**Conservation of**
**PULHAMITE ARTIFICIAL ROCKWORK**
**Ramsgate, Kent**

# ROYAL PARADE

**STAGE ONE REPORT**

for

**Ramsgate Heritage Action Zone (HAZ) Partnership**

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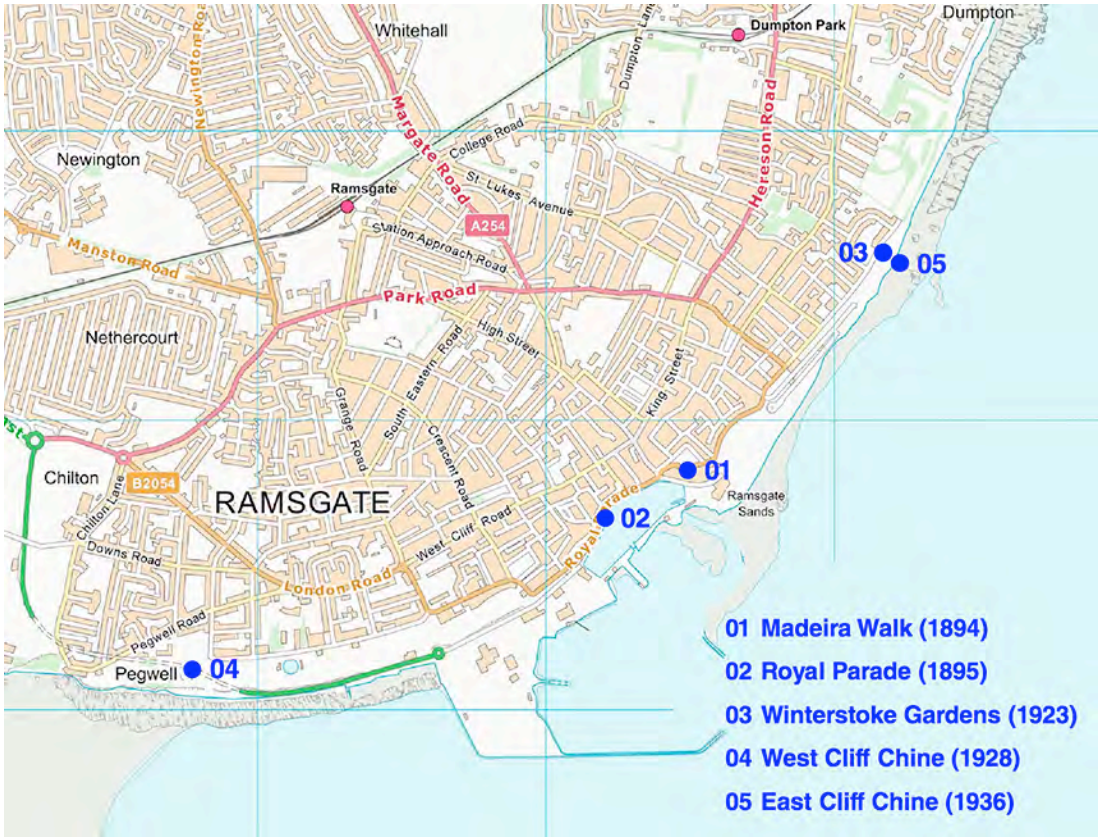
# 1. INTRODUCTION




*1.01: RAMSGATE'S PULHAMITE ARTIFICIAL ROCKWORK SITES IN CONTEXT (MAP BASED ON OS OPEN DATA)*

## 1.1 Background

1.1.01 Launched in March 2017, the Ramsgate Heritage Action Zone ('HAZ') is a five year, government–funded project which aims to support the regeneration of Ramsgate by harnessing its historic environment as a catalyst for economic growth. Coupled with new investment and development, heritage–related programmes of engagement and conservation are seen as key to strengthening the local economy for the benefit of the community. A grant from the MHCLG Coastal Revival Fund enabled the HAZ Partnership — Thanet District Council ('TDC'), Historic England ('HE'), Ramsgate Town Council ('RTC'), Ramsgate Community Coastal Team (who in 2018 successful bid for the grant) and community representatives — to fund a survey of the Pulhamite Artificial Rockwork that is a unique part of the late 19th century and interwar heritage of the town. RTC acting on behalf of TDC (the accountable body) comissioned The Morton Partnership ('TMP') to undertake the survey with CHRISTOPHER GARRAND BSc BArch GraDipCons(AA) RIBA AABC IHBC, the author of this report, invited to lead due to his knowledge and understanding of PAR. IRENE SEIJO BA (Hons) MA Public Art & Design was also appointed by TMP, her role being to assess the landscape element of the rockwork, and advise on vegetation and planting. Structural engineering advice was provided by Ed Morton BEng (Hons) CEng FICE IHBC CARE Accredited.

*1.02: MADEIRA WALK (1894)*

*1.03: ROYAL PARADE (1895)*

*1.04: WINTERSTOKE GARDENS (1923)*

*1.05: WEST CLIFF CHINE (1928)*

*1.06: EAST CLIFF CHINE (1936)*

*1.07: ELLINGTON PARK (1893)*

1.1.02 There are five Pulhamite Artificial Rockwork ('PAR') sites in Ramsgate:

01 Either side of Madeira Walk, a snaking road that rises from the Harbour to Wellington Crescent, the eastern part of a massive harbourside road improvement scheme of 1891–5; the PAR dates from 1894.

02 Within the brick arches that rise above Royal Parade, the inclined middle tier of the western part of the harbourside road scheme; the PAR followed–on from that of Madeira Walk and was completed in 1895.

03 Winterstoke Gardens at the northern end of Victoria Parade, opened in 1923.

04 Dating from 1926–8, a winding roadway in a gorge (chine) down through the cliff at the western end of Royal Esplanade Gardens; the PAR dates from 1928.

05 A chine down from Winterstoke Gardens to the base of the (east) cliff promenade and beach below, opened in 1936.

All sites were in February 1988 statutorily listed Grade II and are within (in one case next to) a designated conservation area. Madeira Walk is also part of the Grade II Registered Albion Place Gardens, first listed in July 1998.

1.1.03 Northwest of the Royal Harbour and Ramsgate town centre is Ellington Park, opened in 1893. A small formation of rockwork within the park has all the characteristics of near contemporary Pulhamite Artificial Rockwork, though its provenance as such is unproven; further research is needed. The site is not statutorily listed.

## 1.2 Purpose

1.2.01 The aim of the survey was to provide an assessment of the condition of Ramsgate's PAR, with a focus on defects that threaten its significance — defined in the National Planning Policy Framework ('NPPF') as its "value … to this and future generations because of its heritage interest" — and the resultant need for conservation ("The process of maintaining and managing change to a heritage asset in a way that sustains and, where appropriate, enhances its significance"). Prioritised maintenance and repair strategies to be implemented 'as and when' by volunteers, conservators and local contractors were (subject to detailed survey) required. The outcome would also inform an overarching conservation management plan for the HAZ, and possibly the revision of the Historic England ('HE') guidance *Durability Guaranteed: Pulhamite rockwork — its conservation and repair*, published in 2008.

## 1.3 Brief

1.3.01 In terms of the resources available for the survey, the order of priority is:

(a) Madeira Walk.

(b) Winterstoke Gardens.

(c) East Cliff Chine.

(d) West Cliff Chine.

(e) Royal Parade.

Initially, Madeira Walk, Winterstoke Gardens and the East Cliff Chine will be surveyed in detail, with the West Cliff Chine and Royal Parade deferred pending funding.

1.3.02 Fundamental to the survey is the notion of 'informed conservation', a philosophy which requires decision on intervention — including maintenance and repair — to be based on evidence and justified need, i.e. 'understanding'. Hence the staged, methodical approach advocated in *Durability Guaranteed*, the basis of the brief:

A Drawing on a review of existing literature — including: a survey report on the Madeira Walk PAR prepared in 2000 by Simon Swann (1956–2018); a 1992 study of Royal Parade prepared by Donald W Insall and Associates; and primary

and secondary historic research — investigate and survey in outline the five sites culminating in Stage One (overview) reports on PAR generally, Royal Parade and the West Cliff Chine.

B Revisit and update the 2000 Madeira Walk survey — and where necessary and appropriate — its scope and format in light of subsequent work by Simon Swann and others on the conservation of Pulhamite Artificial Rockwork.

C Using the Madeira Walk methodology and format (as perhaps modified), survey in detail the PAR of Winterstoke Gardens and the East Cliff Chine.

D Bring together the outcome of each of the detailed surveys into a (Stage Two) report on the condition of the PAR and conservation issues to be addressed along with prioritised schedules of works; the latter to be clearly referenced to marked–up plans and photographic records that enable the location and nature of repairs (including site–specific constraints) to be easily identified.

E Following–on from the survey and schedules, produce cross–referenced generic specifications that describe the necessary types of repair, and the parameters under which they are to be executed, noting also site–specific constraints.

F Provide general and specific guidance on the maintenance and management of PAR including vegetation control, and the removal of graffiti and other soiling.

G If required, help arrange for the collection and analysis of further samples, and the execution of trial repairs (exemplars) to guide future repair. NOT REQUIRED.

H Assist in developing and supporting the training of volunteers (including as part of the survey), local contractors and others in the conservation of Pulhamite Artificial Rockwork.

Specialist advice on landscape and ecology was an integral part of the survey, as was collaboration with Ramsgate Town Council, HE and other interested parties.

1.3.03 This report is part of the outcome of paragraph 1.3.02A. Its purpose is to provide a contextual overview of the condition of the Royal Parade PAR along with a framework for a more detailed (Stage Two) survey, a starting point for the ongoing management of a Grade II listed building in a designated conservation area.

## 1.4 Methodology

1.4.01 A cursory visual and tactile survey of the Royal Parade PAR was carried on a warm and sunny 25th May 2019; an extensive digital photographic record was made. The main survey tool was a metal chisel that was selectively dragged over the surfaces of the PAR so as to broadly understand the potential extent of hollow areas. Working in parallel, Irene Seijo (landscape architect) undertook and initial survey of vegetation and planting, drawing comparisons with historic photographs.

1.4.02 HE provided copies of the most recent listing report for Royal Parade (updated in 2019 as part of the HAZ programme) as well as an image and catalogue entry from the Historic England Archive. Internet searches resulted in a number of additional

historic images, the most fruitful sources being the Thanet Online website maintained by the owner of Michael's Bookshop in Ramsgate, whose self–published collections of old postcards provided an even wider range of material. Use of the British Newspaper Archive website to explore back copies of *The Thanet Advertiser* (from 1930–44 the *Advertiser and Echo*) pinpointed articles relevant to the history and development of Royal Parade.

## 1.5 Structure and content

1.5.01 Following this Introduction:

- **Form and fabric** (Section 2) describes the PAR in terms of its location and setting, design, materials and construction.
- **Planting** (Section 3) comprises a brief overview of how the PAR was at the time of the survey planted.
- **History and significance** (Section 4) outlines the origins and development of Royal Parade and identifies the significance of its PAR.
- **Condition** (Section 5) presents an overview of the condition of the PAR as the date of survey along with broad recommendation as to the potential need for work and a future detailed (Stage Two) survey.

The report ends with **Bibliography** (Section 6) and a single **Appendix** (the heritage designation for Royal Parade).

## 1.6 Qualifications and limitations

1.6.01 THIS REPORT MUST BE READ IN CONJUNCTION WITH OVERVIEW: STAGE ONE REPORT, IN WHICH CAN BE FOUND IN–DEPTH INFORMATION ON THE NATURE, HISTORY, DESIGN, MATERIALS AND CONSTRUCTION, AND PLANTING OF PULHAMITE ARTIFICIAL ROCKWORK ALONG WITH DETAILED BACKGROUND INFORMATION ON ITS DETERIORATION AND AN OVERARCHING APPROACH TO ITS CONSERVATION.

- The survey was conducted from ground level only with no use of ladders or other aids to reach areas at height, i.e. high level PAR was not inspected.
- Due to the absence of a pedestrian pavement and heavy traffic, access to the arches of Royal Parade was limited meaning that heavy reliance had to be placed on the close inspection of high resolution photographs.
- No inspection could be made of any area of PAR obscured by vegetation.
- The brickwork of the arcade, steps, paving and railings are excluded.

Planting and vegetation are only considered where of direct relevance to the PAR.

## 2. FORM & FABRIC

*2.01: PAR WITHIN ROYAL PARADE ARCADE (BELOW SION HILL–PROSPECT TERRACE)*

### 2.1 Location and setting

2.1.01 Royal Parade is the counterpart to Madeira Walk — the western approach to the Harbour (Figure 1.01). Cut tight into the side of the chalk cliff west of the historic centre of Ramsgate, its sinuous double–curve stretches some 500 metres southwest, rising 13–14 metres from the end of Harbour Parade to the start of the Grade II listed Paragon. Sitting on massive brick vaults and fronted by a balustrade–topped arcade, Royal Parade is the middle level of a heavily–engineered, three–deck road. It is a major part of the character of the Ramsgate Conservation Area and affords extensive views out across the Royal Harbour and the English Channel beyond.

2.1.02 Running alongside the Harbour and continuing west along the base of the cliffs is the Military Road, onto which open the shops and businesses that occupy the vaults supporting the Royal Parade roadway. At the end of this lower arcade — alongside the Sailor's Church and former Smack (apprentice fishing) Boys Home, both Grade II listed — is Jacob's Ladder, a six–flight dogleg staircase (also listed Grade II ) that connects the two roads.

2.1.03 Above Royal Parade — supported on semi–circular vaults fronted by a brick arcade of 32 shallow, segmental brick arches spanning between brick piers and topped by a balustrade (eastern end) and metal railings (western end) — are the remnants of an older streetscape: the pedestrian–only shopping parade of West Cliff Arcade (listed Grade II), the western arm of Sion Hill and Prospect Terrace. PAR fills 31 of these

upper tier bays; the other a dogleg stair up to the end of West Cliff Arcade. A bronze, commemorative plaque marks the point where the arcade becomes a simple retaining wall supporting (upper) promenade that cuts–across the front of the Grade II listed Nelson Crescent, meeting Royal Parade where it merges into Paragon Promenade.

*2.02: LOOKING EAST DOWN ROYAL PARADE (WEST CLIFF ARCADE ABOVE)*

*2.03: VIEW OUT ACROSS THE ROYAL HARBOUR & ENGLISH CHANNEL*

*2.04: THE MILITARY ROAD — SHOPS & BUSINESSES OCCUPY VAULTS*

*2.05: ROYAL PARADE FROM NEAR THE TOP OF JACOB'S LADDER*

*2.06: LOOKING DOWN FROM SION HILL ONTO WEST CLIFF ARCADE*

*2.07: STAIR BETWEEN ROYAL PARADE & WEST CLIFF ARCADE (BAY 18)*

## 2.2 Design

2.2.01 The design of the Royal Parade PAR is heavily constrained by the brick–faced concrete arcade which frames its overall composition, as well as the extent to which the chalk cliff is set back within each alcove. Depth and modelling is also inhibited by

the lack of a pedestrian pavement (vehicles pass close to the face of the arcade), although the rockwork does in places break forward and cross between bays, obscuring the bases of the piers. Sion Hill and Prospect Terrace are level, the bays of the upper stretch of the arcade — the seventeen (01–17; bays are numbered from the west, i.e. left–right as facing) west of the staircase bay (18) — increasing in height as the road in front slopes down. A flight of steps at the end of Sion Hill means that the two narrow bays (19 & 20) immediately east of the stair drop substantially in height. The pavement of West Cliff Arcade falls at a steeper gradient that the road, necessitating a progressive reduction in height of the final twelve bays (21–32).

*2.08: PAR ROCKWORK WITHIN FRAMEWORK OF BRICK ARCADE SHOWING LACK OF PAVEMENT & ROCKWORK BREAKING FORWARD ACROSS BAYS 20 & 21*

2.2.02 While each alcove of PAR can be read as a composition in itself, the bedding and tilt (dip) of the rock formations does to some extent continue from bay to bay. This is most notable at the western end of the arcade (bays 01–05), where the distinctively coloured strata appear to run contiguous behind the brick piers until terminated by a stepped–forward 'fault line' in bay 06, from which point a stack of thinner 'beds' with a greater upward tilt emerges. The rockwork of these next four bays (07–10) is close to the face of the arcades, a more craggy and angular composition with a greater number of (shallow) plant pockets offsetting the lack of depth. Continuing east along Royal Parade, a slightly greater working depth is exploited to create a series of shallow grottos (bays 11–13 & 15–17), some of which tend towards a roughly symmetrical design characterised by large, low–level plant pockets either side, a motif also used in the western half of the arcade (bays 19–23). Some of the grotto recesses have short flights of steps up. Clefts and fissures help create shadow and depth, and colour — an ochre–buff and a strong pink — adds to the richness of surface.

*2.09: CONTINUOUS STRATA (BAYS 04 & 05)*

*2.10: LOWER BEDS + GREATER DIP (BAY 07)*

*2.11: TYPICAL 'GROTTO' — BAY 16*

*2.12: CLEFTS, FISSURES & COLOUR (BAY 19)*

2.2.03 East of the staircase bay, the depth of the alcoves is seriously lessened, leaving little room for modelling. As a consequence, the PAR of over the last nine bays — those closest Harbour Parade (24–32) — is reduced to little more than a coating applied direct to the face of the chalk cliff. Colour, bedding, modelling and planting are in the main confined to the five bays immediately east of the stair (19–23).

*2.13: PAR DIRECT TO CHALK (BAY 24)*

*2.14: COLOUR, MODELLING, ETC. ( BAY 23)*

## 2.3 Materials and construction

2.3.01 In terms of materials and construction, the Royal Parade rockwork is typical of the work of James Pulham & Son as promoted by their brochure *Picturesque Ferneries and Rock–Garden Scenery* (Pulham, 1877), exhibiting as it does virtually all of the characteristics described in Section 4 of the Overview: Stage One Report. From what

can be discerned from where coatings have been lost, backing materials include rough concrete, brick (reds are visible) and a white–grey granite, though at the eastern end of the arcade much of the coating has — as noted in 2.2.03 — been applied direct to the chalk of the cliff, Overhangs are of stone and slate, with some evidence of the creamy Reigate stone having also been used. Flints are packed into fissures and left exposed as part of the design, a distinctive feature of the Ramsgate PAR. Burrs are in places also evident. Visually, the coatings are similar to those used on Madeira Walk; given the fact that the Royal Parade PAR was executed less than a year after and as part of the same project, it is highly probable that they are the same. However, this can only be confirmed by sampling and analysis.

*2.15: GRANITE USED IN BACKING (BAY 17)*

*2.16: COURSES OF FLINT (BAY 15)*

*2.17: TYPICAL 'DEEP BAY' ROCKWORK (BAY 15)*

## 3. PLANTING

*3.01: TYPICAL PLANTING OF ROYAL PARADE ARCHES (BAY 05)*

3.1.01 Planting in the small PAR pockets in each arch of Royal Parade consist of small–leaved variegated ivies (*Hedera sp*) *Osteospermums*, variegated *Euonymus* and *Weigela* and annually–planted *Pelargoniums*. *Valeriana officinalis* and *Buddleia sp* have taken root in the joints of the surrounding arcade brickwork. *Parietaria judaica*, is another weed which is growing freely here and in many other places in the PAR.

*3.02: VARIEGATED IVIES, WEIGELA & PELARGONIUMS (BAY 4)*

*3.04: PARIETARIA JUDAICA, GROWING IN FISSURES & MORTAR JOINTS (BAY 23)*

## 4. HISTORY & SIGNIFICANCE

4.1.01 The construction of the elevated roadway of Royal Parade — a notable feat of civil engineering — was an integral part of a massive Council project to improve connections between the Harbour and the cliff tops east and west, the existing roads being too narrow and steep for carriages, an obstacle to the continued prosperity of Ramsgate as a commercial port and holiday destination. Work on the scheme commenced in November 1891 under the direction of the Borough Engineer, William Valon (1838–1909) and was completed in 1895. The gross structural cost of £61,313 included: new roads; works to existing roads; alterations to the Harbour and new sea walls; a Harbourmaster's house; and a new Customs House (now the Town Council offices). The net cost of the scheme after adding non–structural costs (legal, compensation, interest, etc.) and offsetting against rents, land disposal, etc. was £56,325 — the full account for the project was presented by Valon at a Council meeting on 6th June 1895 as reported in *The Thanet Advertiser* of 8th June. William & Thomas Denne of Walmer was the contractor.

*4.01: THE WEST CLIFF PRIOR TO THE CONSTRUCTION OF ROYAL PARADE — SION HILL & PROSPECT TERRACE ABOVE THE OLD MILITARY ROAD (HEA ref. OP35410)*

4.1.02 Cut into the chalk of the cliff, the rising brick–faced concrete structure of Royal Parade (the 'western approach') was raised off the wall of the old Military Road, the latter replaced by a new Harbour–level road and an improved quay; a similarly–engineered wall supported the older footpath and roadway above (refer 2.1.03). Substantially complete by the summer of 1894, it was originally intended that the natural face of the cliff should remain visible within the arches supporting Sion Place, etc. However, the instability of the chalk — recent falls were discussed at a Council meeting on 7th June

(reported in *The Thanet Advertiser* of 9th June) — led to the decision to fill the arches with the same Pulhamite Artificial Rockwork that was under construction on the eastern approach (Madeira Walk), the idea being to "give the cold white chalk some warmth of colour". A suggestion of cheaper concrete was rejected and it was agreed to "try the experiment", though the matter was still under discussion in early July.


*4.02: ROYAL PARADE AFTER COMPLETION IN 1894 BUT BEFORE FILLING OF ARCHES WITH PAR IN 1895 (LOC ref. LOT 13415, no. 825)*

4.1.03 The filling of the arches was hotly debated at a Council meeting on 2nd August (press report dated the 4th), by which time a specimen arch had been filled with rockwork "which was not regarded as very satisfactory." Despite the opposition of half those in attendance — a Councillor Hart said that "Anything more ridiculous and ugly than this sham rockwork he could not imagine" and questions over cost and using local labour — the casting vote of the Mayor meant that it was resolved that two more arches be filled to a different pattern albeit the works were deferred until the following year. It was also recorded that "Mr. Pulham offered to do the whole of the arches for £300" (the gross structural cost of the western approach was £38,262).

4.1.04 The whole of the front improvement project was complete by June 1895, with the name Royal Parade proposed and formally adopted at a Council meeting on 18th July. Notwithstanding the replacement in concrete of most of the original terracotta balustrade (believed to date from the early 1990s), historic photos and the 1992 *Ramsgate Arches* report by Donald W. Insall & Associates reveal that — weathering and the patina of age aside — the rockwork appears today much as it did in when completed at the end of the 19th century.

*4.03: CLOSE UP OF ARCHES FROM ACROSS THE HARBOUR c.1901 SHOWING PAR INFILLING OF ARCHES (EXTRACT FROM HEA ref. OP00663)*

*4.04: VIEW FROM HARBOUR PARADE c.1901 (EXTRACT FROM PC DATED AUG. 1902)*

*4.05: ROYAL PARADE ARCHES c.1980 (EXTRACT FROM UNDATED PC)*

SIGNIFICANCE

4.1.05 Though subservient to the massive red brick arcades and very much an afterthought, the somewhat 'thin' rockwork of Royal Parade is still a notable part of a major piece of civil engineering that saw the historic heart of Ramsgate re–planned so as to open–up access to the clifftops east and west and thereby of architectural interest — and a key element of the Ramsgate Conservation Area. In terms of the work of James Pulham & Son, it illustrates the ideas set out in *Picturesque Ferneries and Rock Garden Scenery* adapted to suit the constraints of limited depth and a preordained framework, and (along with Madeira Walk) is a unique example of the firm working in a wholly urban context. The Royal Parade rockwork is also a part of Ramsgate's nationally important group of PAR structures, a record of the Pulham rock–building business over its last 42 years.

# 5. CONDITION

## 5.1 Introduction

5.1.01 Set out in this section is an overview of the condition of the PAR of the Royal Parade arches as recorded on 25th May 2019, noting the limitations on access (refer 1.6.01). Its arrangement reflects the sequential description of deterioration used in Section 7 of the Overview: Stage One Report, which must be read in conjunction:

- Soiling and discolouration.
- Erosion and loss of coatings.
- Defects in backings.
- Cracks and fractures.
- Previous repairs.

Presented and discussed under each of these headings is what was observed, along with a broad assessment of the need for works. A concluding summary is followed by guidance on: a Stage Two (detailed) Survey; further investigation; maintenance and management; health and safety; and the implications of heritage status. IT IS REITERATED THAT THIS SECTION OF THE REPORT ON THE ROYAL PARADE PAR IS ONLY AN OVERVIEW OF CONDITION AND MUST NOT IN ANY WAY BE TAKEN (OR USED) AS A SPECIFICATION OR SCHEDULE OF REPAIRS.

## 5.2 Soiling and discolouration

OBSERVATIONS

5.2.01 Notwithstanding less fading (loss) of colour due to surface erosion than is the norm for Ramsgate's collection of PAR (refer 1.1.02), the rockwork within the relatively sheltered arches of Royal Parade is extensively soiled and discoloured:

- **Airborne dirt** pervades as a grey–brown film of hydrocarbons, albeit the deposition is not uniform as overhangs and varying depths of recess mean different levels of rain–washing.
- **Surface efflorescence** and **sulfate crusts** are widespread, especially where the PAR is deeply setback or high–up in the shallower arches, i.e. where the rockwork is sheltered and less rain–washed.
- **Biological deposits** in the form of guano (pigeon fouling) are present in all areas where birds are able to roost with thick, heavy build–ups on ledges and at the base of the rockwork, especially in bays 09 to 19.
- **Graffiti** is present but minimal.

While high levels of airborne dirt and (especially) sulfates tend to preclude biological growth, **lichens** were observed on rain–washed rockwork, especially at low level in the eastern bays (24 to 32).

*5.01: AIRBORNE DIRT*

*5.02: SURFACE EFFLORESCENCE*

*5.03: SULFATE CRUSTS*

*5.04: PIGEON FOULING*

DISCUSSION

5.2.02 The principal source of airborne dirt (hydrocarbons) is the exhaust gasses of internal combustion engines, i.e. motor vehicles. Soot may be present due to the historic use of open coal fires, though given the exposure of the site to wind and the fact that chimneys are generally high above and back from Royal Parade, soot formations are likely to minimal. While still to some extent a problem, the deposit of hydrocarbons as airborne dirt will have in recent years been greatly reduced due to controls on emissions; it is anticipated that — with the increased uptake of electric and other 'clean' energy vehicles — it will in the near future cease to be a factor in the soiling of the Royal Parade rockwork.

5.2.03 Out of all the Ramsgate PAR sites, the infill to the arches of Royal Parade has to endure the most aggressive conditions in terms of exposure to salts. Not only sea

spray, but also the close proximity of the coating to — and in some instances direct contract with — the mass of the chalk cliff behind. Salt contamination will have also been intensified by rainwater run–off from the hard surfaces (paving) of Prospect Terrace, Sion Place and West Cliff Arcade, with percolating ground water picking–up chalk in solution, de–icing salts and other minerals before emerging via the mortar joints of the brick vaults — white blooms on soffits and crystallisation being widespread; contrary to how they initially appear stalactites are an integral part of the design of the PAR. This is notwithstanding that vehicular and pedestrian surfaces are now sealed, albeit the Insall report of 1992 indicates that structural concrete (another likely source of salts) is also present above and behind the brickwork. Hence the many instances of surface efflorescence and sulfate crusts which — where overlain with the airborne dirt — are often hard to separate and difficult if not impossible to control.

*5.05: SALTS INDICATE WATER PENETRATION OF BRICKWORK FROM ABOVE*

*5.06: INTERACTION BETWEEN AIRBORNE DIRT & SULFATE CRUSTS*

5.2.04 Other than another potential (localised) source of salts, the heavy build–up of pigeon fouling is a health hazard, noting that during the initial survey (and at other times) persons were observed — despite the traffic — crossing Royal Parade to frame 'selfies' and other photographs with the rock–filled arches. Council workers have also been seen placing large, freestanding planters within the alcoves and presumably they return at intervals for maintenance and removal (the tubs are seasonal). Lichens are benign and graffiti was at the time of survey barely noticeable.

NEED FOR CLEANING

5.2.05 Given the extent of soiling and the fact that airborne dirt is likely in the near future to cease to be a problem, selective cleaning of the PAR may in the short to medium term be justified, subject to a greater understanding of the condition of coatings (refer 5.7.02 & 5.7.03) and the chemical processes causing efflorescence and sulfation. The latter are likely to be complex and mean that a variety of cleaning systems would need to be used, e.g. superheated steam in some areas, and perhaps poultices or pulsing

water and light abrasives in others. There are also questions over whether it is possible or desirable to attempt the removal of sulfate crusts.

5.2.06 The choice and specification of cleaning method is also to a large extent bound up with questions over surface repair, add to which the rockwork cannot be looked at in isolation form the surrounding brickwork. While the salt–based soiling of sheltered areas is likely to recur over the decades following cleaning, understanding and as far as possible controlling salts is an essential precursor to any decisions on the repair of the Royal Parade arcades generally — it would be short–sighted to repair only the PAR and not deal with inherent defects in the surrounding construction.

5.2.07 Separate from the issue of surface cleaning generally, is the urgent need to remove heavy build–ups of pigeon fouling. Judicious softening with water (soaking should be kept to the minimum) interspersed with rinsing is generally effective, noting that guano is hazardous to humans (it can cause respiratory diseases, especially when dry) and hence removal and disposal must be in accordance with current health and safety legislation and guidance (refer also 5.7.06 below). Consideration should also be given to controlling (discouraging) pigeons and other birds from roosting, albeit on no account should pigeon gel be applied to any PAR surface; the most effective form of control is generally eradication — pigeons are territorial and will return if moved.

*5.07: PIGEON ROOSTING WITHIN ROCKWORK*

## 5.3 Erosion and loss of coatings

OBSERVATIONS

5.3.01 Although those surfaces which are in good condition have fared well in terms of surface erosion and hence fading (refer 5.2.01), extensive loss of surface was observed albeit generally in small, isolated areas. The only areas of major surface loss are at low level and where the backing is granite or (what appears to be) a Kentish ragstone, and in the bays 24 to 32 where the PAR coating has been applied direct to the chalk of the cliff (refer 2.2.03). Although not accessible due to height or proximity to traffic, extensive crazing and cracking patterns (refer 5.5.01) suggest friable surfaces and the possibility of further detachment. The 'underside' loss which is characteristic of PAR overhangs is extensive but not 100%.

*5.08: TYPICAL LOSS OF COATING*

*5.09: COATING LOSS (STONE BACKING)*

*5.10: LOSS OF COATING FROM CHALK*

*5.11: TYPICAL UNDERSIDE LOSS*

DISCUSSION

5.3.02 As in the case of surface efflorescence and sulfate crusts, salts and the percolation of water are likely to be a major factor in the degradation and loss of the Royal Parade PAR coatings. The simplest mechanism — resulting in the clean detachment of sheets of coating (including some of the larger areas) — is likely to be **frost action** due to a build–up of water at the backing–coating interface. However the majority of the observed surface loss appears to be due to **chemical action**. As with soiling, this is likely to be a complex set of interrelated processes involving a variety of salts; detailed survey (refer 5.7.02) backed–up by a programme of materials analysis (refer 5.7.03) is needed noting that low level loss may also have been encouraged by splashback from the Royal Parade roadway (when wet) and de–icing salts.

5.3.03 In some instances — those where the coating has been applied to large blocks of stone — lack of keying, i.e. **poor workmanship** seems to have been the cause of detachment. Vibration due to traffic may also be a contributing factor in that this may cause already fragile surfaces to further loosen and fall.

5.3.04 As far as can be discerned, surface loss appears to be worse than as described in the Insall report of 2002, which also considered shrinkage of cement and **differential movement** to be a factor. However, the fact that the rockwork is in relatively small bays and broken–up by fissures, suggests otherwise, other than perhaps on those bays where the coating has been applied direct to chalk.

NEED FOR REPAIR

5.3.05 As noted in Section 8 of the Overview: Stage One Report, decisions on surface repair are bound up with those on cleaning, with both requiring fine judgement based on understanding. In terms of the Royal Parade PAR, some loss of surface may be considered part of the wear–and–tear cum history of the rockwork, though it is important that there are no exposed edges where rain can penetrate the coating and accelerate deterioration. This may require a range of conservation techniques including repair of the render surface, pinning or micro–grouting areas of loose or otherwise detached coating, and the stabilisation of friable surfaces. As noted in 5.7.02 a Stage Two (detailed) survey is an essential next step. Underside loss does not visually detract from the rockwork as a whole and is best accepted, given the inherent difficulty in ensuring that thin render (skim) coatings adhere to the undersides of slate and stone slabs.

## 5.4 Defects in backings

5.4.01 No defects in backing materials were observed, other than it is noted that in some places the joint between the PAR coating and the adjacent brickwork has opened–up, most likely due to its overall shrinkage relative to the masonry; self–sown vegetation is colonising the open joints. It could also be argued that the raw chalk of the cliff — to which some of the coasting has been applied direct (refer 2.2.03) — is inherently ‘defective’ as a backing due to it being a large reservoir of soluble salts that have the potential to chemically react with artificial cements.

## 5.5 Cracks and fractures

*5.12: CRAZED PATTERN OF CRACKING INDICATES SURFACE BREAKDOWN*

*5.13: VERTICAL FRACTURE OF PLANT POCKET DUE TO WOODY GROWTH*

5.5.01 Fine cracking and crazing was observed in numerous locations, though limitations on access (refer 1.6.01) meant it was not clear whether this is associated with blistering, hollowness or other signs of surface detachment. However, given the exposure of the PAR to salts and water (refer 5.2.03), the cracking is most cases is most likely a symptom of chemical action leading to surface breakdown. Close–up survey and further investigation is needed. Due to the limited planting of the PAR, there are only a few instances where plant pockets have been fractured due to unmanaged, woody vegetation; these isolated examples should in due course be filled and if necessary pinned from behind (the plant pocket will need to be cleared).

## 5.6 Previous repairs

5.6.01 No evidence of any significant previous repair was observed.

## 5.7 Conclusion

SUMMARY

5.7.01 The PAR of the Royal Parade aches will in 2020 be 125 years old. It has performed well in an aggressive marine, urban environment and — all things considered — is in reasonable verging on good condition. While the rockwork appears structurally sound with no evident issues with its backing, the coating has been exposed to a variety of ground and airborne pollutants that have resulted in a complex interaction of soiling and surface loss. Although there is no immediate need for cleaning or repair, further survey and investigation are required, as well as ongoing monitoring. However, a high priority should be given to removing (and subsequently managing) all build–ups of pigeon fouling as noted in 5.2.07.

STAGE TWO (DETAILED) SURVEY

5.7.02 Crucial to the prioritised assessment of future repairs and a manageable 'works plan' is a Stage Two survey based on the methodology used in the detailed 2019 surveys of Madeira Walk, Winterstoke Gardens and the East Cliff Chine (reports dated February 2020). However, due to the close (tight) proximity of the road and heavy traffic, this is not a straightforward proposition. Partial road closures will be required, noting that the safe use of a mobile elevated platform will be needed for the survey of PAR above head height. Due to the interaction between the brick–faced concrete structure of the arcade and the rockwork, the detailed survey should be expanded to cover all aspects of the fabric of the north side of Royal Parade (arches, balustrades and railings as well as perhaps hard surfaces and buried services), i.e. it should be an update of the 1992 Insall report.

FURTHER INVESTIGATION

5.7.03 Given the need to understand the chemical mechanisms that appear to be largely responsible for soiling and loss of surface — and to enable the design of coating mixes for repair — samples of PAR from a variety of locations should be submitted for petrographic (thin section) analysis by a UKAS accredited laboratory. The purpose of the analysis is to gain a picture of the composition of the coating including: binder to aggregate ratio; mineralogical content; grain size and shape; the presence of salts; and the identification of any chemical reactions that have caused the break down of coatings. Pigment (electron microscope) analysis should also be undertaken.

MAINTENANCE

5.7.04 Regardless of any works, further survey and investigation, a high priority should be given to the maintenance of the Royal Parade PAR. The Historic England (formally English Heritage) guidance document *Conservation Principles* published in April 2008 defines maintenance as "routine work regularly necessary to keep the fabric of a place in good order". This is distinct from repair: "Work beyond the scope of maintenance, to remedy defects caused by decay, damage or use, including minor adaptation to achieve a sustainable outcome, but not involving restoration or alteration".

5.7.05 The key to the maintenance of any building or structure — including those which are statutorily listed — is a planned inspection regime, tailored to circumstances and proportional to size, form, fabric, usage and significance. In which context, condition surveys are crucial, as is made clear in BS 7913:2013 *Guide to the conservation of historic buildings* and the *Conservation Basics* volume of the English Heritage (Historic England) *Practical Building Conservation* series. Hence the need for a Stage Two (detailed) survey as 5.7.02 — the necessary baseline for a meaningful and practical M&M plan; the survey should be updated every five years. Beyond which planned maintenance should as a minimum involve:

- Regular checking (monitoring) supported by dated photographs.
- Following an initial clean as 5.2.07, ensuring that guano (pigeon fouling) is not in future allowed to build–up.

- Management of vegetation to ensure that roots and other woody growths do not outgrow plant pockets. Plants that have self–seeded in cracks (including at the PAR–brickwork interface) should be carefully removed and any seedlings that in future take hold plucked–out before they have had a chance to propagate.
- Allowance should also be made for unplanned (reactive) maintenance, e.g. in the event of vehicle impact.

Records are also crucial; provision for archiving and access should be an integral part of the management of the Royal Parade PAR.

HEALTH & SAFETY

5.7.06 Attention is drawn to the fact that future works of all types (including maintenance) are likely to fall within the remit of the *Construction (Design and Management) Regulations 2015*. These impose on those commissioning building works (Clients) a duty to make suitable arrangements for managing projects including: allowing sufficient time and resources; making sure that relevant information is provided by others duty holders; that designers and contractors carry out their duties; that welfare facilities are provided; and a Health & Safety File is kept.

IMPLICATIONS OF HERITAGE STATUS

5.7.07 It is assumed that — following the survey and further investigation outlined in 5.7.02 and 5.7.03 — minor repairs will be carried out using the same materials and techniques as the existing fabric, and hence will not affect the significance of Royal Parade as integral part of a designated heritage asset (Grade II listed building in a conservation area). Likewise routine maintenance. It is therefore unlikely that listed building consent will be required albeit if certainty is needed, a Certificate of Lawful Proposed Works could be applied for (refer paragraph 9 of *Historic England Advice Note 2: Making Changes to Heritage Assets* published in February 2016). Anything other than minor repair should be discussed with the local conservation officer and agreement sought on any need for consents. If works are to be carried out piecemeal over a period of time, as and when funds permit, the possibility of Listed Building Heritage Partnership Agreement could be explored: essentially a ‘term’ consent for routine works that removes the need for successive consent applications.

# 6. BIBLIOGRAPHY

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*Item ref. OP00663*
A view looking inland across the harbour which is busy with moored sailing vessels. The harbour was build circa 1750. 1890–1910 [1895–1901]

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*25 inch (1:2500) County Series*
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# APPENDIX

## A LIST ENTRY

# Terracing, balustrades and arcades to Royal Parade

## Overview

Heritage Category:
Listed Building

Grade:
II

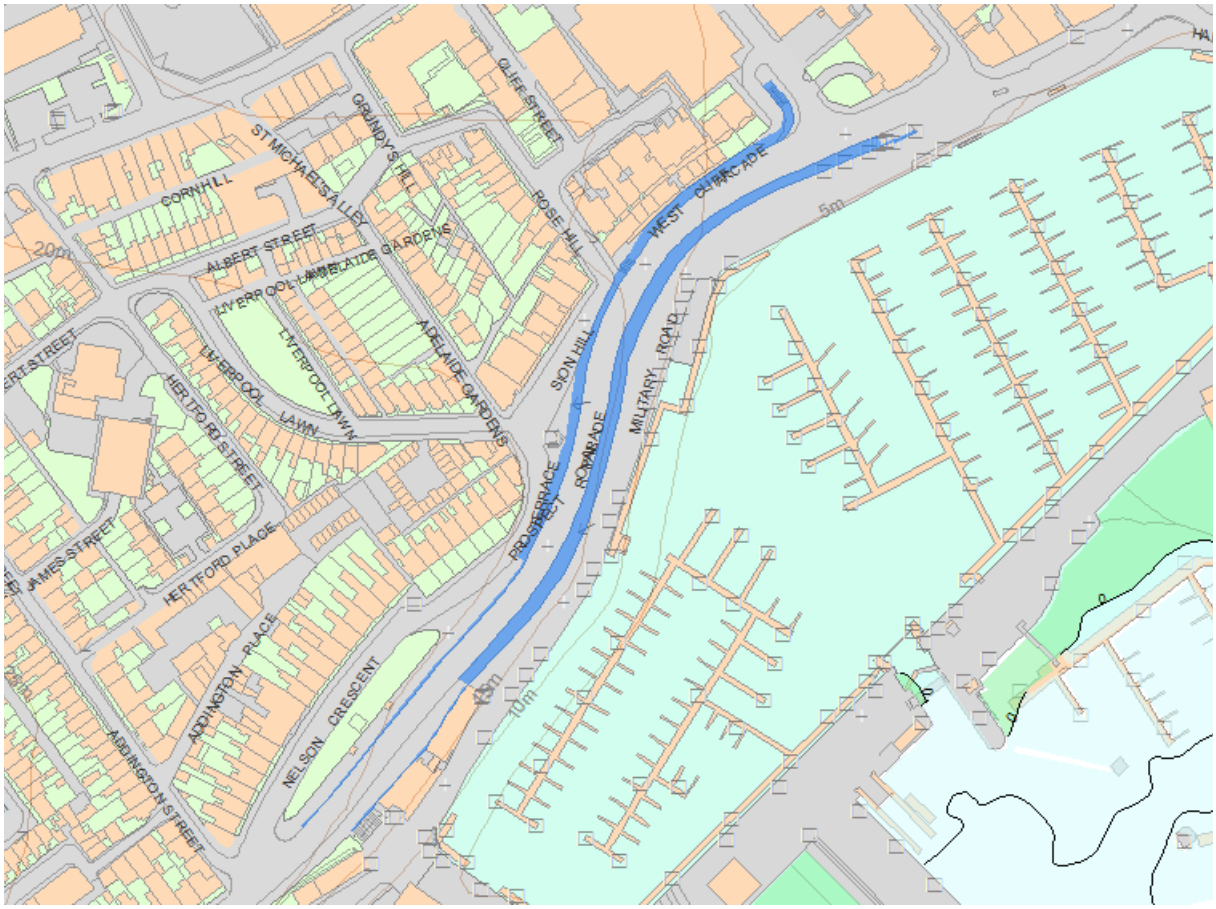
List Entry Number:
1336326

Date first listed:
04-Feb-1988

Date of most recent amendment:
22-May-2019

Statutory Address:
Royal Parade, Ramsgate

# Map



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The above map is for quick reference purposes only and may not be to scale. For a copy of the full scale map, please see the attached PDF - **1336326.pdf**

The PDF will be generated from our live systems and may take a few minutes to download depending on how busy our servers are. We apologise for this delay.

This copy shows the entry on 22-Jun-2020 at 18:18:56.

# Location

Statutory Address:
Royal Parade, Ramsgate

The building or site itself may lie within the boundary of more than one authority.
County:
Kent

District:
Thanet (District Authority)

Parish:
Ramsgate

National Grid Reference:
TR3820364688

# Summary

A piece of urban planning on three levels, providing an ascending roadway from Ramsgate harbour to Nelson Crescent. The structure is comprised of a series of brick arches supporting a roadway, with retaining walls along the face of West Cliff. It was built in 1893-1895 to the designs of the borough engineer, W A Mcintosh Valon with Pulham and Sons.

# Reasons for Designation

The terracing, balustrades and arcades to Royal Parade, Ramsgate are listed at Grade II for the following principal reasons:

Architectural interest: * they are comparable in interest to other designated examples of Pulhamite structures and representative of the Pulhams' innovative design and construction of garden and park structures; * designed by the borough engineer, W A Mcintosh Valon with Pulham and Sons. Historic interest: * the structure forms part of an important grouping of Pulhamite structures which are spaced along the seafront at Ramsgate and which were built in the period between 1893 and 1936. Group value:

* with numerous harbourside and clifftop buildings in Ramsgate, including 1-18 Nelson Crescent, the former Smack Boys' Home, the Sailors' Church and former Sailors' Home and the cliff face staircase known as Jacob's Ladder (all Grade II).

# History

From the mid-C18 Ramsgate became increasingly popular as a seaside resort, its expansion being accelerated by road improvements and faster sea passage offered by hoys, packets and steamers. An assembly room, warm water baths, subscription libraries and places of worship were joined by new streets such as Effingham Street and speculative crescents and squares on the East and West Cliffs such as Albion Place of about 1791-8 and Nelson Crescent of about 1800-1805. During the Napoleonic Wars Ramsgate became a busy garrison town and a major port of embarkation. Ramsgate's importance in the 1820s is attested by its patronage by the British and European royal families and the creation of a separate parish by Act of Parliament, served by the large Church of St George (1824-1827). The harbour is the only one in the British Isles which has the designation 'Royal', granted by George IV.

The arrival of the South Eastern Railway's branch line in 1846 opened up Ramsgate to mass tourism and popular culture, bringing a range of inexpensive, lively resort facilities intended for the sorts of middle- and working-class holidaymakers depicted in WP Frith's painting 'Ramsgate Sands' of 1854 (Royal Collection). Wealthier visitors were accommodated at a respectable distance from the town in developments such as EW Pugin's Granville Hotel of 1867-1869. Competition with other Kentish resorts stimulated a series of large-scale improvements in the late-C19 and early-C20 including the construction of Royal Parade and landscaped stairs and pathways at the eastern and western ends of the seafront to join the upper promenades to the Undercliff walks. New schools, hospitals and services were also built. The thriving town attracted diverse faith communities; Moses Montefiore founded a synagogue and a religious college at East Cliff Lodge, while AWN Pugin St Augustine's Church and the Grange as part of an intended Catholic community on the West Cliff.

In 1940 the harbour was the point of return for many of the small boats involved in the evacuation from Dunkirk and war-time precautions included the digging of extensive air raid shelter tunnels in the chalk beneath the town. Ramsgate remained a popular holiday destination until the advent of cheap foreign travel in the post-war decades. Falling visitor numbers were exacerbated by the decline of the town's small trades and industries, fishing and boat-building. However, a ferry and hovercraft port and the large marina created in the inner harbour in the 1970s have continued to bring life to the area.

Rock gardens first seem to have appeared in England from the C17 as a suitable setting for exotic plants. The influential landscape designers Humphry Repton (1752-1818) and John Claudius Loudon (1783-1843) both promoted the idea of naturalistic rock formations in a landscape and this coincided with the importation of new species of plants into England from mountainous areas.

From the 1840s a number of companies began experimenting with cements to cover a base of hard core in imitation of large-scale rock formations. James Pulham and Son of Broxbourne in Hertfordshire were amongst several such makers, and also specialised in terracotta ornaments. The longevity of their company which lasted from about 1845 to 1945 under the leadership of three generations of Pulham, all named James, marked them out, as did the quality of their products. Their work and patrons included relatively modest suburban villas as well as bankers, ship and railway owners and the royal family. Work at Sandringham, Windsor and Buckingham Palace earned the company a royal warrant in 1895. 'Durability Guaranteed' was one of the company's claims, and this has largely proved to be true. Whether real stone or artificial, an aim of designers was to replicate the appearance of genuine rock formations with geological strata. Pulhams' was noted for this and from the 1880s they experimented with different colours and textures of cement. The structure of their designs was a core of over-burnt bricks, waste stone and slag, or other industrial waste that was locally available. Overhangs were of real slate or sandstone and the whole structure was finished with two coats of render, between 6mm and 15mm thick.

The various constructions of rockwork at Ramsgate, realised by Ramsgate Corporation from the 1890s, with the last work on Winterstoke Chine in 1936, form one of the largest groupings of their designs and provide a good cross-section of their work and the compositional possibilities offered by different locations and gradients.

The Royal Parade Arches and Pulhamite cliff face, which extend up from the harbour area to Nelson Crescent, were built between 1893 and 1895 to the designs of the borough engineer, W A McIntosh Valon. Early photographs show the site as a chalk cliff face, rising from behind the dockside area. In the process of construction, the grassed area and the original roadway in front of Nelson Crescent were used to allow space for the additional roadway and a further thoroughfare, Military Road, was extended to the west along the undercliff. The large-scale project also included Madeira Walk which formed an ascent to the East Cliff. The cost of the whole project was close to £60,000 and the waterfall was nicknamed 'ratepayers' tears' as a consequence (see SOURCES, Thanet Advertiser).

# Details

A piece of urban planning on three levels, providing an ascending roadway from Ramsgate harbour to Nelson Crescent. The structure is comprised of a series of brick arches supporting a roadway, with retaining walls along the face of West Cliff. It was built in 1893-1895 to the designs of the borough engineer, W A Mcintosh Valon with Pulham and Sons.

MATERIALS and PLAN: red brick laid in English bond with terracotta and stone dressings and Pulhamite cement render over a hardcore base. The Pulhamite render is in a variety of colours and emulates different strata of rock. At the lower level of the harbour side, a series of arches support the roadway, Royal Parade, as it rises from north-east to south west. These arches face onto Military Road and house warehouses of one and two storeys. At the middle level a further series of brick arches run along the northern side of the roadway called Royal Parade, and have infill of Pulhamite rockwork which includes planting troughs and seating areas.

EXTERIOR: the front facing onto Military Road has a series of 28 bays to its eastern end which follow the curve of the road and the harbour wall. The eight bays at the far right are divided by wide pilaster buttresses which rise the full height of the wall and terminate in piers which form part of the balustrade beside the road. Buttresses and piers both have raised panels at their centre. Bays at this end have a central doorway, flanked by windows, all with segmental arched heads and projecting keystones. The balustrade has vase-shaped balusters and alternate piers support a cast iron lampstand with globe lamp. As the road rises the bays become taller and the pilaster buttresses are replaced by semi-circular relieving arches with moulded edges, between which are circular panels with moulded surrounds which take the form of keyed occuli. The centre of each panel and the keystones of the relieving arches are of terracotta and show the arms of Ramsgate and Kent. Doors and windows are set in recessed walling and have round-arched heads. At the western end the arches encompass two floors, with central double doors to each storey and the upper floor approached by flights of metal steps. At the further western end the retaining wall is built of stock brick and abutted by buildings including the former Smack Boys' Home (Grade II), the Sailors' Church and former Sailors' Home (Grade II) and the flight of steps known as Jacob's Ladder (Grade II).

The retaining wall to the northern side of Royal Parade starts at its eastern end with a flight of steps which turns the corner into Sion Hill. This has a balustrade of the type seen on the south side of Royal Parade with vase balusters and brick piers. The wall and balustrade are divided by a dentilled cornice. To the left of this is a series of thirty, large niches with segmental heads. Individual arches are filled by Pulhamite rockwork and this overlaps

with the arched brick frames, so that the brick piers appear to emerge from the rock in some cases. The eleventh and twelfth arches from the right support a flight of steps, which causes the top of the wall to rise at a diagonal, after which the balustrade is replaced by later-C20 metal railings. A dogleg staircase with wrought iron railings occupies the thirteenth bay from right.

The arches and Pulhamite infill revert to plain walling at left, divided by pilaster buttresses, and there is a bronze plaque in a shaped frame which records the completion of the work in 1895 and the names of the mayor and councillors at the time, as well as the borough engineer and designer of the work, W A Macintosh Valon.

INTERIORS: at the lower level, facing onto Military Road, are a series of warehouses, of one and two storey height, accessed by the arched doorways which face the road. The majority have now been converted to retail premises.

# Legacy

The contents of this record have been generated from a legacy data system.

Legacy System number:
171992

Legacy System:
LBS

# Sources

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# Legal

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

End of official listing