

IVEAGH MARKET,  
FRANCIS STREET, DUBLIN 8.



DILAPIDATION SURVEY & REPAIR RECOMMENDATIONS

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January 2019

HOWLEY HAYES ARCHITECTS



*This conditions survey was commissioned by Dublin City Council to assess the damage to the Iveagh Market and the two adjoining dwellings of the former Markets and Laundry Superintendents. The three site surveys on which this report is based were carried out between 1 May and 21 June 2018. Prepared by Howley Hayes Architects, with assistance from CORA consulting structural engineers and Austin Reddy Consulting Quantity Surveyors, the report provides - a brief history of the building; a statement of significance; fabric and structural surveys; a conservation and repair strategy; together with outline recommendations for necessary repair works and budget cost estimates.*



Fig.1. Figurative keystone at Iveagh Markets.

## CONTENTS

### Preface

1.0	INTRODUCTION	1-5
2.0	FABRIC SURVEY	6-55
3.0	CONSERVATION STRATEGY	56-57
4.0	STRUCTURAL SURVEY DRAWINGS	58-75
5.0	BUDGET COSTS ESTIMATES	76-98

## REPORT SUMMARY

### Summary

This condition survey was commissioned by Dublin City Council to assess the condition of the Iveagh Market (Wet & Dry Markets) together with the two adjoining dwellings designed to house the superintendents of both the markets and the laundry. A total of three site surveys were carried out in the summer of 2018, by Howley Hayes Architects, in collaboration with CORA consulting structural engineers and Austin Reddy Consulting Quantity Surveyors. The report provides - a statement of significance; fabric and structural surveys; a conservation and repair strategy; together with outline recommendations for essential repair works and budget cost estimates.

Currently the building is unsafe and in an advanced state of dereliction, due to a combination of serious neglect and several damaging interventions. Some of the more significant works will include reconstruction and back-filling of most of the ground floor area: extensive repairs of the roof and external walls, including the rebuilding of demolished sections of brickwork.

Also in a very poor state of repair is the rainwater disposal system, which is currently dysfunctional and damaging the masonry walls. Equally serious has been the removal of much of the ground floor slab, along with up to three meters of the underlying fill. A complicated sequence of repairs is necessary as the rainwater disposal system cannot be repaired without repairing the roof and the roof cannot be repaired without first back filling and reinstating the ground floor slab, to facilitate the roof works and support an internal scaffold.

While significant areas of original Westmorland Green, slate coverings survive, these are now in a very damaged and friable condition. The cause of the damage would appear to come from three sources – lack of maintenance, inappropriate intervention and loss of lead cover flashings. Repairs will require the

stripping of all roof coverings and rainwater disposal system back to sound material to accommodate extensive structural repairs prior to reinstatement. While the overall condition of the external masonry is fair there are, however, many areas where significant damage has occurred to the brickwork and in some cases the Portland Stone. The most serious damage to the brickwork occurs at and below the parapets. This damage has been caused by a combination of saturation due to failing rainwater disposal, followed by frost action causing a deterioration in places of the brick facings. It is likely that the brick work will have to be entirely repointed; the replacement of a significant number of damaged bricks will also be required.

### Structural Damage

Generally the building appears to be at rest, apart from in one location, at the north east corner where there are signs of historic settlement, on-going structural movement and an inward leaning parapet. This damage has been investigated by a structural engineer who has confirmed that a significant section of the parapet will have to be taken down and reconstructed. Areas of significant damage to brickwork include the insertion of a wide vehicular doorway on Dean Swift Square. Further damage has been caused to the interior brickwork by the removal of the brick panels under the windows, currently supported on timber props, these require urgent attention to avoid further damage.

Internal brickwork has suffered damage and staining from leaking valley gutters resulting in a thick green coating of saturated algae, which is causing deterioration to the lime bed joints. The entire inner face of the brick work will require cleaning and repointing.

### Floors and Staircases

Most of the ground floor, which was constructed as a load bearing slab, has been removed both in the Dry Market and in significant parts of the Wet Market, where the ground has also been lowered to a depth of between two and three meters. Original pad foundations supporting the columns have been fully exposed and their bearing capacity reduced due to the lack of lateral restraint formerly provided by the compacted fill that has been removed. A programme of back filling and consolidation will be necessary

before any significant works can be carried out on the repair of the building.

The slab of the first floor gallery in the Dry Market survives in a poor to fair condition with some areas of damage, where localised repairs will be necessary. Of the four staircases that originally served the gallery, two have been removed and will need to be replaced.

#### **M&E & Fire Services**

No mechanical nor electrical services survive within the building and new installations will be necessary, together with whatever insulation can be introduced into the new roof build up, coverings and glazing. No traces of any fire safety nor security installations are evident, and it will be necessary to provide an appropriately rated fire detection system and to ensure that the building has adequate means of escape for any future purpose.

#### **Market Superintendent's House**

While the house is semi derelict, much of the original fabric survives and can be either retained, repaired or replicated.

#### **Laundry Superintendent's House**

While the house is partially derelict, much of the original fabric survives and can be either retained, repaired or replicated. Missing elements such as the ground floor to basement staircase will have to be replaced.

A summary of the Order of Magnitude Costs for essential structural repairs are as follows –

Dry Market Works	€ 5,112,500
Wet Market Works	€ 2,687,500
Superintendent's House	€ 637,500
Laundry House	€ 692,500
Subtotal	€ 9,130,000
External Area	€ 80,000
Prelims & Insurances @ 20%	€ 1,850,000
Contingency 5%	€ 500,000
Subtotal 2	€ 11,560,000
VAT @ 13.5%	€ 1,560,600

OVERALL TOTAL	€ 13,120,600
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This figure does not include professional design team fees, inflation, M&E installation, fit out costs, planning costs and contributions etc.



Fig.2. Edward Guinness, 1st Earl of Iveagh.

## 1.0 INTRODUCTION

### Brief History

The Iveagh Market is one of an impressive collection of buildings and places donated to the citizens of Dublin by the Guinness family. Many of these were located in, or close to the Liberties where the brewery that created the family fortune was located. Established by Arthur Guinness in 1759, the St James's Gate Brewery had by the end of the nineteenth century become the largest brewery in the world. A tradition of philanthropy was established by Arthur Guinness who supported the local Meath hospital, and this pattern grew steadily in parallel with the financial success of the family business. Edward Cecil Guinness was a great grandson of Arthur Guinness and the fourth generation of the family to fulfil the role of chairman of the company. His generosity, particularly in helping the poor of Ireland through social housing and other social improvements, are legendary. In Dublin he was responsible for mass social housing through the construction of the Iveagh Buildings, to which he added the Iveagh Baths and the Iveagh Play Centre, all of which were significant building projects constructed to the highest standards. Adjoining this large neighbourhood on the eastern edge of the Liberties he cleared slums and laid out St Patrick's Park, in the belief that like the rich in Dublin 2 and Dublin 4, the poor also deserved public parks.



Fig.3. View of St Patrick's Park, Dublin 8.



Fig.4. Iveagh Play Centre, south facade, Bull Alley Street, Dublin 8.



Fig.5. Iveagh Buildings



Fig.6. Iveagh Baths, Bride Rd, Dublin 8.

The slum clearances required to free up the land for these philanthropic developments resulted in the loss of traditional market rights for the local population and to replace these rights Edward Cecil included a further gift of a new purpose-built market building. Constructed in 1906, to the design of Fredrick G Hicks, the covered market contained two linked halls, one known as the dry market was intended for the sale of clothes and furniture, while the second, known as the wet market, was for fish, meat, fruit and vegetables. Edward Cecil's respect and concern for the poor is evident in both the design and construction quality of the buildings and parks he donated to improve living conditions for the people of west Dublin. Healthcare was a major driving force in his philanthropy, which believed that an essential starting point was good living conditions, good sanitation and washing facilities and high quality public open spaces. Markets provide more readily affordable fresh food, while the dry, clothes market, allowed for the recycling of second hand clothes, following a process of fumigation and careful laundering. A complex of buildings located to the north of the two market halls, and separated from them by a passage, contained a large pubic laundry with up to forty machines at one stage. Also contained within the laundry complex was a disinfection facility where clothes could be fumigated to clear them of insect infestation. Having become a more general second hand market over the years, the Iveagh Markets finally closed during the 1990s, when development plans were drawn up to refurbish the structure and include it within a hotel development.

### Recent Interventions

In 2007 planning permission was granted for the refurbishment and alteration of the two market halls as part of a large hotel development that was proposed for the land formerly occupied by the laundry that runs between the former dwellings of the Market Supervisor and the Laundry Supervisor. Also extending to the opposite side of Lamb Alley the proposed hotel development required the demolition of most of the laundry buildings including a tall brick chimney. The proposed uses for the two market halls included - clothes shops, restaurants, performance and exhibition spaces, a distillery and brewery. A double basement was proposed to be

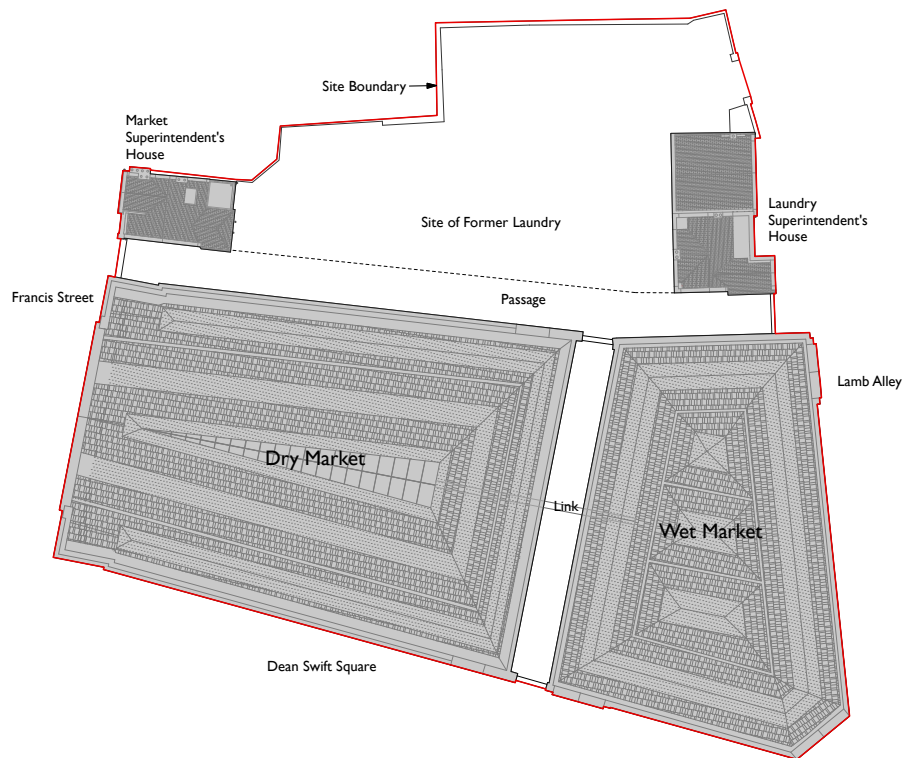


Fig.7. Site Plan



Fig.8. Interior of Dry Market during use.

constructed underneath the dry market with a single basement underneath the wet market. Through discussions carried out between the developer and Dublin City Council it was concluded that to avoid disturbing the medieval city ditch, running under the building, the basement in the dry market would extend only to a single storey and no basement would be constructed in the wet market. Having failed to raise funds for the redevelopment, partly as a result of the financial downturn, the developer obtained an extension to the 2007 planning permission, but this expired in 2017.

### Archaeology

The archaeological significance of the site is high, which is not surprising given the proximity of the city wall that runs close to the eastern boundary of the site. Of particular significance is the presence of the city ditch that was probably back-filled during the fifteenth century as the city expanded beyond the city walls. Excavations carried out in Bertram's Court, to the north of the site, suggest that the city ditch consists not only of the Anglo-Norman ditch, but two earlier pre-Norman ditches. It is likely that the back filling material is rich in archaeological deposits and

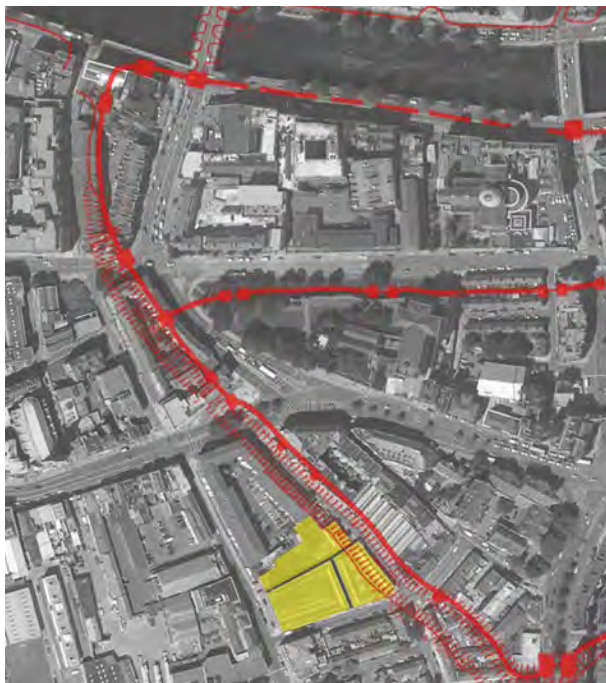


Fig.9. Old city walls and Anglo Norman ditch (in red) overlaid onto modern aerial photo of Dublin with Iveagh Market site highlighted in yellow.

the feature has, since the 2007 planning permission was granted, been designated a national monument for which ministerial consent will be required for an excavation works or alterations. There is also a possibility that the pre-Norman ditches may date back to the earliest Viking defences all of which makes the site extremely significant in archaeological terms.

In view of this rich archaeological content the initial proposals to construct a double basement in the dry market and single basements in the dry market and former laundry site, have been pared back considerably. We are advised by the city archaeologist that the a single basement may be possible in the dry market, within the column line but that the open area in the wet market should for the most part be back-filled. Further assessment should be made of the excavated area to the north of the market building on the site of the former laundry to determine a strategy for back filling, or potential basement construction.

### Statement of Significance

*Cultural Significance is a concept, which helps in estimating the value of places. The places that are likely to be of significance are those which help an understanding of the past, or enrich the present, and which will be of value to future generations.*

The guidelines go on to state that what is significant about a place should help determine how to look after it and what changes are appropriate. Whenever changes are made, including new work, these should be designed so as not to detract from the significance of the place. Four broad categories are used to evaluate the cultural significance of historic places, these are: aesthetic, historical, scientific, and social. Within these general categories are more specific categories such as – archaeological, architectural, artistic, technical, literary and spiritual. Those categories relevant to an understanding of the Iveagh Markets complex are – historical, archaeological, architectural, technical and social.

### Historical

Located on the edge of the medieval walled city the Liberties area has a long and interesting history. From a fashionable residential area in the fifteenth century it became an active industrial area with a number

of early breweries and distilleries taking advantage of the historic water courses, now culverted, that run through the area. The considerable expansion throughout the nineteenth century, of the St James's Gate Brewery on the west side of the Liberties, engulfed many of these smaller industrial enterprises, creating mass employment and great wealth for the Guinness family. Much of this wealth was expended on the Liberties area through the philanthropy of the Guinness family and of their many urban regeneration projects the Iveagh Market is one of the finest.

### **Archaeological**

The rich archaeology of the site has been described above, ranging from pre-Norman ditches, to an Anglo-Norman ditch, and the likelihood of important medieval deposits in the back-filling of the ditches. Now protected under National Monument legislation ministerial consent will be required for any works to the site. Mitigation may be permitted under certain circumstances and the potential to learn more about the medieval city through supervised excavation is another important consideration. This is a multi-layered site which also contains a late medieval structure together with remnants of eighteenth and nineteenth-century industrial buildings including the former Sweetman's Brewery that Edward Cecil purchased for the site of his market.

### **Architectural**

The architectural significance of the Iveagh Market is considerable, both for the engineering bravado of the iron frame and the sophisticated masonry skin. Stone carving of the highest quality is set into impressive brickwork with many decorative elements. Materials used are of also of the highest quality from the carved Portland stone to the brickwork and granite plinths. The two surviving residential buildings are fine examples of the Arts and Crafts, while the main market structure, and in particular the Renaissance-style classical entrance front is a fine example of Edwardian neo-classicism. This is architecture of the highest order that is the equal of many of the finest public buildings in Dublin and the demolition of the former laundry with its fine furnace, chimney stack is a loss. The Iveagh Markets is an impressive structure when compared to similar structures throughout Europe.

### **Technical**

The metal framed roof structures of the wet and dry markets are impressive examples of the tradition of Victorian engineering, that flourished in Dublin during the nineteenth century through the work of important engineers such as Richard Turner and others. Large spans created using delicate trusses create a particular lightness within the interior, which is enhanced by the vast expanse of glazing and enriched by the interesting decorative elements to the columns and railings. All of these elements combine to make the internal frame a structure of technical significance.

### **Artistic**

The artistic significance of the Iveagh Markets is found mainly in the carved stone and hand forged, decorative ironwork. From the keystone heads representing Hibernia and all the other nations of the world that she traded with, to the swags, rosettes and acanthus leaves in the Neo-Classical archway is found stone carving of the highest artistic quality. This is equalled by the many examples of decorative ironwork found on the exterior and in the interior of the building that combines witty innovative design with the highest standards of craftsmanship.

### **Social**

The social significance of the markets is considerable. When constructed it replaced a series of ad-hoc, unsheltered street markets with a fully protected building in which local residents could meet and trade. As a major focal point in the neighbourhood the markets were important not only for residents to meet and socialize, but also to provide competitively priced food, clothing and furniture. That the building also included a public laundry and disinfectant facility reflected Edward Cecil's commitment to improving the health and quality of life of the poorer citizens of Dublin. Of even greater social significance is the important contribution the markets make to the overall "Guinness Legacy" to Dublin, which represents philanthropy on a monumental scale the generosity of which has rarely been matched by a single family.

The combination of historical, archaeological, architectural, technical, artistic and social significance, make the Iveagh Markets complex a place of national and probably international cultural significance.

## 2.0 FABRIC SURVEY

*This survey was carried out between 1 May and 21 June 2018 to assess the condition of the Iveagh Markets and to provide outline recommendations for necessary repair works. The survey was of a visual nature only, no opening up works were carried out, however, from the advanced state of dilapidation it was possible in many areas to view what would have otherwise been concealed construction detail. Inspection reports of this nature are neither specifications nor schedules of works, but rather analytic and diagnostic reviews through which necessary conservation and development works are identified and prioritised, and subsequently monitored to check that they have been carried out successfully.*

*The principal entrance front faces west.*

### GENERAL DESCRIPTION

The Iveagh Market is a vast, single-storey structure that occupied an entire city block, measuring approximately 70m x 40m. Trapezoidal in plan, the larger and much higher part of the building to the west was designed to sell clothes and other dry goods. Known as the “dry market” it contains a gallery running around all four sides. To the east lies



Fig.10. OSI map 1888-1913 showing market and public wash house.



Fig.11. Historical photo of Iveagh Market entrance facade, Francis Street, Dublin City Library image collection.



Fig.12. Aerial birds eye view of market and former laundry site ( in colour) in context.

the former food market that was known as the “wet market.” The principal entrance to the former dry market stands on Francis Street at the west end of the building, with four secondary entrances into the wet market at the eastern end, one of which is located on the truncated south eastern corner. While appearing to be seamless from the exterior, the two market structures are separated by a range of low, single-storey rooms at the centre of which is an opening linking the two structures internally. This, formerly flat roofed link structure, which once housed offices, stores and toilets, is now roofless and in an advanced stage of dereliction. Two further structures survive to the north of the market in the form of houses for the market superintendent and the superintendent of the laundry.

The market buildings consist of two beautiful light weight, semi-glazed roof structures, of complex geometric design, supported partially on cast iron columns and partially on the perimeter masonry walls. This elegant structure that combines cast iron, wrought iron and mild steel, achieves considerable clear spans and represents metal framed construction at its finest. In contrast to the high-tech, forward-looking structures within, the monumental enclosing walls embrace Edwardian classical design inspired by the Roman Empire at its peak. Quite regardless of architectural style or language, the quality of construction, in both materials and detail is exceptional, and consistent with other public and civic buildings donated to the city by the Guinness family over many years.



Fig. I.5. General view of the Dry Market.

## CONDITION OF THE EXTERNAL STRUCTURE

### Roofs

What is perhaps most surprising about the roofs of the Iveagh Markets is their irregular, trapezoidal form. Large metal-framed structures, particular in their early years of development, were predominantly orthogonal with regular structural bays of equal spacing. The roofs of both market halls combine slated slopes with extensive areas of glazing, combined with complex tiers and a multitude of internal valleys

### Dry Market Roof

Tapering from east to west, the roof of the dry market consists of a double pitched outer roof, that is U-shaped on plan and runs around the east, north and south sides of the structure, terminating where it meets the high gable wall of the front facade. A double pitched patent glazing system crowns the ridge of this slated outer roof that forms a flat valley gutter behind the masonry parapets of the external walls on the north and south sides. A similar parapet gutter detail continues around the eastern gable that rises above the single storey flat roofed, link connecting the two market structures. The inner slope of this roof falls to another internal valley gutter, located along the line of columns that support both the main roof and the gallery. Spanning a distance of some 22m north to south, the main roof is a magnificent structure containing two further systems of patent glazing. Of these the first, also U-shaped in plan is a 2.7m strip of glazing set flush with the slated roof finish, while the second follows a triangular shape in plan stepping up to form a lantern at the apex of the roof.



Fig.17. View of northerly bay of roof of the Dry Market.



Fig.16. Neglected roof and leaning parapet in NE corner of Wet Market.

### Wet Market Roof

While the roof of the wet market is lower and smaller in span, it is no less interesting and of even greater complexity than its symmetrical neighbour. Also trapezoidal and asymmetrical in plan, this roof features an even more dramatic narrowing from south to north, and has the added complexity of an additional splay to the south eastern corner. Like the roof of the dry market, the wet market roof consists of an outer, slate covered double pitched roof with a wide glazed section along the ridge. This rises from an outer perimeter valley behind the parapets of the outer walls and the east gable that rises above the linking range. Two lines of four columns converge to the north forming three trapezoidal bays of diminishing width from which emerge three top-lit, hipped roofs. Generous areas of patent glazing also form the apexes of these roofs to bring natural light into the market space.

The roof of the Iveagh Market is one of the most interesting, complex and for its time, structurally daring roofs ever constructed in Dublin. It combines engineering innovation and panache of a type that was only surpassed by some of the vast industrial structures the family constructed at their St James's Gate Brewery, a short distance to the west.



Fig.18. Underside of lantern in Wet Market.



Fig.19. General view of roof of Wet Market.



Fig.20. General view of roof of Dry Market.

### Construction Build Up

As the two roofs are of similar construction and the damage to both is consistent we will consider them as a single entity for the description of their constructional make up and current condition.

The roof build up consists of natural Westmorland slates, fixed to softwood battens that are in turn fixed to thick pine boarding running vertically between a series of timber purlins spanning between the metal roof trusses. Glazed sections are also supported on the timber purlins, either flush with the plane of the roof or as lanterns and ridge lights, where they step up on a timber plinth containing fixed timber louvres.

Glazed hips and ridges were weathered with lead rolls, while the slate hips are finished with Staffordshire blue, clay ridge tiles. These are plain on the larger dry market roof and with a decorative roll on the wet market roof. All junctions between slate, glass, timber and brickwork were originally weathered by lead sheet flashings, which have been removed in many places. The patent glazing system appears to have been replaced and most of the original valley linings have either been replaced or covered over. It is likely that the original patent glazing was a lead cloaked steel bar and that the original parapet valleys were lined in lead, while it appears that the internal valleys are constructed as inter-locking cast iron box gutters.



Fig.21. Detail of Westmorland slates.



Fig.22. Roof opened up to expose build up.



Fig. 23. Detail of damaged hip and lantern on roof of Dry Market.



Fig.24. Detail of roof glazing in Dry Market.

## Roof Access

Like many of the roofs on the tall industrial structures found in the St James's Gate Brewery, the Iveagh Market was designed with an elaborate system of external walkways and staircases to provide safe access to almost the entire area of both roofs. These were to allow for safe access onto the roof and around the gutters to carry out regular, on-going maintenance of the roofs and rainwater disposal system. This access system remains in a reasonably intact condition, albeit some of the timber decking has perished to the walkway running around the upper lantern of the main roof.



Fig.25. General view of roof of Wet Market showing access gantries



Fig.26. Detail of access gantries.



Fig.27. General view of roof of Wet Market showing access gantries

### Current Condition

The condition of both roofs is extremely poor. While significant areas of original slating survive, these are now in a very damaged and friable condition. The cause of the damage would appear to come from three sources – lack of maintenance, inappropriate intervention and theft of lead cover flashings.

The lack of maintenance is very obvious not just to the roof but to all parts of the building and it would appear that this condition has existed for some considerable time. Plant growth is well established in many parts of the roof, rainwater disposal channels are blocked and there has been no attempt to rectify obvious areas of damage that are permitting serious water ingress. There appear to have been two major interventions carried out to the roof – one was the replacement of the original patent glazing system, probably during the 1980s, and the second the covering of the entire roof with polythene sheeting, probably during the 1990s or early 2000s. At some point the valleys were also lined with poorly applied, short life torch-on felt.



Fig.28. General view of a typical parapet valley.



Fig.29. General view of cast iron valley.

It is not clear why the original patent glazing would have been removed, unless it had for some reason been constructed with timber members, which is unlikely. Patent glazing systems were first introduced around the turn of the twentieth century when the fabrication generally consisted of lead cloaked, steel T-bars with lead flanges to weather the glass. Aluminium systems, such as the one in place on the roof today, were developed during the late 1940s and early 50s. Traditional, lead-cloaked bars are very durable and given the high quality of their materiality and fabrication, it is unclear why they had to be replaced. The current glazing probably dates from the 1980s and given the extent of this installation it is likely that when this was installed some damage was done to adjoining slated roof slopes and the flashings between glass and slate.



Fig.30. Detail of replacement aluminium patent glazing.

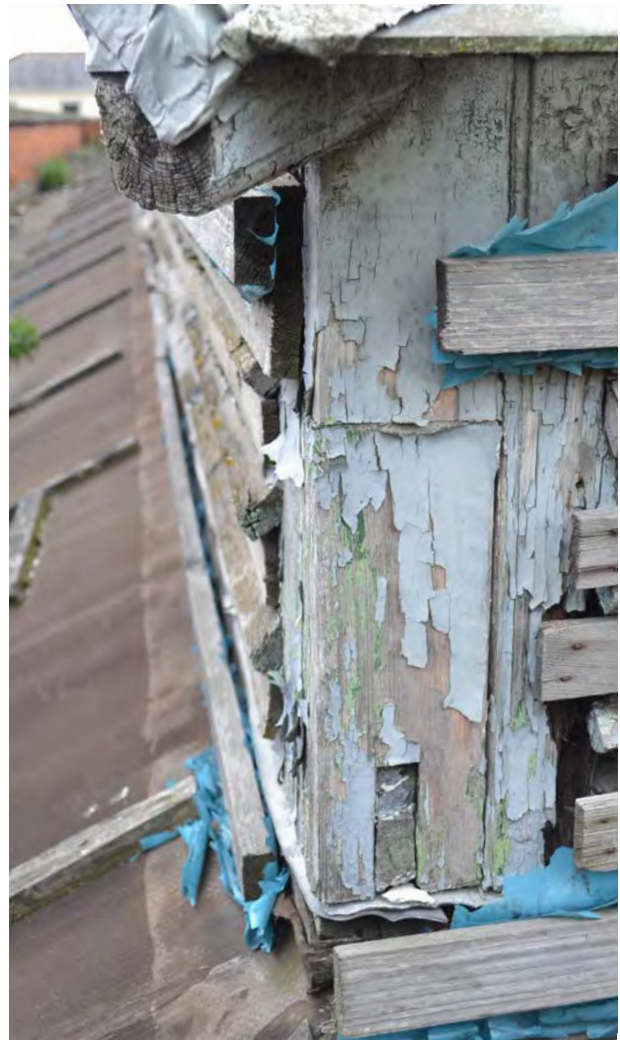


Fig.31. Damage to timber louvres at base of lantern.



Fig.32. Copious plant growth exists in many of the valleys.

The second major intervention was most likely carried out at some point in the relatively recent past, probably within the past twenty years, when the entire roof was covered with polythene sheeting. This was fixed to timber battens that were attached right through to the existing slate surfaces. Such an ad-hoc system of protection would have had little beneficial effect and would have made the roof less water tight by damaging the slating. It is likely that the poorly installed valley linings were also installed at this time. Overtime these temporary polythene roof coverings have broken down and become brittle due to long exposure to the sun and have now almost totally disappeared apart from some small traces that remain trapped under the fixing battens that survive.



Fig.33.Linings of parapet valleys are missing in many places.

The third factor that has contributed to the serious water ingress and subsequent damage to the roofs is the almost total lack of flashings and counter flashings. It would appear that in many places these have been stolen and only in isolated areas has a poor-quality, torch-on felt been added to try to repair the damage caused. As a result, water is entering the building in a multitude of different places. Ridge and hip rolls are not weathered, valley linings not flashed into parapets and junctions between lanterns and slated roof slopes are currently exposed and vulnerable. These sources of water ingress, combined with broken or missing panes of glass and damaged slates, have caused untold damage to the underlying timbers to the point that the roof is now in a very dangerous and fragile state. It will be necessary to strip the entire roof of all slate and glazing to identify damage to the underlying timber members and metal structure. When these have been repaired or replaced the roof coverings can be re-fixed, incorporating any salvaged, sound slates, while the roof glazing will have to be renewed, together with all valley linings, hips and flashings.



Fig.34. Detail of roof in the Wet Market showing unrepaired holes with water damage and algae growth on interior walls.



Fig.35. Damage to timber boarding of roof/ceiling.

### Link Building Roof

All that remains of the roof of the single storey block that runs between the two market halls is a series of rusted rolled steel joists, and a deep chase in the brickwork above. This would suggest a timber roof construction supported by the steels, with a sheet or poured membrane finish. Like the main roofs the link roof will require major work to rebuild and re-weather.



Fig.36. Now roofless single storey link between Wet and Dry Market.



Fig.37. Damage to single story link.



Fig.38. Original brick walls demolished in linking range.

## Rainwater Disposal

The rainwater disposal system consists of a series of flat valleys, running either behind the parapet of the external walls of each market, or between the outer and inner roofs. From the width and changes in level of the outer parapet valleys, it would appear that these were originally constructed in lead sheet with regular steps as required for this sort of sheet metal lining. Why this was replaced, or possibly only covered is not clear. If properly detailed and fabricated lead valleys should last much longer than 100 years and it is possible that these were stolen for sale in the scrap metal market. The current torch-on felt coatings are poorly installed with inadequate flashings and have failed in many places, causing the timber valley linings to rot and sink.

In the construction of the internal valleys it is not possible to step these valleys as easily as can be done to the parapet valleys, so wide, flat valleys have been installed in cast iron. This detail that was used to create flat internal, or sometimes parapet, valleys for large roofs, consists of socket and spigot type joints and can function with minimal falls. These valleys also appear to have been lined with torch-on felt. Felt is often added to these valleys when the joints fail, even though the individual cast iron units survive in a good state of repair and need only to be cleaned and the jointing material renewed. Currently, many of the valleys are blocked, some have considerable plant growth established within them and none appears to be functioning adequately. Originally the valleys discharged into large decorative, cast iron hoppers, some of which survive although most of the original cast iron down pipes have been replaced with UPVC.



Fig.40. Poorly relined parapet valleys.



Fig.39. General view of cast iron valley.



Fig.41. Detail of rotten roof/ceiling boarding and lined cast iron valley.



Fig.42. Severe wet rot in valley boards of Dry Market roof.



Fig.43. Detail of original cast iron hopper with replacement uPVC

### Summary

The entire roof and rainwater disposal system will have to be stripped back to sound material. As the main roof structure is constructed of metal, it is hopeful that this will survive in a reasonable state and will require only localised repair and repainting. All of the beautiful Westmorland slate will have to be stripped, and it is possible that up to 30% might be salvaged for reuse. All battens, boarding and parapet valley linings will have to be stripped and a very large proportion of these will most likely have to be replaced. While the aluminium patent glazing survives in a fair to poor condition, it would be a false economy to try to salvage and reuse these and the glass is similarly of mediocre quality. It may be possible to salvage the cast iron, inner valleys but this will only be known when the roof is stripped. The extent of timber decay in the purlins and the timber framing and louvres of the lantern plinths is likely to be significant and a high proportion of replacement will be necessary in this area as will the other decorative timber trims and cover pieces seen from inside. Repairs will also be necessary to the access ladders and gantries and when repaired these will play an important part in providing safe access for regular, on-going maintenance to the repaired roof.



Fig.44. Detail of light-weight metal roof trusses.

## Structural Frame

### Dry Market

In the larger dry market, the structural frame consists of a series of tapering, cast iron columns, square in plan and in the Doric order that stand on tall cast iron plinths. These run around all four sides of the market hall supporting the inner edge of the first floor gallery and are embossed with the name of the Dublin foundry of Tonge and Taggart, where they were cast. At the east, north and south sides of the gallery, a second order of circular, Ionic columns rise to support the roof structure, while at the west end the columns rise only to a level just above the handrail. A pair of rolled steel joists, one curved the other straight, spring from just above the Ionic capitals bracing the columns and supporting the valley that runs between the main central roof and the smaller outer roof. Spidery metal trusses spring from both the inner and the outer sides of the first floor columns with the outer truss ends supported on stone corbels set into the masonry. Further bracing between the trusses is provided in the form of timber purlins. With a clear central span of some twenty two meters, this is a most impressive structure fabricated using a relatively small weight of steel. The combination of the lightness of the steel trusses, the large expanses of roof glazing and the impressive colonnades running around the perimeter, make this one of the most impressive spaces in the city.



Fig.45. General interior view of Dry Market.



Fig.46. Detail of balcony in Dry Market with excavated column bases.



Fig.47. Makers stamp of Tong & Taggart, Dublin on column plinth in Dry Market.



Fig.48. Detail of cast iron columns in Dry Market.



Fig.49. Cast iron Ionic capital to gallery of Dry Market.

## Wet Market

The structural frame of the wet market while less impressive spatially than that of the dry market, is none the less a structure of considerable interest, as much for the complex geometry as the structural innovation. Two lines of circular Doric columns with tall hexagonal bases, support a matrix of heavy lattice beams with riveted connections, that form the supports for the three central lanterns and the inner bearings of the outer roof. As in the adjoining, larger market hall the outer roof consists of light weight metal trusses that also bear on the heavy masonry of the outer walls. A second, deeper but lighter lattice rises in a series of intersecting trusses within the lanterns, to support the louvered plinths on which sits the patent glazing. This interesting structure is like an early example of what in the 1970s would become known as a "space frame." While the wet market hall may lack the scale and grandeur of its neighbour, it lacks nothing in technical virtuosity and is in itself a most impressive, top lit, interior space.

Unlike the timber elements in the roof structures, the metal frame survives in a reasonable state of preservation albeit a poor state of repair. Serious outbreaks of rust are apparent in some locations and a high number of local repairs can be anticipated, particularly around rainwater outlets, but for the most part the structure appears to be structurally sound and suitable for repair and reuse.



Fig.50, 51. Details of roof in the Wet Market.

### External Walls

The entrance front of the Iveagh Markets on Francis Street is a neo-classical, seven bay, two storey composition, designed in a style that was popular during the Edwardian period known as "Wrenaissance" so called after the eminent English architect Sir Christopher Wren. Bold cornices, arched openings and bold blocking to voussoirs and door surrounds are a feature of this style and all of these appear in abundance in the Iveagh Markets building. Like the roof and internal framed structure, the masonry shell, that presents the public face of the building has been designed and constructed to the highest possible standard. High quality materials such as brick, granite and Portland stone have been used lavishly throughout both on the public and private facades, all of which are beautifully composed, detailed and constructed.



Fig.52. Detail of one of the figurative key stones on Francis Street.



Fig.53. Detail of high quality stonework to entrance front on Francis Street.



Fig.54. Front entrance elevation facing onto Francis Street.

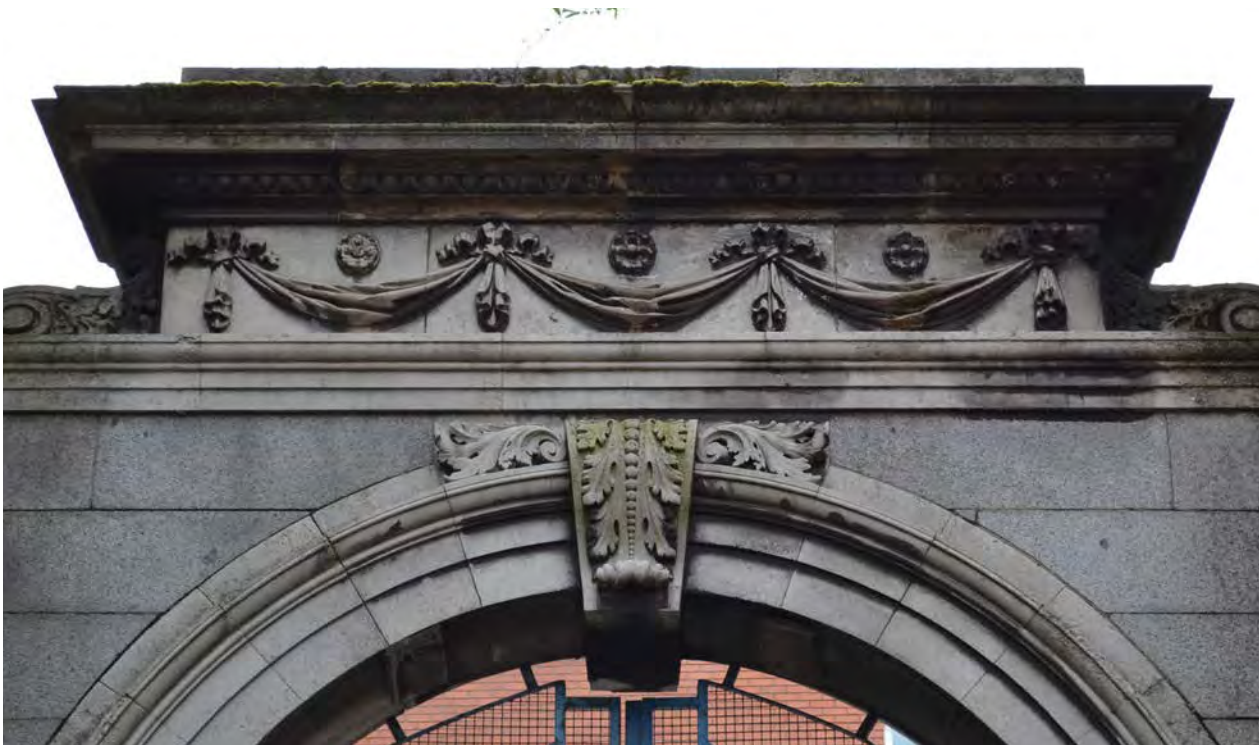


Fig.55. High quality carving to stonework of classical archway.

The principal two-story façade consists of a five-bay, pedimented breakfront flanked by single two storey bays each featuring a rectangular window above a Diocletian window. A wide shallow flight of three steps rises to three arched-headed entrance doors, flanked with arched windows set within the breakfront, above which is a series of rectangular windows matching those of the outer bays. A bold dentil pediment rises above a frieze, all carved from Portland Stone into which is inscribed with the text "IVEAGH MARKETS MDCCCCVI." Portland Stone is also used for the architrave surrounds to the upper windows and to the bold blocking to the arches of the ground floor door and window openings, the keystones of which are carved into heads depicting the nationalities of trading partners around the world. The quoins and ground floor of the front facade and first bay returning into Dean Swift Square,

is clad with ashlar granite, while the walls of the upper floor and the tympanum of the pediment are faced in an attractive red and orange coloured brick. A close inspection at high level of the inner faces of the copings to parapets and pediments are perhaps one of the most telling indications of the quality of the masonry. In these high level parts of the building Portland stone has been used lavishly, for both utility and beauty in situations where most clients would be insisting on much cheaper sand and cement finishes. There is an overall delicacy to the use of materials ranging from the robust base of granite, to the warmer and softer brickwork and the contrasting honey-coloured richness of the Portland stone adorned with carving of the highest order. Visually the colour contrast between these three high quality materials is highly successful.



Fig.56. Back of fine classical archway linking house to market on Francis Street.

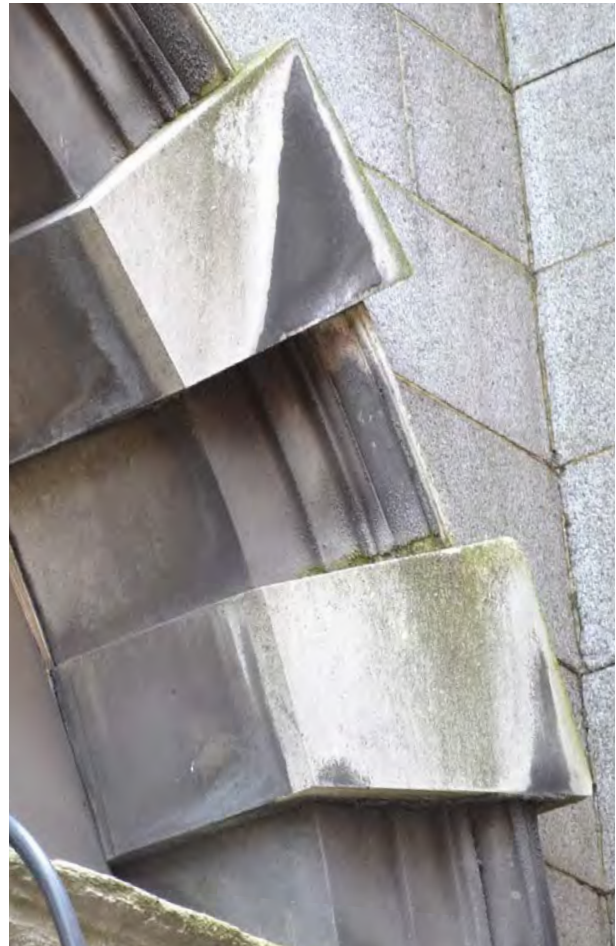


Fig.57. Detail of blocking to voussoirs of arched window in passage.



Fig.58. Detail of side entrance on Dean Swift Square.

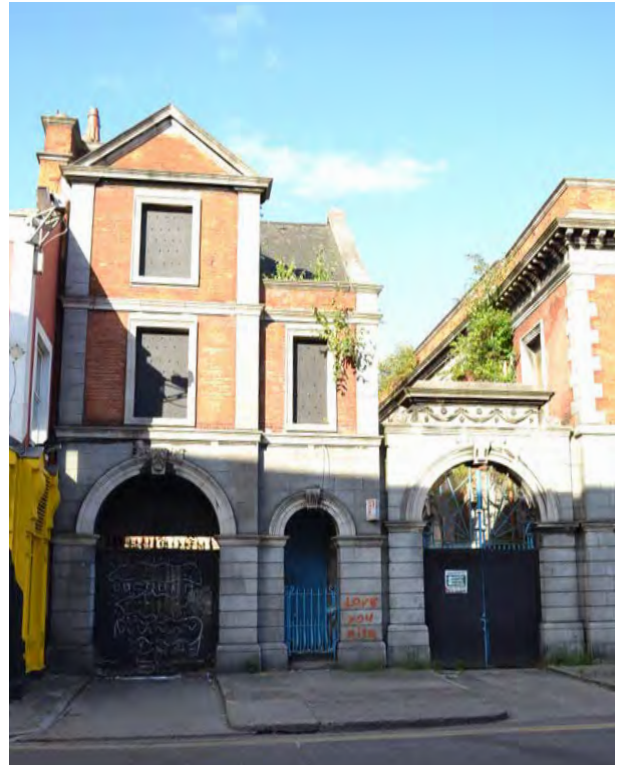


Fig.59. Significant plant growth on the Dry Market and market superintendent's house.



Fig.60. General view of the Laundry Superintendent's house on Bull Alley.

The choice of materials, and the design and detailing are carried around all of the other faces of the building, private and public. These facades, are however a little more austere with arched, high-level windows and fewer doorways and the stone inserts used a little more sparingly than in the principal entrance façade. Where windows and doorways occur they spring from stone string courses or plinths and are highlighted with the use of arched openings in some instances with pediments above, all matching the quality of the front façade. A Diocletian theme is developed with the arched windows and engaged brick pilasters on the upper levels that rise from the first-floor string course to the underside of the deep frieze that marks the parapet level. A two-bay, three storey dwelling house, designed for the market superintendent, stands to the north of the Francis Street façade, linked to it by a delicate Roman Doric archway that leads to a passage running along the north side of the market buildings. This once led to a laundry building that was part of the overall complex

but has since been largely demolished. The laundry superintendent's house is an equally fine building that survives at the east end of the passage facing onto Lamb Alley forming part of the original composition of the overall market complex. It consists of a four bay, two and a half story structure with steeply pitched roofs and arched and square headed windows. Both houses are constructed of similar materials and to similar high standards as the markets building.

The quality of the brickwork is particularly good with many specials being used at window arches, cills and jambs both externally and internally. A wide variety of bullnose, moulded and cornice bricks have been used throughout the exterior and the interior of the building, often in complex assemblies to create a rich layer of sophisticated ornamentation. Window heads are formed in neat rubbed arches and there is an impressive brick cornice at gallery level in the dry market.



Fig.61. South façade on Dean Swift Square.



Fig.62. High quality stonework on north façade of Dry Market overlooking the passage.

### Condition

The condition of the external masonry overall is good to fair as would be expected for materials and workmanship of this quality. There are, however, many areas where significant damage has occurred to the brickwork and in some cases the Portland Stone. Generally, the granite has survived well as would be normal for such a robust stone. The front steps consist of enormous slabs of granite of a dimension not seen elsewhere in Dublin. Some minor repairs and widespread repointing of the granite masonry should be expected, particularly at the lower levels affected by splashback off adjoining pavements.

The most serious damage to the brickwork occurs in many areas both on the external facades and to the internal faces, at and below the parapets. This damage has been caused by a combination of saturation due to failing rainwater disposal, followed by frost action, causing a deterioration of the brick facings in places. In many areas there are thick coverings of algae where persistent leaking has occurred from failing gutters and in these areas the bed joints will be badly damaged. It is likely that due to the saturation and soiling that the brick work will have to be entirely repointed, following a thorough cleaning and during this process the replacement of a significant number of damaged bricks should be anticipated.



Fig. 65. Saw cut brickwork to one panel where brickwork only partially removed in dry market.



Fig. 63. Very large granite paving slabs to landing of entrance steps.



Fig.64. Damage to faces of brickwork to inner faces of parapet walls.



Fig.66. Damage to Portland stone cornice.



Fig.67. Detail of damaged brickwork to south façade on Dean Swift Square.



Fig. 68. Serious staining and plant growth to brickwork of north façade.

### Structural Damage

Generally the building appears to be at rest, apart from in one location, in the north east corner there are signs of settlement, structural movement and an inward leaning parapet. This damage has been investigated by a structural engineer who has confirmed that a significant section of the parapet will have to be taken down and reconstructed. Other areas of significant damage to the original brickwork have been manmade. One is the insertion of a wide and poorly designed doorway on Dean Swift Square, probably within the last forty to fifty years. While this enlarged opening would have accommodated larger vehicles it is an unsightly intervention that detracts from the historic character of the building and should be reversed. Further, more recent damage has been caused to the interior brickwork by the

removal of the brick panels under the Diocletian style windows beneath the north gallery of the Dry Market. Currently the arched windows plus two courses of brickwork directly underneath their cills are supported precariously on timber props or by hanging metal frames, and these require urgent attention to avoid further damage. Brickwork has also been removed from the inner wall faces underneath some of the east facing windows in the former Wet Market, while brick partitions have been removed from the central, single-storey range between the two market halls and around the two staircases in the Dry Market. In the wet market only the inner portion of the wall thickness has been removed so the windows above them retain some measure of support. However, this damage should also be repaired as a matter of urgency.



Fig. 69. Temporary boarding where brick panels have been removed under windows.



Fig.70. Brickwork walls removed under arched windows in north façade.



Fig.71. Salvaged brick in the Wet Market.



Fig.72. South façade of Wet Market with crudely inserted doorway.



Fig.73. Leaning parapet in North East corner from passage.

### External Joinery

As with all other trades found in the building the external joinery is of the highest standard, all constructed in good quality fine-grained red deal, probably pine. Traditional, Georgian style, double-hung sash windows appear on the first floor of the Francis Street facades, with heavy framed arched windows to the side and rear facades. On the more public Dean Swift Square the windows have heavy mullions with a combination of leaded, quarry glazed, fixed lights and steel casement openers. On the Lamb Alley and the semi-private side alley, the arched windows have steel framed glazing with medium sized square panes, set into the timber frames. Many of the original windows remain in place and can be salvaged, repaired and reused. Where missing they should be replaced with accurate replicas of the missing units. The surviving original doors are all timber panelled doors, of which the main entrance doors have small-paned glazed upper sections. These should also be retained, repaired and reused as valuable parts of the historic building fabric and where any are missing, accurate copies should be made.



Fig.74. Inner face of one of the three entrance doors.



Fig.75. Timber sash window detail.



Fig.76. Detail of original timber window in the market superintendent's house.

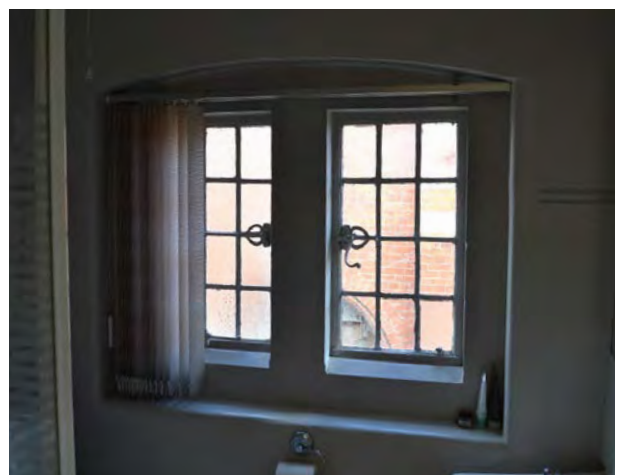


Fig.77. Original steel casement window in current bathroom of laundry superintendent's house.



Fig.78. Original timber window survives in a reasonable structural condition.



Fig.79. Diocletian-style window in former laundry.

## Decorative Iron Work

There is some very fine decorative iron work on the exterior of the building. This takes the form of gates and doorways to the main market buildings and side alley, together with the railings of the laundry superintendent's house. All of this work is hand forged to the highest standards of craftsmanship, largely in a traditional eighteenth-century style. The decorative scrollwork on top of the gates protecting the three front entrance doors is particularly fine with curved strap-work merging into spreading acanthus leaves from which long stemmed shamrock leaves emerge and wrap like tendrils around the square bars of the gates. In contrast the railings in front of the laundry superintendent's house, are a little more restrained with delicate ornamental newels designed in an Arts and Crafts style. The decorative metalwork to the secondary entrances is also very striking with

converging spikes creating a dramatic fixed panel in the arched openings above the gates. Internally there are limited areas of decorative ironwork in the form of large panels that create centre pieces to the metal balustrades, that are predominantly plain vertical bars, with a hardwood hand rail. Most of the metal work survives in a good state of preservation and when stripped of all paint, repaired and repainted, will regain their original appearance and quality. The decorative metal work is important both for the high-quality craftsmanship on display, but equally so for the contribution it makes to the overall design and external appearance of the buildings. These railings and grilles are also important for the security of the building, which was and remains an important consideration.

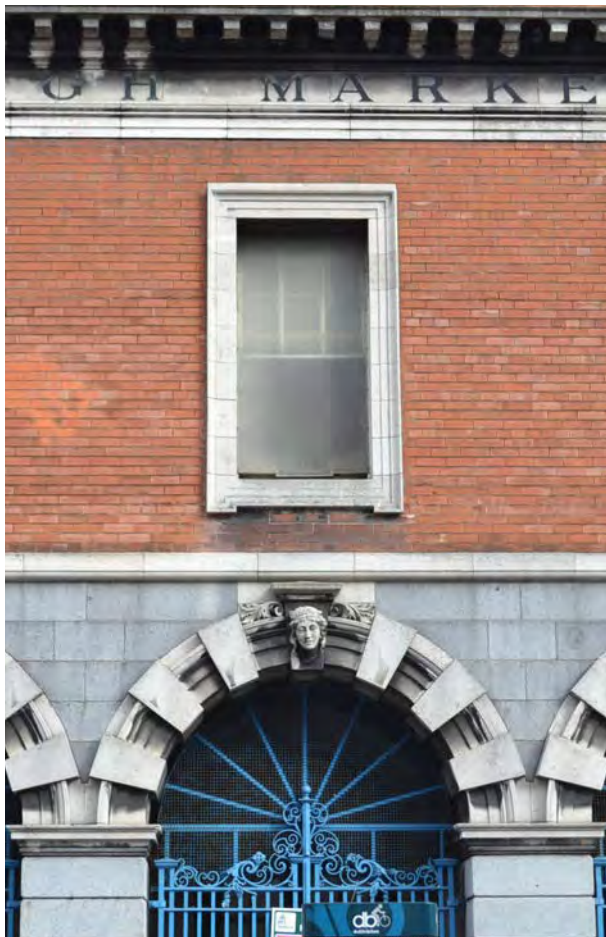


Fig.80. Hand forged decorative ironwork at main entrance doorways on Francis Street.



Fig.81. Detail of hand forged decorative ironwork.



Fig.82. Decorative forged ironwork on north side entrance to Wet Market



Fig.83. Detail of gallery balustrade.



Fig.84. Good quality decorative ironwork to Laundry Superintendent's house.



Fig.85. Decorative forged ironwork to gallery balustrade.



Fig.86. Decorative forged ironwork to gallery balustrade.

## CONDITION OF THE INTERNAL STRUCTURE

### Soffits and Ceilings

There are two ceiling conditions within the markets, neither could be called typical. Of these the most prominent is created by the undersides of the roofs that combine large expanses of glazing with timber boarding. The sheer scale and contrast between these two materials is probably the most striking aspect of the interiors of the two market buildings. Introducing high levels of natural light into the spaces, the glazing also creates an impressive lightness to the ceiling, combined with bold pattern making. In the areas between the predominantly long strips of glazing, the solid sections are clad in vertical timber boarding that follows the alignment of the patent glazing bars. As with every other trade found within the building the joinery is of the highest quality with decorative mouldings used at all junctions, downstand beams

and purlins. Large areas of these timber linings have now deteriorated due to the widespread outbreaks of wet rot that have resulted from failing roofs and valley gutters. As the timber is of typically high quality there is a possibility that some might be salvaged and reused, however, it is highly likely that most will have to be replaced to matching details.

The other ceiling surface occurs to the underside of the reinforced concrete gallery in the larger Dry Market. This appears to have been simply skimmed with plaster and painted, albeit there is evidence of some modest decorative treatment to the outer edge of the floor slab, where run plaster cornices have created a frieze between the column heads and the first floor balustrading. While these ceiling finishes and decorative edges are in a very poor state of repair, they can be reinstated quite easily, following any necessary repairs to the concrete floors.



Fig.87. Detail of Dry Market roof structure.



Fig.88. Severe rot infestation to underside of roof boarding.



Fig.89. Roof and east wall of Wet Market.



Fig.90. Damage to underside of north gallery.



Fig.91. Damage to soffit of concrete gallery in the Dry Market.

### Internal Walls and Wall Finishes

Internally, most of the wall finishes are in fair-faced brick with the same richness of decorative detail that is found externally. Bullnose corners, intricate brick friezes and cornices, brick pilasters and shallow arched recesses abound, and in some of the main windows the Portland Stone surrounds from the exterior, are carried through to the interior. This is a high quality, durable and attractive, low maintenance finish as befits hard-working market halls. Throughout all of the ground floor levels of both market halls there is a tiled wainscot rising to approximately 1250mm in height. This consists of glazed, plain white tiles with moulded skirtings and dado rails in a contrasting shade of dark green. This attractive feature has also been badly damaged by the removal of the supporting brickwork and other demolitions. A robust, ceramic wainscot would have provided not only a practical, easy to clean and therefore hygienic surface, but an attractive wall finish that would also reflect and improve the natural light levels within the interior. It will be important to restore the damaged areas of tiling as this element is one of the most important visual and functional internal finishes.



Fig.93. Curved brick window jamb and cill details.



Fig.92. Detail of intricate brick cornices and pilasters.



Fig.94. Portland Stone surrounds from the exterior, are carried through to the interior.

While the internal brickwork has suffered from less frost damage than the exterior faces, it has nonetheless suffered much damage and staining from leaking valley gutters. Throughout much of the building a thick green coating of saturated alga exists, which is not only staining the faces of the brickwork, but also eating away at the lime bed joints. It is likely that the entire internal face of the brick work will require cleaning and repointing after it has had time to dry out. As noted previously demolished sections of the north or east façade, together with the range of single-storey connecting rooms should be rebuilt.



Fig. 95. Tiled walls and floor of room in demolished connecting range.



Fig.96. Heavy staining to internal brickwork due to water ingress.



Fig. 97. Severe water staining and algae in wet market.



Fig.98. Damaged timber roof boarding and heavy staining to internal brickwork due to water ingress.

### Decorative Elements

While the exterior of the building features more decorative work than the interior, mainly in the carved stone and decorative ironwork, the interior contains some very important decorative elements. Of these the Doric and Ionic style, cast iron capitals are probably the most impressive, as are the matching carved Portland stone Ionic corbels supporting the roof trusses at the western end of the gallery. As noted previously there is also a collection of forged metal panels in each bay of the railings to the first floor gallery, together with some simple run plaster mouldings, special moulded brickwork and tiling. While perhaps lacking some of the flamboyance and ostentation of the exterior, the internal decoration is nonetheless impressive and worthy of full restoration.



Fig. 99. Rust damage to column and beam supports of gallery in Dry Market.



Fig.100. Portland stone corbel carved as an Ionic capital to match



Fig.101. Decorative cast iron capitals on Doric columns in Dry Market.

### Floors and Staircases

The ground floor was constructed as a load bearing slab, however, most of this has been removed in the Dry Market and in significant parts of the Wet Market, where the ground has also been lowered to a depth of between two and three meters. We are informed that this work was apparently carried out as an archaeological dig to determine whether or not it would be viable to construct a basement under the building. During this work remains of a number of historic structures were uncovered, some dating back to the seventeenth century. These ruins remain in view, as the excavations were never back filled. Now colonised by significant plant grown, this deep excavation is now dangerous, unstable and makes repair work to the roof and walls all the more challenging. Such is the depth of excavation that the pad foundations supporting the columns have been fully exposed and their bearing capacity reduced due to the lack of lateral restraint provided by the compacted fill that has been removed. In some locations there are large areas of standing water, suggesting that the excavations have extended down to below the water table. A major programme of back filling and consolidation will be necessary before any significant works can be carried out on the repair of this building.



Fig. I02. Excavated column foundations in Dry Market.



Fig. I03. General interior view of Dry Market showing excavated floor, exposed column foundations and subsequent plant growth.

While approximately half of the floor in the Wet Market hall remains intact, it is not possible to ascertain the condition with any accuracy as most of the area is covered with salvaged building materials, stone, brick, tiles, timber; old cast iron rainwater goods, together with other artefacts salvaged from other buildings. There is also an old transit van, church pews, old tables and chairs and a large collection of bric-a-brac of the type publicans collect for display in refurbished public houses. From those areas of floor that are not covered the finish appears to have been a polished or screeded concrete. Like the Dry Market hall the floor of the Wet Market will require considerable works to back fill prepare the bedding and restore the original concrete floor.



Fig.104. General rubbish and debris in the Wet Market.



Fig.105. Excavated floor of the Wet Market.

The first floor gallery in the Dry Market is also constructed in concrete with mesh reinforcement and a screeded or polished finish. This slab survives in a poor to fair condition with some areas of damage. It is supported on steel joists at the outer edge and also steel joists running between bays. Localised repairs will be necessary but the overall structure can be retained and reused, with the original surface and soffit finishes reinstated. The gallery was originally served by four staircases, two in the north west and north east corners to either side of the main entrance and two located on the north and south sides adjacent to the entrance from Dean Swift Square and the passage that runs between the two superintendent's houses. All four staircases were constructed in mass concrete with a similar polished finish as the gallery floor and while the two staircases at the west end of the hall survive intact, the other two located at the sixth of the nine bays running west to east, have been removed. The removal of these staircases was executed crudely, with the scars of cut tread ends projecting from the walls that once supported them. While the two surviving stairs retain supports in the form of pairs of rolled steel joists under each flight, it is not clear if the two removed flights were also supported in this way. Like much of the rest of the interiors of the market halls, these staircases were plain, robust and highly serviceable. Where missing or damaged they should be restored to the original detail.



Fig. I07. View of the one surviving staircase.



Fig. I06. Scar left on wall where concrete staircase was removed.



Fig. I08. Void in gallery slab where south staircase removed.

### Internal Joinery

There is very little internal joinery within the building as most is located in the external envelope and is therefore external, albeit also visible from the interior. As noted previously these doors and windows are of the highest quality and where they survive they can be readily restored. They are complemented by good quality internal timber architraves to windows and the decorative mouldings and trims to the boarded ceilings and louver plinth upstands to the lanterns. There is a good, solid mahogany handrail to the surviving staircases and the gallery guardings that survives in a remarkably good condition. Some panelled timber doors to under stairs storage areas survive together with some internal windows in the single storey linking range, apart from which there is little internal joinery to describe. All that survives is, however, salvageable and worthy of restoration and where missing replication.

### Decorations

As most of the interior surfaces are pre finished, such as the brickwork, tiling and screeded floors, there are almost no internal decorations other than the painted finishes to the structural iron and steel frame, the balcony and staircase balustrades, the inner faces of the external joinery and the soffits of the gallery and the roofs. All decorations will have to be renewed following repair, restoration or replacement. Where joinery or metal elements survive particular care will be necessary to strip of old paints most of which will have lead content that will present a health and safety risk. To facilitate repairs, and indeed identify areas in need of repair, all historic paint coverings will have to be removed from timber and metal surfaces and this should be carried out by specialists properly trained and familiar with the hazards involved with such work.

### SERVICES

#### Mechanical & Electrical

It would appear that when built, both mechanical and electrical services were quite limited as would be expected with a building designed as a covered daytime market. There are some traces of early electrical equipment surviving together with later lighting installations, all of which are now redundant. While some distribution pipes can be seen there are



Fig.109. Handrail to column detail on gallery.

no traces of any type of heating scheme and it is unlikely that the building was ever heated, except perhaps in the single story link between the two market halls, that are now roofless and largely derelict. It appears that this range contained the toilets, store rooms and offices, so there is a possibility that some form of heating was included, albeit there are no signs of any chimney flues that might have served a boiler. Water supplies would also have been necessary for cleaning down – particularly in the fish and meat sections of the wet market. No functioning mechanical or electrical services survive within the building and new installations will be necessary, together with whatever insulation can be introduced in the new roof coverings and glazing.

#### Fire Safety & Security

During our survey we found no traces of any fire safety or security installations and it is possible none existed. While the building was originally well served by staircases and exits, the means of escape were probably adequate. However, it will be necessary to provide a fire detection system and to ensure that the building has adequate means of escape for whatever purpose it will be used for in the future. As a city centre building an appropriate, high quality security system will be required.

## MARKET SUPERINTENDENT'S HOUSE

### General

The market superintendent's house stands on the west side of the complex, adjoining the fine classical arched gateway that leads into the passage that runs along the north side of the market halls. There is an open, arched doorway at ground level in the two-storey bay with an arched carriageway running underneath the three-storey northern bay. A tall, steep gable, clearly visible from Francis Street returns the composition around the corner and into the passage. Like the adjoining front façade of the markets, the superintendent's house has a rusticated granite plinth, ashlar granite facings and quoins, with brickwork above, enriched with Portland Stone string courses and moulded architraves to the apertures.



Fig. 110. View of rear facade of the Market Superintendent's house from the site of the demolished laundry.



Fig. 111. View of the Market Superintendent's house on Francis Street.

### Roof & Rainwater Disposal System

The roof is covered with natural slate with clay ridges and cast iron rainwater goods. From the ground the roof coverings appear to be largely intact with one, badly damaged area in the south west corner that requires urgent repair. Otherwise it would appear that this covering could be retained and repaired, however, closer inspection might prove that more extensive works are necessary. The rainwater goods remain intact and might remain serviceable following stripping, repair and repainting. This too, however, cannot be confirmed until a closer inspection has been carried out.

### Stacks and Flashings

There is one single brick chimney stack on the northern gable, close inspection of which was not possible. Any lead flashing that are visible from the ground appear to be in a reasonable state or repair, but should be inspected at close quarters. Given the general lack of maintenance throughout the market complex, some repairs should be anticipated.

### External Walls

The external masonry, like the market building, is well constructed in brick, granite and Portland Stone. This survives in a reasonably good state of repair, but will require some localised cleaning and repointing.

### External Joinery

The external joinery consists of boarded timber doors and small-paned sliding sash windows, many of which survive albeit in a damaged condition. Most can be repaired and where windows or doors are either missing or damaged beyond repair, they should be replaced with good quality replicas fabricated to identical detail. Many of the windows are currently boarded up with metal sheeting, which should be removed.

### Ceilings and Floors

Internally there is a combination of concrete pot and beam floors, some with additional steel beam supports. Almost all of these floors require some degree of concrete repair. While the upper sides of the concrete floor are covered with narrow timber boarding, the undersides of these concrete floors are simply skimmed and painted and also require repair as many are cracked. Some of the boarding show signs of significant insect attack. In the two-story southern bay the floors are timber framed with boarded floors and plastered ceilings. These are mostly in poor condition but are salvageable with repair.



Fig. I 12. Signs of significant water ingress and ceiling damage in south east corner of market superintendent's house.



Fig. I 13. Ceiling collapse and wood boring insect infestation to second floor in the market superintendent's house.



Fig. I 14. Underside of steel and concrete first floor to market superintendent's house from carriageway.



Fig. I 15. Sitting room of the market superintendent's house.

### Internal Walls & Partitions

Internal faces of external walls are plastered directly onto the underlying masonry, while the partitions and internal linings to dormers in the attic are lath and plaster. Many are badly damaged, particularly in the areas of serious water ingress. There is a balcony on the east side at first floor level which is accessible and entered from the landing.

### Internal Joinery

The internal joinery is modest in design but effective in lifting the overall visual quality of the interior. There are internal panelled doors, the external door to the balcony is partially glazed. Moulded architraves, skirtings, panelling and a simple timber staircase all survive in a reasonable state of repair and most can be salvaged.



Fig. I 17. Damaged, original fireplace in the market superintendent's house.



Fig. I 16. Original staircase in the market superintendent's house.



Fig. I 18. Door to first floor balcony/terrace of the market superintendent's house.

### Decorative Features

There are no decorative features found within the house. Most fireplaces have been removed or replaced with 1950s style tiled fireplaces with integral mantle shelves. All should be replaced with suitable replicas or appropriate salvaged cast iron chimney pieces.

### Decorations & Health and Safety

The house is damp, stained, damaged throughout and will require full decoration on completion of repair programme. There has in the past been widespread infestation by pigeons and possibly rats. Prior to any works being carried out it will be necessary to fumigate and clean out all surface guano and other debris. Risk of Weil's Disease, falling through damaged floors and lead based paints all present hazards for operatives working on the repair of the building.

### Building Services

There are no functioning building services in the house and all will have to be renewed when the house is restored.



Fig.200. Entrance hall to the market superintendent's house.

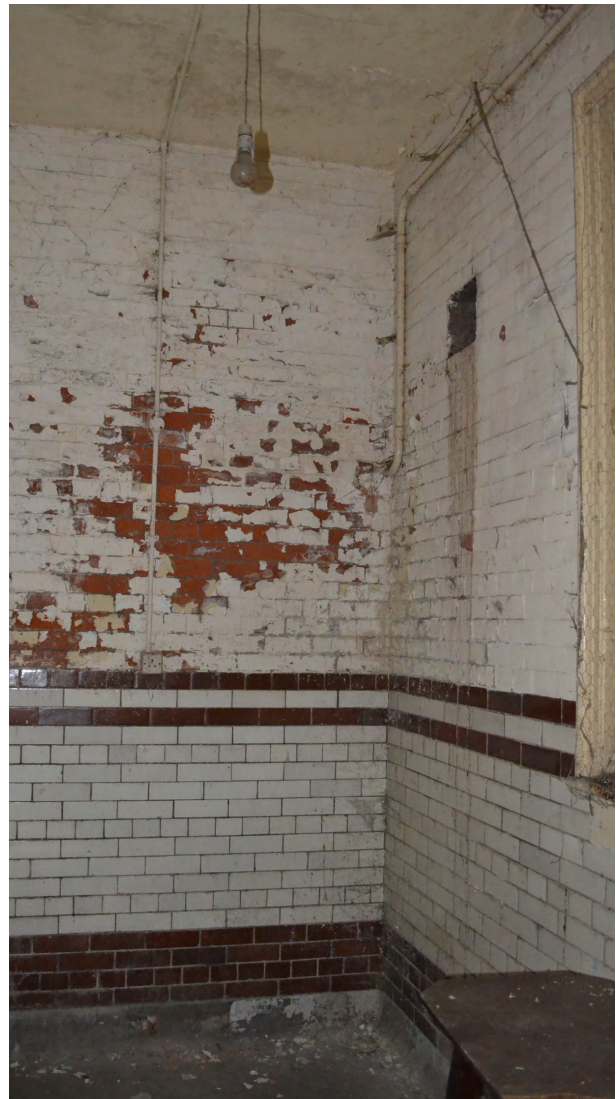


Fig.I 19. Ground floor office to the market superintendent's house.

### Conclusion

While the house is semi derelict, most of the fabric survives and can be retained and either repaired or replicated. It is no longer clear how the house operated – IE where was the kitchen located? Was there an indoor toilet and bathroom at any time? There appears to have been some sort of public room at ground level, possibly an office for the superintendent from where he managed the markets. Further investigation will be necessary to help inform how this fine building, which is modest inside, but like the rest of the market complex, well designed and constructed externally.

## LAUNDRY SUPERINTENDENT'S HOUSE

### General

The laundry superintendent's house stands on the east side of the complex, at the northern end of the east-facing facade of the wet market. Rising to two storeys over a substantial basement, this house is part of a single composition on Lamb Alley that includes the remaining portions of the former laundry. Set back from the street behind decorative, wrought iron railings set on a stone plinth, that protect the area, the entrance combines two doorways, the most striking of which is arched and leads to the ground floor of the laundry. An adjacent, but more discretely placed entrance door, leads to the staircase that provides access to the former laundry superintendent's dwelling. On the north side of the entrance, which steps back from the adjoining wings, is a high gable with a large arched window and a brick chimneystack rising from the northern flank. This wing is part of the laundry complex, which originally extended to the rear, but has been largely demolished.



Fig.201. Two entrance doors on front facade of Laundry Superintendent's house.



Fig.202. View of the laundry superintendent's house from the passage with partially demolished laundry.

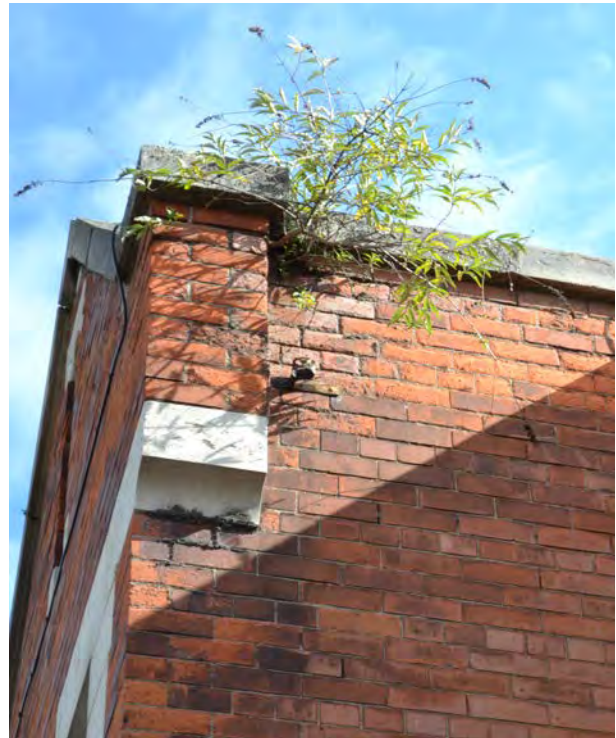


Fig.203. Damaged brickwork and plant growth in laundry superintendent's house.

### Roof & Rainwater Disposal System

The roof is covered with natural slate with clay ridges, lead valleys and cast iron rainwater goods. From the high level vantage point on the roof of the dry market and also from a ground level inspection, the roof coverings appear to be largely intact with only small isolated areas of relatively minor damage. The house is covered with Westmoreland Greens, similar to that found on the roofs of the two market halls. From a distance the covering of the laundry wing appears to be slightly different in colour and may be a natural Welsh slate. The gables are finished with well detailed Portland stone copings and the only area of serious vulnerability is to the verges of the western gable of the roof of the laundry wing, where the adjoining portion of the building has been demolished and the slate not properly weathered into the cross wall. Most of this roof is in a reasonable condition and can most likely be retained and repaired, however, closer inspection might prove that more extensive works are necessary. The rainwater goods remain intact and might also remain serviceable following stripping, repair and repainting. This too, however, cannot be

confirmed until a closer inspection has been carried out. There are also some areas where a parapet is carried up to form parapet gutters, however, these were inaccessible during our survey were not inspected. . Given the general lack of maintenance throughout the market complex, some repairs should be anticipated here.



Fig.204. Rear facade of Laundry Superintendent's house and site of former laundry.



Fig.205. General view of roof of Laundry Superintendent's house.



Fig.206. General view of the Laundry Superintendent's house on Bull Alley.

### Stacks and Flashings

There are three brick chimney stacks, one on the northern gable serving the laundry wing, one on the west gable of the south wing serving the house and a third between the laundry and dwelling house that appears to serve both. From a distance the stacks appear to be generally plumb, with no obvious leaning. However, all are badly damaged with many of the bricks having lost their facings. This appears to be the result of re-pointing, probably within the last thirty years, using hard cement rich mortar. Extensive repairs will be necessary and some brick replacement, during the repointing. The moulded cappings to the chimneys appears to be cast in sand and cement and these have also deteriorated and show signs of damage so repairs should be anticipated to all of the stacks. that has accelerated the decay of the bricks. Any lead flashings that are visible from the ground appear to be in a reasonable state or repair, but should be inspected at close quarters. Given the general lack of maintenance throughout the market complex, some repairs should be anticipated here.

### External Walls

The external masonry, like the market building, is well constructed in brick, granite and Portland Stone. This survives in a reasonably good state of repair, but will require some localised cleaning and repointing.

### External Joinery

The external joinery consists of boarded ledged, braced and battened, timber doors and small-paned sliding sash windows, many of which survive albeit in a damaged condition, and delicate steel casement windows from the W20 range. These are original dating from the early twentieth-century and include leaded, small pane glazing and decorative window furniture. Some aluminium windows have been installed in more recent times, and these are much less attractive than the W20 windows they are trying to imitate. Most of the original windows can be repaired and where windows or doors are either missing or damaged beyond repair, they should be replaced with good quality replicas fabricated to identical detail. Some of the doors and windows are currently boarded up with metal sheeting, which should be removed.

### Ceilings and Floors

Internally there is a combination of concrete pot and beam floors, some with additional steel beam supports and timber floors. Almost all of the concrete floors require some degree of concrete repair. While the upper sides of the concrete floor are covered with narrow timber boarding, the undersides of these concrete floors are simply skimmed and painted and also require repair as many are cracked. The dwelling is currently occupied and in a reasonable state of repair, while the laundry section remains in a very poor condition. In the large ground floor laundry room a modern suspended ceiling has been installed, areas where this is missing reveal vertical timber boarding running between the purlins, similar to that found on the main market roofs. Given the reasonably good condition of the roof coverings it is likely that these can be retained and repaired. While most of the floors on the ground and basement levels, were probably finished as floated concrete, some areas were finished with clay tiles and what appears to be early vinyl tiles, the latter of which may contain asbestos.



Fig.208. Open well in concrete ground floor where basement staircase removed in laundry superintendent's house.



Fig.207. Under side of concrete ground floor of the laundry superintendent's house.

### Internal Walls & Partitions

Internal faces of external walls are plastered directly onto the underlying masonry, while the partitions and internal linings to dormers in the attic are lath and plaster. Many are badly damaged, particularly in the areas of serious water ingress. While these are intact and in a reasonable condition in the dwelling, the parts of the building formerly occupied by the laundry are in a very poor condition, with some partitions demolished and others in a poor condition. All missing partitions should be renewed.

### Internal Joinery

Like the market superintendent's dwelling, the internal joinery is modest in detail but effective in lifting the overall visual quality of the interior. There are panelled doors, moulded architraves, skirtings and a simple timber staircase all of which survive in a reasonable state of repair and most can be salvaged. In the basement and laundry wing, the joinery is in a much poorer condition and require almost full replacement. A concrete staircase leading from the ground floor to the basement has been removed together with the brick partitions that once enclosed it. These should be reconstructed to match the exiting detail.

### Decorative Features

There are some interesting, simple Arts and Crafts style fireplaces all of which should be preserved, repaired and retained. Apart from these and the relatively modest joinery there are no other decorative elements within this building.

### Dampness

There are signs of dampness throughout the basement area, where most of the painted surfaces are peeling and damaged. Brick walls and partitions are stained and floor slabs damaged and crumbling in many places. Extensive damp treatments will be required in these areas that are currently largely unventilated.



Fig.209. Corridor in former laundry.

### Decorations & Health and Safety

The house is currently dry and clean, while the laundry is damp, stained, damaged throughout and will require full re decoration on completion of repair programme. In the laundry areas there has in the past been some infestation by pigeons and possibly rats. Prior to any works being carried out it will be necessary to fumigate and clean out all surface guano and other debris. Risk of Weil's Disease, falling through unguarded openings in the ground floor and lead based paints all present hazards for operatives working on the repair of the building. There is a significant accumulation of debris, old furniture and other artefacts of little value in the ground floor of the laundry section, with builders rubble and salvaged building material in the basement, all of which will have to be cleared out before repair work begins.

### Building Services

While there are functioning building services in the dwelling, only some limited lighting survives in the basement. All will require renewal when the house and adjoining former laundry building are being restored.

### Conclusion

Although the dwelling portion of the house is currently habitable, the laundry part is largely derelict. However, most of the fabric survives and can be retained and either repaired or replicated. Missing elements such as the ground floor to basement staircase will have to be replaced. Both of the western gables were constructed as internal cross walls that are now exposed to the elements due to the demolition of the main laundry complex that once stood between the laundry superintendent's house and the house of the market superintendent. Further research will be necessary to determine how much of the demolished section should be rebuilt. (Some the stones stored in the passage probably come from this now missing building. Like the rest of the market complex, the laundry superintendent's dwelling and surviving portion of the laundry are well designed and constructed externally with the same high quality, in the attention to detail and choice of materials.

## CURTILAGE

The site boundary follows the building line on the west, south and most of the east sides of the building. Only the front steps project beyond it at the main entrance on Francis Street, while in front of the former laundry superintendent's house and laundry on Lamb Alley, there is an area, to light the basement of these buildings. The area is heavily overgrown and full of rubbish, while the retaining walls around the area are damp and require cleaning and repointing. As noted previously a passage runs from Francis Street to Lamb Alley along the northern façade of the two market buildings, entered through gateways adjoining the two superintendent's dwellings. The area between these two houses was once almost completely covered with single-storey buildings that contained offices, locker rooms, a staff canteen and other parts of the laundry. Within the largely single-story complex the only outside space was a yard at the west end, that was entered from Francis Street through the carriageway running under the market superintendent's dwelling. A large brick chimney also stood in this area adjoining the passage.



Fig.211. Aerial view of Iveagh markets and site of demolished laundry.

Today the entire area has been almost totally excavated and like the interiors of the two market halls, no temporary propping has been put in place to support adjoining party and party boundary walls. Dense plant growth has colonised this space all of which will have to be removed to properly assess condition. It is likely that some structural stabilisation will be necessary to the party boundary walls on the north side and also to the superintendent's dwellings and what remains of the laundry on the east and west sides. Subject to the archaeological finds in this area the back-filling and stabilisation might include the construction of a basement level.



Fig.210. Salvaged cut stone in passage probably from demolitions of former laundry buildings.

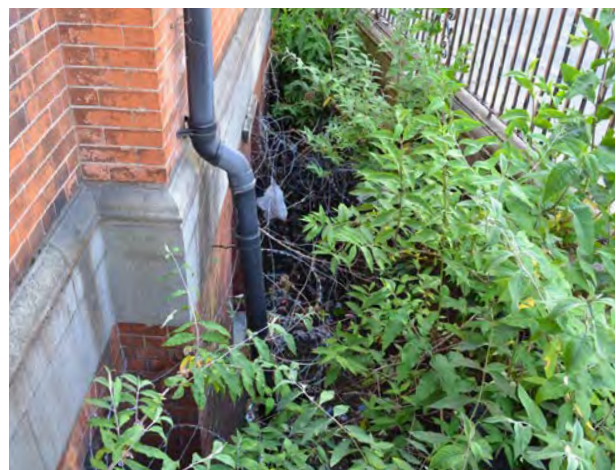


Fig.212. Overgrown area in front of the laundry superintendent's house.



Fig.213. General view of passage on north side of the two market halls.



Fig.214. Site of former laundry buildings – now demolished and excavated.

## HEALTH & SAFETY

There are a number of health and safety hazards to be considered prior to the implementation of any works to the market buildings and other structures on the site. While a risk assessment and preliminary health and safety plan are outside the scope of this report it is appropriate to include a summary of the main risks that may be encountered for anyone commencing work on this site. This list is not exclusive and doubtless a health and safety plan will be commissioned in due course. However, as health and safety will be a major consideration when commencing works, costs for this should be allowed within the quantity surveyor's costs estimates.

A preliminary list of hazards identified during the survey is as follows:

1. Risk of falling from heights through unguarded drops or through fragile roof coverings.
2. Risk of disease from pigeon droppings, dead pigeons or rat infestations.
3. Risk of unbanked excavations.
4. Risk of unstable walls and other structures adjoining excavations.
5. Risk of collapse of masonry in external walls where poorly supported brick openings have been made.
6. Risk of collapse of leaning masonry in parapets.
7. Risk of masonry falling from heights.
8. Risk of glass or slates falling from heights.
9. Risk of asbestos in vinyl floor coverings.
10. Risk of vinyl in laggings to heating pipework.
11. Risk of infection from needles abandoned by intravenous drug users.
12. Risk of ingesting dust and particularly dust that may contain lead based paints.

## CONCLUSIONS

The build quality of the Iveagh Markets matches that of any civic building in Dublin. The building has fallen into decay and many of the most recent interventions have been unsuccessful and at times damaging. Of equal importance is the social significance of this building, both in its designed use and the generous act of philanthropy that financed it. The Iveagh Markets is one of the most significant buildings ever constructed in Dublin and a central part of the Guinness Legacy that has enriched the lives of Dubliners and visitors alike. It is of the highest level of urgency that the future of this important building is secured. While it is very badly damaged and will no doubt cost a significant sum to restore, it is hard to think of any other building in Dublin that merits such attention, or which has the potential to be one of the city's more attractive landmark buildings.

Despite the high quality of the architectural design, construction, materials used and the careful detailing, the building today is in a very poor condition due to a combination of serious neglect and several damaging interventions. The building is in an advanced state of dereliction parts of which are now unsafe. Reversing the excavation will be particularly challenging, as will be the repair of the roof and external walls, including the rebuilding of the demolished sections of brickwork. The scale of the building alone will result in high costs, however, on a more positive note the damage can be repaired fully, as the two main elements – of perimeter walls and internal frame are largely intact and what is missing can be readily replaced. Similarly much of the fine external joinery and decorative metalwork survives intact and can be readily restored. Those elements of the building that will require renewal include – concrete, glass, timber linings, slate and lead, albeit some slates can be salvaged and renewed. The most significant artistry and engineering prowess survives in the masonry walls and the structural frame – both of which survive in a relatively intact state. As the building is unique in Dublin and also of considerable significance in a European context every effort should be made to ensure it is fully restored and returned to a suitable and viable new use as soon as possible.



Fig.215 - 218. General images of interior and exterior of markets highlighting areas in urgent need of attention and repair.

### 3.0 CONSERVATION STRATEGY

#### **General**

On one level the repair of the main Iveagh Markets building is relatively straight forward as it involves so few elements. There are just three major elements – masonry walls, metal frame and roof (including soffits and rainwater disposal,) and just three secondary elements – concrete floors (including stairs,) external joinery and decorative ironwork. Of these elements – the walls, metal frames, external joinery and decorative ironwork are in a reasonable state of repair. The problem is that the roof and rainwater disposal system are in a very poor state of repair and are compromising the masonry walls. Equally serious is that much of the ground floor slab is missing, along with up to three meters of fill that formerly supported it. Most damaging is the failing rainwater disposal system, but this cannot be repaired without repairing the roof, and the roof cannot be repaired without first back filling and reinstating the ground floor slab, to facilitate the works and support the internal scaffolding. There is also the health and safety challenge that will be presented by the need to remove old paint, possibly with a lead content. Conservation and repair costs will continue to increase the longer the buildings are left in their current semi-derelict condition.

#### **Outline Repair Strategy**

While the masonry, metal frame, joinery and decorative ironwork could be repaired in a later phase or phases - the minimum works necessary for the first phase includes – floors, roof and rainwater disposal. Due to the need for internal scaffold throughout the two market halls to facilitate repair of the roof it may also be cost effective to strip and paint the metal frame during this preliminary phase. With the reconstruction of the ground floor slab, future services strategies will have to be designed and ducts and drainage runs included to facilitate these efficiently. It may also be prudent to construct some basements within the back filling and reinstatement of the floors as this will enhance the potential reuse of the building once it has been restored. Future building services installations will depend on future uses so it would

be prudent to explore some of these at an early stage. It is likely that the majority of new services will be exposed and surface mounted or suspended, but there will be a need for areas of plant, toilets and storage that could readily be accommodated underground in a basement area subject to finding an acceptable resolution of the archaeology. A further important benefit of constructing the superstructure (ie floor slab and retaining walls) of a new reinforced concrete basement structure, is that the retaining walls can be used to consolidate and stiffen the undermined pad foundations and piers that support the columns.

For the disturbance to the floor of the Wet Market it will be necessary to back fill the excavations carefully to preserve the archaeological remains that were uncovered during the excavations. It will therefore not be feasible to have a basement in this part of the markets complex. However, there may be some limited scope for service ducts and small plant room areas to be located well away from the surviving remains. On back-filling the Wet Market floor a new floor slab can be installed to support the temporary scaffolding. Further back-filling of excavations will also be necessary prior to any works being carried out in the Wet Market, a major clear out will be necessary. A wide range of building materials, furniture miscellaneous objects, signage and an old van, will have to be removed. This material includes some material salvaged from the building that should be retained for reuse within the conservation works. It will be necessary to identify and label very carefully these stockpiles to avoid the risk of valuable historic fabric from the buildings being removed. This will also apply to the external stockpiles of cut stone.

#### **Future Proofing**

The ground floor slab does not need to be constructed at this stage as the scaffolding required for re-roofing can be erected and supported off the basement slab. This will keep the future use of the basement more flexible and reduce the risk of abortive works. It would, also be prudent to consider the future, long term environmental needs of the building and to accommodate service runs and drains to minimise disruption and reduce costs when the building is eventually restored to a new use.



Fig.219 - 221. Excavated ground floor slabs in both halls resulting in precariously exposed foundations of major structural members. Severe rot infestation to underside of roof boarding.

## 4.0 STRUCTURAL SURVEY DRAWINGS

Drawings compiled by:  
Casey O' Rourke Associates

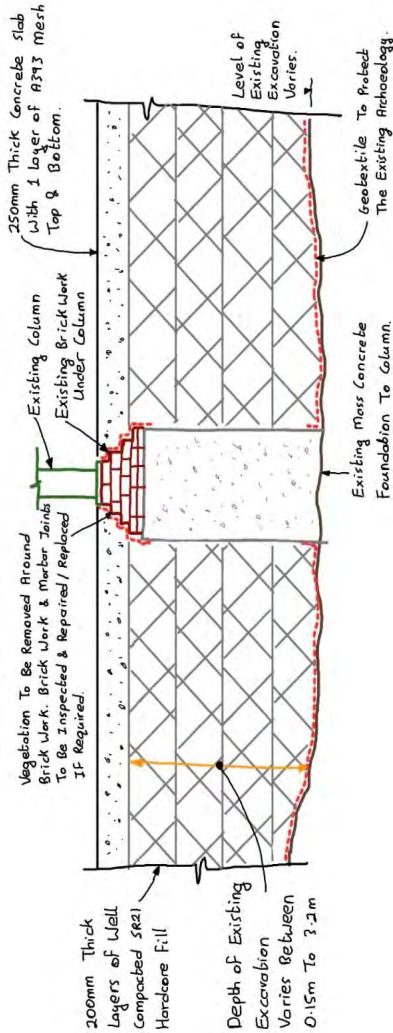
Project:  
Iveagh Markets, D8

### Drawing List:

- Sk02 Wet Market Grd flr
- Sk03 Wet Market Walls
- Sk04 Wet Market Roof
- Sk05 Wet Market Drainage
- Sk06 Laundry Attendants Hse
- Sk07 Works to External areas between two houses
- Sk08 Works to Superintendents Hse Grd & 1st
- Sk09 Works to Superintendents Hse 2nd & roof
- Sk10 Dry Market Basement & Grd
- Sk11 Dry Market Walls
- Sk12 Dry Market Mezz
- Sk13 Dry Market Roof plan
- Sk14 Dry Market Roof Section
- Sk15 Dry Market Drainage
- Sk16 Dry Market Proposed Works to Roof Access
- Sk17 Wet Market Proposed Works to Roof Access

Note any material introduced below the geotextile and there for in contact with Archaeology to be clean and have no lime or cement content.

See sketch SK05 for drainage details.



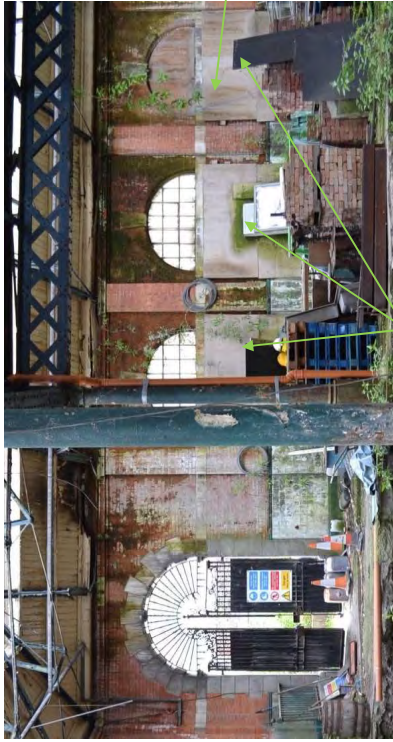
250mm Concrete slab with 1 layer of A393 mesh top and bottom with 50mm cover, laid to falls to drainage channels and gullies, on 200mm thick layers of SR21 hardcore fill on Geotextile to protect the existing Archaeology.

Depth of existing excavation varies. Vegetation and all other deleterious material to be removed before excavation is back filled.

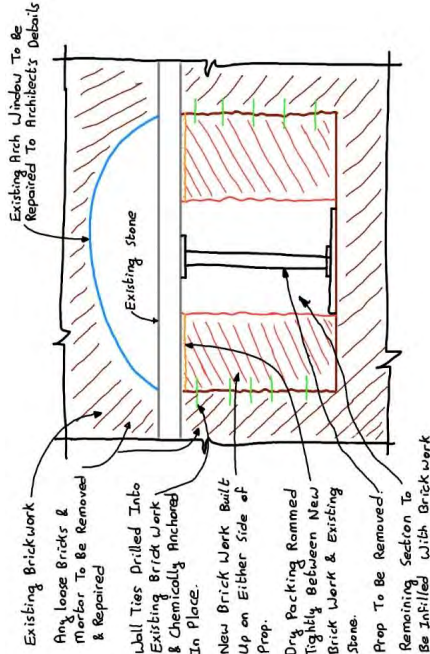
Existing foul sewer to be inspected and repaired. New surface water line to be installed. See sketch SK05 for drainage details. Existing concrete slab to be cut out to allow for drainage to be installed. Concrete slab to be reinstated with a new 250mm thick concrete slab with 1 layer of A393 mesh top and bottom, with H12 bars doweled into existing slab at 200mm centres.



Drawing Stage: <b>PRELIMINARY</b>	Project Details: Repairs to Existing Structure		Date: 16-07-18		Behan House, 10 Lower Mount Street, Dublin 2. D02 HT71 Tel: +353 (0)1 661 1100 e-mail: info@cora.ie web: www.cora.ie	
	Site Address:	<b>Iveagh Markets</b>	Project Number: 1834		<b>CORA</b> CONSULTING ENGINEERS	
	Client:	P2	Scale: NTS		Level: SK02	
	Architect:	Howley Hayes Architects	Project: Wet Market		Revision: P2	
REV. No.		ISSUED BY	Drawing Title: Proposed Work to Ground Floor		Type: SK02	
P1		DATE	Project: Wet Market		Discipline: SK02	
P2		DATE	Project: Wet Market		Discipline: SK02	
Issued for Costings		DATE	Project: Wet Market		Discipline: SK02	
Issued for Information		DATE	Project: Wet Market		Discipline: SK02	
REVISION DESCRIPTION		DATE	Project: Wet Market		Discipline: SK02	



Openings to be bricked up with brickwork to Architect's details. Stainless steel wall starters to be drilled and chemically anchored into existing wall on either side of opening. 2 no. wall ties at 225mm centres vertically. Dry packing to be rammed tightly between new brickwork and existing stone. Brickwork to be built up on either side of the prop. Prop to be removed when the sections on either side are completed. Remaining section to the infilled with brickwork.

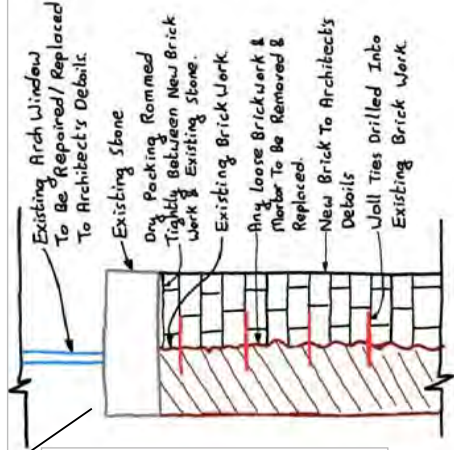


Any loose bricks and mortar at new opening to be removed and repaired. Edge of reveals to be made good with new brickwork.

Openings to be secured to prevent unauthorised access, to Architect's details. Note ventilation to be maintained.



Repair half defaced brickwork to the East arches. Any loose mortar and bricks to be removed. New brickwork wall to be built against the defaced brickwork. Stainless steel wall ties to be drilled and chemically anchored into existing defaced brickwork at 450mm centres vertically and horizontally. Wall ties to be staggered. Dry packing to be rammed tightly between new brickwork and existing stone.

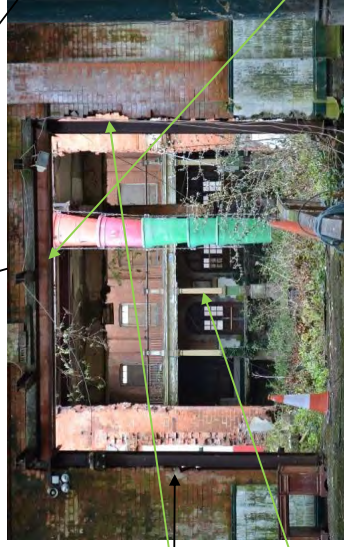
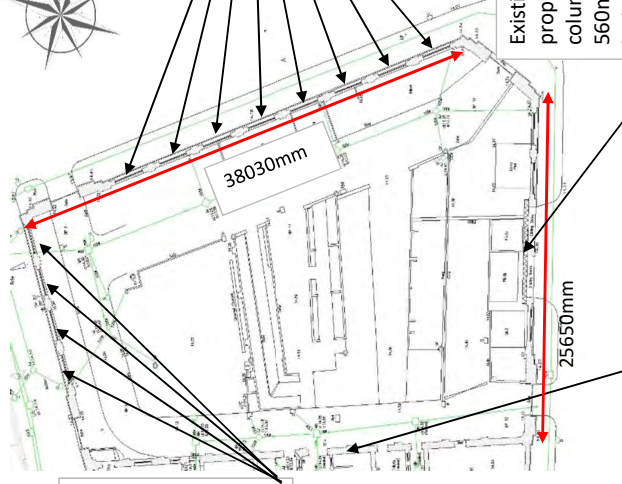


Existing wall to be temporarily propped with needles. UC 305 central column encased in a new 600mm x 560mm brickwork pier, approx. 5.30m high. Two number goal post frames to be installed to support brickwork over openings. 4 no. UC 254 beams, approx. 3.20m long on 2 no. UC 254 columns, approx. 5.30m high.

Size of beams and columns to be reviewed on site. Needles to be removed and brick work to be repaired.

Vegetation to be removed from walls. Any loose bricks & mortar to be removed and repaired.

Note plywood to be removed to allow for the condition of existing wall to be inspected. Allow for opening to be bricked up.



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								RK	LE	LE	16-07-18
Project Details: Repairs to Existing Structure								Iveagh Markets		Scale:	Project Number:
								Dublin 8		NTS	1834
Site Address:		P2		Issued for Costings.		16-07-18		RK			
Client:		P1		Issued for Information		09-07-18		RK		Project:	
Architect:		Howley Hayes Architects		REV. No.		DATE		ISSUED BY		Originator:	
				REVISION DESCRIPTION				Proposed Works To Walls.		Zone:	
										Level:	
										Type:	
										Discipline:	
										Drawing No.:	
										Revision:	
										P2	
										SK03	
										CORACONSULTING ENGINEERS	
										Behan House, 10 Lower Mount Street, Dublin 2, D02 HT71 Tel: +353 (0)1 661 1100 e-mail: info@cora.ie web: www.cora.ie	

Timber wall plate damaged in places due to water ingress. Timber wall plate to be repaired with new treated timber wall plate (approx. 270mm x 90mm). Allow for timber wall plate to be replaced around perimeter.

Section of parapet to be repaired. Parapet to be dismantled and rebuilt with brickwork to Architect's details and lime mortar. Brickwork parapet approx. 1000mm high by 440mm wide.

Existing timber purlins to be inspected and repaired and/ or replaced were required. Timber purlins approx. 270mm x 100mm. Allow for 20% of purlins and T&G boarding to be replaced in main roof, 50% of purlins and T&G boarding to be replaced at gutters and 100% of purlins and T&G boarding to be replaced around the perimeter of the wet market.

Outline of gutter.

This image shows a close-up of the steel truss structure at the top of the wall. A black arrow points to the connection between the wall and the roof truss, highlighting the structural details.

Existing timber louvres to be inspected for rot, repairs to Architect's details.

Roof finish, glass and gutters to be repaired to Architect's details.

See SK14 for paint removal and paint specification.

Trusses and columns at down pipe locations to be repaired. Corroded section of steel to be removed and replaced with approx. 20mm thick plate welded on site to the existing section. Trusses to be temporary propped during the process.

End plate of trusses to be repaired and replaced with similar detail. Trusses to be temporary propped during the process.

All down pipes to be inspected and repaired to Architect's details.

Battens (approx. 30mm x 50mm) and solid T&G timber boarding (approx. 34mm thick) to be inspected for deterioration and repaired and / or replaced as required.

Drawing Stage: **PRELIMINARY**

<b>PRELIMINARY</b>
Project Details: Repairs to Existing Structure

Site Address:	Iveagh Markets
Client:	

Archited:	Howley Hayes Architects
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P1	Issued for Information
REV. No.	REVISION DESCRIPTION

REV. No.	REVISION DESCRIPTION
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P2	Issued for Costings.

P2	Issued for Costings.
P1	Issued for Information



P2	Issued for Costings.	16-07-18	RK

P2	Issued for Costings.		
P1	Issued for Information		
		16-07-18	RK
		09-07-18	RK

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				RK	LE

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P2	Issued for Costings.	16-07-18	RK	Dublin 8
P1	Issued for Information	09-07-18	RK	Wet Market

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				Project Name:		

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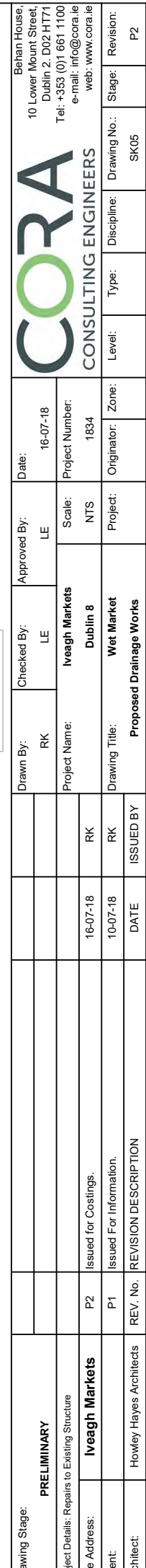
P2	Issued for Costings.	16-07-18	RK	Dublin 8	NTS	1834
P1	Issued for Information	09-07-18	RK	Wet Market	Project:	Zone:

	Level:	Type:	Discipline:	Drawing:	SK

Level:	Type:	Discipline:	Drawing:
			SK

10 Lower Mount Street Dublin 2. D02 HT71 Tel: +353 (0)1 661 1100 e-mail: <a href="mailto:info@cora.ie">info@cora.ie</a> web: <a href="http://www.cora.ie">www.cora.ie</a>	Behan House
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lo.:	Stage:	Revision:
		P2



Openings to be secured to prevent unauthorised access, to Architect's details. Note ventilation to be maintained.

Remove backfill against back wall of basement.

Make filler joist floor safe by tapping off spalling concrete at steel beam locations. Steel beams to be protected with corrosion protection paint.

Existing floors formed of filler joist construction of historic wrought iron or steel joists sections approx. 150mm deep with clinker concrete cast in-situ between joists. Span of floor joists.

Existing water tanks.

Remove false ceiling in Laboratory to allow roof structure to be inspected and made safe.

Weather detail of ledge to Architect's details.



Ends of walls to be carefully dismantled back to existing corner. Corner to be made good in bricks to match existing with lime mortar.

Handrail around stairs to be reinstated, to Architect's details.

New 215mm wide solid blockwork wall built along stairs to support ground floor.

Stairs to be reinstated to Architect's details.

Downstand beams.

## BASEMENT

10150mm

## GROUND FLOOR

Stairs to be reinstated to Architect's details.

**ASBESTOS SURVEY AND  
REMOVAL BY SPECIALIST.**

[illegible]



LAUNDRY ATTENDANT'S HOUSE

Removed backfill along the rear basement wall. A minimum of 1m wide set back required. Backfill to be sloped from this point.

Existing boundary wall to be inspected once the vegetation is removed.



SUPERINTENDENT'S HOUSE

Side passage to be cleared out. Stones and capping to be placed in storage in the Wet market. Stones to be crated and put on pallets by experienced mason.



WET MARKET

DRY MARKET

Image From Google Maps

Super-Rail Plus bw  
H46 / W6 / B



Crash barrier required between drop to existing basement and walkway along Iveagh Markets. Approximately 51m of crash barrier required.


Image From saferoad

Crash barrier.



Image From maps



Drawing Stage:								Drawn By:		Checked By:		Approved By:		Date:		<div> CONSULTING ENGINEERS</div> <div>Behan House, 10 Lower Mount Street, Dublin 2. D02 HT71 Tel: +353 (0)1 661 1100 e-mail: info@cora.ie web: www.cora.ie</div>					
										LE		LE		16-07-18							
Project Details: Repairs to Existing Structure								Project Name:		Iveagh Markets				Project Number:							
Site Address:		P2		Issued for Costings.		16-07-18		RK		Dublin 8		NTS		1834							
Client:				Issued For Information.		09-07-18		RK		External Area		Project:		Originator:						Zone:	
Architect:		Howley Hayes Architects		REVISION DESCRIPTION		DATE		ISSUED BY		Between Laundry & Superintendents		Type:		Discipline:		Drawing No.:		Stage:		Revision:	
																SK07				P2	



Attic to be cleaned out and treated for woodworm and rot.

Existing timber rafters to be inspected and replaced and / or strengthened with similar timber sections were rotten. Allow for 10 no. rafters to be replace.

Gutters, roof drainage and downpipes to be cleaned out and made good.

Roof finishes to be repaired in accordance to Architect's details.

Timber floor to be removed and repaired with new timber joists similar in size as existing, allow for 8 no. 150 x 44mm timber joists to be replaced. New timber joists on either a stainless steel angle or treated wall plate isolated from damp brickwork.

Floor span direction. Timber Joists.

Rafters in this area maybe damaged due to a leak in the roof. Rafters to be inspected and replaced where rotten. Allow for 8 no. 125 x 44mm rafters and new wall plate.

All vegetation at roof level to be removed.

Remove vegetation from gable wall. Remove and reinstate coping on dpcs. Brickwork and mortar joints to be repaired.

Floor and stairs to be thoroughly cleaned to remove pigeon guano. Timber to be treated for woodworm and rot. Timber joists to be exposed and inspected. Rotten or over notched timber joists to be replaced and / or strengthened with similar size timber as existing joists. Allow for 25% of timber floors and joists to be replaced.

Openings to be secured to prevent unauthorised access, to Architect's details. Note ventilation to be maintained.

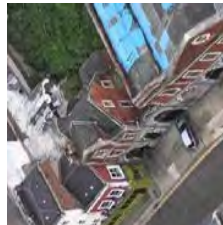
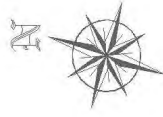
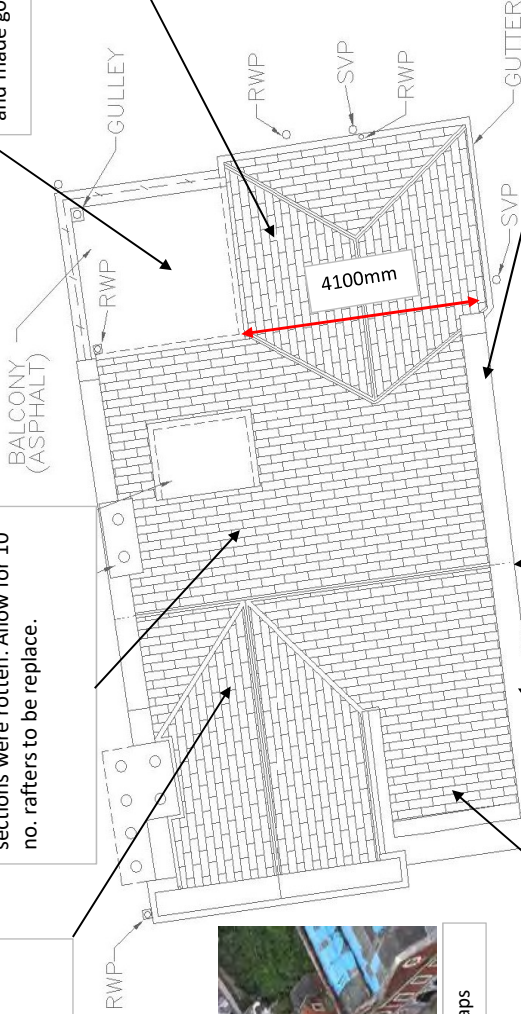


Image From imaps

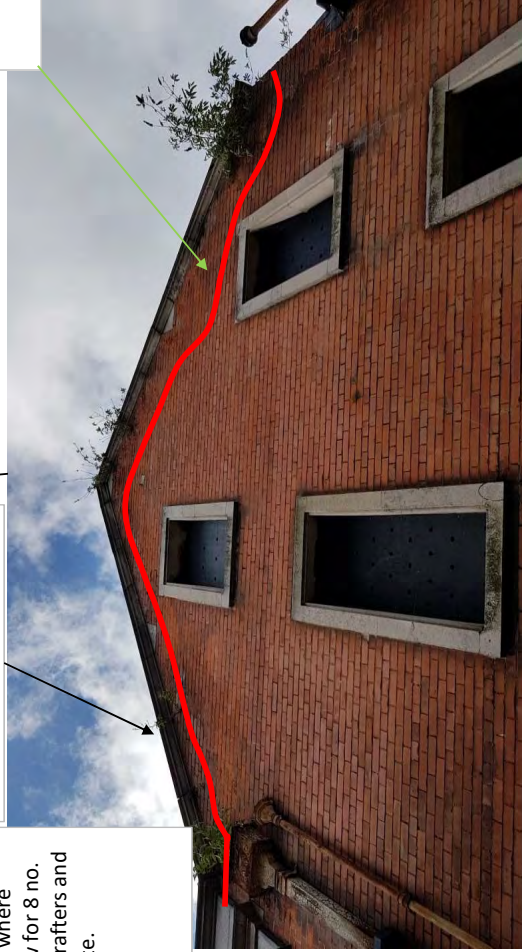


Adjoining Building

FRANCIS STREET

2<sup>nd</sup> FLOOR

6500mm



Drawing Stage:

PRELIMINARY

Project Details: Repairs to Existing Structure

Site Address:

Iveagh Markets

Client:

Howley Hayes Architects

Architect:

REV. No.

REVISION DESCRIPTION

DATE

ISSUED BY

Drawn By:

RK

Checked By:

LE

Approved By:

LE

Date:

16-07-18

Project Number:

1834

Originator:

Zone:

Level:

Type:

Discipline:

Drawing No.:

SK09

Stage:

P2

Revision:

P2

**CORA**  
CONSULTING ENGINEERS

Behan House,  
10 Lower Mount Street,  
Dublin 2. D02 HT71  
Tel: +353 (0)1 661 1100  
e-mail: info@cora.ie  
web: www.cora.ie







Underside of mezzanine to be made safe by tapping off any spalling concrete. Steel beams and columns to be protected with corrosion protection paint.



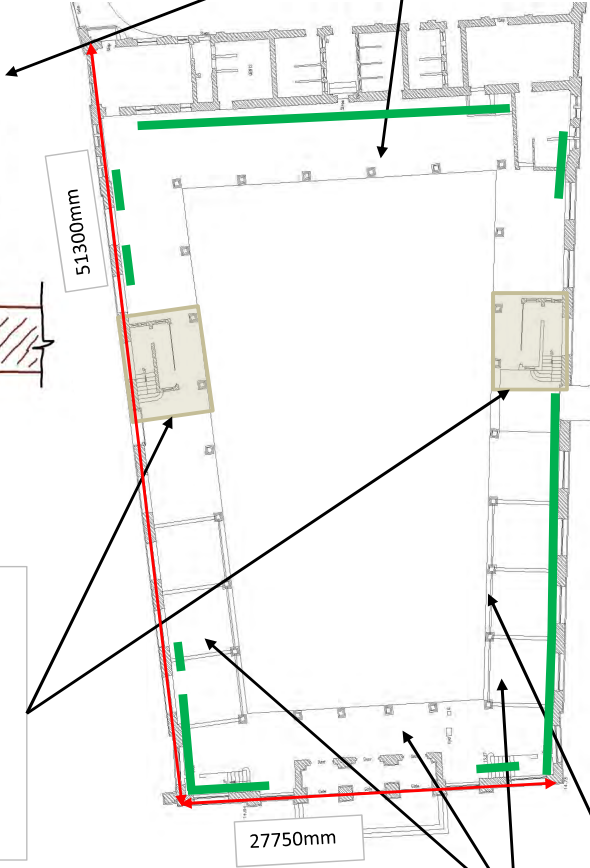
Brickwork to be repaired where temporary drainage passes through existing wall with new brickwork. Dry packing rammed tightly between new brickwork and existing brickwork.

Vegetation to be removed from mezzanine floor and walls. Any loose bricks or mortar to be removed and repaired. Note areas highlighted in green likely to be more severely deteriorated.

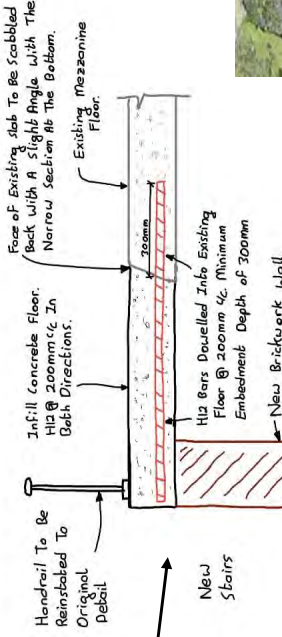


Handrail around mezzanine to be inspected for rust and any weak point. Sections showing deterioration is to have a new temporary hand rail erected.

New brickwork walls to be built up to the underside of Mezzanine. Temporary steel beams and columns to be removed. Remaining section of slab to be infilled with a new concrete slab with bars dowelled in the existing slab.



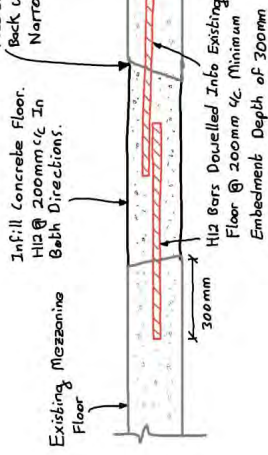
Vegetation to be removed from mezzanine floor and walls. Any holes in the mezzanine floor to be infilled with a concrete slab with bars dowelled into the existing slab.



See SK14 for paint removal and paint specification.



Face of Existing slab To Be Scabbled Back With A Slight Angle With The Narrow Section At The Bottom



Drawing Stage:		PRELIMINARY		Date:		16-07-18		Behan House, 10 Lower Mount Street, Dublin 2. D02 HT71 Tel: +353 (0)1 661 1100 e-mail: info@cora.ie web: www.cora.ie	
Project Details: Repairs to Existing Structure		Project Name:		Iveagh Markets		Project Number:		1834	
Site Address:		16-07-18		Scale:		NTS		Level:	
Client:		09-07-18		Project:		Proposed works to Mezzanine		Type:	
Architect:		REV. No.		ISSUED BY		DATE		Discipline:	
Howley Hayes Architects		P2		Issued for Costings.		RK		Drawing No.:	
		P1		Issued For Information.		RK		Stage:	
		REV. No.		REVISION DESCRIPTION		DATE		Revision:	
								SK12	
								P2	



All down pipes to be inspected and repaired to Architect's details.

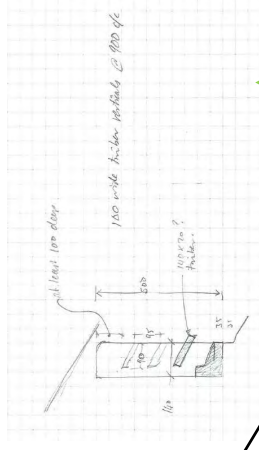
See SK14 for paint removal and paint specification.



Existing timber purlins to be inspected and repaired and/or replaced were required. Timber purlins approx. 270mm x 100mm. Allow for 20% of purlins and T&G boarding to be replaced in main roof, 50% of purlins and T&G boarding to be replaced at gutters and 100% of purlins and T&G boarding to be replaced were highlighted in green on sketch SK12 around perimeter.

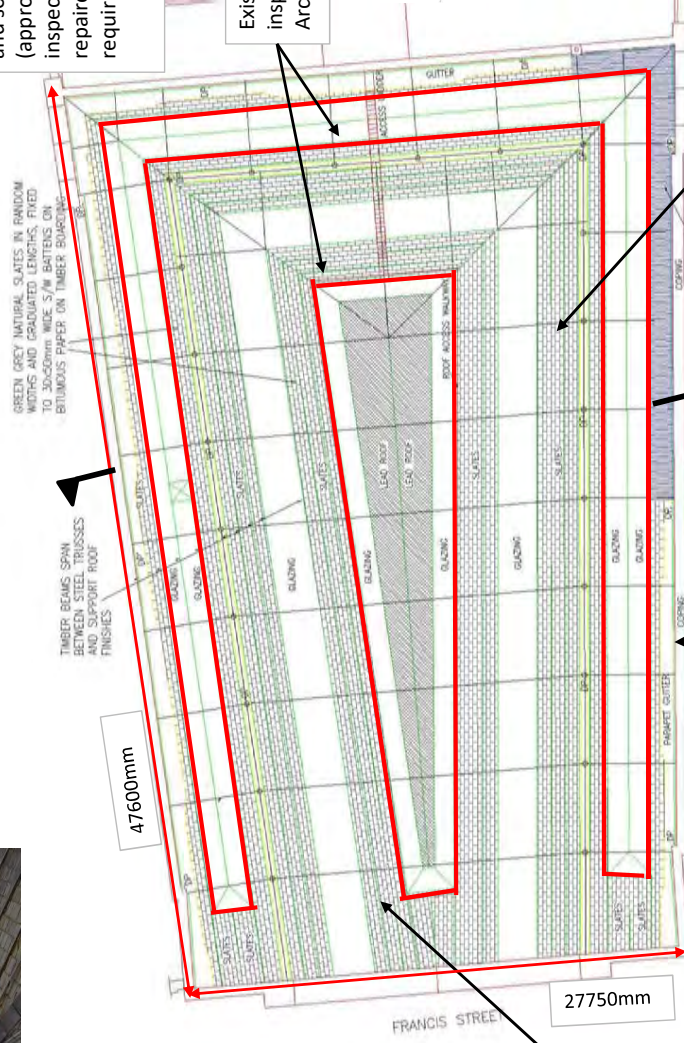


Roof finish, glass and gutters to be repaired to Architect's details.



Battens (approx. 30mm x 50mm) and solid T&G timber boarding (approx. 34mm thick) to be inspected for deterioration and repaired and / or replaced as required.

Existing timber louvres to be inspected for rot, repairs to Architect's details.



Timber wall plate damaged in places due to water ingress. Timber wall plate to be repaired with new treated timber wall plate (approx. 270mm x 90mm), wall plate isolated from damp brickwork. See green areas on SK12.

Existing steel trusses, beams and columns to be inspected for deterioration and repaired were required. All steel to be sand blasted on site and painted on site with a corrosion protection paint.



Drawing Stage: <b>PRELIMINARY</b>	Project Details: Repairs to Existing Structure		Date: 16-07-18		Approved By: LE		Checked By: LE		Drawn By: RK		Project Name: Iveagh Markets Dublin 8		Scale: NTS		Project: 1834		Originator: Zone:		Discipline: SK13		Type: Level:		Stage: Revision: P2	
	Site Address: Iveagh Markets		P2		Issued for Costings.		16-07-18		RK		Project: 1834		Scale: NTS		Project: 1834		Originator: Zone:		Discipline: SK13		Type: Level:		Stage: Revision: P2	
	Client: Howley Hayes Architects		P1		Issued For Information		09-07-18		RK		Project: 1834		Scale: NTS		Project: 1834		Originator: Zone:		Discipline: SK13		Type: Level:		Stage: Revision: P2	
	Architect: Howley Hayes Architects		REV. No.		REVISION DESCRIPTION		DATE		ISSUED BY		Proposed Works to Roof.		Scale: NTS		Project: 1834		Originator: Zone:		Discipline: SK13		Type: Level:		Stage: Revision: P2	

**CORA**  
CONSULTING ENGINEERS

Behan House,  
10 Lower Mount Street,  
Dublin 2. D02 HT71  
Tel: +353 (0)1 661 1100  
e-mail: info@cora.ie  
web: www.cora.ie

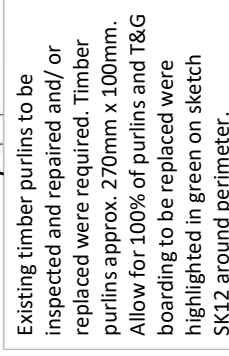
Based on the age and inspection of the paint layering on steel and timber surfaces on site it should be assumed that the existing paint on all surfaces contains lead. To date no specific testing for lead has been carried out but prior to compilation of any tender package paint samples should be tested for lead and lead compounds. For the purposes of this costing it should be assumed that full encapsulation of any areas undergoing paint removal is required along with suiting of operatives and monitoring of operatives health.

## Paint Specification

All iron and steelwork surfaces are to be corrosion protected and should be blasted to SA 2.5 and immediately primed.

The typical paint spec in this instance should be an external specification given the semi external nature of much of the roof steelwork near louvres and also because of the inaccessibility for re-painting operations.

Primer Zinc Rich Epoxy min 80 microns dft;  
Barrier Epoxy MIO min 125 micron dft;  
Finish Acrylic / Urethane min 50 microns dft




Existing timber purlins to be inspected and repaired and/ or replaced were required. Timber purlins approx. 270mm x 100mm. Allow 50% of purlins and T&G boarding to be replaced at gutters.

Existing timber purlins to be inspected and repaired and/ or replaced were required. Timber purlins approx. 270mm x 100mm. Allow for 20% of purlins and T&G boarding to be replaced in main roof.

Existing timber purlins to be inspected and repaired and/ or replaced where required. Timber purlins approx. 270mm x 100mm. Allow 50% of purlins and T&G boarding to be replaced at gutters.

Existing timber purlins to be inspected and repaired and/or replaced were required. Timber purlins approx. 270mm x 100mm. Allow for 100% of purlins and T&G boarding to be replaced were highlighted in green on sketch SK12 around perimeter.

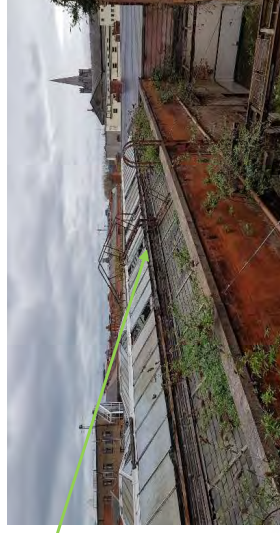
Drawing Stage:		PRELIMINARY								Drawn By:	Checked By:	Approved By:	Date:	<div> Behan House, 10 Lower Mount Street, Dublin 2. D02 HT71 Tel: +353 (0)1 661 1100 e-mail: info@cora.ie web: www.cora.ie</div>							
Project Details: Repairs to Existing Structure										Project Name:		Project Number:								1834	
Site Address:		Iveagh Markets		P2	Issued for Costings.			16-07-18	RK	Iveagh Markets		Scale:									
Client:					Issued For Information			09-07-18	RK	Drawing Title:		Project:		Originator:	Zone:	Level:	Type:	Discipline:	Drawing No.:	Stage:	Revision:
Architect:		Howley Hayes Architects		REV. No.	REVISION DESCRIPTION			DATE	ISSUED BY		Proposed Works to Roof Section		Proposed Works to Roof Section						SK14		P2

[illegible]





Existing timber posts at 1.80m centres to be inspected and repaired and/or replaced. Allow for 50% of timber posts to be replaced.



See SK14 for paint removal and paint specification.



Image from skyway.ie



Existing access ladder to be retained.

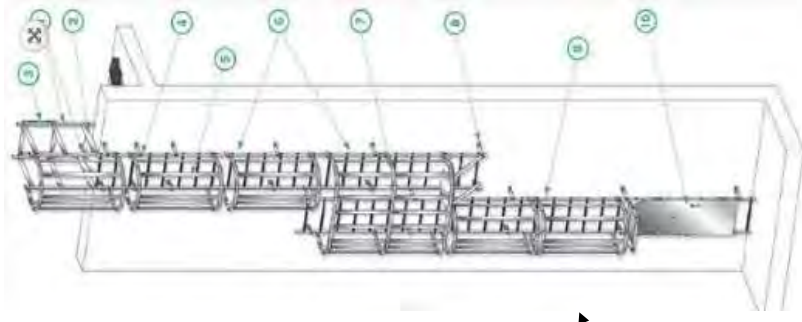
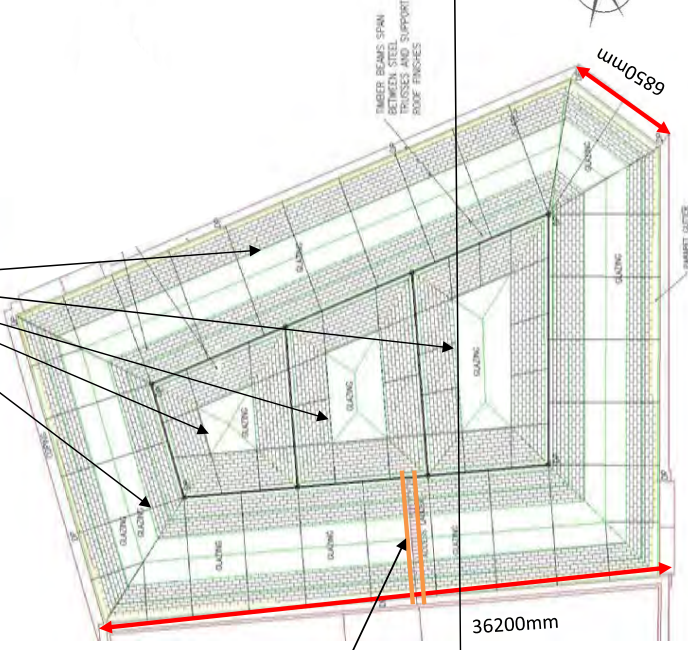


Image from  
Selectaccess.ie

New access ladder and cage with locking system at the base to prevent unauthorised access.



Existing maintenance walkway ladders to be repaired.

All steel to have an external paint spec.

Drawing Stage:		PRELIMINARY								Drawn By:	RK	Checked By:	LE	Approved By:	LE	Date:	16-07-18						
Project Details: Repairs to Existing Structure										Project Name:		Iveagh Markets		Scale:		NTS	Project Number:	1834					
Site Address:		Dublin 8																					
Client:		P1	Issued for Costings.			16-07-18	RK	Drawing Title:		Wet Market								Originator:	Zone:				
Architect:	Howley Hayes Architects	REV. No.	REVISION DESCRIPTION			DATE	ISSUED BY		Proposed Works To Roof Access.									Drawing No.:	SK17	Stage:	Revision:		
																		CORACONSULTING ENGINEERS		Behan House, 10 Lower Mount Street, Dublin 2. D02 HT71 Tel: +353 (0)1 661 1100 e-mail: info@cora.ie web: www.cora.ie			



## 5.0 BUDGET COSTS ESTIMATES

Order of Magnitude of Costs prepared by:  
Austin Reddy and Company

Project:  
Iveagh Markets, D8

1. Dry Market and Link Building
2. Wet Market
3. Market Superintendent's House
4. Laundry Superintendent's House
5. External Areas
6. Preliminaries and Insurances

## AUSTIN REDDY &amp; COMPANY

## ORDER OF MAGNITUDE

PROJECT: Iveagh Markets, Francis Street, Dublin 8

Date: 27th July 2018

## Order of Magnitude Estimate of Construction Costs

€

€

**1.00 Dry Market and Link Building**

1.01	Demolitions and Removals	40,000.00	
1.02	Basement / Ground Floor	689,000.00	
1.03	Mezzanine Floor and Steel Structure	852,500.00	
1.04	Roof and Roof Glazing Repairs/Replacement	2,336,000.00	
1.05	Remedial Works to Walls, Windows and Doors	877,000.00	
1.06	Electrical Installations	240,000.00	
1.07	Drainage and External Works	78,000.00	5,112,500.00

**2.00 Wet Market**

2.01	Demolitions and Removals	46,000.00	
2.02	Ground Floor	275,500.00	
2.03	Remedial Works to Steel Structure	270,000.00	
2.04	Roof and Roof Glazing Repairs/Replacement	1,525,000.00	
2.05	Remedial Works to Walls, Windows and Doors	375,000.00	
2.06	Electrical Installations	100,000.00	
2.07	Drainage and External Works	96,000.00	2,687,500.00

**3.00 Market Superintendent's House**

3.01	Demolitions and Removals	26,000.00	
3.02	Remedial Works to External and Internal Walls	75,000.00	
3.03	Floors and Stairs Repairs	36,000.00	
3.04	Roof Repairs	61,500.00	
3.05	External Walls Completions	50,000.00	
3.06	Internal Completions and Finishes	167,000.00	
3.07	Mechanical and Electrical Installations	180,000.00	
3.08	Sanitary Fittings and Fittings	17,000.00	
3.09	Drainage and Siteworks	25,000.00	637,500.00

**4.00 Laundry Superintendent's House**

4.01	Demolitions and Removals	28,000.00	
4.02	Remedial Works to External and Internal Walls	85,000.00	
4.03	Floors and Stairs Repairs	42,500.00	
4.04	Roof Repairs	88,500.00	
4.05	External Walls Completions	65,000.00	
4.06	Internal Completions and Finishes	231,500.00	
4.07	Mechanical and Electrical Installations	90,000.00	
4.08	Sanitary Fittings and Fittings	27,000.00	
4.09	Drainage and Siteworks	35,000.00	692,500.00

balance c/f

9,130,000.00

## AUSTIN REDDY &amp; COMPANY

**ORDER OF MAGNITUDE****PROJECT: Iveagh Markets, Francis Street, Dublin 8****Date: 27th July 2018**

	balance b/f		9,130,000.00
<b>5.00</b>	<b>External Areas</b>		
5.01	External Areas	80,000.00	80,000.00
<b>6.00</b>	<b>Preliminaries and Insurances</b>		
6.01	Preliminaries and Insurances, c. 20%	1,850,000.00	
6.02	Contingency, c. 5%	500,000.00	2,350,000.00
	<b>Total Order of Magnitude excl. VAT</b>		<b>11,560,000.00</b>
	Add VAT at 13.50%		1,560,600.00
	<b>Total Order of Magnitude incl. VAT</b>		<b>13,120,600.00</b>

Notes & Exclusions:-

- All costs are based on prices pertaining in July 2018, there is no provision for future construction inflation
- This estimate is based on Howley Hayes Architects Dilapidation Survey & Repair Recommendations Report and CORA Consulting Engineer's drawings issued July 2018
- There is no allowance for Mechanical Installation in the Wet and Dry Market buildings. There is a basic allowance for lighting and fire safety systems in each building
- There is no provision in the above figures for Professional Fees; Planning, Fire Certificate or DAC Fees; Capital Contributions; Connection Charges etc.
- It should be noted that no asbestos, pigeon, rat or dangerous materials surveys have been carried out, however we have made an allowance for removal of such items
- There is no provision in the above for further Archaeology

Code	Description	Quantity	Unit	Rate	Total
<b>DRY MARKET AND LINK BUILDING</b>					
	<b>Demolitions and Removals</b>				
1.A	Remove vegetation from basement	1	item	5,000.00	5,000
1.B	Remove debris, rubble etc	1	item	5,000.00	5,000
1.C	Allowance for asbestos survey and removal	1	item	10,000.00	10,000
1.D	Allowance for pigeon droppings, rat infestation, discarded needles survey and removal	1	item	20,000.00	20,000
	<i>Subtotal</i>				<i>40,000</i>
	<b>Basement / Ground Floor</b>				
1.E	Excavate and dispose to form level base	950	m3	75.00	71,250
1.F	Allowance for works below water table	1	item	5,000.00	5,000
1.G	Underpinning to columns; excavation, disposal, concrete underpinning	26	nr	2,500.00	65,000
1.H	Concrete slab, 250 thick; mesh reinforcement, geotextile layer, 200 thick granular sub-base	175	m2	90.00	15,750
1.J	Concrete slab, 250 thick; bar reinforcement; tanking, 50 thick lean mix, geotextile layer, 200 thick granular sub-base	716	m2	190.00	136,040
1.K	Concrete slab, 400 thick; bar reinforcement; tanking, 50 thick lean mix, geotextile layer, 200 thick granular sub-base	749	m2	250.00	187,250
1.L	Forming sump in slab	2	nr	500.00	1,000
1.M	Concrete walls, 300 thick; bar reinforcement; tanking, geotextile layer; water bar	405	m2	260.00	105,300
1.N	Hardcore filling below new concrete slabs	2,146	m3	40.00	85,840
1.P	Geotextile layer between filling and existing soil	1,660	m2	10.00	16,600
	<i>Subtotal</i>				<i>689,030</i>
	<b>Mezzanine Floor and Steel Structure</b>				
1.Q	Remedial works to existing structural steel beams and columns; remove lead paint, derust steel, shot blast, prime, epoxy barrier, acrylic finish	1	item	560,000.00	560,000
1.R	Allowance for specialist metal repairs to cast iron, wrought iron and steel members	1	item	70,000.00	70,000
1.S	Remove temporary steel structure to mezzanine floor at stair ope/link building; repair/replace pockets in brickwork	1	item	7,500.00	7,500
1.T	Remove vegetation from mezzanine floor; screed/concrete repairs	1	item	17,000.00	17,000
1.U	Remove spalling concrete from underside of mezzanine slab; new concrete skim finish to underside	1	item	30,000.00	30,000
1.V	Replace decorative friezes to column heads	1	item	40,000.00	40,000
1.W	New brickwork support walls to stairs; drilled and chemically anchored into existing brick wall	2	nr	20,000.00	40,000
1.X	Structural steelwork to new stairs; galvanised	2	tonne	4,000.00	8,000
1.Y	New concrete slab infill to stair ope; concrete 200 thick; bar reinforcement; formwork; scabble back and dowel into existing slab	2	nr	12,000.00	24,000
<b>To Collection</b>					<b>1,525,530</b>

Code	Description	Quantity	Unit	Rate	Total
<b>DRY MARKET AND LINK BUILDING</b>					<i>(Continued)</i>
2.A	New concrete slab infill to small isolated opes; concrete 200 thick; bar reinforcement; formwork; scabble back and dowel into existing slab	10	nr	1,000.00	10,000
2.B	New precast concrete stairs; 2nr flights	2	nr	4,000.00	8,000
2.C	Handrail to stairs; original detail	40	m	750.00	30,000
2.D	Repair works to existing stairs to mezzanine level	2	nr	4,000.00	8,000
	<i>Subtotal</i>				852,500
	<b>Roof and Roof Glazing Repairs/Replacement</b>				
2.E	Remove plant growth from roof and valleys	1	item	10,000.00	10,000
2.F	Inspect/repair/replace timber purlins	1	item	140,000.00	140,000
2.G	Inspect/repair/replace timber wall plate	1	item	20,000.00	20,000
2.H	Inspect/repair/replace decorative timber elements	1	item	20,000.00	20,000
2.J	Inspect/repair/remove/replace steel trusses, beams, columns	1	item	50,000.00	50,000
2.K	Remove roof slates and battens; re-fit salvaged slates/replace with new	1	item	250,000.00	250,000
2.L	Remove slate hips; replace with new slate hips	1	item	18,000.00	18,000
2.M	Remove roof timber boarding; salvage where possible; remove or overpaint lead paint; re-fit/replace timber boarding	1	item	175,000.00	175,000
2.N	Remove remaining lead/timber roof; new timber and lead	1	item	35,000.00	35,000
2.P	Repairs/replacement of cast iron box valley gutters; new copper lining; new flashings	1	item	52,000.00	52,000
2.Q	Repairs/replacement of lead valleys to parapets	1	item	28,000.00	28,000
2.R	Remove lead roll hips/ridges; replace with new lead roll	1	item	25,000.00	25,000
2.S	Inspect/repair/remove/replace timber louvres and posts	1	item	43,000.00	43,000
2.T	Remove glazing; replace with new to match original	1	item	1,150,000.00	1,150,000
2.U	Remove remaining lead flashings to glazing; new lead flashings	1	item	65,000.00	65,000
2.V	Repair existing access walkway ladders	1	item	70,000.00	70,000
2.W	New caged roof access ladder; ground floor to roof	1	item	10,000.00	10,000
2.X	Fall arrest system to roof	1	item	40,000.00	40,000
2.Y	Remove existing PVC downpipes; new cast iron downpipes and hoppers/repair existing; new roof outlets; repairs	1	item	43,000.00	43,000
2.Z	Roof replacement to link building; remove existing steel; new galvanised structural steel, timber joists, plywood, insulation, asphalt	1	item	92,000.00	92,000
	<i>Subtotal</i>				2,336,000
	<b>Remedial Works to Walls, Windows and Doors</b>				
2.AA	Clean down brick and decorative stonework to exterior and interior; remove vegetation; repoint interior	1	item	230,000.00	230,000
2.AB	Repairs and repointing granite steps and facade	1	item	20,000.00	20,000
2.AC	Repairs to brickwork; in sections; internally and externally	1	item	165,000.00	165,000
2.AD	Brick up openings previously formed; temporary propping; stainless steel starter bars; completed in sections	1	item	80,000.00	80,000
<b>To Collection</b>					<b>2,887,000</b>

Code	Description	Quantity	Unit	Rate	Total
<b>DRY MARKET AND LINK BUILDING</b>					<i>(Continued)</i>
3.A	Remedial works to parapets; remove cappings; replace damaged cappings; replace damaged brick; repoint brickwork	1	item	75,000.00	75,000
3.B	Replacement brick walls to link building; grub up existing foundations	1	item	52,000.00	52,000
3.C	Wainscot tiling to perimeter walls; moulded skirting and dado	1	item	80,000.00	80,000
3.D	Windows; repair/replacement of timber windows, doors, metal gates	1	item	175,000.00	175,000
	<i>Subtotal</i>				<i>877,000</i>
	<b>Electrical Installations</b>				
3.E	Allowance for basic lighting and fire safety installation	1	item	240,000.00	240,000
	<i>Subtotal</i>				<i>240,000</i>
	<b>Drainage and External Works</b>				
3.F	Inspect existing sewer; CCTV surveys etc	1	item	2,000.00	2,000
3.G	Foul drainage; excavate trench, PVC pipe, backfill trench	98	m	80.00	7,840
3.H	Surface drainage; excavate trench, PVC pipe, backfill trench	193	m	80.00	15,440
3.J	Existing drainage; excavate trench, remove damaged sections of pipe; new PVC pipe, backfill trench; in sections	12	m	120.00	1,440
3.K	Manholes	18	nr	2,000.00	36,000
3.L	Gullies	3	nr	150.00	450
3.M	Allowance for making good to perimeter paths of building	1	item	15,000.00	15,000
	<i>Subtotal</i>				<i>78,170</i>
	<b>Exclusions</b>				
	<i>There is no allowance in the above for mechanical installation</i>		<i>note</i>		
	<i>There is a basic allowance for lighting and fire safety systems</i>		<i>note</i>		
	<i>Main Contractor's Preliminaries costs are included in a separate section</i>		<i>note</i>		
	<b>DRY MARKET AND LINK BUILDING</b>				
<b>To Collection</b>					<b>700,170</b>

Iveagh Markets  
Francis Street, Dublin 8  
July 2018

Code	Description	Quantity	Unit	Rate	Total
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**WET MARKET**

<b>Demolitions and Removals</b>					
5.A	Remove vegetation from ground floor	1	item	5,000.00	5,000
5.B	Remove surface debris, rubble etc	1	item	3,000.00	3,000
5.C	Remove furniture, salvaged materials, building materials etc	1	item	5,000.00	5,000
5.D	Remove timber platforms	1	item	3,000.00	3,000
5.E	Allowance for asbestos survey and removal	1	item	10,000.00	10,000
5.F	Allowance for pigeon droppings, rat infestation, discarded needles survey and removal	1	item	20,000.00	20,000
	<i>Subtotal</i>				<i>46,000</i>
<b>Ground Floor</b>					
5.G	Excavate and dispose rubble and soil to form level base	600	m3	75.00	45,000
5.H	Allowance for works below water table	1	item	5,000.00	5,000
5.J	Concrete slab, 250 thick; mesh reinforcement, geotextile layer, 200 thick granular sub-base; polished concrete finish	969	m2	150.00	145,350
5.K	Hardcore filling below new concrete slab	1,600	m3	40.00	64,000
5.L	Geotextile layer between filling and existing soil	1,100	m2	10.00	11,000
5.M	Allowance for additional stabilisation of exposed masonry remains	1	item	5,000.00	5,000
	<i>Subtotal</i>				<i>275,350</i>
<b>Remedial Works to Steel Structure</b>					
5.N	Remedial works to existing structural steel beams and columns; remove lead paint, derust steel, shot blast, prime, epoxy barrier, acrylic finish	1	item	240,000.00	240,000
5.P	Allowance for specialist metal repairs to cast iron, wrought iron and steel members	1	item	30,000.00	30,000
	<i>Subtotal</i>				<i>270,000</i>
<b>Roof and Roof Glazing Repairs/Replacement</b>					
5.Q	Remove plant growth from roof and valleys	1	item	10,000.00	10,000
5.R	Inspect/repair/replace timber purlins	1	item	90,000.00	90,000
5.S	Replace timber wall plate	1	item	13,000.00	13,000
5.T	Inspect/repair/replace decorative timber elements	1	item	15,000.00	15,000
5.U	Inspect/repair/remove/replace steel; propping	1	item	25,000.00	25,000
5.V	Remove roof slates and battens; re-fit salvaged slates/replace with new	1	item	220,000.00	220,000
5.W	Remove slate hips; replace with new slate hips	1	item	8,000.00	8,000
5.X	Remove roof timber boarding; salvage where possible; remove or overpaint lead paint; re-fit/replace timber boarding	1	item	150,000.00	150,000
5.Y	Repairs/replacement of cast iron box valley gutters; new copper lining; new flashings	1	item	40,000.00	40,000
5.Z	Repairs/replacement of lead valleys to parapets	1	item	28,000.00	28,000
5.AA	Remove lead roll hips/ridges; replace with new lead roll	1	item	23,000.00	23,000
<b>To Collection</b>					<b>1,213,350</b>

Code	Description	Quantity	Unit	Rate	Total
<b>WET MARKET</b>					(Continued)
6.A	Inspect/repair/remove/replace timber louvres and posts	1	item	135,000.00	135,000
6.B	Remove glazing; replace with new to match original	1	item	660,000.00	660,000
6.C	Remove remaining lead flashings to glazing; new lead flashings	1	item	30,000.00	30,000
6.D	Repair existing access walkway ladders	1	item	8,000.00	8,000
6.E	New caged roof access ladder; ground floor to roof	1	item	10,000.00	10,000
6.F	Fall arrest system to roof	1	item	35,000.00	35,000
6.G	Remove existing PVC downpipes; new cast iron downpipes and hoppers/repair existing; new roof outlets; repairs	1	item	25,000.00	25,000
	<i>Subtotal</i>				1,525,000
	<b>Remedial Works to Walls, Windows and Doors</b>				
6.H	Clean down brick and decorative stonework to exterior and interior; remove vegetation	1	item	28,000.00	28,000
6.J	Repairs to brickwork; in sections; internally and externally	1	item	50,000.00	50,000
6.K	Brick up openings previously formed; temporary propping; stainless steel starter bars; completed in sections	1	item	68,000.00	68,000
6.L	Brick up half defaced openings previously formed; stainless steel wall ties	1	item	36,000.00	36,000
6.M	Remedial works to parapets; remove cappings; replace damaged cappings; take down and rebuild sections of parapet; replace damaged brick; repoint brickwork	1	item	60,000.00	60,000
6.N	Wainscot tiling to perimeter walls; moulded skirting and dado	1	item	33,000.00	33,000
6.P	Windows; repair/replacement of timber windows, doors, metal gates	1	item	100,000.00	100,000
	<i>Subtotal</i>				375,000
	<b>Electrical Installations</b>				
6.Q	Allowance for basic lighting and fire safety installation	1	item	100,000.00	100,000
	<i>Subtotal</i>				100,000
	<b>Drainage and External Works</b>				
6.R	Inspect existing sewer; CCTV surveys etc	1	item	4,000.00	4,000
6.S	Foul drainage; excavate trench, PVC pipe, backfill trench	138	m	80.00	11,040
6.T	Surface drainage; excavate trench, PVC pipe, backfill trench	111	m	80.00	8,880
6.U	Existing drainage; excavate trench, remove damaged sections of pipe; new PVC pipe, backfill trench; in sections	21	m	120.00	2,520
6.V	Manholes	22	nr	2,000.00	44,000
6.W	Works to existing manholes	5	nr	1,500.00	7,500
6.X	Gullies	22	nr	150.00	3,300
6.Y	Precast concrete kerbs	82	m	35.00	2,870
6.Z	Allowance for making good to perimeter paths of building	1	item	12,000.00	12,000
	<i>Subtotal</i>				96,110
	<b>Exclusions</b>				
<b>To Collection</b>					1,474,110

To Collection	0
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Code	Description	Quantity	Unit	Rate	Total
WET MARKET					(Continued)
	<p data-bbox="132 331 272 360">COLLECTION</p> <p data-bbox="132 400 213 430">Page 5:</p> <p data-bbox="132 436 213 465">Page 6:</p> <p data-bbox="132 472 213 501">Page 7:</p> <p data-bbox="132 562 287 591">WET MARKET</p> <p data-bbox="132 591 368 620">Carried to Summary:</p>				<p data-bbox="1398 400 1509 430">1,213,350</p> <p data-bbox="1398 436 1509 465">1,474,110</p> <p data-bbox="1493 472 1509 501">0</p> <p data-bbox="1398 591 1509 620">2,687,460</p>

Code	Description	Quantity	Unit	Rate	Total
<b>MARKET SUPERINTENDENT'S HOUSE</b>					
	<b>Demolitions and Removals</b>				
9.A	Remove vegetation from facade and roof	1	item	5,000.00	5,000
9.B	Allowance for temporary stabilisation works to rear external walls	1	item	10,000.00	10,000
9.C	Allowance for asbestos survey and removal	1	item	5,000.00	5,000
9.D	Allowance for pigeon droppings, rat infestation, discarded needles survey and removal	1	item	5,000.00	5,000
9.E	Allowance for damp treatment, tanking etc	1	item	1,000.00	1,000
	<i>Subtotal</i>				<i>26,000</i>
	<b>Remedial Works to External and Internal Walls</b>				
9.F	Repairs to external brickwork; in sections	1	item	10,000.00	10,000
9.G	Clean down brick and decorative stonework; repointing	1	item	45,000.00	45,000
9.H	Remove sections of brickwork at demolished walls; make good edges	1	item	5,000.00	5,000
9.J	Repairs to internal walls	1	item	10,000.00	10,000
9.K	Allowance for new internal walls	1	item	5,000.00	5,000
	<i>Subtotal</i>				<i>75,000</i>
	<b>Floors and Stairs Repairs</b>				
9.L	Lift existing damaged timber floor boards; remove joists; new timber joists; new floor boards; isolated sections	1	item	10,000.00	10,000
9.M	Replace damaged floor boards	1	item	7,500.00	7,500
9.N	Concrete repairs to floor	1	item	5,000.00	5,000
9.P	Repairs to underside of concrete soffit	1	item	5,500.00	5,500
9.Q	Repairs to stairs and balustrade	1	item	3,000.00	3,000
9.R	New stairs and balustrade	1	item	5,000.00	5,000
	<i>Subtotal</i>				<i>36,000</i>
	<b>Roof Repairs</b>				
9.S	Slate roof covering repairs and isolated replacement	1	item	20,000.00	20,000
9.T	Chimney repairs; brick repairs, replace lead flashings	1	item	4,000.00	4,000
9.U	Replace roof flashings/ party wall flashings	1	item	5,000.00	5,000
9.V	Replace damaged timber roof structure	1	item	10,000.00	10,000
9.W	Works to dormer windows	1	item	5,000.00	5,000
9.X	Remedial works to balcony; remove vegetation, repairs to handrail, clean/repair roof finish	1	item	5,000.00	5,000
9.Y	Allowance for woodworm and rot treatment	1	item	5,000.00	5,000
9.Z	Clean out gutters and downpipes; repairs/replacement of rainwater goods	1	item	7,500.00	7,500
	<i>Subtotal</i>				<i>61,500</i>
	<b>External Walls Completions</b>				
9.AA	Windows, doors, gate; repair/replacement	1	item	50,000.00	50,000
<b>To Collection</b>					<b>248,500</b>

Code	Description	Quantity	Unit	Rate	Total
<b>MARKET SUPERINTENDENT'S HOUSE</b>					<i>(Continued)</i>
	<i>Subtotal</i>				<i>50,000</i>
	<b>Internal Completions and Finishes</b>				
10.A	Internal doors; repairs/replacement	1	item	12,000.00	12,000
10.B	Remove plaster finish; repoint brickwork; new lime plaster	1	item	120,000.00	120,000
10.C	Repairs/replacement lath and plaster ceilings	1	item	10,000.00	10,000
10.D	Repairs to timber panelling, skirtings, architraves	1	item	10,000.00	10,000
10.E	Allowance for floor finishes	1	item	10,000.00	10,000
10.F	Allowance for repairs to decorative features	1	item	5,000.00	5,000
	<i>Subtotal</i>				<i>167,000</i>
	<b>Mechanical and Electrical Installations</b>				
10.G	Mechanical Installation; incl. builders works	1	item	90,000.00	90,000
10.H	Electrical Installation; incl. builders works	1	item	90,000.00	90,000
	<i>Subtotal</i>				<i>180,000</i>
	<b>Sanitary Fittings and Fittings</b>				
10.J	Bathroom suite	1	item	5,000.00	5,000
10.K	Kitchen	1	item	7,000.00	7,000
10.L	Repairs to cast iron fireplaces	1	item	5,000.00	5,000
	<i>Subtotal</i>				<i>17,000</i>
	<b>Drainage and Siteworks</b>				
10.M	Allowance for drainage repairs	1	item	10,000.00	10,000
10.N	Making good to immediate vicinity of building	1	item	15,000.00	15,000
	<i>Subtotal</i>				<i>25,000</i>
	<b>MARKET SUPERINTENDENT'S HOUSE</b>				
<b>To Collection</b>					<b>389,000</b>

Code	Description	Quantity	Unit	Rate	Total
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## MARKET SUPERINTENDENT'S HOUSE

(Continued)

	<b>COLLECTION</b>				
	Page 9:				248,500
	Page 10:				389,000
	<b>MARKET SUPERINTENDENT'S HOUSE</b>				
	Carried to Summary:				<b>637,500</b>

Code	Description	Quantity	Unit	Rate	Total
<b>LAUNDRY ATTENDANT'S HOUSE</b>					
	<b>Demolitions and Removals</b>				
12.A	Remove vegetation from facade and roof	1	item	5,000.00	5,000
12.B	Removal of backfill from rear wall	1	item	3,000.00	3,000
12.C	Allowance for temporary stabilisation works to rear external walls	1	item	10,000.00	10,000
12.D	Allowance for asbestos survey and removal	1	item	5,000.00	5,000
12.E	Allowance for pigeon droppings, rat infestation, discarded needles survey and removal	1	item	5,000.00	5,000
	<i>Subtotal</i>				<i>28,000</i>
	<b>Remedial Works to External and Internal Walls</b>				
12.F	Repairs to external brickwork; in sections	1	item	30,000.00	30,000
12.G	Clean down brick and decorative stonework; repointing	1	item	35,000.00	35,000
12.H	Remove sections of brickwork at demolished walls; make good edges	1	item	10,000.00	10,000
12.J	Repairs to internal walls	1	item	10,000.00	10,000
	<i>Subtotal</i>				<i>85,000</i>
	<b>Floors and Stairs Repairs</b>				
12.K	Lift existing damaged timber floor boards; remove joists; new timber joists; new floor boards; isolated sections	1	item	10,000.00	10,000
12.L	Replace damaged floor boards	1	item	7,500.00	7,500
12.M	Concrete repairs to floor	1	item	10,000.00	10,000
12.N	Repairs to underside of concrete soffit	1	item	5,000.00	5,000
12.P	Repairs to stairs and balustrade	1	item	10,000.00	10,000
	<i>Subtotal</i>				<i>42,500</i>
	<b>Roof Repairs</b>				
12.Q	Slate roof covering repairs and isolated replacement	1	item	35,000.00	35,000
12.R	Chimney repairs; brick repairs, replace lead flashings	1	item	18,000.00	18,000
12.S	Replace roof flashings	1	item	5,000.00	5,000
12.T	Replace damaged timber roof structure including timber boarding and purlins	1	item	10,000.00	10,000
12.U	Remedial works to parapets/valley gutters	1	item	8,000.00	8,000
12.V	Allowance for woodworm and rot treatment	1	item	5,000.00	5,000
12.W	Clean out gutters and downpipes; repairs/replacement of rainwater goods	1	item	7,500.00	7,500
	<i>Subtotal</i>				<i>88,500</i>
	<b>External Walls Completions</b>				
12.X	Windows and doors; repair/replacement; remove metal sheeting	1	item	65,000.00	65,000
	<i>Subtotal</i>				<i>65,000</i>
	<b>Internal Completions and Finishes</b>				
12.Y	Internal doors; repairs/replacement	1	item	22,000.00	22,000
<b>To Collection</b>					<b>331,000</b>

Code	Description	Quantity	Unit	Rate	Total
<b>LAUNDRY ATTENDANT'S HOUSE</b>					<i>(Continued)</i>
13.A	Remove plaster finish; repoint brickwork; new lime plaster	1	item	160,000.00	160,000
13.B	Repairs to lath and plaster walls to dormers	1	item	2,500.00	2,500
13.C	Repairs/replacement lath and plaster ceilings	1	item	10,000.00	10,000
13.D	Repairs to timber panelling, skirtings, architraves	1	item	10,000.00	10,000
13.E	Allowance for floor finishes	1	item	22,000.00	22,000
13.F	Allowance for repairs to decorative features	1	item	5,000.00	5,000
	<i>Subtotal</i>				<i>231,500</i>
	<b>Mechanical and Electrical Installations</b>				
13.G	Mechanical Installation; incl. builders works	1	item	50,000.00	50,000
13.H	Electrical Installation; incl. builders works	1	item	40,000.00	40,000
	<i>Subtotal</i>				<i>90,000</i>
	<b>Sanitary Fittings and Fittings</b>				
13.J	Bathroom suites	1	item	10,000.00	10,000
13.K	Kitchen	1	item	7,000.00	7,000
13.L	Replacement cast iron fireplaces	1	item	10,000.00	10,000
	<i>Subtotal</i>				<i>27,000</i>
	<b>Drainage and Siteworks</b>				
13.M	Allowance for drainage repairs	1	item	10,000.00	10,000
13.N	Making good to steps and railings at entrance	1	item	15,000.00	15,000
13.P	Making good to side and rear	1	item	10,000.00	10,000
	<i>Subtotal</i>				<i>35,000</i>
	<b>Exclusions</b>				
	<i>There is no allowance in the above for rebuilding the demolished section to the rear</i>		note		
	<b>LAUNDRY ATTENDANT'S HOUSE</b>				
<b>To Collection</b>					<b>361,500</b>

Code	Description	Quantity	Unit	Rate	Total
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## LAUNDRY ATTENDANT'S HOUSE

(Continued)

## COLLECTION

Page 12:

331,000

Page 13:

361,500

## LAUNDRY ATTENDANT'S HOUSE

Carried to Summary:

692,500

To Collection	80,000
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Iveagh Markets  
Francis Street, Dublin 8  
July 2018

Code		Description	Quantity		Unit	Rate	Total
PRELIMINARIES							
17.A	Preliminaries and Insurances		1	item		1,850,000.00	1,850,000
	PRELIMINARIES						
To Collection							1,850,000

Code	Description	Quantity	Unit	Rate	Total
PRELIMINARIES					(Continued)
	<p data-bbox="134 331 272 360">COLLECTION</p> <p data-bbox="134 398 228 427">Page 17:</p> <p data-bbox="134 488 368 548">PRELIMINARIES Carried to Summary:</p>				<p data-bbox="1398 398 1509 427">1,850,000</p> <p data-bbox="1398 517 1509 546">1,850,000</p>

Code		Description	Quantity	Unit	Rate	Total
CONTINGENCY						
19.A	Contingency	Contingency	1	item	500,000.00	500,000
	CONTINGENCY					
To Collection						500,000

Iveagh Markets  
Francis Street, Dublin 8  
July 2018

Code	Description	Quantity	Unit	Rate	Total
	<b>COLLECTION SUMMARY</b>	<b>PAGE NO</b>			
	DRY MARKET AND LINK BUILDING	4			5,112,700
	WET MARKET	8			2,687,460
	MARKET SUPERINTENDENT'S HOUSE	11			637,500
	LAUNDRY ATTENDANT'S HOUSE	14			692,500
	EXTERNAL AREAS	16			80,000
	PRELIMINARIES	18			1,850,000
	CONTINGENCY	20			500,000
	<b>Total Amount:</b>				<b>11,560,160</b>



Fig. Figurative keystone at Iveagh Markets.

*Howley Hayes Architects are recognised for their work in both contemporary design and for the sensitive conservation of historic buildings, structures and places. Over a thirty year period, the practice has been responsible for the conservation and reuse of numerous buildings of national and international cultural significance, many of which have received RIAI, RIBA, Irish Georgian Society, Opus or Europa Nostra Awards. These include – Russborough, Lambay, Charleville Forest, Buncrana Castle, Hotel Ard na Sidhe, the former Blue Coats School (now headquarters of the Law Society of Ireland), St Catherine's, Meath Street, and Marsh's Library both in Dublin and the People's Park Dun Laoghaire. Under the Conservation Accreditation System, implemented by the Royal Institute of Architects of Ireland, Howley Hayes Architects is accredited as a Conservation Practice Grade 1 and director James Howley a Conservation Architects Grade 1. Howley Hayes Architects have, to date, been responsible for over two hundred conservation plans, reports and feasibility studies for clients such as the Heritage Council, the World Monument Fund, the Office of Public Works, the Department of Arts Heritage and the Gaeltacht, the Law Society of Ireland, the Alfred Beit Foundation Red Carnation Hotels, Killarney Hotels, and Liebherr International, together with numerous local authorities and private clients. For Diageo PLC Howley Hayes Architects have prepared a conservation plan and are providing on-going advice for the historic southlands portion of the brewery, together with heritage advice on alterations to the Guinness Storehouse and new developments on the northlands site.*