

Conservation Section, Planning & Property Development Department Civic Offices, Wood Quay, Dublin 8

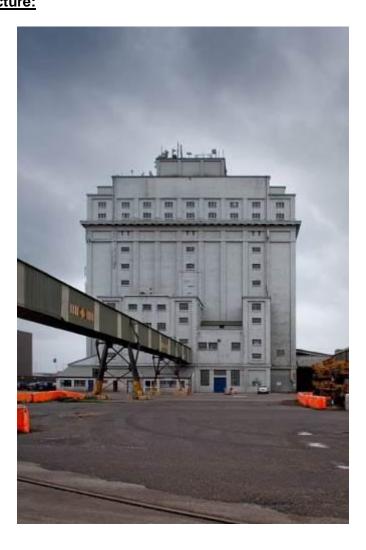
An Rannóg Caomhantais, An Roinn Pleanála & Forbairt Maoine Oifigí na Cathrach, An Ché Adhmaid, Baile Átha Cliath 8 T. 01 222 3927 F. 01 222 2830

Date: 01/11/19

To the Chairperson and Members of the Central Area Committee

Initiation of the Statutory Process for the Proposed Addition of R&H Hall Silo, Alexandra Road, Dublin 1 to the Record of Protected Structures in accordance with Section 54 and 55 of the Planning and Development Act, 2000 (as amended)

**Photograph of Structure:** 



#### Introduction:

It is proposed to initiate procedures under Section 55 of the Planning & Development Act 2000 as amended to add R&H Hall Silo, Alexandra Road, Dublin 1 to Dublin City Council's Record of Protected Structures.

<u>Name and Address of Owner:</u> R&H Hall Plc., La Touche House, Custom House Dock, IFSC, Dublin 1, D01 R5P3 (Nb. The elevated gantry to the east is located within the former Odlums Site).

### Name of Applicant:

Minister for Culture, Heritage and the Gaeltacht on the 9<sup>th</sup> of August 2017.

### **Summary of Applicant's Reasons for Seeking Addition:**

 Minister for Culture, Heritage and the Gaeltacht: List of recommendations for inclusion on the RPS of structures deemed as being of 'Regional' significance or higher identified during Stage 2 of the Dublin Survey carried out by the National Inventory of Architectural Heritage. The R&H Hall Silo, Alexandra Road, Dublin 1 has been assigned a National rating. The Stage 2 recommendations were issued to Dublin City Council on the 9<sup>th</sup> of August 2017.

# Addition of Significant 20th Century Structures:

Policy CHC3 of the Dublin City Development Plan 2016-2022 provides as follows: *To identify and protect exceptional buildings of the late twentieth century; to categorise, prioritise and, where appropriate, add to the RPS. Dublin City Council will produce guidelines and offer advice for protection and appropriate refurbishment.* 

In August 2017 the Minister recommended that this structure be included on Dublin City Council's RPS. The R&H Hall Silo, Alexandra Road, Dublin 1 has been assigned a National rating by the NIAH.

Following on from the above, in June 2018, the Conservation Section carried out a screening process for the 20<sup>th</sup> century Stage 2 Ministerial Recommendations (137 in total). These were then screened for National and high-level Regional significance using the criteria provided in the Architectural Heritage Protection Guidelines (2011). Twenty-eight significant structures were identified to be prioritised for addition including this structure.

### **Site Location & Zoning Map:**

The R&H Hall Silo is located within the Dublin Port Complex, to the immediate east of No.1 Branch Road South and to the north of Alexandra Quay.



Fig.1: Extract from Zoning Map from 2016-2022 Development Plan.

**Zoning map:** The subject site is zoned Z7: To provide for the protection and creation of industrial uses, and facilitate opportunities for employment creation.

**Recent Planning History:** 

Planning Ref	Description	Decision
M0040/08	Installation of Telecommunications Equipment under 31(k)(5) of P&D Regs 2001.	A decision has not yet been made on
	T GD Negs 2001.	this application.
3532/15	The development will consist of removal of existing vehicular gate and fencing fronting Alexandra Road, creating an open vehicular access, erection of new palisade fences measuring 2.7 m high and erection of new tri folding gates at southern end of site.	GRANT PERMISSION 23rd October 2015.

#### **Recent Enforcement History:**

There is no recorded enforcement history for the subject site.

#### **Summary Description:**

Nine-bay multi-storey reinforced concrete grain silo, built 1915-20 having three five-storey single-bay staircore projections to principal/south elevation (recessed bays between projecting stair cores infilled c.mid 20<sup>th</sup> century). Attached high level gantry on riveted steel supports built c.1920-30 having terminal structure to south connecting silo with Alexandra Quay (terminal structure rebuilt c. late 20<sup>th</sup> century). Attached high-level gantry on riveted steel supports to east elevation built c.1920 connecting silo with former flour mill (Odlums) to east. Structure extended to north by two-bays c.1932 with addition of attached steel bin silo and further extended to north c.1937 with addition of three-bay reinforced concrete silo. Single-storey lean-to extension to south built c.late 20<sup>th</sup> century.

#### Exterior Description:

Flat roofs throughout. Painted reinforced concrete walls arranged in vertical recessed panels to 1915 silo, having projecting cornice with mutules below four-stage attic level and central head house. Painted riveted steel plate walls to c.1932 silo extension. Painted reinforced concrete walls to c.1937 silo extension. Square-headed window openings concentrated to south elevation of silo having splayed concrete cills to 1915 structure and flat cills to c. mid 20<sup>th</sup> century infill extensions. Metal multiple-pane windows having pivot opening sections. Square-headed window openings to attic level having tripartite window frames. Square-headed door openings to staircore projections and adjacent infill extensions having double-leaf timber panelled doors. Square-headed vehicle openings to west and east elevations of 1915 silo having granite wheel-guards and diorite setts to western openings.

#### Interior Description:

Internally only the ground floor, attic distribution floors and the three projecting stairwells to the south elevation, are accessible under normal conditions with the main body of the structure housing the grain storage bins.

The ground floor of the 1915 silo comprises a double-height loading area stretching across the four northernmost bays of the building, this space is open to the exterior on both the east and west elevations to facilitate loading of vehicles. Diorite setts survive to the western most bay with poured concrete flooring to remainder. Painted concrete walls and parallel rows of square columns, having chamfered detailing, support the overhead grain bins. The ceiling comprises the exposed square-profile hopper soffits of the grain bins (each identified with a painted numeral). Late 20<sup>th</sup> century stainless steel chutes traverse the space at high level for the conveyance of grain between bins. Projecting clerestory windows to the southern wall, in tandem with a gantry walkway to the northern bays, afford overhead surveillance during the loading of vehicles.

The ground floor of the c.1932 steel bin silo extension comprises a double-height space stretching across the entire floor plate. Unlike the 1915 silo there does not appear to have been vehicle access to this space. Concrete floor throughout, with timber covered trenches (possibly housing augers) running on a north-south axis. Painted riveted steel plate walls having square-headed window openings to the former external north elevation (a metal frame window survives to the west elevation of this section of the silo). 'I'-profile steel columns having riveted connections support the overhead grain bins. The ceiling comprises the exposed circular-profile hopper soffits of the grain bins (each identified with a painted numeral). Late 20<sup>th</sup> century stainless steel chutes traverse the space at high level for the conveyance of grain between bins with gantry walkways facilitating access. A late 20<sup>th</sup> century passenger lift is located within this space and provides direct access to the distribution floor at attic level.

The ground floor of the c.1937 concrete silo extension comprises a double-height space stretching across the entire floor plate. Concrete floor throughout with timber covered trenches (possibly housing augers) running on a north-south axis. Painted concrete walls and parallel rows of square columns having stop chamfered detailing, support the overhead grain bins. The ceiling comprises the exposed square and circular-profile hopper soffits of the grain bins (each identified with a painted numeral). Late 20<sup>th</sup> century stainless steel chutes traverse the space at low level for the conveyance of grain between bins. Loading of vehicles takes place externally, via chutes which penetrate the north and east elevations. High level square-headed window openings to the north elevation and south elevations (those to the south elevation include glazed projecting observation lights) afford overhead surveillance during the loading of vehicles.

The lower distribution floor at attic level spans the entire floor plan of the 1915 silo and subsequent extensions of c.1932 and c.1937. This floor is accessed via a passenger lift located in the 1932 silo. Concrete floor throughout with clear separation between building phases and having circular floor access hatches to bins. Painted concrete walls with evidence of lime-wash coatings to the 1915 silo. Square-headed window openings to the former external north elevation of the 1915 silo having splayed cills. Overhead shuttered concrete floor supported on post and lintel construction having stop chamfered detailing. Late 20<sup>th</sup> century stainless steel chutes/drops running vertically and diagonally within the space for the distribution of grain to the storage bins below.

The upper distribution floor houses the principal augers/conveyors. This floor occupies approximately two thirds of the entire floor plan with a setback from the east and western elevations and two internal terraces located over the c.1932 silo extension. Concrete floor throughout with access provided via an open tread steel staircase with makers mark reading 'J&G McGLOUGHLIN Ltd DUBLIN'. Painted concrete walls with overhead floor/roof supported on post and lintel construction having stop chamfered detailing. Late 20<sup>th</sup> century stainless steel chutes/drops running horizontally on an east-west axis for the distribution of grain to the storage bins below. The head house occupies three bays over the 1915 silo and is accessed via an open tread steel staircase. Painted concrete walls, with overhead roof supported on post and lintel construction. The space currently houses the principal drive machinery/plant, this appears to date to the late 20<sup>th</sup> century.

Safe access was provided to the eastern-most projecting staircore located to the south of the 1915 silo building. Painted concrete walls and ceilings having square-headed window openings with metal multiple-pane windows having pivot opening sections. Cantilevered open-string concrete staircase having wrought-iron handrails and guarding to landings. Ground floor portion of staircase partially enclosed with timber sheeting. Early electric light fittings to ceilings. Switch room located to second floor within c.mid 20<sup>th</sup> century infill extension housing electric switch bank complete with instruments, plant diagram, glazed dials and a voltmeter with makers plate reading 'ELLIOTT BROTHERS (LONDON) Ltd'. Concrete floor with timber access hatch to centre. Painted concrete walls (green to lower level and white to upper level divided by red band at shoulder height). Square-headed window openings to south wall with metal multiple-pane windows having pivot

opening sections. Fire point to south wall. Administrative office to southeast corner partitioned from principal switch room by a timber and glazed screen, having moulded timber profiling.

### Site Description:

Forecourt to immediate south bounded by principal waterfront quay of Alexandra Basin, having elevated gantry on riveted steel supports built c.1920-30 with terminal structure to south (terminal structure rebuilt c.late 20<sup>th</sup> century). Vehicle weigh bridge to immediate south of silo with a section of diorite setts to immediate west.

Branch road and branch railway line bounding west of site, with railway line turning eastward continuing parallel to Alexandra wharf.

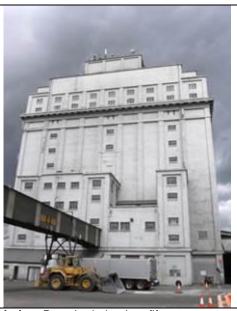
Late 20<sup>th</sup> century industrial warehousing to west with early 20<sup>th</sup> century dry dock further to the west (NIAH Ref: 50060588).

Detached late 20<sup>th</sup> century 'floor silo' to immediate north of site having high-level gantry conveying grain to and from the principal R&H Hall Silo. Late 19<sup>th</sup> century red brick electricity sub-station further to the northeast (NIAH ref: 50011171).

Late 20<sup>th</sup> century warehousing abutting eastern elevation of silo with early 20<sup>th</sup> century two-storey gable-fronted workshop building to immediate southeast.

'Odlums Mills' complex comprising early 20<sup>th</sup> century mill building and two associated grain silos to the east (NIAH Ref: 50060590 & 50060591). Attached high-level gantry on riveted steel supports (c.1920) connects the R&H Hall Silo with the former flour mill (Odlums) to east.

### NIAH Ministerial Recommendations for R&H Hall Silo, Alexandra Road, Dublin 1.



 Reg. No.
 50060589

 Date
 1910 - 1930

Previous Name Merchants Warehousing Company

Ltd/Odlum's Mills

**Townland** 

**County** Dublin City **Coordinates** 318609, 234766

Categories of Special Interest ARCHITECTURAL TECHNICAL

Rating National
Original Use Granary
In Use As Granary

**Description:** Detached nine-bay fifteen- to twenty-storey reinforced concrete grain silo, built 1915-20, with attached steel bin silo added c.1932 to north, and further reinforced concrete silo attached to north 1938. Three six-storey single-bay projections to front elevation. Flat roof and rainwater goods not visible. Reinforced concrete walls arranged in vertical recessed panels, nine to front elevation with five to side elevation. Heavy cornice to older part, with mutules and heavy plat-band to storey below. Above cornice is three- to four-storey attic section with further central head-house floor. Square-headed window openings with wrought-iron multiple-pane windows and splayed concrete sills. Square-headed carriage-arch openings to west and east elevations to allow for loading, with granite wheel-guards and diorite setts to west opening. Located to west end of Dublin Port, area largely comprising modern industrial and maritime buildings, interspersed with patches of wasteland. Dry dock situated to west. Complemented by associated silos to east, of similar period and style.

**Appraisal:** An enormous and architecturally impressive representative of large-scale early-twentieth-century industrial architecture, this grain silo, designed by Frederick G. Hicks, constitutes the most elaborate in Ireland in terms of both scale and design. The application of a cornice to this symmetrical façade gives the structure a formal aspect not usually found in this building type. When viewed from Ringsend, on the opposite side of the River Liffey, the composition and scale can be well appreciated and stands out as the most monumental structure in the district.

### **Historical Background:**

In the late 19<sup>th</sup> century flour milling and food processing became substantially more industrial in scale, stimulated by the growing demands of an expanding urban population. It is in this context that the 'silo' emerged c.1900 as a distinct building type to provide increased capacity for the storage and distribution of bulk grain.

The land on which the R&H Hall Silo was constructed is shown as sand banks on the 1888-1913 O.S map (not reproduced here), however by the close of 19<sup>th</sup> century an ambitious programme of land reclamation, associated with the construction of the Alexandra Basin, had provided prime industrial development sites, close to the newly created deep water berthage (Gilligan, pg.148). A plan of Dublin Harbour produced in 1906 by The Dublin Port and Docks Board shows the subject lands annotated 'lands being reclaimed' (fig.2).

Described as the 'Great Silo' by H.C. Hartnell in the Port of Dublin Official Handbook (Hartnell, pg.13), the structure was originally commissioned for the 'Merchants Warehousing Company Ltd'. The silo first appears on the 6 inch Cassini map (fig.3), which records the building to the south of Alexandra Road, connected to the waterside by an elevated gantry (known as a *marine leg*), with terminal structure and further gantry arm running parallel to the quayside.

The Merchants Warehousing Company's new facility was built to designs by Batchelor & Hicks, who adopted a mildly classical style for the silo. The principal south facing façade, as originally completed, was well composed with a stepped roofline and three symmetrically placed projecting stair cores. Construction on site commenced in 1914 with the Dublin Daily Express reporting on 25<sup>th</sup> August of that year 'construction of the boundary walls and gates around new silo now in progress'. Driven by a brief to produce increased storage capacity on a scale not previously seen in Ireland, Batchelor & Hicks abandoned traditional construction materials in favour of modern steel reinforced concrete. The silo was finally completed in 1920 with the facility providing thirty-two storage bins accommodating over 13,000 tonnes of grain. The silo quickly established the Alexandra Basin as the centre of grain importation into Dublin and in 1921 'The Dublin Port Milling Co. Ltd' commenced works on construction of a new flour mill to designs by Hicks & Ashworth, to the immediate west of the silo (NIAH Ref: 50060590), with the two buildings connected by an elevated gantry<sup>1</sup>. Large scale milling could now take place on the quayside, where grain, unloaded into the silo was thereafter processed in the adjacent mill. An advertisement for the project's contractor 'J & W Stewart' depicts both the silo and mill building shortly after completion.

An increase in the importation of bulk grain, reflecting Ireland's growing dependency on wheat and barley from countries such as Australia and America, coupled with stringent requirements for its storage, under the Agricultural Produce (Cereals) Act of 1933<sup>2</sup>, led to expansion of the silo in two separate phases during the 1930s (Rowley, pg141). The first expansion took place in c.1932 with the addition of a two-bay steel extension, comprising externally expressed circular silos sited to the immediate north of the original structure, housing an additional twelve storage bins capture the silo shortly after completion of the c.1932 steel bin extension). The second extension was constructed

<sup>1</sup> The Dublin Port Milling Co. Ltd' flour mill was later purchased by Odlums and the site is now referred to as the Odlums Site.

<sup>&</sup>lt;sup>2</sup> The so called 'economic war' between Britain and Ireland saw the Fianna Fáil government introduce the Agricultural Produce (Cereals) Act of 1933, which specified that milling licence owners had to both provide storage facility and buy the bulk of the wheat soon after harvest so that it could be dried, (Rowley, pg.138).

c.1937 by the London based engineering practice of L.G. Mouchel & Partners Ltd. Mouchel's extension was executed in reinforced concrete using the continuous 'slip-form' method of construction and housed an additional fifty-four bins, of both square and circular design (Rowley, pg.134). In stark contrast to the classical aspirations of Batchelor & Hicks' initial phase, both programmes of extension reflected a strictly utilitarian design with the functional form and massing of the storage bins clearly expressed to the external elevation. Images of Alexandra Dock dated 1947 capture the silo after completion of the second extension phase (fig.6).

The silo saw steam power give way to electricity, with the buildings plant equipment powered by electric motor. The port had advertised in 1927 that 'The Dublin Corporation Electric Lighting Plant Ltd. operated within the precincts of the harbour and afforded ample serves for lighting and power for industrial purposes at favourable rates' (Hartnell, pg.13). It is noted that an electricity substation, built c.1900 is located to the northeast of the silo for distribution of power to the immediate area (NIAH Ref: 50011171).

In 1987 the silo was sold to R&H Hall Company Ltd. after the Merchant Warehouse Company reported losses to its operations at Alexandra Basin (Irish Independent 5<sup>th</sup> August 1987). The silo remains in active use and continues to function as a bulk dry grain storage facility, though 4 no. of the steel bins, dating to the c.1932 extension phase, have been decommissioned due structural failures in the steel plating. Aside from the 2 no. principal extensions which date to the 1930s, further alterations and additions were carried out c.mid 20<sup>th</sup> century to include the infilling of Batchelor & Hicks stepped roofline and the asymmetrical infilling of recessed bays between the 3 no. original projecting stair cores of the principal southern elevation. A further single-storey office extension of concrete block construction, abutting the southern elevation of the building, dates to the late 20<sup>th</sup> century; the terminal structure and section of elevated gantry running parallel to Alexandra Wharf was also rebuilt during this period. A significant number of telecommunications antennae have also been added to the roofline.

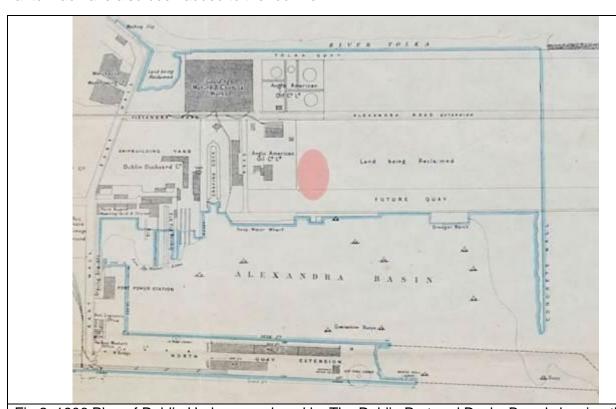
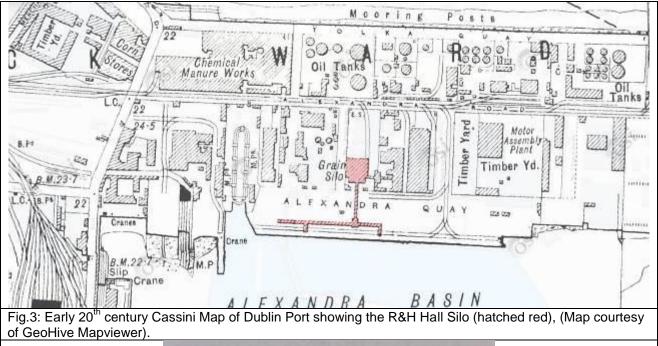


Fig.2: 1906 Plan of Dublin Harbour produced by The Dublin Port and Docks Board showing the site of the R&H Hall Silo prior to its construction (hatched in red). Note that the subject lands are annotated as 'lands being reclaimed' (Map courtesy of the Dublin Port Archive).



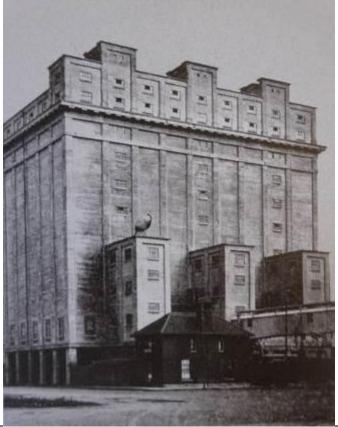


Fig.4: Image of the silo taken shortly after completion. Note the stepped roofline at attic storey and the projecting bays to the quay side elevation (south), (Larmour, pg.8).

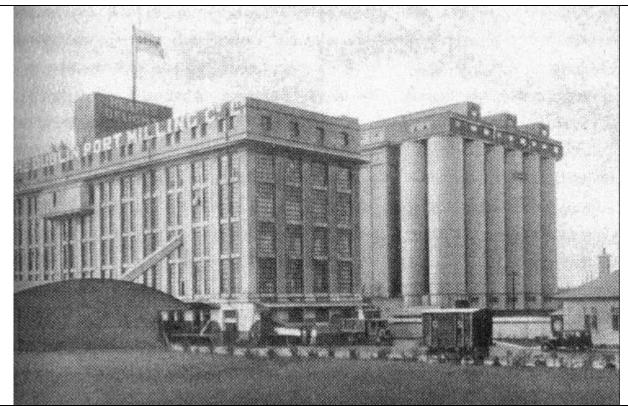


Fig.5: Image of the Dublin Port & Milling Company c.1937 with Merchants Warehouse Silo to right showing completion of the first extension phase c.1932 (Image courtesy of Fred Hammond).

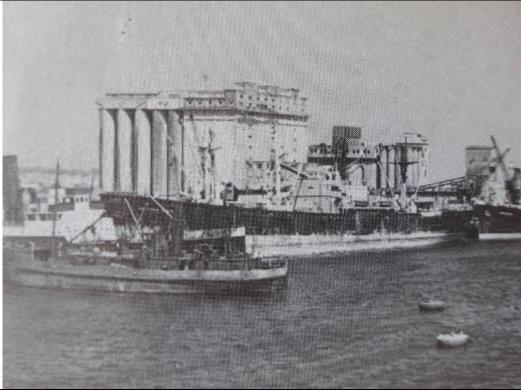


Fig.6: A view of Alexandra Basin dated 1947, showing the R&H Hall Silo to the background. Note that both phases of extensions have been completed by this date though the infilling of the stepped roofline has not yet been carried out, (Gilligan, pg.191).



Fig.7: Site layout noting key construction phases of the complex (3-D image courtesy of Google Maps - last accessed 17/09/2019).

### References:

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- Hartnell, H. C. (1926). *The port of Dublin:* [Official handbook of the Port of Dublin]. Dublin: The Dublin Port & Docks Board.
- Larmour, P. (2009). Free State Architecture. Kinsale: Gandon.
- Rowley, E. (editor) (2016). *More than concrete blocks Vol. 1, 1900-1939.* Dublin: Dublin City Council with University of Dublin & Four Courts Press.
- Rynne, C. (2006). Industrial Ireland 1750-1930. Cork: Collins Press.

# Significance/NIAH Rating:

The National Inventory of Architectural Heritage (NIAH) has been carried out for this area. The NIAH uses eight categories of special interest (architectural, historical, archaeological, artistic, cultural, scientific, technical & social) and identifies five categories of rating in seeking to rank buildings. The NIAH rating values are International, National, Regional, Local and Record Only (I, N, R, L, O). Structures which are considered of International, National, and Regional significance are deemed worthy of inclusion on the RPS.

The NIAH has assigned the R&H Hall Silo, Alexandra Road, Dublin 1 a 'National' rating. These are structures and sites that are considered to be of great architectural heritage significance in an Irish context. Examples include Ardnacrusha Power Station, Co. Clare; the Ford Factory, Cork; Carroll's Factory, Dundalk; Lismore Castle, Co. Waterford; Sligo Courthouse, Sligo; and Emo Court, Co. Laois. As a result, it is included in the list of Ministerial Recommendations for inclusion on the RPS of structures deemed as being of 'Regional' significance or higher identified during Stage 2 of the Dublin Survey.

### Assessment of Special Interest under the Planning and Development Act 2000:

The National Inventory of Architectural Heritage assigned this building ARCHITECTURAL & TECHNICAL interest.

The Conservation Section, following an inspection of the site on 9<sup>th</sup> October 2019, has considered the opinion of the NIAH and is in agreement with the two categories of special interest assigned. In addition, the Conservation Section assigns HISTORICAL interest to the site. As a result, the R&H Hall Silo, Alexandra Road, Dublin 1 is considered to be of special interest under the following headings:

#### ARCHITECTURAL:

- The Bachelor & Hicks silo at Alexandra Basin represents one of the first vertical silos to be have been built in Ireland. Previously, floor silos such as those located at Waterford, built c.1905 (NIAH Ref: 22900908), and Westport, built c.1908 (NIAH Ref: 31308726), conformed to a traditional warehouse layout having large open plan floors on a horizontal arrangement. The silo at Alexandra Basin was one of the first high rise grain stores to utilise multi-storey vertically-aligned drums/bins.
- The early silo and its extension dated c.1937 were designed by known architectural and engineering practices which forged reputations through their use of modern industrial materials and their work on industrial complexes. Batchelor and Hicks designed the original silo building in 1915 and are accredited for their use of the Hennebique reinforced concrete frame system at No.27-30 Dame Street, Dublin in 1906, when it was used 'reputedly for the first time in the city' (Casey, pg.415). L.G. Mouchel & Partners Ltd., consulting engineers for the c.1937 extension had designed a number of early reinforced concrete bridges in Ireland as well as 2 no. of the Battersea power station chimneys in 1931 and the Earls Court exhibition centre in 1935, which at the time was one of the largest reinforced concrete buildings in the world, (Rowley, pg.141).
- The silo (including phased extensions) is of an imposing monumental scale which dominates the industrial landscape (see fig.13). Referred to by Hartnell, in 1926 as the 'Great Silo' it remains one of the most instantly recognisable landmarks of the Dublin port complex (Hartnell, pg.13).
- The silo is an exemplar of early twentieth-century industrial architecture. Paul Lamour refers to it as 'the great towering grain silo', listing it among one of a small number of modern movement buildings to have been built during the early 20th century (Larmour, pg.8). The structure also features as a case study within More than Concrete Blocks Vol. 1, where it is described as 'a totem to Dublin Port's twentieth-century history' (Rowley, pg.132).
- The Bachelor & Hicks silo of 1915 displays an embellishment and architectural elaboration which is unusual in the Irish context in such buildings, having classical detailing rendering the structure reminiscent of a skyscraper (it is noted that the American silos of the central grain belt are colloquially referred to as 'Prairie Skyscrapers'). In contrast, the extensions of c.1932 and c.1937 are utilitarian in nature

demonstrating the relationship between architectural form and function. Collectively the composition presents a compelling juxtaposition and interrelationship of differing design approaches within one single structure.

The interior is characteristically functional with a simple utilitarian design dictated by process. The ground floors comprise vast double-height spaces dominated by the soffits of the silo hoppers and forests of piers which support the cavernous grain bins overhead. Detailing is reduced to a minimum, though subtle stop chamfers enliven concrete elements to both the 1915 and c.1937 phases. High level gantry walkways and the considered placement of observation windows, offering vantage points from which to oversee the loading of vehicles, demonstrate a clear understanding of the process flow from receiving, storing to distribution of the bulk grain. The three principal stair cores include concrete staircases with metal guarding and electric light fixtures in a restrained modernist style. Limewashed wall and ceiling finishes survive to some process areas with an early 20<sup>th</sup> century colour scheme retained to the switch room. Though elements of the internal plant have been replaced during the late 20<sup>th</sup> century, some significant early items remain including the electric switch bank complete with instruments having a maker's plate reading 'ELLIOTT BROTHERS (LONDON) Ltd'.

#### HISTORICAL:

- The silo and extensions are a physical legacy of Dublin Port's surviving historic industrial landscape, reflecting the development of the Alexandra Basin and the associated socio-economic achievements of the late 19th and early 20th century port authority. The silo continues to maintain its physical connection to the quayside with an elevated gantry to the south, which facilitated the unloading of grain from Alexandra Wharf (Rowley, pg.133).
- The R&H Hall Silo represents one of a small number of early 20th century silo structures still in active use, providing a sense of historical continuity with past industrial activity. The silo also serves as a reminder of the importance of food processing as an industry in early 20th century Dublin.
- The expansion of the silo in c.1932 and again in c.1937 is testimony to the changing socio-economic situation in Ireland during the 1930s, reflecting Irelands growing dependency on bulk grain importation, coupled with stringent requirements for its storage, under the Agricultural Produce (Cereals) Act of 1933 (Rowley, pg141).

#### TECHNICAL:

- The 1915 silo represents an early use of reinforced concrete, a material that distinguished the modern era and which allowed Bachelor and Hicks to break free of traditional structural constraints, pushing the boundaries of height and scale. More than Concrete Blocks Vol.1 notes that the walls of each bin were only 17.8cm thick, due to the strength of the concrete, allowing for the most efficient use of internal space (Rowley, pg.339).
- The steel plated extension of c.1932 reflects an unusual choice of construction at a time when reinforced concrete was generally recognised as the superior material for the design and execution of silo structures. Favoured during the late 19<sup>th</sup> century due to a rapid construction timeframe, early steel silos were prone to corrosion and often suffered from poor weather-tightness. The steel bin extension to the R&H Hall Silo at Alexandra Road, together with the silo at the adjacent former Odlums site (NIAH Ref: 50060591), represent one of a small number of industrial scale steel silos to have been built during the first half of the 20<sup>th</sup> century. It is notable that the use of riveted steel plate was abandoned in favour of 'slip-form' concrete construction for the third and final phase of silo expansion.

- The concrete silo extension of c.1937 was constructed using the 'slip-form' method of construction and reflects an early use of the technique in Ireland. Pioneered during the early 20<sup>th</sup> century in the construction of grain silos and elevators in North America, the 'slip-form' concrete construction technique facilitated the construction of vertical bulk grain storage on an enlarged scale and to an increased efficiency.
- The silo was at the forefront of mechanisation reflecting advancements in new technology through the use of electric powered 'pneumatic suction pumps'. Though elements of the internal plant have been replaced to facilitate advancements in the industrial process, surviving redundant plant equipment together with the survival of the early industrial form of the principal internal spaces allow a sound understanding of the manufacturing process.

### **Conclusion**:

The Conservation Section has considered the applicants' reasons for seeking addition and concludes that having reviewed the site it is recommended that the R&H Hall Silo, including the early 20<sup>th</sup> century elevated gantries to the south and east, be proposed for addition to the City's Record of Protected Structures. A single-storey lean-to extension to the south elevation of the principal silo structure together with the terminal structure attached to the southern end of the elevated quayside gantry and the associated section of gantry running parallel with Alexandra Wharf, date to the late 20<sup>th</sup> century and are of limited significance - it is recommended that these elements of the structure are excluded from protection.

The purpose of this report is to attain the approval of the Central Area Committee of Dublin City Council for the initiation of the statutory process for the proposed addition of this structure to the Record of Protected Structures. This includes undertaking a statutory public consultation process in accordance with Section 55 of the Act. Following the statutory consultation process, a further report will be prepared taking any submissions and observations received into consideration, with a recommendation to the City Council to proceed or not with the proposed addition, or with a recommendation including amendments to the proposed addition.

#### Recommendation:

It is recommended that the R&H Hall Silo (including the early 20<sup>th</sup> century elevated gantries to the south and east), Alexandra Road, Dublin 1 be added to the Record of Protected Structures, in accordance with Section 54 and 55 of the Planning and Development Act, 2000 (as amended).

Recommendation			
Address	Description (to appear on RPS)		
R&H Hall Silo, Alexandra Road, Dublin 1	Grain silo including early 20 <sup>th</sup> century elevated gantries to south and east (but excluding singlestorey lean-to extension to the south elevation, terminal structure attached to southern end of the elevated quayside gantry and the associated section of gantry running parallel with Alexandra Wharf).		

Date: 01/11/2019

Paraic Fallon Senior Planner

# **Extent of Protected Structure Status & Curtilage**

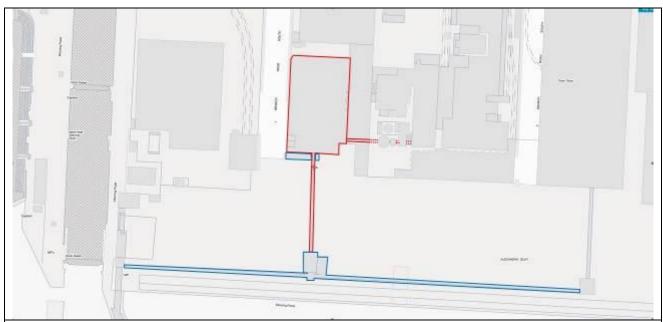


Fig.8: Map of site showing extent of Protected Structure status and curtilage. Area outlined in a solid red line is within the ownership of R&H Hall. The area outlined in a dashed red line is within the ownership of the former Odlums Site. Elements of the structure excluded from protection are highlighted in blue.

# **Photographic Record**

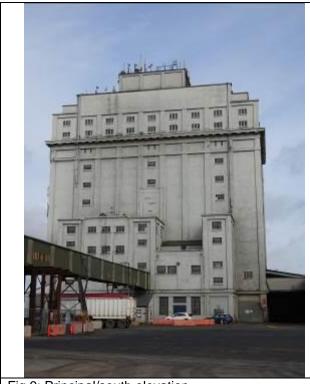




Fig.9: Principal/south elevation.

Fig.10: West elevation taken from the northwest.

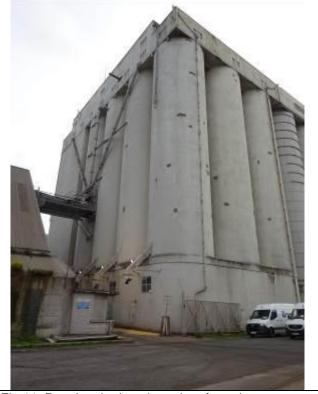




Fig.11: Rear/north elevation taken from the northwest.

Fig.12: East elevation taken from the southeast.

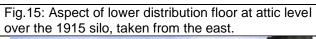


Fig.13: Aspect of silo (left) and former Odlums site (right) taken from Ringsend (south). Note the R&H Hall Silo together with the adjacent Odlums site dominate the skyline of the Dublin Port complex.





Fig.14: Ground floor double-height space to c.1937 concrete silo, taken from the southeast.



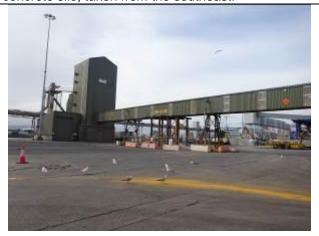




Fig.16: Elevated gantry and terminal tower to south of silo.

Fig.17: Detail of steel trusswork pier to elevated gantry at south of silo.