

**WATER GARDENS STUDY,
HEMEL HEMPSTEAD**

OCTOBER 2011

**Allies and Morrison
Urban Practitioners**

the **landscape** partnership



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Opposite: Aerial photograph of Hemel Hempstead town centre

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Above: Water Gardens, looking north from the viewing platform along Moor End Road



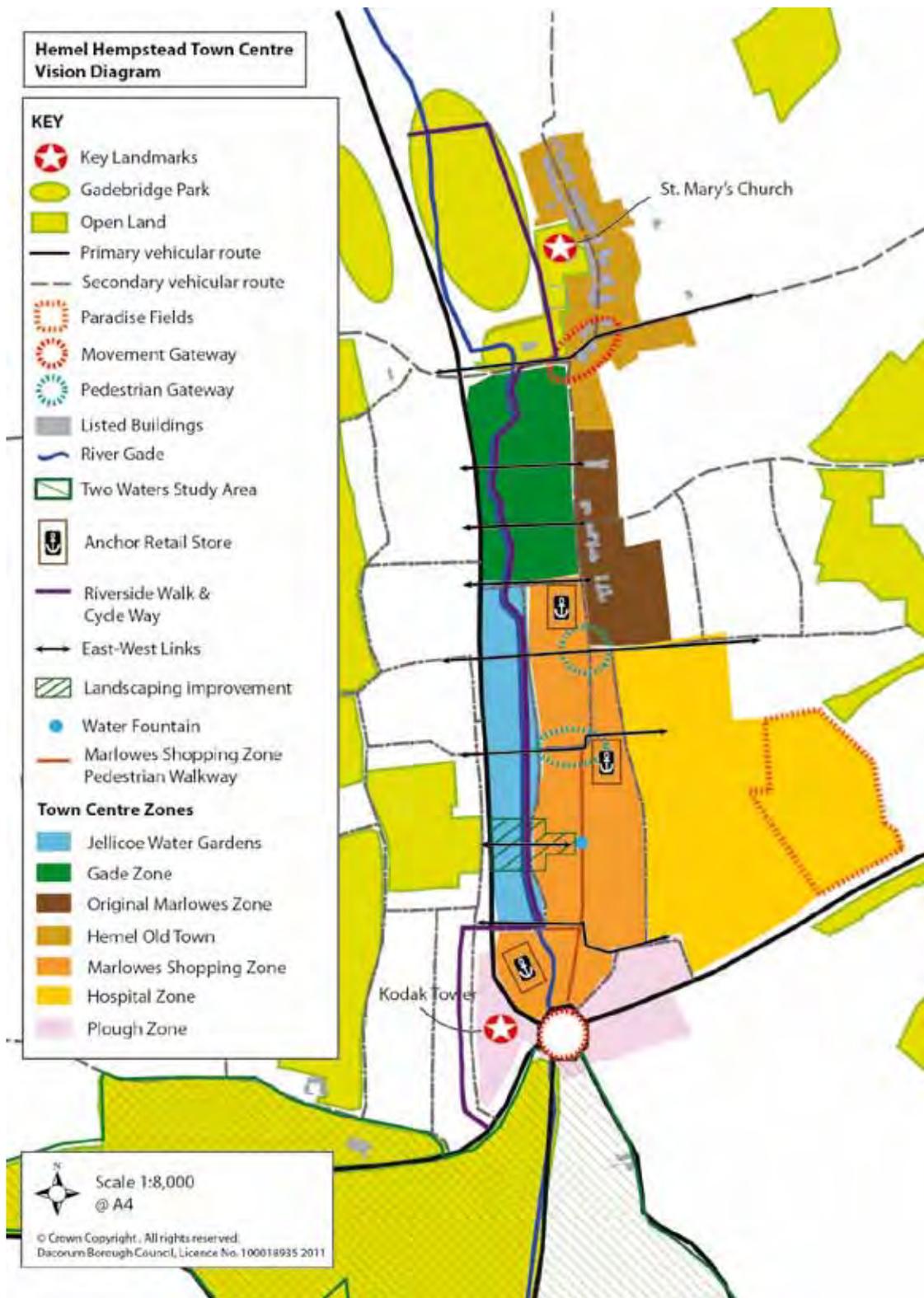
1 SETTING THE SCENE

1.1 INTRODUCTION

Dacorum Borough Council instructed Allies and Morrison Urban Practitioners (AMUP) and The Landscape Partnership to undertake a study of the Grade II registered Water Gardens in Hemel Hempstead town centre. The purpose of the study is two fold:

1. Firstly, the study will provide a considered view on the historic significance of the Gardens, originally laid out by Geoffrey Jellicoe between 1957 and 1962 as part of the new town development of Hemel Hempstead, also master-planned by Jellicoe in 1947;
2. Secondly, the study will inform decisions to be made by Dacorum Council as it continues to consider the benefits of replacing its current town centre civic offices on Marlowes. Specifically, the northern end of the decked car park immediately adjacent to the Water Gardens is being considered as one of the potential locations for replacement civic offices and this study seeks to explore how a new building in this sensitive location could best be accommodated. A critical issue in this regard would be the potential impact on the registered Gardens.

The Water Gardens were designed by Geoffrey Jellicoe as an integral part of his master plan for Hemel Hempstead New Town and were placed on English Heritage's Register of Parks and Gardens of Special Historic Interest in 2010.



Above: Hemel Hempstead Town Centre Vision Diagram

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1.2 BACKGROUND AND CONTEXT

Dacorum Borough Council is planning for the future and are progressing their Local Development Framework. A number of recent and current studies are of direct relevance to the future of Hemel Hempstead town centre which is the largest town centre in the Borough and serves as its administrative centre.

Masterplan charette, February 2011

Supported by CABE and Inspire East, Dacorum Borough Council facilitated a major town centre masterplan charette in January 2011. The future of the Civic Offices were considered at this event and the car park site adjacent to the Water Gardens site was put forward as one of a number of potential locations in the town. The charette led to the preparation of a strategic land use strategy for the town centre which was to be tested through further land use studies and the preparation of a town centre masterplan.

The charette highlighted the opportunity to create a new, more focussed, cluster of civic uses in the town centre which would include replacement council offices and town centre library. The event also highlighted the important role played by the Market Square and the bus station site, recognising them as potential development opportunities at the northern end of the Marlowes shopping zone and providing the opportunity to form part of an improved network of high quality pedestrian routes across the town.

Town centre masterplan

The Council is committed to preparing a town centre masterplan for Hemel Hempstead. The brief for the masterplan will be directly informed by the outcomes of the charette and a number of other relevant workstreams, many of which are currently underway. Work on the masterplan has commenced, with the outcomes of this and other related studies forming an important part of the evidence base.

Major land use study

A major land use and retail study is currently being undertaken by Allies and Morrison Urban Practitioners, assisted by GL Hearn. The study updates the Council's borough-wide retail study of 2009, which itself updated the 2006 study. In doing so, the study explores the capacity for new convenience and comparison retailing in the town centre. In identifying opportunity sites within the town centre, the study also considers the potential for, and possible benefits of, other town centre uses in Hemel Hempstead.

Accommodation review

The Council has commissioned DTZ to undertake a review of Council accommodation. The outcome of this study has directly informed the brief for this Water Gardens study. Replacement Civic Offices will form part of the Public Sector Quarter (PSQ) and will require a new building of approximately 5,000m². A building of this size is also considered likely to have the potential to incorporate a replacement library for the town. This emerging 'PSQ' concept responds directly and positively to the outcomes of the town centre charette.

Emerging Friends of the Gardens

This study considers in some detail the historic significance of the Water Gardens. However, the Gardens are already widely recognised as a nationally important example of twentieth century landscape design. This recognition led to the Gardens being included on the English Heritage Register of Parks and Gardens of Special Historic Interest. The Garden History Society has been instrumental in raising the profile and awareness of the Water Gardens and a friends of the garden group is currently being formed.



Above: 1878 map of Hemel Hempstead

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1.3 EVOLUTION OF HEMEL HEMPSTEAD AND ITS WATER GARDENS

Potential Heritage Lottery Fund (HLF) bid

Dacorum Borough Council is considering the potential for an HLF bid under their Parks for People programme to help ensure the Gardens are returned to their former glory.

The Heritage Lottery Fund Parks for People programme provides grants of up to five million pounds for 'projects that regenerate public parks of national regional or local heritage value in the UK'. The HLF identify three priorities for the programme:

- the community values the park as part of their heritage;
- the park meets local social, economic and environmental needs; and
- the park management actively involves local people.

The five project outcomes required for HLF funding are:

- increasing the range of audiences;
- conserving and improving the heritage value;
- increasing the range of volunteers involved;
- improving skills and knowledge through learning and training; and
- improving management and maintenance.

Grants are given to a maximum of 95% of applications up to £1 million and a maximum of 90% for applications of between £1 million and £5 million pounds. Applications for funding from the HLF are very competitive and the HLF is unable to support all applications (currently between 60% and 70% of applications under the Parks for People programme are successful). HLF funding can be used to support capital work and activities in the park (eg heritage activities and horticultural demonstrations) and all of the restoration works identified above and in the outline proposals would be eligible to be considered for HLF funding.

Historical significance

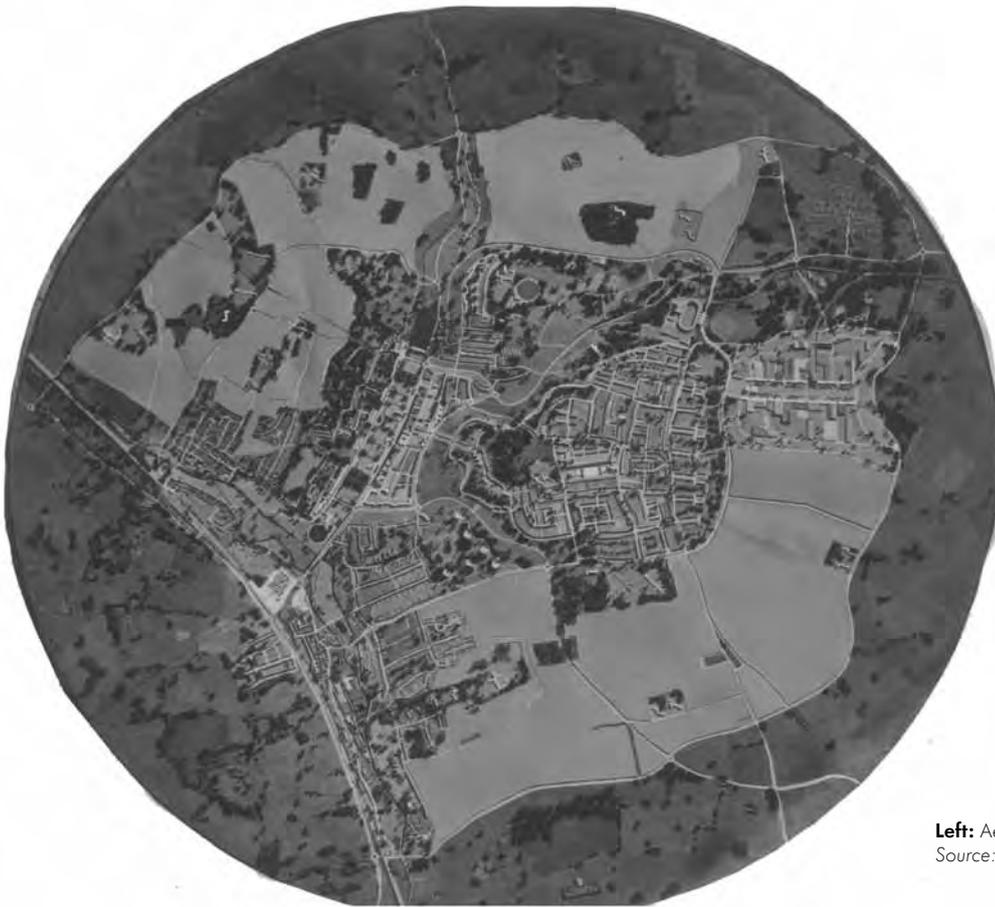
In common with other parts of the Gade Valley the Hemel Hempstead area was extensively settled during the prehistoric period, with habitation from the Bronze Age onwards. There is also evidence of Roman occupation, particularly to the west and south-west of the old town around Boxmoor.

The present town probably began during the Saxon period as a small village in a shallow chalkland valley, about a mile and a half north of the confluence of the Gade and Bulbourne rivers. The River Gade rises in the chalk of the Chiltern Hills and flows through Hemel Hempstead before reaching Rickmansworth, where it joins the River Colne. The name of the town may derive from "Haemele's homestead", Haemele being the name of a tribe or individual.

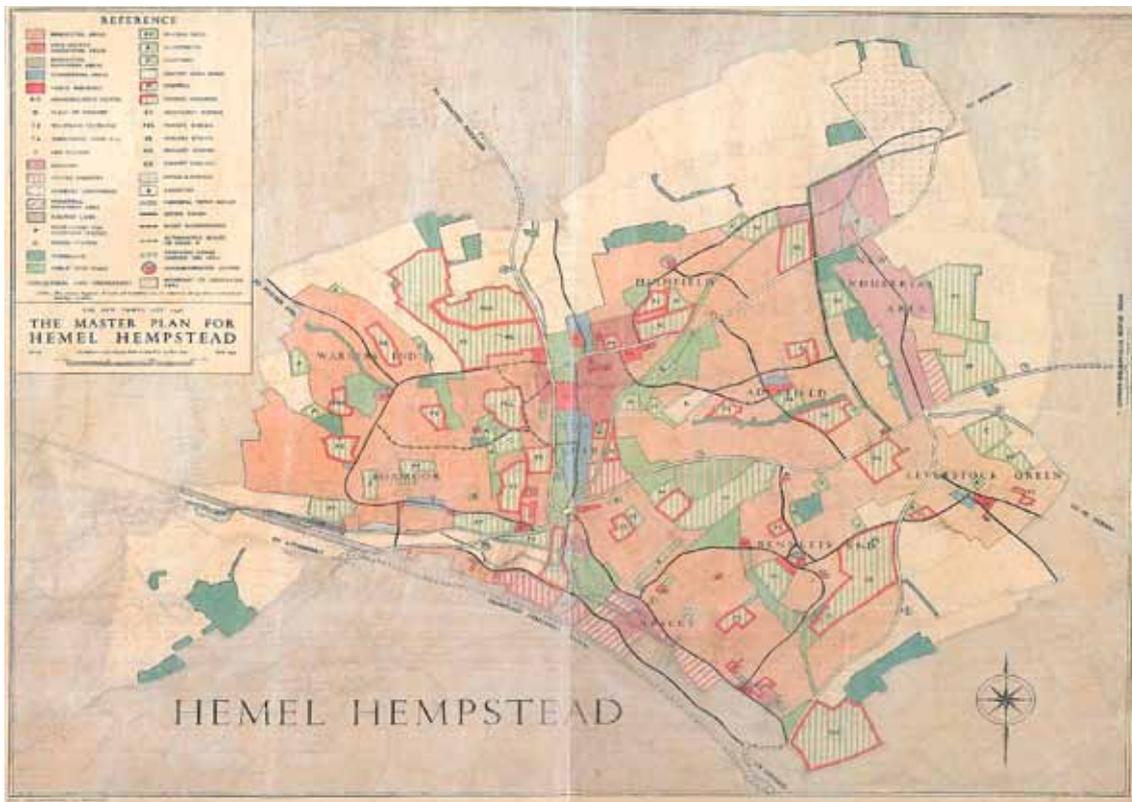
Little is recorded about the medieval town, but at least half of it is known to have been granted to the monastic college of the Bon Hommes of Ashridge which lasted up to the dissolution of the monasteries in 1539. Hemel's Norman church of St Mary's was started around 1140 and is one of the oldest churches in Hertfordshire. There was a small market, which grew after the 16th century when the town received a royal charter from Henry VIII. By the mid-17th century Hemel Hempstead had become the most prosperous towns in the county and was noted for its corn mills and straw plaiting. A substantial Georgian mansion stood at Gadebridge Park and survived until 1973 when it was demolished to make way for the Kodak Training Centre.

Later growth

In the mid-18th century a turnpike road to the south of the town carried the main route from London to the Midlands. The Grand Junction Canal opened in 1804, following the line of the road. In 1837 the London – Birmingham railway was diverted from the town by local landowners and the station was built instead at Boxmoor. Later, a branch line was built by



Left: Aerial painting of 1947 proposals
 Source: *The Garden History Museum*



Above: 1947 Masterplan of Hemel Hempstead
 Source: *Hastie, S. (1997) Hemel Hempstead - The Story of New Town Development 1947-1997. Hertfordshire: Alpine Press Ltd.*

the Hemel Hempstead Railway Company, which led to the development of the Alexandra Road area of the town. The town's main employer at this time was John Dickinson, whose paper mill at Apsley Mill in the Bulbourne Valley employed over 1000 workers, but Hemel was also beginning to be adopted by London commuters. New industries were also established and Dickinson's Mill was later converted into a munitions factory.

By the middle of the 20th century Hemel Hempstead was practically three separate areas; the old town to the north, the Boxmoor commuter suburb around the railway station, and the industrial development in the valley.

The New Town

After the Second World War the country faced a severe housing shortage and government responded with the New Towns programme. Hemel Hempstead, along with Crawley and Stevenage, was one of the first to be designated and was to be one of several new and expanded towns forming a ring around London. With a population of 21,000 Hemel was also the largest of the existing settlements in the first wave of new towns.

The Ministry of Town and Country Planning appointed the landscape architect Geoffrey Jellicoe as Hemel's principal designer and the outline masterplan was published in 1947. Jellicoe's original plan, which was subsequently modified by the Development Corporation, was based on the idea of a town in a park, with generous open spaces in and around the town centre and the residential neighbourhoods. The first areas to be built were at Adeyfields, Bennetts End and Apsley and 1000 homes had been built by 1952.

Geoffrey Jellicoe's ambitious 1947 masterplan for Hemel Hempstead New Town was never to be implemented, rejected by the government as being too expensive and impractical. Jellicoe produced a

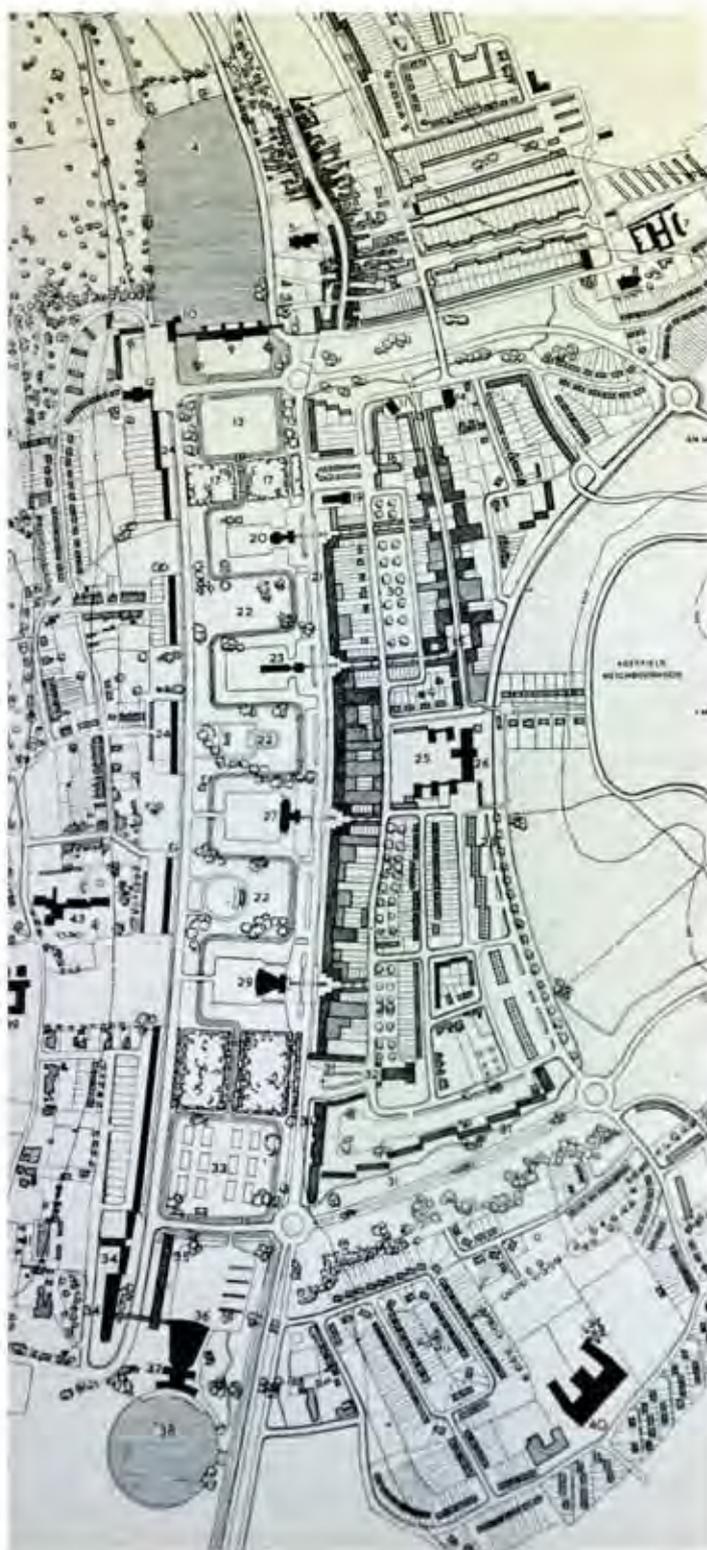
second revised plan and accompanying report for the Ministry of Town & Country Planning in 1949 which was also discarded. The masterplan which was approved and implemented was produced by planners, architects and engineers within the newly formed Hemel Hempstead Development Corporation (the Corporation), they incorporated several features and key principles from Jellicoe's plans, notably, ornamental Water Gardens along the River Gade in the new centre of the town.

The structure of Jellicoe's town centre masterplan was largely retained by the Corporation; the relocation of the main shopping area to the Marlowes, the arrangement of a central park flanked by road running north south with residential housing to the west and shops and commerce to the east are all key elements of Jellicoe's Masterplan.

It has been suggested that the reduction of the New Town Masterplan brief to just the design of the Water Gardens contributed to Jellicoe's development away from a Planner - Architect role towards Landscape Architect.

Jellicoe's plan preserved the old High Street, which is now a conservation area with a concentration of listed buildings, but extended it southwards in a line to form the Marlowes shopping centre as well as educational, civic and office buildings. Waterhouse Street ran parallel to Marlowes, providing access to the bus station and market, and beyond it Jellicoe used the course of the River Gade to provide the water Gardens that form the western edge to the town centre.

By 1962 the masterplan was substantially complete and the Development Corporation handed over its responsibilities to the National Commission for the New Towns. Today Hemel Hempstead rivals Watford as the largest town in Hertfordshire with a population of around 85,000 inhabitants. The Marlowes shopping centre was built in 1990 with an indoor mall and the Riverside Shopping Centre added to the provision of additional shops.



- 3 OLD HIGH STREET
- 4 LAKE
- 5 ST MARY'S CHURCH
- 5A CHARTER HOUSE
- 6 FRIENDS MEETING HOUSE
- 7 HOSPITAL
- 8 ST PAUL'S CHURCH
- 9 CIVIC CENTRE
- 10 CAMPANILE
- 11 CONGREGATIONAL CHAPEL
- 12 ROMAN CATHOLIC CHURCH
- 13 HELICOPTER PARK
- 14 CHRIST CHURCH
- 15 PEDESTRIAN SHOPPING STREET OR ALLEY
- 16 THE KIRK ARMS
- 17 GROVE OF TREES
- 18 CANAL
- 19 BAPTIST CHAPEL
- 20 LIBRARY
- 21 ARCADED SHOPS
- 22 GARDENS
- 23 ART GALLERY
- 24 TERRACE HOUSING OR FLATS
- 25 MARKET PLACE
- 26 MARKET
- 27 RESTAURANT
- 28 WAREHOUSES, WORKSHOPS, ETC.
- 29 REPERTORY THEATRE
- 30 CAR PARKS
- 31 COMMERCIAL OFFICES
- 32 THE HART ARMS
- 33 HELICOPTER PARK
TEMPORARY TENNIS COURT
- 34 GUILD OF DRAFTSMANSHIP
- 35 OFFICES
- 36 THEATRE
- 37 RESTAURANT
- 38 BOATING POOL
- 39 GRAMMAR SCHOOL
- 40 PRIMARY SCHOOL
- 41 CHURCHILL
- 42 ST JOHN'S CHURCH
- 43 JMI SCHOOL

Above: This early concept plan from 1947 shows a more extensive Water Gardens set around a range of civic and public building. A new Civic Centre (No.9) sits at the northern end of the Gardens.
 Source: Jellicoe, G. A. (1949). *A Revised Plan for the Central Area of Hemel Hempstead New Town*. London: Cook, Hammond & Kell, Ltd.

Development of the Water Gardens

Jellicoe's original town centre proposals of the 1947 Masterplan has 'seven water gardens of the Gade' providing a centrally located recreation area composed of canals folding around large open recreational spaces throughout which are located various civic and public buildings including restaurants, offices and theatres. The northern end of the gardens was terminated by a large Civic Centre which traversed the entire width of the gardens on a site north of the current alignment of Queensway where there was an associated campanile. Beyond this civic centre there was an expansive lake covering the land west of the Old Town.

Car parks ('waiting to become helicopter parks') are hidden beyond groves of trees located at the ends of the water garden beyond which are a Civic Centre at the north end and a Pavillion to the South. The Pavillion itself was to contain a theatre, concert hall, restaurant as well as winter gardens. The Gardens provide a central recreation area and a green link between Gadebridge Park to the north and the Moor (Boxmoor) to the south of the town centre.

Later in life Jellicoe ascribed the reason for the failure of the 1947 scheme to its classical grandeur, he felt it lacked the modernity present in Frederick Gibberd's contemporaneous (and implemented) plan for Harlow. Jellicoe was disappointed at this response and was reluctant to continue his involvement in Hemel Hempstead. However he was eventually persuaded by his friend Henry Wells - Chairman of the Development Corporation to accept the commission to develop the layout of a new park along the river.

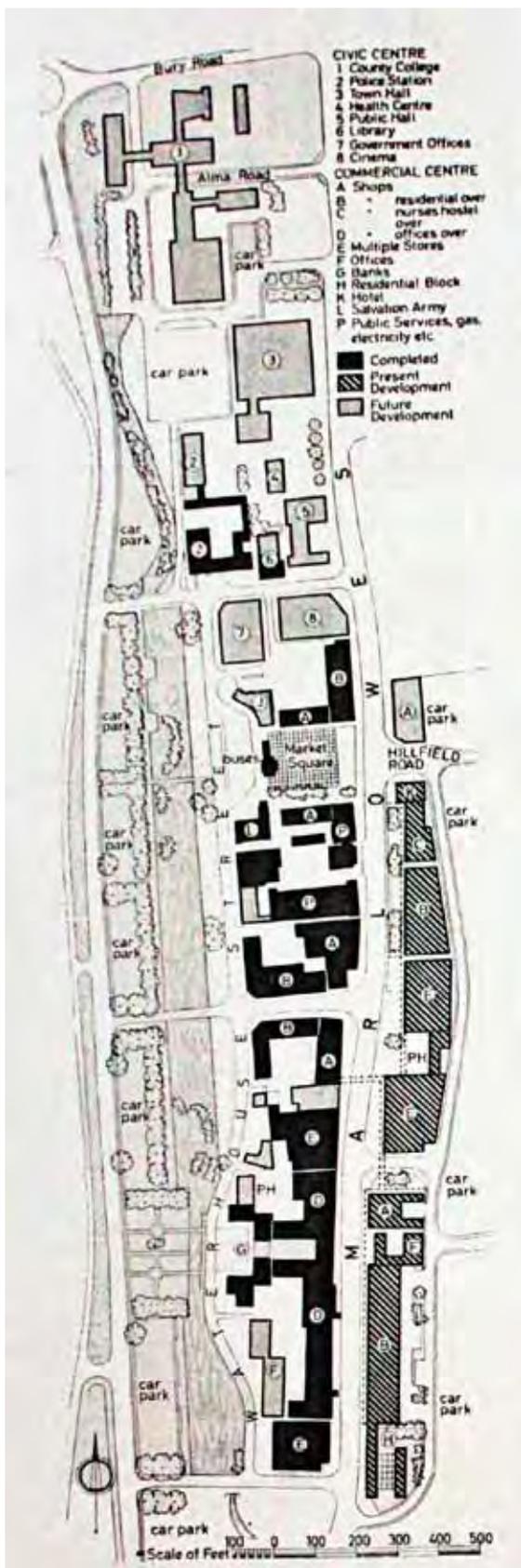
Work had begun on creating the New Town in 1949. The town centre proposals were taken forward by the Corporation and the town centre underwent significant building work through 1953-1956. By 1957 when Jellicoe began work on the Water Gardens scheme much of the building work to the west side of Marlowes was complete with the new shopping centre

up and running and the new road 11 (Waterhouse Street) nearing completion. There was already at this point a need for more parking and plans were drawn up to accommodate 1150 cars within the town centre. Jellicoe's initial idea for the Water Gardens was to dam the River Gade, creating a larger area of water in a formal shape following the curves of Waterhouse Street. Some of the Gade is diverted underground through a large culvert to help prevent flooding of the new town centre.

Jellicoe describes the transformation of this straight, formal yet lifeless plan into the 'complete design' of today with its abstracted 'hidden' serpent as being inspired by the work of the artist Paul Klee, particularly his paintings *Highways and Byways* (1929) and *The Vessels of Aphrodite* (1921) and the exploration of themes of sub-conscious and subtle shapes. Once the suggestion of a serpent form is visible to Jellicoe in the existing scheme it is altered to enhance this shape; the southern lake widened and rounded to become the head with a fountain positioned to become the eye, the squared northern end made sinuous and flicked around a mound becoming the tail resting against a hillside.

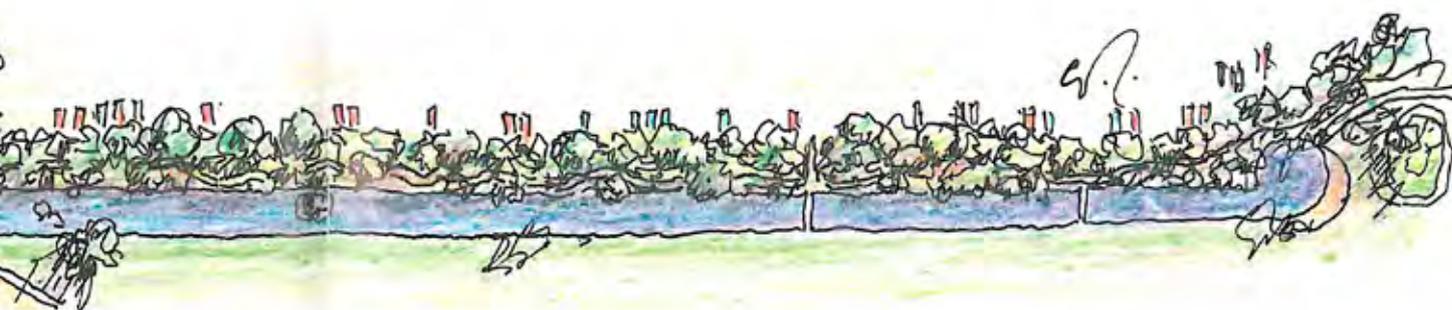
From this point on this idea drives the detail and the form of the design, the wide open lawns to the east are the smooth underbelly of the snake, planting on the western shore his 'tufted back', a band of cobbles running along the western edge of the pond (shown on early drawings) the scales of the snakeskin.

Working drawings, sketch proposals and correspondence between Jellicoe (and his office) and the Corporation show this evolution from the "technically orthodox but stillborn" design to the implemented scheme and also show how Jellicoe responds to and adapts his design to the rapidly changing setting of the emerging town centre and to the practicalities of budgets, site constraints, conditions and client relationships once building work began.



Above: Jellicoe sketch of Water Gardens - the prominence of the formal garden to the south is clear in this concept sketch, as is the different treatment on either side of the water.
 Source: Spens, M. (1992) *Gardens of the Mind - The Genius of Geoffrey Jellicoe*. Suffolk: Antique Collectors' Club Ltd.

Above: Early Water Garden layout - this later, more modest plan has more in common with the implemented scheme. A public east-west route is proposed across the Gardens on the alignment of the existing footbridge opposite the bus station and Market Square. This landscaped route is shown as extending across the car park site immediately to the west.
 Source: *Municipal Journal* 30th May 1958



Adaptations of the design

Changes and developments to the surrounding buildings and landscape affected both the development and the way in which Jellicoe considered the scheme. For instance in 1962 Jellicoe describes how the newly completed double helix multi-storey circular car park (which was taller than he envisioned) affects the Gardens, making this south end an 'urban landscape... encompassed by cars, which will form part of the scenery' this in turn affects his vision for the rest of the park and he stresses that this will become even more important as 'a pure landscape design, and we should do everything to help the illusion of unlimited foliage which was the original intention'.

From early on in the scheme car parking is designated all along the west side of the park, the western bank is intended to providing screening of the car park from the Lovers' walk until the beech hedge has grown up. The western side has significant tree planting shown in sections and elevations to provide further screening and a green backdrop and view 'for people in the town centre'. The addition of deck levels to ground level car parks was an intention of the Corporation from early on in the New Town's development to deal with the parking requirements of an expanding town centre.

The spirit of the dance or 'Rock & Roll' sculpture (by Huber Yencesse) was suggested and donated by the Chairman of the Corporation Henry Wells, Jellicoe commented on the proposed location, suggesting that it be in the water rather than near the bank and appear to be dancing on the surface of the water 'as we have recently done with a girl figure by Marini', he also imagined the figures to be 'wet & glistening' from the spray of the fountain. He later describes how such an addition can be seen as adornment to the serpent theme "two bronze figures dancing on the surface of the water are like flies".

Discarded ideas

Various features included in early schemes were left out of the finished scheme, these included a grotto over a cascade introduced when reworking the northern end of the water in response to comments from the Board, although noting that the required culvert is likely to lead to complications and new negotiations Jellicoe feels that it would be worthwhile as "No new town has a grotto, of that I am quite sure!"

Early plans show the pedestrian routes over the water as covered bridges, there are islands of silver birches dotted throughout the water as well as fountains at regular intervals along the canal. Once the form of the serpent is adopted "all detail was subordinated to this single idea", features which did not support the theme were abandoned.

The strength of vision and his commitment to the creation of the illusion within the landscape is illustrated by correspondence regarding the mound at the northern end of the park. The Corporation see the mound as a viewpoint and they requested that it be repositioned to afford a view of the Water Gardens and access routes provided. This is at odds with Jellicoe's vision and his response to Ablett (H. K. Ablett, Chief Architect of the Corporation) is characteristic of his style...

"... Concerning mounds. This is a delectable and aesthetic point, and I think it would be too long for me to discourse about this in a letter. The mound, which is in the exact position as shown on the drawings, is essentially a work of nature and not of man, and is therefore slightly and purposely irresponsible in its position. It essentially must not be at the end of the canal, because a view up the canal really wants to suggest continuity and not have a finite finish.



Above: Double helix car park and lake - here the Water Gardens form the setting for new bold architectural statements such as this helix car park - which was larger the Jellicoe intended
Source: *New Towns in Detail* (<http://www.idoxplc.com/idx/athens/ntr/ntr/cd1/html/txt/u2920000.htm>)



Above: Surface car parks west of the Gardens before landscape features had matured (1960s)
Source: *New Towns in Detail* (<http://www.idoxplc.com/idx/athens/ntr/ntr/cd1/html/txt/u2920000.htm>)

One always had in mind that this hill was apparently a work of nature... I am very much against its being used as a viewpoint, because apart from anything else the illusions we have built up from ground level would be destroyed. Supposing it were an obviously artificial mound at the end of the canal, the view from the top would be devastatingly confused because you would see this thin strip of landscape squeezed between canal and road. The whole art of these Water Gardens is a play on illusion, which I hope will come off. At any rate, one is making a jolly try. The rising land towards the hill is of course part of this illusion.

We may now be faced with the practical issue of how to stop chaps climbing the hill, but I am wondering whether in actual fact this matters so much.... I suppose it would be out of the question to cordon all this area as a kind of sanctuary for animals, such as rabbits for instance... We shall soon be coming on to the question of swans and what nots of this order, and I think some rather jolly thinking might be required. "

A file note states that the Corporation was initially unable to think of any printable answers. Although the animal enclosure suggestion was left behind Jellicoe carried his point and the mound is in his intended position without access routes, maintaining the optical illusion of a larger park created by the narrowing of canal and path towards the north. This type of illusion is seen again in his later work, such as the Magritte Walk at Sutton Place.

There are several features which are constant within the design from the early stages. The central formal gardens (later described as a 'howdah' on the serpents back, the bridges which link the garden area to the towns' bank plaza becoming fastenings for the howdah) remain relatively unchanged throughout, form and size maintained, always raised and always defined by pleached limes. Originally the west boundary of the formal garden was intended to be a retaining wall forming a ha-ha between the garden and Leighton Buzzard Road, instead the gardens were

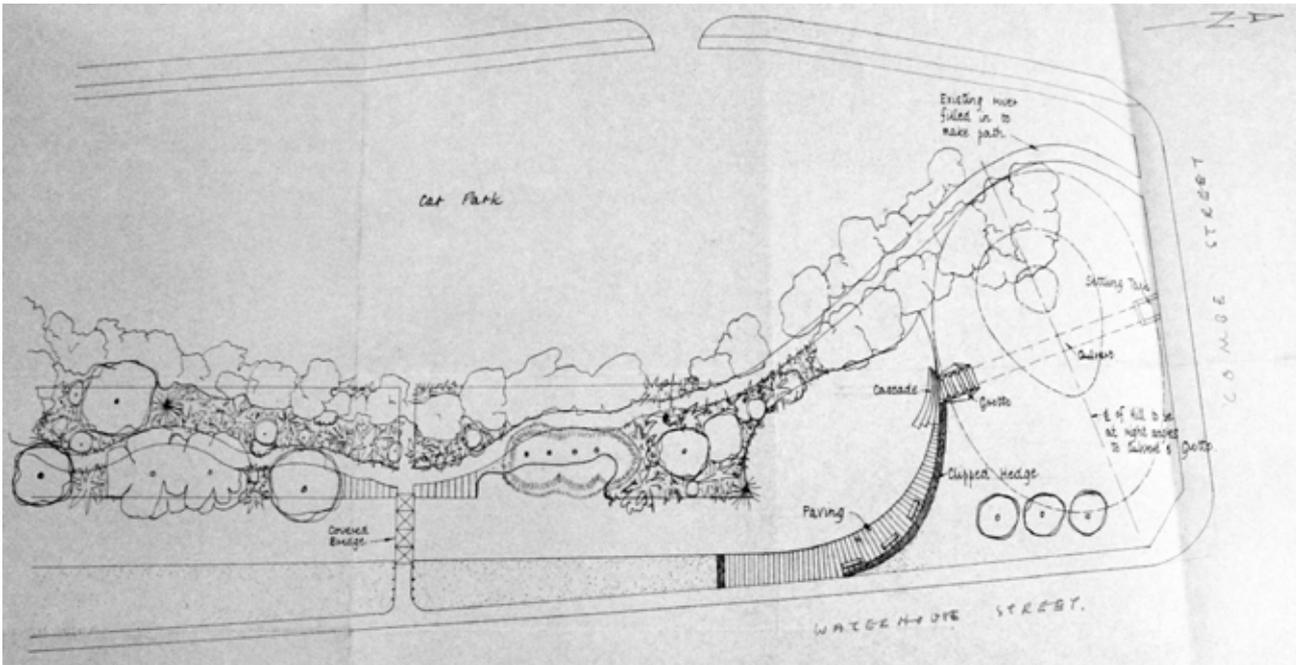
formed on an inclined bank to reduce cost . Formal gardens of this style are a reoccurring theme within Jellicoe's work reflecting his interest in the Italian-style renaissance garden.

Balconies over the water are another element which reoccur in various forms in different sketch designs, the car parking along the western edge was clearly always intended as was the canalisation of the Gade and the pedestrian bridges.

Implemented scheme

The scheme was implemented between 1960 and 1962 and Jellicoe's practice – Jellicoe, Ballantyne & Coleridge were appointed to oversee the implementation of the works. Files of correspondence between the Development Corporation (notably H. K. Ablett, Chief Engineer and Brigadier G.B.S Hidley, C.B.E, General Manager) and Jellicoe's practice demonstrate that both Geoffrey and Susan Jellicoe were closely involved in the contract. The principal project landscape architect working with them on the contract was a Mr F. J. Tuson.

The use of water within landscape is something for which Jellicoe is particularly known, Hemel Hempstead was however one of the first projects (after Ditchley Park) where Jellicoe explored the medium and its associated features (wiers, fountains, bridges). It would appear to have been something of a learning curve as the mechanics of the water canal and its maintenance did not run entirely smoothly as shown by incidences recorded within the Development's correspondence. Incidences included the flooding of the basement of the nearby Salvation Army premises being blamed on works within the Water Gardens; the accidental removal of the 'bung', draining the canal; and the growth of a large amount of weeds which required the canal and the main pool to be emptied. Jellicoe (together with his wife Susan) continued to work with water and later published a book; *Water: The Use of Water in Landscape Architecture* (1971).



Above: Early sketch shows a covered bridge
 Source: Hertfordshire Archives & Local Studies



Above: Rock & Roll Statute, by Huber Yencesse, soon after installation
 Source: New Towns in Detail (<http://www.idoxplc.com/idx/athens/ntr/ntr/cd1/html/txt/u2920000.htm>)

Correspondence between Jellicoe and the Development Corporation suggests that the original scheme did not include adequate seats, Jellicoe suggesting that the 12 allowed in the contract should be increased by a 'further 3 dozen' due to the popularity of the park.

Underwater lights were installed at the end of 1963, half of which were immediately smashed requiring replacement, whether this damage was by vandals or by the resident swans was not known. The swans were also blamed for the failure of the Irises specified by Susan Jellicoe to establish and she had to suggest alternative plants. The fountains Jellicoe specified to reach 40' high but a smaller pump was installed to reduce costs so the water only reached 20'. The project was completed in 1962 and despite some problems during the implementation, it was deemed a success and in 1965 received a Civic Trust award. The visiting judging team citation reads;

"This is a most charming and romantic transformation of a stretch of the River Gade adjacent to the centre of the New Town. The scheme has been handled with tremendous skill and imagination. The planting and gardens adjacent to the water, the terraces, bridges, footpaths have all been most sensitively positioned and designed. It was very encouraging to see the water gardens being fully used and enjoyed on a mid-week afternoon."

The Daily Telegraph's Architectural Correspondent described the Water Gardens as an 'Off-set to new town "failure"' in November 1962.

"Apart from the initial siting which preserved and prolonged the old High Street, there is not much to be said for the new town centre at Hemel Hempstead. It is a long repertoire of failures in shape and texture, frenetic at the front, dreary at the back.

Yet it is worth braving the drabness at the back to see the new water gardens. Designed by G. A. Jellicoe, these have achieved, in terms of landscape, all the excitement and elegance that ought to have been built into the architecture".

Changes post-completion

The Gardens are remarkably untouched and intact considering their age. The railings and litter bins appear to be the originals installed when the gardens were first laid out. Notable additions, omissions and changes are set out below.

The Gardens have gained a number of statues. Hemel Hempstead received two replica statues (a platypus and a kangaroo) from Australia as a gift in 1963 after the Development Chairman had a copy of the Rock & Roll statute sent to the New Town of Elizabeth. These were relocated to the Water Gardens from their original location in Elizabeth Court following further town centre redevelopment work. The 'Discobolus' (1962) statute was relocated to the Water Gardens in 1997 to make way for the 'Waterplay' sculpture which replaced it in Bank Court.

An additional deck was added to the northern-most car park adjacent to the Gardens in the 1980s and at around the same time a children's playground was introduced to the north of this car park. The car park construction appears to be slightly larger than the original surface car park and it would appear that the earth bund on the eastern side has been removed to accommodate this.

Original plans and early photographs show the path surfaces within the formal garden to be a red hoggin and the Lovers' Walk surface to be gravel dressed. At some point all the paths were resurfaced with macadam with concrete edging.



Above: Early photographs show original seating and no guard rail around the body of the lake at the southern end of the Gardens
 Source: *New Towns in Detail* (<http://www.idoxplc.com/idx/athens/ntr/ntr/cd1/html/txt/u2920000.htm>)



Above: The newly opened Water Gardens
 Source: *New Towns in Detail* (<http://www.idoxplc.com/idx/athens/ntr/ntr/cd1/html/txt/u2920000.htm>)



Above: The relocated Discobolus statue
 Source: *Hastie, S. (1997) Hemel Hempstead - The Story of New Town Development 1947-1997.* Hertfordshire: Alpine Press Ltd.

There were proposals to make amendments to the lake to accommodate road widening in the 1990s which were abandoned following public outcry, Jellicoe ascribes the 'scale of the protest' to the protection afforded to the scheme through mans' subconscious understanding of the hidden theme of the garden which '...aspires to animal perfection and any threat of amputation or deformation would undoubtedly be resisted by the layman, without knowing the reason why'.

However it would seem that at some point the south east corner of the lake has indeed been clipped to accommodate a mini-roundabout.

Probably the most significant change to the Gardens since it was built has been to the planting. The original planting plans by Susan Jellicoe no longer remain however it is clear from early photographs that the species and planting structure has changed significantly. Some of this is the natural consequence of planting maturing over time and would have been the original design intention. So, for example, tree planting in Lovers Walk has matured to provide dense tree cover to the walk, the pleached limes and yew in the Formal Gardens give a strong sense of enclosure to the Gardens. Elsewhere however, planting and maintenance works over the years has resulted in substantial changes to the character and quality of the Gardens.

Early photographs of the Gardens show a rich planting design of herbaceous plants, shrubs and marginal aquatics with the Formal Gardens forming a centrepiece of ornamental planting. The only information available on file with regards planting are; a list of plants (from April 1962) of dead or missing plants, a list of suggested replacement plants and Susan Jellicoe's comments on species suggested by the Corporation to replace the failed Irises around the fountain pool. Photographs suggest that until the 1980s this was well maintained and the general character of the different planting areas was maintained. Since then however the maintenance team responsible for the Gardens has reduced in size and the maintenance of planting in the Gardens has been minimal. Most herbaceous planting has disappeared and has been replaced with a narrow range of shrub species many of which are overgrown and now form dense areas of vegetation with little aesthetic appeal.

Also over the years significant tree planting has taken place along the eastern bank. In Jellicoe comments on changes to the Gardens; "Trees have been added to the east bank and by linking one side of the canal with the other could, in time, harm the idea of contrast between the two banks". The passage of time has indeed obscured the contrast and the trees can be seen to dilute the serpent theme by spoiling his 'plain underbelly'.

Other minor changes that have appeared over the years include: repainting of the railings to the bridge and balconies in green (they were originally white); introduction of railings around the southern edge of the lake (originally left open), new street lighting along Waterhouse Street and within the Gardens; various attempts at bank reinforcement along the edge of the canal; and the creation of some new planted islands in the lake.



Above: Original surface of the Lovers Walk with its gravel paths
Source: *New Towns in Detail* (<http://www.idoxplc.com/idox/athens/ntr/ntr/cd1/html/txt u2920000.htm>)



Above: Early aerial shot and recent aerial shot showing alteration to south east corner of the lake - the Moor End roundabout appears to have impinged on the lake
New Towns in Detail (<http://www.idoxplc.com/idox/athens/ntr/ntr/cd1/html/txt/u2920000.htm>)

Jellicoe's reflections on the scheme

In 1995, at the age of 95 and a year before his death, Jellicoe was interviewed about his work in Hemel Hempstead by Tony Burton . In this he reflects on the project considering it to be an important project and "one of the earliest serious jobs I'd ever done". He talks about his enjoyment of the project and the freedom he was given which allowed him to do "exactly as I wanted there". He also identifies the Water Garden as the first project in which he explores ideas of the sub-conscious saying: "There are the conscious worlds and the sub-conscious worlds. The thing about Hemel Hempstead was that this was the first time I've tried it. Ever since then I've been putting in this two worlds". "It's been the basis of all my work since."

Clearly Jellicoe considers the Water Gardens to be a key project in his career marking the start of a new approach to his design which was developed in later major schemes such as the Kennedy Memorial in Runnymede (which integrates references to the 'Pilgrims Progress' as the 'unseen' story in the design) and Sutton Place (where the allegorical themes of creation, life and aspiration revealed themselves to Jellicoe after the plans were drawn up).



Above: Water Garden Planting - the formal garden was always intended to formally address the bank square opposite which formed an important route through to Marlowes
 Source: Hastie, S. (1997) *Hemel Hempstead - The Story of New Town Development 1947-1997*. Hertfordshire: Alpine Press Ltd.



Above: View of the east bank - the different landscaping approaches between the two banks is clear in this early photo opposite the bus station
 Source: *New Towns in Detail* (<http://www.idoxplc.com/idx/athens/ntr/ntr/cd1/html/txt/u2920000.htm>)

2 HISTORICAL SIGNIFICANCE OF THE WATER GARDENS

2.1 HISTORIC PARKS AND GARDENS - LISTING AND ITS CRITERIA

English Heritage compiles the Register of Parks and Gardens of Special Interest in England, which was established in 1983. The Register contains more than 1600 designed landscapes which are graded according to their significance as I, II* or II. Grade I sites are of exceptional interest; Grade II* (two star) sites are particularly important, of more than special interest; and Grade II sites are of special interest, warranting every effort to preserve them.

Registration is a material consideration in the planning process, meaning that local planning authorities must consider the impact of proposed developments on the landscape's special character. It does not impose any separate controls.

Selection Criteria

The older a designed landscape is, and the fewer the surviving examples of its kind, the more likely it is to have special interest. The following chronology is meant as a guide to assessment; the dates are indications of likely periods of interest and are not absolute. In summary, sites likely to be designated are:

- Sites formed before 1750 where at least a proportion of the original layout is still in evidence
- Sites laid out between 1750 and 1840 where enough of the layout survives to reflect the original design
- Sites with a main phase of development post-1840 which are of special interest and relatively intact, the degree of required special interest rising as the site becomes closer in time
- Particularly careful selection is required for sites from the period after 1945
- Sites of less than 30 years old are normally registered only if they are of outstanding quality and under threat

Further considerations which may influence selection, and may exceptionally be sufficient by themselves to merit designation, are:

- Sites which were influential in the development of taste, whether through reputation or reference in literature
- Sites which are early or representative examples of a style of layout or a type of site, or the work of a designer (amateur or professional) of national importance
- Sites having an association with significant persons or historic events
- Sites with a strong group value with other heritage assets

(Source: English Heritage 2011)



erved. Ordnance Survey Licence number

Above: English Heritage map showing the Water Gardens (in green). © Crown Copyright and database right 2011.

2.2 POLICY AND GUIDANCE: PPS5

PPS5 Planning for the Historic Environment sets out the Government's national policies. They are a material consideration which must be taken into account in development management decisions where relevant.

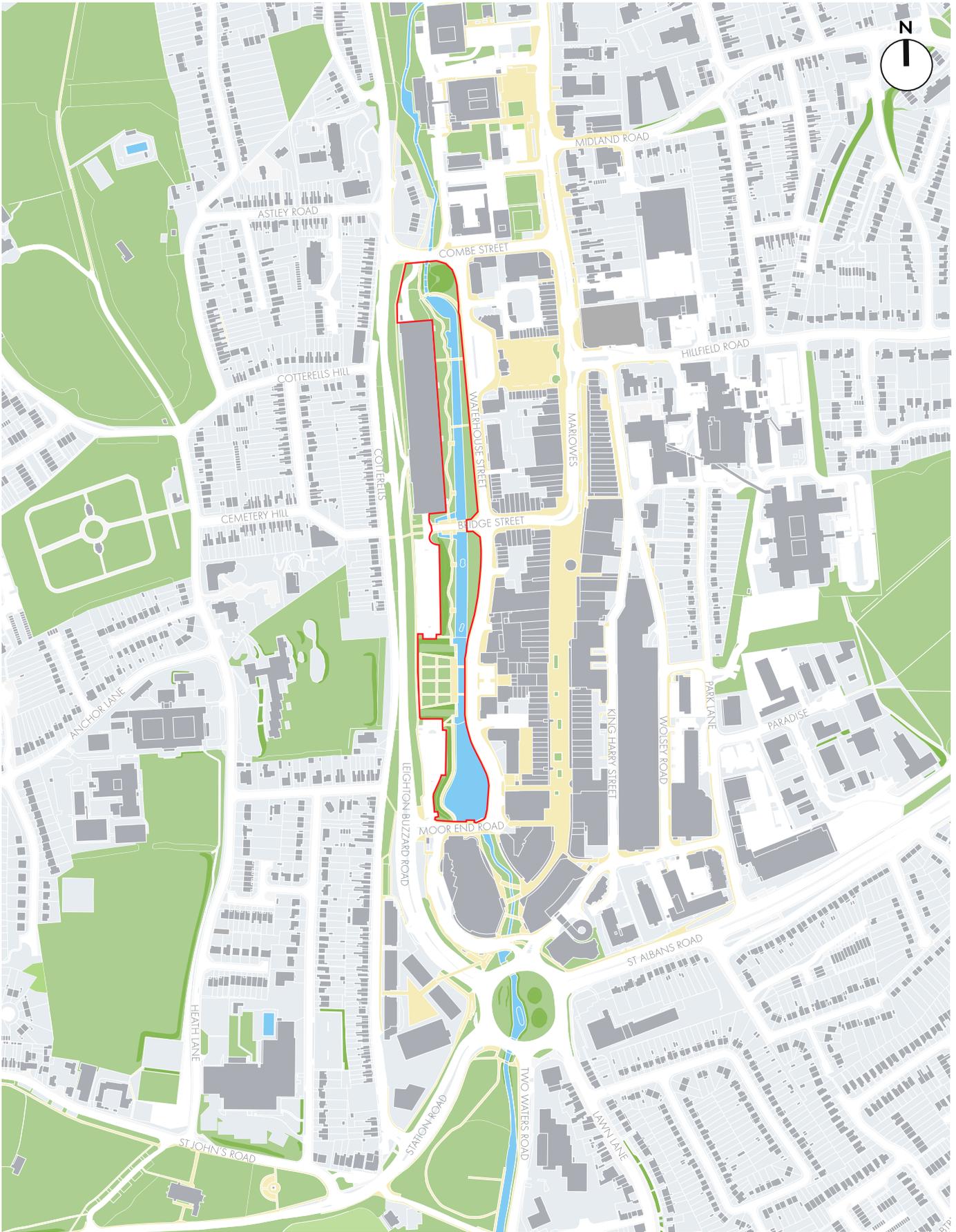
PPS5 contains a range of planning policies of direct relevance to the potential redevelopment of the decked car park site. Policy HE7.4 highlights that heritage assets have a positive role in place shaping, sustainable communities and economic vitality. Policy HE 9.1 affirms the longstanding presumption in favour of the conservation of designated heritage assets. Substantial harm to or loss of a grade II listed building or registered park or garden should be "exceptional". Substantial harm or loss to designated assets of the highest significance should be "wholly exceptional".

Policy HE9.3 states that where a proposal has a harmful impact on the significance of a designated heritage asset which is less than substantial harm, local authorities should;

- Weigh the public benefit of the proposal against the harm, and;
- Recognise that the greater the harm to the significance of the heritage asset, the greater the justification will be needed for any loss.

Policy HE10 addresses the setting of heritage assets. When considering applications for development that affect the setting of a heritage asset, local planning authorities should treat favourably applications that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset. When considering applications that do not do this, local planning authorities should weigh any such harm against the wider benefits of the application. The greater the negative impact on the significance of the heritage asset, the greater the benefits that will be needed to justify approval.

In Policy HE10.2 local planning authorities are asked to identify opportunities for changes in the setting to enhance or better reveal the significance of a heritage asset. Such opportunities are to be seen as a public benefit and part of the process of placeshaping. For Grade II parks and gardens the local planning authority has a statutory obligation to consult with the Twentieth Century Society and the Garden History Society.



Above: Plan showing the boundary of the Water Gardens (in red)

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2.3 SITE DESCRIPTION AND KEY VALUES AND SETTING

Site, location and area

The Water Gardens are located in the centre of Hemel Hempstead extending from Combe Street in the north to Moor End Road in the south. For the purposes of this study the Site is taken as comprising the formal Water Gardens and an area of public car parks and grass verge on the west side. Together they form an area of green space which is bounded to the east by Waterhouse Street and to the west by Leighton Buzzard Road. The town's high street and shopping centre – Marlowes is situated approximately 100m to the east of the site. The formal Water Gardens occupy approximately 3.5 hectares with further parcels of land west of the Gardens but immediately adjacent to it occupied by the three municipal car parks and a broad grass verge.

Designations

The formal Water Gardens are included on the Register of Historic Parks and Gardens by English Heritage for their special historic interest. They are identified as Grade II and were first registered on 1st February 2010. The boundary of the area covered by the listing is shown on Figure 1. The full description is included in Appendix A.

Boundaries

The Gardens were designed with an open plan form and were intended to allow views in and out to the surrounding urban area. There are therefore few formal vertical boundaries other than some railings around the southern edge of the lake (a later addition) and a tall beech hedge along the western side of the car parks.

General concept and layout

The site was originally designed as a linear open space adjacent to the town centre incorporating public water gardens and three public surface car parks to serve the town centre. The design is centred on the River Gade which is canalised to create a linear water

feature with a series of weirs and a lake at its southern end.

Car parks are set within the green space edged by earth bunds and planting in order to conceal parked vehicles. On either side of the water are two contrasting linear spaces: to the east, a long open area of grass with occasional trees (Eastern Lawn) and to the west a more enclosed linear space with planting known as 'Lovers' Walk'. At the southern end of the Lovers' Walk the Gardens widen to form an area of formal planting (Formal Flower Garden) enclosed at either end by a double line of pleached lime trees. Paths pass along both the linear spaces and connect to allow a circular walk around the Gardens. Within this pleasant and practical layout is a hidden allegory of a serpent which, extends the length of the water feature and subtly exerts a mysterious and delightful presence over the Gardens.

Also central to the concept is Jellicoe's play with perspective when viewed from the south towards the north along the length of the linear Gardens. There is a subtle narrowing of the canal and the eastern lawns offering an illusion of greater distance as the levels gently rise to the north towards the mound behind which the view of the water disappears.

The lake and canal

The lake and canal form a key element and the 'backbone' of the Water Gardens. The water starts as a narrow channel at its northern end running the length of the Gardens and opening out at its southern end to form a lake. A series of bridges cross the water at regular intervals along the canal. Four of these are elegant arched pedestrian bridges - simple concrete structures which appear to spring across the water. A wider bridge in the centre of the park is a continuation of Bridge Street and provides vehicular access to two of the car parks. Within the lake a tall fountain creates a simple but dramatic feature which provides a focal point for views along the canal and assists in aerating



Above: The Flower Gardens in 2011



Above: Lovers' Walk in 2011



Above: Formal Flower Gardens, 1960s

Source: New Towns in Detail (<http://www.idoxplc.com/idox/athens/ntr/ntr/cd1/html/txt/u2920000.htm>)

the water in the lake. A bronze sculpture of two figures dancing ('Rock and Roll' by Hubert Yencesse) is set in the lake with the figures appearing to dance on the water.

Water is often a central element in the designs of Jellicoe and the Water Gardens at Hemel were one of his early projects with ambitious plans for designing with water. Proposals for the water feature were developed together with his wife Susan. To create the formal water feature, the River Gade was diverted into a sculpted concrete lined structure forming the canal and lake and a large culvert was constructed under the park to carry overflow water. This allowed the flow of water through the park to be controlled and removing the risk of flooding. This system remains today and there are no records of the Gardens ever having flooded.

The water feature is the most important feature of the park both as an important aesthetic and structural element but also as Jellicoe's first example of incorporating allegory into his design. As work on the park progressed, he developed the design of the water feature to provide a hidden representation of a serpent. The lake represents its head, with a tall fountain forming its eye, the open eastern bank forming its smooth underbelly and the western bank with planting representing its tufted back. The curving form around a grass mound at the northern represents its tail and the weirs along the main canal represent its locomotion.

Formal Flower Garden

Sited directly opposite a small public square on the east side of Waterhouse Street (Bank Court) is a large formal flower garden. A gentle slope has been created which rises away from the water and planted areas have been formed within a grid of paths which incorporate seating. At either end of the garden is a double line of pleached limes which enclose the Gardens and introduce a feeling of classicism. The

planted areas were designed by Susan Jellicoe and early photographs show it as providing a colourful display of roses and herbaceous planting with yew bushes around the edges.

Early drawings show a series of arbours connecting the flower beds over the paths but these do not appear to have been installed (perhaps omitted as one of the cost-saving exercises which were necessary as the design developed). Very little of the original planting remains although some of the yew has survived and the pleached limes and the three willows adjacent to the waterside path, have developed into mature specimens. In his writings about the Water Gardens, Jellicoe describes the rectangular flower garden as the howdah on the serpent's back with the bridges over the canal representing the straps which attach it.

Lovers' Walk

On the west side, the garden narrows after the formal Flower Garden to form an enclosed, densely vegetated area with a sinuous path which meanders gently along the side of the canal. Jellicoe refers to this as 'Lovers' Walk'. The dense tree cover includes a mix of trees which were mature when the Gardens were first laid out, self-seeded trees and trees that were part of the original planting design. Several of the older trees are now over-mature and declining.

Along the western edge a low mound (constructed using material from the lake excavations) with tree and shrub planting provides screening of the adjacent car parks and provides containment and enclosure along the edge of the Walk. Planting along the waterside is predominantly evergreen shrubs many of which are over-mature and have been crudely maintained. Balconies overhanging the waters edge are situated at regular intervals along the Gardens. Enclosed by simple railings and edged with benches they provide relaxing areas from which to enjoy views along the canal.



Above: The eastern lawn



Above: The northern mound



Above: Looking north along the western boundary and Moor End Road car park

Eastern lawn

An open grass area extends along the eastern bank of the canal for most of its length. It was originally conceived and designed as an open lawn which sloped gently down to the waters edge. However, trees have been planted and the shade together with the effects of a large population of ducks and geese have resulted in the grass becoming worn away.

Northern mound

A large mound with mature trees is located at the northern end of the Water Gardens. This is an important part of Jellicoe's design. It was constructed using material excavated from the canal and was designed to represent a hill which the watercourse (the serpent's tail) rests against. Jellicoe was very keen that it should not become a viewing mound as this would destroy the illusions he had set up in views along the Gardens.

Car parks and western verge

Three car parks are included within the site, two of which are surface car parks and one of which has a deck (added in the 1980s). The two surface car parks are enclosed on the eastern side with a bund and planting with the original intention that cars would be screened but wider views across the green space towards the hills in the distance would be maintained. However the planting has not been well maintained and these longer distance views have been lost. Existing mature trees (including large willows and poplars) were integrated into the design of the area around the car parks several of which are now very large.

The car parks are set back from the Leighton Buzzard road behind a broad grass verge and tall beech hedge. There is little visual connection between vehicles and pedestrians on the Leighton Buzzard road and the Water Gardens and town centre to the east as the hedge forms a strong visual barrier.

Setting

The elements which combine to form the setting of the Gardens are outlined and described below. Further detail on the setting of the existing decked car park and the proposed Civic Centre is provided in section 4.4 below.

Context and character

The immediate setting of the Water Gardens is formed by Waterhouse Street to the east and the landscaped car park area to the east. The wider visual setting extends to the high street and town centre in the east and to the distant wooded hills in the west.

Waterhouse Street forms a key part of the setting. Its wide open frontage to the Gardens with regular connections through to the town high street and the design of the building frontage along Waterhouse Street which face onto the Gardens helps create a strong relationship between the town and Gardens. The east-west pedestrian links which connect the town centre with the parking areas and the residential areas beyond tie the Gardens into their setting. In both the masterplans by Jellicoe and in the final masterplan later implemented by the development corporation, the Gardens are a central part of the vision for the town centre. The design of the Gardens reflect this and the visual and physical links between the two areas together with the open design of the Eastern Lawn are key parts of this.

The car park areas to the west of the Water Gardens also contribute to the setting of the Water Gardens although these are less significant than Waterhouse Street. The enclosure of the car parks with planted bunds and mature beech hedge creates a green backdrop to the Water Gardens and provides a sense of space around the Gardens. As mentioned above, the planting and bunding were designed to allow views out to the hills in the west beyond. Over time however, the planting has matured and become denser resulting in the loss of these views. The introduction



Above: The Rock & Roll sculpture



Above: The eastern boundary at the southern end of the Water Gardens



Above: View of the Flower Gardens from the eastern boundary



Above: Current signage

of a decked car park at the northern end has had limited adverse impacts on the setting of the Gardens. The parking structure and the tall hedge to the west together obscure views through the Gardens to the west. However, planting in planters on the upper storey, the scale and density of planting in Lovers' Walk and the transparency of the decked structure which allows views through to the planted edge have to some extent reduced the impact of the building on the setting of the Gardens.

Landscape and topography

The Water Gardens sit within the valley bottom of the River Gade. The topography of the Gardens and the surrounding area is generally flat with a slight fall along the length of the gardens from north to south.

Views in, out and through the site

There are views into the Gardens from the surrounding streets particularly Waterhouse Street and Moor End Road and within the Gardens there are important views from the balconies and bridges. From within the Gardens most views are focussed up and down the water feature and across the canal to the town centre beyond. The southern entrance on Moor End Road is a particularly important viewpoint providing a view across the lake with the fountain and 'rock and roll' statue in the middle ground, the formal flower garden to the west and the canal receding into the background.

Public Realm

The Water Gardens forms part of a wider area of public realm. This includes Market Square and Bank Court and surrounding streets which connect with the High Street to the east and Leighton Buzzard Road to the west. This is an important area of public realm which forms the setting of Hemel Hempstead's town centre. Both the Gardens and the adjacent areas of public realm are currently in poor condition and do not provide a positive setting for the town centre.

Routes and setting

Key routes within the wider setting of the Gardens and from which the Gardens are experienced are: Leighton Buzzard Road (A4146) and the adjacent local road – Cotterells to the west; Combe Street to the north, Waterhouse Street to the east; Bridge Street through the middle; and, Moor End Road to the south. The east-west routes are particularly important as pedestrian links connecting the town centre with the parking areas to the west of the Gardens and to the residential areas beyond.

Arrivals and departures

The Gardens, car parks and surrounding streets form part of an important arrival area for visitors to the town centre. The quality of this is currently poor however, through improvements to the gardens and wider public realm there is potential for the area to form a high quality, attractive and distinctive arrival/ departure area for the town centre.

Safety and security

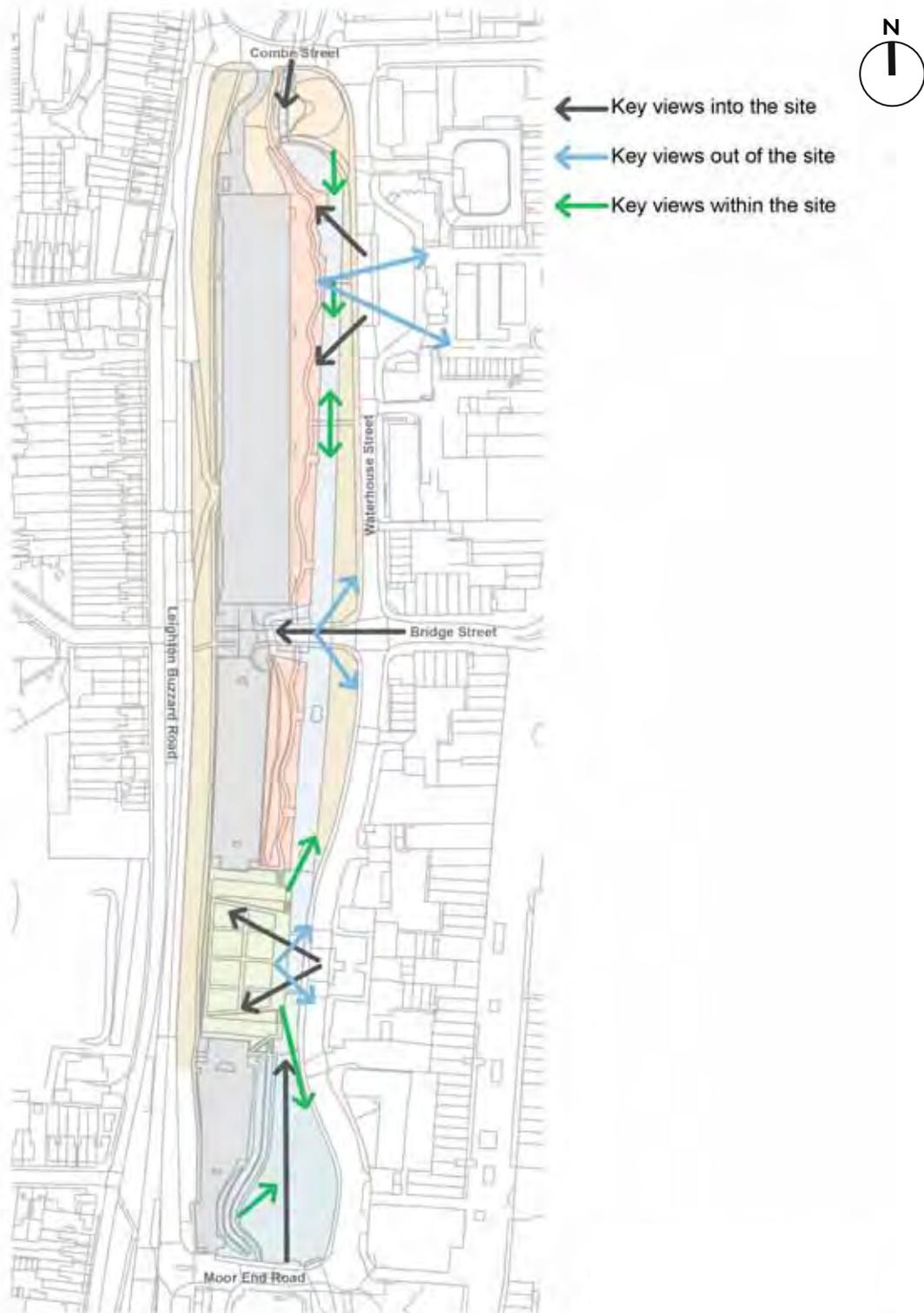
The Gardens have become overgrown, are not well used and there is little informal surveillance. As a result they have begun to attract anti-social behaviour. There is a need for environmental improvement schemes (including new lighting) to improve the quality of the public realm and increase the number of people using it and providing informal surveillance.

Historic/cultural relationships

In both the masterplans by Jellicoe (refer to following Historical Context) and in the final masterplan later implemented by the development corporation, the Gardens are a central part of the vision for the town centre.

Other environmental factors

The Gardens also play a role in the wider green infrastructure of Hemel Hempstead. They form part of a green corridor which extends from Gadebridge Park and Bury Park in the north to the open land of Boxmoor to the south.



Above
Key views in and out of the Water Gardens

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2.4 CONDITION SURVEY

Key views

There are views into the Gardens from the surrounding streets particularly Waterhouse Street and Moor End Road and within the Gardens there are important views from the balconies and bridges. From within the Gardens most views are focussed up and down the water feature and across the canal to the town centre beyond. The southern entrance on Moor End Road is a particularly important viewpoint providing a view across the lake with the fountain and 'rock and roll' statue in the middleground, the formal flower garden to the west and the canal receding into the background.

Completed in approximately 1962, the Water Gardens are nearly 50 years old and appear to be mostly intact as per Jellicoe's original intention. However, given their age and condition, it is clear that the Water Gardens need significant capital investment.

A condition survey of the Gardens has been undertaken as part of this study to assess the general condition of the gardens and assess the work required to restore them and maintain them for use in the twenty first century. This was an outline survey and a further detailed survey will be required prior to developing detailed restoration proposals. In particular, a detailed inspection of the Lake, Canal, bridges and balconies by an engineer is required to provide further detailed information on the condition of the structures and the work required. The study is included as Appendix C.



Above: View from Moor End Road looking west



Above: View from Moor End Road looking east towards the Marlowes



Above: View looking south towards the recent new retail development



Above: View towards the Flower Garden from Waterhouse Street

2.5 KEY STAKEHOLDERS

New development on the car park site will directly affect the setting of the Gardens. Ongoing engagement with key stakeholders, including the relevant statutory consultees, will therefore be critical to ensure the relevant issues and opportunities are identified, understood and assessed at an early stage. Initial contact has already been made with key stakeholders and initial outline views have been expressed. These are summarised below and contained in full in Appendix B.

Garden History Society

Linden Groves, Conservation Officer (East of England and London) provided an initial written response which contained the following:

- Urged consultation with Herts Gardens Trust
- Urged consultation with Dominic Cole of Land Use Consulting in his capacity as Chair of the Garden History Society.
- Suggested that relevant and useful terms of reference would include Civic Square in Plymouth and also the Water Gardens in Harlow.
- Confirmed that the gardens are registered on the Register of Parks and Gardens of Special Historic Interest at Grade II and that PPS5 provides the framework under which development proposals should be considered which affect heritage assets such as this.

Hertfordshire Gardens Trust

Kate Harwood, Conservation & Planning provided the following comments:

- Importance of the gardens cannot be overstated – of national and international importance.
- A rare example of post war New Town landscapes laid out for public good.
- Support coordinated efforts to restore the gardens – led by the newly forming Friends Group.
- Development on the car park site viewed as unacceptable as it would destroy the setting of the water gardens, the microclimate and the amount of shade thereby making it difficult to

reinstate the original planting scheme.

- There would be flood plain issues and additional stress on the existing pedestrian bridges.
- There are other more suitable sites in the town for a new civic hub.
- Gardens still serve as part of the green corridor linking the 18/19 century private Gadebridge Park (now a public open space) and Bury Park – all well maintained except the Water Gardens.
- Gardens could then be used for a variety of events by and for the townspeople as well as providing a landscape both thought-provoking and meditative.
- Water in the Gade should be restored by bypassing the large amount channelled off in Gadebridge Park into a storm drain. This would then help in combating the silting up of the river and restore the musical weirs.
- Greenspace should be provided in this age of climate change, rather than building on and detracting from that which we already have.

C20 Society

Initial contact was made with Jon Wright, case worker covering the Dacorum area, at the Twentieth Century Society and their views were invited on the issues and opportunities associated a new civic hub on the northern part of the decked car park site.

Whilst no written comments have yet been received, verbally the Society warned that urgent attention was needed to address the poor current condition of the gardens. This concern relates chiefly to current management and maintenance practices which, we understand, the Society has already made representations on.

The Society will reserve their right to comment on proposals as they come forward as a statutory consultee and urged that any new development must respect and respond positively to the setting of the registered Gardens with great care being required

regarding the form and scale of any building. Any new building would need to be of the highest architectural quality.

English Heritage

English Heritage have recently visited the site alongside Council officers following which they confirmed that they were pleased to see that so much of the structure of Jellicoe's design survives although the condition of parts of the site would benefit from an improved maintenance strategy. Following this site visit, Deborah Evans of English Heritage has provided the following comments:

- Understood that redevelopment would incorporate the council offices, police station, library and other civic uses. It is currently anticipated that this redevelopment would not significantly increase the footprint of the car park site, although it is likely that at least part of the proposal would require an increase in height from 2- 4-storeys.
- Dacorum are considering applying for a Heritage Lottery Fund bid to repair and better manage the water gardens through the Parks for People grants stream.
- These two proposals risk being mutually exclusive. While the existing two-storey car park, together with two further areas of ground level parking, are outside of the registered area, they contribute to its setting and to the experience of the designated heritage asset.
- During the visit we noted Jellicoe's careful and subtle bunding and planting along the boundaries of these parking areas, which show that he designed the gardens with the intention of accommodating at least some vehicles within it but that these areas were designed as part of a greater spatial awareness, articulated by views into and out of the gardens from the surrounding streets as part of the Master Plan.
- The erection of a four-storey building would irrevocably change the character of the northern

part of the garden, potentially overwhelming the narrow water side walk along the west bank of the river and experience of people walking up Waterhouse Street on the east.

- When tested against PPS 5, Planning for the Historic Environment, new development could be described as 'harmful' at the least. They may be so damaging as to make them questionable in principle - although of course it would be premature to reach any conclusion at this stage.
- Parks for People is intended to sustain the public use and appreciation of historic open spaces, specifically public parks. The baseline for any bid is a demonstration of the understanding or significance of the park in question, with proposals and management strategies informed by that significance. A proposal to radically redesign an area adjacent to the park's boundary would no doubt raise questions from the HLF over the appropriateness of those development proposals and therefore the suitability of the application to receive public money.
- The Council needs to establish a full understanding of the significance of the Water Gardens and of their role within the Master Plan, in order to inform further decisions. This level of knowledge would be needed to support either a planning application or HLF application (or even interim improved management of the gardens).

Initial contact has also been made with Elaine Harwood at English Heritage who is a leading expert on twentieth century architecture and works very closely with the Twentieth Century Society. Elaine emphasised the importance of securing the best quality new architecture in any new buildings that would affect the setting of the registered gardens although no written views from her have been received as yet. The views of Fridy Duterloo-Morgan at English Heritage have also been sought.

Environment Agency

Initial discussions have already taken place with Nick Birkbeck, Planning Liaison Officer at the Environment Agency and the following initial views have been provided:

- The EA have confirmed that the decked car park site is in Flood Zone 1 within which land is assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%). As set out in PPS 25 Annex D, such land is suitable for all uses of land.
- They confirm that they anticipate a new PSQ to be a landmark building in the town and that the highest environmental standards will be utilised in its design including Sustainable Drainage Systems (SuDS) and green roofs.
- There is a requirement to ensure all rivers achieve 'good' status under the European Water Framework Directive (WFD). The Thames River Basin Management Plan (RBMP) is in place to deliver this objective. The River Gade is currently ranked as 'moderate' and action is required to move towards 'good' status.
- They confirm that any works within eight metres of the River Gade will require Flood Defence Consent.
- They confirm that they are keen to remain involved and that they may be able to help fund the necessary studies to achieve the improvements required and the opportunities presented.



Above: View of Lovers's walk from Waterhouse Street, south of Bridge Street



3 STATEMENT OF SIGNIFICANCE AND OPPORTUNITIES FOR IMPROVEMENT

3.1 SUMMARY STATEMENT OF HISTORIC SIGNIFICANCE

This section provides a 'statement of significance' for the Water Gardens which then leads to a review of the opportunities for improvements to the Gardens to ensure the attributes that underpin the values and significance of the Gardens.

Significance is a word used by English Heritage to summarise what is important about an historic asset. These are often set out and described in a 'statement of significance'. English Heritage promotes a values-based approach to significance as set out in Conservation Principles. These values can incorporate:

- evidential value - relates to the potential of a place to yield primary evidence about past human activity
- historical value - relates to the ways in which the present can be connected through a place to past people, events and aspects of life
- communal value - relates to the meanings of a place for the people who relate to it, and whose collective experience or memory it holds
- aesthetic value - relates to the ways in which people derive sensory and intellectual stimulation from a place

This section summarises why the Water Gardens are of historic importance and identifies the key features and attributes of importance. These attributes respond to and are derived from the diverse range of values presented by the Gardens. It can be used to identify what it is important to protect and enhance and therefore helps form the baseline against which potential changes to the Gardens or its setting can be assessed.

A MAJOR PUBLIC COMMISSION BY ONE OF THE MOST INFLUENTIAL LANDSCAPE ARCHITECTS OF THE TWENTIETH CENTURY

The Hemel Water Gardens were designed by Geoffrey Jellicoe (1900 – 1996) - a leading figure in twentieth century landscape design. Jellicoe was a landscape architect, architect, town planner and writer with an international reputation. He was a founding member of the Institute of Landscape Architects (ILA) (now the Landscape Institute) was president of the ILA for ten years (1939 -1949) and in 1948 was founding president of the International Federation of Landscape Architects(IFLA).

He was a visionary who was always at the forefront of the profession and over his long career was responsible for a huge range and diversity of projects. The Hemel Water Gardens were a major commission for a public client which was undertaken by his practice – Jellicoe, Ballantyne & Coleridge. The Gardens are an excellent example of a project conceived by Jellicoe and developed by him in collaboration with his wife Susan Jellicoe (who was responsible for the planting design). Jellicoe considered the Gardens to be one of his most important works.

ONE OF THE FIRST PROJECTS BY JELlicoe WHICH EXPLORES ALLEGORY AND THE SUB-CONSCIOUS

A key trait in Jellicoe's later work is the development of a sub-conscious or allegorical idea within his design.

The Hemel Gardens are one of his first projects in which he develops an allegorical idea (in this case the hidden serpent) and he incorporates both 'the seen' (conscious) elements and 'the unseen' (sub-conscious) to provide an added richness and depth to his work.

AN EXAMPLE OF THE STYLE AND TRADITION OF TWENTIETH CENTURY LANDSCAPE DESIGN IN THE NEW TOWN MOVEMENT

Hemel Hempstead is one of 11 New Towns designated between 1946 and 1950 in the first wave of new towns to be created under the New Towns Act 1946. These towns were at the forefront of new ideas for town planning and landscape design and landscape architects played a key role in the development of these new settlements. Towns such as Harlow, Stevenage, Bracknell and Welwyn Garden City were developed often under the design direction of leading architects (e.g. Frederick Gibberd).

The Hemel Water Gardens are a key part of the masterplan for the New Town and use a simple palette of materials and techniques which were characteristic of the 1950s – elegant concrete bridges, earth bunding, concrete-lined water features, simple furniture and a mix of naturalistic and formal planting. Other New Towns incorporated significant civic gardens with similar techniques and materials, but in many cases they have become lost or altered over the years. (Harlow Water Gardens for example has recently been completely removed). Hemel Water Gardens however are a good example where the Gardens remain a central feature in the town layout and most of the original design and detailing is intact (albeit in need of restoration).

AN EXAMPLE OF MODERNISM IN LANDSCAPE ARCHITECTURE

Jellicoe was inspired by modernist artists such as Klee, Hepworth and Nicholson and his style of design in the 1950s drew inspiration from their work. His idea for the hidden serpent in his design for the Hemel Water Gardens were inspired by two abstract works by Klee ('Highways and Byways', 1929 and 'The Vessels of Aphrodite', 1921). The Water Gardens are an important example of modernist ideas being developed in landscape architecture.

A RELATIVELY INTACT EXAMPLE OF A MID-TWENTIETH CENTURY CIVIC GARDENS

Post-war Britain saw the creation of a significant number of new civic gardens some of which were associated with the construction of New Towns e.g. Stevenage Water Gardens and Harlow Water Gardens as above, others which incorporated war memorials e.g. Norwich Memorial Gardens, and others as a job creation scheme for the long term unemployed e.g. Verulamium Park lakes, St Albans. Hemel Water Gardens is an intact example of mid twentieth century civic landscape design. It has been remarkably unchanged whereas most twentieth century parks have changed and evolved over time.

THE CENTRAL PUBLIC OPEN SPACE FOR HEMEL HEMPSTEAD WHICH WAS PART OF THE ORIGINAL VISIONARY MASTERPLAN FOR THE NEW TOWN

Jellicoe was responsible for developing a visionary masterplan for the expansion of Hemel Hempstead in 1947/49 (see earlier Historical Context section) and the incorporation of a Water Garden was a central idea in his plans. In his vision the Water Gardens ran through the centre of the town with civic buildings set within it and a water feature winding around the buildings. The masterplan was never implemented although many of Jellicoe's ideas were incorporated in the final plan. The inclusion of public water gardens based around the River Gade was a key element in the vision for the Hemel Hempstead new town and it remained an important feature of the implemented masterplan.

A WELL-DOCUMENTED EXAMPLE OF A LANDSCAPE CONTRACT MANAGED BY GEOFFREY AND SUSAN JELlicOE

Records exist in the Hertfordshire County Records Office of detailed correspondence between Geoffrey and Susan Jellicoe and Hemel Hempstead Development Corporation which document the design and implementation of the Water Gardens. These documents, together with the Gardens themselves, provide a valuable insight to the development and implementation of a key project designed by Jellicoe. They identify the problems and practicalities of delivering the project and the day to day frustrations and satisfactions along the way.

KEY FEATURES AND ATTRIBUTES

- 'Hidden ghost' of the serpent represented by the lake, fountain and canal
- Serpent's 'tufted back' represented by Lovers' Walk
- Serpent's 'smooth underbelly' - eastern grass bank (a visual contrast between the east and west banks)
- The 'howdah' on the serpent's back represented by the Formal Flower Garden and pleached limes (and its strategic alignment with Bank Court)
- An open plan design
- The mound as an illusionary device to enhance perspective
- Concrete elements (including bridges and balconies)
- Allegory, symbolism and visual illusions
- Acoustic and visual qualities of the water (eg the serpent's 'locomotion').

OUTLINE RESTORATION PROPOSALS PLAN



A larger version of this plan is included in Appendix D

- ← GRASS MOUND - minor works required to repair worn grass
- ← TIMBER BRIDGE - structural survey and replacement/ repair
- ← CHILDREN'S PLAY AREA - replace fence, safety surface and restore paved areas. Play equipment to be refurbished/ replaced
- ← BEECH HEDGE - reduce size/height of clipped hedge
- ← WESTERN FOOTPATH - refurbish surfaces and increase width
- ← ARCHED FOOTBRIDGES - condition/ structural survey and extensive refurbishment of concrete and railings
- ← PAVED FOOTPATHS - refurbish surfaces with bonded gravel finish and replace edgings. Address tree root damage
- ← PLANTING - shrubs and groundcover on western banks to be restored. Trees thinned/ pruned
- ← TREES & LAWN - reduce numbers of trees on eastern banks and reinstate lawns along entire length of channel.
- ← CHANNEL BANKS - extensive restoration and erosion protection along full length of river bank. Address issue of waterfowl feeding.
- ← CHANNEL - desiltation works and reintroduce bog gardens
- ← BALCONIES - replacement of paved surfaces and seating. Railings require refurbishment and repainted white.
- ← PAVEMENTS - minor repair/ relaying of pedestrian pavements
- ← VEHICLE BRIDGE - repairs to copings/ edgings and railings
- ← FOOTBRIDGES - condition/ structural survey and extensive refurbishment of concrete and railings
- ← ISLANDS - restore banks and reduce planting
- ← PAVED FOOTPATHS - refurbish surfaces with bonded gravel finish and replace edgings. Address tree root damage
- ← TREES & LAWN - reduce numbers of trees on eastern banks and reinstate lawns along entire length of channel
- ← PARKING AREAS - consider surface finish upgrade to bonded gravel finish in part. Reduce signage/ clutter and road markings
- ← PLEACHED LIMES - refurbish metal structure, replace tree and refurbish paved surfaces
- ← ARCHED FOOTBRIDGES - condition/ structural survey and extensive refurbishment of concrete and railings
- ← STATUE - remove graffiti clean and repaint curved wall
- ← TERRACE - restore flag paving
- ← FLOWER GARDEN - restore formal gardens to original Susan Jellicoe planting scheme and refurbish footpaths
- ← STEPS & RAMP - realign steps and repair concrete
- ← RETAINING WALL - structural survey, repair coping bricks
- ← WEIRS - structural survey, minor restoration
- ← BEECH HEDGE - reduce size/height of clipped hedge
- ← SCULPTURE - install underwater lighting
- ← LAKE - desiltation works, restore banks, reintroduce bog gardens
- ← RAILINGS - replace with appropriate railings
- ← FOUNTAIN - install underwater lighting
- ← PUMP ROOM - clean, refurbish and improve drainage
- ← ENTRANCE - improve, add signage and reduce planting density

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Above: Outline restoration proposals - these proposals broadly correlate to the condition survey and survey results - schedule of works/improvements outlined in Appendix C and E respectively

3.2 OUTLINE RESTORATION PROPOSALS AND OUTLINE COSTS

Outline restoration proposals

The serpent is a symbol for rebirth and renewal, signifying the birth and the development of the New Town and the Gardens. The current aspirations to regenerate the town centre and restore the Gardens are a continuation of this idea. Outline restoration proposals have been developed for the Gardens following the results of the historic analysis and condition survey. In most cases the design and detailing remains appropriate to contemporary users and few significant changes are considered necessary to make it suitable for the twenty first century. The central aim of the outline proposals is to repair and restore the gardens to as close as possible to the original Jellicoe design implemented in the 1960s. This will reflect and reinforce its historic significance and at the same time will re-create a Garden that is a unique, high quality civic space which the town and borough can be proud of.

In doing this, it should be noted that the management and maintenance regime for the Gardens will need to be increased above the existing 2011 levels (with an associated increase in costs) to ensure that the restored Gardens are appropriately preserved and maintained in the long term.

The proposals set out below (see Appendix D for more details) identify the works required to restore the Gardens. These are outline proposals and are based on the results of the landscape and historical surveys undertaken. Further detailed work is required to inform the development of detailed proposals and costings for the Gardens. In particular, there is a need for additional survey work including: an arboricultural survey, engineering survey of structures, survey and testing of silt, ecological survey, topographic survey and cctv survey of underground water culvert. At the same time a consultation exercise should also be undertaken with local users, user groups and key stakeholders.

Overall layout

Objective: Repair and restore the Gardens to the original Jellicoe design whilst regarding long term management and maintenance as a key consideration.

After years of under-investment the Water Gardens are now in a state of disrepair and in urgent need of restoration in order to ensure it remains an asset to the community, a draw for visitors and a well protected national heritage asset. A rigorous management regime following completion is vital to the long term success of the restoration works. The restoration of the various key elements within the Gardens is described in more detail below.

The lake and canal

Objective: Restore the 'hidden ghost' of the serpent. Desiltation works; water quality improvements; bank restoration; installation of a larger fountain; restoration of arched bridges.

The lake and canal, known by Jellicoe as the 'hidden ghost', is the central feature of the Gardens and therefore the condition of the water and integrity of its edges are important elements to address as part of the restoration works. Most of the hard vertical edges and weirs appear to be structurally sound however detailed surveys are required to assess the condition of the lake, canal and underground infrastructure to fully understand the requirements for restoration.

The structural elements within and adjacent to the lake and canal are highly visible design features within the Gardens. The bridges, balconies and railings are in need of restoration using appropriate high quality techniques following more detailed structural surveys. Railings are to be restored and painted to their original colour. The bog gardens within the lake and canal should be identified and restored to their original condition. The banks on the islands should be restored and the vegetation reduced



Above: View from looking north along Waterhouse Street



Above: View from Waterhouse Street looking towards a surface car park



Above: View of the decked car park from Bridge Street

to open up views and increase sunlight conditions for improved wildlife habitat subject to further ecological advice. Measures should be taken to discourage public feeding of waterfowl (e.g. discrete signage located near the waters edge).

Formal Flower Garden

Objective: Restore the 'howdah' on the serpent's back. Restore formal flower garden to reflect Susan Jellicoe's planting plans and schedules.

Originally conceived by Jellicoe as the 'howdah' on the serpent's back, this important part of the Water Gardens needs to be brought back to its former glory. As the formal ornamental part of the Water Gardens, aligned with the axis of Bank Court, its restoration and future management should be regarded as a high priority. Susan Jellicoe's planting plans for the flower garden no longer exist, but enough is known about the design concept, species used and materials laid to ensure a reasonably accurate restoration can be carried out. The flower beds will need to be replanted almost in their entirety whilst possibly retaining and improving some of the more structural planting elements like the trees and topiary. A framework of gravel like paving of consistent width will need to be reinstated as well as the waterside terrace with a contrasting paving material. The pleached limes as well as the paving beneath them will need to be restored following specialist arboricultural advice.

Lovers' Walk

Objective: Restore the serpent's 'tufted back'. Renew footpath surfaces; replace furniture; restore shrub planting.

The footpath extending north-south along the western edge of the canal is an important experiential element of Jellicoe's concept for the Gardens. The cool wooded

meandering experience of the west banks should be maintained in contrast to the lighter and more open lawns on the east side of the canal. Whilst respecting the need to retain the well vegetated and wooded character of Lovers' Walk it is important that some views are opened up and over-mature shrubs are replaced in order to create a variety of heights, tones and textures as Jellicoe would have intended in order to enhance the quality of the human experience. The repair and replacement of finishes, furniture and fittings along this route will further enhance this experience and ensure it becomes a safer, more comfortable, durable and accessible place.

Eastern lawn

Objective: Restore the serpent's 'smooth underbelly'. Remove trees; restore grass banks.

Proposed works for the Eastern Lawn aim to restore it as an open grass area as originally designed which contrasts with the denser planted areas on the west side of the water. Removal of some or all of the trees should be undertaken and a temporary edge treatment installed to discourage geese and ducks from the area. The area should then be reseeded or turfed to create a new grass sward. Management measures to reduce numbers of waterfowl should also be considered.

Northern mound

Objective: Retain the mound in its current form as an illusionary device to enhance perspective

The grass mound is generally in good condition and therefore no major works are proposed. Minor remediation works are proposed for the base of the mound where a path has been worn across the grass area.

Car parks and western verge

Objective: Improve visual connection between the car parks and Gardens.

Proposed works to the two surface car parks aim to restore the visual connection between the parking areas and the Gardens as Jellicoe originally intended and general improvements to the quality and appearance of the car parks. Proposals include upgrading the appearance of the car park surface with application of a bonded gravel surface, thinning of planting around the margins and selective replanting of appropriate lower growing species both in and around the car park. Thinning and replanting works will open up views across the parking areas from the Gardens towards the west.

Paths and furniture

Objective: Renew footpath surfaces and furniture.

Improvements to paths and furniture are an important part of the restoration proposals as the poor condition of both contribute to the current sense of disrepair and decline in the Gardens. Repair of paths is proposed to remove trip hazards and rectify root damage. Surface of paths to be refurbished with a bonded gravel type finish in keeping with Jellicoe's original design intent for a gravel finish to paths. Concrete path edgings should be removed and replaced with a flexible edging which is better suited to the curved profile of the winding paths. Proposals also include restoring slab paved areas as per the original layout (e.g. on the balconies and in seating areas). All proposals for paths and paved areas will need to be developed in accordance with recommendations from arboriculturist. Proposals for site furniture comprise repairs and refurbishment of original furniture where still present

and installation of new furniture to match originals where these have been lost. Most railings and some litter bins appear to be the original design and these should be retained and refurbished where possible. Railings should be repainted in white as shown in early photographs of the scheme.

Maintenance

Objective: Develop a long term management and maintenance programme.

Preparation of a ten year management plan for the Gardens is essential to ensure they are managed and maintained appropriately. It is also a necessary requirement of schemes funded by the Heritage Lottery Fund and a requirement if an application for a Green Flag award is to be successful in the future. The management plan should set out management objectives for the restored gardens together with a programme of regular management and maintenance operations required.

Following the restoration works, an enhanced management and maintenance regime will be required in the Gardens (compared with the existing level of maintenance). In particular, planted areas such as the Formal Gardens and Lovers Walk will need to be regularly managed to ensure the design intentions of the planting design are maintained. This will include regular weeding of planted areas and a programme of pruning and thinning as planting matures.

With appropriate training and supervision, much of the works could be undertaken by groups of volunteers and or a Gardens Friends Group. Community involvement through the use of groups of volunteers for management works would be beneficial and is normally encouraged by the Heritage Lottery Fund.

Outline costs

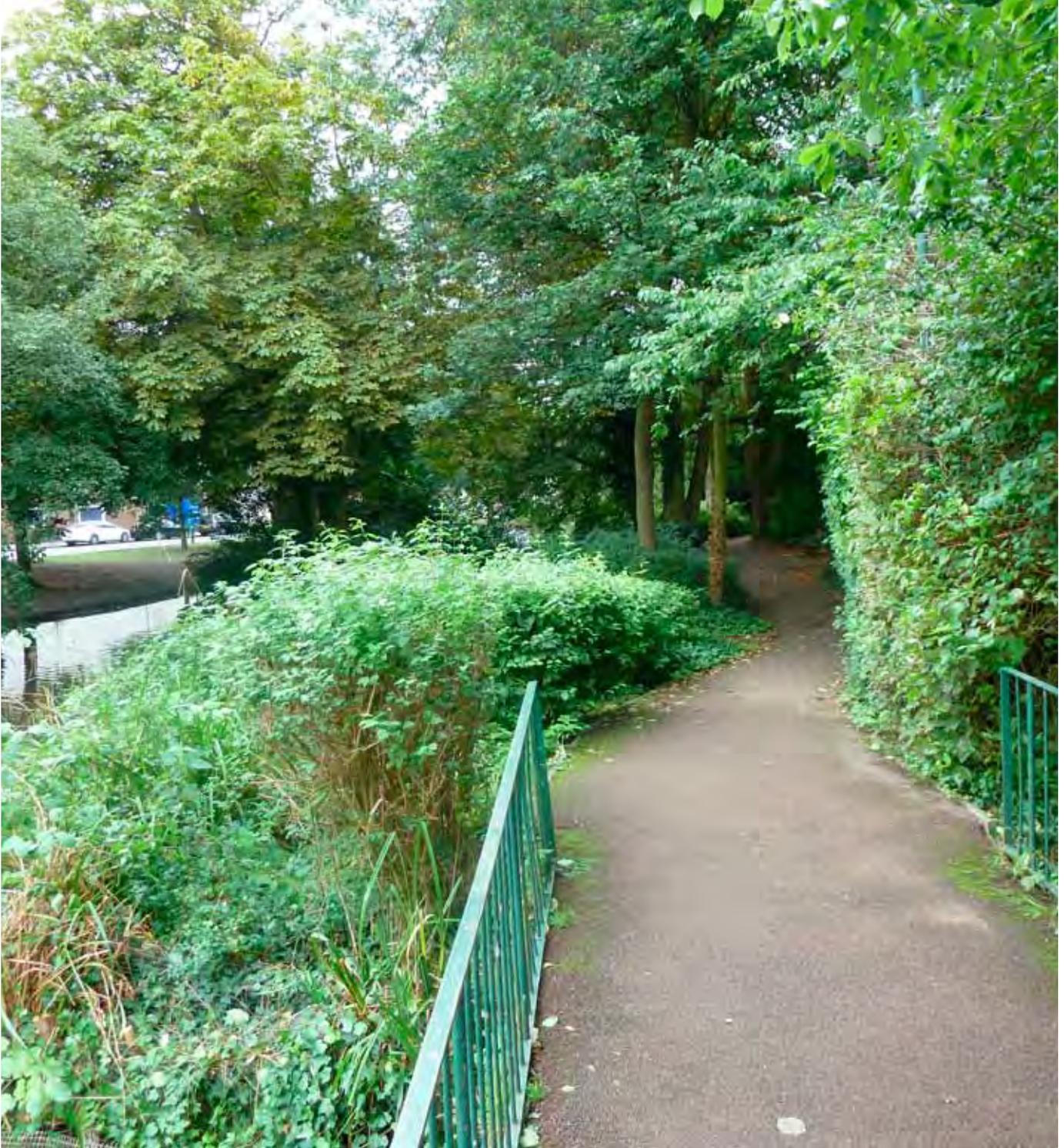
Outline costs for a full restoration of the Water Gardens have been prepared based on the outline proposals detailed above. They are intended to be used to assist in the development of a restoration project for the Gardens and are budget estimates only. Further detailed surveys are required before more accurate costings can be prepared. In particular, more information is required on the condition of the lake and canal structures, the volume and composition of the silt present and an engineer's survey on the condition of the main structures within the park (bridges, balconies and lighting). Further detail on the work covered by the costings is provided in the condition survey.

Please note that the following are not included in the costs:

1. Client costs (project management, grant applications etc),
2. Off site works (e.g. upstream works to River Gade),
3. Works to concrete lake and canal structure and underground culvert
4. Landscape works associated with the proposed civic centre
5. Landscape improvements to Market Square
6. New site management staff (e.g. park maintenance personnel, education officer, park ranger)
7. Increase in future management and maintenance costs
8. Advertising and visitor development costs
9. Training costs, management of volunteers
10. Works by statutory undertakers

Surveys and consents (topographical, utilities, cctv survey of main water culvert, trees, structural, geotechnical/silt, ecological, certificate of lawful development)		£40,000
GENERAL		
1	Footpath improvements	£80,000
2	Planting restoration (excluding Formal Gardens)	£245,000
3	Repair and replace seating	£100,000
4	Refurbish/replace lighting	£80,000
5	Replace litter bins	£22,500
Sub-total		£527,500
LAKE		
6	Works to lake (de-siltation, edge improvements, and wildfowl management)	£120,000
7	Edge improvements to lake	£30,000
8	Repair/replace pump chamber and new pump and drainage	£25,000
9	Cleaning and lighting to 'Rock and Roll' sculpture	£5,000
10	Entrance and southern boundary improvements	£15,000
11	Works to hedges	£25,000
12	New seats (included in 3 above)	£0
13	Installation of new 40' jet fountain and new underwater lighting	£20,000
14	Works to islands	£10,000
15	Works to railings	£20,000
Sub-total		£270,000
FORMAL FLOWER GARDEN		
16	Works to pleached limes	£50,000
17	Improvements to grass banks	£5,000
18	Restoration of paths	£50,000
19	Restoration of planting	£90,000
20	Repairs to sculpture and setting	£5,000
21	Repairs to steps and ramps	£40,000
Sub-total		£240,000

RIVER GADE/CANAL		
22	Desiltation and bank restoration	£200,000
23	Repairs to weirs	£30,000
24	Repairs to 6no bridges	£180,000
25	Repairs to 4no balconies	£20,000
26	Repairs to islands	£5,000
27	Repairs to Bridge Street Bridge	£15,000
28	Restoration of bog gardens	£40,000
Sub-total		£490,000
PARKING AREAS		
29	Improvements to planting around southern entrance (included in 2 above)	£0
30	Improvements to eastern embankment (included in 2 above)	£0
31	Repairs to retaining walls	£2,000
32	Improvements to planting within car parks (included in 2 above)	£0
33	Upgrade to surfacing	£92,000
Sub-total		£94,000
LOVERS WALK		
34	Refurbish path surfaces and edges (included in 1 above)	£0
35	Restoration of planting (included in 1 above)	£0
36	Works to trees (included in tem 2)	£0
37	Treatment of informal paths	£5,000
38	Repairs to hard waters edge	£5,000
39	Signage strategy	£40,000
40	Works to embankment	£20,000
Sub-total		£70,000



Above: Lovers' Walk, looking south from Bridge Street

GRASS MOUND AND PLAY AREA		
41	Refurbishment of play area	£30,000
42	Repairs to grass mound	£5,000
43	Planting around play area (included in 2 above)	£0
44a	Repairs to paved areas	£2,000
44b	Repairs to timber bridge	£10,000
Sub-total		£47,000
EASTERN LAWN		
45	Repairs to grass banks	£72,000
46	Repairs to pavements	£40,000
47	Tree removal (included in item 2 above)	£0
48	Works to furniture and fittings (included in items 3 and 5 above)	£0
Sub-total		£112,000
WESTERN VERGE		
49	New footpath	£10,000
50	Widen and repair existing footpath	£60,000
51	Works to trees (included in tem 2)	£0
52	Works to beech hedge (included in item 2)	£0
53	Works to planting around car park north entrance (include in item 2)	£0
Sub-total		£70,000
Total construction costs		£1,960,500
Contingencies @ 10%		£196,050
Contractors preliminaries @ 10%		£196,050
Sub-total		£2,352,600
Design and consultancy fees @ 15%		£352,890
Inflation (based on 8% of construction costs, contingencies and preliminaries) to allow for inflation of costs between date of cost estimates (Sept. 2011) and estimated date of start of works on site (Sept. 2013)		£216,440
TOTAL (EXCL VAT)		£2,921,930



Above: View of the Water Gardens looking south from Lovers Lane



4 NEW PUBLIC SERVICE QUARTER (PSQ) HUB DEVELOPMENT ISSUES AND OPPORTUNITIES

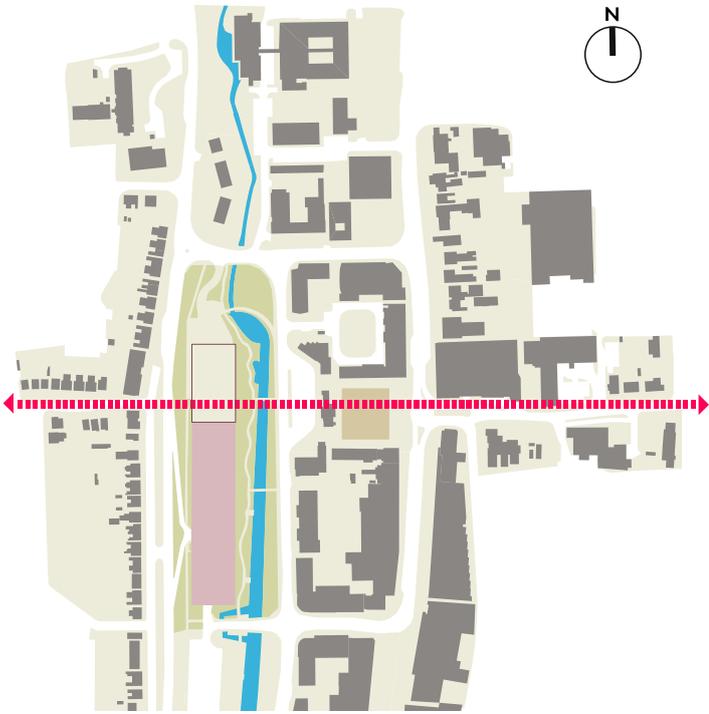
4.1 INTRODUCTION

Dacorum Borough Council is considering a range of alternative sites as potential locations for a replacement civic office building. This study relates to one specific site, the northern end of the decked Water Gardens North car park.

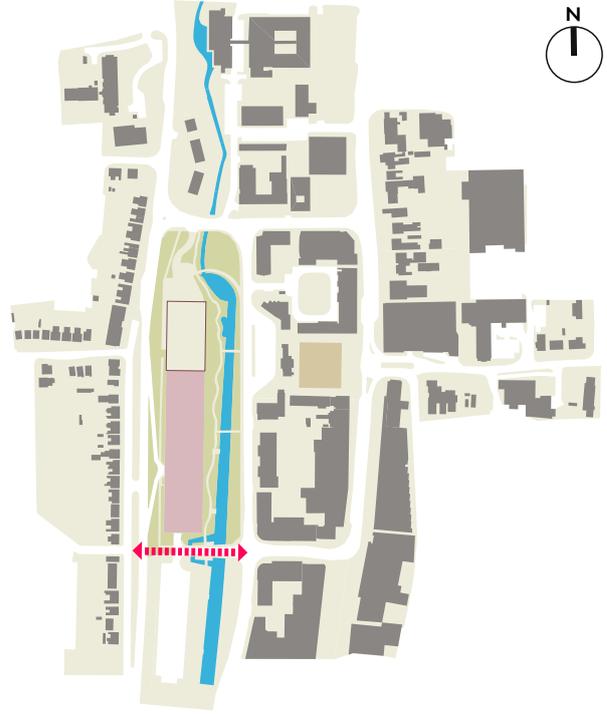
This part of the study is concerned with aspects associated with a potential new PSQ office building and its impact on the Gardens.

Initially, the section then explores the issues and opportunities associated with the site in question which inform a range of potential building footprints for buildings of different heights.

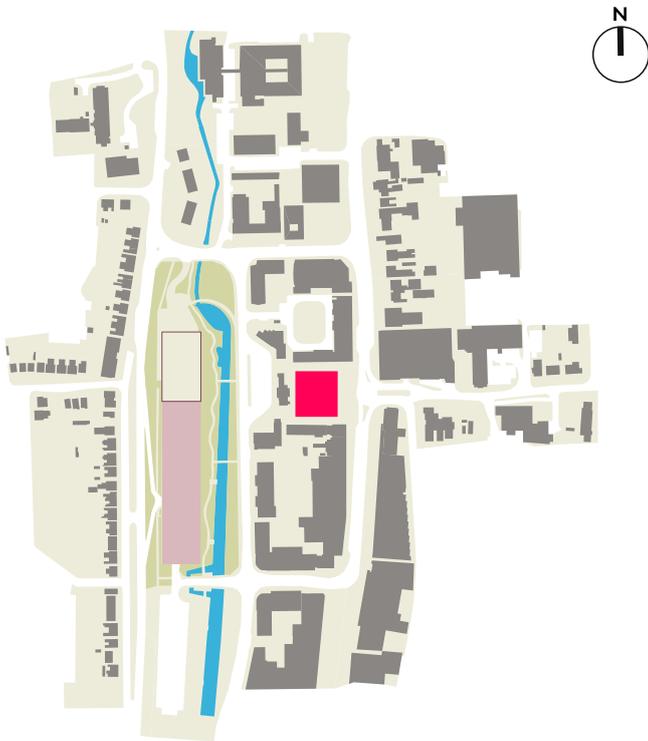
A series of design parameters are then put forward which are informed by a comprehensive understanding of and appreciation for the historical significance of the Gardens and the other issues and opportunities identified earlier in the chapter. Within these parameters, a view is taken on a Civic Office building form that is considered to present an appropriate initial response to the site and the potential impact on the Gardens and their setting.



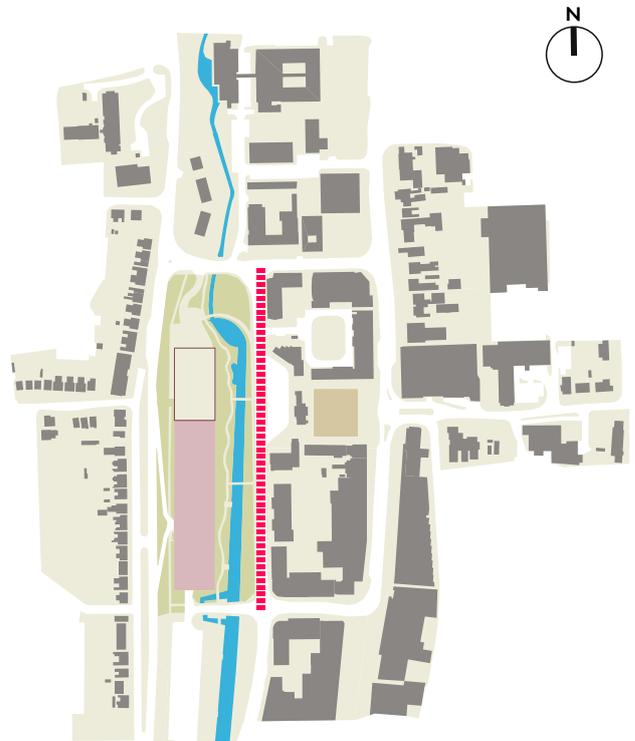
Above: East-west route



Above: Bridge Street connection



Above: Market Square



Above: Public realm improvements to Waterhouse Street

4.2 URBAN ANALYSIS AND OPPORTUNITIES

If the decked car park site is to be redeveloped for a building of approximately 5,000m²(gross) at its northern end, a number of issues and opportunities are relevant and should be taken into account. These are illustrated in the accompanying sequence of plans, as follows:

- East-west linkage: The town's prevailing north-south grain results in limited east-west connectivity. The site presents an important strategic opportunity to improve these links and, in doing so, improve public access to the gardens. A new DDA compliant bridge would be required for pedestrian and cycle access over the river.
- Market Square: The Market Square was identified as a potential development opportunity for the town during the Town Centre Charette. The site occupies a prominent position at the northern end of the Marlowes shopping zone in the town centre yet suffers from a poor quality environment. It is understood that environmental improvements are planned for the Square. The space is poorly enclosed by low density tertiary commercial uses which generally detract from the local townscape.
- Whilst the site certainly has redevelopment potential, the Market Square site would provide an important physical and visual link to the new PSQ. The site may also provide a short (or longer) term opportunity for the creation of a more formal garden space opposite the new PSQ offices which could play a very significant role in transforming the commercial fortunes of this underperforming area.
- There is also a major opportunity to relocate the bus station elsewhere in the town. A movement strategy is currently being commissioned by the Council which will explore options in this regard, including the potential to make better use of available space along Waterhouse Street for new bus stands and stops.
- Bridge Street improvements: The greening (tree planting) of Bridge Street is already planned as part of a series of environmental improvements to Marlowes and the core town centre. However, Bridge Street may also provide the opportunity of providing improved vehicular access to the town's principal public car parks. A new junction with Leighton Buzzard Road would provide a new vehicular access for both the Water Garden South and any replacement Water Gardens North car park, thereby potentially removing a significant number of car trips from Waterhouse Street. This could help transform Waterhouse Street into a public transport priority route which would enable bus services to continue to serve the town centre.
- Waterhouse Street Improvements: There are plans to improve Waterhouse Street, including introducing a shared surface, greening of the street and trying to create more active frontages onto the street.



Above: Plan showing potential new civic facility on Water Gardens site (GL Hearn and BDP, August 2011)
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4.3 FEASIBILITY STUDIES

The detailed brief for any replacement PSQ facility is still to be determined. The Council has commissioned DTZ to undertake a detailed review of its future accommodation needs and this will help inform any future brief. However, there are, at this very early stage, a significant number of unknowns. Chief amongst these is the uncertainty surrounding which facilities the PSQ hub might encompass.

Potential public sector uses that might be considered appropriate in this sensitive location are the civic offices, public library, limited office space for the local branch of the Hertfordshire Constabulary (Hemel Central office, currently based in Combe Street). At this stage, and in line with feasibility work already undertaken, this study considers the issues and opportunities associated with a building of 5,000sqm gross.

It is also considered that incorporation of a public cafe at ground floor level within the building envelope could present significant opportunities to improve the setting of the garden and make the Gardens a more popular, valued and appreciated civic facility.

Existing feasibility study (GL Hearn)

GL Hearn was recently appointed by the Council to undertake a feasibility study focussed on the existing civic offices site. However, this study did consider the potential for a new replacement PSQ office facility on the Water Gardens site.

The report points out that the design work undertaken did not take account of the significance of the site and the potential impacts on the Gardens. However, the report is useful in that it provides an initial and outline estimation of likely costs associated with a building of this size. Given the particular sensitivities associated with the site it is likely that overall development costs will be higher than they would otherwise be for a site in a less sensitive location. However, the cost advice provides a useful starting point.

This report has not been prepared with the benefit of any development or quantity surveying advice. However, we outline in section 4.5 possible areas/issues that could add to the overall development costs given the site conditions.

PSQ hub – Footprint studies

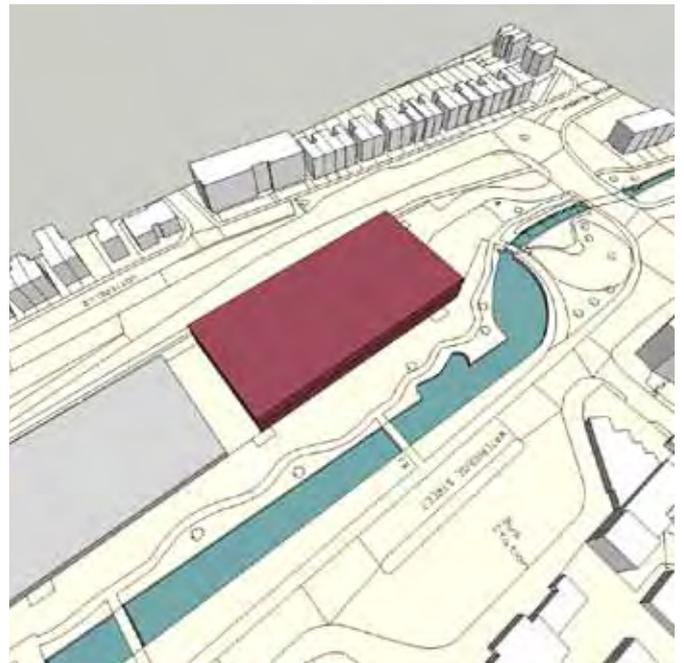
The adjacent plan shows the footprints of a 5,000m² building positioned at the northern end of the decked car park over two, three and four storeys. As was the case with GL Hearn feasibility study, we have assumed a replacement car park will be required as we understand that the existing car park is considered to be approaching the end of its working life.



Above: View of the Water Gardens and decked car park from the northern end of Waterhouse Street

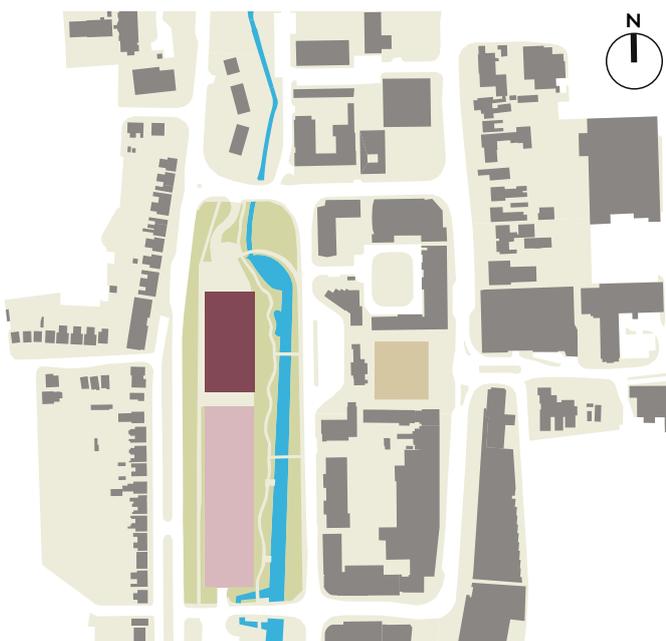
2 storey footprint

- A building of this height is likely to raise fewer objections in principle from stakeholders and local people.
- The building is less likely to dominate the local townscape and could certainly be designed to be seen as being subservient to the Gardens.
- However, the building would require a larger footprint than might otherwise be the case which could raise concerns about the mass of the structure.
- Seeking to ensure any new civic building should not dominate the local townscape could be said to be at odds with the public function of the building and the fact that it will play a very important civic role in the town centre.
- If arranged over a single building, the opportunity to introduce a new east-west connection is severely compromised as the route would not align naturally with existing routes.



Above: Plan showing the massing of a 2 storey building (red)

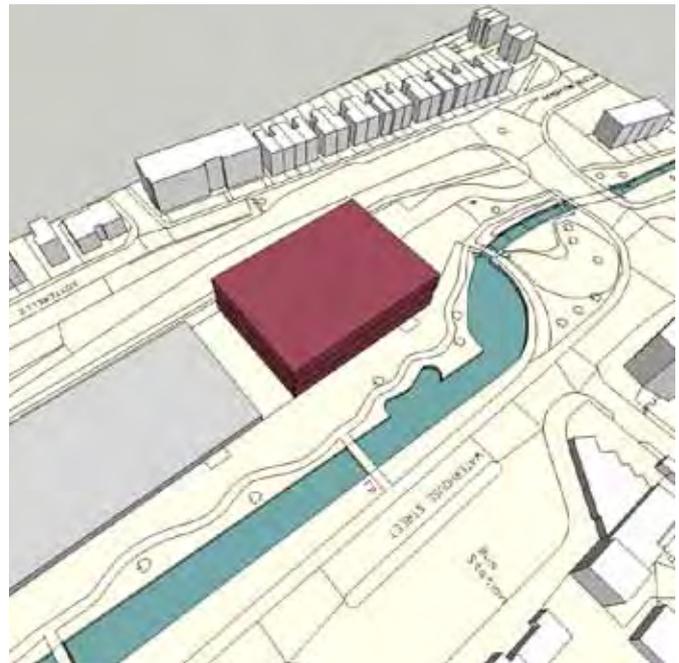
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Above: Plan showing the footprint of a 2 storey building (red)

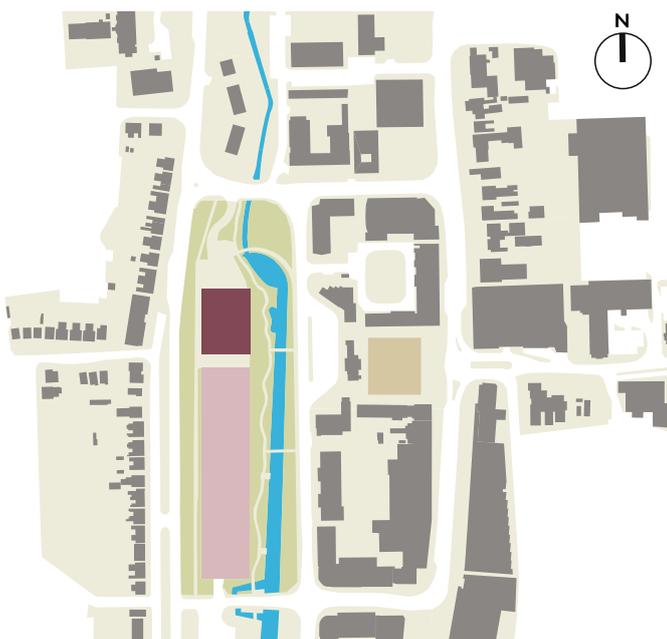
3 storey footprint

- A smaller footprint is required if the space were to be accommodated over three floors.
- The prevailing building heights along Waterhouse Street are three storeys.
- The key issue would be the impact of the building on the setting of the Gardens – where the benefits of a smaller footprint and corresponding opportunity to more easily introduce additional public space on the site would need to be balanced against the need to ensure the building was not seen to be competing against, and therefore potentially dominating in an overbearing way, the setting of the Gardens.
- The alignment of the east-west connection is far more direct and this would much more effectively help encourage east-west pedestrian movement along this axis. This would need to be supported by improved pedestrian crossing facilities on Leighton Buzzard Road and Waterhouse Street.



Above: Plan showing the massing of a 3 storey building (red)

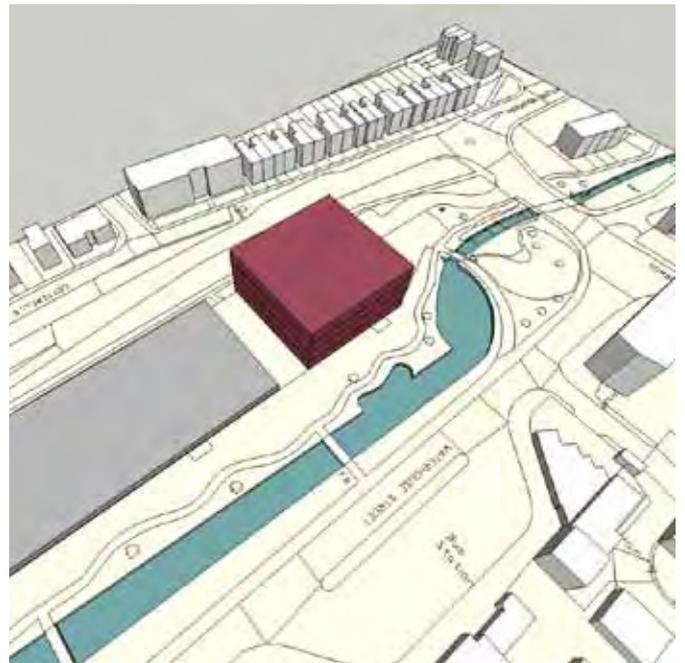
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Above: Plan showing the footprint of a 3 storey building (red)

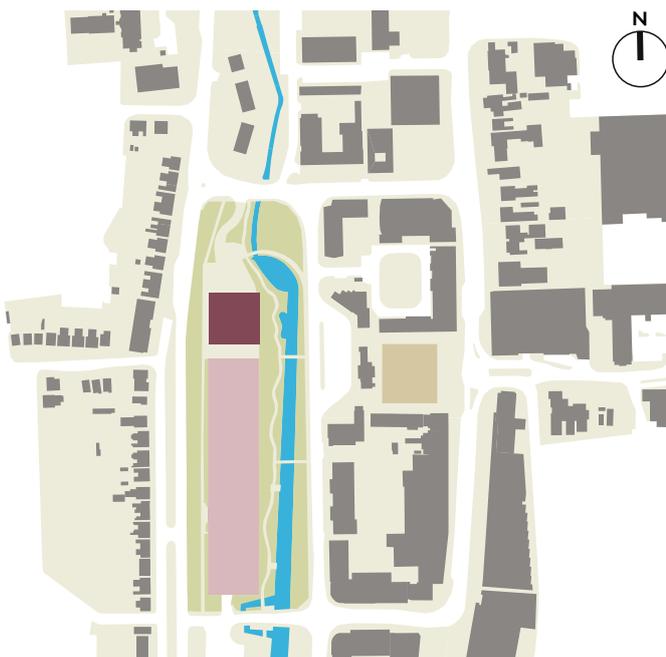
4 storey footprint

- The footprint is further reduced with the accommodation over four floors.
- Such a building would rise above prevailing building heights in the area. Given the extremely sensitive nature of the site, this is not considered appropriate.
- A building of this height would challenge the setting of the Gardens as it would rise significantly above the vast majority of the trees and plants.
- The smaller footprint would enable a good quality east-west pedestrian route to be provided and would provide the opportunity of providing additional public space around the building which could help lessen or improve the impact on the setting of the garden.



Above: Plan showing the massing of a 4 storey building (red)

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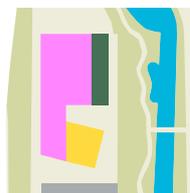


Above: Plan showing the footprint of a 4 storey building (red)

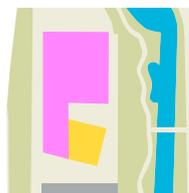


Use

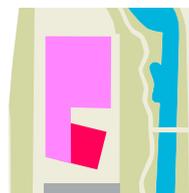
- Council offices
- Council chambers / meeting rooms
- Library
- Restaurant/cafe/exhibition



Ground



First



Second

Parking

Based on 28sqm per space (inc. circulation) multi st car park achieves 353 spaces

Above: Plan showing a possible footprint and uses for one 3 storey Public Service Quarter building

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Above: View of a 3 storey single building looking north west



Above: View of 3 storey single building looking south



Above: View of 3 storey single building looking west from market square



Use

- Council offices
- Council chambers / meeting rooms
- Library
- Restaurant/cafe/exhibition



Ground

First

Parking

Based on 28sqm per space (inc. circulation) multi storey car park achieves 289 spaces

Above: Plan showing the footprint and potential uses of two 2 storey Public Service Quarter buildings, with an east-west pedestrian route through the site



Above: Example of a new office building in parkland, Cambridge. Image courtesy of Stanton Williams, London.

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Above: Indicative axonometric view of a Public Service Quarter consisting of two 2-storey buildings with an east-west pedestrian route through the site, linking with a newly designed Town Square

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Above and left: Example of a new office building in parkland, Cambridge.
Image courtesy of Stanton Williams, London.



Above: Indicative street level view of the Public Service Quarter consisting of two 2-storey buildings from Waterhouse Street looking north



Above: Indicative street level view of the Public Service Quarter consisting of two 2-storey buildings from Waterhouse Street looking south

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Above: Birds-eye view of the Public Service Quarter consisting of two 2-storey buildings from above a redeveloped Market Square (indicative)



Above: Indicative street level view of the Public Service Quarter consisting of two 2-storey buildings from a redeveloped Market Square (indicative)

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Above: Indicative view of the Public Service Quarter consisting of two 2-storey buildings from Lovers' Walk looking north



Above: Indicative view from a new east-west route through the site looking towards Waterhouse Street, with a new cafe in the Public Service Quarter on the left

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Above: Indicative street level view of the Public Service Quarter consisting of two 2-storey buildings from Waterhouse Street, adjacent to Market Square



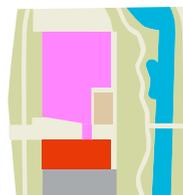
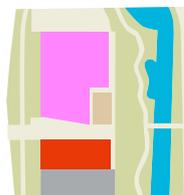
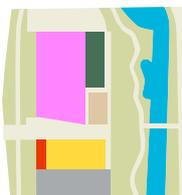
Above: Indicative street level view of the Public Service Quarter consisting of two 2-storey buildings from Waterhouse Street

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Use

- Council offices
- Council chambers / meeting rooms
- Library
- Restaurant/cafe/exhibition



Ground

First

Second

Parking

Based on 28sqm per space (inc. circulation) multi st car park achieves 365 spaces

Above: Plan showing the footprint and potential uses of a 2 x 3 storey buildings with an east-west pedestrian route through the site



Above: Indicative axonometric view of a Public Service Quarter consisting of two 3-storey buildings with an east-west pedestrian route through the site, linking with a newly designed Town Square

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Above: Example of a new council office building in parkland, Wiltshire. *Image courtesy of Stanton Williams, London.*



Above: Indicative street level view of the Public Service Quarter consisting of two 3-storey buildings from Waterhouse Street looking north



Above: Indicative street level view of the Public Service Quarter consisting of two 3-storey buildings from Waterhouse Street looking south

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Above: Birds-eye view of the Public Service Quarter consisting of two 3-storey buildings from above a redeveloped Market Square (indicative)



Above: Indicative street level view of the Public Service Quarter consisting of two 3-storey buildings from a redeveloped Market Square (indicative)

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Above: Indicative view of the Public Service Quarter consisting of two 3-storey buildings from Lovers' Walk looking north



Above: Indicative view from a new east-west route through the site looking towards Waterhouse Street, with a new cafe in the Public Service Quarter on the left

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Above: Indicative street level view of the Public Service Quarter consisting of two 3-storey buildings from Waterhouse Street, adjacent to Market Square



Above: Indicative street level view of the Public Service Quarter consisting of two 3-storey buildings from Waterhouse Street

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Above: An entrance to the decked car park from Lovers' Walk

4.4 SETTING AND PLACESHAPING

The setting of the Gardens is outlined in Section 2.3 above. This section deals more specifically with the contribution the decked car park site, ie. the site currently being considered for a new built PSQ facility, makes to the setting of the gardens, and the impact any potential redevelopment of it might have on the setting of the Gardens. In so doing, it is important to be aware that the decked car park was not part of Jellicoe's original design and that the site was originally laid out as a surface car park.

In seeking to consider the contribution made by a site, and any potential new development on that site, on the setting of the Gardens, it is helpful to consider the constituent elements of setting. There is no definitive list of the elements that combine to form the setting of heritage assets. However, the list below is considered to be sufficiently comprehensive. Each of these elements also features in Section 2.3 which considers the setting of the Gardens in their current condition. Alongside each element is a qualitative assessment of how the existing decked car park site contributes to the setting of the Gardens. The final column seeks to consider how redevelopment of the northern end of the car park site might impact on this setting.

The policies in PPS5 state that local planning authorities should preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset. Where such positive elements are not preserved, authorities should weigh any such harm against the wider benefits of the application. The greater the negative impact, the greater the benefits will need to be. In addition, authorities should identify opportunities to enhance the setting or better reveal the significance of a heritage asset. Such opportunities are to be seen as a public benefit and part of the process of placeshaping.

Elements of setting	Existing conditions	New development
Context and character	<p>The gardens are a major civic amenity and sit alongside the core commercial area and extend along the full length of Waterhouse Street.</p> <p>The site forms the western edge of the Gardens. Currently a decked car park with entrances that broadly align with Jellicoe’s footbridges.</p> <p>The concrete decked car park construction incorporates integrated landscaping elements to lessen its impact on the gardens.</p> <p>Notwithstanding the decked car park structure, there is a general perception that there are no buildings between Waterhouse Street and Leighton Buzzard Road.</p>	<p>Development of a new PSQ would create a new backdrop to the gardens would otherwise continue to be the decked car park.</p> <p>However, Jellicoe’s original intention was for there to be only a landscaped backdrop with views beyond extending west.</p> <p>The car park tries to hide itself as a built structure in this location. A new PSQ would, at least where the building is accessed, would do the opposite.</p>
Landscape and topography	<p>The site is in the foot of the Gade valley. The car park is not a tall structure. The site is 100% developed for car parking and whilst landscaping measures are incorporated into the design of the car park, the form of the building generally detracts from the landscape setting of the gardens.</p>	<p>A new PSQ development could respond more positively to the landscape and topography than the current car park which necessarily has a large floorplate.</p>
Views in, out and through the site	<p>Car park construction obstructs views across the gardens but the building is not tall and is open sides which helps lessen its visual impact.</p>	<p>A taller building would increase afternoon shade over parts of the garden, although a new break in the site could increase natural light in other areas. A new building would be a prominent feature from Marlowes looking west across Market Square.</p>
Public Realm	<p>Site is developed for the car rather than for people. The car park is not a high quality environment.</p>	<p>There is an opportunity to significantly improve the quality of public realm on the site which will have a positive impact on the setting of the gardens.</p>

<p>Routes and setting</p>	<p>The site was never intended to present a formalised route into the gardens.</p>	<p>A new east-west route could be created which was not part of the originally implemented garden design. This would make the town more accessible and permeable, particularly for communities to the west of the town, but would create a new opening onto Lovers' Walk which would need to be carefully handled in landscape design terms.</p>
<p>Arrivals and departures</p>	<p>The car park is a major point of arrival in to the town and, more immediately, the gardens. The quality of that arrival experience is not a particularly positive one.</p>	<p>A new PSQ could significantly improve the quality of the arrival and departure experience.</p>
<p>Safety and security</p>	<p>The gardens are not well used and tend to attract anti-social behaviour. The car park site does little to help this issue.</p>	<p>A new PSQ would be a key civic facility for the town and Borough and would increase the numbers of people using the gardens throughout the day. This will help ensure they are a safer place and less likely to attract anti-social behaviour.</p>
<p>Historic/cultural relationships</p>	<p>Jellicoe's original plan laid the site out as a surface car park for the town. The construction of the decked car park on the site deviates from this original plan.</p>	<p>Jellicoe originally envisioned civic buildings set within the water gardens although these were not implemented. However, the principle of an important civic and public facility taking a prominent place alongside the gardens would not seem to be fundamentally at odds with Jellicoe's original thinking.</p>
<p>Other environmental factors</p>	<p>Whilst serving a key role supporting the economic health of the town, the car park do not function as a 'place' and its value is a purely function one.</p>	<p>The delivery of a new PSQ has the potential to transform the northern end of the decked car park site into a new, well used, high quality and highly valued public place. People will use the facility and this could result in more people using, enjoying and appreciating the gardens. This could breathe new life into the gardens and will increase the value of this key asset to the local community.</p>

Whilst not an attractive building, the low level car park structure does successfully and respectfully take account of the setting of the gardens and is not a dominant feature in the local townscape. A new PSQ development would have a greater and significant impact on the setting of the gardens given that it will need to be at least two storeys tall.

There are positive and negative impacts on the setting, and a balanced view will need to be taken. New high quality, civic or public orientated development on the site of the decked car park has the scope to increase awareness and usage of the gardens, and it would also help raise funds to ensure that the gardens themselves would be a major beneficiary of the development. The concept of PSQ buildings set within these gardens is one that originally formed part of the concept for the water gardens. Whilst this element of Jellicoe's scheme was never implemented, it does suggest that the principle is one that is not at odds with the original concept for the gardens.

That said, the site is very sensitive and commercial development was never envisaged in the evolution of the masterplan for the New Town. A building on the decked car park site would inevitably be higher than the existing decked structure and would restrict east-west views from Waterhouse Street. A new PSQ as envisaged in this study would also be a prominent feature of the local townscape. It would raise the likelihood of a new east-west pedestrian link. Whilst analysis of historic plans do show that an east-west route in this location had been envisaged during the evolution of the Water Garden design, it was not envisaged in the implemented scheme.

4.5 DESIGN PARAMETERS FOR NEW DEVELOPMENT

The following design parameters emerge from the research into the historical significance of the Water Gardens, the issues and opportunities identified above and the footprint studies, an understanding and review of the relevant planning policy context (and in particular PPS5), the review of the potential impacts on the various elements that compose the setting of the Gardens and the 3D model studies undertaken.

These parameters are intended to guide and control new development on this sensitive site and help ensure that, on balance, proposals make a positive contribution to, or better reveal the significance of, the Gardens.

- 1. New development must be civic in form and function and/or be a public or community facility which improves public amenity and enjoyment of the Gardens:** The decked car park site is a highly sensitive location. The Gardens were originally designed as, and should remain, a civic amenity. Any new building on the decked car park site should make a positive contribution to or better reveal the significance of The Gardens.
- 2. New development should not encroach into the gardens:** New development should not extend beyond the footprint of the existing decked car park. In view of the impact of the construction process and the need to maintain any new building in this sensitive location, the footprint should ideally step 2m away from the edge of the Gardens.

- 3. New development must be of the highest architectural quality:** The quality of the architecture, detailing, materials etc will play a hugely significant part in determining the successful, respective, sensitive incorporation and integration of a new PSQ facility and car park into this sensitive part of the town. It may be appropriate to hold an architectural competition or seek support from Design Council CABE or similar body during the process of procuring a design team.
- 4. New development should deliver physical improvements to the Water Gardens and play an important role in restoring and enhancing the original design concepts:** The Water Gardens are in need of major capital investment due to their age and condition. A new PSQ on the northern end of the decked car park site could, through the release of the existing Civic Centre site for commercial development, deliver significant investment in the condition of the gardens. Potentially this would be a significant placemaking benefit that would be relevant to any such planning application and would help mitigate against any negative impact on the setting of the Gardens.
- 5. The Water Gardens should continue to be the dominant element in the local townscape:** Any new development should interact with the Gardens positively, responsively and respectfully. Any new development should respect the attributes of the Gardens and respond positively and respectfully to their special characteristics. These are documented and reviewed in the earlier parts of this report. Whilst the decked car park was not part of Jellicoe's original concept for the Gardens, its open construction allowing views through the structure help mitigate its impact. Transparency and views east-west through any new development could play an important role in ensuring the Gardens continue to be the dominant element in the local townscape.

6. The PSQ centre should not intrude upon views north-south along the Water Gardens:

Jellicoe's design includes a subtle perspective trick of narrowing the water course at its northern end creating an increased sense of depth and length to the park. This needs to be preserved. The mound was an integral part of this perspective trick. Views north-south along the Water Gardens should not intrude into this important view and should not unsettle the desired perspective illusion.

7. Vehicular access and egress should be from Leighton Buzzard Road:

With a current capacity of approximate 650 spaces, the Water Gardens North car park is one of the largest and most important car parks in the town centre. Whilst a parking strategy will be undertaken as part of the town's emerging Movement Strategy, it is considered likely that any redevelopment will need to retain a significant number of publically accessible car parking spaces. However, the parking structure should generally not exceed the height of the existing decked parking structure. There is also an opportunity to replace the existing Leighton Buzzard Road access to the car park with a new junction with Bridge Street which would serve both a replacement car park and Water Gardens South surface car park. This has the potential to remove a significant number of vehicular movements from Waterhouse Street.

8. A new PSQ centre should not extend above three storeys and a parking structure should not extend above two storeys:

An important challenge for any new civic building on the site will be to balance the need to protect the setting of the Gardens and create a civic facility that has an appropriate presence and prominence befitting its role in the town. Great care will need to be employed to ensure the bulk and mass of

a new civic facility is appropriate in its context. Modelling work suggests that a building of up to three storeys can successfully achieve this balance.

- 9. The integrity of the western bank should be preserved:** The western bank of the Gardens in the vicinity of the decked car park is dominated by the Lovers' Walk pedestrian route. Whilst some tree removal may be required to thin the planted belt, this key element of the garden should be protected and investment made to bring it back up to its original standard. Providing access to the building from the east and west provides the opportunity to create a new east-west pedestrian route through the town and Gardens on the axis of the existing Jellicoe footbridge opposite Market Square. This will require physical changes to the Gardens themselves, including a replacement DDA compliant bridge in this location. In doing so, great care should be taken to ensure the integrity of the Gardens is protected.

- 10. Linearity of the western grass verge should be maintained:** The existing grass verges along Leighton Buzzard Road, whilst beyond the extent of the formal listing, play an important role in protecting the setting of the Gardens. While redevelopment of the decked car park site presents the opportunity to introduce a new high quality east-west connection aligned with the Jellicoe footbridge in this location. Great care will be needed to ensure any new civic facility appropriately address this frontage and maintains the linearity of the grass verge.

4.6 PROCEDURAL ISSUES AND COST IMPLICATIONS

Costing advice has not been sought on these design options. High level and indicative cost advice was provided by GL Hearn in their feasibility study on the development option for a new PSQ facility on the Winter Gardens site. The cost of a new PSQ of approximately 5,000m² was estimated to be approximately £9m.

However, that report noted that the site's special circumstances and attributes had not been taken into account in undertaking the development appraisals and assessing development costs.

Possible sources of additional cost

The list below presents some of the potential issues that could add as yet unforeseen expense to the overall development costs associated with the redevelopment of the Water Gardens North car park.

1. Heritage issues: The heritage and design stakeholders will need to be fully engaged during the design process. The Twentieth Century and Garden History Societies are statutory consultees in view of the impact new development will have on the registered Gardens. This will require additional resources during design development. A full heritage impact statement will be required to support any planning application.
2. Design process: There is research which seeks to demonstrate that good design need not mean additional cost when considering the full life cycle of the building. A design of the highest architectural quality using high quality materials will be essential and the process of procuring a suitably experienced architectural practice may take additional resources in the short term. Such an investment should however prove to deliver better value in the long term.
3. Flood risk and associated issues: The Environment Agency has confirmed (see Appendix B) that the site falls within Flood Risk 1. On this basis the Flood Risk Sequential Test will not be required to support any future application. They also indicate that they would be looking to see an undeveloped strip, as wide as possible, with native planting. Any works within eight metres of the River Gade will require our Flood Defence Consent. How this requirement relates to the original design for the gardens and the opportunity to improve and repair the existing condition of the Gardens will need to be considered.
4. Ecological impact and sustainability issues: This will be a key issue, particularly given the Garden setting. The EA have confirmed that they would expect a new building to be designed to the highest environmental standards. Measures might include SuDS, green roofs and decentralised energy provision.
5. Ground conditions: Any planning application is likely to need to be accompanied by a ground conditions survey. The proximity of the development to the artificial canal and lakes of the Water Gardens will need careful investigation to ensure original structures are not damaged during construction. The 7ft River Gade culvert which runs parallel to the canal and Waterhouse Street is also an issue that will need to be considered in this regard.

6. Transport impact statement: Work on a movement strategy for the town is about to commence and a key element in this will be the evolution of a parking strategy for the town. Redevelopment of the car park and the relocation of a large civic office building will have major implications for the local road network and modelling work will be required. In addition, there are opportunities to improve the town centre environment through the introduction of new junctions and traffic management measures along Bridge Street. These will need further detailed analysis.
7. S106 requirements: A key additional cost for development on this site will be the need to deliver significant improvements to the Gardens. It is envisaged that this would form part of the Planning Obligation, agreed via a Section 106 Agreement.

It should be noted that the cost of restoration of the Gardens would have to be met by the Council if an HLF bid was not, or was only partially, successful. Whatever the decision taken on this potential PSQ development, significant capital investment is required to restore the site to past glories.



Above: View of the Water Gardens from the decked car park



Above: View from Lovers' Walk towards the bus station

5 OVERVIEW AND CONCLUSIONS

5.1 OVERVIEW

The potential PSQ centre development is outside the boundary of the register gardens and would therefore allow the formal Water Gardens to be retained intact. However, such a development would affect the setting of the Gardens and require a new footbridge. It is considered however, that if designed carefully, the proposed development would not affect the key features of the Jellicoe design with the exception on the creation of a break in the western margin of planting along Lovers' Walk to allow a new east-west pedestrian link connecting the PSQ Centre with Market Square to the east and Leighton Buzzard Road and the residential communities beyond to the west. Key impacts are summarised below.

Key potential beneficial impacts:

- At a key time when the Gardens have declined and are in urgent need of repairs and restoration, the development could play an important role in generating funds to allow the restoration of the Water Gardens.
- The removal of the existing decked car park and replacement with a new structure presents the opportunity for a higher quality design. In particular it offers the potential to create an improved frontage to Bridge Street and the main east-west pedestrian route through the Gardens.
- The PSQ scheme includes the opportunity for associated improvements to Market Square incorporating public car parking and gardens which will create improved linkages between the Gardens and Marlowes and improve the quality of the setting of the Gardens.
- The PSQ Centre development would increase the number of people using the Gardens and passing through it which is likely to have a beneficial impact on the Gardens. In particular, it is likely to have a positive impact on the safety of the Gardens (both perceived and actual) due to an increase in informal surveillance by the users and from overlooking from the PSQ itself.

Key potential adverse impacts:

- The proposals will affect the setting of the northern end of the Water Gardens by introducing a substantial built development which will overshadow and potentially dominate the northern end of the Gardens. The car parks were part of Jellicoe's original design concept and the construction of the PSQ centre would be a departure from this.

However, the impact on the setting is reduced by a number of factors:

1. The construction of the decked car park in the 1980s has already resulted in a change from the original setting of the Gardens although it should be recognised that this could be rectified.
 2. The Gardens are more strongly oriented towards the east than the west and the setting of the Gardens on the east side is of more significance to the integrity of the garden than that on the west side. However, the setting is the whole surroundings in which a heritage asset is experienced.
 3. In Jellicoe's early masterplan for Hemel he shows the Water Gardens wrapping round a series of civic buildings so it could be argued that Jellicoe is likely to have supported the principle of integrating the civic centre with the Water Gardens.
 4. New public space can be created within the existing footprint of the decked car park to help improve the setting of the Gardens.
- Introduction of the PSQ will require a new route which will traverse the western planted edge of Lovers' Walk. This will be a departure from the original Jellicoe concept and design although it should be noted that a route was planned in this broad location in earlier concept development stages.



Above: View looking north towards the Mound

- Potential adverse impacts on trees. Root protection area for existing trees will need to be ascertained. Decked car park construction may have diverted tree roots away from site of civic centre or tree roots may be underneath the car park. Therefore the PSQ may potentially damage roots of mature trees which will threaten structural stability of trees and potentially damage health and vigour of trees resulting in decline and eventual die-back/death of trees.
- Potential damage to trees and vegetation along western side of the Gardens due to proximity of construction works. The integrity and continuity of Lovers Walk needs to be maintained.



Above: View from the Jellicoe footbridge near the bus station, looking south

5.2 CONCLUSIONS

When a detailed scheme has been developed for the PSQ a full heritage impact assessment will need to be prepared to identify the potential impacts on the Gardens. However, at this point the feasibility study suggests that the PSQ facility is likely to have a significant impact on the setting of the Gardens but that this would not adversely affect the significance of the Gardens nor the key elements that contribute to this significance. In addition, a number of new measures have been identified which ensure that any adverse impacts on the setting of the Gardens are appropriately mitigated and additional measures introduced which will have a beneficial impact on the setting of the Gardens.

In developing detailed proposals for new development on the decked car park site, the following design parameters should be observed:

- 1. New development must be civic in form and function and/or be a public or community facility which improves public amenity and enjoyment of the Gardens.**
- 2. New development should not encroach into the gardens.**
- 3. New development must be of the highest architectural quality.**
- 4. New development should deliver physical improvements to the Water Gardens and play an important role in restoring and enhancing the original design concepts.**
- 5. The Water Gardens should continue to be the dominant element in the local townscape.**
- 6. New development should not intrude upon views north-south along the Water Gardens.**
- 7. Vehicular access and egress should be from Leighton Buzzard Road.**

- 8. A new PSQ centre should not extend above three storeys and a parking structure should not extend above two storeys.**
- 9. The integrity of the western bank should be preserved.**
- 10. Linearity of the western grass verge should be maintained.**

Towns continually evolve and change, indeed Jellicoe's original vision differed significantly from what was delivered. His original plan integrated prominent civic facilities into a larger, grander park setting. Whilst this alone does not justify a new building on the car park site, it is relevant. The siting of a new PSQ, which could incorporate a cafe adjacent to the Gardens, would attract more people to use the Gardens and thereby would help significantly in revealing the significance of the Gardens. However, the design and materials used for any such new development would need to be of the highest quality. Plans change over time, as do towns, and this process of change needs to be carefully managed.

Redevelopment of the site for a PSQ can therefore be seen just as both an opportunity and a threat and a balanced view will need to be taken. The Gardens need significant capital investment due to their age and condition. The Gardens would be a major beneficiary should a new PSQ office complex proceed on the decked car park site. This would have a major role in the efforts to bring the Gardens up to their intended condition. On balance the authenticity and integrity of the Water Gardens need not be undermined with a redevelopment of this nature, so long as designs are taken forward within the parameters outlined above.

Heritage Category:
Park and Garden
List Entry 1001710
Grade: II

County: Hertfordshire
District: Dacorum
Parish: Non Civil Parish

Each official record of a registered garden or other land contains a map. The map here has been translated from the official map and that process may have introduced inaccuracies. Copies of maps that form part of the official record can be obtained from English Heritage.

This map was delivered electronically and when printed may not be to scale and may be subject to distortions. The map and grid references are for identification purposes only and must be read in conjunction with other information in the record.

List Entry NGR: TL 05409 08615
Map Scale: 1:2500
Print Date: 23 September


1 Waterhouse Square, 138-142 Holborn, EC1M 2ST
Tel: 020 7972 3000, www.english-heritage.org.uk



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Name: Hemel Water Gardens

APPENDIX A

WATER GARDENS ENTRY IN THE ENGLISH HERITAGE'S REGISTER OF PARKS AND GARDENS OF SPECIAL HISTORIC INTEREST IN 2010



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List entry Summary

This garden or other land is registered under the Historic Buildings and Ancient Monuments Act 1953 within the Register of Historic Parks and Gardens by English Heritage for its special historic interest.

Name: Hemel Water Gardens

List entry Number: 1001710

Location

The garden or other land may lie within the boundary of more than one authority.

County	District	District Type	Parish
Hertfordshire	Dacorum	District Authority	

National Park: Not applicable to this List entry.

Grade: II

Date first registered: 01-Feb-2010

Date of most recent amendment: Not applicable to this List entry.

Legacy System Information

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

Legacy System: Parks and Gardens

UID: 5346

Asset Groupings

This list entry does not comprise part of an Asset Grouping. Asset Groupings are not part of the official record but are added later for information.

List entry Description

Summary of Garden

Legacy Record - This information may be included in the List Entry Details.

Reasons for Designation

Legacy Record - This information may be included in the List Entry Details.

History

Legacy Record - This information may be included in the List Entry Details.

Details

Civic Water Gardens 1957-9, designed by Geoffrey Jellicoe as part of the new town development of Hemel Hempstead, also master-planned by Jellicoe in 1947.

HISTORIC DEVELOPMENT After the Second World War, the government designated Hemel Hempstead as one of the sites of its New Towns Programme which was intended to re-house Londoners who had been left homeless by the Blitz. Architect and Town Planner, Geoffrey Jellicoe (1900-1996) was commissioned in 1947 to devise a Masterplan for the new town of Hemel Hempstead, for which his vision was a 'city in a park'. A key component of the planned new town's centre were the Water Gardens designed between 1957-59 by Jellicoe. The original drawings survive and show how he envisaged the site's layout. Jellicoe's intention was to create a place for pleasure and relaxation, by way of a sophisticated, well-arranged linear public park to create certain illusions and impressions.

Hemel Hempstead Water Gardens is one amongst a number of Jellicoe's earlier schemes designed in the 1950s, which share many of his distinctive signature characteristics, such as canals, weirs, bridges, viewing platforms and associated planting by Jellicoe's wife, Susan. They have been subject to some minor alteration and changes in the 1980s including the construction of a screen wall and a children's play area on the north-western corner.

The Water Gardens are an early instance of allegory and the sub-conscious being incorporated within landscape design, and a theme that featured in Jellicoe's subsequent work. Taking inspiration from the painter Paul Klee, whose works drew upon the comparatively new science of aerial photography, Jellicoe had the idea of concealing a ghost within the visible. When viewed in plan or from a distance, Jellicoe's design suggested the form of a snake, the tail curving away around the berm at the northern end of the gardens, the head with the fountain for its eye to the south, and the gently cascading weirs suggesting the snake's locomotion. The inclusion of the invisible within the visible is a documented aspect of Jellicoe's work which gives distinction and interest. In the case of the Water Gardens, the 'ghost within' gives the scheme an additional layer of intellectual and artistic intent that elevates it to something that is more than merely practical landscaping, contributing to its special interest.

DESCRIPTION LOCATION, SETTING, LANDFORM, BOUNDARIES, AREA The Water Gardens are situated in the centre of Hemel Hempstead and occupy approximately 3.5 hectares. The urban setting of the gardens, is apparent from inside them as well as outside, as they are not defined by a solid boundary such as a high wall or hedges and have an almost open-plan aspect to them. They are bounded to the west by the Leighton Buzzard Road (A4146) and a two-storey car park at the south-western corner; and Water House Street to the east, which has various public and commercial buildings fronting it.

ENTRANCES AND APPROACHES The gardens have an open-plan aspect to them with a number of different access points. Entry to the gardens can be gained from the south (Moor End Road), where there is a pedestrian entrance via a break in the iron railings, to the North (Combe Street) or via any of the four pedestrian bridges that link the public footway on Waterhouse Street with the gardens.

GARDENS The Water Gardens are of linear plan-form and have an irregular shape. They are approximately 615 metres long from north to south and reach approximately 50 metres at their widest point east to west. A footpath runs the length of the garden on the west side of the canal. From the southern entrance on Moor End Road is a view north with the lake in the foreground, the fountain in the near middle distance, the formal planting to the west, and the canal crossed by the bridges as it recedes into the background. There is also an island on the lake's east side, and a piece of sculpture set in the water which depicts a couple dancing.

From this entrance the path leads north following the contours of the lake on its western side for about 100 metres where some shallow steps lead to a raised viewing platform from which there is a view from the north-west corner of the lake towards the south-east corner, taking in the island and sculpture and the buildings beyond the gardens boundary. As the path continues north there is an area of formal planting immediately to the west, laid out by Susan Jellicoe, which includes flowers and shrubbery, and an arcade of pleached, flowering cherry trees, as the centre-piece. It is set out within a grid of paths and covers just over third of a hectare. On the opposite side of the path at this point is a pair of pedestrian bridges which are approximately 30 metres apart, and link the garden with Waterhouse Street on the eastern side of the canal.

The path continues north for approximately 25 metres where it meets a raised viewing platform. Approximately 5 metres north of this, a low, south-flowing weir punctuates the canal. From this point the path continues for approximately 100 metres where there is informal planting of shrubbery and trees on a more dense scale immediately to the west, and grassed canal bank to the east. Water plants such as grasses and water lilies are used to create drama at the water's edge.

On this stretch of the path, there are two raised seating areas, which are approximately 50 metres apart. There are also two small islands at this point in the canal. The path is interrupted by a road bridge which carries Bridge Street across the canal, bisecting the garden, approximately at its half way point. The path continues on the north side of Bridge Street for a distance of about 240 metres, past more informal shrubbery and tree planting which screens the multi-storey car park to the west. There are two raised seating areas on the canal side and two pedestrian bridges linking the garden to Waterhouse Street. Two small pieces of sculpture depicting animals are sited at the water's edge. At this point the canal bends to the west and forms a small basin, which is crossed by a pedestrian bridge leading back onto Waterhouse Street, beyond which is a series of weirs and a large berm which is planted with mature tree specimens which include willow, horse chestnut and lime and which marks the extent of the garden. The public footpath then returns south along Waterhouse Street, parallel to the canal, making a circular walk around the garden possible.

Four footbridges cross the canal, allowing pedestrian access from Waterhouse Street to the garden at various points. The bridges are of a simple, elegant design with gentle arcing concrete decks and simple plain railings. There are also other features of note including a fountain at the lake end, and various pieces of sculpture (not part of Jellicoe's original design) throughout the gardens, including a classical Greek statue of a discus thrower, and a modern piece of a couple dancing by Herbert Yencesse (1962). REFERENCES Spens, M, The Complete Landscape Design and Gardens of Geoffrey Jellicoe (1994) Weddle, A E (Ed), Techniques of landscape Architecture (1967) Transcript of report presented by Jellicoe to Hemel Hempstead Development Control Board (1959) Notes and drawings from the Landscape Institutes

REASONS FOR DESIGNATION The Water Gardens, 1957-9 by Sir Geoffrey Jellicoe, at Hemel Hempstead are designated at Grade II for the following principal reasons: * As a major, and relatively early, commission by one of the foremost landscape designers of the C20 * For the way Jellicoe integrated this civic design with his earlier, 1947-8, town masterplan for Hemel Hempstead * As an increasingly rare and largely intact example of a town centre water garden, created during the era of post-war renewal and new town developments * As an early instance of Jellicoe using landscape design to explore allegory and the sub-conscious, a theme that increasingly featured in his later schemes

Selected Sources

Legacy Record - This information may be included in the List Entry Details

National Grid Reference: TL 05409 06615

Map

APPENDIX B

CORRESPONDENCE WITH THE STAKEHOLDERS

New development on the car park site will directly affect the setting of the Gardens. Ongoing engagement with key stakeholders, including the relevant statutory consultees, will therefore be critical to ensure the relevant issues and opportunities are identified, understood and assessed at an early stage. Initial contact has already been made with key stakeholders and initial outline views have been expressed, which are described below.

Garden History Society

Linden Groves, Conservation Officer (East of England and London) provided an initial written response which contained the following:

- Urged consultation with Herts Gardens Trust
- Urged consultation with Dominic Cole of Land Use Consulting in his capacity as Chair of the Garden History Society.
- Suggested that relevant and useful terms of reference would include Civic Square in Plymouth and also the Water Gardens in Harlow.
- Confirmed that the gardens are listed on the Register of Parks and Gardens of Special Historic Interest at Grade II and that PPS5 provides the framework under which development proposals should be considered which affect heritage assets such as this.

Hertfordshire Gardens Trust

Kate Harwood, Conservation & Planning provided the following comments:

- In our opinion the significance of the gardens can hardly be overstated. As well as being on the EH Register which makes it amongst the most important in the country, it is also recognised as being of international significance alongside modernist works of importance across the world, including the renowned Copacabana Beach in Rio di Janeiro by Burle Marx, Paley Park by Dan Kiley, St. Catherine's College Oxford by Arne Jacobsen,

etc. It is one of the very few post-war New Town landscapes laid out for the public good which still survives relatively intact. However, it is at that critical point where deterioration must be reversed before it is too late to rescue it.

- We would be very keen to support any proposals for restoration, as that is why we helped organise the Jellicoe Study Day and have subsequently started to organise a Friends group to press for restoration. The vast amount of material available on the design, the detail of the hard landscaping and Susan Jellicoe's planting plans must mean that accurate restoration (apart from that dreadful car park) is possible - once the Canada goose problem is firmly addressed.
- We have heard several rumours about some sort of Civic Hub being built in the gardens (as originally defined - not by the erroneous Register entry). We have not seen any details but would view any development in this sensitive situation as unacceptable as it would totally destroy the setting of the water gardens, the microclimate and the amount of shade, therefore rendering it more difficult, if not impossible, to replant with anything like the original design intentions. There would also be the question of building on a flood plain, and access for pedestrians and cars which would necessarily entail changes, e.g. to the small rustic bridge by the mount. We know of at least 3 other sites in Hemel Hempstead where a civic hub (we assume this means the civic centre and perhaps other functions) could be sited so as not to adversely affect the water gardens.

- The gardens still fulfil their function as part of the green corridor linking the 18/19 century private Gadebridge Park (now a public open space) and Bury Park, to the north with the gardens and rough land of Boxmoor to the south. All these are of different character and habitats and all are extremely well maintained EXCEPT the Water Gardens. DBC has a great asset which, if restored, and the excessive street furniture on the road removed could be far better integrated into the shopping centre (Marlowes) as Jellicoe intended, be a benefit to the people of the town and not, as I noticed this morning, a haven for empty beer cans.
- DBC have a great asset here with a wonderful back story (of the water serpent and how that was interpreted in the planting and design) which could be, as it once was, a real jewel and a great benefit to the town. We believe that the gardens could then be used for a variety of events by and for the townspeople as well as providing a landscape both thought-provoking and meditative.
- We also believe that the amount of water in the Gade should be restored by bypassing the large amount channelled off in Gadebridge Park into a storm drain. This would then help in combating the silting up of the river and restore the musical weirs.
- A minor point, but surely more greenspace should be provided in this age of climate change, rather than building on and detracting from that which we already have.

C20 Society

Initial contact was made with Jon Wright, case worker covering the Dacorum area, at the Twentieth Century Society and their views were invited on the issues and opportunities associated a new civic hub on the northern part of the decked car park site.

Whilst no written comments have yet been received, verbally the Society warned that urgent attention was needed to address the poor current condition of the gardens. This concern relates chiefly to current management and maintenance practices which, we understand, the Society has already made representations on.

The Society will reserve their right to comment on proposals as they come forward as a statutory consultee and urged that any new development must respect and respond positively to the setting of the listed Gardens with great care being required regarding the form and scale of any building. Any new building would need to be of the highest architectural quality.

English Heritage

EH views

Dear Fiona,

My thanks to you and Nathalie for showing Mark and I around Hemel Water Gardens last Friday. This was my first visit to the site and I was pleased to see that so much of the structure of Jellicoe's design survives although the condition of parts of the site would benefit from an improved maintenance strategy.

Hemel Water Gardens are included on English Heritage's *Register of Parks and Gardens of Special Historic Interest* at grade II, which attributes special interest. Hemel was registered in 2010 as one of several very important post-war urban landscapes associated with the New Town movement. As you are aware, these gardens were designed by Geoffrey Jellicoe as an integral part of his Master Plan for the whole town in 1947. While English Heritage is not normally consulted on development proposals within grade II registered sites, the correct statutory consultees in this case being The Garden History Society and the Twentieth Century Society, English Heritage is engaged in Hemel Hempstead through the conservation area and proposals to possibly create other conservation areas within the New Town. Therefore, and in consideration of the magnitude of the development proposals noted below, we would encourage Dacorum to engage with us in further pre application discussion.

During the course of the meeting we established that Dacorum are intending to vacate its present office premises to the northeast of the gardens and re-develop the area of the two-storey car park off the Leighton Buzzard Road on the west of the gardens. This redevelopment would incorporate the council offices, police station, library and other civic uses. It is currently anticipated that this redevelopment would not significantly increase the footprint of the car park site, although it is likely that at least part of the proposal would require an increase in height from 2- 4-storeys.

We also learnt that Dacorum are considering applying for a Heritage Lottery Fund bid to repair and better manage the water gardens through the *Parks for People* grants stream.

These two proposals risk being mutually exclusive. While the existing two-storey car park, together with two further areas of ground level parking, are outside of the registered area, they contribute to its setting and to the experience of the designated heritage asset. During the visit we noted Jellicoe's careful and subtle bunding and planting along the boundaries of these parking areas, which show that he designed the gardens with the intention of accommodating at least some vehicles within it but that these areas were designed as part of a greater spatial awareness, articulated by views into and out of the gardens from the surrounding streets as part of the Master Plan. The erection of a four-storey building would irrevocably change the character of the northern part of the garden, potentially overwhelming the narrow water side walk along the west bank of the river and experience of people walking up Waterhouse Street on the east. When tested against PPS 5, *Planning for the Historic Environment*, I would suggest that we would be minded to describe the present proposals as 'harmful' at the least. It is possible that we would conclude

that they would be so damaging as to make them questionable in principle - although of course it would be premature to reach any conclusion at this stage.

Parks for People is intended to sustain the public use and appreciation of historic open spaces, specifically public parks. The baseline for any bid is a demonstration of the understanding or significance of the park in question, with proposals and management strategies informed by that significance. A proposal to radically redesign an area adjacent to the park's boundary would no doubt raise questions from the HLF over the appropriateness of those development proposals and therefore the suitability of the application to receive public money.

As a first step, I would advise Dacorum to establish a full understanding of the significance of the Water Gardens and of their role within the Master Plan, in order to inform the further discussion of either or both of these proposals. This level of knowledge, most usually presented in the form of a conservation plan, would be needed to support either a planning application or HLF application (or even interim improved management of the gardens). While I appreciate the challenges of undertaking such work at this time, it is unlikely that either proposal could proceed without such understanding.

You asked for some useful references for the gardens. I would suggest the LDT monograph *Geoffrey Jellicoe*, Ed. Sheila Harvey, 1998 (this is hard to come by but copies will be lodged in the RIBA, Landscape Institute and probably RHS Lindley libraries) and *The Complete Landscape Design & Gardens of Geoffrey Jellicoe; Plan & Projects from 1927*, Michael Spens and Hugh Palmer.

Best wishes,

Deborah

Portico: your gateway to information on sites in the National Heritage Collection; have a look and tell us what you think. <http://www.english-heritage.org.uk/professional/archives-and-collections/portico/>

Environment Agency



Currently the issues on the river are related to flow and physical modification. There are both large and small scale improvements that need to be considered within the Water Gardens, as well as off site. We think that a joint vision should be developed to enable us to assess the potential benefits and issues which may come about.

We may be able to help fund the creation of this vision and supporting investigations which may be required. We are currently investigating how much we will be able to contribute but if we are working to improve the River towards good status then we should be able to make a financial contribution.

We look forward to working with you on any proposals which come forward at this site.

Yours sincerely

Nick Birkbeck
Planning Liaison Officer
Direct dial 01707 632392
Direct e-mail colneplanning@environment-agency.gov.uk

APPENDIX C CONDITION SURVEY

Overall layout and structure

The overall layout and structure of the Gardens is almost completely unchanged from when it was originally implemented. The key elements and features remain basically the same, access and circulation routes are unchanged, all of the original structures (bridges, viewing points etc) have survived and much of the original site furniture (railings, litter bins etc) is still present. Few other parks of this age have survived so unscathed. It is a testament to the strength of concept, the design and quality of detailing that it has survived over 50 years of public use, a major restoration in the 1980s and a succession of park managers and yet has remained intact.

Planting

It is primarily the poor condition and quality of the planting and grass areas in the Gardens that gives the sense that the Gardens are in decline. Plants throughout the Gardens are mostly over-grown and over-mature and are no longer an accurate representation of the original planting plans. New plants have been introduced over the years, either self seeded or as part of planned planting works and in many areas the planting has become very dense leading to the creation of secluded areas which are not overlooked and feel unsafe. Maintenance levels are low (limited to an annual cut-back of shrubs) and have resulted in the loss of most herbaceous plants. The Lovers' Walk has become particularly overgrown and planting no longer has the attractive character of open woodland that is evident in early photographs of the scheme.

Bog gardens (as referred to in historical text) are no longer present although there appears to be some underwater curved brick structures that may have been the submerged walls of the original bog gardens.

The lawns have become seriously damaged by waterfowl and overshading resulting in extensive areas of bare ground or thin grass. They are no longer 'lawns' and form an unattractive and uninviting edge to the water and frontage to Waterhouse Street.

The formal Flower Garden is mostly structurally intact but the shrubs are largely overgrown and low level planting has been replaced by weed growth or bare earth in heavily shaded areas. Evergreen topiary gateways (that may have replaced the early ideas of rose arches extending across the footpaths) are still in place as well as some evidence of the original planting scheme (e.g. rose beds).

Tree cover in the gardens has become too dense. Additional trees have grown up, either self-seeded or planted over the years and the Gardens have become too wooded in places. On the eastern side trees have gradually been planted over the years resulting in shading of the grass areas and a change in character from the original vision of an open lawn. On the western side, many of the trees that were mature when the Gardens were laid out and were incorporated into the original design have now become over-mature and are in poor condition and declining. Several of these are potentially dangerous and urgent works are required to remove the dead and dying trees.

Paths and furniture

Although originally intended to be a gravel surface, the footpaths are all now finished in a red bitumen macadam (possibly installed during the 1980's restoration work) and are showing signs of disrepair; tree root damage and subsidence has caused uneven surfaces in many areas of the gardens. A few incidental muddy footpaths have been formed cutting across grass and planting areas as short cuts. Many seats and litter bins are in a state of disrepair and some new litter bins and seats have been added which are not in keeping with the style and character of the original furniture.

Bridges and structures

The original bridges and balconies remain in place in the Gardens but are showing signs of decay. Several of the concrete bridges have been crudely repaired over the years with metal brackets added on the undersides to provide strengthening. The railings appear to be the originals but paintwork is flaking and in some cases railings have been bent out of shape. They have also been repainted in green (rather than the original white) which reduces their elegance and aesthetic charm.

The Lake and Canal

Water quality was not tested however from a visual inspection it appears to be poor. Liaison with the Environment Agency will be important to ascertain water quality. The overflow culvert system appears to be working and there are no records of the river flooding the Gardens. However, at times water flow levels are too low and an initial meeting with the Environment Agency suggested that there are problems upstream in Gadebridge Park where water is being lost.

The vertical concrete edges to the lake appear to be in good condition and structurally sound. It was not possible to assess the condition of the lake base although it was clear that the lake is heavily silted. A detailed survey is required to assess the volume and quality of the silt present and inform preparation of remediation proposals. (Costs of remediation will vary significantly depending on whether silt is classed as contaminated material or not.)

The Canal is in poor condition. Large lengths of the banks are eroded, timber reinforcement is breaking up and the canal appears to be heavily silted. Soil erosion has caused poor planting conditions resulting in failure of lake edge planting and weed infestation.

Current management regime

The park is currently managed by Dacorum Borough Council's Green Space Management Service which is a division of Environmental Services which in turn is part of the Council's Environment and Regeneration Directorate. Within the Green Space Management Service the Parks and Open Spaces team is responsible for the overall management of the park and the Trees and Woodlands team is responsible for management of the trees. Hertfordshire County Council Countryside Management Service also provides some technical advice and support when required.

Regular management and maintenance works are limited to an annual cut back of shrubbery, ad hoc tree maintenance works, litter picking and occasional repairs to structures and furniture. Despite the historic significance and high profile location of the Gardens, no management plan has been prepared for the Gardens.

Current management and maintenance arrangements are insufficient to maintain the Gardens to an adequate standard and have resulted in the current poor condition of the Gardens. Preparation of a management plan together with the implementation of a regular programme of improved management and maintenance operations is urgently required.

Ecological importance

There are no sites of international ecological significance within 2km of the Site. The closest sites of national ecological significance are Shrubhill Common SSSI which is approximately 2km west of the site and Howe Grove SSSI which is approximately 2km north of the site.

During the landscape survey of the site the main habitat categories in the Gardens were identified and are summarized below. Before detailed designs commence for the Gardens, a phase one ecological survey is required which will provide further detail and identify any protected species surveys required.

Standard trees

The Site includes a number of large and mature trees. These will offer nesting potential for birds and bat roosting potential. The native species, such as Oak, Willow and Ash are of the greatest ecological value, although non-native species such as Sycamore also provide a useful ecological resource.

Hedgerows

There is one long managed hedgerow on the west side of the site. This is a single species hedge (Beech) which is of minimal ecological value although it does offer potential nesting habitat for smaller birds and as a wildlife corridor.

Ornamental shrubs

The Gardens contain substantial areas of ornamental shrub planting much of which is evergreen species. This is of limited ecological value although it does provide nectar and berries and cover for some small birds and animals and invertebrates.

Amenity grassland and scattered trees

This habitat category occurs on the eastern side of the Gardens. The sward is closely mown and is heavily worn in places. It comprises a low range of species which is likely to have derived from a Rye-grass mixture. The grassland is of minimal wildlife value. Young and semi-mature trees are scattered through this grassland. These are largely comprised of non-native trees and cultivars of native species which is of limited wildlife value.

Standing Water

The main area of standing water in the Gardens is the Lake which is fed by the River Gade. The lake appears to be a shallow water body, heavily silted (likely to be eutrophic) with partly concrete and partly timber edging and bases. It supports large numbers of feral ducks and geese, as well as some carp. Feeding of the ducks and geese appears to be a popular activity which is resulting in a high bird population that create a lot of excrement with detrimental effects on water quality and the grass sward. There is little waterside vegetation, other than some small islands which are densely vegetated.

Running Water (River)

The River Gade runs in a natural channel starting as a spring in the chalk of the Chiltern Hills at Dagnall in Buckinghamshire. It flows through the Water Gardens and continues south to Rickmansworth where it joins the The River Colne. Within the Gardens it is canalised in a formal, concrete based channel with a series of small weirs. A large culvert under the Water Gardens forms an overflow channel to prevent flooding.

The River Gade is a chalk stream, which in upper stretches has a stony bed, and is likely to be of particular value to fish and aquatic invertebrates. Watervoles may be present in the Gade upstream and downstream of the Gardens. They are unlikely to be present within the Gardens although they may pass through when moving upstream or downstream.



42 GRASS MOUND - minor works required to repair worn grass
 44 TIMBER BRIDGE - structural survey and replacement/ repair
 41 CHILDREN'S PLAY AREA - replace fence, safety surface and restore paved areas. Play equipment to be refurbished/ replaced
 52 BEECH HEDGE - reduce size/height of clipped hedge

50 WESTERN FOOTPATH - refurbish surfaces, increase width
 24 ARCHED FOOTBRIDGES - condition/ structural survey and extensive refurbishment of concrete and railings
 34 PAVED FOOTPATHS - refurbish surfaces with bonded gravel finish and replace edgings. Address tree root damage

35 PLANTING - shrubs and groundcover on western banks to be restored. Trees thinned/ pruned

45&47 TREES & LAWN - reduce numbers of trees on eastern banks and reinstate lawns along entire length of channel.

22 CHANNEL BANKS - extensive restoration and erosion protection along full length of river bank. Discourage waterfowl feeding.

22 CHANNEL - desilting works and reintroduce bog gardens

25 BALCONIES - replacement of paved surfaces and seating. Railings require refurbishment and repainted white.

46 PAVEMENTS - minor repair/ relaying of pedestrian pavements

27 VEHICLE BRIDGE - repairs to copings/ edgings and railings

24 FOOTBRIDGES - condition/ structural survey and extensive refurbishment of concrete and railings

26 ISLANDS - restore banks and reduce planting

APPENDIX D OUTLINE RESTORATION PROPOSALS PLAN

- 34 PAVED FOOTPATHS - refurbish surfaces with bonded gravel finish and replace edgings. Address tree root damage
- 45&47 TREES & LAWN - reduce numbers of trees on eastern banks and reinstaate lawns along entire length of channel
- 33 PARKING AREAS - consider surface finish upgrade to bonded gravel finish in part. Reduce signage/ clutter and road markings
- 16 PLEACHED LIMES - refurbish metal structure, replace tree and refurbish paved surfaces
- 24 ARCHED FOOTBRIDGES - condition/ structural survey and extensive refurbishment of concrete and railings
- 20 STATUE - remove graffiti clean and repaint curved wall
- 18 TERRACE - restore flag paving
- 19 FLOWER GARDEN - restore formal gardens to reflect original Susan Jellicoe planting scheme/ sketches
- 21 STEPS & RAMP - realign steps and repair concrete
- 31 RETAINING WALL - structural survey, repair coping bricks
- 23 WEIRS - structural survey, minor restoration
- 52 BEECH HEDGE - reduce size/height of clipped hedge
- 9 SCULPTURE - install underwater lighting
- 6 LAKE - desiltation, restore banks, reintroduce bog gardens
- 15 RAILINGS - remove or replace with appropriate railings
- 13 FOUNTAIN - new larger fountain and underwater lighting
- 8 PUMP ROOM - new pump. Refurbish pump room and drainage
- 10 ENTRANCE - general improvements, add signage, reduce planting density





APPENDIX E

SURVEY RESULTS - SCHEDULE OF WORKS/ IMPROVEMENTS

For the purposes of this study the Gardens were divided into zoned areas (figure 1) with a series of numbers for ease of reference (figures 2-6). The table below is a photographic record depicting the condition of the various elements within the garden as well as some outline recommendations and budget costs based on on-site observations.

1. General areas

item	condition	image
1 Footpath surfaces and edgings	<p>Observation: bitumen macadam footpath surfaces are in early stages of degradation with cracks and uneven surfaces apparent throughout the gardens. Evidence of tree root damage and localized subsidence. Random patching has taken place over the years.</p> <p>Some edgings have been displaced by tree root activity and subsidence. Rigid concrete edging kerbs (likely to have been installed in the 1980's restoration) are not in keeping with the character of original garden installation and create a faceted alignment on curved paths.</p> <p>Recommendation: repairs required in areas of tree root damage to be carried out in accordance with arboricultural recommendations. Surface finish to be refurbished on footpaths using a bonded gravel type finish in keeping with the original design intent. Block/flag paved areas to be reinstated in accordance with original design.</p> <p>Robust flexible edging to replace concrete edging in order to accommodate curved footpaths. Edgings to be installed in accordance with agreed arboricultural recommendations.</p> <p>Budget cost: £80 000 (2000sqm x £40 - excl flower gardens)</p>	   



2
Plants
and trees

Observation: Many shrubs are woody, over-grown and over-mature. Herbaceous plants, groundcovers and lawns have been replaced by weed growth in most areas. Hedges are over-grown. Flower garden neglected.

Trees are mature and generally in a fair condition but some instances of over mature trees in decline. No evidence of sequential tree planting. Dense canopies of trees on both sides of the canal.

Recommendation: Shrubs and groundcover planting to be restored. Hedges to be reduced in size and gaps filled in. Some trees to be felled (particularly on eastern lawns) and other trees thinned/ pruned following specialist arboricultural condition survey and recommendations.

Budget cost: £245 000 (7000sqm x £35 - excl formal gardens)



3
Seating

Observation: most seats are in a poor condition with broken or missing timber slats, bent and degraded metalwork.

Recommendation: replace seats with a more robust specification with subsurface fixings. Ensure regular treatment of timber and metal surfaces is included within management plan. Some seats to include arm rests for the elderly and infirm.

Budget cost: £100000 (50 x £2000)
(assumes all benches removed and replaced)





4
Lamp
columns

Observation: Fittings are not original. They were viewed during daylight hours therefore unable to comment on functionality. They appear to be generally in fair condition. Protective coatings to lamp posts are degraded.

Recommendation: refurbish lamp posts (repaint, replace luminaires with energy efficient fittings, repairs as necessary). Engineer's survey required. Regular monitoring and maintenance to be included within management plan.

Budget cost: £80000



5
Litter bins

Observation: a variety of types of bins evident. Most are painted bright orange metal with open top. Most bins are bent and damaged.

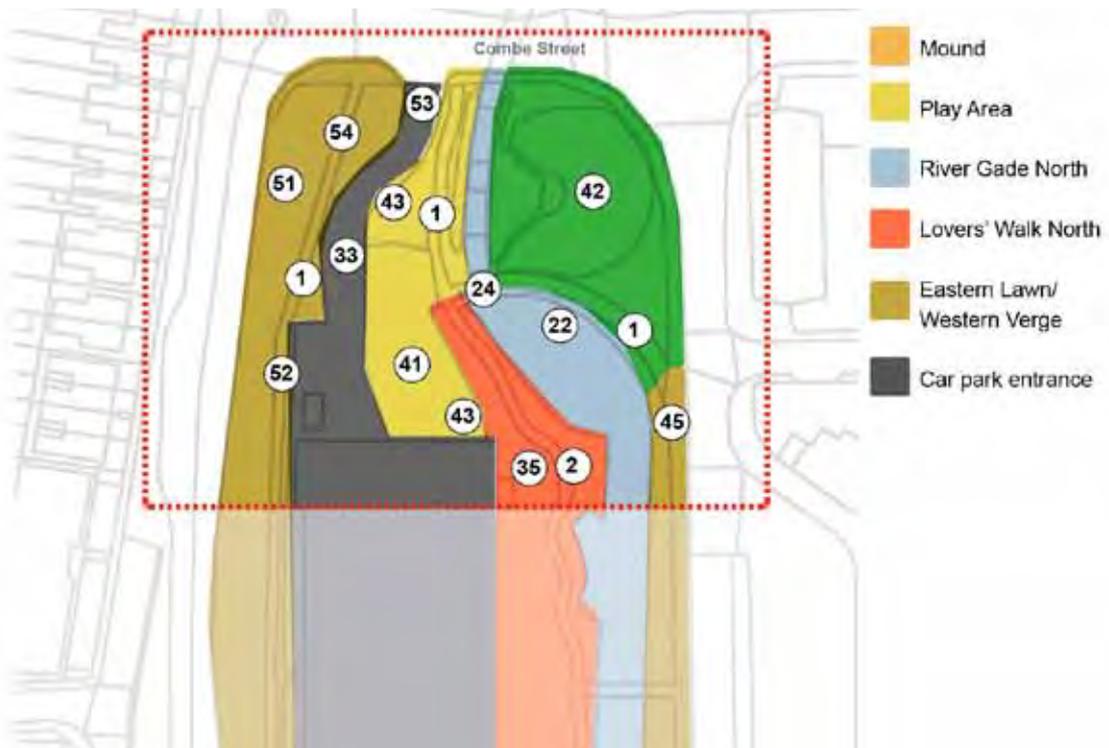
Recommendation: litter bins to be replaced with one standardized specification throughout the gardens. Colour to be selected to integrate better with historic and landscape character of gardens.

Budget cost: £60 000 (25 x £900)



2. Lake

item	Condition	image
6 Soft banks and pool	<p>Observation: large areas of lake edges/banks are eroded and timber reinforcement is breaking up. Soil erosion has caused poor planting conditions resulting in failure of lake edge planting and weed infestation. Pool appears heavily silted.</p> <p>Recommendation: reclamation of soft banks and low lake edge planting. Desiltation of pool subject to specialist assessment. Instigate measures to discourage public feeding of waterfowl. Management of pool edges to be included within garden management plan.</p> <p>Budget cost: £120 000 (3300sqm x £35) (Note: budget cost assumes silt is not classed as contaminated material)</p>	
7 Hard banks	<p>Observation: vertical concrete edges to the lake appear to be in good condition and structurally sound.</p> <p>Recommendation: regular/annual monitoring. Assign condition/ structural survey and review recommendations. Some repair may be required.</p> <p>Budget cost: £30 000</p>	
8 Pump chamber	<p>Observation: access to pump chamber is restricted as stepped access is flooded, therefore it is likely that the pump room chamber is also flooded. Graffiti is evident on the pump room door and brick chamber structure. The metal chamber door has rust.</p> <p>Recommendation: assign condition/ structural survey and review recommendations.</p> <p>Budget cost: £20 000</p>	



9

Sculpture
(‘Rock and
Roll’)

Observation: the bronze sculpture including base and plaque appears to be in good condition. Waterfowl excrement obscures the text on the plaque.

Recommendation: regular cleaning of plaque included within garden management plan.
Consider subtle nocturnal illumination of sculpture.

Budget cost: £5 000



10

Southern
boundary

Observation: overgrown planting obscures view into the gardens as one enters Moor End Road from Leighton Buzzard Road on the southern boundary of the gardens.

Recommendation: reduce density of planting creating a distinction between tree canopy and shrub planting thereby improving views into the gardens from Moor End Road.

Budget cost: £2 000



11

Clipped
hedges

Observation: clipped hornbeam hedge has isolated gaps and areas of die back.

Recommendation: fill in isolated gaps (using pre-grown hedging) and reinstate full length of clipped hedge.

Budget cost: £25000 (70m x £350)



12
Seats

Observation: seats are in a poor condition with broken or missing timber slats, bent and degraded metalwork.

Recommendation: refer to item 3 above.

Budget cost: included in item 3 above.



13
Fountain

Observation: fountain appears to be in good condition and functioning as intended

Recommendation: regular monitoring and maintenance to be included within garden management plan. Consider bold nocturnal illumination of fountain

Budget cost: £5 000



14
Islands

Observation: islands are overgrown and fully shaded. Island banks mostly hidden from view however they appear to be in a fair condition.

Recommendation: cut back and thin vegetation to improve views and provide sunny habitat areas subject to ecological/ landscape management advice. Repair edges as necessary.

Budget cost: £10 000



15
Railings

Observation: railings are generally in a good condition. The 'keyklamp' railings appear to have been installed at some later stage after the completion of the garden and do not reflect the character of the historic gardens.

Recommendation: remove railings, and if required, replace railings with an alternative that is more appropriate to the historic character of the gardens.

Budget cost: £20 000 (100m x £200)



3. Formal Flower Garden

item	condition	image
16 Pleached trees	<p>Observation: Two pleached lime avenues, one at either end of the flower garden, are supported by painted metal structure and wire. Tree trunks are growing around metal support columns. Metal structure and wire cross members in need of removal/ repair. Roots have caused damage to paved surface. Large areas of moss resulting in slippery surface. One tree in northern avenue almost dead.</p> <p>Recommendations: Regular pruning and training of branches required by specialist. Metal structure to be surveyed/assessed and repaired. One tree to be replaced in northern avenue. Paved surfaces to be replaced in accordance with arboricultural advice.</p> <p>Budget cost: £50 000</p>	 <p>The image column contains three photographs. The top photograph shows a long, straight perspective of a pleached lime avenue with a paved surface and a row of trees on either side. The middle photograph is a close-up of a tree trunk growing around a metal support column, with a paved surface in the foreground. The bottom photograph is a close-up of a tree trunk with a metal support column, showing the tree's growth pattern.</p>



17
Grass
banks

Observation: Informal muddy paths have been created between parking area and paved pedestrian areas.

Recommendation: expert recommendations are necessary following detailed historical analysis and review.

Budget cost: £5 000



18
Footpath
surfaces

Observation: Footpaths covered in moss in some areas. Evidence of root damage from trees.

Recommendation: Footpaths surface course to be reinstated to original design. Paved framework around beds to be restored with bonded gravel surface and 'paved terrace' facing the canal to be restored as paved area. Regular footpath cleaning regime required within garden management plan. Structural repair areas of root damage in accordance with arboricultural advice.

Budget cost: £50 000 (1000sqm x £50)



19
Planting

Observation: formal planting beds are poorly maintained resulting in significant loss of the original design intent. Some areas heavily shaded and therefore adversely affecting growing conditions within formal garden. Large shrubs within the western formal beds are mostly over-grown and over-mature. Rose beds are poorly maintained; inadequate pruning, no under-planting, and infested with weed growth. Herbaceous beds (eastern formal beds) appear to have received some care and maintenance however weed growth is extensive.

Recommendation: Reduce density and spread of tree canopies and reduce height of clipped hedge on western boundary to improve sunlight conditions on the formal beds. Extensive removal and replanting of over mature shrubs to rejuvenate and restore the flower garden to reflect the original design. Prepare a management plan specific to the formal flower gardens.

Budget cost: £90 000 (1800sqm x £50)





20
Sculpture
Discobolus

Observations: Sculpture and plinth in good condition (installed c. 1997). Curved wall appears structurally sound. Paved surface covered in weed growth and moss. Graffiti on the rear (west side) of the curved wall. Paint on wall is flaking. Trees to the rear - overgrown.

Recommendation: remove graffiti and repaint wall. Reduce conifers to the rear. Remove weeds and moss on brick paving. Improve sight lines to this area of the formal garden which lies on the axis of Bank Court to the east.

Budget cost: £5000



21
Steps and
ramp

Observations: stepped access to the raised viewing platforms at the ends of the pleached avenues are showing signs of disrepair. Steps are functional but appear in some cases uneven and concrete is showing signs of decay. Railings are in need of refurbishment

Recommendations: reset steps and landings level and even. Repair/replace concrete elements. Remove weed growth. Apply protective coating to railings (to original white colour) including repair/replacement of bent and damaged sections.

Budget cost: £40 000 (4 x £10 000)



4. River Gade

item	condition	image
22 Channel and banks	<p>Observation: river channel showing significant signs of siltation. Soft banks are eroded. Hard banks in some areas are showing signs of degradation. There is some evidence of various methods of river bank restoration (to soft banks) in operation, some of which appear more successful than others.</p> <p>Recommendations: extensive desiltation works required (including draining canal). Extensive restoration of river banks. Include management of river banks in management plan. Initiate measures to discourage public feeding of waterfowl.</p> <p>Budget cost: £200 000 (5500sqm x £35)</p> <p>(Note: cost assumes silt is not contaminated)</p>	   



23

Weirs

Observation: weirs are generally in fair condition. Some evidence of degradation.

Recommendations: regular/annual monitoring. Assign condition/ structural survey and review recommendations.

Budget cost: £30 000



24

Foot bridges

Observation: Most bridges showing signs of decay particularly at edges with evidence of ongoing repair to concrete. Railings are looking weathered and in some cases are bent out of shape. Evidence of crude repair works.

Recommendation: regular/annual monitoring. Assign condition/ structural survey and review recommendations. Extensive refurbishment of concrete and railings (including removal of steel brackets).



Budget cost: £180 000 (6 x £30 000)



25
Balconies

Observation: concrete bases appear to be in good structural condition. Seats and paved surfaces are in generally poor condition. Railings showing signs of wear. Riverbanks adjacent decked areas are degraded/eroded in some areas.

Recommendation: replacement of paved surfaces and seating. Railings require refurbishment and repaint as white (as per original scheme). Inspection of balcony undersides by engineer and repairs as per recommendation.



Budget cost: £20 000 (4 x £5 000)



26
Islands

Observations: degraded edges. Planting on some islands is overgrown, and on others is non-existent.

Recommendations: bank restoration required.
Overgrown islands may provide some protection to banks.

Budget cost: £5 000





27

Car
bridge

Observations: degradation of copings/edges and railings. Failure to edges of paved areas. Eroding canal banks.

Recommendations: restore coping/edges. Reinststate paving/ edging. Restore river banks to prevent erosion.

Budget cost: £15 000



28

Bog
gardens

Observations: submerged evidence of several original bog garden areas (as described in historical text); these are currently non-functional.

Recommendations: bog gardens to be reinstated.

Budget cost: £40 000



4. Parking areas

item	condition	image
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29	Observation: over-grown planting.	
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Southern entrance	Recommendations: reduce density of planting creating a distinction between tree canopy and shrub planting thereby improving visual connection between car park and gardens.	
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	Budget cost: included in item 2 above	
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30	Observation: no planting on embankment, weed growth prevalent.	
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Eastern embankment	Recommendation: plant with low level planting and control weed growth or reseed.	
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	Budget cost: included in item 2 above	
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31	Observation: retaining wall coping bricks have failed.	
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Retaining walls	Recommendation: Assign condition/ structural survey and review recommendations. Repairs to brickwork.	
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	Budget cost: £2 000 (30m x £60)	
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32	Observation: island areas showing signs of heavy wear. Areas of over-grown shrubs.	
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Planting	Recommendation: replace planting and include new planting protection measures in keeping with the historic character of the gardens. Remove and replace shrub planting to improve sightlines. Reduce height of western hedge to improve visual connection between the car parks and Leighton Buzzard Road/ residences to the west.	
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	Budget cost: included in item 2	
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33

Paved
surface

Observations: Bitumen macadam surface in fair condition.

Recommendation: regular monitoring/ maintenance required. Consider application of bonded gravel surface in whole or in part. Reduce signage clutter and road markings where possible.

Budget cost: £92 000 (4600sqm x £20)



5. Lovers' Walk

item	condition	image
34 Paved surfaces	<p>Observation: bitumen macadam footpath surfaces are in early stages of degradation with cracks, patching and uneven surfaces</p> <p>Recommendation: Surface finish to be refurbished on footpaths using a bonded gravel type finish. Repairs required in areas of tree root damage to be carried out in accordance with arboricultural recommendations.</p> <p>Budget cost: included in item 1</p>	
35 Planting	<p>Observation: over-grown and over-mature shrubs.</p> <p>Recommendation: reduce and remove shrub planting. Replanting and under-planting of linear beds required. Reduce height of planting on east side of footpath in order to open some views towards water edge.</p> <p>Budget cost: included in item 2</p>	

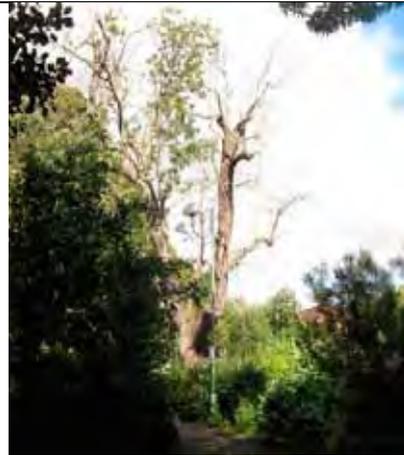


36
Trees

Observation: most trees are large and mature and in some cases over-mature. There is no evidence of succession planting. One large tree was identified as being dead/dying.

Recommendation: Arboricultural condition survey required. Tree management strategy to be included in the management plan for the gardens.

Budget cost: included in item 2



37
Informal footpaths

Observation: Informal muddy paths have been created between multi-storey parking access point and paved pedestrian footpath.

Recommendation: reinstate planting and include protective barrier.

Budget Cost: £5 000



38
Hard water edge

Observation: paved footpath forms a hard edge to the water; the retained edge appears structurally sound and in a fair condition.

Recommendation: Minor repairs. Regular monitoring

Budget cost: £5 000



39 Observations: signage in a fair condition

Signage Recommendations: review and assess existing signage in relation to its historical appropriateness and make recommendations for signage strategy for park. Regular monitoring and maintenance.

Budget cost: £40 000



40 Observations: informal footpaths have been formed between car parking areas and pedestrian footpath.

Embankment Recommendations: low fence/barrier to be installed to direct movement routes.

Budget cost: £20 000 (200m x £100)



5. Grass mound and play area

item	condition	image
41 Play area	<p>Observation: heavily shaded resulting in extensive moss growth on paved areas causing slippery surfaces. Weed growth in paved areas. Play equipment robust and in a fair condition although protective coating has degraded. Chain link fence and galvanised metal gates are not in keeping with the historic character of the gardens.</p> <p>Recommendation: Replace fence and gates with appropriate fencing (e.g. painted metal railings). Replace safety surfacing and restore wearing course on paved areas. Cleaning of surfaces and equipment to be included within management plan. Play equipment to be refurbished or replaced.</p> <p>Budget cost: £30 000 (500sqm x £60)</p>	 
		
		

42 Observation: grass mound is in a good condition.

Grass mound Recommendation: regular management and maintenance. Minor works required to repair area with worn desire route at base of mound on south-eastern side.

Budget cost: £5000



43 Observation: Clipped hedges in good condition. Low level planting is over-grown.

Planting Recommendation: reinstate low level planting in play area.

Budget cost: included in item 2



44a Observation: broken paving flag stones near water's edge.

Paved areas Recommendation: remove broken paving and restore river bank and planted edge.

Budget cost: £2 000



44b

Timber
bridge

Observation: Timber bridge is operational but showing signs of decay.

Recommendations: Timber elements to be replaced following structural survey.

Budget cost: £10 000



6. Eastern lawn (Waterhouse Street)

item	condition	image
45 Grass verge/ river bank	<p>Observation: Verges are extensively shaded by trees and no grass coverage. Tree roots exposed in places by soil erosion. Moss in shaded areas. Canal banks severely eroded. Northern grass verge with fewer trees (3rd photo) is in better condition.</p> <p>Recommendation: Remove the majority of trees on the eastern banks and reduce canopy densities on all remaining trees to improve sunlight conditions. Reinstate lawn (including ground preparation and new turfing). Initiate measures to discourage public feeding of waterfowl.</p> <p>Budget cost: £72 000 (4500sqm x £16)</p>	
46 Pedestrian pavement	<p>Observation: Some areas show degradation of pavement edging and inconsistent laying patterns/ techniques.</p> <p>Recommendation: reinstate edgings and repair damaged and incorrectly laid surfaces. Paving material and pattern to be consistent throughout the length of Water.</p> <p>Budget cost: £40 000</p>	



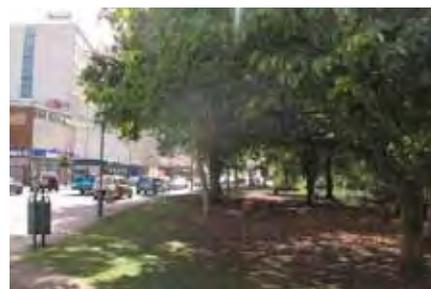
47

Trees

Observation: Tree canopies too dense. Soil erosion at tree roots.

Recommendation: Reduction in number of trees on eastern lawns. Reduce canopy density on remaining trees. Reinstall topsoil and lawn in accordance with arboricultural advice.

Budget cost: included in item 2



48

Furniture/
fittings

Observation: Seats and litter bins in a state of degradation including surrounding paved areas. Refer to item 3 and 5 above.

Recommendation: Refer to item 3 and 5 above. Replace paved area around seats.

Budget cost: included in item 3 & 5



7. Western verge (Leighton Buzzard Road)

item	condition	image
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49 Grass verge	<p>Observation: grass verge in good condition. One informal path (desire line) leading across the grass into multi-storey car park</p> <p>Recommendation: formal footpath to be provided to replace informal path (subject to a Highways Assessment)</p> <p>Budget cost: £10 000</p>	
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50 Pedestrian footpath	<p>Observation: narrow (approx 1.5m) bitumen macadam footpath is degraded.</p> <p>Recommendation: Footpath to be reinstated and widened.</p> <p>Budget cost: £60 000 (1500sqm x £40)</p>	
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51 Trees	<p>Observation: Trees are generally in good condition.</p> <p>Recommendation: Arboricultural survey and condition assessment and make recommendations for management/ tree surgery.</p> <p>Budget cost: included in item 2</p>	
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52
Clipped
hedge

Observation: Clipped beach hedge is mature and vigorous; it has grown in excess of 3m high in places and is extending over the footpath.

Recommendation: reduce height and width of clipped hedge in a manner that is sensitive to the historic design parameters of the gardens.

Budget cost: included in item 2



53
Car park
entrance
(north)

Observation: planting areas over-grown

Recommendation: reduce planting whilst ensuring views onto the parking area remain screened.

Budget cost: included in item 2



APPENDIX F
ORIGINAL WATER GARDENS DOCUMENTS AND
PLANS

WATER GARDENS - HEMEL HEMPSTEAD

S P E C I F I C A T I O N

Specification of works to be executed,
plants and materials to be provided,
for the planting of Water Gardens at
Hemel Hempstead, under the supervision
of, and to the satisfaction of,
Messrs. Jellicoe, Ballantyne & Coleridge,
12 Gower Street, London W.C.1.



Jellicoe, Ballantyne & Coleridge,
Chartered architects,
12 Gower Street,
London W.C.1.

H. 5 37

April 1960.

CONDITIONS OF CONTRACT

The agreement and schedule of conditions to be used will be fixed upon the form used under the sanctions of the Institute of Landscape Architects. This Contract will be a fixed priced Contract. All allowances the Contractor may require for fluctuations in the cost of both labour and materials must be allowed for in his Tender.

WORKS INCLUDED IN THE CONTRACT

The work specified is intended to include for all the general work preparatory to its execution, for the compliance by the Contractor with all the conditions of contract, for the plant, tools and all materials including water for carrying out the works, for proper and sufficient protective works, for regular clearance of all rubbish and surplus earth and for all other matters necessary for the completion of the works, satisfactorily and to the true intent and meaning of the plan and specification and to the satisfaction of the landscape Architect.

MATERIALS AND WORKMANSHIP

All materials and workmanship shall be of the best obtainable and where not in accordance with the provisions of the contract shall be replaced, rectified or reconstructed as the case may be at the cost of the Contractor.

ORDER OF WORKS

The work is to be carried out in such order as the Landscape Architect may direct.

ADJACENT WORK

Any adjacent work damaged by the Contractor or his agents, shall be re-instated at the cost of the Contractor, and to the satisfaction of the Landscape Architect.

VISIT SITE

The Contractor is advised to visit the site and acquaint himself with the conditions of storage and unloading for materials, availability of water supply and nature of soil and to satisfy himself as to all matters which can in any way influence his tender.

PLANS

The drawings numbers 728/~~25~~^{16A}, ~~27~~, 27, 28, 56, 143 and 58A are enclosed, and show the layout of the planting areas.

CLEARANCE

The Contractor is to allow for carting away all surplus rubbish and materials from time to time as necessary, or as directed by the Landscape Architect, leaving the works clean and tidy on completion.

WATCHING AND LIGHTING

The Contractor is to allow in his tender for any necessary watching and lighting of the works.

GRASS AREAS
PREPARATION OF GROUND

The Building Contractor as part of his Contract, will spread and level top soil. He will also consolidate made up grounds where necessary.

SECTION

C. continued

Remove all weeds, weed roots, brickcoats and other rubbish from the surface of the ground. Thoroughly dig and/or cultivate by mechanical means or break up to a depth of 6" below the finished level, removing all inferior subsoil etc.

1. SEEDING

Areas to be sown with grass seed. After a uniformly even bed has been obtained, rake, cross rake and hand finish, roll and cross roll until a fine tilth is obtained.

Pre-treatment:- The seed is to be sown in the Autumn. Ten days before sowing, the seed bed to have a dressing raked in of the following mixture at 1½ oz per sq. yd.

- ½ oz per sq. yd. Sulphate of Ammonia
- 1 oz per sq. yd. Superphosphate
- ¼ oz per sq. yd. Sulphate of Potash

Sowing:- The seed shall be in the following or other similar approved mixture, and shall be evenly sown at the rate of 1½ oz per square yard.

Crested Dogstail	5%
Chewings Fescue	2%
Timothy	10%
Hard Fescue	2%
Short Seeded Perennial Rye	80%
	<hr/>
	100%

The Contractor shall deliver the necessary seed to the site and the landscape Architect shall be at liberty to take samples from any part of the consignment for analysis. The seed when sown shall be covered to a depth of a quarter of an inch by lightly raking the surface in two directions, rolling and cross rolling with a flat roller.

2. PROTECTION

The Contractor shall protect newly seeded areas at all vulnerable points to prevent the destruction of seedlings by pedestrians. For this purpose he shall provide and fix a fence of one strand of wire supported on wooden posts 3' 0" out of the ground at approximately 6' 0" centres, or other approved type. These fences shall be maintained by the Contractor, and when the grass is established, shall be removed and cleared away and the ground reinstated. Any damage to grass shall be made good until the areas are handed over.

3. MAINTENANCE

The grass shall be cut when 4" high avoiding root pulling, and again after a further 1" of growth and shall be maintained to establish a reasonable cover of the specified mixture free of weed before mowing over. Any failures or sinkage below specified levels during the Contractual maintenance period shall be rectified.

4. PREPARATION OF SHADES, SEWAGE BEDS AND BORDERS

Central Flower Gardens, Scrub Borders and Beech Hedges: The planting areas shown for herbaceous plants, shrubs, roses and hedges to be cleared of all weed and weed roots, dug and/or cultivated by mechanical means to a depth of 12" below finished level, removing all clay, brickwork and rubbish.

100/160/50

continued

Central Flower Gardens - Herbaceous and Shrub Areas:
Spread a mixture of peat, bonemeal and hoof and horn, in the proportions of 8:1:1 at the rate of 2 lbs per square yard.

Shrub Borders and Beech Hedges:

Contractor to supply and incorporate dressing of bone meal or other approved organic fertiliser at the rate of 3 oz per square yard.

PREPARATION OF HOLES FOR TREES

Holes to be dug 4' 0" in diameter or a depth of not less than 16" placing top soil, if suitable, on one side of the hole for re-use. The floor of the hole to be broken up with a mattock and the required levels made good with top soil *ex situ*.

The Contractor to supply and incorporate bone meal or other approved fertiliser at the rate of 3 oz per tree. The holes to be filled with soil in layers of 6" and consolidated by treading firmly at each layer around the newly planted trees and be finished off to the surrounding ground level.

PLANT MATERIAL

(a) Trees and Shrubs are to be supplied in varieties shown on plan.

(b) Deciduous trees are to be supplied on 3ft. clean, straight stems with well formed heads.

(c) Large Shrubs, suffixed (L) on list are to be supplied 3 - 4ft high and planted 4ft. apart.

(d) Medium Shrubs, suffixed (M) on list are to be supplied 2 - 3ft high and planted 3ft. apart.

(e) Small Shrubs, suffixed (S) on list, are to be supplied 1 - 2ft high (except ground cover 6in - 12in) and planted 2ft. apart.

(f) Weeping plants are to be supplied 2 - 3ft high and planted 16in apart.

(g) All are to be well formed.

(h) All planting material is to be transplanted nursery stock, well grown and healthy on vigorous sound roots.

(i) The Landscape Architect has the right to reject any material which does not meet the specification.

No substitution may be made without the Landscape Architect's written approval.

CONDITIONS OF PLANTING OF TREES AND SHRUBS

All trees and shrubs to be delivered to the planting ground with roots sufficiently protected by packing to prevent the drying of the root hairs during transit or damage by frost. They shall be properly and firmly planted in accordance with the principles of good horticulture.

STAKING

All trees to be staked, round larch posts 4" diameter at butt or 2 1/2" square oak posts, stakes to be at least 2'0" in length, straight and crooked to a depth of at least 4'0". Stakes to be placed on windward side of trees and the tree stem to stand some inches off the stakes and fastened in at least one or two places according to the type of tree with 'Nortac' tree ties or other approved tie.

MAINTENANCE

The Contractor shall take up and replace any tree or shrub or herbaceous plant which has died or is not developing full foliage throughout its branches within six months of planting, unless such damage or non-development is due to interference by the public or to

111/60/22

Section

20. CONTROL OF WORKS

The Contractor shall appoint a competent foreman with knowledge of groundwork, planting and seeding operations.

21. TERMS OF PAYMENT

The Contractor shall be entitled to 90% of the total value of the work executed, retention of 10% being held by the Landscape Architect during the progress of the contract. A further 5% will be released upon practical completion of the contract, the balance of 5% will be payable on settlement of the Final Account.

THE
CONTRACTOR

HH 160130

HORTMOG

2 28881

SCHEDULE OF PLANT PRICES

DESCRIPTION	SIZE	RATE	TOTAL
<u>for Central Flower Gardens</u>			
Fetula Verrucosa Alba	6'0" stem 10'-12' high	18/-	
Prunus Subhirtella Autumnalis	"	22/6	
Robinia Pseudoacacia Angustifolia	"	30/-	
Tilia Flatyphyllos Rubra	7'0"-7'6" stem 9'0"-10' high	18/-	

<u>for Central Flower Gardens 726/143</u>			
Buddleia Alternifolia	L	12/-	
Magnolia Soulangiana	L	30/-	
Philadelphus Belle Etoile	L	3/6	
P. Virginal	L	8/6	
Rhododendron Racemosum sub.			
Coryoneaster salicifolia	M	7/6	
Roses Rugosa P. J. Grootendoret	M	5/-	
Roseaie De L'Hay	M	2/-	
Alba	M	2/-	
Blanc Double de Colbert	M	2/-	
Floribunda Yellow Holstein	M	2/-	
Betty Prior	M	5/-	
Ma Perkins	M	6/-	
Lusky Maiden	M	5/-	
Bourboniana Madame Pierre Oger	M	2/-	
Hybrid Musk Wilhelm	M	2/-	
Springa Katherine Havemeyer	L	15/6	
S. Souvenir De Louis Spaeth	L	15/6	
Rexus Baccata sub. 2 2/3'	3'6"-4'0" high	15/-	
Vicurnum Rhytidophyllum	L	18/-	

Total planting of Central Area cover - 1588 yards super
 Shrubs, roses, etc. cover - 434 yards super
 Mixed herbaceous and small
 shrubs cover - 1150 yards super
 Lime beds cover - 54 yards super
1688 yards super

COMPANY LIMITED

HT 160130

DESCRIPTION	SIZE	RATE	TOTAL
Flower Gardens - Sample Area 726/28			
Achillea Gold Plate		2/-	
Aquilegia Hybrids		2/-	
Alyssum Saxatile Citrinum		1/6	
Artemisia Fontica		5/-	
Aruncus Sylvester		3/-	
Asperula Odorata		3/-	
Berberis Thunbergii <i>Azopurpurea nana</i>	S	8/6	
Betula Verrucosa (see tree list)	2		
Caryopteris Glandonensis	M	8/6	
Scinops Taplow Blue		2/-	
Dianthus Mrs. Sinkins		2/-	
Gypsophila Rosy Veil		2/-	
Hemerocallis Fulva		3/0	
Hosta Fortunei		2/0	
Iris Florentina		2/0	
I. Great Lakes		3/-	
I. Maisie Lowe		3/-	
I. Senlac		2/-	
I. White City		2/6	
I. Sibirica Perry's Blue		2/6	
Lavandula Spica	S	3/6	
Nucleaya Cordata		2/-	
Asceptus Sacenariiflorus		3/-	
Monarda Croftway Pink		2/-	
Narcissus Nanus		1/-	
Paeonia Lady Alexandra Buff		5/-	
P. Whitley Major		5/-	
Papaver Orientale Mrs. Perry		2/3	
Phlox Edendale		3/3	
P. Marie Louise		3/6	
Polyanthis		1/6	
Rhododendron Racemosum (see shrub list)	5		
Rosemarinus Severn Seas	S	6/-	
Salvai Argentea		3/-	
S. Illiginea		2/6	
Santolina Neapolitan	S	4/6	
Senecia Greyi	S	4/6	
Stachys Lanata		3/6	
Vixus Bacata (see shrub list)	4 3'6"-4'0"		
Tradescantia J.C. Aquelin		2/6	
Tulip Fosteriana Red Emperor		1/3	

160150

HH 160150

	DESCRIPTION	SIZE	RATE	TOTAL
	Roses (included in specimen Shrub List)	M		
1017	Floribunda Betty Prior 6			
1018	Dusky Maiden 7			
1019	Ma Perkins 7 + 12			
1020	Bourboniana Madam Pierre Oger 14			
1021	Hybrid Musk Wilhelm 9			
	<u>Bedding</u>			
1022	Nicotiana White		6d.	
1023	Petunia Gitters		6d.	
1024	Philips Single Early Pink Beauty		9d.	
1025	Lily Flowered Mrs. Moon		6d.	
1026	Wallflowers Fire King		6d.2	
1027	Zinnias mixed			
	<u>Trees for Canal Walk</u>			
1028	Populus nigra italica	6'0" stem 10'-12' high	13/6	
1029	Aesculus hippocastanum	6'0" stem	12/-	
1030	Salix scariosa	"	9/-	
1031	Fraxinus excelsior	"	11/-	
1032	Ulmus pseudoplatanus	"	15/-	
1033	Ulmus platyphyllos	"	18/-	
1034	Fagus Sylvaticus	Seedlings	6d.	
	<u>Tree Walk by Canal - Sample area 725/25</u>			
1035	Berberis Stenophylla Corallina nana	M	2/-	
1036	Cornus Alba	M	3/6	
1037	C. a. Sibirica variegata	M	3/-	
1038	Cotoneaster Laxneri	S	7/6	
1039	C. Conspicua Decora	M	7/6	
1040	Spirea Rubra	C.C.	3/-	
1041	(Eucryphia Japonica) sub. Ligustrum lucidum 2/3'		5/-	
1042	Hedera Helix	C.C.	5/-	
1043	Hypericum Calycinum	C.C.	2/6	
1044	Lamium Maculatum	C.C.	2/-	
1045	Salvia Aquilegium	M	3/-	
1046	Cleome Recepta	M	5/-	
1047	Fachysandra Lemnata	C.C.	4/-	

411/60/30

7
 [Stamp: THE UNIVERSITY OF ...]
 THE UNIVERSITY OF ...

	DESCRIPTION	SIZE	RATE	TOTAL
01	Potentilla Farreri	G.C.	4/-	
02	Ruscus Aculeatus	M	5/-	
03	Salix Rosemarinifolia	M	9/-	
04	Viburnum Tinus	L	6/-	
05	Vinca Major	G.C.	2/-	
06	Area covered 600 yards super			
	This type of planting to be repeated over 5200 yards super.			

WATER-SIDE PLANTING FOR MOUNTAIN POOL

Provisional sum allowed.

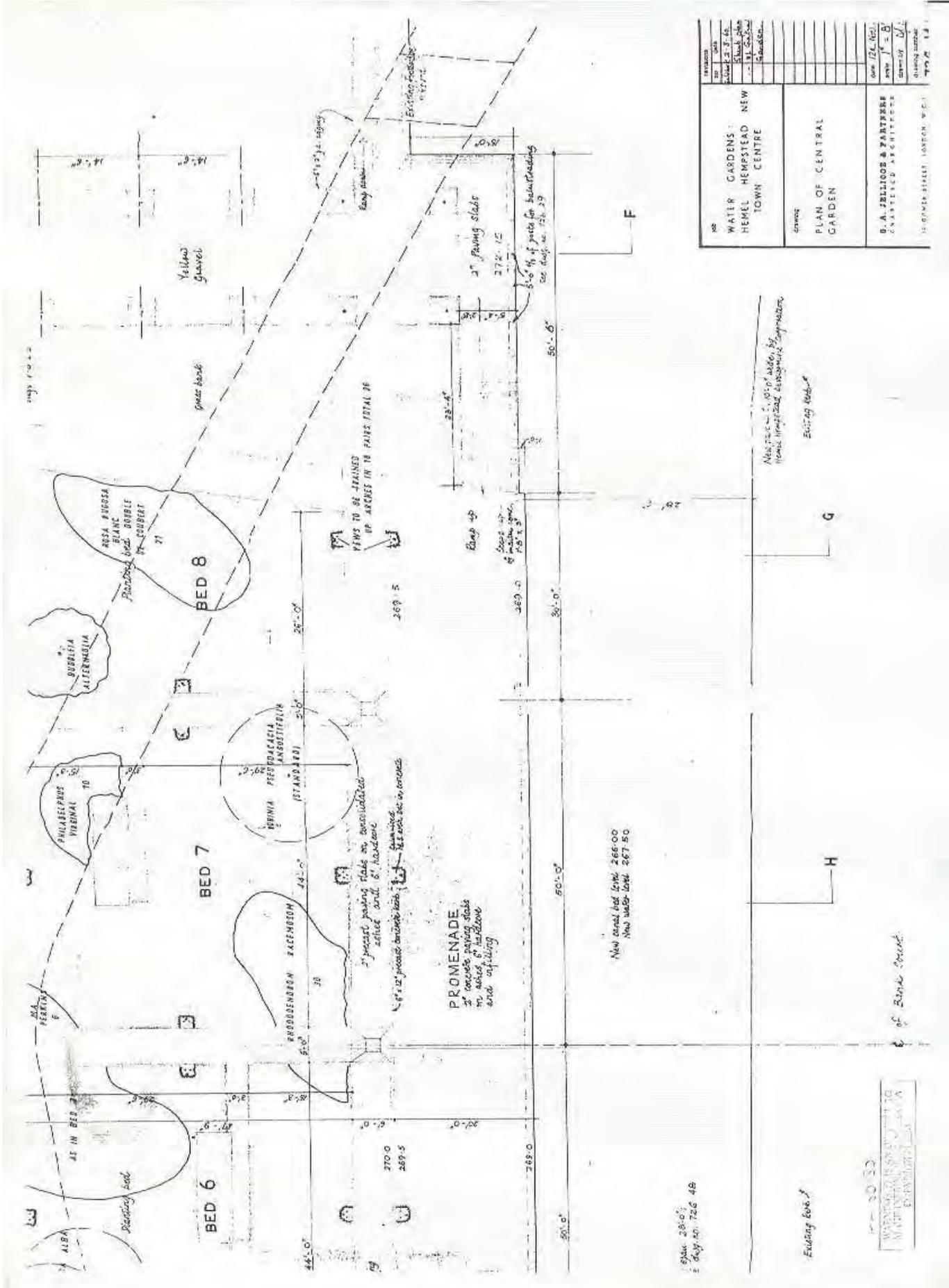
10/12/20


YDS.	FT.	UNIT	B/Fwd	f.	s.	d.	f.	s.	d.
1190		Sup. Herbaceous perennials and small shrubs. Prepare ground and supply over 1190 sq.yds.		397	8	-			
circa	2817	No. Bedding plants and tulips. Prepare ground, supply and plant.		398	2	2			
	144			34	2	-			
Total of Central Flower Garden							829	12	2
<u>3. SHRUB WALK BY CANAL</u>									
5200		Sup. Cultivate ground to a depth of 12" removing all weeds brickbats, etc. as per item 14 of specification. Dress area at the rate of 3 oz per square yard.	1/3	325	0	0			
	40	No. Forest trees. Prepare ground. Supply and plant stake and tie and back fill with top soil ex site, as per item 15 of Specification		54	7	6			
5200		Sup. Mixed shrubs and ground cover. Prepare ground, supply and plant as per attached list, and drawing No. 726/27, using this area of 600 yds sup. as sample area @ £122.8.0d.		1061	13	4			
	350	No. Hedges of seedling beech. Prepare ground. Supply and plant at 3'0" centres in 2 staggered rows 1'0" apart in the areas indicated in drawings 726/250 and 260	1/6	26	17	0			
Total for Shrub Walk by Canal							1467	17	10
<u>4. WATERSIDE PLANTING FOR FOUNTAIN POOL</u>									
222		Sup. Provisional Sum					150	0	0
TOTAL							£3000	0	0

G.D. Chalk

44150110





NO.	DATE
1	1965
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42	1965
43	1965
44	1965
45	1965
46	1965
47	1965
48	1965

WATER GARDENS
HEMEL HEMPSTEAD NEW TOWN CENTRE
PLAN OF CENTRAL GARDEN

B. A. JELLIFFE & PARTNERS
CHARTERED ARCHITECTS

15, GOWER STREET, LONDON, W.C.1

Scale 1" = 20'

Existing level

of Bank Street

New level bed level 266.00
New water level 267.50

PROMENADE
2' concrete paving slab
on 4" sand on hardcore
with 1/2" gravel on top

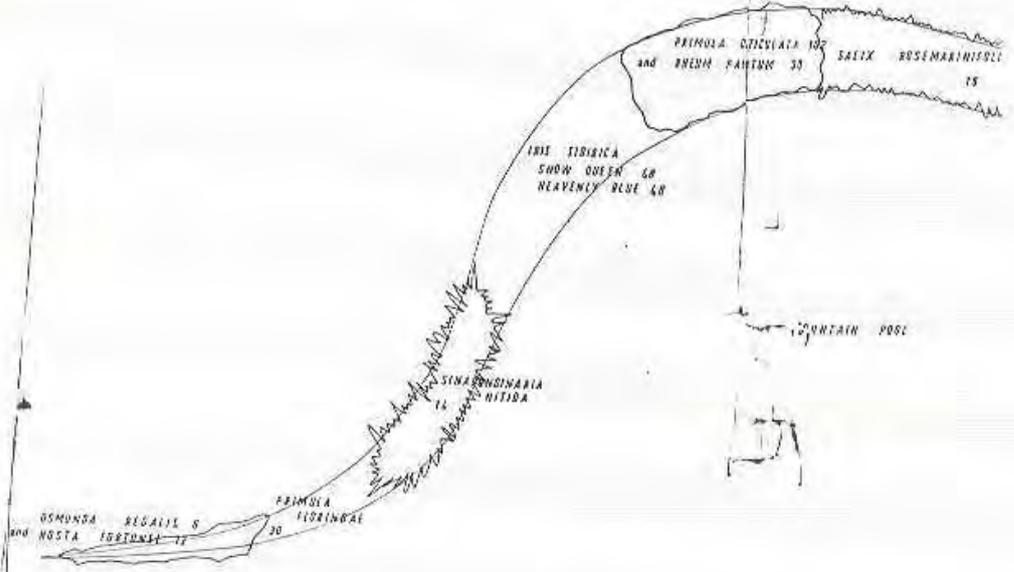
2' gravel paving slab on consolidated
sand and 4" hardcore
with 1/2" gravel on top

Views to be framed
up arches in 10 pairs total of

2' paving slab
37.5" x 12"
5.0" thick
see spec. on 12.2.59

New level 2.10' above
10' high rectangular water tank
Existing level

TRAVEL PATH



GRAVE

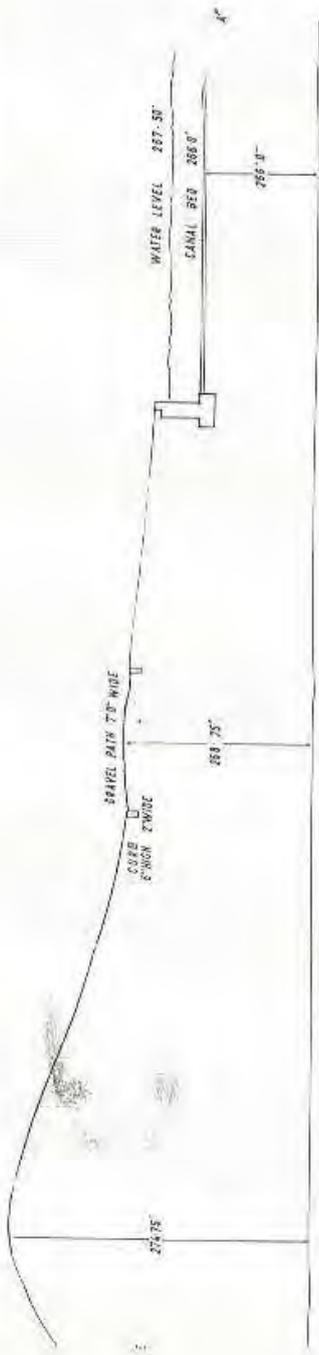


CAX

111136/30
 MAR 1916
 111136/30



HH 160/30

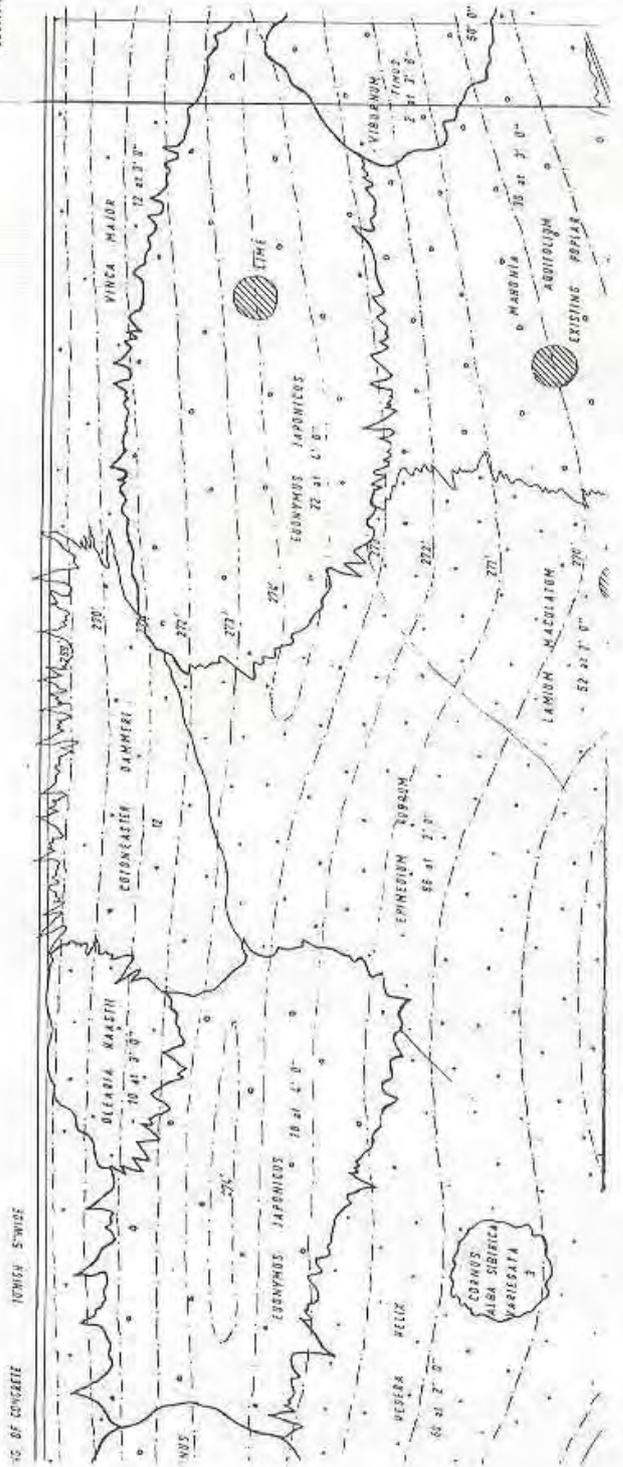


SECTION A'-A'



CAR PARK AREA

END OF SAMPLE SECTION



1/2\"/>

OLEARIA MAZEH
10' 41" 0"

COSONGATEY DAMMARI
12

VINCA MAJOR
12' 02" 0"

ESONYPHUS JAPONICUS
18' 41" 0"

ESONYPHUS JAPONICUS
22' 41" 0"

HEBERA BELIZ
68' 41" 0"

EPHEDRUM TOROSUM
88' 41" 0"

VISUENUM
2' 41" 0"

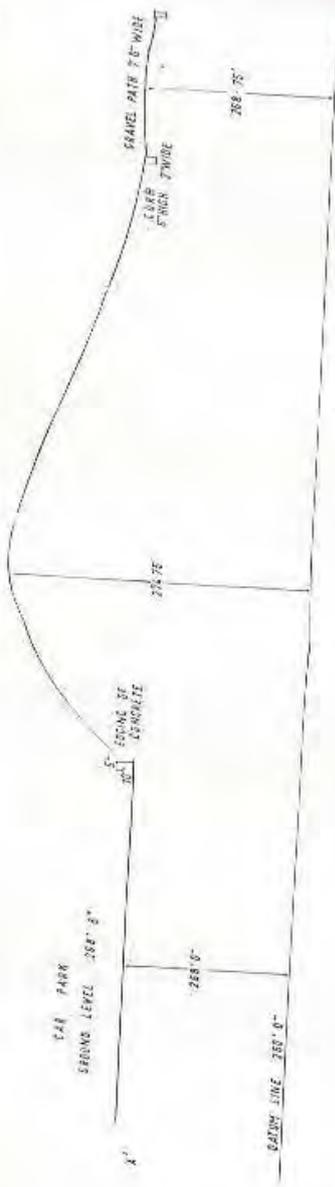
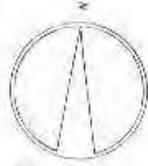
CORANUS ALBA SIBIRICA
VARIEGATA
3

LANTANUM MACULATUM
52' 41" 0"

MARONIA
10' 41" 0"

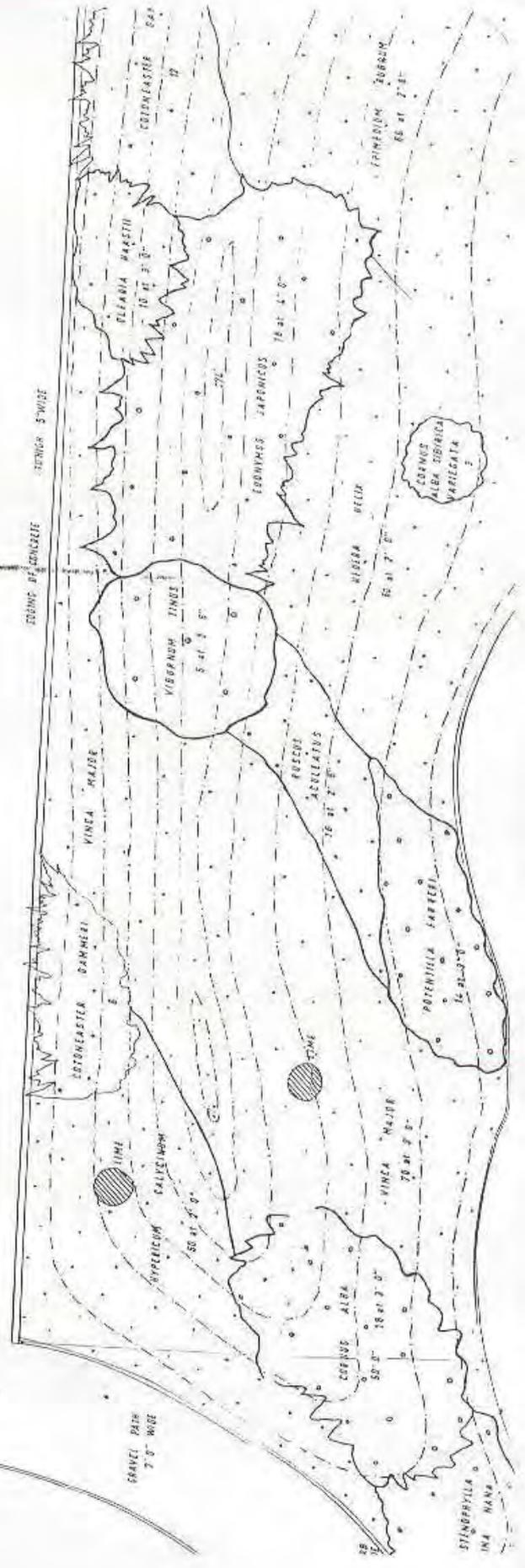
ACHTILOM
EXISTING FOLIAR

HH 60134



SECTION AT X'

CAR PARK AREA



CORNUS ALBA ROSICOLA VARIETATA

POTENTILLA FARRERII 14 at 3' 0"

VINCA MAJOR 70 at 3' 0"

CORNUS ALBA 50 at 18 at 3' 0"

STINGHRILLA INA NANA

GRANITE PATH 7' 0" WIDE

CONCRETE SINKER 5' WIDE

VINCA MAJOR

OSTEASPER DUMMERTII

SYRPECUM CALVEINUM 50 at 3' 0"

CORNUS ALBA 50 at 18 at 3' 0"

STINGHRILLA INA NANA

VIBURNUM TINUS 5 at 3' 0"

POTENTILLA FARRERII 14 at 3' 0"

VINCA MAJOR 70 at 3' 0"

CORNUS ALBA 50 at 18 at 3' 0"

STINGHRILLA INA NANA

STINGHRILLA INA NANA

EDONIMUS JAPONICUS 16 at 4' 0"

POTENTILLA FARRERII 14 at 3' 0"

VINCA MAJOR 70 at 3' 0"

CORNUS ALBA 50 at 18 at 3' 0"

STINGHRILLA INA NANA

STINGHRILLA INA NANA

STINGHRILLA INA NANA

STINGHRILLA INA NANA

ELIADIA MARSTII 10 at 3' 0"

POTENTILLA FARRERII 14 at 3' 0"

VINCA MAJOR 70 at 3' 0"

CORNUS ALBA 50 at 18 at 3' 0"

STINGHRILLA INA NANA

CORNUS ALBA ROSICOLA VARIETATA

POTENTILLA FARRERII 14 at 3' 0"

VINCA MAJOR 70 at 3' 0"

CORNUS ALBA 50 at 18 at 3' 0"

STINGHRILLA INA NANA

CORNUS ALBA ROSICOLA VARIETATA

POTENTILLA FARRERII 14 at 3' 0"

VINCA MAJOR 70 at 3' 0"

CORNUS ALBA 50 at 18 at 3' 0"

STINGHRILLA INA NANA

CORNUS ALBA ROSICOLA VARIETATA

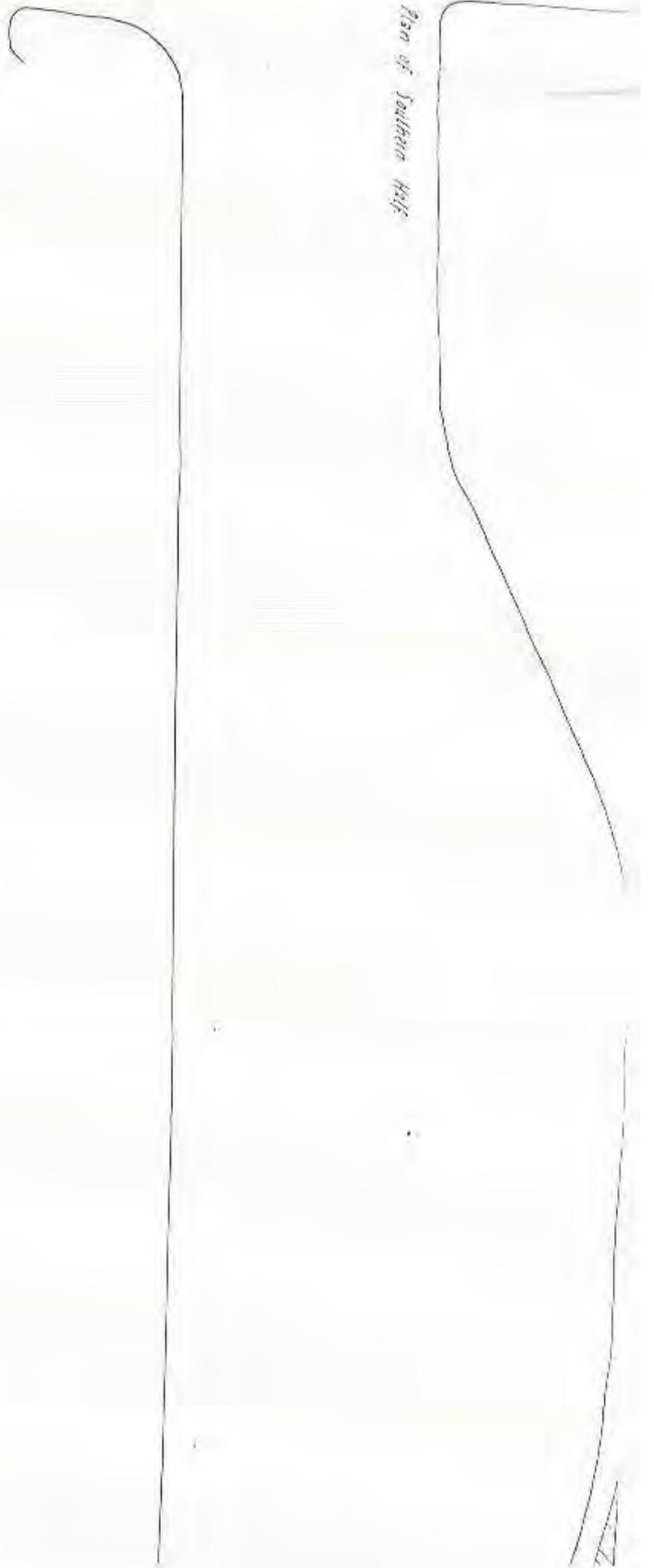
POTENTILLA FARRERII 14 at 3' 0"

VINCA MAJOR 70 at 3' 0"

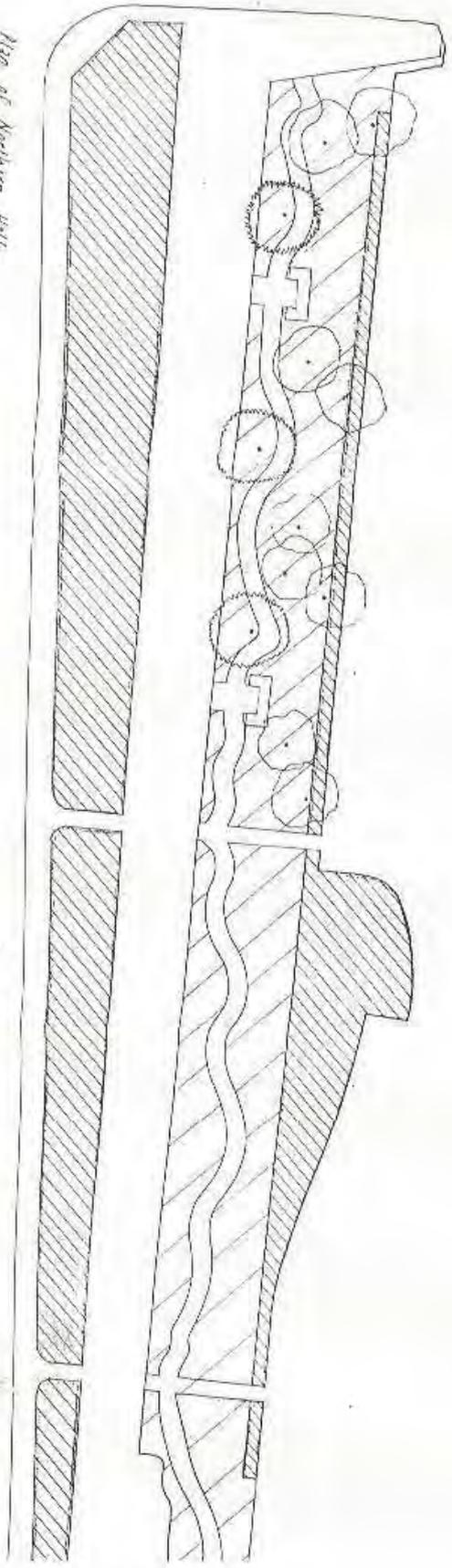
CORNUS ALBA 50 at 18 at 3' 0"

STINGHRILLA INA NANA

Plan of Southern Half

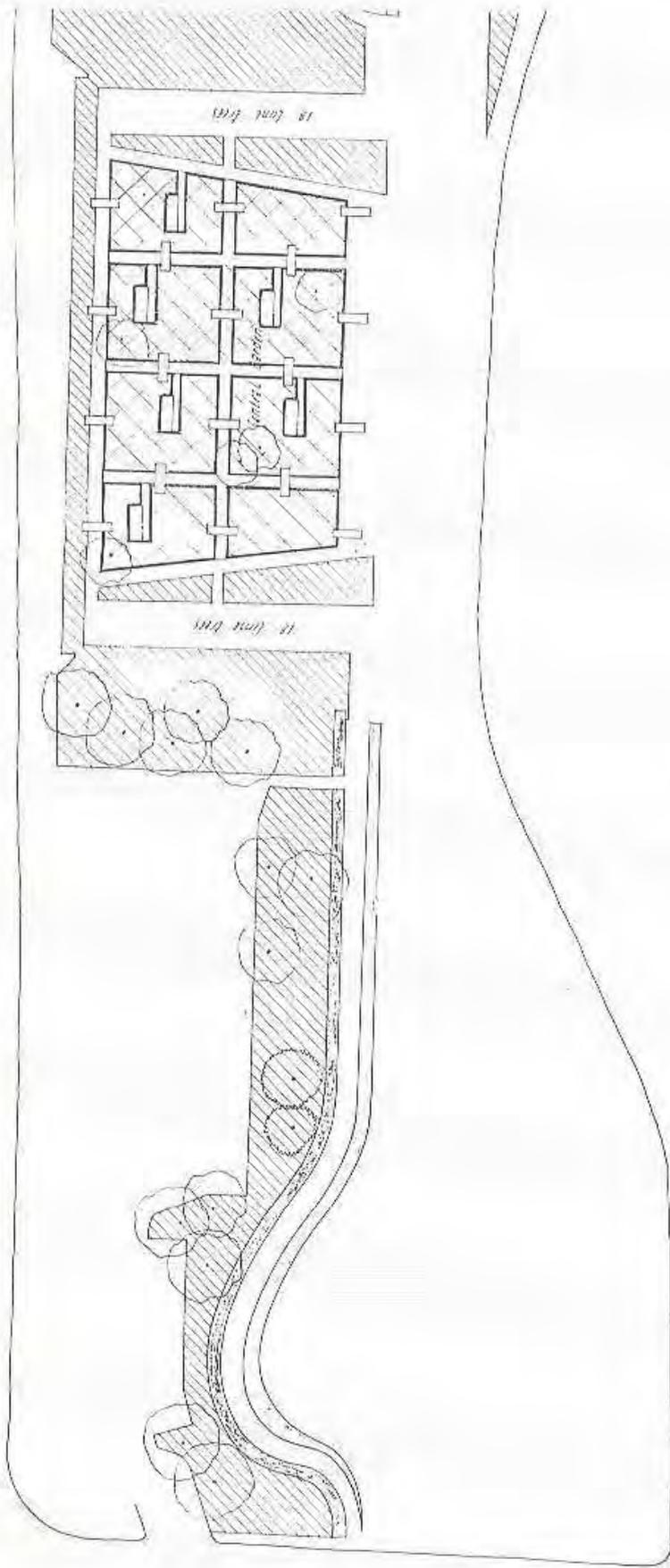


Plan of Northern Half



THE UNIVERSITY OF CHICAGO

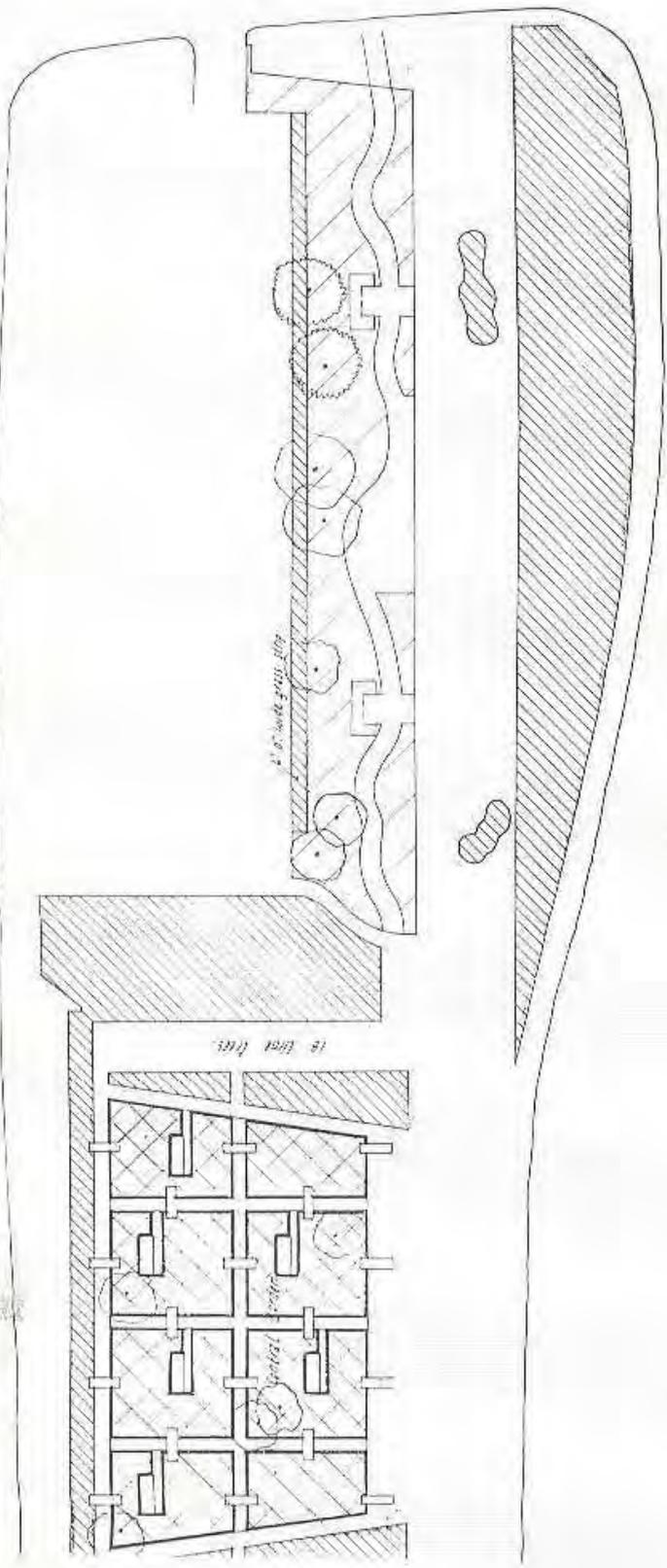
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Plan of Southern Hall.

141 30 30

222



A

SECTION FF

Existing floor level
100.0

2" x 2" tie end frame
restored in concrete

Level finish on landscape

SECTION GG

Open end of existing ramp
101.5' x 10.0' x 10.0'

10' x 10' square opening
with lead core
in concrete

Existing level - 100.0' x 10.0'

10' x 10' square opening
with lead core
in concrete

Existing ground level

10' x 10' square hole
in concrete

Open floor
100.0' x 10.0' x 10.0'
Existing - Building
level, lead in
concrete
in landscape

SECTION HH

Open end of existing ramp
101.5' x 10.0' x 10.0'

Existing ground level

10' x 10' square opening
with lead core
in concrete

Existing level
100.0' x 10.0'

Open floor
100.0' x 10.0' x 10.0'

APPENDIX G

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