

United Kingdom Holocaust Memorial Proof of Evidence

On behalf of the UK Ministry for Housing, Communities and Local Government

Landscape Design Architect

Donncha O Shea

BArch MSc ARB on behalf of Gustafson Porter + Bowman LLP

September 2020

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1. Introduction

1.0 Introduction

1.1 This Proof of Evidence has been prepared by Donncha O Shea of Gustafson Porter + Bowman LLP for the UK Holocaust Memorial Foundation (UKHMF). It is prepared in relation to the proposal to erect the UK Holocaust Memorial and Learning Centre (UKHMLC) in Westminster.

1.2 I confirm that the evidence which I have prepared and provide for this call-in reference APP/X5990/V/19/3240661 in this proof of evidence is true, and I confirm that the opinions expressed are my true and professional opinions.

1.3 The UK Holocaust Memorial and Learning Centre has been conceived as a single design concept, intrinsically linked to the surrounding context of Victoria Tower Gardens (VTG). The proposal considers the Memorial and landscape as one element, moving up and over the fins, around and down through the entrance stair. While this landform and entrance landscape modifies the existing park, the design gives back a new experience for the visitor.

1.4 The form of the landscape responds to character and features of Victoria Tower Gardens, respecting key views in and out of the site, and supporting the current activities of local residents and visitors. The gradient has been modelled to allow a route of gentle incline so that all visitors can experience the journey. The location of the landform and Memorial allows the majority of the open lawn area to remain accessible and usable.

1.5 The Memorial Entrance Courtyard has been designed as a contemplative space in front of the Memorial. Access through the Entrance Pavilion controls visitor flow, and ensures a comfortable and safe experience. The courtyard is developed as a gentle, sloped route. A calm and reflective space, the sounds of the city give way as the visitor descends 2m to the Holocaust Memorial.

1.6 The perimeter edge of the Memorial Courtyard is conceived as an extension of the park, densely planted to the outside edge as a border to the wider perimeter path. Internally a palette of planting has been selected appropriate to the character of the courtyard and with consideration to the experience of the space in January for Holocaust Memorial day.



FIG 1.0 VIEW NORTH EAST ACROSS VICTORIA TOWER GARDENS



FIG 1.1 VIEW SOUTH EAST ACROSS VICTORIA TOWER GARDENS

1. Introduction

1.7 Victoria Tower Garden North (2.5ha) is bordered by the River Thames to the east, the Palace of Westminster to the north and Millbank runs the length of its western edge, and is 0.5 km from St James Park.

1.8 Located at a point of transition in Westminster, between the central tourist destination, and more residential streets, it provides a place of calm and relaxation for both visitors and residents.

1.9 Continually developed over 150 yrs from industrial wharves, to an open green space. Originally set out in 1879 to the line of Great Peter Street, to provide a clear view of the Palace of Westminster. In 1914 it was extended south to its current extents.

1.10 The current layout, from 1955, maintains a powerful simplicity. The perimeter path creates a circuit around the open lawn, with four exits out to Millbank and one set of steps to the south to Lambeth bridge.

1.11 It is an inward looking park, the two lines of mature Plane trees limiting the visual connections out of the park, and framing the view north towards the Palace of Westminster. Either end of the park is framed by activity, with the Parliamentary Education Centre to the north and the children's playground to the south.



FIG 1.2 VIEW NORTH WEST ACROSS VICTORIA TOWER GARDENS

2. Qualifications and Experience

2.0 Qualifications and Experience

2.1 CV - Donncha O Shea

2.1.1 - I am an Architect and a Partner at Gustafson Porter + Bowman, an international landscape architecture practice based in London. Gustafson Porter + Bowman was established in 1997 as Gustafson Porter, when the acclaimed landscape architect Kathryn Gustafson opened a London office with architect Neil Porter. Mary Bowman joined the practice in 2002, and the company was renamed Gustafson Porter + Bowman in 2017. Kathryn, Neil and Mary, together with the other partners - myself and Sibylla Hartel - are supported by a wider team of landscape architects and architects from around the world.

2.1.2 I have a BA in History of Art & Architecture from Trinity College, Dublin (2001). and a BArch from Dublin School of Architecture, TU Dublin (2008). I have been a qualified architect since 2011, registered with the ARB. I undertook and completed a MSc Environmental Design, Cardiff University, awarded my Masters in 2016. I guest lectured and undertake design reviews at the University of Greenwich, and the Barlett, UCL. I am currently a member of the Landscape Institute PRG for University of Greenwich.

2.1.3 Before joining Gustafson Porter + Bowman, I spent 5 years at FKL Architects in Dublin and a year at Buschow Henley Architects in London.

2.1.4 I joined GP+B in 2008 as a Part II Architect and undertook my Part III while working on the Woolwich Squares project from concept through to construction. I was a project architect for projects such as Marina One, New Ludgate and Citylife Milan and Rathbone Square and Chelsea Barracks. All these projects have considerable complexity and required the coordination of multiple design consultants, as well as the coordination of a landscape with new buildings and basement structures.

2.1.5 I joined as a partner in 2017, the same year the company celebrated its 20th anniversary, and was rebranded Gustafson Porter + Bowman in recognition of Mary Bowman's role as long time partner in the office.

2.1.6 I am now involved in the day to day running of GP+B including the practice management, finance, new business leads and strategy, marketing and project resourcing.

2.1.7 I am currently leading design teams for a number of high profile projects in the UK and Ireland. Together with the UK Holocaust Memorial, I oversee the developed masterplan at Chelsea Barracks, as well as a number of confidential project for the public realm adjacent to protected structures in London and Dublin. I also lead teams on invited design competition bids.



FIG 2.0 UKHMLC LONDON



FIG 2.1 CHELSEA BARRACKS, LONDON



FIG 2.3 NEW LUDGATE, LONDON



FIG 2.2 RATHBONE SQUARE, LONDON



FIG 2.4 NEW LUDGATE, LONDON

2.0 Qualifications and Experience

2.1.8 I also lead GP+B's progressive sustainability strategy. This is an area of strong personal interest, and I undertook a Msc Environmental Building Design to further the role of landscape design in achieving sustainable developments. This applies at both an office and project level. Sustainability is integrated into every aspect of our work. We are always rethinking and updating our approach and policies to reflect new sustainable practices and data. Gustafson Porter + Bowman are founding signatories of the Landscape Climate Emergency Declaration in the UK which clearly demonstrates our commitment.

2.1.9 Universal Design is a key area of design investigation which I have always considered important to the success of landscape design. It places people of all backgrounds, at the heart of a design, and seeks an equality of experience and support for all users. I work closely with experts in academia and practice in the development of Universal Design strategies to promote this approach.

2.1.10 My involvement in New Business & Marketing allows me to engage with new clients on invited competitions, prepare fee proposals and manage internal and external communications with our press team.

2.1.11 I am also a member of EDU, a design partnership who specialise in the education sector and educational typologies. Our multidisciplinary collaboration was founded with a collaborative approach to knowledge sharing and a belief that there is strength in building on established relationships.



FIG 2.5 BUCKINGHAM GREEN, LONDON

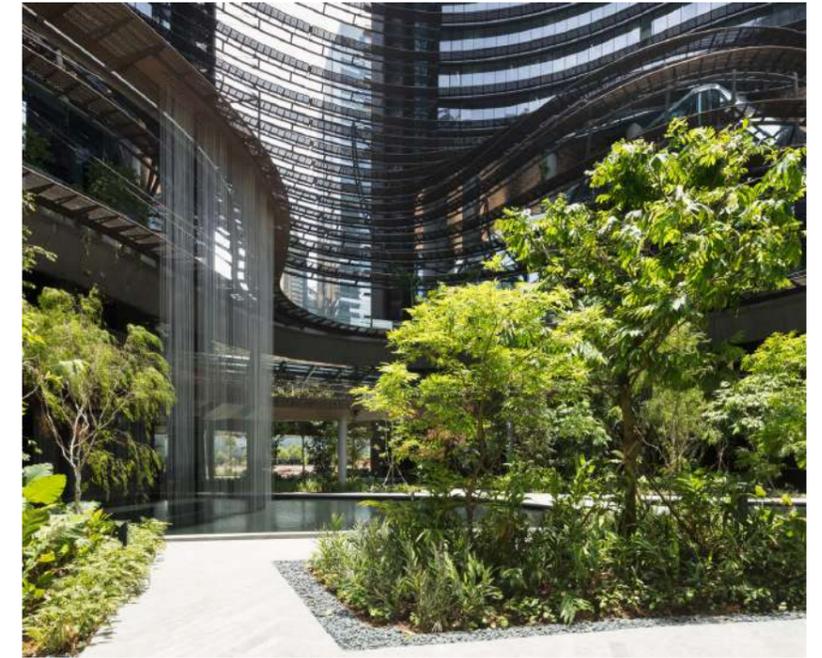


FIG 2.6 MARINE ONE, SINGAPORE



FIG 2.7 WOOLLICH SQUARES, LONDON

2.0 Qualifications and Experience

2.2 Gustafson Porter + Bowman Practice

2.2.1 Gustafson Porter + Bowman is an award-winning landscape architecture practice which has received public acclaim for creating authentically engaging spaces within a global portfolio.

2.2.2 The development of our design work has continuously pushed the boundaries of what constitutes the field of landscape design and is known for its sensual and sculptural features.

2.2.3 Spanning climate zones, geographical characters, historical and cultural backgrounds, our exciting and varied projects include the Diana, Princess of Wales Memorial in Hyde Park (London, 2004), Cultuurpark Westergasfabriek (Amsterdam, 2006), Old Market Square (Nottingham, 2007), Parque Central (Valencia, 2019) and the first ever landscape installation at the 11th Architecture Biennale in Venice (2008).

2.2.4 Gustafson Porter + Bowman was established in 1997 as Gustafson Porter, when the acclaimed landscape architect Kathryn Gustafson opened a London office with architect Neil Porter. Mary Bowman joined the practice in 2002. Kathryn, Neil and Mary, together with partners Sibylla Hartel and Donncha O Shea, are supported by a wider team of landscape architects and architects from around the world.

2.2.5 We believe that landscape architecture is an essential discipline for the creation of healthy environments in the 21st century.



FIG 2.8 GP+B (L-R) DONNCHA O SHEA/ MARY BOWMAN/ KATHRYN GUSTAFSON / SIBYLLA HARTEL/ NEIL PORTER



FIG 2.10 GUSTAFSON PORTER + BOWMAN TEAM



FIG 2.9 WESTERPARKGASFABRIEK, AMSTERDAM



FIG 2.11 EIFFEL TOWER, PARIS

2.0 Qualifications and Experience

2.3 How we work

2.3.1 Gustafson Porter + Bowman is a medium sized Landscape Architecture practice, which enables the five principal partners to have a genuine hands-on approach to the design and direction of each of the projects in the office. Kathryn Gustafson is well known for her conceptual design skills and sensual land forms, and has over 35 years of experience as a landscape designer.

2.3.2 Neil Porter is a talented designer who has worked with many of London's leading architectural practices. He has 20 years of experience in both architecture and landscape design.

2.3.3 Mary Bowman has worked on large scale urban infrastructure projects directing the design team in collaboration with other large consultant teams.

2.3.4 We have developed a reputation for creating innovative and contemporary landscape designs. Our core strength lies in our design skills and the ability to deliver high-quality design on high-profile projects. We believe that the success of our design lies with the collaboration, understanding and integration of other specialised landscape and architectural fields. We often work with firms of architects, engineers and specialists with whom we enjoy good relationships.

2.4 Working in historic contexts

2.4.1 In every project, no matter how big or small, we strive to understand the historic sensitivities of a place and respond to this in the physical design.

2.4.2 Creating a landscape around a proposed building, in historic surroundings requires one to understand the buildings' spatial and conceptual relationships to its surroundings. This begins with a collaborative approach, with the client, stakeholders and other consultants, to understand the necessary approach and particular sensitivities required, whilst also aiming to create a place with a new identity.

2.4.3 Landscapes are inclusive of their immediate and extended surroundings, meaning the old and new become inextricably linked. Interlacing these qualities requires a careful balance and sensitivity, as well as an understanding of the past, present and future of a place.

2.5 Sustainability

2.5.1 We know that the shape of our future depends on the decisions we make today, and that the consequences of making the wrong decisions may be serious.

2.5.2 Sustainability transcends all of our business lines and geographies. It is not a separate service or an "add-on". It is an approach that allows us to create value for our clients and our communities, and to reduce the risks of unintended consequences that may compromise future success.

2.5.3 We always aim to respond to a brief with a holistic design that preserves and enhances the natural environment and promotes positive environmental and social impacts in all our activities and developments and those of our supply chain.

2.5.4 We are committed to:

- Using natural resources efficiently, exceeding minimum code standards and minimising energy & water use.
- Supporting the creation of good quality indoor and outdoor environments for building occupants, workers and their surrounding communities.
- Minimising potential risk to land, water and atmospheric environmental systems and enhancing the local environment by adding value to local ecological systems.
- Being sensitive to transport requirements and providing measures to encourage 'greener' travel.

2.0 Qualifications and Experience

Diana, Princess of Wales Memorial Fountain LONDON | 2004

Gustafson
Porter +
Bowman



Opened by HM the Queen in 2004, the Diana, Princess of Wales Memorial Fountain was one of the most high-profile publicly-funded projects in the UK and has since attracted millions of visitors, won a series of international awards and become one of London's most popular attractions.

The design expresses the concept of 'Reaching out – letting in', taken from the qualities of the Princess of Wales that were most loved; her inclusiveness and accessibility. The fountain's sculptural form is integrated into the natural slope of land in London's Hyde Park and is designed to radiate energy as well as draw people inwards.

A popular place for visitors to engage with the water, the fountain has detailed grooves and channels which combine with air jets to animate the water and create different effects such as a 'Chadar Cascade', a 'Swoosh', 'Stepped Cascade', 'Rock and Roll' and a still basin at the bottom. The water source is located at the highest point where water bubbles come up from the base of the fountain. Approximately 100 litres per second of water is pumped up hill from a storage tank in front of the refurbished plant room beside the Serpentine. Dividing at the top, the fountain uses the topography to divert the water downhill in two streams to form a still, reflective

basin. Designed and cut using ground-breaking digital technology, the fountain is made from 545 pieces of Cornish granite.

The design appears as a light-coloured ring which contrasts with the surrounding meadow area and planting.

Gustafson Porter + Bowman led the design of the project from competition through to completion, collaborating with an experienced team which included computer modelling specialists, consultant engineers, construction professionals and expert stonemasons.

The Diana, Princess of Wales Memorial Fountain pushed the boundaries of landscape design in the United Kingdom and received overwhelming public acclaim since completion. Gustafson Porter + Bowman are proud of the incredible collaborative effort required to deliver one of the most high-profile landscape projects in the world.



BRIEF

The brief was to design a memorial which would reflect the life of the Princess of Wales using the medium of water.

CLIENT

Department of Digital, Culture, Media and Sport
The Royal Parks

PROJECT DURATION
2002 to 2004

SIZE
5,600m²

COST
£3.6m

COLLABORATORS

Engineer
Arup (Ian Carradice, Nick Jeffries, David Short, Borbala Trifunovics)

Project Manager

Bucknall Austin

Main Contractor

Geoffrey Osborne Ltd

Fountain Subcontractor

Ocmis

Landscape Contractor

Willerby Landscapes

Stone Layers

Cathedral Works Organisation

Stone Masons

S McConnell and Sons

Stone Texturing Specialists

Barron Gould (Texxus)

Surface Modelling

Surface Development Engineering Ltd

Soil Scientist

Soil and Land Consultants

Hydraulic Modelling

Professor David Hardwick

Collaborating Artist

Shelagh Wakely

"Is it by chance or design that Kathryn Gustafson and Neil Porter appear to have designed a near perfect metaphor for the life of Diana?"

Water ebbs, flows, gushes and chuckles round and around this prescribed oval course of beautifully cut granite slabs, before filtering out to a wider and more receptive world..."

Jonathan Glancey, The Guardian

2.0 Qualifications and Experience

Chelsea Barracks
LONDON | 2013-



Working in collaboration with a large number of consultants including Squire and Partners, Gustafson Porter + Bowman have led the concept landscape design and development of all six phases of the development since 2014.

Chelsea Barracks creates a sequence of permeable public spaces which sensitively respond to the historic context of the area whilst providing a contemporary scheme that is accessible, permeable and that embraces a continuous identity. Across all phases, the choice of materials and planting unifies the public realm, while the design and detailing of each space creates individual characters.

To define the relationship between the architecture and external spaces within the development, reference is made to the surrounding urban character of Chelsea. This includes the red-brick buildings of the Cadogan Estate, parts of the Grosvenor Estate which sit adjacent to the site, and Pimlico, one of the oldest villages in Chelsea.

Our design creates a typology of open spaces that invite people in to enjoy the new addition to the neighbourhood and the natural environment. We have sought to move away from the traditional masterplan concept of garden squares with railings around them, reversing an eighteenth-century element of social Interventionism.

The development is thus a space for communal Integration and spontaneous interaction which embodies timeless qualities using thoughtful planting, high-quality materiality and urban furniture. The squares throughout the scheme evoke a purposeful character while providing a varied and engaging environment which encourage interaction between residents.



PROJECT TITLE
Design of sitewide plan, and landscape design for public and private areas of Phases 1-4
CONTRACT VALUE
Confidential
CLIENT
Qatari Diar
PROJECT DURATION
2013-
SIZE
1ha
STATUS
On site



2.0 Qualifications and Experience

Parque Central
Valencia | 2019

Gustafson
Porter +
Bowman



CLIENT
Valencia Parque Central
Alta Velocidad 2003 S.A.

PROJECT DURATION
2011-2019 (First phase)

SIZE
11.5ha (First phase)
23ha (Total park)

BUDGET
€16m (First phase)

AWARDS
- 2012 Shortlist, WAN Awards,
Category: Urban Regeneration /
Unbuilt
- 2012 Commendation, MIPIM AR
Future Projects Awards
- 2011 Shortlist, WAF Awards,
Category: Future Projects /
Landscape

Defined by bold features and the use of water throughout, Parque Central distils the historical, cultural, and geographical features of Valencia into an engaging contemporary park and public space. The first phase (11.5ha) is comprised of a series of varied, multi-level gardens and re-purposed railway buildings that collectively serve as a focal point for a range of age groups and community uses.

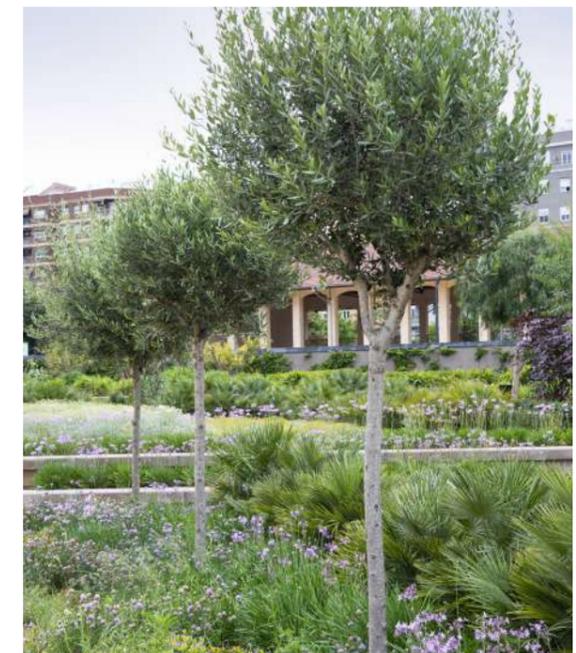
Water pools, jets, and channels welcome visitors to the park and encourage interaction and play. The colourful and sensory planting palette draws on the flora and fauna of the region and has become a vital new ecological component within the city. Materials such as marble, granite, and Calatorao limestone typical of Valencia are used with compacted gravel for pathways throughout the park.

The design acknowledges Valencia's unique position as a major trading and cultural centre in European history and its location between several ecological habitats. It is characterised with areas for art, activities, and community events that refer to three quintessential Valencian characteristics: Water, food, and the Mediterranean landscape.

Developed over eight years, the first phase of the park has precipitated urban renewal in the adjacent urban district of Russafa, now popular with cafés, bars and boutique shops.

Reference is made to the historical importance of Valencia as an artistic centre of earthenware and ceramics. The concept of 'bowls' (ullal in Valencian) manifests itself as concave depressions in the landscape created through sculpted landforms. They define six different character areas of the park that attract visitor to its diverse landscape experiences.

Following the construction of the remaining two phases over the coming years, the completed 23ha park will unite neighbourhoods that are currently divided by railway lines. The project was won in international competition in 2011, when Gustafson Porter + Bowman formed a joint venture with Valencia-based firms Nova Ingeniería and Grupotec engineers, and Barcelona-based architects Borgos Pieper.



2.0 Qualifications and Experience

Rathbone Square
London | 2017



Rathbone Square is a mixed-use development comprising office, retail and residential space previously occupied by Royal Mail's West End Delivery Office. Our design for the new 1800m² publicly-accessible garden square offers respite from the activity of central London, improves connectivity to adjoining areas and contributes to the architectural and social history of the area with materiality that is appropriate to its location. By creating new cross-site pedestrian routes, Rathbone Square unifies a collection of buildings, augments the quality of public space in Fitzrovia, and creates a welcoming and accessible new space.

Gustafson Porter + Bowman responded to the special character of the surrounding streets, mews, and passageways and to invite a sense of discovery of the garden space. The central garden is a calm, secluded space, detached from the bustle of Oxford Street, Rathbone Place, and Newman Street. To draw passers-by into the garden, the concept sets up a visual connection from the street to the centre of the garden using light, water and reflection. The garden's plan is defined by bold geometric shapes which are clearly visible from the surrounding apartments and offices, now occupied by Facebook as their central London headquarters.

Altogether, the new garden encompasses a variety of spaces that enrich the experience of the visitor and improve the quality of public space in central London. The space is welcoming and free to enjoy for all members of the public whether they live in the development, work in the offices, or simply passing by.

PROJECT OBJECTIVES
New garden square in Fitzrovia, providing new public connections across a mixed development with a private residential garden, roof terraces and a brown roof

CLIENT
Great Portland Estates

PROJECT DURATION
2011-2017

SIZE
2,000m² (1,800 central garden + 200 residential garden).

STATUS
Completed September 2017

TEAM
Architect - Make
Structural Engineer - AKT II
M&E / Sustainability Engineer - Hilson Moran
Planning Consultant - DP9
Project Manager - Buro Four
Cost Consultant - Arcadis
Main contractor - Lendlease
Hard landscape contractor - Maylim
Soft landscape contractor - Willerby Landscapes
Developer - Great Portland Estates
Water feature consultant - The Fountain Workshop
Water feature texturing - Texxus
Metalwork - Kent Stainless
Timber bench fabrication - Woodscape
Artists - Alison Wilding, Robert Orchardson



Top pictures courtesy of Make Architects

2.0 Qualifications and Experience

Old Market Square
Nottingham | 2019

Gustafson
Porter +
Bowman



VALUE
£8.8m
CLIENT
Nottingham City Council
PROJECT DURATION
2005-2007
SIZE
1.2ha
STATUS
Completed
TEAM
(Engineers) ARUP
(Main contractor) Balfour Beatty
(Water feature specialist) OCMIS
(Pedestrian study) Space Syntax



"The project has been very well received by the citizens of Nottingham and the space is very well used both in attending events but also using the seating areas to relax and meet. Since its opening the space has been characterised by being a busy hub throughout the day and at night, previous issues associated with antisocial behaviour have effectively disappeared with the new design."

Steve Hunt, Nottingham City Council (Client)

Old Market Square in Nottingham is one of the oldest public squares in the UK with an 800 year history as a market place. At 11,500m², it is the second largest in Britain after London's Trafalgar Square. Its regeneration by Gustafson Porter + Bowman 2005-2007 involved the replacement of a design by T.C.Howitt, architect of the square and the adjacent Council House building. Both the square and building were completed in 1929, and the square was listed in 1994.

The new design incorporates the organic topography of the original medieval square, and accommodates existing falls by gradual level changes for wheelchair users and drainage. The predominant material is granite, to reflect the importance of the space and provide a long design life. Many UK public squares are dominated by road traffic, signage and street furniture; however collaboration with city planners has resulted in a clutter free, contemporary design.

The planting creates a sense of intimacy in the space; lines of plants create a layer of separation from the activity of Long Row and the tram stop. Planters lined with a box hedge are filled with 4,000 colourful flowering bulbs,

perennials and 800 shrubs that provide a living frame to the square, changing constantly in accordance with the season. These are also designed to accommodate temporary planting schemes by the Nottingham in Bloom team.

The 4,400m² water feature comprises a reflecting pool, a 1.8m waterfall, rills, 53 jets and a scrim, arranged as four terraces, which can be turned off when used as a stage or temporary viewing areas. At night the water feature is lit up to shimmer and sparkle with fibre optics inlaid into each individual water jet. Long Row has been transformed into an ambient boulevard with atmospheric lighting cast from the refurbished listed lanterns, complemented by up-lighters set in to the paving. To the south of the square, reflectors on the four lighting masts provide indirect background lighting to ensure that the Square feels safe and inviting. These are also capable of supporting temporary lighting trusses and banners, which transform the square into a stage for spectacular events.



AWARDS
2011
Best British Buildings of the 21st Century / Blueprint Magazine
2008
Winner, Natural Stone Awards
2008
RIBA Award, East Midlands
2008
Highly Commended, Civil Building of the Year - SCALA
2008
RIBA CABE Award
2008
Commendation for Regeneration, RICS East Midland Awards
2008
East Midlands Merit Awards, Institution of Civil Engineers
2008
Outstanding Contribution to the Public Realm, CentreVision Award, and Charcon Hard
2008
Landscaping Award, Civic Trust Awards
2007
Best Public Realm & Open Space Award and Overall Winner, Lord Mayor's Awards
2007
Highly Commended, Urban Design Category, Landscape Institute Awards
2007
Commendation for Water Feature, Nottingham Civic Society
2007
Design Excellence Award, East Midlands Property Awards

3. Context, Current Site Conditions, Constraints

3.0 Context, Current site conditions

3.1 Site Survey and Current Condition / Topography

3.1.1 Victoria Tower Gardens is perceived as a predominantly flat open space. This does not mean it is an even surface. It is noted that the current topography of the entrances has steep embankments which need regrading to improve pedestrian access.

3.1.2 A review of the topographical survey, together with on site surveys, identify the undulations across the hard and soft surfaces which together with compaction creates ponding of water. This reduces the usability of the lawned spaces by visitors to the driest months.

3.1.3 The garden has been undergoing a series of renovations in parallel and in response to other developments that have happened over the past ten years in the space. The hardscapes are uneven in parts, and constructed with an impermeable asphalt surface.

3.1.4 The central lawn is well used at lunchtimes on sunny days in the summer, but compaction has created areas of ponding. This makes it unusable during the wet periods and the winter months. With the right sub base and lawn specification, it is possible to regrade and improve the condition of the lawn to provide year round support to activity.

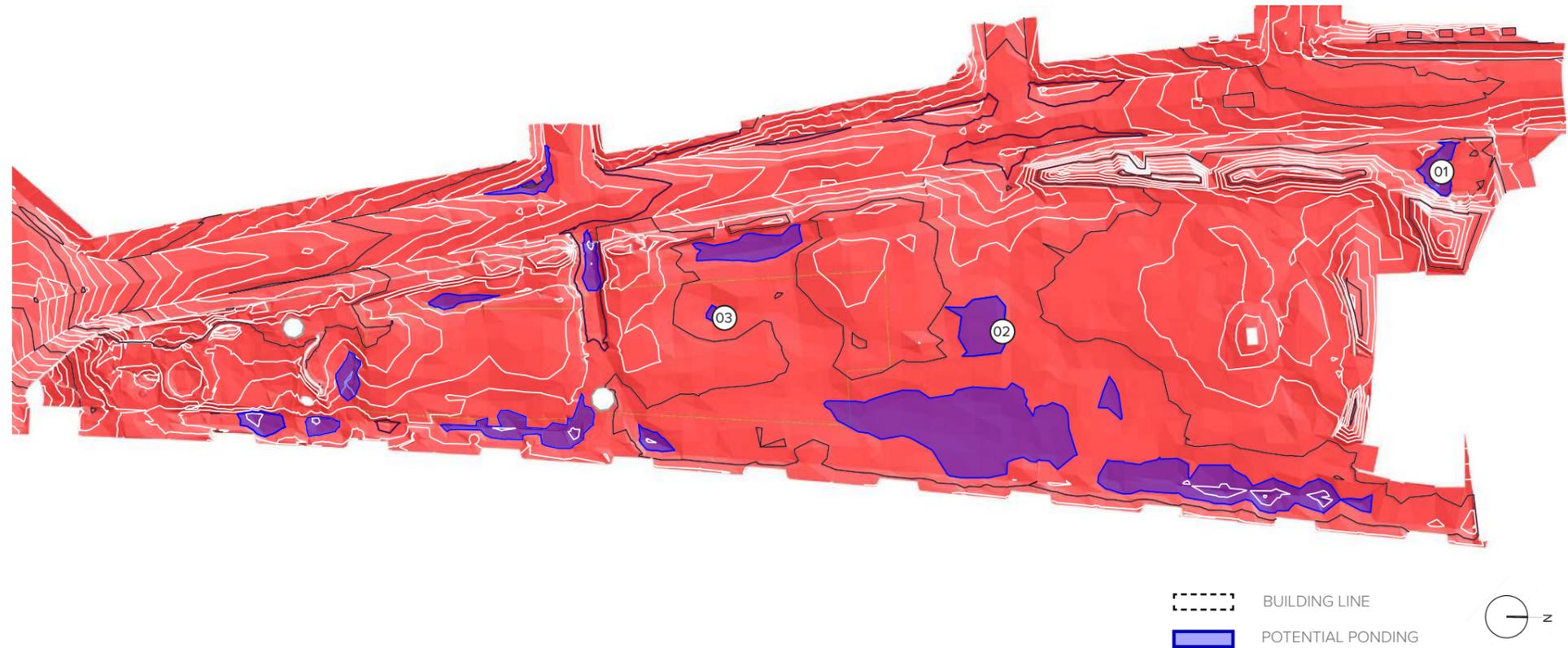


FIG 3.1.1 CURRENT TOPOGRAPHY AND PONDING LOCATIONS



3.0 Context, Current site conditions

3.2 Site Survey and Current Condition / Existing Street Furniture and Playground

3.2.1 The current layout of Victoria Tower Gardens locates all benches to the perimeter paths. Along Millbank there are 8 timber park benches within the shrubbery planting, facing into the park. 4 picnic tables are located within the play area.

3.2.2 Along the Embankment, the 20 timber benches are placed on high stone pedestals to provide views over the Embankment wall. This is a popular location for visitors but currently accessible only to the most abled bodied.

3.2.3 It is observed that some areas of pathway are degraded and the timber furniture and play equipment elements have weathered poorly. This is in response to both the growth and scale of the mature Plane trees which shade both sides of the park. It should be feasible to upgrade and restore the existing furniture.

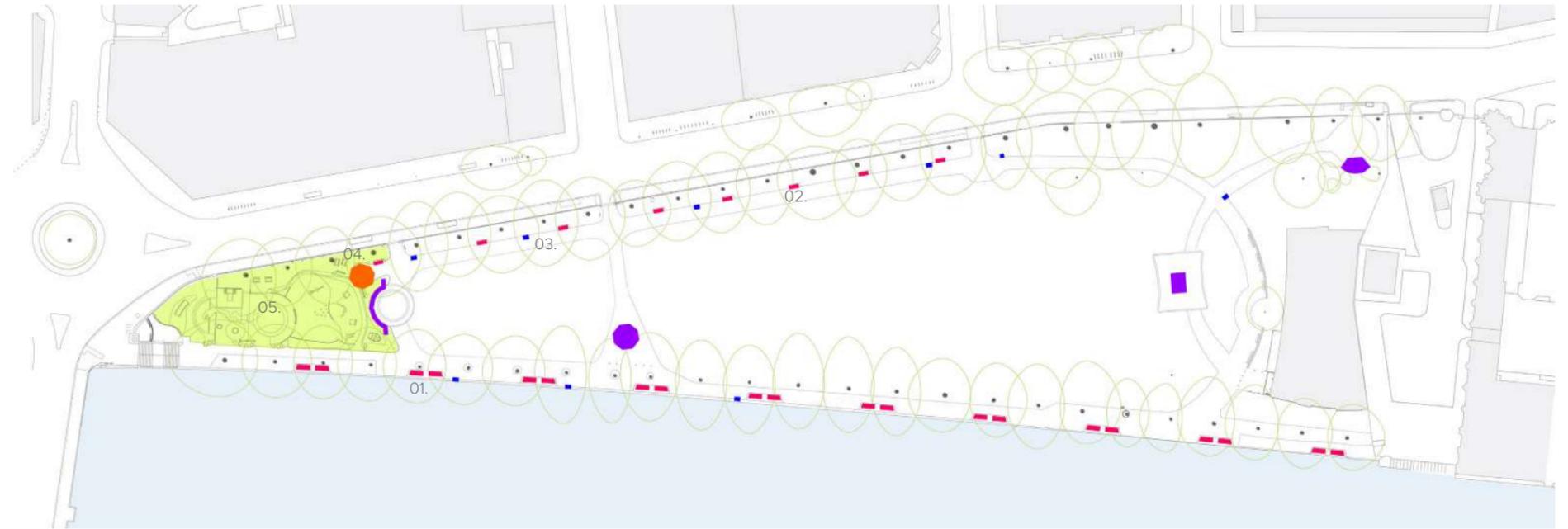


FIG 3.2.1 LOCATION PLAN OF EXISTING FEATURES

- MONUMENTS
- CAFE PAVILION
- BENCH
- BIN



01.

02.

03.

04.

05.

3.0 Context, Current site conditions

3.3 Site Constraints

Daily Activity

3.3.1 Victoria Tower Gardens are well used by a range of visitors from local residents and office workers to tourists visiting nearby attractions. While there is activity at either end of the site, the central area is used predominantly for walking and resting. This daily use requirement is supported by the current simple layout and design.

3.3.2 More occasional visitors, such as office workers and tourists, are observed to use the lawn for sitting when the weather allows, and rarely venture beyond the mid point in the park when approaching from the north. The area of the park is sufficiently large and is not densely occupied.

3.3.3 The pedestrian link between Lambeth Bridge to the entrance at the Palace of Westminster is well used by commuters as well as joggers. Any proposals for Victoria Tower Gardens will need to maintain access for these users, and ensure continued future use.

3.3.4 The Royal Park's currently has a range of programmed activities throughout the year that it arranges for local residents and visitors. Many are associated with local groups, families or schools and are small in scale, up to 50 person.



FIG 3.3.1 SEATING LAWN



FIG 3.3.2 CHILDREN'S PLAYGROUND



FIG 3.3.3 SPECTRA, 2014 BY JAPANESE ARTIST RYOJI IKEDA



FIG 3.3.4 MEMORIALS/MONUMENTS - EMMELINE PANKHURST



FIG 3.3.5 WESTMINSTER DOG OF THE YEAR EVENT



FIG 3.3.6 PERIMETER WALKING PATH

3.0 Context, Current site conditions

3.4 Site Constraints Events

3.4.1 The largest event hosted at VTG, is the annual Luna outdoor cinema. Held in August, it is positioned to the north of the site, in front of the Burghers of Calais. The scale of the event is known and should be accommodated.

3.4.2 The proximity of the park to the Houses of Westminster lends it to hosting regular camera crew and filming. This is predominantly to the north of the site.

3.4.3 Potential new events in the park will need to be compatible with the current Royal Parks maintenance and access requirements. Any proposed layout would need to support the same scale of outdoor activity



FIG 3.4.1 LOCATION PLAN OF EXISTING EVENTS

1. ANNUAL EVENT LUNA OPEN AIR CINEMA
RUNS IN JULY OCCUPYING AN AREA 90M X 40M APPROX

2. PICNIC AND PLAY AREA

3. PLAYGROUND



FIG 3.4.2 LUNA OUTDOOR CINEMA



FIG 3.4.3 PARLIAMENTARY FOOTBALL



FIG 3.4.4 WESTMINSTER DOG OF THE YEAR

3.5 Site Constraints
Existing Trees

3.5.1 The primary natural characteristic of Victoria Tower Gardens are the two long lines of plane trees on the east and west side, 51 in total. The trees are mature specimens and a typical choice for a London park. There are also a number of smaller ornamental trees located to the south and north of the site, in particular towards the 2015 Parliamentary Education Centre.

3.5.2 The mature plane trees are located within the Westminster Abbey & Parliament Square Conservation Area (CD 3.1), and are therefore legally protected by the Conservation Area legislation. As a significant asset for internal views around the site, and views towards it from outside the site, it is important that they are respected in any design proposals, and protected during construction development. The London Plane is a particularly hardy species which is why it is used so prevalently in city environments. None of the London Planes in Victoria Tower Gardens are protected with a Tree Preservation Order.

3.5.3 The two rows of existing mature London Plane trees of Victoria Tower Gardens, define the character of the park, and provide a high amenity value for both the immediate and wider context. While the trees appear as a singular avenue on either side, they were planted progressively as Victoria Tower Gardens developed over a number of phases in the 19th and 20th century.

3.5.4 It is noted that the existing trees have previously had their crowns lifted, reducing them in size as well as thinning. It is likely this will need to be undertaken again prior to the commencement of works.

3.5.5 It is noted that development has previously been undertaken in Victoria Tower Gardens, and within the Root Protection Area (RPA) of the existing trees. This includes the Parliamentary Learning Centre (2015), the Horseferry Playground (2014) and various service installations across the park for use by The Royal Parks (TRP) and the Palace of Westminster.

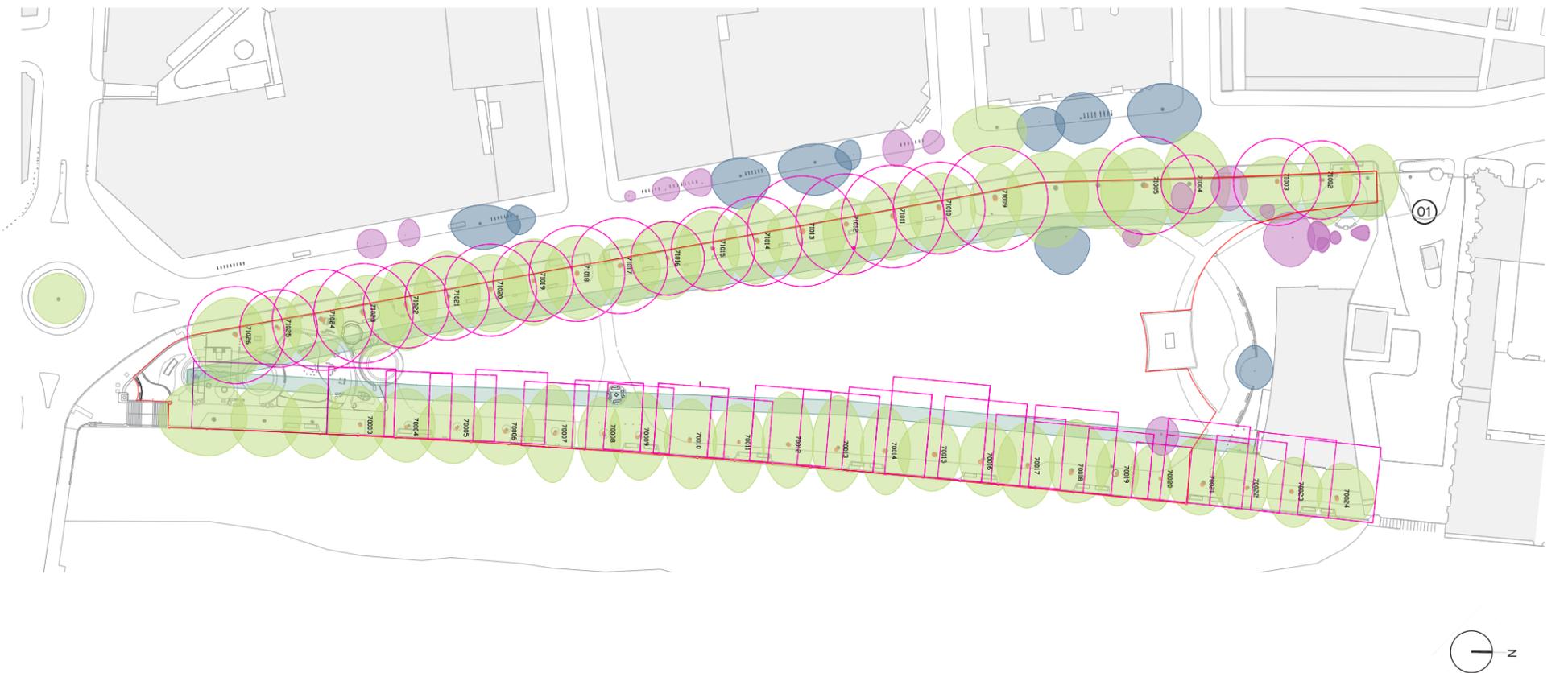


FIG 3.5.1 OVERLAY OF RPA AND COMPLETED SURVEYS

- ROOT PROTECTION AREA (RPA) IDENTIFIED BY BARTLETT
- 4M AREA FOR RADAR TREE ROOTS SURVEY IDENTIFIED BY GP+B
- PLANE TREES CANOPY AREA IDENTIFIED BY BARTLETT
- ●
- - - DEVELOPMENT AREA BOUNDARY

3.0 Context, Current site conditions

3.5 Site Constraints Existing Trees

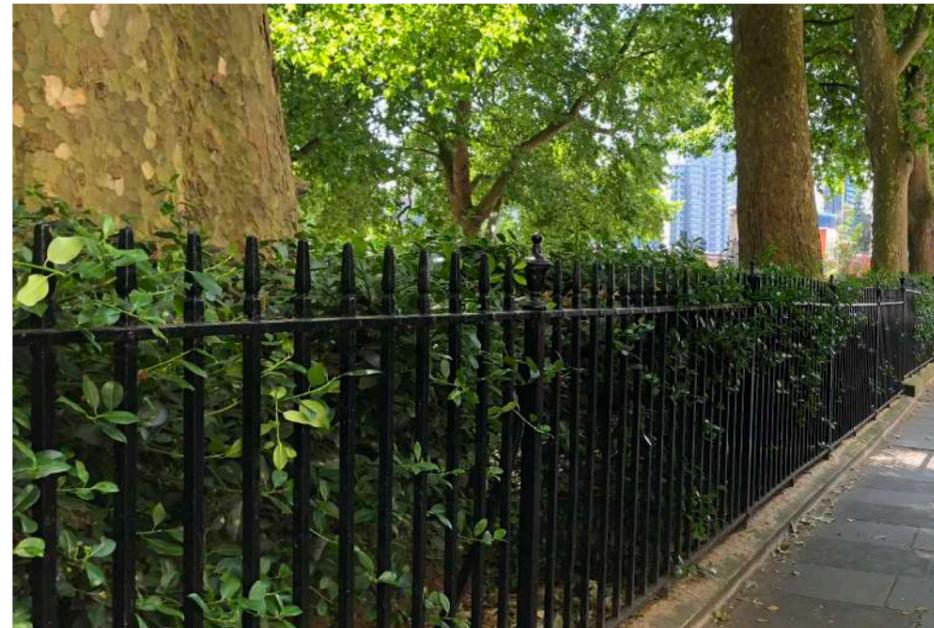
3.5.6 Throughout the design development stage, the team has worked closely with Bartlett Tree Experts (BTE), and other specialists, reviewing the proposals against any potential impact on the health of the trees. A number of key changes have been made to the location and extent of the project since competition stage. The design has been developed to minimise and mitigate any potential impact on the trees' canopies and roots, and to ensure their long term health

3.5.7 Bartlett Tree Experts have completed an Arboricultural Impact Assessment (AIA) (CD6.5) and an AIA Addendum (CD 6.22) as part of the planning application. In the documents they evaluate the potential direct and indirect impacts of the proposed development and site design on the London Plane trees, using the criteria and guidance set out in the British Standard 5837:2012 (CD4.16), and NJUG Vol. 4 (CD4.15).

3.5.8 The guidelines and principles of the British Standard 5837:2012 (CD4.16), and NJUG Vol. 4 (CD4.15). form the basis of the construction methodology for the project, described through the planning documents and set out in the Construction Management Plan (CMP) (CD 6.30). These proposals will inform the Arboricultural Method Statement (AMS) to be prepared by the team with specialist contractor input, in advance of construction works, for submission to Westminster City Council for review and approval.

3.5.9 A detailed tree root radar survey (CD6.35), canopy radar survey and extensive tree root investigation surveys have all been commissioned for the project to inform the final design with respect to the existing London Plane trees.

3.5.10 Dr. Frank Hope undertook a peer review of the design proposals with respect to the potential impact on the existing London Planes (CD6.36) which supported the assessment and proposals made. He has prepared a separate Proof of Evidence that is dedicated solely to the matter of the development's potential impact on the existing London Plane trees and the project's proposals to mitigate this.



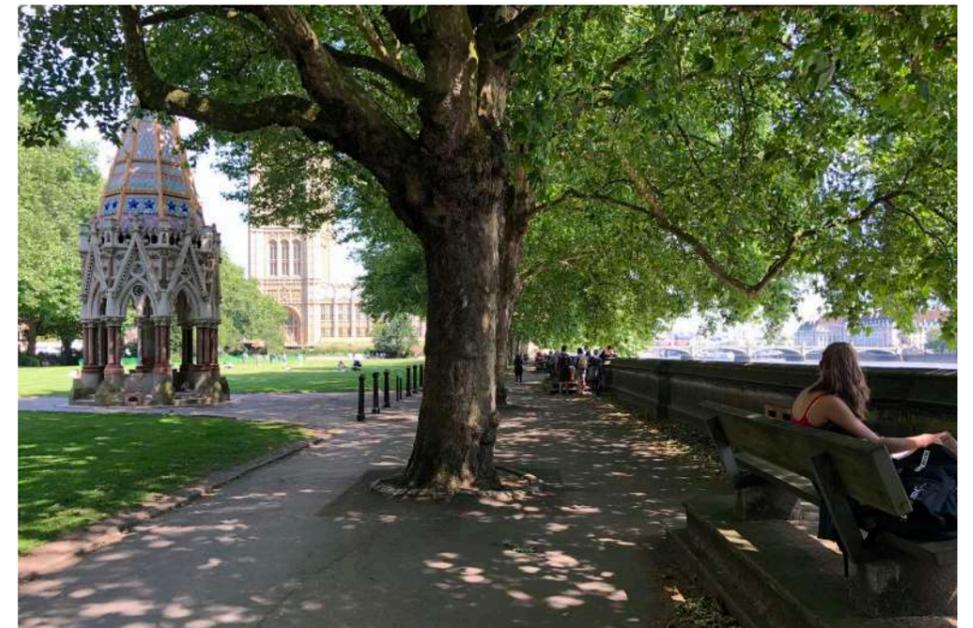
3.5.2 MILLBANK PERIMETER RAILING



3.5.3 WESTSIDE LOOKING SOUTH



3.5.4 VIEW NORTH AT EXISTING PLAYGROUND



3.5.5 VIEW NORTH AT BUXTON MEMORIAL

3.6 Site Constraints
Monuments

3.6.1 There are a number of notable memorials/monuments within Victoria Tower Gardens. Most have moved or being modified over the years and currently, they are positioned in isolation through the park. The redesign of the landscape adjacent to the UK Holocaust Memorial, seeks to recontextualise these important memorials and bring them back into the public consciousness.

- The Emmeline Pankhurst memorial
- The Burghers of Calais
- The Buxton Memorial
- The Spicer Memorial

3.6.2 Each has an individual character, and an immediate context that should be enhanced through the redesign of the Victoria Tower Gardens landscape. The primary views associated with each should be respected, and where possible, additional seating or lighting should be considered to further enhance their setting.

3.6.3 The proposed location of the UK Holocaust Memorial will most immediately affect the Buxton and the Spicer Memorial's. Both have been located elsewhere before their current location. It is noted that the view towards the Buxton Memorial, from John Smith Street is a key view that should be maintained if possible. The physical relationship between the Spicer Memorial and the children's playground is an historical association that should remain if possible.



FIG 3.6.1 LOCATION OF MEMORIALS AND MONUMENTS



1. MONUMENT TO EMMELINE PANKHURST



2. THE BURGHERS OF CALAIS MONUMENT



3. BUXTON MEMORIAL



4. SPICER MEMORIAL

3.0 Context, Current site conditions

3.7 Site Constraints Combined

3.7.1 Other constraints which need to be taken in design consideration, include storm water sewers to the north and south of the park. Buried to 4m in depth, they represent a no-development zone.

3.7.2 The eastern edge of Victoria Tower Gardens is defined by the embankment wall, which is a protected structure. It is not possible to amend or interface with this feature. It is currently higher in parts that present an obstacle to looking towards the Thames.

3.7.3 The existing playground to the south of the park was renovated in 2014, and remains in regular use by visitors and local residents. A sand pit and water feature are positioned centrally, with a range of different play equipments spread out across the space. While most of the equipment is usable, some no longer operates functionally.



FIG 3.7.1 OVERLAY OF COMBINED CONSTRAINTS

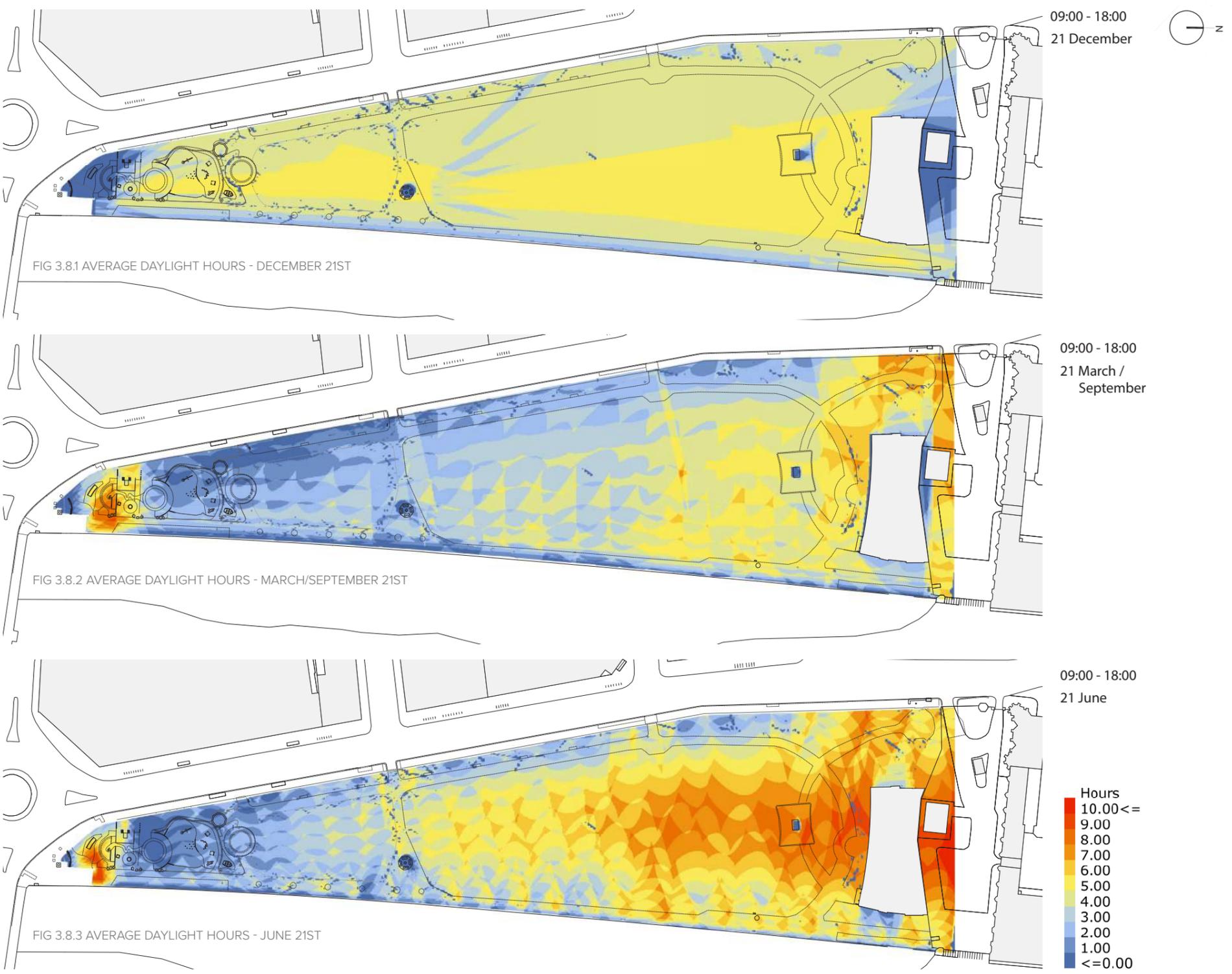
- ROOT PROTECTION AREA (RPA) IDENTIFIED BY BARTLETT
- - - - - PARK BOUNDARY
- PROTECTED TREES, CURRENT CANOPY AREA
- PROTECTED MONUMENTS
- - - - - EXISTING VICTORIAN SEWER
- EXISTING PLAYGROUND
- DEVELOPMENT BOUNDARY
- UNESCO PROTECTED SITE
- - - - - WESTMINSTER ABBEY AND PARLAMENT SQUARE CONSERVATION AREA
- - - - - SMITH SQUARE CONSERVATION AREA
- MEMORIAL FOOTPRINT

3.8 Site Condition and Environment
Annual Sun Studies

3.8.1 The diagrams show the cumulative amount of daylight received during the year across different parts of the park. This is an important analysis in understanding the environmental change through the seasons, as well as identifying how existing trees change the understorey condition in summer when they are in leaf.

3.8.2 The detail gathered informs the design and helps to understand the ability of new trees and planting to thrive in a given location. It also illustrates the zone of preferred occupation by visitors to the park, during the warmer months, in the sunnier central lawn.

3.8.3 Due to the heavy shading cast by the mature Plane trees, it will be necessary to identify the most robust shade tolerant plants for the site. A number of species are already used by The Royal Parks in their planting selection. The lawn turf specification will also need to be shade tolerant. The landform will also require reinforced turf to support any pedestrian movement.

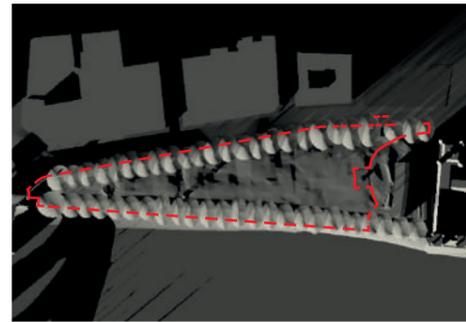


3.9 Site Condition and Environment Sun-Shadow Studies

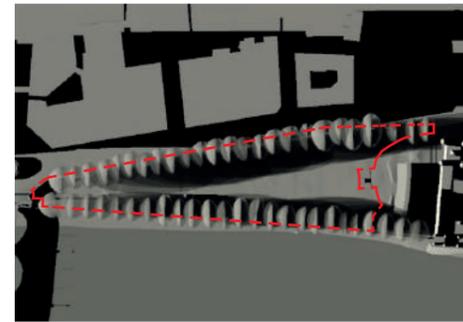
3.9.1 An analysis of the sunlight and daylight studies identifies potential constraints and the opportunities for both planting and activity in each part of the park. The orientation of the site is north-south, catching the full sweep of the sun arc through the day.

3.9.2 The diagrams show the deep shadows cast by the mature Plane trees when in leaf for the summer period. Only the central lawn area remains in the sunshine. This is observed on site when the majority of visitors sit on the grass in the centre of the lawn at lunchtimes. While the perimeter remains in shade, it is still used for walking and seating by those who need more support from benches.

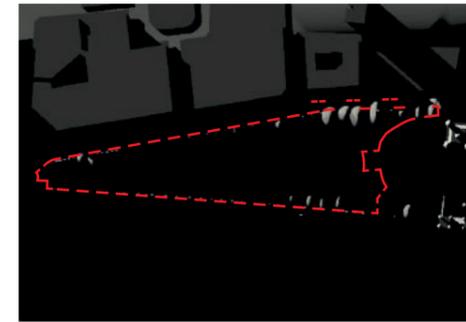
3.9.3 During winter time the wider park is brighter, in all locations, although the shorter days reduce the duration of sunshine. As the lawn is not used for sitting during this period, the perimeter benches are occupied more.



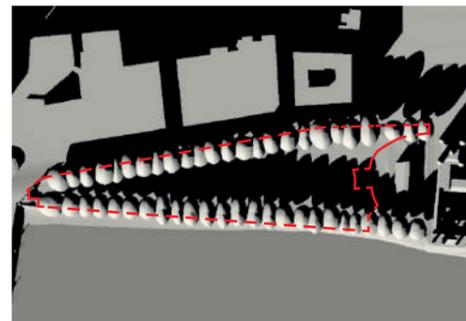
09:00
21st December



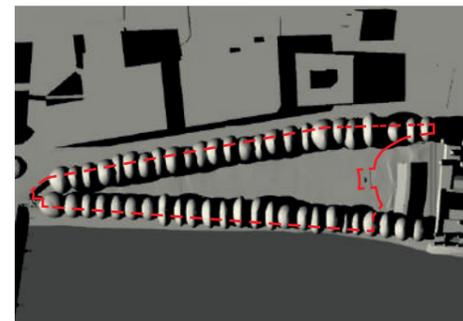
12:00
21st December



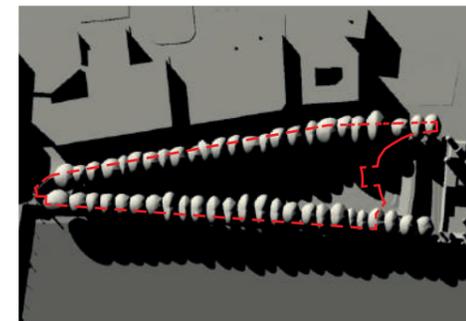
15:00
21st December



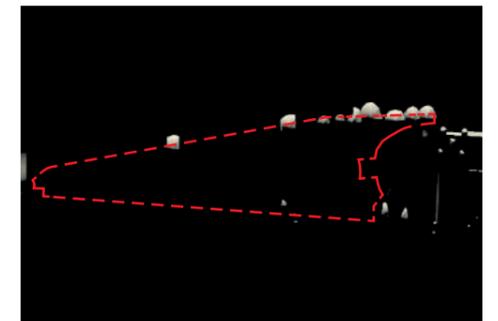
09:00
21st March / September



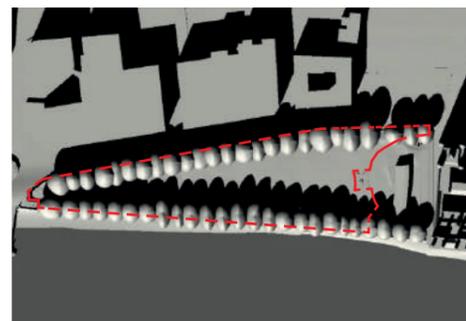
12:00
21st March / September



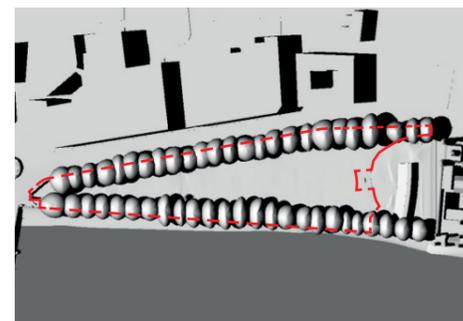
15:00
21st March / September



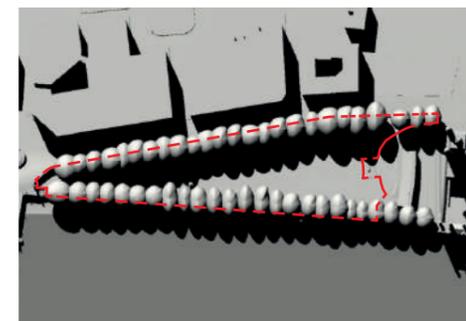
18:00
21st March / September



09:00
21st June



12:00
21st June



15:00
21st June



18:00
21st June

FIG 3.8.4 SEASONAL SUN/SHADE STUDIES

4. Response to Context



4.0 Response to Context

4.1 Landscape Masterplan Concept Connecting the monuments

4.1.1 Linking the main entrance of Victoria Tower Gardens directly to the entrance of the UK Holocaust Memorial, the new diagonal path opens up the heart of the space, making it fully accessible for the first time. Made of small stone setts, it will curve its sinuous form diagonally through the park towards the dramatic perspective formed by two rows of London Plane trees framing the distant landform that hints at the presence of the National Holocaust Memorial.

4.1.2 The circular arrival point in Victoria Tower Gardens maintains the welcoming curve of the Emmeline Pankhurst Memorial. The stone path leads towards Rodin's Burghurs of Calais, providing visitor's a new perspective as they pass by. As the path moves through the park, its curved form accentuates distance and one detects a subtle shift as the entire grass landform moves up towards the Memorial.

4.1.3 The ornate steeple of the Buxton Memorial remains visible at all times on this journey, on axis with the new path, 200m in the distance from the main entrance, and enlarging with each step closer, it remains the tallest manmade feature in the park. It was located on axis with Dean Stanley Street in 1956, and the view has been respected in the current design. New landscaping and seating places a renewed importance on the Buxton Memorial.

4.1.4 The historic connection between the playground and the Spicer Memorial is an important relationship to retain. Its stone bench will provide a welcome seating point at the entrance to the UK Holocaust Memorial.

4.1.5 Linking all memorials and monuments within Victoria Tower Garden, this journey unifies their different characters and defines a new calm and contemplative landscape.

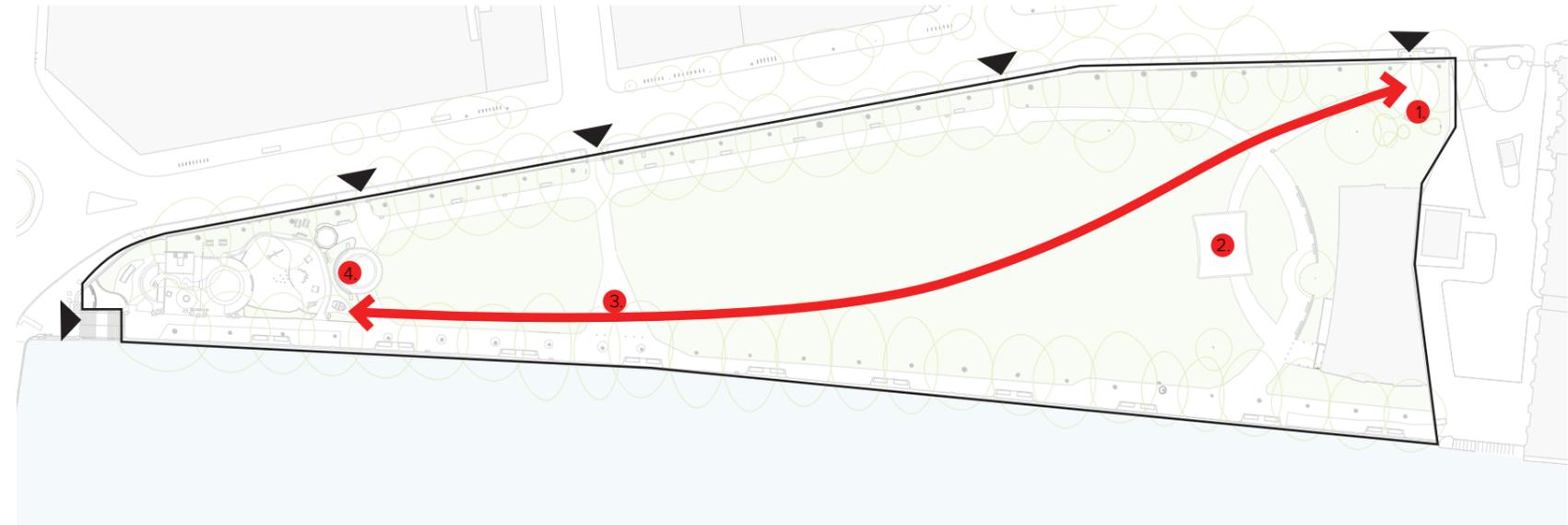


FIG 4.1.1 LINKING THE MONUMENTS

- 1. EMMELINE PANKHURST MEMORIAL
- 2. RODIN'S BURGHURS OF CALAIS
- 3. BUXTON MEMORIAL
- 4. SPICER MEMORIAL



1.



2.



3.



4.

4.0 Response to Context

4.2 Landscape Masterplan Concept Circulation

4.2.1 The park is pedestrianised, with only maintenance and servicing vehicles allowed access during the day. This maintains the calm character of the space, and the heavy planting and mature trees along the western boundary separate it from the traffic of Millbank.

4.2.2 There are five entrances into the park, four from Millbank, and a stepped approach from Lambeth Bridge. The current layout supports a perimeter path route running north-south on either side of the park, that is linked at either end. A single additional cross route exists on axis with the Buxton Memorial.

4.2.3 The pedestrian modelling data, produced by Atkins, in advance of the competition, identifies the most well used routes in and around Victoria Tower Garden. The diagrams illustrate that many users cross the open lawn area which is expected due to the strong NW-SE desire line.

4.2.4 The data also identifies the most intensively used locations, and how these differ through the day or weekend. This pattern reflects a strong degree of commuter movement through the park during the week, as well as lunchtime movement associated with local workers. This drops off considerably at the weekends, with more casual movement in and around the lawn areas.



FIG 4.2.1 IMPROVED SITEWIDE CIRCULATION

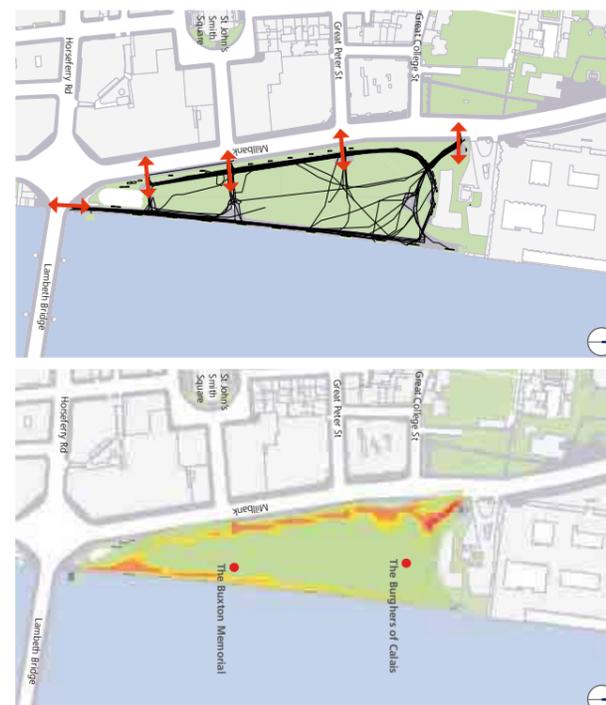
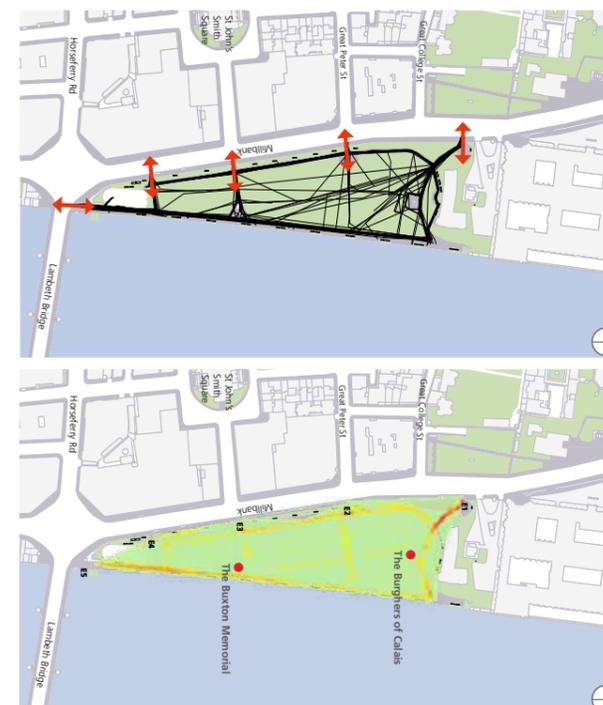
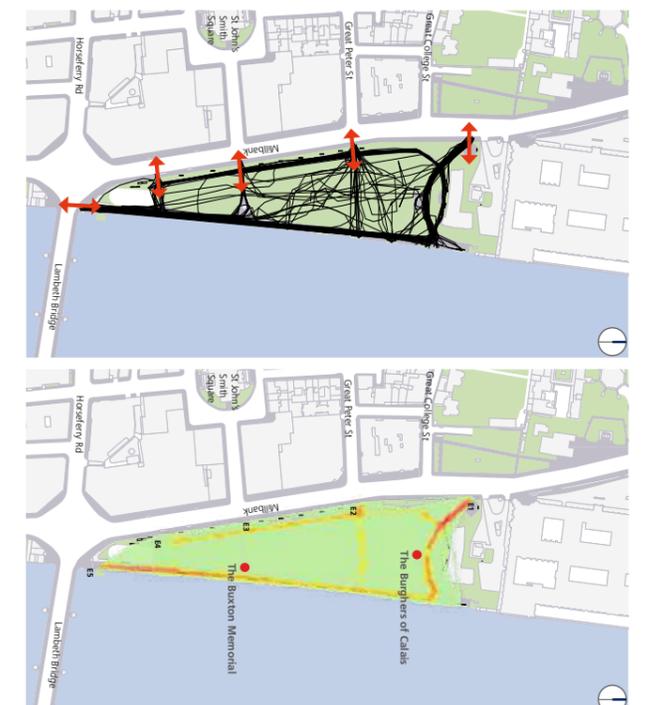


FIG 4.2.2. TRANSPORT AND MOVEMENT REPORT BY ATKINS
PATH FOLLOWING SURVEY / WEEKDAY



4.2.3 TRANSPORT AND MOVEMENT REPORT BY ATKINS
PATH FOLLOWING SURVEY / WEEKEND



4.2.4 TRANSPORT AND MOVEMENT REPORT BY ATKINS
PATH FOLLOWING SURVEY / BANK HOLIDAY

1. CENTRAL PATH
2. RIVERSIDE BOARDWALK

4.3 Landscape Masterplan Concept
Improving the river views Central Path and Boardwalk

4.3.1 One of the primary attractions and characteristics of Victoria Tower Gardens is its proximity to the River Thames. Unfortunately, the current levels of the Embankment Wall do not easily afford views out and over to the river from inside the site.

4.3.2 As with other similar locations along the banks of the river, elevated seating is provided. While they provide better views for some, they do not allow universal enjoyment of this space.

4.3.3 It is proposed to introduce a sloping level change in the lawn area, that will bring the eye line of the average individual above the line of the Embankment Wall. Adjacent to the wall, it is proposed to elevate the entire edge on a boardwalk, with seating that is accessible to everyone, and improves the view out onto the River Thames.

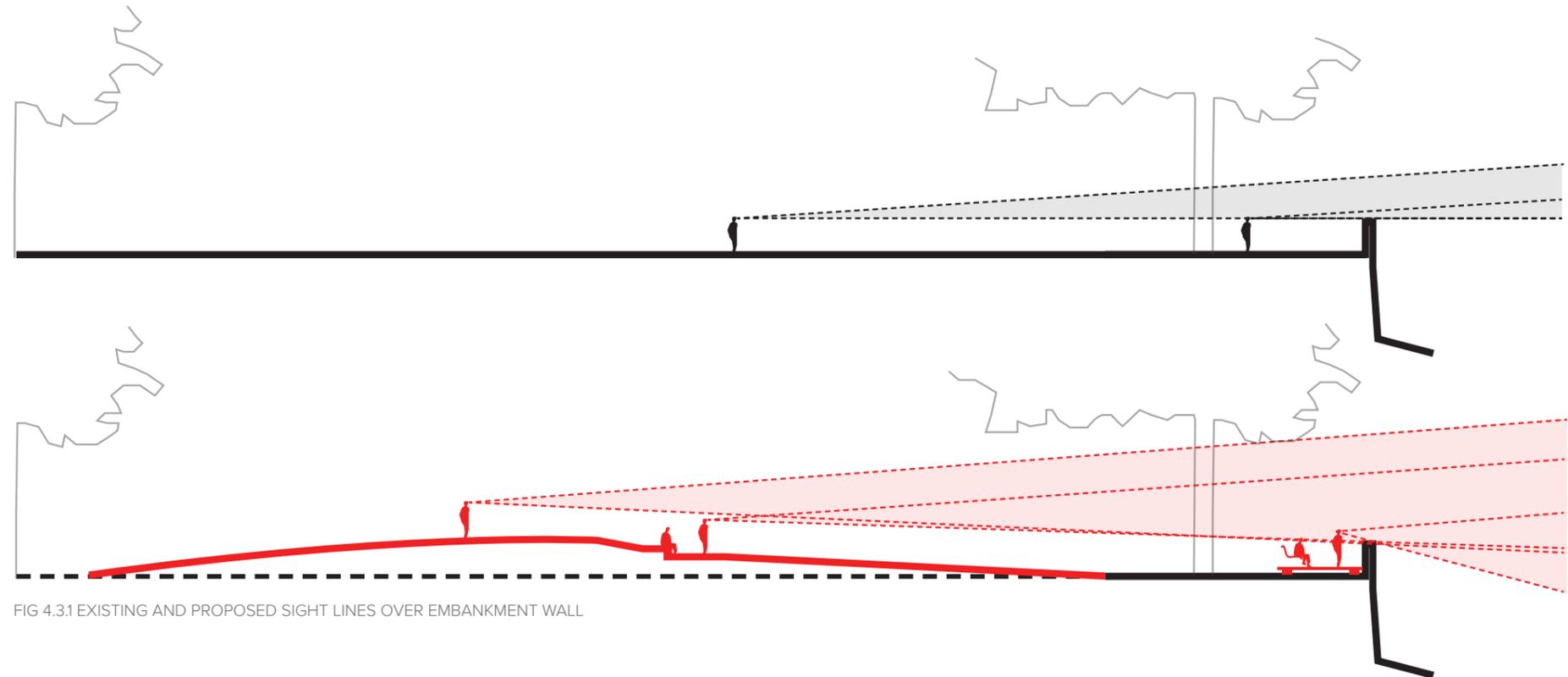


FIG 4.3.1 EXISTING AND PROPOSED SIGHT LINES OVER EMBANKMENT WALL



FIG 4.3.2 EXISTING VIEW OVER EMBANKMENT WALL



FIG 4.3.3 ELEVATED VIEW OVER EMBANKMENT WALL



FIG 4.3.4 NON COMPLIANT RAISED SEATING PLINTHS

4.0 Response to Context

4.4 Landscape Masterplan Concept Landform, views towards the Victoria tower

4.4.1 The concept for the UK Holocaust Memorial hides the view of the Memorial fins from the north, using the landform to envelope them, leaving only the upper sections visible on entering the park. The current expanse of green lawn, is lifted, sloping up to this point to retain a natural view from the entrance or when looking out from the Palace of Westminster.

4.4.2 The landform is proposed as an inhabited space, that can be walked over, sat upon, enjoyed by visitors. The opportunity to interface with the Memorial fins is an important conceptual idea, and is further enhanced by the heightened location. The highest accessible point will bring the eye line of the average individual above the roof of the Parliamentary Learning Centre, and provide new perspectives across Victoria Tower Gardens.

4.4.3 When immediately in front of the UK Holocaust Memorial, you are completely enveloped in its form. Otherwise the majority of the park will retain an unobstructed view south towards Victoria Tower.

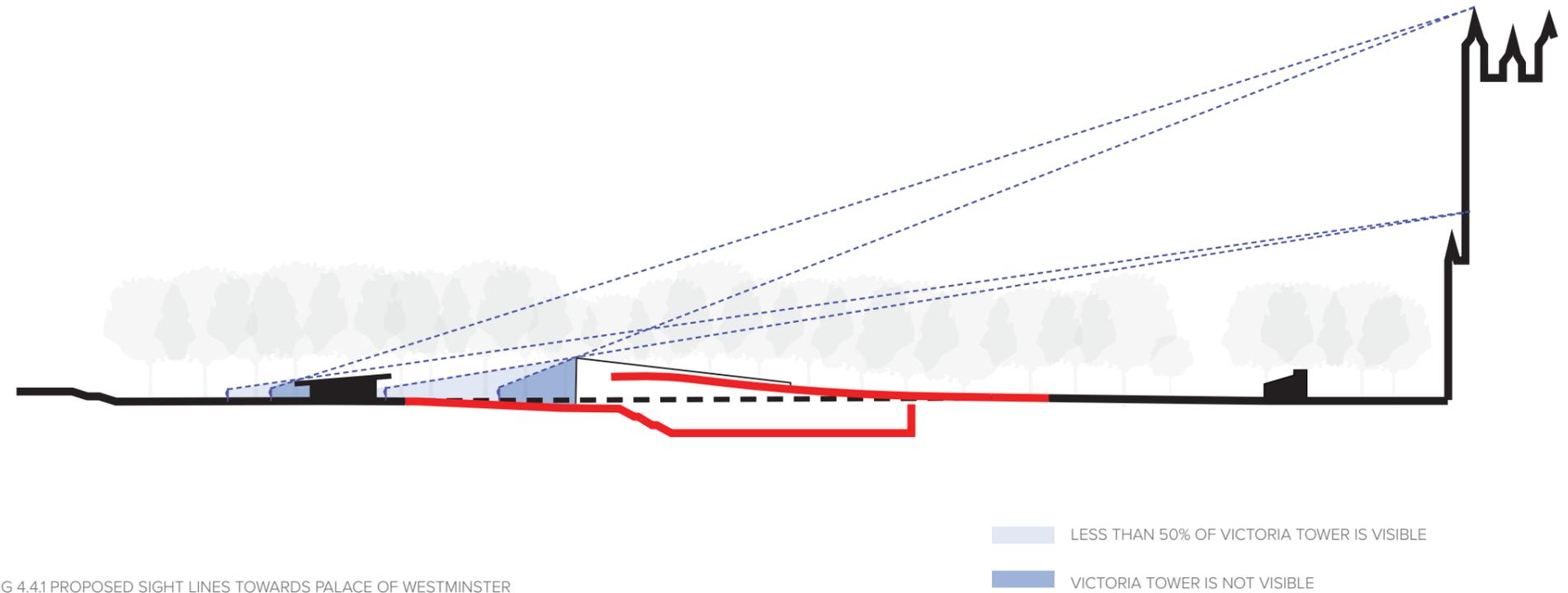


FIG 4.4.1 PROPOSED SIGHT LINES TOWARDS PALACE OF WESTMINSTER



FIG 4.4.2 CURRENT VIEW NORTH TO PALACE OF WESTMINSTER



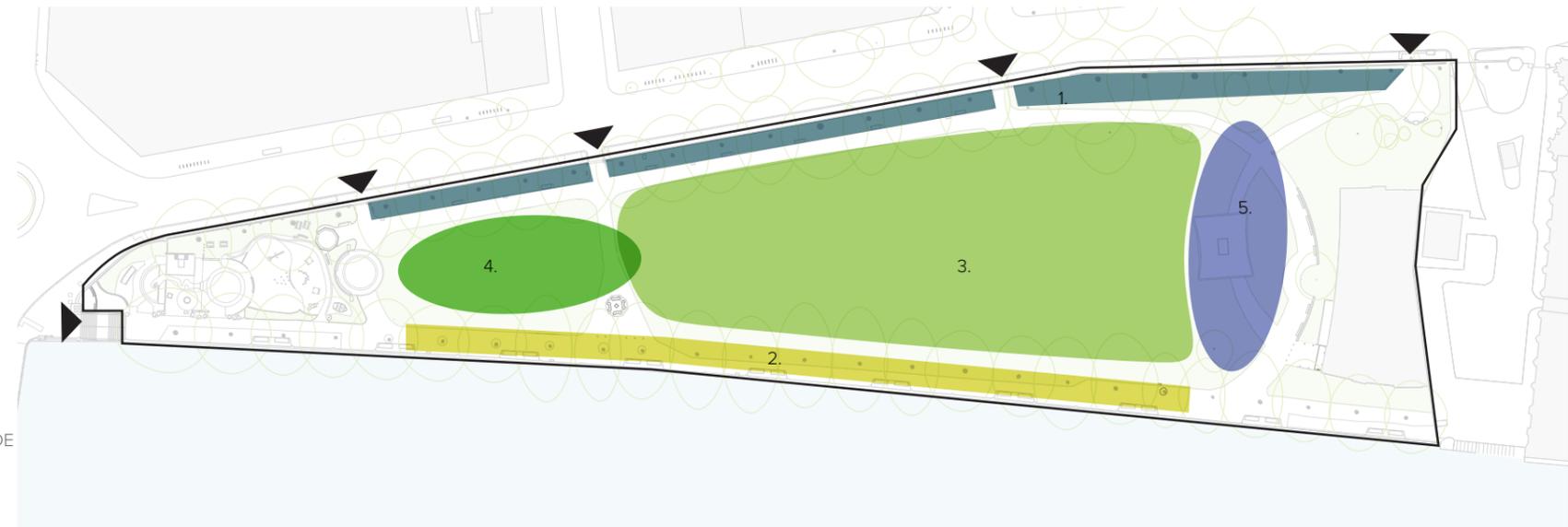
4.4.3 50% (APPROX) OF VICTORIA TOWER IS NOT VISIBLE FROM 20% (APPROX) OF THE PARK AREA

4.0 Response to Context

4.5 Landscape Masterplan Concept Planting palette

4.5.1 The current planting palette of Victoria Tower Garden varies from North to South, changing with context and availability to daylight. The perimeter by Millbank is densely planted with a boundary hedge and shade tolerant shrubs and perennials. To the north and south, outside of the shade of the Plane trees, there is a freer planting scheme, with references to later Victorian and early Edwardian planting palettes.

4.5.2 It is proposed to greatly increased the area of amenity planting, picking up the palettes of what succeeds in some of the difficult areas of the site. While the boundary needs to remain dense, the perimeter path will be developed with more perennials and textural planting that will further enhanced the enjoyment of walking around the park.



- 1. MILLBANK SIDE
- 2. RIVER EDGE
- 3. LAWN
- 4. MEMORIAL
- 5. NORTH END. THE BURGHERS OF CALAIS

FIG 4.5.1 PROPOSED PLANTING CHARACTER ZONES



1. MILLBANK SIDE

2. RIVER EDGE



3. LAWN

4. MEMORIAL

5. NORTH END.
THE BURGHERS OF CALAIS

4.0 Response to Context

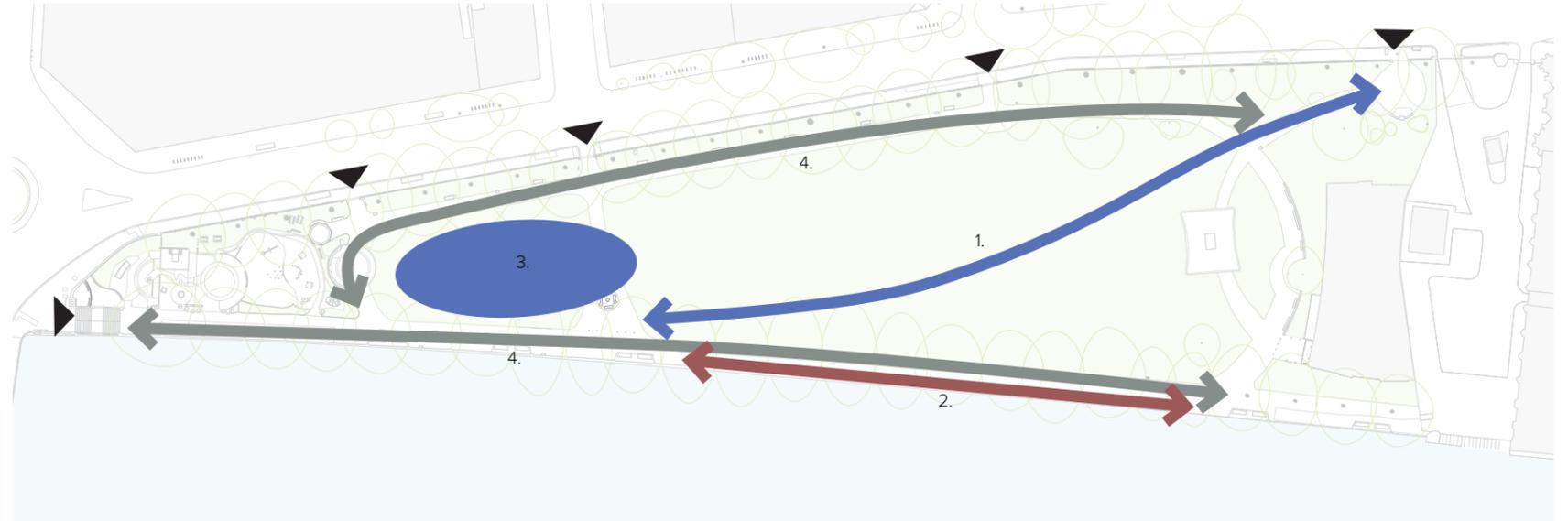
4.6 Landscape Masterplan Concept Material Palette

4.6.1 The current hard landscapes across Victoria Tower Garden are unified through the singular use of impermeable tarmac throughout. There is a strength to this understated simplicity, but the build up reduces the ability of the tree roots to transfer air and moisture. The use of a singular, permeable material around the perimeter of the park is proposed to define the space.

4.6.2 The new diagonal path route provides the visitor with a direct route to the UK Holocaust Memorial. It is proposed to be made of a smaller scale granite setts, visibly different from the typical perimeter materiality.

4.6.3 Hard wearing and of a scale appropriate to the context, the material has been commonly used in Holocaust Memorials. It both evokes the Jewish tradition of leaving small stones on graves, but also reflects on the memory that following desecration, Jewish gravestones were often repurposed as sidewalk paving stones.

4.6.4 Timber seating is proposed to the edges. As areas of longer occupation timber provides a high degree of comfort, and maintains the park aesthetic.



1. CENTRAL CUBBLE STONE PATH
2. WOODERN RIVERSIDE BOARDWALK
3. MEMORIAL STONE COURTYARD
4. PERMEABLE PATHS

FIG 4.6.1 PROPOSED MATERIAL ZONES



RAILWAY BALLAST



JEWISH TRADITION



NATURAL STONE



PERMEABLE BOUND GRAVEL



WOODEN BOARDWALK

5.0 Landscape Masterplan/Design Evolution

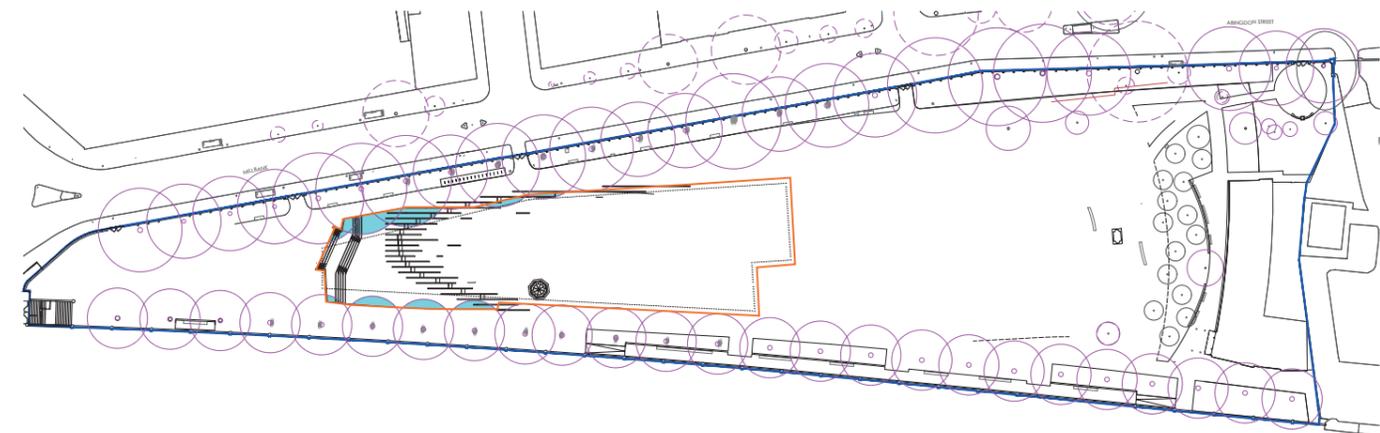
5.1 RPA Overlap Analysis

5.1.1 Throughout the design Stages 1-3, the team has continued to review and refine the design proposals to reduce the development overlap with the existing trees' Root Protection Area (RPA) and mitigate the potential impact on the tree roots below.

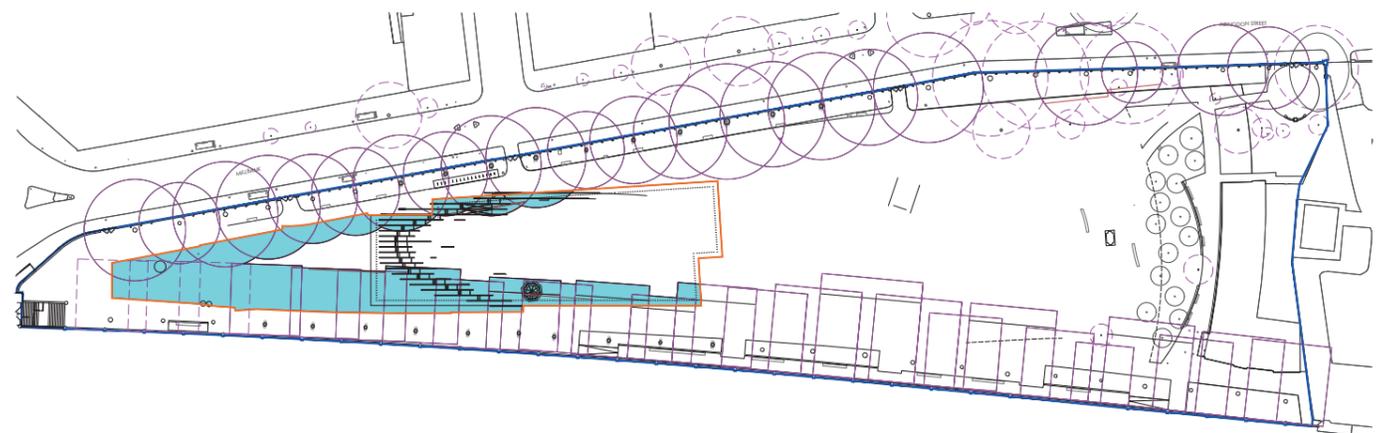
5.1.2 Recognising that the British Standard 5837 (BS 5837) (CD 4.16) is the industry standard, and nationally accepted, document for providing guidance and recommendations in relation to the juxtaposition of trees and buildings, the project engaged Bartlett Tree Experts (BTE) to undertake the necessary tree surveys and prepare a Tree Constraints Plan (TCP) to inform the development of the design. The project understood that although possible to undertake development within the RPA of a tree, this should be minimised to avoid potentially negatively impacting the health of the tree.

5.1.3 The TCP was produced in February 2018 by BTE, and resulted in significant modification of the design, including relocation of the development 40 metres to the north, as well as amending the shape and layout of the UKHMLC.

5.1.4 Due to the constraints of the Embankment wall, BTE utilised polygon RPA along the eastern line of trees, while circles were used along the western line. The use of polygon RPA is accepted by the BS:5837, and it does not state that different shape RPA's cannot be used on the same site.



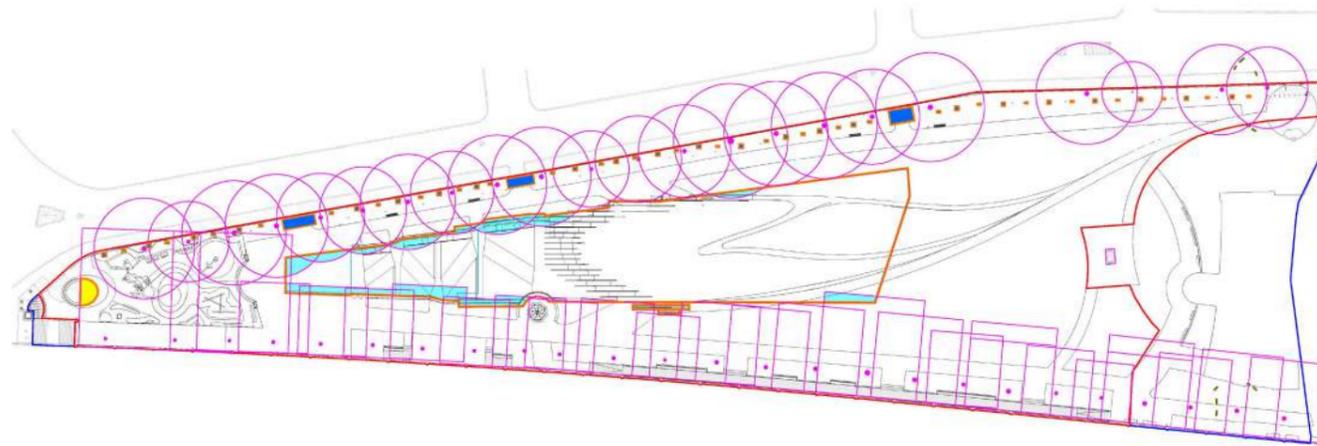
COMPETITION PROPOSAL



- EXCAVATION OUTLINE
- OVERLAP OF EXCAVATION AREA AND RPA
- ROOT PROTECTION AREA (RPA)

STAGE 2 PROPOSAL - ENTRANCE PAVILION AND ACCURATE TREE ROOT INFORMATION

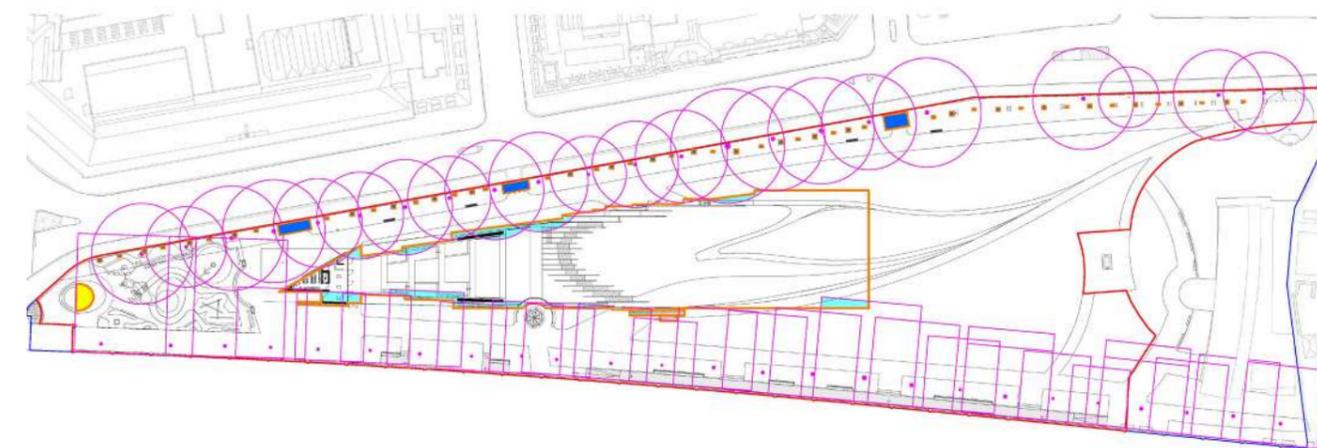
FIG 5.1.1 COMPARISON OF COMPETITION AND STAGE 2 DEVELOPMENT



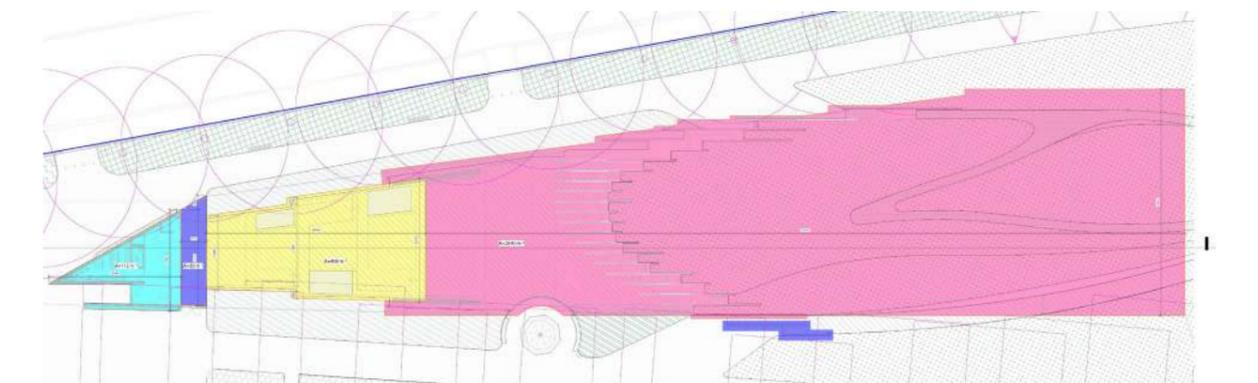
RPA OVERLAP/ PLANNING APPLICATION PROPOSAL (DECEMBER 2018)



EXCAVATIONS / PLANNING APPLICATION PROPOSAL (DECEMBER 2018)



RPA OVERLAP/ REVISED PROPOSAL (APRIL 2019)



EXCAVATIONS / REVISED PROPOSAL (APRIL 2019)

- EXCAVATION OUTLINE
- OVERLAP OF EXCAVATION AREA AND RPA
- ROOT PROTECTION AREA (RPA)

- EXCAVATION 400 MM
- EXCAVATION FROM 400 MM TO 1700MM
- EXCAVATION 12130 MM

FIG 5.1.2 COMPARISON OF STAGE 3 DEVELOPMENT

5.1 RPA Overlap Analysis

5.1.5 Following further design reviews at Stage 3 with BTE, the amount of hard landscaping has been scaled back and replaced with soft landscape to increase and improve the permeability of the development footprint. The outline of the Entrance Pavilion has also been redesigned to avoid RPA's at the southern end of the site and increase the area of permeable paving within the park.

5.1.6 It is proposed that where possible, existing roots are retained in situ, and any landscape structural features formed around them following best practice guidelines of the British Standard 5837:2012 (CD4.16)

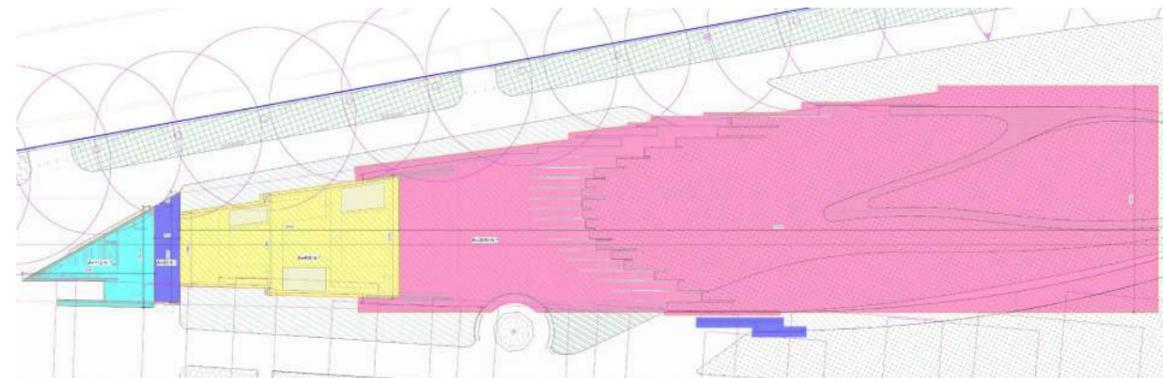
5.1.7 The use of shallow reinforced foundations, under laid with a cellweb product, for street furniture, bollards, railings and the relocation of the Spicer Memorial, will protect tree roots in situ. Based on the survey information gathered, this approach will reduce considerably any potential pruning in the southern end of the site.

5.1.8 It is still proposed throughout Victoria Tower Garden to introduce permeable paths and paving. This will remove existing impermeable asphalt paths within the RPA's, improving the quality and volume of the substrate. It will also provide a better environment for air exchange and future tree root growth.

5.1.9 Where new services are proposed across the site, the methodology for installation will follow NJUG Vol. 4 (CD4.15) guidelines. Following hand dig only principles, and using air spades, it is feasible to survey and prove the trench locations, and install all necessary ductwork in advance of individual service installation. This prevents repeat visits, and allows the quality of work to be more closely controlled.



EXCAVATIONS / PLANNING APPLICATION PROPOSAL (DECEMBER 2018)



- EXCAVATION 400 MM
- EXCAVATION FROM 400 MM TO 1700MM
- EXCAVATION 12130 MM

EXCAVATIONS / REVISED PROPOSAL (APRIL 2019)

FIG 5.1.3 COMPARISON OF STAGE 3 EXCAVATION ZONES

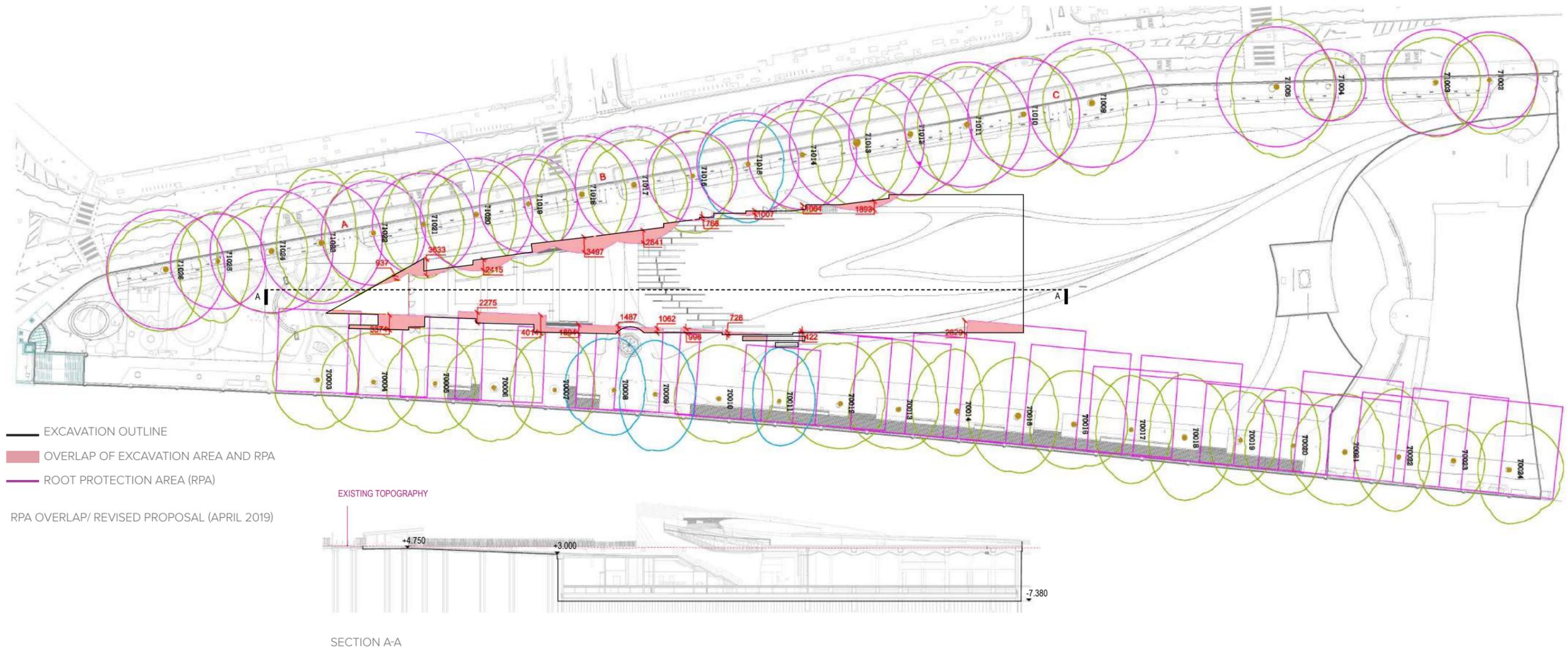


FIG 5.1.4 EXCAVATION PROFILE

5.2 Additional Tree Surveys / Radar

5.2.1 Throughout the design period, the team has been working with arboriculturists and specialists to assist in the understanding of the tree root morphology below ground. It was agreed to stagger the investigations, working from a non-invasive approach towards more focused excavations in the interest of minimum disturbance to the trees as well as the wider park users.

5.2.2 The team engaged Sharon Hosegood Associates to commission a tree root radar study, along both sides of the park. The aim of the investigation was to establish potential location and density of roots growing away from the existing plane trees, towards the proposed site location.

5.2.3 The radar penetrated 2m in depth, and a detailed report was published identifying potential locations for significant roots and clusters of fibrous roots (CD6.35). It was on the review of this data that the project location was revisited and a move 40m north proposed.

5.2.4 The data also allowed the team together with BTE to identify locations of greatest interest for future physical trench investigations which were undertaken by Canopy Consultants in September 2018.

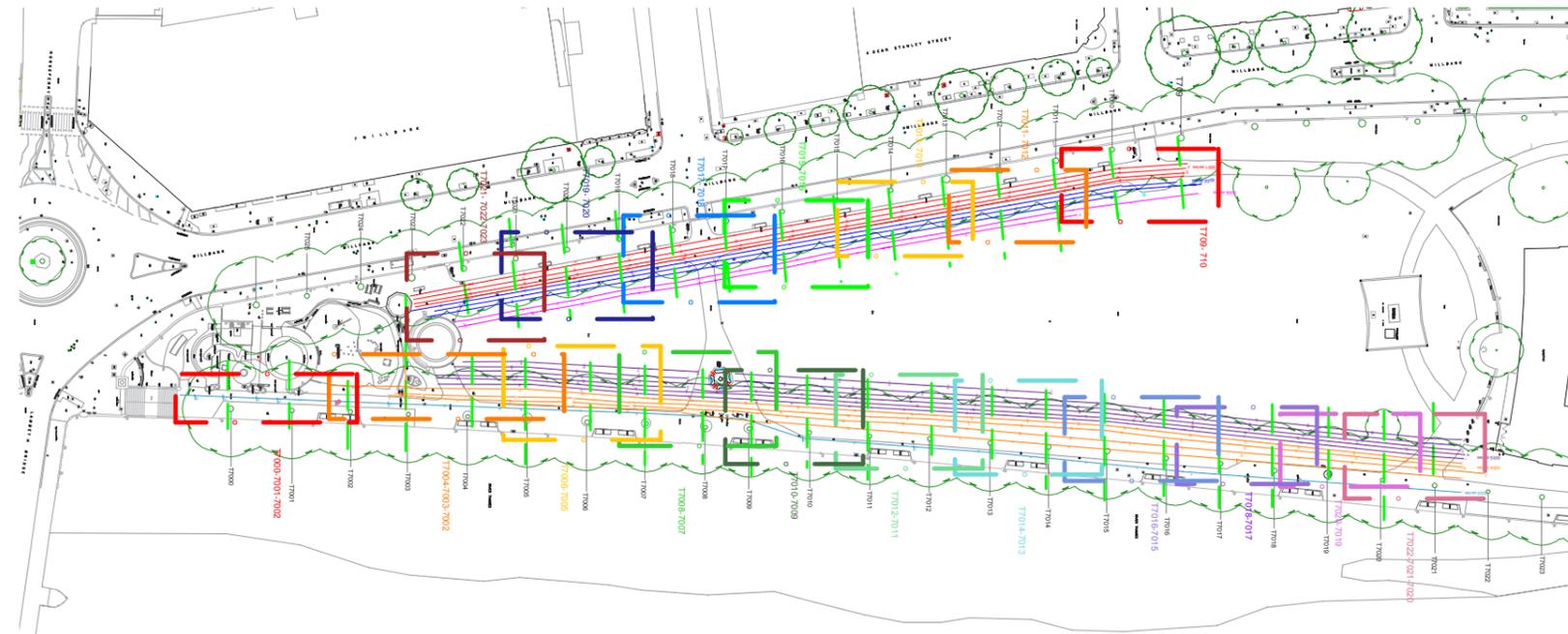


FIG 5.2.1 RADAR SURVEY EXTENTS / SHARON HOSEGOOD

5.3 Additional tree Surveys / 3D scan

5.3.1 The relocation of the UKHMLC further north reduced the potential impact of excavation on the existing tree roots. It was also necessary to investigate if there was any potential 'clash' with the above ground structure of the Holocaust Memorial with adjacent trees on the west side of the site.

5.3.2 Five of the existing Plane trees were identified as potentially clashing, and a laser scan was commissioned from MSA Surveys to generate a 3D model. This was reviewed in the combined 3D model and it was confirmed that there was no need for any pruning at that time.



FIG 5.3.1 CANOPY 3D RADAR SURVEY / MSA

5.4 Additional tree Surveys
Trench Surveys

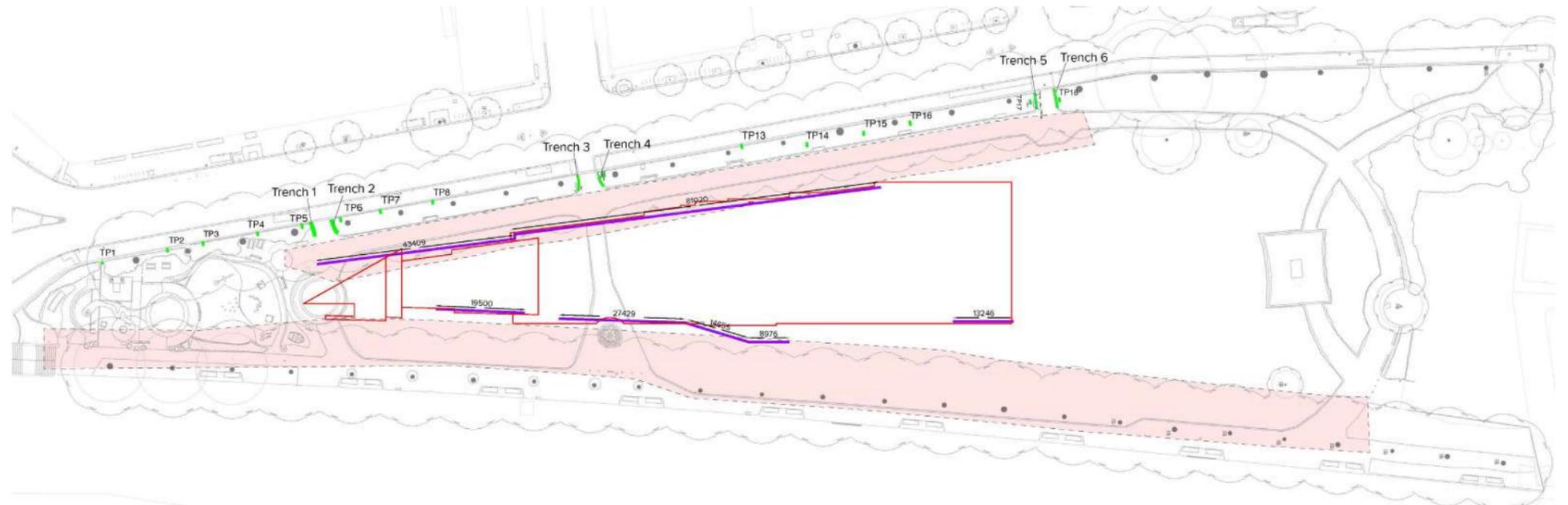
5.4.1 Following the series of non invasive investigations, a number of tree root investigation trenches were undertaken by Canopy Consultants Ltd in September 2018. Locations were identified that showed high density of roots in the radar survey, as well as where the site boundary overlapped with the RPA's of the protected trees.

5.4.2 The intention of the trench survey was to identify in the top 1000mm, the location, number and size of any tree roots. This information would be reviewed against the design information to establish whether the root could be retained beneath areas of the development, or if they needed to be pruned professionally before the commencement of construction.

5.4.3 Using the survey information, it was possible to review the roots found against the design parameters, and where possible amend structural depths to accommodate them in the future design.

5.4.4 It was also possible to interpolate the survey information back into the tree root radar data, and produce more accurate identification of roots below the 1m depth. Sharon Hosegood Associates issued a new report (CD6.35), confirming that based on the on site evidence, a lower density of tree roots was identified than originally mapped in the 3D survey. The technical reasons were laid out in their addendum report.

5.4.5 40% of the identified roots were 25mm or less, and defined as not significant as per the BS:5837. Where possible all tree roots will be retained. Together with the professional input of BTE the team has reviewed the locations further to potentially reduce the level of pruning required. It is proposed that the improved permeability and increased softscape areas in and around the courtyard will benefit future tree root growth.



- ▭ UKHMLC EXCAVATION OUTLINE
- ▭ TRENCHES SURVEY . CANOPY CONSULTUNCY. SEPTEMBER 2018
- ▭ TRENCHES SURVEY . HVM. CANOPY CONSULTUNCY. APRIL 2019
- ▭ TREE ROOT RADAR SURVEY INVESTIGATION ZONE. SHARON HOSEGOOD ASSOCIATES. MARCH 2018

5.4.1 PROPOSED TRENCH LOCATION OUTLINE FOR INVESTIGATION / EXISTING LAYOUT



5.4.1 PHOTOGRAPHIC SURVEY OF TREE ROOT INVESTIGATIONS (REFER TO CANOPY CONSULTANT REPORTS FOR FULL DETAIL)

5.5 Above Ground Constraints

5.5.1 The above ground constraints for London Plane trees T71017 – T71013, as initially identified by BTE were further informed through the commissioning of a 3D tree crown survey, using a terrestrial laser, point cloud and Revit modelling.

5.5.2 This survey was undertaken by MSA Survey, to model the branching structure and crown shape of these London Plane trees due to their proximity to the proposed memorial fins. This information was then applied by Ron Arad Architects in 2D and 3D models to guide and inform the proximity of the proposed memorial fins with the existing low branching structure.

5.5.3 The current shade and shadow pattern is shown on the Tree Constraints Plan. The plotted shade and shadow pattern as shown includes London Plane trees along both the east and west aspects of the site within influencing distance of the proposed Memorial.

5.5.4 The data gathered informed the Construction Management Plan (CD6.30), and will be useful in the preparation of the future Arboricultural Method Statement by the main contractor.

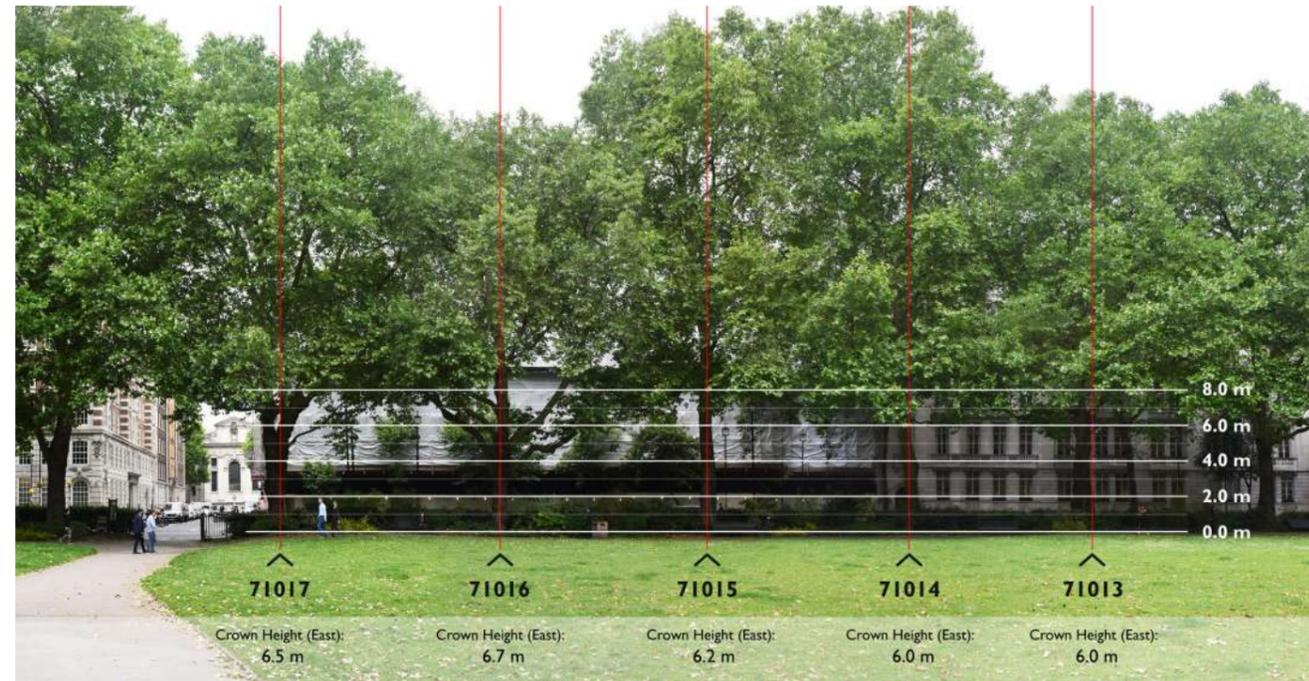


FIG 5.5.1 IDENTIFICATION OF CLEAR HEIGHT BETWEEN PAVEMENT AND CANOPY

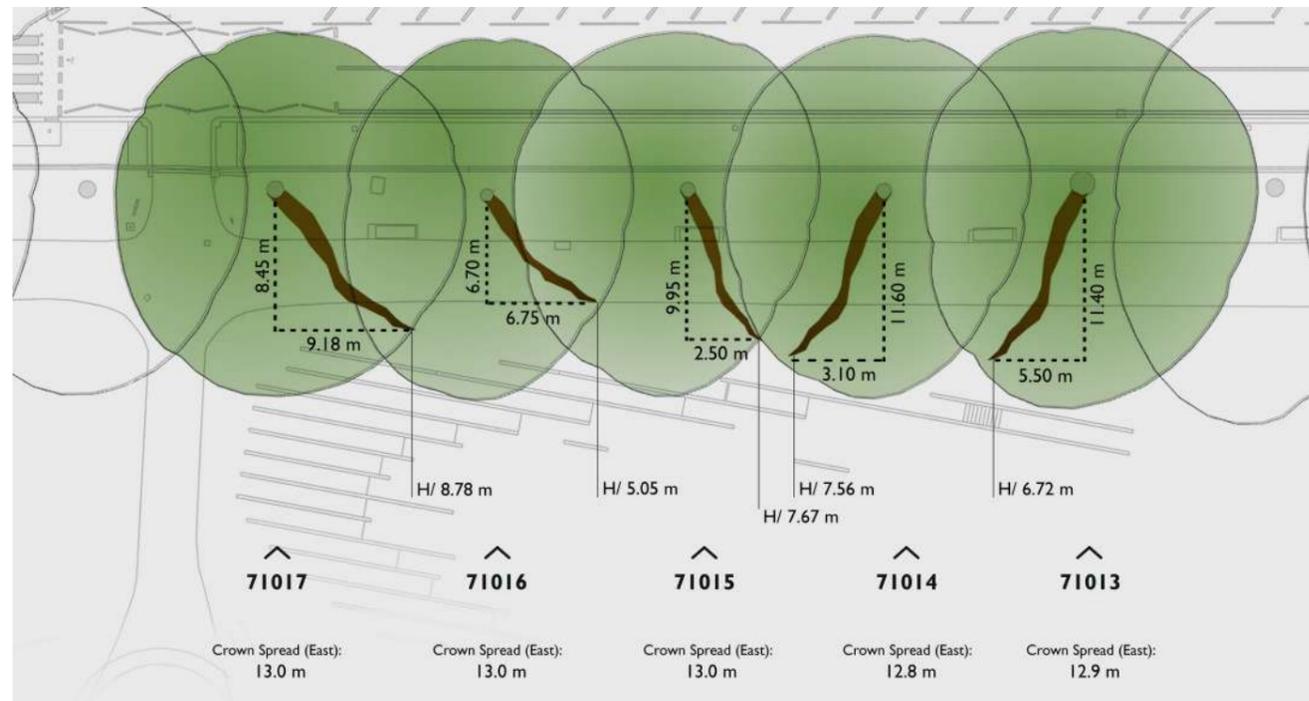


FIG 5.5.2 IDENTIFICATION OF BRANCH LOCATIONS AND CROWN SPREAD

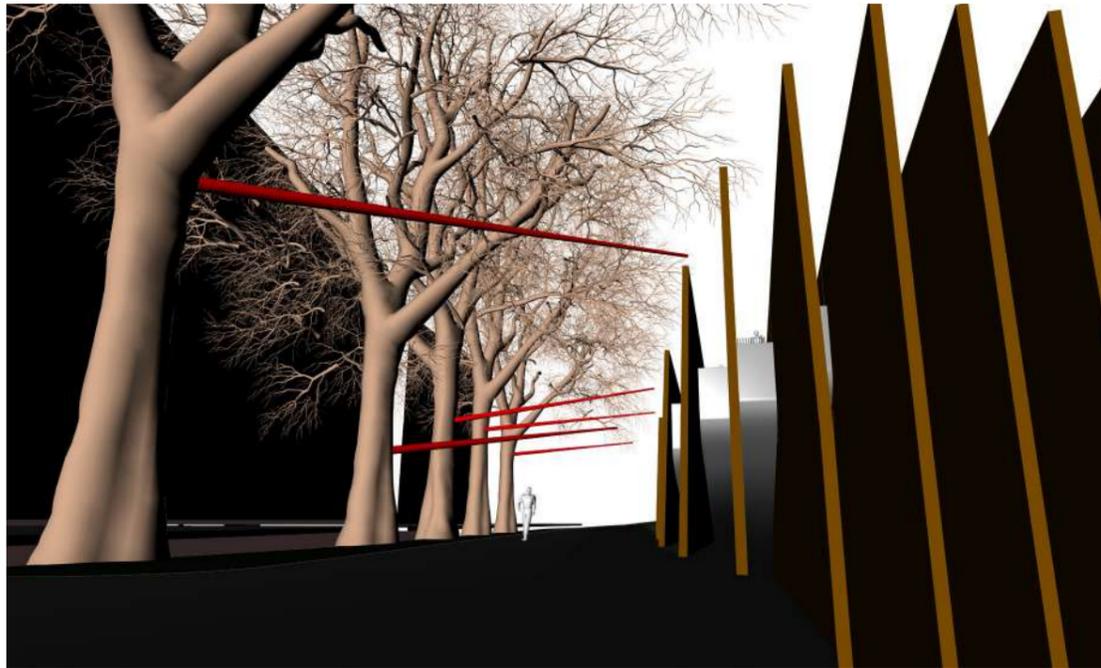
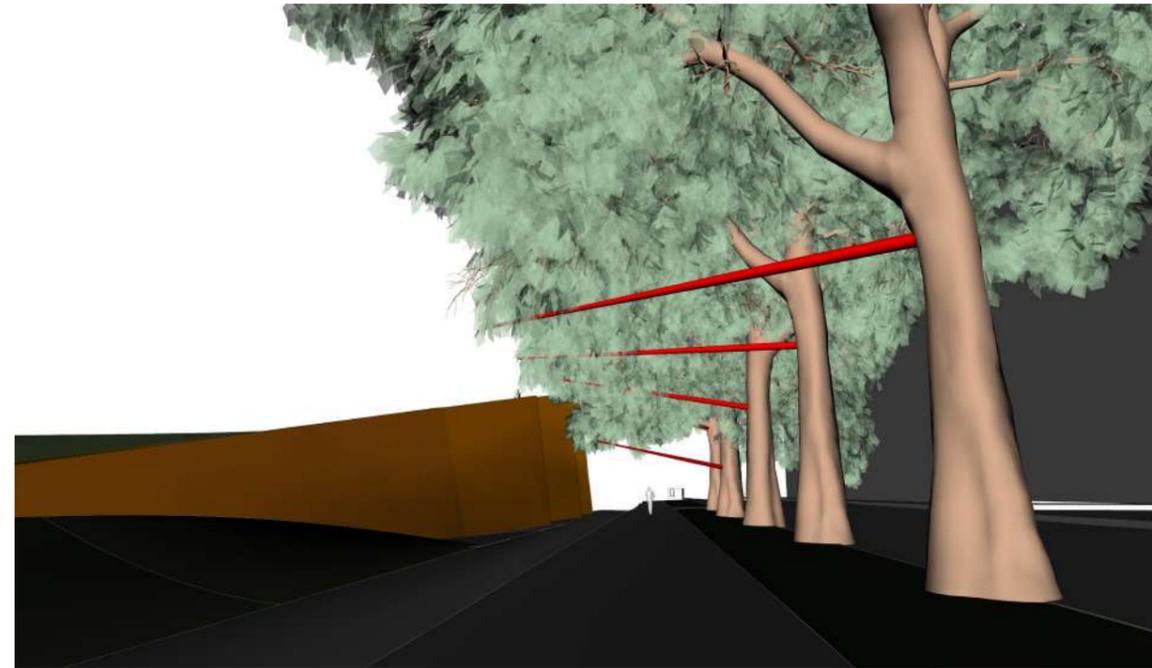


FIG 5.5.3 MEMORIAL FIN AND POTENTIAL BRANCH INTERFACE



MEMORIAL FIN AND POTENTIAL BRANCH INTERFACE

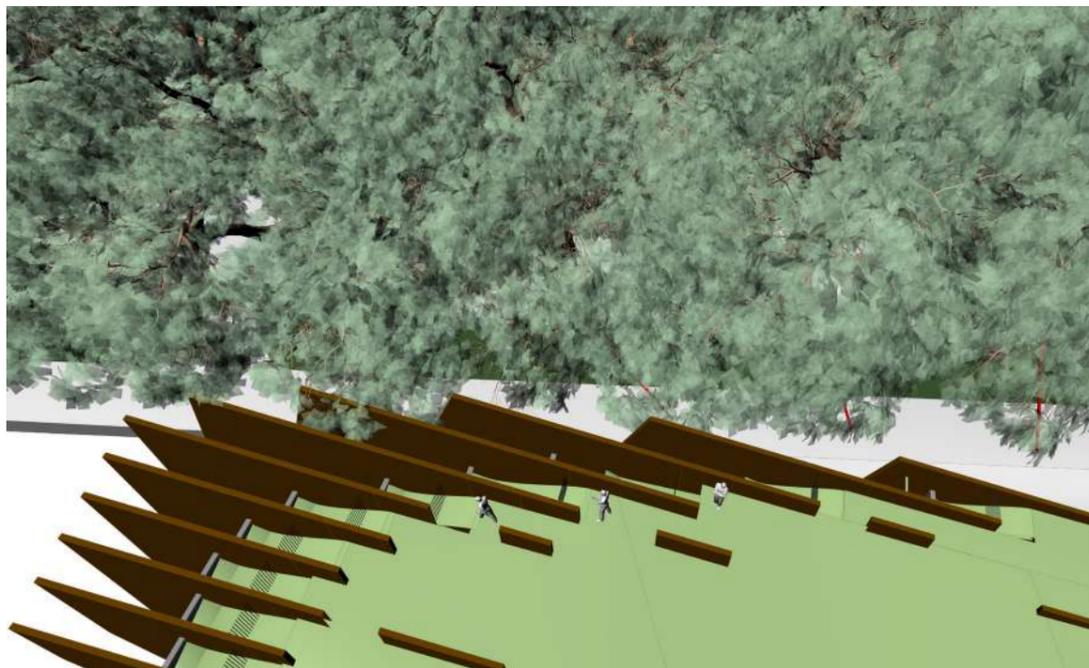


FIG 5.5.4 MEMORIAL FIN BELOW OVERHANGING CANOPY

5.6 Additional Tree Surveys / HVM

5.6.1 As part of a wider Westminster City Council security strategy, it is proposed to install a Heavy Vehicle Mitigation (HVM) perimeter fence, inside the line of the existing wrought iron railing. The design strategy places posts at 10m distance (approx) with cables held between them.

5.6.2 This design approach reduces considerably the excavation within RPA's which was necessary in other locations such as Green Park. The detail developed for that context was a continuous strip foundation, installed the length of the perimeter with a new wall and railing built upon it.

5.6.3 In April 2019, further trench surveys were undertaken by Canopy Consultancy to investigate design proposals for the HVM perimeter fence. Each proposed foundation location was investigated to identify the existence of any 'significant roots' in the locations proposed.

5.6.4 The survey identified only one location where a significant root may clash with an existing tree root. It is proposed to retain the root in this location, protect it, and construct the foundation around it locally. This detail would be prepared by the contractor as part of the Arboricultural Method Statement in advance of the commencement of construction. It is noted that the Green Park HVM utilised a similar detail.

- DEEP HVM BOLLARD FOUNDATION (600MM APPROX)
- SHALLOW HVM BOLLARD FOUNDATION (200MM APPROX)



FIG 5.6.1 HVM LOCATION ALONG MILLBANK SIDE OF VICTORIA TOWER GARDENS

5.7 Tree Root Survey/Deeper Trenches

5.7.1 It is common practice, as part of an AIA, to undertake trench investigations to a depth of 1m in search of existing tree roots near a tree or where a development overlaps with an RPA.

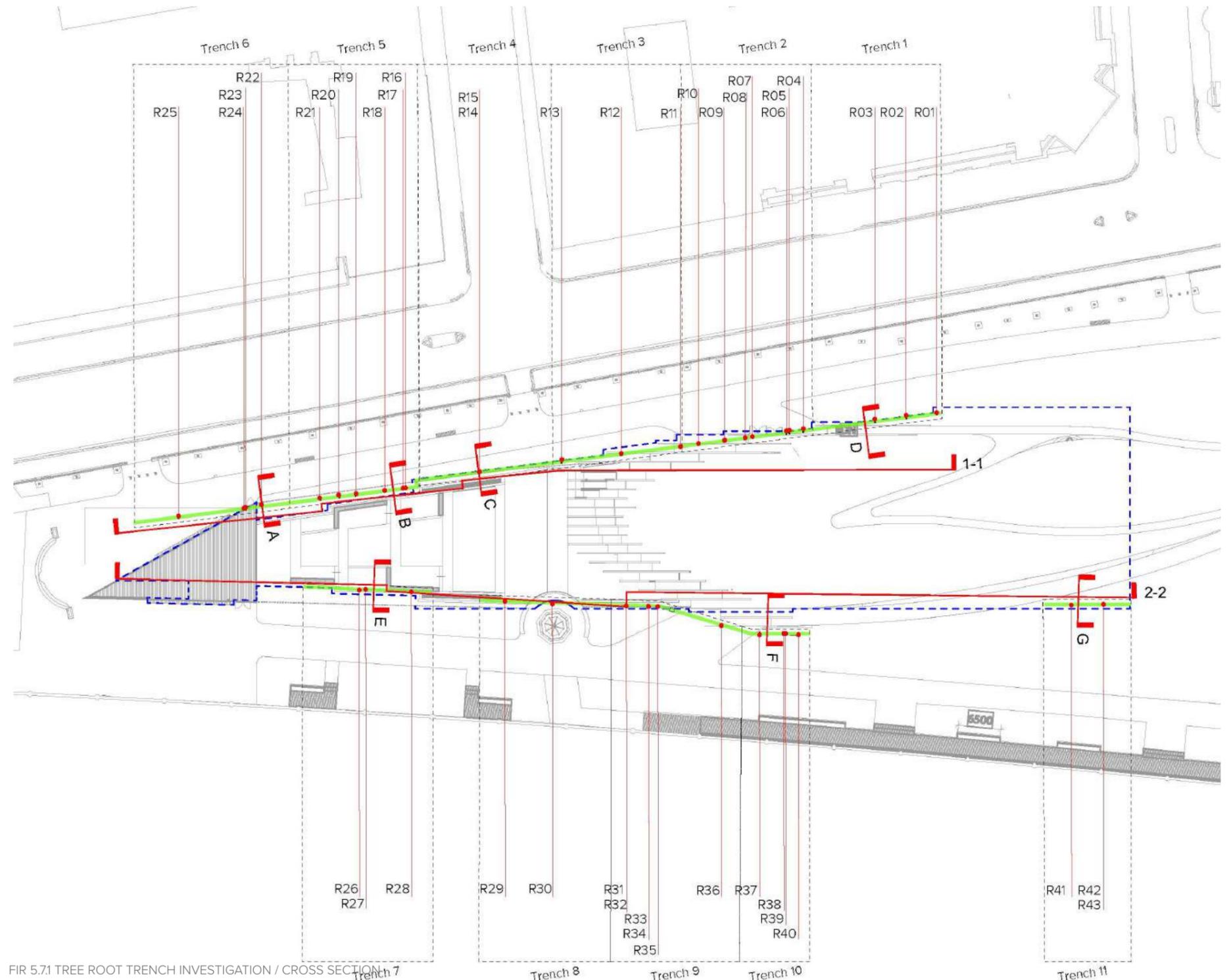
5.7.2 Typically, this would provide sufficient information on the extent, location and size of tree roots for a given tree, as the majority of a tree's roots would be located in this zone. As described in previous sections, and fully detailed in the specialist reports, extensive tree surveys were taken across the site to satisfy this need.

5.7.3 Considering the importance of the protected trees at Victoria Tower Gardens, the team also coordinated several deeper excavations to establish if there was any change in the root morphology below 1m.

5.7.4 The excavations were undertaken in May 2019, and noted some deeper roots. These investigations were monitored by both Bartlett Tree Experts, Sharon Hosegood Associates, as well as the Westminster City Council Arboricultural team which included Barbara Milne.

5.7.5 On review of the survey, the team's specialists noted that it did not appear that there was an increasing density of root profile deeper than 1m across the site. The findings were in keeping with expected root morphology of trees.

5.7.6 The surveys also noted the more accurate location of the historical river wall, which is to the east of the basement box, approximately 1.4m below ground level. This marks a clear historical boundary to the extent of tree roots on this side of the development.

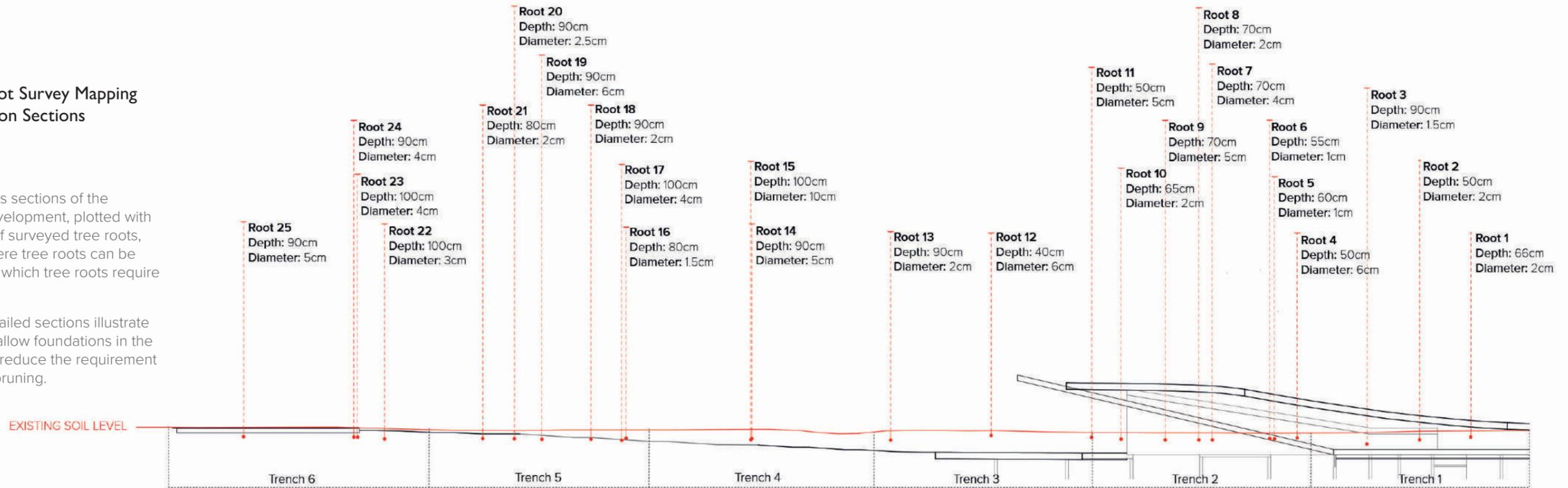


FIR 5.7.1 TREE ROOT TRENCH INVESTIGATION / CROSS SECTION

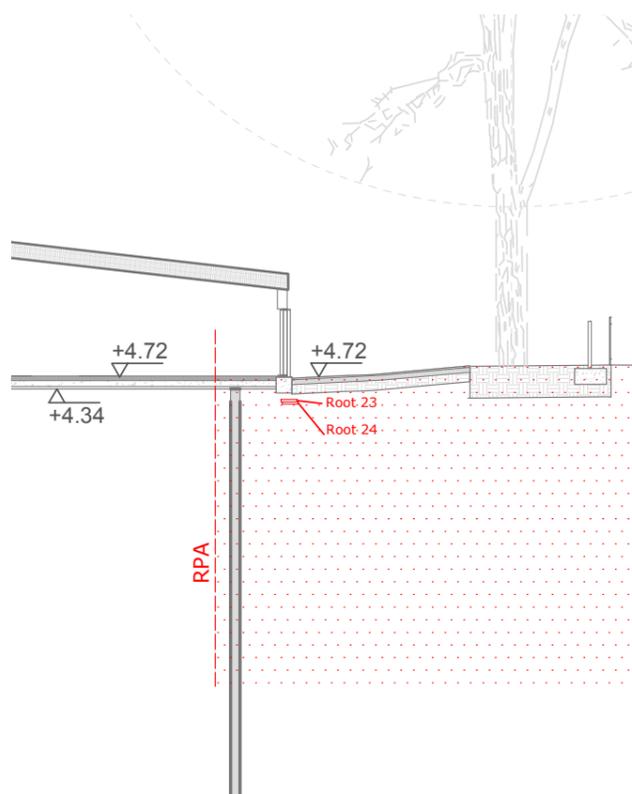
5.8 Tree Root Survey Mapping
Root Location Sections

5.8.1 The cross sections of the proposed development, plotted with the location of surveyed tree roots, illustrates where tree roots can be retained, and which tree roots require pruning.

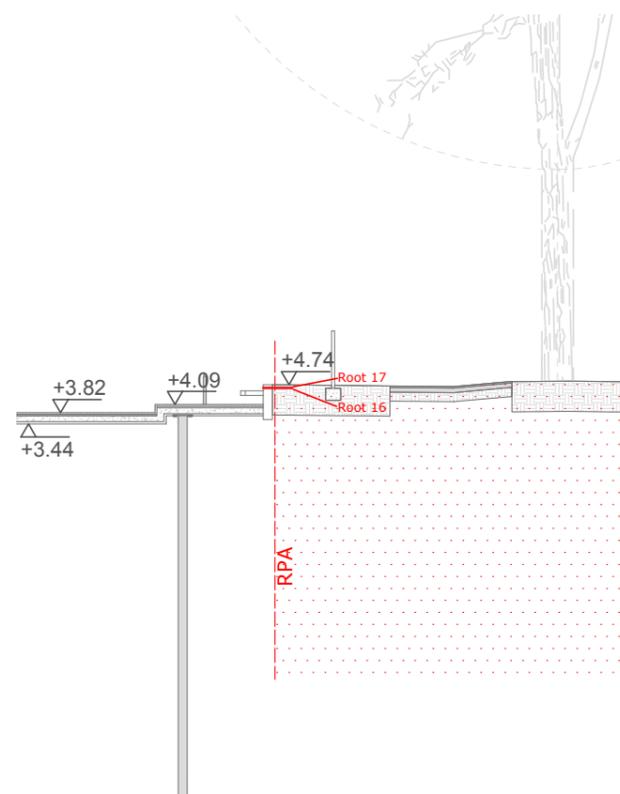
5.8.2 The detailed sections illustrate the use of shallow foundations in the landscape to reduce the requirement for tree root pruning.



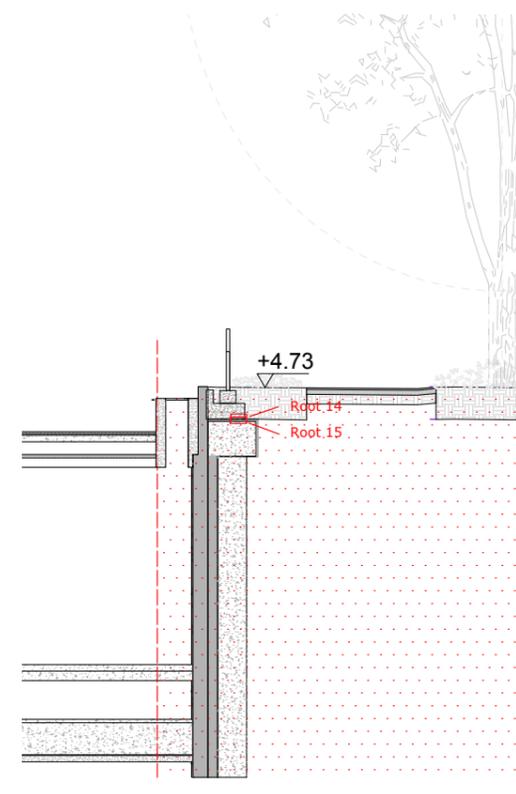
CROSS SECTIONAL ELEVATION OF WESTERN SIDE OF COURTYARD (Section 1)



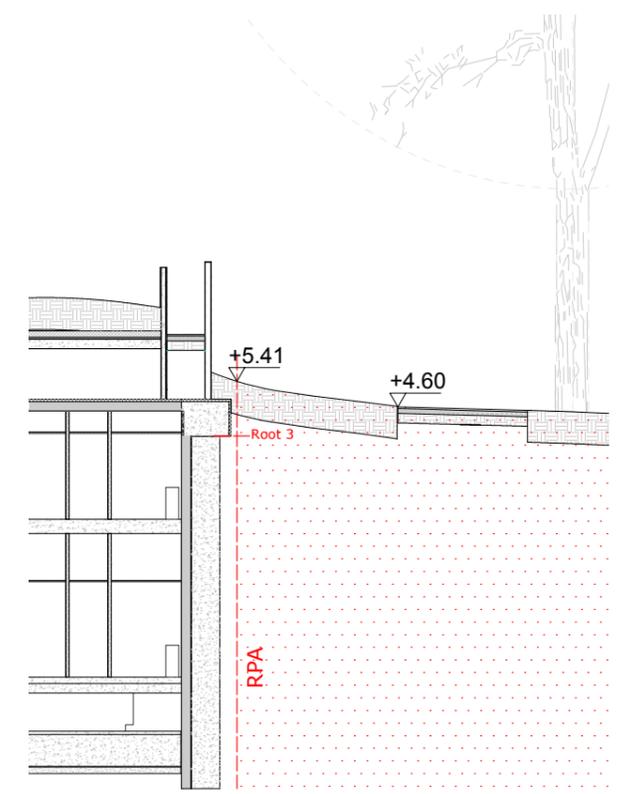
Section A-A



Section B-B



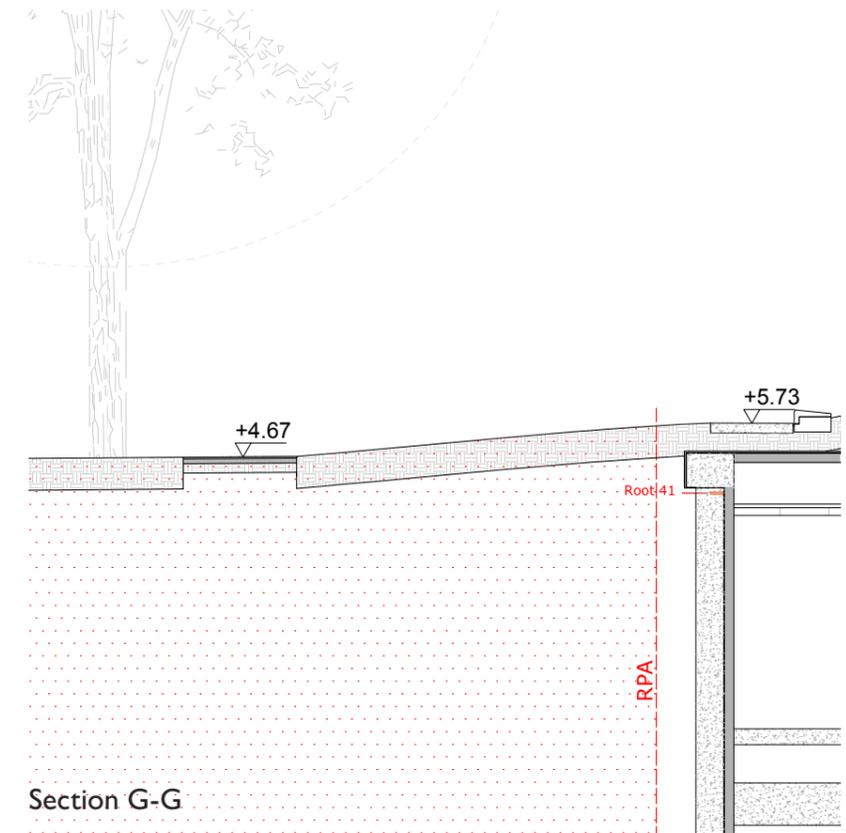
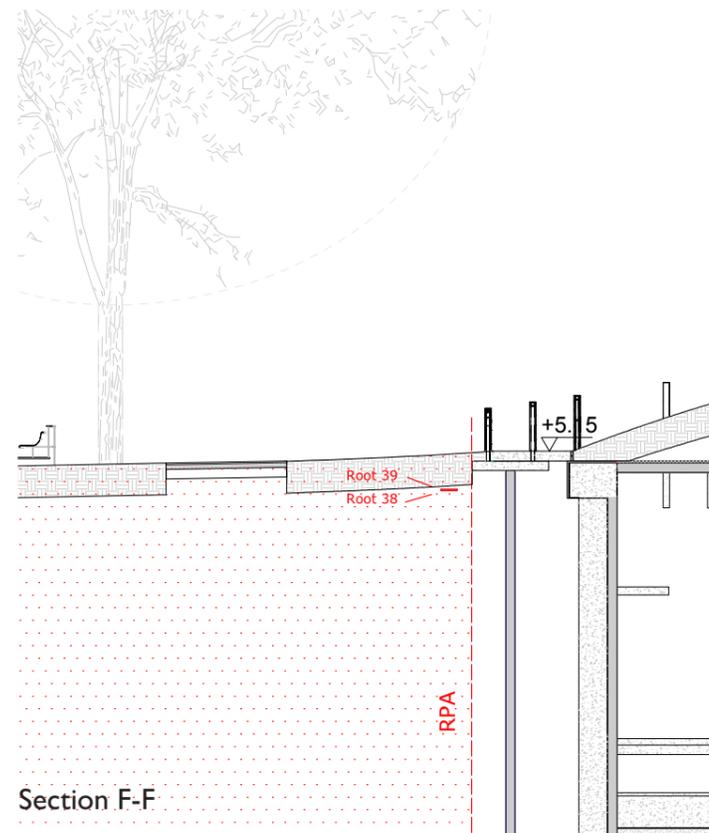
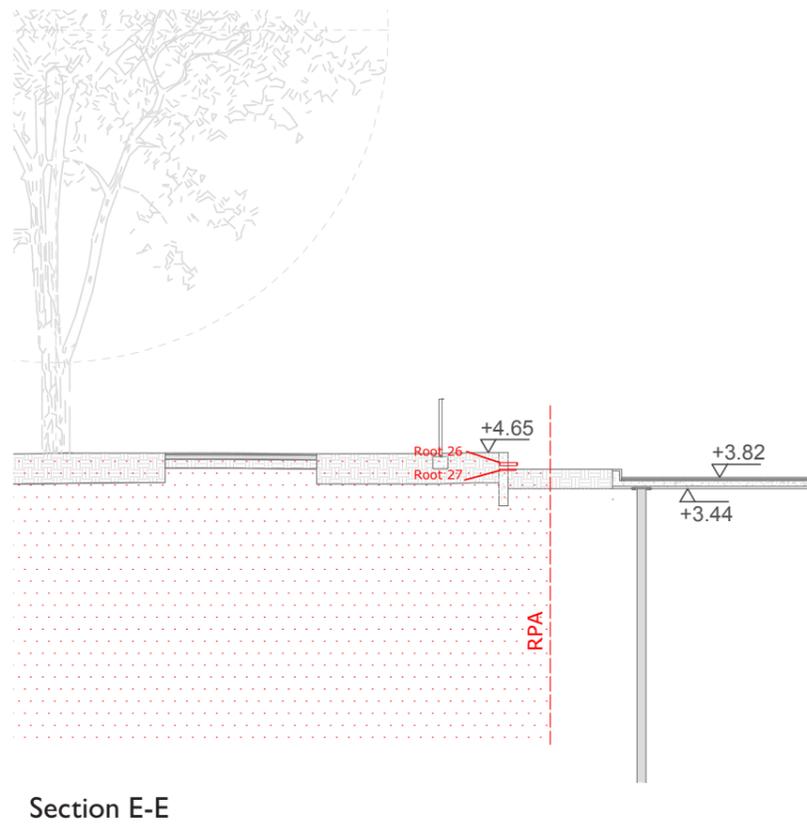
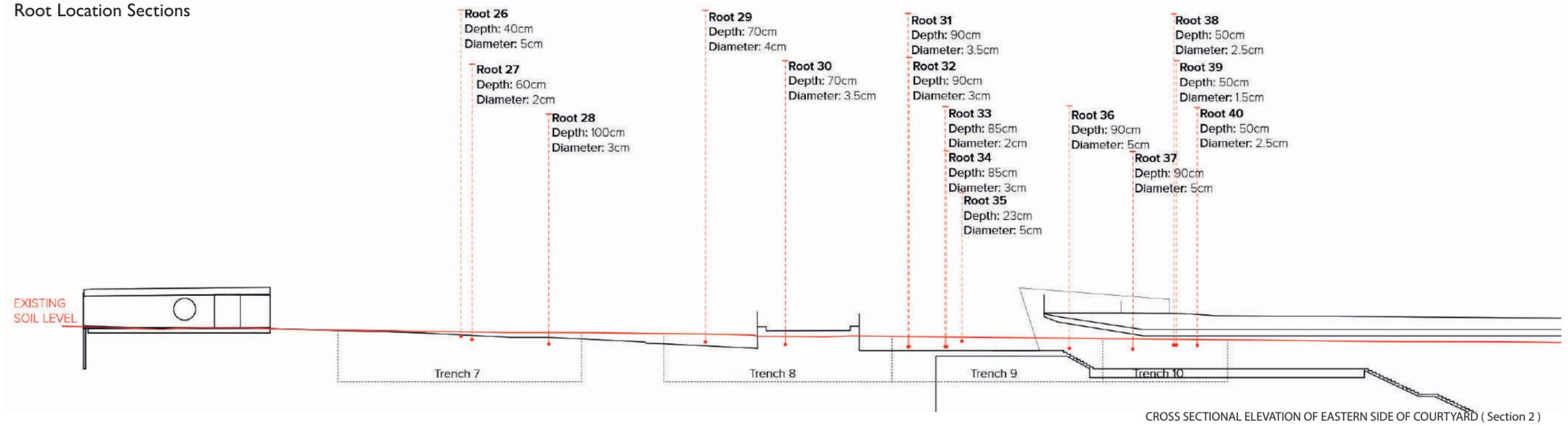
Section C-C



Section D-D

FIG 5.8.1 CROSS SECTIONAL ELEVATION OF EASTERN SIDE OF COURTYARD

5.8 Tree Root Survey Mapping
Root Location Sections



6.0 Landscape Proposals in Detail

6.1 Landscape Proposal Proposed vs existing

6.1.1 The developed landscape masterplan brings the existing Victoria Tower Gardens landscape and the proposals for the UK Holocaust Memorial together into a coherent single vision for an accessible and enhanced public park.

6.1.2 The primary features of perimeter paths to a lawned area that is flanked by mature Plane trees have been respected, and where appropriate, enhanced for the benefit of the general visitor.

6.1.3 The concept and design of the new UK Holocaust Memorial and Learning Centre uses the language of the current park to integrate its forms, and embed it into the space. It is a site specific response that supports new experiences in the landscape, appropriate to the context.

6.1.4 The location has been considered with respect to primary and secondary movement routes across VTG. All current movements and activities remain possible for local residents, and where appropriate, new features such as the boardwalk or perimeter planting, enhance the daily experience.

6.1.5 Inclusive design principles have been adopted throughout so that the landscape proposals will be easily used by people of all backgrounds and abilities. This will improve the overall utility and enjoyment of the gardens for everyone.

6.1.6 The environmental importance of the site is recognised, and the proposals build on this, increasing its biodiversity. Additional areas of native planting are proposed, and throughout the ground has become more permeable, improving the habitats in these areas.

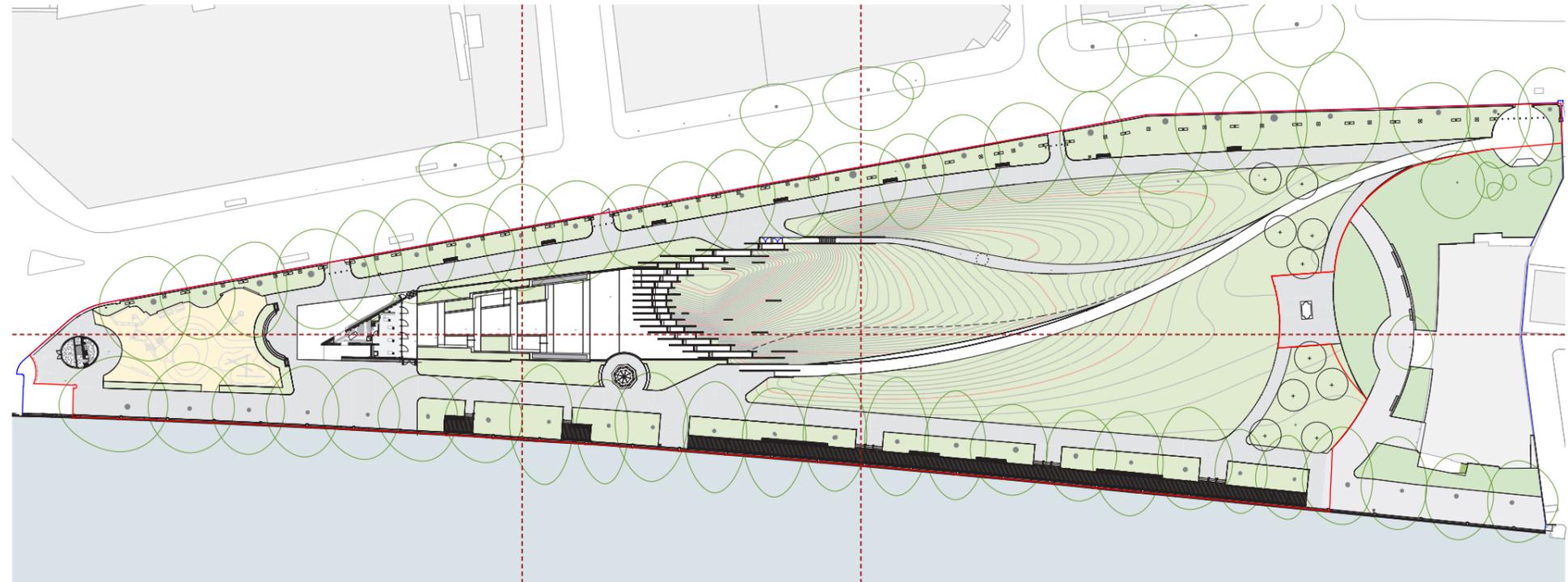


FIG 6.1.1 VICTORIA TOWER GARDENS -PROPOSED TOPOGRAPHICAL PLAN



FIG 6.1.2 VICTORIA TOWER GARDENS -EXISTING TOPOGRAPHICAL PLAN

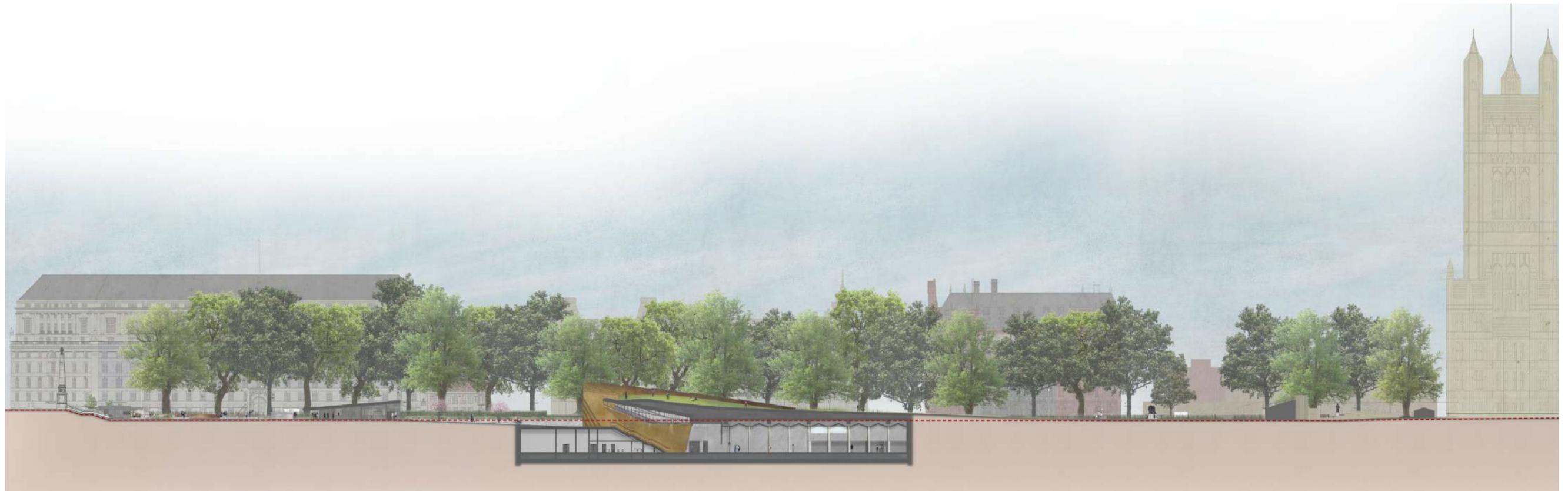
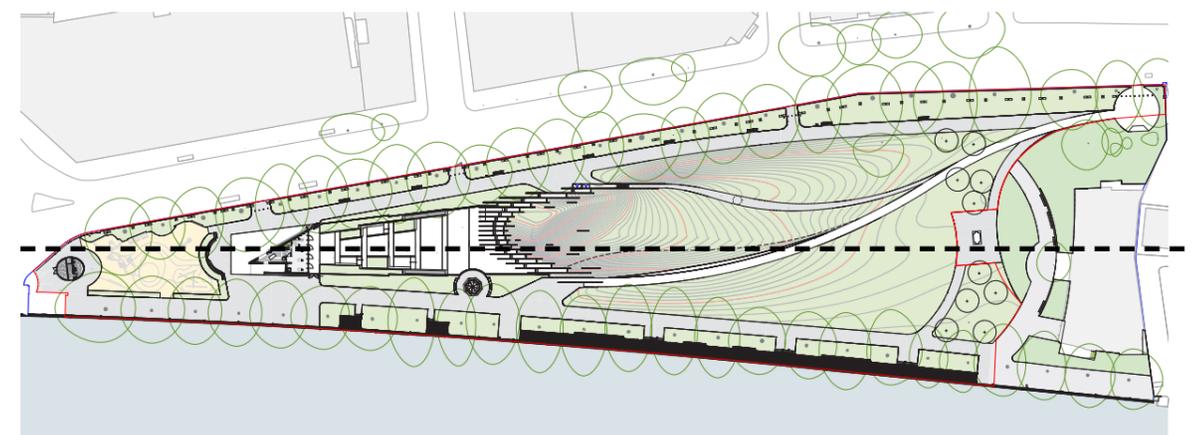


FIG 6.1.3 NORTH -SOUTH SITE SECTION THROUGH MEMORIAL AND LEARNING CENTRE

----- EXISTING TOPOGRAPHY



6.2 Landscape Proposal Proposed vs existing

6.2.1 The concept for the UK Holocaust Memorial introduces a slope in the lawn that gradually leads up to the top of the bronze Memorial fins. The modelling of this landform took into consideration the existing levels of Victoria Tower Garden, as well as the gradients most comfortable for people to walk along for each of the paths.

6.2.2 To allow the ground to slope up on the N-S axis, it was necessary to separate the diagonal path from the landform, and create a bench where the two levels change.

6.2.3 A large section of the lawn remains relatively flat at the north end of the park, and to the east, where it remains sunniest. Where the proposed lawn does slope, this will be gentle enough in the middle section to accommodate normal movement and activity across it. Where the gradient starts to exceed 1:20, it is still perceived as a usable space either for play or sitting.

6.2.4 At the southern end of the site, the Memorial Entrance Courtyard slopes 2m down from the Entrance Pavilion, to the Memorial itself. The change in level is necessary to allow access below ground into the Learning Centre.

6.2.5 The gradual slope of the Courtyard is expressed in layers of planting and stone walls. The lower levels are reveal as strata, with seating and terraces growing out of these walls.

6.2.6 The edge between the courtyard and the perimeter path is heavily planted. This provides a sense of enclosure, while allowing views in and out. Only at the Buxton Memorial, is there a direct connection and awareness of the 2m level difference.

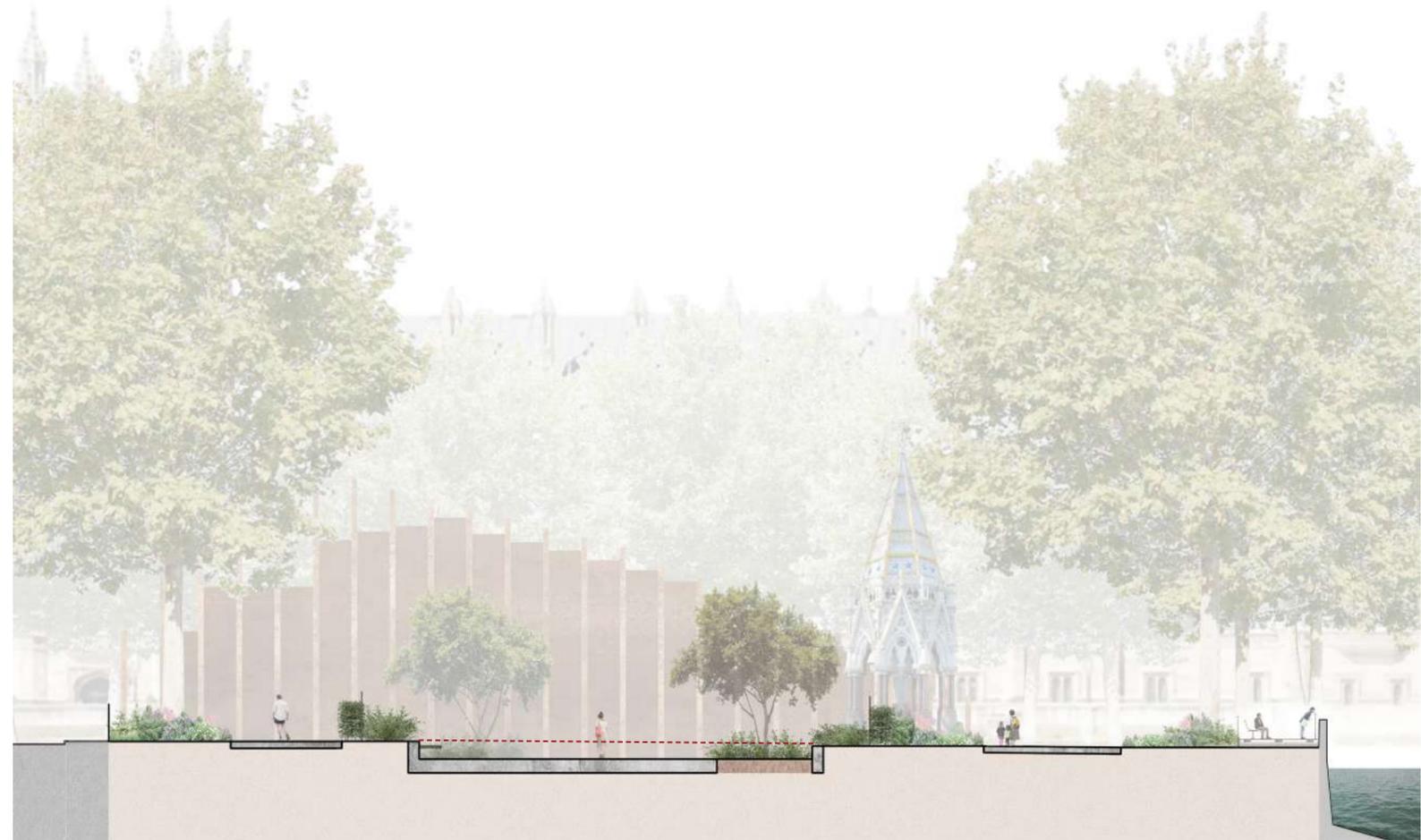
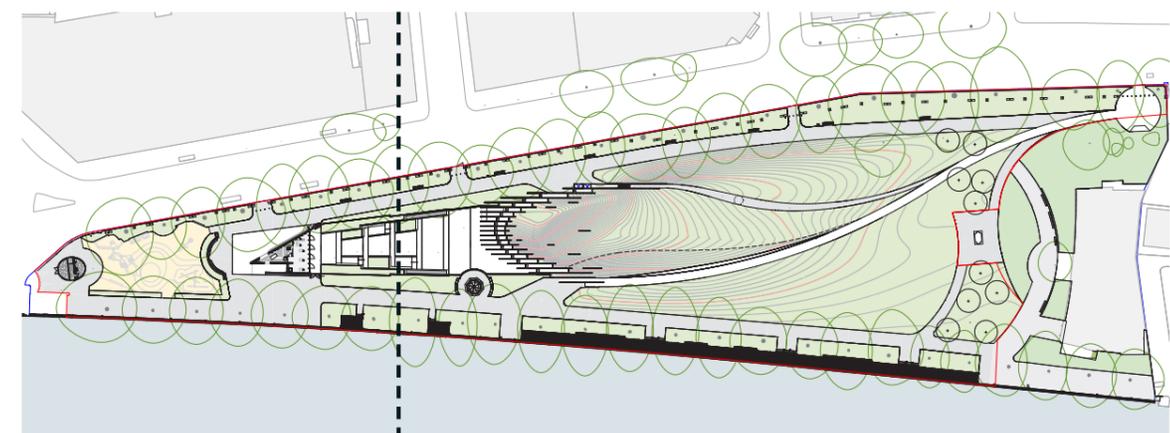


FIG 6.2.1 EAST - WEST CROSS SECTION THROUGH PROPOSED MEMORIAL COURTYARD

----- EXISTING TOPOGRAPHY

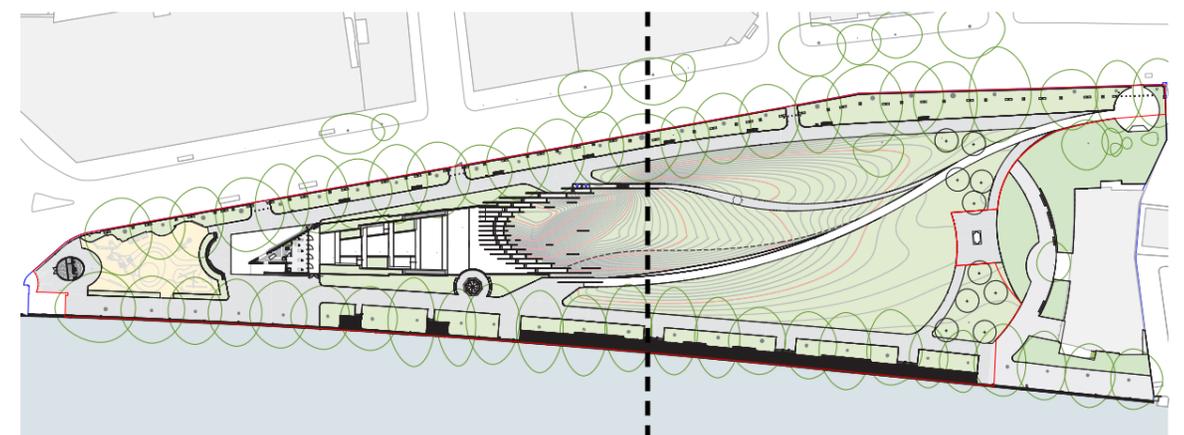


Landscape Proposal
Proposed vrs existing



FIG 6.2.2 EAST - WEST CROSS SECTION THROUGH LANDFORM

----- EXISTING TOPOGRAPHY



6.3 Landscape Masterplan Concept
Connecting the monuments

6.3.1 The desire line path conceived at competition stage has been developed to coherently link each of Victoria Tower Garden's monuments and memorials into a single journey the length of the park. As Spicer and Buxton are over 200m from the Emmeline Pankhurst and Burghers of Calais, this new route will bring them back into public conscience,

6.3.2 The open grass lawn setting of Rodin's Burghers of Calais is respected in the proposed design. The view of the sculpture against the backdrop of the Palace of Westminster remains unobstructed and accessible.

6.3.3 The view south towards the Buxton Memorial encourages the visitor onward. The memorial's colourful spire remains on axis and in view from Dean Stanley Street and St John Smith Square. It has been given spatial significance within the park with a generous circular stone bench. A space to gather and contemplate both the Buxton Memorial, and adjacent Holocaust Memorial in tandem.

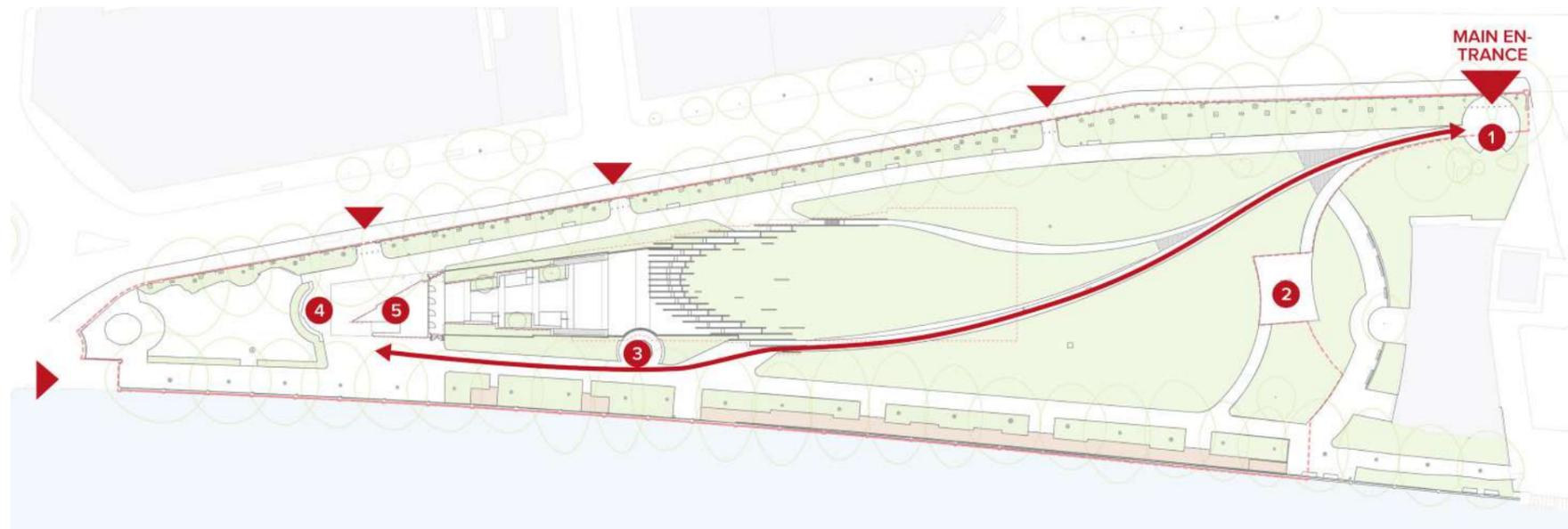


FIG 6.3.1 PROPOSED SITE PLAN WITH EXISTING MONUMENTS

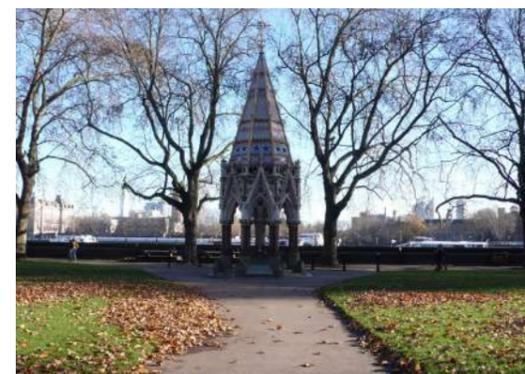
- 1. EMMELINE PANKHURST MEMORIAL
- 2. RODIN'S BURGHERS OF CALAIS
- 3. BUXTON MEMORIAL
- 4. SPICER MEMORIAL
- 5. HOLOCAUST MEMORIAL ENTRANCE



1.



2.



3.



4.

6.0 Landscape Proposals in Detail

6.4 Landscape Masterplan Concept / Circulation

6.4.1 The pedestrian movement around and through Victoria Tower Garden, remains a primary design strategy in the final proposals. The retention and improvement of the circuit path at the perimeter supports the continued daily activity of walking and sitting undertaken by local residents and office workers.

6.4.2 The primary diagonal path creates an accessible route through the main lawn, and a secondary path leads off this to provide access onto other areas of the landform. The south end of this path has a set of steps that rise between two of the Memorial Fins.

6.4.3 Vehicular access for small vans for maintenance of the park and delivery and servicing of the Memorial Learning Centre will be maintained along the realigned 4m wide resin bound permeable perimeter paths. This allows for bin collection and the movement of large equipment associated with the maintenance of the landscape.

6.4.4 A stepped secondary link, between the Memorial Fins is required at the west elevation. This provides access up onto the landform in this location and to ensure no cul de sacs of movement across the landscape.

6.4.5 Reinforced grass with a good drainable sub base is proposed throughout the landform. This will manage any regular activity of sitting and walking across the soft landscape, as the lawns are used now. It will also reduce compaction with use, therefore increasing the longevity of the lawn. Larger scale events would need managing as per current requirements.

6.4.6 The new elevated benches and boardwalk placed alongside the Bazzalgette Embankment will have a ramp of less than 5% at either end. Three sets of steps will allow multiple access points along its length.

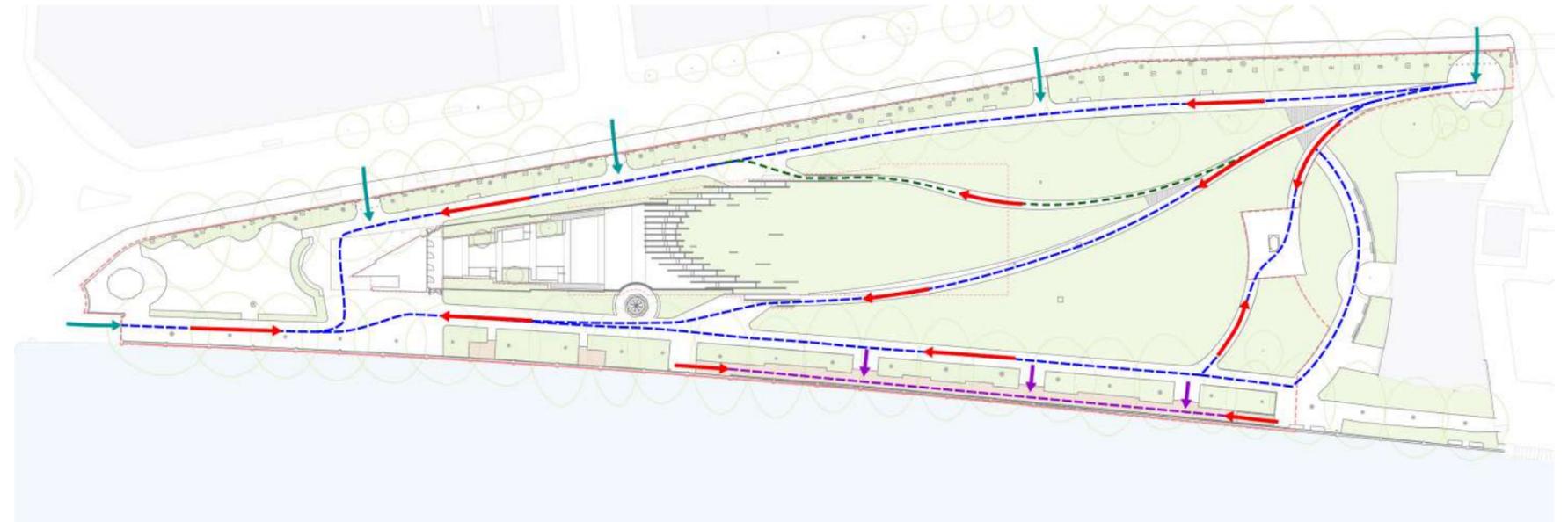


FIG 6.4.1 PROPOSED PLAN OF PATH NETWORK AND CONNECTIONS

- ELEVATED BOARDWALK
- GREEN PATH
- MAIN ROUTE
- ACCESS POINTS
- ASSECCIBLE PARK PATH UNDER 5%

6.5 Landscape Masterplan Concept
Improving the river views - Central Path

6.5.1 At the path's mid-point one's view is lifted above the Embankment wall to views of shimmering light reflected off the waters of the River Thames. At this high point, a long stone bench to the landform side of the path, provides a place to rest and enjoy the view.

6.5.2 A secondary path accesses the landform behind the bench. The grass of the landform is accessible, and provides a location to gather as a group or enjoy individually.

6.5.3 The view south towards the Buxton Memorial encourages the visitor onward. The memorial's colourful spire remains on axis and in view from Dean Stanley Street and St John Smith Square, but has been given spatial significance within the park with a generous circular stone bench. A space to gather and contemplate both the Buxton Memorial, and adjacent UK Holocaust Memorial.

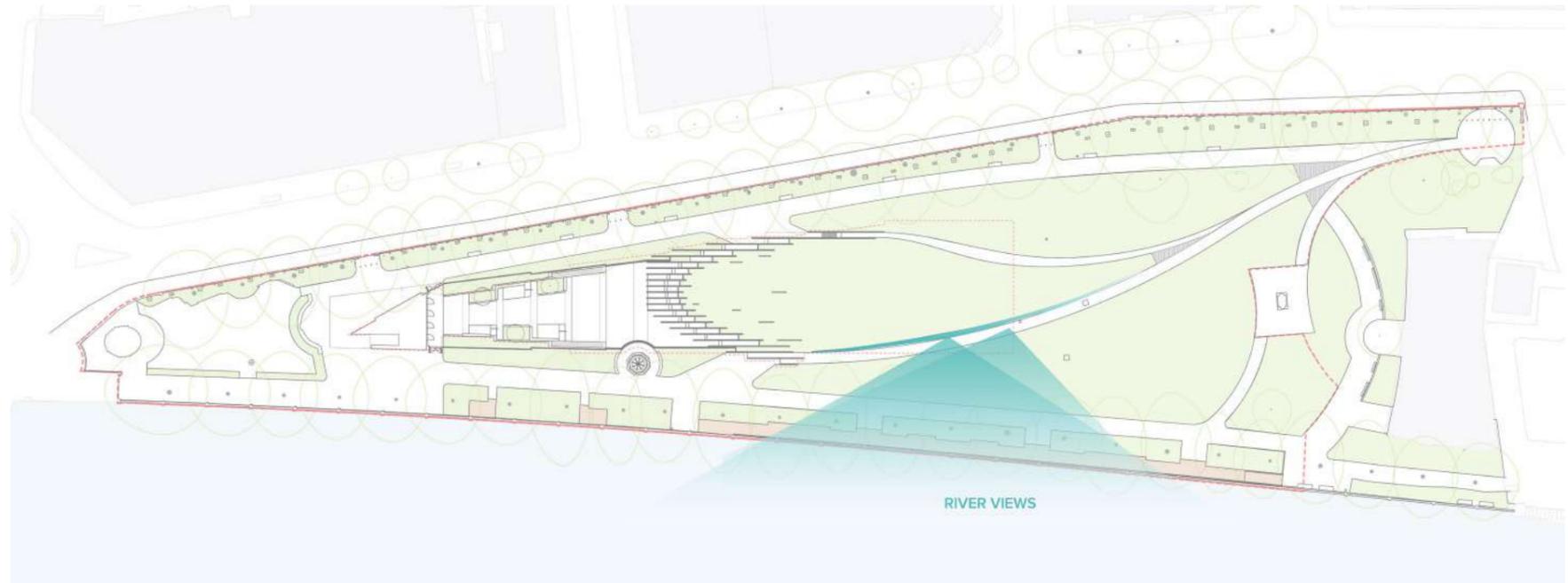


FIG 6.5.1 PROPOSED SITE PLAN OF CLEAR VIEW TO THE RIVER THAMES FROM DIAGONAL PATH

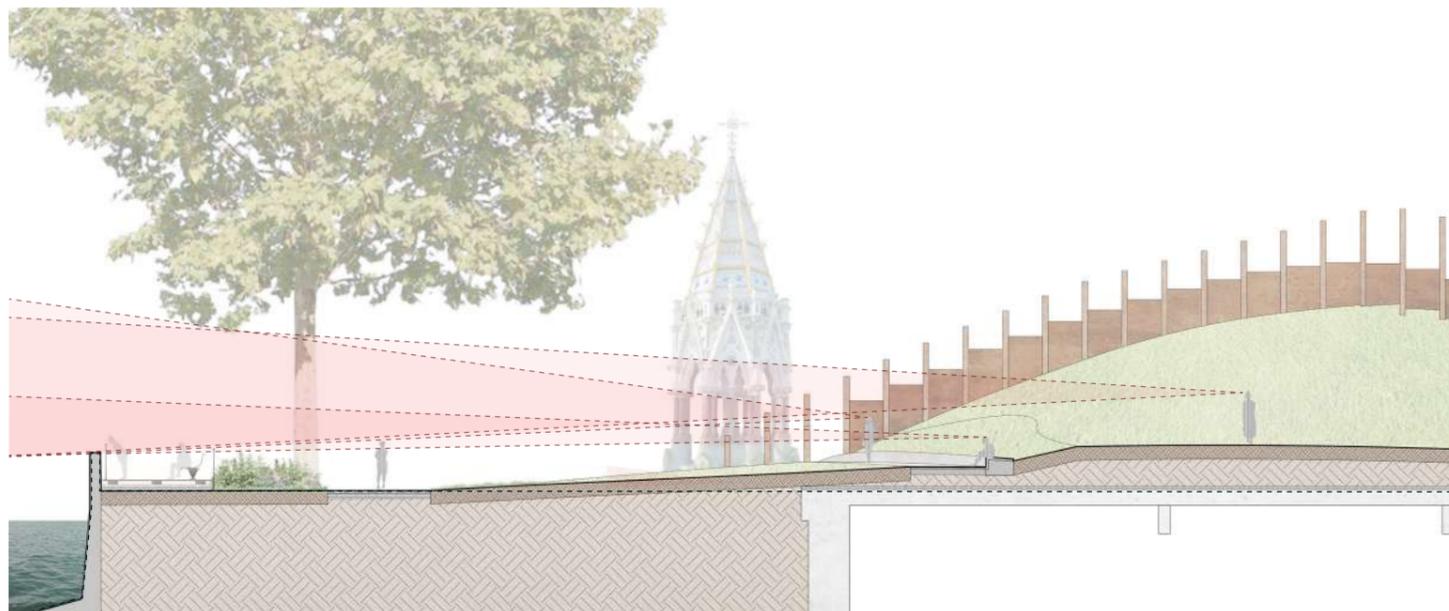


FIG 6.5.2 CROSS SECTION OF CLEAR VIEW TO THE RIVER THAMES FROM DIAGONAL PATH



FIG 6.5.3 INDICATIVE VIEW FROM DIAGONAL PATH

6.0 Landscape Proposals in Detail

6.6 Landscape Masterplan Concept Improving the river views - Boardwalk

6.6.1 A key experience of Victoria Tower Garden is the enjoyment of the River Thames in a natural environment. The eastern edge of the park, provides a sheltered walk beneath the mature Plane trees. Unfortunately the height of the Embankment Wall prevents this view from being enjoyed by a large portion of the public.

6.6.2 The proposed boardwalk raises the ground level by 500mm approx, and creates a new datum along which all visitors can look above the Embankment wall. The route is accessed by gentle ramps (<5%) at either end, and a series of three short stepped approaches provide secondary connections onto it.

6.6.3 Along the length of boardwalk, seating provides the opportunity to pause and linger, enjoying the view out.

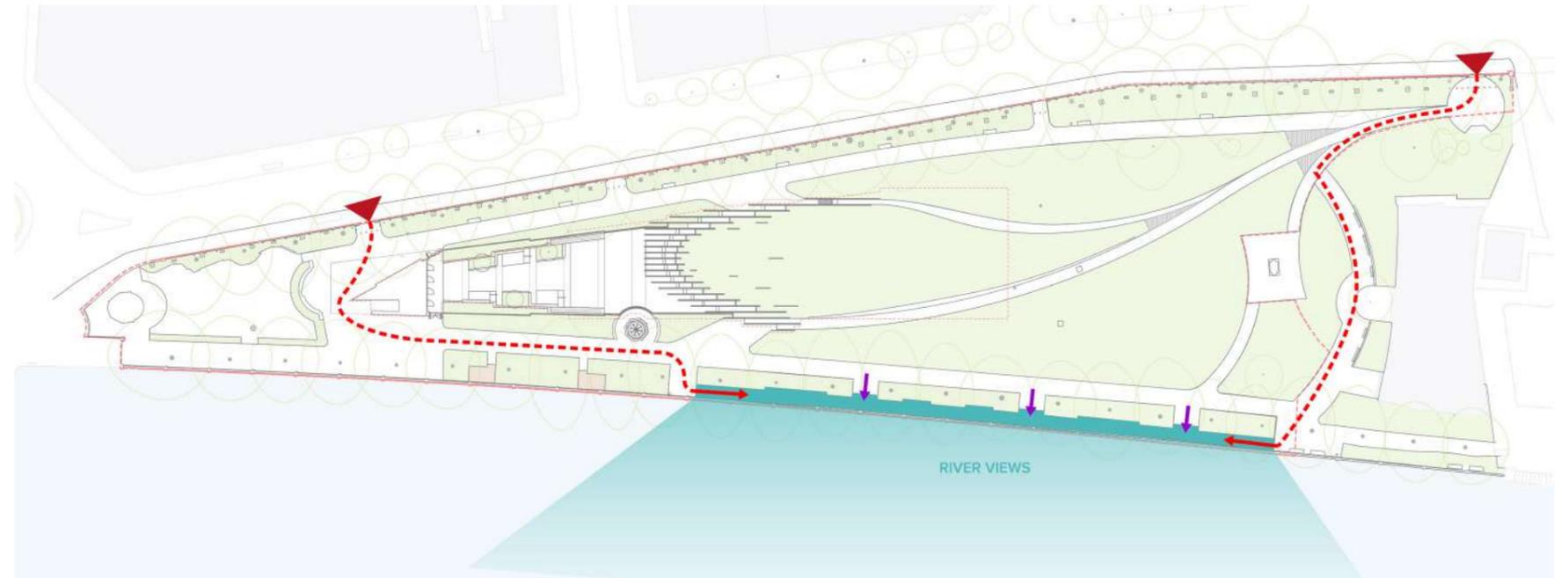


FIG 6.6.1 PROPOSED PLAN OF CLEAR VIEW TO RIVER THAMES FROM BOARDWALK



FIG 6.6.2 CROSS SECTION THROUGH BOARDWALK



FIG 6.6.3 INDICATIVE VIEW ON BOARDWALK

6.7 Landscape Masterplan Concept

Landform, views towards the Victoria tower

6.7.1 During the dry summer months, the grass slope will become a favourite resting point from which to observe the movement of visitors around the park, the views of the River Thames and back across the park to the Burghers of Calais and the impressive presence of the Victoria Tower and the Palace of Westminster.

6.7.2 The raised levels of the landform at the southern end of the site, meet the tall protruding bronze of the UK Holocaust Memorial, creating a new striking elevation when viewed from the south.

6.7.3 The levels above ground are +9m (approx) but the profiling of the bronze fins, sloping towards the west and east, maintain good sightlines from all path routes towards Victoria Tower.

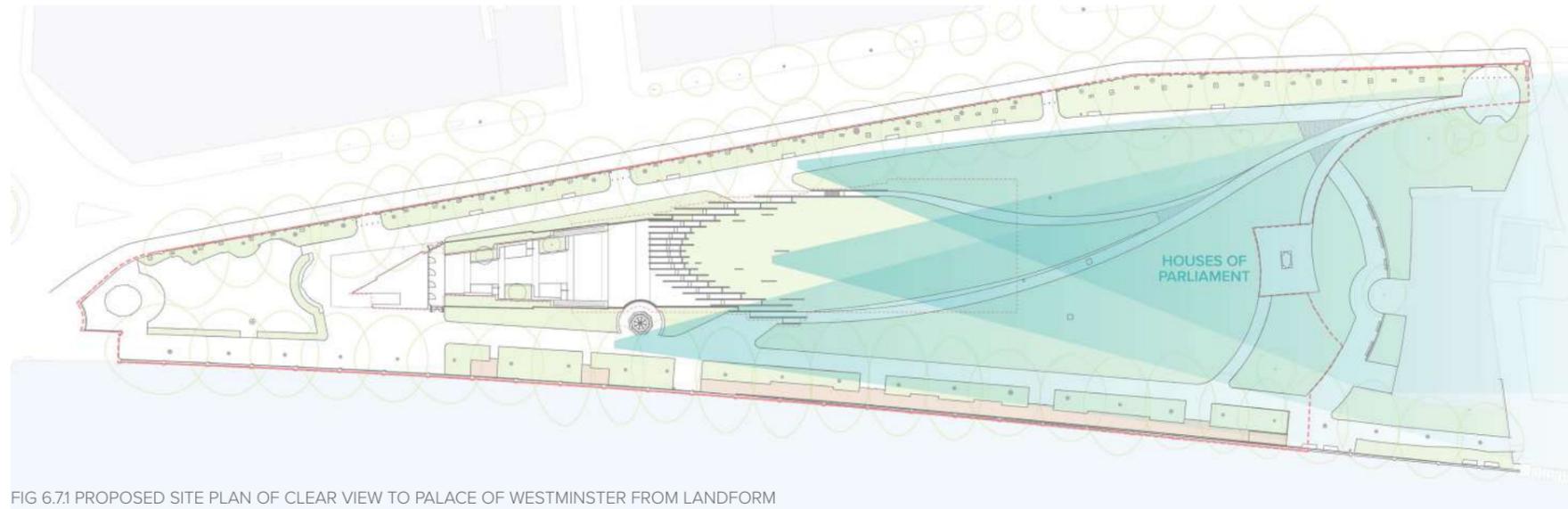


FIG 6.7.1 PROPOSED SITE PLAN OF CLEAR VIEW TO PALACE OF WESTMINSTER FROM LANDFORM



FIG 6.7.2 INDICATIVE VIEW TO PALACE OF WESTMINSTER FROM LANDFORM

6.0 Landscape Proposals in Detail

6.8 Landscape Masterplan Concept Activity

6.8.1 Victoria Tower Garden is located at a key junction in Westminster, where the tourist/office hub meets the quieter residential streets. Therefore, it has a dual character that ebbs and flows through the week, supporting a wide range of activities.

6.8.2 The primary use of the park is a place to walk, either through, towards another destination, or as a full circuit (0.5km). It is popular with dog walkers too.

6.8.3 The proposed landscape masterplan retains this key function, and enhances it through improved surfacing, and a range of accessible seating locations throughout the park, increasing beyond the current provision. This will allow a range of locations to relax or enjoy food and refreshments.

6.8.4 The reconfigured playground / cafe kiosk relationship is improved, and seating provided in this sunny location at the south of the site.

6.8.5 The retained open grass lawn will still be able to continue hosting events, including the annual Luna cinema.



1. CAFE SPILLOUT AREA
2. PLAYGROUND
3. UKNHM COURTYARD - OUTDOOR EVENT SPACE
4. LAWN - PICNIKING, PLAY AREA
5. LUNA CINEMA LAYOUT

FIG 6.8.1 PROPOSED PLAN OF POTENTIAL PROGRAMMING ACROSS VICTORIA TOWER GARDEN



FIG 6.8.2 PLAYGROUND AT VICTORIA TOWER GARDENS



FIG 6.8.3 LUNA CINEMA AT VICTORIA TOWER GARDENS



FIG 6.8.3 VICTORIA TOWERS GARDENS LAWN



FIG 6.8.4 DEDICATION CEREMONY OF THE UNITED STATES HOLOCAUST MEMORIAL MUSEUM

6.0 Landscape Proposals in Detail

6.9 Landscape Proposal Landform

6.9.1 As the primary natural landscape feature in the design proposals, a considerable amount of thought and consideration has been given to the landform that forms part of the UK Holocaust Memorial.

6.9.2 The UK Holocaust Memorial entrance has been very purposefully orientated towards the south, leaving the park to remain as a park for local people. To screen the entrance the landform will lift with a shallow slope and at around 145 metres from the the Burgher's of Calais, it will create an amphitheatre view to the Thames and Parliament. On entering the park from the north, the landform will create a distant, simple grass backdrop, that will screen traffic on Lambeth Bridge as it turns on to Millbank

6.9.3 We have chosen a palette of natural materials for the integrated features that have an organic quality, and that are informed by, but do not replicate or mimic, historical references and precedents.

6.9.4 A great part of the UKHMLC's exterior materiality is simply the continuation of the natural materials of the park, ensuring an elegant integration with the landscape. The materials are capable of engaging visitors across all their senses – through colour, tactile experience and all the emotions and associations these provoke.



FIG 6.9.1 DETAIL OF UKHMLC INTEGRATION WITH LANDSCAPE



FIG 6.9.2 LANDFORM



FIG 6.9.3 LAWN PATH DETAIL



FIG 6.9.4 PERMEABLE PERIMETER PATH



FIG 6.9.5 STONE SEATING WALL



FIG 6.9.6 STONE SETT PATH



6.9.7 PERIMETER HEDGE

6.9 Landscape Proposal
Landform

6.9.5 The gradients have been analysed and designed, to balance the needs of utility, access and buildability. To the north, where the lawn connects into existing levels, it is most shallow. This supports the continuing daily activities of visitors in this sunnier, open lawn location.

6.9.6 The landform grades in both directions, linking into the primary diagonal path and bench in the centre of the space. Beyond this bench, there is a plateau that then rises again towards the bronze Memorial fins.

6.9.7 The landform, positioned above the Learning Centre, is effectively the roof of the building. The structural design supports the loading of landform build up, which includes an attenuation drainage layer that will also provide passive irrigation to the lawn above.

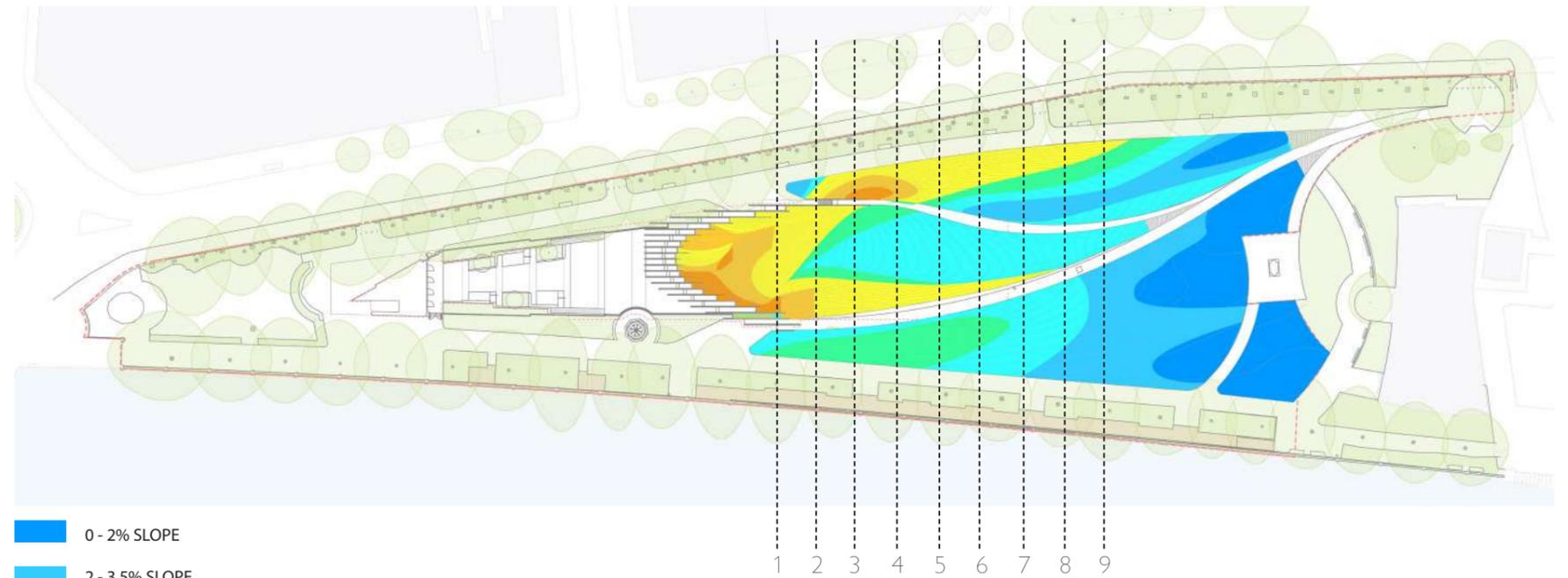
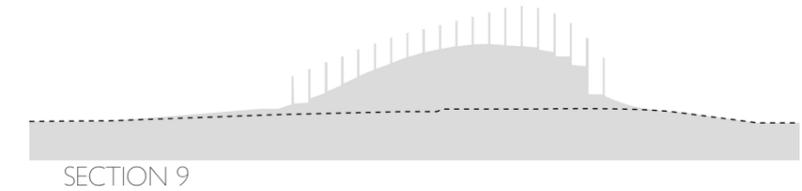
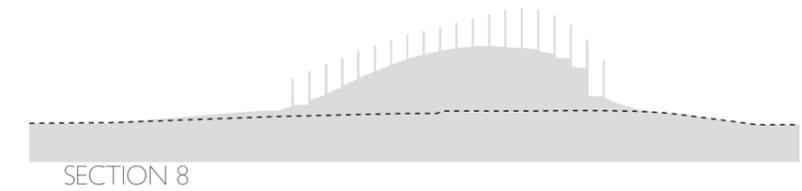
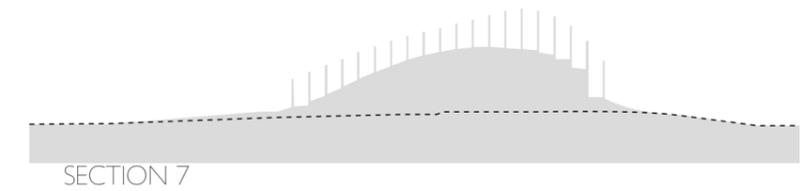
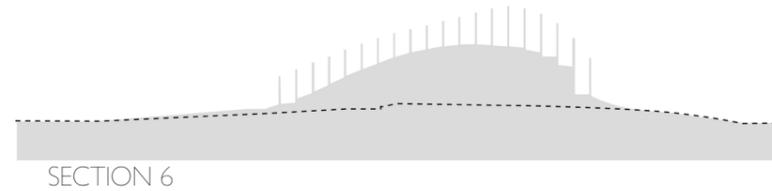
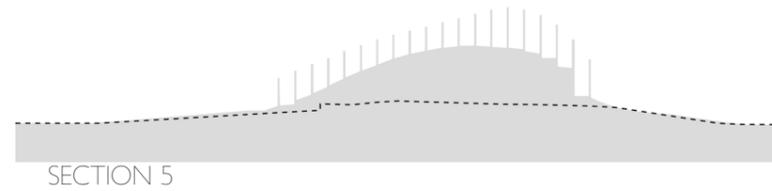
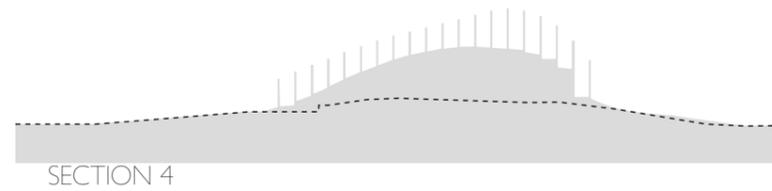
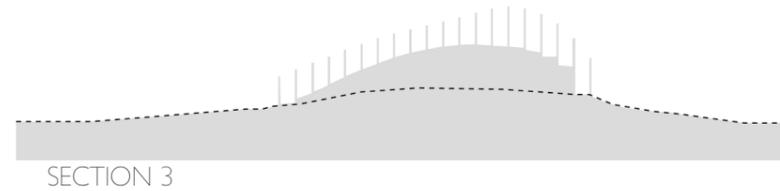
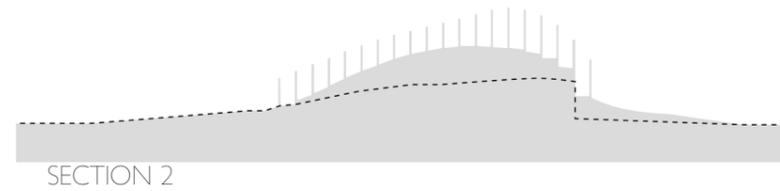
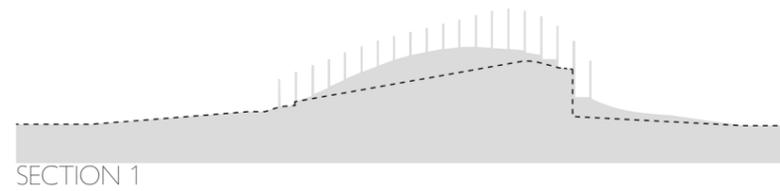


FIG 6.9.8 LEVEL CHANGES ACROSS LAWN AND LANDFORM



6.10 Landscape Proposal Memorial Entrance Courtyard

6.10.1 The Courtyard in front of the UK Holocaust Memorial provides a moment of pause and reflection on the purpose of the Memorial and the tragedy it represents.

6.10.2 This is an immediate experience, and the physical separation of the Courtyard from the rest of the park allows the visitor or group, to leave the wider city and environment behind and focus on this moment.

6.10.3 The design proposals recognise the potential for such a space to feel distant from Victoria Tower Gardens, and therefore it has been designed with a dual character. The perimeter has been landscaped with layers of planting to provide a natural screen, and frame the perimeter path which is closest at this point

6.10.4 A series of gently sloping stone terraces guides the visitor towards the openings between the bronze fins. The Courtyard descends 2m below adjacent ground level.

6.10.5 Internally the planting creates pockets of seating from which to view the Memorial. The landscape softens the railing boundary edge, reducing its visual impact on both the park and the Courtyard.

6.10.6 The geometry of the space is intentionally interrupted to create a circular retaining wall to the Buxton Memorial at park level. The low railing, and omission of planting in this location, creates a strong visual presence in the Courtyard below, retaining the axial view with Dean Stanley Street.



FIG 6.10.1 VIEW LOOKING NORTH TOWARDS PALACE OF WESTMINSTER FROM MEMORIAL COURTYARD

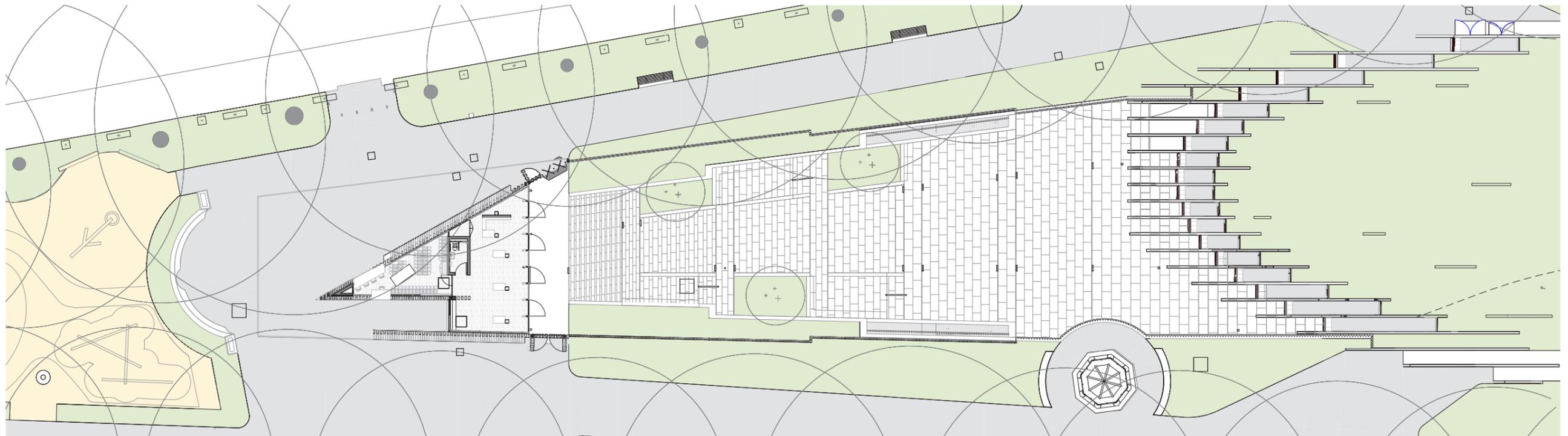


FIG 6.10.2 MEMORIAL COURTYARD PLAN



FIG 6.10.3 MEMORIAL COURTYARD LONG SECTION

6.11 Landscape Proposal Embankment Boardwalk

6.11.1 The wider Victoria Tower Garden landscape strategy aims to improve the experience of the park for residents and visitors. A key feature is the proximity of the River Thames. Presently, the high pedestals for the benches can make the enjoyment of the view difficult for many.

6.11.2 A wide boardwalk of marine grade timber is elevated off the existing ground level. Accessed at both ends by gently sloping links, it is possible for people of all abilities to use.

6.11.3 Along the length of the Embankment Boardwalk, are sections of seating. Designed with armrests, and other ergonomic support features, it caters for a range of ages and abilities.

6.11.4 A simple handrail and balustrade is integrated to limit visible obstacles to the views out when sitting.

6.11.5 Where there is currently impermeable tarmac surface, layers of dense shrubs and perennials are proposed between the Boardwalk and the perimeter path.



FIG 6.11.1 INDICATIVE VIEW OF BOARDWALK AND SEATING AREAS

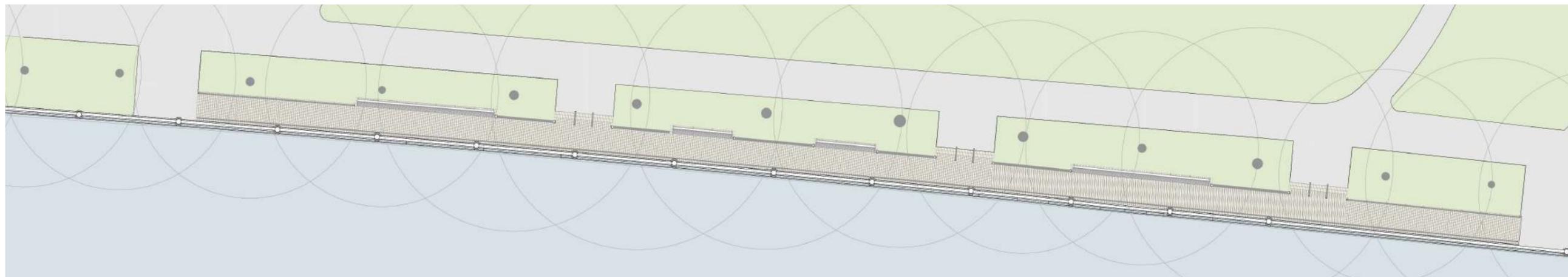


FIG 6.11.2 PLAN OF BOARDWALK AND SEATING AREAS

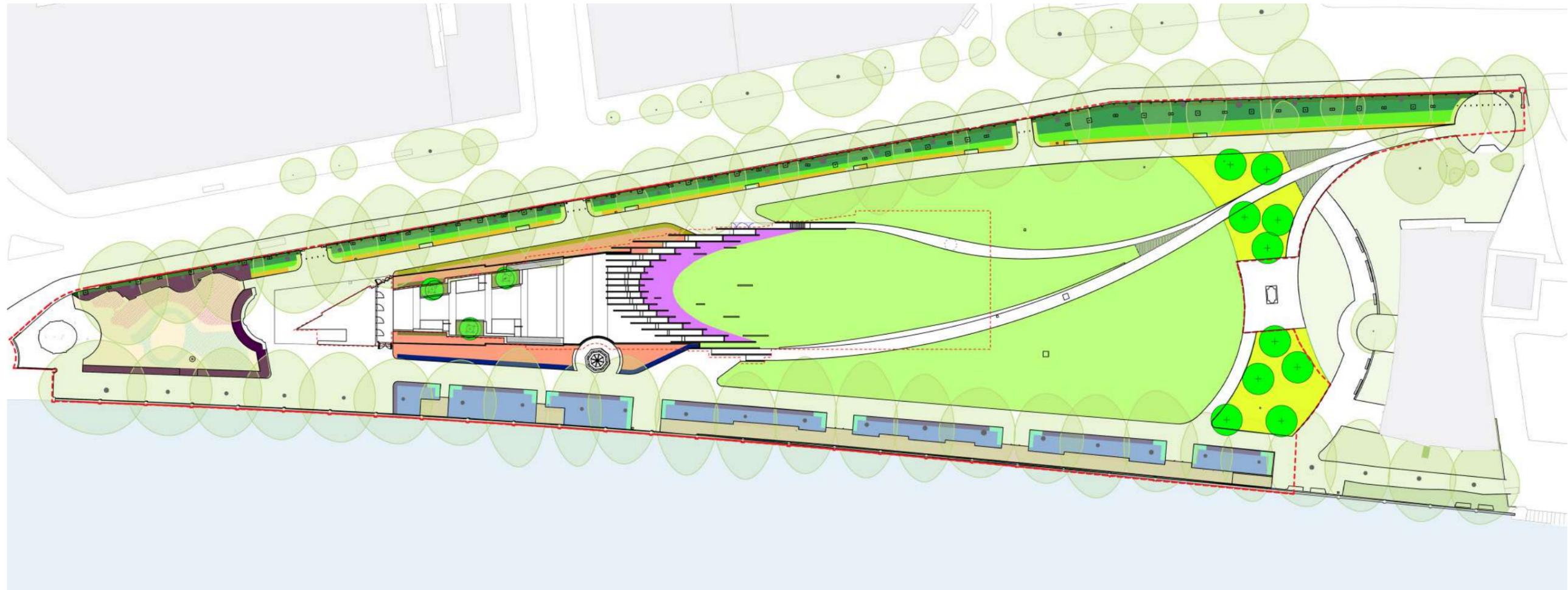
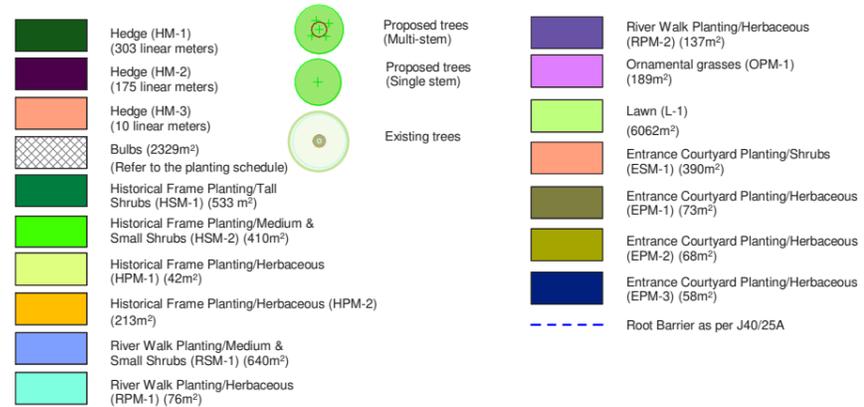


FIG 6.12.1 VICTORIA TOWER GARDEN PLANTING PLAN



6.0 Landscape Proposals in Detail

6.12 Sitewide Planting

6.12.1 The planting through Victoria Tower Garden is currently a mixture of dense, evergreen shrubs and areas of ornamental flowering plants. As previously described, the environmental conditions across the site vary a lot, and therefore the potential planting palette will also change depending on the location, particularly beneath the existing London Plane trees.

6.12.2 The proposals aim to unify the character and aesthetic of Victoria Tower Garden, and create layers of experience from outside to in, that orientate and enclose the visitor.

6.12.3 It is proposed that new features in the landscape, such as the boardwalk and the Entrance Courtyard, are both screened and open, providing views through but creating moments of intimacy for those needing respite from the busy cityscape outside the park.

6.12.4 Following the submission of the planning application, the team developed the detailed landscape plans. The different character areas were developed, and planting palettes refined.

6.12.5 More detailed work latterly (following the call-in) has led to the conclusion that two trees within the lawn area along west side of VTG would be removed. This is in response to the current condition of the trees and the changes in adjacent ground levels. The larger Wild Cherry (ref:71027) is in particularly poor condition and together with the smaller Crab Apple (ref:71028) is considered to have limited future potential.

6.12.6 The intention is to remove them, and install 13 new trees elsewhere within the scheme. A variety of flowering trees are proposed for the Memorial Entrance Courtyard, and in the wider park landscape. The placement and character of these trees would complement the existing features of the park.

6.12.7 The final detail would of course fall to be approved under a landscaping condition should planning permission be granted; the plan opposite shows the potential locations within the scheme for the replacement trees.



FIG 6.12.2 VIEW LOOKING SOUTH FROM WEST SIDE OF VICTORIA TOWER GARDEN



6.12.2 VIEW LOOKING SOUTH FROM EAST SIDE OF VICTORIA TOWER GARDEN

6.13 Planting - Understory Millbank/Embankment

6.13.1 The two lines of existing mature plane trees creates considerable shade along both sides of Victoria Tower Garden. These two zones are where the majority of planting is currently proposed in deep planters.

6.13.2 The existing dense shrub planting provides a good buffer both visually and acoustically to Millbank. This is an unoccupied zone, always at a distance to the park visitors. Providing strong, evergreen backdrops frames the paths around the park, it ensures year round interest. The darker foliage will also provide a strong contrast to any flowering plants to the front.

6.13.3 It is proposed to maintain this structure, but introduce additional planting with more character and flowering potential. The width of planting beds allow for a good variety in species and scale to create strong interest and character.

6.13.4 Under the shade of plane trees along the river's edge, planting is soft, fresh, and green. Fern leaves peak out from beneath suspended benches, while garland ivy twines itself around the metal railings. In the spring, a froth of lime-green euphorbia bracts enlivens the space.



FIG 6.13.1 CROSS SECTION THROUGH WESTERN PERIMETER PATH



FIG 6.13.2 EPIMEDIUM X YOUNGIANUM *



FIG 6.13.3 LIRIOPE MUSCARI



FIG 6.13.4 SARCOCOCCA HOOKERIANA VAR.



FIG 6.13.5 HYDRANGEA PANICULATA 'BOMBSHELL'



FIG 6.13.6 EUPHORBIA AMY. VAR. ROBBIAE



FIG 6.13.7 AMSONIA TABERNAEMONTANA 'STORM CLOUD'



FIG 6.13.8 CHOISYA TERNATA



FIG 6.13.9 VIBURNUM DAVIDII



FIG 6.13.10 PITTSPORUM TOBIRA 'NANUM'



FIG 6.13.11 CROSS SECTION THROUGH EASTERN PERIMETER PATH



FIG 6.13.12 ADJUGA REPTANS



FIG 6.13.17 HELLEBORUS FOETIDUS



FIG 6.13.13 POLYSTICHUM



FIG 6.13.14 NEPETA RACEMOSA 'WALKER LOW'



6.13.15 PHLOX PANICULATA 'BLUE PARADISE'



FIG 6.13.16 ANEMONE NEMOROSA 'BLUE'



FIG 6.13.18 GERANIUM SYLVATICUM 'MAYFLOWER'



FIG 6.13.19 BRUNNERA MACROPHYLLA 'JACK'



FIG 6.13.20 PHILADELPHUS X LEMOINEI 'BELLE ETOILE'



FIG 6.14.21 SESLERIA

6.14 Planting /Memorial Courtyard

6.14.1 Within the heart of Memorial Entrance Courtyard there will always be an awareness of the Memorial's location, with the backdrop of the Palace of Westminster and Victoria Tower. The strength of this conceptual context requires a simple palette of planting along both sides of the Courtyard.

6.14.2 The loose perimeter hedge separates the visitor from the park goer in an informal, relaxed manner. These edges will also soften the boundary railing interface but will also allow a special character to be developed aligned with the subject of the Memorial itself.

6.14.3 While the Courtyard will be quite shady in the summer months, in winter it is expected to be considerably brighter. As Holocaust Memorial day falls in January, it is appropriate to consider a palette of plants which will bring interest and character into the landscape at this time of year.



FIG 6.14.1 CROSS SECTION THROUGH MEMORIAL COURTYARD



FIG 6.14.2 ANEMONE NEMOROSA 'VESTAL'



FIG 6.14.3 HELLEBORUS



FIG 6.14.4 LUZULA NIVEA



FIG 6.14.5 DAPHNE X BURKWOODII



FIG 6.14.6 VIBURNUM JUDII

6.15 Planting / Courtyard Perimeter planting

6.15.1 The perimeter between park and Courtyard is defined primarily as part of Victoria Tower Garden, with layers of planting and hedges providing interest and character to those passing along the perimeter pathway.

6.15.2 The planting height steps up towards the boundary railing, reducing its impact, and creating a natural backdrop when viewed from the courtyard. Internally the planting is more controlled and creates a different landscape character appropriate to the memorial context.

6.15.3 Along the path edge, it is proposed to introduce a deep band of perennial planting. This would be selected appropriate to the shady site conditions. The continuity of this band reinforces the importance of the path circuit connecting all parts of the park.

6.15.4 The planting palette is park orientated and for the enjoyment of the visitors to Victoria Tower Gardens.

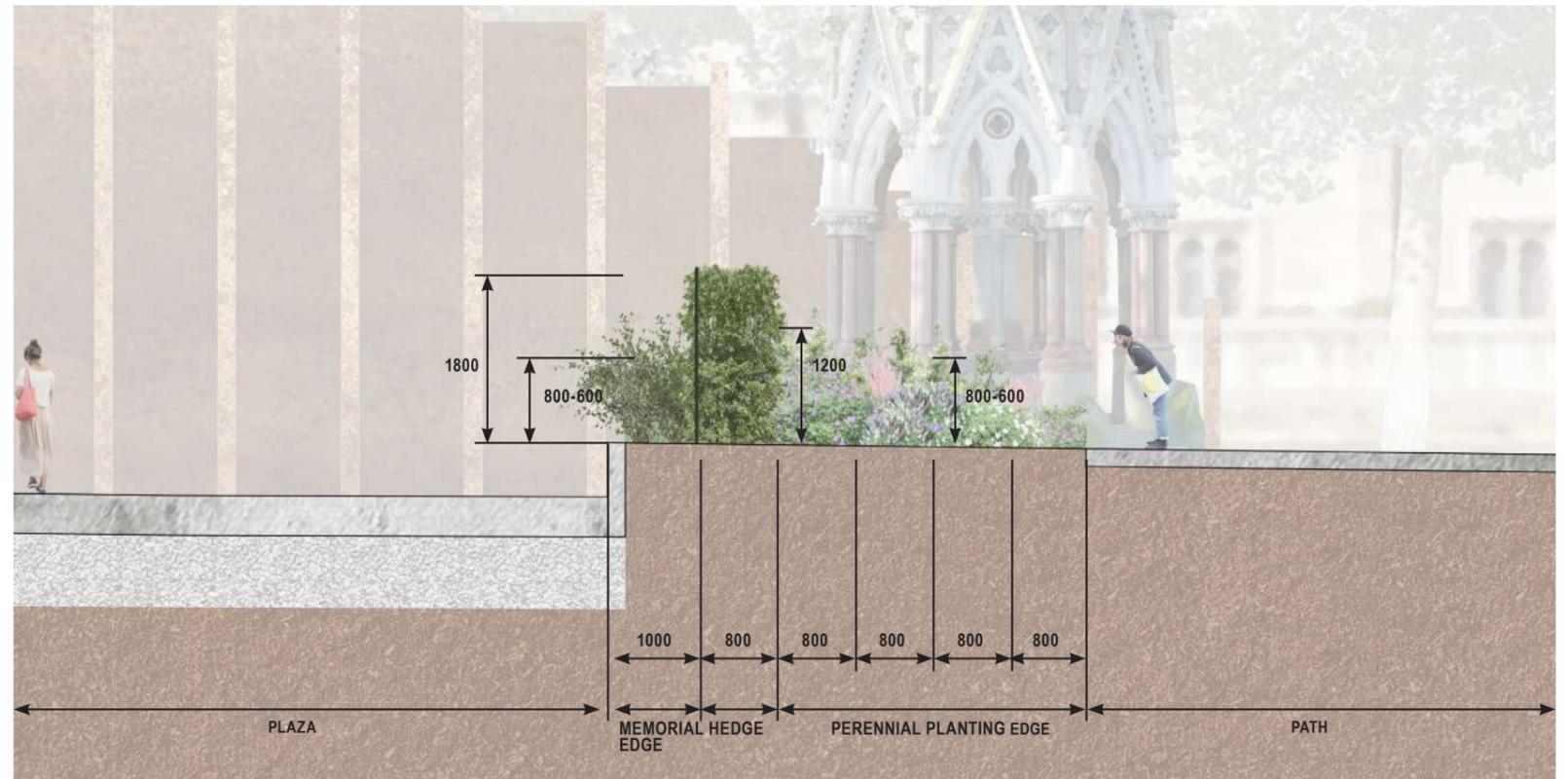


FIG 6.15.1 CROSS SECTION DIAGRAM OF PLANTING AT PERIMETER OF MEMORIAL COURTYARD



FIG 6.15.2 SARCOCCOCA CONFUSA



FIG 6.15.3 DRYOPTERIS ERYTHROSA



FIG 6.15.4 PHLOX PANICULATA 'WHITE ADMIRAL'



FIG 6.15.5 PERSICARIA AMPLEXICAULIS 'ALBA'



FIG 6.15.6 ANEMONE X HYBRIDA 'HONORINE'JOBERT'



FIG 6.15.7 OMPHALODES CAPPADOCIA 'CHERRY INGRAM'



FIG 6.15.8 GERANIUM SYLVATICUM 'ALBUM'



FIG 6.15.9 THALICTRUM DELAVAYI



FIG.15.10 HYDRANGAEA PANICULATA



FIG 6.15.11 HYDRANGAEA ARBORESCENS 'ANABELLE'



FIG 6.15.12 SYMPHYOTRICHUM 'LITTLE CARLOW'

6.16 Sitewide / Materiality proposal

6.16.1 The landscape design is defined by the form and function of the landform responding to the design of the UKHMLC. Set within an existing park, it is intended that the landscape proposals integrate seamlessly with interfaces at the edge of the site boundary.

6.16.2 The palette for the project is limited so as to maintain a focus on the importance of the bronze UK Holocaust Memorial. The primary diagonal path sweeps across the park, bringing visitors on a journey past other monuments, some of which are also bronze.

6.16.3 The path is specified as granite, laid with small setts, for both quality of finish and robustness. The scale sits comfortably within the main lawn. Other secondary routes through the landform as proposed as permeable bound gravel, naturalised as much as possible into the grass.

6.16.4 The Embankment Boardwalk uses two materials, iroko timber and marine grade brushed stainless steel. The structure is robust but can be dismantled to allow any works to the Embankment wall.

6.16.5 Within the Memorial Entrance Courtyard, the scale and quality of the natural stone paving is enlarged in response to the scale of the space. The walls, steps and seating areas are in the same stone finish creating a singular quality of space.

6.16.6 The metalwork of the railings is dark along the perimeter of the courtyard. This ties in with the language of the wider park railings. The form is slim to reduce visual impact when looking across the Courtyard.

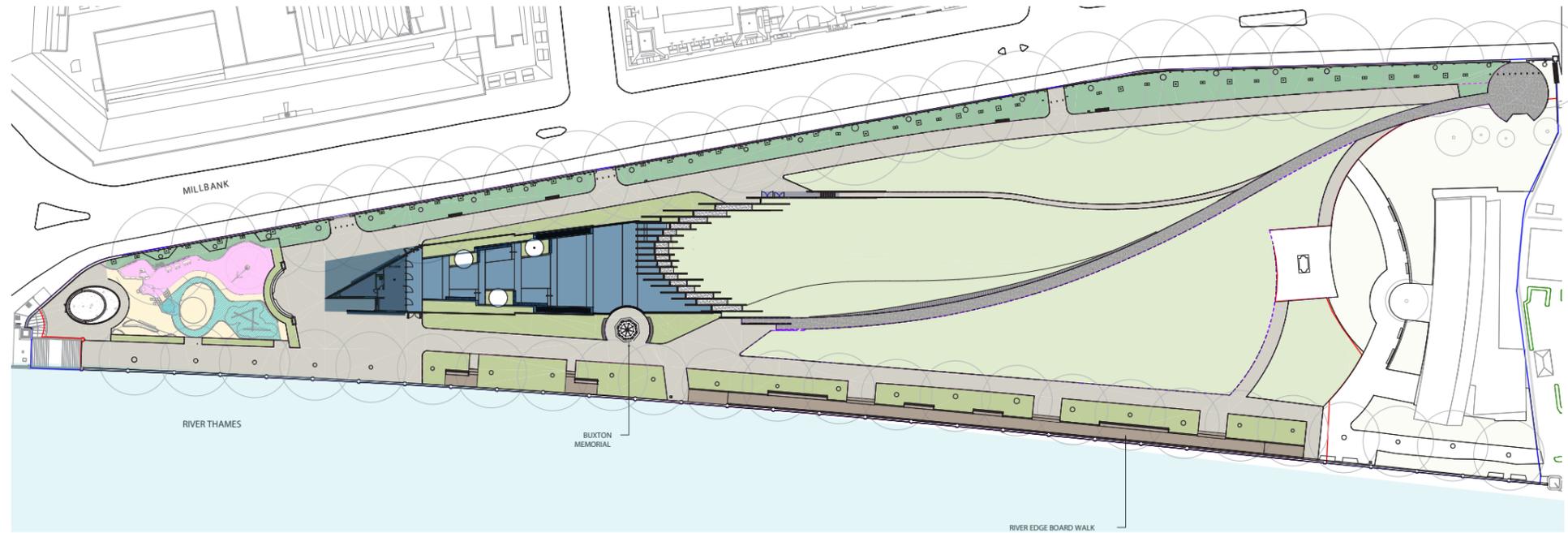


FIG 6.16.1 PROPOSED MATERIAL PLAN ACROSS VICTORIA TOWER GARDEN

ENTRANCE PAVILION
STONE CLADDING



FIG 6.16.2 KILKENNY
LIMESTONE - HONED

COURTYARD STONE PAVING /
CLADDING



FIG 6.16.3 KILKENNY
LIMESTONE - FLAMED

COURTYARD SECURITY
RAILING



FIG 6.16.4 BLACK
STEEL

EXTERNAL
STAIRCASE PAVING



FIG 6.16.5 ADDASET
RESIN BOUND, SILVER
GRANITE

STONE BENCHES
CLADDING



FIG 6.16.6 AMERICAN MIST
- SAND BLASTED FINISH

PERMEABLE RESIN
BOUND GRAVEL



FIG 6.16.7
AMERICAN MIST
- SAND BLASTED

BOARD-WALK



FIG 6.16.8 WOOD
FINISH HANDRAIL/
BENCHES IROKO
WOOD

FIG 6.16.9 IROKO
WOOD DECK
BOARDS /
200X25MM

MAIN PATH
PAVING / SOUTH



FIG 6.16.10 AMERICAN
MIST 100X100MM -
FLAMED FINISH

6.0 Landscape Proposals in Detail

6.17 Sitewide/ Proposed furniture

6.17.1 Through the wider park landscape, it is proposed to reutilise and upgrade the existing park benches where feasible. These will be integrated into new planting beds to maintain the seating provision along the Millbank perimeter path.

6.17.2 Currently the condition of the lawn limits is occupation to the driest months. It is also not possible for all users to walk across a lawn or sit down upon it.

6.17.3 New seating is proposed adjacent to the diagonal stone path. Proposed in the same granite as the path, this low wall of seating height will allow all visitors to enjoy the sunny centre of the lawn in all weathers.

6.17.4 Timber benches are integrated into the Embankment boardwalk. This provides a relaxing, quieter place to sit and enjoy the view out to the river.



1. ELEVATED BOARDWALK
2. ELEVATED SEATING AREA
3. CENTRAL PATH STONE BENCH
4. BUXTON MEMORIAL STONE BENCHES
5. RESORED EXISTING PARK BENCHES

FIG 6.17.1 PROPOSED PLAN OF FURNITURE ACROSS VICTORIA TOWER GARDEN

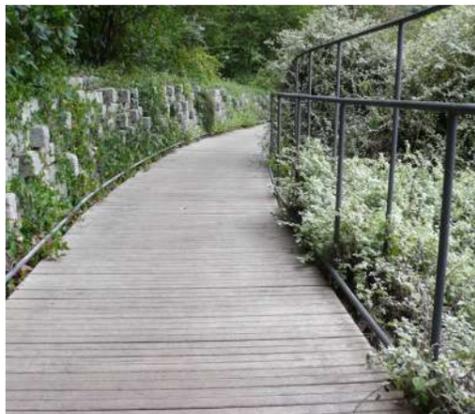


FIG 6.17.2 ELEVATED TIMBER BOARDWALK



FIG 6.17.3 STONE BENCH



FIG 6.17.4 EXISTING PARK BENCH



FIG 6.17.5 PROPOSED BIN

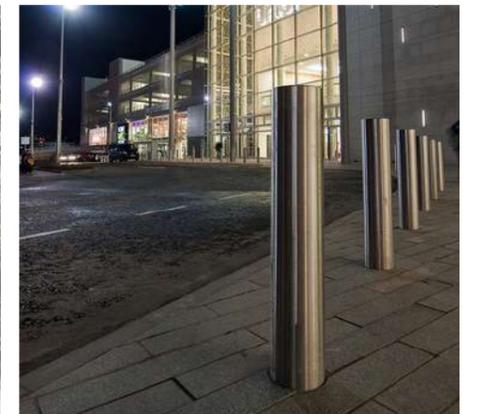


FIG 6.17.6 PROPOSED ENTRANCE

6.18 Sitewide/ Landscape Structure Details

6.18.1 Using the tree root survey information, it was possible to develop details for the structural foundations of elements in the landscape that would not require pruning of roots.

6.18.2 The strategy is to provide a high degree of flexibility so that should tree roots be uncovered during the initial hand dig, it is possible to avoid rather than prune.

6.18.3 The foundations for buildings such as the Entrance Pavilion and Cafe, will be profiled to approximately 300mm, possible through the use of piles. As both are in areas of high density of tree roots, this is a key design strategy.

6.18.4 Foundations for low benches, street furniture, railings and the Spicer Memorial have been minimised by the use of cell web to form the sub base. It is not anticipated that these foundations will be greater than 300mm.

6.18.5 Pad foundations rather than strip foundations will be proposed throughout, and the final locations proven through a hand dig survey to ensure no trees roots are impacted upon. This is aligned with the guiding principles of BS:5837 (CD4.16) and NJUG Vol.4 (CD 4.15)

6.18.6 A draft Arboricultural Method Statement (AMS) has been prepared to illustrate the feasibility of some of the landscape proposals. It requires the input of a main contractor to complete and coordinate with the other works.

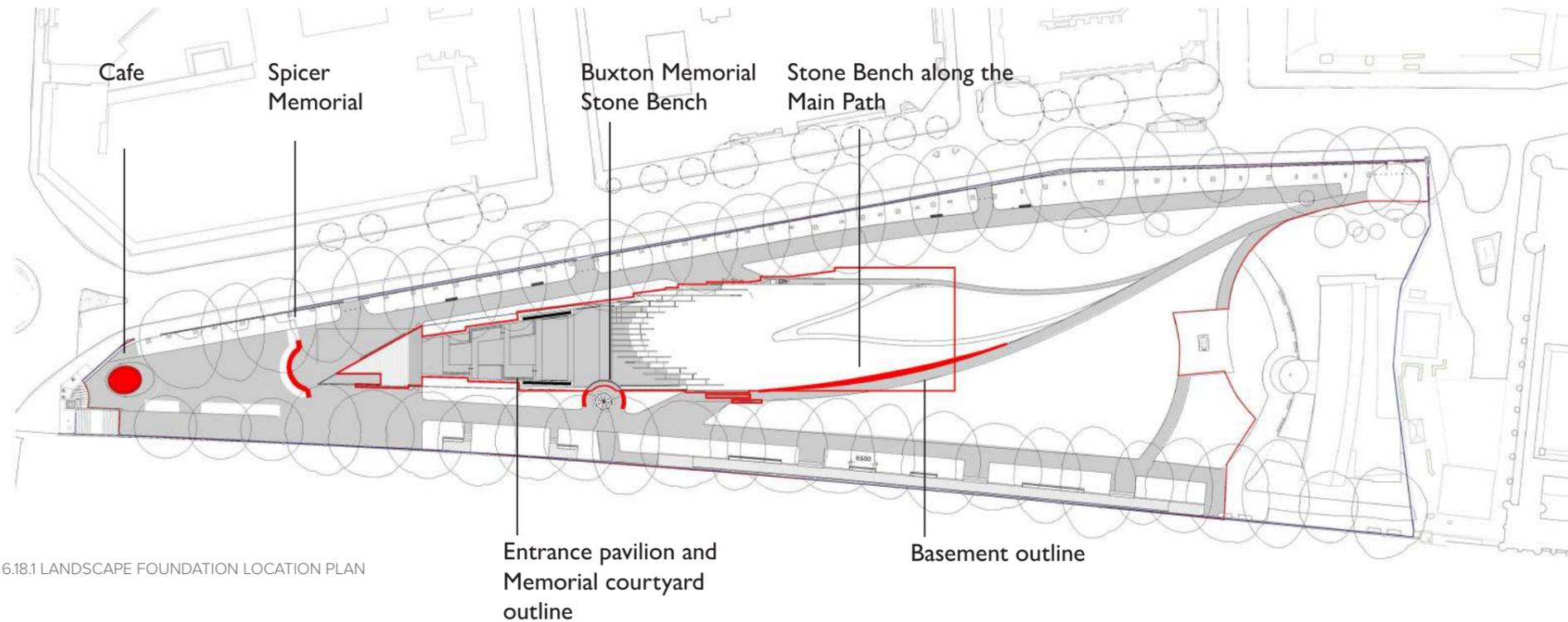


FIG 6.18.1 LANDSCAPE FOUNDATION LOCATION PLAN

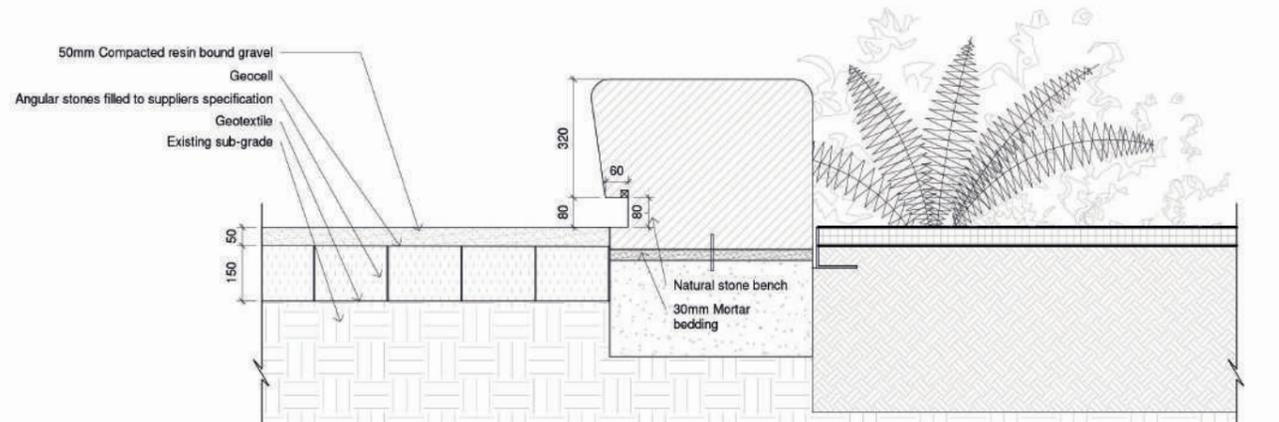


FIG 6.19.2 BUXTON MEMORIAL STONE BENCH TYPICAL DETAIL

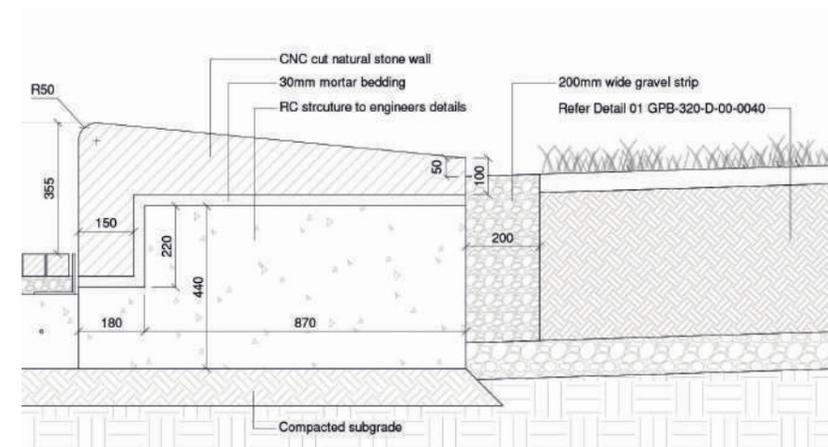


FIG 6.18.3 STONE BENCH ALONG THE MAIN PATH TYPICAL DETAIL

6.0 Landscape Proposals in Detail

6.19 Sitewide/ Permeable Material Details

6.19.1 Currently the hardscape for Victoria Tower Garden is specified to an impermeable asphalt. It is noted that this creates an inhospitable environments for root growth and forms a large area of the majority of RPA's.

6.19.2 The design proposals have always supported the maximisation of permeable surfaces throughout the garden whether as increased planted areas or permeable bound gravel or paving.

6.19.3 Trench surveys have identified that the typical build up for existing hard surfaces is between 400-600mm of compacted material.

6.19.4 The construction of the hard surface for the paths and paving will utilise a cellular confinement system such as Cell Web.

6.19.5 It is proposed to minimise the new permeable path profile which is typically 200mm, and introduce better quality sub soils beneath these. This forms part of the mitigation strategy proposed by Bartlett Tree Experts to improve the growing condition adjacent to the trees.

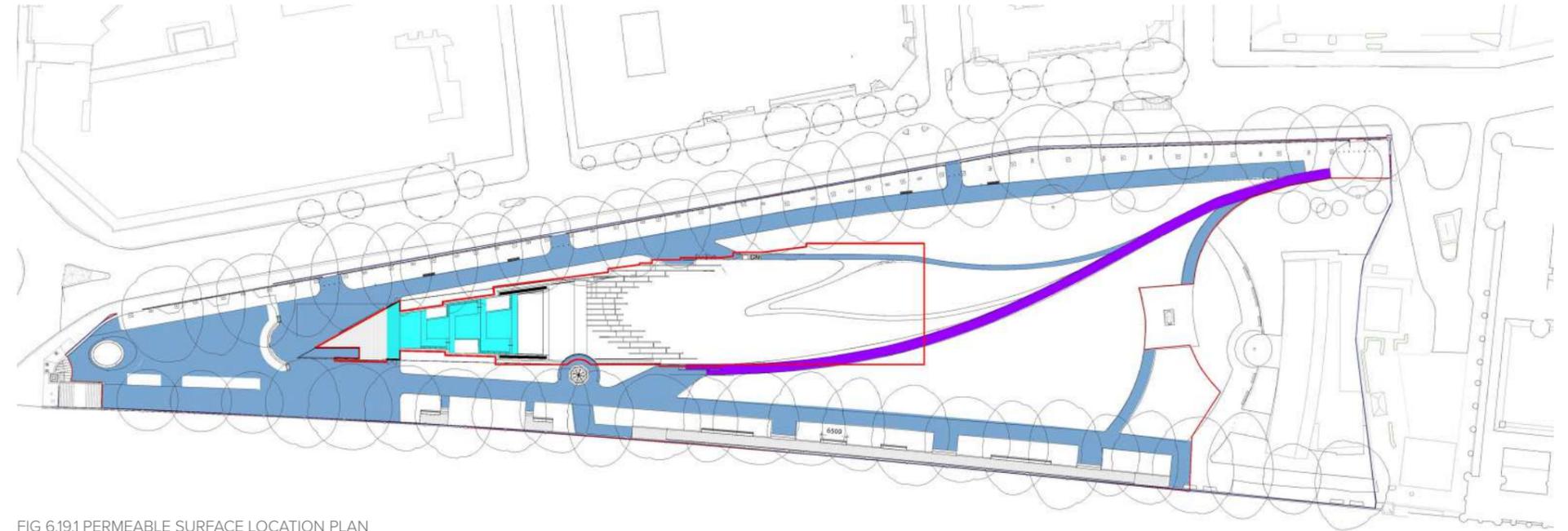


FIG 6.19.1 PERMEABLE SURFACE LOCATION PLAN

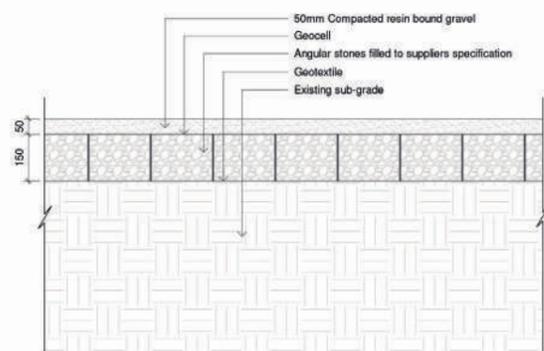


FIG 6.19.2 PERMEABLE PATH TYPICAL DETAIL

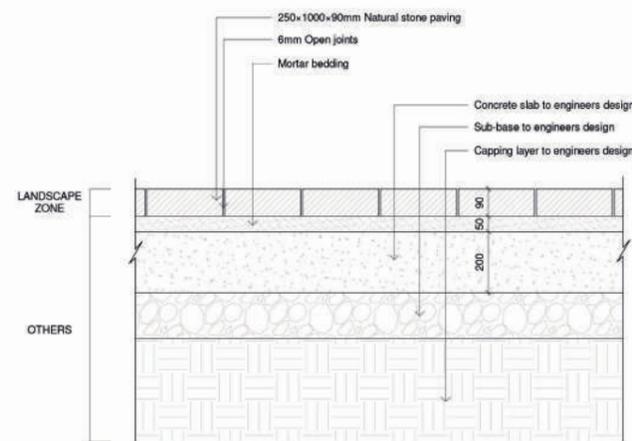


FIG 6.19.3 COURTYARD STONE PAVING TYPICAL DETAIL

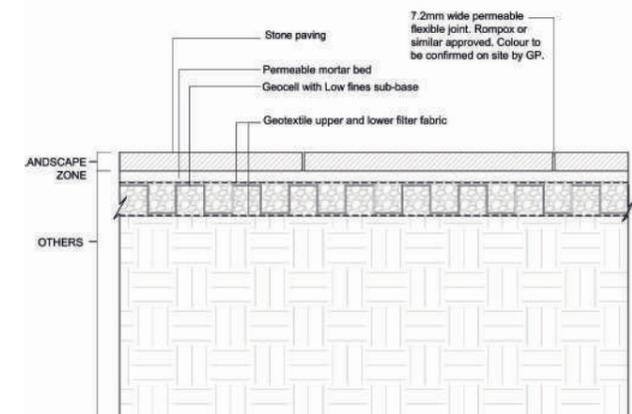


FIG 6.19.4 MAIN PATH STONE PAVING TYPICAL DETAIL

7.0 Response to reason for refusal

7.0 Response to reasons for refusal

7.1 Response to reasons for refusal

7.1.1 Throughout the design period of the project, the team has undertaken extensive stakeholder consultation to understand any concerns raised by interested parties, but also to communicate the design proposals and the benefits this project will bring to all park users. Between specialist focus groups and wider public consultations, the team has developed a strong understanding of the daily use of Victoria Tower Gardens, and the issues that are most important to the local residents as well as The Royal Parks.

7.1.2 Following the submission of the planning application, many supporters and objectors made formal comments on the proposals (CD 5.11). It was evident that those who objected to the project had a number of reoccurring themes, many of which focused on the potential impact the design proposals would have on Victoria Tower Gardens.

7.1.3 We have collated the primary themes below and addressed the substantive point that each makes:

7.1.4 Objectors states that there are already too many monuments and memorials in Victoria Tower Gardens, and there is no space for another:

7.1.4.1 The total site is 2.5ha in size, almost 4 times the size of nearby Parliament Square, and 6 times the size of nearby St John's Square.

7.1.4.2 The existing four monuments and memorials are well separated spatially, over 200m between both groups located at either end of Victoria Tower Gardens.

7.1.4.3 The landscape design proposals have been conscientious in the setting proposed for each of the existing memorials. The key views to and from each have been retained and the setting enhanced by improved paving, planting and seating.

7.1.4.4 The proposed UK Holocaust Memorial was designed with consideration of the context of the adjacent Buxton Memorial. The scale and massing of the bronze Memorial fins respects this relationship and steps down to the eastern side where it is closest to the Buxton Memorial.

7.1.4.5 The spire of the Buxton remains taller than the UK Holocaust Memorial and remains visible from the main entrance of Victoria Tower Gardens and on axis with Dean Stanley Street.

7.1.5 The steepness of the slope means that the landscape will not be accessible to all or in all circumstances. It will be too steep for the elderly or infirm, or those with buggies, and will be unusable in wet weather.

7.1.5.1 The current park has a circuit pathway, that is uneven and broken in parts.

7.1.5.2 The lawn has compaction issues and outside of the drier months has ponding and draining problems.

7.1.5.3 The landscape design proposal introduces improved accessible pathways, and new routes to allow more universal enjoyment of VTG and in particular the sunny central lawn area which the current layout does not allow.

7.1.5.4 The landform is graded gently from north to south. With reference to Part M Building Regulations, and best practice accessibility guidance, it is possible for all users to comfortably access areas less than 1:20. These sections will sufficiently elevate the visitor above the current lawn areas and provide the same experience of views back across the site and out to the river.

7.1.5.5 The steeper areas of the landform, greater than 1:20, are open to the public, and would be of interest to children for play and others for rest.

7.1.5.6 The natural amphitheatre is intentional to provide a range of spaces for visitors of different abilities. The slopes provide natural viewing areas over the park or during events such as the Luna cinema.

7.1.6 The banked landscape completely destroys the historic flat layout of the gardens.

7.1.6.1 The development of the park had several iterations over 140 years before its current form and layout. For many decades, the current central lawn was planted with shrubbery, embankments and had a large circular feature in the middle of the space.

7.1.6.2 The historic original area of Victoria Tower Gardens (1879) up to the line of Great Peter Street remains open and relatively flat in the current proposal.

7.1.6.3 According to Historic England a large circular feature was present in the centre of the lawn until 1956

7.1.7 VTG is Grade II listed, it's existing status and ambience should be protected. The simple expanse of grass, created to give an uninterrupted view of the Palace of Westminster, will be destroyed by changes in level:

7.0 Response to reasons for refusal

7.1 Response to reasons for refusal

7.1.7.1 Sight lines to the Palace of Westminster are marginally affected only at close proximity to the Entrance Pavilion and the UK Holocaust Memorial.

7.1.7.2 The recent Parliamentary Education Centre is almost as tall as the UK Holocaust Memorial and physically obscures more of the elevation of the Palace of Westminster from more areas of the park than the proposed UK Holocaust Memorial.

7.1.7.3 It will still be possible to view the Palace of Westminster unobstructed from the all areas of the 1879 northern section, and the majority of the southern extension.

7.1.8 It will turn a calm garden space into a cluttered, visually congested, urbanised landscape, especially at the south end. This will put further pressure on the rest of the landscape, currently characterised by its open nature.

7.1.8.1 The proposed landscape masterplan concept maintains the natural character of the park.

7.1.8.2 The area of amenity planting is enlarged and enhanced, and more seating areas are provided adjacent to it, for the enjoyment of all visitors.

7.1.8.3 The landscape design has proposed a limited number of features in the Victoria Tower Gardens to maintain the open appearance and create a de cluttered, legible landscape.

7.1.8.4 The southern end of the site is currently largely hard landscape, following the 2014 redevelopment of the playground, and the landscape proposes to introduce more soft landscape in this location where it is most beneficial.

7.1.8.5 The area of VTG is 2.5ha in total, and currently has a very low density of use compared to adjacent green spaces of central London.

7.1.9 The increased activity and additional visitors and its impact on the character and function of Victoria Tower Gardens:

7.1.9.1 The character of Victoria Tower Gardens is being maintained in the majority of the site, outside of the Memorial Entrance Courtyard and landform. Both have been designed with a view to naturalising the elements as much as possible and integrating with the existing character.

7.1.9.2 The primary functions of the site are walking and sitting with occasional local events, that are held annually within the park. All these functions are retained and uninterrupted by the development.

7.1.9.3 Pedestrian modelling projections have determined that increased visitor numbers as a consequence of the development will not adversely affect the enjoyment of the park or create uncomfortable crowd densities.

7.1.10 The proposed development and associated increased visitor activity would result in the loss of public open space and would harm the function of the Victoria Tower Gardens as an open space for active recreation and relaxation. This would be to the detriment of those who live in, work in, and visit the area

7.1.10.1 The landscape masterplan is developed around the need to support current activity in Victoria Tower Gardens, as well as provide an enhanced environment for recreation and relaxation. The quality of materials proposed, together with increased quantities of seating create a more inclusive, and supportive park environment for residents, workers and visitors.

7.1.11 Areas of hard landscaping increased at the expense of valued grass areas.

7.1.11.1 The areas of lawn omitted are primarily located in the heavily shaded southern section of the site which is less densely used in comparison with the northern open sunnier section.

7.1.11.2 The calculation of loss of lawn area is not recognising that some areas of lawn will be replaced with amenity planting which has a higher biodiversity value than grass, and will provide more year round interest for visitors to VTG.

7.1.12 The loss of open space and the impact on the amount of green space available locally.

7.1.12.1 The landscape design proposals bring more of the 2.5ha park back into activity through careful consideration of paths, planting and seating.

7.1.12.2 Victoria Tower Garden is adjacent to a number of smaller green spaces such as St John's Gardens, VTG South, and College Green. It is also within a short walking distance of Archbishop's Park (across the River Thames) and less than half a kilometre away is St James Park, which is a 6

7.0 Response to reasons for refusal

7.1 Response to reasons for refusal

minute walk from VTG.

7.1.12.3 It is proposed to create a better connection between a cafe/seating area and the playground for the benefit of all users.

7.1.13 Playground will be cut off from the main grass area so parents will not be able to watch their children play in the playground and on the grass at the same time.

7.1.13.1 The current playground is subtly fenced off and the Spicer Memorial separates it from the closest grass area. Therefore the ability to survey both areas at the same time is currently not possible.

7.1.14 The volume of people using the cafe before or after visiting the learning centre may affect playground users.

7.1.14.1 The cafe kiosk has been positioned adjacent to the stepped entrance from Lambeth Bridge, and the public toilets. This separates the general public areas away from the playground.

7.1.14.2 A soft boundary is created alongside the eastern edge of the playground using planting. This will separate all public pedestrian movement from the children's playground.

7.1.15 People are unlikely to want to use the playground in so sombre a place

7.1.15.1 The landscape masterplan has layered the sequence of spaces between the park and the Memorial landscapes, providing subtle degrees of separation, but not omitting or excluding views and experiences between the two.

7.1.15.2 The activities of daily life, including play, is acknowledged and welcomed in the concept of the UK Holocaust Memorial project. The landform is intended to be interacted with and enjoyed by the general public as part of the design narrative.

8.0 Conclusions

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8.1 Conclusions

8.1.1 The United Kingdom Holocaust Memorial and Learning Centre has been conceived around the concept of a single and continuous Memorial and landscape that integrates seamlessly into Victoria Tower Gardens. The arrangement of the Memorial bronze fins, designed by Ron Arad Architects is part of the landscape design, and the landscape forms part of the Memorial.

8.1.2 Since its original construction, Victoria Tower Gardens have been changed and remodelled a number of times in response to the placement of new monuments and memorials. I believe the new landscape masterplan builds on that tradition while respecting the character of the park. Our public landscapes need to be able to evolve, and support new experiences which is why I believe the proposals are appropriate in this context.

8.1.3 The landscape concept retains the sweeping green lawn, lifting it to meet the Memorial fins and allowing visitors to engage with it. Looking out from the Palace of Westminster, the view of an expanse of green is maintained. Looking back, the landform supports new views towards the Palace and out onto the River Thames. In this proof we have demonstrated how the scale of the development does not negatively impact on Victoria Tower Gardens or the Palace of Westminster, but does create positive new experiences for people visiting it.

8.1.4 I strongly believe that the project brings considerable benefits to Victoria Tower Gardens and its wide range of users. The design analysis described in this proof has identified the issues associated with the current arrangement of the park. The landscape proposals look to create a more inclusive and supportive landscape for people of all ages and abilities which is fundamental to our design thinking. Both the local resident, and the visitor to the UKHMLC, will benefit from the scheme.

8.1.5 The project recognises the importance of the existing protected London Plane trees, and I believe that the team has been diligent in assessing the development's potential impact on them. Extensive research and survey work was undertaken to identify the location which minimised the overlap with the tree's RPA's. Where work is required within an RPA, we have ensured that the detailed landscape design follows industry guidelines and principles, while proposing measures to improved the environment for the trees in the future.

8.1.6 I believe that the UKHMLC project has achieved a balance in creating a UK Memorial to victims of the Holocaust that is both visually significant and meaningfully engaging. Its presence in Victoria Tower Gardens speaks both to the impact of political decisions made in the Palace of Westminster, and daily life which continues around it in the park landscape. These concepts are realised in the landscape masterplan while providing an improved, supportive park environment for all users.



FIG 8.1.1 VIEW SOUTH ACROSS VICTORIA TOWER GARDENS FROM THE PALACE OF WESTMINSTER

