^{heritage} project

Bramley Moore Dock - Regent Road Wall

Wall Condition Survey

Richard Baister / Peter Meehan June 2020



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1.0 Introduction

The following report notes findings from a condition survey that was carried out on a section of the Regent Road stonework wall in Liverpool adjacent to the Bramley Moore Dock. The survey was undertaken on the 4th and 5th June 2020 by Richard Baister and Peter Meehan of heritage project management.

1.1 Authority and Reference

Heritage project management carried out the survey works on behalf of Laing O'Rourke who are the appointed PCSA contractor for the construction of the new Everton Football Stadium which is to be built within the Bramley Moore Dock.

1.2 Aim

The aim of this survey was to undertake a review of the current wall condition and highlight areas where works were required to stabilise or prevent further degradation of this Grade II listed structure.

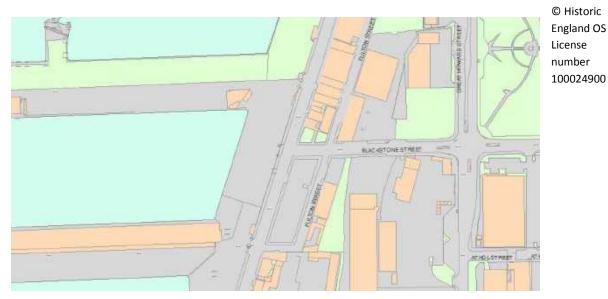
1.3 Limitations

This survey was limited to the areas of the wall and entrance piers that were accessible. To the south of the site the dock side of the wall was within the boundary of an existing timber yard where there was no authority to enter and review the wall condition. A section of the wall to the rear of the Bramley Moore Electrical Sub-station was also not accessible and is not included within the report.

The condition survey does not include a full structural assessment of the wall condition however any areas of concern with regard to cracking or distortion of the wall are noted within the survey record.

1.4 Location

The wall is located on the boundary to the Bramley Moore dock and Regent Road although the wall extends further than the limitations of the Bramley Moore Dock. The wall is Grade II listed with Historic England with the following details:



1.5 Listing Description:

18/954 Dock wall from opposite Sandhills Lane to Collingwood Dock with entrances 14.3.75. G.V. II

1848. Wall. Jesse Hartley. Stone wall about 18 ft high, built of large irregular shaped blocks of granite, and with large carved plaques eg "Sandon Graving Docks 1848", and "Collingwood Dock". Main entrance to Sandon Dock (A) has 2 large square stone piers with cornices and iron lampholders; centre brick watchman's hut about 8 ft square with cornice, modillioned eaves, parapet, corner ornament, centre chimney, name plate on front in pedimented panel; wooden gates slide into thickness of wall (southern one now bricked up). Entrance to Docks 47, 49, 50 (opposite Boundary Street) (B) has 3 round tapering turrets with large base and heavy abacus tops, and deep slits at sides for gates. Former entrance farther to south (C) is similar, but the centre turret is oval on plan. Entrance to North Collingwood, North Salisbury and Nelson Docks (D) has 3 round towers, the centre one taller and larger. Entrance to Nelson, South Wellington and Bramley Moore Docks (opposite Fulton Street) (E) also 3 round towers, the centre one taller and larger. A similar former entrance (now blocked) (F) near Bramley Moore pumping station.

2.0 Survey Methodology

Physical access was available to the base of the wall on both sides of the wall with the exception of an area to the south where the timber yard was located. Each elevation of the wall was surveyed and photographed in 3m sections with the findings noted within this report.

Each section was reviewed to identify key features, defects and areas that may require conservation treatment in the future to ensure that there is no further degradation in its condition.

The survey works were non-intrusive however mortar samples were taken from 2 different areas of the wall to analyse the different pointing and bedding material that had been used in the past. An additional sample was taken from the remains of the brickwork wall to the rear of the stonework.

3.0 Summary of Condition

Regent Road Wall Stonework

The Regent Road wall is constructed of random granite stonework of varying sizes with a black ash mortar. The stones have been laid in a manner which minimises the mortar bed thickness and where possible small stone elements are fitted between the larger stones to maximise the stonework appearance of the wall.

The wall is approx. 4.4m in height tapering from its base width of approx. 700mm wide to 300mm wide at its full height. A series of curved coping stones are fitted to the top of the wall which vary in size but overall maintain the appearance of a curved profile to the wall.

On the Regents Road side of the wall there is evidence that the stonework has been cleaned as there is a consistent appearance to the stonework with very little pollution or staining present. The coping stones have also more recently been re-pointed although this does not extend further than was accessible from Regents Road. On the Bramley Moore dock side of the wall there are areas where the wall has been cleaned but the surface of the wall shown considerable variation in colour through differing adjacent use and cleaning regimes.

A stepped brickwork wall tapering in height is built up against the rear of the dock side of the wall and this corresponds with the remains of the "Switchback" which was a section of the Dockers Overhead Railway which dropped to ground level to avoid the Hydraulic Bridge that was positioned just to the north of the Bramley Moore site.

Along the length of the wall there is considerable cracking of the mortar especially at high level where the wall is thinner in section and more exposed to weathering. The cracking is typically to the interface of the stone to the mortar bed although in the upper wall areas considerable cracking is evident within the mortar beds which displaces the stonework above. In the most serious areas, the cracking has destabilised the integrity of the wall raising the coping stones and loosening the stonework beneath.

The reason for the loss of mortar integrity is not clear. A coal ash mortar has been used for bedding the stones and then upon completion a stronger coal ash mortar used to point the face of the stonework. The failure appears to be more resultant from degradation of the bedding mortar and although the pointing mortar is missing in areas it does not exhibit the cracking and degradation which is apparent in the bedding courses. Coal ash mortars are typical of the 19th century and utilised waste products from the burning of coal. The ash can contain high level of sulphates which can cause expansion and cracking within the mortar especially in an exposed marine environment. It is likely therefore that chemical attack as resulted in micro cracking of the mortar which has then been more susceptible to frost damage and the larger scale cracking that is present in the mortar.

The extent of cracking is such that some of the smaller stones have become loosened further enabling water entry and plant growth within the wall core. Remedial works will be required to repair areas of the wall there has been significant cracking or material loss which has loosened the stonework or destabilised areas of the wall. Additional re-pointing of areas where cracking is allowing water to enter the core of the wall would also be beneficial although this is extensive.

Areas of the wall have been repointed such as the coping and upper wall elements on the Regent Road side of the wall and areas have been repaired where damage has occurred. This work blends in with the existing mortar however the workmanship fails to achieve that of the original construction.

There are areas of damage such as where buildings have been positioned directly against the wall and chases cut into the wall for flashing roof areas. These have damaged the stonework however do not appear to structurally affect the mass of the wall.

Brickwork

The brickwork to the rear of the wall abuts the stonework wall construction and to the southerly end of the wall where the pier is present it is keyed into the stonework itself. The bricks are of a common type with the exception of the face bricks to the pier which have a glazed face and they are bedded with a silver sand lime mortar. The condition of the wall is generally sound although there are areas of loose bricks especially on the more exposed upper faces where they have been loosened through mechanical damage, frost and plant growth. The brickwork is in full English Bond with the bricks being approx. 230 x 110 x 80mm in size.

Remedial works are required to areas of loose brickwork or areas where plant growth is lifting the brickwork courses.

Mortar Analysis

The mortar analysis included within Appendix 7.3 notes that the wall is constructed with a black ash mortar. Two different mixes have been used with the stones being bedded and pointed in different mortars. The pointing mortar is slightly darker in colour and stronger in nature whereas the bedding mortar is lighter in both strength and appearance.

Cleaning

The Regents Road side of the wall has been cleaned along its length in recent years and some areas of the Bramley Moore dock have also been cleaned. However, there still remain areas of pollution and staining from the previous use of the site and environmental conditions. In addition, there are areas where calcium deposits have built up through water entering the core of the wall and materials such as concrete which have been left on the face of the stonework. It is recommended that significant deposits which may be harmful in the long term are removed however the general pollution staining of the wall is not considered detrimental.

Gates

The gates to the north of the site have been replaced and appear to be a modern interpretation of the original gates although they are reduced in section sizes and not operable. The gates to the south of the site however appear to be largely intact although in a degraded condition. The track, guides and running wheels are present together with the timberwork of the gates that have not been used for some time. Options therefore exist for the conservation repair of the gates and their sliding mechanisms to return these elements to use.

4.0 Identified Issues

The condition survey identified a number of general issues which are noted in this section together with supporting photographs and proposed treatment recommendations.

4.1 Cracking within the Mortar Beds

The Regent Road Wall has been constructed in a continuous length between the gate piers from random granite stonework that has been carefully laid to maximise the stonework on the face of the wall. Smaller stones are fitted between the larger elements to reduce the width of the mortar beds on its face which provides a high-quality stonework appearance.

There are a considerable number of cracks which are visible on the face of the wall – these typically are at the interface of the stone to the mortar.

Cracking is more prevalent to the upper parts of the wall which are more exposed to weathering.



Some of the wider joints at high level show multiple cracking of the mortar beads where the overall mortar integrity has been compromised.



Cracking appears to be intrusive into the core of the wall with mortar separated from the face of the stones through the width of the stone.



4.2 Loose stonework (Coping level)

The dockside elevation of Regent Road wall in particular has areas of very loose stonework where the integrity of the mortar has been compromised and the stones are easily separated from the surrounding construction. Photo shows the worst area that was found (Section 29) where the stonework has separated from its mortar beds.



Where cracking is evident some of the smaller stones on the face are loose and pose a potential H&S issue especially in high wind conditions.

The coping stones have been re-pointed at some time however cracking is still evident in these areas showing continuing displacement.



4.3 Concrete and surface coatings

Areas of the wall have been subject to damage from concrete and other surface materials that have ben applied either directly to or to adjacent structures.

These include:

- concrete from adjacent base construction.
- Paintwork
- Tar from adjacent roofing / waterproofing







4.4 Calcium Deposits

At low level there are a number of areas where calcium deposits have formed on the face of the wall indicating where water movement is present from the internal of the wall.



4.5 Services

Electrical and utility services are present on the dockside elevation of the wall. These are fitted with ferrous fixings into the mortar beds. All fixings should be removed to prevent these corroding and further damaging the wall.



4.6 Timberwork fitted to wall.

At positions along the wall various sheds have been constructed against the wall. Some of the timberwork and fixings remain which should be removed to prevent further damage to the wall.



Additionally where previous roof constructions have abutted the wall chase lines have been formed for flashings. These rebates are approx. 50mm deep into the stonework.



4.7 Previous Investigation

Positions

The location of previous wall investigations / coring is visible on the face of the wall.



4.8 Embedded Ironwork

Evidence of previous ironwork ie handrails fitted at the gate piers within the stonework. Where ironwork is stable it can be retained however in most areas there is evidence of corrosion jacking and damage to mortar beds.



4.9 Rust Staining

Rust staining is present is areas where embedded ironwork has been retained or cut close to the face of the wall.



4.10 Buddleia and plant growth

Any plant growth on the walls is undesirable as roots can penetrate the surface mortars and destabilise stonework. Buddleia is particularly invasive and its extensive root network can damage lime mortars forcing apart stones leading to movement and stone loss within the wall.

Any existing growth on the walls should be removed together with any soil build-up and the resultant damage made good to prevent further degradation of the wall and prevent water entering the wall core.



4.11 Brickwork to rear of wall.

Upper courses of the brickwork wall have become dislodged and damaged by frost, impact and plant growth.



4.12 Cleaning

Areas of the wall have been cleaned at different times leaving some areas of the wall partly obscured by dirt and pollution. This is particularly apparent on the Bramley Moore dock side of the wall where different structures have previously abutted the wall.



4.13 Gates

Southern gates are in a degraded condition although substantially intact.

Northern gates have been replaced with replica gates that are not operable.

Options for the conservation repair of the gates should be reviewed to enable these heritage elements to be retained.



5.0 Recommendations

The following recommendations are noted for review with the project team.

Recommendation 1 – That a strategy for repair be established for agreement with the Conservation Officer / Historic England for the repair techniques and materials to be used in any remedial treatments to the wall, gates and entrances structures.

Recommendation 2 – That additional intrusive investigations are undertaken on the most degraded sections of the wall ie section 29 to determine the extent of cracking within the core of the wall and assist with the development of appropriate repair techniques. These additional investigation works should be undertaken in conjunction with the Engineer to determine the long-term structural stability of the wall elements.

Recommendation 3 – That additional intrusive investigations be undertaken to fully assess the condition of the timber gates to the south entrance to allow a specification for repair and reuse to be developed.

Recommendation 4 – That once access to areas where it was not possible to survey the wall become available that an additional survey is undertaken of these areas to complete the record.

Recommendation 5 – That options for cleaning of the wall should be reviewed to determine the most appropriate cleaning techniques where these are required. This should include trial works to discrete areas of the wall.

6.0 Mortar Analysis

Three mortar samples were taken from the Regent Road Wall:

- Sample 1 Bedding mortar from the wall.
- Sample 2 Pointing mortar form the wall.
- Sample 3 Bedding / pointing mortar from the brickwork wall to the rear of the all.





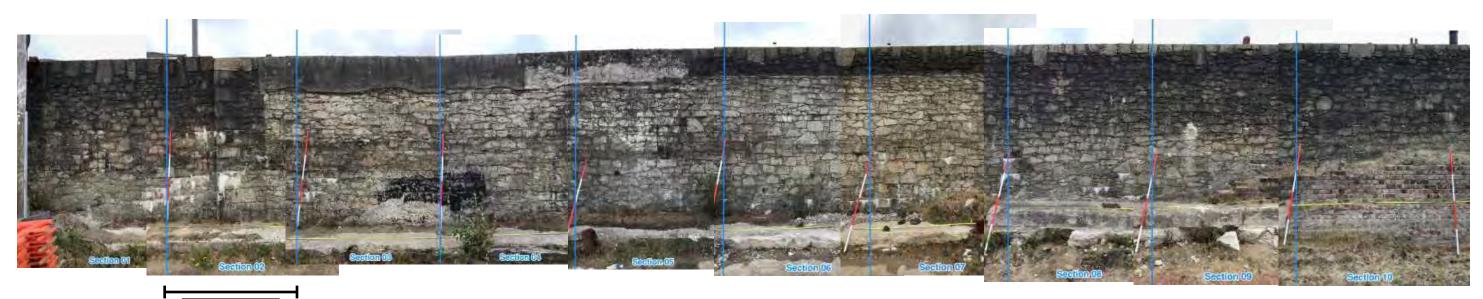
Sample 1 & 2 location.

Sample 3 Location.

Each of the samples was analysed to determine its binder content and to provide a grading analysis of the aggregates used. Reports for each sample are included in Appendix 7.4.

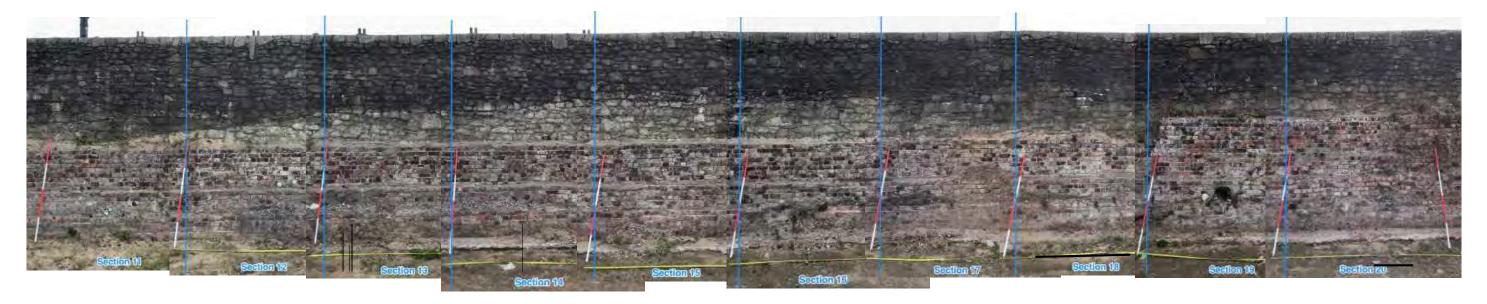
7.0 Appendix Items

- 7.1 Wall Elevation Photographic Collage
- 7.2 Wall Elevation Section Condition Record Sheets
- 7.3 North and South Gates Condition Record Sheets
- 7.4 Mortar Analysis



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3 Metre Sections
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30 Metres

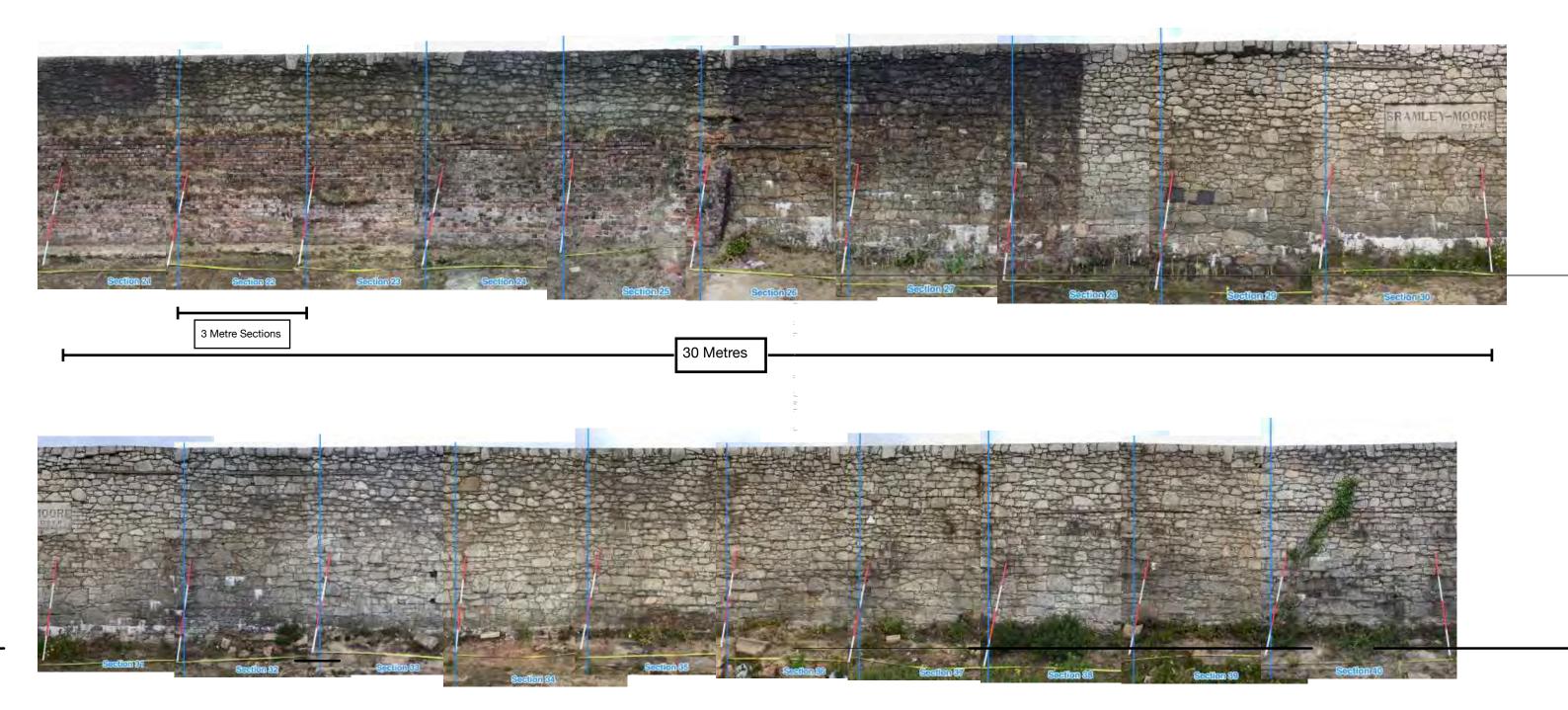


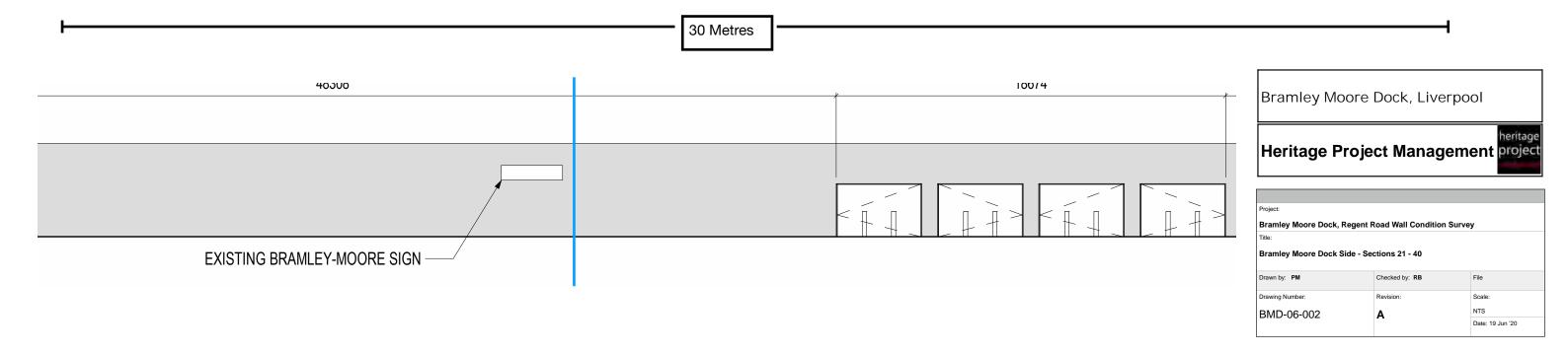
30 Metres

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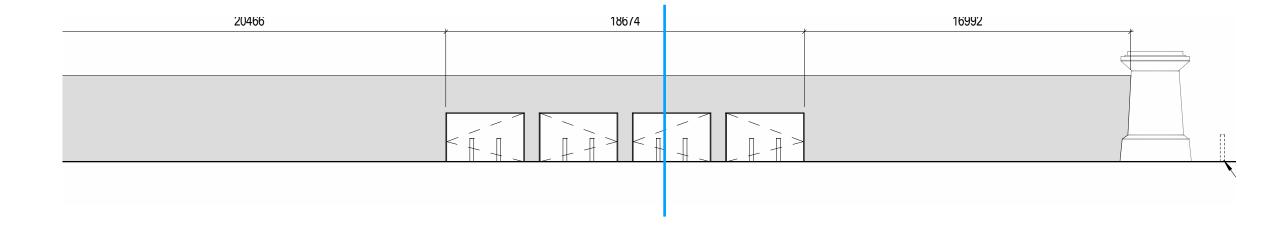






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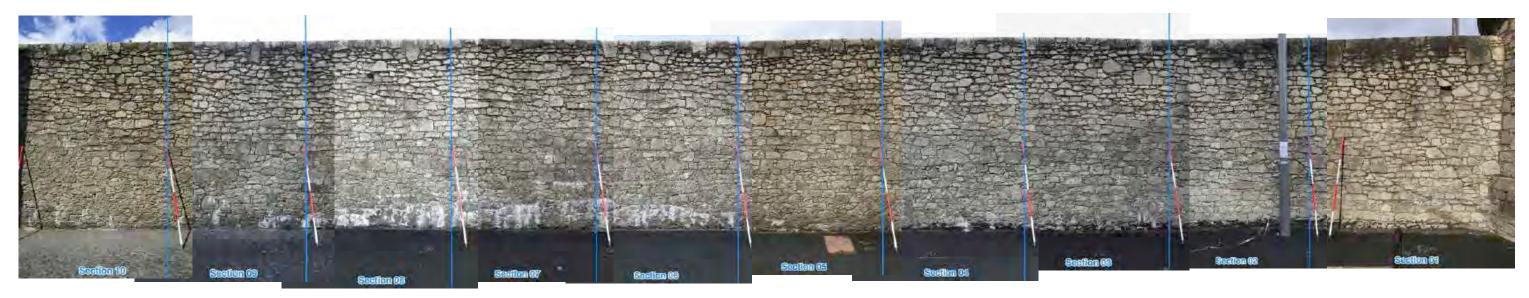


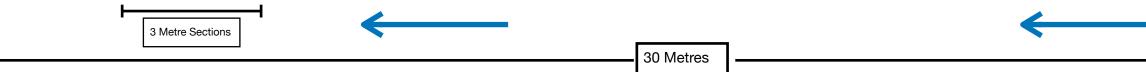


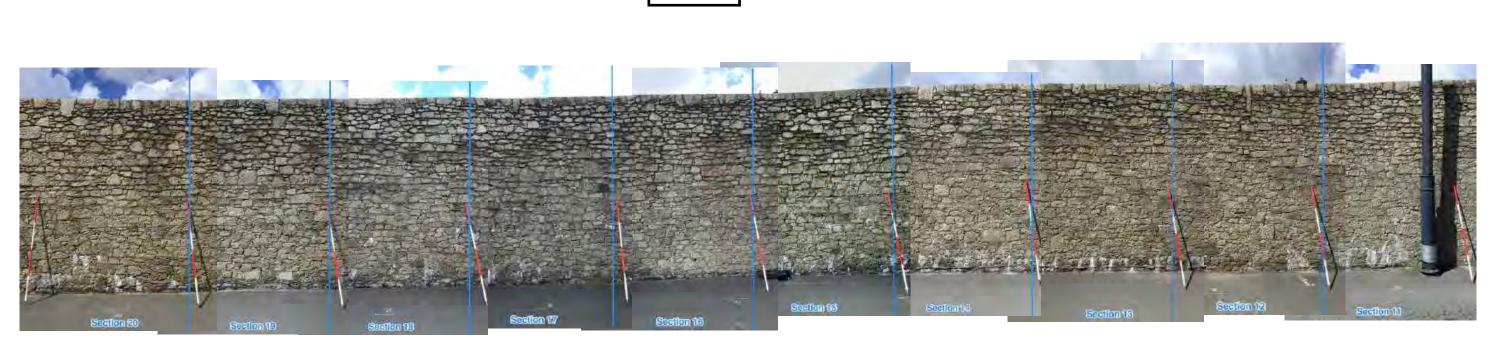
Bramley Moore Dock, Liverpool

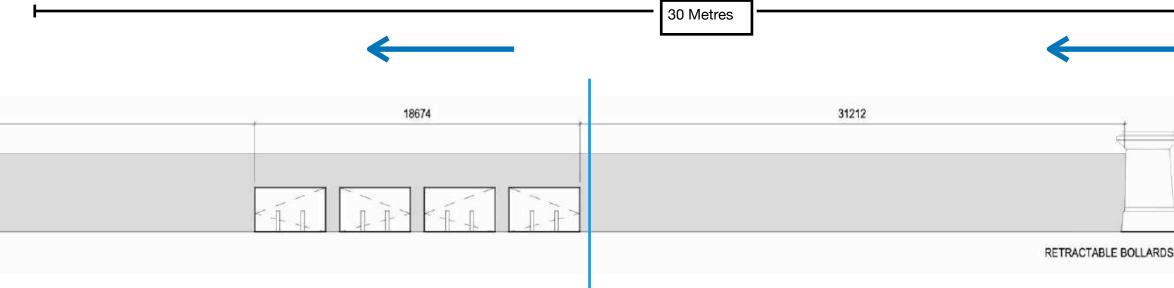
Heritage Project Management project

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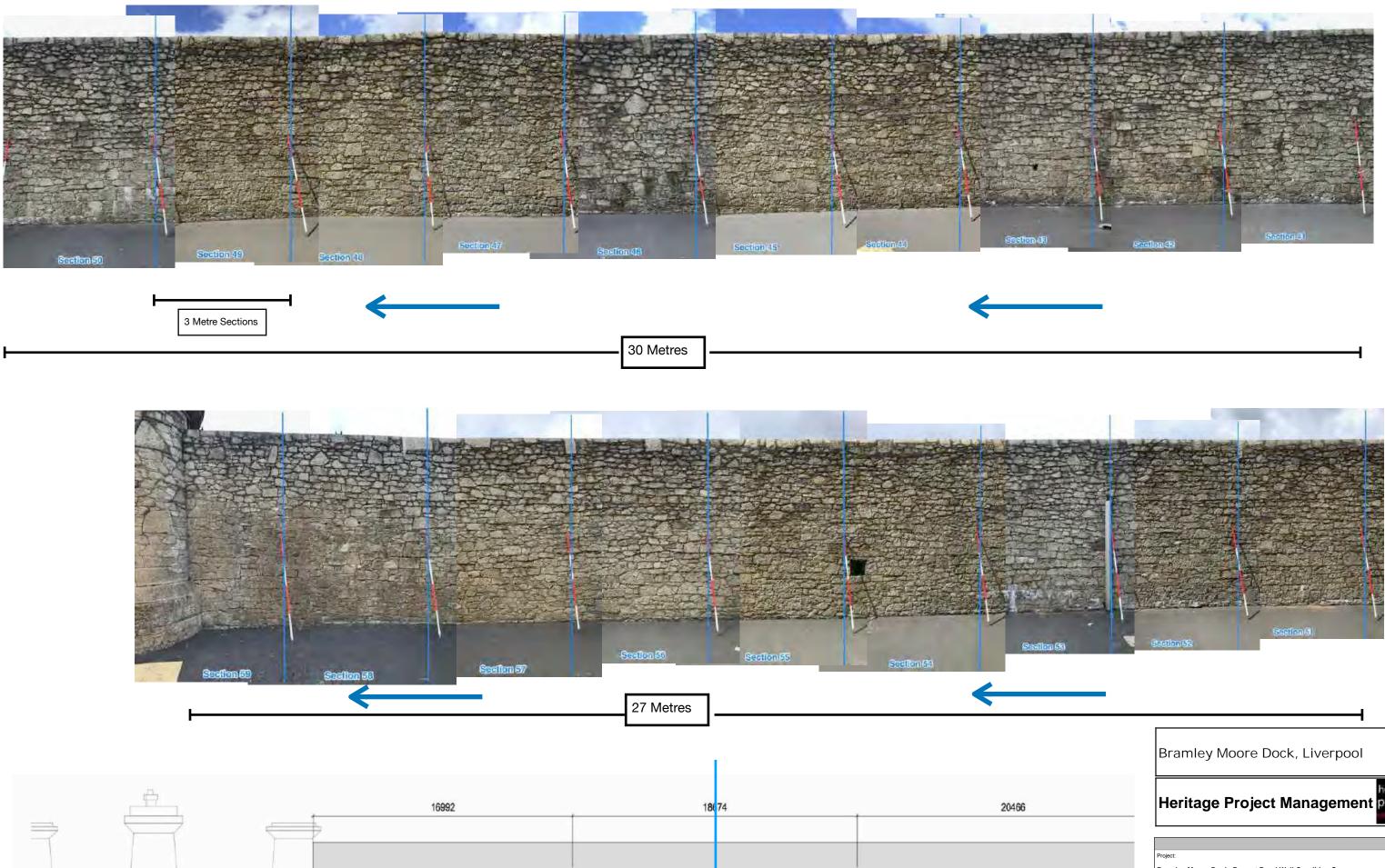




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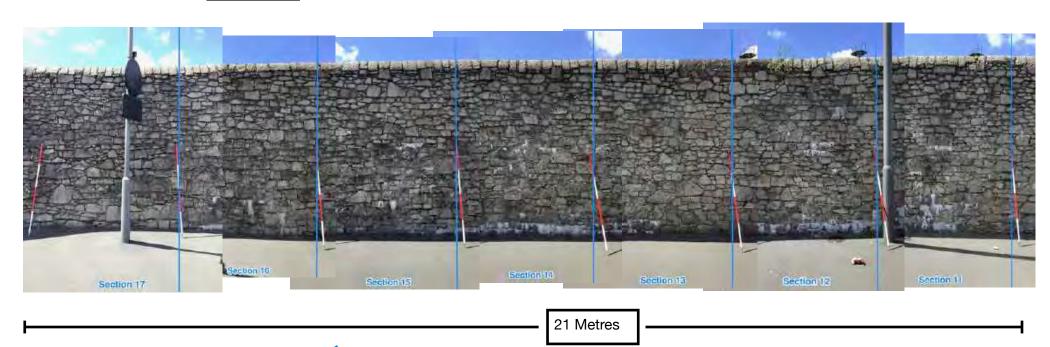
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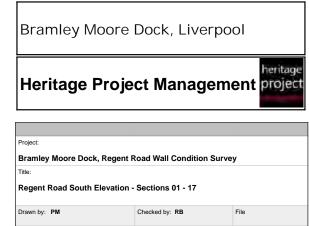
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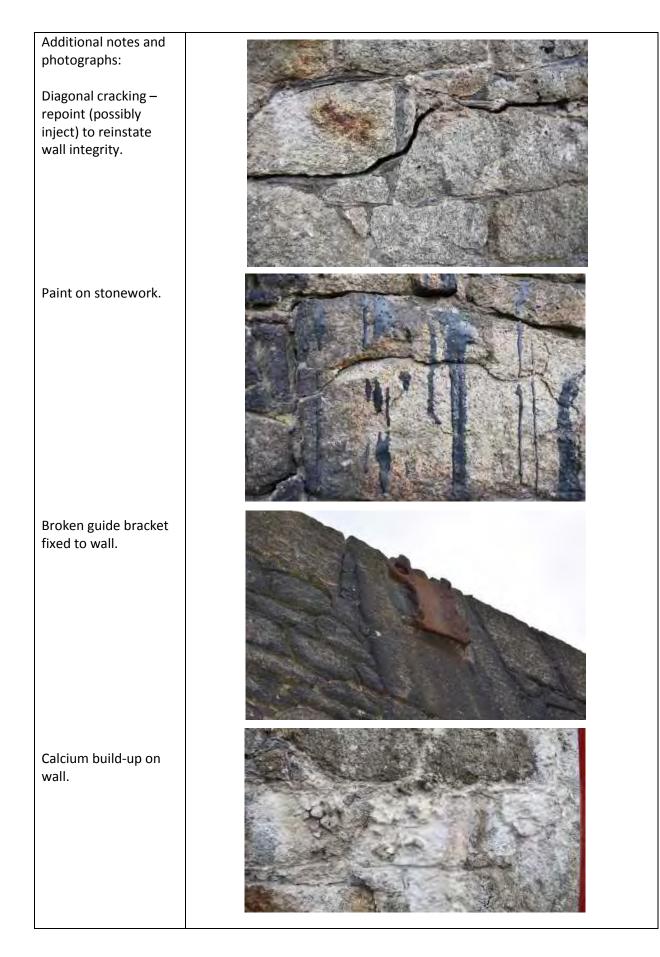
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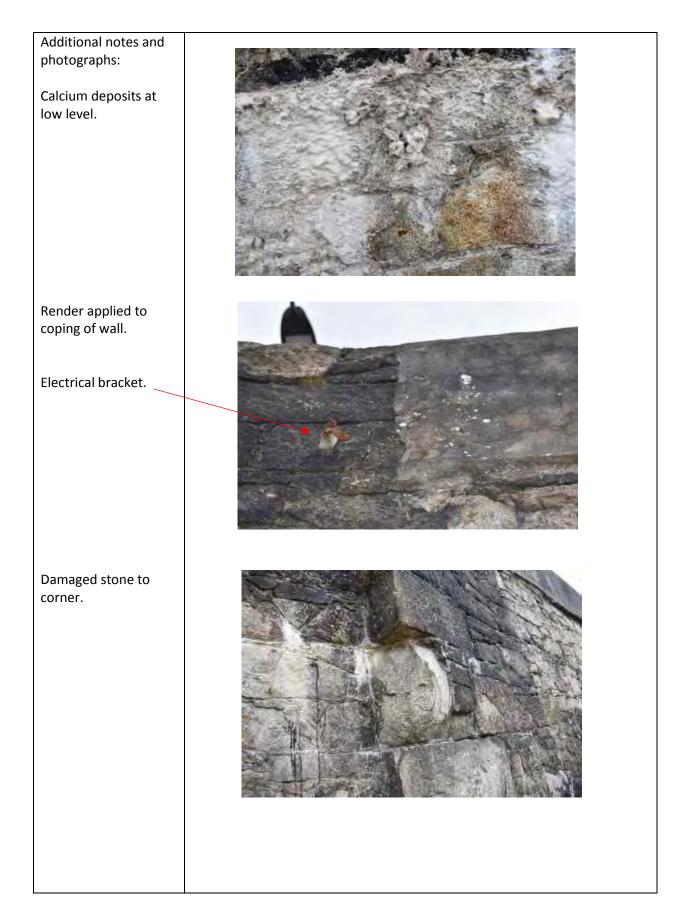
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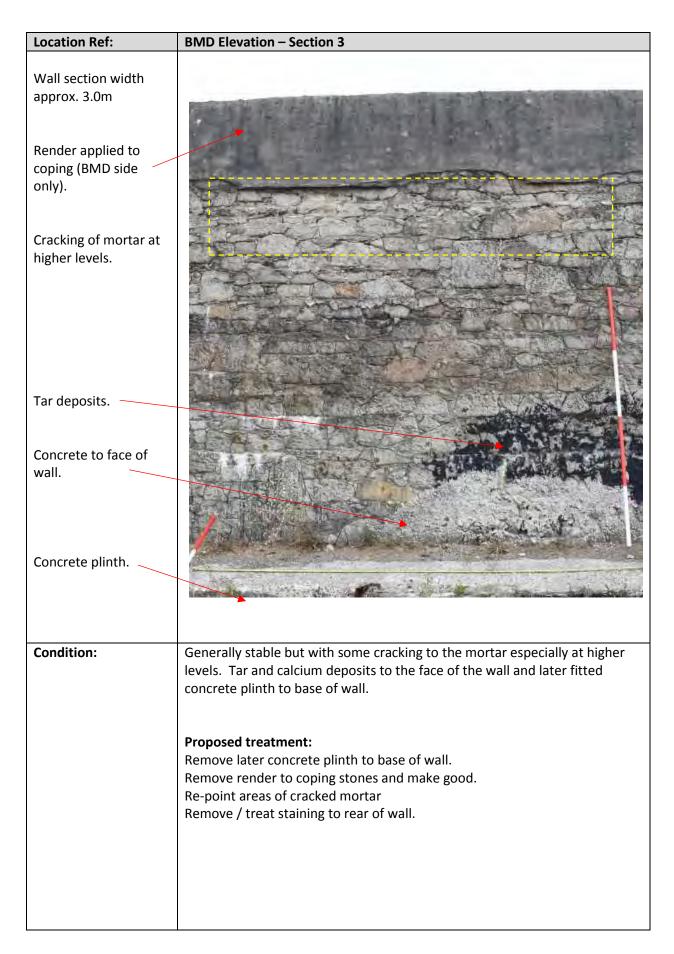
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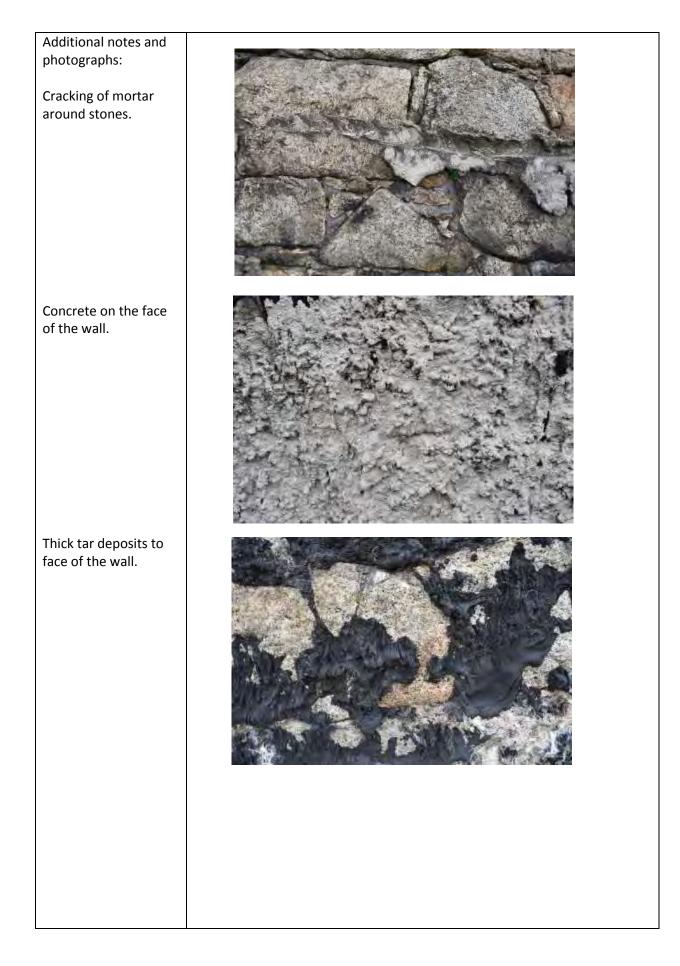
Location Ref:	BMD Elevation – Section 1
Wall section width approx. 3.0m	
Cast iron guides (1No _ broken).	
Diagonal cracking to face of wall.	
Square coping to rear of wall for gate recess.	
Cracking of mortar at upper levels.	
Paint markings	
Concrete plinth cast	
against base of wall.	
(250mm thick).	
Condition:	Generally stable with some cracking to face of the wall possibly due to movement / settlement of the gate pier. Paint and calcium staining to the rear of the wall and later fitted concrete plinth to base of wall.
	Proposed treatment: Remove later concrete plinth to base of wall. Re-point areas of cracked mortar Remove / treat staining to rear of wall.
	Repair damaged guide rails (where gates are required to be operational) otherwise clean back and apply protective coatings.

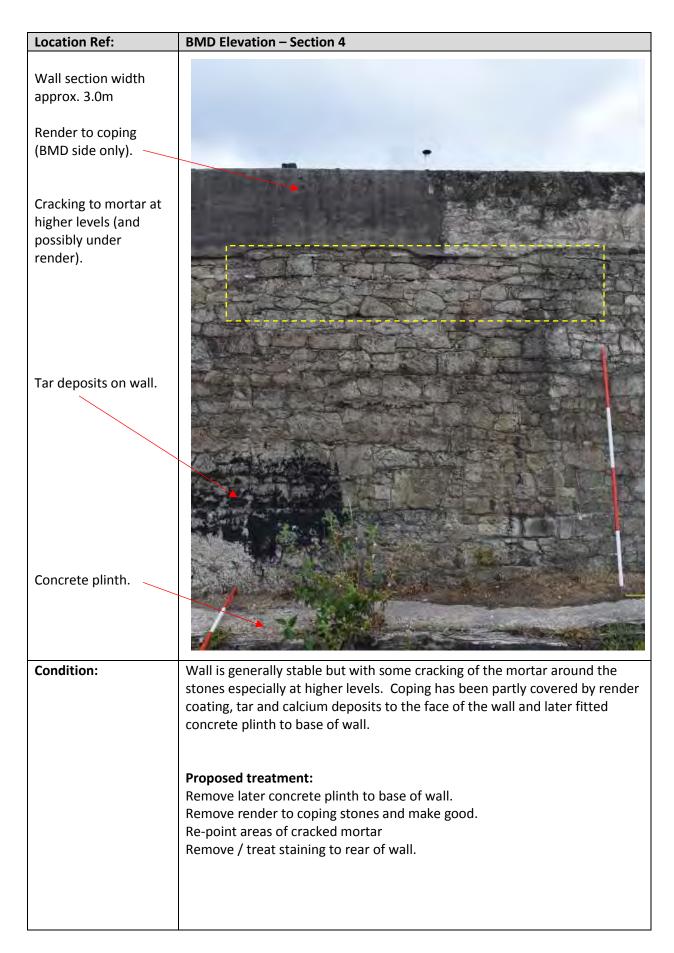


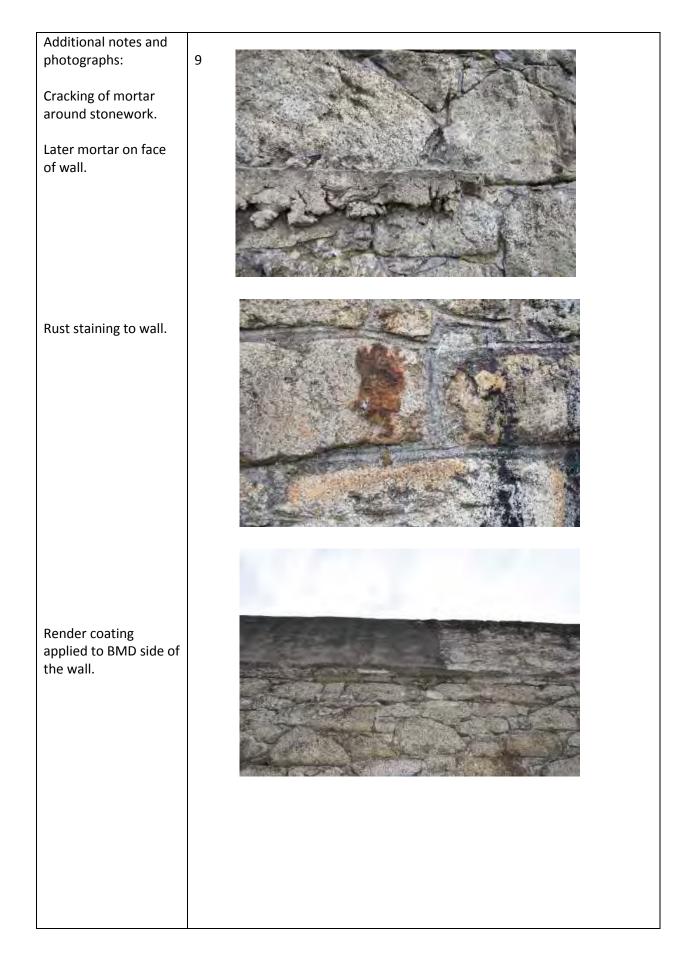
Location Ref:	BMD Elevation – Section 2
Wall section width approx. 3.0m	
200mm step in wall for gate recess.	
Rounded coping top.	
Dondon on plied to top	A set of the set of th
Render applied to top – of the wall.	
Missing / damaged	the second se
stone to corner.	
Cracking to mortar at higher levels.	
Concrete plinth	
Condition:	Generally stable with some cracking around stonework especially at the higher levels. Calcium deposits at low level and later fitted concrete plinth to base of wall. Coping stones partly covered with render (BMD side only). Pollution staining to face of the wall.
	Proposed treatment: Remove later concrete plinth to base of wall. Re-point areas of cracked mortar Remove render to upper section of wall and make good stonework. Remove / treat staining to rear of wall.

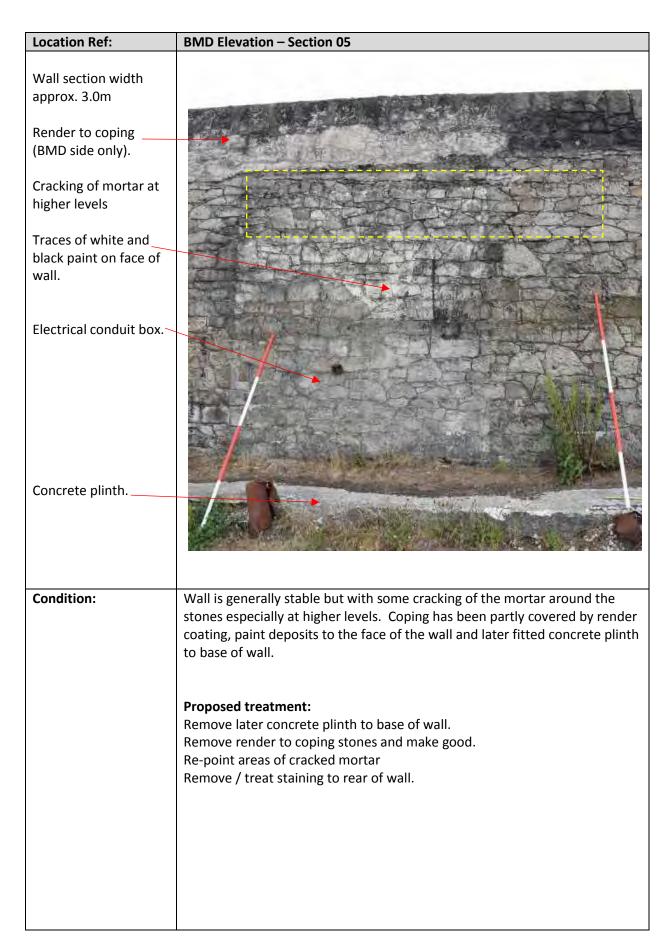


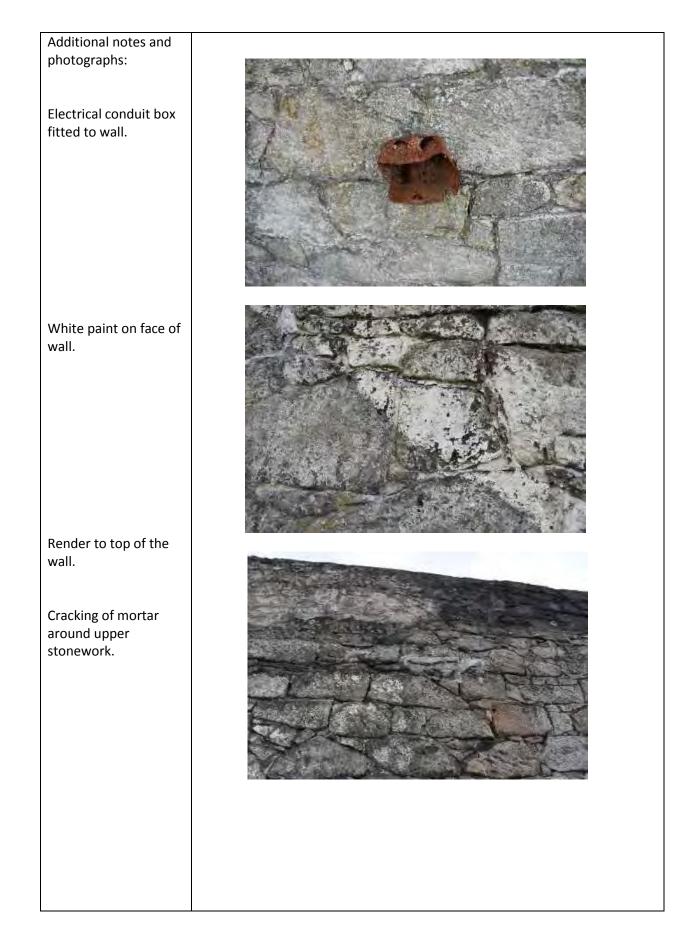


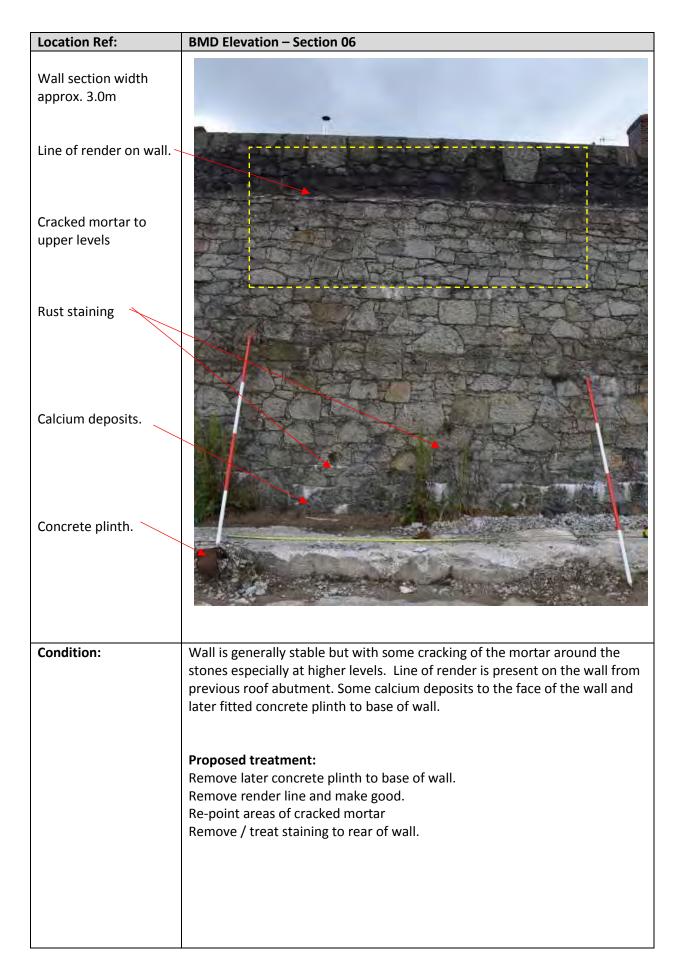


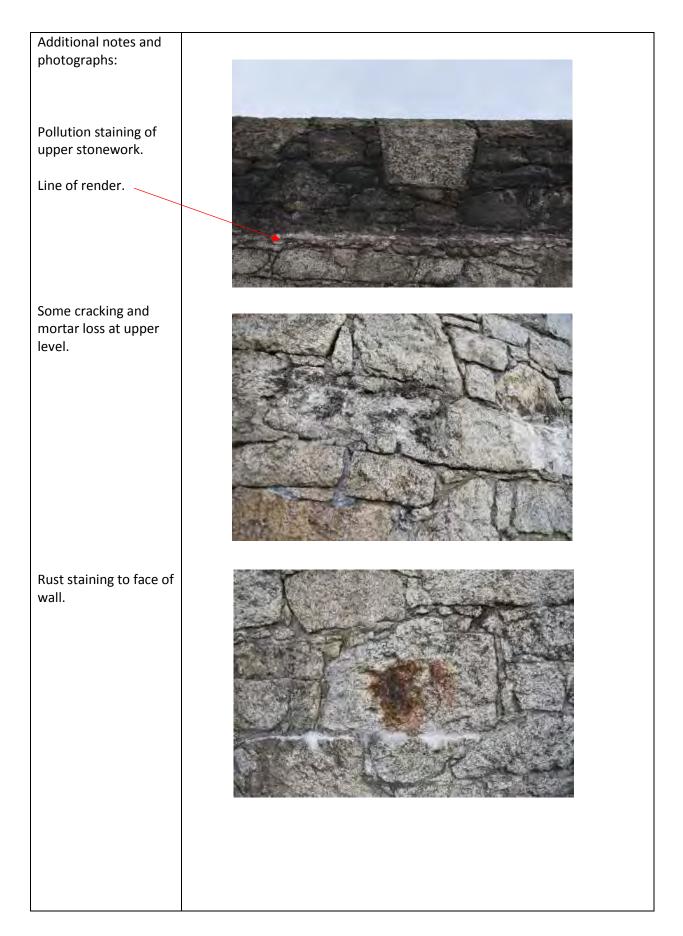


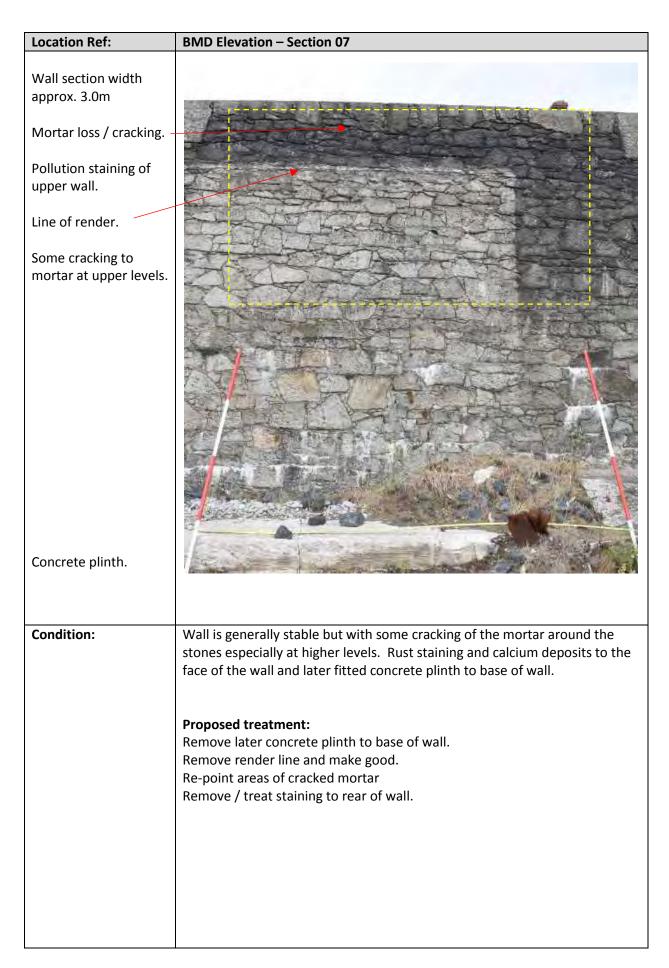


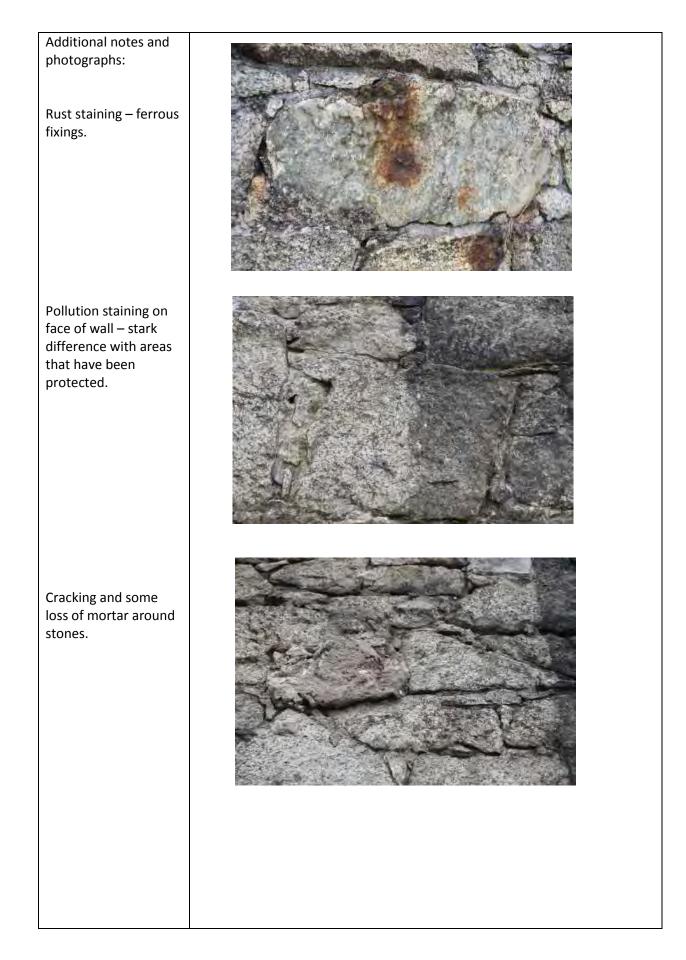


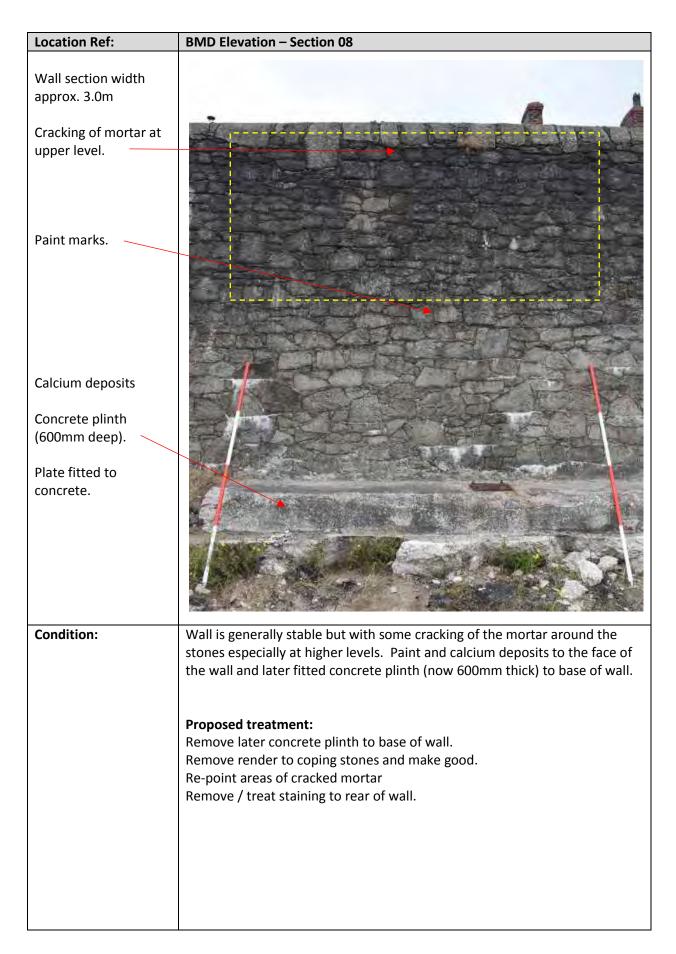


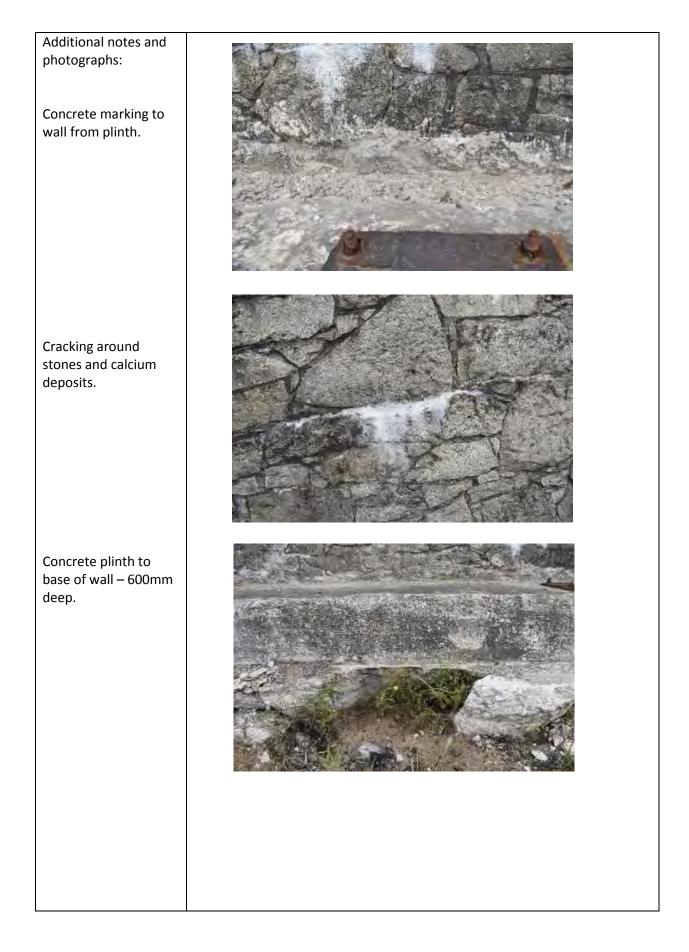


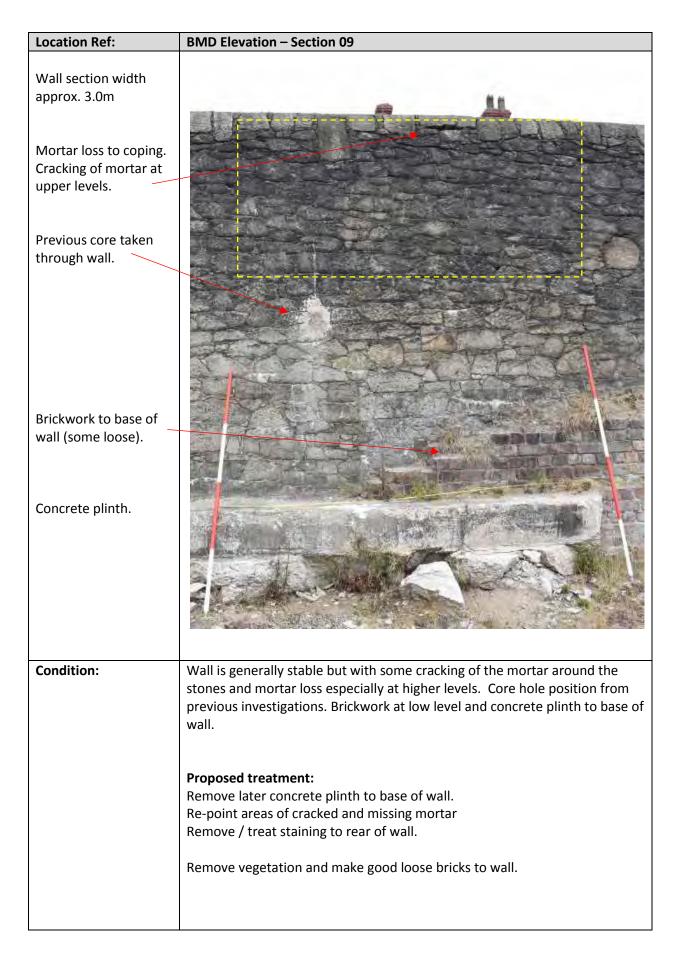


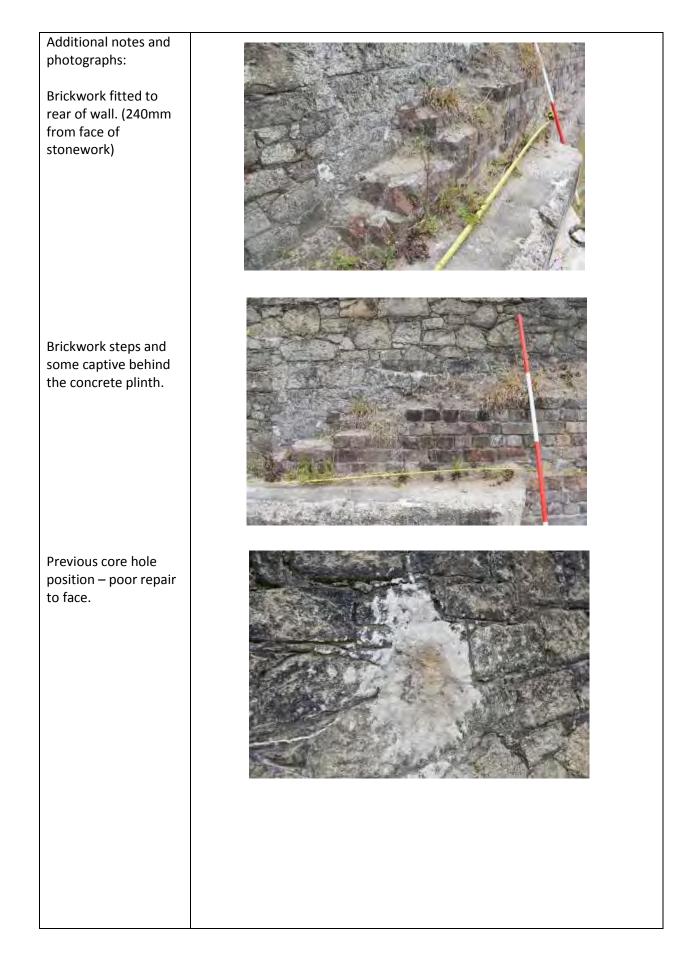


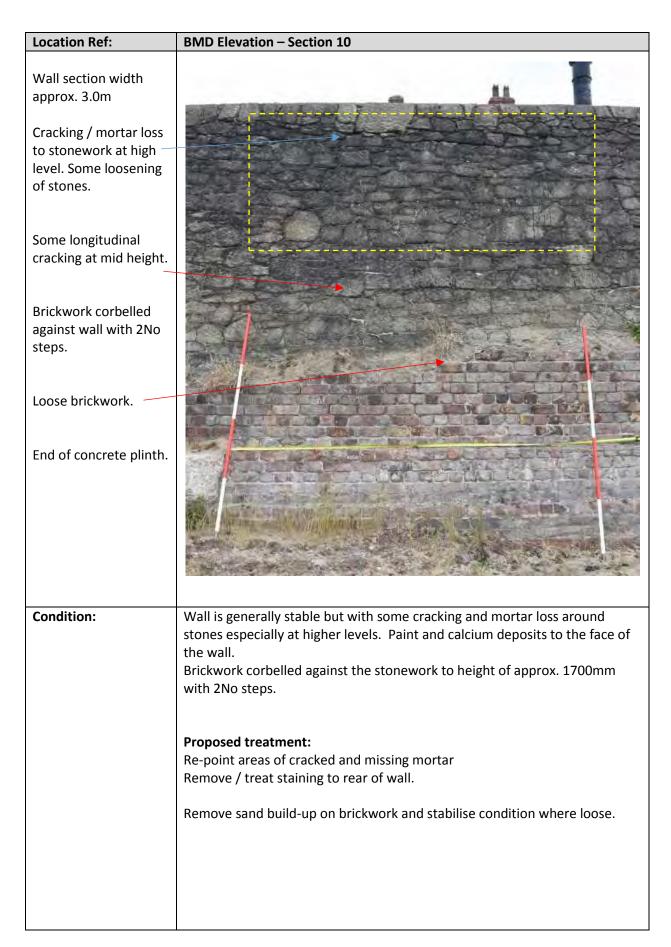












Additional notes and photographs:

Mortar loss below coping stones and loose stonework.





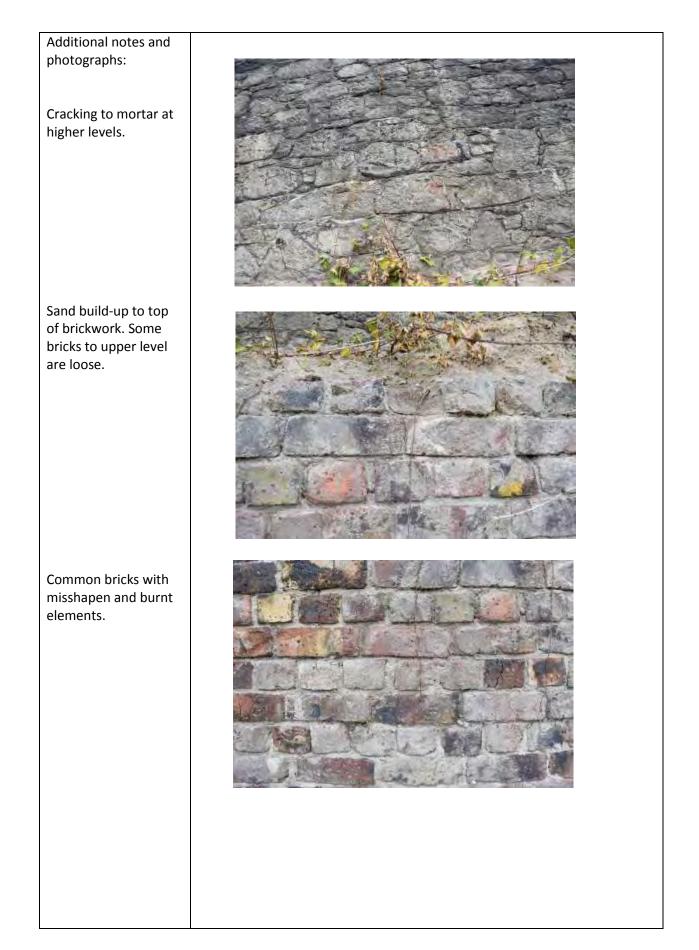
Loose brickwork and build-up of sand from previous storage.

Bricks are common quality with a lightcoloured mortar.

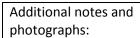
Bricks are laid in English Bond.



Location Ref:	BMD Elevation – Section 11
Wall section width approx. 3.0m	
Cracking and mortar loss to upper wall areas.	
Some paint marking on wall.	
Sand build-up on brickwork.	
Corbelled brickwork with 2No steps.	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels. Paint and calcium deposits to the face of the wall. Brickwork corbelled against the stonework to height of approx. 1700mm with 2No steps.
	Proposed treatment: Re-point areas of cracked and missing mortar Remove / treat staining to rear of wall.
	Remove sand build-up on brickwork and stabilise condition where loose.



Location Ref:	BMD Elevation – Section 12
Wall section width approx. 3.0m	and the interest
Cracking of mortar and some loss at high level.	
Loose brickwork.	
Corbelled brickwork approx. 1700mm high – 2No steps.	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels. Paint and calcium deposits to the face of the wall. Brickwork corbelled against the stonework to height of approx. 1700mm with 2No steps.
	Proposed treatment: Re-point areas of cracked and missing mortar Remove / treat staining to rear of wall.
	Remove sand build-up on brickwork and stabilise condition where loose.



Cracking and mortar loss to upper stonework.

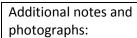
Corbelled steps brickwork.



Brickwork mortar generally in good condition – no adverse cracking.



Location Ref:	BMD Elevation – Section 13
Wall section width approx. 3.0m	Ц
Mortar loss to stonework below coping stones.	
Some cracking of mortar at higher levels.	
Sand / gravel build-up on brickwork wall.	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels. Paint and calcium deposits to the face of the wall. Brickwork corbelled against the stonework to height of approx. 1700mm with 2No steps.
	Proposed treatment: Re-point areas of cracked and missing mortar Remove / treat staining to rear of wall. Remove sand build-up on brickwork and stabilise condition where loose.



Cracking of mortar.

Paint and tar on face of wall.

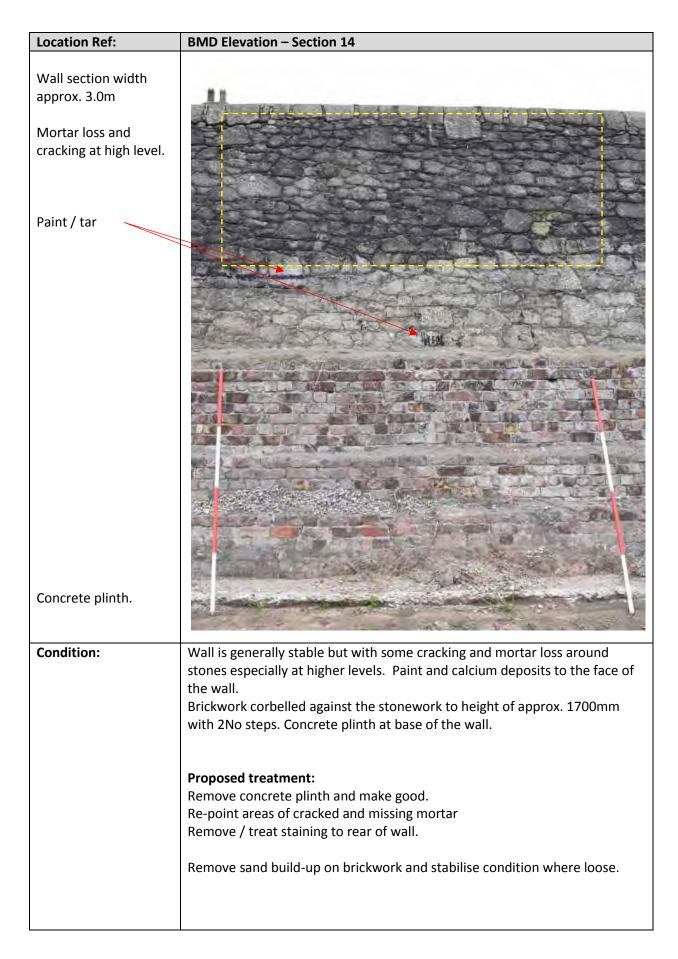
Gravel build-up on brickwork.

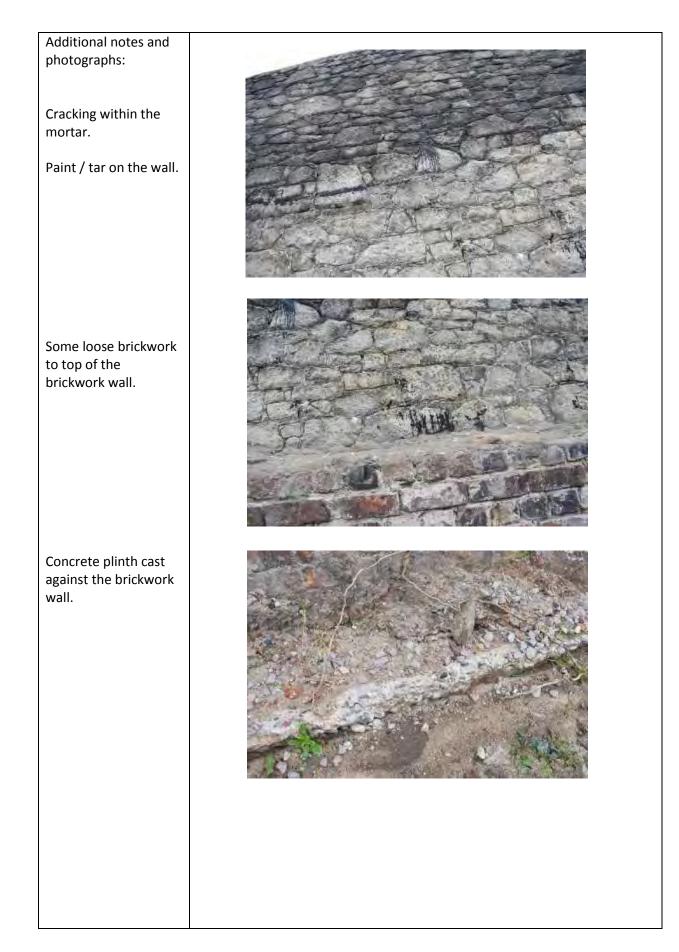
Damage to wall possibly during removal of gravel and sand.



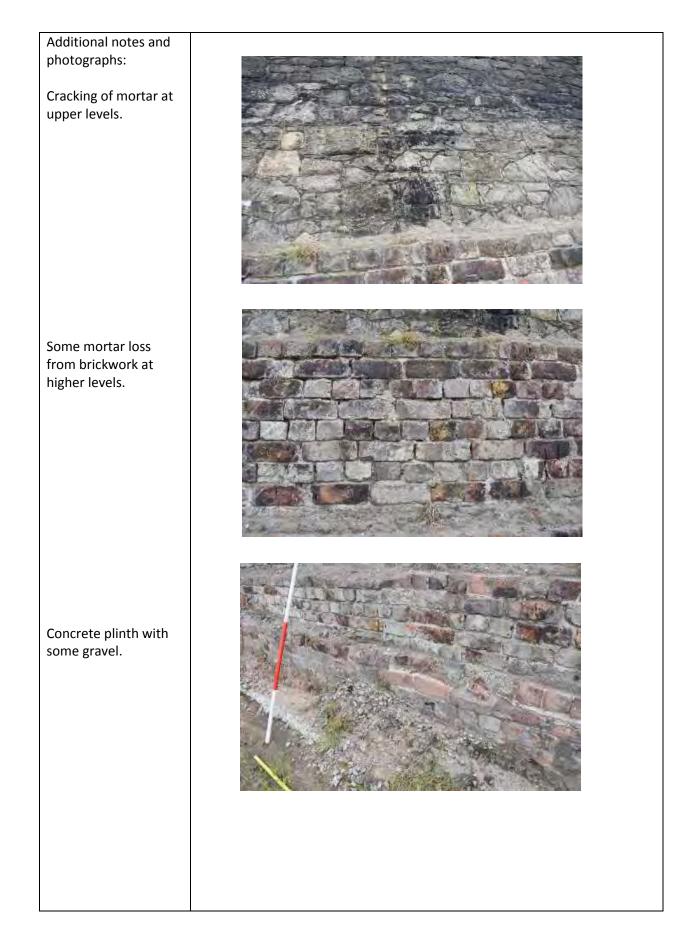




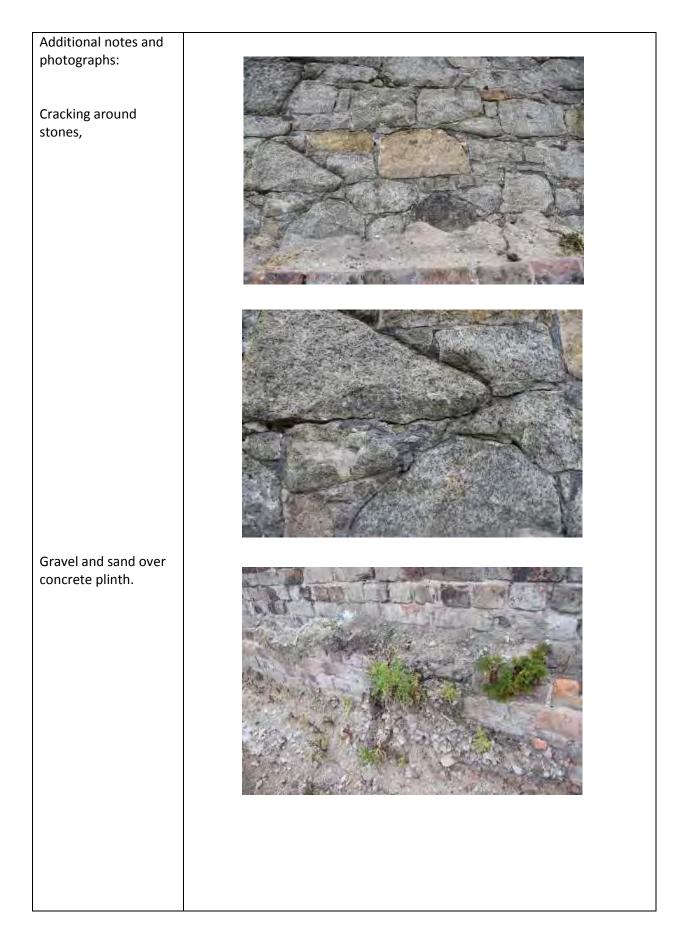




Location Ref:	BMD Elevation – Section 15
Wall section width approx. 3.0m	A Edit of the Addition of the
Cracking / loose	
mortar to upper wall. Brickwork height	
approx. 1700mm.	
Concrete plinth.	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels. Brickwork corbelled against the stonework to height of approx. 1700mm with 2No steps. Concrete plinth at base of the wall.
	Proposed treatment: Remove concrete plinth and make good. Re-point areas of cracked and missing mortar
	Remove sand build-up on brickwork and stabilise condition where loose.

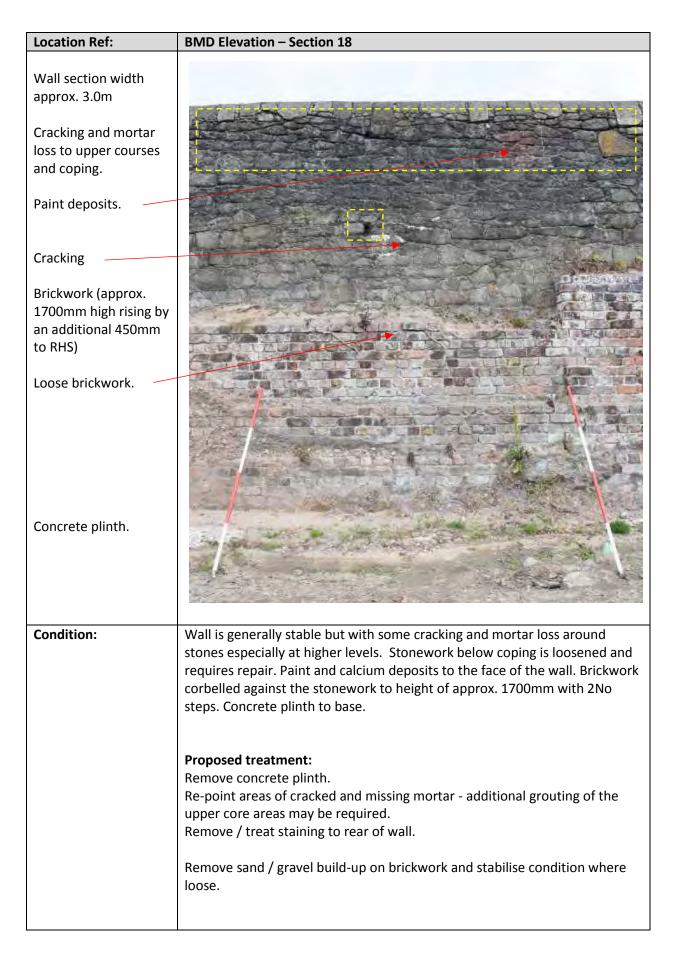


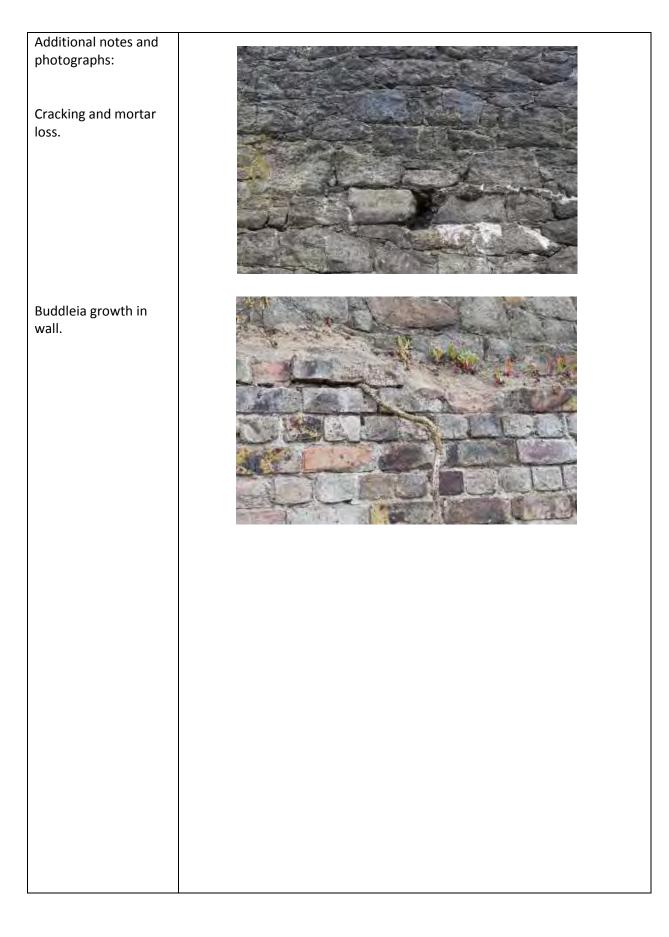
Location Ref:	BMD Elevation – Section 16
Wall section width	
approx. 3.0m	Let a little believer and
Cracking and mortar	
loss at high level.	
Mortar loss from	
upper brickwork courses.	
Some vegetation within brickwork.	
Concrete plinth.	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels. Paint and calcium deposits to the face of the wall. Brickwork corbelled against the stonework to height of approx. 1700mm with 2No steps.
	Proposed treatment: Re-point areas of cracked and missing mortar Remove / treat staining to rear of wall.
	Remove sand build-up on brickwork and stabilise condition where loose.



Location Ref:	BMD Elevation – Section 17
Wall section width approx. 3.0m	
Cracking and mortar loss at high level.	
Brickwork wall – approx. 1700mm high.	
Concrete plinth.	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels. Paint and calcium deposits to the face of the wall. Brickwork corbelled against the stonework to height of approx. 1700mm with 2No steps. Concrete plinth to base.
	Proposed treatment: Remove concrete plinth. Re-point areas of cracked and missing mortar - additional grouting of the upper core areas may be required. Remove / treat staining to rear of wall.
	Remove sand / gravel build-up on brickwork and stabilise condition where loose.







Location Ref:	BMD Elevation – Section 19
Wall section width approx. 3.0m	
Cracking and mortar loss to upper wall.	
Brickwork wall height increased to approx. 2150mm.	
Concrete plinth.	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels. Paint and calcium deposits to the face of the wall. Brickwork corbelled against the stonework to height of approx. 1700mm with 2No steps. Concrete plinth to base.
	Proposed treatment: Remove concrete plinth. Re-point areas of cracked and missing mortar - additional grouting of the upper core areas may be required. Remove / treat staining to rear of wall.
	Remove sand / gravel build-up on brickwork and stabilise condition where loose.

Additional notes and photographs:

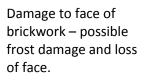
Weathered brickwork – some loosened brick to upper course.



Location Ref:	BMD Elevation – Section 20
Wall section width approx. 3.0m Cracking and mortar loss to upper wall area.	DWD Elevation – Section 20
Brickwork wall height approx. 2150mm corbelled in 3No steps.	
Concrete plinth.	
Condition:	 Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels which requires repair. Brickwork corbelled against the stonework to height of approx. 2150mm with 3No steps. Concrete plinth to base. Proposed treatment: Remove concrete plinth. Re-point areas of cracked and missing mortar - additional grouting of the upper core areas may be required. Remove / treat staining to rear of wall. Remove sand / gravel build-up on brickwork and stabilise condition where loose.

Additional notes and photographs:

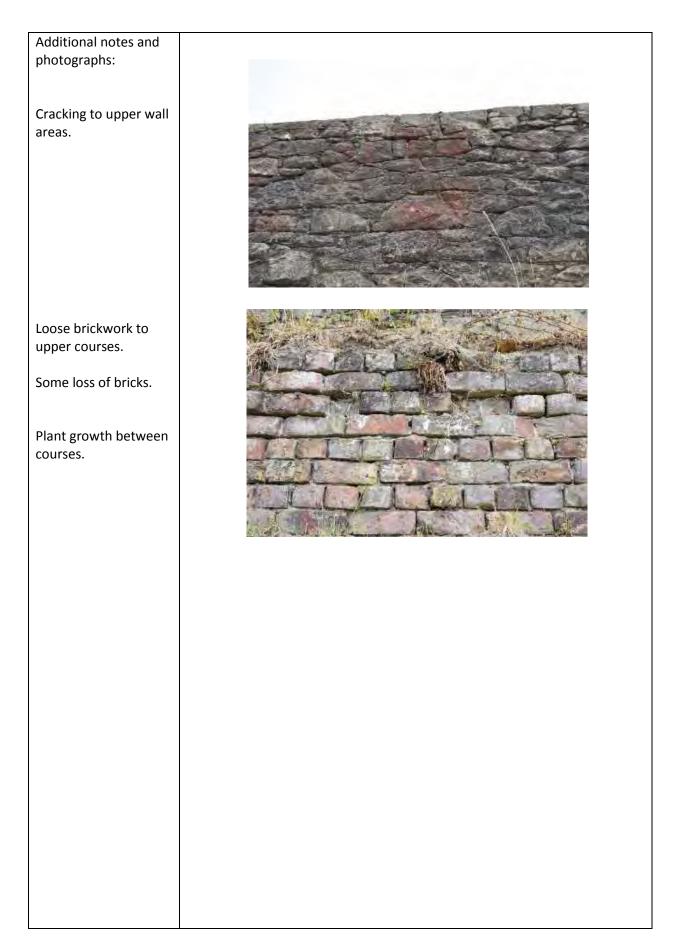
Cracking and mortar loss at high level.



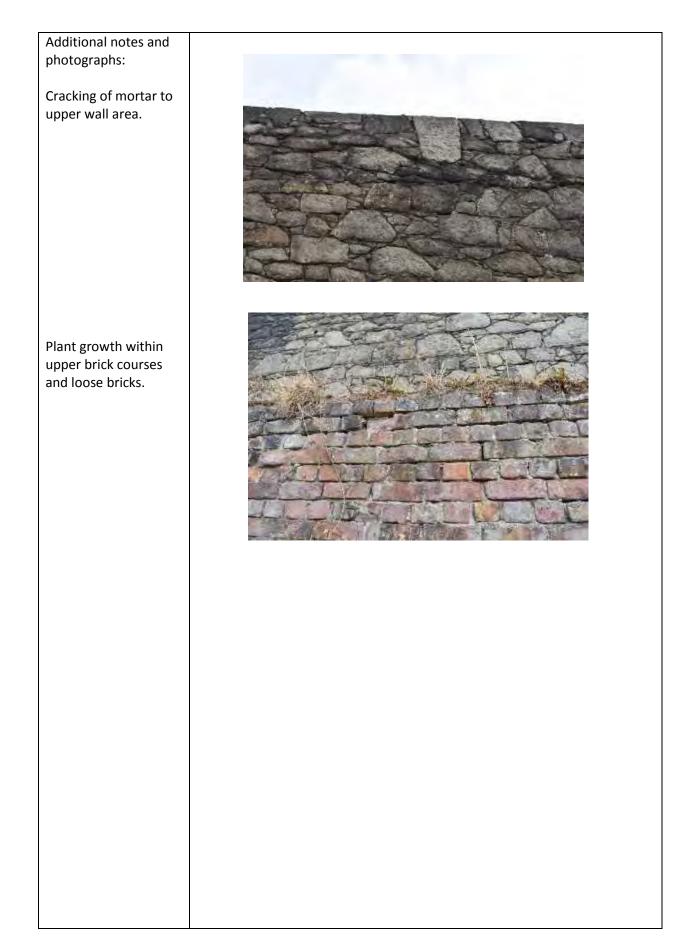




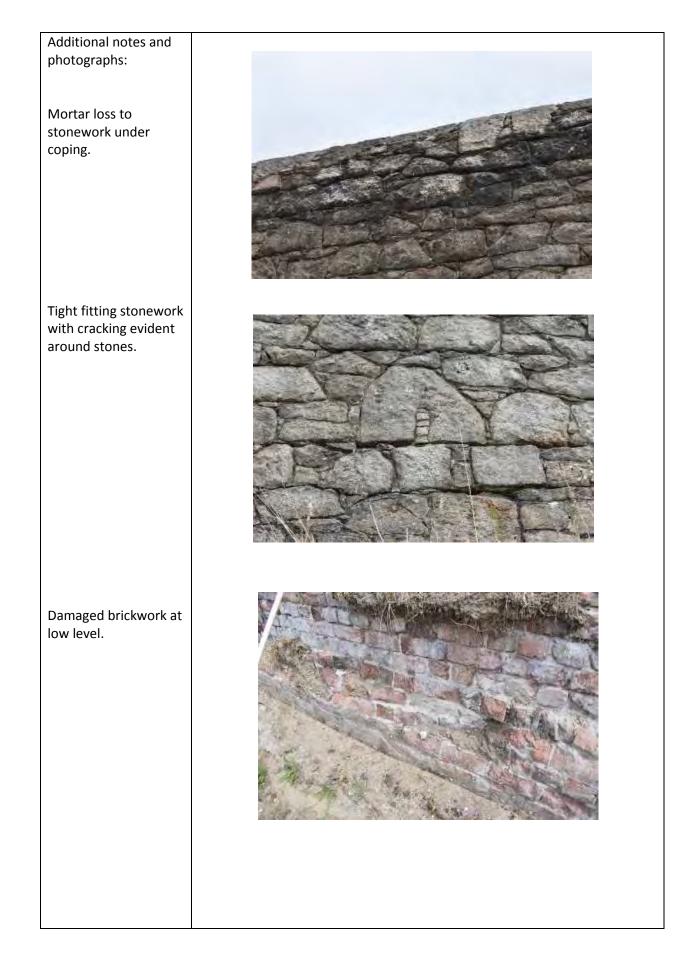
Location Ref:	BMD Elevation – Section 21
Wall section width approx. 3.0m	
Cracking and mortar loss to upper wall areas.	
Sand / gravel on brickwork.	
Loose brickwork	
Concrete plinth.	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels which requires repair. Brickwork corbelled against the stonework to height of approx. 2150mm with 3No steps. Concrete plinth to base.
	Proposed treatment: Remove concrete plinth. Re-point areas of cracked and missing mortar - additional grouting of the upper core areas may be required. Remove / treat staining to rear of wall.
	Remove sand / gravel build-up on brickwork and stabilise condition where loose.

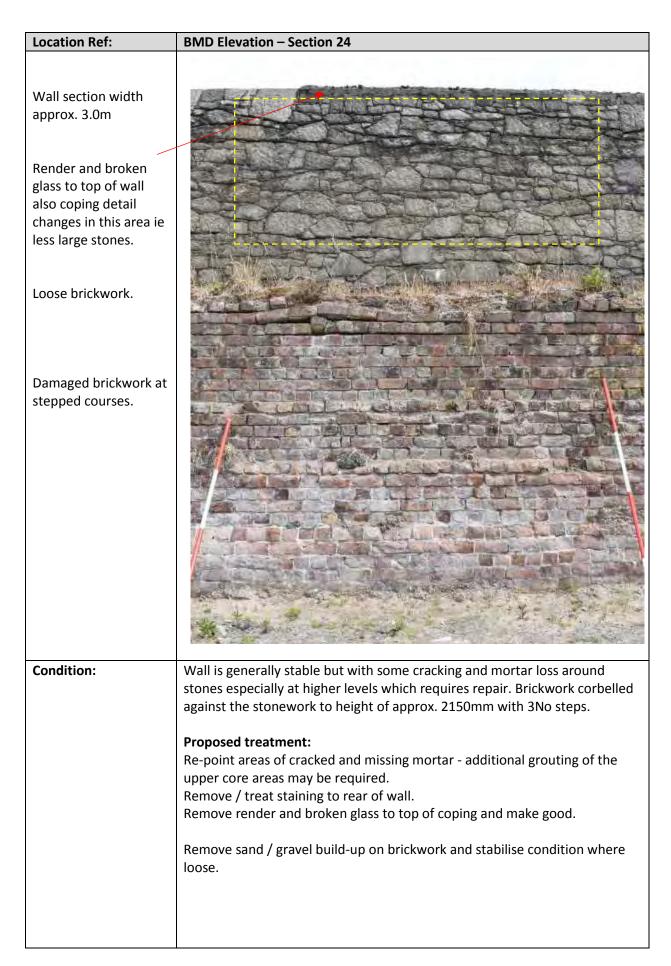


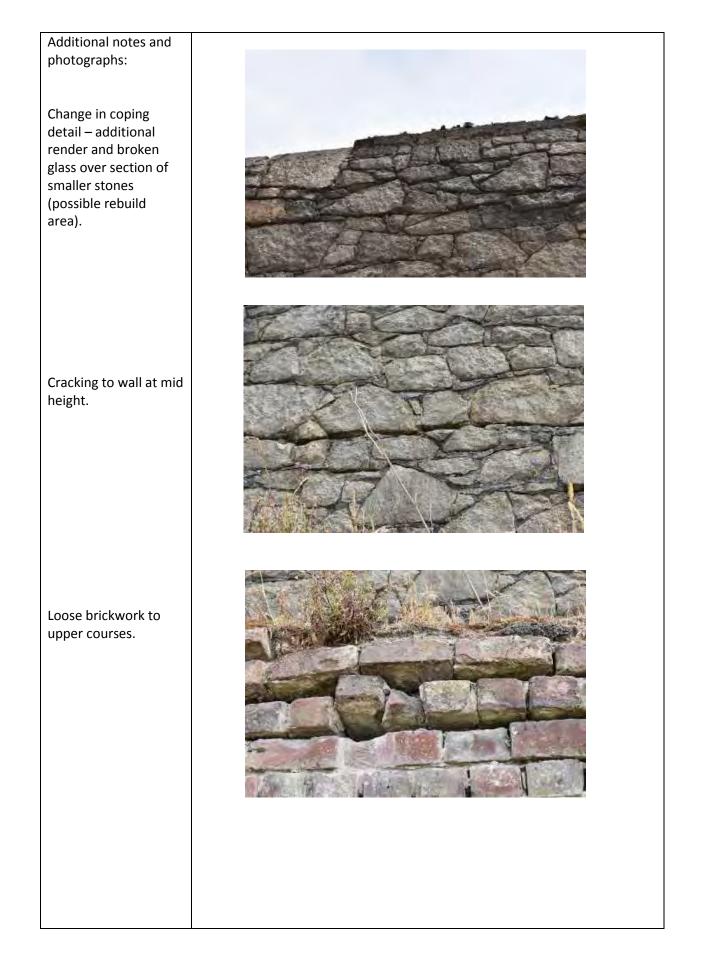
Location Ref:	BMD Elevation – Section 22
Wall section width approx. 3.0m	And a start had a had a start
Cracking and mortar loss to upper wall.	and the state of t
Concrete plinth.	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels which requires repair. Brickwork corbelled against the stonework to height of approx. 2150mm with 3No steps. Concrete plinth to base.
	Proposed treatment: Remove concrete plinth. Re-point areas of cracked and missing mortar - additional grouting of the upper core areas may be required. Remove / treat staining to rear of wall.
	Remove sand / gravel build-up on brickwork and stabilise condition where loose.

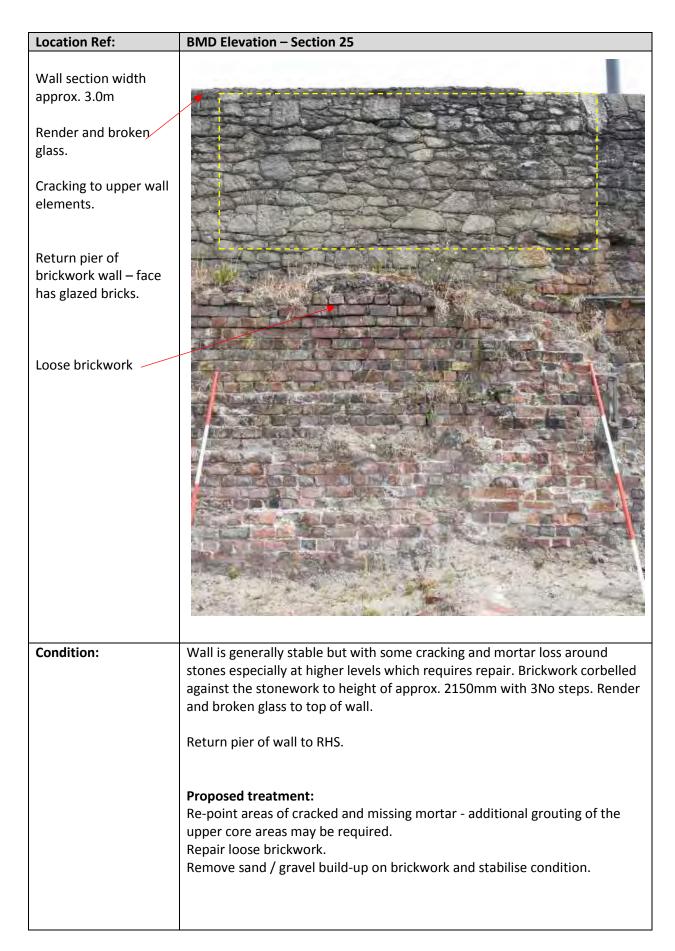


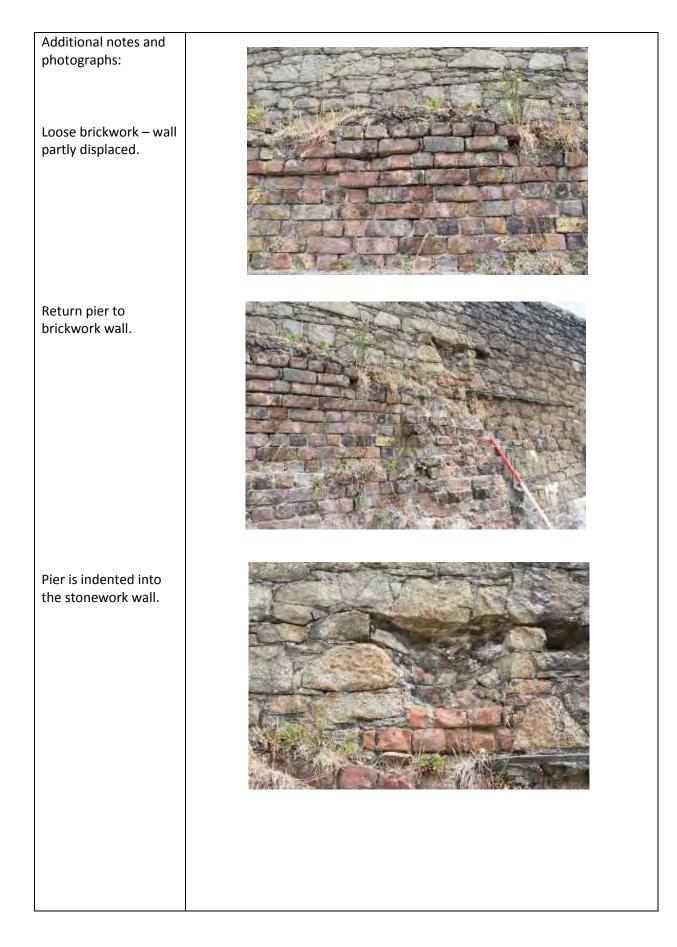
Location Ref:	BMD Elevation – Section 23
Wall section width approx. 3.0m	A Proved Los Label
Cracking and mortar loss to upper wall.	
Loose brickwork.	
Plant growth.	
Damaged brickwork.	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels which requires repair. Brickwork corbelled against the stonework to height of approx. 2150mm with 3No steps. Concrete plinth to base.
	Proposed treatment: Remove concrete plinth. Re-point areas of cracked and missing mortar - additional grouting of the upper core areas may be required. Remove / treat staining to rear of wall.
	Remove sand / gravel build-up on brickwork and stabilise condition where loose.



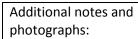






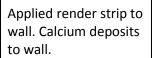


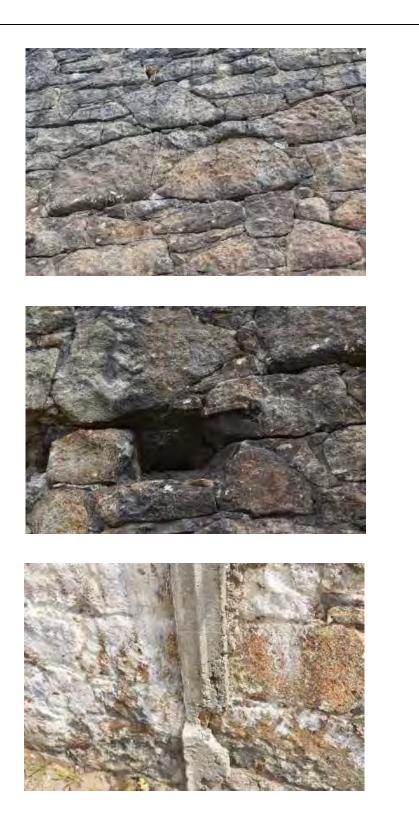
Location Ref:	BMD Elevation – Section 26
Wall section width approx. 3.0m	
Cracked and missing mortar to wall.	
Return of brickwork wall.	
Render strip applied to wall. (Packer).	
Calcium deposits	
Condition:	Wall is generally stable but with some cracking and mortar loss around stones especially at higher levels which requires repair. Brickwork corbelled against the stonework to height of approx. 2150mm with 3No steps. Return pier of wall to LHS.
	Proposed treatment: Re-point areas of cracked and missing mortar - additional grouting of the upper core areas may be required. Make good brickwork pier return into stonework. Remove render strips from wall.

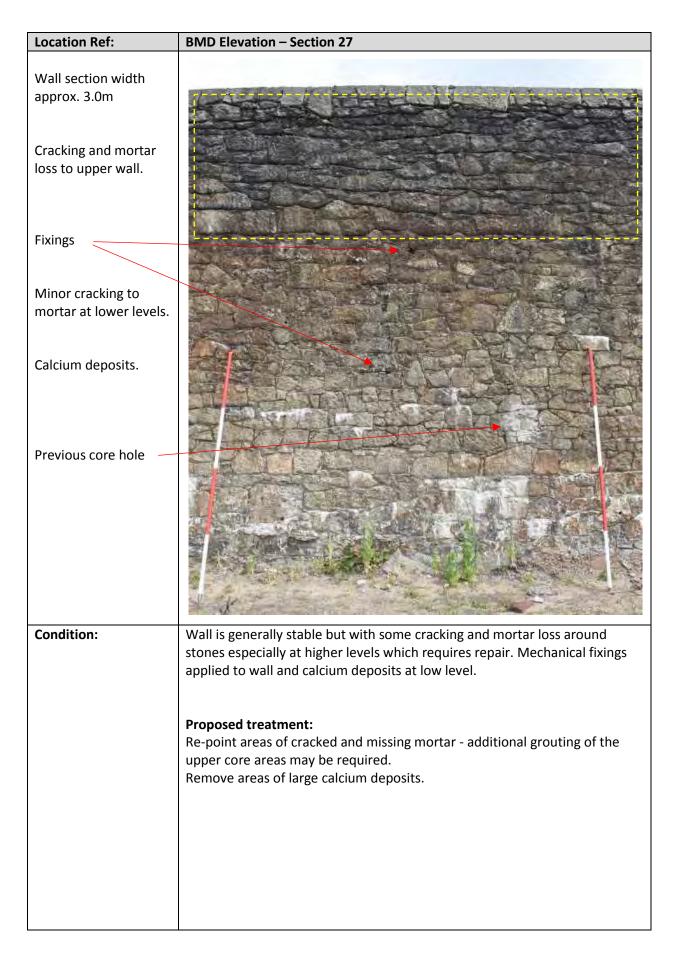


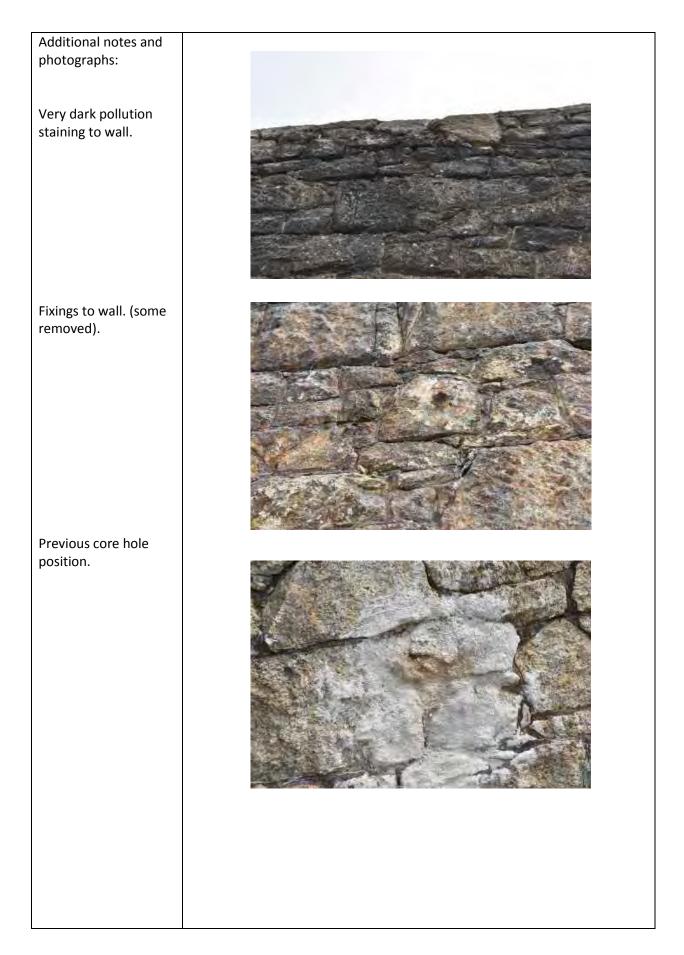
Cracking to mortar around stonework elements.

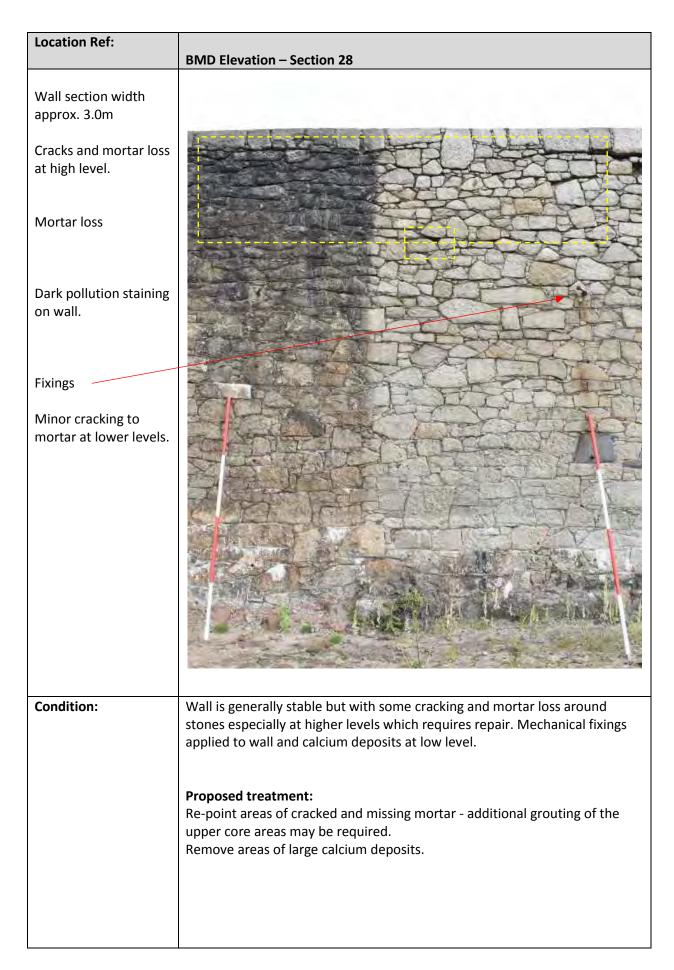
Missing stone and iron pin to RHS.

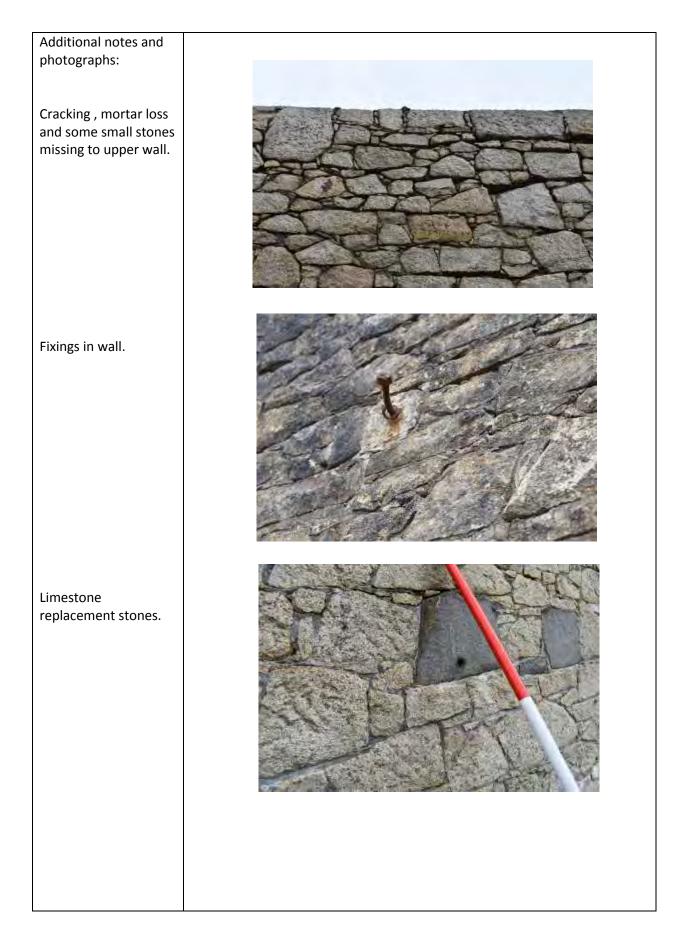


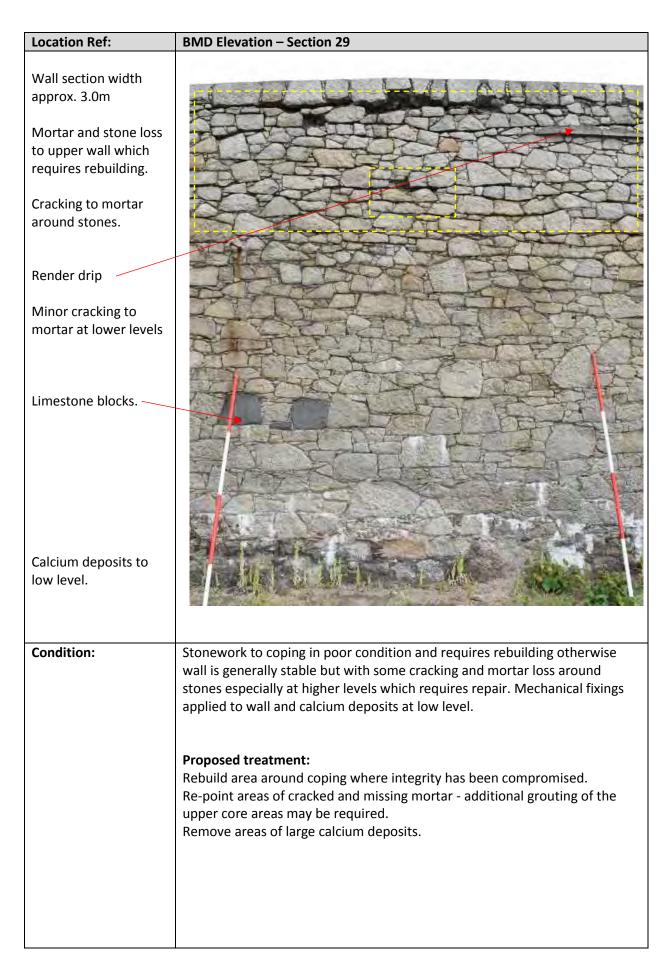












Vid area below coping – requires rebuilding.

Cracking and mortar loss to upper wall areas.

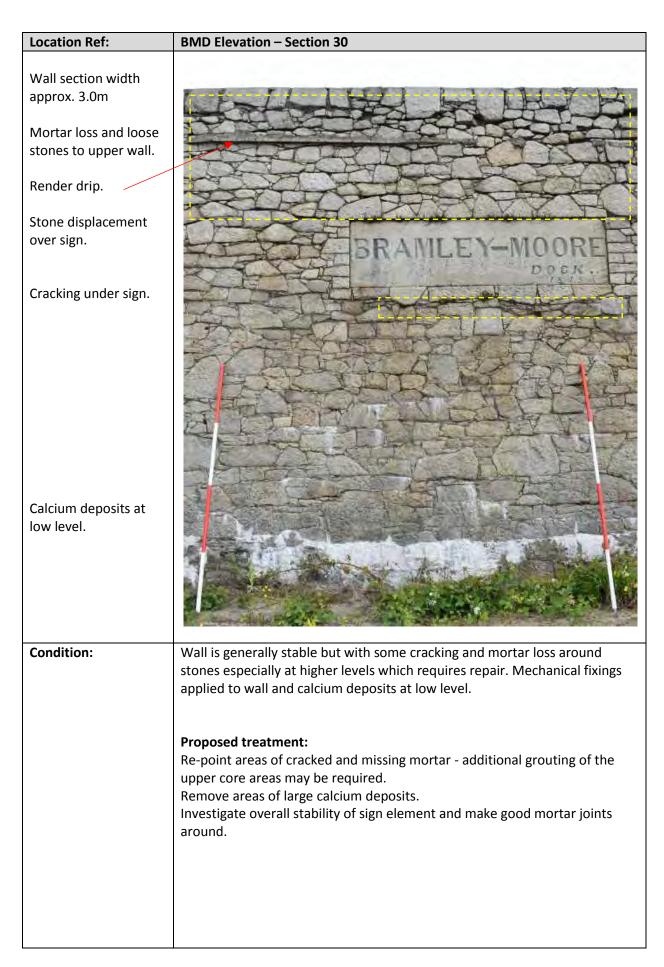
Mortar and small stone loss.

Limestone blocks.









Render drip and cracking / mortar loss at high level.

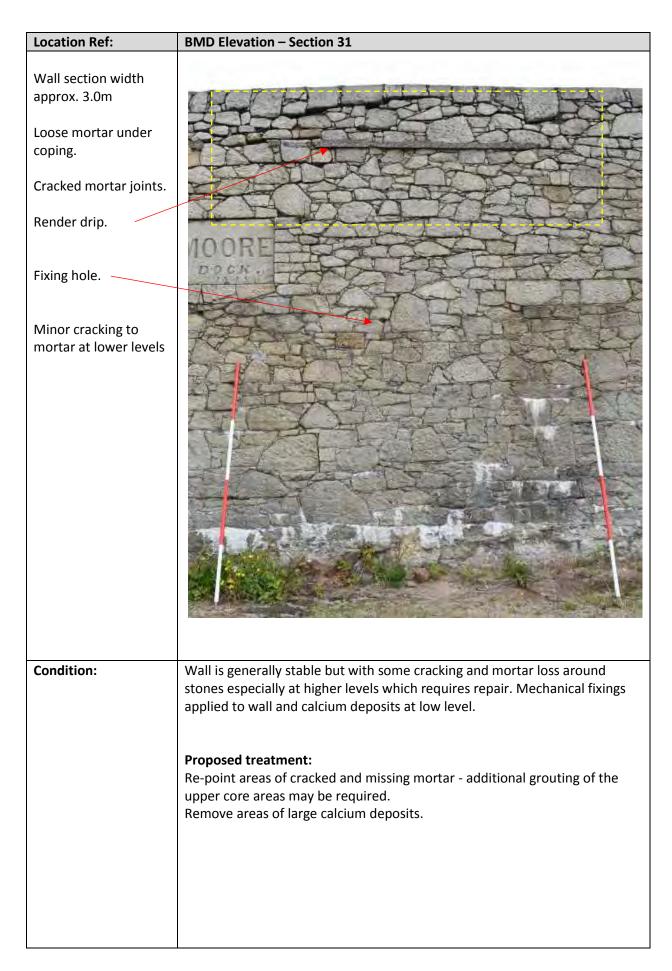
Plant growth over sugn.

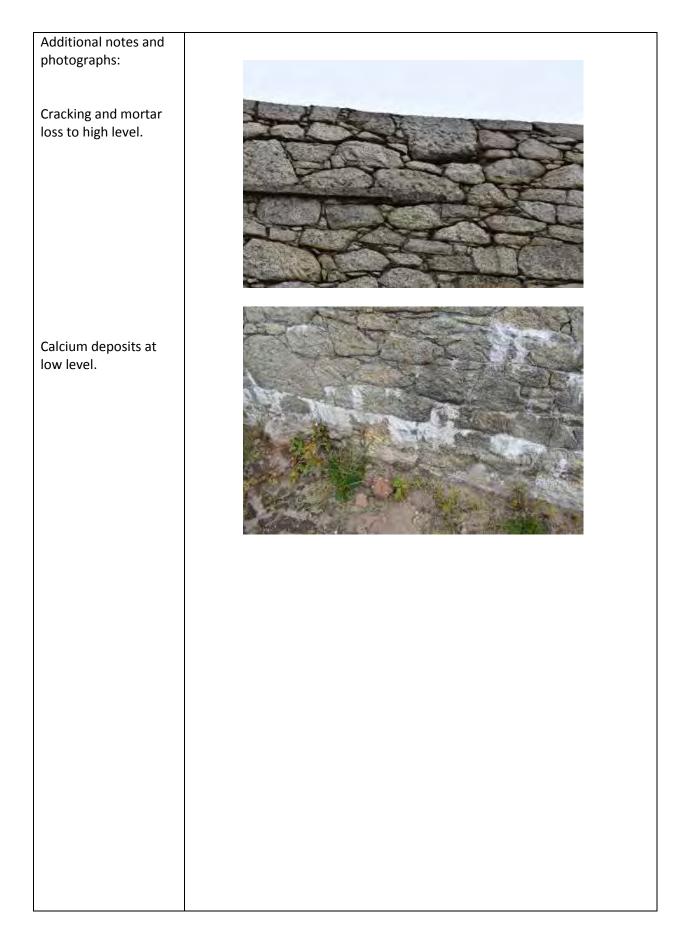
Mortar loss and displaced stonework around sign.

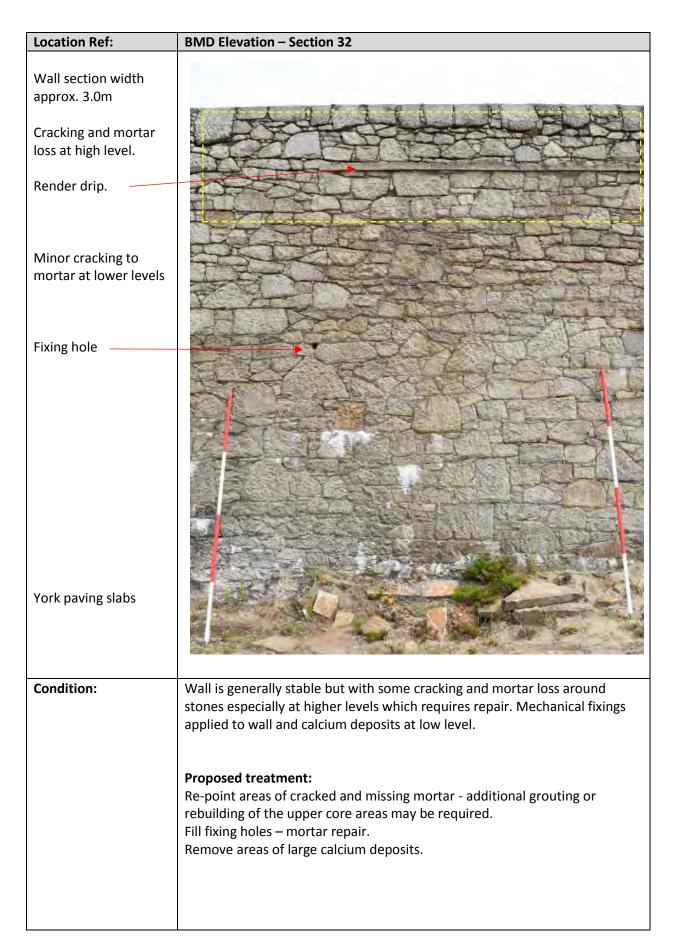


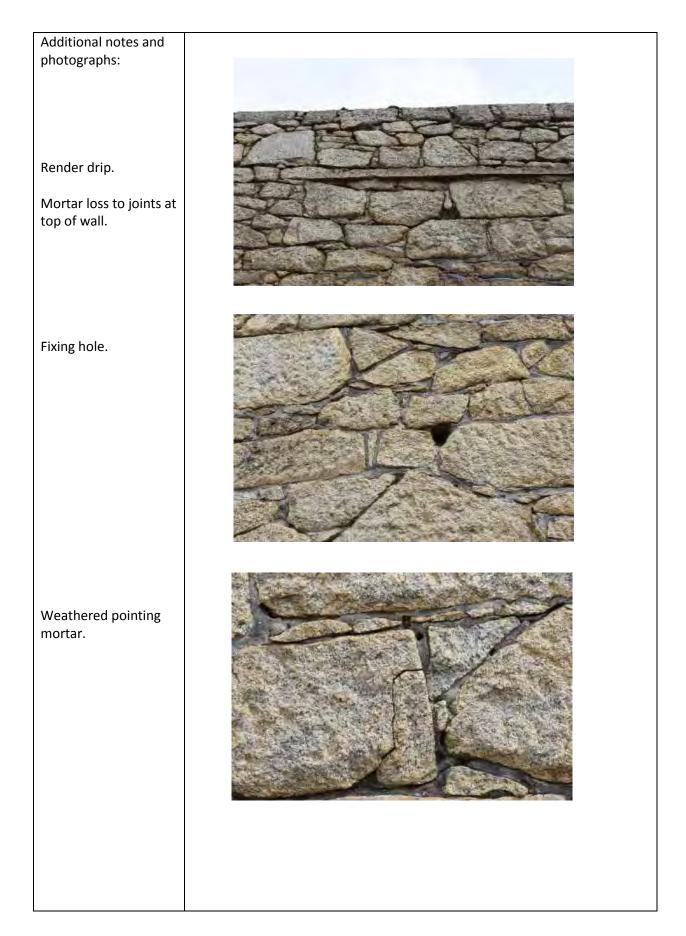


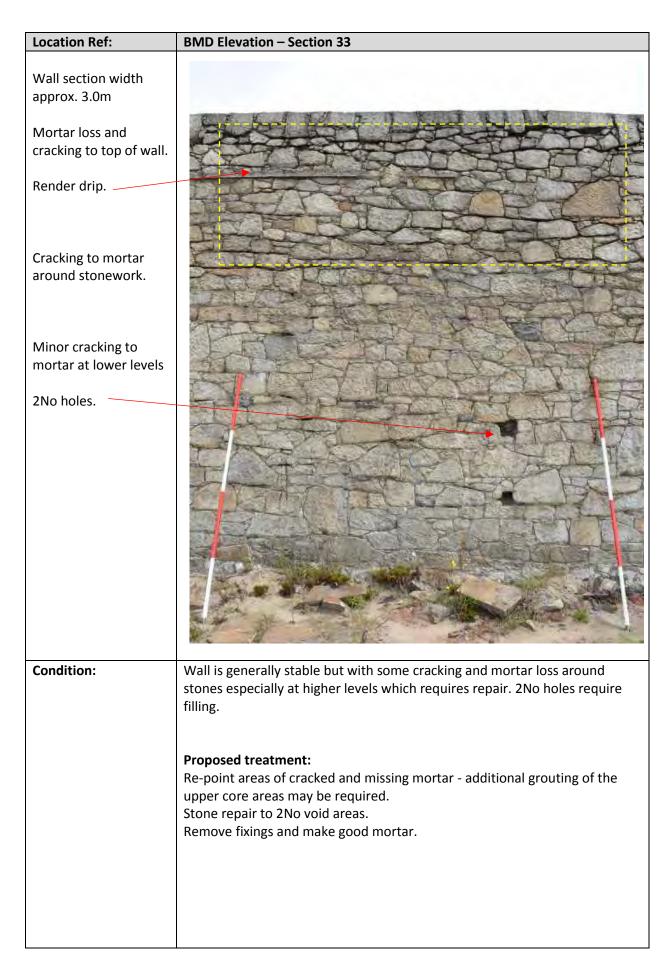


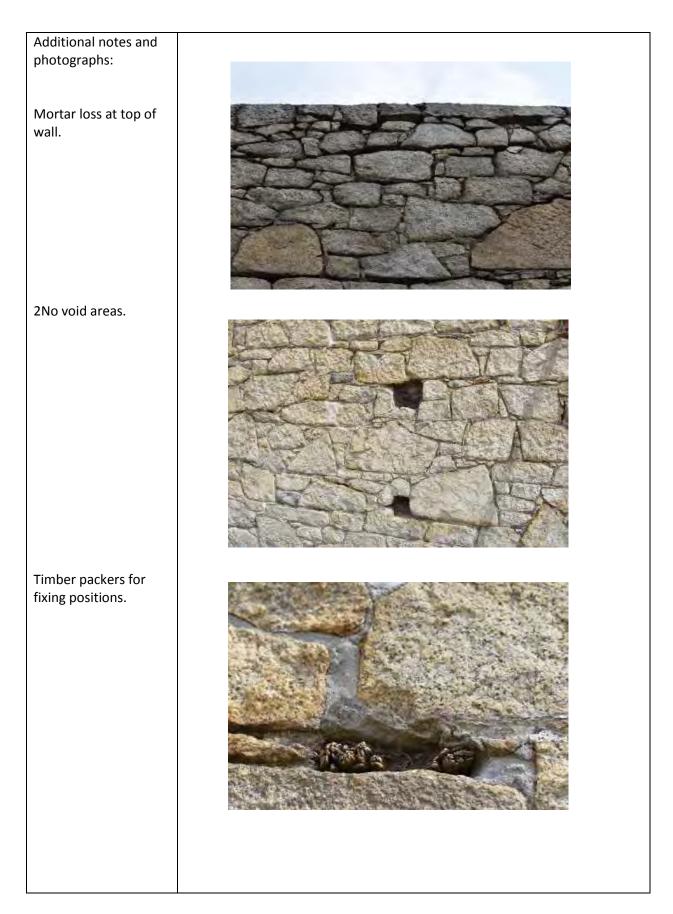


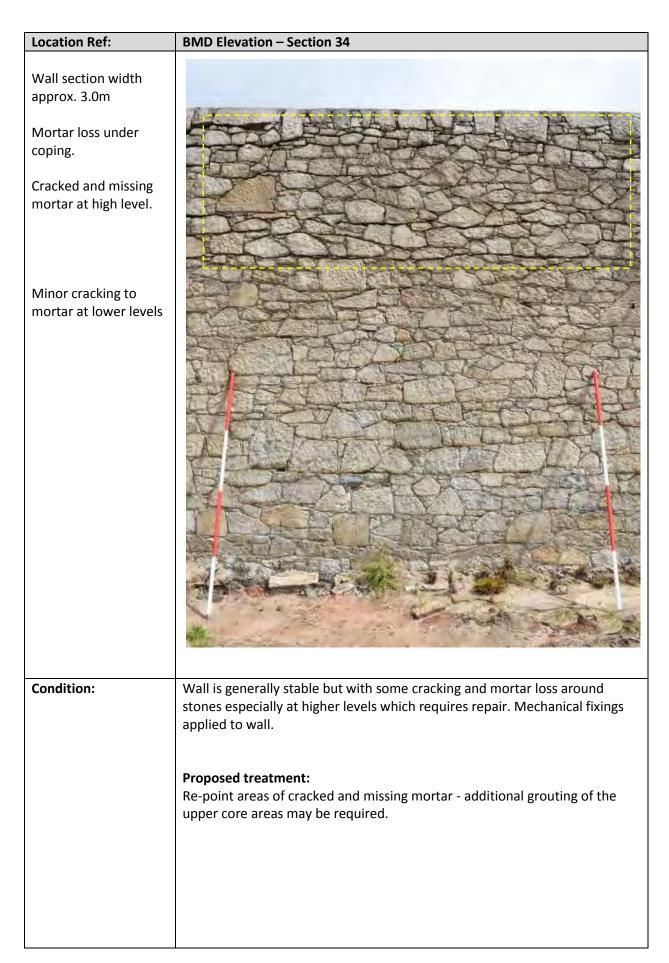










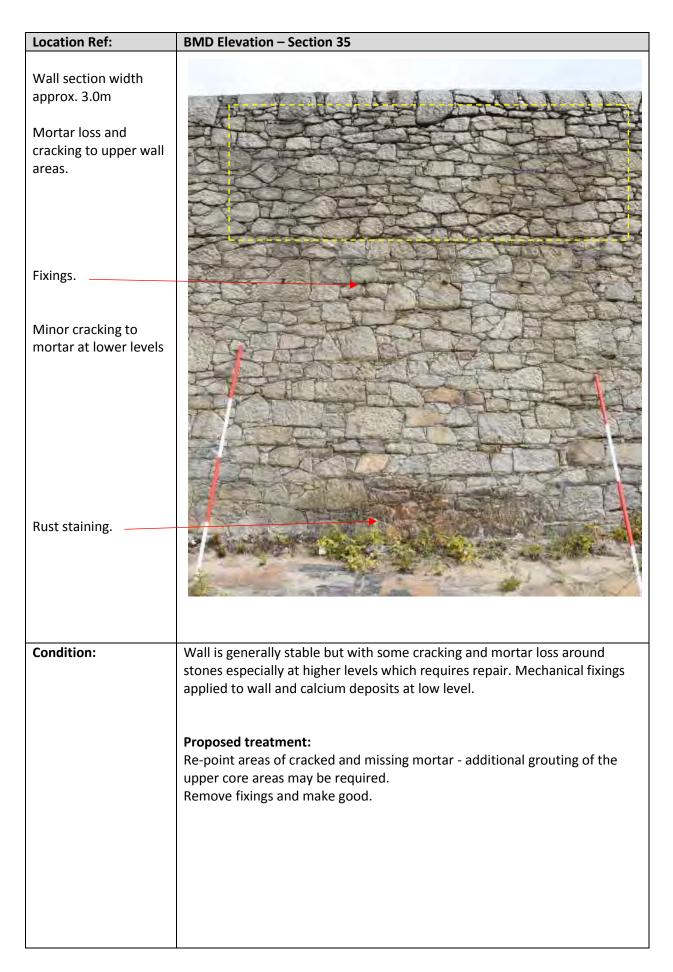


Mortar loss and cracking to upper wall areas.





Staining around fixing positions.

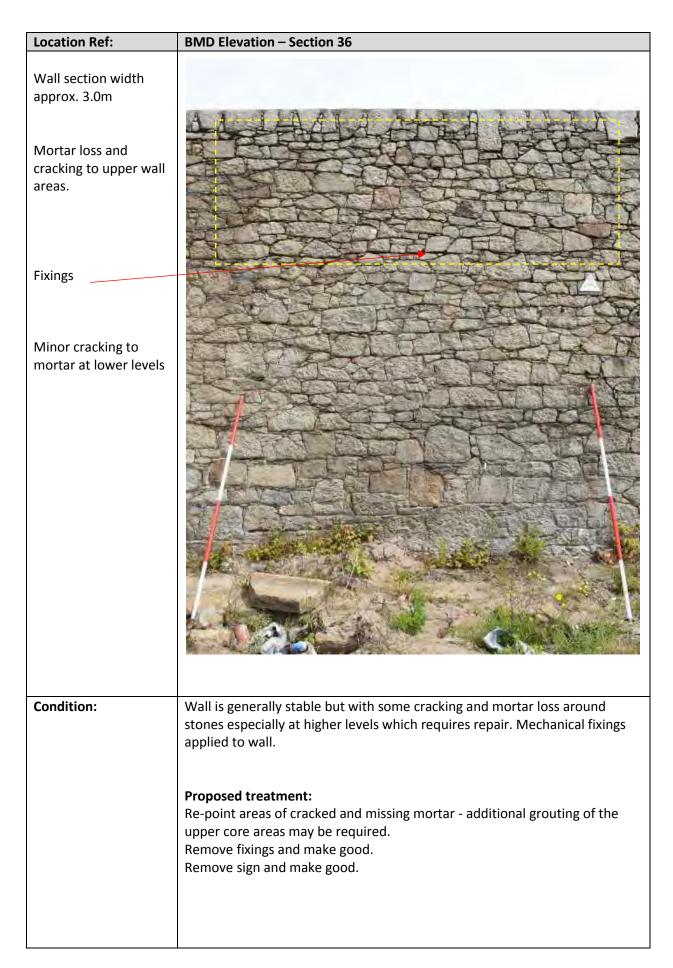


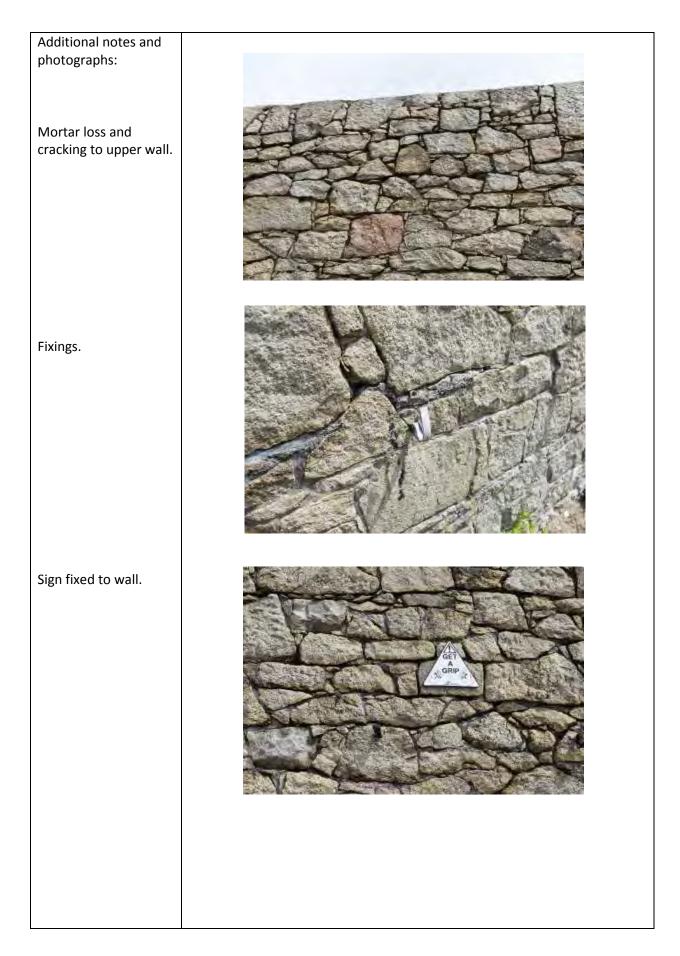
Weathered pointing mortar – cracking under stones.

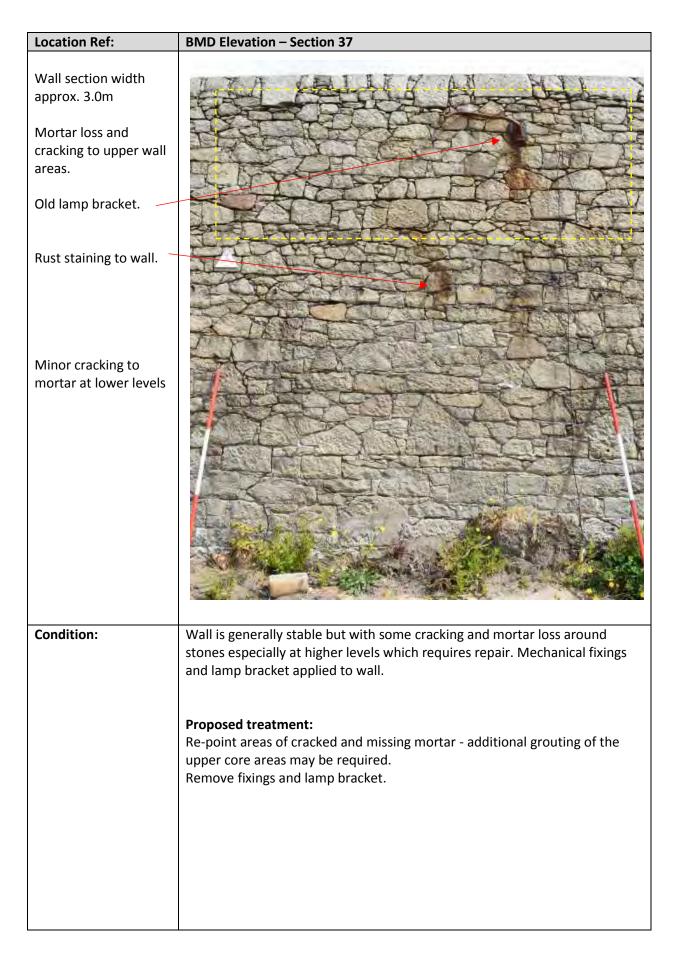
Fixings on face of stonework.

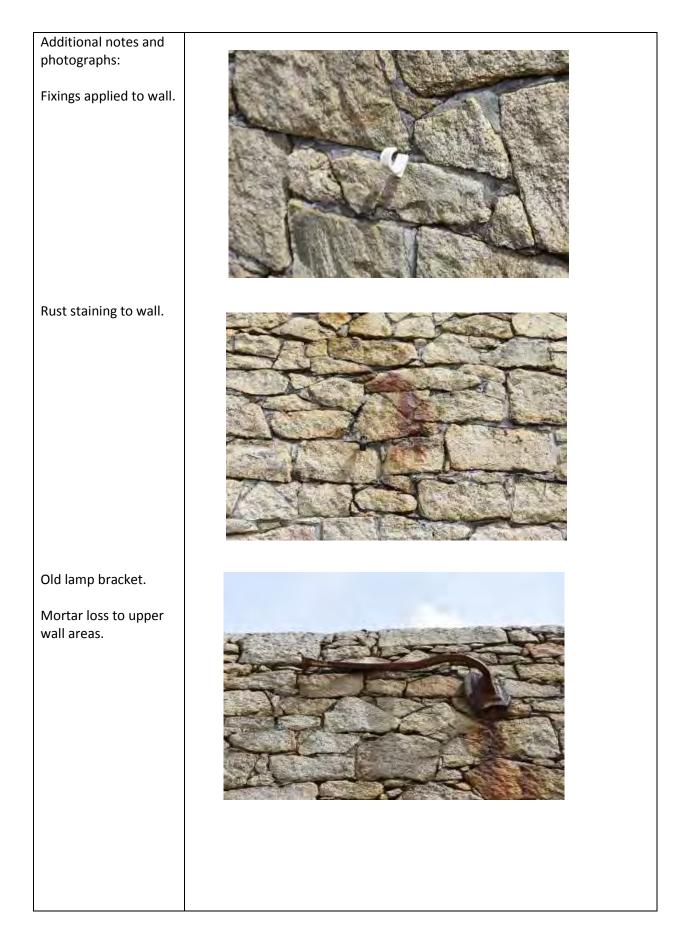


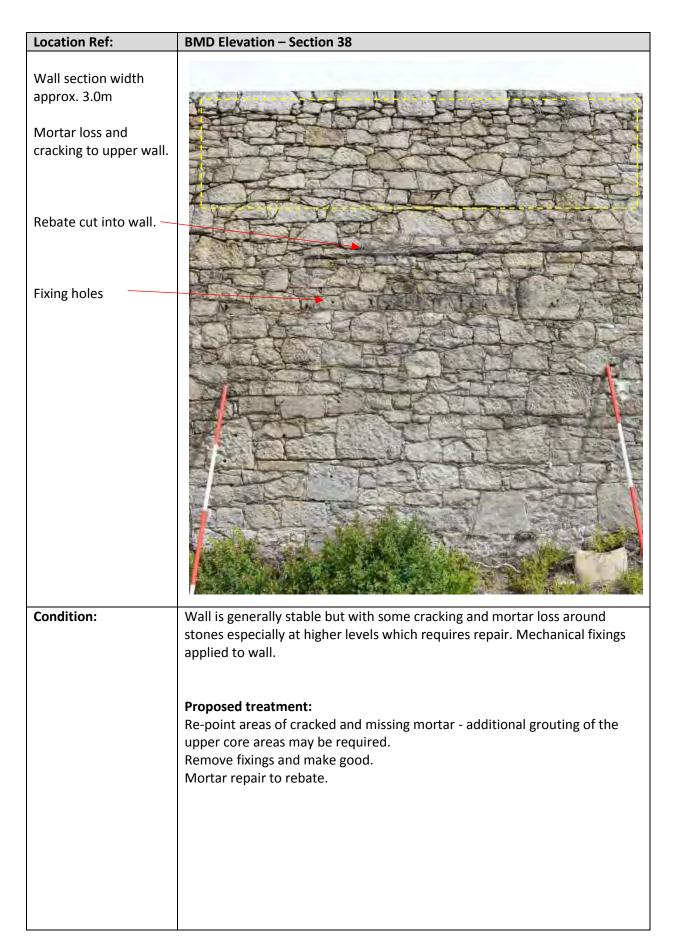






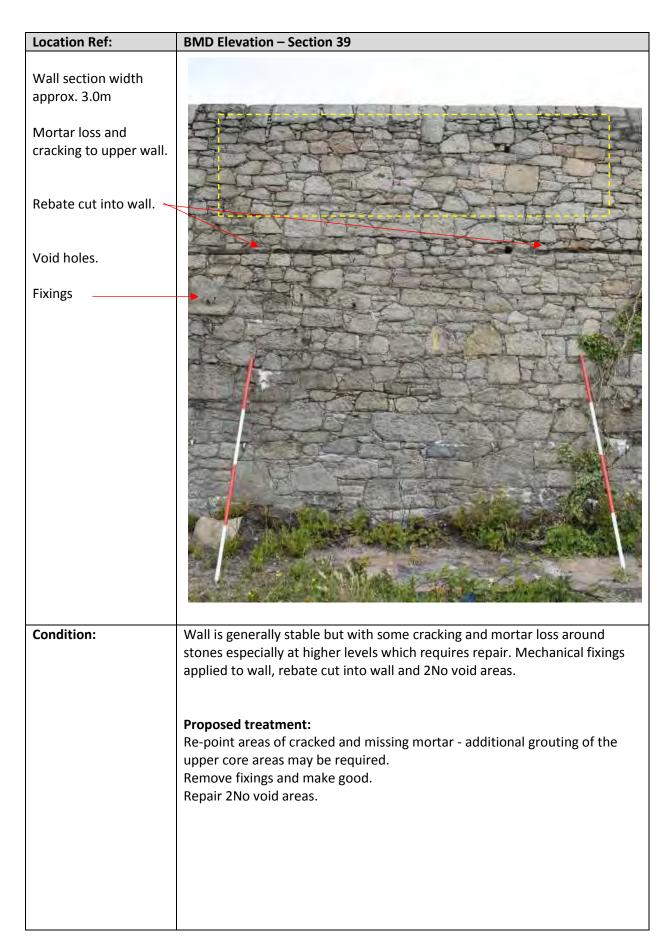


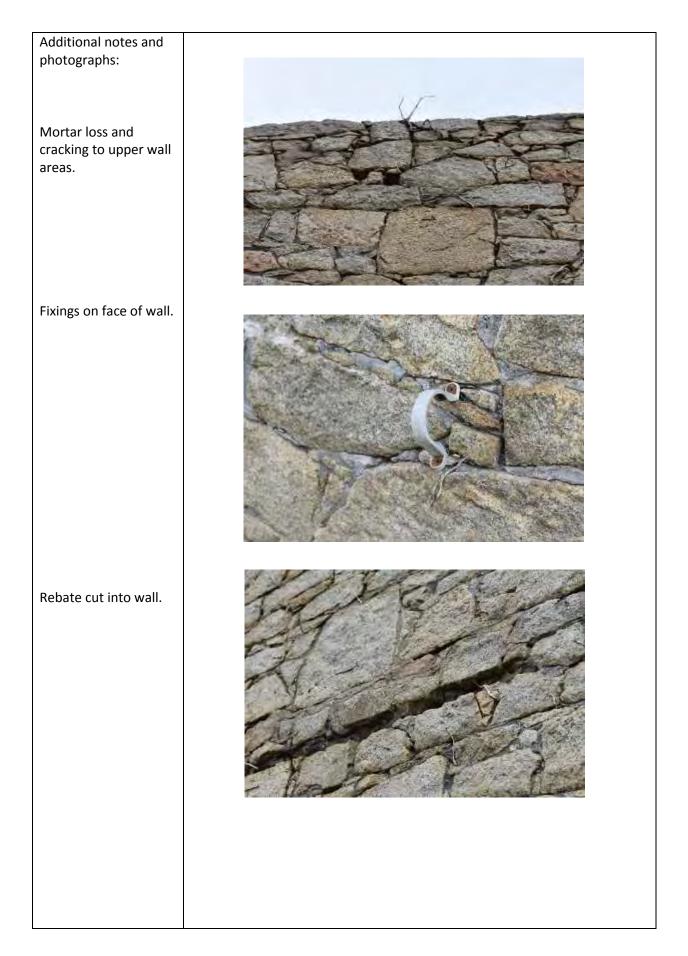


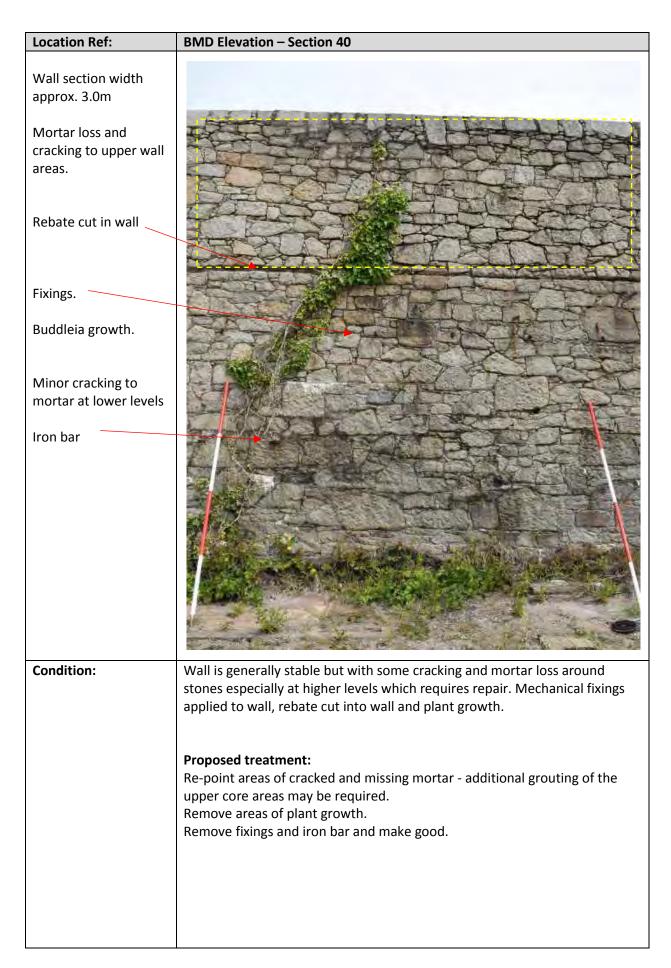


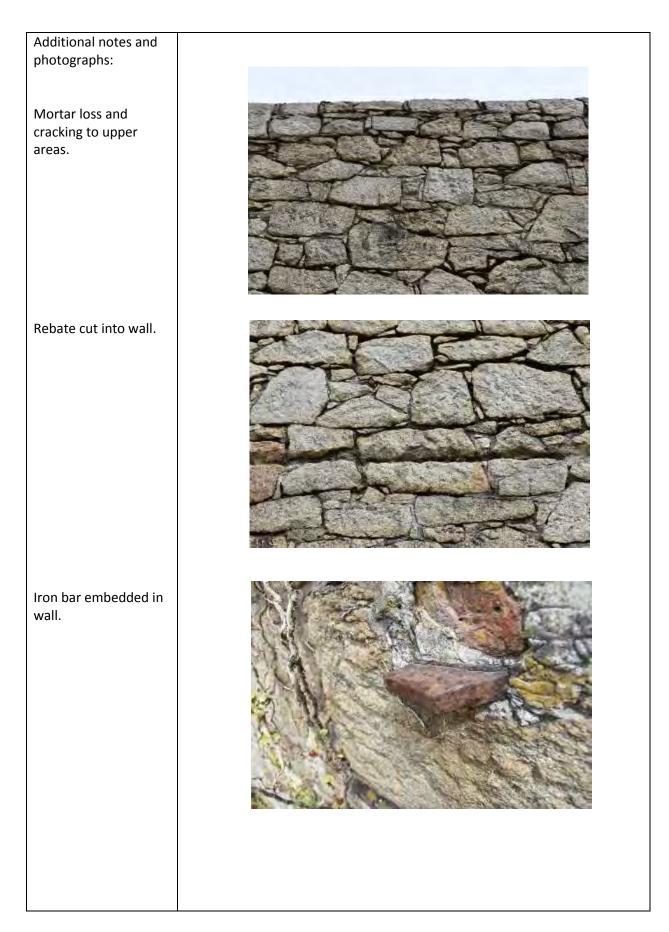
Fixing hole.

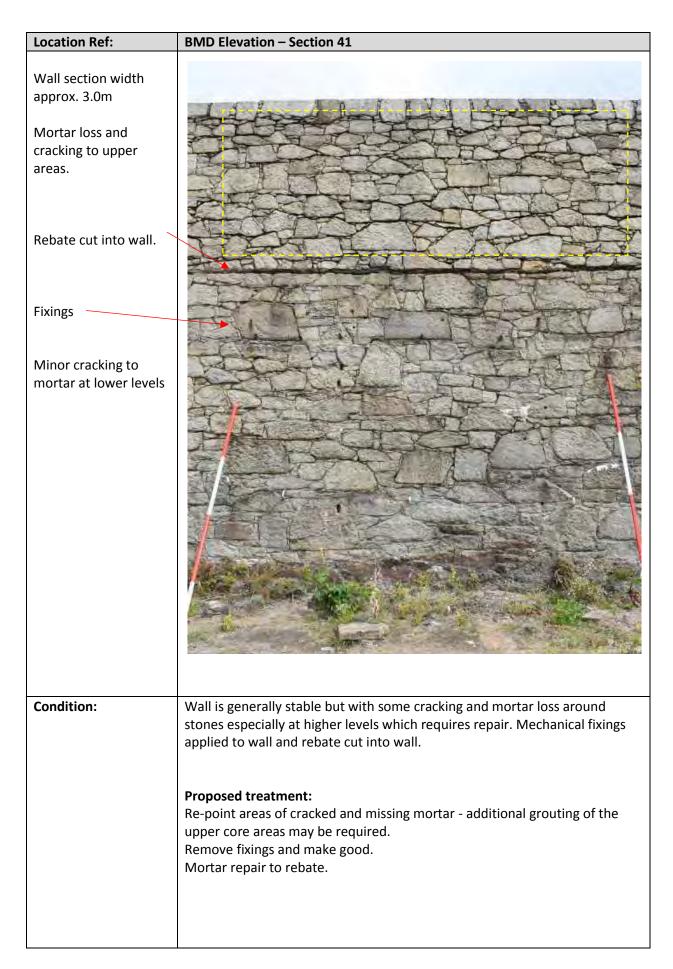


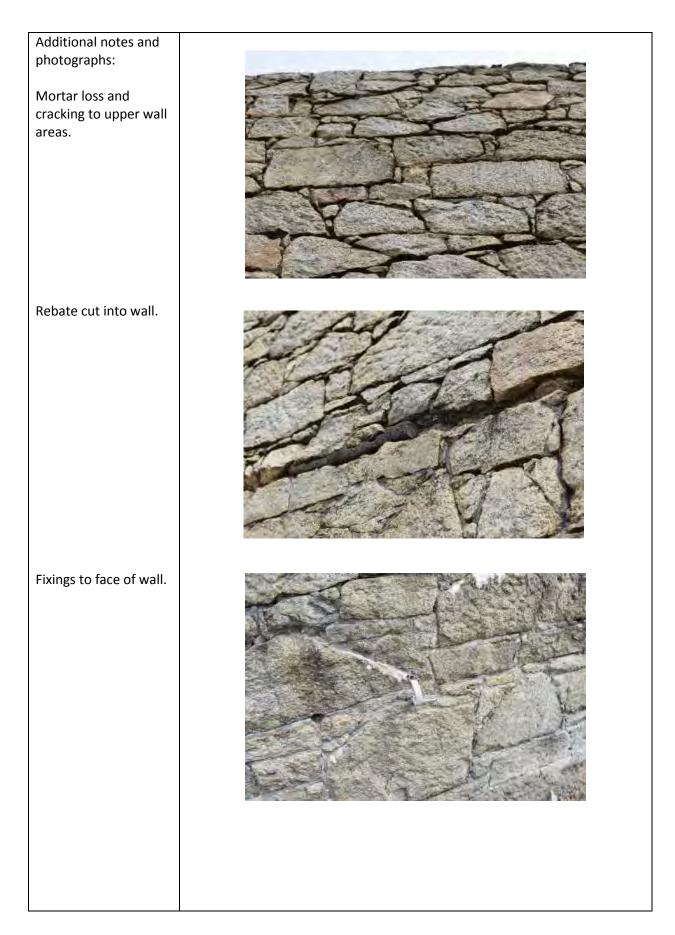


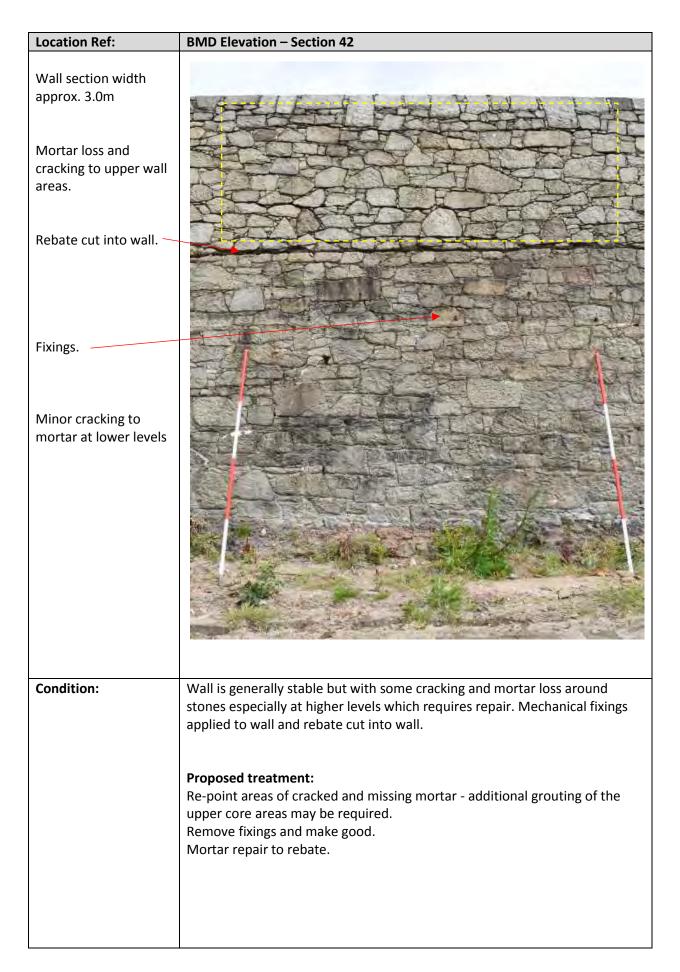












Additional notes and photographs: Mortar loss and cracking to upper wall areas. Rebate cut into wall. Fixings in wall.

