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## **Hemel Hempstead Crematorium**

1203\_D046C\_Public Consultation

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23/07/2020

# Hemel Hempstead Crematorium

## Background Information

- On behalf of West Herts Crematorium Joint Committee (WHCJC), Watford Borough Council is leading on the development of the new crematorium in Hemel Hempstead. WHCJC was established in 1953 to serve the residents of its five constituent councils (Watford Borough Council, Dacorum Borough Council, Hertsmere Borough Council, St Albans City and District Council and Three Rivers District Council), by providing cremation services for the local community through the building of West Herts Crematorium.
- The demand for cremations has risen considerably in recent years with this trend set to continue as the UK's ageing population grows in size. The proportion of those aged 65 and above is predicted to significantly increase in future years. In 2018 cremation accounted for 81.3% of all funerals in England, with an overall UK cremation rate of 78.4%, of all funerals in the UK and is steadily increasing in demand.
- Hemel Hempstead has been identified as a location where there was a gap in the crematoria provision. This was identified by an early feasibility study and is further demonstrated within the Justification Statement and Needs Assessment, included for the proposed development.
- The Joint Committee is dedicated to providing a high quality of service at WHC, Dacorum identified Bunkers Park as having the potential to provide both cemetery and crematorium services on the same site, due to its good location, size, transport connections and overall viability.

## The proposal seeks to:

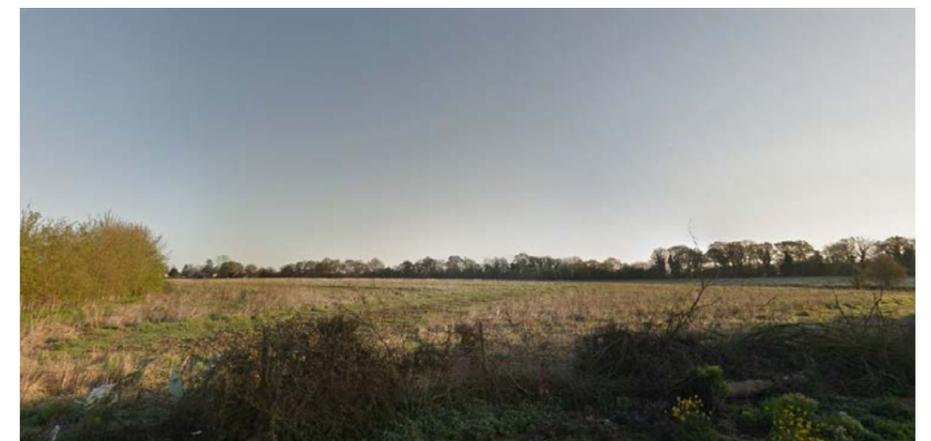
- Provide a new single chapel crematorium on the site with associated services including for 139 seated congregation, crematory, administration and staff spaces. The development also includes a separate pavilion with memorial facilities.
- Provide landscape works including car-parking, memorial gardens, woodland areas, long grass meadows with mown grass paths and hard landscaped entrance forecourt to the crematorium.
- Respect the landscape and reduce the visual impact of the building by shielding the building with turfed and planted bunds and mounds.
- Nurture and celebrate the bio-diversity and ecology on the site to develop a holistic and integrated landscape and crematorium.
- Construct using materials that are robust and hard wearing yet contextually and environmentally appropriate.



Aerial site view



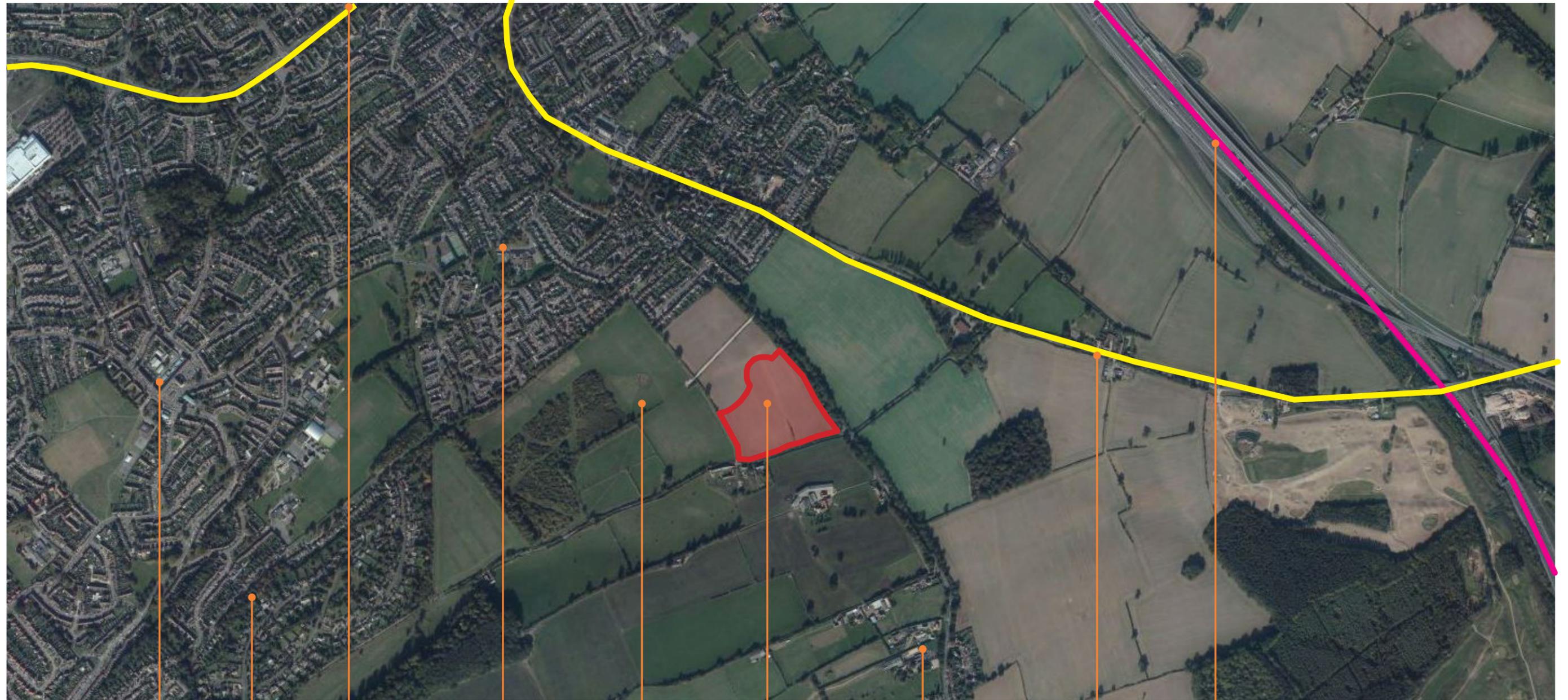
1. View from Bunker's Lane towards houses



2. View from corner of field towards site

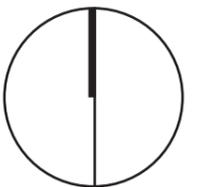
# Hemel Hempstead Crematorium

## Wide Site Location Plan



Bennetts End  
Nash Mills  
St Albans Road  
A414  
Leverstock Green  
Bunker's Park Open Space  
Proposed site  
Pimlico  
A4147  
Hemel Hempstead Road  
M1

0 500m 1km



# Hemel Hempstead Crematorium

## Site analysis

The site has constraints, as identified below:

- Access to the site is limited to through the proposed Dacorum cemetery development.
- Due to the Crematorium Act, the proposed building is required to be 200 yards away from dwellings and 50 yards away from roads/footpaths/etc, this reduces the available area in which to position the building.
- The area in which to position the building is further reduced by the Dacorum cemetery development.

- ① Cemetery staff car park
- ② Cemetery building
- ③ Cemetery visitor car park

--- Cemetery road

--- 200 yards from dwellings or 50 yards from public right of way

— Site boundary

■ Area for development

■ Cemetery development



# Hemel Hempstead Crematorium

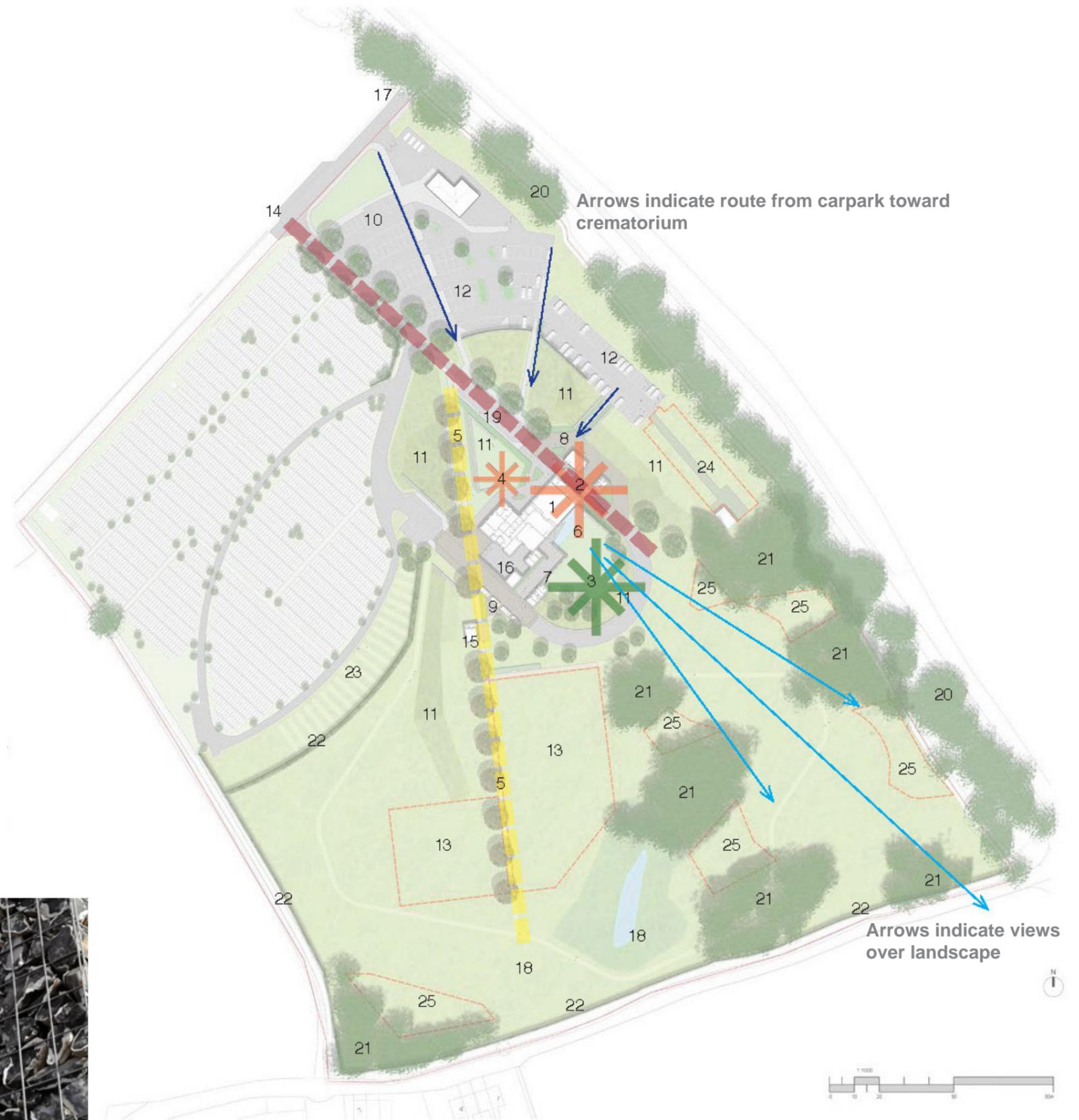
## Proposed site strategy

Site layout notes:

- Use bunding to create curated views of the surrounding landscape
- Bunding will also help to reduce the visual impact of the building
- Bunding will create visual and acoustic barriers from the cemetery, car park, and motorway noise
- Extend the car park along the Western side of the site
- Porte cochere (covered chapel entrance) on axis to arrival boulevard
- Cortege drop off and pick up at opposite ends of building
- Route into landscape from car park.

1. Crematorium
2. Arrival Space
3. Protected view
4. Entrance Gardens
5. Memorial Gardens path
6. Water feature
7. Floral tribute
8. Entrance of congregation route
9. Cortege pick up area
10. Cemetery visitor car park
11. Sculpted earth bund screening
12. Main car park for congregation
13. Future Memorial Gardens
14. Site entrance
15. Remembrance Chapel
16. Service yard
17. Access road
18. Attenuation/wildlife ponds
19. Cortege waiting area
20. Existing woodland
21. Proposed woodland planting
22. Existing hedgerow supplemented with additional planting
23. Ashes interment area
24. Potential future overflow carparking
25. Potential future woodland planting

Example of bunding and flint filled gabion retaining wall



# Hemel Hempstead Crematorium

## Vehicle access

Within the overall design, access and circulation has been a key focus. We have designed a seamless route for the funeral cortege and the ability to hold a second funeral party if another is running late.



A dedicated lay-by and drop off for coaches has been indicated within the main car park.



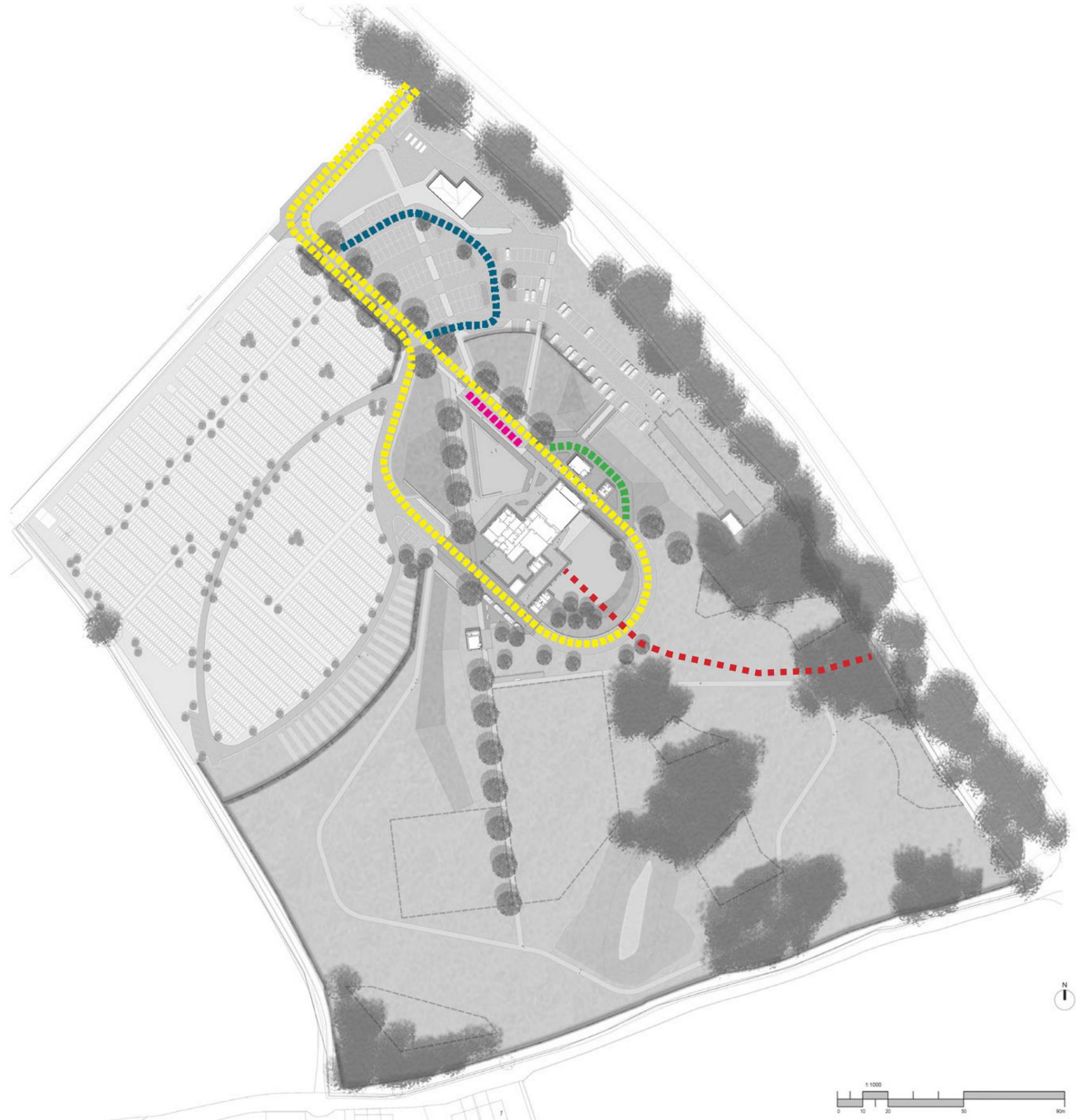
Whilst a by-pass route has been provided at the porte cohere (covered chapel entrance), enabling it to become a portico.



Construction only traffic.



Haverstock



# Hemel Hempstead Crematorium

## Parking



A total car parking provision of 140 spaces are proposed as part of the site wide masterplan, which includes 80 spaces provided within the recently completed cemetery development and a further 60 spaces in conjunction with the crematorium. Car parking is shared and provides sufficient capacity for both uses. Additional parking capacity has been identified via a potential overflow carpark for a further 38 spaces, should this be required in the future.

CAR PARKING PROVISION	
EXISTING: 80 SPACES	4 ACCESSIBLE BAYS
	76 STANDARD BAYS
PROPOSED: 60 SPACES	10 ACCESSIBLE BAYS
	50 STANDARD BAYS
TOTAL PROVISION: 140 SPACES	14 ACCESSIBLE BAYS
	126 STANDARD BAYS



Pedestrian links from the car parks have been indicated with clear journey lines to either the Crematorium gathering space or to the Remembrance Chapel and memorial gardens. The filtering of visitors ensures the minimum cross-over with a funeral party and visitors / staff on site for other purposes.



Three locations have been indicated for accessible parking with a total of 14 spaces. The locations afford easy access to the cemetery (4 spaces), the Crematorium (7 spaces), and for disabled staff, the memorial gardens, chapel and wider grounds, (a further 3 spaces). The ratio of disabled parking to standard bays is 1:10.



Of the additional 60 spaces proposed as part of this application, 20% will be provided with an electric vehicle charging point which equates to 12 spaces.



# Hemel Hempstead Crematorium

View of crematorium on approach - looking south



Landscaped bund

Trees along entrance boulevard

Porte cochere

Main Building

Landscaped bund with knapped flint gabion wall

Entrance road to site

Cemetery development beyond

# Hemel Hempstead Crematorium

Aerial visual - looking north



Landscaped bund

Chapel of Remembrance

Remembrance Gardens

Floral tribute and cortege pick up

Protected view with reflective pool

Landscaped bund blocking view of cortege traffic

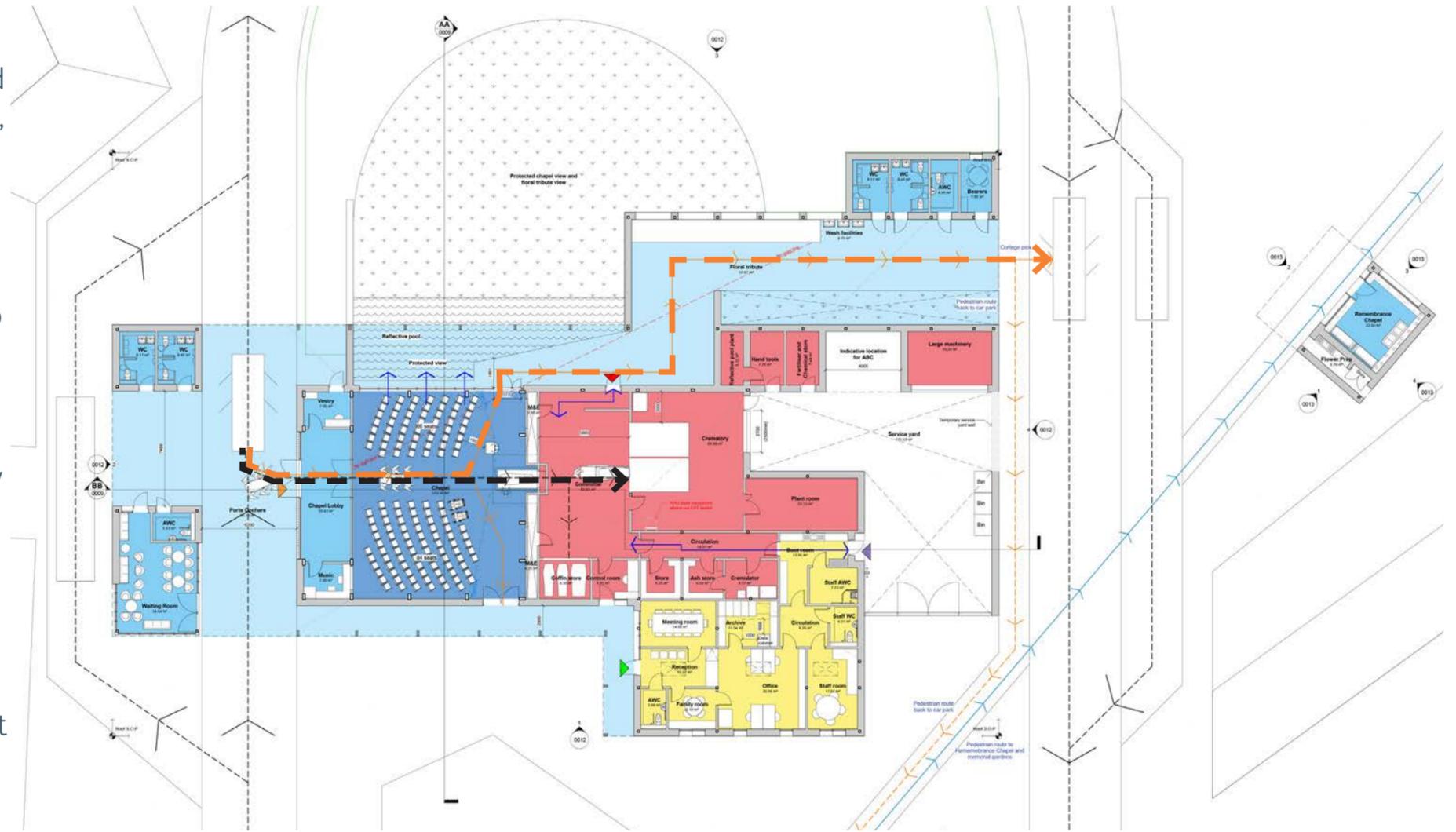
Landscaped bund

Access road for cortege

# Hemel Hempstead Crematorium

## Main Building

- The chapel entrance is articulated by the large bridged over porte cochere, with a fully covered entrance court, congregation area and ancillary spaces.
- The congregation will have the option to wait in the designated internal waiting room or congregate externally within the porte cochere under cover area before the hearse arrives and the coffin is brought into the chapel.
- The asymmetric seating layout in the chapel and catafalque (coffin resting place) position provides intimacy, regardless of the size of congregation at any given service.
- The protected view gives the chapel light, visual amenity and relief to this space fully utilising the surrounding landscape as a backdrop.
- The congregation exit the chapel via a covered walkway, towards the floral tribute which has views out to the protected view and landscape beyond.
- After exiting the chapel, there is also a choice to view the committal of the coffin to cremation. For families who decide to do this, staff escort them to the crematory, via a designated door off the floral tribute with an internal privacy screen to obstruct views of the committal when the door opens.
- The front of house block is designed to serve visitors in different stages of grief. Families can be received in a generous reception with roof light, providing a light and spacious feel.
- Separate family meeting rooms allow for more than one family to be seen at a time and avoid visitor groups from crossing over. These rooms can be used to prepare for a service or to collect ashes.



Proposed building layout

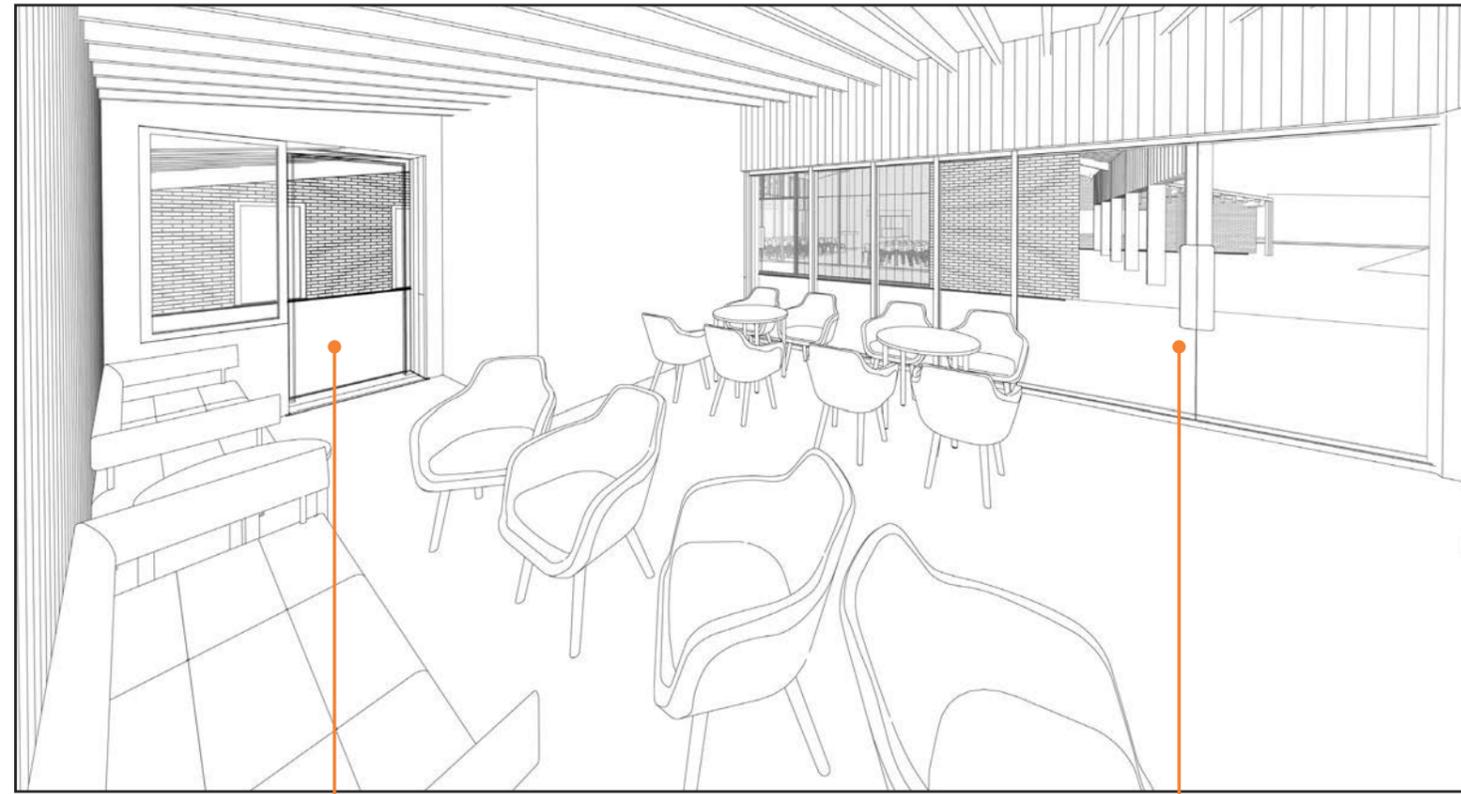
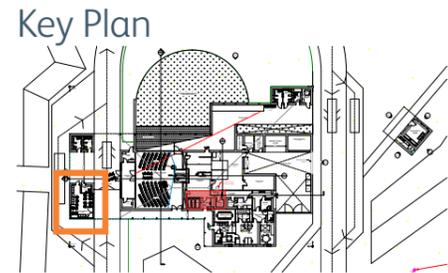
### Key:

- Chapel visitor route ————
  - Coffin route - - - - -
  - Chapel [Blue square]
  - Chapel ancillary [Light blue square]
  - Chapel external areas [Lightest blue square]
  - Front of House & Staff [Yellow square]
  - Crematory plant [Red square]
  - Staff entrance [Purple arrow]
  - Charging witness entrance [Red arrow]
  - Office visitor entrance [Green arrow]
  - Chapel visitor entrance [Orange arrow]
- 0m 2m 4m 6m 8m 10m

# Hemel Hempstead Crematorium

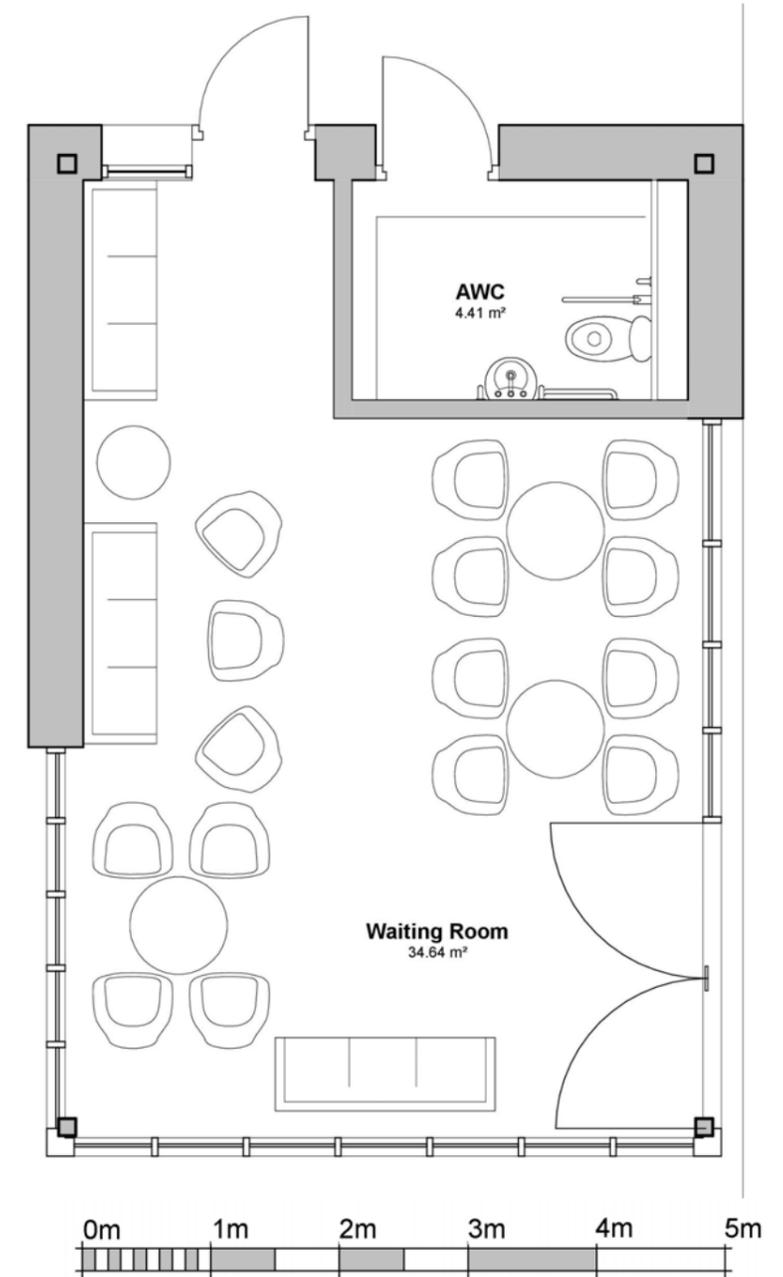
## Waiting room

Glazing to 3 sides of the waiting room allows for views to the car park, the chapel lobby and the approaching cortege.



Door to car park and WC's

Door and view to porte cochere and chapel



## Landscape Planting

The planting comprises more formal tree planting along the main access route and diagonal memorial path. Mown lawns are proposed immediately around the Crematorium itself, especially within the formal garden with reflective pool. Formal planting within the memorial garden is contained to a relatively small area of the site. Other planting is intended to strengthen the surrounding landscape character of mixed deciduous woodland, wild flower meadows and improved hedgerows.



Precedent photos of seasonal changes in meadows and woodland planting

# Hemel Hempstead Crematorium

## Chapel

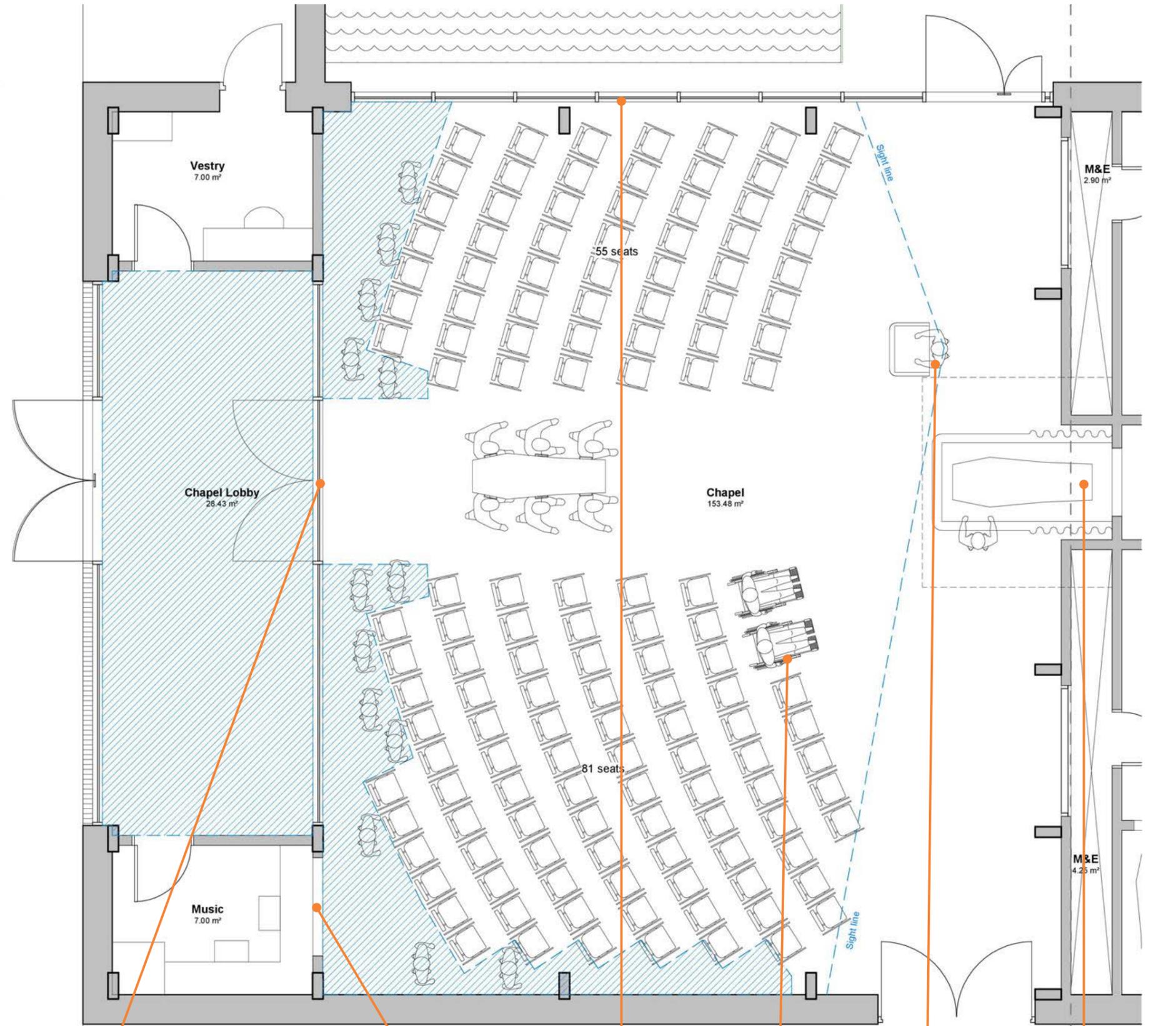
The chapel seats 139 people with space for 115 people standing at the back and in the chapel lobby (measured as each standing person requiring 0.4m<sup>2</sup>). The seats are entirely adjustable so chairs can be removed as necessary to allow for wheelchair spaces.

The recessed catafalque (coffin resting place) is on an axis to the chapel entrance, allowing for easy transfer of coffin from hearse to catafalque. The central position of the catafalque allows it to be seen easily from anywhere in the chapel.

The unequal setting out of the chairs allows for both intimate small services and large services.

### Key

 Standing area = 47.3m<sup>2</sup>



Full height glazed doors and screen to allow for overflow standing in chapel lobby

Music room open to chapel to allow technician to see into chapel

Full height glazing to wall to provide views of protected landscaped and reflective pool

Provision for removing front rows of chairs for additional wheelchair spaces

Lectern with mic

Recessed catafalque with transfer hatch



Precedent photo for exposed timber structure



Precedent photo for internal brickwork

# Hemel Hempstead Crematorium

## Internal visual of chapel



Landscaped bund

Reflective pool

Large glazed wall celebrate the protected view

LCD screen for Wesley tribute

Recessed catafalque

Feature brick wall

Roof structure with acoustic panel infill

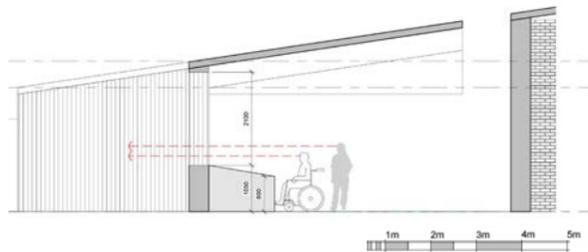
Hit and miss brickwork for ventilation

# Hemel Hempstead Crematorium

## Floral tribute

To celebrate the landscape around the building, brick reveals have been formed in the floral tribute to create picturesque vistas.

The height and spacing of the floral tribute plinth and brick opening has been carefully considered to be accessible to all. This space is very important, as it is a place where friends and families will congregate and prepare for the next chapter of their lives, so it is important that it can be enjoyed and used by everyone.



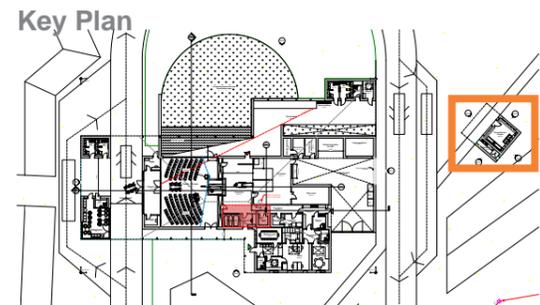
# Hemel Hempstead Crematorium

## Remembrance Chapel

The Remembrance Chapel sits within the site as an elegant pavilion in the landscape. In-keeping with the site strategy, this pavilion caters for the different stages of grief which users experience over the site's lifetime - and is used by those attending services as well as those visiting memorials long after the cremation service.

By separating the Remembrance Chapel from the main building it allows for the space to operate independently and securely out of hours - during weekends and holidays - when these functions are also most used. It also allows visitors to use the space without interrupting the flow of services at the chapel.

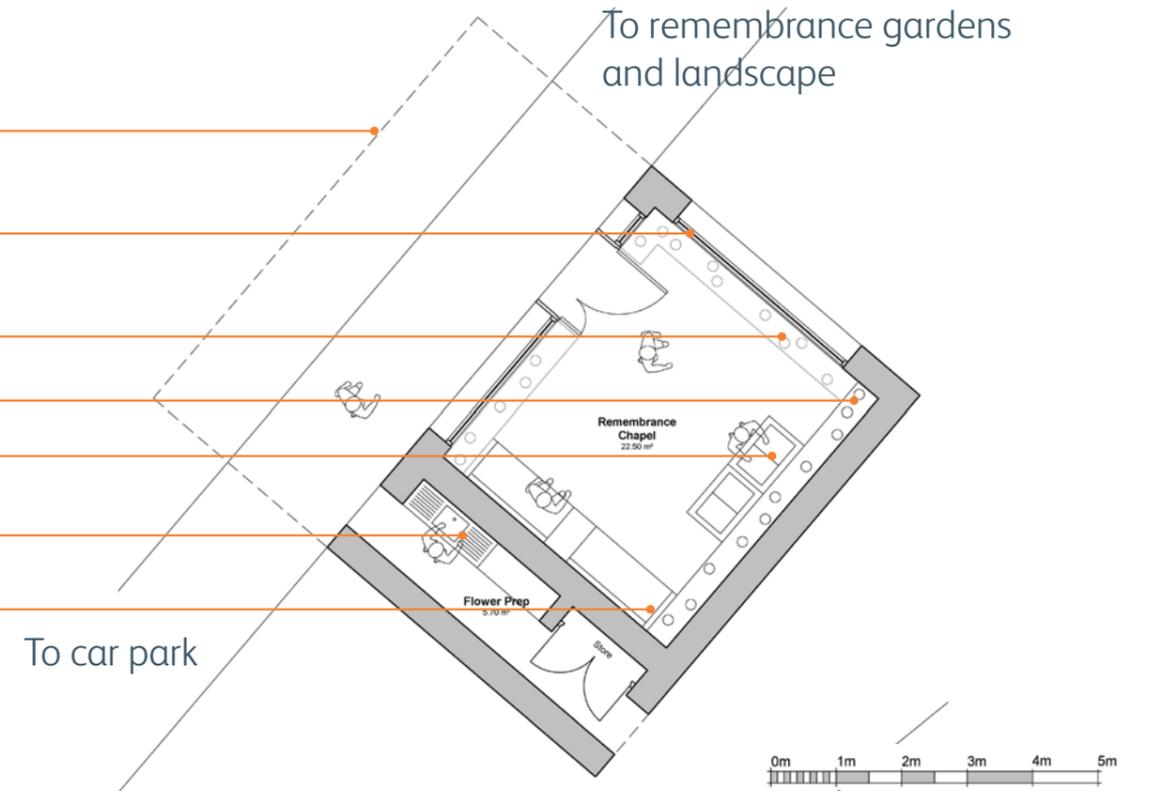
Within the wider site strategy, the building bridges the site - between the memorial gardens and the main building.



Examples of proposed long distance views across meadow grassland framed by mixed deciduous woodland planting

Haverstock

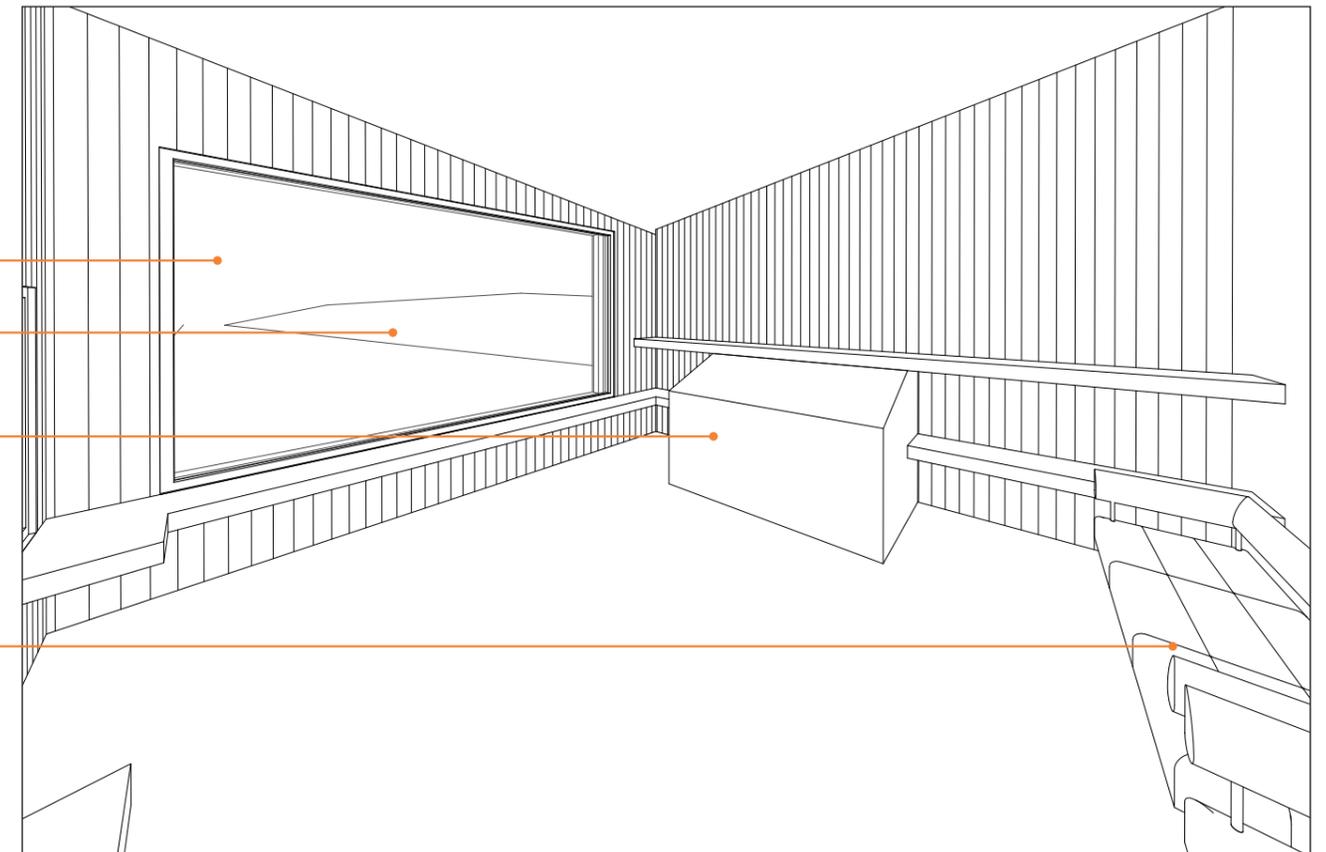
- Canopy above
- Glazing to views of remembrance gardens and landscape beyond
- Low shelf for flowers
- 2 shelves for flowers
- Books of remembrance
- Sinks, drainers and bins for flower preparation
- Upholstered benches



Proposed Remembrance Chapel layout

Proposed Remembrance Chapel visual

- Remembrance gardens beyond
- Landscaped bund
- Books of remembrance in display cases
- Upholstered benches



# Hemel Hempstead Crematorium

## Material Study

The following is a material study elevation of the proposed buildings facade and roof.

A mid-tone stained timber slat cladding and a light buff brick has been selected for the external walls. The timber cladding will be used as the primary materials and the light buff bricks used where there are cut outs and recesses in the external walls to provide visual contrast.



③

④

①

⑤

②

### Material key

- ① Mid-tone timber slat cladding
- ② Glazing
- ③ Tapered standing seam roof
- ④ Roof light
- ⑤ Light brick



Extract of North elevation



Precedent image of tapered standing seam zinc roof



Precedent image of timber cladding in landscape



Precedent image of light buff brick and timber cladding

Hemel Hempstead Crematorium

# Hemel Hempstead Crematorium

## Elevations

The design concept behind the roof pitch and form is to keep it as low as possible to reduce the overall visual impact of the building in the landscape. The geometry of the roof shares a similar language

to the geometry of the landscaped bunds that surround the proposed building, integrating the building holistically with the landscape.

A dark and muted material palette has been chosen to match adjacent barns and farm buildings, as

well as similarly coloured trees and landscaping surrounding the building, reducing the overall visual impact of the proposal.

A mid-tone stained timber slat cladding and a light buff brick has been selected for the external walls. The timber cladding

will be used as the primary material and the light buff bricks used where there are cut outs and recesses in the external walls to provide visual contrast.

The use of dark zinc will reduce the visual impact of the building in the surrounding landscape.

This is due to the dark tones of the zinc being less pronounced than a light colour when situated within the landscape.

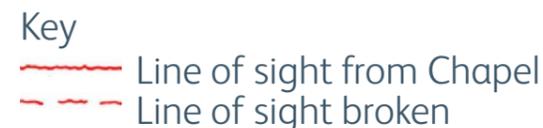
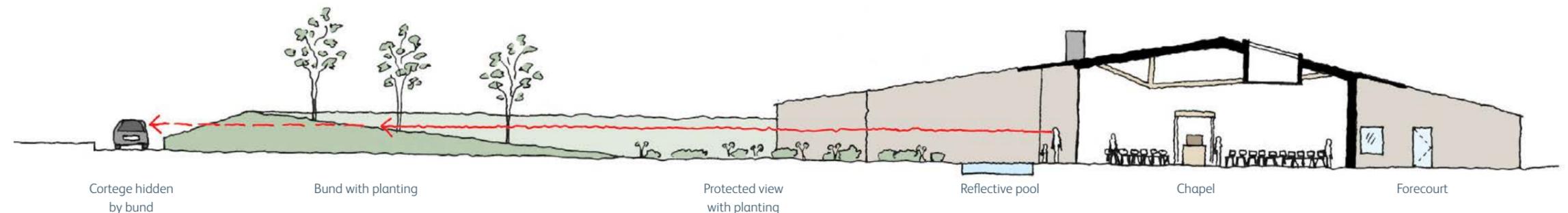
An example of this effect can be seen in the recently completed cemetery building on the site. The light external wall colours

separate the building from the surrounding landscape and make the building noticeable. However the cemetery building's dark concrete slate roof is less detectable as it employs darker tones.



## Bunding concept

By framing the protected view from the chapel with a landscaped bund, it allows for the cortege to pull around to the pick-up point by the floral tribute without being seen. It also prevents any visitors to the memorial gardens and landscape beyond from being seen from the chapel.



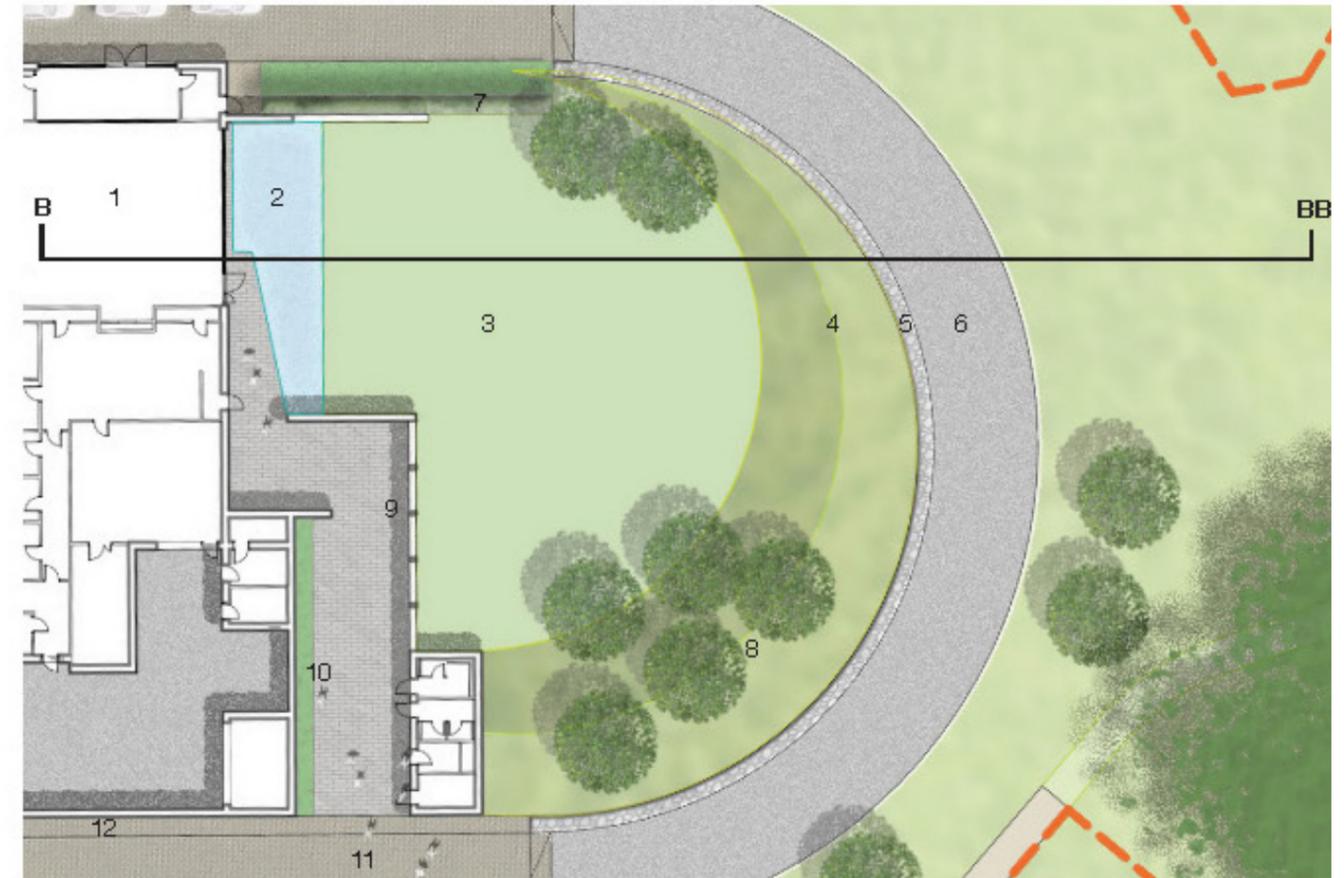
# Hemel Hempstead Crematorium

## Protected view

- At the centre of the site the principal focal point is formed with the Protected View. A garden defined by the glazed wall to the Chapel and the arc of a wildflower bank, this space also has views out to the skies beyond, flanked by new and existing woodland trees.
- This area forms the visual backdrop to the interior of the Chapel and services and is entered into in passing when the service is complete. The glass wall of the Chapel is mirrored by a reflective pool, which leads on to a manicured lawn. At the outer edge of the lawn is a curve of flowering grass bank where multi-stem trees are clustered, providing a transition to the more natural landscape beyond and screening cortege vehicles passing round on the lowered road beyond.
- The purpose of the garden is to provide a calming and peaceful outlook before and during services. The qualities sought in the design is the creation of a still, silent calm space. This enclosed landscape exists as a separate space, largely detached from its surroundings, and the intention is that it serves as a place of contemplation.
- Following a service, the congregation as a procession leaves through this courtyard and past the floral tribute, that affords further views of the garden. The floral tribute is backed by further planting drawn from a restrained palette of groundcovers and taller stands of shrub and herbaceous planting, that leads congregants out to the cortege departure space and a return to the parking areas via the entrance garden.

### Key

1. Chapel
2. Reflective pool
3. Lawn
4. Meadow bank
5. Low gabion wall
6. Cortege vehicle route
7. Hedge screen to arrival space
8. Multi-stem trees
9. Floral tribute
10. Shrub and ground cover planting
11. Cortege collection area
12. Screen to service yard



Section B-BB Protected View



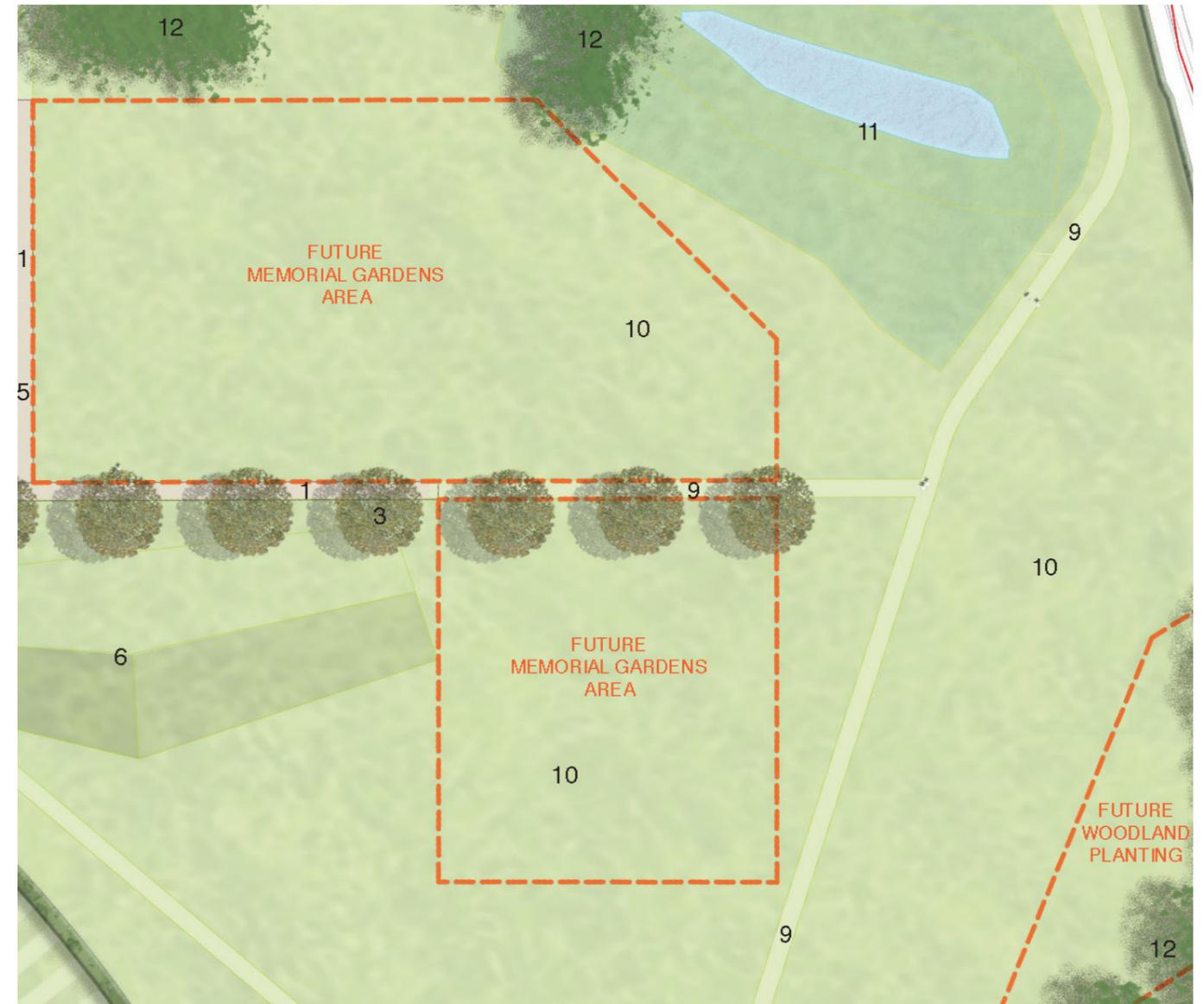
# Hemel Hempstead Crematorium

## Memorial gardens

- From the entrance to the cortege route, a footpath runs along a diagonal axis past the Crematorium building to the Remembrance Chapel and Memorial Gardens. Made of a self-binding gravel such as hoggin, this path will run straight through and appear to lead into the far distance, travelling through formal lawns and ornamental gardens to meadow and wetland areas at the southern perimeter. Its simple surface material will be in keeping with the rural context it leads to, and will have something of the humble quality of a pilgrimage route.
- The realisation of the Memorial Gardens would be an ongoing programme. Planting and paths will form part of a pre-determined framework so that at every stage of development the gardens appear as a coherent design.
- Ornamental shrub beds will be planted up incrementally during the operational phase, with shrubs selected from a limited palette of suitable species - to provide a coherent ensemble with year-round interest from stems, foliage, fruits and flowers.

### Key

1. Self-binding gravel paths
2. Remembrance Chapel
3. Line of Field Maple trees
4. Shrub beds with memorials
5. Seating
6. Earth bund
7. Multi-stem trees
8. Ashes interment area
9. Mown grass paths
10. Meadow grassland
11. Natural pond/wetland
12. Native broadleaf woodland



# Hemel Hempstead Crematorium

## Cremator Emissions

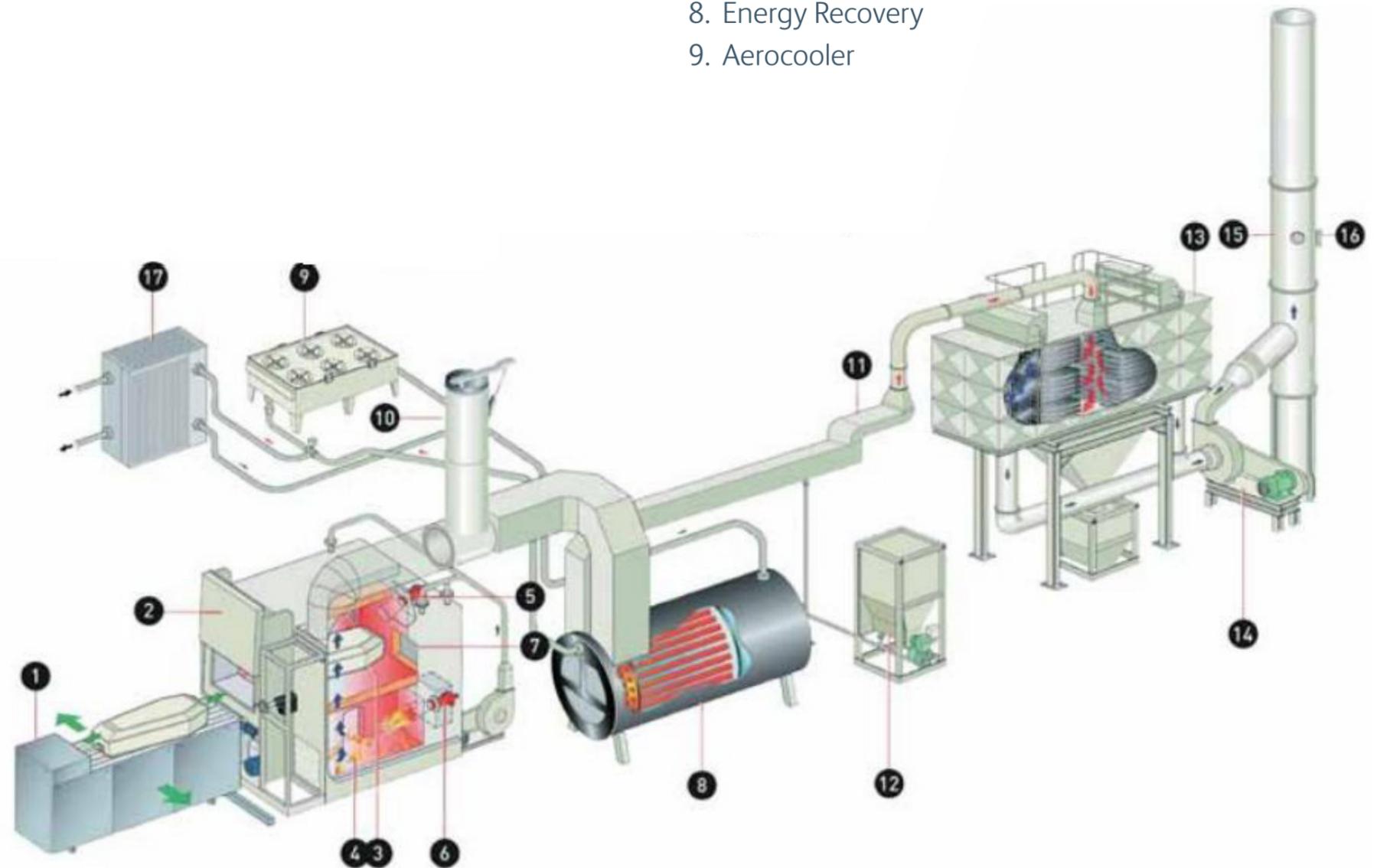
All new crematoriums are built to high specifications that include fully automated filter technology and continual emissions control. They are strictly regulated and regularly monitored and inspected to ensure the environment is protected to the highest possible standard as set out in the Environmental Protection Act 1990 – Crematoria PG5/2 (12). Local Authorities and the Environment Agency regulate the reduction/prevention of emissions from industrial processes to air, land and water. It is the responsibility of Local Authorities to regulate crematoria through Environmental Health.

A crematorium must hold a permit to operate which is issued by Environmental Health. The main aim of the permit is to ensure compliance with EU legislation and sets out standards and conditions that need to be complied with to ensure that the environment is protected to the highest possible standard. The facility will also need to comply with the Clean Air Act 1993 which also requires a permit to be issued. Emissions from all crematoria are monitored by the local Environmental Health Officer together with Annual Emission Testing. Cremation emissions are lower than is commonly perceived and through constant monitoring and use of the latest technology, emission levels are usually below the legislation guidelines set out by the Secretary of State in PG5/2 (12) and therefore have minimal impact on local residents and the area. The requirements of how they operate mean that there is usually no visible emissions, smell or residue.

In addition, the new crematorium has also elected to go over and beyond its statutory obligation by including the installation of additional flue gas cleaning in the form of NOx abatement on the proposed cremation system, therefore making it one of the 'cleanest crematoria' in the country.

## Key

- |  |                            |
|--|----------------------------|
| 1. Coffin Charger with an electronic ram | 10. By-pass                |
| 2. Charging Door                         | 11. Reactor                |
| 3. Cremation Door                        | 12. Reagent Tank           |
| 4. Post Combustion Chamber               | 13. Mercury Abatement Unit |
| 5. Cremation Burner                      | 14. Gas Extractor Fan      |
| 6. Post Combustion Burner                | 15. Chimney                |
| 7. Ash Removal Door                      | 16. Sampling Hole          |
| 8. Energy Recovery                       | 17. Heating Recovery       |
| 9. Aerocooler                            |                            |



Cremator diagram

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# Hemel Hempstead Crematorium

## Traffic Impact

- A robust Transport Assessment has been carried out as part of the planning application, and examines; the proposed development; the access arrangements; the trip generation; car park provision; the potential traffic impact on the surrounding highway network; and, layout and operation.
- The proposed site will operate a time slot service for services between 09:00 – 17:00 on weekdays only, weekends services rarely take place. The site is open 365 days a year to allow people to visit the grounds, gardens of remembrance and the memorials of loved ones.
- The crematorium will only undertake a single service at any one time. This is to limit the traffic impact and the number of people on site at any one time. The duration of the service is usually 45 minutes. Therefore, each time slot is 60 minutes which allows time for people to enter the chapel, hold the service and leave.
- The site will employ 5 - 6 members of staff on a full time basis to cover all aspects of the crematorium operation.
- The site is well located in terms of its local and wider surrounding highway network and is also accessible through the local walking, cycling and public transport networks that surround the site and Leverstock Green as a whole. The current level of accessibility when considered against the proposed use is considered sufficient to serve the proposed scheme.
- The review of accident data on the adjacent highway network indicates that there is not a specific highway safety concern that would warrant mitigation as part of the proposal.
- The site will be served via the existing access on Bedmond Road which was consented as part of the cemetery application.
- The proposed development will provide an additional 60 car parking spaces above the current level of 80 (140 total) which has been demonstrated to be a suitable level based on the accumulation assessment.

# Hemel Hempstead Crematorium

## Traffic Impact

Figure 6.1: Summary of 2020 Base Flows on Bedmond Road



Table 5.2: Peak and Interpeak Breakdown Crematorium

Time	Arrival	Depart	Two-way
0800 - 0900	2.5%	0.2%	1.4%
0900 - 1700	95.9%	99.5%	97.7%
1700 - 1800	0.0%	0.0%	0.0%

- The traffic generation of the proposed development has been derived from a first principles assessment using traffic data from another crematorium site operated by the end user which is considered to be representative of the proposed site in terms of the rural location and accessibility.
- With the addition of the development generated traffic in the AM and PM peak periods, there is little or no discernible impact on the operation of the surrounding highway network.
- A further sensitivity test also indicates that when traffic associated with the peak (network off-peak) operation of the crematorium is applied to AM and PM peak baseline traffic the level of impact on the operation of the surrounding highway network is similarly small.
- A Site Management Plan will be introduced for the crematorium. This will comprise of a set of procedures which the operator of the site will abide by in terms of the operation of the site going forward to ensure that the traffic impact is minimised.

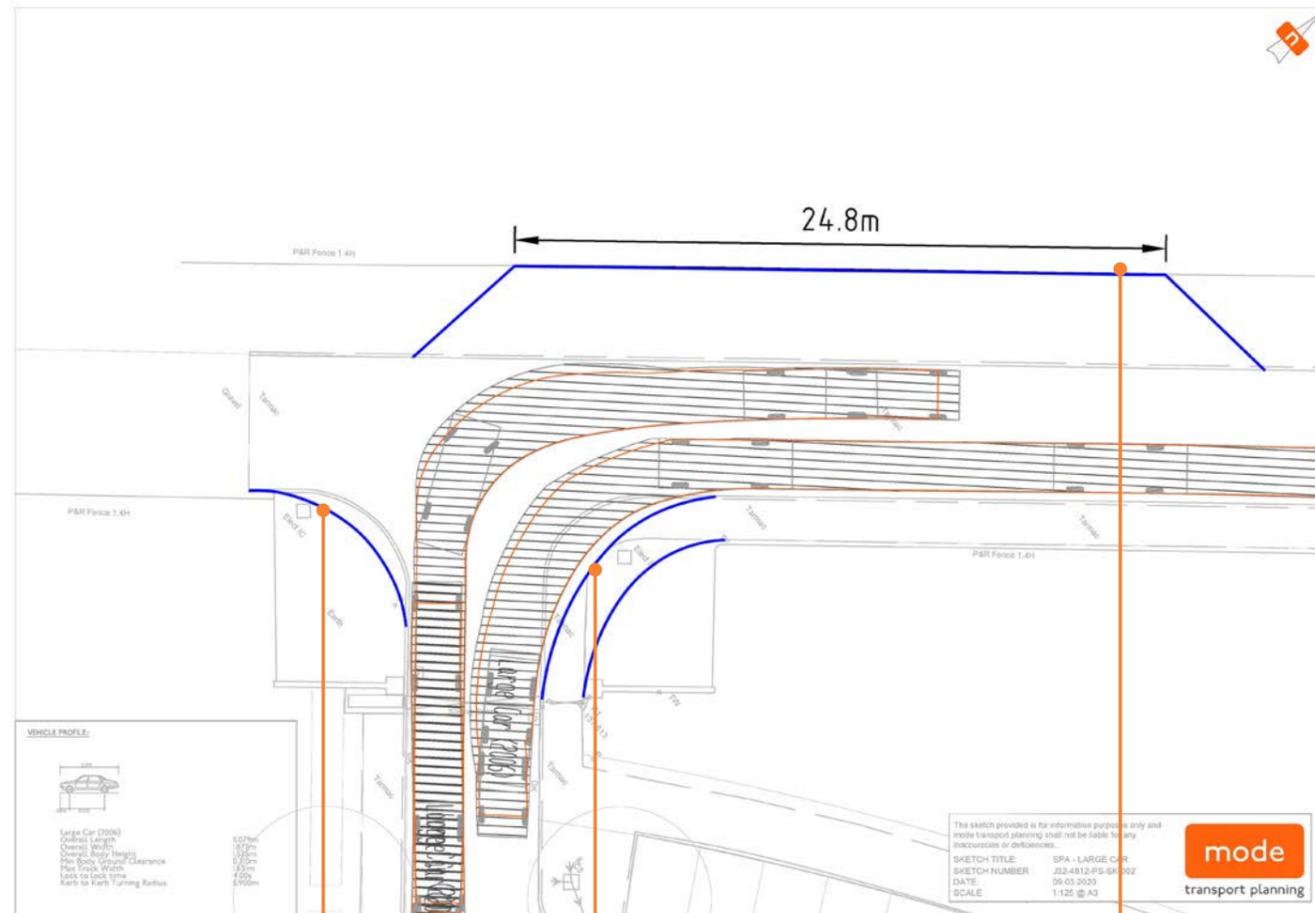
## Conclusion

- It is therefore concluded that the proposed development will not have a adverse impact on the operation of the surrounding highway network and therefore in accordance with the National Planning Policy Framework, the proposal should be considered acceptable in transport terms.

# Hemel Hempstead Crematorium

## Entrance works

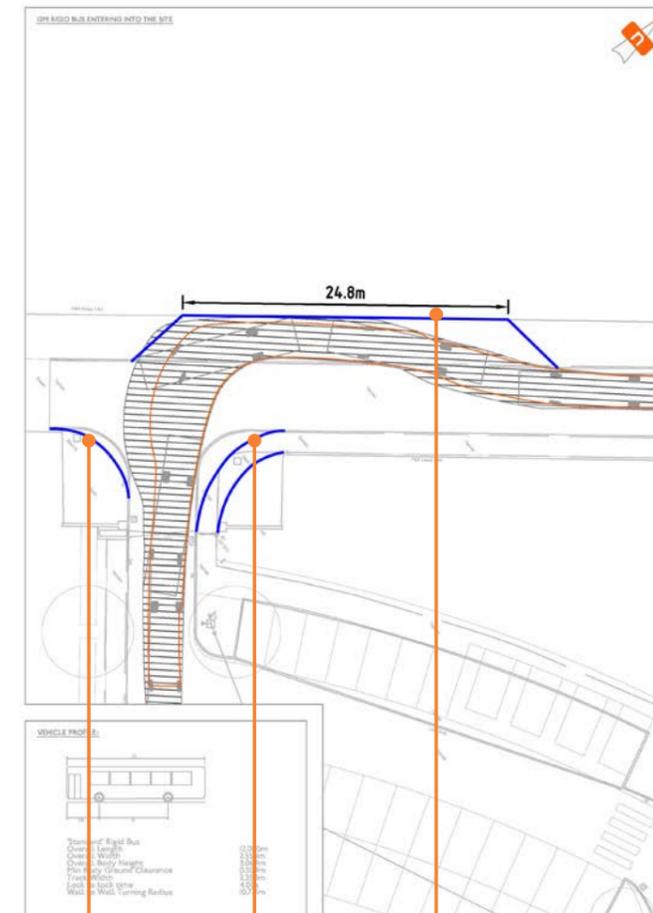
The current arrangement of the shared access to the site is not suitable for large vehicles. The following tracking drawings illustrate how the introduction of an overrun and pulling back the kerb edge will improve accessibility.



New kerb edge

New kerb edge

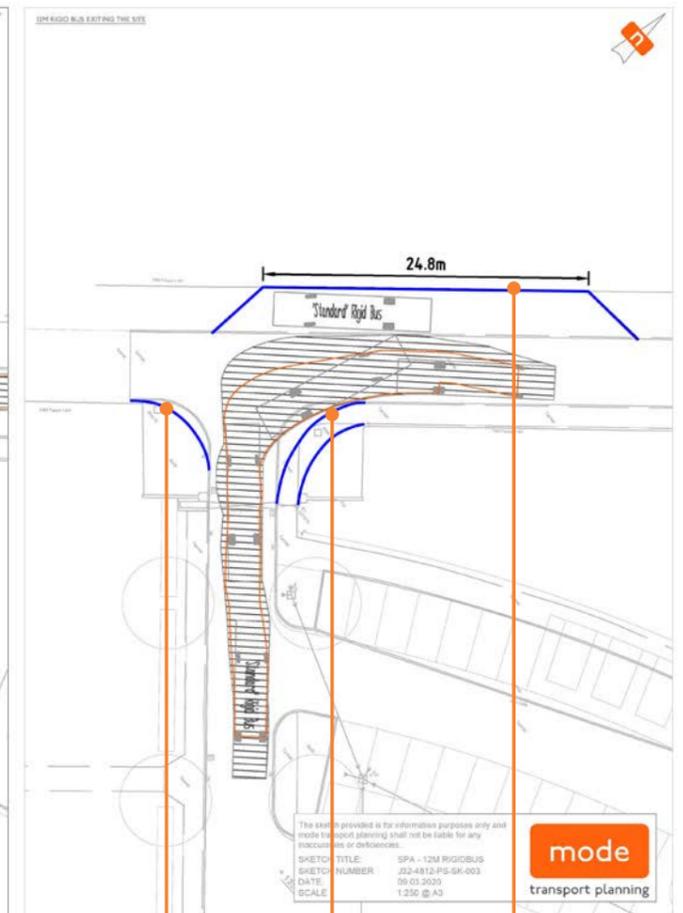
New overrun



New kerb edge

New kerb edge

New overrun



New kerb edge

New kerb edge

New overrun

# Hemel Hempstead Crematorium

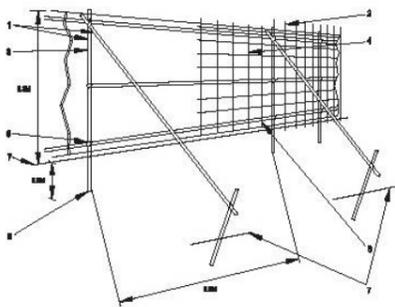
## Temporary construction access

To avoid construction traffic entering the site through the cemetery, a temporary site access is being proposed along Bedmond Road. The following drawings illustrate the visual splays of the proposed site access. No trees will need to be removed for access reasons, as confirmed by the highways authority.

Zoom in extract showing visual splays avoiding trees

-  EXISTING TREE TO BE RETAINED
-  TREE PROTECTION FENCING
-  ROOT PROTECTION AREA  
HAND DIG OR NO DIG CONSTRUCTION WITHIN 15M RADIUS OF TREE STEM
-  VISIBILITY SPLAY  
REFER TO ENGINEERS DETAILS
-  TEMPORARY CONSTRUCTION ACCESS  
REFER TO ENGINEERS DETAILS

### TREE PROTECTION FENCING



DETAILED ARBORICULTURAL METHOD STATEMENT TO BE COMPLETED BY OTHERS

### NOTES

- STANDARD SCAFFOLD POLES.
- UPRIGHTS TO BE DRIVEN INTO THE GROUND.
- PANELS SECURED TO UPRIGHTS WITH WIRE TIES AND WHERE NECESSARY STANDARD SCAFFOLD CLAMPS.
- WELDMESH WIRED TO THE UPRIGHTS AND HORIZONTALS.
- STANDARD CLAMPS.
- WIRE TWISTED AND SECURED ON INSIDE FACE OF FENCING TO AVOID EASY DISMANTLING.
- GROUND LEVEL.
- APPROX. 0.6M DRIVEN INTO THE GROUND.



Existing boundary trees

