6	External Works	111,000	111,000	106,000	106,000
7	Preliminaries	195,000	170,000	210,000	181,000
8	Contingencies @ 10%	131,000	130,000	141,000	139,000
9	Total Construction Cost	1,439,000	1,431,000	1,549,000	1,528,000

GIFA, m²	672	672	679	696
£ / m²	2,141	2,129	2,281	2,195

Internal Usable Floor Area, m²	501	612	631	649
£ / m²	2,872	2,338	2,455	2,354

Comparison with Anson House refurbishment

Anson House, £/GIFA	1,518	1,518	1,518	1,518
Difference	623	611	763	677

Anson House, £/usable area	1,712	1,712	1,712	1,712
Difference	1,160	626	743	642

NOTES

- 1 Land / building acquisition costs excluded
- 2 Site Investigations and Survey costs excluded
- 3 Professional fees
- 4 Legal Costs excluded
- 5 Loose furniture, fittings and equipment excluded
- 6 Decanting Costs / Temporary Accommodation excluded
- 7 VAT excluded

Anson House Extension

Schedule of Accommodation



1. The current proposals indicate the following Gross Internal Floor Areas scaled off the architect's drawings:-

Description	Option							
	1		2		3		4	
29 Pembroke Place (Galkoffs)								
Ground floor	R	58.3	R	58.3	N	180.1	N	186.3
First Floor	R	55.8	R	55.8	N	180.1	N	185.2
Second Floor	R	55.8	R	55.8	N	180.1	N	185.2
31 Pembroke Place								
Ground floor	N	121.0	N	121.0	N	incl	N	incl
First Floor	N	121.0	N	121.0	N	incl	N	incl
Second Floor	N	121.0	N	121.0	N	incl	N	incl
33 Pembroke Place								
Ground floor	N	incl	N	incl	N	incl	N	incl
First Floor	N	incl	N	incl	N	incl	N	incl
Second Floor	N	incl	N	incl	N	incl	N	incl
35 Pembroke Place								
Ground floor	R	45.7	R	45.7	R	45.7	R	45.7
First Floor	R	46.7	R	46.7	R	46.7	R	46.7
Second Floor	R	46.7	R	46.7	R	46.7	R	46.7
TOTAL GIFA, m²		672		672		679		696

Key

R = refurbished element

N = new build element

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Item	Description	Option 1				Option 2				Option 3				Option 4			
		Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension
0	ALTERATIONS AND DEMOLITIONS																
1.	Demolition of buildings		item	25,000.00	25,000.00		item	25,000.00	25,000.00		item	50,000.00	50,000.00		item	50,000.00	50,000.00
1.1	Part demolition of Galkoffs outrigger; making good retained structure		item	10,000.00	10,000.00		item	10,000.00	10,000.00		item		n/a		item		n/a
2.	Repairs to book shop façade Nr 35		item	10,000.00	10,000.00												
3.	Structural alterations to accommodate new layouts to book store and general repairs		item	15,000.00	15,000.00		item	25,000.00	25,000.00		item	25,000.00	25,000.00		item	25,000.00	25,000.00
4.	Structural alterations to accommodate new layouts to Galkoffs and general repairs		item	15,000.00	15,000.00		item	25,000.00	25,000.00		item		n/a		item		n/a
5.	Repairs to roof of book store		item	10,000.00	10,000.00												
6.	Repairs to roof of Galkoffs		item	10,000.00	10,000.00		item	10,000.00	10,000.00		item		n/a		item		n/a
7.	Replace flying shores and repair existing elevations		item	10,000.00	10,000.00												
8.	Basement infills		item	20,000.00	20,000.00												
9.	Repointing and repairs to existing brickwork to Galkoff's retained elevations		item	10,000.00	10,000.00		item	10,000.00	10,000.00		item	5,000.00	5,000.00		item		n/a
10.	Repointing and repairs to existing brickwork to Book Shop retained elevations		item	10,000.00	10,000.00												
11.	Straps for existing external / internal walls to floors	317	m	50.00	15,850.00	245	m	50.00	12,250.00	96	m	50.00	4,800.00	96	m	50.00	4,800.00
12.	Forming windows to book store		item	5,000.00	5,000.00												
13.																	
14.	Works to windows openings e.g. new openings, new lintels		item	5,000.00	5,000.00												
15.	Flashing into Anson House roof & book shop		item	7,500.00	7,500.00		item	7,500.00	7,500.00		item	5,000.00	5,000.00		item	5,000.00	5,000.00
16.	Form new openings in Anson House/Galkoffs	3	nr	2,500.00	7,500.00	3	nr	2,500.00	7,500.00	3	nr	10,000.00	30,000.00	3	nr	10,000.00	30,000.00
17.	Form new openings in Bookshop	3	nr	2,500.00	7,500.00												
18.	Tile protection measures during construction		item	5,000.00	5,000.00		item	5,000.00	5,000.00		item	10,000.00	10,000.00		item		n/a
19.	Facade retention; temporary propping and tie into new construction		item		n/a		item		n/a		item	30,000.00	30,000.00		item		n/a
20.	Relocation of listed tile shop front to Galkoff's		item		n/a		item		n/a		item		n/a		item		50,000.00
	Clean, prime and repaint existing columns		item	500.00	500.00		item	500.00	500.00		item	250.00	250.00		item	250.00	250.00
	TOTAL ALTERATIONS AND DEMOLITIONS				198,850.00				215,250.00				237,550.00				242,550.00
1.	SUBSTRUCTURES																
1.1	New ground floor slab	121	m ²	75.00	9,075.00	121	m ²	75.00	9,075.00	180	m ²	75.00	13,500.00	186	m ²	75.00	13,950.00
1.2	Piled foundations	121	m ²	250.00	30,250.00	121	m ²	250.00	30,250.00	180	m ²	250.00	45,000.00	186	m ²	250.00	46,500.00
1.3	Repair existing timber floor	104	m ²	60.00	6,240.00	104	m ²	60.00	6,240.00	46	m ²	60.00	2,760.00	46	m ²	60.00	2,760.00
1.4	Works to Galkoffs below ground level specifically for facade		item	10,000.00	10,000.00		item	10,000.00	10,000.00		item	10,000.00	10,000.00		item		n/a
1.5	Access into existing basements for maintenance		item	1,000.00	1,000.00		item	1,000.00	1,000.00		item	500.00	500.00		item	500.00	500.00
	TOTAL SUBSTRUCTURE				56,565.00				56,565.00				71,760.00				63,710.00
2.	SUPERSTRUCTURE																
2.1	Frame																
2.1.1	Structural steelwork frame; inclusive of allowance for fabrication, erection and fire protection - new element (60kg/m ²)	22	t	1,750.00	38,500.00	22	t	1,750.00	38,500.00	32	t	1,750.00	56,000.00	33	t	1,750.00	57,750.00
2.1.2	Structural steelwork frame; inclusive of allowance for fabrication, erection and fire protection - refurbishment element (55kg/m ²)	17	t	3,000.00	51,000.00	17	t	3,000.00	51,000.00	8	t	3,000.00	24,000.00	8	t	3,000.00	24,000.00
2.1.3	Steel goalpost around existing retained facade		item		n/a		item		n/a		item	5,000.00	5,000.00		item		n/a
2.1.4	Allowance for padstones		item	2,500.00	2,500.00												
	Frame				92,000.00				92,000.00				87,500.00				84,250.00

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Item	Description	Option 1				Option 2				Option 3				Option 4			
		Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension
2.2	Upper Floors																
2.2.1	Insitu concrete upper floors on metal decking	242	m ²	65.00	15,730.00	242	m ²	65.00	15,730.00	360	m ²	65.00	23,400.00	370	m ²	65.00	24,050.00
2.2.2	Repair / replace existing timber floor	205	m ²	60.00	12,300.00	205	m ²	60.00	12,300.00	93	m ²	60.00	5,580.00	93	m ²	60.00	5,580.00
2.2.3	Raised Access floors	672	m ²	40.00	26,880.00	672	m ²	40.00	26,880.00	679	m ²	40.00	27,160.00	696	m ²	40.00	27,840.00
	Upper Floors				54,910.00				54,910.00				56,140.00				57,470.00
2.3	Roof																
2.3.1	Single ply membrane on metal decking and insulation	133	m ²	120.00	15,960.00	133	m ²	120.00	15,960.00	198	m ²	120.00	23,760.00	205	m ²	120.00	24,600.00
2.3.2	Extra over roof lights	29	m ²	250.00	7,250.00	29	m ²	250.00	7,250.00	45	m ²	250.00	11,250.00	45	m ²	250.00	11,250.00
2.3.3	Allowance for flashings and abutments		item	2,500.00	2,500.00		item	2,500.00	2,500.00		item	2,500.00	2,500.00		item	2,500.00	2,500.00
2.3.4	Gutters and RWP's		item	2,500.00	2,500.00		item	2,500.00	2,500.00		item	2,500.00	2,500.00		item	2,500.00	2,500.00
2.3.5	Soffit treatment above Galkoffs retained facade		item		n/a		item		n/a		item	2,500.00	2,500.00		item		n/a
	Roof				28,210.00				28,210.00				42,510.00				40,850.00
2.4	Stairs																
2.4.1	Form new full height 3 storey metal staircase complete with dog leg landings including all balustrade and handrails	1	nr	35,000.00	35,000.00	1	nr	35,000.00	35,000.00	1	nr	35,000.00	35,000.00	1	nr	35,000.00	35,000.00
2.4.2	Ramps/stairs to accommodate levels issues including balustrading and handrails	12	nr	1,500.00	18,000.00	1	nr	1,500.00	1,500.00	1	nr	1,500.00	1,500.00	1	nr	1,500.00	1,500.00
2.4.3	Works to existing Galkoff staircases; replace/repair existing features for Option 1 and removing and infilling openings for Option 2		item	10,000.00	10,000.00		item	2,500.00	2,500.00		item		n/a		item		n/a
	Stairs				63,000.00				39,000.00				36,500.00				36,500.00
2.5	External Walls																
2.5.1	Masonry cavity wall	184	m ²	175.00	32,200.00	184	m ²	175.00	32,200.00	271	m ²	175.00	47,425.00	298	m ²	175.00	52,150.00
2.5.2	Aluminium perforated mesh cladding	74	m ²	350.00	25,900.00	74	m ²	350.00	25,900.00	103	m ²	350.00	36,050.00	130	m ²	350.00	45,500.00
2.5.3	Insulated render system	110	m ²	75.00	8,250.00	110	m ²	75.00	8,250.00	168	m ²	75.00	12,600.00	168	m ²	75.00	12,600.00
2.5.4	Reveals to openings		item		included		item		included		item		included		item		included
2.5.5	Parapet detail; 400 high cement board and PPC aluminium capping	11	m	150.00	1,650.00	11	m	150.00	1,650.00	17	m	150.00	2,550.00	17	m	150.00	2,550.00
2.5.6	Rebuilding wall at high level to Bookshop facing Nr 33		item	5,000.00	5,000.00		item	5,000.00	5,000.00		item	5,000.00	5,000.00		item	5,000.00	5,000.00
	External Walls				73,000.00				73,000.00				103,625.00				117,800.00
2.6	Windows & External Doors																
2.6.1	Aluminium windows / curtain walling	92	m ²	350.00	32,200.00	92	m ²	350.00	32,200.00	104	m ²	350.00	36,400.00	125	m ²	350.00	43,750.00
2.6.2	Metal faced timber escape doors	2	nr	1,500.00	3,000.00	2	nr	1,500.00	3,000.00	2	nr	1,500.00	3,000.00	2	nr	1,500.00	3,000.00
2.6.3	Existing windows to Galkoff's restored / replaced and safety rails installed		item	15,000.00	15,000.00		item	15,000.00	15,000.00		item	15,000.00	15,000.00		item		n/a
2.6.4	Existing windows to Book Shop restored / replaced and safety rails installed		item	10,000.00	10,000.00		item	10,000.00	10,000.00		item	10,000.00	10,000.00		item	10,000.00	10,000.00
	Windows & External Doors				60,200.00				60,200.00				64,400.00				56,750.00

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Item	Description	Option 1				Option 2				Option 3				Option 4			
		Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension
2.7	Internal Walls & Partitions																
2.7.1	Gyproc metal stud / blockwork walls	330	m ²	45.00	14,850.00	330	m ²	45.00	14,850.00	380	m ²	45.00	17,100.00	380	m ²	45.00	17,100.00
2.7.2	Glazed partitions	64	m ²	350.00	22,400.00	144	m ²	350.00	50,400.00	144	m ²	350.00	50,400.00	150	m ²	350.00	52,500.00
2.7.3	Drylining existing external walls	627	m ²	25.00	15,675.00	627	m ²	25.00	15,675.00	288	m ²	25.00	7,200.00	288	m ²	25.00	7,200.00
	Internal Walls & Partitions				52,925.00				80,925.00				74,700.00				76,800.00
2.8	Internal Doors																
2.8.1	Single glazed doors in glazed partitioning; per leaf	14	nr	1,250.00	17,500.00	12	nr	1,250.00	15,000.00	9	nr	1,250.00	11,250.00	9	nr	1,250.00	11,250.00
2.8.2	Double glazed doors in glazed partitioning; per leaf		nr														
2.8.3	Timber veneer doors including frame, architraves and ironmongery	5	nr	750.00	3,750.00	5	nr	750.00	3,750.00	5	nr	750.00	3,750.00	6	nr	750.00	4,500.00
	Internal Doors				21,250.00				18,750.00				15,000.00				15,750.00
	TOTAL SUPERSTRUCTURE				445,495.00				446,995.00				480,375.00				486,170.00
3.	INTERNAL FINISHES																
3.1	Wall Finishes																
3.1.1	Plaster wall finishes	1,471	m ²	6.00	8,826.00	1,471	m ²	6.00	8,826.00	1,319	m ²	6.00	7,914.00	1,346	m ²	6.00	8,076.00
3.1.2	Emulsion paint finish	1,466	m ²	4.00	5,864.00	1,466	m ²	4.00	5,864.00	1,314	m ²	4.00	5,256.00	1,341	m ²	4.00	5,364.00
3.1.3	Ceramic tiles to WC / Kitchenette	5	m ²	40.00	200.00	5	m ²	40.00	200.00	5	m ²	40.00	200.00	5	m ²	40.00	200.00
	Wall Finishes				14,890.00				14,890.00				13,370.00				13,640.00
3.2	Floor Finishes																
3.2.1	Generally	672	m ²	30.00	20,160.00	672	m ²	30.00	20,160.00	679	m ²	30.00	20,370.00	696	m ²	30.00	20,880.00
3.2.2	Sundries for skirtings, trims etc - 10%		item	2,016.00	2,016.00		item	2,016.00	2,016.00		item	2,037.00	2,037.00		item	2,088.00	2,088.00
	Floor Finishes				22,176.00				22,176.00				22,407.00				22,968.00
3.3	Ceiling Finishes																
3.3.1	Suspended ceiling - GIFA measured on plan	672	m ²	30.00	20,160.00	672	m ²	30.00	20,160.00	679	m ²	30.00	20,370.00	696	m ²	30.00	20,880.00
3.3.3	EO for slope to roof profile	224	m ²	10.00	2,240.00	223	m ²	10.00	2,230.00	226	m ²	10.00	2,260.00	231	m ²	10.00	2,310.00
3.3.3	Sundries, cavity barriers, edge trims etc - 10%		item	2,016.00	2,016.00		item	2,016.00	2,016.00		item	2,037.00	2,037.00		item	2,088.00	2,088.00
	Ceiling Finishes				24,416.00				24,406.00				24,667.00				25,278.00
	TOTAL INTERNAL FINISHES				61,482.00				61,472.00				60,444.00				61,886.00
4.	FITTINGS & FURNISHINGS																
4.1	Provisional allowance internal signage		item	1,500.00	1,500.00												
4.2	Provisional allowance for external signage		item	2,500.00	2,500.00												
4.3	Provisional allowance for Tea point		item	1,500.00	1,500.00												
4.4	Provisional allowance Fixed storage units		item	1,000.00	1,000.00												
4.5	Provisional allowance blinds		item	10,000.00	10,000.00												
	TOTAL FITTINGS & FURNISHINGS				16,500.00												

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Item	Description	Option 1				Option 2				Option 3				Option 4			
		Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension
5.	SERVICES																
5.1	Sanitary Appliances																
5.1.1	Generally		item	5,000.00	5,000.00												
	Sanitary Appliances				5,000.00				5,000.00				5,000.00				5,000.00
5.2	Services Equipment																
5.2.1	All by owner/occupier				-				-				-				-
	Services Equipment				-				-				-				-
5.3	Disposal Installations																
5.3.1	Soil and waste installation	672	m ²	10.00	6,720.00	672	m ²	10.00	6,720.00	679	m ²	10.00	6,790.00	696	m ²	10.00	6,960.00
	Disposal Installations				6,720.00				6,720.00				6,790.00				6,960.00
5.4	Water Installations																
5.4.1	Domestic hot and cold water services	672	m ²	10.00	6,720.00	672	m ²	10.00	6,720.00	679	m ²	10.00	6,790.00	696	m ²	10.00	6,960.00
	Water Installations				6,720.00				6,720.00				6,790.00				6,960.00
5.5	Heat Source																
5.5.1	Heating	672	m ²	90.00	60,480.00	672	m ²	90.00	60,480.00	679	m ²	90.00	61,110.00	696	m ²	90.00	62,640.00
	Heat Source				60,480.00				60,480.00				61,110.00				62,640.00
5.6	Ventilation Installations																
5.6.1	Generally	672	m ²	50.00	33,600.00	672	m ²	50.00	33,600.00	679	m ²	50.00	33,950.00	696	m ²	50.00	34,800.00
	Ventilation Installations				33,600.00				33,600.00				33,950.00				34,800.00
5.7	Electric Installations																
5.7.1	Generally	672	m ²	90.00	60,480.00	672	m ²	90.00	60,480.00	679	m ²	90.00	61,110.00	696	m ²	90.00	62,640.00
	Electric Installations				60,480.00				60,480.00				61,110.00				62,640.00
5.8	Gas Installations																
5.8.1	Not required		m ²		-												
	Gas Installations				-				-				-				-
5.10	Protective Installations																
5.10.1	Emergency lighting	672	m ²	5.00	3,360.00	672	m ²	5.00	3,360.00	679	m ²	5.00	3,395.00	696	m ²	5.00	3,480.00
5.10.2	Fire alarm installation	672	m ²	8.00	5,376.00	672	m ²	8.00	5,376.00	679	m ²	8.00	5,432.00	696	m ²	8.00	5,568.00
5.10.3	CCTV	672	m ²	8.00	5,376.00	672	m ²	8.00	5,376.00	679	m ²	8.00	5,432.00	696	m ²	8.00	5,568.00
5.10.4	Intruder alarm	672	m ²	10.00	6,720.00	672	m ²	10.00	6,720.00	679	m ²	10.00	6,790.00	696	m ²	10.00	6,960.00
5.10.5	Access installation; swipe card readers		item	5,000.00	5,000.00												
5.10.6	Terrestrial and satellite TV installation		item	3,000.00	3,000.00												
5.10.7	Floor ducting for comms and data		item	2,000.00	2,000.00												
5.10.8	Lightning protection		item	2,500.00	2,500.00												
	Protective Installations				33,332.00				33,332.00				33,549.00				34,076.00

LSTM, ANSON HOUSE EXTENSION
 OPTIONS APPRAISAL - 15 MAY 2014

Item	Description	Option 1				Option 2				Option 3				Option 4			
		Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension	Quantity	Unit	Nett Rate	Extension
5.11	Communication Installations																
5.11.1	All by owner/occupier		item		-												
	Communication Installations				-				-				-				-
5.12	Lifts																
5.12.1	Platform lift - ground floor Nr 33		item	10,000.00	10,000.00												
	Lifts				10,000.00				10,000.00				10,000.00				10,000.00
5.12	Builders Work To Services																
5.12.1	Provisional Sum	672	m ²	10.00	6,720.00	672	m ²	10.00	6,720.00	679	m ²	10.00	6,790.00	696	m ²	10.00	6,960.00
	Builders Work To Services				6,720.00				6,720.00				6,790.00				6,960.00
	TOTAL SERVICES				223,052.00				223,052.00				225,089.00				230,036.00
6.	EXTERNAL WORKS																
6.1	Site Works																
6.1.1	Allowance for hardstandings for car park extension	400	m ²	150.00	60,000.00	400	m ²	150.00	60,000.00	400	m ²	150.00	60,000.00	400	m ²	150.00	60,000.00
6.1.2	Making good Pembroke Place elevation pavings	25	m	150.00	3,750.00												
6.1.3	Retaining wall	25	m ²	250.00	6,250.00	25	m ²	250.00	6,250.00	25	m ²	250.00	6,250.00	25	m ²	250.00	6,250.00
6.1.4	Repair existing wall		item	1,000.00	1,000.00												
6.1.5	Street furniture		item	1,000.00	1,000.00												
	Site Works				72,000.00				72,000.00				72,000.00				72,000.00
6.2	Drainage																
6.2.1	Car park drainage	400	m ²	10.00	4,000.00	400	m ²	10.00	4,000.00	400	m ²	10.00	4,000.00	400	m ²	10.00	4,000.00
6.2.2	Building drainage	672	m ²	20.00	13,440.00	672	m ²	20.00	13,440.00	679	m ²	20.00	13,580.00	696	m ²	20.00	13,920.00
6.2.3	Resolving Galkoff rear external levels for drainage e.g. additional retaining walls, drainage pump etc		item	5,000.00	5,000.00		item	5,000.00	5,000.00		item	n/a	n/a		item	n/a	n/a
	Drainage				22,440.00				22,440.00				17,580.00				17,920.00
6.3	External Services																
6.3.1	Electric main (existing substation utilised)		item	1,000.00	1,000.00												
6.3.2	Water main		item	2,500.00	2,500.00												
6.3.3	Gas main - n/a		item														
6.3.4	Telephone ducts		item	500.00	500.00												
6.3.5	External lighting		item	10,000.00	10,000.00												
6.3.6	Builders work in connection with services		item	2,500.00	2,500.00												
	External Services				16,500.00				16,500.00				16,500.00				16,500.00
	TOTAL EXTERNAL WORKS				110,940.00				110,940.00				106,080.00				106,420.00
					1,112,884.00				1,130,774.00				1,197,798.00				1,207,272.00
7.	Preliminaries - Option 1 & 3 anticipated to be longer duration therefore 2.5% premium				194,754.70				169,616.10				209,614.65				181,090.80
					1,307,638.70				1,300,390.10				1,407,412.65				1,388,362.80
8.	Contingencies @ 10.00%				130,763.87				130,039.01				140,741.27				138,836.28
9.	TOTAL ESTIMATED CONSTRUCTION COST				1,438,402.57				1,430,429.11				1,548,153.92				1,527,199.08

BroadwayMalyan^{BM}