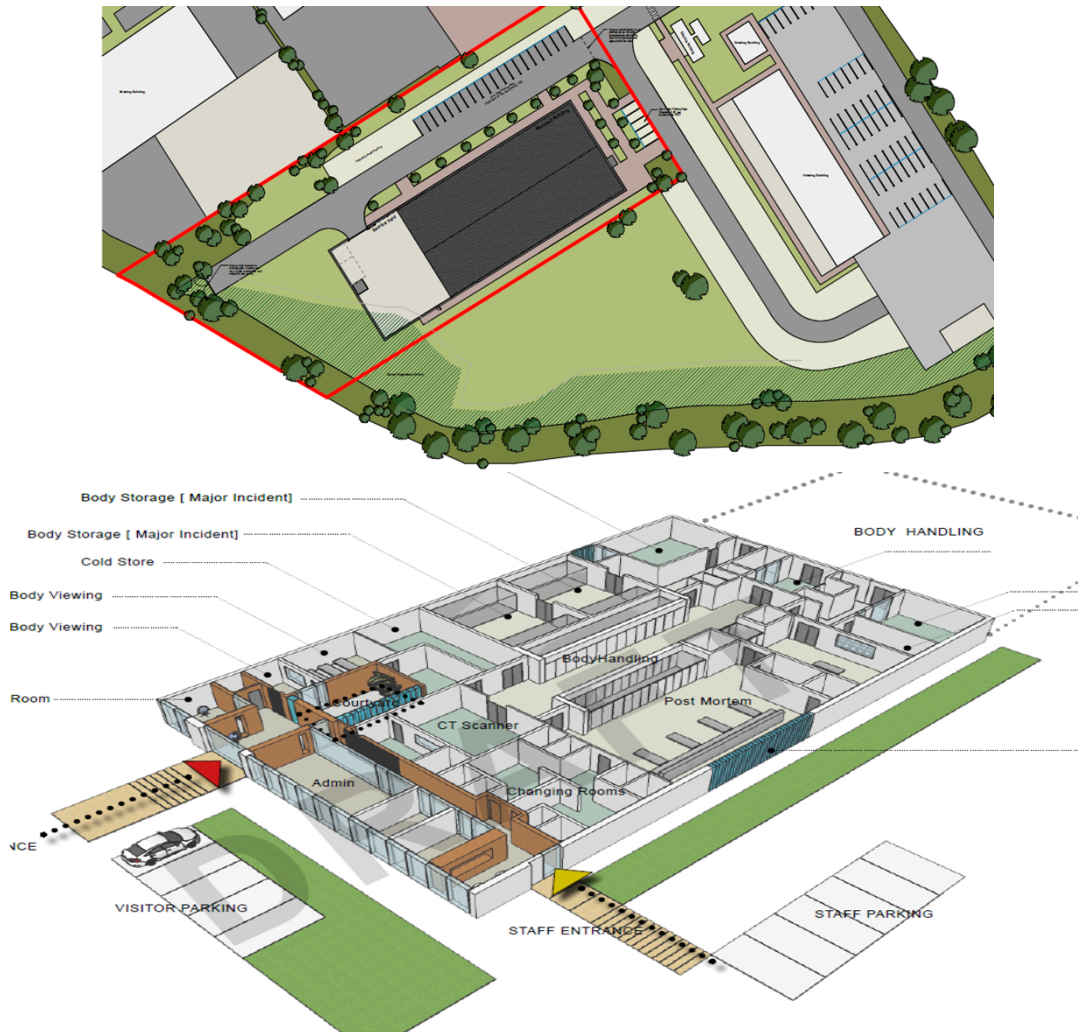


Business Plan

for

WNC Public Mortuary (Bereavement Services Phase 1)



COMMERCIALLY CONFIDENTIAL
Not for publication by virtue of paragraph 3 of Schedule 12A
of the Local Government Act 1972

Version 0.4

Revised January 2024

1. Outline of Proposed Project

It is proposed to construct and operate a public mortuary on WNC owned land at Booth Meadow, Riverside Business Park, Northampton. The mortuary would provide services firstly for the Northamptonshire Coroner's Area but will also offer services to other authorities. It would include facilities for:

- General forensic post-mortems,
- 'Dry' post mortems by means of a computerised tomography (CT) scanner.
- High risk and isolation post mortems.
- Family viewing and formal identification of the deceased.
- Disaster victim identification process in the event of a mass fatality incident.
- Temporary expansion of body storage in the event of a mass fatality incident (replacing The Leys temporary facility).

The mortuary would be built to modern standards, including sufficient parking and facilities for body transport.

2. Background

2.1 Coroner duties in relation to deaths

Under Section 1 of the Coroners and Justice Act 2009 (CJA 2009) requires that a senior coroner "who is made aware that a body of a deceased person is within that Coroners area must as soon as practicable conduct an investigation into the persons deaths" if any of the following apply to a deceased person:

- (a) They had died a violent and unnatural death.
- (b) The cause of death is unknown.
- (c) They died while in custody or otherwise in state detention.

2.2 Northamptonshire Coroners Service

Northamptonshire Coroner's Service is a countywide service provided by WNC, as the 'relevant authority'. North Northamptonshire Council provides 48% of the costs of WNC providing the service, reflecting the demands from the two areas.

WNC as the 'relevant authority' has the responsibility to provide support to the Senior Coroner for her to fulfil her judicial function (see Legal Requirements, section 4.2). This can be broken down into these main areas:

- A. Staffing. To provide investigative and administrative staff to support referrals into the Coroner's office and any investigations that result in inquest hearings.
- B. Body transport (from place of death to storage facility).
- C. Body storage.
- D. Establishing a cause of death (post-mortems, histology, toxicology).

The Service currently handles these arrangements by way of contracts or service level agreements.

2.3 Disaster response and excess deaths

WNC is a Category 1 responder and has a duty under Section 1 of the Civil Contingencies Act 2004 (CCA 2004) to maintain and publish plans to reduce, control or mitigate the effects of an emergency,

including those such as a Mass Fatality or Pandemics which can cause large scale loss of human life e.g., air crash, train crash, or pandemic.

WNC's Mass Fatality plan (currently out to consultation) will serve the whole county in the event of a disaster. The plan and any appropriate response would involve multiple partnerships working with, typically, Northamptonshire Police, Fire & Rescue Service, and NHS bodies, co-ordinated through the Local Resilience Forum (LRF). The current plan details "The Leys" body store for the incident response location and the requirements for additional equipment required to support a response within Northamptonshire.

2.4 The Leys

The Leys is a temporary body store, which is located at Wollaston in North Northamptonshire. The Leys has 184 mixed refrigerated and chilled spaces and a 'Nutwell' packaged unit with frozen capability for 12 deceased.

The creation of The Leys was in response to the Covid-19 pandemic. The facility's operational management is the responsibility of the Coroner's Service. As a county there is not enough hospital mortuary storage space. The County has in place through the LRF the ability to trigger the use of the facility at the Leys. This has happened every year since Covid and is most likely to occur around the Christmas break when the higher winter death rate co-incides with the bank holidays and therefore there is a delay in collection from the mortuaries. Relatives do not like to hold funerals between Christmas and New Year, which results in funeral directors retaining deceased for a longer period, therefore funeral directors do not collect from the hospitals until they have adequate capacity at their premises. However, the need to trigger the activation of the Leys can occur at any time when there is pressure for space within the existing facilities.

In September 2022 the Mortuary at NGH was closed for works. Additional temporary facilities were put in place at that time to manage hospital deaths to avoid the need to open the Leys however the activation was discussed and was avoided by the use of Nutwells. The Coroner's service was obliged to divert community deaths elsewhere and had to incur additional costs of transfer to alternative mortuaries. This resulted in an overspend on the Coroner's budget. Both NGH and KGH mortuaries require significant updating and there are likely to be further closures for this to happen and costs when one or other mortuary is closed for refurbishment over the coming years. During this time there is also an increased risk of an activation of the Leys.

Historically due to winter pressures hospitals have denied admission to the mortuaries for community deaths. The last time this occurred was winter 2019 when Kettering General Hospital (KGH) closed its mortuary to community deaths on 24th December, and Northampton General Hospital (NGH) on 29th December. Due to the sudden closure, the Coroners Service borrowed Nutwells from the East Midlands Mass Fatality working group and changed the process of community deaths. A divert was put in place to Co-op in Corby for a Coronial decision to be made, and then forward transfer to a hospital for a post mortem. In early January 2020 NGH went back to the business as usual approach, but KGH was unable to accept direct community deaths until mid- February 2020.

The Leys Facility is activated via an Excess Deaths Activation plan if the hospitals are nearing the upper limit of their available body storage space. This plan diverts both investigative and administrative staff from the Coroners Service for operational activity and partnership engagements necessary to run The Leys once the facility is activated. The Service leads discussion with NHS mortuaries, burial grounds, and crematoria on demand versus available capacity within the death management system. Operation of The Leys it is currently maintained through goodwill of a few staff that have the emotional resilience and physical fitness to be able to undertake the role. Operating such a facility is a new requirement which emerged first during the Covid-19 pandemic Contracts with new staff provide for the requirement to operate The Leys or the replacement facility.

The Leys facility is accommodated in ex-school modular buildings (which have been refurbished and repurposed). At the point of creation in 2020 the modular buildings were around 12 years old. They are likely to have a maximum useful life to around 2028 (ie 20 years from first use). At that point there will be a need to re-provide either through replacement of the ex-school modular buildings (subject to availability) or through provision of the mortuary. There will be a cost implication in either option. Cost avoidance has not been included within the business case although the replacement cost for the current portacabins would be in the region of £150k.

The Leys has been activated on four occasions since inception. Each activation has been of approximately eight weeks duration. On the initial activation the service cared for 317 deceased. The second activation it was used to care for 417 deceased, which included supporting Bedfordshire, Luton and Milton Keynes Local Resilience Forum. The last activation was winter 2022/23 and it was used to care for 120 deceased over a 6 week period.

The Leys facility has a number of drawbacks due to the nature of the facilities.

- i) It is not approved for the removal of samples so in the event of a mass fatality there is currently no excess deaths facility within the County which would support the identification of human tissue. An application for an emergency HTA licence could be made but this is subject to approval and a fee of £6,000. It would also require an additional portacabin for clinical use at extra cost.
- ii) The uses aged equipment which results in a range of ongoing maintenance issues. The site is currently managed by the North Northamptonshire Council FM services at a cost to the Coroner's service. These costs are rising due to the aging nature of the portacabins. E.g., The roof has had to be repaired twice in the last two years due to rainwater ingress. Maintenance costs are c£10k per year on top of the standard budget.
- iii) Activation of a site on an emergency basis requires a range of assessments and actions to ensure that the facility can be used which on an ad hoc basis creates a significant additional amount of work.
- iv) There are no viewing facilities at The Leys and it is not a suitable facility to receive the bereaved. Viewings are therefore not available as they would usually be at the mortuary (subject to activation of the additional space for excess deaths).
- v) Whilst activated the Leys facility has to be staffed, and this has a direct impact on the Coroner's service at peak time which leads to backlogs in the delivery of the wider service and a delay in inquests which has a negative impact on the bereaved.

Residents in the area have been notified whenever there is an activation because of the temporary nature of the facility and the lack of formal planning approval for the facility. There have never been objections and therefore the site has continued to operate on the basis of an emergency facility.

2.5 Dealing with Mass Fatalities

Under the current arrangements with the Leys. Additional equipment would need to be put in place including a mobile CT scanner, and additional portacabin for clinical use and additional welfare facilities for staff to run the operation. All of this would be subject to applying for an emergency HTA licence. This will cause delay in the event of an emergency before the area could be in a position to identify and manage the deceased following a major incident with the consequent reputational damage. There would be no viewing facilities for the bereaved. There will then be significant additional costs as highlighted for the CT Scanner (£4k per day), the portacabin and other facilities. There is currently no facility if any postmortem is required beyond the CT scan then the deceased would need to be transferred to the LRI but that would be subject to their agreement and ability to take on incident.

A purpose build facility such as the one proposed which is owned by the Council and would therefore be made available to the Coroner's service would be able to carry out examinations as soon as the deceased arrive at the facility. The facility has been designed with four tables in one place with a

CT scanner to comply with the Disaster Victim Identification (DVI) process and it could operate on a 24 hour basis. In the event that a post mortem is required there would be no need for transfer to any other facility. In the event that viewing of the deceased was appropriate this could take place on site to meet the needs of the bereaved.

2.6 Pre-pandemic mortuary capacity

The normal County mortuary capacity (without supplemental equipment) prior to the Covid-19 outbreak was 138 bodies at any one time: 89 at NGH) and 49 at KGH. Each hospital has purchased “pop-up” temporary additional facilities to help with their business continuity. This increased their potential capacity in times of high demand. however, this uses the space allocated for the chapel of rest at both locations. This adversely affects the undertaking of official identifications and families’ ability to visit and view the deceased. The Human Tissue Authority, does not approve regular use of temporary equipment i.e. Nutwells.

2.7 Current body storage arrangements

The current arrangements for the service are that any deceased that die suddenly and unexpectedly within the county are conveyed to NGH or KGH. If the death is due to road traffic collision or a suspicious death, the deceased is conveyed straight to Leicester Royal Infirmary (LRI). The Coroner will then direct if a post-mortem is required and, if so, what type of examination and if any further tests are required i.e. toxicology. Body transport is provided by undertakers under a contract with the Coroner’s service at a cost to North and West Northamptonshire Councils.

Dealing with Child Deaths

The death of a child is generally regarded as the most distressing for the bereaved. However currently when a child dies, and a post-mortem is required this will result in the child being transferred to the Leicester Royal Infirmary as detailed above. This is due to the lack of availability of suitably qualified pathologists. If the single pathologist at LRI is not able to take on the case, the deceased child will currently be transferred to Great Ormond Street. There are no facilities within the County for dealing with a post-mortem of a child. As stated above this will mean the bereaved would also need to travel to Leicester or London to view the child which can add further distress to families.

The Coroner’s service has been notified that from March post-mortems of children will no longer take place at LRI due to the retirement of the current pathologist. This will mean that relatives would need to travel to London in every case to view. This will also increase the costs for the Coroner’s service who will need to meet the cost of transport and pay for body storage at the relevant facility. Although the provision of a mortuary does not guarantee the availability of a pathologist, it has been confirmed there is willingness subject to appropriate facilities being available.

Faith Deaths

The family in certain faiths will pay for a CT post mortem at the John Radcliffe Hospital in Oxford to avoid the intrusion of a standard post mortem. The family appointed funeral director currently needs to arrange the transport arrangements to and from Oxford. All the cost are met in these cases by the families.

By providing CT post mortem locally through the purpose built facility, those from all faiths can have non invasive post mortems locally and can view the deceased at the local facility.

Other Deaths

There is currently minimal provision locally for bariatric deaths requiring an LRF plan and transport outside the area where there is no local provision. The transport costs in these cases are met by the Coroner’s service.

2.8 Pathologists

In 2018 KGH withdrew its pathologists service for undertaking Coronial post-mortems. In 2020, NGH ended a contract supplying pathologists for Coronial post-mortems. The Service has therefore established a team of out-of-county pathologists who travel to each hospital to undertake post-mortems as and when necessary.

As a result, the Service is wholly dependent on the availability of the out-of-county pathologist and the relevant hospital facilities. This can sometimes create delay in post-mortems being undertaken, impacting on the needs and wishes of the bereaved families.

There is a general acknowledgment that there is a national shortage of pathologists. This is notified to the Chief Coroner each year at the national local authority Coroner services meeting as an ongoing challenge to the provision of services. Unhelpfully in this context, the Royal College of Pathologists does not include post-mortem within their initial training of new histopathologists.

With the known lack of pathologists both now and looking forward it is widely considered that the future of establishing a medical cause of death will be by non-invasive ('dry') post-mortems via use of CT scanning. Current research indicates that a situation is conceivable whereby cause of death could be established for 75% to 90% of all cases via dry autopsy alone. The option of using dry autopsy would be a judicial decision for HM Senior Coroner in each case, but it is considered likely that they would generally be willing to approve this approach in suitable cases.

2.9 Forensic post-mortems and CT scanning

Forensic post-mortems and CT scanning is currently provided to the county by LRI.

The deceased are taken directly from the scene to LRI. This affects a number of related services such as the Police, who are then required to travel to witness the forensic post-mortems. Importantly it also typically increases the travel required for the families of the deceased for formal identifications or viewings. There are also transport costs for the Coroner's service which increase as a result of the need to transfer to the LRI and body storage costs at the facility which must also be met by the Coroner's service.

2.10 Volumes of deaths referred to the Coroners Service

As shown in Table 1, the deaths reported to the Service have slightly decreased over the past three years, whilst the number of post-mortems carried out has increased.

Table 1: Referred deaths and post-mortem rates, 2019 to 2022

Year	Total death referrals	No of post-mortems	Percentage of death referrals resulting in post-mortem
2019	2,542	907	36%
2020	2,555	978	38%
2021	2,326	1,088	47%
2022	2,502	1,178	47%

The increase in post-mortems increases the risk that the deceased will need to be transferred out of the area for the reasons outlined above. The decision to carry out postmortems sits with the Coroner but is on the advice of the Medical Examiner. There has been a national increase in the percentage of post mortems.

2.11 Potential mortuary demand

Consultation with stakeholders has been undertaken as part of the preparation of this proposal. The outcomes of this strongly suggest that there is a need for a new public mortuary to serve

Northamptonshire. They also suggest that if the level and scale of facilities were to be provided to deliver a broad range of services then the issues highlighted above could in many cases be resolved. This would reduce costs for the Coroner's service significantly but more importantly would improve the experience of the bereaved. If the new mortuary had a broad offer then it is also highly likely (and we have received several statements to that effect) that adjacent authorities, experiencing a similar shortage of local facilities, would also be likely to want to make use of our new facility. Northampton with its very good road and transport connections as well as its central location is exceptionally well placed to be able to provide a new facility of national significance for key mortuary services which are not widely available elsewhere.

It should be noted that this proposal includes the replication of the storage currently provided at The Leys as a permanent facility which would then allow The Leys to be decommissioned once the new public mortuary was operational. It would also avoid the costs of updating and improving the Leys facility. There is also potential for the new Mortuary to provide a service to the NHS as detailed in opportunities below. This would further improve the experience of many residents whose loved ones die of natural causes and for whom a postmortem is not required.

2.12 Current Cost Pressures

The proposed Council budget includes a growth item for increased costs arising from new contracts for Body Storage, Body Transport, Toxicology and Pathology.

Pathology: Current budget of £250k, current spend prediction 2023/24k is £338k.

As stated above there is a shortage of pathologists, and the cost increases arise from the increased charges. There is a national issue in relation to the availability of pathologists. Whilst it is likely that these cost rises will not be avoided by the Mortuary, but attraction of better facilities is more likely to enable us to manage these costs than not.

Body Storage: Current budget of £300k but predicted spend 2023/4 of £412k

Increases in body storage costs being charged by the NHS will almost entirely be avoided by the provision of our own facilities. Future cost rises and therefore financial risk would also be managed by the provision of our own facility.

Body Transport: Current budget of £150k but predicted 2023/24 of £120k but will rise within budget due to new contract.

Transport costs are subject to cost rises. There are only a small number of providers who are able to deliver the contract. As detailed in opportunities there is the potential for delivery of the transport ourselves. The proposed discussions with the NHS would include body transport as part of that discussion. This would enable us to better control rises in transport costs through the use of electric vehicles and management of journeys.

Toxicology: Current budget is £140k but predicted spend 2023/4 is £153k

The toxicology contract will be unchanged by the new facility.

3. Approval History

- Principle of project recommended by budget star chamber – October 2021
 - Project brief approved by ELT – November 2021
 - Death Management report endorsed by ELT – August 2022
 - Death Management report approved by Cabinet –
 - Capital budget for death management services approved by Council –
 - Mortuary Delivery Project Initiation Document approved – September 2023.
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4. Reasons for Proposed Project

4.1 Corporate Objectives

The provision of a new public mortuary would meet a clearly established and growing local need. As such it would support the following Corporate Strategy objectives:

- Priority 1 Key Aim 4 (Increased electric charging & energy efficiency) – the facility would make use of photovoltaic (solar) panels and waste energy recovery from process plant to improve energy efficiency.
- Priority 4 Key Aim 5 (to co-design public services to increase inclusiveness and community cohesion) – The facility will enable the bereaved to view loved ones locally and provide facilities suitable for different faiths and cultures.
- Priority 5 Key Aim 3 (Increased inward investment) – The site and facilities would achieve the highest practicable design standards, with the environmental impact being minimised and maximising sustainability opportunities and provide a nationally significant facility within Northampton.
- Priority 6 Key Aim 2 (Stable Finances) – the project should generate worthwhile financial returns (in terms of cost avoidance and income generation) over the medium to long term.
- Priority 5 Key Aim 2 (Use of assets to maximise service delivery) – This development will ensure an area of currently unused WNC land is put into constructive use to benefit our residents and allow the delivery of a valuable facility that provides services which are currently only available from third parties.

The reasoning can be summarised as the provision of facilities needed by the Council in a financially and environmentally sustainable manner to better meet the needs of local residents

4.2 Service delivery

A key aim for this proposed project is to have a facility for Northamptonshire which is located conveniently in the county and which can provide the range of facilities to meet current obligations and also likely future capacity demands. Consultation has been carried out with the potential users of the proposed facility including the Police service and Pathologists who are supportive of its creation.

The options for meeting the Service needs are considered further in Section 7.

4.3 Value for Money

The Council would be making a significant financial investment in a facility to better meet the needs of the Northamptonshire Coroner's Area. It is important that this investment represents good value for money for West Northamptonshire Council who carry the risk of the provision. The Mortuary will recharge the Coroner's service as one of the users of the new Mortuary and in that sense will sit outside the Coroner's service.

The costs of the new mortuary include the staffing costs for the new team, and management costs from existing managers of the service (currently met by other service areas), direct service costs and borrowing costs. There is also a £200k pa contingency in relation to the revenue costs.

This is off set by the revenue savings which will be achieved by reducing transport costs by reducing the need to transport out of the area. The savings in relation to the body storage will effectively be shown as income generation which will be recharged to the Coroner's service and shared with the North Northants Council in the usual way.

The income generated will be through a combination of body storage costs per bay, calculated on the current cost paid by the service of £220 per bay for a 20 day period. The income of the bays is calculated at 80% of total capacity. In addition, a charge for CT PMs and standard PMs is charged on the basis of the estimated numbers which would be likely to take place as an overall percentage. The total figure shows that the project would achieve a positive revenue balance of £487,570.

The capital costs have been estimated without reference to the avoided capital costs of the replacement of The Leys facility required in 2028 due to the expiry of the useful life of the Portacabins. One off capital costs in the region of £150k would be required to replace the existing Portacabins in 2028.

In the event of a mass fatality there would be charges of £4k per day for the CT Scanner, plus additional HTA licence fee £6k and additional portacabin hire and maintenance. The total costs in the event of a mass fatality would be difficult to quantify without knowing the precise nature of the incident but would be very significant if there was an event requiring any sustained use of the CT scanner.

For these purposes, it is assumed there is small change in body transport costs due to the reduction of transfers to LRI and Great Ormond Street (but see Opportunity 3). If the Council takes over body transport particularly in relation to the provision of transport to the NHS that could help to off set existing costs.

These figures do not include for the proposed contract with the NHS (Opportunity 2) in relation to Body Storage which would provide a guarantee of around two thirds of the income outlined below under the heading of Body Storage (the NHS require 136 of the total 319 bay capacity of the mortuary) with around 80 required by the demand from the Coroner's service.

The provision of the specialist services outlined above in relation to Child Pathology, Bariatric, Faith and CBRN as outlined in Opportunity 1 and 11.3 below have the potential to generate higher rates of income than those outlined in the cost estimates below, but the rates have been calculated on the basis of a standard charge.

Table 2: Expected costs and income

Costs	£k	Net Difference
Staffing Costs	397,707	
Management Costs	34,823	
Maintenance CT	80,000	
Mortuary cost of borrowing	339,074	
CT Scan cost of borrowing	87,826	
Other maintenance	22,000	
Energy, Building and Site Cost	50,000	
Contingency	200,000	
Total	1,211,430	1,211,430
Savings		
Body Storage (charged to Coroner)	412,000	
Body Transport	20,000	
Total	432,000	432,000
Income		
Body Storage	757,152	
CT PM	427,148	
Standard PM	82,500	
Total	1,266,800	1,266,800
Net Saving		487,570

In addition to the change in full operation costs, there will be a period of service transition. During this time there will be one-off revenue costs incurred, duplicated costs whilst the mortuary costs are incurred and third-party services are run off, and staffing changes are made. Table 3 identifies these service transition costs.

Table 3: Service transition costs

Item	Period affected (dates)	Total cost, £k
Mortuary Manager Costs	September 2024-March 2025	33
Staff costs	February 2025 – March 2025	66
Other site etc maintenance and energy costs.	February 2025 – March 2025	26
Net Cost:		125
Total		

5. Project Objectives and Aspirations

Considering the reasons for the project as set out above, the following are defined as the project objectives:

- PO1. Delivery by early 2025.
- PO2. Total project capital costs not to exceed £9.4 million.
- PO3. Provision of a mortuary which meets the current and expected future needs of Northamptonshire (including CT scanner for 'dry' post mortems) and which provides a quality environment for users.
- PO4. Compliance with WNC Estate Climate Strategy and Construction & Maintenance Climate Strategy approaches and goals.
- PO5. From financial year 2026/27, the mortuary to return a net saving/income of not less than £0.489m pa compared to the 'no scheme' world in total to the Council (reflecting the investment and risk accepted in progressing the project), as defined in Section 4.3.
- PO6. The mortuary to be the named facility for mass fatality management and disaster response for the county.

The following project aspiration is also defined:

- PA1. The mortuary to be the named facility for mass fatality management and disaster response for neighbouring authorities.

6. Significant Risks and Opportunities

Note: risk mitigations are set out in Section 11.2.

- **Risk 1 – Change in demand**

The risk here is that demand may either (a) be lower than anticipated, resulting in a facility which is not utilised to the degree expected, meaning allowing for capital costs the saving is lower than planned or even a net cost; or (b) that the demand is higher than expected, resulting in a need to continue to use third party services (or at least to lose opportunities to generate income).

Neither aspect of the risk is considered likely to arise. The number of deaths requiring post mortems in the Northamptonshire Coroner's Area has been rising, as shown in Table [X], Whilst this shows upward movement, the number now appear to be stabilising. It seems unlikely that the number will materially reduce in the future. As the population rises a modest increase is likely, but not to the degree that it would overwhelm the capacity of the proposed mortuary.

There is an associated risk of legislative change which might result in changed demand for post mortems. It is likely that the availability of 'dry' postmortems more widely is more likely to increase rather than decrease the percentage of post mortems in relation to the deaths.

This risk is therefore considered to be low.

- **Risk 2 – Failure to obtain planning permission**

A planning application is to be submitted in December 2023. Pre-planning consultation has taken place. The proposed site is at the end of an access road and is contained within landscaping and the River Nene on two boundaries and car dealerships to a third. It shares an overall site with Booth Meadow House, currently the location for the council's library service. The development appears to be suitable for the location and unlikely to give rise to any serious objections.

This risk is therefore considered to be low.

- **Risk 3 – Legal challenge**

There is a risk of legal challenge either to the Council's investment decision or to a planning permission granted for the scheme.

In the case of the Council's investment decision, it is considered there would be no legal basis to challenge a decision which provided important public service outcomes whilst offering the Council (and North Northamptonshire Council) value for money.

In relation to a challenge to grant of planning permission, provided the planning decision is taken properly taking into account all relevant considerations the risk of a successful challenge should be low.

- **Risk 4 – Failure to control project costs**

The key issues which may result in a rise in costs above the proposed budget are:

- a) Changes in scope. The project has already undergone significant evolution which has increased its capital costs. This is justified because of the increased benefits (including cost avoidance and income generation) to be generated by what is now proposed. Further changes in scope would be likely to drive further increases in cost, particularly if made during construction.
- b) General increases in construction costs, such as those driven by changes in the price of materials or energy, or labour costs.
- c) Specific changes in costs of major items, such as the CT scanner. These may be affected by supply of relevant component from across the world.
- d) Adverse weather during construction.

Source (a) of this risk is largely within the Council's control; see mitigations. Risk sources (b) and (c) are largely not within the Council's control. Events such as war in Ukraine, the Middle East, or Far East, or another pandemic could result in large and unpredictable movements in prices. Risk (d) is not within the Council's control, although design solutions can affect the impact it has.

- **Risk 5 – Failure to achieve adequate quality**

It is vital that the Mortuary is capable of enabling the delivery of the services it is intended to provide. Reasons why it might fail to do this include:

- a) A lack of understanding of end user requirements.
 - b) Incorrect translation of end user requirements into design solutions.
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c) A failure to build what was designed.

Risk source (a) and to a degree risk source (b) have already been significantly reduced through close working between the design team and the service manager. However, there remain risk sources in this area due to the fact that WNC does not currently operate a mortuary and therefore does not have implicit knowledge of operating one. However, even this gap is reduced by the fact that the service uses mortuary services extensively and worked with those who provide them currently.

Risk source (c) and the remaining part of (b) remain to be addressed (see Sections 9.5 to 9.7).

- **Opportunity 1 – Capturing a greater share of wider demand**

The business plan assumes a certain level of usage by third parties. However, given the attractiveness of what is proposed to be provided, there is potential for additional business to be developed, further increasing the value for money of the scheme. Approaches to this are outlined in Section 11.3.

- **Opportunity 2 – Providing core mortuary facilities for the NHS**

Discussions are underway which may result in the new public mortuary offering core mortuary functions for the local NHS. If this result is achieved, it would mean a large part of the capacity of the mortuary was required either for WNC's own services – the Northamptonshire Coroner's service – or under long-term contracts with local NHS trusts. This would mean, in particular, that Risk 1, would be further reduced.

The County currently has two mortuaries based at KGH and NGH. As stated above both are in need of refurbishment. KGH has developed a proposal for a major refurbishment of the mortuary which is currently subject to a bid for public funding. NGH has no specific proposals for refurbishment but there is an acknowledgement that the current facilities do require improvement. The Council has been in detailed discussions with the NHS about potential use of the new mortuary. The proposal currently being discussed is for the facility to provide up to 136 mortuary spaces to the NHS over a minimum of a ten year period but with the expectation that the facility would become the permanent mortuary facility for the NHS. The proposal would involve a staff transfer and a transport solution which would enable transfer to the new facility from both hospitals. It could mean additional travel for some families but would provide easier car parking and a dedicated viewing area. The facility is well located to provide a relatively short travel distance for the area. However, there are details which are still being considered about the practical arrangements for transport and collection and no decision has been made.

The guaranteed income which could arise if this arrangement did proceed alongside the income from the Coroner's service would significantly reduce any risk of not meeting the necessary income targets to offset the borrowing costs. The project would also be a groundbreaking example of collaboration between Health and Local Authorities in relation to the provision of a mortuary facility.

- **Opportunity 3 – Body transport**

Currently the Council contracts body transport services from undertakers. However, the market is fragile with a limited number of undertakers interested in providing the services. The creation of a new public mortuary offers a useful focus for considering whether to provide this service in a different way; for example, by insourcing it. This option has the potential to offer improved resilience. If we

are able to proceed with the arrangements with the NHS this will be likely to include the provision of a transport service due to the likely increase in the frequency of collections.

- **Opportunity 4 – Setting an Environmental Example**

Integral to the development of the Mortuary, WNC will set clear objectives in terms of meeting environmental considerations – in line with aspirations for carbon saving – and encouraging innovation from the design team and supply chain accordingly. This should help develop the competence of the design team in delivering low carbon solutions and thus contribute to WNC's goal of net zero carbon for West Northamptonshire as a whole by 2045 as well as the Council's goal of achieving net zero in its own operations by 2030.

7. Option Identification

7.1 Option A – No further action

Under this option the provision of mortuary and post-mortem facilities would continue to be a combination of reliance on the hospitals, transport of bodies outside the county, and continued reliance on The Leys (which was only established to provide a short-term response to the Covid Pandemic and offers little resilience should this need arise in future) at times when death rates exceed capacity.

This option would require some new capital expenditure before 2028 but this would be lower than that required for the proposed new facility it would also leave the current issues around service resilience and rising costs unaddressed.

7.2 Option B – WNC proceeds to deliver the new mortuary

Under this option WNC would proceed to deliver the new mortuary using its own capital, under the direction of its in-house Construction team, whilst using external consultants and contractors.

For the purposes of this business plan, it is assumed WNC will operate the facility essentially in-house. This is the simplest approach to model. It also would allow maximum control over what would be an important and sensitive facility. However, the model also assumed that, as is common practice now, pathologists would operate on a self-employed basis and 'hire' the mortuary to carry out post mortems they are themselves contracted to perform. This assumption does not prevent consideration of outsourcing other aspects of provision if the service concluded this was beneficial. However, as such questions do not affect the capital investment decision they do not need to be considered further here.

7.3 Option C – WNC Promotes a mortuary in arrangement with the private sector

It would in theory be possible for WNC to seek a private sector operator to deliver and operate the facility, on the basis of a long-term contract with WNC to buy capacity. This could be a pure private sector facility or a joint venture with WNC. Depending on the structure of the arrangement, it could be similar to a private financial initiative (PFI) contract or more like a long term 'block booking'.

8. Option Evaluation

8.1 Option A – No further action

This option has little merit other than to avoid the immediate costs and the risks of the project. It would not ensure the provision of services to meet the needs of local people or enable the potential savings or income generation.

8.2 Option B – WNC proceeds to deliver the new mortuary

This option has the potential to use the resources of WNC to deliver a service from which the population would benefit. This plan seeks to identify the good balance of capital investment and revenue return that can be achieved within a relatively low risk framework, especially given the Northamptonshire Corner's service is the key customer. Extensive consultation with other potential users has provided a strong basis for predicting potential revenue. There is an element of risk associated with the revenue potential for the facility on the bases that the potential users who have expressed an interest are unlikely to commit to use of the facility until there is a very strong likelihood that it will be available for use by a specific target date, but this is considered acceptable.

8.3 Option C – WNC Promotes a new mortuary in Arrangement with the private sector

A joint venture with a private sector provider would require a collaborative approach to design and project management to ensure that the aspirations of the Council were achieved. This would enable a shared approach to risk and reward, but also the potential to deliver the objectives at a higher capital cost than a self-delivery option and with the likelihood that costs to users would be higher. It would also greatly limit the Council's ability to vary its use of the site.

Practically, securing a private sector partner would take a significant period and thus delay the security of provision and savings potential.

The Council has the skills needed to develop the project, drawing also from skills available from its established supply chain. Given the advantages of controlling the nature of the facility and service, retaining full local authority ownership is considered to be preferable.

8.4 Recommended Option

Option B is, for the reasons outlined above, best placed to deliver against the Project Objectives. This option also has the greatest opportunity to further expand the services that can be provided and providing further income generation for WNC. The recommended option is thus Option B.

9. Implementation Strategy

9.1 Legal Issues

Section 24 (1) of CJA 2009 provides that it is the responsibility of the relevant authority (WNC in this case) to provide the Coroner with her service.

The relevant authority for a coroner area—

- (a) must secure the provision of whatever officers and other staff are needed by the coroners for that area to carry out their functions.
 - (b) must provide, or secure the provision of, accommodation that is appropriate to the needs of those coroners in carrying out their functions.
 - (c) must maintain or secure the maintenance of the accommodation provided.
-

Whilst these duties do not create a legal duty to provide a mortuary, in the circumstances of Northamptonshire, providing a mortuary is a means of economically, efficiently, and effectively delivering the required outcomes. This is in line with the Council's best value duties under Section 3 of the Local Government Act 1999. The service delivery reasons are addressed below.

In providing a mortuary the Council would need to abide by a series of requirements including those specifically relating to mortuary licensing (Human Tissue Authority). It would also be sensible to have regard to the guidelines set out in the NHS publication Health Building Note 16-01 (2023).

The Council is entitled with other public bodies in relation to the delivery of public services under the Local Authorities (Goods and Services) Act 1970 and for the purposes of that Act s74 National Health Service Act 2006 provides that the NHS is a public body.

9.2 Project Management

The project implementation would be managed under WNC's applicable project management methodology. The project manager is a member of staff experienced in delivering projects of this scale and who is supported by WNC's Programme Manager and other staff with expertise in various aspects of capital project design and delivery. A key part of the project manager's role would be to maintain, monitor and manage a risk register with the aim to mitigate risk through implementation of practical measures.

9.3 Communication

Key stakeholders have been identified for the proposed project as set out in Table 3.

Table 3: Communication groups

Group	Issues to be addressed	Approach
a) Funeral Directors	Location and design of the facility. Road access and drive-times. Facilities on site. Business potential.	Individual meetings with relevant sector representatives. Stakeholder presentations.
b) Public in general	This facility is intended to be discrete, and the emphasis is more on the fact that it will exist rather than what it will look like or where it is located. The only contact reason that members of the public might visit the facility is to be witness in the event of the death of a family member under certain circumstances. The facility will be equipped to address such eventualities with the requisite sympathetic space and comforts.	Contact will be via the planning process bringing information into the public domain.
c) Public close to the site	The proposed site is adjacent to a business park and at the end of the road such that it will not be visible to the general public. As stated above, except in very limited circumstances, public access would not be required.	As (b) above.
d) Health and related services	Managers/operators of the mortuary facilities at the hospitals in the county – KGH and NGH. NHS trust managers. Clinical staff and council administrators in neighbouring authorities; the emergency services; funeral directors (in	Direct approach to individuals and subsequent meetings.

Group	Issues to be addressed	Approach
	respect of collection and delivery at the mortuary).	
e) Businesses local to the site	The adjacent businesses are predominantly car dealerships. It is not anticipated that this facility will impact on their operations in any way.	As (b) above.
f) Internal clients and colleagues	Highways & Transport; Planning; Bereavement Services; Property Strategy & Estates; Works; Procurement; Facilities Management.	Direct approach to individuals and subsequent meetings and also project presentations using models, display boards and computer graphics.

9.4 Procurement

As the design is unique in terms of the facilities the facility will provide, taking in the selection of specific materials and the overall blend of the building and landscape, it was concluded that a contractor led design and build process would not allow the integrity of these decisions to be retained. Therefore, it is proposed that a contractor will be engaged on the basis of a full design with sections to be developed under contractor design portions such as foundations, structural frames and building services.

A cost-benefit analysis has been carried out to identify the optimum method of construction including the potential for off-site construction (modular), taking in to account such key requirements as floor construction, drainage, minimising vibration (CT Scanner), location and height of the building relative to the flood risk.

9.5 Design and Construction

During the initial project development process, the design team visited facilities and spoke with designers, contractors, and operational staff, including mortuary technicians and managers as well as senior consultant pathologists. From a base concept layout, this has allowed the team to develop the space planning in terms of efficient adjacencies; access including the necessary security controls; out of hours access for funeral directors; ease of access for use of the CT scanner by other organisations, flexible body storage including that required for bariatric needs; and the ability to carry out isolation PMs. Overall, there is a key requirement to allow facilities to be flexible and energy efficient.

Subject to any issues arising in the planning application and detailed design process the intentions are as follows. The mortuary building will be of traditional construction with cladding finish. Colours will be coordinated to the surroundings to create an unobtrusive but aesthetically pleasing facility. The building will be of single storey with low gradient pitched roof within a parapet to allow for the effective accommodation of photovoltaic panels to mitigate the significant electrical load requirement, reduce operating costs, and support net zero goals. Plant will be enclosed and located at ground level and distribution of media such as pipework and ductwork via ceiling voids. A new electrical supply will be connected via a new dedicated sub-station. Water and drainage will be sourced from the existing infrastructure.

The body storage and post-mortem areas would be climate controlled as necessary to meet the requirements set out in the relevant sections of the Human Tissue Act 2004 and current NHS guidance (currently Health Building Note 16-01 (2023)). The design of the heating, ventilation and cooling systems will be such that efficiencies will be sought from use of process byproducts such as heat and cooling from process plant. The body storage capability will be a maximum on 300, catering for the various needs including a range of frozen, chilled, and mixed use facilities.

The CT scanner suite would comprise a control and viewing area. The selection of the proposed CT scanner is based on the advice of medical advisers and operators of similar facilities as well as the supply chain and is intended to allow the proposed facility to provide a leading-edge approach to establishing cause of death through non-invasive post-mortem. Remote access to data obtained via CT scanning will be a key requirement. There is a statutory requirement to store imaging for up to 15 years.

9.6 Commissioning and Handover

The construction team will establish a 'soft landings' approach to the handover of the facility to the operational teams in the lead up to full operation. The design of the new facility has been developed in collaboration with the Bereavement Services team and consultations have been carried out as a joint exercise. This has been an entirely collaborative approach between the various participants within the Council as well as the project design team.

The soft landings process will include video recorded training sessions for operation of the building functions together with electronic operating and maintenance manuals, asset registers, and as-installed records. The construction delivery team will assist in the appointment of specialist companies to carry out maintenance works where appropriate.

10. Summary Programme

- Appoint designers – February 2023–Initial design development complete – August 2023
- PID approved by Executive Director – September 2023
- Order electricity connection – September 2023
- Working design and coordination complete – November 2023
- Planning application submitted –
- Planning permission received – February 2024
- Appoint contractor – February 2024
- Start on site – March 2024
- Practical completion – January 2025
- Mortuary operational – Feb 2025

11. Benefits Realisation

11.1 Meeting Project Objectives

The proposed courses of action set out in Section 9 uses existing methodology and experienced staff to carry forward the delivery of the new facilities and includes plans for involvement and managed handover of the facilities to the operational staff.

11.2 Risks

- **Risk 1 – Change in demand**

This risk is identified as low. It would be further mitigated, in the case of lower demand, by the approach to running the Mortuary outlined in Section 11.3. These take advantage of design features which should make the facility attractive to a wide range of external users.

In the case of higher demand, it is first to be note that the existence of the mortuary would be a highly valuable tool in mitigating the risks the Council would otherwise face. The response to higher demand than the naturally free capacity would vary according to the circumstances:

- If there was a short term peak associated with a disaster, the arrangements for handling large numbers of deaths would be brought into use. The design of the Mortuary allows for this. This issue does not, therefore, require further consideration here.
- If the increase in demand was sustained, WNC would respond by prioritising its own use, and that of partners with long-term contracts, over that of ad hoc users.
- If the increase in demand was very sustained, consideration would be given to expanding the facility.

- **Risk 2 – Failure to obtain planning permission**

This risk is identified as low, given the nature and location of the site, and its appropriateness for the proposed development. However, it is further mitigated through pre-application discussions and the provision of a proper set of application information.

- **Risk 3 – Legal challenge**

The risks here are identified as low. They would be further mitigated by ensuring the the Council's decisions around the investment were soundly based and reasonable.

In relation to the planning permission, the Council will ensure that a proper set of information is provided, and the consideration of the application will be carried out, as is normal for the Council, with integrity and thoroughness.

- **Risk 4 – Failure to control project costs**

The initial mitigation is provided through the Council's appointed project cost consultant. This has reviewed the projected costs and confirmed they represent the appropriate amounts for the building and associated facilities that the Council is seeking to provide.

It will be critical to achieve and then adhere to a design freeze, so that there is clarity about what is to be provided.

Residual risk continues to be mitigated as the design progresses and greater cost certainty is established through the ability to market test the construction method with the supply chain and to identify and cost the key process elements of the delivery such as the body storage, post-mortem equipment, and CT scanner.

The delivery team are adopting a strategy whereby cost certainty within reasonable parameters will be achieved prior to commencement of the implementation phase through further development of the processes as set out above, resulting in the award of a contract which optimises risk transfer to the contractor. This will include considering risk around ground conditions, the weather, and external price shocks. The Council's delivery team will retain a risk fund out-with the main contract and will continue to analyse and mitigate the risk elements that inevitably remain with the Council with a view to retaining a substantial proportion of the fund upon overall project completion.

- **Risk 5 – Failure to achieve adequate quality**

As noted above, the initial sources of this risk – a failure to understand or properly apply to design the service requirements – have already been substantially mitigated through close working between the design team and the service manager.

The project design team has been selected following a thorough review of practice capabilities, resources, and experience of similar projects. It is the intention to progress the design to the extent that building method and use of materials is fully defined, with the main contractor providing detailed design only for specific elements such as foundations, structural frame and building services. The development team are committed to delivery and assessment of the design in line with their

individual quality management policies and processes. The Council has also established procedures for quality management across the team. Project management will be directly geared to achievement of the objectives for the project.

The contractor will be chosen (as described in 9.5) with a view to their competence and diligence in carrying out this type of project.

11.3 Operation of the mortuary

Once complete, the mortuary will be operated by the Council's Bereavement Services function, which forms part of the Registration & Coroner Services.

The new public mortuary will look after the deceased of Northamptonshire post go-live for all sudden and unexpected deaths including forensic post mortems for suspicious deaths or murders.

It has been established that there is a strong potential to provide a range of services to neighbouring authorities which might include CT post mortems; out of county body storage; standard and special post mortems and the like. Whilst no specific firm commitments can be secured at this stage, extensive consultation has taken place with local authorities such as Bedfordshire, Milton Keynes, Leicestershire, Cambridgeshire (including Peterborough), all of whom have expressed a willingness to use the proposed facility should the range of services described be made available, and in particular the ability to obtain cause of death non-invasive post mortems via CT scanning.

For the purposes of providing a realistic and robust business plan in this regard it is considered that there is potential to generate substantial returns from this source alone. The team have reviewed the various business models for provision of CT scanning and have established that in order to be able to offer a competitive and comprehensive service the CT scanner and associated hardware/software should be a capital provision as part of the project and that APTs (Anatomical Pathological Technicians) would be trained in the operation of the system including the specific processes that are available such as establishing cause of death from heart disease via calcium counting and angiography. It is recognised that the CT scanner requires facilities such as a lead lined enclosure and all such measures have been factored in to the project scope accordingly. The type of scanner envisaged is capable of being used for non-invasive post mortems for all age ranges including pre-natal.

Locally, regionally, and nationally there is a shortage of specialist facilities that will undertake bariatric postmortems, super bariatric post mortems, paediatric and chemical, biological, nuclear and radiological (CBRN) post mortems. As detailed above it is intended that the new mortuary would look to provide these services. Specialist postmortems would incur an additional specialist fees structure this has not however been factored into the costs in the business case.

The facility has been designed to accommodate the facilities for specialist postmortems, and the location of the public mortuary on good arterial roads, and central England is well placed to become a provider in this niche market. The Service has started the conversation with the College of Policing regarding CBRN.

12. Conclusions

Delivery of a new public mortuary for Northamptonshire is a significant undertaking. It is vital it is done with careful consideration of how to deliver a facility which supports effective service delivery and properly manages design, construction, and operational risk. The plan for implementation and the cost and revenue projections have been developed to a level whereby it is considered the project can proceed on the basis described.

Implementation will provide a valuable service to the residents of Northamptonshire and the financial risks involved are at least balanced by the potential returns in both policy and financial terms. As such, it represents a valuable opportunity to progress the objectives of West Northamptonshire Council.

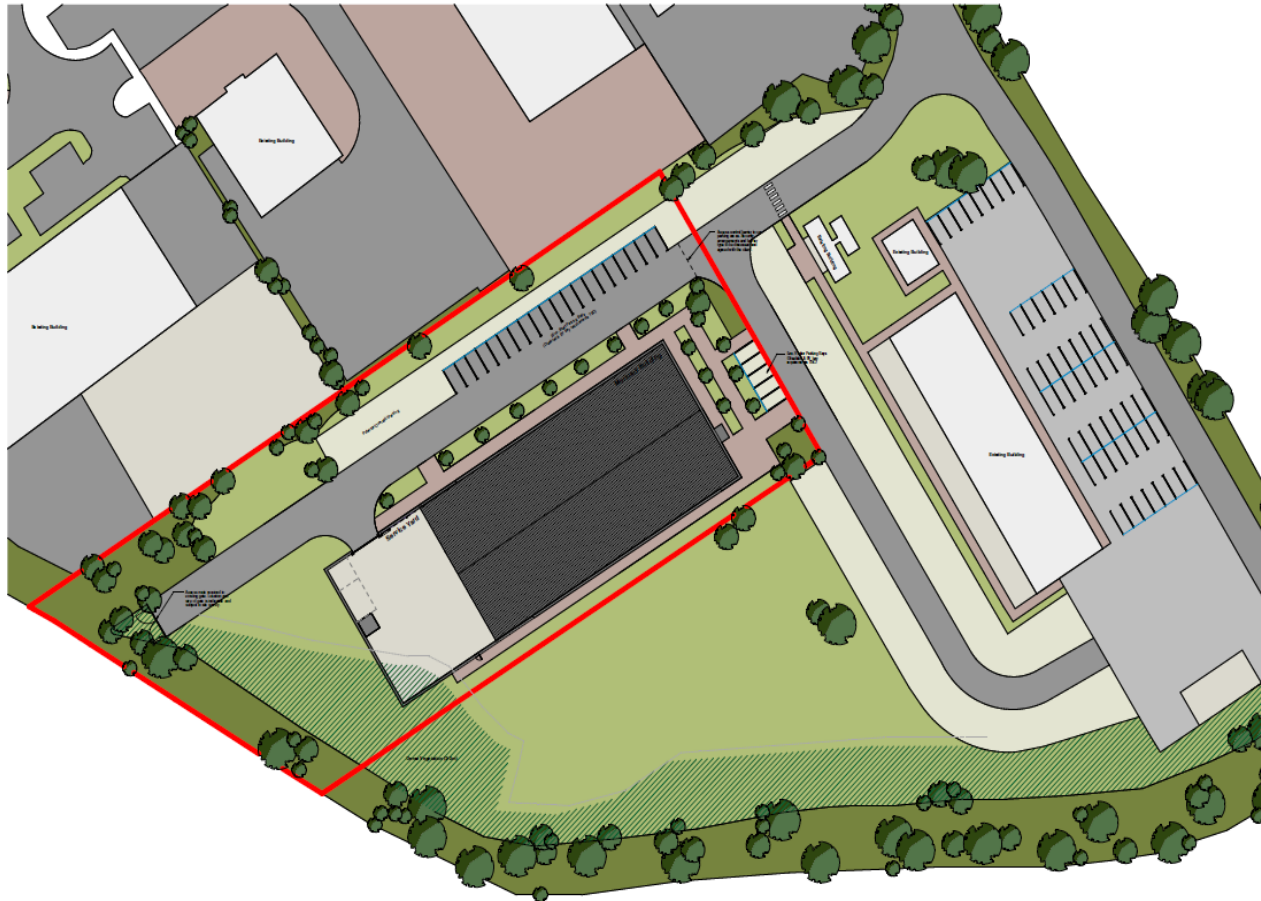


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Annex. Supporting Material

Plan 1: Location of the of proposed facility at Booth Meadow





Plan 2: 3D view of indicative internal layout

