



View of South elevation of The Engine House

3.0 HYDRAULIC ENGINE HOUSE

1.1 HISTORIC STRUCTURE

The Hydraulic Engine House (also known as “the Engine House”) is located on the North East edge of the Bramley-Moore Dock in Liverpool. This is situated within the World Heritage Site and the Stanley Dock Conservation Area. The Engine House is a Grade II listed structure.

The Engine House was designed as a water accumulator tower, which originally used an steam engine room at dock level to pump water up into the accumulator tower. This then provided hydraulic power to power dock machinery, such as the dock gates.

Historic records show the Engine House was part of the high level coal railway that served the docks, with an engine house at dock quayside level beneath the running platform for the coal trains. The Engine House and chimney rose adjacent to this. There is a small office building on the railway level which is accessed via an external stair to the East.

The Engine House dates from 1883 and is constructed from red brick with a number of decorative elements on all facades but particularly the plaza-facing south elevation. It forms a key visual location to the historic docks and is visible from beyond the dock wall to Regent Road. The dentilled coursing, colour-varied banding, recessed panels and segmental arch heads provide aesthetically striking features that should be maintained and emphasised during any restoration.

Over the years there have been additions and removals from the Engine House, the overall height of the chimney has been reduced and an additional lean-to tower has been constructed adjacent to the original accumulator tower.

LISTING ENTRY: 1072981

Hydraulic engine house of Bramley-Moore Dock
Engine house, accumulator tower and truncated octagonal chimney. 1883. Common brick with red brick dressings, slate roof. Round-headed windows and entrances; pyramidal roof to accumulator tower; chimney cap missing.

1.2 CURRENT CONDITION

1. The surrounding elevated railway track and coal bunkers have been demolished with only the tower and former engine room remaining – all equipment has been removed.
2. The brickwork and pointing is exhibiting extensive weathering – especially to the prevalent westerly winds.
3. There is significant vegetation growth to the railway deck.
4. The elaborate chimney stack has been shortened and capped off.
5. The roof office structure is showing movement – potentially as a result of the roof ties failing at the wall heads.

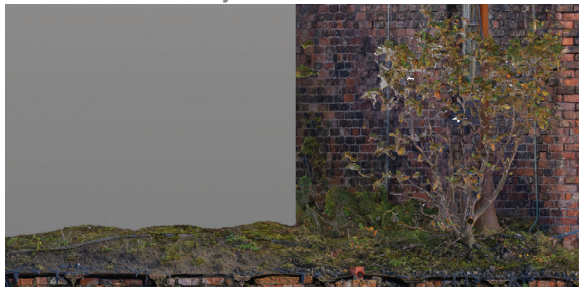
6. The ground level openings are blocked up, windows have been damaged with significant pigeon infestation.
7. The existing structure is in a mostly stable condition, but roof coverings have been lost and there is progressive water penetration and degradation.
8. The western end of the engine shed has also been demolished and the exposed formerly internal wall is showing extensive degradation (nearly a full brick depth weathering).
9. Under current conditions, it is not safe to allow a full internal condition / structural survey at this time.



1. Demolished railway



2. Demolished railway



3. Vegetation growth



4. Shortened chimney stack



5. Office roof movement



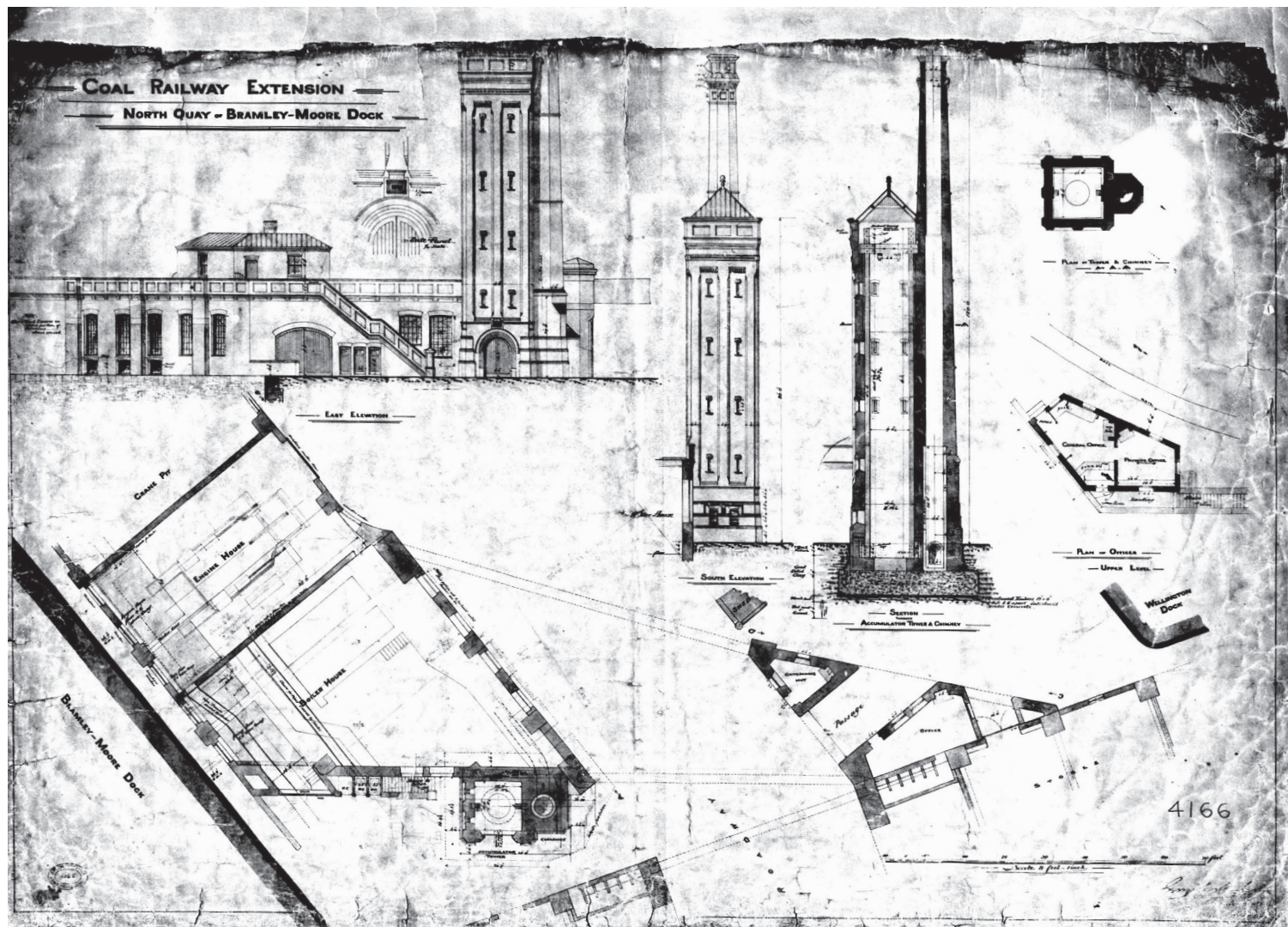
6. Blocked up openings



7. Lost roof coverings



8. Deep brick weathering





Inside the Engine Room



North West Corner of The Engine House



Top of Accumulator Tower



First Floor Office Door & Window

4.0 SURVEY STRATEGY

1.1 KEY POINTS

1. Everton Stadium Development Limited (ESDL) is seeking planning permission for a change of use of the Hydraulic Engine House within the Stadium Development planning submission.
2. ESDL does not own the Hydraulic Engine House, and will not obtain control until the receipt of the Stadium Development planning permission. The current owner is Peel Land & Property
3. Intrusive survey work and subsequent listed building consents to repair the Engine House cannot progress until the receipt of the Stadium Development planning permission.

3.1 SEQUENCE OF SURVEYS

1. External visual and measured elevation survey.
2. Receipt of planning permission for the Stadium development
3. Make the building safe.
4. Measured internal building survey.
5. Structural condition survey.
6. Specification and targeted intrusive survey.
7. Interpretive report and way forward.
8. Remedial works.



Partial Point Cloud Survey of Hydraulic Engine House



Image from drone survey of the Engine House



Image from drone survey of the Engine House

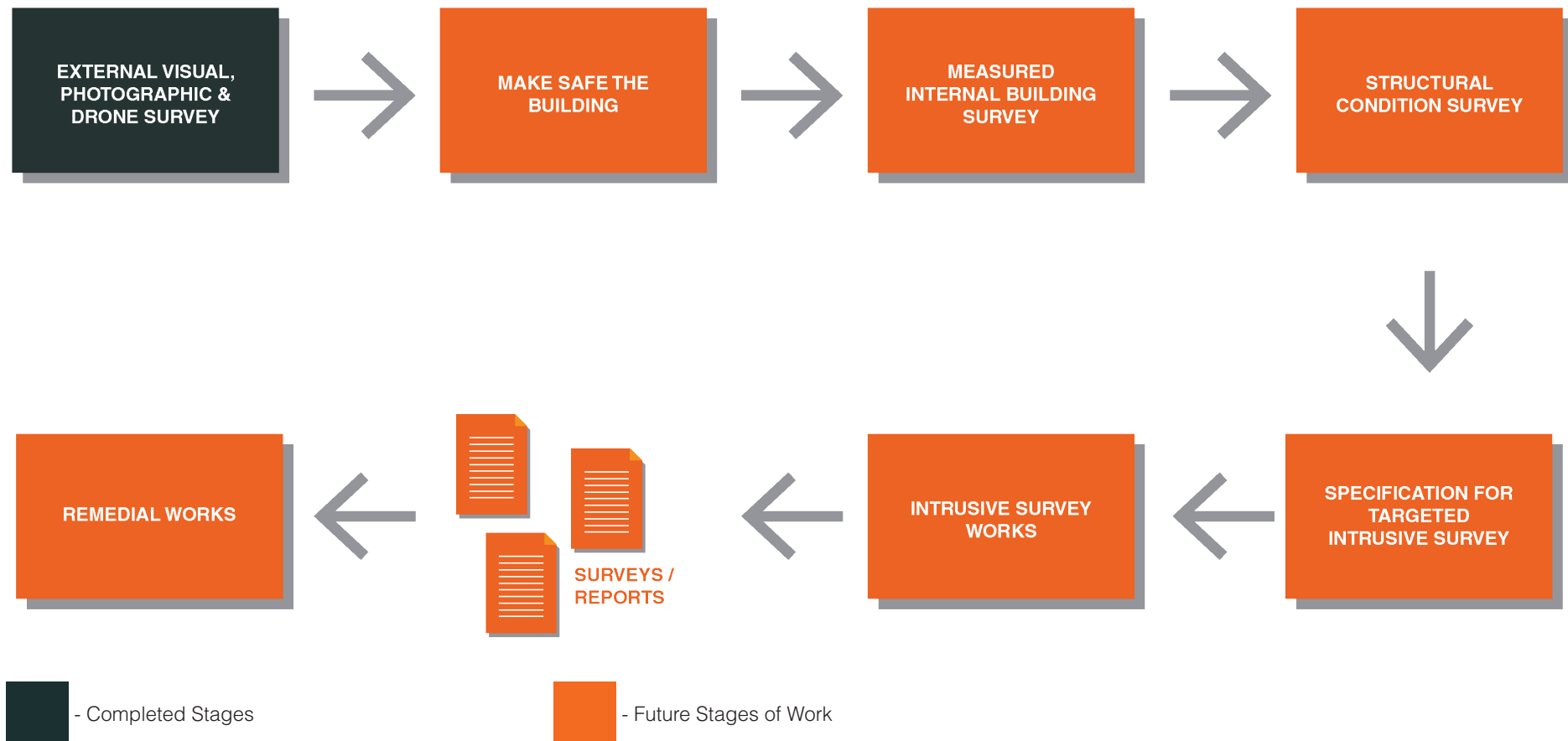


Image from drone survey of the Engine House



Image from drone survey of the Engine House

1.1 SURVEY PROGRAMME



5.0 DESIGN STRATEGY

1.1 DESIGN PRINCIPLES



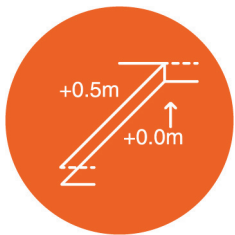
1.0 Make good the envelope

Work will need to be done to stabilise the structure ensuring the waterproofing is fit for purpose and brickwork is suitably re-pointed etc. ensuring the longevity of the building going forward.



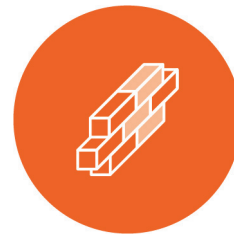
2.0 Make good the roof

The roof (former railway line deck) will be cleared of vegetation and reinstated to form a suitable thermally efficient watertight deck. Whether the deck is occupied or not will influence the final requirements. The existing roof of the office and Accumulator Tower to be replaced.



3.0 Align site wide levels

Historic ground levels will be maintained, where possible, to respect the relationship of the building to the historic dock edge.



4.0 Sensitive Restoration

Where possible the evidence of the historic industrial nature of the building should be maintained and celebrated.



5.0 Building Access

The building will have its own self contained services and be independent of the Stadium, capable of being run independently. Any intervention needs to ensure the Engine House is fully accessible.