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Culture, Heritage and Libraries Committee

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Time: **2.00 pm**

Venue: **COMMITTEE ROOM 2 - 2ND FLOOR WEST WING, GUILDHALL**

8. **THE MONUMENT CONSERVATION MANAGEMENT PLAN - APPENDICES**

For Decision
(Pages 3 - 282)

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ARCHITECTS LLP

THE MONUMENT TO THE GREAT FIRE OF LONDON

VOLUME I: CONSERVATION PLAN

MARCH 2025

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USING THE DOCUMENT

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CITY OF LONDON

JULIAN HARRAP
ARCHITECTS LLP

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LVMF	London View Management Framework
MMP	Management and Maintenance Plan
NE	Natural Environment
OPS	Operations Division
PD	Planning Department
TB	Tower Bridge
NPPF	National Planning Policy Framework

- The Monument to the Great fire of London Conservation Management Plan, July 2014 by Julian Harrap Architects.
- JHA archive 2007-2009 Monument Major Repairs contract.
- Research on The Monument mapping and setting, 2024 by Dr Oliver Bradbury.
- The Monument Historical Documentation, 1991 by Dr Wendy Hitchmough
- 'Monument Views Study, City of London Assessment of Key Features and View Protection Considerations', published by the Department of the Built Environment December 2020.
- Bere Architects. Pavilion construction drawings 2005
- London Archives, 40 Northampton Road, Clerkenwell, EC1R 0HB.
- Historic England Conservation Principles, Policies and Guidance
- https://www.themonument.org.uk/
- https://www.themonument.info
- https://royalsociety.org/

PURPOSE

This Conservation Management Plan (CMP) has been commissioned by the City Corporation to provide guidance and support for the on-going management and maintenance of The Monument to the Great Fire of London, and its immediate surroundings. A Condition Survey, Structural Survey and Maintenance & Management Plan have been carried out to support the CMP.
The Monument to the Fire of London is a Scheduled Monument and Grade I building of international/national importance.
The CMP sets out the history of The Monument and its setting and describes the construction and fabric of the building. An assessment of the significance of The Monument and its setting is made together with the significance of each component. Issues associated with the building and its management as a visitor attraction are analysed, risks and opportunities identified and resulting policies drafted. The CMP concludes with an Action Plan summarising the policies and actions which would improve the condition, appearance, amenity and management of The Monument.

HISTORY & DESCRIPTION

The Monument to commemorate The Great Fire of London of 1666 and celebrate the rebuilding of the City was commissioned by King Charles II and designed by Robert Hooke with Sir Christopher Wren.
To provide an understanding of The Monument, the CMP gives an outline of the Great Fire of London, together with a summary of the King's commission and the design and public use of The Monument. Each element of the original building is then described together with the alterations made over time.

CONDITION SUMMARY

The structural condition survey focussed on three areas: the flaming orb area with minor corrosion to iron structural straps, the viewing platform which has cracking at the base of the railings and the steps where cracks are evident in stonework around the base of some balusters. A programme of regular inspections and monitoring is recommended leading to development of repair and stabilisation proposals once the causes are better understood.
The architectural condition survey considers the exterior stonework to be in good condition except for a weathering roll-moulding at the top of the column plinth, which is cracking and friable. An inspection commissioned by CoL officers in November 2024 did not reveal any major or serious defects with the stonework; annual monitoring should continue. The primary interior concern is the extent of damp in the basement and the current blocking of ventilation routes, accelerating decay to the masonry.

Otherwise, interior issues relate to the appearance of the interior, from the variable condition of the decorations to the downgrading of the presentation of the interior since the 2007-2009 Major repair contract.

SIGNIFICANCE

The Significance Appraisal first discusses and ascribes international, national or local levels of significance to The Monument and its setting, against established heritage values. The Monument has the highest significance in terms of its historical, aesthetic and communal value. It was commissioned by King Charles II to commemorate the Great Fire of London, the most famous disaster in London's history; it was designed by Christopher Wren and Robert Hooke and was constructed between 1671 to 1677; it survives remarkably intact and its early use as a public viewing gallery continues, giving it communal value derived from the impression received by its millions of visitors.

Each element of construction of The Monument, fixtures, fittings, signage, electrical services and immediate setting are then assessed for their contribution to the significance of The Monument, with reasons offered. A great deal of the existing building fabric, design and material survives from the original construction. These surviving elements are highly significant and some later additions and alterations have now gained some significance, due to their vintage or the quality of design and materials.

ISSUES AND OPPORTUNITIES

This section of the CMP identifies the ways in which day-to-day operations, or any alteration, development or new work, might lead to the core significance of The Monument being vulnerable in any way.

The issues are grouped under the following 11 headings:

- Approach and Adoption
- Repairs and New Works
- Maintenance
- Management and Staffing
- Access and Visitor Experience
- Events
- Health and Safety
- Services
- Sustainability
- Records Management
- Interpretation

Following a discussion of each issue, a policy or policies are identified. These are intended to protect the significance of the asset and where possible to enhance it, to provide a basis for making decisions and to provide a comprehensive framework for the sustainable management of the site. Policies requiring expenditure will be subject to the appropriate programming for funding and resources, and consultation with the relevant stakeholders.

ACTION PLAN

The Action Plan table identifies a level of urgency (essential, advisable, desirable) for each of the key actions, and lists the relevant policies for each action.

SUPPLEMENTARY DOCUMENTS

Supporting the CMP is a Condition Survey which includes a structural appraisal.
A Maintenance & Management Plan and a Forward 20-Year planned maintenance and repair costed spreadsheet has been prepared using information from Conservation Plan and Condition Survey.
A volume of Appendices provides background or supplementary information to the CMP, including a historical documentation review of The Monument prepared by Dr Wendy Hitchmough in 1991.

POLICY RECOMMENDATIONS

Approach and Adoption

PA1. Sustain the cultural significance of the site, maintain and enhance its distinctive character and its 'sense of place'.

PA2. Promote the need for a unified approach by bodies with responsibilities for making decisions that may affect the cultural significance of The Monument.

PA3. The Conservation Management Plan will be formally adopted by the City Corporation as one of the principal sources of guidance in the management and maintenance of The Monument.

PA4. The Conservation Management Plan should be reviewed periodically by the City Corporation, at intervals of no more than five years.

PA5. Report the CMP to relevant Committees and assign responsibility for management of The Monument to a Senior Responsible Officer within the City Corporation.

Repairs and New Works

PA6. The City Corporation will consult with Historic England and the Planning Department to ensure both cyclical maintenance and new works take place in a timely manner and with all the necessary consents

PA7. Restrict objects/bags that visitors take up The Monument and ensure interior repairs and alterations are hard-wearing.

PA8. The City Corporation will enact the recommendations of the Condition Survey and Maintenance Plan subject to funding.

PA9. Avoid fixing temporary access scaffolding to the historic fabric and consider the ease of access and longevity of repairs and new work.

PA10. Make good damage using appropriate materials and skills as soon as the need for repair is evident.

PA11. Retain original fabric and wear patterns.

PA12. Alterations to the fabric may be appropriate to reduce the rate of deterioration of the fabric.

PA13. Retain alterations or damage which have an overriding historic interest.

PA14. To repair the original fabric, select materials to match the original.

PA15. For conservation work, use appropriate architects and contractors, qualified in historic building work.

PA16. Record the historic fabric using photographs and drawings during alterations.

PA17. Understand the building through research, surveys, site trials before undertaking major repairs or alterations.

PA18. New works should be of high-quality design, appropriate materials and quality workmanship, ideally reversible and easy to replace in the future

Maintenance

PA19. Seek opportunities to record condensation issues and environmental conditions to establish how site operatives can best control the condensation through ventilation and heating.

PA20. Quickly remove / overpaint graffiti and monitor through by CCTV.

PA21. Ensure the hand painted signs are kept in good condition and are repainted when their condition deteriorates. Avoid printed paper signs.

Management and Staffing

PA22. The City Corporation should explore opportunities to create a database used by all parties, encourage cross-departmental coordination and establish liaison meetings.

PA23. The City Corporation will explore opportunities to review the use requirements, purpose and suitability of the Pavilion, and whether alternatives, which are more suitable for the welfare/management needs of the site and less harmful to The Monument, can be identified.

Access and Visitor Experience

PA24. Consider the needs of all the community in provision of facilities and events.

PA25. Review what measures could improve access for a greater range of people including disabled and neurodivergent people.

PA26. Explore new and discreet technologies to count visitors in and out, such as automated visitor counters.

PA27. Consider alternative locations to store visitors' bags and review implications of bag storage for people with a range of impairments.

PA28. The City Corporation will explore alternative tickets solutions such as becoming cashless and/or option to buy online.

PA29. The City Corporation will only publicise the official website.

PA30. Ensure the continued provision of educational resources on The Monument.

PA31. Review the arrangements for disabled school visitors and the assessment process regarding equitable provision.

PA32. The City Corporation will consider future opportunities to review the seating provision and inclusive design, both with the yard and at the base of the Monument.

PA33. Avoid any permanent obstruction of access to The Monument, both physically and visually, from the surrounding area.

PA34. The City Corporation will consider exploring options to ensure all visitors are informed of the access restrictions, limited space and number of steps.

PA35. The City Corporation will agree the outcome for the turnstiles and regularise consents as need.

PA36. The City Corporation will consider updating the 2004 Access Audit and reviewing access improvements recommended.

PA37. The City Corporation will explore solutions for the disused panoramic camera and weather station and associated equipment and consider providing a simpler and less obtrusive system.

Events

PA38. The City Corporation will consider use of The Monument and Yard for weekend / evening events and small private hires.

Health and Safety

PA39. Monument attendants to have appropriate health & safety training.

PA40. Ensure H&S certificates and assessments are carried out and undertake the recommended actions, promptly.

Services

PA41. Consider floodlighting the exterior of The Monument with floodlights located on surrounding buildings, to have licence agreements with owners of these properties and to keep the floodlights maintained and working.

PA42. The City Corporation to consider implementing a consented architectural lighting design, to replace the existing temporary light fittings.

PA43. Design and install new or renewed services to cause minimal harm to significant interiors and historic fabric.

Sustainability

PA44. Encourage that all uses, activities and developments within the site are undertaken in a sustainable manner.

Records Management

PA45. Keep the current and recent files and information safe, clearly labelled and filed for ease of use.

Interpretation

PA46. Consider providing a Monument Guide, or Fire of London Guide that can be downloaded onto a smartphone.

PA47. Consider updating the measured survey and explore using the 3D computer model of The Monument for interpretation purposes.

PA48. Consider exploring the viability of a souvenir guidebook of The Monument and its sale from other City of London outlets.

1.1 PURPOSE

This Conservation Management Plan (CMP) has been commissioned by the City Corporation to provide guidance and support for the on-going management and maintenance of The Monument to the Great Fire of London, and its immediate surroundings. A Condition Survey, Structural Survey and Maintenance & Management Plan have been carried out to support the CMP

The Monument and its setting, Monument Yard are owned and managed by the City Corporation.

The Monument, Fish Hill Street, London EC3R 6DB, was built between 1671 and 1677 and is a Grade I Listed building and a Scheduled Monument.

1.2 METHODOLOGY AND STRUCTURE

The CMP forms Volume 1 of a suite of documents providing information about the site.

The suite of documents is:

Volume I: Conservation Management Plan
Volume II: Quinquennial Inspection Survey
Volume III: Management and Maintenance Plan
Volume IV: Appendices, including copies of other relevant reports

The structure of this Conservation Management Plan is based on the City's standard CMP template which organises the CMP into three principal parts:

Understanding The Monument summarises the current knowledge about the building, beginning with the Fire of London and the commissioning of The Monument to commemorate the Great Fire, then the design and the building fabric. Alterations to the building are described together with the uses of the building and finally a summary of the management of the site.

The Assessment of Significance is a statement of the site's cultural significance, distilled from an assessment of its history. This is taken to mean significance in its widest sense, encompassing social value as well as historical, architectural and archaeological interest. Understanding the significance attached to the various parts of the site enables those considering its future to make informed decisions about management, care and development.

The third part is an examination of the conservation **Risks and Opportunities** arising mainly from the current use of The Monument, the maintenance and repair, stewardship and management. From this is developed a series of conservation Policies to serve as benchmarks and a firm foundation for the future use, management and maintenance of the building.

1.3 SCOPE AND LIMITATIONS

The geographical limitations of the CMP are The Monument, Monument Yard and the small pavilion building providing facilities for Monument staff and a disabled access WC.
There has been no assessment of ecology on the site.

1.4 CONSULTATION

The Supervising Officer / Project Manager for The Monument CMP commission is Joana Antonio (Heritage Estate Officer) of the City Surveyor's Heritage Estate Section (HES) who will be managing the Project.

Stakeholder engagement, both within and outside the City Corporation, is a critical part of the project so that consensus in management and maintenance of The Monument is reached.

The first and second draft of the CMP was shared with the City Corporation's internal and external stakeholders:

- Environment Department:
  - Natural Environment Division, Culture & Project Section
  - Planning
  - Access Advisor
- City Surveyor's Department:
  - Heritage Estate Section
  - Facilities Management
  - Operations Division
  - Property Projects Group
- City Bridge Foundation
- Comptroller & City Solicitor's Department
  - Principal Historical Research Officer
- Historic England

1.5 ADOPTION

This CMP will be submitted for endorsement by the relevant Committees before implementation by the City Corporation.
Once it has been endorsed Natural Environment Division and City Surveyor's Department will be responsible for the implementation of the CMP.
The CMP should be reviewed every five years after that to ensure it remains relevant.

1.6 AUTHORSHIP & RELEVANT DOCUMENTS

The report has been prepared by Julian Harrap Architects LLP.
The Monument, Architectural History Research by Wendy Hitchmough.
The Monument Setting, Architectural History Research and Significance Assessment by Dr Oliver Bradbury.

2.1 SUMMARY DESCRIPTION

2.1.1 Location

The Monument is located in the City of London at the junction of Monument Street and Fish Hill Street, which formerly led directly to the old London Bridge.

The address of The Monument is: The Monument to the Great Fire of London, Fish St Hill, London EC3R 8AH.

2.1.2 The King's Commission

The Monument was built between 1671 and 1677 to commemorate the Great Fire of London of September 1666 and to celebrate the rebuilding of the City.

On the orders of King Charles II a 1667 Act of Parliament for rebuilding the City of London decreed '.... To preserve the memory of this dreadful visitation..., a Column or Pillar or Brase of stone be erected on or as neare unto the place where the said Fire soe unhappily began as conveniently as may be ....'.

It is stated on the north panel of the pedestal, that the height of the column, 202ft, is the distance from the site of King's Baker in Pudding Lane to the east, where the Great Fire began.

2.1.3 Design

Sir Christopher Wren and his colleague, Dr Robert Hooke, provided a design for a colossal Doric column in the antique tradition. They drew up plans for a column containing a cantilevered stone staircase of 311 steps leading to a viewing platform. This was surmounted by a drum and a copper urn from which copper flames emerged, symbolising the Great Fire. The Monument, as it came to be called, is 61 metres high (202 feet) - the exact distance between it and the site in Pudding Lane where the fire began.

Fig. 1 Aerial view of The Monument, Monument Yard and Pavilion, 2024

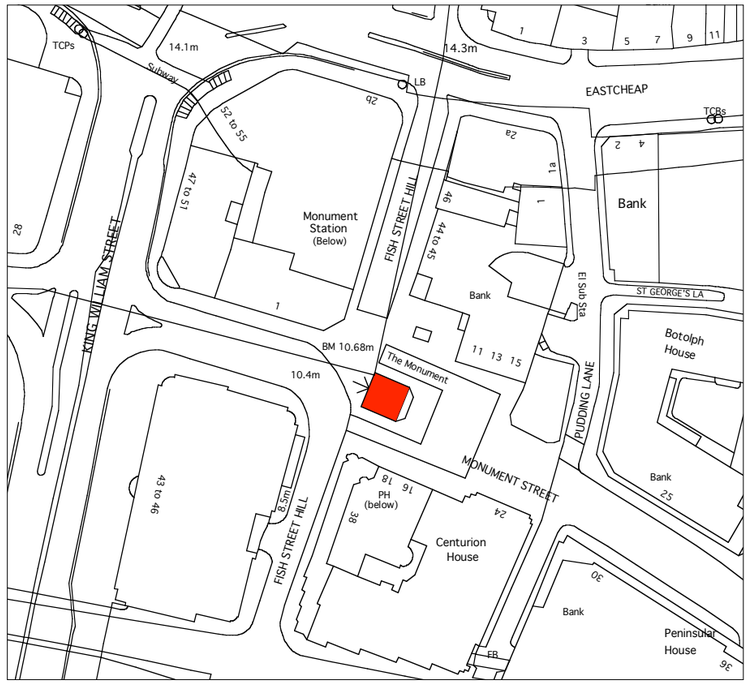


Fig. 2 OS map showing the location of The Monument, 2007

2.1.4 Use

The column was completed in 1677, and in accordance with Wren and Hooke's original intention, was at first used by the Royal Society as a place for experiments in gravity and astronomy. Experiments were soon discontinued, and The Monument became a place of historic interest. Visitors climb the spiral staircase to look across London in all directions from a height of about 160 feet, the level of the public viewing gallery.

2.2 THE GREAT FIRE OF LONDON

The Great Fire of London is one of the most well-known disasters in London's history. It began on 2 September 1666 and lasted just under five days. One-third of London was destroyed and about 100,000 people were made homeless. The fire had a devastating effect on the lives of Londoners from all parts of society. It took about 50 years to rebuild the ruined city. Evidence of the fire can still be seen today through archaeological discoveries and the remains of ruined churches.

The fire started at 1am on Sunday morning on 2 September in Thomas Farriner's bakery on Pudding Lane. It may have been caused by a spark from his oven falling onto a pile of fuel nearby. The fire spread easily as London was very dry after a long, hot summer. The area around Pudding Lane was full of warehouses containing highly flammable items such as timber, rope and oil. A very strong easterly wind blew the fire from house to house in the narrow streets.
As the fire was spreading so quickly most Londoners concentrated on escaping, rather than fighting the fire. They rescued as many of their belongings as they could carry and fled. Thomas Farriner and his family had to climb out of an upstairs window and onto their neighbour's roof to escape the fire in their bakery.

Many Londoners fled to the river and tried to load their goods onto boats to get away to safety. Other people rushed through the City gates and went to the fields outside London, sheltering in tents and shacks.
Londoners had to fight the fire, helped by local soldiers, as there was no fire brigade in London in 1666. They used firefighting equipment such as buckets of water, water squirts and fire hooks which was stored in local churches. The best way to stop the fire was to pull down houses with hooks to make gaps or 'fire breaks'. This was difficult because the wind forced the fire across any gaps created. The mayor, Thomas Bludworth, complained, 'the fire overtakes us faster than we can do it.'
A quicker way of demolishing houses was to blow them up with gunpowder, but this technique wasn't used until the third day of the fire (Tuesday 4 September). Fire Posts, each staffed by 130 men, were set up around the City to fight the blaze. On Tuesday night the wind dropped and the fire-fighters finally gained control. By dawn on Thursday the fire was out.
A map of the area destroyed by the Great Fire, by Wenceslaus Hollar, 1666 shows (in white) the burnt area of London. The damage caused by the Great Fire was immense: 436 acres of London were destroyed, including 13,200 houses and 87 out of 109 churches. Fewer than 10 people are recorded as dying in the Great Fire. Some places still smouldered for months afterwards.

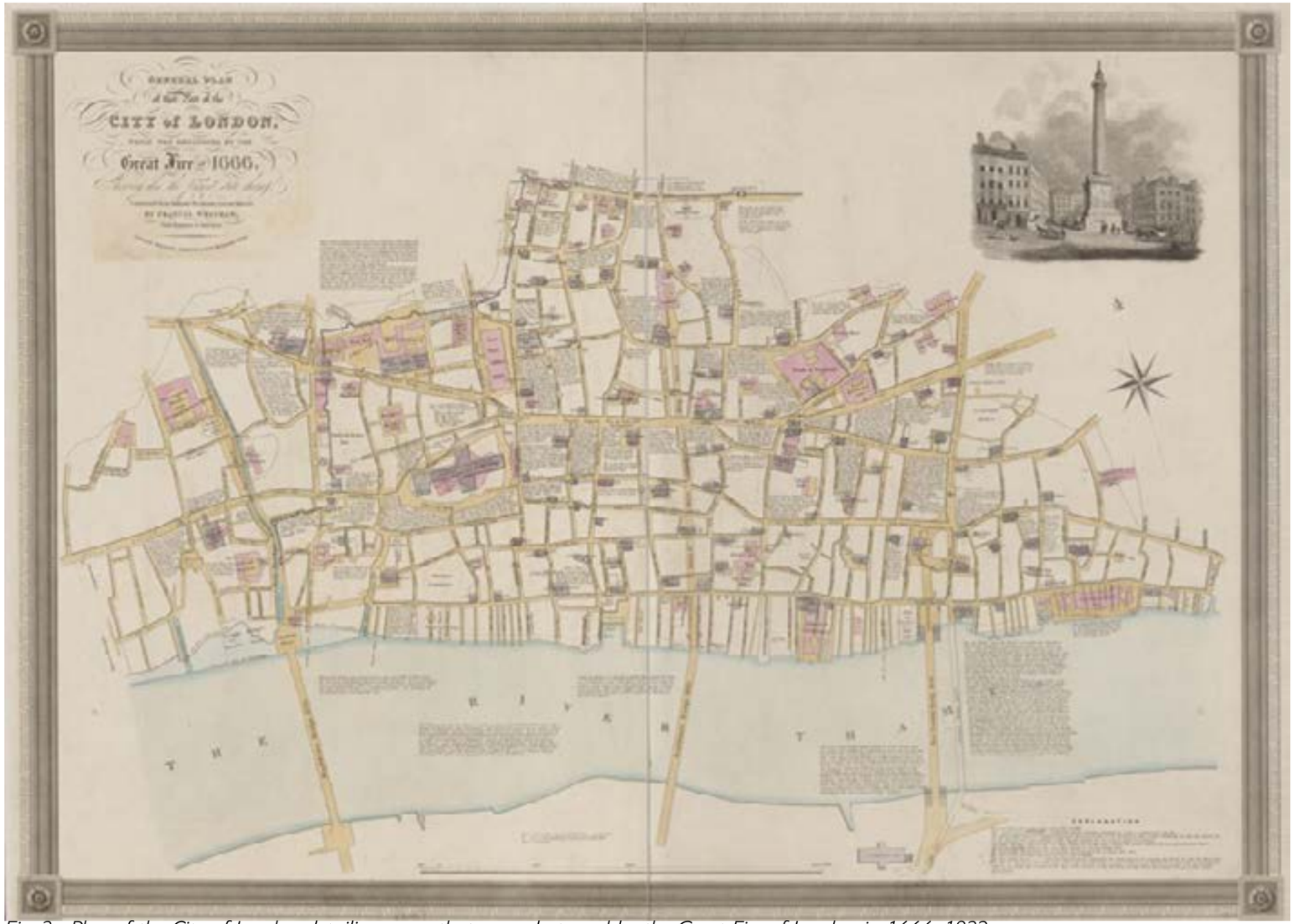


Fig. 3 Plan of the City of London detailing areas that were destroyed by the Great Fire of London in 1666, 1832

It took nearly 50 years to rebuild the burnt area of London. St Paul's Cathedral was ruined, as was the Guildhall and 52 livery company halls.
Throughout 1667 people cleared rubble and surveyed the burnt area. Much time was spent planning new street layouts and drawing up new building regulations, designed to prevent such a disaster happening again. Houses now had to be faced in brick instead of wood and some streets were widened. Rebuilding of public buildings, like churches, were paid for with money from a new coal tax. 51 of the destroyed churches were rebuilt and about 9000 houses. Two new streets were created, pavements and new sewers were laid, and London's quaysides were improved. The results were noticeable: '(London) is not only the finest, but the most healthy city in the world', said one proud Londoner.

2.3 THE ARCHITECTS: SIR CHRISTOPHER WREN & ROBERT HOOKE

2.3.1 Designers of The Monument

The design of The Monument is credited to Sir Christopher Wren, Surveyor General to King Charles II and the architect of St. Paul's Cathedral, and his friend and colleague, Dr Robert Hooke.

A recent paper suggests the design of The Monument can be attributed to Hooke alone:
'The limits of collaboration: Robert Hooke, Christopher Wren and the designing of The Monument to the Great Fire of London by Matthew F. Walker' published in Notes & Records of the Royal Society 2011 and available online at: https://royalsociety.org/

The article re-examines the origins of the design of The Monument and challenges the consensus that The Monument represents a joint design by Wren and Hooke. The writer analyses the surviving drawings for the column and compares them with the surviving documentary sources to demonstrate that Hooke, in his capacity as City Surveyor, can be considered responsible for the final design of The Monument.

2.3.2 Sir Christopher Wren (1632 - 1723)

Wren was an English scientist and mathematician and one of the country's most distinguished architects, best known for the design of many London churches, including St Paul's Cathedral. He was a founder of the Royal Society and his scientific work was highly regarded by Sir Isaac Newton.

Christopher Wren was born in East Knoyle, Wiltshire and educated at Westminster School and Wadham College, Oxford.
He became Professor of Astronomy at Gresham College in London In 1657, then the Savilian Professor of Astronomy at Oxford in 1661.

Wren was part of a scientific discussion group which held weekly meetings where scientists exchanged ideas. In 1662, this body received its Royal Charter from Charles II and 'The Royal Society of London for the promotion of Natural Knowledge' was formed. In addition to being a founder member of the Society, Wren was president of the Royal Society from 1680 to 1682.

Wren's interest in architecture developed from his study of physics and engineering. In 1663 he submitted a model of his design of the Sheldonian Theatre in Oxford, the first of his projects to include a dome and from then on, architecture was his main focus. In 1665 Wren visited Paris, where he was strongly influenced by French and Italian baroque.

Wren's greatest opportunity in architecture came in 1666, following the Great Fire of London, which destroyed much of the medieval city. Appointed Commissioner for rebuilding the City Corporation in that year, he carried out a survey of the area destroyed by fire with the help of three surveyors, one of whom was Robert Hooke. Wren produced ambitious plans for rebuilding the whole area but they were rejected, partly because property owners insisted on keeping the sites of their destroyed buildings.
However, Wren designed 51 new city churches, as well as the new St. Paul's Cathedral. In 1669, he was appointed surveyor of the royal works, which effectively gave him control of all government buildings in the country. He was knighted in 1673.

In 1675, Wren was commissioned to design the Royal Observatory at Greenwich. In 1682, he received another royal commission, to design a hospital in Chelsea for retired soldiers, and in 1696 a naval hospital in Greenwich. Other buildings include Trinity College Library in Cambridge (1677 - 1692), and the facade of Hampton Court Palace (1689 - 1694). Wren often worked with the same team of craftsmen, including master plasterer John Groves and wood carver Grinling Gibbons

Wren died in 1723. His gravestone in St Paul's Cathedral features the Latin inscription which translates as 'If you seek his memorial, look about you.'

Fig. 4 Sir Christopher Wren (1632 – 1723)

2.3.3 Dr Robert Hooke (1635 - 1703)

Robert Hooke was an English inventor, microscopist, physicist, surveyor, astronomer, biologist and artist, who played an important role in the scientific revolution, through both theoretical and experimental work.
He was born on the Isle of Wight, the son of John Hooke, curate at All Saints' Church. Educated at home by his father, then at Westminster School and Christ Church, Oxford, where some of the best scientists in England were working at the time. Hooke impressed them with his skills at designing experiments and building equipment, and soon became an assistant to the chemist Robert Boyle.

In 1660, he discovered Hooke's law of elasticity, which describes the linear variation of tension with extension in an elastic spring. In 1662 Hooke was named Curator of Experiments of the newly formed Royal Society of London -- meaning that he was responsible for experiments performed at the Society's weekly meetings. In 1665, he published a book entitled Micrographia. Hooke devised the compound microscope and illumination system - one of the best such microscopes of his time and used it in his demonstrations at the Royal Society's meetings. In 1665 he was appointed Professor of Geometry at Gresham College, London, then a year later, Surveyor to the City Corporation and chief assistant of Christopher Wren, helping to rebuild London after the Great Fire.
He worked on designing The Monument, Royal Greenwich Observatory, St. Paul's Cathedral, whose dome uses a method of construction conceived by Hooke, and Bethlem Royal Hospital. He died in London in 1703.

Fig. 5 Memorial portrait of Robert Hooke for Christ Church Oxford, where he studied, Showing Hooke surrounded by some of his inventions and interests, 2011.

2.4 DESIGN & CONSTRUCTION OF THE MONUMENT

The following summaries of the design and construction of The Monument are taken from the official website for The Monument.

2.4.1 Design of The Monument

Sir Christopher Wren prepared several designs for The Monument at first proposing a pillar with sculptured flames of gilt bronze issuing from small openings in the shaft, and a phoenix on the summit rising from her ashes, also of gilt bronze.
This, on further consideration, he found unsuitable, and then designed a statue of Charles II, 15 feet high. The statue was, however, found to be impracticable on the ground of expense, and the present vase or urn of flames was therefore substituted.

The following letter, printed by Elmes in his biography of the great architect, fully describes Wren's views as to the most suitable ornament for the summit of The Monument:

> "In pursuance of an order of the Committe for City Lands, I doe herewith offer the several designes which some monthes since I shewed his Majestie, for his approbation; who was then pleased to thinke a large ball of metall gilt would be most agreeable, in regard it would give an ornament to the town, at a very great distance; not that his Majestie disliked a statue; and if any proposal of this sort be more acceptable to the City, I shall most readily represent the same to his Majestie. I cannot but commend a large statue, as carrying much dignitie with it; and that which would be more vallueable in the eyes of forreiners and strangers. It hath been proposed to cast such a one in brasse, of twelve foot high, for £1,000. I hope (if it be allowed) wee may find those who will cast a figure for that money, of fifteen foot high, which will suit the greatnesse of the pillar, and is (as I take it) the largest at this day extant; and this would undoubtedly bee the noblest finishing that can be found answerable to soe goodly a worke, in all men's judgements. A ball of copper, nine foot diameter, cast in several pieces, with flamesin gilt, may well done, with the iron worke and fixing, for £350; and this will be most acceptable of any thing inferior to a statue, by reason of good appearance at a distance and because one may goe up into it, and upon occasion use it for fireworks. A phoenix was at first thought of and is the ornament in the wooden modell of the pillar, which I caused to be made before it was begun; but upon second thoghtes, I rejected it, because it will be costly, not easily understood at that highth, and worse understood at adistance; and lastly, dangerous by reason of the sayle the spread winges will carry in the winde. The balcony must be made of substantiall well forged worke, there being noe need, at that distance, of filed work; and I suppose (for I cannot exactly guesse the weight), it may be well performed and fixed, according to good designe, for fourscore and ten poundes including painting. All which is humbly submitted to your consideration.

2.4.2 Construction of The Monument

The Monument is a freestanding column of the Doric order and is constructed in Portland Stone. At a total height is 202 feet,
is not only the tallest, but the finest isolated stone column in the world.

The plinth of the column is 28 feet square beneath the pedestal of about 21ft square and 40ft high. Arising from the pedestal is the fluted shaft, 120ft high and 15ft in diameter at its base, reducing slightly with height. The abacus at the top of the fluted shaft is the viewing platform, wrapped around a stone cylinder, or drum. A stone dome on the circular drum carries the Flaming Orb, which is a massive urn constructed from deep bands of sheet copper, riveted together with a bowl at the very top. The urn is decorated externally with copper garlands and the bowl with many twisted strips of copper, all fixed with rivets. The exterior copperwork is gilded with sheets of gold leaf. The effect is a bowl of dazzling gold flames atop a golden urn, which symbolizes the Great Fire of London. A structural wrought iron armature fastens the copper flaming orb down to the stone mass of the dome and drum below.
The west side of the base displays a sculpture, by Caius Gabriel Cibber of the destruction of the City; with King Charles II, and his brother, James, the Duke of York surrounded by Liberty, Architecture, and Science, giving directions for its restoration.
The four carved stone dragons at the base were the work of Edward Pierce, Jnr., a sculptor and architect frequently employed by Wren.

Inside the column is a continuous cantilevered spiral stone staircase of 345 black limestone steps, lit by narrow slit windows. The first

Fig. 6 The Monument. Ink. By Nicholas Hawksmoor. 1724 (V&A HB939 E404-1951)

311 steps take the visitor up to the viewing platform and the last 34 steps lead up to the top landing from where a circular iron ladder continues up to the underside of the copper bowl; the top of the Flaming Orb.

The work of construction occupied six years, from 1671 to 1677, due to the difficulty of getting enough Portland stone of the required dimensions. This caused the King to issue a proclamation, dated 4th May 1669, forbidding any person to transport stone from the Isle of Portland without leave from Dr. Christopher Wren, the Surveyor-General.

In a manuscript preserved in the Guildhall Library (MS. 184, fol.41), which contains particulars of expenses incurred by the Corporation in re-erecting public buildings after the Fire, the total cost of the construction of The Monument is given as £13,450 11s. 9d. The quantity of Portland stone contained in the column, as estimated by the architect, is 28, 196 cubic feet.

Inscriptions on the Base of The Monument

In 1677, the Court of Aldermen requested Dr. Gale, master of St. Paul's School, to devise a fitting inscription for the new pillar, in consultation with Sir Christopher Wren and the City Surveyor, Mr. Hooke.
Dr. Gale's inscription, having been approved by the King, was presented to the Court and ordered to be inscribed.
Altogether three Latin inscriptions were devised covering three panels of the pedestal. That on the north side records the City's destruction, that on the south its restoration, and that on the east the years and mayoralties in which the erection of The Monument was commenced, continued and finished. On the west panel is a sculptured design by Cibber.

The following are translations of the inscriptions:

North Panel

> In the year of Christ 1666, on the 2nd September, at a distance eastward from this place of 202 feet, which is the height of this column, a fire broke out in the dead of night, which, the wind blowing devoured even distant buildings, and rushed devastating through every quarter with astonishing swiftness and noise. It consumed 89 churches, gates, the Guildhall, 'public edifices, hospitals, schools, libraries, a great number of blocks of buildings, 13,200 houses, 400 streets. Of the 26 wards, it utterly destroyed 15, and left 8 mutilated and half-burnt. The ashes of the City, covering as many as 436 acres, extended on one side from the Tower along the bank of the Thames to the church of the Templars, on the other side from the north-east along the walls to the head of Fleet-ditch. Merciless to the wealth and estates of the citizens, it was harmless to their lives, so as throughout to remind us of the final destruction of the world by fire. The havoc was swift. A little space of time saw the same city most prosperous and no longer in being. On the third day, when it had now altogether vanquished all human counsel and resource, at the bidding, as we may well believe of heaven, the fatal fire stayed its course and everywhere died out. *[But Popish frenzy, which wrought such horrors, is not yet quenched.]

Fig. 7 North panel inscription, 2024

These last words were added in 1681 and finally deleted in 1830.

South Panel

> Charles the Second, son of Charles the Martyr, King of Great Britain, France and Ireland, defender of the faith, a most gracious prince, commiserating the deplorable state of things, whilst the ruins were yet smoking provided for the comfort of his citizens, and the ornament of his city; remitted their taxes, and referred the petitions of the magistrates and inhabitants of London to the Parliament; who immediately passed an Act, that public works should be restored to greater beauty, with public money, to be raised by an imposition on coals; that churches, and the cathedral of St. Paul's, should be rebuilt from their foundations, with all magnificence; that the bridges, gates, and prisons should be new made, the sewers cleansed, the streets made straight and regular, such as were steep levelled and those too narrow made wider, markets and shambles removed to separate places. They also enacted, that every house should be built with party-walls,

Fig. 8 South panel inscription, 2024

and all raised of an equal height in front, and that all house walls should be strengthened with stone or brick; and that no man should delay building beyond the space of seven years. Furthermore, he procured an Act to settle beforehand the suits which should arise respecting boundaries, he also established an annual service of intercession, and caused this column to be erected as a perpetual memorial to posterity. Haste is seen everywhere, London rises again, whether with greater speed or greater magnificence is doubtful, three short years complete that which was considered the work of an age.

East Panel

This pillar was begun, Sir Richard Ford, knt., being Lord Mayor of London, in the year 1671; carried higher in the Mayoralties of Sir George Waterman, knt., Sir Robert Hanson, knt., Sir William Hooker, knt., Sir Robert Viner, knt., and Sir Joseph Sheldon, knt.; and finished in the Mayoralty of Sir Thomas Davies, in the year of the Lord 1677.

For the historian, entries in the City records three years after the completion of The Monument and its inscriptions clearly show that the column was originally erected simply to perpetuate the memory of the Fire of London, and that the idea of publicly ascribing the calamity to intentional designs of Papists was not formed until after the so-called discovery of the Popish plot, by Titus Oates, in 1678.

In 1680 the Court of Common Council ordered that an inscription, in Latin and English, be fixed on The Monument, signifying that "the City of London was burnt and consumed with fire by the treachery and malice of the Papists in September in the year of Our Lord 1666".

In 1681 two resolutions were passed by the Court of Aldermen as follows:

23rd June 1681, "The Right Honourable the Lord Mayor is desired by this Court to direct the setting up the inscriptions lately agreed to in Common Councell touching the fireing of this City by the Papists A0 1666 upon the Pillar on Fish streete hill and the house where the fire began in such manner as his Lordship shall thinke convenient."

12th July 1681. "It is now agreed by this Court that the Right Honourable the Lord Maior (who was desired by his Court to cause the additional inscription lately agreed to in Common Councell to be set up on the Pillar at Fish street hill) doe in order therunto cause the inscription allready made on the said Pillar, or such part thereof as his Lordshipp shall thinke convenient to be taken out and anew ingraved the better to make way for the said additionall Inscription."

Soon after the accession of James II the additional inscriptions were obliterated and removed. But the order was reversed on the accession of William III, in accordance with the following minute:

Court of Common Council, 16th September 1689. "It is unanimously agreede and ordered by this Court that the two severall Inscriptions formerly sett upp by order of this Court in ye Mayoralty of Sr Patience Ward on ye monument, and ye house where ye dredfull fire in 1666 began (which have been since taken downe), be againe sett upp in their former places and that Mr. Chamberlaine and Mr. Comptroller doe se the same done accordingly."

The questionable addition was finally removed from The Monument under an order of the Court of Common Council dated 6th December 1830. At this time, probably, the stone was also removed from the house in Pudding Lane.

This wise decision, besides according with historical facts, removes from The Monument the obloquy expressed in Pope's well-known lines:

"Where London's column pointing at the skies, Like a tall bully, lifts the head, and lies."

Fig. 9 East panel inscription, 2024

Fig. 10 West panel sculptural relief carving, 2024

The Relief Sculpture Panel

The sculpture on the west panel of the pedestal, facing Fish Street Hill, is a basso-relievo by Caius Gabriel Cibber, the sculptor, which represents the King affording protection to the desolate City and, freedom to its rebuilders and inhabitants.

The design is allegorical and displays a female figure, representing the City of London, sitting on ruins in a languishing condition, her head hanging down, her hair dishevelled and her left hand lying carelessly upon her sword; behind is Time with his wings and bald head, gradually raising her up. Another female figure by her side gently touches her with one hand and, with a winged sceptre in the other, points upwards to two goddesses sitting in the clouds, one with a cornucopia, denoting Plenty, the other having a palm branch in her left hand, signifying Peace.
At her feet is a bee-hive, denoting Industry, by which the greatest difficulties can be surmounted. Beneath the figure of London, in the midst of the ruins, is a dragon supporting a shield bearing the arms of the City of London. Over her head are shown houses burning and flames breaking out through the windows. Behind Time is a group of citizens raising -their hands in encouragement.

Opposite these figures is a pavement of stone raised with three or four steps, on which stands King Charles II in Roman costume, with a baton in his right hand and a laurel wreath on his head, corning towards the City of London, and commanding three of his attendants to descend to her relief. The first represents Science, with a winged head and a circle of naked boys dancing on it, and in her hand a figure of Nature with her numerous breasts ready to give assistance to all.
The second is Architecture holding in the right hand a plan, and in the left, a square and compasses. The third figure is Liberty waving a cap in the air.

Behind the King stands his brother, the Duke of York, holding in one hand a garland to crown the rising city, and in the other an uplifted sword for her defence. The two figures behind are justice with a coronet, and Fortitude with a reined lion. Above these figures are represented houses in building and labourers at work.
Lastly, underneath the stone pavement on which the King stands, is a figure of Envy gnawing a heart and emitting contagious fumes from her envenomed mouth.

Timber Panel

The Monument

The Monument, designed by Robert Hooke FRS in consultation with Sir Christopher Wren, was built 1671-1677, on the site of St Margaret Fish Street Hill, to commemorate The Great Fire of London 1666. The fire burnt from 2 to 5 September, devastating two-thirds of the city, and destroyed 13,200 houses, 87 churches, and 52 livery company halls.

The Monument, a freestanding fluted Doric column topped by a flaming copper urn, is 61m/202ft in height, being equal to the distance westward from the site of the bakery in Pudding Lane where the fire broke out. Its central shaft originally housed lenses for a zenith telescope. And its balcony, reached by an internal spiral staircase of 311 steps, affords panoramic views of the City. The allegorical sculpture on the pedestal above was executed by Caius Gabriel Cibber and shows Charles II coming to assist the slumped figure of the City of London.

St Magnus the Martyr

Fish Street Hill, to the south, leads to St Magnus the Martyr, a Wren Church. Alongside which is the ancient street which led to the medieval London Bridge.

Fig. 11 Timber panel and inscription, 2024

2.5 THE SETTING OF THE MONUMENT, LONDON

2.5.1 Setting of The Monument and how it has changed since Construction

The current setting of The Monument has been completely changed from the original seventeenth century piazza setting; it is now more like a street or thoroughfare.

The history of this evolution is described in Appendix: Monument Historical Documentation, 1991 by Wendy Hitchmough, (section: 'Changes in Urban Landscape Setting', pp. 47-52).
As this report is not illustrated, mapping and pictorial views of Monument Yard/Square since it was built, are provided in the CMP. Quotes are from the Hitchmough's report, illustrated with historical mapping and pictorial documentation.

17th Century

'The Monument was constructed on the site of the church and churchyard of St Margaret, New Fish Street. When the church was destroyed in the Great Fire the Parish of St Margaret was joined with that of St Magnus and so the church was not rebuilt. The height of The Monument – 202 feet, is said to be equal to its distance from the site in Pudding Lane where the Great Fire began. 17th century engravings show Monument Yard as an open square, with The Monument on the eastern perimeter, formally positioned with raised paving steps on three sides and the busy Fish Street Hill on the fourth side. Fish Street Hill continued into the old London Bridge, forming the principle route from London to Southwark, and The Monument and St Magnus the Martyr were clearly visible as a composition from the Bridge, and from the north. The new buildings along Fish Street Hill and around the three sides of Monument Yard were four storey buildings, often with shops or business premises occupying the ground floors.'

The 1873 map shows the alignment of The Monument with the outline of Old London Bridge

'Stow described the area as a place where "be fish-mongers and fayre taverns; on Fishstreet hill and Grassestreet, men of divers trades, grocers and haberdashers." In 1681, 1673 feet of land was purchased from the Rector and Church Wardens of St Margaret's for the enlargement of Fish Street Hill, and the paved setting to The Monument was widened. The Monument, with its small square behind and with the bustling Fish Street Hill in front was the subject of many engravings, remaining with very few alterations from the 17th century through the 18th century.'

18th Century

'Towards the end of the 18th century the buildings along the west side of Fish Street Hill began to be replaced but those along the east side, and in Monument Yard continued with only superficial alterations. By 1784 railings and been positioned around the base of The Monument on the north, east and south sides and this may have been done to protect the base. In 1784 the paving within this iron railing was taken up and relaid, but no documentation has been located which can date the alterations to the surrounding raised paving.'

The c. 1750 view clearly shows 17th century buildings, perhaps even dating from the 1670s when The Monument was built. Buildings are characteristic of the period, with mullion and transom windows, modillion eaves and exposed roofs with dormers not hidden by parapets. A few early 18th century buildings can be seen, with sash windows and arched lintels.

By c. 1800 some of these buildings had either been completely rebuilt in the Georgian manner or probably just re-fronted with more continuously aligned fenestration, which was by then, sash windows.

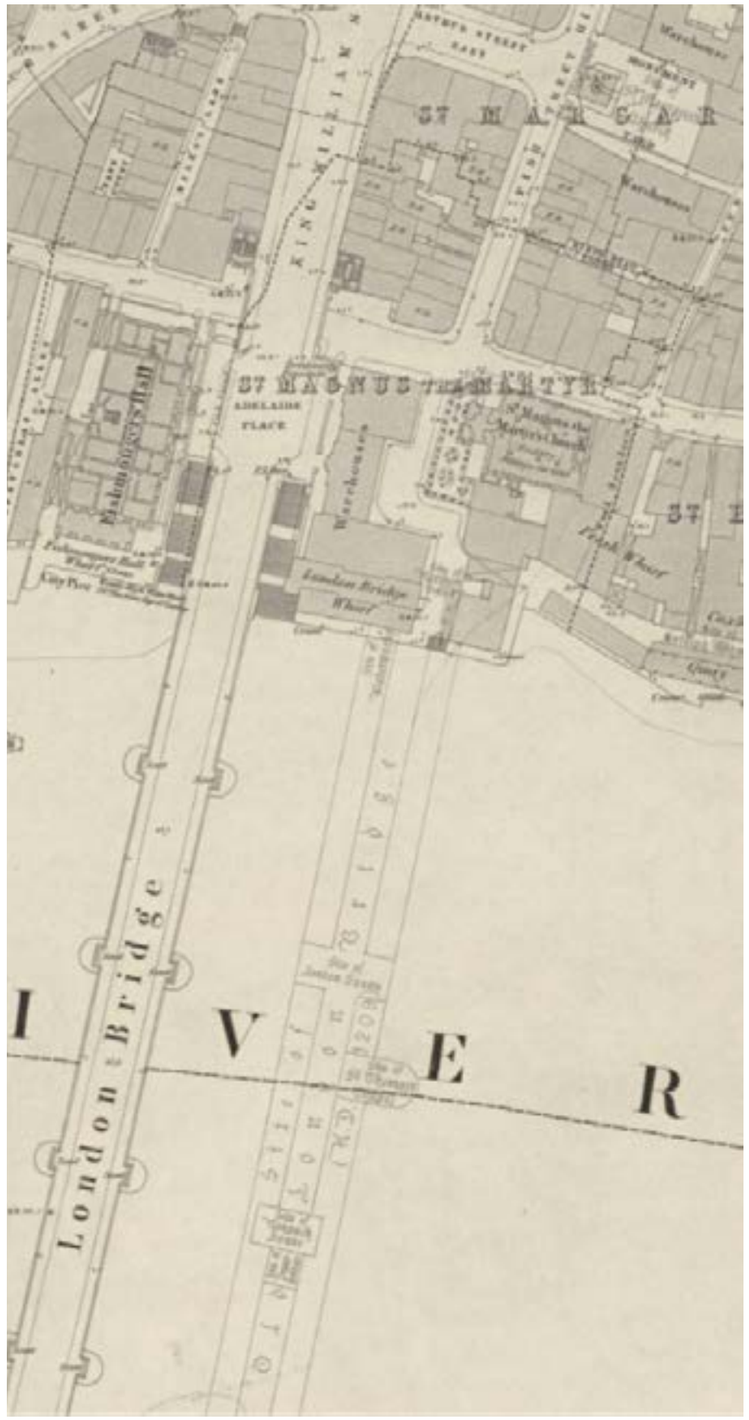


Fig. 12 1883 Ordnance survey map showing The Monument with the outline of Old London Bridge

19th Century

> 'The rebuilding of London Bridge to the west of the old London Bridge destroyed the original alignment of The Monument, St Magnus the Martyr Church, and the old bridge. Fish Street Hill ceased to be the main thoroughfare from London to Southwark and the prominence of The Monument diminished accordingly. Payne's Illustrated London, published in 1847, describes the alteration:
> "The curvature from the bridge on the Middlesex or London side, cannot be sufficiently deplored. The Monument by the building of new London Bridge, has been thrown into the shade, and may well join in a lament at the obscuration of its present altered locality.'"

The late 1870s photograph (Fig. 17) shows Monument Yard in its original form as a piazza, with the surrounding buildings a variety of architectural styles, quite modest in aspiration and physically deferential to The Monument and not competing with it. All the buildings in the photograph of the east side (behind The Monument) look to be late 17th century. On the south side are more utilitarian type buildings, likely to be warehouses, and between the east side late 17th century buildings and warehouses on the south side is the original alley that went through to Pudding Lane (seen here as shadow between the two buildings).
Buildings replaced since the 17th century were done with tact and respect to The Monument.

It was in 1880-1893 that the setting of The Monument was changed for the first time since it was built:

> 'In 1880 the character of Monument Yard and the paved area around The Monument were even more radically altered. The buildings on the north and south sides were cleared and the construction of Monument Street changed the square into an open thoroughfare.'

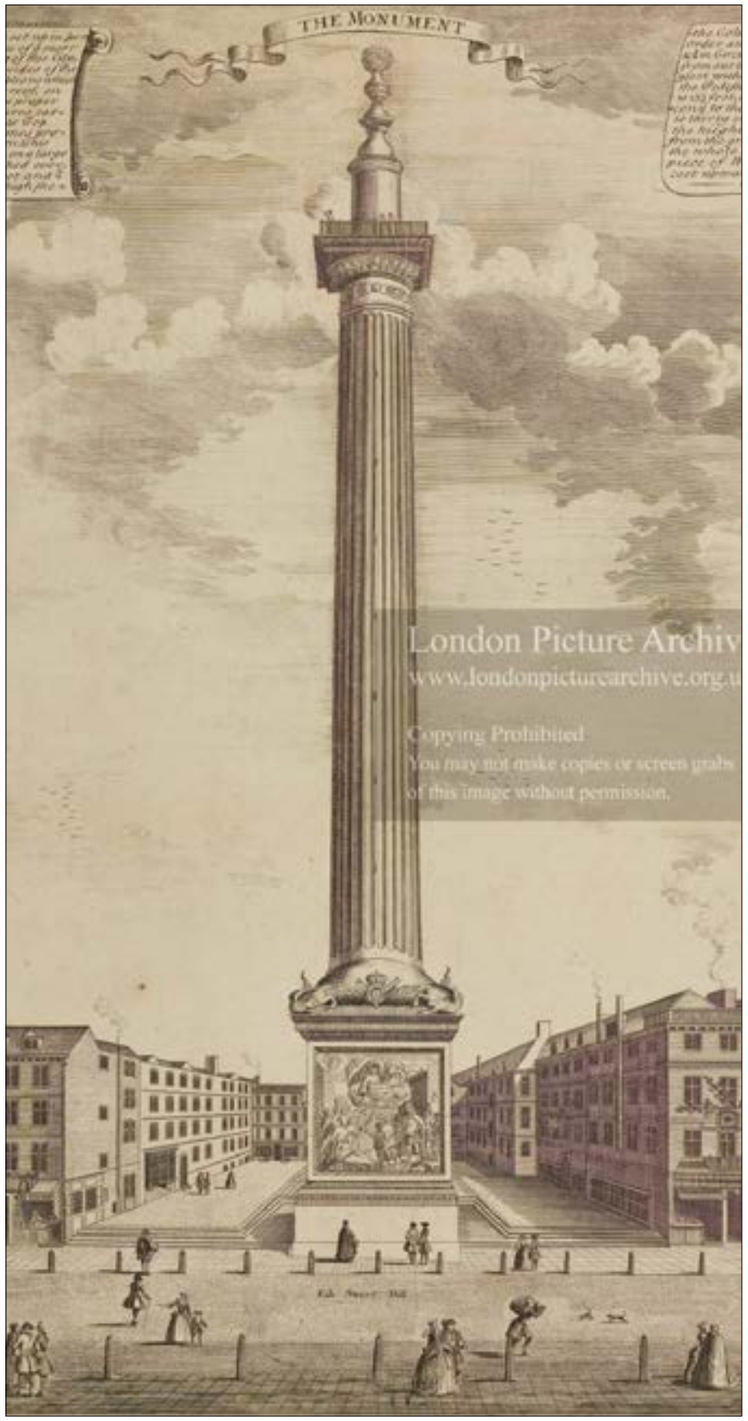


Fig. 13 c.1740 view showing the first generation of buildings surrounding The Monument

Fig. 14 North side of The Monument, viewed from the west, c.1750

Fig. 15 South side of The Monument, viewed from the west, c.1750

Fig. 16 Monument Yard in c. 1800 (from c. 1890 magic lantern slide) showing a much more Georgian appearance

Monument Street was formed in 1883-1893 and later extended to take in the former Monument Square:

> 'An article in The Builder of 30 October 1880 discusses the alterations in detail:
> "The entire area of Monument-yard is at present being re-arranged, and so laid out as to convert a large portion of it into a new carriage-way, which is intended to be constructed between Fish-street-hill and Lower Thames street, opposite Billingsgate Market. Hitherto the whole open space around The Monument has been flagged, and served only as an approach to The Monument itself and the buildings on the north, south, and east sides respectively, with the exception of a narrow passage at the south east corner, leading into Pudding-lane. All this is now being changed. The old flags have been taken up, and the level considerably lowered, with the view of adapting it to the gradient of the intended new thorough fare. There are to be new footpaths on the north and south sides of The Monument, with carriage-road approaches to the new thoroughfare eastward, which will intersect Pudding-lane, buildings there having been taken down for the purpose of opening out the new street. The new carriage-road around The Monument will be paved with granite, resting on a concrete bottom..... The old buildings on the north side and south sides of The Monument, fronting Fish-street-hill, have recently been taken down, and on the site so cleared on the south side an extensive block of new buildings is in course of erection, which will have a frontage to Fish-street-hill of about 40 ft. in length, and be carried to a depth of 70 ft. eastward, the Fish-street-hill elevation, as well as that facing the south side of Monument-yard, being uniform in architectural design..... The site which has been cleared on the north side of The Monument in Fish-street-hill remains inclosed and not yet built upon. It belongs to the Fishmongers' Company, who, we learn, do not propose to erect any new buildings upon it until the Inner Circle Completion Railway project is finally settled."

Where previously engravings of The Monument had generally taken a view southwards along Fish Street Hill, showing The Monument on the east side of the street and suggesting the square behind, now it was primarily viewed from the west side, showing the busy crossroads of Monument Street and Fish Street Hill, with The Monument isolated in the centre of a busy square. As the new buildings were erected to the north and south of The Monument its urban setting at the edge of an open square with generous paved surrounds shrank to a central island, set back and aesthetically divorced from Fish Street Hill and Monument Street, and crowded by the proximity and character of the surrounding buildings. The Monument underground station was constructed at the end of the 1880's.

20th Century

> 'Monument Yard has been preserved through the 20th century, although alterations to building lines and changes in traffic patterns have eliminated any meaningful urban landscape setting. Fish Street Hill is no longer a primary route linking London to Southwark, the bridge has moved, and the relationship between The Monument and St Magnus the Martyr is only apparent to the most observant visitor. There are very few remaining indications that this was once the highest free-standing column in Europe, situated on the edge of a busy thoroughfare against the backdrop of a formal square. Monument Yard has lost its qualities both as a composed open square and as a market area where fishmongers gathered with their crates early in the mornings. The Monument itself is dwarfed by surrounding buildings. Where for two centuries it was one of London's most prominent landmarks, featured in every guidebook to the City, now it is quite difficult to find.'

The setting of The Monument was debased with the formation of Monument Street in 1883-1893; the replacement of good 19th century buildings throughout the 20th century has further degraded the setting. Some of the earlier 20th century buildings replacing the 19th century (or earlier) buildings were better than the calibre of architecture that there is now.

Fig. 17 Late 1870s photograph showing Monument Yard in its original form as a piazza, with surrounding buildings physically deferential to The Monument.

Mapping

The Great Fire of London in 1666 is reputed to have begun in a bakery in Pudding Lane approximately on the present site and it is therefore not surprising that all of the buildings in the area were destroyed.

A map of London 1658, drawn by Richard Newcourt and engraved by William Faithorne illustrates the London within the city walls, Westminster and the suburbs, and identifies the churches.

The extract in Fig. xxx shows the location of the church of Margrett in new Fishstreete, which was destroyed in the fire. The Monument was constructed on the site of the former church.

The churches shown on the extract of the London map of 1658, shown in Fig. 18.

5	Alhallows the Lesse in Thames Streete
11	Andrew Hubbard by Philpot lane
23	Bottolph at Billings=gate
26	Clements in East chepe
45	Lawrence Poultney near East chepe
46	Leonarde in Eastchepe
48	Magnus by the Bridge
51	Margrett in new Fishstreete
53	Mary Ab church lane
54	Mary Alderman berry
59	Mary hill above Billings gate
68	Martins Orgars nere Eastchepe
76	Michaell Crooked Lane neere N.Fish, etc

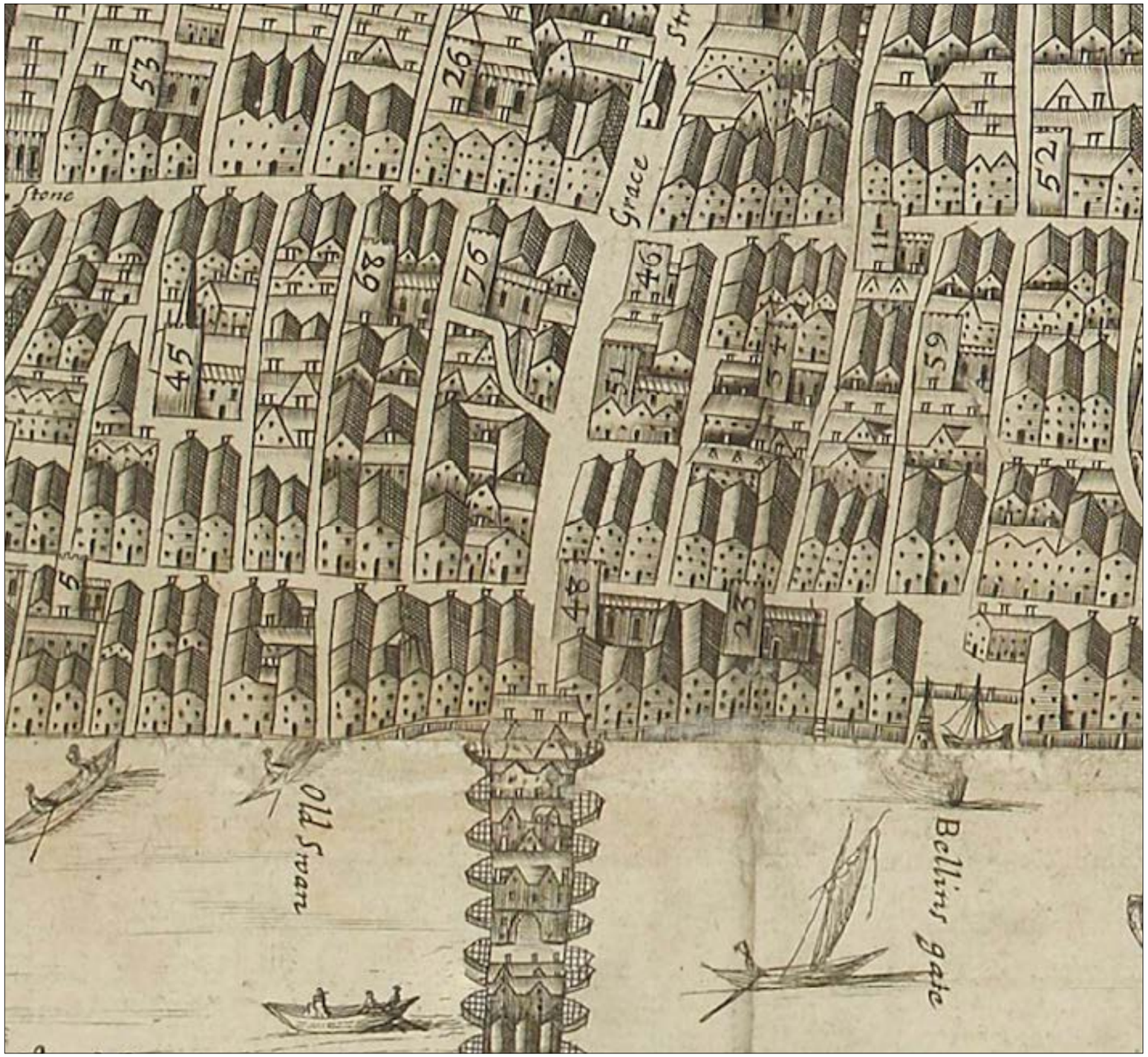


Fig. 18 Extract from a print of an engraving made by William Faithorne,after: Richard Newcourt produced 1658.

The earliest cartographical depiction of The Monument is on The City of London Map of 1676 (Fig. 19), useful for showing the individual surrounding buildings as opposed to later just shaded-in type mass depiction of buildings.

On the following page are maps dated:

- 1682: the Ogilby and Morgan map of 1682 shows that within ten years of the Great Fire the whole of the Pudding Lane area had been redeveloped. The Monument, built in 1671-77, and its square is shown (Fig. 20).
- 1746: Rocque's map of 1746 showing a similar pattern (Fig. 21).
- 1799: The Horwood map of 1799 shows the property numbers indicating the buildings were addressed as Monument Yard (Fig. 22).
- 1851: London and its environs (reduced from the Skeleton Plans) Sheet VII.SE, shows King William Street now being the main thoroughfare to London Bridge. (Fig.23).
- 1873: The Ordnance Survey map of 1873 London - Middlesex & Surrey VII.76 (Fig.24).
- 1895: The Ordnance Survey map of 1895 London - VII.76, shows the big change from 17th century enclosed piazza to The Monument now being in the middle of a street (Fig.25).
- 1920: London (Land Registry Edition) VII.76; revised in 1893-94, published 1920 (Fig.26).

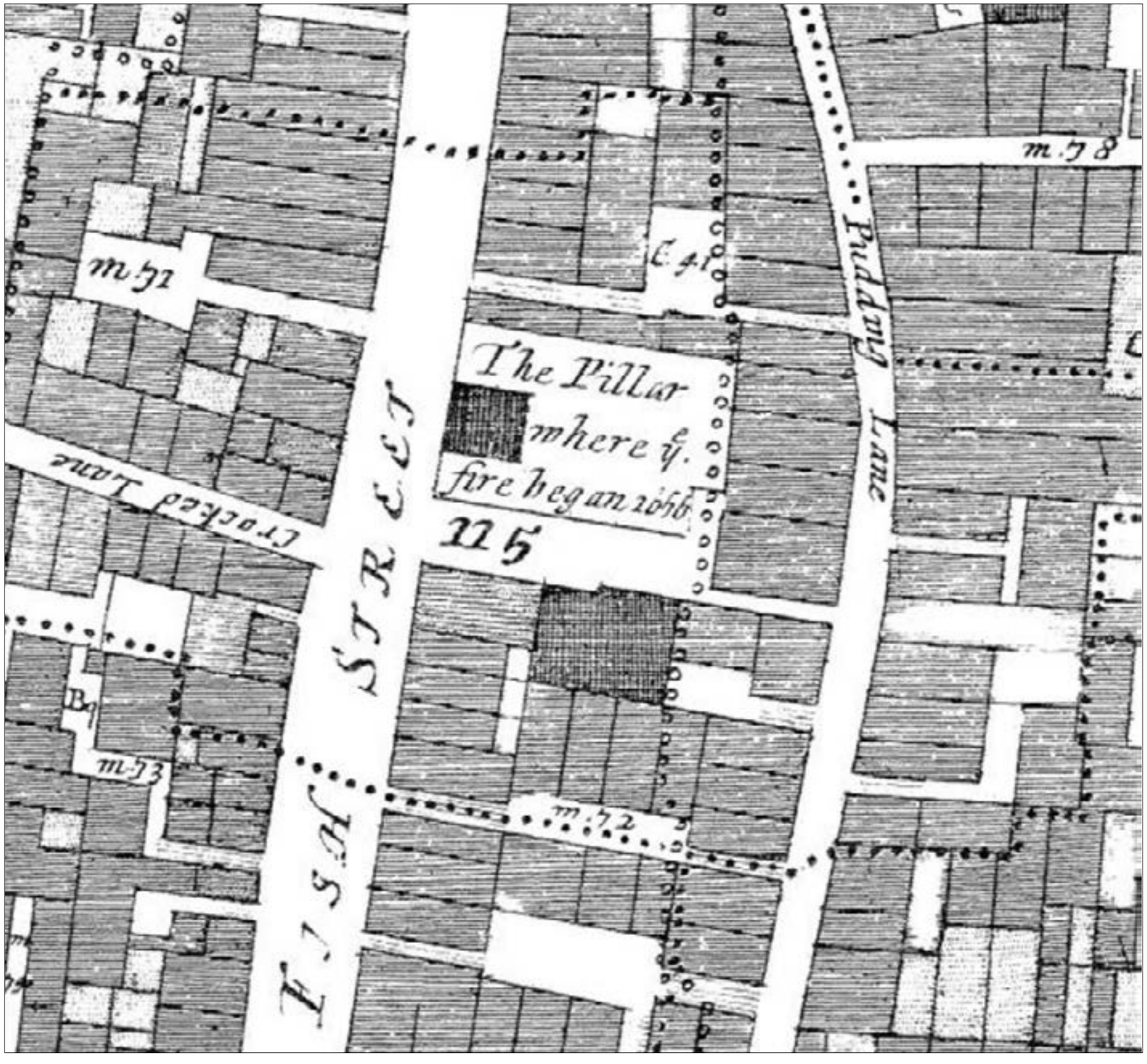


Fig. 19 Ogilby and Morgan map of 1676, depicting The Monument as The Pillar

Fig. 20 1682 map showing 'The Pillar'. London &c. Actually Survey'd by William Morgan

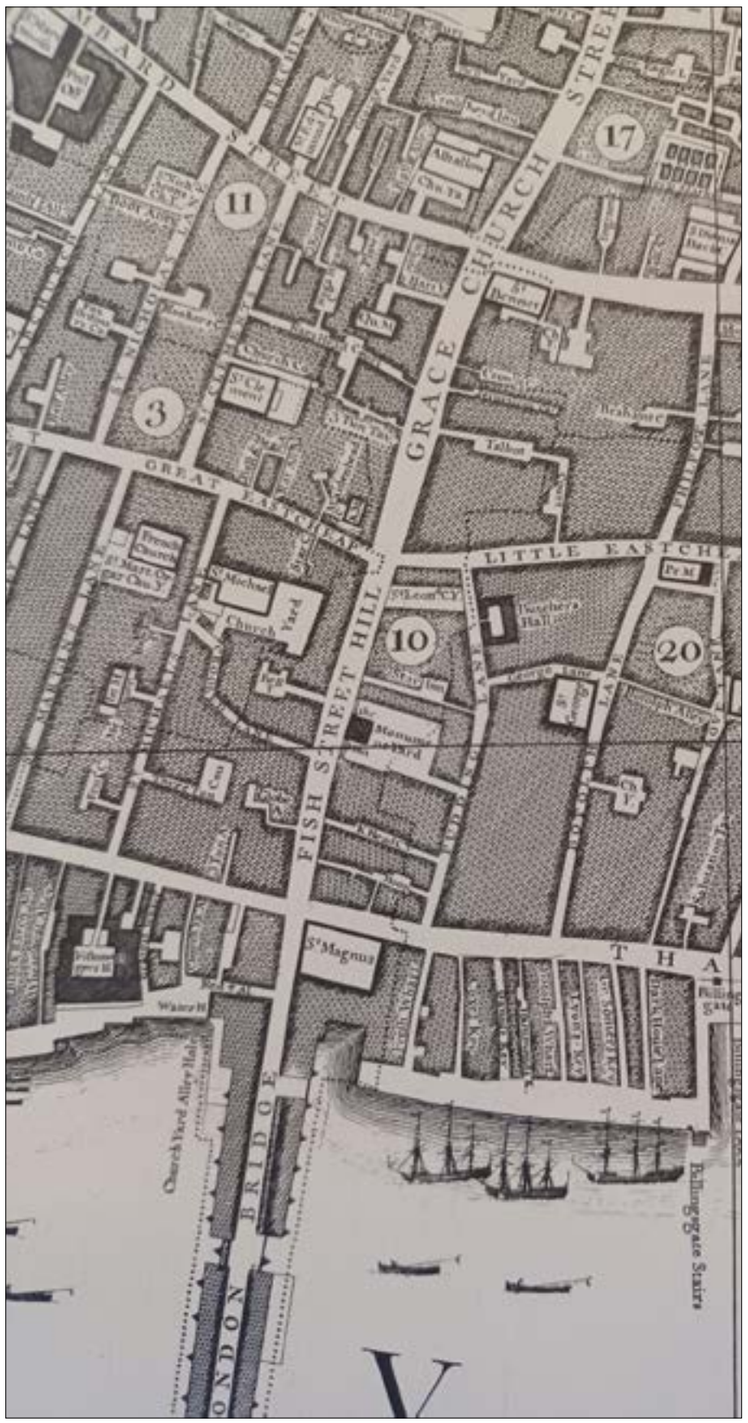


Fig. 21 1746-47 map, John Rocque

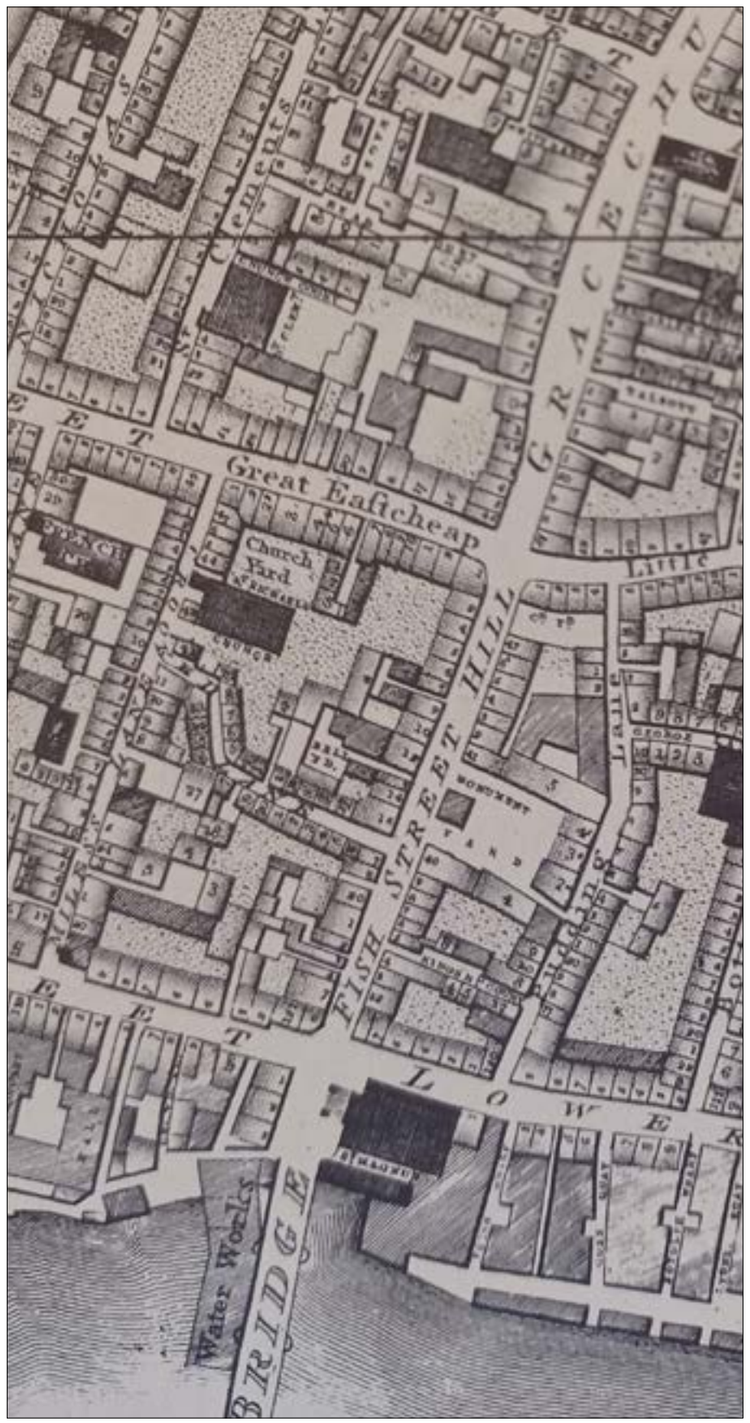


Fig. 22 Richard Horwood's map of 1792-99 and updated by William Faden in 1813 – useful for showing the individual buildings in Monument Yard

- 1851: London and its environs (reduced from the Skeleton Plans) Sheet VII.SE, shows King William Street now being the main thoroughfare to London Bridge. (Fig.23).

- 1873: The Ordnance Survey map of 1873 London - Middlesex & Surrey VII.76 (Fig.24).

- 1895: The Ordnance Survey map of 1895 London - VII.76, shows the big change from 17th century enclosed piazza to The Monument now being in the middle of a street (Fig.25).

- 1920: London (Land Registry Edition) VII.76; revised in 1893-94, published 1920 (Fig.26).

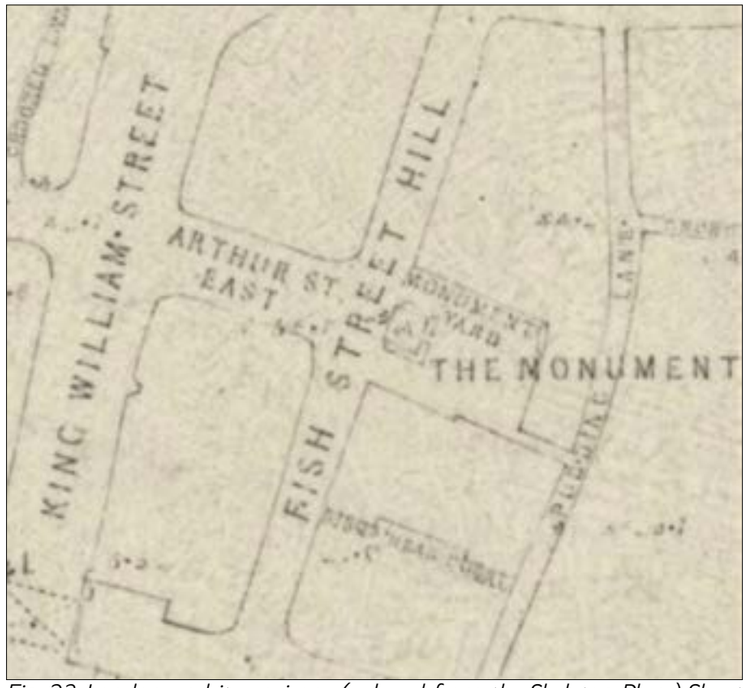


Fig. 23 London and its environs (reduced from the Skeleton Plans) Sheet VII.SE; surveyed in 1848-1851, published c. 1851.

Fig. 24 1893-95 map showing the big change from 17th century enclosed piazza to The Monument now being in the middle of a street

Fig. 25 London - Middlesex & Surrey VII.76; surveyed 1873, published 1875.

Fig. 26 London (Land Registry Edition) VII.76; revised in 1893-94, published 1920. Reprinted 1941.

Historic Photographic Views

In the early 20th century view below, the surrounding Square buildings have replaced the Georgian buildings. The scale is still respectful and although the commercial buildings on the east and south side are not as significant as those they replaced, they are still essentially deferential to The Monument. The building on the north side even seems to be a distinguished replacement in a robust mid-Victorian Italianate palazzo style.

These historic photos show the intended vertical quality of The Monument, towering over everything, and now completely diminished due to too much vertical competition.

Fig. 27 Base of The Monument, early 20th century

Fig. 28 The Monument, now in Monument Street, in a c.1890 magic lantern slide

Fig. 29 The Monument, Magic Lantern slide circa 1900

Two Historic Postcards

It can be seen from the late 1950s/early 1960s postcard that all the 19th century buildings previously in Monument Square had been rebuilt. This postcard shows Canoe House on the right and Regis House, background left, a good quality 20th century building of Regent Street-style architecture, now replaced. The height of these rather nondescript buildings was still deferential, but that sense of deference seems to have broken down in the 1990s and after 2000, with developer's architecture taking over and building as densely as planning constraints permitted.

These historic postcards show the intended vertical quality of The Monument, towering over everything, and now completely diminished due to too much vertical competition.

Fig. 30 Late 19th century postcard

Fig. 31 Late 1950s or early 1960s postcard with Canoe House on the right

20th Century Mapping

The Goad Insurance maps of London, 1927 and 1947, both show a rich level of detail of the buildings around the Monument.

The 1950-53 Ordnance Survey map shows a significant aspect of the setting had been destroyed during the War with the large site cleared to the north-west of The Monument on Fish Street Hill, near the entrance to Monument underground station. It was still a vacant site twenty years later.

The 1971 map shows a significant indentation opposite The Monument on the north side where there had previously been good Regency/Victorian buildings.

But even with these rather nondescript buildings and traffic nearby, the height of these buildings was still deferential. That sense of deference seems to have broken down in the 1990s and after 2000 for all the buildings in Monument Square now seem to be no older than the 1990s.

Fig. 32 Chas. E. Goad, Insurance Plan of London, vol. 3, August 1927

Fig. 33 Chas. E. Goad, Insurance Plan of London, vol. 3, September 1947

Fig. 34 Ordnance Survey map revised in 1950-51, published 1953

Fig. 35 Ordnance Survey map revised in 1971, published in 1972

2.5.2 The Significance of The Setting Now

Vistas

The setting of the building has completely changed from the historical setting, where The Monument was enclosed on three sides within a formal piazza and stood high above the surrounding buildings.

Today The Monument is surrounded by such tall developments it can only be seen from specific locations close to the building.
From afar, the view of The Monument from the South Bank has been concealed due to all the buildings in front of it. Crossing London Bridge from the south, a view of The Monument is completely hidden by the replacement Regis House.
From King William Street, the vista into Monument Square has been preserved but there is much architectural competition jostling for dominance.
From Pudding Land at the east end of Monument Square, the small 2005 glass pavilion partly blocks the full view.
From The Monument's viewing gallery, views are often of modern rooftops often with plant equipment whereas historically there would have been interesting roof shapes, tiled and church towers etc.

Fig. 36 View from the South Bank, tall buildings conceal The Monument, 2024

Fig. 37 The Monument is hidden by the replacement Regis House, 2024

Fig. 38 Viewed directly from the west, 2024

Fig. 39 Closer from the west, many different architectural idioms, 2024

Architectural Idioms

Originally the surrounding architecture related to The Monument in that it was all classical and well proportioned, but now there is now a mixture of competing building styles surrounding The Monument. On the south side is the postmodern Britannia/Al Dente building in precast stone. Abutting is a Modern building in travertine and glass, too tall for the setting of The Monument.

Regis House in the south-west corner works well in terms of the Portland stone used but is far too much mass packed onto the site and is therefore in competition with The Monument. The building in the north-west corner is again acceptable in terms of Portland stone used and less bulky than Regis House.
The Monument Building (north side) has a blank monolithic massing and incongruous materials (wavy aluminium fins and ubiquitous glass walling).

None of the surrounding buildings are likely to be replaced as they are comparatively new but there is at least one architectural opportunity and that is with the very tired looking 1970s building on Pudding Lane as this acts as an inappropriate east side backdrop to The Monument.

The landscaping in stone paving is one of the more successful aspects of recent improvements with cobbles retained along the west vista, giving something of the original flavour.

Fig. 40 From Pudding Lane, to the east, 2024

Fig. 41 From the Viewing Platform: rooftop services & plant, 2024

Fig. 42 From the Viewing Platform: rooftop services & plant, 2024

2.5.3 The Monument Views Study

Views to and from The Monument are described in detail in: 'Monument Views Study. City of London Assessment of Key Features and View Protection Considerations', published by the Department of the Built Environment December 2020.
https://www.cityoflondon.gov.uk/assets/Services-Environment/planning-protected-views-monument-views-study-2020.pdf
The Monument Views Study identifies and provides a brief description of features which can be seen from the Monument viewing platform, in each direction. Street views of the Monument are also described. The London View Management Framework (LVMF) protects important views and provides the basis for more detailed guidance on each view.

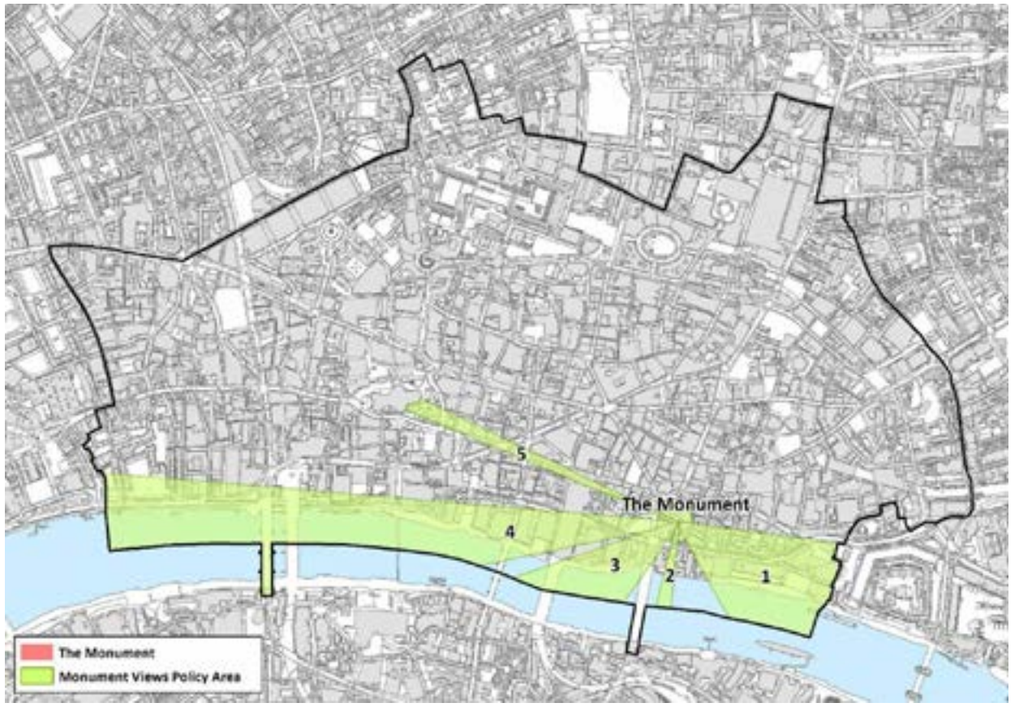


Fig. 43 Monument Views Policy Area

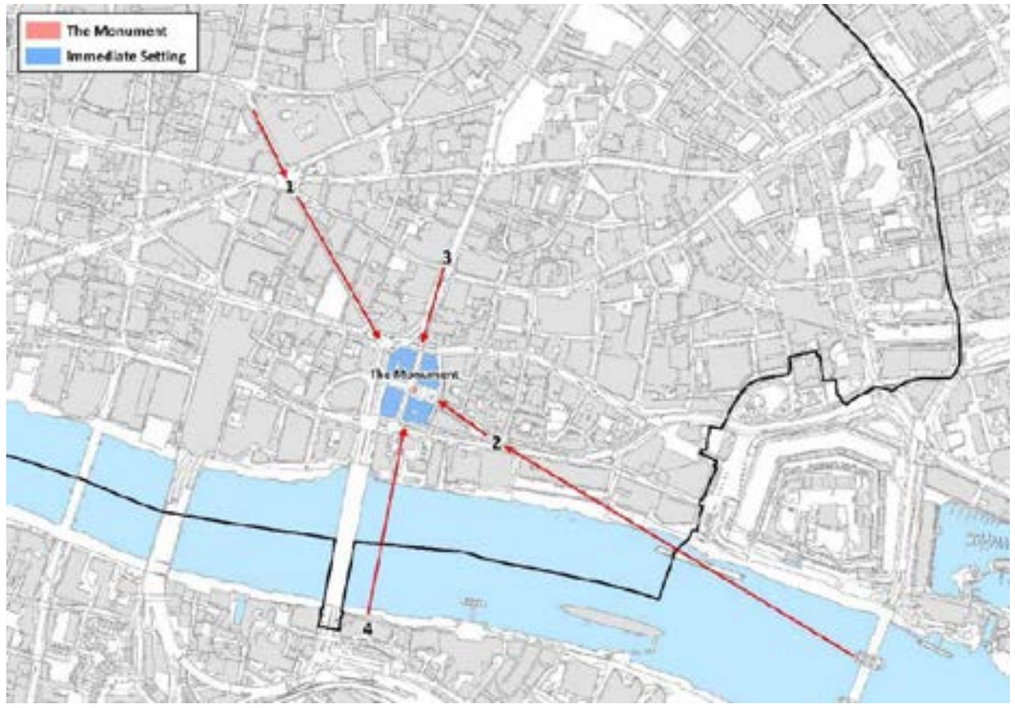


Fig. 44 Street Views of The Monument

2.6 THE EXISTING BUILDING FABRIC

The Monument is basically a freestanding Portland stone fluted column consisting of a base, 28 feet square, surrounded by a pedestal, about 21 feet square, and a fluted Doric column, 120 feet high. The abacus to the Capital forms the base of a viewing gallery which is enclosed by a railing. Above this base there is a stone Drum supporting a gilded vase crowned by a flaming ball.

2.6.1 The Exterior Stonework

The Monument is constructed entirely from Portland stone. It is unclear from the original building accounts which strata of Portland stone was used and it may well be the case that a range of beds were used, depending on the exposure and ease of carving. From site inspections during the 2007-2009 major repair contract, the extent of shelly deposits on the badly weathered surfaces, would suggest that the stone is either Whitbed or Roach bed.

The Drum has a moulded base and cornice to the throating immediately below the gilt vase and flaming orb.
There is a square headed doorway on the east side giving access to the viewing platform from the interior of the column.
The viewing platform is constructed from particularly large slabs of black limestone; archaeological remains of earlier balustrades and support posts remain set into the stone.

The capital comprises a Portland stone torus necking with carved relief. Above the necking the ovolo immediately beneath the abacus is carved with an egg and dart motif surmounted by a leaf and dart cyma-reversa moulding to the square viewing platform.

Beneath the viewing platform are four re-carved stone paterae approximately 900mm in diameter. These were carved and installed in 2009, suspended by stainless steel bolts, replacing the original carvings which detached themselves in 1882 and were never replaced.

The column shaft is 99 feet in height with 24 convex flutes. The raised flat ridge between two flutes is a fillet and, on The Monument, the central fillet on each face of the column is pierced with 8 no. narrow slit lights which light the internal staircase.
The column base comprises a torus moulding on a square base,

Fig. 45 Exterior of The Monument, 2009

which is decorated on each of the four sides by a carved garland with a shield and scroll and a carved dragon at each corner, representing the City of London.

The pedestal is built of Portland stone ashlar blockwork, with sunken panels on all sides; the west panel is an ornate carved scene, by Claus Cibber, the other three panels are inscribed.
The column base is of random coursed stonework and contains the pair of entrance doors on the east side.

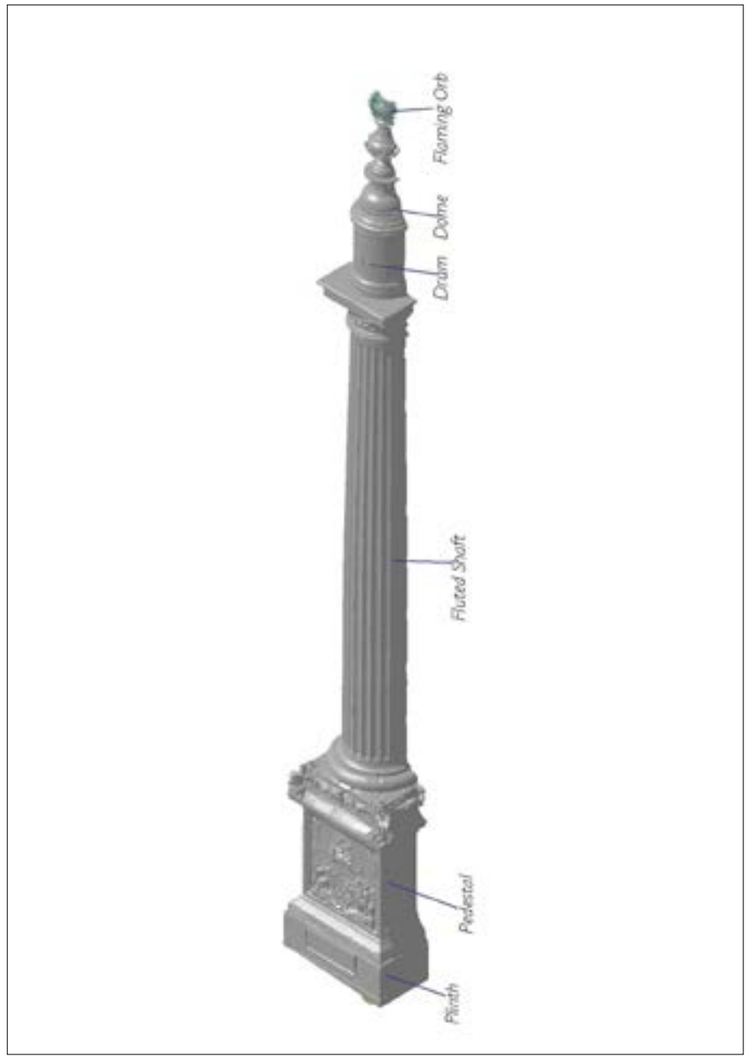


Fig. 46 Isometric model of half of The Monument showing the principal components

2.6.2 The Flaming Orb and Supporting Iron Armature

The Portland stone drum above the viewing platform is a continuation of the Portland stone stairwell shaft below. The walls of the circular drum are solid Portland stone, over 2 ft thick.
Above the circular drum is a dome of Portland stone blocks, which reduces the internal diameter of The Monument from about 7.5 ft to approximately 3 ft.
Externally, above the neck of the dome is a circular stone cornice with a plain band of stonework above, on which sits the copper flaming orb.

The form of the flaming orb is a massive urn with a bowl at the very top constructed from deep bands of sheet copper, 1/8 inch thick, riveted together. The urn is decorated externally with copper garlands and the bowl with many twisted strips of copper, all fixed with rivets. The copperwork is externally gilded with sheets of gold leaf. The effect is a bowl of dazzling gold flames atop a golden urn.

Inside the stone dome and flaming orb is a structural wrought-iron armature, the purpose of which is to fasten the copper flaming orb down to the stone mass of the dome and drum below. The armature within the flaming orb is a circular ladder with four iron vertical legs and circular iron rungs. The ladder gives access from the black limestone landing at the top of the drum up into the copper bowl at the very top of the flaming orb. Iron flanges are bolted to the legs of the circular ladder at intervals and are riveted to the copperwork, thereby securing the copper to the wrought- iron armature. The four legs of the ladder continue down to the stone dome below, where they each curve outwards following the profile of the inside of the stone dome. The legs are fixed to the inner walls of the stone dome, again with iron flanges bolted to the legs and let into the stonewalls of the dome, thereby fixing the armature down to the stonework. The legs of the armature are of uneven length as they meet the stone landing and steps of the spiral staircase. The two shortest legs – on the north and east side – end on the top of the top stone landing. The west leg is slightly longer, resting on the top spiral step. The south leg, due to the configuration of the spiral staircase, is much longer and extends straight down the inner wall of the drum to meet the tread of the sixth step down. The entire armature is of wrought iron, the legs are 1 in. x 4 in. in section, and all connecting bolts have large square-headed nuts. All the ironwork is painted with lead-based paint, overcoated with modern oil-based paint.

Fig. 47 The gilded copper flaming orb on the stone dome and drum 2009

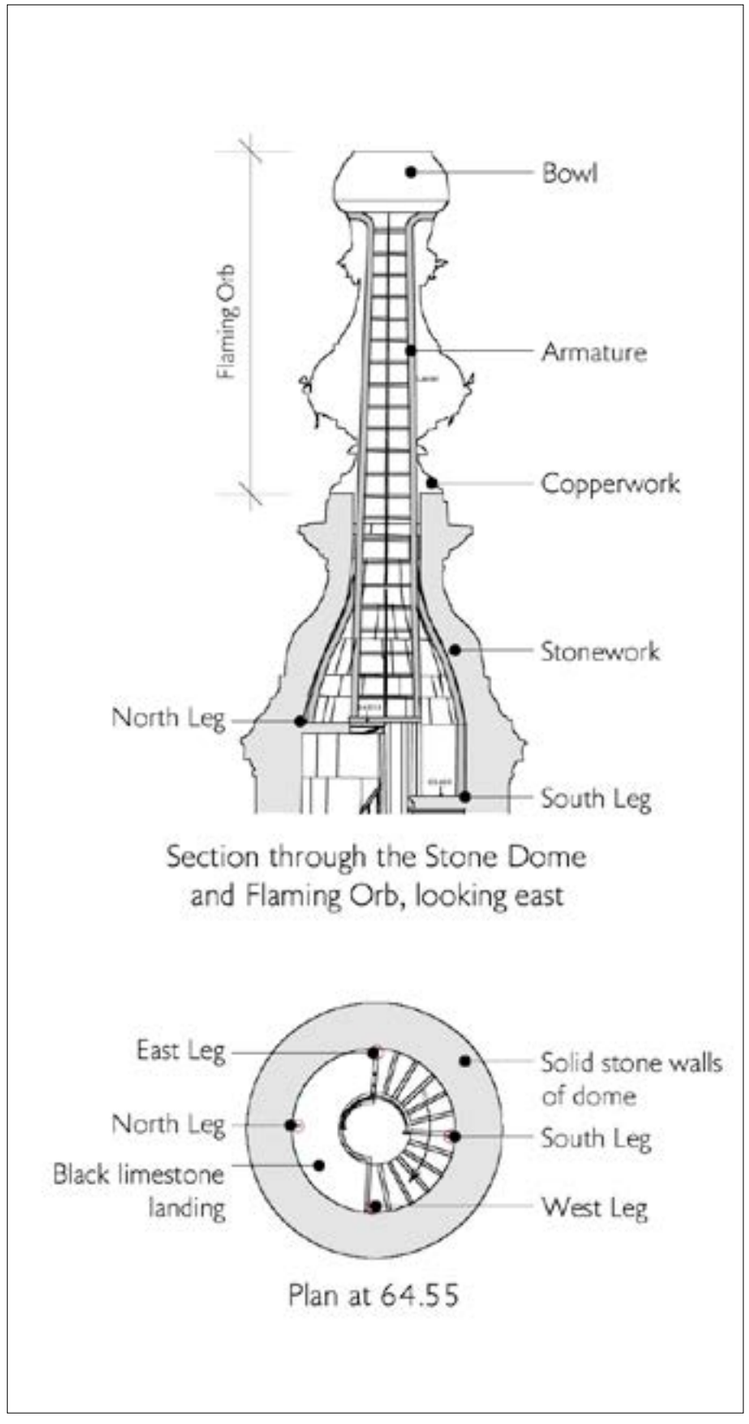


Fig. 48 Section through the flaming orb, stone dome and drum, and plan through the drum, showing the supporting wrought iron armature, 2006

2.6.3 The Balustrade & Cage

At the time of its construction, the viewing platform was surmounted by a wrought-iron balustrade to dado height, with each widely spaced square baluster, appearing to be lead-caulked into the stone platform. Archive records describe the balustrade being extensively repaired and strengthened towards the end of the 18th century and in 1842, an iron cage added to prevent people throwing themselves from the platform. The balustrade and cage were renewed in 1954 with painted cast iron framing and balusters.

In 2009 the balustrade and cage were replaced with the current curved stainless-steel balustrade. Only alternate balusters are actually structurally embedded in the viewing platform to reduce the risk of inducing cracking along the edge of the black limestone.

The intention for the cage above the heavy and reassuring balustrade was to create a lightweight birdcage hanging from the stone dome beneath the flaming orb. Slender curved branch arms of stainless-steel tube are clad with woven stainless steel mesh to provide security and prevent the throwing of large objects, while at the same time enabling a clear view of the urban landscape of the City. The tubes carry data and electric cables for the public address system, cameras, speakers, lighting and multi-language telescopes, now removed.

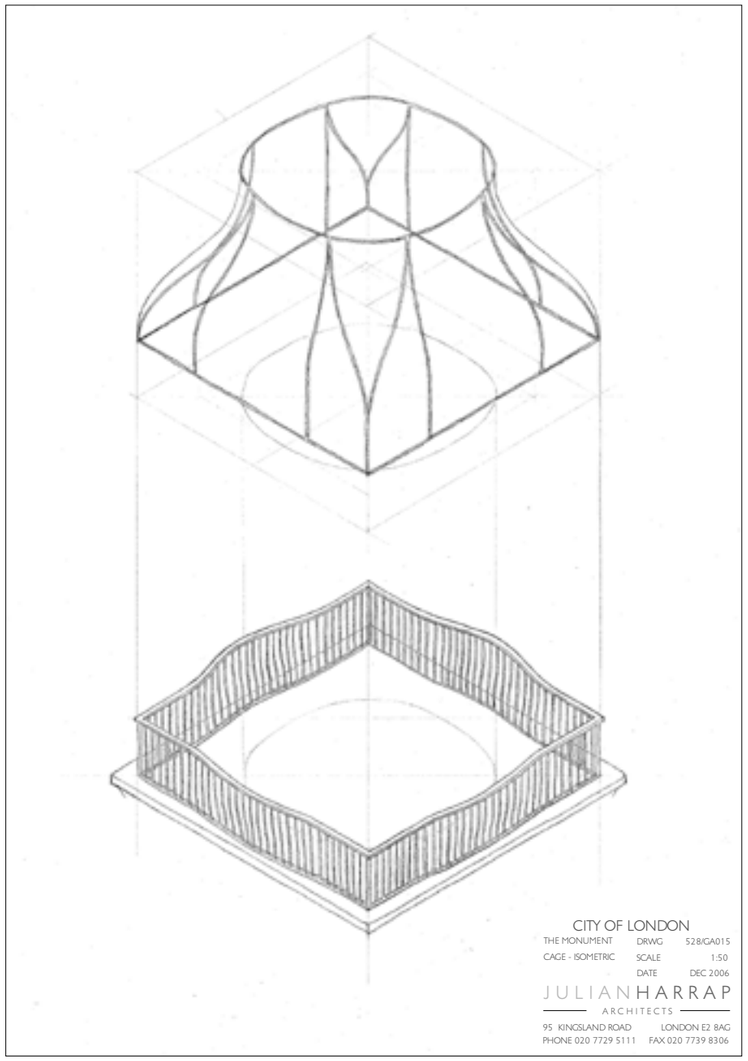


Fig. 49 Design sketch for the new lightweight cage above the new balustrade 2009

Fig. 50 Viewing platform new cage & balustrade in 2009.

2.6.4 Windows

Each face of the column shaft has 8 no. narrow slit window openings. Internally the windows are within a niched recesses of varying sizes. The windows within the column shaft were nearly all replaced in 2009 with slim bronze casement windows, or fixed glass panes within bronze frames where the openings in the stonework are very narrow. An early iron framed window in the Drum was used as a prototype. Immediately above the entrance on the east side there is an oval window. The window is an iron framed centre hung pivot window.

Fig. 51 Bronze casement window flush with stone wall, 2024

Fig. 52 Bronze casement opened, 2024

Fig. 53 Bronze casement in recessed alcove, 2024

Fig. 54 Iron oval casement window, 2024

2.6.5 External Doors

The entrance doors are a pair of substantial four panel doors, held open within the stone reveals of the doorway by a pair of heavy iron hooks. The doors are of solid oak, glazed within their upper two panels and are set within an oak frame, all constructed in 2009.

The pair of oak glazed doors at high level, leading onto the viewing platform, are stained and varnished, with brass door furniture and appear to be 1950s.

Fig. 55 Pair of glazed oak entrance doors, installed 2009, 2024.

Fig. 56 Pair of glazed oak doors onto viewing platform, 2024.

2.6.6 External Railings and Paving

The Monument Yard was re-paved by the City Corporation as part of The Monument Street Scene Enhancement Scheme prior to 2007. The paving abuts the base of The Monument and is scribed to the cast iron plinth of the railings.

The paving is 75mm Yorkstone on 25mm lime paving mortar on 100mm Type 1 sub-base. Yorkstone steps lead up to the entrance door.

Railings around the base of The Monument were probably first installed towards the end of the 18th century, but the present cast iron railings, limited to the area around the entrance on the east facade, date from the late 19th century.

Fig. 57 Paved area within the cast iron railings on the east elevation, south side, 2024.

Fig. 58 Cast iron railings and plinth on the east elevation, north side, 2024

2.6.7 The Stairwell

The stairwell shaft is constructed of solid Portland stone blocks and is circular on plan; the circumference of the circle diminishing with the height of the column shaft.
The cantilevered helical staircase is continuous from entrance foyer up to viewing platform level, without landings, then continues up into the Drum and Dome to give access to the Flaming Orb.

The circular void at the centre of the helical stair allows views from the staircase down to the ground floor and up to the timber enclosure, with iron structure, at viewing platform level.
At ground floor, the circular void continues, via a large circular opening in the floor, to the basement room; a historic iron grille covers the floor opening.
At high level, the central circular void continues, via a large circular opening in the timber ceiling, up to a historic iron grille across the opening at the top stone landing at the base of the dome.

The steps are black limestone, samples of which were identified through petrographical examination as being:

> 'a fine grained, dark grey and irregularly laminated limestone, a Bituminous Stromstolitic Pelmicrite. The general appearance, lithology and preservation are typical of many limestones from lower carboniferous strata of Britain, and north-western Europe'.

The original black limestone spiral staircase was extensively structurally repaired during the 2009 contract using Fischer resin and stainless-steel reinforcement rods. Repairs to the steps were undertaken using black limestone from the Pooil Vaaish quarry on the Isle of Man, believed to be the original source of the stone.

Fig. 59 Looking down the helical staircase showing stone insert repairs to all historic stair treads, 2024

Fig. 60 Looking up at the underside of the stair treads at the original black limestone, 2024

2.6.8 Ground Floor Interior

Masonry

The passage leading from the entrance to the staircase enclosure has a barrel-vaulted ceiling constructed of fine coursed ashlar Portland stone. Recessed into the walls are semicircular niches: two are immediately inside the entrance door containing the turnstiles. The turnstile niche on the north wall was created when the turnstile was installed in 1891, and the existing higher-level south niche was extended down to floor level to accommodate the turnstile. The third arched niche is a the higher-level and contains a carved stone bowl, thought to be a font.

Floor Finishes and Basement Access

The floor of the circular stairwell shaft is paved with black limestone. The entrance corridor was re- paved with slabs of Purbeck stone in 2009. The floor of the attendants' recess is timber boarding, with access to the basement via a hinged timber-boarded hatch set in the floor.

Joinery

A small historic timber-panelled half-door gives access to the attendants' recess from the restricted entrance corridor. Access to the basement is therefore difficult, but there is little scope for easing the situation.

At the back of attendants' recess is a low-level cupboard and on the north wall is a purpose made cupboard.

One of the higher-level historic niches on the south wall of the entrance corridor has been infilled with a glass fronted painted softwood cupboard immediately above the turnstile, complete with 1 no. drawer.

Fig. 61 Looking east from the staircase into the entrance lobby, 2024

Fig. 62 Looking east, from the base of the stair, towards the entrance door, 2024

Turnstiles

The pair of cast-iron turnstiles, made by Le Grand & Sutcliff was installed in 1891. It comprises a central barrier of 7 no. circular iron balusters, 25mm diameter with two end newels 32mm diameter, with a flat iron top rail. The painted iron gates, one each side of the barrier have brass digital counters and are semicircular on plan with 11 no. square section balusters and flat iron top rail. The wrought-iron hoop gates are pegged in position and operated by a floor mounted ratchet mechanism.
The pair of turnstiles allows one visitor at a time to enter, and one visitor at a time to leave. The widths of the turnstiles are fairly narrow and the turnstiles are located close to the entrance door and frame.

The mechanism was in good working order until the central barrier and the projecting arms of the gates were temporarily removed c.2010 to reduce the restricted access for visitors. This makes it more difficult for the attendants to count visitors in and out of the building and therefore to know how visitors are in the building at any one time.

Fig. 63 c.1891 turnstile with the projecting 'arms' and the central rail temporarily removed (north side), 2024.

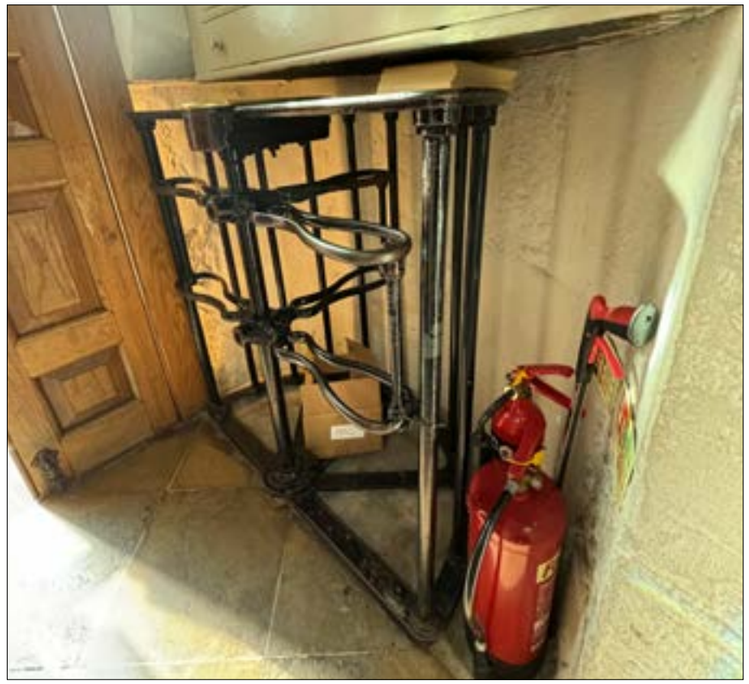


Fig. 64 Turnstile (south side) in recess below a cupboard, with the projecting 'arms' temporarily removed, 2024

2.6.9 The Basement

The floor hatch in the attendants' recess leads, via a series of radiating stone steps, to a circular chamber 2.14 metres (7 feet) in diameter with a semi-circular domed Portland stone ceiling. The chamber lies directly beneath the stairwell. The walls are constructed of coursed rubble Portland stone blocks and red clay brickwork. The floor to the chamber is made up of a compacted lime screed.

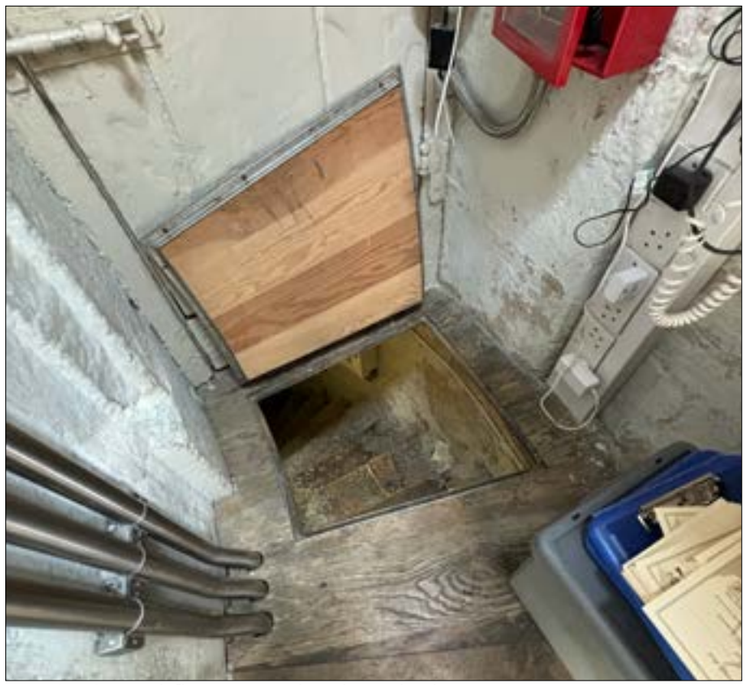


Fig. 65 Ground floor access hatch to the basement, 2024.

Fig. 66 Looking up to the floor access hatch from the basement steps, 2024

Fig. 67 Central circular basement room, looking up at the (blocked-up) oculus in the stone domed soffit, 2024

Fig. 68 Neat stainless-steel conduits & junction boxes, and temporary Cat6 cables to basement computer (for redundant Panoramic camera installation), 2024

2.6.10 Electrical Services

Electrical services were renewed and upgraded in the 2007-2009 Major Repairs contract.
All the cables, electrical & data, were brought up the stairwell in spiral stainless-steel conduits, each shaped-on site to fit the diminishing circumference of the stairwell. The viewing platform cage structure, of stainless-steel tubes, are also conduits for electrical cables.

At viewing platform level are CCTV cameras and speakers for the attendants at ground floor level to speak to those on the viewing platform. An intercom allows those at viewing platform level to contact those below.
Electrical outlet points are provided for laser displays and to serve the fire detection & alarm system.

Power supplies are provided to each corner of the viewing platform balustrade to serve 'talking' telescopes (now removed) and a future exterior lighting design (never implemented).
These power points are now used for LED 'ropes' fixed underneath the balustrade, and a temporary uplighter fixed with cable ties to a corner of the balustrade.

The 2009 stairwell lighting was innovative slim LED light strips fixed to the 1" square stair balusters, the colour of the light fittings matching the dark grey iron balusters and softly lighting the treads of the spiral staircase. Several of the baluster lights had battery back-up as emergency lights, which were indistinguishable from the standard fittings. All baluster light fittings below viewing platform level have been replaced since 2009 with wider light strips, with a harsh bright light, and new transformers. The new baluster lights are in black housings which contrast with the balusters now painted pale grey. Emergency lights independent of the baluster lights have been introduced into the stairwell.

The flaming orb area was lit with blue lighting, visible to the public from the helical stair up through the circular ceiling grille at viewing platform level.
The basement (Hooke's workshop) was lit with a gentle red glow, visible from the helical stair down through the iron grille across the oculus of the basement dome.

At ground floor level, the former soft warm lighting behind the attendants' recess is now cold LED lighting.

Fig. 69 CCTV camera at Viewing Platform level, 2024

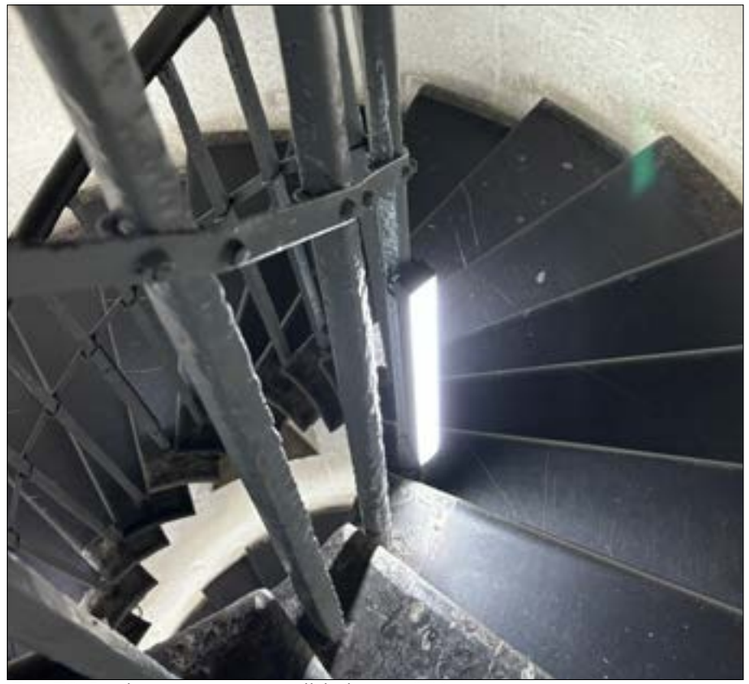


Fig. 70 Replacement stairwell lighting, 2024

Fig. 71 Recent emergency light fittings, 2024

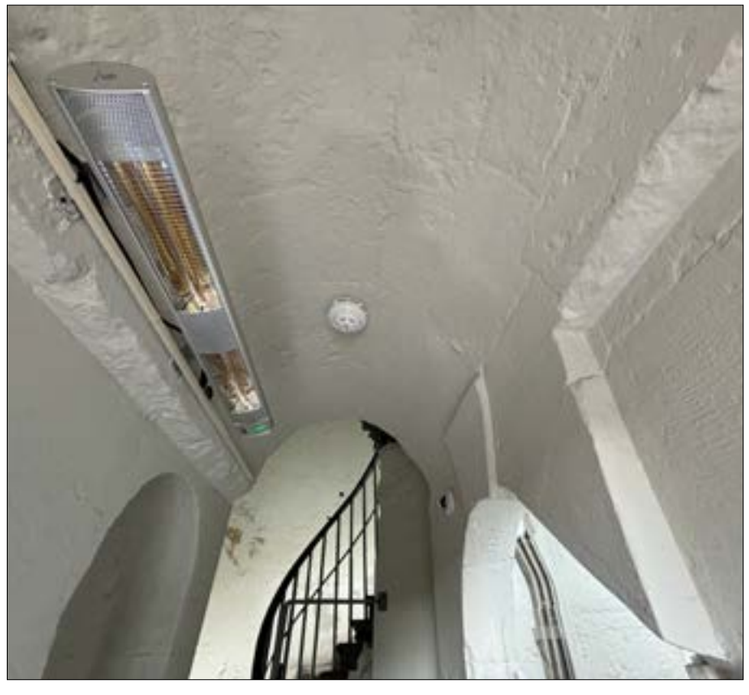


Fig. 72 Entrance foyer showing heater, redundant strip-uplighter, smoke detector, CCTV camera, stainless-steel conduits, 2024.

2.7 PAVILION BUILDING

The small single storey Pavilion was designed by Bere Architects and constructed c.2005. It provides a staff and storage facility for The Monument's staff, as well as a segregated Automated Public Convenience (APC).

The site is to the east of The Monument adjacent to the junction between Monument Street and Pudding Lane, on the public highway. The re-paving of Monument Yard and construction of the Pavilion formed part of The Monument Street Scene Enhancement Scheme

The Pavilion was designed to provide a degree of visual interest whilst not competing with The Monument.

The material chosen for the pavilion was Caithness Stone, the same dark stone that was chosen for paving Monument Square. The stones are within gabions which are enclosed with an outer skin of glass.
The orientation of the Pavilion was rotated by 10 degrees to ensure that it will not directly face The Monument plinth, and a pallet of materials was used intended to compliment the setting of The Monument. The roof is covered in 100 small, inclined glass panels which reflect images of the Golden Orb on the top of The Monument when viewed from the viewing gallery.

Fig. 73 The Pavilion in Monument Yard, from the north-west, 2024

Fig. 74 Detail of the glazing & gabions, 2024

Fig. 75 View of the pavilion roof covered in 100 small, inclined glass panels when seen from the viewing gallery of The Monument, 2024

2.8 HISTORIC DEVELOPMENT

2.8.1 Historic Alterations to The Monument

A History of The Monument was researched and written by architectural historian, by Wendy Hitchmough, in 1991. Archive descriptions of some of the historic alterations are in her report.

The following summary is taken from the report and lists dates of construction and alterations to The Monument, up to the end of the twentieth century.

1666 — Great Fire of London starts near the site of The Monument.

1667 — Act of Parliament for rebuilding the City orders the erection of a Column or Pillar of Brass or Stone to commemorate the fire.

1671 — Monument designed by Robert Hooke and Sir Christopher Wren as a great column far exceeding in size its classical exemplar, Trajan's Column in Rome.

1673 — Carved panel on west face of plinth, commenced by Cibber, with carved dragons above by Edward Pierce, junior.

1675 — Wren's preference for a crowning figure of Charles II overturned in favour of flaming orb of gilded copper, probably on grounds of economy.

1678 — Column and landscaping completed.

1784-86 — Major repairs; urn repaired and re-gilded, stonework cleaned and repaired, damaged balusters replaced, handrail capped in cast-iron, interior cleaned and decorated, defective steps supported with iron brackets.

1823-31 — Replacement of London Bridge further west diminishes the significance of the siting of The Monument.

1830 — Anti-papist inscription removed.

1834 — Urn re-gilded.

1834 — Cage added above the viewing gallery following the suicide of a servant-girl.

1879 — Urn re-gilded, interior and railings painted

1882 — Construction of Monument Street through east side of Monument Yard, and reduction of railings to fit east side only.

1883 — Interior redecorated.

1883 — Major repairs following fall of one of the paterae from the underside of the column capital. Top of gallery covered in asphalt, paterae removed, stonework repointed, interior redecorated; measured drawings of The Monument prepared and Monument plumbed for the first time.

1889 — Notice boards erected.

1891 — Turnstiles installed by Le Grand & Sutcliff.

1954 — Balusters secured by iron shoes, balcony railings renewed, stonework steam cleaned, bomb scars removed, urn re-gilded, interior decorated.

1973 — Monument cleaned by high pressure water, stone repairs.

1977 — Programme of replacement stair treads commenced.

1986 — Urn re-gilded.

1996 — Stair treads extensively repaired, iron balustrading repaired and paint removed from inner wall faces.

2009 — Major Repair Contract

Major Repair Contract: scaffolding The Monument, regilding the flaming orb, external stonework repairs, new carved paterae, new lightning protection, replacement viewing platform cage & balustrade, repairs to spiral steps & balustrade, new windows, new lighting, replacement of all electrical services & conduit, interior redecoration, panoramic camera system

Since 2009

Replacement interior lighting

Temporary lighting to viewing platform

Perspex screens for Covid and as a bag enclosure

Boarding over circular ventilation grilles

Replacing external information board

2.8.2 Alterations to The Monument: The 2009 Major Repair Contract

Summary of Works

Due to the difficulty and expense of scaffolding the 202ft column, The Monument is only scaffolded approximately every 80 – 100 years. The brief was to undertake external repairs for a very long-life span from the scaffold, repair the interior and re-present the building for the visitors to The Monument. This included replacing and upgrading all services and replacing the 1950s balustrade and cage at viewing platform level with new design that improves visitor circulation and safety and enhances the visitor experience. Works included repairing and re-gilding the copper flaming orb, structural restraining of the wrought iron armature supporting the orb and structural repairs to stone courses dislodged by the movement at high level. A major element of work was cleaning the entire Portland stone exterior and repairing the fluted shaft, carvings of Dragons and the sculpture relief panel by Claus Cibber. Four large carved stone paterae, each to new designs, replaced those which had been removed from the underside of the abacus in the 19th century. The black limestone viewing platform was stripped of its later asphalt coating and repaired, together with the entire black limestone spiral staircase which had suffered damaged. The lightning protection system was renewed and discreetly connected to the internal wrought iron balustrade which itself was repaired, re-caulked in lead and spiral oak handrail repaired and re-polished. Calcium-silicate paint was applied to the interior allowing the masonry walls to breathe, and bespoke slim bronze casements designed and fixed into repaired rebated window slits. A new pair of oak doors replaced the previous 1980s entrance door. Services were renewed and upgraded with all the cables being brought up the stairwell in spiral stainless-steel conduits, each shaped on site to fit the diminishing circumference of the stairwell. Innovative LED light strips fixed to the slim square stair balusters, light the spiral staircase.

A panoramic camera was erected at the top of The Monument to produce images of the views from the top of The Monument, which were available on the Internet, and intended in the future to be shown on a screen in Monument Yard.

New Materials & Workmanship

Many unusual and scarce materials were required for the work. To repair the original fabric, materials were selected to match the original, such as Pooil Vaaish limestone and Purbeck.
Modern materials had to be compatible with the historic fabric, such as the weld specification to connect pure iron to seventeenth century wrought iron or the tinted Fisher epoxy compatible with the density of black limestone. The highest quality modern materials were used for items of new work, for example grade 316 stainless steel for the new cage and balustrade to the viewing platform and the curved electrical conduits, and Belzona for waterproofing vulnerable inaccessible areas of stonework.
High quality workmanship was ensured by carefully vetting and selection of the contractor and specialist subcontractors, who undertook trials and samples for approval in advance of the works. Some 15 specialist subcontractors were involved in working on the very special conservation challenges of this unique structure.
The restoration was filmed and photographed by Harris Digital Productions, who set up a dedicated website www.themonument.info to show work in progress and provide updated information about the project. This is now an archive of the project.

2.8.3 Alterations to The Monument since 2009

- Viewing platform lighting under balustrade handrail
- Viewing platform spotlight in corner of viewing platform cage
- Replacement of staircase balustrade lights
- Replacement of light over attendance recess
- Additional electrics at ground floor level
- Perspex screen fixed to attendance recess door
- Boarded coverings to grilles across circular openings at top and bottom of staircase
- External timber board

2.8.4 Archives/Historic Documentation

Historical City of London documents relating to The Monument, including administrative records and accounts are held at the The London Archives, 40 Northampton Road, Clerkenwell, EC1R 0HB. City Surveyor's Heritage Estate Section also has some historical records in their folders

Photos, prints drawings and paintings relating to The Monument are held at the Guildhall Library, Aldermanbury, London EC2V 7HH. The historic archives and records are orderly, catalogued, safe and readily retrievable, allowing public access to copies of historic documents and images, and to originals where possible.

2.9 OWNERSHIP AND MANAGEMENT FOR PUBLIC USE

2.9.1 Ownership

The asset is owned by the City of London Corporation.

2.9.2 Management and Maintenance Structure

The operation of The Monument as a visitor attraction, open to the public, is currently managed by Natural Environment Division. Tower Bridge (City Bridge Foundation) currently open the attraction to the public on behalf of the Natural Environment Division

City Surveyor's Department is responsible for the maintenance and upkeep of The Monument.

Larger projects are carried out by external professionals.
Maintenance and project files are kept within the City Surveyor's Department.

2.9.3 Opening Times

The Monument is open to the public daily, except 24th to 26th of December, from 9:30 till 13:00 and 14:00 till 18:00. Last entry is at 12:30 and 17:30. On certain occasions when The Monument cannot be opened, there will be an alert on the website.

2.9.4 Websites

The official website for The Monument is the City of London website:
https://www.themonument.org.uk/

An alternative website:
https://www.themonument.info/

The alternative website is not managed or owned by the City Corporation and includes outdated information

3.1 SIGNIFICANCE

"Significance" is a core concept in the management of change to listed buildings and other heritage assets. It is used to assess the features that contribute to the special architectural and historic interest of the building.

Significance is assessed using criteria set out by Historic England, the government's advisor on the historic environment. Conservation Principles, Policies and Guidance (Historic England, 2008), is consistent with the NPPF and recognises that significance is the value of a heritage asset, to this and future generations, because of its heritage values.

Historic England defines those heritage values as evidential, historic, aesthetic and communal, as set out in the table adjacent.

HERITAGE VALUES	
EVIDENTIAL	Evidential value is the potential of a place to provide evidence of the past and is proportionate to the extent it contributes to the understanding. It derives from the physical remains of the past and as a primary record of our understanding, relying significantly on age and authenticity.
HISTORIC	Historic value can be illustrative and/or associative. Illustrative value is the ability to interpret the past through connections or insights into activities of past persons, organisations or communities. Association with a notable person, family, event or movement can give rise to historical value of particular resonance and can intensify our experience of the past. Historical values are not as easily diminished by change or authenticity as evidential value.
AESTHETIC	Aesthetic value can derive from a conscious design and or a fortuitous design and also encompasses emotional responses to place, for instance senses of beauty, harmony or awe. The conscious design value of a building, structure or landscape is a result of formal intellectual appreciation of artistic endeavour, for example as a response to form, proportions, massing, silhouette, views, materials, detailing and craftsmanship. Fortuitous design value can derive from the coming together of elements not explicitly designed but where a sensory response is made as a result of contrast, harmony or juxtaposition, tending to be the result of collective factors rather than individual initiative. For instance, the group value of a townscape comprising layers of complimentary architecture and history or the dominance of a structure over its landscape.
COMMUNAL	Communal value is derived from the meaning of a place to people who relate to it, over for whom it figures in their collective experience or memory and can be particularly commemoratives/symbolic, social and/or spiritual. These can be closely tied to aesthetic and historical (particularly associative) values, but could add or accentuate them. Commemorative/symbolic values reflect the meaning the place to those who draw their identity from it and/or have emotional links to it, example memorials to historical events or past lives or a design associated with a particular community. Social value is where a source of identity, distinctiveness or social cohesion is evident. It can be modest and character, an element of collective memory interlinked with stories which creates a sense of ownership which can relate to past activities. Spiritual value can come from beliefs and teaching related to a place, for example via religious beliefs, or it can reflect perceptions of the 'spirit of the place', such as a sense of inspiration or wonder associated with a place.

3.2 ASSESSING THE SIGNIFICANCE OF INDIVIDUAL ELEMENTS

Various external and internal elements of the buildings contribute to the overarching significance of The Monument
The level of their contribution has been assessed using the criteria set out adjacent.

This assessment begins with statutory designations, followed by a summary statement of significance, then by an analysis of the heritage values of The Monument element by element.

3.3 STATUTORY DESIGNATIONS

The Monument is Grade I listed and a Scheduled Ancient Monument. The site is not within a conservation area.

Listing Status recognises the importance and significance of buildings and offers statutory protection against unsympathetic alteration or demolition. Approximately 1% of listed buildings are Grade I and 4% Grade II*. The inclusion of The Monument in the Grade I list gives national recognition to a most important and unique building.

The Monument is a 'Scheduled Monument' as defined by Section 1 of the Ancient Monuments and Archaeological Areas Act 1979 County Monument no. 20 National Grid Reference TQ 329807. A schedule has been kept since 1882 of monuments considered to be of national importance by the government. The current legislation, the Ancient Monuments and Archaeological Areas Act 1979, supports a formal system of Scheduled Monument Consent for any work to a designated monument.

The Monument is dual-designated as a listed building and Schedule Ancient Monument, but only Scheduled Monument Consent (SMC) is required for proposed works to the interior; proposed external works may require SMC and planning permission.

ASSESSMENT OF SIGNIFICANCE		
CONTRIBUTION TO SIGNIFICANCE	EXPLANATION	SENSITIVITY TO CHANGE
HIGH	Elements that are fundamental to the overarching significance of the building, often of demonstrable inherent value and multiple cumulative value, i.e. of clear aesthetic and historical value and potential for wider evidential or communal value which complement one another.	Very sensitive
MEDIUM	Elements that contribute to the overarching significance of the building and loss would cause demonstrable harm. It might be that these elements are interesting and complementary, but not fundamental. It could be that these elements of some inherent interest, but contribute more to the whole. They might more of one value, rather than a layering of values.	Moderately sensitive/flexible, balanced judgement required
LOW	Elements of lesser significance on their own or relative to the whole i.e of limited inherent interest and most likely not of multi-faceted value, for example, of some aesthetic value, but limited to no wider evidential, historical or communal value.	Flexible, balanced judgment required
NEUTRAL	Elements that contribute neither positively or negatively to the significance of the building.	Flexible
DETRACTS	Elements that diminish, detract from or destroy an understanding and/or appreciation of all or some of the heritage values which comprise significance.	Change encouraged

3.4 SUMMARY STATEMENT OF SIGNIFICANCE

The Monument has the highest significance in terms of its historical, aesthetic and communal value.

It was commissioned by King Charles II to commemorate the Great Fire of London, the most famous disaster in London's history; it was designed by Christopher Wren and Robert Hooke and was constructed between 1671 to 1677; it survives remarkably intact and its early use as a public viewing gallery continues, giving it communal value derived from the impression received by its millions of visitors

A great deal of the existing building fabric, design and materials, survives from the original construction, These surviving elements are highly significant and some later additions and alterations have now gained some significance, due to their vintage or the quality of design and materials.

3.5 ASSESSMENT OF HERITAGE VALUES

Historic Significance

Significance: International (High)

The Monument's special historic interest is as a building illustrating an important aspect of the nation's social, economic and cultural history: the Great Fire of London and the rebuilding of the capital city.

The building has close historical associations with an internationally important person: King Charles II, who instructed the building of The Monument. The Museum of London describes The Great Fire of London of 1666 as being the most famous disaster in London's history, 13,200 houses, four-fifths of the City and 436 acres in total were destroyed in the fire. Evidence describing the fire exists in diaries, letters, books, newspapers and poems. Official documents describe official enquiries, new legislation and buildings Acts and petitions to for money to rebuild.

The Great Fire appeared in many paintings and engravings, some of which were reproduced abroad for foreign newspapers. Archaeologists still find the physical remains of the fire during excavations.

London was rebuilt on its old street plan with many improvements: streets were widened and new ones were created. New houses were built in brick instead of wood, pavements were built for the first time and new sewers were added.

Significance of the Architects/Designers

Significance: International (High)

Sir Christopher Wren, Surveyor General to King Charles II and Dr Robert Hooke, provided a design for The Monument: a colossal Doric column in the antique tradition. Sir Christopher Wren FRS (1632 –1723) is one of the most highly acclaimed English architects in history. Robert Hooke FRS (1635 –1703) was a natural philosopher, architect and polymath.
Caius Cibber, the sculptor of the stone relief panel, is renowned for his Baroque architectural sculptures.

Scientific Significance

Significance: International (High)

Wren and Hooke built The Monument to double as a scientific instrument. It has a central shaft meant for use as a zenith telescope and for use in gravity and pendulum experiments that connects to an underground laboratory for observers to work. The steps in the shaft of the tower are all six inches high, allowing them to be used for barometric pressure studies.

Architectural Significance

Significance: International (High)

The Monument is of special architectural interest as a building of importance in its architectural design, decoration and craftsmanship; it is an internationally important example of particular building type and technique: the tallest stone column in the world, which is also a scientific instrument, commemorating a national disaster. The building is little altered; most of the original fabric survives.

Archaeological Significance

Significance: National (High)

An Archaeological Impact Assessment was prepared in October 2004 by Museum of London Archaeological Service (MoLAS) for Monument Street Scene Enhancement Scheme.
This concluded that Monument Yard is within an area of high archaeological potential. In particular the site may overlie the remains of large wealthy Roman buildings to the north of the waterfront quays. Remains associated with medieval buildings on Pudding Lane may exist on site. In addition, there is the historical association with the Great Fire of London as the site lies on the presumed location where the fire began.

Significance as a Building Open to the Public

Significance: International (High)

In the European context, The Monument represents a building designed for the public and open to the public and is of international architectural and historic significance. Millions of visitors have climbed the spiral staircase to see the views from the viewing platform, giving the building great communal value, in addition to historic and aesthetic value.

The Significance of the Visitor's Experience

Significance: National (High)

The significance of the visitors' experience of The Monument is partly derived from the knowledge of the purpose of the historic building and that The Monument is relatively unchanged since the building was first opened. Contributing to the positive experience are the views from the viewing platform and the high quality of design, materials and maintenance, together with the management of visitors. Negative factors may be due to more visitors to the building than the building was designed for.

The Significance of the Level of Documentation on the Building

Significance: International (High)

City Corporation historical documents relating to The Monument, including administrative records and accounts dating from 1666 are held at the The London Archives. The Great Fire appeared in many paintings and engravings; photos, prints drawings and paintings relating to The Monument are held at the Guildhall Library.

The Significance of Views of and from the Building

Significance: National (High)

Certain views from and to The Monument are considered to be strategically important views by the City Corporation and are described in Supplementary Planning Document Protected Views.

The London View Management Framework (LVMF) is important for The Monument as it identifies specific views from The Monument that are protected and managed by the London Plan, which carries more weight in planning decisions than the City document. Detailed guidance is provided on the protected views.

The Significance of the Existing Setting of The Monument

Significance: Detracts (Detrimental)

The setting of The Monument has completely changed from the historical setting which was designed to be deferential to the tallest column in Europe. The scale of the surrounding buildings was respectful to The Monument which was enclosed on three sides within a classical and well-proportioned formal piazza. The historic setting made a highly significant contribution to the significance of The Monument.

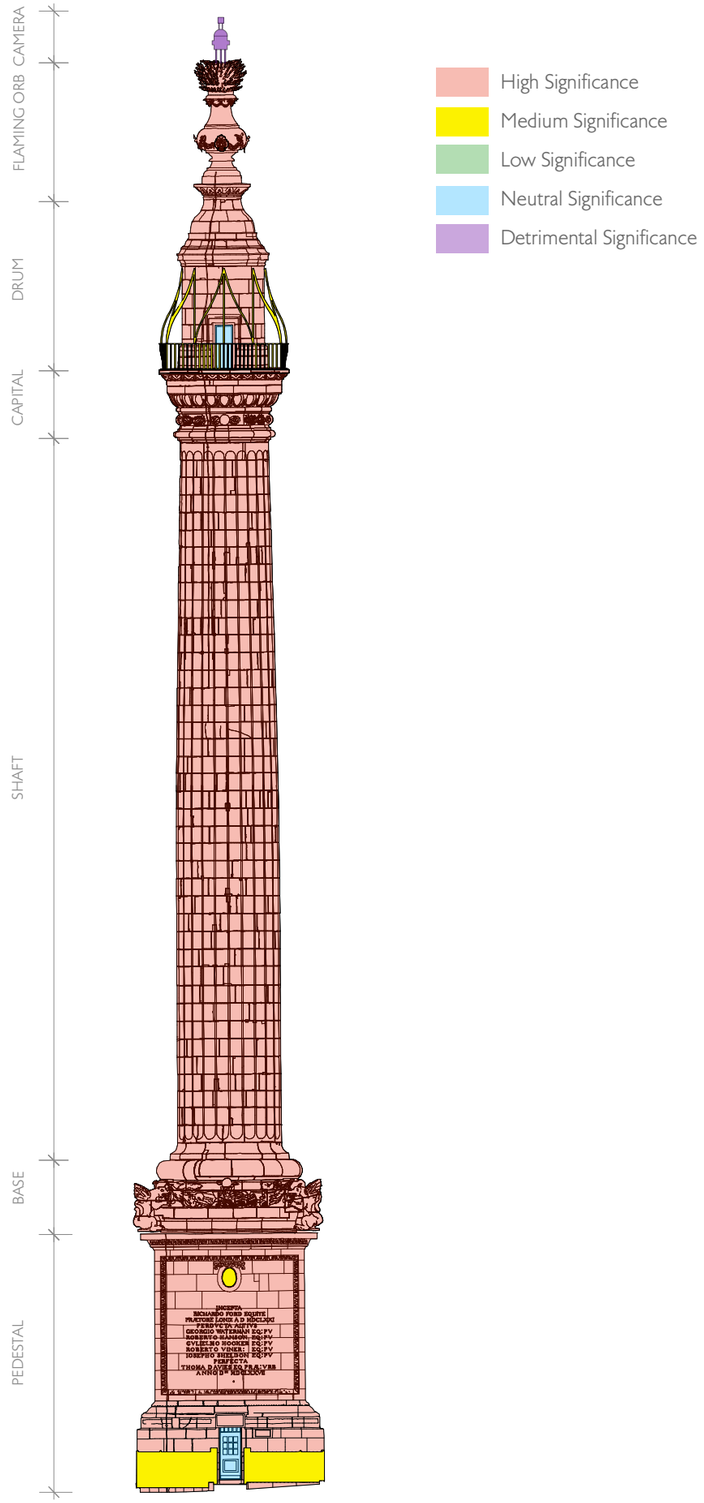
Surrounding buildings are no longer designed to respond to The Monument. In 2024, The Monument is surrounded by such tall developments, of various competing styles and incongruous materials, that it can only be seen from specific locations close to the building.

The Significance of the Pavilion Building

Significance: Detracts (Detrimental)

The Pavilion is in a sensitive location within the setting of The Monument and is prominent in the view of The Monument from Pudding Lane. The building was designed as a 'temporary building' and has aged badly in less than twenty years. The gabion inner wall has no context with its surroundings and the outer glass skin provides no access to the space behind it and so it cannot be cleaned. The glass roof around the edge is water stained and the lavatory door appears to be a temporary plywood door.

3.6 SIGNIFICANCE OF THE ELEVATIONS



3.7 SIGNIFICANCE OF EACH ELEMENT

EXTERIOR		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
Exterior stonework	HIGH	Most of the original Portland stonework survives and is plain, fluted, incised and carved; repairs and replacement carved paterae are of high quality. The original black limestone viewing platform survives with archaeological remains of earlier balustrades
The Flaming Orb	HIGH	The gilded flaming orb is the dazzling showpiece at the top of the column, representing the flames of the Great Fire. Nearly all original fabric remains; some copper flames and leaves have been replaced and the orb has been re-gilded several times.
Viewing Platform Balustrade and Cage	MEDIUM	The balustrade is an important feature of the historic Monument. The bespoke design of the existing balustrade c.2009 reflects the original design; the lightweight mesh enclosure above provides security, the steel tubes are conduits for electrical & data services, both balustrade & cage are part of the lightning protection system. Intervention into the historic stonework is minimal.

Fig. 76 Carved stone paterae on the underside of the column abacus, 2009

Fig. 77 The gilded Flaming Orb, 2009

Fig. 78 Viewing platform stainless-steel cage & balustrade, 2009

EXTERIOR		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
Iron Windows	MEDIUM	The early iron framed window in the Drum has some significance and was used as a prototype for the bronze casements installed into the existing slot window openings in 2009. The historic pivot oval window is of good quality and likely purpose made for the location.
Bronze Windows	LOW	Individually designed to suit each location, based on a surviving early iron casement window; bespoke manufacture in bronze by a London stained-glass craftsman, installed to reduce condensation.
External Doors to Viewing Platform	NEUTRAL	High quality doors in good condition, appear c.1950s and represent changes over time.
External Entrance Doors	NEUTRAL	Design of the pair of 2009 external doors is based on designs of seventeenth century London doors to public buildings.
External Railings	MEDIUM	The external cast iron railings and gate to the east entrance side of The Monument were installed in the nineteenth century. They now have some significance due to the length of time they have been in situ and that they appear to have been designed specifically for The Monument.
Paving within Railings	NEUTRAL	Paving within the railings is part of the wider paving scheme in Monument Yard, c.2005

EXTERIOR		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
Flaming Orb Camera & Stand	DETRIMENTAL	The panoramic camera system was intended as only a three-year project and ceased operating in 2011. The camera, weather station and bespoke stand are visible above the flaming orb and detract from the historic silhouette of The Monument.
External Lightning Conductors	NEUTRAL	Essential for protection of the building, but obviously not contributing to historic exterior, the lightning protection system is carefully designed, integrating the existing iron & steel elements of The Monument as conductors, and using stone coloured down conductors.
External Fixed Signage	NEUTRAL	A well designed addition to the historic monument for public information.

Fig. 79 Redundant panoramic camera & weather station installation at the top of the flaming orb, 2009

Fig. 80 Exterior lightning protection tape, 2024

Fig. 81 Hand-painted exterior sign on the west plinth, 2024

EXTERIOR & INTERIOR: 'DAMAGE'		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
Damage arising from a historic event: Exterior WWII damage	LOW	Relating to second world war damage, which, where it has not led to further deterioration has been retained, unrepaired.
Damage arising from a historic event: C17 anti-Catholic sentiment	LOW	The north inscription panel on the base of the column describes the destruction of the Great Fire and in the last line, added in 1681, blames Catholics for starting the fire: 'But Popish frenzy, which wrought such horrors, is not yet quenched'. The incised words were deleted in 1830 by crudely cutting out the incised lettering, leaving a damaged strip all along the bottom of the panel, which has been kept.
Interior Incised Graffiti	LOW	Historic and well-executed incised graffiti at high-level within the stairwell; a reminder of the many generations who have climbed The Monument.
Interior Recent Felt-Pen Graffiti	DETRACTS	Vandalism to the protected Monument and a distraction to visitors from the enjoyment of the historic interior.

INTERIOR: STONEWORK		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
Drum & Dome	HIGH	The original 1670s stone enclosure at viewing platform level, enclosing the upper stairs leading to the flaming orb.
Stairwell	HIGH	The original 1670s solid stone structure of The Monument, enclosing and supporting the helical staircase.
Helical Staircase	HIGH	The original 1670s cantilevered stair structure, structurally repaired in 2009 when most of the treads were refaced in stone from the original quarry.
Entrance Lobby Stonework	HIGH	The interior walls have been modified with niches, but remains the original construction and material.
Entrance Lobby Floor Finishes	LOW	Purbeck stone was selected in 2008 as pieces of Purbeck were found in the floor excavation works when the former concrete floor was lifted. Purbeck is now only available in small slabs; it is a hardwearing stone suitable for the heavy foot traffic and was designed to suit the floor plan.
Basement Form	HIGH	The circular basement chamber was Robert Hooke's workshop for his scientific experiments within the Monument. It appears to be unaltered.
Basement Stonework	HIGH	Original foundation structure to the Monument, the basement stonework types are of different construction methods and finishes, each to suit their location and function within the basement.

INTERIOR: IRONWORK		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
Supporting Iron Armature Supporting Flaming Orb	LOW	The copper construction of the flaming orb is fixed down onto the stonework of the dome with the original wrought iron armature, which is also a circular ladder giving access to the very top of the copper bowl.
Staircase Balustrade	MEDIUM	Many surviving wrought iron balusters supporting the curved oak handrail, although recent repainting ironwork in light grey detracts from original unpainted colour.
Drum Iron Grille	LOW	Historic iron grille too fragile to safely serve its original function; it remains in situ supplemented by pure iron reinforcement c.2009.
Oval Window Iron Grille	LOW	Simple historic wrought iron bars, (recent replacement bar is not a good match to the historic).
Ground Floor Iron Grille to Hooke's Workshop	NEUTRAL	A modern iron grille based on historic precedent.
Entrance Lobby Turnstiles	LOW	Turnstiles were installed in The Monument in 1891 and now have communal value in addition to historic value, as millions of visitors over the last 123 years have entered The Monument through the turnstiles.

Fig. 82 Circular wrought iron grille at the base of the flaming orb armature, 2024

Fig. 83 Flat iron bars rivetted across a ventilation opening beneath the east oval window, 2024

Fig. 84 Circular wrought iron grille at the basement dome oculus/base of helicar stair, 2024

INTERIOR: JOINERY		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
High-level Timber Enclosure	LOW	A simple (non-original) boarded enclosure with the patina of age.
Staircase Balustrade Handrail	MEDIUM	Curved oak balustrade handrail with many original steamed-timber sections, but later replacement sections of poorer quality workmanship reduce the potential significance.
Entrance Lobby Historic Joinery	LOW	The joinery appears to be of differing ages, maybe both eighteenth and nineteenth century designed to suit the locations. The attendants' door and rear cupboard with an interesting build-up of paint layers, appears older than the wall cupboards.
Entrance Lobby C21 Joinery	DETRIMENTAL	The joinery is no longer fit for purpose and chipboard shelves have been added.

Fig. 85 Staircase balustrade curved oak handrail, 2024

Fig. 86 Glass fronted cupboard inside the entrance, 2024

Fig. 87 C21 joinery with some additional shelving, 2024

ENTRANCE LOBBY: FIXTURES, FITTINGS & SIGNAGE		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
Entrance lobby folding chair	NEUTRAL	Bespoke discreet seat and seat-back designed for this location, late twentieth century and of its time.
Perspex screen	DETRIMENTAL	One of several modern fixtures/fittings /signs introduced into the Entrance Foyer, which are not high quality in terms of design, materials or workmanship, and together greatly detract from this small simple historic interior.
Curved perspex storage screen	DETRIMENTAL	Primary reason is that the Perspex screen obscures the circular floor opening (oculus), an feature of architectural, historic & scientific significance.
Signage: - Duplication of Statutory H&S signage (fire extinguishers) - Standard signage replaces hand-painted signage - Dark blue standard payment signage stuck on Perspex screen - Multiple signs advising 'CCTV in operation' - Paper sign in plastic wallet Sellotaped to front door glazing - Remains of fixings to removed signs: adhesive on joinery, rawl plugs into stonework	DETRIMENTAL	Many signs introduced into the Entrance Foyer, are not high quality in terms of design, materials or workmanship, and together detract from this small simple historic interior; some signs are duplicated and unsightly adhesive or rawl plugs are evident where signs have been removed.

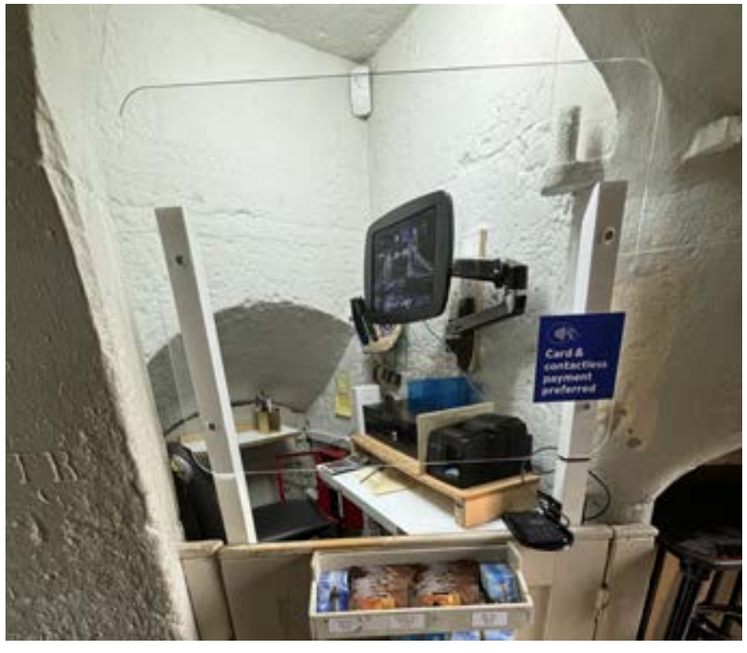


Fig. 88 Perspex screen across attendants' recess, 2024

Fig. 89 Curved Perspex bag store screen, 2024

Fig. 90 Signage and former signage fixings, 2024

EXTERIOR: VIEWING PLATFORM M&E SERVICES		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
Electrical & Data Conduits	NEUTRAL	The conduits are very discreet; the viewing platform cage structure of stainless-steel tubes, are also conduits for electrical cables.
Viewing Platform Speakers	NEUTRAL	Stone-coloured, unobtrusive, well-located, important for safety.
Viewing Platform CCTV Cameras	NEUTRAL	Important for safety, located on the C21 cage structure re-using the bespoke stainless-steel conduits, less appropriate than the stainless-steel smaller cameras they have replaced.
Viewing Platform Intercom	DETRACTS	The intercom is well designed and of quality materials, but as it needs to be highly visible to the public with large clear lettering, it is obtrusive and detrimental to the historic interior.
Viewing Platform Lighting	DETRACTS	LED 'ropes' fixed underneath the balustrade provide an unattractive strong and harsh down-light when viewed from below and appear to be an under designed temporary solution when seen from the viewing platform. The temporary uplighter fixed with cable ties to a corner of the balustrade is not an appropriate light fitting for an ancient monument and lights the flaming orb from one side only.

Fig. 91 Viewing platform speaker fixed to the stone Drum, 2024

Fig. 92 Viewing platform intercom connecting to ground floor reception, 2024

Fig. 93 LED lighting rope beneath viewing platform handrail, 2018

STAIRWELL ELECTRICAL SERVICES		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
Electrical Cables in Upper Stairwell	**DETRACTS**	Electrical cables recently added at high level are not (all) in existing stainless-steel conduits or neatly tied to existing conduits and look a mess.
Smoke Detector & Sounder	**DETRACTS**	Detrimental to a small historic interior, but important for safety and reasonably well-located.
Staircase Lighting	**DETRIMENTAL**	Replacement baluster lights produce harsh cold light and are no longer directed onto stair treads but are twisted away from the tread to avoid glare for the visitor climbing the stairs. The replacement fittings are wider than the balusters and black, contrasting with the pale grey paint of the iron balusters.
Emergency Lighting	**DETRACTS**	Emergency lights have been introduced into the stairwell replacing the previous emergency lighting, which was some of the existing baluster lights, with a battery back-up and therefore entirely unobtrusive within the stairwell.

Fig. 94 Electrical equipment above viewing platform level, 2024

Fig. 95 Electrical conduits & junction boxes, 2024

Fig. 96 2009 light strips

Fig. 97 Replacement light strips

ENTRANCE LOBBY: ELECTRICAL SERVICES		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
Overhead Radiant Heater	**NEUTRAL (wiring detracts)**	Quality stainless steel coloured, reversible, location along one side of the barrel vault, necessary in winter. Thick black visible cabling detracts.
Plinth Heater	**NEUTRAL**	Located in plinth of cupboard in attendants' recess, not visible to visitors and providing heat to attendants where it is needed.
Smoke Detector	**DETRACTS**	Detrimental to a small historic interior, but important for safety and reasonably well-located.
Lighting: Strip Luminaires located either side of Entrance Door within door architrave	**LOW**	Warm soft light back-lights historic turnstiles and enhances the entrance.
Lighting: Strip Luminaire located along the Barrel Vault, South-Side (assumed redundant)	**DETRACTS**	It is assumed that this light is not operational since the radiant heater was installed.
Lighting: LED Strip Light in Attendant's Recess		
Lighting: Wall Light located at the base of the Spiral Stair		
CCTV Cameras	**NEUTRAL: CCTV camera** **DETRIMENTAL: Plastic junction boxes & plastic conduit**	Both cameras are fairly unobtrusive, but conduits and junction boxes serving them are white plastic, whereas all other designed junction boxes & conduit are stainless steel.
Electrical Services in Attendants' Recess	**DETRACTS**	The extent of electrical services has outgrown the small cupboard designed in 2007 to accommodate them.

Fig. 98 Attendants recess strip light, CCTV plastic junction box & plastic conduit, 2024

Fig. 99 Electrical services in cupboard at back of attendants' recess, 2024

Fig. 100 Electrical services in the attendants' recess, 2024

IMMEDIATE SETTING		
ELEMENT	CONTRIBUTION TO SIGNIFICANCE	REASON
19th century boundary marker	LOW	Historic boundary marker. E&S Poynder are brothers Edward & Samuel Poynder, Plumbers by profession, who lived outside of London in Hawkhurst, Kent. The S M.N.F denotes the parish of St. Margaret New Fish Street.
External Paving	NEUTRAL	The Yorkstone paving scheme to Monument Yard, which surrounds The Monument was laid c.2006. Yorkstone is an appropriate material for the setting of the building, although early paving slabs are likely to have been larger.
External Signage	DETRACTS	Excessive number of signs, signs are uncoordinated and are generally not of high quality in terms of design and materials. Some signs repeat the same information (there are at least five advising that CCTV is in operation), some signs are poorly maintained and fixed without consideration to appearance.

Fig. 101 East front showing signs on the railings, 2024

Fig. 102 Movable sign with opening times, 2024

Fig. 103 Movable sign against north wall, 2024

Fig. 104 Sign fixed to railings., 2024

Fig. 105 One of many CCTV warning signs, 2024

Fig. 106 Award signs, 2024

Fig. 107 Back of award signs, 2024

Fig. 108 Crude fixings to CoL sign, 2024

Fig. 109 Paper sign stuck to entrance door glazing, 2024

Fig. 110 19th century boundary marker

4.1 INTRODUCTION – PURPOSE AND APPROACH

4.1.1 Introduction

This section of the plan identifies the ways in which day-to-day operations, or any alteration, development or new work, might lead to the core significance of The Monument being vulnerable in any way.

Following each section are policies that will be put in place to:

- to protect the significance of the asset and where possible enhance it
- as a basis for making decisions
- to provide a comprehensive framework for the sustainable management of the site

This chapter is based on the values set out in the Statement of Significance. It takes each area of significance in turn and looks at how that might be at risk or vulnerable. This ensures that the policies in the plan are firmly grounded in identifying what needs to be done to look after the significance of The Monument.

4.1.2 Summary of Issues

The immediate issue affecting the building and its setting, and their vulnerability is the great number of visitors to the building which was not designed to accommodate so many visitors. This has consequences in terms of visitor experience, damage and wear to the fabric of the building, the risk of 'over development' of facilities for visitors and the management of visitors, repairs and maintenance. Other issues contributing significantly to the overall quality and effect are management and comfort of visitors in Monument Yard: seating, interpretation, access and buying of tickets, and the continual changes to the wider setting of The Monument within the City Corporation.

4.1.3 Policies achieved from CMP 2014:

- Provision of drinking water point to the north of pavilion
- Reduction of anti-social behaviour i.e. graffiti and vandalism, spitting and throwing objects from Viewing Platform
- Replacement of Attendant's chair.

4.1.4 Summary of Condition

Structural Condition Survey summary

- The flaming orb area has minor corrosion to iron structural straps inside the Drum dome and a hole in the copperwork.
- The viewing platform (observation deck) has cracking at the base of the railings; inspection of the slabs is recommended, and a repair and stabilisation scheme developed once the causes are better understood.
- The steps have cracks evident in stonework around the base of some balusters and regular crack monitoring is recommended.
- A thin metal strap has been fixed to the stair balusters, which currently appears to be stable.
- Balustrade strengthening details were proposed 2016 are still recommended by the structural engineers.

Architectural Condition Survey summary

- The exterior stonework is in good condition except for a weathering roll-moulding at the top of the column plinth which is cracking and friable; immediate action is recommended. *Post Survey note: CoL officers carried out an inspection in November 2024 which did not reveal any major/serious defects with the stonework.*
- The hardwood doors and bronze casements are generally in good condition, with minor damage to ironmongery.
- Internally, the previous condensation problems within the stairwell appear to be greatly reduced, likely with the installation of casement windows, trace heating and absorbent stone finishes.
- A concern is the extent of damp in the basement and the current blocking of ventilation routes, accelerating decay to the masonry.
- Within the stairwell, local repairs are needed to the oak handrail.
- Interior decoration is in poorer condition in the most inaccessible places, such as the timber enclosure at the top of the stairs, but at lower levels is in reasonably good condition.
- The condition of fixtures in the entrance foyer has deteriorated and the number of fittings increased, to the detriment of the historic interior.
- Electrical services have been added or altered since the 2016 condition inspection, which are individually reviewed and are not all considered to be improvements to those they replaced.
- Statutory inspections are regularly undertaken although the latest lightning protection inspection notes repair work is required.
- Externally, the railings have local paint damage, and the paving drainage routes appear blocked.

The Pavilion in Monument Yard

- The Pavilion is in poor condition and a detailed scope of repairs and alterations to provide adequate facilities, is recommended.

4.2 APPROACH AND ADOPTION

4.2.1 Sustaining the Significance of the Site

Discussion

The fundamental requirement of any Conservation Plan is to provide policies that will inform decisions in such a way that the cultural significance of the heritage asset is always protected or enhanced.

Policy

PA1. Sustain the cultural significance of the site, maintain and enhance its distinctive character and its 'sense of place'.

4.2.2 Unified Approach

Risk

Without the many decisions affecting The Monument site being taken in a unified and co-ordinated manner, the sustainable, long-term future and cultural significance of The Monument is at risk.

Opportunity

For the bodies making decisions that may affect the site to appreciate the significance and importance of The Monument and Monument Yard and work towards the implementation of their policies and projects in a unified and co-ordinated manner. This can be achieved in part by recognition from the statutory authorities of the Conservation Plan as the principal document for informing the future of The Monument.

Discussion

The Site is located within central London and is affected by decisions taken by a number of bodies, such as the City of London, central and local government departments, agencies, and other statutory bodies. Decisions range from changes to development planning within the site's setting, such as the future City Plan 2040 and the next London plan, and alterations to traffic management and provision of public transport services, funding and national promotion.

Policy

PA2. Promote the need for a unified approach by bodies with responsibilities for making decisions that may affect the cultural significance of The Monument.

4.2.3 CMP Adoption and Review

- Without high-level endorsement and a collective responsibility for ensuring the plan is used, policies may not be implemented effectively.
- If it is not regularly reviewed and updated the plan will quickly go out of date, undermining the relevance of the policies and the plan's credibility as a source of information

Opportunity

- To ensure the actions and policies in the CMP and accompanying reports are carried forward.

Discussion

This CMP has been commissioned by the City of London Corporation to provide guidance and support for the on-going management and maintenance of The Monument. A Condition Survey, Structural Survey and Maintenance & Management Plan have been carried out to support the CMP

Policies

PA3. The Conservation Management Plan will be formally adopted by the City Corporation as one of the principal sources of guidance in the management and maintenance of The Monument.

PA4. The Conservation Management Plan should be reviewed periodically by the City Corporation, at intervals of no more than five years.

PA5. Report the CMP to relevant Committees and assign responsibility for management of The Monument to a Senior Responsible Officer within the City Corporation.

4.3 REPAIRS AND NEW WORKS

4.3.1 Statutory Consents

Risk

Repairs and alterations being undertaken without statutory consents, affecting the significance of The Monument

Discussion

The Monument is a Scheduled Monument and Grade I listed building

- SMC is the older legislation and hence LBC not required for works
- Planning permission may be required for external works such as changes / additions of lighting and signage etc to The Monument.

Policy

PA6. The City Corporation will consult with Historic England and the Planning Department to ensure both cyclical maintenance and new works take place in a timely manner and with all the necessary consents.

4.3.2 The Effect of Visitors on the Physical Fabric

Risk

Damage to the physical fabric

Opportunity

Consider the heavy wear and tear to the fabric when specifying repairs; restrict sizes of objects/bags that visitors take up The Monument.

Discussion

The Monument was not designed to accommodate as many visitors as the building now receives, or to meet current standards for health & safety and access. The level of wear and tear to the fabric generally relates to the number of visitors to The Monument and visitors carrying objects and bags. The fire risk assessment currently limits visitor numbers to 32 at any one time.

Policy

PA7. Restrict objects/bags that visitors take up The Monument and ensure interior repairs and alterations are hard-wearing.

4.3.3 Condition Inspection & Maintenance Plan

Risk

A poorly maintained historic building and public visitor attraction.

Opportunity

To maintain The Monument in good order and undertake periodic inspections.

Discussion

A Condition Inspection report and Maintenance Plan have been prepared as part of The Monument Conservation Management Plan. The City Surveyor is responsible for the maintenance of The Monument and for keeping a log recording maintenance work undertaken.

Policy

PA8. The City Corporation will enact the recommendations of the Condition Survey and Maintenance Plan subject to funding.

4.3.4 Scaffolding Access for Repairs & Conservation

Risk

Damage to historic fabric from temporary access arrangements.

Opportunity

Damage to historic fabric can be avoided by careful design of temporary access and scaffolding.

Discussion

The lower level of The Monument exterior can be accessed by MEWP (Mobile Elevating Work Platform), whereas access to most of the exterior is only available by scaffolding The Monument.
During the 2007-209 repair contract, scaffolding was designed using the mass of the column to restrain the scaffold so that the scaffolding abutted the column without fixing to it. To keep wind resistance to acceptable levels, only the lowest third of the scaffold could be sheeted, and of the scaffold lifts, only every third lift could be boarded at any one time. The entire Monument has historically been scaffolded approximately every 80 years due to the difficulty and expense, this should be taken into consideration when specifying works that need scaffold access.
Historic England guidance on Scaffolding in the Historic Environment due to be published shortly.

Policy

PA9. Avoid fixing temporary access scaffolding to the historic fabric and consider the ease of access and longevity of repairs and new work

4.3.5 Repairs

Risk

Delays in repairs to minor damage can lead to further deterioration of the fabric.

Opportunity

Minor repairs will be necessary to ensure The Monument is well presented.

Discussion

Note that even minor repairs may need consent, although a Management Agreement with Historic England would be a suitable way to cover this. Undertake internal repairs when The Monument is closed to the public, due to the restricted space inside the building.

Policy

PA10. Make good damage using appropriate materials and skills as soon as the need for repair is evident.

4.3.6 Retention of Original Fabric and Wear Patterns

Risk

Loss of patination, wear marks, carving detail and finishes.

Opportunity

To conserve the evidence of the great age of the building and the centuries of public use.

Discussion

Retain all original material of cultural significance, giving particular attention to surviving masons tooling patterns on the stonework and sculptural expressions of the very finest work in the relief carving of the Caius Cibber panel. Avoid over-cleaning and damaging fragile original stone surfaces and preserve ancient, incised graffiti. Retain as far as possible the wear patterns of thousands of visitors over hundreds of years. Preserve old paintwork and encapsulate it in modern protective finishes in public areas. In the 2007-2009 repair contract old gilding to the flaming orb was overlaid with new protective gold leaf layers to resist the weathering of the future.

Policy

PA11. Retain original fabric and wear patterns.

4.3.7 Reducing the Rate of Deterioration

Risk

Deterioration and loss of historic fabric over time.

Opportunity

To slow the rate of deterioration of the historic fabric with interventions.

Discussion

It may be appropriate to make alterations to the fabric to reduce the rate of deterioration of the fabric. For example, in the 2007-2009 two interventions were designed to reduce the rate of deterioration of the historic fabric. New bespoke bronze casements were fixed into the existing rebates of the slot window openings to control the humidity levels within the column shaft. Also, the flat stone top of the base of the column was not adequately shedding water, which led to saturation of the stonework, the stonework was allowed to dry and was painted with a stone-coloured, breathable polymer membrane, Belzona, for protection.

Policy

PA12. Alterations to the fabric may be appropriate to reduce the rate of deterioration of the fabric.

4.3.8 When to take an Archaeological Approach

Risk

Damaging or obliterating changes to the building which have historical significance.

Opportunity

To retain changes to The Monument arising from important historical events.

Discussion

An archaeological approach is taken where alterations are of interest, overriding the architectural approach. There are two instances of overriding historic interest. The first relates to war damage, which, where it has not led to further deterioration has been retained, unrepaired. The second example relates to the north inscription panel on the base of the column, describing the destruction of the Great Fire and in the last line, added in 1681, blames Catholics for starting the fire: 'But Popish frenzy, which wrought such horrors, is not yet quenched'. The incised words were deleted in 1830 by crudely cutting out the incised lettering, leaving a damaged strip all along the bottom of the panel, which has been kept.
There are many other examples where later alterations have been retained and repaired, where they are of significant vintage, value or use. For example, the cast iron railings and gate to the east side of The Monument and the Victorian cast iron turnstiles.

Policy

PA13. Retain alterations or damage which have an overriding historic interest.

4.3.9 Appropriate Materials

Risk

Non-matching repair materials look poor and do not perform as the original materials.

Opportunity

Selection of materials to match the original is necessary for high quality long lasting repairs to original fabric.

Discussion

Unusual and scarce materials are required for the repair work at The Monument, such as Pooil Vaaish limestone and Purbeck stone. Allow for time to source and pre-order unusual materials and to design to the sizes available.

Policy

PA14. To repair the original fabric, select materials to match the original.

4.3.10 Appropriate Standards of Design & Workmanship

Risk

Damage to historic fabric from many different types of construction work.

Opportunity

Appointing appropriately qualified architects and contractors will greatly reduce the risk.

Discussion

Conservation work to The Monument should be designed and undertaken by architects, contractors and specialists experienced in high quality historic building conservation work. All parties should be carefully vetted and examples of their previous work presented to avoid damage to historic fabric from construction work such as over cleaning, excessive repairs, inappropriate materials, poor design & stripping finishes.

Policy

PA15. For conservation work, use appropriate architects and contractors, qualified in historic building work.

4.3.11 Archaeological Recording

Risk

Lack of a good record of former works to inform decisions, leading to further opening-up works or uninformed decisions.

Opportunity

Maintaining and filing a good illustrated archaeological record.

Discussion

Where original fabric is to be replaced or opening-up works are undertaken, the historic fabric should be recorded using photographs and drawings, for example, when lifting the concrete floor slab, an archaeological record was made of the remains of the historic stone floor beneath before a new Purbeck stone pavement was laid over.

Policy

PA16. Record the historic fabric using photographs and drawings during alterations.

4.3.12 The Long-Term View

Risk

Undertaking works in the short-term interest of decision makers, rather than the long-term interest of the building.

Opportunity

Opportunities taken for pre-contract research, surveys & site trials, bring long term benefits.

Discussion

Works to a historic building should be undertaken in the best long-term interest of the building and to avoid detrimental works to the building in the short-term interest of a particular client. A long-term approach involves really understanding the building through research, surveys, site trials and tests before works are undertaken.

Policy

PA17. Understand the building through research, surveys, site trials before undertaking major repairs or alterations.

4.3.13 New works

Risk

New works detract from the enjoyment of the heritage.

Opportunity

An ambition is for visitors to enjoy the design, materials and craftsmanship of the necessary interventions.

Discussion

Where new work is required at The Monument for structural reasons and to provide facilities for the safety of visitors, this is to be of high-quality design and materials, unobtrusive and providing clever, attractive solutions, specific to the building. Ideally new work is designed to be reversible so it can be removed in the future without leaving damage to the historic fabric, particularly as new work is often not intended to have a very long lifespan in comparison to the historic building, for example, services and technology.

Design ducts and conduits for services to allow cables & pipes within them to be replaced, with minimum disturbance to the fabric. The stainless-steel curved conduits beneath the spiral staircase are an example of this. Note for proposed new works, pre-application engagement with Historic England is advisable as well as consultation with Planning Department.

Policy

PA18. New works should be of high-quality design, appropriate materials and quality workmanship, ideally reversible and easy to replace in the future

4.4 MAINTENANCE

4.4.1 Condensation

Risk

Condensation on steps, leading to slippery steps and rusting of iron balusters.

Opportunity

Further control of condensation issues through heating and ventilation.

Discussion

Condensation has previously been a problem in The Monument. Recommendations to reduce condensation have been effective (breathable paint to stonework, installation of openable windows, local heating at low level).

Policy

PA19. Seek opportunities to record condensation issues and environmental conditions to establish how site operatives can best control the condensation through ventilation and heating.

4.4.2 Anti-Social Behaviour

Risk

Damage to the fabric or harm to visitors.

Opportunity

Deterring anti-social behaviour.

Discussion

No anti-social behaviour such as graffiti, vandalism, spitting and visitors throwing objects from the viewing platform has recently been reported.

Policy

PA20. Quickly remove / overpaint graffiti and monitor through by CCTV.

4.4.3 Interior Signage

Risk

Duplicate interior signs or poor-quality signs.

Opportunity

A regular review of signs to ensure their relevance and good condition.

Discussion

Hand painted signs on timber backboards have been specially made for The Monument interior with information and instructions for visitors. A large hand painted timber sign board is fixed onto the west side of The Monument giving a summary of the history of The Monument. Prior to the installation of hand painted signs, unsightly printed paper signs were stuck to the walls, cupboard doors and entrance door, which detracted from the building.

Policy

PA21. Ensure the hand painted signs are kept in good condition and are repainted when their condition deteriorates. Avoid printed paper signs.

4.5 MANAGEMENT & STAFFING

4.5.1 City of London Management

Risk

Lack of co-ordination between different departments with responsibilities for The Monument.

Opportunity

Cross-departmental coordination.

Discussion

Different departments, based in different locations are responsible for The Monument, its operations and maintenance.

Policy

PA22. The City Corporation should explore opportunities to create a database used by all parties, encourage cross-departmental coordination and establish liaison meetings.

4.5.2 Staff Welfare Facilities

Risk

The Pavilion is not considered fit for purpose and detracts from the significance of The Monument's setting.

Opportunity

Review the use requirements, purpose and suitability of the Pavilion.

Discussion

The ground floor of The Monument is a place of work for the attendants, cleaning and maintenance staff.
A single storey pavilion has been built in Monument Yard to provide facilities for staff working at The Monument. The Pavilion building detracts from the significance of The Monument's setting.
Tower Bridge officers reported that the Pavilion is not suitable for the multi-use purpose as a staff welfare area, storage facility and secure space for cash. Issues particularly with use by multi staff of different sexes concurrently. Insufficient space to store all operation equipment needed to run visitor attraction. The accessible toilet has not been in use for some time.

Policy

PA23. The City Corporation will explore opportunities to review the use requirements, purpose and suitability of the Pavilion, and whether alternatives, which are more suitable for the welfare/management needs of the site and less harmful to The Monument, can be identified.

4.6 ACCESS & VISITOR EXPERIENCE

4.6.1 An Inclusive Approach

Risk

Restricting the opportunity for all to appreciation The Monument's significance.

Opportunity

To encourage greater inclusion of a range of people in different ways.

Discussion

Encouraging greater inclusion of a range of people in different ways includes thinking about neurodivergent people and the potential for sensory overload, or people experiencing fatigue. It relates to The Monument itself, the Pavilion and its surroundings.

Policy

PA24. Consider the needs of all the community in provision of facilities and events.

4.6.2 Disabled Access

Risk

Restricted access to the interior of The Monument and to views from the viewing platform.

Opportunity

To provide information in different formats which are more inclusive of a greater range of people.

Systems such as Navilens can make website information more accessible to people with vision impairments.

Discussion

To provide information in different formats which are more inclusive of a greater range of people.

The Navilens Go app is a free app that helps sighted users navigate and access information using multi-coloured QR-style codes.

Policy

PA25. Review what measures could improve access for a greater range of people including disabled and neurodivergent people.

4.6.3 Restricting Visitor Numbers

Risk

Visitor numbers, at any one-time, exceeding Fire Risk Assessment limit.

Opportunity

Technology

Discussion

Numbers of visitors to The Monument are restricted to 33 at any one time, (source: The Monument & Pavilion. Risk Rating Matrix January 2024 by City Bridge Foundation, Operations Manager). The limit on numbers at 33 is primarily due to fire escape restrictions, but also the effect of too many people on the physical fabric, and visitor enjoyment. Attendants therefore must count-in and count-out the visitors to ensure there are no more than 33 in the building.

The turnstile gates have been temporarily removed, so visitors no longer enter and exit one at a time and turnstile counters no longer count visitors in and out.

Policy

PA26. Explore new and discreet technologies to count visitors in and out, such as automated visitor counters.

4.6.4 Visitors Bags

Risk

- Dampness in the cellar vault and damage to stonework from blocking the historic ventilation grille with bags.
- The bag store is detrimental to the significance of the historic interior and to the principal view down the helical staircase.

Opportunity

Relocation of the bag store would allow natural ventilation through the cellar vault and restore the historic view down the helical stair.

Discussion

Visitors may only bring small bags into The Monument due to the very restricted access up and down the spiral staircase and on the viewing platform. There is limited space to store bags at ground floor level or visitors may leave their bags outside at their own risk.

Policy

PA27. Consider alternative locations to store visitors' bags and review implications of bag storage for people with a range of impairments.

4.6.5 Selling Tickets

Risk

- The area for ticket purchase is very confined, causing a bottle neck of visitors at the entrance.
- Cash is held on site, which poses a security risk.
- Two attendants are required on site during the selling of tickets for security reasons.

Opportunity

To sell tickets remotely.

Discussion

Tickets are sold in The Monument entrance lobby by an attendant.
Tickets to visit The Monument are not sold from ticket machines or on-line, except as part of a multiple London Attractions ticket scheme, the London Pass.
Data & power supplies exist from The Monument to a location in Monument Yard for possible future ticket machines.
For inclusivity, ensure that any website-based system is accessible, and alternative options are still available.

Policy

PA28. The City Corporation will explore alternative tickets solutions such as becoming cashless and/or option to buy online.

4.6.6 Information Available to the Public: Websites

Risk

- Having two websites maybe confusing to the public
- Occasional web site glitches

Opportunity

Either a single, fully operational website, or two websites both showing accurate information

Discussion

There are two main websites providing information about The Monument.

The official website for The Monument is the City of London website:
https://www.themonument.org.uk

An alternative website by Harris Digital
https://www.themonument.info/
includes information on the major restoration contract and (inaccurate?) information regarding the Panoramic Camera System.

Policy

PA29. The City Corporation will only publicise the official website.

4.6.7 The Monument Educational Activities

Risk

- Keeping educational resources up to date
- Inadequate arrangements for disabled school visitors

Opportunity

- To provide educational resources on The Monument
- To enable visits by school parties including for those who have mobility impairments or sensory and/or information processing differences.

Discussion

- The Great Fire of London is covered at various Key Stages in the National Curriculum; the location and commemorative context of The Monument is therefore relevant. KS1 resources are available to download on the website.
- School visits can be booked by phone or email to Tower Bridge Bookings team, for Monday to Thursday between 10am-11.30am in UK term time. Details are on the website.

Policies

PA30. Ensure the continued provision of educational resources on The Monument.

PA31. Review the arrangements for disabled school visitors and the assessment process regarding equitable provision.

4.6.8 Seating in Monument Yard

Risk

Inadequate provision of a range of seating.

Opportunity

Seating would ideally be at a range of heights, allow for a wheelchair user to transfer and also include back and arm rests, with options for left- and right-hand transfer. Single and grouped, and facing seats would give people the choice of sitting in groups, or separately.

Discussion

The timber bench which was located against the north elevation of the Monument in 2016, has been removed
There are many visitors to The Monument who do not go into building and climb the stairs to the viewing platform. Some visitors wait at the base for their companions to climb to the viewing platform.
At the east end of Monument Yard, not immediately adjacent to The Monument, are two timber seats with arms, and an Installation of long stone blocks for use as seating.

Policy

PA32. The City Corporation will consider future opportunities to review the seating provision and inclusive design, both with the yard and at the base of The Monument.

Fig. 111 Seating in Monument Yard, Google 2022

4.6.9 Access to the Exterior of The Monument

Risk

Obstructing the view and appreciation of The Monument from Monument Yard.

Opportunity

Encourage visitors into Monument Yard.

Discussion

The Monument may be viewed and appreciated from Monument Yard.

Policy

PA33. Avoid any permanent obstruction of access to The Monument, both physically and visually, from the surrounding area.

4.6.10 Access into The Monument Foyer & Viewing Platform

Risk

Access restrictions due to limited space and steps.

Opportunity

Visual stories

Discussion

Two sandstone steps lead up to the pair of entrance doors and access to the viewing platform is only available to those able to climb 311 continual spiral steps.
The limited space inside the building is part of the visitor experience of the historic monument.
Preview information for visitors is an important part of making it more inclusive, particularly for people with information and/or sensory processing differences.

Policy

PA34. The City Corporation will consider exploring options to ensure all visitors are informed of the access restrictions, limited space and number of steps.

4.6.11 Turnstiles

Risk

- Turnstiles were partly removed without formal consent
- Reinstatement of turnstile parts may risk restricting speed of escape

Opportunity

There may be scope for reducing the length of the central railing to the turnstiles to increase the width of historic openings.

Discussion

The pair of cast-iron turnstiles were installed in 1891. The mechanism was in good working order until the central barrier and the projecting arms of the gates were temporarily removed c.2010. It is understood that the removed components are stored safely in Tower Bridge.
To permanently remove the gates would require Scheduled Monument Consent as the turnstiles are a fixture. There may be scope for reducing the length of the central railing to the turnstiles to increase the width of historic openings, whilst the gates are in situ; this may also require Scheduled Monument Consent.

Policy

PA35. The City Corporation will agree the outcome for the turnstiles and regularise consents as need.

4.6.12 Access Audit Report 2004

Risk

Access Audit Report 2004 is out of date.

Opportunity

Updating the Access Audit and including issues of neurodiversity.
In line with PAS 6463: Design for the Mind.

Discussion

The most recent Access Audit report dated 2004 informed the brief for the 2007-2009 Monument major repair contract and suggested non-physical access improvements to management.
The following recommended improvements were not made in 2009:

- Black limestone steps and landings: contrasting nosings & level-change warnings; reason: extremely intrusive and damaging historic fabric.
- Stair handrail to both sides of the flight; reason: reduces the effective width of stair and major intervention into the historic interior.

The following recommended improvements are still relevant in 2024:

- Remove sign over the glazing to the entrance door.
- Installation of Hearing Induction Loop.
- Improvements to lighting on the steps, currently causing glare
- New guidance: PAS 6463: Design for the Mind, is relevant.

Policy

PA36. The City Corporation will consider updating the 2004 Access Audit and reviewing access improvements recommended.

4.6.13 Remote Access to Views from the Viewing Platform

Risk

- Existing, highly visible, disused panoramic camera system detracts from The Monument's significance.
- No remote access is available to views from the viewing platform.

Opportunity

- Enhance The Monument's significance with removal of the redundant panoramic camera system.
- Consider providing a simpler and less obtrusive camera system.

Discussion

During the 2007-2009 repair contract planning consent was granted for a temporary installation to be fixed above the urn of the flaming orb comprising a camera, lens, casing, weather station and steel support frame; basement computer equipment, Cat 6 connecting cable.

The installation, operational between Feb 2009 and Aug 2011, provided a live stream of continually modified time-lapse images from the top of The Monument 24 hours a day, 7 days per week accessed via a dedicated web site. The installation is now disused, the temporary planning consent has lapsed and the installation detracts from the historic profile of The Monument.

The installation can either be removed or replaced, with the associated permissions being sought; removal may require minor making good of historic fabric at fixings.

Policy

PA37. The City Corporation will explore solutions for the disused panoramic camera and weather station and associated equipment and consider providing a simpler and less obtrusive system.

Fig. 112 Installation of the temporary camera, casing, weather station and steel support frame, 2008

Fig. 113 Camera image trough conical lens 2008

Fig. 114 Computer equipment & Cat 6 cables in the circular basement.

4.7 EVENTS

4.7.1 Evening Events

Risk

- Planning consent may be required
- Possible risk to the fabric

Opportunity

- To raise the profile of The Monument, visitor enjoyment and increased revenue.
- Fireworks displays and Laser displays.

Discussion

- The Monument is currently open to the public daily, except 24th to 26th of December, from 9:30 till 13:00 and 14:00 till 18:00. Last entry is at 12:30 and 17:30. On certain occasions when The Monument cannot be opened, there will be an alert on the website.
- Changes of use would require planning permission; it would be prudent to seek pre-application advice from the City's Planning Department to explore what might or might not be possible. Historic England would wish to be involved in a discussion over events and are not opposed to events in principle, if there is low risk to the fabric. It is something which could be included in a management agreement.
- In 2009, The World Famous fireworks co. prepared designs for a pyrotechnics and flame display from The Monument, for celebration and commemoration occasions. Bespoke equipment was designed for safe rigging of the pyrotechnics.
- A less expensive alternative is a laser display. Four 16-amp exterior grade power points have been provided for laser projectors to be hired for a laser display of horizontal laser beams projected centrally from all sides of the viewing platform. LM Productions Laser Display feasibility study 2009.

Policy

PA38. The City Corporation will consider use of The Monument and Yard for weekend / evening events and small private hires.

4.8 HEALTH & SAFETY

4.8.1 Health & Safety

Risk

Health & Safety

Opportunity

Staff trained in relevant Health & Safety issues.

Discussion

The Monument receives many public visitors and climbing the 311 steps to the viewing platform is quite a challenge for some. The form of the building is unusual and difficult for access by the emergency services; when contacting the emergency services, attendants should provide information necessary about the unusual form of the building.

Policy

PA39. Monument attendants to have appropriate health & safety training.

4.8.2 Health & Safety Certification

Risk

Health & Safety

Opportunity

Compliance with Health & Safety regulations.

Discussion

There are statutory requirements for Health and Safety Certification for public accessible buildings.

Policy

PA40. Ensure H&S certificates and assessments are carried out and undertake the recommended actions, promptly.

4.9 SERVICES

4.9.1 Exterior floodlighting

Risk

No exterior lighting to enhance the top of The Monument, or a poor-quality lighting design.

Opportunity

An architectural lighting scheme for the top of The Monument.

Discussion

Prior to the 2007-2009 repair contract, the exterior of The Monument was floodlit from floodlights located on different buildings around The Monument. Floodlights were located on: Regis House, Fish Hill Street; Centurion House, 24 Monument Street; 11-19 Monument Street.

Policy

PA41. Consider floodlighting the exterior of The Monument with floodlights located on surrounding buildings, to have licence agreements with owners of these properties and to keep the floodlights maintained and working.

Fig. 115 Viewing platform LED rope light, 2024

4.9.2 Lighting at Viewing Platform Level

Risk

Retaining the current inadequate temporary lighting arrangement, without planning consent.

Opportunity

Upgrading the existing lighting with a consented architectural lighting proposal.

Discussion

In the 2007-2009 repair contract, power supplies were installed to each external corner of the viewing platform to supply future low-level external light fittings in each corner. Light Bureau in collaboration with Mike Stoane, lighting designer, prepared preliminary designs for light fittings. Issues are protection of lights from accidental damage and vandalism. The City of London Planning Department have advised that external light on the viewing platform would require planning consent.

Policy

PA42. The City Corporation to consider implementing a consented architectural lighting design, to replace the existing temporary light fittings.

Fig. 116 Viewing platform temporary spotlight, 2024

Fig. 117 LED rope to underside of balustrade handrail, 2018

Fig. 118 Light Bureau's lighting design image, 2009

4.9.3 Services and Sustainability

Risk

Harm to the significance of the historic interior through poorly designed new or replacement services.

Opportunity

To scrutinise and comment on proposed design of new or replacement services, through the consent process.

Discussion

It can prove challenging to meet modern services requirements in buildings that were designed before central heating and electricity.
The Monument is not heated throughout; local electric heaters are provided at the Entrance Foyer, primarily for the comfort of the staff.
Consider sustainability when designing new lighting.

Policy

PA43. Design and install new or renewed services to cause minimal harm to significant interiors and historic fabric.

4.10 SUSTAINABILITY

4.10.1 Environmental Sustainability

Risk

Wasteful use of resources

Opportunity

Environmental sustainability

Discussion

Sustainability can, at its simplest level, be defined as an approach that meets the needs of the present without compromising the needs of the future.

With respect to The Monument, aim to ensure that all works, activities and events at the site are as environmentally sustainable as possible and that the use of resources, including energy, and the disposal of waste at the site, are similarly sustainable, with e.g. use of energy saving measures and materials obtained from sustainable sources.

Policy

PA44. Encourage that all uses, activities and developments within the site are undertaken in a sustainable manner.

4.11 RECORDS MANAGEMENT

4.11.1 Repair and Maintenance Documents, Surveys and Records

Risk

Documents not readily accessible or held by the correct departments

Opportunity

A complete set of relevant documents, readily available to the appropriate departments.

Discussion

Recent documentation in connection with maintenance and repairs is held at The City Surveyor, City of London, PO Box 270, Guildhall, EC2P 2EJ.
Copies of reports relating to anything that required consent should be sent to Historic England for their files.

Policy

PA45. Keep the current and recent files and information safe, clearly labelled and filed for ease of use.

4.12 INTERPRETATION

4.12.1 Great Fire of London Self-Guided Walk

Risk

Not making full use of available technology for interpretation.

Opportunity

Self-guided walks about the Great Fire and The Monument.

Discussion

A self-guided walk leaflet is available from:
https://www.cityoflondon.gov.uk/things-to-do/walks-and-itineraries/self-guided-walks-and-trails/the-great-fire-of-london
Previously a multimedia walking tour exploring the history of the Great Fire of London could be downloaded onto a smartphone. This appears to be no longer available.

Policy

PA46. Consider providing a Monument Guide, or Fire of London Guide that can be downloaded onto a smartphone.

4.12.2 Digital Measured Survey 2006

Risk

Not making use of the 3D survey commissioned c.2006, for interpretation.

Opportunity

A simulated walk-through computer-generated visitor experience.

Discussion

A detailed digital measured survey of the exterior and interior of The Monument was prepared by The Downland Partnership in 2006, prior to the 2007-2009 contract works.
The 3-dimensional format should enable the survey to be used by the Corporation of London for presentation and publicity purposes, for example, for simulated walk-through computer-generated visitor experiences. However, the 3D survey material has not yet been used and this is thought to be due to the large file sizes.
The measured survey is of the building before the alterations made in 2009.

Policy

PA47. Consider updating the measured survey and explore using the 3D computer model of The Monument for interpretation purposes.

4.12.3 Information & Souvenirs available in The Monument

Risk

No information about The Monument is offered for sale at The Monument.

Opportunity

A souvenir guidebook, (similar to Tower Bridge souvenir guidebook), for sale at other City of London outlets.

Discussion

Items for sale in The Monument are postcards, magnets & keyrings. A guidebook about The Monument may enhance the visitor's experience but there is unlikely to be sufficient space to sell a guidebook in The Monument. It may be possible to sell a Monument guidebook at the Tower Bridge shop or the City of London Information Centre.

There is no explanation of the views from the viewing platform, but it may detract from the experience of the historic building at viewing platform level to have interpretation of the views available as notices or etched into the handrails.

Policy

PA48. Consider exploring the viability of a souvenir guidebook of The Monument and its sale from other City of London outlets.

The opportunities identified in Section 4 lead to key actions which would improve the condition, appearance, amenity and management of the Monument.

The table in this section identifies these key actions, together with a level of urgency (essential, advisable, desirable).

WORK REQUIRED	RELEVANT POLICIES AND ACTIONS	DESCRIPTION	APPROX. COST	URGENCY
1. Statutory Consents	PA6, PA35, PA37, PA42	Regularise the position on statutory consents in relation to temporary works undertaken and obtain necessary consents for proposed works.		Essential
2. Essential Management & Maintenance	PA1, PA2, PA4, PA5, PA6, PA7 PA8, PA15, PA19, PA20, PA21, PA22, PA23, PA26, PA45	Using the CMP as a guide, undertake the essential management and maintenance tasks outlined in the Management and Maintenance Plan (volume 3) to ensure the safety and condition of the building.		Essential
3. Conservation Work	PA7, PA9, PA10, PA11, PA12, PA13, PA14, PA16, PA17, PA18, PA43, PA44	Carry out the A (urgent/immediate) and B (within 12 months) priority actions identified in the Condition Survey to ensure the good condition of the building.	£7,300	Essential
4. Improved Visitor Experience and Site Appearance	PA24, PA25, PA27, PA28, PA29, PA30, PA31, PA32, PA33, PA34, PA38, PA41, PA42, PA46, PA47, PA48.	Proposed aspirations for the next 5-10 years are to enhance The Monument and how it is experienced. All are subject to the appropriate programming for funding and resources, and consultation with the relevant stakeholders. • Review of lighting provision schemes • Proposals for improved accessibility • Improved interpretation and information resources • Review of visitor centre/staff area • Review of external seating provision		Advisable
5. Accessibility Audit	PA36	Update the 2004 Access Audit to take account of alterations made in 2009, including reviewing reuse of the turnstiles, displaying the views remotely and the efficacy of an induction loop or vibrating fire alarms in this setting. Include The Pavilion in the Access Audit. Options should fully assess access issues and potential solutions, and be reviewed for the impact they have on the heritage significance of The Monument to ensure the benefit outweighs any potential harm.		Advisable
6. Health & Safety	PA39, PA40	Ensure staff have appropriate training, adequate staff facilities are provided, and statutory inspections and certification are undertaken and acted upon		Essential
7. Management Agreement		Establish Management Agreement with Historic England		Essential / Advisable

SOURCES OF INFORMATION

CMP 2016 by Julian Harrap Architects LLP

The Monument Major Repair Contract 2007-2009 information from Julian Harrap Architects

Monument Historical Documentation by Dr Wendy Hitchmough 1991

The Monument Setting, research by Dr Oliver Bradbury for Julian Harrap Architects

Julian Harrap Architects site inspections 2024

Conservation Plan, Smithfield Market by City of London

https://www.themonument.org.uk/history

https://www.themonument.info/history/design.html

London Picture Archive, Guildhall Library Aldermanbury, London EC2V 5AF

Bere Architects drawings 2005

https://bere.co.uk/architecture/monument-pavilion/

http://news.bbc.co.uk/1/hi/england/london/6314929.stm

City Surveyor Department, City of London Corporation

City of London Workshop 1 for The Monument CMP

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JULIAN HARRAP

ARCHITECTS LLP

THE MONUMENT TO THE GREAT FIRE OF LONDON

VOLUME II: QUINQUENNIAL INSPECTION SURVEY

MARCH 2025

Judy Allen / Sarah Tsang
On behalf of Julian Harrap Architects LLP®
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CITY OF LONDON

JULIAN HARRAP
ARCHITECTS LLP

USING THE DOCUMENT

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Clicking on this button on the top right corner will return to the contents page.

CONTENTS

City Corporation	City of London Corporation
CMP	Conservation Management Plan
CS	City Surveyors
FM	Facilities Management
HE	Historic England
HES	Heritage Estate Section
JHA	Julian Harrap Architects LLP
LVMF	London View Management Framework
MMP	Management and Maintenance Plan
NE	Natural Environment
OPS	Operations Division
PD	Planning Department
TB	Tower Bridge

1.1 AIMS OF THE REPORT

The principal aim of the quinquennial inspection is to assess the overall condition of the building and identify defects and potential problems which should be further considered. In addition, the inspection report identifies where fittings or elements are inappropriate to the status of the Grade I Listed Building.

The City of London has a responsibility to ensure that regular inspections and maintenance are carried out. The quinquennial survey forms part of the programme of regular inspections, to give an overview and identify future measures necessary to secure the soundness of the building fabric.

The Monument is a seventeenth century building of international importance, which is used as a visitor attraction receiving over 100,000 visitors per year. The building was not designed to accommodate so many visitors; the great number of visitors has consequences in terms of the visitor experience, damage and wear to the fabric of the building, the risk of 'over development' of facilities for visitors and the management of visitors, repairs and maintenance.

It is essential that the historic building fabric is maintained in good order, both to fulfil the City of London's obligations to keep the grade I listed building and Scheduled Ancient Monument, wind and weather tight, and for the safety and enjoyment of the visiting public.

1.2 RECENT BACKGROUND TO THE REPORT

The Monument was closed to the public from July 2007 to February 2009 for a major repair contract, following several years of careful preparation, monitoring, opening-up works and trials.

On completion of the contract, the building was in good condition and well presented to the public.

In 2016 the first Quinquennial Survey Inspection was carried out since the major repair contract of 2007-2009.
This is the second Quinquennial Survey Inspection report since the major repair contract.

1.3 SCOPE OF THE CONDITION INSPECTION REPORT

This report has been prepared following inspections of the Monument undertaken in July and August 2024.

The report is principally a visual record of finishes, materials and methods of construction where identifiable; an assessment of their condition and any present or potential future defects; comments on appearance where relevant and recommendations for maintenance and repair work.

1.4 LIMITATIONS OF THE CONDITION INSPECTION REPORT

Interiors have been visually inspected from the floor levels, to include the interior above viewing platform level and the basement. The external elevations have been inspected from ground level and from the viewing platform.

There are several areas which were not visible during the inspections. These have been identified within the body of the report and recommendations made accordingly.
Opening-up of concealed areas has not been carried out during the course of the inspections.
The recommendations which appear in the report identify defects and suggest possible causes and future necessary actions. However, the report should be read as a comment upon the overall condition of the property, and its construction. It is not an inventory of every single defect, nor does it attempt to quantify defects or provide a detailed specification for remedial work.

1.5 PLANNING AND SCHEDULED MONUMENT CONSENT ISSUES

1.5.1 Removal of Turnstiles

Prior to the 2007-2009 contract, Victorian cast iron turnstiles were fixed inside the entrance to the Monument, installed in 1891.
The turnstiles comprised a central barrier of seven circular iron balusters with a flat iron top rail, painted iron gates, one each side of the barrier, with brass digital counters, semicircular on plan with eleven balusters and flat iron top rail. The wrought-iron hoop gates were pegged in position and operated by a floor mounted ratchet mechanism. The mechanism was still in good working order.

Following the 2007-2009 repair contract, the central barrier and parts of the wrought-iron hoop gates were removed by the City Corporation on a temporary basis.
It is understood by JHA that these are safely stored at Tower Bridge in the diesel room. The permanent removal of these historic fixtures is likely to be a planning and Scheduled Monument Consent issue.

Fig. 1 c.1981 turnstiles reinstated in 2009, now partly removed, 2009

Fig. 2 Light Bureau's design drawing, 2008

1.5.2 Lighting on the Viewing Platform: 2008 Proposals & CoL Planning

External lighting was not included in the planning application for the 2007-2009 major repair contract.
In 2008 Julian Harrap Architects and lighting designers Light Bureau, were instructed to prepare designs for lighting on the viewing platform. These proposals were discussed with the planning authority to install lighting at the corners of the viewing platform in order to light the dome and flaming orb and reduce the visibility of the cage mesh. Detailed proposals were prepared by Light Bureau, fittings were designed by Mike Stoane lighting and mock-ups were undertaken on site, after dark. It was recorded that if light fittings were not visible, planning consent may not be required.

1.5.3 Exterior Lighting installed by CoL since 2009

A strip of LED lights has been fixed to the underside of the balustrade handrail on the viewing platform.
The new lighting performs none of the functions of the subtle lighting proposal discussed with the planners in 2008. The LED strip light source is directly visible from the ground, it highlights the balustrade handrail by causing glare from the underside; it harshly lights only the lowest part of the stone drum and does not light at all the dome and flaming orb. In the opinion of Julian Harrap Architects, it detracts from the appearance of the historic building.

1.5.4 Exterior Lighting installed since 2016

A temporary builder's spotlight is now located in the south-west corner of the viewing platform, fixed to the stainless-steel mesh inside the corner baluster with cable ties.

Fig. 3 Night photo balustrade glare, 2018

Fig. 4 & 5 Single uplighter, 2024

2.1 CONDITION OF THE EXTERNAL FABRIC

The structural condition survey focussed on three areas and recommends regular inspections and monitoring at specific time intervals. The flaming orb area has minor corrosion to iron structural straps inside the Drum dome and a hole in the copperwork. The viewing platform (observation deck) has cracking at the base of the railings; inspection of the slabs is recommended, and a repair and stabilisation scheme developed once the causes are better understood. The steps have cracks evident in stonework around the base of some balusters and regular crack monitoring is recommended. A thin metal strap has been fixed to the stair balusters, which currently appears to be stable. Balustrade strengthening details were proposed by Hockley & Dawson in 2016, which are still recommended by the structural engineers.

The architectural condition survey considers the exterior stonework to be in good condition except for a weathering roll-moulding at the top of the column plinth which is cracking and friable; immediate action is recommended. The hardwood doors and bronze casements are generally in good condition, with minor damage to ironmongery.

2.2 CONDITION OF THE INTERIORS

Internally, the previous condensation problems within the stairwell appear to be greatly reduced, likely with the installation of casement windows, trace heating and absorbent stone finishes. A concern is the extent of damp in the basement and the current blocking of ventilation routes, accelerating decay to the masonry.
Within the stairwell, local repairs are needed to the oak handrail. Interior decoration is in poorer condition in the most inaccessible places, such as the timber enclosure at the top of the stairs, but at lower levels is in reasonably good condition.

The condition of fixtures in the entrance foyer has deteriorated and the number of fittings increased, to the detriment of the historic interior.
Electrical services have been added or altered since the 2016 condition inspection, which are individually reviewed and are not all considered to be improvements to those they replaced.
Statutory inspections are regularly undertaken although the latest lightning protection inspection notes repair work is required.
Externally, the railings have local paint damage and the paving drainage routes appear blocked.

2.3 SUMMARY OF PRIORITY A + B OF RECOMMENDED WORKS

RECOMMENDATION	PRIORITY	COSTS
5.2B EXTERIOR STONEWORK: VIEWING PLATFORM OR ABACUS		
i) Structural engineer's condition survey	A	See Struc.Eng. Fees
5.3 THE FLAMING ORB		
i) Closer inspection of the hole would be required in order to better assess the condition.	B	£2,300
5.4 THE BALUSTRADE & CAGE		
ii) Regular inspections and maintenance for the cage & balustrade	B	£2,000
5.6 EXTERNAL TIMBER DOORS: PAIR OF HARDWOOD ENTRANCE DOORS AND FRAME		
i) Remove paper sign from glazing to entrance door.	A	Inc. in Staff Budget
5.8 WINDOWS		
ii) Clean chewing gum from windows described	A	Inc. in Staff Budget
6.3 GENERAL AREAS OF STONEWORK DAMP AND DECAY		
i) Avoid blocking up the ventilation grille at the apex of the basement vault which reduces ventilation of the basement and avoid blocking up the grilled opening at the top of the public spiral staircase, which reduces ventilation to the stonework of the interior above.	A	Inc. in Staff Budget
ii) Monitor damp within the ground floor interior stonework in different weather conditions.	B	Inc. in Staff Budget
iii) Measure damp in interior walls before redecorating and apply silicate masonry paint in accordance with manufacturer's instructions, as far as possible.	B	-
iv) Record where the walls are damper than recommended for paint application and anticipate paint flaking here in due course. Record this residual hazard.	B	-
6.5 STAIRWELL AND SPIRAL STAIRCASE		
i) Remove board blocking circular ceiling opening	A	Inc. in Staff Budget
6.5A STAIRWELL AND SPIRAL STAIRCASE: STONE WALLS		
i) Investigate long-handled specialist cleaning equipment to enable an even clean of the painted walls	B	Inc. in Staff Budget
6.5B STAIRWELL AND SPIRAL STAIRCASE: STEPS		
i) Crack monitoring of steps to be put in place, recommended to be 6 monthly [subject to review of previous balustrade records]	A	See Struc.Eng. Fees
ii) Review of the noted cracking and stone condition against previous records	B	See Struc.Eng. Fees

RECOMMENDATION	PRIORITY	COSTS
6.5D STAIRWELL AND SPIRAL STAIRCASE: OAK HANDRAIL		
i) Detailed inspection of the oak handrail by a suitably qualified carpenter, to check if there is any splintered timber immediately above the iron bar supporting the timber, if so, ensure the splits are sanded to avoid damage to hands.	B	-
6.5E STAIRWELL AND SPIRAL STAIRCASE: HIGH-LEVEL IRON & TIMBER PARTITIONING		
ii) Clean and decorate the temporary infill board. Fix onto the top of the board, large clear instructions to say that the board is to be used while operatives are working above, as temporary protection to prevent objects falling down the stairwell; the board is to be removed from the opening after every use.	B	£400
iii) Ensure there is a place for the board to be kept, adjacent to the opening, but out of sight to the public.	A	Inc. in Staff Budget
6.6C GROUND FLOOR ENTRANCE LOBBY: JOINERY - GLASS FRONTED PAINTED SOFTWOOD CUPBOARD		
iii) Avoid duplication of Fire Extinguisher notices. Locating the notices directly above the fire extinguishers is preferable for the presentation of the historic interior.	B	-
iv) Review the number of CCTV signs displayed at the Monument, reduce the number to the recommended minimum by eliminating those which detract from the visitor experience of the historic building.	B	-
6.6D GROUND FLOOR ENTRANCE LOBBY: JOINERY - LOW LEVEL CUPBOARD AT REAR OF ATTENDANT'S RECESS		
ii) Rationalise and tidy cupboard contents.	B	Inc. in Staff Budget
iii) Redesign the new shelf (if needed) above the cupboard door to a more appropriate design for the historic interior.	B	£400
6.6E GROUND FLOOR ENTRANCE LOBBY: JOINERY - SMALL TIMBER ELECTRICAL SERVICES CUPBOARD WITH SHELF OVER		
i) Review and rationalise the equipment and services required in the attendant's recess.	B	-
6.6F GROUND FLOOR ENTRANCE LOBBY: TURNSTILES		
i) Inspect the missing parts of the turnstiles to ensure they are recorded and safely stored.	B	Inc. in Staff Budget
6.6G GROUND FLOOR ENTRANCE LOBBY: OCULUS & WROUGHT IRON GRILLE / BAG STORE AREA		
i) Reinstate the main means of ventilating the basement, by removing the plywood which is blocking the grille.	A	Inc. in Staff Budget
ii) Ensure the red basement lighting is switched on during visiting hours to allow the possibility of visitors understanding the form of the building and obtaining a glimpse of Hooke's workshop	B	Inc. in Staff Budget

RECOMMENDATION	PRIORITY	COSTS
6.6H GROUND FLOOR ENTRANCE LOBBY: FURNITURE & EQUIPMENT		
i) Do not store cleaning equipment within public view at the base of the helical stair. Store with the other cleaning equipment, in the Pavilion building in Monument Yard.	A	Inc. in Staff Budget
ii) Review the bag store and consider alternative locations to store bags, to allow the grille to the basement to remain unobstructed.	A	CS
6.7 BASEMENT: STAIRWAY TO THE BASEMENT		
i) Sweep steps and landing.	A	Incl. Staff Budget
ii) Clear away metal platform, if no longer in use (retain at present)	B	No cost
6.7A BASEMENT: BASEMENT CIRCULAR CHAMBER (HOOKE'S WORKSHOP)		
ii) Lightly brush the walls to reduce flaking paintwork, and efflorescence, sweep all floors and ledges.	A	Incl. Staff Budget
6.8 INTERIOR SIGNAGE		
i) Remove paper sign on front door glazing	A	Incl. Staff Budget
7.2 HEATING		
iii) City Corporation to provide information on heaters, installation dates and testing certification	B	CS
7.3B FLAMING ORB DISPLAY LIGHTING		
i) Remove the mouldy infill board to the circular ceiling opening. Supply new round plywood board and decorate	A	£800
7.3C STAIRWELL LIGHTING		
ii) The existing light fittings should be fixed to the balusters with the base of the light fitting in line with the top of the adjacent tread.	A	Incl. Staff Budget
7.3E GROUND FLOOR LIGHTING		
ii) Remove the barrel vault uplighter if it is redundant, and make good at the fixings	B	Incl. in 7.2 ii)
7.3F BASEMENT DISPLAY LIGHTING		
i) It has been recommended elsewhere that the plywood board is removed for ventilation reasons, and that the iron floor grille remains unobstructed to allow air movement through the currently unventilated and damp basement.	A	Incl. Staff Budget
ii) Ensure the red-tinted basement lighting is working and switched on daily.	B	Incl. Staff Budget

RECOMMENDATION	PRIORITY	COSTS
7.5 LIGHTNING CONDUCTOR i) Undertake repair work as quotation provided to CoL by Omega Red Ltd	A	Client to Provide Quote
7.6A FIRE RISK ASSESSMENT i) Include regular cleaning of the flame area and cellar on the cleaning rota	A	Incl. Staff Budget
7.6C FIRE EXTINGUISHERS i) Undertake recommendations from 'StandBy Fire Protection' to ensure fire extinguishers are compliant	A	Client to Provide Quote
7.7A DISABLED ACCESS AND THE 2004 ACCESS AUDIT i) Sign over the glazing to the entrance door: remove	A	Incl. Staff Budget
7.8A HEALTH & SAFETY POLICY i) Ensure the Monument attendants have appropriate health & safety training	B	Incl. Staff Budget
8.1 ENTRANCE STEPS & EXTERNAL PAVING i) Wash Yorkstone steps with bristle brush and water and freeze remove chewing gum	B	£400
ii) Clean paving and two paving drain-pipes within railings paved area	B	£1,000
iii) Improve appearance of earthing cable to exterior water supply pipe	B	Incl. Staff Budget
9.1 PAVILION BUILDING i) Prepare detailed scope of exterior & interior repairs and alterations to the Pavilion building to provide adequate facilities for Monument staff and a presentable exterior in the setting of the Listed Monument	B	Client to Provide Quote
TOTAL		£7,300

2.4 SUMMARY CONDITION OF THE PAVILION

The Pavilion in Monument Yard is in poor condition and a detailed scope of repairs and alterations to provide adequate facilities, is recommended.

Externally, the building looks shabby and appears to have been designed for a short lifespan only. Structural glass walls have open joints and flex when pushed against, some joints are crudely filled; the cavity between glazing and gabions is inaccessible and therefore not maintained. The disused public WC has a temporary plywood door and the payment point is taped over. The unusual roof looks dirty.

The condition of the interior is described by the Operations Team as unsuitable for its multi-purpose use as a staff welfare area, storage facility and secure space for cash. Maintenance is required to the external door, interior decoration, tiles and kitchen equipment

3.1 SUMMARY OF HISTORY OF THE MONUMENT

The Monument to the Great Fire of London was constructed between 1671 and 1677, built on the orders of King Charles II to commemorate the Great Fire of London of September 1666 and to celebrate the rebuilding of the City.

The following introduction to the history of the Monument is taken from the official website for the Monument www.themonument.info/history/introduction.html.

The Monument stands at the junction of Monument Street and Fish Street Hill in the City of London. It was built between 1671 and 1677 to commemorate the Great Fire of London and to celebrate the rebuilding of the City.

The fire began in a baker's house in Pudding Lane on Sunday 2nd September 1666 and finally extinguished on Wednesday 5th September, after destroying the greater part of the City. Although there was little loss of life, the fire brought all activity to a halt, having consumed or severely damaged thousands of houses, hundreds of streets, the City's gates, public buildings, churches and St. Paul's Cathedral. The only buildings to survive in part were those built of stone, like St. Paul's and the Guildhall. As part of the rebuilding, it was decided to erect a permanent memorial of the Great Fire near the place where it began. Sir Christopher Wren, Surveyor General to King Charles II and the architect of St. Paul's Cathedral, and his friend and colleague, Dr Robert Hooke, provided a design for a colossal Doric column in the antique tradition. They drew up plans for a column containing a cantilevered stone staircase of 311 steps leading to a viewing platform. This was surmounted by a drum and a copper urn from which flames emerged, symbolising the Great Fire. The Monument, as it came to be called, is 61 metres high (202 feet) - the exact distance between it and the site in Pudding Lane where the fire began.

The column was completed in 1677, and in accordance with Wren's original intention, was at first used as a place for certain experiments of the Royal Society, but vibrations caused by ceaseless traffic proved too great for the success of these experiments and they were discontinued; thereafter the Monument became a place of historic interest, unique of its kind, providing visitors with an opportunity to look across London in all directions from a height of about 160 feet, being the level of the public gallery.

3.2 CONSTRUCTION

The Monument is constructed mainly of Portland stone and remains the tallest isolated stone column in the world.

The plinth of the column is 28 feet square beneath the pedestal of about 21ft square and 40ft high.
Arising from the pedestal is the fluted shaft, 120ft high and 15ft in diameter at its base, reducing slightly with height.
The abacus at the top of the fluted shaft is the viewing platform, wrapped around a stone cylinder, or drum.
A stone dome on the circular drum carries the Flaming Orb, which is a massive urn constructed from deep bands of sheet copper, riveted together with a bowl at the very top.

The urn is decorated externally with copper garlands and the bowl with many twisted strips of copper, all fixed with rivets.
The exterior copperwork is gilded with sheets of gold leaf, the effect is a bowl of dazzling gold flames atop a golden urn, which symbolizes the Great Fire of London.

A structural wrought iron armature fastens the copper flaming orb down to the stone mass of the dome and drum below.
The west side of the base displays a sculpture, by Caius Gabriel Cibber of the destruction of the City; with King Charles II, and his brother, James, the Duke of York surrounded by Liberty, Architecture, and Science, giving directions for its restoration.

3.3 BRIEF DESCRIPTION OF THE INTERIOR

Inside the column is a continuous cantilevered spiral stone staircase of 345 black limestone steps, lit by narrow slit windows. The first 311 steps take the visitor up to the viewing platform and the last 34 steps lead up to the top landing from where a circular iron ladder continues up to the underside of the copper bowl; the top of the Flaming Orb. From this copper bowl, Wren, in his letter of 1675, described the idea of fireworks cascading down over the City below.

4.1 QUINQUENNIAL INSPECTION REPORT 1991

In 1991, Julian Harrap Architects carried out a comprehensive condition survey of the Monument for the Corporation of London. The survey included contributions from a series of specialist consultants including conservators, structural engineers, quantity surveyors and environmental consultants.

The report concluded with a series of prioritised recommendations and a budget cost estimate for the work. Some of the high priority works were undertaken.

4.2 SURVEY AND INVESTIGATION WORK 2003-2005

In 2003, the Julian Harrap Architects undertook further survey work and prepared The Monument Investigation Work report, May 2005, which included:

- A detailed measured survey of the building.
- Structural investigations, which describe the construction of the viewing platform and the condition of any concealed ironwork.
- Cleaning and repair trials to establish acceptable methods of stone cleaning and repairs.
- Environmental monitoring which measures the existing conditions and advises whether measures need to be adopted in order to secure the long-term future of the internal fabric.
- Again, specialist consultants were appointed to review the structure, environmental conditions and cost estimates for repair.

4.3 THE 2007-2009 MAJOR REPAIR CONTRACT: SUMMARY OF WORKS

Due to the difficulty and expense of scaffolding the 202ft column, the Monument is only scaffolded approximately every 80 – 100 years.

The brief for the Major Repair Contract was to undertake external repairs for a very long-life span from the scaffold, repair the interior and re-present the building for the visitors to the Monument. This included replacing and upgrading all services and replacing the 1950s balustrade and cage at viewing platform level with new design to improve visitor circulation and safety and enhance the visitor experience.

Works included repairing and re-gilding the copper flaming orb, structural restraining of the wrought iron armature supporting the orb and structural repairs to stone courses dislodged by the movement at high level.

A major element of work was cleaning the entire Portland stone exterior and repairing the fluted shaft, stone carvings and the sculpture relief panel by Claus Cibber. Four large carved stone paterae, each to new designs, replaced those which had been removed from the underside of the abacus in the 19th century.

The black limestone viewing platform was stripped of its later asphalt coating and repaired, together with the entire black limestone spiral staircase which had suffered structural damage.

The lightning protection system was renewed and discretely connected to the internal wrought iron balustrade which itself was repaired, re-caulked in lead and spiral oak handrail repaired and re-polished.
Calcium-silicate paint was applied to the interior allowing the masonry walls to breathe, and bespoke slim bronze casements designed and fixed into repaired rebated window slits.

A new pair of oak doors replaced the previous 1980s entrance door.

Services were renewed and upgraded with all the cables being brought up the stairwell in spiral stainless-steel conduits, each shaped on site to fit the diminishing circumference of the stairwell.
Innovative LED light strips fixed to the slim square stair balusters, to light the spiral staircase.

A camera was erected at the top of the Monument to produce images of the views from the top of the Monument, which are available on the Internet, and intended in the future to be shown on a screen in Monument Yard.

New materials used: many unusual and scarce materials were required for the work.

To repair the original fabric, materials were selected to match the original, such as Pooil Vaaish limestone and Purbeck.

Modern materials had to be compatible with the historic fabric, such as the weld specification to connect pure iron to seventeenth century wrought iron or the tinted Fisher epoxy resin, compatible with the density of black limestone. The highest quality modern materials were used for items of new work, for example grade 316 stainless steel for the new cage and balustrade to the viewing platform and the curved electrical conduits, Belzona for waterproofing vulnerable inaccessible areas of stonework.

High quality workmanship was ensured by carefully vetting and selection of the contractor and specialist subcontractors, who undertook trials and samples for approval in advance of the works. Some 15 specialist subcontractors were involved in working on the very special conservation challenges of this unique structure.

4.4 WORKS 2009 – 2024

- Viewing platform lighting under balustrade handrail
- Viewing platform spotlight in corner of viewing platform cage
- Repair works to viewing platform cracks
- Staircase balusters new steel strap
- Replacement of staircase balustrade lights
- Replacement of light over attendance recess
- Additional electrics at ground floor level
- Perspex screen fixed to attendance recess door
- Boarded coverings to grilles across circular openings at top and bottom of staircase
- External timber sign

5.1 GENERAL CONDITION

PRIORITY RATINGS	
A	Requires urgent/ immediate attention
B	Recommended within 12 months
C	Recommended within 3 years
D	Desirable

5.1A MONITORING VERTICALITY OF THE MONUMENT

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
A new system of monitoring the verticality of the Monument was installed in 2005. The method of recording is by laser, measuring offsets to brass studs set into the wall at different heights. Four 10mm diameter brass studs are resin fixed into the masonry inner face of the shaft, on the north, east, west and south points at the following locations: basement level, ground floor level, mid-height up the shaft, viewing platform level. A steel bar is fixed in the circular basement chamber to provide a basepoint for the Autoplumb. In 2005, during the measured survey of the Monument in 2005, the surveyors the Downland Partnership Limited were asked to record the present lean of the Monument by overlaying the actual building over the true vertical position. In 2013 The Downland Partnership monitored the verticality and found the results to be remarkably similar to the 2005 visit, with very little variation at any of the levels. The surveyors would not state that there was movement unless the measured deviation was greater than 2mm. In 2015 the Downland Partnership monitored the verticality. Site conditions had slightly changed which meant readings could not be taken from quite the same place. The iron grille over the circular opening at the apex of the basement dome has been fixed in position, preventing the measuring instrument being centrally located in the stairwell. In summary, the readings showed that the position of the tower had become slightly more vertical than it was on the base visit in 2005.	The 2024 monitoring of the verticality by the Downland Partnership summarises: the readings are showing that the position of the tower has maintained the trend of slightly more vertical than it was on the base visit. A copy of the report: Monument Verticality Report 07 July 2024 is appended	i) Allow for re-measuring the verticality in five years from the last measurement, ie. in 2029. ii) The monitoring is to be done by a firm of surveyors with the necessary equipment to record with the degree of accuracy required.	FIVE YEARLY	£1,050

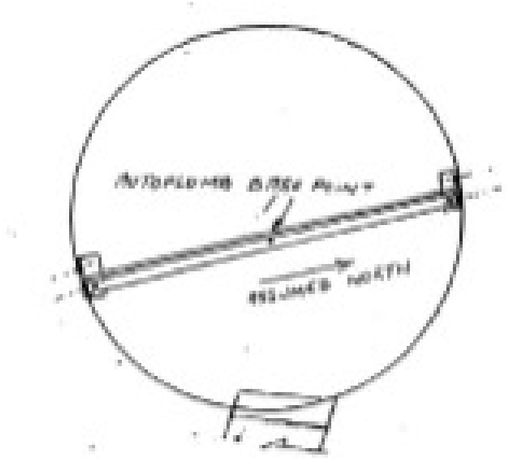

Fig. 6 Basement plan showing Auto plumb base point, 2024

Fig. 7 Photo of steel angle locating survey plumb base point, 2024

5.2 THE EXTERIOR STONEWORK

The Monument column was constructed entirely from Portland stone with a black limestone viewing platform and spiral staircase. The external stonework could only be inspected from the ground and the viewing platform.

5.2A EXTERIOR STONEWORK: THE DRUM				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The Drum has a moulded base and cornice to the throating immediately below the gilt vase and flaming orb. There is a square headed doorway on the east side giving access to the viewing platform from the interior of the column.	From the viewing platform the Portland stonework was generally in very good condition with no graffiti on the stone Drum. The deep joint at the base of the Drum, above the black limestone viewing platform is slightly vulnerable due to its depth and location and may require repointing in the near future if the mortar spalls. Stonework defects noted: • Wide joint at base of Drum • Slight algae on drum on west side at dado height.	i) Wide joint at base of Drum: locally repoint. ii) Slight algae on drum on west side at dado height.	C D	£1,800 £600

Fig. 8 Location of the Drum, 2006

Fig. 9 & 10 Wide joint at the base of the Drum, 2024

5.2B EXTERIOR STONEWORK: VIEWING PLATFORM OR ABACUS				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The Viewing Platform is constructed from particularly large slabs of black limestone. Archaeological remains of earlier balustrades and support posts remain set into the stone.	The black limestone platform: Grey resin repairs undertaken in the 2007-2009 contract are well adhered to the stonework but the finish appears duller and dirtier than at the end of the 2007-2009 contract, which makes the repairs more visible against the shiny stonework. Condition of stone platform as Structural Engineer's Condition Survey report, which notes significant cracking observed along the railing line, particularly to the west and east sides. These cracks had not been noted on previous inspections and did not form part of the previous set of monitoring. This would suggest that whilst they may have been present, they would have been less severe. It is therefore assumed that the cracking has worsened since the last set of structural inspections.	i) As structural engineer's condition survey Detailed inspections of the cracking around the base of the railings; the position of the cracks makes stud monitoring difficult due to the proximity to the railings. Repair and stabilisation scheme to be developed once the causes are better understood.	WITHIN 6 MONTHS	See St.Eng. Fees
		ii) Provisional sum for injecting crack repairs and using resin anchors across cracks subject to results from monitoring and inspections (minor structural interventions only)	C	£7,600

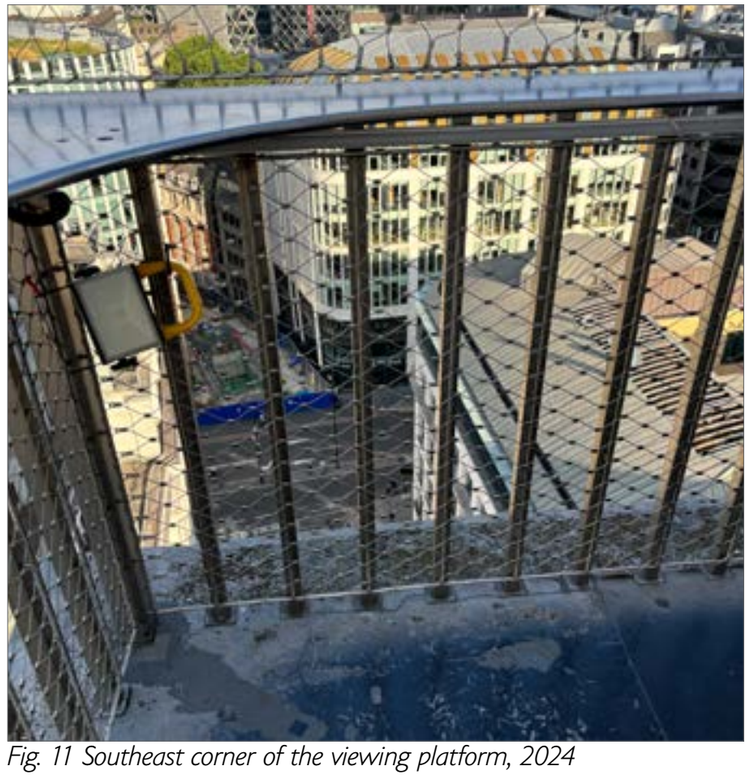

Fig. 11 Southeast corner of the viewing platform, 2024

Fig. 12 Crack line along the base of balusters, 2024

Fig. 13 Detail of a balustrade corner post, 2024

5.2C EXTERIOR STONEWORK: COLUMN CAPITAL				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	TOTAL
The Capital comprises a Portland stone torus necking with carved relief. Above the necking the ovolo immediately beneath the abacus is carved with an egg and dart motif surmounted by a leaf and dart cyma-reversa moulding to the square viewing platform.	From the ground, the underside of the viewing platform or abacus appears to be fairy dirty where the Portland stone is sheltered from rainfall, as expected. No obvious defects; extensive works undertaken 2009 with a long lifespan.	No action. Underside of viewing platform is not accessible without a scaffold.		

5.2D EXTERIOR STONEWORK: PATERAE				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	TOTAL
Beneath the viewing platform are four re-carved stone paterae some 900mm in diameter. These were installed in 2009, suspended by stainless steel bolts, replacing the original carvings which detached themselves in 1882 and were never replaced.	Only inspected from the ground. No obvious defects; extensive works undertaken 2009 with a long lifespan.	No action. Paterae are not accessible without a scaffold.		

5.2E EXTERIOR STONEWORK: COLUMN SHAFT				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	TOTAL
The fluted shaft is 99 feet in height with 24 flutes and convex carving at top and bottom. The central fillet on each face of the column is pierced with 8 no. narrow slit lights which light the internal staircase.	The fluted shaft remains clean and appears to be in very good condition. Stone indents from the 2009 repair works show up colour-wise against the historic stonework.	No action. The fluted shaft is not accessible without a scaffold.		

5.2F EXTERIOR STONEWORK: COLUMN BASE

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	TOTAL
The Base comprises a torus moulding on a square plinth, which is decorated on each of the four sides by a carved garland with a shield and scroll and is decorated on each corner by a carved dragon.	Extensive reinforced stone repairs were undertaken in 2008 to the carved stone dragons to replace missing tails, wings and tongues. These were inspected from the ground and appear to be intact. The stone carving at the base is dark in sheltered areas and the cornice streaky beneath the uneven projecting cornice. Green algae is present on the torus moulding and carved garlands and at the column base, especially on the east elevation. North: Roll moulding (drip moulding): Eroded but less severe than south and west sides; heavy lichen and some bad erosion but no broken sections. East: Column base and dragons: Dragons and carving good condition some dark patination. Drip moulding: missing sections of drip moulding and algae and soiling South: Base to column: Drip moulding missing in places, heavy soiling under. Stonework including carving: Very good condition West: Drip moulding: Drip missing and very heavy soiling Column base: Heavy soiling. Dragons: Very good condition	i) The drip moulding is eroding and lichen stained and is eroding. ii) Lightly steam (Doff) clean from a Moving Elevated Working Platform (MEWP) to reduce black staining iii) Carefully loosen by hand any loose stonework and remove, inspect condition. Allow for this to be undertaken annually until the drip moulding is repaired. iv) Natural stone indent repairs to roll moulding; consider adding a lead or Belzona protective cover flashing.	 C C C	 £10,500 £5,200 £58,000

Fig. 14 North elevation Column Base, 2024

Fig. 15 East elevation Column Base, 2024

Fig. 16 South elevation Column Base, 2024

Fig. 17 West elevation Column Base, 2024

5.2G EXTERIOR STONEWORK: PEDESTAL

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The Pedestal is of Portland stone ashlar blockwork, comprising a plinth surmounted by a sunken dado panel beneath the moulded and enriched Column Base and Cornice.	The relief and lettering panels are in good condition although are unevenly cleaned by rainfall. The mouldings to the top of the base to the column plinth are heavily stained with green algae, especially on the east and west elevations, which is rather unsightly. Algae is an indicator of damp problems which should disappear when the stonework dries out and is not known to damage stonework but can be disfiguring. North: Border to tablet carved work: very good condition. Plinth: algae staining to plinth at high-level under roll moulding, Pointing: very good condition East:Border to tablet carved work: carved border to tablet very good condition; some erosion at bottom in north and south corners. Tablet & window surround: very good condition Roll moulding: some erosion to top of roll moulding but historic at north and south corners only, good condition slight soiling Plinth: generally good condition heavy soiling Plinth ashlar base: all very good condition, heavy algae at bottom course north side of door Pointing very good condition	i) Roll moulding as COLUMN BASE, above ii) Lightly steam (Doff) clean the Plinth from a Moving Elevated Working Platform (MEWP) to reduce black staining. Last undertaken in November 2024. (English Heritage Practical Building Conservation: Stone, p75). Steam cleaning can be used for removing algae.	C	£10,600

Fig. 18 Pedestal North side, 2024

Fig. 19 Pedestal East side, 2024

5.2G EXTERIOR STONEWORK: PEDESTAL (CONTINUES)				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The Pedestal is of Portland stone ashlar blockwork, comprising a plinth surmounted by a sunken dado panel beneath the moulded and enriched Column Base and Cornice.	South: Tablet: very good condition, some erosion to border leaf mouldings Roll moulding: severe historic erosion, algae at base 1no.stone Pointing: all very good condition West: Tablet surround carved moulding: very good condition. Carved cyber relief tablet: very good condition, slight pigeon fowling to top two statues Base moulding: very eroded in places and algae staining full length of roll moulding Plinth: algae at top course under roll moulding but generally very good condition Pointing: all very good condition	Roll moulding as COLUMN BASE, above Lightly steam (Doff) clean the Plinth from a Moving Elevated Working Platform (MEWP) to reduce black staining. (English Heritage Practical Building Conservation: Stone, p75). Steam cleaning can be used for removing algae.	C	Inc. in figure on Page 21 5.2F ii)

Fig. 20 Pedestal South side, 2024

Fig. 20 Pedestal West side, 2024

5.2H EXTERIOR STONEWORK: BELZONA FINISH TO STONEWORK				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Belzona was applied in 2009 to the stonework externally at base of the column shaft for waterproofing this vulnerable inaccessible area of stonework. Belzona is a one component, flexible liquid polymer, membrane-reinforce, roof covering system, applied to prepared concrete or masonry surfaces.	At such high level, the Belzona finish is not expected to be maintained regularly. Belzona has a long lifespan and is expected to last at least 25 years	No action. The Belzona is not accessible without a scaffold.	-	

5.3 THE FLAMING ORB				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Externally, above the neck of the dome, is a circular stone cornice with a plain band of stonework above, on which sits the copper flaming orb. The form of the flaming orb is a massive urn with a bowl at the very top constructed from deep bands of sheet copper, 1/8 in. thick, riveted together. The urn is decorated externally with copper garlands and the bowl with many twisted strips of copper, all fixed with rivets. The copperwork is externally gilded with sheets of gold leaf. The effect is a bowl of dazzling gold flames atop a golden urn.	The condition of the Flaming Orb gilding was not inspected on site due to access restrictions. The copper work was re-gilded in 2008 and is not anticipated to require redecoration for 40+ years. The structural engineers condition report refers to a hole in the wall of the structure, observed from a video provided of the interior condition of the flaming orb.	i) Closer inspection of the hole would be required in order to better assess the condition.	B	£2,300

5.4 THE BALUSTRADE & CAGE

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
In 2009 the balustrade and cage were replaced with the current curved stainless steel balustrade and lightweight cage. Only alternate balusters are actually structurally embedded in the viewing platform in an attempt to avoid inducing a crack along the edge of the black limestone. The cage structure of stainless-steel tubes is clad with woven stainless-steel mesh to provide security and prevent the throwing of large objects, while at the same time enabling clear views. The stainless-steel tubes carry data and electric cables serving the stainless-steel telescopes, public address system, cameras and speakers.	The cage and balustrade appeared to be in good condition. The stainless-steel mesh above the balustrade is not taut at the centre of each side. Holes remain in the corners of the wide stainless steel balustrade handrail where the telescopes were fixed, now removed.	i) Unless the telescopes are to be replaced, the holes in the corners of the wide stainless-steel balustrade should be filled and finished by the manufacturer.	D	£4,000
		ii) Regular inspections and maintenance for the cage & balustrade is described in the 2007-2009 Repair Contract O&M manual. Jakob, manufacturer of Webnet, (mesh) suggest a visual inspection at least every 2 years. Visual inspection of the rope in the net should be done, but more importantly the sleeves that are around the perimeter of the net need to be checked and if anything has failed then these need to be addressed.	B	£2,000

5.5 RAINWATER GOODS AND DISPOSAL SYSTEMS

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The floor of the viewing platform falls towards the stone Drum at the centre of the viewing platform, where a small drainage channel, cut out of the stone paving, collects the rainwater and discharges it into a shallow stone catchpit with round cast iron drainage grille. A lead pipe then takes the rainwater under the black limestone and discharges beneath the black limestone pavement via a long lead spitter. No rainwater is taken down through the building. There are no gutters and downpipes to the building.	The rainwater drainage outlet and circular iron grille look to be in good condition. The lead spitter spout is difficult to see but what can be seen from the viewing platform looks to be in good condition. The drainpipe between outlet and spitter is concealed. The lead spitter pipe appears to project about 180mm, but is difficult to measure	None at present. Monitor stonework beneath spitter for any signs of damp after wet conditions as the spitter pipe is quite short	-	-

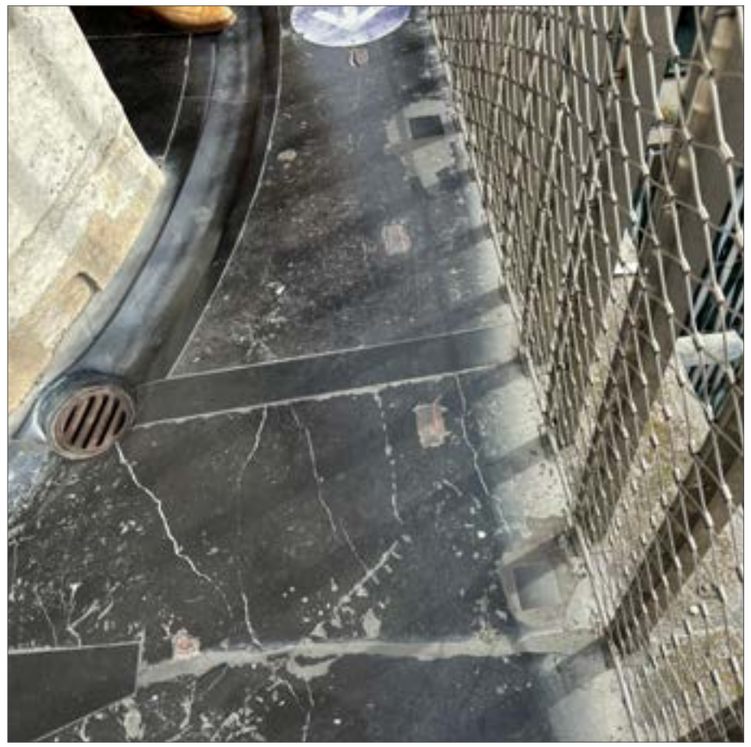

Fig. 22 Viewing platform, 2024

5.6 EXTERNAL TIMBER DOORS: PAIR OF HARDWOOD ENTRANCE DOORS AND FRAME

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The entrance doors are a pair of substantial four-panel doors on pivot hinges, held open within the stone reveals of the doorway by a pair of heavy iron hooks. The south door can be bolted shut and the north door has a latch and mortice locks, to latch/lock it to the south door. The doors are of solid oak, glazed within their upper two panels with bevelled and polished 3x15mm laminated glass panels, set within an oak frame. Following construction and installation of the doors in 2009, the fabricator advised: The doors are of timber and will therefore expand and contract in relation to the ambient humidity and will be affected by direct heat, moisture and sunlight.	The doors are a bit stiff to open; there are gaps between the door and frame due to the pivot hinge design in order to leave space for the oak to expand and contract. The lower parts of the doors are particularly weathered Ironmongery: Pivot hinges: Doors are a bit stiff to open Lock : 2no. mortice locks with interior escape latches, attendant reported working well Internal bolts: iron floor bolt to south door, works well. iron top bolt and keep fixed to frame, working well Latches & knobs: 2009 internal drop handle latches & external knobs, good condition Security door movement detector to north leaf: Unattractive white plastic	i) Remove paper sign from glazing to entrance door ii) Entrance doors: consider replacing white plastic security door movement detector with more appropriate design iii) Clean and oil with a coat of DEKS OLJE D1 oil. Inspect for signs of movement, overhaul the doors as required. Inspect ironmongery and oil moving parts as appropriate; ensure ironmongery is securely fixed.	A C C	Incl. Staff budget £300 £2,100

Fig. 23 Pair of oak entrance doors, 2024

Fig. 24 Interior view of entrance doors , 2024

Fig. 25 Mortice escape latch, 2024

Fig. 26 Mortice interior escape latch, 2024

Fig. 27 Door movement detector, 2024

Fig. 28 Oak doors to viewing platform, 2024

5.7 PAIR OF HARDWOOD DOORS TO VIEWING PLATFORM

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Pair of two panelled oak doors within oak frame, which appear to be c.1950s, the upper panels of each door glazed, the doors formerly stained or varnished a slightly yellow colour. The south-leaf bolts shut and has a keep to take the latch on the north-leaf. Each door has pair of oval brass knobs with roses, and brass keeps on then back faces to receive brass hooks fixed to the stone reveals, to hold the doors open.	Reasonably good condition Timber bead detail has split, externally, adjacent to the exterior knob rose; a previous timber repair behind the latch plate is damaged Ironmongery: • Latch requires overhaul as feels loose • Fixed handles to south-leaf are loose and rotate	i) North door-leaf: repair damage adjacent to the exterior knob rose, and to damaged timber repair behind the latch plate. ii) Clean and oil with a coat of DEKS OLJE D1 oil. Inspect ironmongery annually and oil moving parts as appropriate; ensure ironmongery is securely fixed.	C C	£961 Inc. in figure on Page 26 5.6 ili)

5.8 WINDOWS

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Immediately above the entrance on the east side of the Monument is an oval iron framed centre-hung pivot window, W1. The window has a modern white window lock fixed on the casement and frame to prevent opening. Each face of the column shaft has 8 no. narrow slit window openings, each within niched recesses of varying sizes. The windows within the column shaft were nearly all replaced in 2009 with slim bronze casement windows, or fixed glass panes within bronze frames where the openings are very narrow. Glass is 3mm thick and very slightly imperfect in order to provide slightly distorted reflections; ironmongery is hand forged. An early iron framed window in the Drum was used as a prototype.	The Windows Condition spreadsheet has been updated at 2024, Appended to the MMP Oval iron framed centre-hung pivot window, W1, has a white window lock fixed on the casement and frame to prevent opening. Some ironmongery (a former window lock?) has been removed from the top of the oval casement leaving holes which should be filed and decorated. A scratch was noted to the inside of the glass. The internal putty is in poor condition and should be redone. The bronze casement windows and fixed lights are generally in good condition and have developed a good patina; there are no broken panes of glass. The bespoke ironmongery: hinges, casement-stay and casement fastener are fixed with small bronze screws. Some of the ironmongery was stiff to operate and damaged or stuck ironmongery requires overhaul	i) Undertake repairs as described for each window on the schedule ii) Clean chewing gum from windows described iii) Oval window repairs	C A C	£3,000 Incl. Staff Budget £650

6.1 GENERAL DESCRIPTION

Inside the column is a continuous cantilevered spiral stone staircase of 345 black limestone steps, lit by narrow slit windows. The first 311 steps take the visitor up to the viewing platform and the last 34 steps lead up to the top landing from where a circular iron ladder continues up to the underside of the copper bowl; the top of the Flaming Orb.

6.2 VENTILATION AND CONDENSATION

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The Conservation Maintenance Plan of March 2014 (5.4.5) describes the monitoring of the internal environment of the Monument since the quinquennial inspection of 1991. The conclusion at 2005 was that openable windows should be relocated in the slot window openings, and the high level doors should be reinstated, to allow air exchange with the exterior to be controlled. These works were undertaken in the 2007-2009 repair contract.	At the time of the inspections on site in July & August 2024, the windows were all closed. There was no sign of condensation on the internal walls or puddling on the stone steps from condensation having run down the walls, -although inspections were during a warm period, so condensation is not expected.	i) Note if there are any condensation problems within the stairwell, keep a record of the extent of the problem and weather conditions	-	-

6.3 GENERAL AREAS OF STONEWORK DAMP AND DECAY

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The Monument was constructed of solid stone walls with stone foundation walls in 1671 – 77. It is not known if there are any damp-proof materials used in the wall construction to reduce rising damp. The Monument is built close to the River Thames. The levels of the tidal river and the level of the water table may have changed since the building was constructed.	The basement walls are damp; there is evidence of salts on the surface due to evaporation of moisture, which has led to local spalling of some soft stonework and soft red bricks. A breathable lime floor was laid in the basement in 2009 to allow ground moisture to evaporate from the floor, rather than just from the basement walls. There are signs of damp in the lower internal walls where the silicate masonry paint is peeling. This may be due to damp ingress or that the paint was applied on stone surfaces insufficiently dry at the time.	A low level of damp ingress and spalling masonry in the basement should be anticipated and accepted.		
		i) Avoid blocking up the ventilation grille at the apex of the basement vault which reduces ventilation of the basement and avoid blocking up the grilled opening at the top of the public spiral staircase, which reduces ventilation to the stonework of the interior above.	A	Incl. Staff Budget
		ii) Monitor damp within the ground floor interior stonework in different weather conditions.	B	Incl. Staff Budget
		iii) Measure damp in interior walls before redecorating and apply silicate masonry paint in accordance with manufacturer's instructions, as far as possible.	B	-
		iv) Record where the walls are damper than recommended for paint application and anticipate paint flaking here in due course. Record this residual hazard.	B	-

6.4 THE FLAMING ORB AND SUPPORTING IRON ARMATURE - INTERIOR

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The Portland stone drum above the viewing platform is a continuation of the Portland stone stairwell shaft below. The walls of the circular drum are solid Portland stone, over 2 ft thick. Above the circular drum is a dome of Portland stone blocks, which reduces the internal diameter of the Monument from about 7.5 ft to approximately 3 ft. The form of the flaming orb is a massive urn with a bowl at the very top constructed from deep bands of sheet copper, 1/8 in. thick, riveted together. Inside the stone dome and flaming orb is a structural wrought-iron armature, the purpose of which is to fasten the copper flaming orb down to the stone mass of the dome and drum below. The armature within the flaming orb is a circular ladder with four iron vertical legs and circular iron rungs. The ladder gives access from the black limestone landing at the top of the drum up into the copper bowl at the very top of the flaming orb.	The condition of the interior stonework and the wrought iron armature, with iron reinforcement rings, was reviewed by structural engineers Hockley & Dawson, based on video images provided by City of London, due to access restrictions. See structural engineer's report: local corrosion noted A lanyard system has been fixed to the centre of the iron ladder since the 2007- 2009 contract which makes ladder climbing slightly more difficult. A free-standing melamine cabinet is located on the top landing, within the armature.	i) Remove the free-standing melamine cabinet is located on the top landing, within the armature. ii) As structural engineer's Condition Inspection report: rust treat and locally redecorate local corrosion to ironwork	D C	£700 £2,200

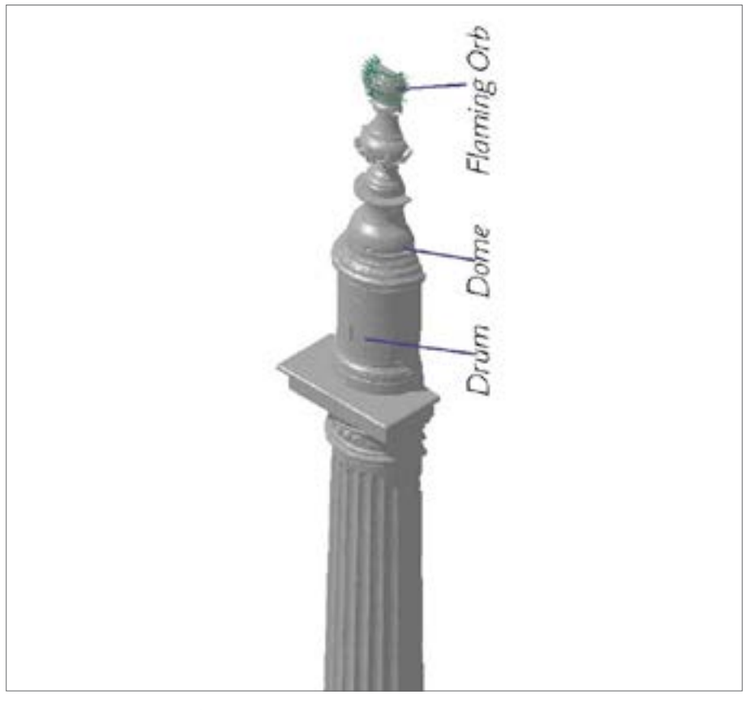

Fig. 28 Location of the Drum, 2006

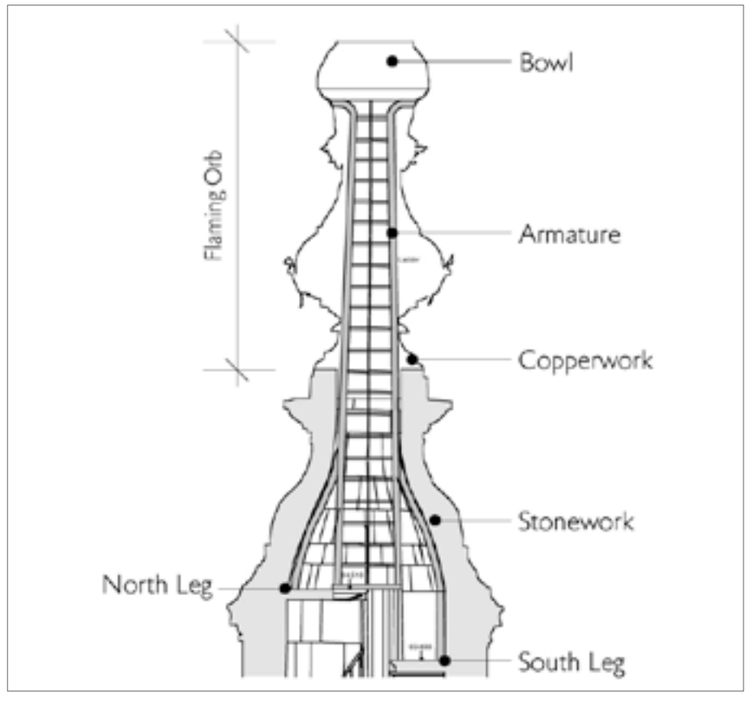

Fig. 29 Section through Flaming Orb, 2024

6.5 STAIRWELL AND SPIRAL STAIRCASE

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The stairwell is circular on plan with solid Portland stone walls; 13 of the 37 windows in the circular stairwell are within niches in the stone walls. The continuous spiral staircase is the original 1670s cantilevered stair structure constructed from black limestone, with a wrought iron balustrade, lead-caulked into the stone steps, supporting the curved oak handrail. Ironwork and timber partitioning at viewing platform level restrict public access beyond this point. Stairwell internal finishes: The walls of the stairwell are Portland stone painted with silica masonry paint. The undersides of the black limestone steps are unpainted. Ironwork and timber partitioning have a painted finish. Stainless steel conduits fixed with bespoke stainless-steel brackets contain electrical services. The staircase was extensively structurally repaired during the 2009 contract using Fischer resin and stainless- steel reinforcement rods. Stone repairs to the steps were undertaken using black limestone from the Pooil Vaaish quarry on the Isle of Man, believed to be the original source of the stone.	General notes on the appearance of the stairwell and helical stair a) Views up and down stairwell: In the 2007-2009 contract, the lighting design included blue lighting in the flaming orb area, visible to the public through a circular grille at the top of the staircase, and a red glow from the basement, visible down through a circular grille at the bottom of the staircase. At the 2024 inspections, the view up into the top of the staircase to the flaming orb was blocked with a dirt-stained circular board laid on top of the grilled opening. The view down into the basement, (former workshop), was blocked by plywood. Both the blue and red lighting was blocked off from public view, greatly detracting from public enjoyment and understanding of the form and function of the building. The mouldy board used to block the top round grille greatly detracts from the interior at this level b) Cleaning The uneven cleaning of the paintwork of the stairwell walls, due to difficulties of being able to reach to clean above a certain level, results in a poor appearance. c) Balustrade reinforcement strap The steel reinforcement strap design is below the standard required in this historic interior.	i) Remove board blocking circular ceiling opening ii|) Described under Staircase Stone Walls iii) Described under Wrought Iron Balustrade	A - -	Incl. Staff Budget - -

6.5A STAIRWELL AND SPIRAL STAIRCASE: STONE WALLS				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The stairwell is circular on plan with solid Portland stone walls; 13 of the 37 windows in the circular stairwell are within niches in the stone walls.	Stonework is generally in good condition. Paint is flaking from the stone stairwell walls at low level which may be due to slight dampness, or the walls being insufficiently dry when the silicate masonry paint was applied; this was noted as a residual risk after the 2007-2009 repair contract. Defects noted: Slight hairline crack observed at window no.4 jamb Minor areas of surface spalling at low level, likely due to damp The wall surface has slight wearing to the paint finish where people brush against it. The paintwork is obviously difficult to clean above a certain level. The stairwell has been partly repainted at low-level, but paintwork has extensively eroded from the wall at approximately six stair treads up from entrance	i) Investigate long-handled specialist cleaning equipment to enable an even clean of the painted walls ii) Redecoration of the stairwell walls	B C	Incl. Staff Budget £3,800

Fig. 30 3 wall finishes: repainted walls at bottom of stairwell; upper stair is cleaned to head-height, then dirty above, 2024

Fig. 31 Paintwork is difficult to clean above a certain level, 2024

Fig. 32 Eroded paintwork, 2024

Fig. 33 Local spalling of stonework, 2024

6.5B STAIRWELL AND SPIRAL STAIRCASE: STEPS

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The continuous spiral staircase is the original 1670s cantilevered stair structure constructed from black limestone, with a wrought iron balustrade, lead-caulked into the stone steps, supporting the curved oak handrail.	As structural engineer's Condition Inspection report The stair treads, extensively repaired in 2009, are wearing well. The undersides of the historic treads are generally in good condition, but several are locally spalling. Defects noted: Some crumbling to underside some steps Extensive delamination to underside of 2no. steps (1no. at approx sixth window from top, 1no.at number 18 window) Badly hacked underside of tread at window no.4 and tread above Oval window Corner nosing to one tread end is missing Badly cracked tread 30 treads up from entrance	i) Crack monitoring of steps to be put in place, recommended to be 6 monthly [subject to review of previous balustrade records]	A	See St.Eng. Fees
		ii) Review of the noted cracking and stone condition against previous records	B	See St.Eng. Fees

Fig. 34 Black limestone indents to stair treads, 2024

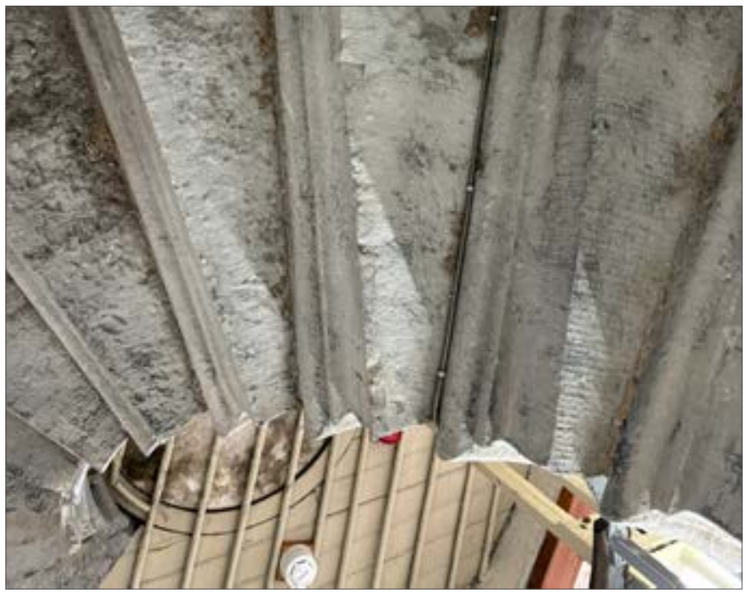

Fig. 35 Stair soffit showing local damage (next to emergency light), 2024

Fig. 36 Underside of stairs with pocket in stonework of central tread, 2024

Fig. 37 Underside of one step is in markedly poorer condition, 2024

6.5C STAIRWELL AND SPIRAL STAIRCASE: WROUGHT IRON BALUSTRADE

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The original wrought iron balustrade, comprises 1"square-section wrought iron balusters, each fixed at the top to a slim flat wrought iron spiral rail supporting a curved spiral oak handrail. Each baluster is lead-caulked into a black limestone step; caulking to one baluster end is missing or loose	The balustrade was not designed for the intensity of use it has received in the last fifty or so years and has previously been found to move slightly, particularly near the top of the stairwell. Since the 2016 condition survey, a flat steel band has been fixed, clasped, to the balustrade, approximately two-thirds up the balusters, to restrict movement. The steel strap and baluster clasps are a reasonably neat solution but overall they detract from the appearance of the balustrade and simplicity of the interior. The strap does not appear to be parallel to the handrail and the strap is slightly too thin and easily bends; the strap is not curved in a spiral around the balusters, rather it is multi-faceted. No information is available about the reinforcing straps, their design, designer or any consents obtained. Structural Engineer's Condition Inspection report refers to condition of balustrade as currently appearing to be stable.	i) Re-caulk baluster ends where lead caulk is missing or loose	C	£2,500
		ii) Redecoration, locally	C	£1,500
		iii) Redecoration, fully	C	£14,000
		iv) The structural engineers report recommends the balustrade strengthening details are undertaken, as proposed by Hockley & Dawson in 2016	C	£55,000

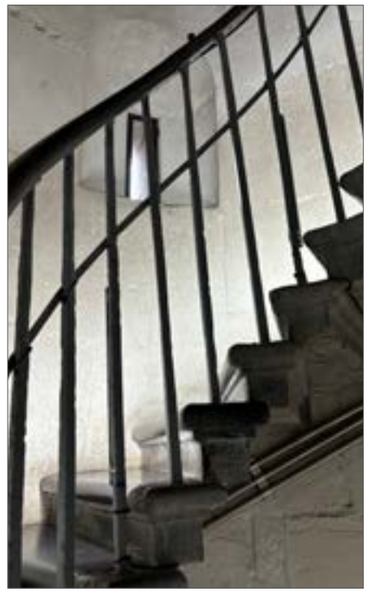

Fig. 38 Balustrade strap detracts from the simplicity of the interior, 2024

Fig. 39 Steel flat clasped to balusters, 2024

Fig. 40 Steel flat bends around baluster , 2024

Fig. 41 Balusters lead-caulked into treads, 2024

6.5D STAIRWELL AND SPIRAL STAIRCASE: OAK HANDRAIL

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The curved oak handrail is screwed to the wrought iron flat which is either welded to the top of the wrought iron balusters or screw-fixed where balusters have been replaced. The spiral handrail is made up of shaped lengths of oak sections, butted together. The spiral oak handrail was removed during a repair contract in the late twentieth century and some sections were replaced. The original timber sections appear to have been cut along the grain and steam-bent into the curve required. Replacement sections have been cut out of a large oak block to a curved shape, across the wood grain. Timber movement and shrinkage have caused the joints to open and misalign. This was addressed in the 2007-2009 repair contract by sanding off sharp timber edges and introducing timber slithers and butterfly repairs at junctions between sections of handrails. The 2016 inspection noted that timber had continued to move and in some cases parts of the timber slithers had come out, or butterfly repairs snapped; good quality further repairs have since been undertaken	From the 2024 inspection, the movement of the curved timber continues: some reinforced joints are slightly opened-up, though the oak butterfly reinforcement remains intact, there are several splits along the handrail, typically located where the timbers are most restrained, at their ends; in one place a section of timber has broken off All the brass knobs on the top of the oak handrail are present except one, where the knob is missing from its back-plate, (knobs installed to dissuade people from sliding down the balustrade)	i) Detailed inspection of the oak handrail by a suitably qualified carpenter, to check if there is any splintered timber immediately above the iron bar supporting the timber, if so, ensure the splits are sanded to avoid damage to hands. ii) Repair the handrail where a timber section has broken off iii) Replace the missing knob on the existing back plate	B 2 YEARS D	- £2,000 £400

Fig. 42 Carved oak spiral handrail, 2024

Fig. 43 Fixing of timber to ironwork, 2024

Fig. 44 Brass 'anti-sliding' knob, 2024

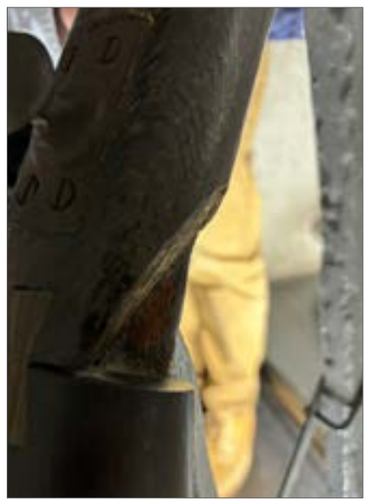

Fig. 45 Damaged section of handrail, 2024

Fig. 46 Recent unstained butterfly joint, 2024

Fig. 47 Stained butterfly joint c.2009

6.5E STAIRWELL AND SPIRAL STAIRCASE: HIGH-LEVEL IRON & TIMBER PARTITIONING

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The wall partition and the ceiling at the landing, level with the viewing platform, is painted timber t&g boarding. An iron gate is at the base of the stairs leading from viewing platform up into the flaming orb area; a timber door behind the gate is painted softwood. The circular board, which is infilling the circular 'ceiling' opening, is for temporary protection of falling objects for operatives working above the enclosure. It has not been removed after previous use and is blocking the view up to the top of the Monument, preventing visitors' enjoyment and understanding of the continuing view up into the Flaming Orb area.	The painted enclosure is in reasonable condition although very dirty; there is evidence of condensation on the timber boarding and slight flaking of paint. The painted iron gate has slight paint chipping. The circular board used to temporarily block the circular opening in the ceiling, (during any works above), is blackened from mould/condensation and unsightly, has been left blocking the public's view up to the top of the Monument. This was also the case at the 2016 Condition Inspection, when the board was also described as blackened from mould/condensation and unsightly.	i) The iron & timber partitioning would benefit from redecoration on the public side and both sides of the door.	C	£5,500
		ii) Clean and decorate the temporary infill board. Fix onto the top of the board, large clear instructions to say that the board is to be used while operatives are working above, as temporary protection to prevent objects falling down the stairwell; the board is to be removed from the opening after every use.	B	£400
		iii) Ensure there is a place for the board to be kept, adjacent to the opening, but out of sight to the public.	A	Incl. Staff Budget.

Fig. 48 Balustrade strap detracts from the simplicity of the interior, 2024

Fig. 49 Steel flat clasped to balusters, 2024

Fig. 50 Steel flat bends around baluster, 2024

Fig. 51 Balusters lead-caulked into treads, 2024

6.6A GROUND FLOOR ENTRANCE LOBBY: WALLS & FLOORS

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The east entrance doors open into the small entrance lobby which leads to the circular stairwell to the west; the lobby has an arched opening on the north side into a small, recessed area: the attendant's recess, where the attendant sells tickets to the visitors. The lobby soffit is barrel-vaulted; recessed into the ashlar walls are three semicircular niches. The attendant's recess has a flat stone ceiling, a low niche to the rear and access steps beneath the timber floor leading down to the basement. Interior finishes are the fine coursed ashlar Portland stone, painted with silica masonry paint. The floor of the lobby is paved with slabs of Purbeck stone, laid in 2009, with black limestone paving the ground floor the circular stairwell. The floor of the attendants' recess is timber boarding, with access to the basement via a hinged timber boarded hatch set in the floor.	Walls & ceiling: painted ashlar masonry is generally in good condition. Paint is lifting from the font and niche above; there is slight powdering of stone to the recesses behind the turnstiles Floor to the lobby: Purbeck paving is in good condition, except where the central turnstile rail, which was formerly fixed to the Purbeck flooring, has been temporarily removed, leaving remains of 3 fixings and local damage to the floor finish. (Reinstatement of central rail would conceal the damage). Floor to attendant's recess: the softwood floor is in reasonably good condition; the hinged access door to the basement fits neatly in the steel frame.	i) Masonry redecoration ii) Attendant's recess softwood floor: clean and treating with Deks Olje No.1 and clean out the steel angle receiving the floor hatch	C C	Incl. in 6.5A ii) Page 32 £590

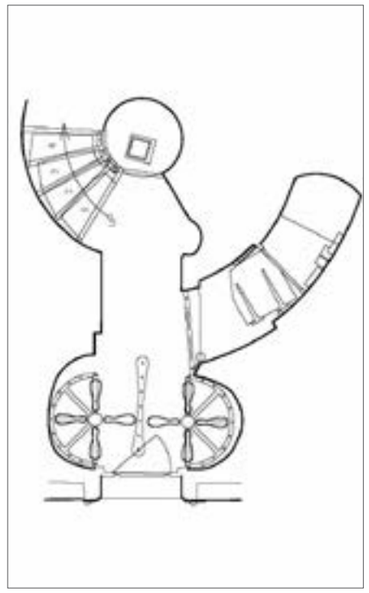

Fig. 52 Plan of entrance lobby, 2006

Fig. 53 Looking east to entrance door, 2024

Fig. 54 The attendants' recess, 2024

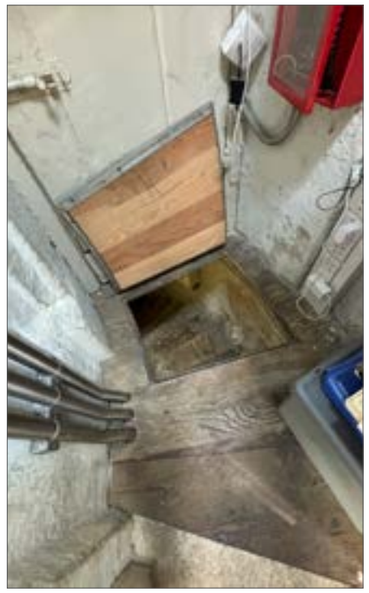

Fig. 55 Floor hatch access to the basement, 2024

6.6B GROUND FLOOR ENTRANCE LOBBY: JOINERY - HISTORIC TIMBER GATE DOOR TO ATTENDANT'S RECESS				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Two-panelled painted timber gate fixed to a simple timber frame, timber skirting, 3no. hinges, small brass bolt. Added since the 2016 inspection:	Painted timber wear pattern at top One screw missing to hinges	i) Redesign the Perspex screen (if still needed) to be more appropriate for the historic interior	C	£1,000
2no. timber display boxes attached to front of gate containing postcards, etc for sale		ii) Replace missing ironmongery	C	£200
Obtrusive laminate glass screen fixed to pair of timber posts, each fixed to the rear of the historic timber gate		iii) Redecoration	FIVE YEARLY	£750

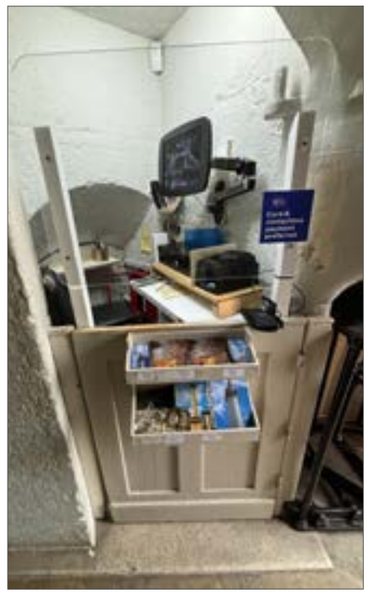

Fig. 56 Painted timber gate to attendants' recess, With display boxes attached, 2024

Fig. 57 The gate shown opened, Recent Perspex screen support timbers, 2024

Fig. 58 Detail of the screen support fixed around historic bolt, 2024

6.6C GROUND FLOOR ENTRANCE LOBBY: JOINERY - GLASS FRONTED PAINTED SOFTWOOD CUPBOARD

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Above turnstile on south wall, built into niche: pair of glazed doors with wide drawer below, 1 shelf in cupboard. Appears to be nineteenth century. East leaf bolts shut, west leaf mortice locks to fixed leaf. Neat keyhole, not known if key exists. Each door has pair of original hinges and small painted iron knobs.	Reasonable, except for surface damage from adhesive remnants Comments on Appearance: Modern notices fixed to the front of the historic glass fronted cupboard disproportionally detracts from the appearance of the entrance to the Monument: Large CCTV in Operation sign stuck onto the glass of the left hand side glazed door CO2 Fire Extinguisher sign glued to the right hand side timber frame, which appears to duplicate the CO2 Fire Extinguisher sign fixed to the stone wall above the CO2 fire extinguisher. Remains of adhesive from a former sign, now removed, same size as the above sign World Tag disc – possibly used as part of the security system, whereby security officers use a wand/pipe tool and scans the point to prove they made the round.	i) Carefully remove remains of adhesive applied to the historic joinery, make-good the damage by redecorating the frame	FIVE YEARLY	£200
		ii) Redecoration	FIVE YEARLY	Incl. in 6.6B ili) Page 38
		iii) Avoid duplication of Fire Extinguisher notices. Locating the notices directly above the fire extinguishers is preferable for the presentation of the historic interior.	B	-
		iv) Review the number of CCTV signs displayed at the Monument, reduce the number to the recommended minimum by eliminating those which detract from the visitor experience of the historic building.	B	-

Fig. 59 Glass fronted painted softwood cupboard, 2024

Fig. 60 Detail showing remains of adhesive applied to the joinery, 2024

6.6D GROUND FLOOR ENTRANCE LOBBY: JOINERY - LOW LEVEL CUPBOARD AT REAR OF ATTENDANT'S RECESS

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
A historic single cupboard door of flush boards in a softwood frame built across the back of the attendant's recess, with small fixed-panel above and fixed skirting below, iron strap hinges and a large iron bolt. Appears to be nineteenth century. Timber skirting has been altered to accommodate a heating grille.	Adequate. Door operates smoothly, ironmongery is historic and functional. Altered skirting board has paint chipping and appears poorly prepared for decoration Comments on Appearance: A crude chipboard shelf with chipped melamine top has been screw-fixed to the historic timber panel above the doorway, (since 2016). This detracts from the appearance of the historic door and together with other poorly designed joinery in the attendant's recess, disproportionally detracts from the appearance of the entrance to the Monument	i) Redecorate, particularly to skirting which requires careful preparation before redecoration ii) Rationalise and tidy cupboard contents iii) Redesign the new shelf (if needed) above the cupboard door to a more appropriate design for the historic interior	FIVE YEARLY B B	£200 Incl. Staff Budget £400

Fig. 61 Looking into the attendants' recess at the historic cupboard front at the back of the recess, 2024

Fig. 62 Inside the rear cupboard showing the skirting heater and cupboard contents, 2024

Fig. 63 Recent chipboard shelf, 2024

6.6E GROUND FLOOR ENTRANCE LOBBY: JOINERY - SMALL TIMBER ELECTRICAL SERVICES CUPBOARD WITH SHELF OVER

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
This cupboard was designed in 2008 as a temporary cupboard (for approximate lifespan 5 years) to accommodate electrical services required at that time. It was acknowledged that technology and demands for electrical services change frequently and the adequacy of this cupboard would need to be reviewed in future. The timber shelf has since been replaced with chipped melamine-faced boarding with a MDF & softwood shelf above and a chipped melamine shelf adjacent.	The cupboard is no longer fit for purpose; it cannot contain all the electrical services and equipment currently required in the attendant's recess. Comments on Appearance: The C21 built-in furniture and fittings in the attendant's recess are poor quality and not to the design and construction standards appropriate for a Grade I listed building. They detract from the appearance of the entrance to the Monument	i) Review and rationalise the equipment and services required in the attendant's recess. ii) Redesign and fabricate the cupboard and countertop, together with any shelving required in the attendant's recess, to the quality standard appropriate for a grade I interior.	B C	- £2,300

Fig. 64 Looking into the attendants' recess at ad hoc shelving fixed to the services cupboard, 2024

Fig. 65 The electrics' cupboard c.2009 can no longer contain all electrical services, 2024

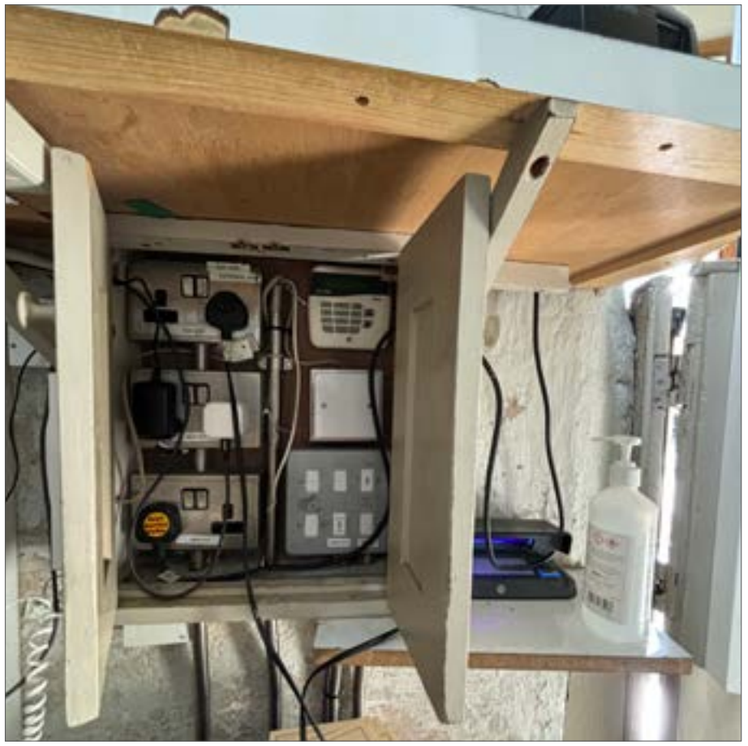

Fig. 66 Inside the electrics' cupboard, 2024

6.6F GROUND FLOOR ENTRANCE LOBBY: TURNSTILES

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The cast-iron turnstile, made by Le Grand & Sutcliff was installed in 1891. It comprises a central barrier of 7 no. circular iron balusters, 25mm diameter with two end newels 32mm diameter, with a flat iron top rail, (temporarily removed). The painted iron gates, one each side of the barrier have brass digital counters and are semicircular on plan with 11 no. square section balusters and flat iron top rail. The wrought-iron hoop gates are pegged in position and operated by a floor mounted ratchet mechanism. The mechanism was in good working order until parts of the gates were temporarily removed c.2010 (without Scheduled Monument Consent).	The central bar and parts of the gates have been removed off site and have not been inspected. The remaining frames and gate parts appear to be in good condition, but the gates are held open with plastic ties so were not rotated. Comments on Appearance: Removal of the central bar and turnstile gates detracts from the understanding of how the turnstiles operated, and from the appearance and enjoyment of entering the Monument.	i) Inspect the missing parts of the turnstiles to ensure they are recorded and safely stored. ii) Give consideration to either reinstating the working turnstiles or obtaining the statutory consents required to alter the formerly working turnstiles.	B C	Incl. Staff Budget £3,200

Fig. 67 Turnstile central rail, 2009

Fig. 68 Turnstile shown open, (one set of arms is missing), 2024

Fig. 69 Turnstile in north recess (arms missing), 2024

Fig. 70 Turnstile in south recess (arms missing) ,2024

6.6G GROUND FLOOR ENTRANCE LOBBY: OCULUS & WROUGHT IRON GRILLE / BAG STORE AREA

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Central at the base of the helical staircase is an oculus (circular opening in the centre of the stone dome of the basement room below); the oculus is an important architectural feature. Within the oculus is a historic wrought iron grille which allows some daylight and ventilation to the circular basement room below, (formerly Robert Hooke's seventeenth century workshop) A circular disc of painted plywood now conceals the grilled opening which is used for storing visitors' bags when they ascend the Monument. The bag store is enclosed with a neat bespoke curved Perspex panel. Neither plywood disc or curved Perspex panel are fixed to the historic fabric and both are easily removable.	The wrought iron grille was refurbished and redecorated in the 2009 contract and appears to be in good condition. Covering the grille reduces ventilation of the basement room below, likely contributing to the damp conditions and decay of the masonry in the basement room and staircase Comments on Appearance: The location of the bag store and the blocking up of the historic oculus greatly detracts from the enjoyment of the Monument as many visitors enjoy and photograph the extraordinary view down the centre of the spiral staircase. Formerly the view ended at the historic circular floor grille, with the basement glowing from the red lighting (installed in 2009) within it. Now the view is down onto visitors' bags which greatly detracts from the view, experience and understanding of the building. (It is appreciated that visitors' bags are a real problem at the Monument as they cannot be taken up the stairs, due to the very restricted width towards the top).	i) Reinstate the main means of ventilating the basement, by removing the plywood which is blocking the grille.	A	Incl. Staff Budget
		ii) Ensure the red basement lighting is switched on during visiting hours to allow the possibility of visitors understanding the form of the building and obtaining a glimpse of Hooke's workshop	B	Incl. Staff Budget
		iii) Decorate Ground Floor grill	C	£400

Fig. 71 Looking down the spiral staircase at the boarded-over oculus (circular floor opening), 2024

Fig. 72 The view of the oculus at the base of the stairwell is concealed by a bag-store Perspex screen, 2024

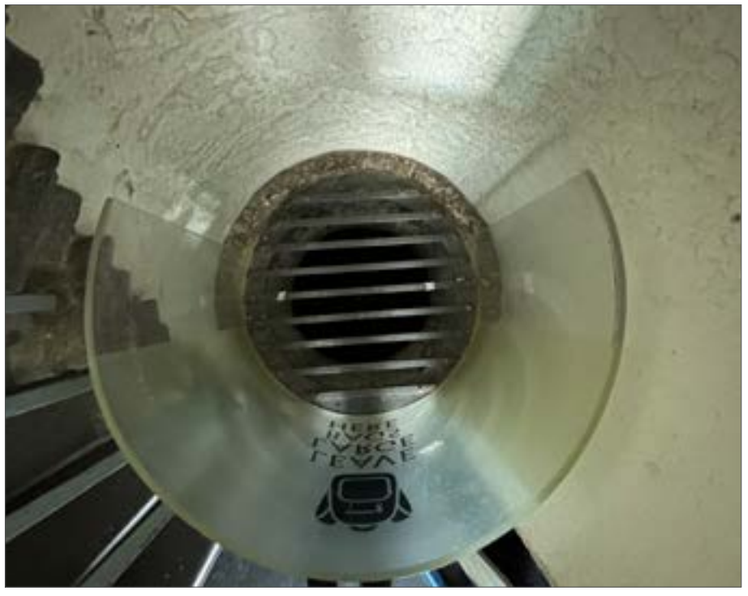

Fig. 73 Looking down at the iron grill in the oculus, with the board-cover removed

6.6H GROUND FLOOR ENTRANCE LOBBY: FURNITURE & EQUIPMENT

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The following have been brought into the ground floor of the Monument: Floor mop and large yellow plastic sign warning about a Wet Floor, prominently stored at the base of the stairwell in full view of the visiting public. Curved Perspex panel with the large, printed instruction: LEAVE BAGS HERE	Comments on Appearance: Storing cleaning equipment at the centre of the helical stair, spoils one of the principal views (and photo opportunities), within the Monument. The curved Perspex panel with the large, printed instruction obscures the historic oculus	i) Do not store cleaning equipment within public view at the base of the helical stair. Store with the other cleaning equipment, in the Pavilion building in Monument Yard. ii) Review the bag store and consider alternative locations to store bags, to allow the grille to the basement to remain unobstructed.	A A	Incl. Staff Budget CS

Fig. 74 Looking down the spiral staircase, mop and yellow sign stored in public view, 2024

Fig. 75 Perspex screen to bag storage area, 2024

Fig. 76 Detail: mop and yellow sign, 2024

Fig. 77 Attendant's chair, 2024

6.7 BASEMENT: STAIRWAY TO THE BASEMENT

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Within the entrance hall is a small recess where the attendant stands. The floor of the attendants' recess is timber boarding, with access to the basement is via a small, hinged timber boarded hatch set in the floor. Access to the basement is difficult, but there is little scope for easing the situation due to the limited space in the attendant's recess. Walls, steps and soffits are Portland stone, walls & soffit are painted with silicate masonry paint. Seven stone steps, curved on plan, lead down to a stone landing. To the north of the landing is a recessed bay which may have been a flue or vent, ventilating the basement in combination with the oculus opening in the domed ceiling. A stainless-steel platform, on pull-out runners, was installed in the recess in 2009 to support and access the Uninterrupted Power Supply unit (USP) formerly located there. To the south, a further five stone steps lead down into the circular basement chamber	Stone steps and landing are in good condition Painted stone walls have extensive paint flaking, some erosion, efflorescence and several severely eroded blocks There is an excessive accumulation of stone particles under stainless steel platform which indicates active erosion of the stonework. At the back of the flue recess, beneath the flue is a streaking paint stain and extensive calcite staining	i) Sweep steps and landing. ii) Clear away metal platform, if no longer in use (retain at present) iii) Reinstate (what is likely to have been) the original basement ventilation system: allowing air to enter the basement via the flue in the north wall recess and for air to be drawn up out of the basement via the large oculus opening in the domed ceiling of the circular basement room. Ventilation to be improved before any redecoration, local stonework repointing or repairs are undertaken	A B C	Incl. Staff Budget No cost £3,500

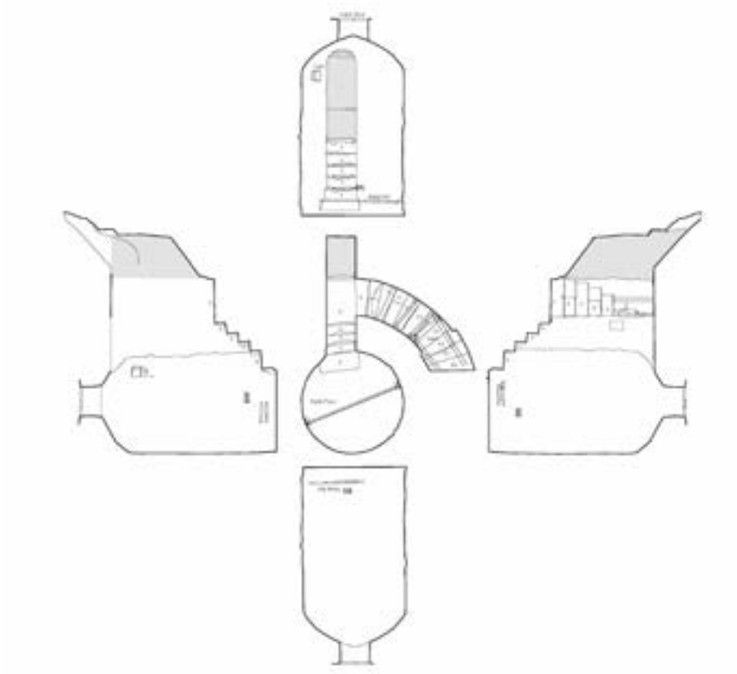

Fig. 78 Basement Plan and Elevations (N at top), 2006

Fig. 79 Floor access hatch to basement, shown open, 2024

Fig. 80 Looking up from the basement steps to the floor access hatch opening, 2024

6.7A BASEMENT: BASEMENT CIRCULAR CHAMBER (HOOKE'S WORKSHOP)

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The floor hatch in the attendants' recess leads via a series of radiating stone steps to a circular chamber 2.14 metres (7 feet) in diameter with a semi-circular domed Portland stone ceiling. The chamber lies directly beneath the circular staircase enclosure. The walls are constructed of coursed rubble stone blocks and red clay brickwork, all unpainted. The floor to the chamber is made up of a compacted lime screed c.2009. A steel angle is fixed across the circular basement just above floor level. This is to support the verticality testing equipment used to regularly (but infrequently) measure the verticality of the Monument to assess any movement. Computers and large protection boxes are located in the basement, together with what appears to be rubbish.	The stonework is very damp when the Moisture Condition tested. There is efflorescence on stonework in places, some spalling of pointing and calcification of stones, some eroded stones and bricks very severely decayed. The large circular ventilation grille at the apex of the vault is closed-off with a board, reducing natural ventilation in the basement The limecrete floor is damp but in good condition. The stainless still conduit is all in good condition	i) Inspect all stored items, remove all redundant items.	C	£400
		ii) Sweep all floors and ledges.	A	Incl. Staff Budget
		iii) Computer & electrical equipment in connection with former temporary panoramic camera system (now disused), to be removed together with all the associated equipment and cabling in the Monument.	C	£1,600
		iv) Re. the steel angle fixed across the circular basement just above floor level used for verticality testing of the Monument, it is important that this steel bar is not damaged in any way.	NOTE	-

Fig. 81 Blocked-up oculus opening at the apex of the basement vaulted soffit, 2024

Fig. 82 Debris and redundant wiring in the central circular basement, 2024

Fig. 83 Steel angle to support the verticality testing equipment

6.8 INTERIOR SIGNAGE

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The following signs were installed in the 2007-2009 contract: - 1no. CCTV sign - Fire Alarm signs & notices - 2no. Fire Action - 2no. Call Point - 2no. Fire Extinguisher - 1no. Fire Alarm pagers - 1no. Assembly Point - 1no. Assembly Point location - 1no. Induction Loop - 1no. First Aid sign - 1 no. Font sign which reads: *FONT:* *Discovered during restoration 2007/08* *Originally used for blessings* The signs are in good condition, including the hand painted signs.	The hand painted signs are in good condition Alterations to signs since the 2007-2009 contract are removal (or overpainting) of the former sign reading: 'CELLAR Robert Hooke's laboratory 1677-1683' with a sign reading: 'Visitors must leave large bags here' Differences to existing hand-painted signs: background colour, lettering colour, lack of border, different typeface.	i) Remove paper sign on front door glazing ii) Generally: keep signage to a minimum and design new signage to match existing; avoid paper signs	A NOTE	Incl. Staff Budget -

7.1 ELECTRICAL INSTALLATION

7.1.1 Date of Electrical Installation

During the 2007-2009 Monument major repair contract the previous electrical installation was entirely removed from the Monument with the exception of the incoming supply.

The new electrical services provided in the contract included the provision of:

- a new meter for the existing incoming electrical service
- an electrical distribution system from the incoming service head and meter to the main distribution panel and high-level distribution board, ancillary power supplies, heating supplies and controls. Together with the sub-circuit wiring to the lighting, power points, fixed equipment and appliances.
- a lighting system, including all accessories, luminaries and lamps
- a power system, including all accessories, electric heaters and connection of fixed equipment, appliances and controls, etc.
- CCTV cameras, recording equipment and monitors
- an additional dedicated telephone lines for security and fire alarm
- an intruder alarm system and a panic alarm.
- a PA and Intercom system.
- a fire detection and alarm system
- a hearing aid induction loop system, including all equipment and system wiring.
- Conduits, cables and plugs for the real-time camera installation.
- Earthing and bonding of the installations.
- The inspection, commissioning and testing of the installations.
- The identification of the installations.

7.1.2 Electrical Services Operations and Maintenance Manual 2009

On completion of the 2007-2009 repair contract, the following documentation was prepared by the electrical subcontractor Cofatec, for the operation and maintenance of the electrical services:

Electrical Services Operations and Maintenance Manual 2009
Electrical Equipment Schedules,
Electrical testing certificates
As-built electrical services drawings. The drawings clearly show the locations of incoming mains, meters and distribution boards

The Electrical Services Operations & Maintenance Manual, describes recommended regular maintenance for each of the electrical services, as follows:

Electrical Service Electrical Services O&M Manual section:
Maintenance matrix 5-1
Specialist maintenance 5-3
Periods between maintenance 5-4
Maintenance programme - implementation 5-5
Monitoring of electrical services 5-6
Periodic testing & inspection 5-7
Distribution boards - maintenance schedule 5-8-1
Battery charging equipment - maintenance schedule 5-10-1
Accessories - maintenance schedule 5-11-1
Isolators, switch fuses and fuse switches - maintenance schedule 5-12-1
Lighting - maintenance schedule 5-13-1
External lighting fittings - maintenance schedule 5-14-1
Fire alarm system - maintenance schedule 5-18-1

7.1.3 Latest Electrical Installation Inspection Report

CoL Risk Assessment for Monument & Pavilion, ref. no. TB FIRE 14, date: January 2024.
“Electrical systems regularly inspected by the Tower Bridge maintenance team; statutory inspections carried out by the facilities provider.“

The Electrical Installation Inspection Report by NICEIC approved contractor provided for this inspection report is dated 18.03.2021, which notes that No Remedial Action is Required

7.1.4 Test Certificates Provided by City of London

In 2024, the City of London provided copies of the following test certificates for this report:

- The Electrical Installation Inspection Report 18.03.2021
- Lightning Protection by Omega Red Group Ltd dated 20.06.2024
- Fire Alarm System, maintenance and testing, dated 24.06.2024
- Smoke detection, maintenance and testing, dated 24.06.2024
- Fire extinguishers, 09.11.2023

No current test certificates yet provided for:

- Telecomms / Data System
- Security Alarm Systems
- Emergency Lighting :
- Mechanical Equipment
- Appliances : PAT testing

7.2 HEATING INSTALLATION

7.2 HEATING				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
An electric radiant heater has been installed in the entrance foyer at the top of the south wall. This replaces the previous electric heater in this location, which replaced the over-door fan heater installed in 2009. A kick-space or plinth fan heater installed at the base of the cupboard at the back of the attendant's recess	Appearance The entrance foyer heater has a smart appearance and is a good colour (silver) against the light-coloured painted stonework. It is located just above the LED strip uplighter, which was not switched on, (or possibly was not working), at the time of the inspection. The appearance of the heater is marred by the thick black electric cable, tied to the slim white LED strip light with white cable ties.	i) It may be advisable not to turn on the LED strip uplighter along the south side of the barrel vault, as this will directly light, and draw attention to, the electric radiant heater.		-
		ii) Consider removing the strip uplighter if the heater is to be permanently located here and installing a slim stainless-steel conduit to take the black cable.	C	£800
		iii) City Corporation to provide information on heaters, installation dates and testing certification	B	CS

Fig. 84 Radiant electric heater, black cabling is visible, 2024

Fig. 85 Heater is located just above LED strip lighting, 2024

Fig. 86 Power supply and isolator, 2024

Fig, 87 Kick-space fan heater in skirting of cupboard, 2024

7.3 LIGHTING SYSTEMS

7.3A VIEWING PLATFORM LIGHTING

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
2007-2009 Major Repair Contract Lighting Design An outline lighting design was prepared during the 2007-2009 repair contract. The intention of the design was to light inside the viewing platform cage, to make the cage netting almost invisible when looking at the exterior of the Monument. The viewing platform luminaires would also light the gilded flaming orb. The light fittings were successfully mocked-up on site by Light Bureau Ltd on completion of the 2007-2009 repair contract. Power supplies have been provided to each of the four corners of the viewing platform for the future installation of bespoke light fittings. 2024 Viewing Platform Lighting Design Viewing Platform lighting is: A rope of LED lights fixed to the underside of the balustrade handrail on the viewing platform. A portable LED work-light fixed with cable ties to the balustrade mesh in the south-west corner of the viewing platform, directed upwards towards the flaming orb Light fittings have not been installed at the corners of the viewing platform. It is not known if the current lighting design has received planning approval	2024 Viewing Platform Lighting Design The 2024 lighting design is not the subtle lighting proposal discussed with the planners in 2008. The LED rope-light fixed under the balustrade handrail is directly visible from the ground after dark as a series of glaring dots of white light, strongly highlighting the balustrade handrail and harshly lighting only the lowest part of the stone drum. It does not light the dome or the flaming orb. . The single portable uplighter has quite a good effect for a temporary light; seen from the ground after dark, it lights the flaming orb well, although perhaps too brightly, and only from one side. It is assumed that this is a temporary installation.	i) Replace the current amateur temporary lighting design with a permanent design by a lighting designer for historic buildings.	C	£26,000

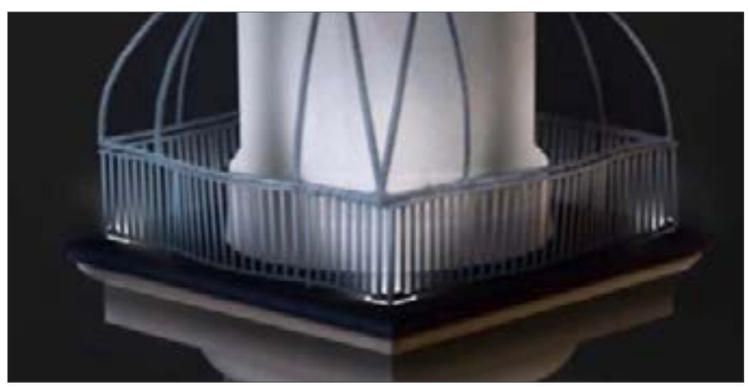

Fig. 88 2007-2009 Major Repair Contract Lighting Design

Fig. 89 2018 Viewing Platform Lighting Design

Fig. 90 A rope of LED lights fixed to the underside of the handrail, 2024

Fig. 91 A portable LED work-light fixed to the balustrade mesh, 2024

7.3B FLAMING ORB DISPLAY LIGHTING

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
In 2009, following the Major Repair Contract 2007-2009, looking up from the stairwell, the flaming orb area was gently lit by subtle blue feature lighting using cold cathode tubes concealed at high level. In 2024 (and in 2016) the circular opening at the top of the public helical staircase is block-up with a mouldy circular board, obscuring the view up into the flaming orb. At the time of the inspection, the lights were not on in the flaming orb area, so it is not known if the blue lighting still exists, or if it works. One uplighter was noted on the top stone platform directed up towards the flaming orb.	The 2007-2009 contract lighting design included blue lighting in the flaming orb area, visible to the public through a circular grille at the top of the staircase, and a red glow from the basement, visible down through a circular grille at the bottom of the staircase. At the time of the inspection, the view up, to the top of the centre of the helical staircase, looked ugly and ill-considered. The circular central opening was blocked with a mouldy circular board laid on top of the grilled opening.	i) Remove the mouldy infill board to the circular ceiling opening. Supply new round plywood board and decorate ii) Only put board on top of the circular ceiling opening when operatives are working above, otherwise always leave the circular opening clear ventilate above to allow visitors to see the continuation of the Monument interior up into the flaming orb. iii) Switch on the blue lighting when the Monument is open to the public; the blue lighting was not tested at the inspection.	A As required Daily	£800 - Incl. Staff Budget

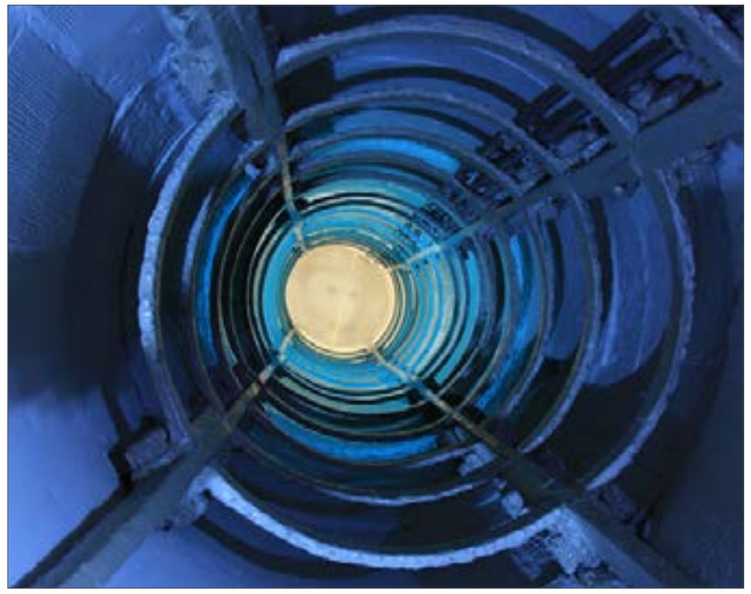

Fig. 92 View up towards the flaming orb 2009

Fig. 93 2009 display lighting

Fig. 94 Mouldy board over circular opening, 2024

Fig. 95 Uplighter on top landing, 2024

7.3C STAIRWELL LIGHTING

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
In 2009, the stairwell was lit by bespoke light fittings mounted onto every fourth baluster with light directed onto the steps rather than flooding the whole stairwell with light (as the previous scheme). The baluster light fittings are the same width as the iron balusters, approx. 25mm, and fixed to the flat face of the baluster, facing the stair tread. Each fitting is fitted with micro louvres to prevent a direct view of the lamp source and long life, low energy warm white LED lamps, which, according to the Maintenance Plan, should only require maintenance once every ten years. The powder-coated finish colour-matched the paint colour of the balusters, then a dark grey colour. At the 2024 inspection, it was noted that all the 2009 baluster light fittings have been replaced except for those above viewing platform level, where the original bespoke light fittings remain.	The replacement baluster light fittings are inferior in appearance to the bespoke fittings, as the replacement lights: • are wider than the iron balusters • have a black finish, which contrasts with the light grey painted iron balusters, to which they are fixed • do not have micro louvres to prevent a direct view of the lamp source • are not positioned on the flat-face of the balusters, but are tilted away from the stair tread to try to reduce glare • emit a harsh cold light, rather than a warm white light • are not all well fixed to the balusters The baluster lights are no longer used as the emergency lighting system, whereby selected lights were provided with battery back-up.	i) Consider the merits of the 2009 staircase baluster lighting scheme to inform the brief, when replacing the lights on the main staircase. ii) The existing light fittings should be fixed to the balusters with the base of the light fitting in line with the top of the adjacent tread.	C A	£88,000 Inc. Staff Budget

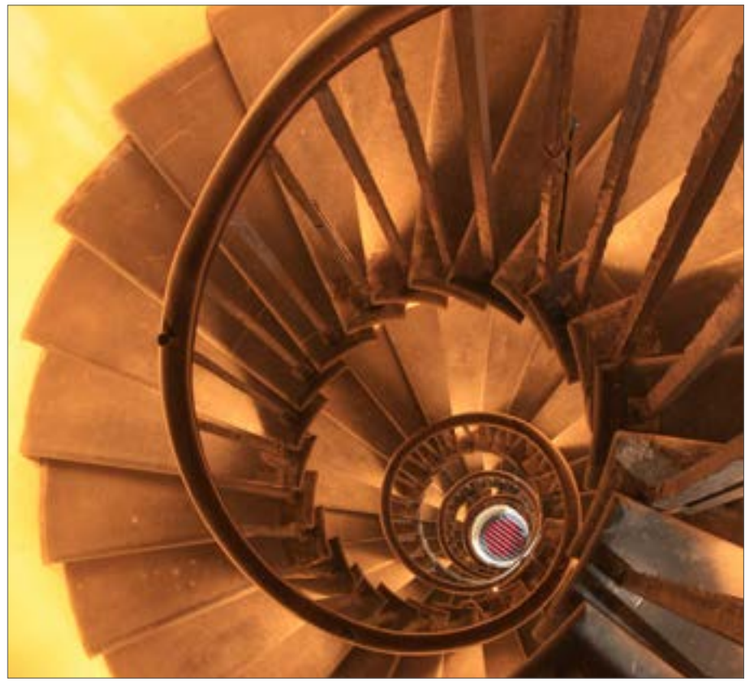

Fig. 96 2009 lighting: Warm light & anti-glare louvres

Fig 97 2024 lighting: cold strong light

Fig. 98 2024 glare

7.3D EMERGENCY LIGHTING

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The Monument Risk Assessment describes emergency lights as being located in the entrance, cellar, stairs & flame room area. (CoL Risk Assessment for Monument & Pavilion, ref. no. TB FIRE 14, date: January 2024) White plastic emergency lights have been introduced into the stairwell, replacing the previous emergency lighting system, which was a battery back-up to selected baluster lights, and therefore entirely unobtrusive within the stairwell.	Appearance The white plastic emergency lights in the stairwell detract from the historic interior Condition The Monument Risk Assessment describes the emergency lighting testing regime: “Emergency lighting tested monthly by Tower Bridge staff and annually by the facilities provider” (CoL Risk Assessment for Monument & Pavilion, ref. no. TB FIRE 14, date: January 2024)	i) Consider the merits of the 2009 staircase baluster lighting scheme to inform the brief, when replacing the lights on the main staircase.	C	Incl. in 7.3C Page 52

Fig. 99 Black cabling connecting a transformer to the replacement baluster lights, 2024

Fig. 100 Recent emergency lights in the stairwell, replacing baluster emergency lights, 2024

Fig. 101 White emergency light and black transformer, 2024

7.3E GROUND FLOOR LIGHTING

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Door architrave lighting: the discreet LED luminaires located within door architrave light the turnstiles' area and have pleasant warm light-colour Attendant's recess lighting: the LED strip light in the attendant's recess is a replacement (since 2016); the light colour is a harsh brilliant white, rather than the softer and warmer original light, the junction box & conduit are white plastic rather than stainless steel as the 2009 designed set of conduits & junction boxes within the Monument. Barrel vault uplighter: the LED luminaire uplighting the barrel vault were not switched on, or were not working at the time of inspection. Base of stair light: this appears to be the 2009 fitting, with a warm light.	Barrel vault uplighter: the LED luminaire was not working at the time of inspection. Check if it works and what effect it produces, as an electric heater has recently been installed directly above it.	i) Maintain the system of stainless-steel conduits and junction boxes when adding new ones, to prevent the general downgrading of the appearance of the historic interiors. ii) Remove the barrel vault uplighter if it is redundant, and make good at the fixings	NOTE B	£900 Incl. in 7.2 ii) Page 49

Fig. 102 Wall light fitting showing warm lighting colour, 2024

Fig. 103 Attendants' recess with bright white 'cold' lighting, 2024

Fig. 104 Replacement light fitting, plastic conduit and junction box, 2024

7.3F BASEMENT DISPLAY LIGHTING

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Looking down from the spiral staircase, before the bag store area was added, visitors could see through the circular opening in the stone ground floor down into the basement below, from where a gentle red-ish glow of light was previously visible through the iron floor grille.	The basement light was not switched on at the 2024 inspection, so it is not known if it is working. The view down into the basement, (Robert Hooke's former workshop), is blocked by a plywood board laid over the iron floor grille. Visitors are not aware of the basement workshop below and the effect of a red glow from the basement has been expunged.	i) It has been recommended elsewhere that the plywood board is removed for ventilation reasons, and that the iron floor grille remains unobstructed to allow air movement through the currently unventilated and damp basement.	A	Incl. Staff Budget
		ii) Ensure the red-tinted basement lighting is working and switched on daily.	B	Incl. Staff Budget

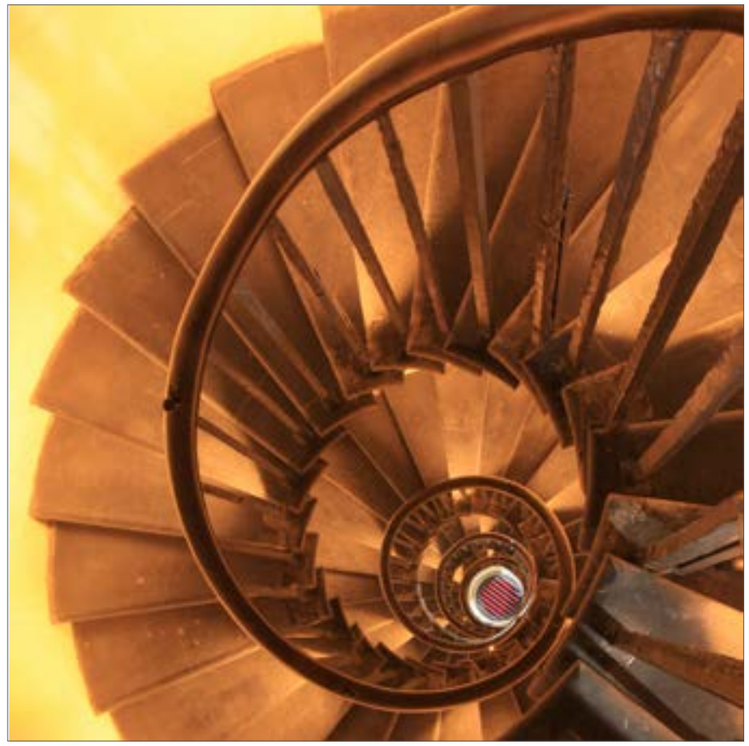

Fig. 105 2009 red light glowing from the basement

Fig. 106 2009 red tinted lighting in the basement

Fig. 107 2024 Blocked view to basement

7.4 SOUND SYSTEMS

7.4A PA AND INTERCOM SYSTEMS

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The purpose of the PA system is for an attendant at ground floor level to speak to visitors on the viewing platform. A microphone and amplifier are located at ground floor level connected to 2 no. sound projectors at high level.	Not tested at the inspection.			

7.4B INDUCTION LOOP

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
A small portable induction loop was provided in 2009, located in the attendant's recess at the entrance to the Monument. The unit required the attendant to switch it on each time it is required and ensure that it is charged regularly. It provides a 1.2m area of coverage. At the 2024 inspection, the induction loop appears to no longer be available	No longer existing at 2024	Consider reinstatement (discuss at Client Workshop)		

7.4C CCTV & TANNOY SYSTEMS

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
CCTV monitoring Information from: CoL Risk Assessment for Monument & Pavilion, ref. no. TB FIRE 14, date: January 2024: • CCTV monitoring is maintained by facility provider • CCTV coverage of the viewing platform is linked to the ticket counter and Tower Bridge control room • The monument and pavilion are monitored remotely by CCTV from Tower Bridge control room Tannoy A Tannoy voice communication facility is provided on the Monument viewing platform from the Ticket Office which has visibility of the CCTV feed	Not tested at the inspection			

7.5 LIGHTNING CONDUCTOR

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Date of installation: 2009. Lightning protection down-conductors are UPVC coated copper tape and upvc copper rod, with the appropriate high-quality fixings, which connect the copper flaming orb, the stainless-steel cage and the internal wrought iron balustrade to the ground earthing points. Conducting tapes are connected at high level to the inside of the copper urn, iron ladder and iron support cradle. From here, two tapes to go out to the exterior of the column and connect to the top of the 2008 viewing platform cage on east and west elevations. The stainless steel of the balustrade and cage is part of the conductor system. Conductor tape is connected to the bottom of the cage railings, on the east and west elevations; it goes down to the top of the shaft of the column, to the base, from where the tapes go horizontally: 1 no. to the north elevation and 1 no. to the east elevation, then down the plinth to the 2no. earthing points. The east down conductor is labelled: 'System maintained by Omega Red Group Ltd 0871 540 666'	Visual inspection: the lightning conductors look to be secure and in good condition. The lightning protection system was inspected and tested by Omega Red Group Ltd on 20.06.2024, who reported the following: The lightning protection system for this structure has been inspected in accordance with BS 6651:1999. The structure has a system designed in accordance with the requirements of BS 6651:1999, or an earlier British standard. The lightning protection system for this structure does not comply with the standard to which it has been inspected (see statement above). Please contact us if you require further explanation. The lightning protection system has an overall resistance value to earth of 8.42 ohms. The lightning protection system requires repair works to bring it into a serviceable condition. Please refer to the attached quotation. The lightning protection system will not comply with the standard to which it has been inspected if the identified repair works are completed. However, it will be returned to a serviceable state of repair.	i) Undertake repair work as quotation provided to CoL by Omega Red Ltd (Quotation for repair work not provided to JHA)	A	Client to Provide Quote

Fig. 108 North elevation down conductor, partly concealed, and test pit, 2024

Fig. 109 East elevation down conductor, surface mounted, 2024

Fig. 110 East elevation, lightning conductor test pit, 2024

7.6 FIRE PRECAUTIONS

7.6A FIRE RISK ASSESSMENT

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
CoL have provided JHA with copies of: • External Fire Risk Assessment for The Monument and Pavilion, by Fire Protection Association, dated 30.10. 2019. • CoL Risk Assessment for Monument & Pavilion, ref. no. TB FIRE 14, date: January 2024 "CoL Risk Assessment for Monument & Pavilion, ref. no. TB FIRE 14, date: January 2024" The assessment identifies the hazards, describes who may be harmed and how, describes the existing controls and risk rating and recommends any further action necessary.	The CoL Risk Assessment requires the flame area and the cellar to be cleaned regularly to remove any build-up of litter/dust or rubbish. At the 2024 inspection the flame area and cellar were not clean	i) Include regular cleaning of the flame area and cellar on the cleaning rota	A	Incl. Staff Budget

Fig. 111 Dust build-up in flame area, 2024

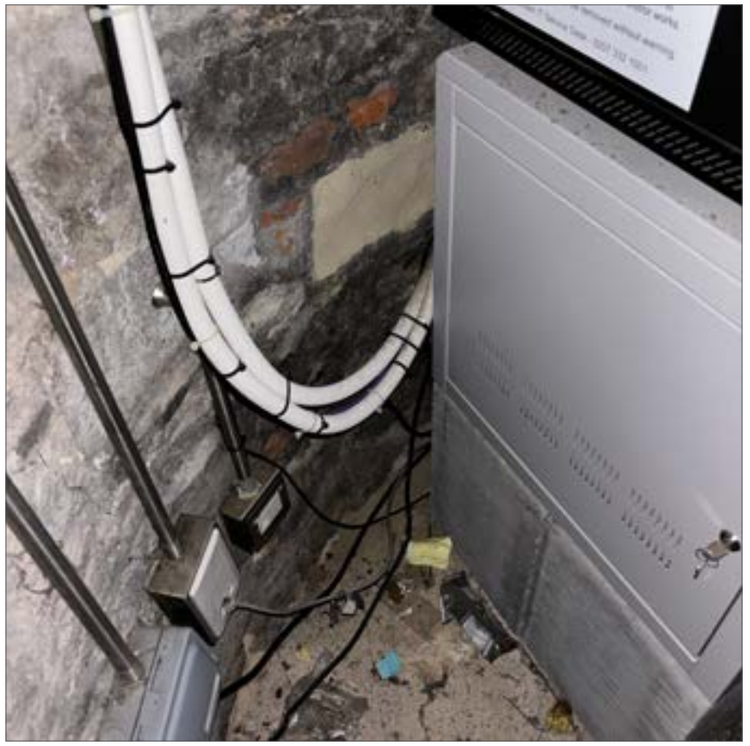

Fig. 112 Litter in cellar, 2024

Fig. 113 Rubbish? & cardboard boxes in cellar, 2024

7.6B FIRE DETECTION				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Information from: "CoL Risk Assessment for Monument & Pavilion, ref. no. TB FIRE 14, date: January 2024" Smoke detectors: In the Monument, smoke detectors, linked to fire alarm system, are located on ceiling of the basement, entrance, stairs and flame room area In the Pavilion, smoke detectors are linked to sounders Call points Call points are located by the exit and at the top of the stairs, linked to fire alarm system with remote monitoring by monitoring station and Tower Bridge security control room. Audible sounders and beacons The fire detection system is supplemented with audible sounders and beacons, staff make announcements using the PA system Activation of fire alarm: The alert is transmitted to a monitoring centre who in turn contact Tower Bridge security control room In hours: The security team contact attraction staff located there Out of hours: security from tower bridge attend to investigate	Inspections/Testing Information from: "CoL Risk Assessment for Monument & Pavilion, ref. no. TB FIRE 14, date: January 2024" Call points tested weekly by Tower Bridge security and maintained by facility provider. Statutory inspections are carried out by the facilities provider. Information from: External Fire Risk Assessment for The Monument and Pavilion, by FPA. Fire drills are held approximately four times per year – records were seen. All are unannounced but occur outside of visiting / events hours. A detailed report of each drill and/or evacuation are maintained (typed) and findings disseminated (records were seen for the incident on 17/04/19). The Fire Detection and Alarm System has been tested and certified as satisfactory by Square Mile Fire & Security on 24.06.2024	No recommendations by 'Square Mile Fire & Security'	-	-

7.6C FIRE EXTINGUISHERS				
DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Fire extinguishers are located just inside the entrance door and at high level behind the south door (of a pair) onto the viewing platform.	Information from: CoL Risk Assessment Fire extinguishers checked monthly by Tower Bridge staff and inspected annually by the facilities provider Information from: 'StandBy Fire Protection' Certificate of Inspection 09.11.2023 Inspected: 3no. 2kg CO2 extinguishers and 3no. 6L foam extinguishers Corrective action required to 1no. 2kg CO2 extinguishers and 1no. 6L foam extinguishers, -refer to report (not provided to JHA)	i) Undertake recommendations from 'StandBy Fire Protection' to ensure fire extinguishers are compliant	A	Client to Provide Cost

7.7 DISABLED PROVISION AND ACCESS

7.7A DISABLED ACCESS AND THE 2004 ACCESS AUDIT

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
There is no disabled access into the foyer of the Monument or up to the viewing platform. The City of London confirm that most recent Access Audit report was prepared in 2004, prior to the 2007-2009 Major Repair Contract. The following recommended improvements to improve physical access were made in 2009: Removal of sign over the glazing to the entrance door Installation of Hearing Induction Loop Improvements to lighting on the steps	Sign over the glazing to the entrance door: not removed at 2024 inspection Hearing Induction Loop: no longer (obviously) existing at 2024 inspection Lighting on the steps: strong glare from replacement baluster lighting	i) Sign over the glazing to the entrance door: remove	A	Incl. Staff Budget
		ii) Hearing Induction Loop: CoL to advise reason for removal	-	
		iii) Lighting on the steps: replace baluster lighting with louvres, as originals	C	Incl. in 7.3C i) page 52

7.7B FUTURE PROVISION OF A DIGITAL SCREEN TO DISPLAY VIEWS

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
A suggestion in the access audit report of 2004 is that one or more webcams or real-time moving image cameras could be installed on or above the viewing platform level and for the images to be relayed to ground level. This would give access to the views from the viewing platform to those who cannot climb the stairs. The planning application for the 2007-2009 contract stated that provision would be made for high level cameras and a ground level display screen to be installed either in the contract or following completion of the contract. Provision was made in the contract for a camera and for conduits to take data cables to relay digital information from the camera to the base of the Monument.		i) The City Corporation gives consideration to instructing the provision of a screen at the base of the Monument to show images of views from the top of the Monument.	D	Not Costed

7.8 HEALTH & SAFETY POLICY

7.8A HEALTH & SAFETY POLICY

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
The Monument receives many public visitors and climbing the 311 steps to the viewing platform is quite a challenge for some visitors. The form of the building is unusual and difficult for access by the emergency services; when contacting the emergency services, attendants should provide information necessary about the unusual form of the building.		i) Ensure the Monument attendants have appropriate health & safety training	B	Incl. Staff Budget

8.1 ENTRANCE STEPS & EXTERNAL PAVING

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Paving outside the entrance to the Monument and steps up to east entrance door. The stone steps were installed in 2009 in honed Yorkstone with "anti-slip"stainless steel studs resin-fixed into drilled holes into the edges of the treads. The riven Yorkstone paving slabs were laid in2005. There is an external water pipe and tap, both lagged.	Stone steps & studs: good condition, cleaning & chewing gum removal is desirable Drainage pipe beneath Yorkstone step, and drainage outlet from paving within railings (south end) appear to be blocked	i) Wash Yorkstone steps with bristle brush and water and freeze remove chewing gum	B	£400
		ii) Clean paving and two paving drain-pipes within railings paved area	B	£1,000
		iii) Improve appearance of earthing cable to exterior water supply pipe	B	Incl. Staff Budget

8.2 EXTERNAL RAILINGS AT GROUND LEVEL

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Painted cast iron external railings and central gate around the east entrance to the Monument	Local damage to paintwork leading to rusting of ironwork	i) Prepare, prime and paint local areas of ironwork where paint is damaged.	C	£500
		ii) Full redecoration	C	£4,000

Fig. 114 Tap, with earthing cable, 2024

Fig. 115 Drain pipe from north area beneath entrance step, 2024

Fig. 116 Close-up blocked pipe, 2024

Fig. 117 Pipe discharges to south area, 2024

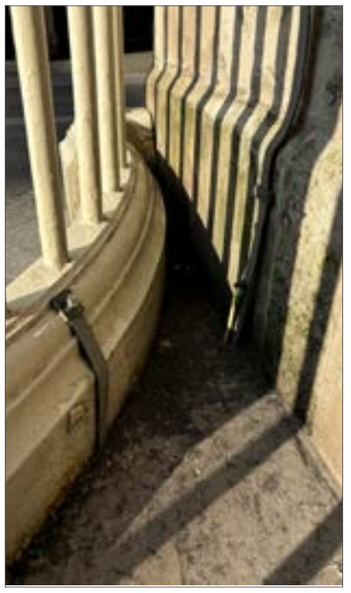

Fig. 118 Corner of south area (drain in corner), 2024

Fig. 119 Drainage gap from south Area to surrounding paving, 2024

9.1 PAVILION BUILDING

DESCRIPTION	CONDITION	RECOMMENDATION	PRIORITY	COSTS
Small pavilion building square on plan circa 5.4m x 5.4m and approx. 3m high. Structural glass enclosure around gabion walls lined with timber stud walls with insulation and plasterboard. Reflective angled glass panels on the flat roof. Steel door to attendants' room; 'temporary plywood door (originally a sliding door) to the public wc, now closed.	Exterior: the pavilion was designed as a 'temporary' structure and is not in good condition. Structural glass walls have open joints between panels, some joints now (badly) mastic-filled, glazing joint north side, above doorway, is temporarily taped over, some glass panels flex when pushed against. In s-w corner, glazing not aligned with metal ground trim around the paving 'rocks', revealing blue plastic shims and chipboard packing. Inside of glazing is dirty in places, particularly horizontal glazing above doorways,shattered glass remnants in gabions. Attendants' door, poor aluminium drip detail, door to (disused) public wc, temporary plywood, payment point is taped over, paint is peeling from threshold & mastic detailing Interior: As described by Operations team: Pavilion not suitable for multi-use purpose as a staff welfare area, storage facility and secure space for cash. Issues particularly with use by multi staff of different sexes concurrently. Insufficient space to store all operation equipment needed to run visitor attraction. Maintenance issues include overall state of interior decoration and repair, tiles, paint and equipment. Kitchen area especially hobs need removal and making good – This is scheduled for refurbishment in 24/25 . Recurring issues with external door.	i) Prepare detailed scope of exterior & interior repairs and alterations to the Pavilion building to provide adequate facilities for Monument staff and a presentable exterior in the setting of the Listed Monument	B	Client to Provide Quote

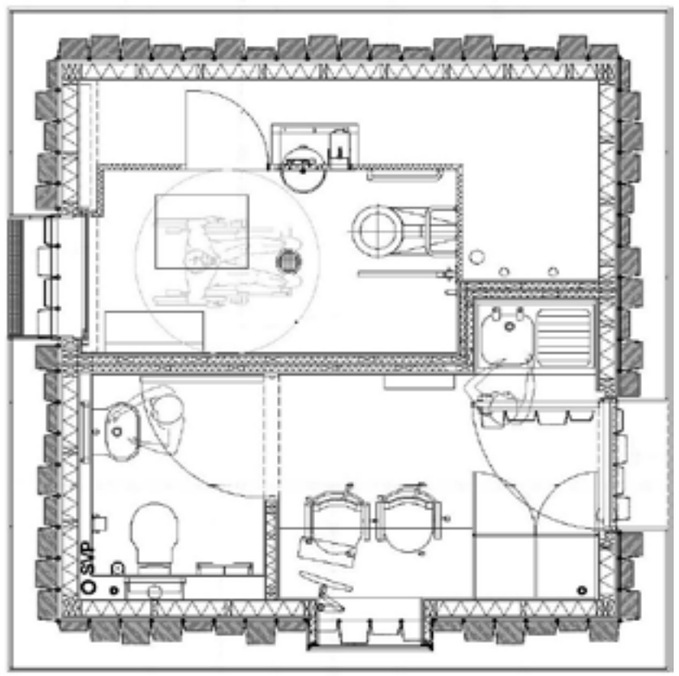

Fig. 119 Floor plan © Bere Architects 2005

Fig. 120 Open joints between structural glass, 2024

Fig. 121 Door to public WC, 2024

SOURCES OF INFORMATION

Condition Survey 2014 by Julian Harrap Architects

Julian Harrap Architects Site inspections 2024

The Monument Major Repair Contract 2007-2009 informPark by Purcell March 2024

City Surveyor Department, City of London Corporation

City of London Workshop 1 for The Monument CMP

https://www.themonument.org.uk/history

https://www.themonument.info/history/design.html

Monument Verticality Report 07 July 2024 by The Downland Partnership

The Monument Investigation Work, May 2005 by Julian Harrap Architects

The Monument Major Repair Contract 2007-2009 O&M Manual

Electrical test certificates

Lightning protection system test report by Omega Red Group Ltd on 20.06.2024,

External Fire Risk Assessment for The Monument and Pavilion, by Fire Protection Association, 30.10. 2019.

CoL Risk Assessment for Monument & Pavilion, ref. no. TB FIRE 14, date: January 2024

The Monument Access Audit report 2004

Historic England, Conditional approval letters for Scheduled Monument Consent applications

APPENDIX I

MONUMENT STRUCTURAL REPORT

2024

Hockley & Dawson

HOCKLEY & DAWSON
CONSULTING ENGINEERS

Title	The Monument CMP – Structural Report
Job No:	22071
Date:	September 2024
Client:	

DRAFT

HOCKLEY & DAWSON

P

Author	Name Qualification		Signature
Checked	Name Qualification		Signature
Approved	Name Qualification		Signature
Reference		Revision	Issue Date

HOCKLEY & DAWSON

Contents

HOCKLEY & DAWSON

1.0 Introduction and Brief

The structural condition of The Monument was instructed as part of the ongoing conservation and management plan. This report focusses on the structural observations and should be read in conjunction with the reports and information compiled by Julian Harrap Architects.

2.0 Description

Survey inspections were carried out on the mornings of the 31st July, 5th August, and 7th August 2024. The top section of the flaming orb (above the ladder access platform) was not accessible due to lack of a rescue plans, but all other areas of the structure were inspected directly.

Previous inspections and survey records will be referred to in the finalised report, with measured survey comparisons where possible.

3.0 Observations

Flaming Orb

The original ribs, and modern plates / brackets installed circa. 2008 were showing signs of corrosion throughout the lower section of the orb. At this stage it is all assumed to be minor surface corrosion, however treatment and maintenance of these structural elements should be undertaken to ensure that it does not worsen.

Access to the higher levels of the orb was denied, however an operative recorded a video of the condition in this area. Based on his observations, comments, and a review of this video, the internal structure of the orb appeared to generally be in a reasonable condition. One hole was noted in the wall of the structure, although it was not clear whether this was a recent change or had been there unchanged for a considerable time. Closer inspection of the hole would be required in order to better assess the condition.

As with the ribs and plates at the lower orb level, all painted metalwork at high level should be inspected, and any areas of corrosion cleaned back and treated.

22071 – The Monument CMP – Structural Report

HOCKLEY & DAWSON

Observation Deck

Significant cracking was observed along the railing line, particularly to the west and east sides. These cracks had not been noted on previous inspections and did not form part of the previous set of monitoring. This would suggest that whilst they may have been present, they would have been less severe. It is therefore assumed that the cracking has worsened since the last set of structural inspections.

The monitoring studs from previous phases of recording were mostly lost. A few were still in situ and where possible measurements were taken for comparison. Overall there did not appear to be any substantial additional cracks to those which had previously been monitored apart from those at the base of the railings described above.

A visual survey using binoculars was conducted of the external stonework above the observation deck level. No notable issues were observed apart from one spalled area of stonework where the top of the cage structure met the stonework above the doorway. It was assumed due to the surface condition that this defect was not a recent change and that the structure was stable.

Stairs and Balustrade

In general the railings and balustrade appeared to be stable. It was noted that a thin strap had been introduced wrapping around the balusters approximately a quarter of the way down from the handrail. Based on previous archive information, this strap had been installed after 2016, when Hockley & Dawson carried out a detailed survey of the balustrade and produced a series of proposed strengthening details. It did not appear that any of these proposals had been implemented. There were several instances of splits within the timber handrail, generally at the joints between sections.

There was visible cracking around base of balusters on many steps. The severity of these cracks varied, with many just hairlines or 1mm. A detailed review of the previous balustrade surveys should be undertaken to compare the extent of this cracking.
In some cases stone repairs had been carried out to the ends of the stone steps, which may have been carried out for the most significant cracking in these areas. These repairs may also have been necessary to address areas of severe spalling. There were a number of steps which showed loss to the underside surface at the time of the recent inspections. It was unclear whether the remaining defects have worsened since the repairs, or whether the issues which were repaired were far more significant. It is currently assumed that these steps are stable and that there is no

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ongoing loss of material (as there have been no reports of debris etc.) however these should be carefully recorded and monitored going forward.

4.0 Conclusions and Recommendations

Of all the issues observed, the most concerning is the cracking at the base of the cage railings. This was the most significant cracking and was in an exposed position. The cause of the cracking at this stage is unknown, however it could be linked to lateral overloading of the railing or and issue in the method of fixing back into the slab.

Flaming Orb

- Corroding iron ribs, plates, and brackets within the orb
  - All areas of corrosion to be carefully cleaned back to bare metal, treated, and repainted in accordance with the specification.
  - All other areas to be cleaned and painted as per recommended maintenance
- Close inspection of the hole within the high level orb structure
  - Ongoing monitoring
    - Recording of hole size and wall thickness, and photographs
    - Suggested to be 6 monthly until proven to be stable and then monitoring requirements reviewed

Observation Deck

- Detailed inspections of the cracking around the base of the railings
  - The position of the cracks makes stud monitoring difficult due to the proximity to the railings
  - Measurements of extent
  - Stud monitoring where possible
  - Photographic records
  - Review of the construction details
- Repair and stabilisation scheme to be developed once the causes are better understood.
- Visual inspection of the slabs recommended to be annually [subject to the review of the monitoring data before the final report issue]

Stairs and balustrade

- Crack monitoring of steps to be put in place, recommended to be 6 monthly [subject to review of previous balustrade records]
- Review of the noted cracking and stone condition against previous records
- Repair and stabilisation of the split timber handrail
- Installation of the proposed strengthening systems from 2016
  - Low priority with the thing wrapping strap in situ

22071 – The Monument CMP – Structural Report

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- Railings currently seem stable

HOCKLEY & DAWSON

5.0 Standard Conditions

This report is the property of and is confidential to the client designated in the report. Whilst it may be shown to the client's professional advisors, the contents are not to be disclosed to, or made use of, by any third party, without our express written consent. Without such consent, we can accept no responsibility to any third party.

Whilst every effort will be made to fully inspect those parts of the building requested of us to inspect, no permanent or secured fixtures and fittings will have been removed. We will not have inspected woodwork or other parts of the structure which were covered, unexposed or inaccessible and we are unable to report that any such part of the property is free from defect.

Hockley and Dawson certify that they have carried out the works contained herein with due care and diligence to their best belief and knowledge based on the time and information available.

This report is made on behalf of Hockley and Dawson. By receiving it and acting on it, the client – or any third party relying on it – accepts that no individual is personally liable in contract, tort or breach of statutory duty (including negligence).

22071 – The Monument CMP – Structural Report

HOCKLEY & DAWSON

6.0 Appendices

HOCKLEY & DAWSON

6.2 Appendix A – Photographs

Flaming Orb

Example of typical corrosion to the modern brackets

Minor surface corrosion to original rib and plate

Corrosion to the internal railings below the orb

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Loss of underside surface to stone steps within upper section (between observation deck and orb)

Observation Deck

Example of incomplete set of monitoring studs – crack #1 from previous surveys

Example of incomplete set of monitoring studs – crack #2 from previous surveys

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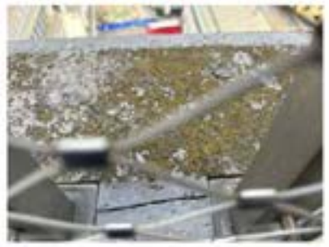
Full set of monitoring studs in situ

West elevation south end
Crack along base of railings from southern corner, extending beyond mid length of the elevation



West elevation central

East elevation north end
Crack along the base of the railings from the northern corner approximately to the mid point. In general less severe cracking than the western elevation.

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Typical minor surface corrosion on railing

Spalled stone surface around the bracket – visible with binocular survey

Staircase and Balustrade

Underside corner of step #68 missing

HOCKLEY & DAWSON

Cracked step at baluster base (#103)

Damage to top corner of stone step #125

Crack through load path of cantilevered stone steps (#142)

Cracked step at baluster base (#162)

HOCKLEY & DAWSON

Railings not perpendicular to step

Damage around infill at base of baluster (#185)

Loss of material to underside of step and cracking across underside corner at wall face (#202)

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Corrosion at base of baluster and damage to stone around the base

Significant loss of underside surface #218

Scabbled underside #246

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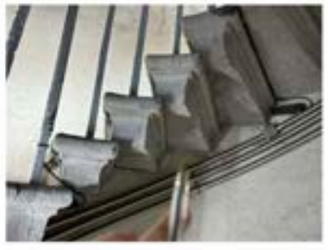
Damage to stone around base

Damage to handrail timber (#234)

Horizontal crack across vertical back face of stone step #283



Uneven underside #287

HOCKLEY & DAWSON

Cracking at base of baluster and horizontal cracking across the end of the stone step (#298)

Damage to timber handrail – near observation deck level

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JULIAN HARRAP

ARCHITECTS LLP

THE MONUMENT TO THE GREAT FIRE OF LONDON

VOLUME III: MANAGEMENT & MAINTENANCE PLAN

MARCH 2025

Judy Allen / Sarah Tsang
On behalf of Julian Harrap Architects LLP®
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ISSUE 01 PRELIMINARY DRAFT	03 October 2024
ISSUE OF DRAFT 1	10 October 2024
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ISSUE OF DRAFT 2	15 January 2025
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USING THE DOCUMENT

When using this document in an electronic format, click on the section names or page numbers in the contents or the section contents to navigate the report.

Clicking on this button on the top right corner will return to the contents page.

CONTENTS

VOL I: CONSERVATION PLAN

VOL II: QUINQUENNIAL INSPECTION SURVEY

VOL III: MANAGEMENT & MAINTENANCE PLAN

City Corporation	City of London Corporation
CMP	Conservation Management Plan
CS	City Surveyors
FM	Facilities Management
HE	Historic England
HES	Heritage Estate Section
JHA	Julian Harrap Architects LLP
LVMF	London View Management Framework
MMP	Management and Maintenance Plan
NE	Natural Environment
OPS	Operations Division
PD	Planning Department
TB	Tower Bridge

This Management and Maintenance Plan (MMP) has been prepared for the City of London Corporation (CoL) in association with the preparation of a Conservation Plan (CMP) for The Monument to the Great Fire of London, Fish St Hill, London EC3R 8AH, together with the adjacent Pavilion in Monument Yard.

The scope of the MMP is to provide a framework for the ongoing management and maintenance on a day-to-day basis for The Monument & Pavilion. This is to ensure that all the planned activities are safe for the users of the site and its facilities, in addition to ensuring the condition and integrity of the listed building's fabric is secured for the future.

The primary purpose of the MMP is the protection and conservation of the Grade I listed, Scheduled Monument and its immediate setting & the Pavilion.

This document will identify:
- what management and maintenance is required;
- recommended timelines;
- responsibilities;
- anticipated cost;
- how to monitor and oversee the work

The plan is designed to help the site owners care for their heritage asset, to determine the required resources and avoid recurring issues; a secondary aim is to ensure the safe use of the spaces by staff and visitors

The last Condition survey for The Monument was undertaken in 2024 and established that the building remained in good condition, following the Major Repair contract 2007-2009.

This MMP, accompanying Condition Survey and Conservation Plan are to continue the upkeep of the building as well as describe any ongoing issues.

In order to understand the specific future management and maintenance requirements, the following works have been developed in consultation with The Monument Management and the design team consisting of:
- Conservation Architect: Julian Harrap Architects LLP (JHA)
- Structural Engineer: Hockley & Dawson (H&D)
- Quantity Surveyor: DR Nolans & co.

This document should be read in conjunction with:
- The Condition Survey (JHA)
- The Conservation Plan (JHA)
- Structural Engineers Report (H&D)

2.1 BUILDING CONDITION

The structural condition survey is focussed on three areas and recommends regular inspections and monitoring at specific time intervals. The flaming orb area has minor corrosion to iron structural straps inside the Drum dome and a hole in the copperwork. The viewing platform (observation deck) has cracking at the base of the railings; inspection of the slabs is recommended, and a repair and stabilisation scheme developed once the causes are better understood. The steps have cracks evident in stonework around the base of some balusters and regular crack monitoring is recommended. A thin metal strap has been fixed to the stair balusters, which currently appears to be stable. Balustrade strengthening details were proposed by Hockley & Dawson in 2016, which are still recommended by the structural engineers.

The architectural condition survey considers the exterior stonework to be in good condition except for a weathering roll-moulding at the top of the column plinth which is cracking and friable; immediate action was recommended and CoL officers carried out an inspection in November 2024 that did not reveal any major/serious defects with the stonework.. The hardwood doors and bronze casements are generally in good condition, with minor damage to ironmongery.

Internally, the previous condensation problems within the stairwell appear to be greatly reduced, likely with the installation of casement windows, trace heating and absorbent stone finishes. A concern is the extent of damp in the basement and the current blocking of ventilation routes, accelerating decay to the masonry.
Within the stairwell, local repairs are needed to the oak handrail. Interior decoration is in poorer condition in the most inaccessible places, such as the timber enclosure at the top of the stairs, but at lower levels is in reasonably good condition.

The condition of fixtures in the entrance foyer has deteriorated and the number of fittings increased, to the detriment of the historic interior.
Electrical services have been added or altered since the 2016 condition inspection, which are individually reviewed and are not all considered to be improvements to those they replaced.
Statutory inspections are regularly undertaken although the latest lightning protection inspection notes repair work is required.

Externally, the railings have local paint damage and the paving drainage routes appear blocked.

The Pavilion in Monument Yard is in poor condition and a detailed scope of repairs and alterations to provide adequate facilities, is recommended.

2.2 MANAGEMENT & USE

The operation of The Monument as a visitor attraction, open to the public, is currently managed by Natural Environment Division.

Tower Bridge (City Bridge Foundation) currently open the attraction to the public on behalf of the Natural Environment Division.

City Surveyor's Department is responsible for the maintenance and upkeep of The Monument.

Larger projects are carried out by external professionals.

Maintenance and project files are kept within the City Surveyor's Department.

The Monument is a visitor attraction open 7 days a week.

The pavilion in Monument Yard is for the use of Monument staff only.

3.1 NATURAL RISK FACTORS

There are several risks associated with naturally occurring influences on the site outlined below.

Lightning
Risk mitigation: the building currently has a lightning protection system

Drainage
The Viewing Platform drainage system seems to provide sufficient capacity.
Risk mitigation: regular cleaning of the drainage channel and gulley

Ventilation
In 2009 the ground floor grilled opening was reinstated which ventilates the basement, and high-level grilles were reinstated allowing better ventilation of the upper staircase and flaming orb area. These grilled openings are now blocked-up with plywood boards.
Risk mitigation: keep the three ventilation grilles unobstructed

Damp Basement
The basement stonework appears damper than at the previous survey in 2016 causing decay of historic stonework
Risk mitigation: Unblock the ventilation grilled opening at the centre of the vaulted ceiling, introduce air into the basement via the disused chimney.

Storms / Strong winds
A Monument wind analysis in 2007 described high speed air flows being channelled around the Monument, from the surrounding streets. The form of some surrounding buildings has since changed.
Risk: to anyone at high level outside the cage or for anything fixed to the Monument at high level

3.2 HUMAN RISK FACTORS

Fire
Fire is a risk to any historic public building and to visitors & staff.
Risk mitigation: Follow recommendations of the regularly updated Fire Risk Assessments, requiring regular fire tests, drills and procedures to be reviewed to ensure their effectiveness; all electrical items, services and fire detection systems to be regularly checked to help mitigate against the risk of fire breaking out, and fire risks associated with electrical equipment checked through regular PAT testing.

Vandalism
CCTV is installed and reported incidents of vandalism & graffiti appear to have decreased since 2016.
Risk mitigation: the current system appears to be working well.

3.3 RESOURCE RISK ISSUES

The principal resource risk is if the Monument management team, does not facilitate or resource or manage the building adequately as outlined in this MMP.

4.1 MANAGEMENT AIMS AND OBJECTIVES

The following tasks need to be carried out.

The existing management structure for The Monument should ensure that these tasks are delegated to the appropriate member of staff as necessary.

4.2 WHAT EVERY MEMBER OF STAFF SHOULD KNOW

As a basic checklist each member of staff should be familiar with the following.

- Details on the procedure for opening and closing the building down.
- The risk assessment with regards to fire which stipulates the limit on numbers for visitors to the Monument
- Any constraints identified by regulators should be freely available for reference in the Pavilion office.

TASK	FREQUENCY	SUGGESTED NO. OF STAFF
Day to day responsibility for running the building.	Daily / When in Use	1 (+1 reserve)
Arrange group visits.	As required	1 (+1 reserve)
Ensure safe & appropriate operation of the facility.	As required	1 (+1 reserve)
Manage bookings for visiting groups and consultants & contractors.	As required	1 (+1 reserve)
Undertake marketing and website maintenance and updating.	As required	1
Assist with security, locking and unlocking for operational requirements.	As required	1
Take day-to-day responsibility for the routine checks identified in this MMP.	Weekly	1 (+1 reserve)
Make regular inspections of the building, identifying, and logging defects.	As planned	1 (+1 reserve)
Arrange for maintenance work and repairs, liaising with Historic England and involve the local authority's conservation officer when needed.	As required	1 (+1 reserve)
Instruct an appropriate external consultant to design repair & alteration works and manage the statutory process for the listed building and Scheduled Monument, liaising with Historic England and the local authority's conservation officer.	As required	1

Familiarisation with this information should be made part of any staff induction.
Hard copies to be kept available in the Pavilion/main TBE office, in the event of an emergency.
This should all be covered in The Monument's emergency plan.

A checklist of emergency phone numbers to include as a minimum:

- Emergency number for the security alarm system monitors and the code number to cancel a false alarm.
- Emergency number for the fire alarm system and the procedure for cancelling a false alarm.
- Emergency contact number for the local police.
- Call out number for an electrician familiar with the building, via City Surveyors' Department.
- Call out number for a heating engineer familiar with the Pavilion building via City Surveyor's Department.
- Call out number for a plumber with knowledge of the Pavilion building via City Surveyor's Department.

4.3 MAINTENANCE AIMS AND OBJECTIVES

There are numerous reasons to carry out regular maintenance across the site, particularly given the Grade I & Scheduled Monument status of the building and curtilage.
Thorough and well-planned preventative maintenance can:

- Extend the life of the building and its materials
- Prevent/reduce the loss of, or damage to original fabric.
- Help to prevent the need for large-scale repair works and therefore large repair bills
- Upkeep a building's appearance

A regular routine of maintenance inspection should be carried out annually and, where appropriate, more often, particularly after storms or periods of bad weather, when built fabric can be negatively affected.
Conservation contractors should be sought for specialist work, or where necessary, engage an external conservation consultant to determine the extent of repairs and maintenance. The local conservation officer and Historic England will need to be consulted prior to any works that alter the appearance or character of the building.

5.1 REPAIRS

Specialist Repairs

The Monument is Grade I listed and a Scheduled Monument, therefore all areas of the building and curtilage, whether original or later additions, are covered by the listing. Consultation with Historic England will be needed for SMC before any work is instructed. Inform the Conservation Officer as good practice.

The following list is not exhaustive and should be used as a guide only.

The Monument management should contact a conservation officer or consult an external heritage consultant or Architect in any event when work is needed to these areas:

- Flaming orb copperwork and gilding
- Flaming orb area iron armature
- Viewing Platform stonework
- Viewing Platform alterations to cage & balustrade
- Portland stonework, externally & internally
- Black limestone steps and landings
- Bronze & iron windows, and specialist ironmongery
- Iron balustrade with lead caulking and oak handrail
- Joinery - doors & frames, historic partitions & cupboards
- Floor finishes of stonework and limecrete
- Surfaces/treatments
- Replacement of architectural lighting with new design

Routine Repairs

The following could be considered as routine repairs / low impact that may be able to be carried out without consent. However, Historic England should be consulted to confirm this. Note that visual inspections do not require consent.

Examples of Routine Repairs:

- Viewing Platform cage mesh – checking and making good mesh fixings and taught-ness
- Repairs to light fittings, like-for-like
- Clearing of gulley
- Repair broken window panes with matching glass

Fire Risk

There should be a fire strategy in place that should be reviewed every 12 months. This review and audit should continue and include all detector devices, signage, evacuation procedure, and extinguishers by a suitably qualified fire engineer.

Cleaning Products

Certain modern cleaning products can be harmful to old buildings, particularly if the product has not been designed to be used on them. It is recommended that cleaning product providers be identified and reviewed with a heritage advisor for their suitability.

Planned Preventative Maintenance Plan

The maintenance actions shown on the attached sheets should be taken as the basis of a routine to maintain the fabric of the Monument and Pavilion. In addition, a five yearly inspection and survey of the building(s) should be carried out to assist with the five yearly review of the MMP. It may identify new areas of risk and inform the strategy for the maintenance and management of the site for the following five years.

5.2 MANAGEMENT AND MAINTENANCE TABLES

The tables on the following pages indicate the management and maintenance tasks that are required for The Monument & Pavilion They are divided into 'Essential' tasks in section 5.3, which are required by law or for health & safety reasons, and 'Routine' tasks in sections 5.4 and 5.5.

Responsibility

Within the City of London Corporation, the responsibility for the tasks identified in the MMP will mainly lie with:

- Tower Bridge Exhibition (TBE)
- Integrated Facilities Management Team (IFM)
- Operations Team (Ops)
- Heritage Estates Team (HES)
- Asset Management (AM)

External contractors are to be appointed by the appropriate teams within the City of London Corporation depending on the nature of the works.

Action

If a defect to the Monument or the Pavilion is identified, note location of defect in maintenance log.

For a defect to the Monument, consult heritage advisor regarding extent of repairs. Liaise with Historic England to determine if proposals are acceptable. Arrange for repairs as agreed with Historic England. Long term issues to be identified for consideration as part of annual / five yearly review.

Urgent Works should be notified to Historic England immediately for Class 5 Consent, and instances of damage should also be notified to Historic England.

5.3 ESSENTIAL MANAGEMENT & MAINTENANCE

These tasks are essential management and maintenance tasks to ensure the safety and upkeep of the Monument and Pavilion.

ESSENTIAL MANAGEMENT & MAINTENANCE					
ITEM NO.	ITEM	FREQUENCY	DESCRIPTION AND ASSUMPTIONS	RESPONSIBILITY OR DELIVERY	APPROXIMATE COST
FIRE					
1	Fire Alarm Test	Monthly	Conduct fire alarm test to check it is in working order.	TB Attraction Management	inc. staff budget
2	Emergency Lighting	Monthly, or as required by regulations	Test of the emergency lighting system to ensure that this is working effectively when the power fails.	Site Team	inc. staff budget
3	Firefighting Equipment	Every 6 months	Arrange for routine checks of all firefighting equipment and replacement as necessary. Cost estimate based on assumption of every six months.	TB Attraction Management	inc. staff budget
4	Evacuation Procedures	Every 6 months	Carry out test fire evacuation drill with all staff and where possible a selection of volunteers present. This should involve the complete evacuation of the building and assembly at the designated point and a check of the list of expected numbers in the building.	TB Attraction Management	inc. staff budget
5	Evacuation Procedures	Annually	Carry out a trial evacuation of the building when occupied to check actual effectiveness of the evacuation procedure and how long it takes to clear the space.	TB Attraction Management	inc. staff budget
6	Review Fire risk assessment	Annually	Carry out a review of the previous 'Fire Risk Assessment' and ensure that this is up to date and still relevant.	TB Attraction Management	inc. staff budget
7	Update Fire risk assessment	As specified in risk assessment or through need/change	Update Fire Risk Assessment and check fire escape strategy in place for the building according to specified time frame in Fire Risk Assessment or when changes are made to the building.	TB Attraction Management	inc. staff budget
STRUCTURAL					
8	Structural Inspections	Annually	Commission Structure Engineer for annual structure inspections: check for any signs of structural cracking to the black limestone platform, landings, balustrade & steps or loose masonry to the underside of the steps. Inspect and monitor the hole in the side or the flaming orb.	CSD-Ops	£4,700
9	Verticality monitoring & recording	Five yearly	Instruct measured surveyors, Downland Partnership, to plumb and record the verticality of the Monument and compare to previous recordings.	CSD-Ops	£1,050
ELECTRICAL					
10	Electrical Inspection	Annually	Arrange for routine visit by electrician to check over the safety of the systems and to ensure all distribution boards and breakers are in good working order.	CSD-FM	inc. in FM budget

ESSENTIAL MANAGEMENT & MAINTENANCE:					
ITEM NO.	ITEM	FREQUENCY	DESCRIPTION AND ASSUMPTIONS	RESPONSIBILITY OR DELIVERY	APPROXIMATE COST
ELECTRICAL					
11	Electrical PTA Test	Annually	Arrange for annual PAT test of portable equipment and full discharge of emergency lighting system and test of its effectiveness.	CSD-FM	inc. in FM budget
12	Electrical Test	Five yearly	Arrange for a complete electrical test of the whole of the installation in the buildings. This should note the condition of the systems and make recommendations for any necessary repair or replacement work. This should provide a list of works categorised as urgent, or to be completed within one, two or five years. This should form the basis for planned work over the next five-year period.	CSD-FM	inc. in FM budget
MECHANICAL					
13	Mechanical Inspection	Annually	Pavilion: arrange for routine visit by heating specialist responsible for the heating for routine service.	CSD-FM	inc. in FM budget
14	Mechanical Ductwork	Annually	Pavilion: arrange for cleaning of extraction ductwork in kitchen and WCs.	CSD-FM	inc. in FM budget
15	Mechanical Inspection	Five yearly/Varies	Arrange for a full inspection of the mechanical heating, hot and cold water services. This should note the condition of the systems and make recommendations for any necessary repair of replacement work. This should provide a list of works categorised as urgent, or to be completed within one, two or five years. This should form the basis for planned work over the next five year period.	CSD-FM	inc. in FM budget
TB SECURITY					
16	CCTV and Alarm systems	Annually	Arrange for a comprehensive maintenance visit every year to test CCTV and alarm system.	CSD-FM	inc. in FM budget
TB ATTRACTION MANAGEMENT					
17	Health & Safety	Annually	Check that necessary first aid qualifications of staff are up to date and that necessary first aid equipment is on hand, in date and in good working order.	TB Attraction Management	inc. in FM budget
SERVICE CONTRACTS					
18	Service contracts	Five yearly/varies	Complete a review of all the service contracts (Alarms, pumps, boilers, electrics, fire extinguishers etc) to ensure that these still represent value for money. Carry out a re-tendering exercise if necessary.	CSD-FM (contracts team)	inc. in FM budget

5.4 ROUTINE MANAGEMENT SCHEDULE FOR THE MONUMENT & PAVILION

Management refers to the tasks that are to be undertaken in order to run the buildings efficiently and safely on a day-to-day basis.

ROUTINE MANAGEMENT					
ITEM NO.	ITEM	FREQUENCY	DESCRIPTION AND ASSUMPTIONS	RESPONSIBILITY OR DELIVERY	APPROXIMATE COST
GENERAL DAILY ROUTINE					
19	General daily routine	Daily on opening up	• Unset alarms and unlock doors onto viewing platform • Check the high-level ceiling circular opening is not blocked-up with a temporary board • Check entrance doors for any signs of forced entry or tampering. • Check status of alarm systems (fire and security) for indication of faults. • Check diary to see what visits are proposed and/or what workmen are expected and prepare as necessary. • Check that first aid and firefighting equipment is in its correct locations	Site Team	inc. staff budget
20	General daily routine	Daily on opening up	Maximum capacities to be adhered to regarding number of people.	Site Team	inc. staff budget
21	General daily routine	Daily on shutting down	• Check that all personnel have left the building • Check that all lights are turned off. • Set alarms and lock final exit door and front gate	Site Team	inc. staff budget
FIRE					
22	Fire	Weekly	Carry out routine test of the fire alarm installation.	TB Attraction Management	inc. staff budget
23	Fire	Quarterly	General check in flaming orb area, attendants' recess and basement to ensure that they are clean and tidy and are not adding unnecessarily to the fire load of the building.	Site Team	inc. staff budget
LIGHTING					
24	Lighting	Monthly	Walk around the building to ensure that all lights are in good working order and organise replacements / repair where necessary.	Site Team / CSD-FM	inc. staff budget
TB SECURITY					
25	Security	Monthly	Carry out random test of movement detectors and CCTV cameras to ensure security system is effective.	TB Security	inc. staff budget
26	Security	Monthly	Walk around the exterior of the Monument including viewing platform to check for any signs of damage or vandalism, report.	Site Team	inc. staff budget

ROUTINE MANAGEMENT					
ITEM NO.	ITEM	FREQUENCY	DESCRIPTION AND ASSUMPTIONS	RESPONSIBILITY OR DELIVERY	APPROXIMATE COST
STRUCTURE					
27	Structure	Monthly	Report any loose or damaged stonework; damage to cage stainless-steel mesh or structure.	Site team	inc. staff budget
TB ATTRACTION MANAGEMENT					
28	Health & Safety	Annually	Check over attendants' recess & pavilion equipment to ensure it is safe and serviceable including the cleaning of keyboards and telephones, checking of seating positions, adequacy of task lighting etc.	Site team	inc. staff budget
29	Hazard Risk Assessment	Annually	Identify the following; trips, slips, head injuries, working at height, confined spaces, hazardous areas, emergency preparation.	Site team	inc. staff budget
MANAGEMENT					
30	Cleaning Procedures	Annually	Review of cleaning procedures, cleaning rotas, cleaning equipment and possible need for replacement.	Site team	inc. staff budget
31	MMP Reviews	Annually	Review the Management and Maintenance Plan. Does this remain relevant or should it be adjusted?	All	inc. staff budget.
32	CMP Reviews	Five yearly	The Conservation Management Plan (CMP) should be reviewed and updated as necessary every five years.	CSD-HES	£13,500
SURVEYOR					
33	Surveyor's Inspection	Annually	Commission surveyr/architect to review the physical condition of the building. Adding any areas that need maintenance work, replacement of fittings and fixtures or redecoration to the works list for the coming year.	CSD-Ops	£4,000
34	Surveyor's Inspection	Five yearly	Commission surveyor/architect with appropriate skills to set out the physical condition of the buildings and fixtures and fittings. Check for any loose and friable stonework to the plinth drip moulding. This should provide a list of building works internal and external categorised as urgent, or to be completed within one, two or five years. This should form the basis for planned work over the next five-year period.	CSD-Ops	£26,000

5.5 ROUTINE MAINTENANCE SCHEDULE FOR THE MONUMENT & PAVILION

Maintenance excludes exterior areas of the building which are not anticipated to require maintenance within the next 20 years. This includes:

- Gilding of the Flaming Orb
- Belzona dome finish
- High-level Portland stonework

ROUTINE MAINTENANCE					
ITEM NO.	ITEM	FREQUENCY	DESCRIPTION AND ASSUMPTIONS	RESPONSIBILITY OR DELIVERY	APPROXIMATE COST
EXTERIOR					
35	Rainwater disposal system	Weekly	Ensure viewing platform outlet is free from debris /blockages	Site team	inc. staff budget
36	Portland stone plinth roll moulding	Every 3 years	Check worn/damaged stonework of roll moulding, remove friable stone by hand, MEWP access, SMC required.	CSD-Ops	£5,200
37	Exterior Doors & Windows	Every 3 years	Overhaul doors and ironmongery, oil doors, all as required.	CSD-Ops	£2,100
38	Entrance steps & external paving	Annually	Steam clean.	CSD-Ops	£1,400
39	Lightning Protection	Annually	Comply with recommendations from Omega Red Ltd		Client to provide quote
40	Cage & Balustrade netting	Every 2 years	Repairs arising from visual inspection of the rope in the net and sleeves around the perimeter of the net	CSD-Ops	£2,000
41	External railings	Every 2 years	Locally redecorate chips in paintwork, overhaul gate	CSD-Ops	£500
42	Portland stonework, algae on plinth	Every 3 years	Reduce algae from base and plinth by Doff (steam) cleaning from MEWP	CSD-Ops	£600
43	External railings	Five yearly	Redecorate (Refer to Specification in Appendix B, page 27)	CSD-Ops	£4,000
44	Pavilion Repairs and Alterations	Five yearly	Repairs and alterations		Client to provide quote
45	Flaming Orb	10 years	Circular board replacement	CSD-Ops	£800
46	Viewing platform lighting	20 years	New lighting Scheme	CSD-Ops	£26,000

ROUTINE MAINTENANCE					
ITEM NO.	ITEM	FREQUENCY	DESCRIPTION AND ASSUMPTIONS	RESPONSIBILITY OR DELIVERY	APPROXIMATE COST
INTERIOR METALWORK					
47	Iron stair balusters	Annually	Undertake remedial works to lead caulking of balustrade as required.	CSD-Ops	£4,100
48	Bronze & iron windows	Annually	Repair damaged ironmongery as required.	CSD-Ops	£3,600
49	Iron gate and ceiling bars	Every 3 years	Locally rust treat & locally redecorate	CSD-Ops	£6,000
50	Iron grilles	Every 5 years	Redecorate	CSD-Ops	£400
51	Iron stair balusters	Every 5 years	Redecorate	CSD-Ops	£14,000
52	Iron Armature	Every 5-7 years	Locally rust treat & locally redecorate as identified in 5 yearly inspections	CSD-Ops	£2,200
53	Iron gate and ceiling bars	Every 10 years	Redecorate	CSD-Ops	Inc. above
54	Turnstiles	Once	Reinstate turnstiles	CSD-Ops	£3,200
INTERIOR STONEWORK					
55	Potentially damp stonework	After heavy rain	Inspect interior stonework beneath spitter for any signs of damp after wet conditions as the spitter pipe is quite short, record	Site team	inc. staff budget
56	Painted stone walls	Annually / 10 yearly	Locally redecorate/fully redecorate	CSD-Ops	£48,000
57	Black limestone steps	10 yearly	Structural repairs according to structural engineer's specification	CSD-Ops	£7,600
58	Basement stairway	Once	Reinstate ventilation by unblocking presumed flue in basement staircase. Allow for rod inspection to confirm unblocked route and exit point.		£3,500
JOINERY					
59	Oak staircase handrail	Annually	Oak handrail, locally repair as required.	CSD-Ops	£2,000
60	Softwood floor to the attendant's recess	Annually	Clean & treating with Deks Olje No.1	CSD-Ops	£590
61	High-level timber partitions, ceiling boarding, high level door	Every 3 years	Locally redecorate chipped paintwork	CSD-Ops	£1,500
62	Joinery at ground floor	Every 3 years	Locally redecorate chipped paintwork (Refer to Specification in Appendix B, page 29)	CSD-Ops	£750
63	All painted joinery	10 yearly	Redecorate (Refer to Specification in Appendix B, page 29)	CSD-Ops	£1,500

ROUTINE MAINTENANCE					
ITEM NO.	ITEM	FREQUENCY	DESCRIPTION AND ASSUMPTIONS	RESPONSIBILITY OR DELIVERY	APPROXIMATE COST
LIGHTING, MISCELLANEOUS					
64	High level circular grille	Weekly/when needed	Check temporary timber board is not blocking the public view up into the flaming orb area. Grille to be left unblocked after access to the flaming orb. Site team to report to CSD if grille is blocked	CSD-FM	inc. staff budget
65	Cleaning equipment	Weekly	Check no cleaning equipment is stored in public view	Site team	inc. staff budget
66	Baluster lights	Monthly	Check baluster lights, fixings & they are fixed in the correct positions	CSD-FM	inc. staff budget
67	Basement circular chamber	Once	Removal of redundant cables and equipment.		£2,000
68	Removing redundant strip lighters + m/g decs	Once	Remove redundant strip lighters + make good decs		£800
69	Stainless steel conduits and junction boxes	Once	Provisional sum to replace plastic conduits and junction boxes in stainless steel.		£900

SOURCES OF INFORMATION

Conservation Management Plan 2016 by Julian Harrap Architects

The Monument Major Repair Contract 2007-2009 information from Julian Harrap Architects

Cost information from City of London Corporation

Cost information from DR Nolans & co. quantity surveyors

Monument Verticality Report 07 July 2024 by The Downland Partnership

The Monument Major Repair Contract 2007-2009 O&M Manual

APPENDIX A

2007-2009 CONTRACT: THE WORKS

ELEMENTS OF CONSTRUCTION

ELEMENT	LOCATION	DESCRIPTION	2009 WORKS	CONTACT DETAILS
WROUGHT IRON ARMATURE				
Wrought iron structural armature	Inside the stone dome and copper orb at the top of the Monument	The wrought-iron armature fastens the copper orb down onto the stone mass of the dome and drum below. Within the flaming orb the form of the armature is a circular ladder with four iron vertical legs and circular iron rungs. Iron flanges are bolted to the legs of the circular ladder at intervals and are riveted to the copperwork, thereby securing the copper to the wrought- iron armature. The four legs of the ladder continue down to the stone dome below, where they each curve outwards following the profile of the inside of the stone dome. The legs are fixed to the inner walls of the stone dome, again with iron flanges bolted to the legs and let into the stone walls of the dome, thereby fixing the armature down to the stonework.	2009 structural work: Strengthening measures were designed and installed to stabilize the deformed orb and its supporting structure. The bottom portion of the armature was fixed to the masonry with four circular iron bands each bolted at equal intervals to the interior of the stone dome and welded to the seventeenth- century wrought-iron armature legs. A welded connection is used to fix the new pure iron bands to the seventeenth-century wrought iron, in order to avoid drilling into the historic ironwork and to produce a good-looking, clean connection.	Strengthening measures fabricated and installed by : Eura Conservation Ltd Decoration undertaken by: Hare & Humphreys Ltd
CAGE & BALUSTRADE				
Cage & Balustrade	Exterior Viewing Platform	A mesh screen and balustrade to the four sides of the viewing balcony. Balustrade fabricated from grade 316 stainless steel supported off of 32mm solid steel square posts set into drilled holes in the floor stones and grouted into position with an epoxy grout. The top of the balustrade is finished with a 200mm wide 20mm thick laser profiled handrail welded to the 32mm square support posts. A woven mesh covers the inside face of the vertical support bars and is secured in place by specially crimping to the 5mm support bars welded to the 32mm square rods. The upper 42mm diameter support is ring set proud of the face of the stone secured to the monument by means of radial M10 anchor bolts screwed into anchor sleeves resin anchored into drilled holes in the stone of the monument. The ends of the radial supports are screwed to top the handrail using M12 countersunk screws into tapped holes into the ends of the supports. The grade 316 stainless steel woven mesh enclosing the balcony is secured to a radial arrangement of stainless steel tubes 42.4mm and 24mm diameter solid rods supported between the upper ring and the handrail. The enclosing mesh is crimped to the radial supports.	Detailed design, fabrication & installation	Littlehampton Welding Limited Stainless steel cable Jakob mesh supplied and installed by: MMA Architectural Systems Ltd Lead caulking to feet of balusters undertaken by: Full Metal Jacket Ltd

ELEMENTS OF CONSTRUCTION				
ELEMENT	LOCATION	DESCRIPTION	2009 WORKS	CONTACT DETAILS
BLACK LIMESTONE STEPS AND PAVING				
Viewing Platform paving flags and the solid steps of the spiral staircase	Internal and external at high level	A petrographical examination was made of a sample of the black limestone which identified it as 'a fine grained, dark grey and irregularly laminated limestone, a Bituminous Stromstolitic Pelmicrite. The general appearance, lithology and preservation are typical of many limestones from lower carboniferous strata of Britain, and north-western Europe'. The paving to the viewing platform is very large black limestone flags. The spiral steps were originally solid black limestone interlocking steps, with a moulded nosings and returns, cantilevered from the solid Portland stone walls of the stairwell. The treads were repaired in 2008 using stainless steel reinforcement, resin and black limestone indents.	The black limestone was repaired with stone to match the colour, texture and quality of the existing stonework. The black limestone from the Pooil Vaaish quarry is similar in bearing strength, porosity, permeability and appearance to the original. Major structural repairs and strengthening to all steps up to the viewing platform using 12mm stainless steel dowels and Fischer Resin mortar & hardener in the 2007-2009 repair contract, together with the landing giving access to the viewing platform. It is not anticipated that these repairs will need to be repeated.	Black limestone supplied by: Black limestone from Pooil Vaaish Limited. Fabricated and installed by : Cathedral Works Organisation (C.W.O) Ltd
PORTLAND STONEWORK				
Portland stone	Exterior stonework	The column is constructed in Portland stone; the walls are solid stone and the carved decoration and sculptures are in Portland Stone	Reinstatement of carved stone paterae, extensive repairs to dragons sculptures, repointing, indent and mortar repairs to stonework, cleaning of Portland stonework Stone repairs: product description Natural stone indents: Jordans Whitbed, Metal dowels and fixings shall be of phosphor bronze or stainless steel to BS 3894. Pointing mix for Portland stone Hydrated lime : white Portland cement : Portland stone dust 1:2:9 Hydrated lime : white Portland cement : Portland stone dust : silver sand 2:4:9:9. "Structural" mortar Hydraulic lime (NHL 5): Portland stone dust 1:3	2008 stone cleaning and repairs by: Cathedral Works Organisation Ltd

ELEMENTS OF CONSTRUCTION				
ELEMENT	LOCATION	DESCRIPTION	2009 WORKS	CONTACT DETAILS
BRONZE SLIT WINDOWS				
Bronze framed slit windows	In the walls of the shaft of the stone column.	Directly above the door leading out onto the viewing platform is a narrow slit window similar to those on the column shaft. This iron hinged casement window is possible original or a very early replacement window. Each face of the column shaft has 8 no. narrow slit window openings, most are fitted with bronze casement windows, the very narrow openings are fitted with fixed lights in bronze frames Routine Cleaning procedure Bronze is a copper alloy (combination of copper and tin) and when exposed to air and moisture, it will develop a greenish patina on its surface. This darkened finish is considered to add character to the bronze; it is not intended that the bronze is cleaned to look shiny. Glass should be cleaned with a glass cleaning product and a soft cloth.	Bespoke bronze casements were fabricated and installed in the stairwell in 2009. Glass is 3mm thick and very slightly imperfect in order to provide slightly distorted reflections, ironmongery is hand forged.	Bespoke bronze casements fabricated and installed by : Gospel Studios
OVAL WINDOW				
Oval iron framed window	Immediately above the entrance on the east side of the Monument	Oval, iron framed, centre-hung pivot window. Glazing safety film The oval window has a glazing film applied to the glass to act a safety barrier against shattering. This was applied in 2009 and was obtained from :- Suppliers: Madico UK, Madico House, 98 Bolton Road, , Atherton, Manchester M29-9LD Phone: 011-44-1-942-891-790 Type of Film: CL-400-XSR	Repair the window pivot mechanism, add a restraining device to prevent to restrict the opening of the window for safety reasons, apply glazing film, redecorate the window.	Oval window repaired and decorated by : Eura Conservation

ELEMENTS OF CONSTRUCTION				
ELEMENT	LOCATION	DESCRIPTION	2009 WORKS	CONTACT DETAILS
BELZONA DOME FINISH				
Belzona Roof Finish	External at Base of Shaft	Application of waterproofing product to stonework	Application of a one-component, flexible liquid polymer, membrane-reinforced, roof covering system, applied to existing rendered stonework which is not all finished to falls. Colour to match Portland stone.	Supplied and installed by: Blunt Construction
ENTRANCE STEPS & EXTERNAL PAVING				
Entrance steps & external paving	Paving outside east entrance, steps up to east entrance door.	New steps in honed Yorkstone with “anti-slip”stainless steel studs resin-fixed into drilled holes into the edges of the treads. Re-laid riven Yorkstone paving slabs.	Supply & installation	Stone type & supplier for entrance steps: Eland Egde Yorkstone - Rand & Asquith (Aceblade Ltd)
GROUND LEVEL EXTERNAL RAILINGS				
Painted cast iron external railings	Around the east entrance to the Monument	Cast iron external painted railings and central gate	Repairs & redecoration	Repairs undertaken by: Eura Conservation Ltd. Decoration undertaken by: Hare & Humphreys Ltd

ELEMENTS OF CONSTRUCTION				
ELEMENT	LOCATION	DESCRIPTION	2009 WORKS	CONTACT DETAILS
IRON STAIR BALUSTERS				
Staircase balustrade	Stairwell	Balustrade of spiral staircase	The feet of the staircase balusters are set into holes drilled into the tops of the stone treads and lead caulked into position. During the extensive repairs to the stone steps, 80no. of the balusters were removed to allow the ends of the treads to be repaired and refixed by lead caulking their feet into holes drilled into the new stone treads and fixing the head of the baluster to the underside of the wrought iron handrail using small iron angles and drilled and tapped fixings.	Balusters refixed by: Eura Conservation Lead caulking by: Full Metal Jacket Decoration by: Hare & Humphreys Ltd,
STAIRCASE HANDRAIL				
Curved Oak Handrail	Balustrade of spiral staircase	The handrail is in jointed sections of oak, originally steamed and twisted to form the spiral balustrade. Raised bronze studs are fixed into the top of the handrail at regular intervals to deter people sliding down the spiral handrail.	In the late twentieth century, the handrail was removed and sections were replaced in oak, which does not appear to have been steam twisted and has shown signs of movement at the joints. Some joints were slightly opened which were repaired during the 2007-2009 contract using oak butterfly patches. Replica studs were made to match the existing, with spares handed to the operator. The oak handrail was polished.	Fullers Builders Limited

ELEMENTS OF CONSTRUCTION				
ELEMENT	LOCATION	DESCRIPTION	2009 WORKS	CONTACT DETAILS
ENTRANCE DOOR				
Pair of hardwood doors and frame	Entrance, East elevation	The 2009 doors are a pair of solid oak 5 panelled, outward opening doors, The large upper panels of each door are glazed with beveled and polished 3x15mm laminated glass panels rebated into the frame and secured with a timber bead on the internal side of the door. The doors and frame are of English Oak, finished internally and externally with Deks Olje D.1. The oak frame is plugged and screwed to stone reveals, pivot hinges are resin fixed to stone floor. Ironmongery Hafele floor bearing stainless steel pivot. Wrought iron garage door drop bolt and door holder. Heavy duty 5 lever mortice latch operational from both sides. 2no. heavy duty 5 lever mortice locks, external operation only, hand cut keyholes (no escutcheon). 2no. pairs octagonal hand forged iron knobs. 2no. door stay with fixing plates.	Fabrication and installation of doors & frame	N.E.J. Stevenson
GROUND FLOOR FINISHES				
Stone paving	Ground floor	400mm square Purbeck stone paving slabs laid in a diamond pattern on a lime screed	Supply & installation	Stone type: Purbeck Cap Supplier: Haysoms

ELEMENTS OF CONSTRUCTION				
ELEMENT	LOCATION	DESCRIPTION	2009 WORKS	CONTACT DETAILS
IRON GRILLES				
Iron Grilles	1. Circular iron grille in the centre of the spiral staircase at the top black limestone landing. 2. Circular iron grille in the centre of the spiral staircase at the ground floor of the Monument. 3. Iron bars across the opening in the thickness of the stone walls, beneath the oval window	Iron bars & grilles	Grilles 1 & 2: constructed from the remains of original square section wrought iron bars that had been set into the stone. The existing bars were cut and welded inside new iron rings, sitting in stone rebates of the landing/floor. Grille 3: thin flat iron bars are fixed over an opening in the stonewall	Fabricated, installed and decorated by Eura Conservation Ltd.
TURNSTILE				
Victorian turnstile	Immediately inside the entrance doors	The cast-iron turnstile, made by Le Grand & Sutcliff was installed in 1891. It comprises a central barrier of 7 no. circular iron balusters, 25mm diameter with two end newels 32mm diameter, with a flat iron top rail. The painted iron gates, one each side of the barrier have brass digital counters and are semicircular on plan with 11 no. square section balusters and flat iron top rail. The wrought-iron hoop gates are pegged in position and operated by a floor mounted ratchet mechanism. The mechanism is still in good working order.	A low-level conservation repair to ensure the mechanism runs smoothly. The turnstiles were dismantled and all elements thoroughly cleaned. After re-assembly, the external surfaces were coated in micro-crystalline wax. A removable foot-lever over-ride wedge was designed and installed. All historic paint was retained. In 2010 the pair of iron gates was temporarily removed from the turnstile as the width of the entry and exit was considered to be restrictive. The gates are stored at Tower Bridge by the management operators of The Monument, Tower Bridge Exhibition.	Removal, conservation and reinstallation in 2009 by: Eura Conservation

APPENDIX B

2007-2009 CONTRACT: SPECIFICATIONS

SPECIFICATIONS

LOCATION	SPECIFICATION	COLOUR	SUPPLIER
DECORATION OF CAST IRON RAILINGS			
Externally, against the east elevation of the Monument	Remove any corrosion that may have occurred before repainting takes place. Remove only loose and flaking material Rub down smooth with P120. Thoroughly clean and de-grease with Leigh's Enviroguard W500 to remove all surface contamination. Rinse off with clean fresh water, when dry treat as follows: - To areas of breakdown / damage back to substrate, re-prepare by mechanical means to ST3 and feather back to a firm edge Spot prime exposed surfaces: Leigh's Epigrip M902 epoxy aluminium primer. Apply 1 full base coat of: Leigh's Epigrip M905 Epoxy intermediate coat @ 125 microns Apply 1 no. top coat: Leigh's Epigrip M262 Epoxy Finish @ 50 microns	Railing top coat: RAL 085 80 10	Leighs Paints
GILDING SPECIFICATION			
Flaming Orb	Gilded Copper surfaces Ensure that great care is taken to prevent scratching the copper substrate Preparation: On verdigris affected flames and ornamentation: Use dremel drills with fine wire brush attachments to remove crust back to copper surface. On gilded surfaces: Rub down with fine paper lubriseal paper to gain key. Exposed copper: Before leaving workface ensure that all exposed copper is primed with E 795. Cracks or indentations: Fill with 2 pack epoxy resin body filler. Painting entire surface: Once primer is set (min 8 hours) and on all other previously gilded surface apply 1 coat of Epigrip winterfast Hi-build TM 905 white undercoat. Once dry (min 12 hours) apply 1 coat of Resistex 237 undercoat/sheen in colour ref 08C35 Sizing: Ensure surface is dry and dust free. Apply 1 thin coat of LeFranc Bourgeios 12 hour oil based gold size. Gilding: Apply 2 No. layers of 23.5-carat leaf (min13 g/oz) onto surface, polishing overlaps for lustre.		Specialist Paints Leighs Paints Gold size (tools, accessories and adhesive) Stuart Stevenson Gold Leaf Ditta Guisto Manetti Battiloro General decoration materials Simpson's Paints
REDECORATION OF INTERNAL STONE WALLS			
Internal stone walls	Dust off and wipe with soft water moistened cloth. Apply 2 no. coats of Earthborne Silicate Masonry paint in "Monument grey"	Monument Grey	Supplier: EarthBorn Paints

SPECIFICATIONS			
LOCATION	SPECIFICATION	COLOUR	SUPPLIER
DECORATION OF IRON GRILLES AND OVAL WINDOW			
Oval window within the stairwell Iron grilles within the floors at high level at the base of the wrought iron armature, beneath the oval window and at ground floor level giving views down into the basement	Primer: Epigrip L425 to a minimum dft (dry film thickness) of 50m Mid Coat: Epigrip L653 to a dft of 125 microns Top coat: Resistex C237 to a dft of 50 microns	Oval Window top coat colour is RAL 8019	Leighs Paints
REDECORATION OF PAINTED COPPER SURFACES			
Interior of the Flaming Orb	Ensure that great care is taken to prevent scratching the copper substrate Preparation: On verdigris affected flames and ornamentation use Dremel drills with fine wire brush attachments to remove crust back to copper surface. Rub down with fine paper lubriseal paper to gain key. Exposed copper: before leaving workface ensure that all exposed copper is primed with E 795. Cracks or indentations: Fill with 2 pack epoxy resin body filler. Painting entire surface: Once primer is set (min 8 hours) apply 1 coat of Epigrip winterfast Hi-build TM 905 white undercoat. Once dry (min 12 hours) apply 1 coat of Resistex 237 undercoat/sheen in colour ref 08C35	Colour ref 08C35	Leighs Paints
DECORATION OF PURE STEEL			
At high level, steel straps inside the stone dome at the base of the wrought iron armature, reinforcing the structure of the armature	Dry abrade with medium grade wire wool De-grease with IMS spirit / alcohol solution. Prime with Leigh's Metaguard K570. Apply 2 no. coats of Leigh's Resistex C237	Ref: RAL 085 8010	Leighs Paints

SPECIFICATIONS

LOCATION	SPECIFICATION	COLOUR	SUPPLIER
DECORATION OF WROUGHT IRON: ARMATURE, BALUSTERS, IRON GATE			
Wrought iron armature at the top of the monument Iron gate and bars at viewing platform level, Balusters to the spiral staircase	Remove only loose and flaking material Rub down smooth with P120. Thoroughly clean and de-grease with Leigh's Enviroguard W500 to remove all surface contamination. Rinse off with clean fresh water, when dry treat as follows: - To areas of breakdown / damage back to substrate, re-prepare by mechanical means to ST3 and feather back to a firm edge Spot prime exposed surfaces: Leigh's Epigrip M902 epoxy aluminium primer. Apply 1 full base coat of: Leigh's Epigrip M905 Epoxy intermediate coat @ 125 microns Apply 1 no. top coat: Leigh's Epigrip M262 Epoxy Finish @ 50 microns	Wrought iron armature: RAL 085 7010) Wrought iron balustrade: RAL 260 40 05	Leighs Paints
DECORATION OF PAINTED JOINERY			
Softwood door& frame and boarded ceiling at viewing platform level and above. Ground floor cupboards & attendants recess door	For repainting existing joinery: Retain existing paint build up, sand chipped paintwork to a feather edge, lightly sand paintwork generally, ensure surface is free of dust. Apply 1 no. undercoat of Interior Oil Primer & Undercoat then 2 no. topcoats of Oil Eggshell. For painting new joinery: Prepare surface as Farrow & Ball product advice for Interior Oil Primer & Undercoat applied to new softwood surfaces which includes the application of a diluted coat of Farrow & Ball Interior Oil Primer & Undercoat. Apply 1 no. undercoat of Interior Oil Primer & Undercoat then 2 no. topcoats of Oil Eggshell.	Colour: Stony Ground	Farrow & Ball
FINISHES TO OAK DOORS			
Oak front doors and doors to viewing platform	To maintain a matt finish to the oak doors, clean the surface frequently, on difficult dirt use alkaline cleaning agent: TSP (trisodium phosphate), as suppliers instructions, allow surface to dry. Apply one coat of DEKS OLJE D1 only to the areas which appear weathered, use mineral spirits to clean tools and drips that are still wet, do not allow Deks Olje to dry on metal.		DEKS OLJE D1 is saturating wood oil for tropical woods, with a transparent matte finish, by Owatrol marine, available at several suppliers, see online.

SPECIFICATIONS			
LOCATION	SPECIFICATION	COLOUR	SUPPLIER
CLEANING OF STAINLESS STEEL			
Viewing platform cage & balustrade, electrical services conduits throughout the entire interior of the Monument	Stainless steel is easy to clean. Washing with soap or a mild detergent and warm water followed by clear water rinse is usually quite adequate for domestic and architectural equipment. An enhanced aesthetic appearance will be achieved if the cleaned surface is finally wiped dry. Where stainless steel has become extremely dirty with signs of surface discolouration (perhaps periods of neglect or periods of mis–use) the methods of cleaning are detailed below: Routine Cleaning, all finishes: Soap or mild detergent (fairy liquid) and water. Sponge, rinse with clean water, wipe dry if required. Finger prints, all finishes: Soap or warm water or organic solvent (eg Usher- Walker thinners no PF 8017, acetone, alcohol, Genklene. Rinse with clean water wipe dry if required. Stubborn stains and discolouration, all finishes: Mild cleaning solutions ie Ciff, Goddards Stainless Steel Care. Rinse well with clean water and wipe dry. Oil, grease marks, all finishes. Organic solvents (eg acetone, alcohol, Genklene Trichloroethylene, Usher Walker thinners no PF 8017. Clean after with soap and water, rinse with clean water and dry. Rust and other corrosion products, all finishes: Oxalic acid. The cleaning solution should be applied with a swab and allowed to stand for 15-20 minutes before being washed away with clean water. May continue using Ciff to give a final clean. Rinse well with clean water and wipe dry. (precautions for acid cleaners should be observed). Scratches on brush (satin) finish: Impregnated nylon pads. Polishing with scurfs dressed with iron free abrasives. Apply in direction of polishing. Clean with soap or detergent as per routine cleaning. Do not use ordinary steel wool-iron particles can become embedded in stainless steel and cause surface problems. Precautions: Acids should only be used for on-site cleaning when all other methods have been proved unsatisfactory. Rubber gloves should be used and care taken to see that acid cleaners are not spilt over adjacent areas. Special precautions are necessary with oxalic acid. In conclusion: If all the suggestions and actions in the table have been attempted, stainless steel has the facility to be mechanically or electro-polished on site as the material is complete and not a surface plating. In this instance Littlehampton Welding Ltd should be contacted.		

SPECIFICATIONS			
LOCATION	SPECIFICATION	COLOUR	SUPPLIER
CLEANING PAINTED METALWORK			
Wrought iron armature, plain steel reinforcement bands to the armature, viewing platform level gate, balusters, floor grilles, turnstiles, external railings	Carefully wash with soft brushes with diluted “Teepol” (Ceasar Janitorial 020 7253 4655)” detergent. Rinse off residue with clean water twice on completion and wipe dry with cotton cloth and chamois leather		Ceasar Janitorial

PAINT COLOUR SCHEDULE					
ITEM NO.	DESCRIPTION	REF	TYPE	COLOUR	SUPPLIER
1.	Internal walls	Monument Grey	Silicate masonry	Portland stone	Earthborn
2.	Wrought iron balustrade	RAL 260 40 05	tba	Dark grey	
3.	Baluster light fittings	RAL 260 40 05	Powder coat	Dark grey	
4.	Wall mounted light fittings	RAL 085 80 10	Powder coat	Portland stone	
5.	Painted copper of Flaming Orb	RAL 085 80 10	Resistex	Portland stone	Leigh's
6.	Wrought iron armature	RAL 085 70 10	Epigrip epoxy	Dark Portland	Leigh's
7.	New pure iron bands in drum	RAL 260 40 05	Resistex	Portland stone	
8.	Panoramic Camera case & weather station	RAL 220 90 05	To suit substrates	Very light blue/grey	
9.	External cast iron railings & plinths	RAL 085 80 10		Portland stone	Leigh's
10.	Oval window	RAL 8019		Grey Brown	Leigh's
11.	Softwood Joinery	Stony Ground	Oil Eggshell	Portland stone	Farrow & Ball

APPENDIX C

2007-2009 CONTRACT: SUPPLIERS

NAME	ADDRESS	PHONE NUMBER	WEBSITE
B			
Blunt Construction	Ceased Trading		
C			
Cathedral Works Organisation (C.W.O) Ltd	Ceased Trading		
C.E.S.A.R Janitorial Supplies	Unit 8 Harlow Business Park, Parkend Harlow Essex CM19 5QF	01279 454007	https://www.cesar.co.uk/
E			
Earthborn Paints	Earthborn, Frodsham Business Centre, Bridge Lane, Frodsham WA6 7FZ	01928 734 171	https://earthbornpaints.co.uk/
Eura Conservation Ltd	Unit H2, Central House, Halesfield 19, Telford TF7 4QT	01952 680218	https://eura.co.uk/
F			
Farrow & Ball	Uddens Estate, Wimborne Dorset BH21 7NL	01202 876141	https://www.farrow-ball.com/
Full Metal Jacket Ltd	Arnolds Farm Cottages, Business Center, 221 Ongar Rd, Stapleford Tawney, Brentwood, Romford RM4 1RH	01708 688272	https://www.fmjlimited.co.uk/
Fullers Builders Limited	68 Beulah Road London E17 9LH	020 8520 2275	https://fullersbuilders.co.uk/
G			
Gospel Stained Glass	Ceased Trading		
Guisto Manetti Battiloro	Via Tosca Fiesoli, 89/M, 50013 Campi Bisenzio FI Italy	+39 055 436261	https://www.manetti.com/
H			
Hare & Humphreys	27 Kelso Pl, London W8 5QG	020 7833 8806	https://www.hare-humphreys.co.uk/
Haysom Purbeck Stone	Kingston Road, Langton Matravers Dorset BH19 3JP	01929 439205	https://purbeckstone.co.uk/

NAME	ADDRESS	PHONE NUMBER	WEBSITE
L			
Leighs Paints	Ceased Trading (now trade as Sherwin-Williams Protective & Marine Coatings)		
Littlehampton Welding Limited	Riverside Industrial Estate, Unit S, Littlehampton BN17 5DF	01903 721555	https://littlehamptonwelding.co.uk/
M			
Madico UK	Madico House, 98 Bolton Road, Atherton, Manchester, M46 9LD	May have ceased trading	
MMA Architectural Systems Ltd	Unit 35C, Fourth Avenue, Westfield Industrial Estate, Midsomer Norton, Radstock BA3 4XE	01761 419427	https://www.mma-architectural.co.uk/
N			
N E J Stevenson Ltd	Unit 6a Church Lawford Business Centre, Limestone Hall Ln, Church Lawford, Rugby CV23 9HD	024 7654 4662	https://nejstevenson.co.uk/
O			
Owatrol UK	23 Scott Road, Luton LU3 3BF	01582 592707	https://www.owatroldirect.co.uk/
R			
Rand & Asquith (Aceblade Ltd)	Tuck Royd Quarry, Halifax Road, Brighouse West Yorkshire HD6 2PE	01484 719263	https://www.randandasquith.co.uk/
S			
Simpson's Paints	Ceased Trading		
Stuart R. Stevenson	68 Clerkenwell Rd, London EC1M 5QA	020 7253 1693	https://shop.stuartstevenson.co.uk/

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JULIAN HARRAP

ARCHITECTS LLP

THE MONUMENT TO THE GREAT FIRE OF LONDON

VOLUME IV: APPENDICES

MARCH 2025

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On behalf of Julian Harrap Architects LLP®
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CITY OF LONDON

JULIAN HARRAP
ARCHITECTS LLP

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APPENDIX A

MONUMENT HISTORICAL DOCUMENTATION

1991

Wendy Hitchmough

THE MONUMENT

HISTORICAL DOCUMENTATION

Wendy Hitchmough

May 1991.

CONTENTS

Historical Background.

The Monument was designed by Sir Christopher Wren in collaboration with Robert Hooke between 1671 and 1676 to commemorate the Great Fire of September 1666. The story of the fire itself is the subject of several books and need not be treated in detail in this document. It is believed to have begun in the early hours of the morning of Sunday, 2 September 1666 in a bakers house in Pudding Lane, and to have spread rapidly through the densely packed timber buildings, fanned by a strong easterly wind. The fire raged for four days and destroyed 13,200 houses, 87 churches, and 44 halls of livery companies. King Charles II was personally involved in blowing up buildings in an attempt to stop its course and when the fire was extinguished an Act of Parliament "for rebuilding the City of London" ordered that a monument should be erected in commemoration.

The original intention to build a monument to the Great Fire was relatively modest in scope. In the 1667 Act it was decreed:

> "And the better to preserve the memory of this dreadful Visitation; Be it further enacted that a Columne or Pillar of Brase or Stone be erected on or as neare unto the place where the said Fire soe unhappily began as Conveniently as may be, in perpetuall Remembrance thereof, with such Inscription thereon, as

> hereafter by the Mayor and Court of Aldermen in that behalfe be directed."(1)

The suggestion that the pillar might have been made of brass indicates that the King envisaged quite a small monument and the final realisation of the highest free-standing column in Europe at the time is a testament to Wren's diplomatic skills and tenacity as well as to his capabilities as an architect.

The Monument is situated in Monument Yard on the east side of Fish Street Hill. The site was formerly occupied by the church and church yard of St Margaret, New Fish Street. After the Great Fire St Margaret's Parish was uited with that of St Magnus, whose church was rebuilt by Wren.

Description

The Monument is a free-standing Portland stone fluted column consisting of a base 28ft square, surmounted by a pedestal about 21 ft. square and a fluted Doric column 120 ft. high. The abacus to the capital forms the base of a viewing gallery which is enclosed by a wrought-iron railing. Above this base there is a drum supporting a gilded shaped vase crowned by a flaming ball.

The pedestal has a moulded and enriched base and cornice, and above the cornice four carved garlands decorate the four sides, just below the base of the column. In the centre of each

garland there is a shield or a scroll: on the north side is a shield of the City arms; on the east side a shield again bearing the City arms but crowned by a flaming ball; on the south side there is a scroll; and on the west side a shield bearing the Stuart arms with trophies at the sides and surmounted by a state hat. Each of the four corners above the cornice is decorated by a dragon carved by Edward Pierce junior.

On each side of the pedestal there is a sunk panel framed by carved acanthus leaf mouldings. Each of the four panels is carved with an inscription or with a relief tableau, as described below. In the east side there is a square-headed doorway giving access to the interior and above the inscription on the east side there is an oval window decorated with a carved wreath with ribbons above.

The central fillet on each side of the column is pierced with narrow slit lights to the internal staircase and the band above the necking to the capital is carved. Above this carved band the ovals below the abacus are carved with an egg and dart motif. Above the viewing platform the drum has a moulded base and cornice, and there is a square headed doorway in its east side giving access to the viewing platform from the interior of the column. The crowning vase with its ball of spikey flames is of copper-gilt and the middle member of the vase is enriched with a copper-gilt band of ornament.

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Inside the Monument is a continuous spiral staircase comprising 311 steps from the entrance to the public viewing gallery. The steps are of black marble, probably Irish black and they are cantilevered out from the wall. The steps taper towards the top of the column, to accommodate a reduction in the diameter of the enclosure.

The carved panels

West side:

The panel on the west side was carved between 1673 and 1676 by the sculptor Caius Gabriel Cibber. Cibber was paid £100; "for carving the Hieroglifick ffigures" on 28 June 1673 and a report of the City Lands Committee of 14 June 1676 records:

> "Sir Chr Wren desired with the Surveyors of new buildings to view the worke done by Mr Gabriell Cibber at and about the Cullumne and certifye their opinions concerning the value thereof."

The panel is Cibber's most celebrated early work. It depicts King Charles II with the Duke of York, both in Roman dress, bestowing protection on the stricken City of London, represented by a collapsed and dishevelled female figure who is supported by the winged figure of Time. The left half of the composition represents the City in disarray. In the background the ruined buildings are still smoking and the citizens look on as Father Time sooths the dishevelled allegory of the City of London, and to his left a female figure representing the manual arts points upwards to the Goddesses of Plenty and Peace in the

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clouds above. In the ruins beneath the figure of London a dragon supports the City arms, and a bee-hive behind her symbolizes industry.

The right hand half of the composition represents the rebuilding of London. King Charles II is assisted by allegorical figures including Liberty waving a cap in the air, Architecture holding a square and compasses, and the figure of Science holding a statue of nature. In the background the rebuilding work is already in progress with men at work on scaffolded buildings. Beneath the pavement on which the King and his aids stand an allegory of envy chews on a heart and exhales noxious fumes.

North, East, and South sides:

Unlike Cibber's carving for the west panel, the inscriptions for the panels on the north, east, and south sides of the Monument were not devised until after the column was completed. On 4 October 1677 a Court of Aldermen requested that Dr Gale, master of St. Paul's School and later Dean of York, should devise suitable incriptions, in consultation with Sir Christopher Wren and Robert Hooke.

Gale's proposals were presented to the Court on 22 October. They were approved by the King and three days later the Court of Aldermen;

"... taking into their consideration the ingenious

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inscriptions prepared and presented unto this Court by Dr. Gale, for the new Pillar on fish-street Hill, doth order that Mr Chamberlain doe deliver unto Mr Lane, Comptroller of the Chamber, ten guineys to be placed on account of the cole-duty, and hee to lay out the same in a handsome piece of plate to be presented to the said Dr. Gale as a loveing remembrance from this Court."

The inscriptions with their translations are given in full in Appendix I. The inscription on the north side describes the fire and the extent of its devastation, the south side describes the rebuilding of the City, and the east side lists the Mayors of London under whose protection the Monument was erected.

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17th and Early 18th Century Documentation.

Alternative Designs

The exact relationship between Wren and Hooke in the design of the Monument cannot be determined. According to Aubrey's 'Brief Lives' the Monument was designed by Hooke, and T.F. Reddaway suggests that:

> "Wren was certainly asked about the emblem for the summit of the Monument, but, if he designed the whole pillar, it is extraordinary that there is no mention of this in the entry recording its approval by the court of Aldermen (Report., 76, f.72v), and still more extraordinary that he received no gift for his work."(2)

'Parentalia', however, credits Wren with the design of the Monument and doesn't mention Hooke at all. It includes a detailed description of the Monument and records Wren's earlier design for a column with flames projecting from loopholes in the shaft and crowned by a phoenix rising from her ashes:

> "In the Year 1671, the Surveyor began the building of the great Fluted Column of Portland Stone, and of the Dorick Order (commonly call'd the Monument of London, in Memory of the burning, and rebuilding of the City) and finish'd it in 1677. The Artificers were oblig'd to wait sometimes for Stones of proper Scantlings: which occasion'd the work to be longer

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in Execution than otherwise it would have been. It much exceeds in Height the Pillars at Rome, of the Emperors Trajan and Antoninus, the stately Remains of Roman Grandeur; or that of Theodosius at Constantinople. In forming this Coloss Column, the Surveyor took the Liberty to exceed the received Proportion of the Order, one Module, or Semi-diameter. In the Place of the Brass-Urn on the Top a Coloss Statue in Bras Gilt, of King Charles the Second, as Founder of the new City; in the Manner of the Roman Pillars, which terminated with the Statues of their Caesars; or else, a Figure erect of a Woman crown'd with Turrets, holding a Sword, and Cap of Maintenance, with other Ensigns of the City's Grandeur, and Re-erection. The Altitude, from the Pavement, is 202 feet; the Diameter of the Shaft (or Body) of the Column is 15 Feet; the Ground bounded by the Plinth or lowest Part of the Pedestal is 27 Feet square; and the Pedestal in Height is 40 Feet. Within, is a large Stair-case of black Marble, containing 345 Steps, 10½ Inches broad and Six Inches Risers. Over the Capital is an Iron Balcony encompassing a Cippus, or Meta, 32 Feet high, supporting a blazing Urn of Brass Gilt.'

'Prior to this, the Surveyor (as it appears by an original Drawing) had made a Design of a Pillar of somewhat less Proportion, viz: 14 feet in Diameter,

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and after a peculiar Device; for, as the Romans express'd by Relievo, on the Pedestals, and round the Shafts of their Columns, the History of such flagration, and Resurrection of the City of London, was represented by a Pillar in Flames; the Flames, blazing from the Loopholes of the Shaft, (which were to give Light to the Stairs within) were figur'd in Brass-work Gilt; and on the Top was a Phoenix rising from her Ashes, of Brass Gilt likewise.'

Several alternative designs for the Monument believed to be by Wren have survived. The most modest is for an obelisk crowned by a phoenix emerging from a flaming urn. The obelisk stands on a substantial plinth enclosed by railings which suggest a low level viewing platform. The entire structure barely exceeds 90 feet. A second drawing refines the design for the base of the obelisk, which is decorated by carved dragons at its corners, and it seems probable that these two were early proposals, before Wren decided on a free standing column which could enclose an internal staircase to its full height.

The design described in 'Parentalia' for a free-standing Doric column with flames emerging from niches in its shaft is in the All Souls collection. It was approved by the King and it is dated by the Wren Society as late as 1675. It is interesting that this design includes a five storey building to one side of the column, illustrating the scale of the Monument but at the

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same time suggesting that Wren may have been at least partially involved in the design of its urban setting. The late date of the drawing also suggests that construction may have begun four years before the details of decoration and the form of crowning ornament were finally agreed. It might support Reddaway's theory that Robert Hooke designed the column and that Wren was consulted on its decoration.

A written report given by Wren to the City Lands Committee on 27 July 1675 discusses the proposed terminal in detail:

"In pursuance of an Order of the Committee for City Lands, I doe herewith offerre the several designes which some monthes since I shewed his Majestie, for his approbacon; who was then pleased to thinke a large ball of metall guilt would be most agreeable, in regard it would give an Ornament to the towne at a distance; not that his Majestie disliked a Statue; and if any posal of this sort be more acceptable to the City, I shall most readilye present the same to his Majestie.

'I cannot but comend a large Statue, as carryeing much dignitie with it; and that which would be more valluable in the eyes of Forreiners and Strangers. It hath been proposed to cast such a one in brasse, or twelve feet high, for £1000. I hope (if it be allowed) wee may find those who will cast a Figure for that money, of fifteen feet high, which will

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suite the greatnesse of the Pillar, and is (as I take it) the largest at this day extant; and this would undoubtedly bee the noblest finishing that can be found Answerable to sole goodly a worke, in all men's judgements.

'A ball of Copper, nine foot diameter, cast in severall peeces, with the Flames and guilt, may well be done, with the iron worke and fixing, for £350; and this will be most acceptable of any thing inferior to a Statue, by reason of the good appearance at distance, and because one may goe up into it, and upon occasion use it for fireworks.

'A Phoenix was at first thought of, and is the ornament of the wooden Modell of the Pillar, which I caused to be made before it was begun; but, upon second thoughts, I rejected it, because it will be costly, not easily understood at that highth, and worse understood at a distance and lastly dangerous by reason of the sayle, the spread winges will carry in the winde.

'The balcony must be made of substantiall well-forged worke, there being noe need, at that distance, of filed worke and I suppose (for I cannot exactly guesse the weight), it may be well performed and Fixed, according to a good designe, for fourscore and tenne pounds, including painting. All which is

humbly submitted to your consideracon.

'Christopher Wren.'

Despite Wren's recommendations the City Lands Committee agreed to construct the most economical of his designs, perhaps not least in an effort to have the Monument completed as quickly as possible. On 28 July 1675 it was ordered:

> "... that a ball having been approved of by his Majesty should be placed upon the top of the new Cullumne and, in regard it is apprehended dangerous that the Scaffolds should long continue, that the speediest, which is also the cheapest, way be taken for the finishing of the said worke and in order thereunto that Mr Robert Hook be desired forthwith to treat with the Cityes founder, and such other Workmen as he shall Judge to be honest and able, for the makeing a globe of wood covered with Copper, double guilt and lined with brasse, of nine foot diameter." (3)

If the construction had begun in 1671 then parts of the scaffolding might have been in place for four years. We know from Robert Hooke's diaries that by June 1674 the column was "above ground, 210 steps." The wooden model described in Wren's account has not survived but it is said to have later belonged to Sir William Chambers and to have passed from him to Sir I. Brunel. The scaffolding was shown surrounding the model

and a drawing of the scaffolding was published in the 'Civil Engineer and Architect's Journal' i.

On 22 September 1675 the City Lands Committee received yet another alternative design for the crowning ornament:

> "Mr Hooke propoesing to this Comittee the Figures of an Urne as the most proper to be placed upon the Top of the new Cullumne on Fishstreet Hill and declared that it had been seen and approved of by his Majesty and undertakeing to procure a testimony under Sir Christopher Wren's hand of his Majesty's approbacon thereof ...."(4)

The design for an urn containing a ball of flames was ultimately built, against the wishes of Wren. In 1723 when Hawksmoor made a drawing of the Monument it was crowned by Wren's statue of Charles II, and the terminal with urn and flames was relegated to a separate inset marked "Urna ...imposita Contra Architecti Intentionem."

Hawksmoor's drawing clearly credits Wren with the overall design of the Monument: It contains a framed description; "The great PILLAR or MONUMENT of London; Begun in the Year, 1671 and Finish'd in 1677. According to the Designs, and Under ye Conduct of Sr. Christopher Wren...." Robert Hooke's diaries, however, give an indication of the extent of his involvement in the design and construction, and they are quoted below in full:

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Relevant entries in Robert Hooke's Diaries.

1 June 1674.	At the Pillar, Fish Street Hill, it was above ground, 210 steps.
7 Aug. 1674.	At the pillar in height 250 steps.
	27 July 1675. With Sir Chr. Wren about Report of Monument.
28 July 1675.	Guildhall Committee. Received orders about the Ball and Railes about the Column. I took draught of Piller, Ball, and Statue.
3 Aug. 1675.	Walked with Sir Chr. Wren in Privy Garden and Discoursed of the Ball for the Column.... To Bloomsbury Brazier, and Cibber.
4 Aug. 1675.	To Bird, Brazier in Beech Lane, he demanded 2s. per lb, for Ball.
27 Aug. 1675.	Sir Chr. Wren at Garraways. With him to Lord Angers and Sir Robert Reddings Lord Mayor, who gave me directions to agree with Braziers for Ball and Balcony.
8 Sept. 1675.	To Lever, Smith, about Rail and Balisters of Columb. Guildhall Committee. Power to agree for Ball and Balcony. Cibber and Brazier.
11 Sept. 1675.	To Sir Chr. Wren's. Received Draught of Urne.
21 Sept. 1675.	At Fish Street Hill on top of the Column. Agreed with Cole Brazier for Urne after the Rate of 18d per lb for plaine and 2s.6d. for chaced work. He to set it up and fix it.
24 Sept. 1675.	To Coles, Brazier drew out Urne.

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28 Sept. 1675. Agreed with Bird for Urne at 19d per lb. for plain work.

11 Oct. 1675. I paid Bullock for Module for Urne 8s.6d., and Lignum Vitae.

20 Nov. 1675. To Birds, the Urne bungled.

16 Dec. 1675. At Birds, saw half the Urne made.

25 Jan. 1676. Mr Marshall here, with him to Birds, Bath Lane, he had finishued Urne.

27 Jan. 1676. Urne to Fish Street Hill. Weight 1452+.

4 April 1676. With Oliver & Hodgkins , and at Stair Alehouse about Urne.

5 April 1676. Piller at Fish Street Hill. At top of it, saw Balcony, directed about setting the Urne.

7 April 1676. To Committee at John in Cornwall about Urne. To Guildhall. Bird had £50. Gave a draught and report of iron frame for Urne.

14 July 1676. Order to raise the Urne tomorrow.

26 July 1676. Bird here about air pump & urn ornaments.

8-14 Oct. 1676 Scaffolds at Fish Street Piller almost all struck.

17 Nov. 1676. At Piller the laying it open reported with Sir Chr.Wren. Inscription mentioned.

4 Dec. 1676. To the Piller measured it with Leybourne, Marshall, Hayward; Oliver; Mam, Hoskins, &c.

8 Oct. 1677. At Fish Street Piller. The Baker's ground distant the length of the Piller.

17 Oct. 1677. At Lord Mayor's about the Fleet and Dr. Gale's

inscription, he commanded me to meet with Dr. Gale, Sir Chr.Wren. and Controuler, about inscription. Spent rest of day till 10 at night with them.

18 Oct. 1677. To Dr. Gale's about Inscription. To Court of Aldermen. Attended all day on that affaire.

20 Oct. 1677. Discoursed with Sir Chr.Wren at Mans about Inscription.

24 Oct. 1677. At Fish Street Piller. Directed corners.

17 June 1678. To Dr. Gale, saw Monument Inscription finisht.

29 July 1678. Called on Dr. Gale for Inscription of Column.

1 Aug. 1678. Recd. from Dr. Gale the Descriptions of the Column.

6 Nov. 1678. Viewd Inscription on the Piller.

30 Nov. 1678. At the Piller with Sir Chr. Wren and Dr. Gale.

16 Dec. 1678. Measured the Column.

17 Dec. 1678. At Jonathans casting up Piller.

18 Oct. 1679. Dind with Sir Chr. & Lady Wren about seeing Monument.

Construction

It is apparent from Hooke's diaries, and from the Orders of the City Lands Committee that construction of the Monument began before the design for the terminal had been drawn up. It is recorded in 'Parentalia' and in Nicholas Hawksmoor's drawing of 1723 that construction began in 1671.

A manuscript in the Guildhall Library, giving an account of payments made in the construction of the Monument states that on 11 November 1671 Nicholas Duncomb was paid "for carting away rubbish from the ffoundation of the Pillar."

Payments to Joshua Marshall mason are recorded in the same document, "by Order dated 20th March 1670 on Accmott. for erecting the Pillar neer the place where the ffire began." This account is given in full in appendix 2.

By 1 June 1674 the Monument was "above ground, 210 steps."

Hooke received a design for the urn from Wren on 11 September 1675 and on 22 September the design for an urn and a balcony railing was approved by the City Lands Committee and Hooke was authorised to draw up contracts.

An agreement was reached between Hooke and the Brazier, Bird on 28 September and by 11 October a model of the urn had been constructed.

On 8 November 1675 contracts were issued to William French, blacksmith; "that he shall make a Ballcony of good stuffe and substantiall Iron, Workmanlike according to the Modell Agreed upon by Mr Hooke the City Surveyor..."

The urn was completed by 25 January 1676 but the following month the City Lands Committee recorded that;

> "some extra work is required for setting up the Urne on the Column"

On July 5 the Committee recorded:

> "Mr Oliver informs the Comittee that one Mr Bowers, who had begun the ornamental worke about the Urne, is unwilling to proceed till he has some assurance what and when he will be paid. Sir R.Forde, Mr Nicholl and Dep Aldm Hall with Mr Oliver to view, treat and agree and report.

The ornament, which appears to have included the ball of flames, was the subject of two more reports to the City Lands Committee: On 25 July 1676 it was ordered:

> "Mr Oliver to see that the flames of the Urne be forthwith made, guilded, and sett up, and that the Clerk of the works doe follow his directions, and that so much of the scaffolding as possible be taken down and Mr Marshall to comply with their directions.

On 6 August 1676 it was recorded that:

> "After a full debate unanimous agreement that the ornamental Copperworke lately made by Mr Bowers should forthwith be finished, guilded set up. Mr

Bowers called promised to finish and fitt the same and have it ready for the Guilder in 4 days.

Mr Edmond Pickering, painter, also present was ordered to prepare some very substantiall gold and to guild a sample piece in the presence of Mr John Oliver. Oliver is to see about 2 good substantiall doors for the said Columne."

Hooke's diaries record that the Monument was completed excepting the inscriptions by Dr Gale by the end of 1676 and an entry in the City Lands Committee minutes of 18 October 1676 denotes the completion of construction work:

"Sir Chr Wren to be attended with a copy of the Contract and be pleased to inspect and view the worke and measures and quality and report."

An account of the materials employed in the construction is given in 'Parentalia' as follows:

"An accurate Account of the Quantity, by Measurements, of the Great Column of London.

The Solidity of the whole Fabrick from the Bottom of the lowest Plinth, to the black Marble under the Urn, the Cylinder of the Staircase only deducted, and the Stone for the Carving not allowed for, is .....37396 Feet

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The black Marble that covers the Capital 287

---------- Lanthorn 64

From this Solidity deduct,

For the 8 great Niches 281

For the 3 Doors and Passages 289

For 3 sides reveyled.....486

For rouch Block 1499

For Rubble-work 7185

In all 9740

the Remainder is 27656

To this add, upon the account of the Carvings in Front, the 4 great Dragons, and Festoons 540

28196 Feet of Solid Portland Stone.

343 black marble steps.

The whole Shaft fluted after it was built, being 4784 superficial feet.

Marble March-pace 56 feet.

Marble paving, and other small Articles, not in this Measurement."

(The record of a black marble cover to the Capital and Lanthorn, and the apparent inaccuracy of the refereace to 343 black marble steps should be noted.)

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Scientific Experiments

When the Monument was first completed it was used, as Wren intended, by the Royal Society for scientific experiments. The nature of these experiments is not known but it has been suggested that the small hole, approximately 6 inches diameter, which extends from the interior of the entrance area up to the viewing platform, may have been designed by Wren for use in these experiments. It is believed that the vibration caused by traffic along Fish Street Hill made the experiments impractical.

18th Century Alterations.

The first recorded comprehensive programme of repairs to the Monument was executed between October 1784 and July 1786. The contract for these repairs, which itemises the work to be done and specifies the materials and methods to be used is recorded in the City Lands' 'Contracts for Repairs Book Vol.1 November 1779-October 1791.'

Richard Dyke, a mason from West Ham in Essex, and Charles Palmer of Wanstead in Essex were employed to repair and regild the urn with its ball of flames, to clean and repair stonework, to repair and replace damaged balusters and the hand rail capping, and to clean and decorate the interior of the Monument. "Strong scaffolding" was erected and the contract would suggest that the gilded urn and the iron balusters were in need of substantial repair work. The contract is too lengthy to be quoted in full, but it can easily be viewed at the Corporation of London Record Office (Reference: '1318 City Lands Contracts Vol.1 pp69-74.'), and there are small sketches in the margin (marked in my quotations by *). It is given in summary below:

Urn and ball of flames

"Repair and make good every defective part of the Blaze and all other brass or copper work at the top of the Cippus. To stop up all the holes made therein and to rivet all the joints and

lapes etc where necessary, with copper rivets and to take away all such parts of the old brass or copper as is decayed and replace the same, ... so as to take every part of the said brass or copper work in every respect perfectly compleat as at first."

"To new gild the whole of the blaze and all the brass or copper work where gilt before, with the best double gold.

Railings and iron work.

To knock scrape and clean all the rust from off the iron rings and uprights etc which extends from the top of the stone steps to the blaze, and from off the iron railing and balusters etc on the steps and in the abacus. To repair the several defective parts of the iron rings and uprights before mentioned, with three hundred of wrought iron and one hundred pounds of lead, ..."

"To fix four wrought iron balusters .... to the uppermost steps, ... each ... let into the said steps and run with lead, they are also to be riveted into an iron rail, which iron rail is to be one inch and half wide, and half an inch thick, and properly fastened to the present rail, and to one of the uprights of the ring leading to the blaze."

"To take the iron capping from off the rails of the fence round the gallery on the abacus, and also the iron capping from off

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the hand rail of the steps, and also the other pieces of iron which have been put for the security of the upright bars etc. To cover the said rails with a cast iron capping of the form and substance described in the margin.* In the length of the capping to be made Fifty holes, each hole is to be half an inch diameter for the reception of lead, these cappings are to be mitred at the angles, and the other ends are to be halved together as described in the margin."* (Additional details given on how to fix to existing rail and balusters.)

"The lower ends of all the upright bars on all the steps and the landing of stairs are to be secured and strengthened with two cast iron rails fixed thereunto in the manner described in the margin."* (Additional details on method of fixing.

"To secure the upright bars of the iron fence round the abacus with sixteen wrought iron bars, each three inches wide and half an inch thick, of sufficient lengths to join at their angles..."

Stonework

To cut out the several defective parts of the stonework .... and replace ... with Fifty cubical feet of sound Portland Stone. .... to be wrought and sunk moulded or carved etc so as perfectly to correspond." (Gives details here of method of fixing by cramps etc.)

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"To scrape and clean off all the dust etc on the stone work in every part ..."

"To cramp all the defective and decayed parts of the abacus with copper as shall be directed to the value of Ten Pounds. To pin up the plinth of the cippus upon the abacus with tile heads, slate and oyster shells etc. and fill up every part of the vacuity with melted lead."

Steps

To support the ends of such of the steps as shall hereafter appear defective with 1 in iron brackets let into the said steps and into the wall and run with lead each bracket."

Interior

"To take down the partition which encloses the upper stairs, and put up a new one of inch and a half deal framed with an inch and half deal door, and lock and hinges compleat in every respect."

"To take down the cupboard on the ground floor and make a strong deal door to the cellar of inch and a half deal rebated and ledged. To make an inch and half ledged flap, and fix the same over the cellar steps, and fix a seat and bearers on do. as shown and directed."

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"To fix up a sash partition and door and enclosure etc. at the foot of the stairs as before .... and provide proper hinges and fastenings etc to the same."

"To provide fit and hang an inch and half deal ovolo sash door to the front."

"To fix up a stove in the chimney compleat as before and make good all the defects in the chimney compleat.

"To clean the dirt etc out of the stone bason and pipe etc at the bottom of the niche."

"To lay new substantial oak joists, and whole deal floor over the cavity adjoining the stairs as before."

"To wash stop scrape and white the whole of the work where done before, and to paint all the new and old wood and iron work where painted before, four times in oil."

Paved area surrounding base

"To take up the whole of the paving within the iron railing which inclosas the pedestal and relay the same strait, and to a proper current, with such of the old stones, and make proper watercourses through the stone kerb, on which the iron railing stands."

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"To cut away repair and make good the said kirb as shall be directed with ten cubical feet of Portland Stone properly cramped as shall be directed.
To fit new purbeck stone steps to the front entrance of the same length as the present old ones."

Railings Around the Base of the Monument.

There are no railings shown around the base of the Monument on 17th-century and early 18th-century engravings. Almost certainly if there had been railings around the base in 1723 they would have been included in the detailed drawing by Nicholas Hawksmoor and so we must assume that they were a later 18th-century addition.

By 1784 railings had been installed on the north, east and south sides of the Monument, close to, but not touching the plinth.

We know that the railings were in place because the contract for repairs to the Monument of 1784 includes the specification: "To take up the whole of the paving within the iron railing which incloses the pedestal and relay the same strait, and to a proper current, with such of the old stones, and make proper watercourses through the stone kerb, on which the iron railing stands."

In addition, an engraving dated 1795 illustrates a railing approximately 5' high on the north side of the base.

In 1882 or shortly after, the 18th-century railings were altered: The railings were removed from the north and south sides and the quadrant curves which linked the main railings to

the stonework of the Monument at the west end of the railings on the north and south sides appear to have been transferred to the east side of the Monument. From this date there were railings on the east side of the Monument only:
A drawing in the Corporation of London Record Office (Ref. Surveyor's City Lands Buildings 1984) dated 29 March 1882 comprises four ground plans of the Monument; the first showing the railings as they were in 1882; and the remaining three showing alternative arrangements for the railings. Plan number 3 shows the railings as extant.

The City Lands Committee Minutes specifically record the repainting of the railings around the base in 1847, and it is probable that the railings were also repainted as part of the general maintenance of the Monument.

In 1954 the City Surveyor's Report records that several of the balusters of the railings around the entrance, and some of the top ornaments were broken, and that damage had been caused to the stonework where the ends of the rails had been built in. It was agreed that the broken balusters and ornaments should be repaired and that "amendments made to prevent further damage to stonework."

No explanation has been located either for the erection of the railings in the 18th century, of for their 19th-century replacement although it is probably that the 19th century

railings were erected in response to the 1880 alterations to Monument Yard.

19th Century Alterations.

The Monument was scaffolded for inspection and repairs in 1834, and in 1888.

1830 Removal of inscription

The anti-Papist inscription in the north panel, added in 1681 was removed in 1830.

1834 Regilding of urn and flames

The Minutes of the City Lands Committee for 1834 record the regilding of the urn and flames, but no additional repairs or alterations are specified.

According to C.Welch's 'The History of the Monument' published in 1893

> "In May, 1834, it was completely renovated, a scaffolding being erected from the gallery to the top of the urn, in order that it might be repaired and regilded. The construction of the scaffolding was very ingenious, and much courage and skill were displayed by the workmen in its erection."

It would appear from this description that the scaffolding was restricted to the terminal area, and it is likely that if substantial repairs had been carried out then they would have been itemised in the City Lands Committee Minutes.

31

1825 Gas lighting

According to C. Welch's 'The History of the Monument' published in 1893 and adapted from an earlier history written by the Keeper of the Monument J. Woodward;

> "On the 15th June, 1825, the Monument was illuminated with portable gas, in commemoration of the laying of the first stone of London Bridge. A lamp was placed at each of the loopholes of the column, to give the idea of its being wreathed with flames, whilst two other series were placed on the edges of the gallery, to which the public were admitted during the evening."

Welsh's date may be inaccurate because an entry in the City Lands Committee Minutes of 26 February 1851, after a visit by the Committee to the Monument records that they:

> "were of the opinion that it should be lighted with Gas."

Later photographs show the exterior of the Monument to have been lit by gas lamps fixed to the upper corners of the base. A postcard in the Guildhall collection entitled 'Base of the Monument' shows these lamps on the east side of the base, with the 1882 railings below, and a 1905 photograph shows that the lamps were on each of the four corners, but by 1928 they had been removed (National Monuments Record Photographs CC73/2639, CC73/2766, and CC72/73).

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1842 Addition of iron cage around gallery

There are reports from the 18th century onwards of men absailing down from the top of the Monument and between 1788 and 1842 six people committed suicide by throwing themselves from the gallery at the top. The date of the last suicide, on 19 August 1842, and three days later a special meeting of the City Lands Committee was convened to discuss the problem of determined suicides. After much debate it was resolved "that the only effectual remedy for such occurrences is to have an additional railing or fence work at the top", and the Committee recommended that "a suitable inclosure of Ironwork be placed there to prevent accidents in future." The Monument was closed until an iron cage was erected around the gallery and on 23 November 1842 the City Lands Committee authorised a payment of £93 for the new enclosure.

An article in The Illustrated London News of 27 August 1842 stated that "The additional railings will be painted white, so as to be invisible at a distance."

Two newspaper engravings, one of 1874 and one from the Graphic of 1892, show the cage to have been fixed to the railings by iron rings.

The railings around the balcony were replaced in October 1954.

1879 Regilding and painting of interior and railings

A report in the Common Council Papers of 12 February 1879 records the necessity of regilding the flame, and quotes a report from the City Architect:

> "the Flame at the top of the Monument is very much tarnished and discolored not having been regilt since the year 1834. Recommends that it should be entirely regilt, the cost of which he estimates at the sum of about £240.
>
> The Architect has suggested that in the event of this Honourable Court giving directions for the proposed regilding of the Flame of the Monument which would necessitate the closing of the Building to the Public the opportunity should be embraced to paint and clean the interior from the top to the bottom the cost of which he estimates the sum of about £35 also to paint the cage on the abacus and the railings at the bottom at a cost of about £55 and we agreeing with Mr Architect in his Report recommend that we should be authorized to give directions for the execution of the said several works at the estimate cost of about £330."

1883 Decoration of interior

According to the 1888 report given below the interior of the column was painted in 1883, and was due to be painted again in 1888.

1888 Repairs, restoration, and repainting of interior.

Doubts were raised concerning the stability of the Monument when on 25 September 1888:

"a piece of Stone fell from the under-side of the abacus of the Monument at the South East corner, it fell upon the pedestal from which a portion weighing about 1½ lb rebounded and flying across the public thoroughfare broke through a window of a room on the Second Floor of Monument House in the occupation of Messrs Duche and Sons, it then passed over the head of a Clerk at his Desk and breaking a square of Glass in a partition fell on the floor a smaller piece also crossed the road and broke a large square in a window of Lockharts Coffee House, the remainder crumbled on the pedestal."(5)

The building was immediately closed to the public and surrounded by barriers and hoarding "in order to catch any other pieces which might fall", and a "Boat" was set up so that the underside of the abacus could be examined. A report from the City Architect, Alexander Peebles dated 10 October 1888 found that:

"On the under side of the abacus at each angle is a 'Patera' ornament about 18 inches in diameter, not carved out of the solid Stone and forming a part of the abacus, but a distinct stone fastened up to the

abacus by means of an Iron bolt, and here is doubtless the cause of the detachment of the patera, the examination revealed also the fact that this is not the first time that parts of these Patera have broken away, it was evident that a portion, about one third, of the Patera in question had previously come away, and a portion of the Patera under the North East angle of the abacus appears to be wanting. All the patera should be entirely removed as the mode of fixing by means of iron bolts is unsafe, while the patera are useless even as ornaments for they can scarcely be seen: the bed or horizontal joints of the Masonry are very much weakened, the mortar having crumbled away, owing to the action of the weather, for a depth two or three inches, in some places more, the necking of the Column and the under side of the abacus are encrusted thickly with soot. I suggest the advisability of repointing all the joints of the masonry, and of recovering the top of the abacus with Asphalte, it being very much worn: it is five years since the interior of the Column was painted, if you should decide upon doing the works to the Masonry as suggested the Monument must be kept closed and the painting could be done at the same time.

It has been suggested that the falling of the Stone may be due to the works of the City of London and Southwark Subway, or to vibration caused by the District Railway, but

in my opinion the patera must have fallen sooner or later because of improper workmanship and because of the action of the weather upon the iron bolts the fall is not attributable to the Works referred to ..... I had the Column plumbed by means of a Theodolite and it was found to be quite perpendicular."(6)

Peebles' recommendations were agreed by the City Lands Committee and on 10 October 1888 it was ordered:

"that all the "Paterae" beneath the Abacus be entirely removed.
That all the joints of the Masonry be repointed and the top of the Abacus covered with asphalte.
That Mr Architect do obtain Tenders for repainting the interior of the Monument and lay the same before this Committee.
That a Report to Common Council on the subject be prepared."

The tenders for repainting the interior were accepted on 14 November 1888, the abacus was covered with asphalt on 28, 29, and 30 November, and a letter from Peebles to the City Lands Committee of 21 January 1889 reported that the repairs were complete.

The plumbing of the interior of the Monument found that "the shaft inclines in a south easterly direction to the extent of 9 and 3/8 of an inch."

A measured drawing of the Monument was made, taking advantage of the scaffolding (Mon/Gen 4 dated November 1888).

An inspection hole was dug to examine and measure the foundations and because the base was found to be: "practically of the same length and breadth as the pedestal, not being spread over a sufficient area to afford a margin of stability to this lofty structure" (drawing Mon/Gen 5 dated November 1888) it was recommended that a Civil engineer should be consulted to ensure that the Monument was stable. Mr Wolfe Barry was duly consulted and he reported to the Committee in a letter dated 8 April 1889 that he had examined the entire structure and "could find no cracks or imperfections except some of the most trifling nature." It was concluded that the Monument was sound and stable but that "as a matter of precaution, the structure should be plumbed from time to time." The City Lands Committee heard Wolfe's report on 10 April 1889 and it was agreed that the Monument should be plumbed every 12 months.

1889 Notice board

On 6 March 1889 it was agreed that admission to the Monument should be by ticket only and the City Lands Committee ordered

the appropriate notice boards for the entrance and the top of the Monument.

1891 Turnstiles

On 31 January 1890 the City Lands Committee ordered that a sketch should be made by the City Architect; "showing the position in which a Turnstile may be placed together with an estimate of the cost."

A meeting of 11 February 1891 heard that the turnstiles had been erected.

General repairs and redecoration

In addition to the details of the extensive repairs and repainting of the Monument in 1834, 1879, and 1888, there are many references in the City Lands Committee Minutes to repairs and redecoration at the Monument where the exact nature of the repairs is not specified and cannot be located in the Minute Papers.

Although these entries are frustratingly brief they do give an indication of the type and frequency of general maintenance and occasionally they offer clues to the possible date of repairs such as the provision of the wooden handrail.

In 1847 the City Lands Committee agreed that general repairs and decorations at the Monument were to be carried out at the expense of the Keeper of the Monument; "as he receives the

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emoluments from persons admitted to view the Monument", and the Committee made regular inspections to ensure that the building was properly maintained. The Keeper was permitted to close the Monument to the public as necessary in order to carry out repairs, but this diminished his income from admission charges and there can have been little incentive, other than to satisfy the Committee, to carry out extensive alterations. We know from the City Lands Committee Minutes of June 1859 that the Keeper had been responsible for "repairing and making good damage to the Rails and Ornaments and keeping the same in order and condition." At the same meeting, however, the City Architect was granted £100 for repairs to the building. It is tempting to associate this £100 with the wooden handrail.

The following summary of entries in the Committee Minutes between 1840 and 1865 gives an idea of the frequency and type of repair work and redecoration carried out during the 19th century.

March 1842 repairs and painting authorised as "may deem requisite."

November 1842 payment of £93 made for iron enclosure around the viewing platform.

October 1843 repairs to Copperwork at the top of the Monument authorised, to a cost not exceeding £70

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December 1843 repairs to paving in Monument Yard. The repairs appear to have been related to work on sewers.

March 1847 Railings around the base and the viewing platform painted.

May 1847 the City Lands Committee heard a report from Mr Clerk of the Works: "the interior of the Monument requiring painting and scraping - Estimate of expense £25."

May 1848 Architect reports on "defective state of the pipe for carrying off the water from the top of the Monument".
Authorised by Committee to make necessary alterations.

February 1851 interior to be white-washed and the stonework at the top repaired.

March 1854 repairs to be carried out under the direction of the City Architect and paid for by the Keeper.
June 1878 Architect's report heard on state of Monument and repairs authorised to value of £30.

June 1859 £100 granted to Mr Architect for repairs.

April 1865 City Architect makes a report of work required to put the Monument in "a proper state of repair".

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June 1865 Architect granted £190 for repairs and painting.

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20th Century.

Throughout the 20th century the Monument has been regularly maintained and repainted. During the Second World War the building was closed to the public and the base was damaged by bomb fragments. Photographs in the Corporation of London Record Office (Ref. Mon Gen 10e & 10f) show substantial scarring on the west and east sides.

1954 Cleaning, repairs, and regilding of urn.

In 1953 a Surveyor's Report outlined a series of proposals for repairs and alterations to the Monument and these comprised:

- Cleaning and repair of stonework.
- Renewal of railings around the base.
- Renewal of railings around viewing platform.
- Proposal to erect a small building outside the entrance to increase accommodation for Assistants.
- All necessary works of painting and decoration including the complete regilding in gold leaf of the flame motif, ball, and urn.

After consultation with Mr Wright, Chief Architect of Ministry of Works, Ancient Monuments Department, the programme of repairs was revised and the following summary appears in the Surveyor's Report to the City Lands Committee of 14 April 1954:

Staircase Balustrade.

"The iron balusters have all corroded to various degrees, some of them right through and repairs have been executed over the years by means of metal plates strapping together.

It was intended to cut out the old balusters from the stair treads and renew the whole of the balustrade but by means of a purpose made socket to straighten and fix the base of the worst-corroded balusters I think repairs could be confined to about half the balusters.

The remainder of the balusters would remain in their present state but would last for some years."

Railings around Viewing Platform.

It was agreed that the condition of the iron cage and railings around the viewing platform necessitated complete replacement.

Railings to Entrance.

Several balusters and top ornaments were broken and the original intention had been to replace all the railings. Mr Wright had suggested, however, that although the railings were not as old as the Monument they should be retained where possible. It was agreed that the broken balusters and ornaments should be replaced and that where the ends of the railings had been built into the stonework, causing damage, "amendments made to prevent further damage to stonework."

Staircase.

".... the treads are worn and become slippery when wet and I had proposed to fix modern non-slip metal and carborundum nosings to all steps, made up with granolithic mastic behind.

Mr Wright thought this might be out of place on a building of this antiquity and suggested .... cutting away the top of the steps and inserting new treads in similar material."

The Surveyor was reluctant to recommend the insertion of replacement treads because of the high cost in materials and labour. He concluded that ".... most of the water which sometimes accumulates on the steps in due to condensation and it is hoped that the removal of old paint from the walls and an improvement to the ventilation of the column will stop a great deal of this trouble."

Summary.

a) To repair balusters with purpose made sockets instead of complete replacement.

b) To repair and alter entrance railings instead of complete replacement.

c) To defer any work on stair treads.

d) To replace railings on top platform.

e) Regilding of flames, ball and urn, and interior redecoration.

1977 Stair Treads.

Work began on replacement of the stair treads in 1977.

All of the stair treads except one have now been replaced.

Changes in Urban Landscape Setting

17th Century

The Monument was constructed on the site of the church and churchyard of St Margaret, New Fish Street. When the church was destroyed in the Great Fire the Parish of St Margaret was joined with that of St Magnus and so the church was not rebuilt.

The height of the Monument - 202 feet, is said to be equal to its distance from the site in Pudding Lane where the Great Fire began.

17th century engravings show Monument Yard as an open square, with the Monument on the eastern perimeter, formally positioned with raised paving steps on three sides and the busy Fish Street Hill on the fourth side.

Fish Street Hill continued into the old London Bridge, forming the principle route from London to Southwark, and the Monument and St Magnus the Martyr were clearly visible as a composition from the Bridge, and from the north.

The new buildings along Fish Street Hill and around the three sides of Monument Yard were four storey buildings, often with shops or business premises occupying the ground floors.

Stow described the area as a place where "be fish-mongers and fayre taverns; on Fishstreet hill and Grassestreet, men of divers trades, grocers and haberdashers."

In 1681, 1673 feet of land was purchased from the Rector and Church Wardens of St Margaret's for the enlargement of Fish Street Hill, and the paved setting to the Monument was widened.

The Monument, with its small square behind and with the bustling Fish Street Hill in front was the subject of many engravings, remaining with very few alterations from the 17th century through the 18th century.

18th Century

Towards the end of the 18th century the buildings along the west side of Fish Street Hill began to be replaced but those along the east side, and in Monument Yard continued with only superficial alterations.

By 1784 railings had been positioned around the base of the Monument on the north, east, and south sides and this may have been done to protect the base.

In 1784 the paving within this iron railing was taken up and relaid, but no documentation has been located which can date the alterations to the surrounding raised paving.

19th Century

The rebuilding of London Bridge to the west of the old London Bridge destroyed the original alignment of the Monument, St Magnus the Martyr Church, and the old bridge. Fish Street Hill ceased to be the main thoroughfare from London to Southwark and the prominence of the Monument diminished accordingly. Payne's Illustrated London, published in 1847, describes the alteration:

> "The curvature from the bridge on the Middlesex or London side, cannot be sufficiently deplored. The Monument by the building of new London Bridge, has been thrown into the shade, and may well join in a lament at the obscuration of its present altered locality."

In 1880 the character of Monument Yard and the paved area around the Monument were even more radically altered. The buildings on the north and south sides of the square were cleared and the construction of Monument Street changed the square into an open thoroughfare. An article in The Builder of 30 October 1880 discusses the alterations in detail:

> "The entire area of Monument-yard is at present being re-arranged, and so laid out as to convert a large portion of it into a new carriage-way, which is intended to be constructed between Fish-street-hill and Lower Thames street, opposite

Billingsgate Market. Hitherto the whole open space around the Monument has been flagged, and served only as an approach to the Monument itself and the buildings on the north, south, and east sides respectively, with the exception of a narrow passage at the south east corner, leading into Pudding-lane. All this is now being changed. The old flags have been taken up, and the level considerably lowered, with the view of adapting it to the gradient of the intended new thorough fare. There are to be new footpaths on the north and south sides of the Monument, with carriage-road approaches to the new thoroughfare eastward, which will intersect Pudding-lane, buildings there having been taken down for the purpose of opening out the new street. The new carriage-road around the Monument will be paved with granite, resting on a concrete bottom..... The old buildings on the north and south sides of the Monument, fronting Fish-street-hill, have recently been taken down, and on the site so cleared on the south side an extensive block of new buildings is in course of erection, which will have a frontage to Fish-street-hill of about 40 ft. in length, and be carried to a depth of 70 ft. eastward, the Fish-street-hill elevation, as well as that facing the south side of Monument-yard, being uniform in architectural design..... The site which has been

cleared on the north side of the Monument in Fish-street-hill remains inclosed and not yet built upon. It belongs to the Fishmongers' Company, who, we learn, do not propose to erect any new buildings upon it until the Inner Circle Completion Railway project is finally settled."

Where previously engravings of the Monument had generally taken a view southwards along Fish Street Hill, showing the Monument on the east side of the street and suggesting the square behind, now it was primarily viewed from the west side, showing the busy cross roads of Monument Street and Fish Street Hill, with the Monument isolated in the centre of a busy square.

As the new buildings were erected to the north and south of the Monument its urban setting at the edge of an open square with generous paved surrounds shrank to a central island, set back and aesthetically divorced from Fish Street Hill and Monument Street, and crowded by the proximity and character of the surrounding buildings. The arrival of the Monument underground station, at the end of the 1880's, did little to help.

20th century

Monument Yard has been preserved through the 20th century, although alterations to building lines and changes in traffic

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patterns have eliminated any meaningful urban landscape setting.

Fish Street Hill is no longer a primary route linking London to Southwark, the bridge has moved, and the relationship between the Monument and St Magnus the Martyr is only apparent to the most observant visitor. There are very few remaining indications that this was once the highest free-standing column in Europe, situated on the edge of a busy thoroughfare against a backdrop of a formal square.

Monument Yard has lost its qualities both as a composed open square and as a market area where fishmongers gathered with their crates early in the mornings.

The Monument itself is dwarfed by surrounding buildings. Where for two centuries it was one of London's most prominent landmarks, featured in every guide book to the City, now it is quite difficult to find.

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20th Century Alterations.

During the 20th century the Monument has been regularly closed for general maintenance, regilding of the urn and flames, and for redecoration of the interior.

The 'day books', kept by the assistants at the Monument record the following closures:

12-23 May 1924.	Closed for painting.
14-26 February 1948.	Closed for repairs.
December 1963.	Flag pole taken down.
March 1966.	Photographs taken down.
2-30 May 1966.	Closed for interior painting.
April 1971.	Closed for decorating.
19-22 May 1975.	Closed for wire mesh shield to be placed over opening on stairs.
November 1976.	Closed for cleaning.
January 1981.	Closed for two weeks for renewal of steps.
September 1981.	Closed for redecoration.

Unidentified newspaper article:
Flames regilded 1926.

Architects Department Files:

September 1978	Closed for renewal of 20 steps and redecoration of viewing platform grill.
1973	Redecoration.
1975	Floodlit.
1978	Redecoration.
1985	New door to viewing gallery.

Replacement of worn steps:

May 1977	20 steps.
July 1978	20 steps.
July 1979	40 steps.
Setpember 1980	13 steps.
1981	7 steps.
1986	"carefully cut out 32 worn treads to steps and replace with new Belgian Black marble.

Drawings:
Mon/Gen 7
".... Information Board for the Monument. George Holliday. City Surveyor. 1900."

Mon/Gen 8.
"Column scaffolded for inspection 1834, 1888, and 1954.
"Notice board west face provided 1951. Cost £67.13.0.
Plan of quarter of safety grill.
Balcony railings p.529.
"Railings 5'6" x 30' at entrance."
"Rails repainted 1954."
"Flame regilded 1954."
Note below balcony railing: "Provided 1949 Cost £1195."

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War Damage:
The Monument was closed to the public during the Second World War. The base was damaged by bomb fragments and photographs in the Corporation of London Record Office (Ref. Mon Gen 10e & 10f) show substantial scarring on the west and east sides.

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APPENDIX I

Translation of Inscription on the North Side.

In the year of Christ 1666, on the 2nd of September, at a distance eastward from this place of 202 feet, which is the height of this column, a fire broke out in the dead of night, which, the wind blowing, devoured even distant buildings, and rushed devastating through every quarter with astonishing swiftness and noise. It consumed 89 churches, gates, the Guildhall, public edifices, hospitals, schools, libraries, a great number of blocks of buildings, 13,200 houses, 400 streets. Of the 26 wards, it utterly destroyed 15, and left 3 mutilated and half burnt. The ashes of the city covering as many as 436 acres, extending on one side from the Tower along the bank of the Thames to the church of the Templars, on the other side from the north-east gate along the walls to the head of Fleet-ditch. Herciless to the wealth and estates of the citizens it was harmless to their lives, so as throughout to remind us of the final destruction of the world by fire. The havoc was swift. A little space of time saw the same city most prosperous and no longer in being. On the third day, when it had now altogether vanquished all human counsel and resource, at the bidding, as we may well believe, of heaven, the fatal fire stayed its course and everywhere died out.
*(But Popish frenzy, which wrought such horrors, is not yet quenched).

* These last words were added in 1681.

INSCRIPTION ON THE NORTH SIDE.

Anno Christi ciɔ ɔc lxvi die iv nonas Septembrꝭ
Hinc in orientem pedvm cclI intervallo qvæ est
Hvivsce colvmnæ altitvdo ervpit de media nocte
Incendivm qvod vento spirante havsit etiam longinqva
Et partes per omnes popvlabvndvm feretatvr
Cvm impetv et fragore incredibili xxcix templa
Portas prætorivm ædes pvblicas ptochotrophia
Scholas bibliothecas insvlarvm magnvm nvmervm
Domvvm cclo oo oo oo cc* vicos ed absvmpsit
De xxvi regionibvs xv fvndítvs delevit ollas vIII laceras
Et semivstas reliqvit vrbis cadaver ad clxxxvi ivgera
Hinc ab arce per Tamisis ripam ad Templariorvm fanvm
Illinc ab evro aqvilonali porta secvndvm mvros
Ad fossæ Fletanæ caput porrexit adversvs opes civivm
Et fortvnas infestvm erga vitas innocevvm vt per omnia
Referret svpremam illam mvndi exvstionem
Velox clades fvit exigvvm tempvs eandem vidit
Civitatem florentissimam et nvllam
Tertio die ovm iam plane evicerat hvmana consilia
Et svbsidia omnia cœlitvs vt par est credere
Ivsevs stetit fatalis ignis et qvaqvaversvm clangvit.
‡[Sed fvror Papisticvs qvi tam dira patravit nondvm restingvitvr.].

* These curious figures are to be explained as follows:—cclxx = 10,000; oo oo oo is the sculptor's mistake for cIↃ cIↃ cIↃ, making 3,000 more; and cc = 200, making the total of 13,200. This total agrees with the official estimate of the number of houses destroyed.

‡ These last words were added in 1681.

Translation of Inscription on the South Side.

Charles the Second, son of Charles the Martyr, king of Great Britain, France, and Ireland, defender of the faith, a most gracious prince, commiserating the deplorable state of things, whilst the ruins were yet smoking, provided for the comfort of his citizens, and the ornament of his city; remitted their taxes, and referred the petitions of the magistrates and inhabitants of London to the Parliament; who immediately passed an Act, that public works should be restored to greater beauty, with public money, to be raised by an imposition on coals; that churches, and the cathedral of St. Paul's, should be re-built from their foundations, with all magnificence; that the bridges, gates, and prisons should be new made, the sewers cleansed, the streets made straight and regular, such as were steep levelled, and those too narrow made wider, markets and shambles removed to separate places. They also enacted, that every house should be built with party-walls, and all raised of an equal height in front, and that all house walls should be strengthened with stone or brick; and that no man should delay building beyond the space of seven years. Furthermore, he procured an Act to settle beforehand the suits which should arise respecting boundaries, he also established an annual service of intercession, and caused this column to be erected as a perpetual memorial to posterity. Haste is seen everywhere, London rises again, whether with greater speed or greater magnificence is doubtful, three short years complete that which was considered the work of an age.

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INSCRIPTION ON THE SOUTH SIDE.

Carolvs II C. Mart. F. Mag. Brit. Fran. et Hib. Rex. Fid. D.
Princeps clementissimvs miseratvs lvctvosam rervm
Faciem plvrima fvmantibvs iam tvm rvinis in solativm
Civivm et vrbis svæ ornamentvm provîdit tribvtvm
Remisit preces ordinis et popvli Londinensis retvlit
Ad regni senatvm qvi continvo decrevit vti pvblica
Opera pecvnia pvblica ex vectigali carbonis fossilis
Orivnda in meliorem formam restitverentvr vtiqve ædes
Sacræ et D Pavli templvm a fvndamentis omni magni-
ficentia extrverentvr portæ carceres novi
Fierent emvndarentvr alvei vici ad regviam respon-
derent clivi complanarentvr aperirentvr angipor-
tvs fora et macella in areas sepositas eliminaren-
tvr censvit etiam vti singvlæ domvs mvris inter-
gerinis concivderentvr vniversæ in frontem pari
Altitvdine consvrgerent omnes qvæ parietes saxo
Qvadrato aut cocto latere solidarentvr vtiqve
Nemini liceret vltra septennivm ædificando immo-
rari ad hæc lites de terminis oritvras lege lata
Præcidit adiecit qvoqve svpplicationes annvas et
Ad æternam posterorvm memoriam H. C. P. C.
Festinatvr vndiqve resvrgit Londinvm maiori celerita-
te an splendore incertvm vnvm triennivm absolvit
Qvod sæculi opvs credebatvr.

Translation of Inscription on the East Side.

(This Pillar was) begun, Sir Richard Ford, knt., being Lord Mayor of London, in the year 1671; carried higher in the Mayoralities of Sir George Waterman, knt., Sir Robert Hanson, knt., Sir William Hooker, knt., Sir Robert Viner, Knt., and Sir Joseph Sheldon, Knt.; and finished in the Mayorality of Sir Thomas Davies, in the year of the Lord 1677.

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INSCRIPTION ON THE EAST SIDE

INCEPTA
RICHARDO FORD EQUITE:
PRÆTORE LOND: A.D. MDCLXXI
PERDVCTA ALTIVS
GEORGIO WATERMAN EQ: PV
ROBERTO HANSON EQ: PV
GVLIELMO HOOKER EQ: PV
ROBERTO VINER EQ: PV
JOSEPHO SHELDON EQ: PV
PERFECTA
THOMA DAVIES EQ: PR.E: VRB:
ANNO DNI. MDCLXXVII

TRANSLATION.

[This Pillar was] begun, Sir Richard Ford, knt., being Lord Mayor of London, in the year 1671; carried higher in the Mayoralties of Sir George Waterman, knt., Sir Robert Hanson, knt., Sir William Hooker, knt., Sir Robert Viner, knt., and Sir Joseph Sheldon, knt.; and finished in the Mayoralty of Sir Thomas Davies, in the year of the Lord 1677.

APPENDIX 2

THE PILLAR ON NEW FISH STREET HILL

In Memoriall of the Fire. Out of the Cole money. (From MS. in Guildhall Library. Condensed statement of Account.)

		£	s	d
1671 April 8.	Paid Joshua Marshall mason by Order dated 20th March 1670 on Accomtt for erecting the Pillar neer the place where the ffire began	300	-	-
July 7 to Oct 24.	Five payments	1300	-	-
Dec 15 to Feb 24 1672.	ten do	2700	-	-
1673. June 9.	Paid	500	-	-
Nov 17.	"	1000	-	-
1674. ffeb 10.	"	1000	-	-
April 28 to Sept 26.	3 Payments	3000	-	-
Dec 23.	Paid	500	-	-
1675. 28 July.	Paid	500	-	-
1676. 30 Nov.	"	500	-	-
		£11,300	-	-

		£	s	d
1671. Nov 11.	Paid Nicholas Duncomb for carting away rubbish from the ffoundacon of the Pillar	73	8	0
1673. June 28.	Paid Gabriel Cibber Sculptor for carving the Hieroglifick ffigures ...	100	-	-
" Oct 9.	Paid GC. Sculptor Mason. do	50	-	-
" " 25.	" " " "	100	-	-
" Dec 20.	" " " "	50	-	-
1674. April 13.	" " " "	100	-	-
Oct 14.	" " " "	100	-	-
Dec 23.	" " " "	50	-	-
1675. Sept 9.	" " " "	50	-	-
		600	-	-

		£	s	d
1673. Oct 31.	Pd. Tho Woodhouse, Carpenter	35	-	-
1675. Aug 21.	Pd. Hodgeskins. Smith.	100	-	-
Dec 2.	Pd. Tho Western for Wm French, Blacksmith, on acct of balcony	100	-	-
1675. Dec 23.	Pd. Anthony Tanner. Bricklayer.	6	18	-
1676. April 23.	Pd. Robert Bird, Coppersmith, for Urne	128	6	-
June 14.	Pd. Wm French extra charges for making and setting up balcony	4	-	-
		139	4	-

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Summary

	£	s	d
Masons	11,300	-	-
Carting Rubbish	73	8	-
Sculptor	600	-	-
Carpenter (Doors)	35	-	-
Smith (Balcony and Urne)	339	4	-
	12,347	12	-
Account not stated (probably purchase of Land, etc.)	1,102	19	9
	13,450	11	9

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References

1. Act 1666 19 Charles II, Cap 3, sec 29.
2. T.F. Reddaway, 'The Rebuilding of London after the Great Fire.' 1940. p.216.
3. City Lands Committee July 28 1675. Orders, Vol.III ff.50/51.
4. City Lands Committee September 22 1675. Orders, Vol.III f.54.
5. From a report by Alexander Peebles, Architect Surveyor to the City Lands Committee. City Lands Committee Papers 10 October 1888.
6. Ibid.

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APPENDIX B

MONUMENT VIEWS STUDY

2020

City of London Corporation

MONUMENT VIEWS STUDY

City of London
Assessment of Key Features and View Protection Considerations

Published by the Department of the Built Environment
December 2020

Contents

Introduction

The Monument, built between 1671 and 1677 to commemorate the Great Fire of London, is both a listed building and a scheduled ancient monument. It is an important vantage point with extensive views over London and attracted over 270,000 visitors in the year 2017[1] to its gallery. Many more, however, visit the Monument without ascending it and enjoy it as a City landmark of distinctive height and architectural form. It is a Grade I listed structure.

The City of London Local Plan 2015 Core Strategic Policy CS13 and the draft City Plan 2036 Strategic Policy S13 set the policy for Protected Views. This includes protecting and enhancing significant local views of and from the Monument. The spatial extent of the Monument Views policy area is shown in Figure 1 below and set out on Policies Map A of the Local Plan 2015 and draft City Plan 2036.

This section complements the policy and guidance set out in the City Corporation's Supplementary Planning Document Protected Views (2012) by describing the specific views to establish the key features of each view from the Monument as at April 2020. Nearby familiar skyline landmarks are also described as they are important features in the general panorama to be seen from the public viewing gallery. The documents referenced above are available on the City Corporation's website in the Planning Policy Library.

The Monument Public Viewing Gallery

Figure 2 sets out the elevation of the Monument detailing the components of the structure. This includes the pedestal at ground level upon which is set the Shaft, the Capital, the Drum and at the Flaming Cob at the highest part of the structure. The plan for the Monument sets a height of 202 feet (61.56 metres) above ground level. This is based upon the distance of the Monument to the source of the Great Fire. For the purpose of assessing views from the Monument the public have access to the Public Viewing Gallery located at the Drum.

Further details of the elevation profile and associated key heights can be found in Appendix 1.

[1] Source: Visit Britain, annual Survey of Visitors to Visitor Attractions

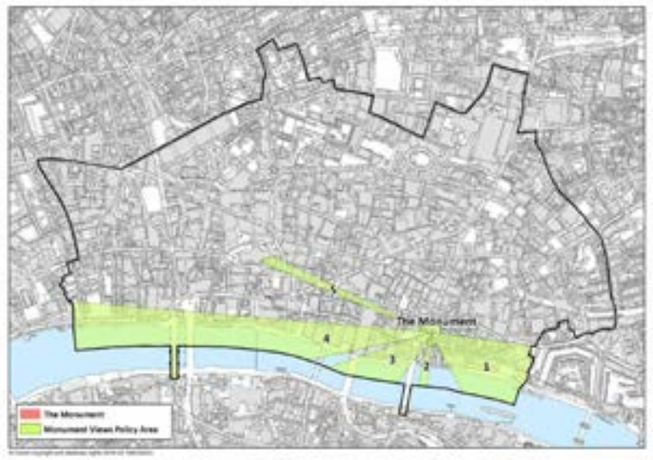

Figure 1: Monument Views Policy Area

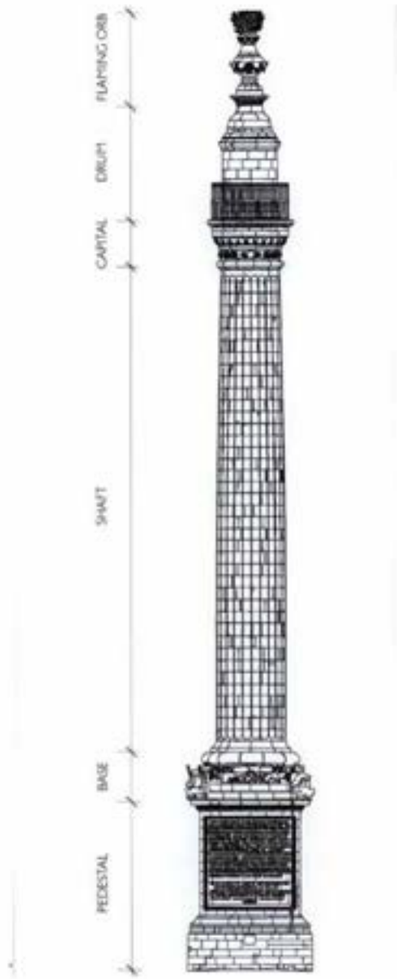

Figure 2: The Monument

Assessing Views from the Monument

In considering proposals which are likely to affect views from the Monument, the City Corporation will be concerned to ensure that development neither obstructs them due to its height or position nor detracts from the general prospect by inappropriate bulk or massing. The effect on the specific views from the gallery of the Monument protected by Local Plan 2015 Core Strategic Policy CS13: Protected Views and draft City Plan 2036 Strategic Policy S13: Protected Views will be a consideration when proposals are made for the redevelopment or alteration of buildings within the views, or which fall within the 'shadow' of buildings which obstruct these views.

There is potential to improve the foreground roofscape in views from the Monument. Height and massing should not visually intrude into the key features of the views as described and views of the River Thames should be maintained.

For each of the five views, there is:

- A listing of the key features which includes the River Thames and **buildings** such as the Tower of London.
- A photograph from the Monument viewing gallery highlighting the key features of the view and specifically what portions of the key features are visible, including the River Thames where applicable.
- A map of the policy area for that view highlighting the key features of the view including key features in neighbouring boroughs which are beyond the City of London administrative area.
- Details of how each key feature contributes to the overall quality of the view.

View Protection considerations including how other Protected Views policies, particularly the St Paul's Heights Policy and the London View Management Framework Protected Vistas, contribute to the protection of the view. See the St Paul's Heights Study and London View Management Framework reports for more information on these views.

View One: Direction of view - South East to the Tower of London, Tower Bridge, the River Thames and HMS Belfast

Key Features (See Figure 3):
River Thames (1); Tower Bridge (2); Tower of London World Heritage Site (3) – White Tower, (4) – Northern Battlements; HMS Belfast (5); Custom House (6); Old Billingsgate (7)

Figure 3: View One Photograph and Map (highlighting key features)

Key Features: Details

(1) The **River Thames** comes into view beside Tower Bridge and its south bank is then seen in a continuous sweep from the bend of the river at Wapping, Rotherhithe and Bermondsey beyond Tower Bridge, to the bow of HMS Belfast in the Upper Pool. The excellent views of Tower Bridge, City Hall and HMS Belfast are the most prominent features of the eastern riverscape. The development at More London appears adjacent to City Hall.

(2) **Tower Bridge** (Listed Grade I) can be seen almost in its entirety framed by the river. The setting within the river is key to the appreciation of the bridge. The foreground visual axis provided by Monument Street and the corner of the Custom House (Listed Grade I) leads the eye towards Tower Bridge and focuses the view towards it.

(3) The **towers and castellations of the White Tower** of the Tower of London (Listed Grade I) can be seen above the roofline of the Tower Place development. This building was designed to be low enough to retain and enhance these views.

(4) The **northern battlements of the Tower of London** are visible above the curving profile of the Tower Place roofline towards the northern end of the view. Parts of the curtain wall (from Legge's Mount to Brass Mount) are visible to the north of the turrets of the White Tower. The northern battlements merge with the spires of All Hallows by the Tower (Listed Grade I) and St Dunstan in the East (Listed Grade I) churches, recognisable as part of the Eastcheap Conservation Area.

(5) **HMS Belfast** features in the southern part of the view and extends the appreciation of the river to the right of Tower Bridge. The river setting of HMS Belfast is key to the appreciation of this feature. The design of Montagu House was influenced by the need to retain views of HMS Belfast.

(6) **Custom House** (Listed Grade I) is partially visible in the foreground of the view beyond the junction of Monument Street with Lower Thames Street. The western side, part of the northern side and much of the roof is visible in the view.

(7) **Old Billingsgate** (Listed Grade II) is also partially visible in the foreground of the view at the north-west corner of the building. The remainder of the building is obscured by Peninsular House.

View Protection Considerations

Monument View 1 is a downward view from the Monument viewing gallery to much lower heights at the White Tower or to river level for the Tower of London and HMS Belfast and to street level at Lower Thames Street. Much of the view is also protected by the London Views Management Framework (LVMF) relating to St Paul's Cathedral which has lower sightlines in some locations:

- Landmark Viewing Corridors from Greenwich Park and Blackheath Point,

- Wider Setting Consultation Areas from Greenwich Park and Blackheath Point and Background Wider Setting Consultation Area from Primrose Hill.

View Two: Direction of view - South to the River Thames

Key Features: See Figure 4.

River Thames (1); St Magnus the Martyr Church tower (2) (partly outside policy area - yellow). Other features in the view include the London Bridge tall building cluster in the background.

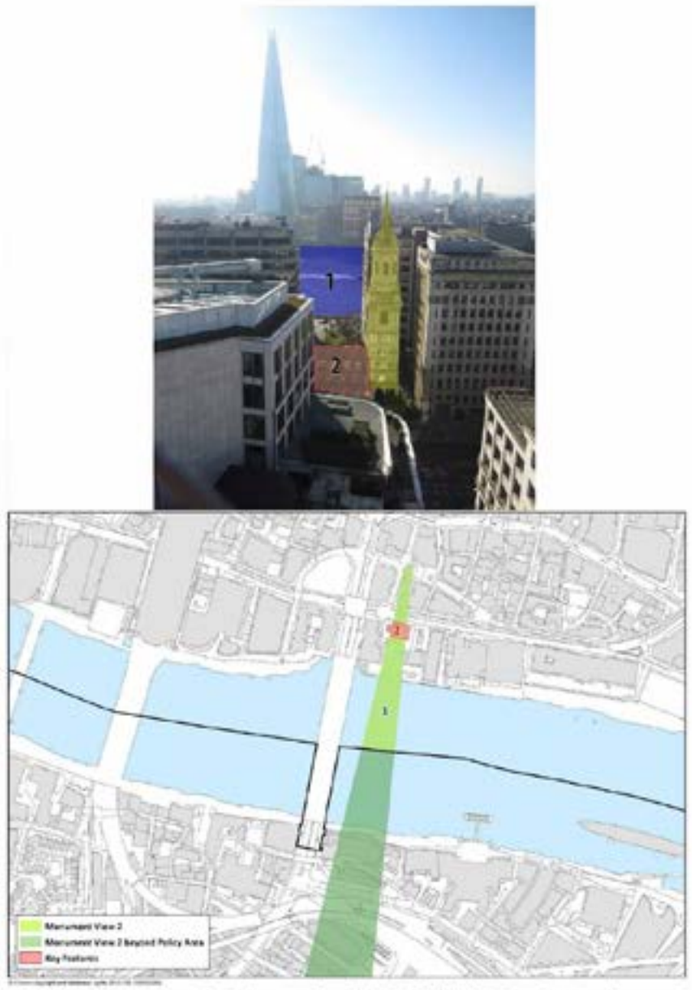

Figure 4: View Two Photograph and Map (highlighting key features)

Key Features: Details

(1) The **River Thames** is visible as a downward slot-view framed by the north bank office buildings of St Magnus House and Adelaide House (Listed Grade II) including the open space at Fish Wharf / Grant's Quay Wharf adjacent to the riverside walk. Key to the appreciation of the view is the visibility of both banks of the river between buildings. This view is also important as it enables a view of the Monument from the south bank (see section on the Views of the Monument).

(2) The roof of **St Magnus the Martyr Church** (Listed Grade I) is overlooked by the view such that the riverside walk and open space at Fish Wharf / Grant's Quay Wharf are visible beyond the roof. The tower of St Magnus the Martyr Church is a prominent feature in the foreground although the tower itself lies just outside the Monument View policy area.

View Protection Considerations

The view to the south bank is marked by the office buildings of No 1 London Bridge plus the riverside walkway at Queen's Walk. Beyond the south bank stands further development, dominated by the Shard London Bridge development adjacent to Guy's Hospital tower. The developments at Elephant & Castle and the Strata Tower are features in the wider view.

Monument View 2 is a downward view to river level and almost to street level at St Magnus the Martyr Church. The view is also protected by the LVMF relating to St Paul's Cathedral which has lower sightlines in some locations:

- Landmark Viewing Corridors from Greenwich Park and Blackheath Point,
- Wider Setting Consultation Areas from Greenwich Park and Blackheath Point and
- Background Wider Setting Consultation Area from Primrose Hill.

View Three: Direction of view - South West to London Bridge and Cannon Street Railway Bridge

Key Features: (See Figure 5).
River Thames (1); Golden Hinde Galleon (2); Pickford's, Winchester, New British and Clink Wharves (3), Cannon Street Railway Bridge (4); Fishmongers' Hall (5); part of London Bridge (6). The Seal House redevelopment (7) proposal is shown outlined in yellow.

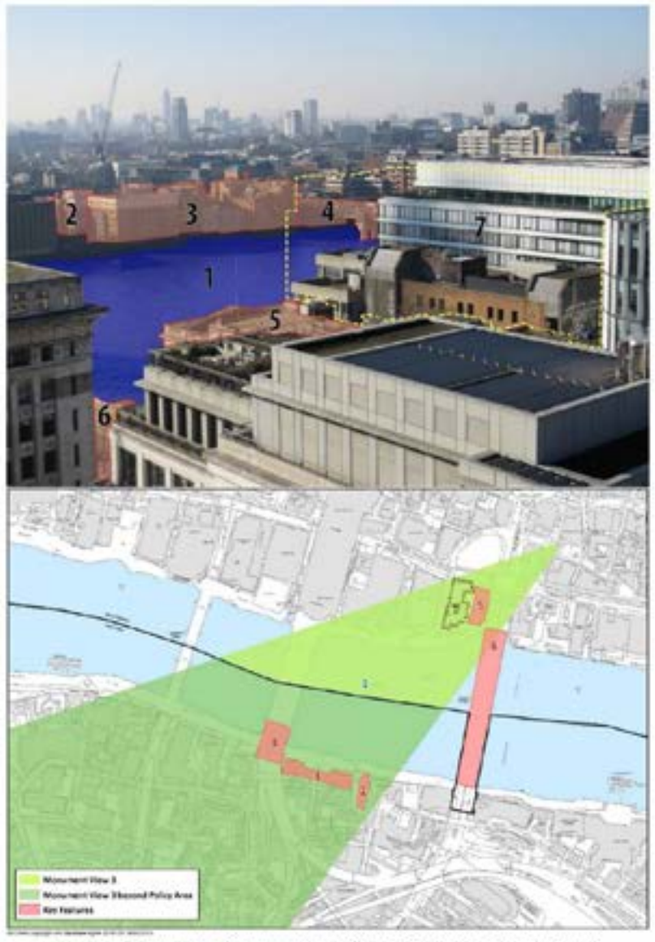

Figure 5: View Three Photograph and Map (highlighting key features)

Key Features: Details

(1) The view of the **River Thames** view extends south westward from Adelaide House (Listed Grade II). The view of the northern part of Cannon Street Railway Bridge is obscured by Riverbank House. On the south bank, the view of the river is visible from Minerva House to the southern end of the railway bridge.

(2) The replica **Golden Hinde** galleon in St Mary Overie's Dock is visible on the south bank.

(3) The frontages of **Pickford's, Winchester, New British and Clink Wharves** can be seen on the south bank. The visibility of the river in front of the wharves is important to appreciate the context of the buildings.

(4) The southern third of **Cannon Street Railway Bridge** is visible in the view. The remainder of the bridge is obscured by Riverbank House.

(5) The southern part of the roof and pediment of **Fishmongers' Hall** (Listed Grade II*) is visible against the backdrop of the river. This Livery Hall is an impressive building on this part of the north bank.

(6) Part of the northern end of **London Bridge** is visible and is an important reference point adjacent to Fishmongers' Hall, adding context to the river. The north bank of the river is not visible in this view.

Potential Redevelopment

(7) Redevelopment (18/01178/FULMAJ) at **Seal House** was agreed by Planning and Transportation Committee on 18 March 2019 subject to signing of Section 106 Agreement. The agreed proposal obscures a part of the river and Cannon Street Railway Bridge in views from the Monument viewing gallery (building outline dashed in yellow in Figure 5), which represents a departure from policy. It was considered that the proposed scheme offered significant wider and inclusive public benefits which outweigh the less than substantial harm to the view from the Monument. In particular, the provision of a large free to access public roof garden with generous opening hours offering exceptional views of London in a high quality economically and socially inclusive space was considered to represent a valuable and unique new asset for the City of London as a whole, for its workers, residents and visitors.

View Protection Considerations

Monument View 3 is a downward view to river level and its south bank. Parts of the view are also protected by the LVMF relating to St Paul's Cathedral which has lower sightlines in some locations:

- Landmark Viewing Corridors from Greenwich Park and Blackheath Point,
- Wider Setting Consultation Areas from Greenwich Park and Blackheath Point.

- Background Wider Setting Consultations Areas from Parliament Hill, Kenwood and Primrose Hill.

Part of the view at 1 Angel Lane is also protected by the St Paul's Heights Policy. There are several familiar landmarks which are visible on the horizon within this view corridor, e.g. the Tate Modern, the Victoria Tower and part of the London Eye.

View Four: Direction of view - West to Waterloo Bridge and Victoria Embankment

Key Features: (See Figure 6).
River Thames (1), Waterloo Bridge (2), Victoria Embankment Buildings (3) partly outside policy area - yellow).

Figure 6c View Four Photograph and Map (highlighting key features)

Key Features: Details

(1) This longer distance westward view of the **River Thames** extends from the south bank of the River Thames at Blackfriars Bridge to the north bank at Unilever House (Listed Grade II) beside Blackfriars Bridge. The river between Blackfriars Bridge and Waterloo Bridge is the main feature of the view as it curves away to the south beside the tree-lined Victoria Embankment. The view of this upstream stretch of river is particularly important because it is the furthest view of the Thames and therefore contributes to the continuity of the whole panorama from the Monument.

(2) The northern four arches of **Waterloo Bridge** (Listed Grade II*) are visible over the top of Blackfriars Station roof, but the southern bridgehead is hidden behind Sea Containers House. The visibility of the river in front of the bridge is important to appreciate the overall panorama.

(3) Familiar landmarks visible along the **Victoria Embankment** include the buildings within Whitefriars Conservation Area, Shell-Mex House (Listed Grade II), Somerset House (Listed Grade I), King's College (Listed Grade I) and Unilever House (Listed Grade II), part of which lies outside the policy area.

View Protection Considerations

Monument View 4 is a downward view to river level. Much of the view is also protected by the LVMF relating to St Paul's Cathedral which has lower sightlines in some locations:

- Landmark Viewing Corridors from Greenwich Park and Blackheath Point in the immediate foreground and from Westminster Pier and King Henry VIII's Mound beyond Blackfriars Bridge,
- Wider Setting Consultation Areas from Greenwich Park, Blackheath Point and King Henry VIII's Mound,
- Background Wider Setting Consultations Areas from Alexandra Palace, Parliament Hill, Kenwood and Primrose Hill.

Most of the view is also protected by the St Paul's Heights Policy. Blackfriars Station is important to maintaining the appreciation of the view of the river. The roof height is marginally above that of the relevant lowest height St Paul's Heights threshold in the vicinity of the station structure.

In the immediate foreground of the view, the replacement building at 33 King William Street was reduced in height and the design of the roof storey reconfigured so that it does not adversely impact on the views. The roofscape has been designed to provide visual interest and includes hard and soft landscaping. The view foreground is particularly sensitive to further changes to this roof.

View Five: Direction of view - North West to St Paul's Cathedral

Key Features: See Figure 7.

St Paul's Cathedral (1)).

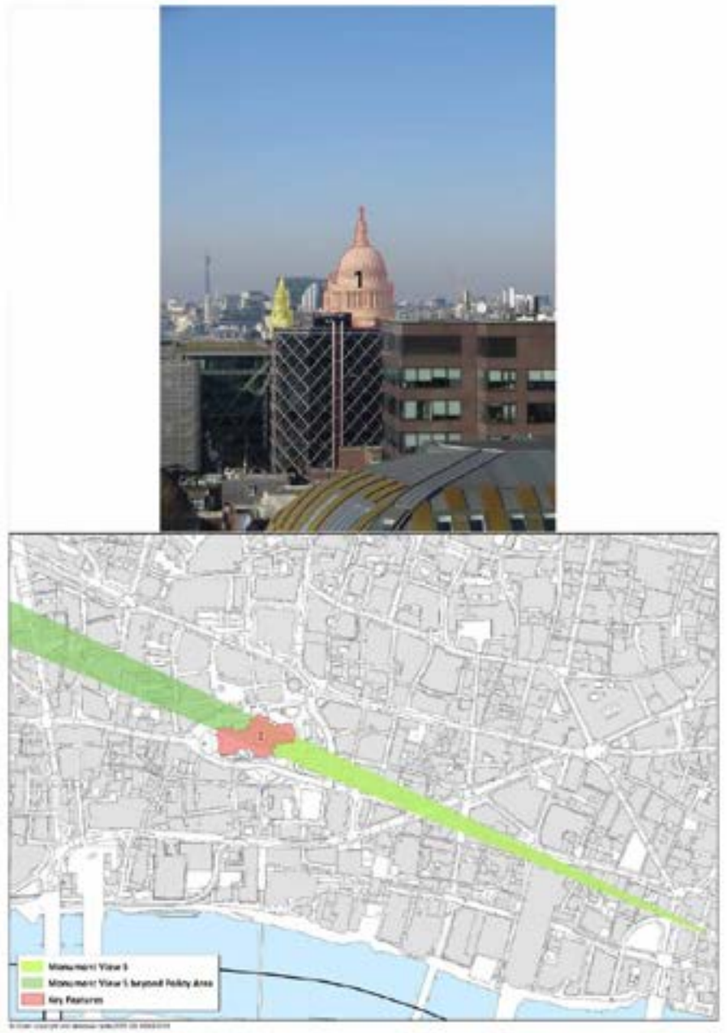

Figure 7: View Five Photograph and Map (highlighting key features)

Key Features: Details

(1) The view is focused upon the dome and drum of **St Paul's Cathedral** (Listed Grade I) as part of a panorama of the western part of the City and beyond. Visible features of the cathedral are the drum, peristyle and dome with the western towers beyond. The rooftop plant at 80 Cannon Street obscures part of the drum. The south-west tower of the cathedral lies visible just outside the policy area.

View Protection Considerations

Monument view 5 is gradually downward towards the Cathedral. Parts of the view are also protected by the LVMF relating to St Paul's Cathedral which has lower sightlines at some locations:

- Landmark Viewing Corridors from Greenwich Park and Blackheath Point,
- Wider Setting Consultation Areas from Greenwich Park and Blackheath Point and
- Background Wider Setting Consultations Areas from Alexandra Palace, Parliament Hill, Kenwood and Primrose Hill.

Parts of the view adjacent to the cathedral are also protected by the St Paul's Heights Policy. The Monument Views Policy does not protect the background of this view which includes significant areas within the City. However, some of the background is already protected by the Landmark Viewing Corridors of the northern views of the LVMF and the Background Wider Setting Consultations Area from Greenwich Park.

Other features to consider in the wider view that are outside the policy area:

- the spires of St Bride's Church (Listed Grade I),
- St Mary le Bow (Listed Grade I),
- the top of the Old Bailey cupola (Listed Grade II*), and the BT Tower (Listed Grade II) and
- the tower of St Mary Aldermary (Listed Grade I).

Northern Views

Although specific views to the north have not been identified on the Policies Map, they collectively form a spectacular panorama of diverse City buildings. The principal axial views are provided by King William Street and Gracechurch Street / Bishopsgate, leading the eye into the Bank Conservation Area and the fringe of the City Cluster of tall buildings to the north (Figure 8). Any proposed increases in the height of buildings near the Monument will be assessed in terms of their impact on views to and from the Monument.

Figure 8: City Cluster from the Monument Viewing Gallery

Views of the Monument

The Monument is prominent in parts of the City townscape by virtue of its height and architectural form. Development within its surroundings should respect its setting and proposals which could dominate the Monument visually will not be appropriate.

The immediate setting of the Monument is formed by four surrounding street blocks (Figure 9). Development in these four street blocks should not impinge on the general open character of the space around the gallery and should not detract from the elevation of the Monument in relation to its surroundings. Developers are encouraged to provide innovative design solutions to help promote a more articulated, interesting roofscape in the immediate setting of the Monument while appreciating that architectural design should not detract from the Monument itself.

Although views of the Monument from ground level are restricted by the scale of surrounding development, there are some good views along street axes (Figure 9), notably from King William Street, Monument Street and Gracechurch Street, and from viewpoints in Southwark including the Queen's Walk (western end). The remaining ground level views described below are of great value and should be protected and enhanced in accordance with Core Strategic Policy CS13 of the Local Plan 2015 and Strategic Policy S13 of the draft City Plan 2036.

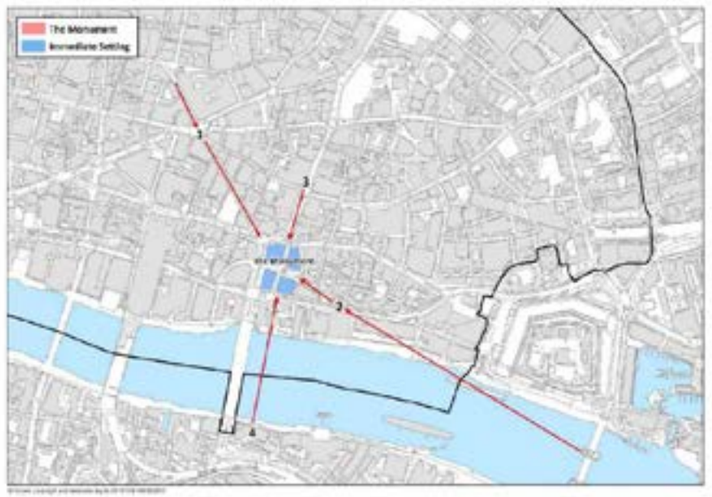

Figure 9: Street Views of the Monument

Street View 1: Views of the Monument from Princes Street & King William Street

Figure 10: Street View One from King William Street

From the right-hand side of Princes Street, the Monument can be first seen, adjacent to the building line on the left of King William Street. Further down Princes Street, more clear sky appears on both sides of the Monument as the viewer approaches Bank junction. The view from Prince's Street near Bank junction is particularly fine, with clear sky on both sides of the Monument down the street axis of King William Street.

As the viewer progresses through Bank junction and onto Lombard Street the Monument temporarily disappears from view. However, as Lombard Street meets King William Street, the Monument reappears against clear sky. The redevelopment of Equitable House, King William Street has considerably improved the view of the Monument. The shaft and viewing gallery can be appreciated from King William Street.

The view extends down King William Street to the junction with Cannon Street (Figure 10), diminishing as the viewer moves closer to the Monument itself. As the viewer moves closer to the junction with Cannon Street, the pitched roofs of

Equitable House frame the Monument shaft and viewing gallery. At the junction with Cannon Street, the view of the shaft is lost, but the viewing gallery can still be seen.

Street View 2: Views of the Monument from Monument Street and Tower Bridge

Figure 11: Street View Two from Monument Street

This view of the Monument relies on the Monument Street axis but also extends as far as Tower Bridge. The view from Tower Bridge is also recognised by the Mayor of London as LVMF River Prospect 10A.1, which includes the Monument as a significant landmark in the view. From this River Prospect, the Monument is in the centre of the view, with the shaft and viewing gallery seen above the roofscape of Custom House (Listed Grade I).

The Monument can also be appreciated at a closer perspective from Monument Street itself shown in Figure 11. From the south east end of Monument Street (at the junction with Lower Thames Street) uphill to the Monument, the Monument can be fully appreciated as the surrounding street blocks allow adequate space to recognise and appreciate the Monument's setting. This is complemented by street furniture and other environmental enhancement features within the Monument's setting.

Street View 3: Views of the Monument from Gracechurch Street

Figure 12: Street View Three from Gracechurch Street

The view of the Monument from Gracechurch Street is first apparent from its western side at its junction with Lombard Street. At this point the viewing gallery of the Monument appears, with the shaft obscured by buildings. The church of St Magnus the Martyr (Listed Grade I) is seen to the right of the Monument.
As the viewer moves down Gracechurch Street towards the junction with Eastcheap (Figure 12), the shaft of the Monument comes further into view. At a point on the western side of Gracechurch Street, opposite 52–54 Gracechurch Street, a narrow slot view of the Monument can be appreciated. The Monument is framed by 11 Monument Street to the left and Equitable House the right.

Street View 4: Views of the Monument from Queen's Walk

Figure 13: Street View Four from the Queen's Walk (western end)

The view from Queen's Walk (western end) northwards to the Monument is also important because it provides the most complete and intimate view of the Monument from the south bank and from the river itself (Figure 13). The view from directly opposite on the south bank is approximately on the line of Old London Bridge and remains one of the oldest and best views of the Monument. At present most of the column of the Monument is visible from the south bank walkway over the roof of St Magnus the Martyr Church and 24 Monument Street and it is important that there is no development north or south of the church which might harm this view.

Appendix 1: The Monument – Estimation of Key Heights

The plan for the Monument gives a height of 202 feet (61.56 metres) above local ground level (AGL). Local ground level varies at the location; therefore, it is more useful to relate the views to absolute heights above the Ordnance Survey datum (AOD).

The ground level is approximately 10.4 just west of the centre of the Monument by OS Mastermap spot heights. Thus, the height of the Monument is estimated at 71.96m AOD with the Viewing Gallery floor at the base of the drum at 59.0 metres AOD (48.6 metres AGL). Table 1 sets out the estimates of the key height information. The viewer's eye level would be approximately 1.6m higher so sightlines at the Monument would be from an approximate height of 60.6 metres AOD and then fall with distance from the gallery.

Feature	Height (m) AGL	Height (m) AOD
Base of Monument	0	10.4
Viewing Gallery floor (Base of Drum)	48.6	59.0
Viewing Gallery (Eye level)	50.2	60.6
Top of Monument	61.56	71.96

Table 1: The Monument - Estimation of Key Heights

Contacts

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The City of London Corporation is the Local Authority for the financial and commercial heart of Britain, the City of London.

Carolyn Dwyer
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Director of the Built Environment

APPENDIX C

MONUMENT VERTICALITY REPORT

2024

Downland Partnership

Measured Verticality Monitoring

of

The Monument

Monument Street

London

For
Corporation of London
Department of Technical Services
PO Box 270
Guildhall
London
EC2P 2EJ

By
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Report No.4 Report Date 07 July 2024 Report Author R Ault (taken from original report by W Mowett)

INDEX

PROJECT OVERVIEW

The Monument is the property of The Corporation of London. Hockley and Dawson–Consulting Engineers were providing advice on its structural integrity to the Corporation.

In 2004 The Downland Partnership was approached by Doug Murray of Hockley and Dawson with a request for a measured monitoring brief. The request stipulated that the method had to be repeatable over a period of many years and simple in its application. The method should be easily copied by surveyors following the description of the initial survey. There was a need to have measurements made to specific reference points at three different vertical positions in the column.

A monitoring survey had been carried out several years previously using a plumb-bob suspended from the metalwork at the top of the staircase. Bill Mowatt of The Downland Partnership suggested a method which was similar in its application and simplicity.

The suggestion was to replace the plumb-bob with an auto plumb instrument. This instrument observes a vertical line which is perpendicular to the surface of the earth as defined by gravitational force. The line of sight is in each instance set vertically by means of two compensators operating in planes at right-angles to each one another.

The forces defining the verticality of the line are the same as those defining the verticality of a plumb-bob. There is the added benefit that there is no oscillation and no possible effect due to the presence of draughts which can deviate a plumb-bob line.

The reference points were to be brass rivets fixed to the internal face of the monument. Another set of reference studs were suggested for the basement to allow the accurate placement of the instrument.

METHODOLOGY

The Downland partnership was instructed in 2005 by Lidia Hogan of the Department of Technical Services at the Corporation of London to install reference points and perform the initial survey measurements.

The method adopted was the previously mentioned auto plumb survey. The auto plumb instrument used for the observations was the Leica ZL which has a specified standard deviation on two readings taken at 180 degrees of 1:200000 or 0.5millimetres at 100 metres. The measuring rod consisted of a 2 metre Yamayo Minirod –C measuring tape which was taped firmly onto a 1.8 metre spirit level. Thought was given to the manufacturing of a special rod to use for the measurements. This was discounted due the high cost of such an object, combined with the likelihood of its damage or loss between in the years between measurements.

The reference point installation and initial survey were both done on the evening of 22 September 2005. Two surveyors were present along with Doug Murray of Hockley and Dawson and Bob Sandford of Julian Harrap Architects.

The positioning of the rivets was accomplished through the orientation of a Leica 1103 total station using the control stations from the previous measured survey of the Monument. This survey had been carried out by the Downland partnership just prior to the monitoring exercise. The laser light spot from the total station was used to direct the spirit level along the north-south and east west axes. The reference point locations were marked on the internal wall at the North, East, South, West cardinal points of the circular internal wall. The control grid for the measured survey was arbitrary but orientated relative to the South face of the plinth. This face was transformed to lie directly East – West on the grid. The other plinth faces are orientated at right angles or parallel to this face in reality.

Once all of the positions had been marked, holes were drilled into the masonry, plastic grommets inserted, adhesive UN1133 injected and the 30 millimetre long shafts of the brass rivets driven home with a hammer. Each rivet had a domed head, which was left clear of the surrounding surface.

The reference points (rivets) were positioned at basement, ground, mid point of the column and at the viewing platform level. Each of the reference points was coordinated using the total station from control derived from the previous Downland survey. This positioning was only done to allow the accurate presentation of the points on the internal elevations for future reference. The height and non cardinal easting or northing should not be used for accurate monitoring purposes.

The observation station for the monitoring exercise was not established central within the basement. It was offset slightly to allow for the present lean of the top toward the south. This position should allow for further movement to the south or back toward the north.

METHODOLOGY (cont)

The position of the observation station should be easily re-established by the observation a tape (held on the basement rivets) through the vertical plummet of the tribrachs. It would be best to use a plummet such as a Leica GZR2, which can be rotated around its horizontal axis to confirm its plumbing accuracy. The instrument can be iteratively moved into the same position as the original. This position can be confirmed via the observation of the rivets by a total station

The observation phase of the exercise involved the mounting of the Leica ZL Auto plumb on the tribrach occupied by the total station. A plastic target was temporarily fixed exactly on the observed line of the auto plumb. This was conveniently placed on the metalwork just above the viewing platform level. This target gave the observer the ability to check for erroneous movement of the auto plumb line due to displacement of the tripod.

The measuring rod was progressively placed on each of the brass rivets on the way up the monument. A reading was taken by levelling up the spirit level and the rod rotated into the view of the auto plumb. A measurement was taken with the telescope of the Auto plumb aligned with the rod and then another taken with the telescope rotated horizontally around 180 degrees. This second reading was essential to confirm the correct collimation of the instrument. A mean of the two readings was taken to give the final result.

Readings were taken to all of the rivets. The observation tripod was moved, the instrument returned to its box. The tripod and instrument were then re-positioned and the original set-up re-established from the basement rivets. Another set of double readings were then taken in reverse order, all of the way to the bottom.

The ground level studs were to be the reference studs for all future measurements. They were assumed not to be moving. These were chosen in preference to the basement studs, since they were measured by the Auto plumb and rod directly and not by EDM or tape. The method of measurement was therefore consistent for all of the critical points.

For future reference, radios with or speaker-phone should be used to simplify communications between the rod holder and the observer. The headset leaves both of the rod holder's and observers hands free. It is not possible to be understood by shouting down the height of the monument. Two people are adequate for the exercise one person remaining in the basement to observe and the other holding the measuring rod on the stud. A powerful torch placed on the steps and pointing at the rod is required to illuminate the measurement surface for the observer below.

The same method of observation was used for the fourth monitoring visit on 09/07/2024. In the intervening years a server has been placed in the basement which covers target BE, we therefore could only use the three remaining targets to position the Leica ZL. To verify the position we placed a Leica TS30 on the same station and we took additional readings to the remaining three targets.

RESULTS

The results were observed and recorded on the Monument Monitoring record Sheet. This data was then transferred into a spreadsheet for computation and analysis. The total station coordinates derived for the rivets were utilised to establish approximate Eastings for the north-south rivets and approximate Northings for the east-west rivets along with approximate elevations.

The auto plumb results have been computed to derive a centre line at each level. The coordinates of the centre line are defined by the mid-point between the rivets The position of that centre line derived by future observations will determine the amount of movement at each of the stud levels.

The rivets were positioned at basement (B), Ground (L), Mid (M) and High (H) levels. The mid points were located half way up the actual column rather than half way up the monument, as this was considered to be more liable to movement.

The coordinates of the primary centre line were established using the L rivets. The readings from the rivets were combined with the approximate coordinates to provide positions for each of the rivets. This centre line will be the reference for all future readings. The combined North and South readings were therefore compared with the approximate Northings for the North and South rivets to establish accurate Northing values for these rivets. The approximate Easting and Elevation were then appended to provide positions for the purposes of relocation. The combined East and west readings were compared with the approximate Eastings of the East-West rivets to establish accurate Easting values for these rivets. The approximate Northing and Elevation were then appended to provide positions for relocation.

The L readings were then subtracted from the corresponding readings at each level to provide a distance of the stud at a particular level from the stud at L level. The differences in the North-South readings were added to the Northings of the North stud subtracted from the Northings of the South stud. Similarly, the differences in the East West readings were added to the Eastings of the east stud and subtracted from the Eastings of the West stud. These accurate Northings and Eastings were appended with the approximate corresponding coordinates to provide relocation positions.

For each of the rivets, only the accurate Easting for the East-West rivets and accurate Northing for the North-South rivets should be used for comparative purposes. A mean centre line has been computed for each of the levels. Only the accurate partial coordinates have been used. The last two columns show the results of the subtraction of the primary centre line from the mean centre line at each of the levels. This indicates the lean of the monument at the different levels.

COMPARISON WITH PREVIOUS SURVEYS - 2005

Hockley & Dawson provided information from previous surveys. The first was from years 1981-1982 and the second was from 1987 -1988. These were observed by different organisations. The origin of the first survey is unknown while the second was undertaken by English Heritage.

The survey from 1987-88 cannot be analysed due to the lack of backup information. (Photocopies of the data are included in the appendices). The booking sheet provided has perhaps been collated from earlier original data. The observed units do not correspond with measurements in feet or metres even when a possible measuring staff offset is taken into account. Also it is possible that the "observer facing" notation was ignored or misunderstood. The presumed north indication on the sketch provided is actually pointing west south west. There is nothing included within the report to allow relevant comparison to be drawn with the 2024 survey.

The survey from 1981-82 is more relevant since the original brass plates are still in place and were measured by total station as part of the 2005 monitoring survey. The measured positions are shown along with the coordinates in the appendices. Photocopies of the original data are also included. Downland computed a best fit centre line by fitting a circle to the brass plate positions. The plumbed centreline position was derived in CAD by observing the best fit of the measurement radii intersections from the brass plates. This method was used, to visually verify the coordinates.

The centre line was 2 millimetres further East and 4 millimetres further North than the 2005 centre line for the lower studs. The brass plates and the studs are to all intents and purposes at the same level (14 metres OAD). The computed centre point for the top target (plumbed centre line) was 26 millimetres further East and 8 millimetres further South than the 2005 centre point. This top point was probably 3.6 metres above the mean height of the 2005 brass studs.

These figures tie together reasonably well considering that there is no way of proving that the top point from 1981 was actually located in the centre of the tower. The 2005 figures make the tower more vertical than 1981-82. The movement off centre for 2005 is 21 millimetres East compared to 45 millimetres East for 1981-82. The movement off centre for 2005 is 298 millimetres South compared to 310 millimetres South for 1981-82.

SUMMARY OF RESULTS 2013

The quality of the results is good. The spread between the readings taken 180 degrees apart is only 4mm even at the highest point. The improved quality of the readings is probably due to the fact that there was a more restricted flow of air and even temperature through the column due to the fact that the doors were closed at the top and the bottom.

The measurements were taken in virtually perfect conditions, with very little wind and at the end of a cloudy day which precluded differential heating of the sides of the monument.

The survey took 2 visits to complete since a metal grid had been installed on the observation line prior to the first attempt. This was easily removed and replaced after the second visit. The grid will have to be removed for subsequent visits unless it is relocated with a different orientation.

Rivet HN was replaced at the top of the column as it had been removed (prior to the rendering of the wall). It was simple to replace, as the hole was relocated under the render and the same method of fixing used. The overall distance between the two top N-S rivets is only different by 1mm so it can be assumed that the replacement was accurate.

The results are remarkably similar to the 2005 visit. There is very little variation at any of the levels. The L positions were held constant since there was only 1mm variation from 2005. At each level, all of the centreline measurements are +/-1mm from the previously measured position. These movements are not even outwith the tolerance of the measuring system. We would not state that there was movement unless the measured deviation was greater than 2mm.

The results can be seen in excel format with graphical representation both inserted in this report and in the appended file "Monument_Verticality_Report13/01/15.xls".

SUMMARY OF RESULTS 2015

The quality of the results is good. A different autoplumb was used in this instance. The instrument was a Geo Fennel FLP100. This has the added advantage that it is possible to read the offsets from the instrument and at the offset staff. The same method of observation was used and impressively the spread of the readings when the instrument was rotated around its axis was less than previous.

The readings were taken in good conditions. There was little wind although the temperature prior to the start had been above 30 degrees with bright sunlight.

Unfortunately the overhead metal grid which had caused problems previously had been cemented into position. It was decided to offset the instrument 21mm to the West to provide a 10mm clearance from the grid and the readings were adjusted to compensate for the offset.

The resulting readings are showing that there is little movement occurring either at the mid reading or at the top. The top is showing the same East – West position as the previous visit and the indicated lean to the East is 1mm less than the base readings. The top is showing 3mm less than the previous visit and the indicated lean to the South is now 2mm less than the base readings. It may be that the bright sunlight on the South face caused a small amount of expansion therefore pushing the upper part of the tower gently North.

In summary, the readings are showing that the position of the tower has become slightly more vertical than it was on the base visit.

The survey results can be seen in the Excel spreadsheet copied to the Monument Verticality Report.

SUMMARY OF RESULTS 2024

The quality of the results is good. A Leica ZL Auto plumb was used and the same method of observation was used. All readings were taken twice and when the instrument was rotated around its axis with very consistent results that were meaned.

The readings were taken in good conditions. There was little wind, the temperature prior to the start had not been above 19 degrees with light rain. New lighting within the monument made readings much easier with the staf clearly visible even at the top of the monument.

Unfortunately the overhead metal grid which had caused problems previously was still cemented into position. It was decided to offset the instrument 21mm to the West to provide a 10mm clearance from the grid and the readings were adjusted to compensate for the offset.

The resulting readings are showing that there is little movement occurring either at the mid reading or at the top. The top is showing a slight movement in the East – West position to the previous visit but the indicated lean to the East is still 1mm less than the base readings. The top is showing 1.5mm more than the previous visit which is back towards the base readings (this may be due to the high temprature reading on last visit) but the indicated lean to the South is now 1mm less than the base readings.

In summary, the readings are showing that the position of the tower has maintained the trend of slightly more vertical than it was on the base visit.

The survey results can be seen in the Excel spreadsheet copied to the Monument Verticality Report.

Monument Verticality Report 22/09/2005

MONUMENT MONITORING RECORD SHEET — DATE 22/09/2005 — SURVEYORS WM & MR

TARGET	OVERALL (mm) MEAN	OBS-LCL	TGT	COORDINATES OF STUDS (m) East	North	Elevation	CL-LCL(E) (in metres)	CL-LCL(N) (in metres)
BN	1129.0	-281.3	BN	204.020	505.165	7.290		
BE	1053.8	-289.3	BE	205.075	504.035	7.329		
BS	963.0	-333.3	BS	204.023	503.073	7.201		
BW	1068.0	-295.0	BW	202.953	504.037	7.324		
			BCL	204.014	504.119	7.286	0.003	0.026
LN	1410.3	0.0	LN	204.029	505.446	14.696		
LE	1343.0	0.0	LE	205.364	504.055	15.394		
LS	1296.3	0.0	LS	204.035	502.740	13.606		
LW	1363.0	0.0	LW	202.658	504.031	13.823		
			LCL	204.011	504.093	14.430	0.000	0.000
MN	1227.8	-182.5	MN	204.050	505.264	44.372		
ME	1322.3	-20.8	ME	205.343	504.014	45.125		
MS	1472.5	176.3	MS	204.031	502.564	42.227		
MW	1367.8	4.8	MW	202.653	504.072	43.576		
			MCL	203.998	503.914	43.825	-0.013	-0.179
HN	915.0	-495.3	HN	204.042	504.951	56.950		
HE	1156.5	-186.5	HE	205.178	504.018	56.154		
HS	1397.8	101.5	HS	204.054	502.639	57.321		
HW	1135.0	-228.0	HW	202.886	504.083	58.273		
			HCL	204.032	503.795	57.675	0.021	-0.298

Monument Verticality Report 15/01/2013

							DATE	15/01/2013
		MONUMENT MONITORING RECORD SHEET					SURVEYORS	WM & MR
	OVERALL (mm)			COORDINATES OF STUDS (m)			CL-LCL(E)	CL-LCL(N)
TARGET	MEAN	OBS-LCL	TGT	East	North	Elevation	(in metres)	(in metres)
BN	1129.0	-281.3	BN	204.020	505.165	7.290		
BE	1054.0	-288.5	BE	205.076	504.035	7.329		
BS	963.5	-333.5	BS	204.023	503.074	7.201		
BW	1068.0	-296.5	BW	202.955	504.037	7.324		
			BCL	204.015	504.119	7.286	0.004	0.026
Diff from Base (B)							0.001	0.000
LN	1410.3	0.0	LN	204.029	505.446	14.896		
LE	1342.5	0.0	LE	205.364	504.055	15.394		
LS	1297.0	0.0	LS	204.035	502.740	13.606		
LW	1364.5	0.0	LW	202.658	504.031	13.823		
			LCL	204.011	504.093	14.430	0.000	0.000
Diff from Base (L)							0.000	0.000
MN	1228.5	-181.8	MN	204.050	505.264	44.372		
ME	1321.0	-21.5	ME	205.343	504.014	45.125		
MS	1471.5	174.5	MS	204.031	502.565	42.227		
MW	1369.0	4.5	MW	202.654	504.072	43.576		
			MCL	203.998	503.915	43.825	-0.013	-0.178
Diff from Base (M)							0.000	0.001
HN	914.0	-496.3	HN	204.042	504.950	58.950		
HE	1154.0	-168.5	HE	205.176	504.018	56.154		
HS	1398.0	101.0	HS	204.054	502.639	57.321		
HW	1136.0	-228.5	HW	202.887	504.083	58.273		
			HCL	204.031	503.794	57.675	0.020	-0.299
Diff from Base (H)							-0.001	0.000

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Monument Verticality Report 30/06/2015

							DATE	30/06/2015
		MONUMENT MONITORING RECORD SHEET					SURVEYORS	WM & MR
	OVERALL (mm)			COORDINATES OF STUDS (m)			CL-LCL(E)	CL-LCL(N)
TARGET	MEAN	OBS-LCL	TGT	East	North	Elevation	(in metres)	(in metres)
BN	1128.6	-283.4	BN	204.020	505.163	7.290		
BE	1053.8	-288.5	BE	205.076	504.035	7.329		
BS	962.3	-334.6	BS	204.023	503.075	7.201		
BW	1068.0	-297.1	BW	202.955	504.037	7.324		
			BCL	204.015	504.119	7.286	0.004	0.026
Diff from Base (B)							0.001	0.000
LN	1412.0	0.0	LN	204.029	505.446	14.896		
LE	1342.3	0.0	LE	205.364	504.055	15.394		
LS	1296.9	0.0	LS	204.035	502.740	13.606		
LW	1365.1	0.0	LW	202.658	504.031	13.823		
			LCL	204.011	504.093	14.430	0.000	0.000
Diff from Base (L)							0.000	0.000
MN	1230.0	-182.0	MN	204.050	505.264	44.372		
ME	1321.0	-21.3	ME	205.343	504.014	45.125		
MS	1471.5	174.6	MS	204.031	502.565	42.227		
MW	1370.5	5.4	MW	202.653	504.072	43.576		
			MCL	203.998	503.915	43.825	-0.013	-0.178
Diff from Base (M)							-0.001	0.001
HN	917.3	-494.8	HN	204.042	504.951	58.950		
HE	1153.0	-189.3	HE	205.175	504.018	56.154		
HS	1395.0	98.1	HS	204.054	502.642	57.321		
HW	1135.5	-229.6	HW	202.888	504.083	58.273		
			HCL	204.031	503.797	57.675	0.020	-0.296
Diff from Base (H)							-0.001	0.002

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Monument Verticality Report 09/07/2024

		MONUMENT MONITORING RECORD SHEET				DATE SURVEYORS RA & MR	09/07/2024
TARGET	OVERALL (m MEAN	OBS-LCL	TGT	COORDINATES OF STUDS (m) East	North	Elevation	CL-LCL(E) (in metres)	CL-LCL(N) (in metres)
BN	1128.0	-283.0	BN	204.020	505.163	7.290		
BE	1063.8	-292.9	BE	205.074	504.035	7.329		
BS	962.0	-336.8	BS	204.023	503.077	7.201		
BW	1067.0	-297.1	BW	202.955	504.037	7.324		
			BCL	204.015	504.120	7.286	0.004	0.027
Diff from Base (B)							0.001	0.001
LN	1411.0	0.0	LN	204.029	505.446	14.896		
LE	1343.7	0.0	LE	205.384	504.055	15.394		
LS	1298.8	0.0	LS	204.035	502.740	13.606		
LW	1364.1	0.0	LW	202.658	504.031	13.823		
			LCL	204.011	504.093	14.430	0.000	0.000
Diff from Base (L)							0.000	0.000
MN	1229.0	-182.0	MN	204.050	505.264	44.372		
ME	1324.0	-19.7	ME	205.344	504.014	45.125		
MS	1470.8	172.0	MS	204.031	502.568	42.227		
MW	1369.8	5.6	MW	202.652	504.072	43.576		
			MCL	203.996	503.916	43.825	-0.013	-0.177
Diff from Base (M)							0.000	0.002
HN	915.3	-495.8	HN	204.042	504.950	58.950		
HE	1155.0	-188.7	HE	205.175	504.018	56.154		
HS	1396.5	97.8	HS	204.054	502.642	57.321		
HW	1132.5	-231.6	HW	202.890	504.083	58.273		
			HCL	204.032	503.796	57.675	0.021	-0.297
Diff from Base (H)							0.001	0.003

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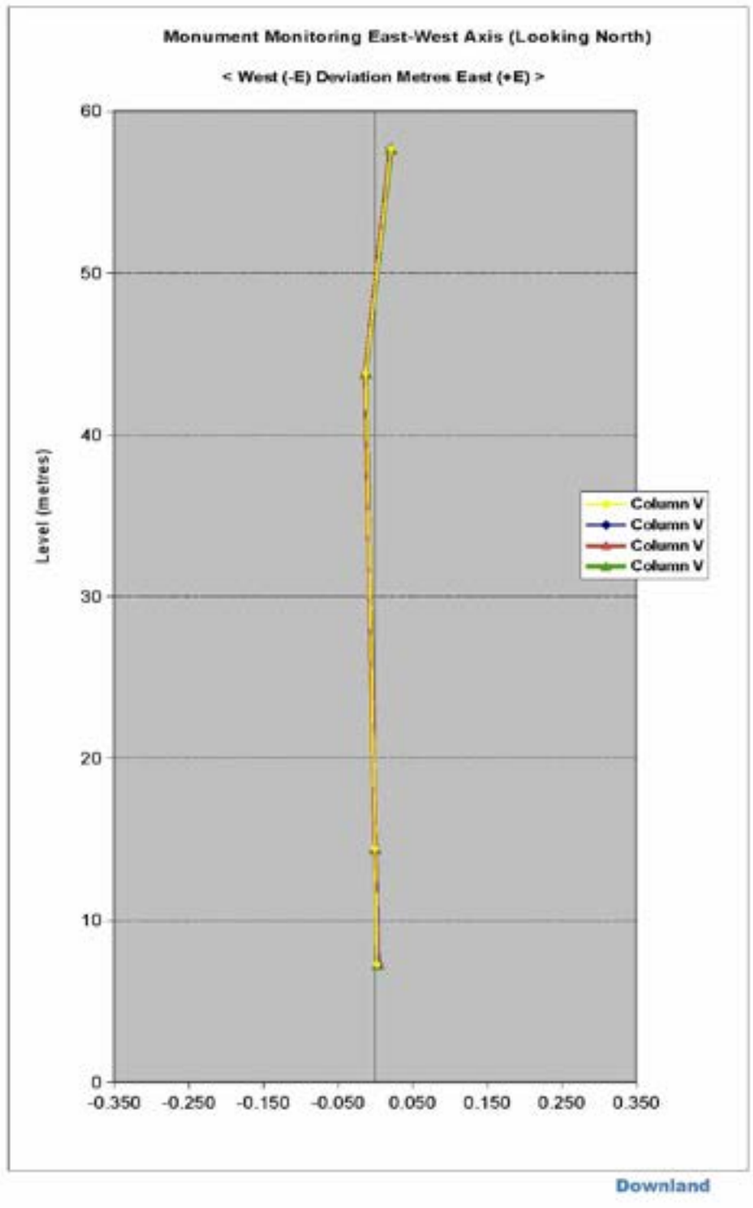
Monument Verticality Report Graph1



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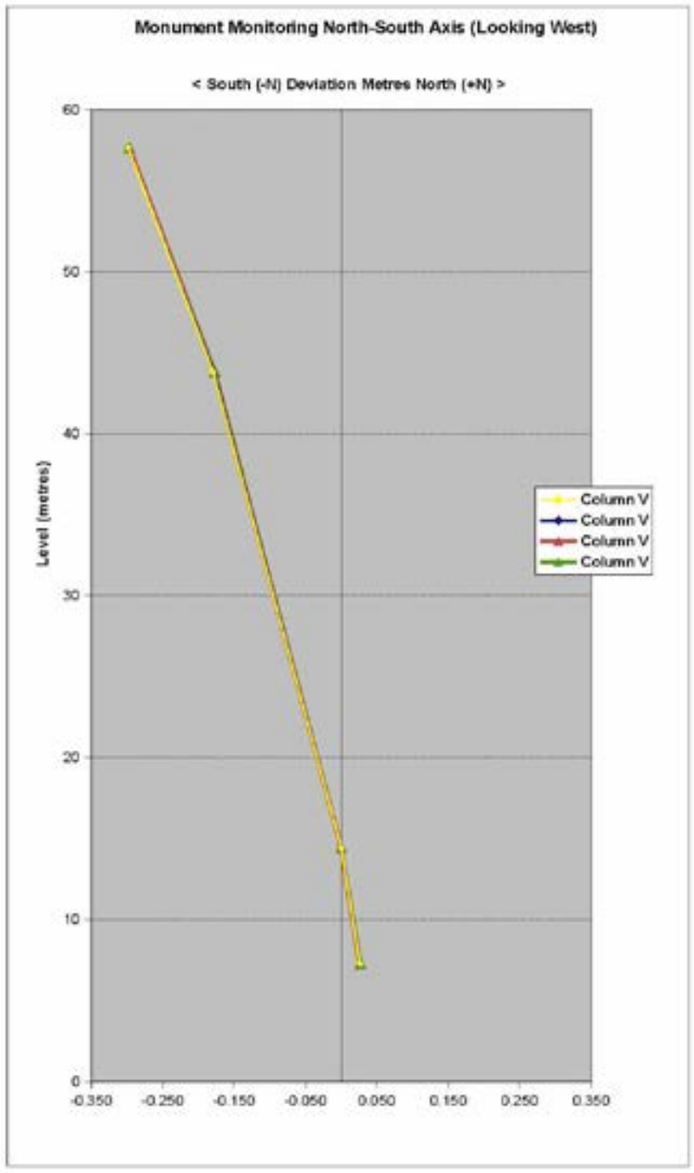
Monument Verticality Report Graph2



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Monument Monitoring Record Sheet

MONUMENT MONITORING RECORD SHEET						DATE SURVEYORS	2005 BM/MR	
2005	FIRST			SECON			OVER	
TARGET	FL	FR	MEAN	FL	FR	MEAN	MEAN	
Basement								
BN	1129	1129	1129	1129	1129	1129	1129	
BE	1054	1054	1054	1054	1053	1053.5	1053.75	
BS	963	963	963	963	963	963	963	
BW	1068	1068	1068	1068	1068	1068	1068	
Low								
LN	1410	1410	1410	1411	1410	1410.5	1410.25	
LE	1342	1343	1342.5	1343	1344	1343.5	1343	
LS	1296	1296	1296	1296	1297	1296.5	1296.25	
LW	1362	1363	1362.5	1363	1364	1363.5	1363	
Middle								
MN	1226	1230	1228	1225	1230	1227.5	1227.75	
ME	1320	1324	1322	1320	1325	1322.5	1322.25	
MS	1470	1474	1472	1471	1475	1473	1472.5	
MW	1366	1370	1368	1365	1370	1367.5	1367.75	
High								
HN	910	920	915	912	918	915	915	
HE	1150	1162	1156	1150	1164	1157	1156.5	
HS	1391	1405	1398	1390	1405	1397.5	1397.25	
HW	1140	1130	1135	1140	1130	1135	1135	

MONUMENT MONITORING RECORD SHEET						DATE SURVEYORS	2024 RA/MR		Differences to 2005 Millime
2024	FIR			SECON			OVERA		
TARGET	FL	FR	MEAN	FL	FR	MEAN	MEAN		
Basement									
BN	112 8	1128	1128	1128	1128	1128	1128		-1
BE	N/A	N/A		N/A	N/A				
BS	962	962	962	962	962	962	962		-1
BW	106	1067	1067	1067	1067	1067	1067		-1
Low									
LN	141	1410	1410	1411	1411	1411	1410.5		0
LE	134	1345	1345	1344	1344	1344	1344.5		2
LS	129	1298	1298	1299	1299	1299	1298.5		2
LW	136	1363	1363	1364	1364	1364	1363.5		1
Middle									
MN	123	1229	1229.5	1230	1228	1229	1229.25		2
ME	132	1325	1324	1324	1324	1324	1324		2
MS	147	1472	1471	1470	1471	1470.5	1470.75		-2
MW	132	1369	1369.5	1370	1370	1370	1369.75		2
High									
HN	912	914	913	914	916	915	914		-1
HE	115	1157	1155	1154	1156	1155	1155		-2
HS	139	1398	1396.5	1395	1398	1396.5	1396.5		-1
HW	113	1133	1132	1131	1133	1132	1132		-8

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PERSONNEL

The personnel from The Downland Partnership present :-

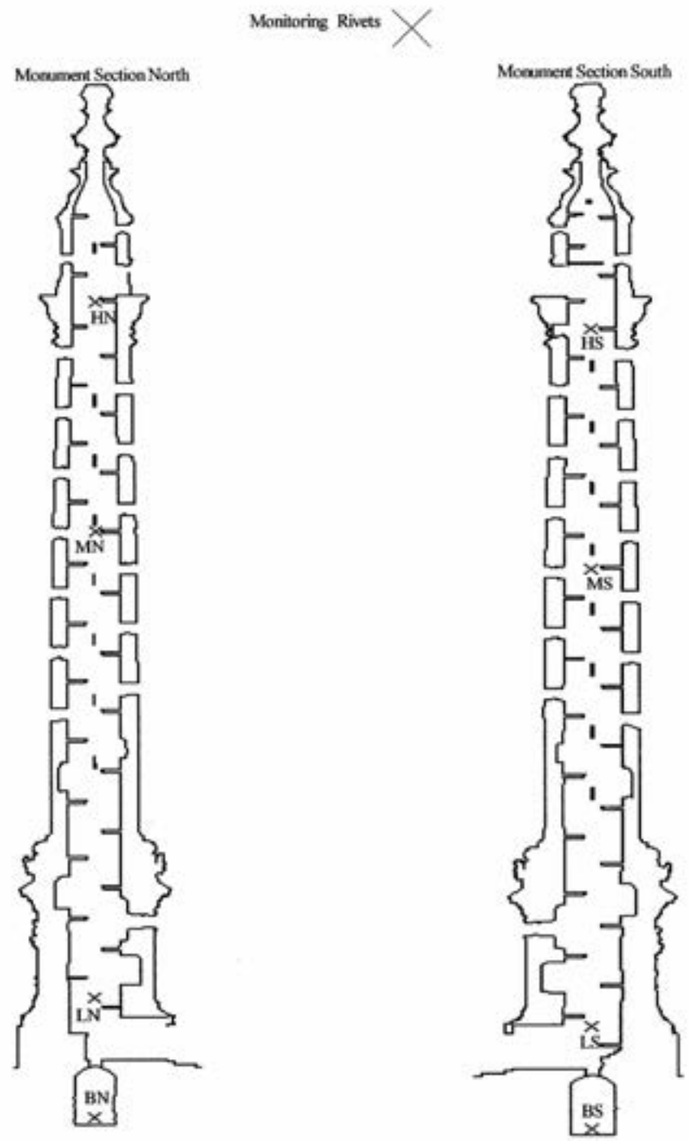
Visit 1	22 September 2005
W. Mowatt	Senior Surveyor
M. Read	Senior Surveyor
Visit 2	15 January 2013
W. Mowatt	Senior Surveyor
M. Read	Senior Surveyor
Visit 3	30 June 2015
W. Mowatt	Senior Surveyor
M. Read	Senior Surveyor
Visit 4	07 July 2024
R. Ault	Senior Surveyor
M. Read	Senior Surveyor

EQUIPMENT

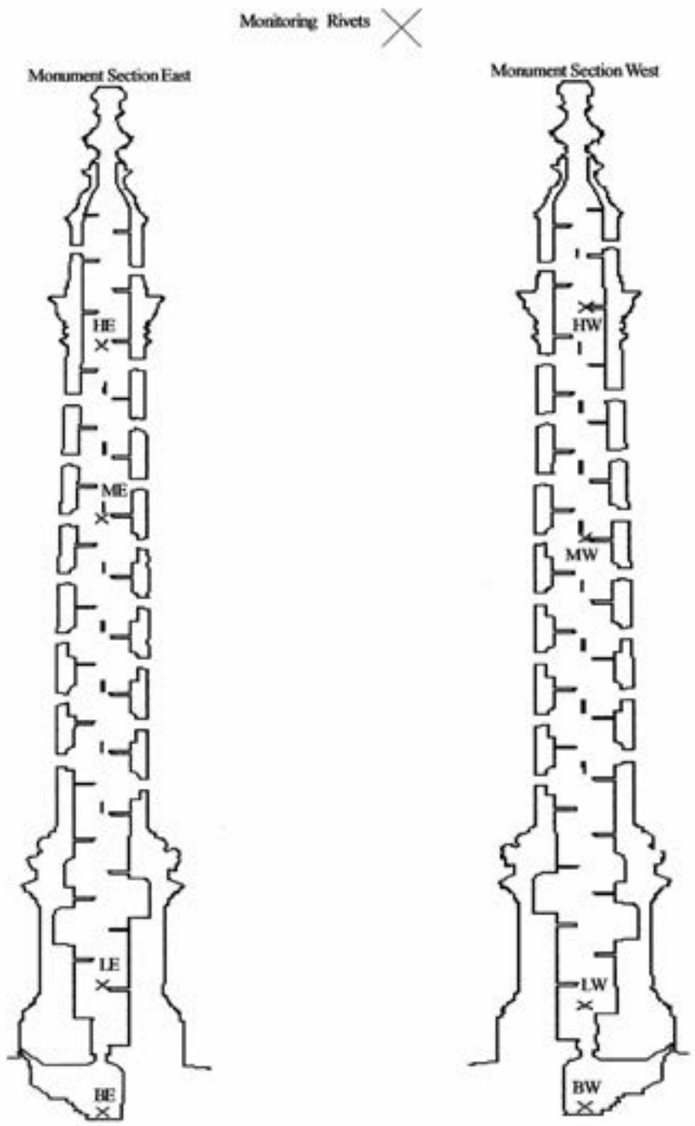
Geo Fennel FLP100
Leica GZR2 Plummet
Leica TS 30
Leica GST 20 Tripods
Yamayo Minirod-C
1.4 metre Power Master Spirit Level

Appendices 1

Monitoring Rivet Positions – North & South

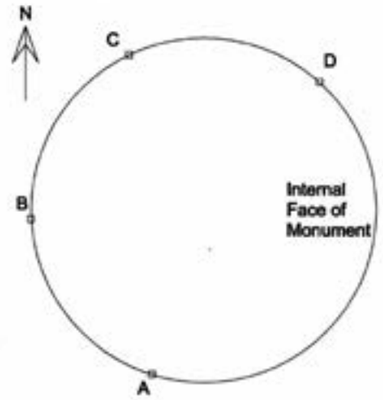


Monitoring Rivet Positions – East & West



Downland

1981-82 Brass Plate Locations



Brass Plate Coordinates (Monument Grid)

Point	Easting	Northing	Elevation
A	203.606	502.802	14.034
B	202.655	504.025	14.030
C	203.427	505.320	14.037
D	204.922	505.106	14.024

Tower Centre Line - Centre of circle fitted to plates

204.013 504.097 14.031

Plumbed Centre Line - computed from 1981 measurements

204.058 503.787 14.031

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Appendices 2 – Historic Data

1980's Survey Extracts & Information

Hockley & Dawson
Consulting Engineers Ltd

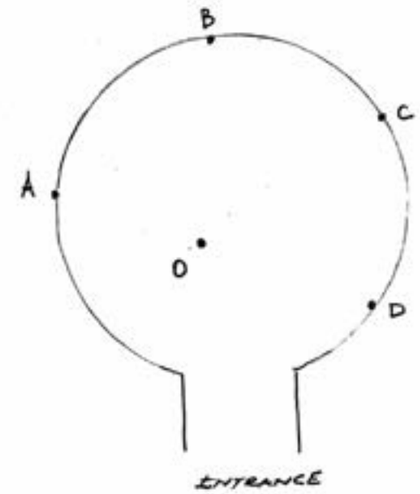
The Great Barn
Smithbrook Barns
Cranleigh
Surrey GU6 8LH

Tel: (01483) 548784
Fax: (01483) 268765

Job No. 12867
Sheet No. SD1
Date Nov 05
Prepared

Contract THE MONUMENT
Client CORPORATION OF LONDON

O = PLUMBED CENTRE POINT. B

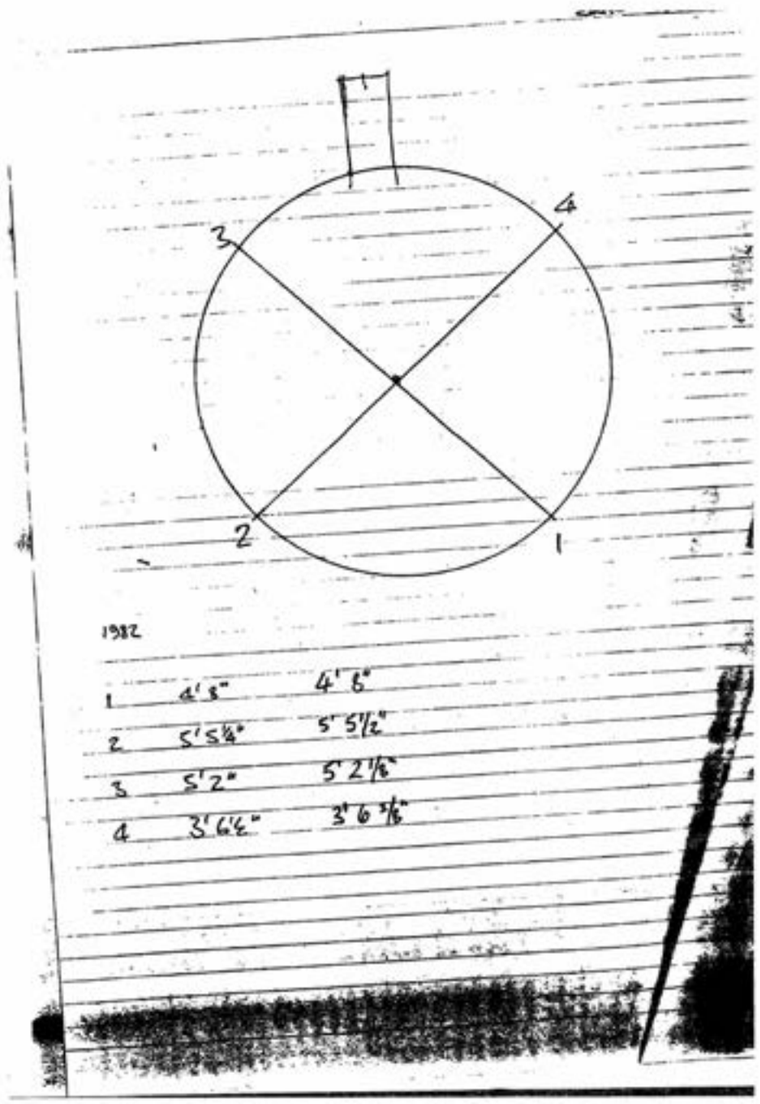


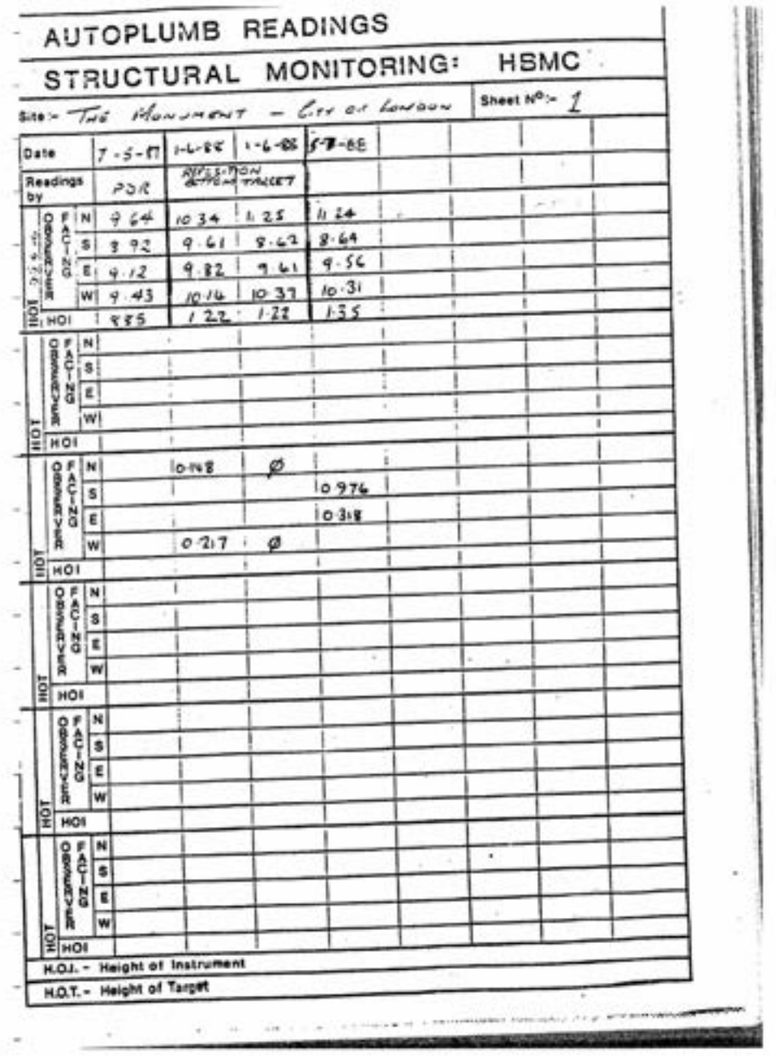
PLAN AT BASEMENT.

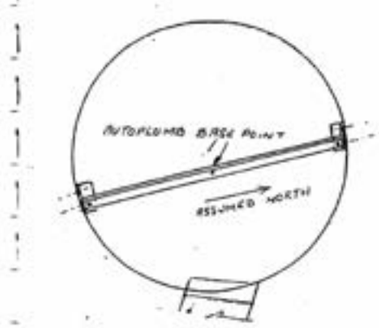
JAN 1981 READINGS

A - O = 1080 ; B - O = 1425

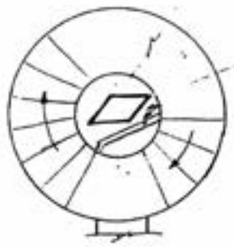
C - O = 1660 ; D - O = 1575







PLAN AT BASEMENT LEVEL



SECTION ~20m ABOVE PLATFORM LEVEL

REPORT NO. 3 A

THE MONUMENT
CITY OF LONDON
STRUCTURAL MONITORING

The verticality of the Monument is being checked with the Auto-Plumb.

A steel angle has been rigidly fixed at Basement level and this is used a base for the bottom target.
The top target is marked on a metal strap approximately 2 metres above the top platform level. An initial set of readings was taken on 7 May 1987 and these are shown on the attached plan together with sketch details.

APPENDIX D

CMP BRIEFS

2024

City of London Corporation

Template for the CMP

(Based on the City's standard CMP template)

Executive Summary

1. Introduction
- Purpose
- Methodology and Structure
- Scope and limitations

2. Understanding the Asset
- Summary description
- Summary history
- Design and Construction
- Existing Building Fabric
- Alterations
- Ownership and Management

3. Assessment of Significance
- Assessing significance
- Summary statement of significance
- Assessment by heritage values

4. Issues, Opportunities and Conservation Policies
- Purpose and approach
- Summary of issues and opportunities
- Issues and Opportunities on (as a minimum):
  - Management and Staffing
  - Visitor Management
  - Access & Circulation
  - User's experience
  - Interpretation
  - Views
  - Building Fabric
  - Condition
  - Immediate Setting
  - External lighting
  - Security
  - Events and Experiments
- Conservation Philosophy and Policies

5. 20 year Forward Maintenance Plan

6. Action Plan

Bibliography
- Authorship
- Acknowledgements and consultation
- References / index

Appendices
- Condition Survey Report
- Other surveys
- Relevant documents and literature

The Monument – Brief for the Preparation of a Conservation Management Plan

Brief for Quinquennial inspection/condition survey

The inspection is to be a visual inspection of the interior and exterior of The Monument. The external inspection is to be carried out from ground level, the viewing platform at the top and any other vantage points which are available. Internally, parts of the structure which are inaccessible, enclosed or covered will not be inspected. The inspection is to cover all features of the structure and all aspects of conservation and repair.

Report Details
The report shall include the following details:

- Name of building and statutory status.
- Key plan or elevation identifying problem areas.
- Relevant photographs highlighting items to which the report is drawing attention.
- Brief description of the building, including orientation.
- When The Monument is open to the public and restrictions on public access if any.

Limitations: e.g., that the inspections are visual, opening up of enclosed spaces is excluded, even if further inspection of these spaces may be recommended.
If appropriate, list items not inspected.
Note that the report is restricted to the general condition of the building and its defects.

Contents:

1. Schedule of works completed since previous Quinquennial Inspection Report in 2016. List repairs carried out since the last inspection:
- Works recommended in the last report
- Items of emergency repair
- Alterations, additional and demolitions.

2. General Condition: Describe the general condition of the building noting:
- Any particular movements
- Subsidence and settlement
- Areas of damp penetration
- General areas of damage and decay
- Any particular work undertaken outside The Monument which might have an impact on the building and its setting.

3. Externally: Systemically record materials, construction, general condition and any special features.

4. Rainwater goods and disposal systems: record materials, condition and cleanliness, assess whether adequate.

5. Timber doors and metal windows: comment on the materials and general condition of all timber structures, including doors and their frames, timber and metal window frames, commenting on external finishes.

6. Windows: Comment on the condition of external window openings, stonework and glazing.

7. Comment on the condition of internal walling.

8. Comment on the construction and condition of spiral staircase and balustrades.

9. Comment on materials and general condition of all panelling, partitions, doors, frames and ironmongery.

10. Ground Floor Structure: Comment on materials and general condition, ventilation and adequacy.

11. Internal Finishes: Comment on materials and condition of wall and ceiling finishes. Note dampness and any other apparent defects.

12. Fittings and Fixtures: Comment on condition of fittings and fixtures.

13. Signage.

14. Service Installations Generally: Note that the report and comments are based on a visual examination only and that no tests or services have been undertaken. Make recommendations for testing, as appropriate.

15. Heating Installation: State type of system installed, fuel, age, apparent condition and existence of maintenance agreements (City to advise).

16. Electrical Installation: Note location and apparent condition of incoming mains, meters and distribution boards. Note last inspection by NICEIC contractor (City to advise).

17. Lighting System: Condition, state of maintenance and efficiency, safety of means of access.

18. Sound System: Comment on the provision and condition of the sound systems and loop systems and whether they are regularly maintained under a maintenance agreement (City to advise).

19. Lightning Conductor: Comment on condition, when last inspected.

20. Fire Precautions: Note number, position and types of fire extinguishers provided. Examine records of maintenance for appliances.

21. Disabled Provision and Access: Comment on provision for the disabled, including access to various parts of the building and make recommendations for improvements in accordance with current legislations.

22. Safety: Comment in general on the safety of the building for its users and visitors, including reference to the Fire Risk Assessment by the City.

23. External Railings and Paved Area within Railings: Comment on general condition.

24. Monument Yard: Comment on general condition of the paved area.

25. Bench: Comment on general condition.

26. Logbook: Inspect the logbook provided by the City.

Recommendations

List items under the following degrees of priority:

1. Urgent works requiring immediate attention.
2. Works recommended to be carried out during the next twelve months.
3. Works recommended to be carried out during the quinquennial period.
4. Works needing consideration beyond the quinquennial period.

Additional notes:

- The report is not a specification for works and it does not give permission for them to be carried out.
- Standard explanatory notes to be added to all inspection reports.
- The quinquennial inspecting architect is willing to advise the City on implementing the recommendations.
- The repairs recommended in the report may require Scheduled Ancient Monument consent and this should be discussed with the City of London Planning Department.

Brief for Structural condition survey

The 2014 Conservation Management Plan described the need for annual structural inspections which could be reviewed after say 5 years and the period reconsidered. The survey is to be carried out by a structural engineer who is skilled in the conservation of historic structures and sites. Membership of the Conservation Accreditation Register for Engineers (CARE) is desirable.

The inspection should include an assessment of the whole structure, including the following elements:

- The Flaming Orb: The inspection should include the Flaming orb and camera mounts, Armature and connections supporting the orb, etc.
- Cage, SS mesh & Balustrade: All items should be thoroughly inspected to ensure the structural integrity is maintained and any loose bolts or fixings are rectified. Loose bolts should be tightened to the correct torque for the relevant bolt size. A correct metric tool must be used.
- The Stairwell and spiral staircase and viewing platform: The inspection should include the following:
    - The performance of the structural repairs to the steps, landing and viewing platform should be monitored with a photographic record on completion.
    - Inspect the black limestone for wear damage, water and frost damage.
    - inspection of balustrade structure and caulking by blacksmith, due to great numbers of visitors putting pressure on the historic balustrade
- Exterior Stonework, including structural repairs to the carved stone dragons.

The final report should advise on the frequency of subsequent inspections and include prioritised recommendations.

Project Boundaries & Existing Photos

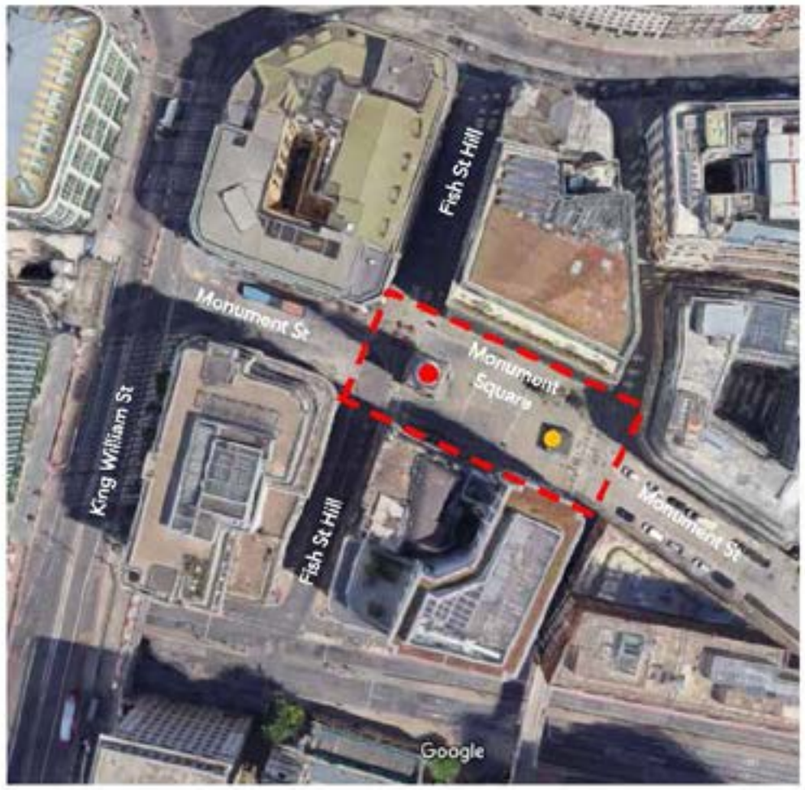


Fig. 1 – Google maps – Proposed Project Bouncaries

- The Monument
- Project Boundaries
- The Pavilion

APPENDIX E

STATUTORY CONSENTS SINCE 2014

APPENDIX E

STATUTORY CONSENTS SINCE 2014

Planning and Scheduled Monument Consent records for The Monument since 2014
Information provided by City Surveyors office 08.07.24

12.07.2021 Letter HE (Jane Sidell Inspector of Ancient Monuments) to CoL (Jessica Lees)
Re. SMC Conditional Approval for installation of new emergency lights within the staircase.
Application documents:

- Covering letter, Sylvania datasheet - waterproof mounted emergency luminaire, Lighting bracket drawing design

The Secretary of State is required to consult HE. *Historic England considers the effect of the proposed works upon the Monument to be beneficial for the management and safe use of the monument, permitting better public access and enjoyment of its heritage.* Cc.Mr Julian Kverndal, Ms Kathryn Stubbs

30.06.2014 Letter EH (Iain Bright, Assistant Inspector of Ancient Monuments to CoL (Maya Polenz)
Re. SMC Conditional Approval for periodic maintenance works.
Conditions include
(b) A detailed method statement, listing in full all maintenance works to be undertaken shall be submitted to and approved by English Heritage prior to commencement of works on site.
(g) A short illustrated note detailing the works carried out is to be submitted within 2 months of completion of said works.

20.01.2014 Letter HE (Jane Sidell Inspector of Ancient Monuments) to H&D (Clive Dawson)
Re. SMC Conditional Approval for attachment of survey targets to the Monument.
Reason: Skanska document 'Monitoring the scheduled monument structure due to the development at 11-19 Monument Street'
d) Before and after photographs shall be sent to English Heritage to demonstrate the materials used did not impact adversely upon the Monument.

02.06.2016 Letter HE (Iain Bright, Assistant Inspector of Ancient Monuments to CoL (Peter Moore)
Re. SMC Conditional Approval for emergency repairs to wrought iron balusters located along main stairwell.
Historic England considers the effect of the proposed works upon the monument to be works that are unavoidable and warranted, and will not significantly compromise the integrity of the monument, nor prejudice substantially its longer term preservation.
(b) Method statements for all works on site shall be provided to Historic England.
(g) An illustrated note detailing the works undertaken should be provided to Historic England within 3 months of completion of works.

27.04.2016 Letter HE (Iain Bright, Assistant Inspector of Ancient Monuments to CoL (Peter Moore)
Re. SMC Conditional Approval for repairs to the interior timber handrail.
Application documents: Method Statement (Paul Dennis Metalworks Ltd)
(c) Any replacement material shall be of a type, texture and colour which matches the original material.
(d) Where necessary, inserted wooden segments shall be stained so as to match the original as closely as possible.
(i) A report detailing the repairs undertaken (including before and after photographs) is to be submitted to Historic England within 3 months

10.07.24 Email response from Mark Butler, Conservation officer, CoL to Joana Antonio, Heritage Estate Officer, City Surveyor Dept. CoL
regarding planning records for The Monument since 2014 , confirming the most recent application received, in 2011 was for the temporary installation of a light-based art piece around the column (app: 11/00660/FULL).

APPENDIX F

WINDOW SCHEDULE

2024

Julian Harrap Architects LLP

THE MONUMENT : SCHEDULE OF WINDOWS numbering from bottom up

Dimensions of openings provided by contractor Cathedral Works Organisation on 27 June 2008. Bronze casement windows and fixed lights manufactured by Gospel Studios in 2008

						Inspection at 29th January 2016	Inspection at 5th August 2024
Window No.	Cill Level approx	Recess No.	Width	Height	Window type	Repairs needed at 29th January 2016	Repairs needed at 5th August 2024
1	19.1.87	3			Oval window	described in text	Oval window with central pivot. Top fixings missing, fill 4no. Redundant fixing holes and redecorate locally. Replace modern casement fastener adjacent to the handle on the right hand side, locking the window shut. Putty defective, reputty.
2	23.547	Not in recess	115	640	Bronze fixed light	none	none
3	27.814	7	110	675	Bronze opening casement	overhaul casement stay	clean chewing gum from around window
4		8	110	690	Bronze opening casement	stiff hinges, oil	stiff hinges, oil
5	29.13	9	140	725	Bronze opening casement	overhaul casement stay	stiff hinges, oil
6		10	180	660	Bronze opening casement	overhaul casement stay, cut visible brown mastic from rhs of frame	none
7	31.639	11	110	735	Bronze opening casement	overhaul jammed casement stay	replace stay & latch, both missing
8	32.427	Not in recess	140	845/740	New bronze fixed light	trim visible brown mastic from lhs of frame	stiff hinges, oil
9	33.234	12	130	637	Bronze opening casement	Casement stay has missing component, repair. Trim visible brown mastic from lhs of frame	replace stay & latch, both missing
10	33.969	Not in recess	132	670	Bronze opening casement	Overhal stiff fastener, repair casement stay. Trim visible brown mastic from rhs of frame	none
11	35.526	13	200	675	Bronze opening casement	Casement stay has missing component, repair. Overhaul stiff fastener	oil stiff hinges and re-bed / repair glazing where loose and replace missing screw
12	36.291	Not in recess	185	665	Bronze opening casement	Overhaul stiff fastener	
13	37.078	14	105/115	685	Bronze opening casement	Overhaul fastener; casement stay catches - window may have dopped	
14	37.822	Not in recess	145	668	Bronze opening casement	Overhaul stay, window won't fully open	
15	39.327	15	150/155	668	Bronze opening casement	Oil stiff hinges	
16	40.1	Not in recess	162	700	Bronze opening casement	Fastener too stiff to open so casement stay not tested. Overhaul both	stiff hinges, oil
17	40.887	16	160/165	663	Bronze opening casement	Oil hinges	
18	41.637	Not in recess	125	625	Bronze opening casement	Repair broken stay, overhaul stiff fastener	
19	43.201	17	135	670	Bronze opening casement	Repair broken stay (piece missing), overhaul stiff fastener	clean chewing gum from around window and sill
20	43.869	Not in recess	110/115	660	Bronze opening casement	stay is a bit loose, overhaul	replace stay & latch, both missing
21	44.614	18	135/140	685	Bronze opening casement	1 no. frame screw missing	none
22	45.363	Not in recess	115	685	Bronze opening casement	overhaul fastener & stay, both working but stiff	crack on bottom of sill
23	45.886	Not in recess	120	740	Bronze opening casement	none	none
24	47.672	Not in recess	090/095	700	Bronze fixed light	overhaul stiff fastener	none
25	58.424	Not in recess	110	715	Bronze opening casement	none	none
26	48.165	Not in recess	080/085	725	Bronze fixed light	none	none
27	50.711	Not in recess	100/105	660	Bronze fixed light	overhaul fastener & stay, both working but stiff	none
28	51.505	Not in recess	135	665	Bronze opening casement	none	overhaul fastener & stay, both working but stiff
29	52.239	Not in recess	100	720	Bronze fixed light	none	none
30	53.005	Not in recess	O60	715	Bronze fixed light	none	none
31	54.537	Not in recess	080/090	660	Bronze fixed light	none	none
32	55.311	Not in recess	102/108	730	Bronze fixed light	none	none
33	56.787	Not in recess	130	670	Bronze opening casement	overhaul jammed casement stay	none
34	60.551	Not in recess	160	515	Bronze opening casement	not inspected	overhaul fastener & stay, both working but stiff
35	61.185	Not in recess	130/135	520	Bronze opening casement	not inspected	none
36	61.918	Not in recess	150	560	Bronze opening casement	not inspected	overhaul fastener & stay, both working but stiff
37	63.142	Not in recess			Bronze fixed light	not inspected	none

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