



4.1

Connectivity and Movement Strategy

- 4.1.1 Smarter Travel / Mobility Management Plan
- 4.1.2 Key Connectivity and Movement Issues
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- 4.1.5 Public Transport
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4.1.1 Smarter Travel / Mobility Management Plan

'Smarter Travel' is a Government initiative published in 2009 which sets out policies for a sustainable transport future. The main objectives are:

- To encourage smarter travel, i.e. to reduce overall travel demand
- To maximise the efficiency of the transport network
- To reduce reliance on fossil fuels and therefore to reduce transport emissions
- To improve accessibility to transport.

In 2009, a Mobility Management Plan was adopted for Kilkenny city. The purpose of this Plan was to establish a formal mobility and traffic management plan dealing with transport modal shift and accessibility. A number of proposals were included in this Plan covering cycling, parking, traffic management and bus services.

In supporting the objectives of the Mobility Management Plan, this masterplan aims to create a pleasant pedestrian environment in the city. This brings enormous benefits, in terms of tourism, the economy, and to quality of life. In line with Smarter Travel, the master plan will facilitate cycling and walking by providing a network of safe, well-lit and convenient pedestrian and cycle routes within the site which will encourage such modes of transport. Routes will be designed to be connected, convenient, comfortable, and conspicuous.

4.1.2 Key Connectivity and Movement Issues

As with all urban areas, streets are needed in an urban context to provide permeability into areas of development and connectivity and ease of movement within the area.

In the case of the St Francis Abbey Brewery Site, access to the site is required to:

- Provide access for the people of Kilkenny and tourists alike to the historic monuments that exist on the site and to the future amenity, residential and commercial facilities that may be developed on the site.
- Provide access for residents.
- Provide access for people working in the area.
- Provide access for deliveries to residential, commercial and other properties in the area.
- Provide access for Emergency Vehicles to the site.

In considering access requirements, various modes of transport need to be accommodated:

- Pedestrians incl. Wheelchair users, prams/buggies etc
- Cyclists.
- Cars.
- Light Goods vehicles.
- Service Vehicles.

The level of permeability that should be afforded to each of these users needs to be considered in the layout of the Masterplan Area.

4.1.3 Pedestrian & Cyclist Movement

The city centre contains the core retail area and main tourist trails accordingly priority in these areas should be afforded to pedestrians. The recent improvements to the footpaths and streetscape in High St through the Medieval Mile project help to promote and assist pedestrian movements in the city centre area.

In the Masterplan area, it is intended that movement will be dominated by pedestrians and cyclists, with limited vehicular access. This will help to create a vibrant and sustainable place, providing the area with an important sense of place.

Any areas where vehicles are allowed within the Masterplan area will be designed as shared spaces. Such spaces are integrated spaces, where pedestrians, cyclists and vehicles share the carriageway, and are considered to be highly desirable where pedestrian activities are high and vehicles movements are only required for lower level access or circulatory purposes.¹

A key element of new linkages is the provision of pedestrian and cycle linkages on both the east and west banks of the river. These will serve as both amenity routes and access routes to the city centre. As amenity routes, they will form part of long distance amenity routes along the Nore, completing the missing link in the River Nore Linear Park. Within the urban area of the City they will provide ideal short and longer distance walking routes along the river incorporating the existing bridges, the Central Access Scheme Bridge, and the new pedestrian bridge at John's Quay.

Kilkenny is a relatively flat and compact City with a significant proportion of its population living within two kilometres of the City Centre. These characteristics contribute towards making Kilkenny City an ideal location for commuting to work or school by foot or bicycle.

Key to the delivery of a successful cycle network is the provision of a complete supporting infrastructure. This includes providing secure cycle parking facilities at popular destinations such as The Parade, John's Green, Bateman Quay and High Street. Cycle parking facilities will be provided at suitable locations within the Masterplan site.

¹ Design Manual for Urban Roads and Streets published by the Dept. of Transport, Tourism and Sport and the Department of Environment, Community and Local Government (2013).

Transport and the Dept. of Environment, community & Local



4.1.4 Vehicular Movement

While it is intended that movement through the Masterplan area will be dominated by pedestrians and cyclists, provision must be made for limited vehicular access to the site for deliveries, service vehicles and emergency vehicles. It is intended that access for deliveries and service vehicles to the site will be restricted to certain times of the day, similar to the current arrangements on Kieran St.

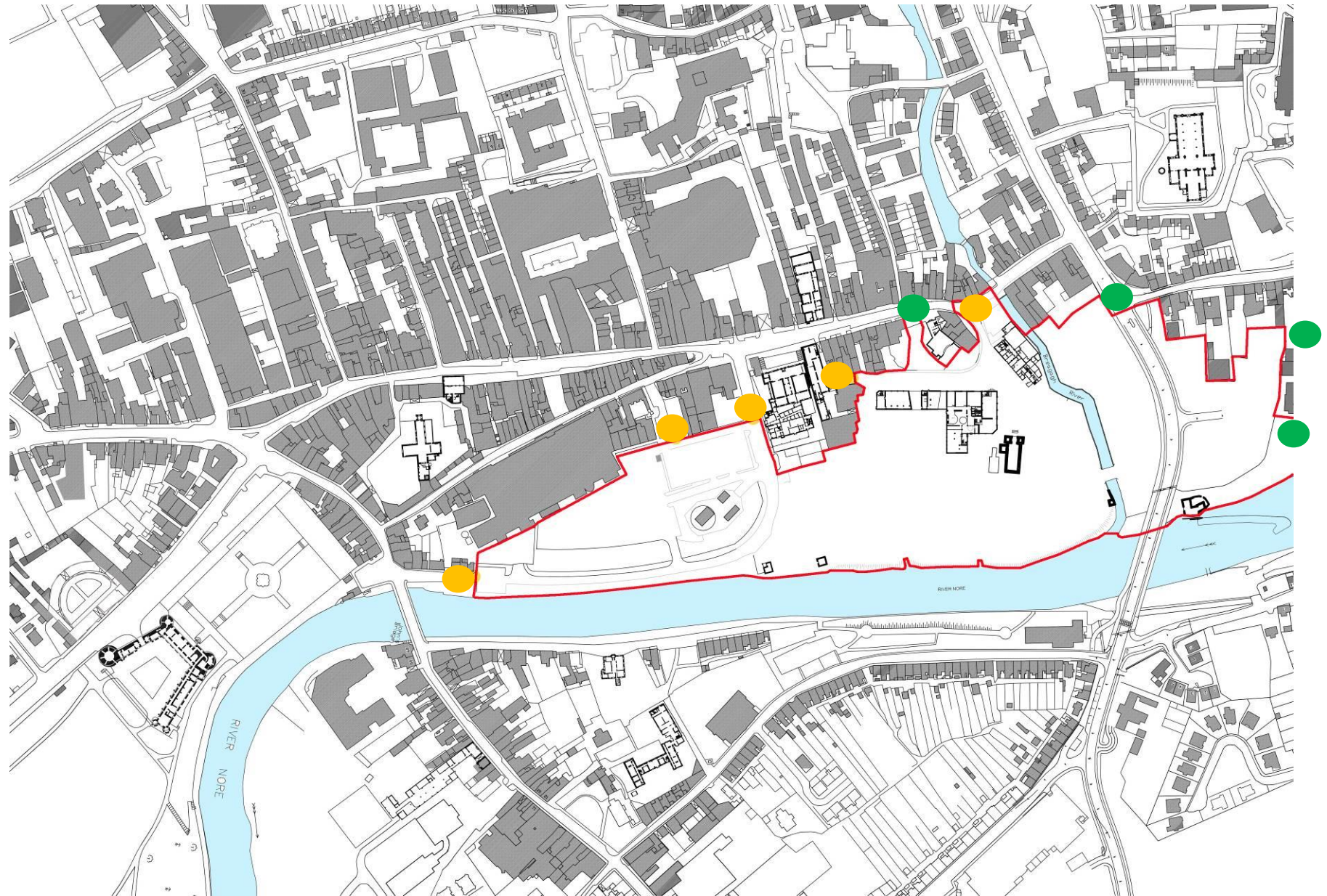
Various options for movement into and out of the site were considered (see iterations in section 5.2). Street locations along the river's edge, centrally located, and to the west along Horse Barrack Lane were considered. Having considered the various options, it was decided that the best option was a new street located centrally within the site that would link with Bateman Quay to the south and the Central Access Scheme to the north, via the existing bridge over the River Breagagh. It is intended that access to this street will be limited and will be controlled by way of retractable bollards (automated or removable) to be located in the area of the existing bridge over the River Breagagh.

Furthermore, it is intended that the design of the street in the area of St. Francis Abbey will be subject to detailed design with a view to the creation of an open civic space. This civic space, whilst accommodating limited traffic movements at certain times of the day, would be useable as a civic space for outdoor events. The detailed design of this civic space will be incorporated into the proposed urban park in the area of St. Francis Abbey.

It is intended that the existing vehicular access along Horse Barrack Lane will be maintained, continuing to provide access to properties on Parliament Street that back onto Horse Barrack Lane.

4.1.5 Public Transportation Strategy

Public transport within the city is primarily Bus and Taxi services. It is the policy of the Councils to encourage the development of public transport and the masterplan will be reflective of this.






Access points to the Masterplan Area

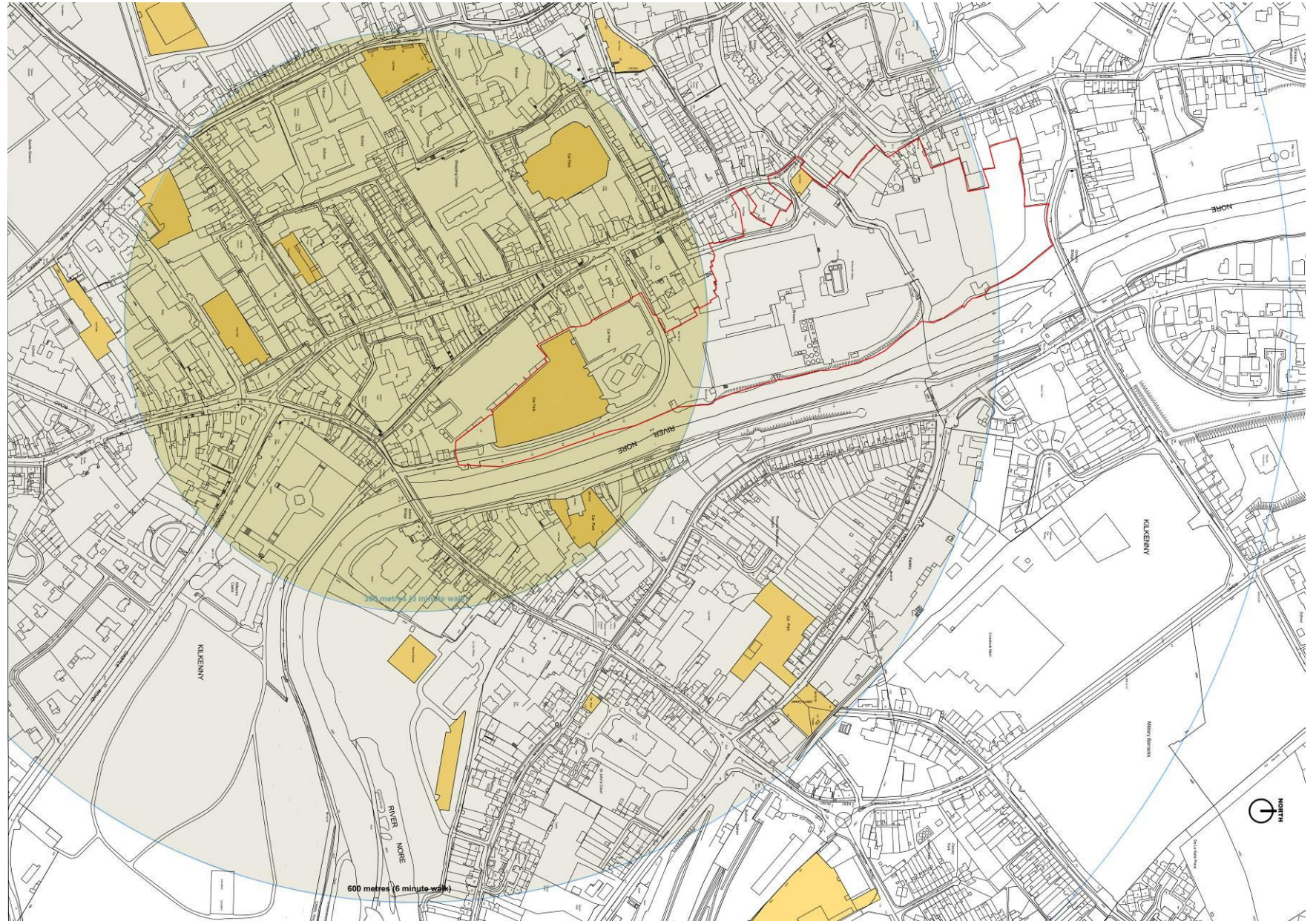
- Existing Access Points
- Proposed Access Points

4.1.6 Parking / Traffic Management

Within the city centre public car parking is provided both on and off street. Car parking inventories carried out indicate that there are currently approximately 1,400 free or daily rate parking spaces within or on the periphery of the city centre. Typically public car parking within the city centre is reserved for short-term parking, which is subject to a tariff system.

Limited new car parking will be provided within the Masterplan area, primarily for loading/unloading and for mobility impaired drivers. Options for the provision of additional off site car parking facilities, within a short walking distance of the Masterplan Area will be considered.

Kilkenny City Public Carparks	
	Existing Public Car park
	300 metre Zone (3 minute walk)
	600 metre Zone (6 minute walk)



City Plan with Walking Distances from city centre and location of existing public car parks highlighted.



Conservation and Heritage Strategy

4.2

- 4.2.1 Conservation Objectives
- 4.2.2 Archaeological Strategy
- 4.2.3 Summary of Archaeological Recommendations
- 4.2.4 Heritage Structures Strategy
- 4.2.5 Existing Structures Strategy

4.2.1 Conservation Objectives

Kilkenny City & Environs Development Plan 2014-2020 and Kilkenny City Centre Local Area Plan 2005 set out a series of policies to develop the public realm within the city centre.

- Retain the existing scale of building heights of three and four storey buildings.
- Encourage the renovation and re-use of any vacant or derelict buildings.
- Retain the medieval street pattern.
- Protect the tight urban grain and rhythm of existing streetscapes.
- Support the implementation of the Kilkenny City Walls Conservation Plan.
- Improve the visual appearance of the car parking area at the Market yard, and ensure a high standard of architectural design for any development at Bateman Quay.
- To ensure pedestrian permeability is paramount in any future redevelopment of Bateman Quay.



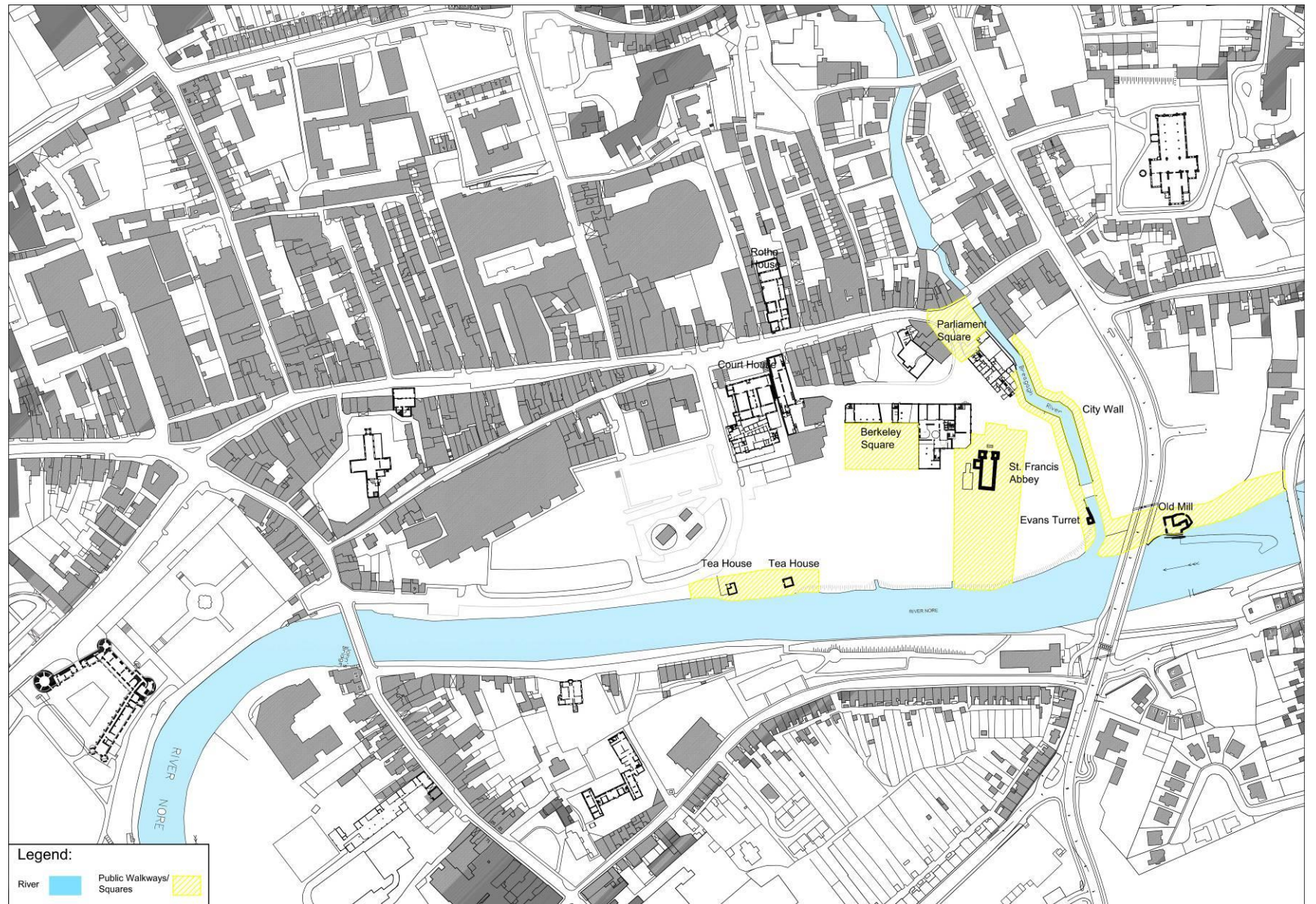
4.2.2 Archaeological Strategy

The Masterplan area is located in the heart of medieval Kilkenny and is located within the Zone of Archaeological Potential for Kilkenny City (kk019-026). The site encompasses a number of significant Heritage Structures including:

- St Francis Abbey (National Monument)
- City Walls (National Monument)
- Evans Turret (National Monument)
- Woollen Mills (Protected structure)
- Tea / Pleasure Houses (Protected Structures)
- Bull Inn (Recorded Monument)

Some of these structures, nestled within the former brewery site, have not enjoyed the widespread public appreciation and interaction that other medieval monuments in Kilkenny have had due to restricted access issues. As a result they have become lost and forgotten locally, regionally and nationally.

The Masterplan has the potential to breathe new life into these historic gems. The development of the Masterplan lands provides a significant opportunity to reconnect these historic landmark sites and to provide a strong, distinct visual and physical presence to the existing streetscape of Kilkenny.



Background

In early 2014, Kilkenny Co. Co. prepared an archaeological strategy for the development of the Masterplan lands.

This strategy advocated the establishment of a very thorough spatial (and plan form) knowledge and understanding of the sites historical development, a detailed evaluation of its current fabric and the incremental study of its below ground archaeology.

In late 2014, Kilkenny Co. Co. appointed Courtney Deery, Heritage Consultancy, to develop the archaeological strategy and in particular to:

- Enhance the understanding of the historic development of the site
- Create a record of the existing knowledge base.
- Inform the Masterplan process so that decisions in relation to the development of the site will be based on all available archaeological and historical information.

Through a detailed study of existing cartography, extant archaeological monuments and features, and an examination of the many test trenches, bore holes, window samples, dredged river areas and archaeological assessments, it has been possible to generate an understanding of where there is a potential to reveal significant below ground archaeological remains within the Masterplan site.

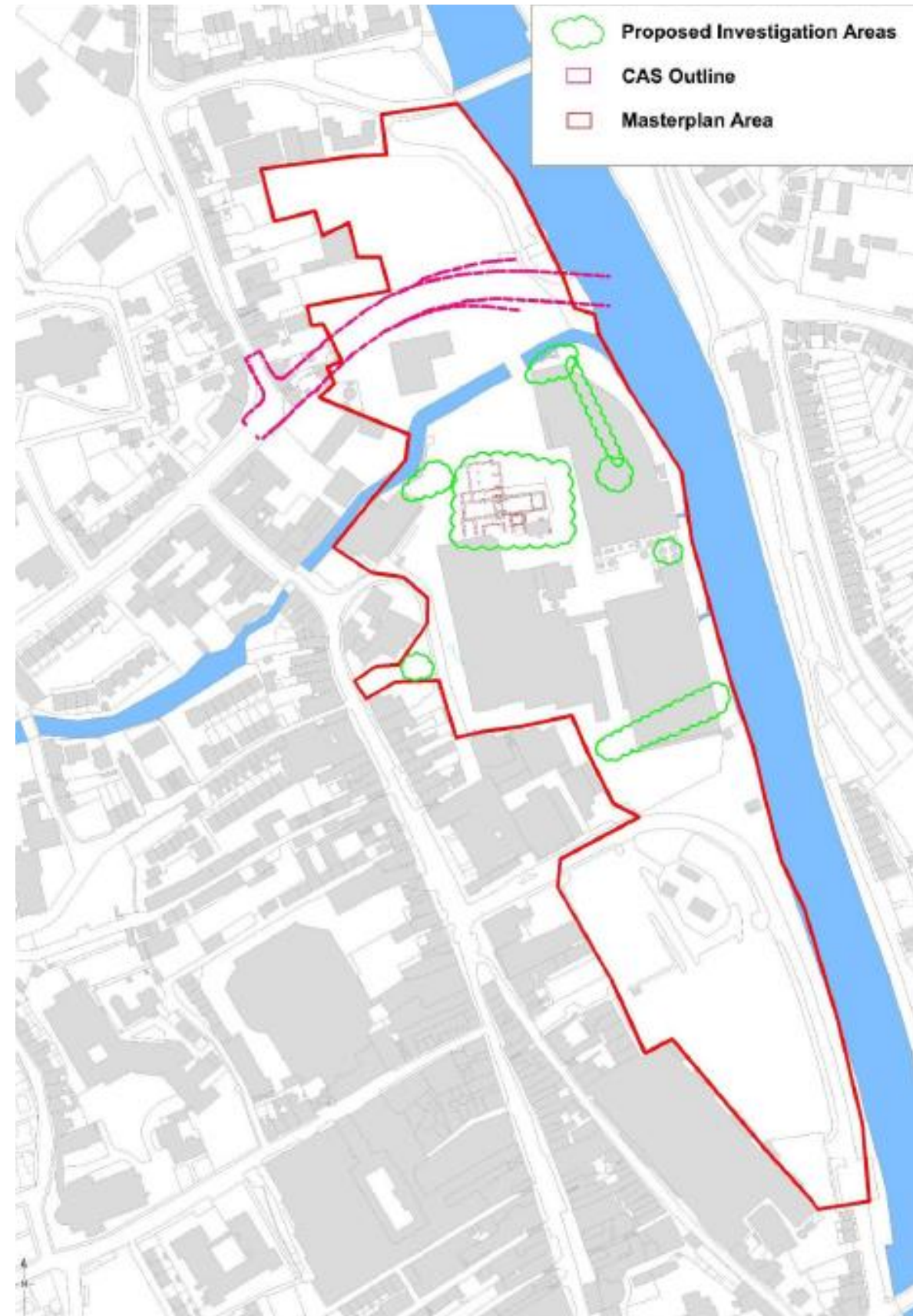
4.2.3 Summary of Archaeological Recommendations

In order to provide an understanding of the extent and type of below ground archaeological potential, archaeological test excavation is required.

All excavation works at or in proximity to a National Monument on the site will require Consent from the Minister for Arts, Heritage & the Gaeltacht and these excavation works will be subject to the conditions of any such consent.

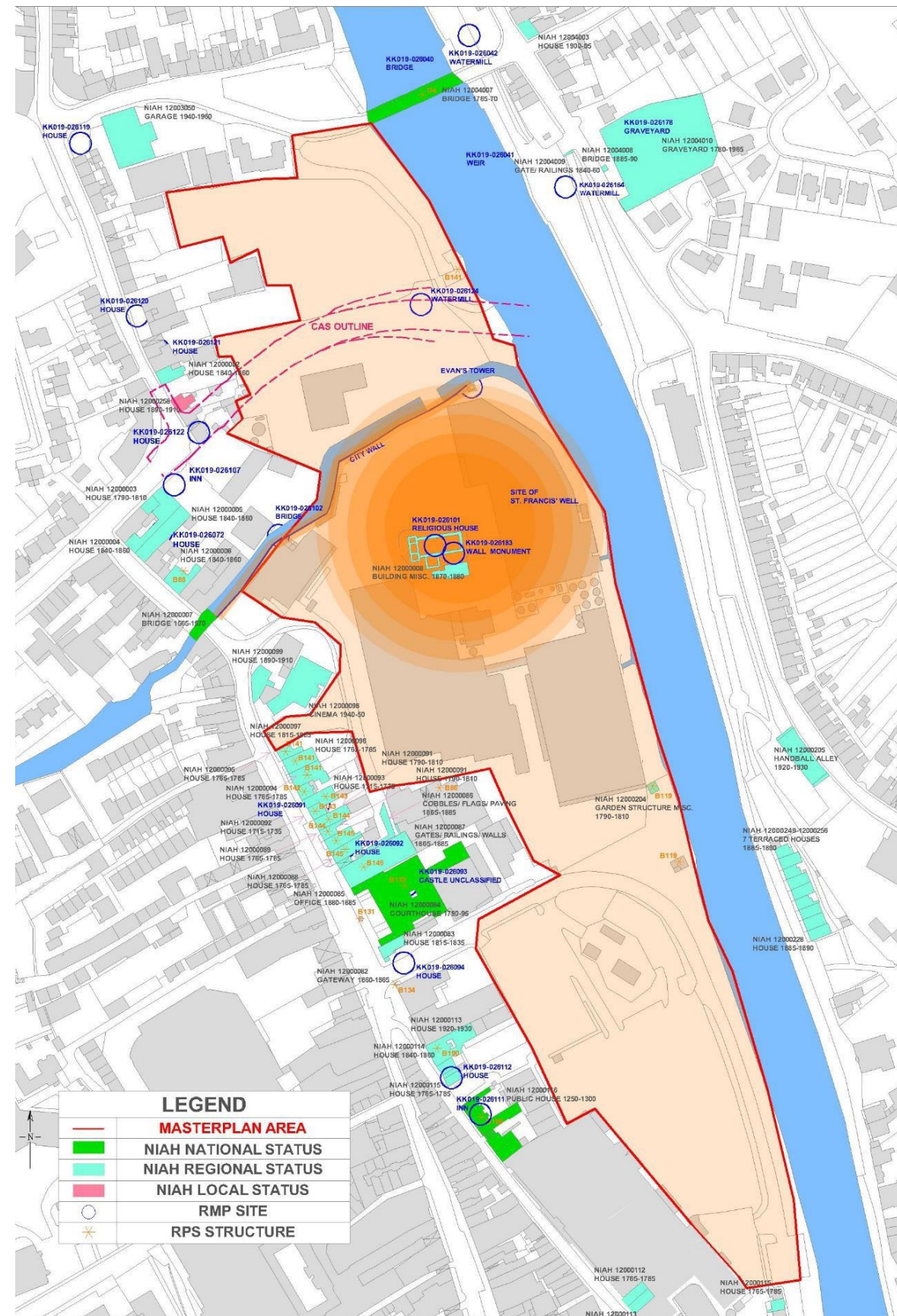
The stratigraphy demonstrated in archaeological investigations throughout the site commonly shows a sequence of modern concrete, sitting above made ground, over evidence of post medieval walls or structural foundations, overlaying (an often sterile) organic dark silty clay with occasional finds dating it to the medieval period, along with river silts and gravels, and a yellow boulder clay.

It is proposed that the following guiding principles will be adopted to facilitate an understanding of the below ground archaeological remains and to minimise disturbance of the remains where possible:



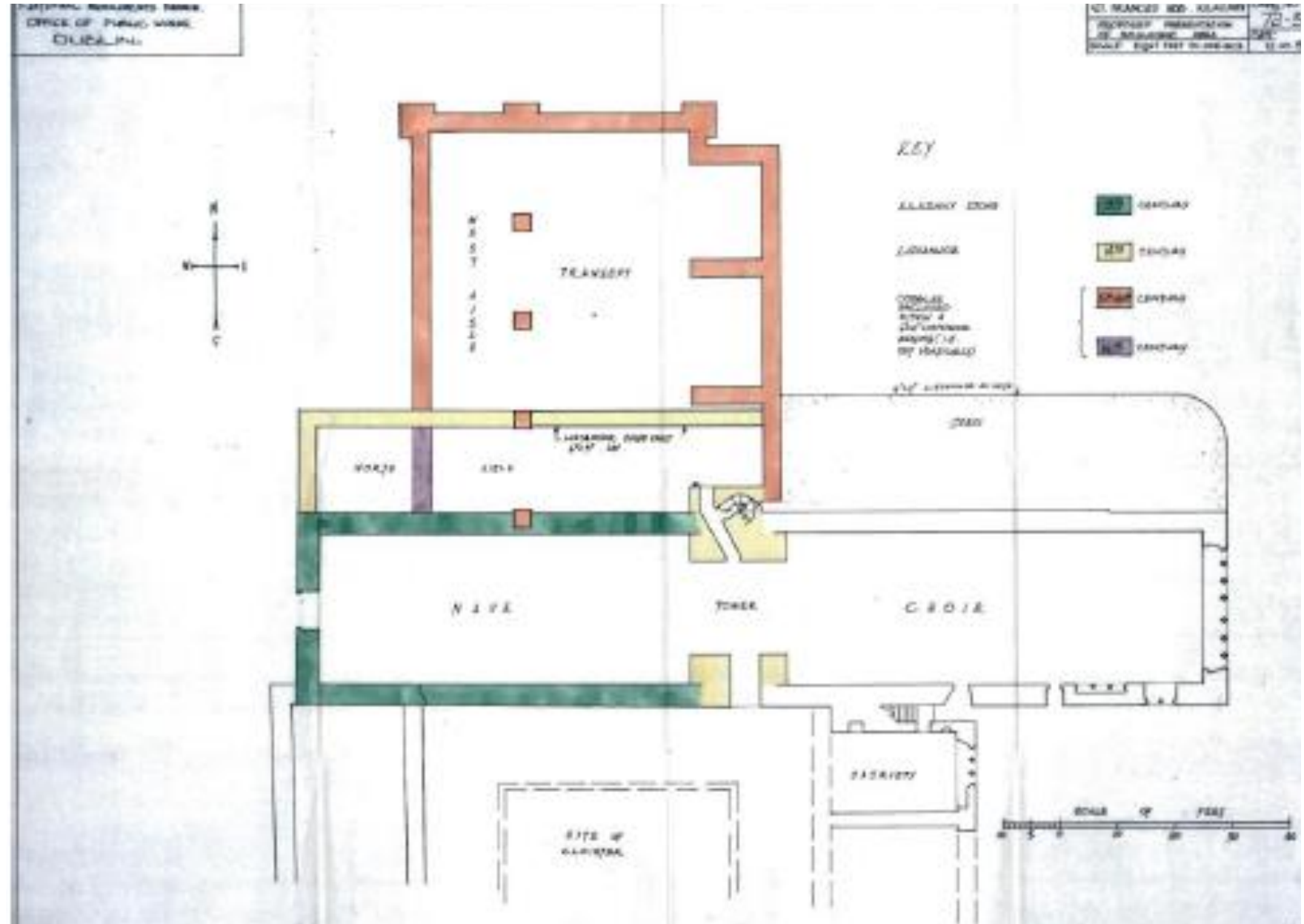
Areas Identified through research for archaeological investigation

- Excavation is to take place in the environs of St Francis' Abbey with investigations extending to Evan's Tower and St Francis' Well at the waterfront and to the extant buildings to the south and the River Breaghagh to the north.
- The extent of these excavations is to be informed and guided by a comprehensive and targeted testing programme. There is merit and precedence to link investigative work with volunteer programs and open the experience to the general public in a controlled manner subject to health and safety requirements. This also has the advantage of uniquely identifying St Francis' Abbey within the medieval city of Kilkenny and act as a live attraction and educational experience.
- The purpose of this excavation will be to confirm the limited knowledge that exists today through cartographic and documentary research and also to confirm the findings of archaeological excavations in the 1960's (carried out by Marcus ÓhEochaidhe's for the OPW) as shown on a map belonging to that time. It is hoped that this will answer key questions such as the location and extent of burials, the survival and ground plan/layout of the transept, nave and cloister, whether the Abbey Precinct was walled and if this can be defined and any additional features that may have influenced life in a medieval Franciscan Friary or finds that can further inform the significance of the monument.
- The findings from these excavations will be included in the proposed framework for the area in an imaginative and creative way lending themselves to an educational experience. Depending on the nature of the remains, consideration will be given to leaving below ground masonry remains in-situ so they can be explored as part of the St Francis' Abbey experience and exhibited.
- Archaeological investigation in the form of test trenching and strategically placed boreholes will assist the development of the southern and northern portion of the site. Initially it is proposed to place a series of boreholes at regular intervals in order to build a cross-section, below ground profile of the site. This will be supplemented by testing where necessary and areas of interest will be excavated.



Location of National Monuments and Protected Structures

- In the areas to the south of the Diageo site and immediately north of the River Breaghagh the site is largely built on a 300-400mm concrete slab, which was evidenced throughout the geotechnical investigations. It is proposed that the concrete slab remains in-situ to the south of the Abbey and north of the River Breaghagh and that no basements or lower ground levels are permitted onsite. A proposed sub-structure will consist of a series of piles set out to a 7.5m grid with a ground beam located above the existing slab level. All excavation work within the complex must be preceded by an appropriate programme of archaeological evaluation.
- It is also proposed that new services, where possible, are to be located in a band of made ground raised up from the existing slab and in the case of drainage that, where possible, it will be linked with existing services on the site.
- The design proposal where possible will reflect the historic plot layout for example to the north of the site, post medieval linear garden plots extending east-west have been recorded in excavations and have been identified in cartographic references.
- The River Breaghagh and Nore are integral to the setting and history of the site and substantial deposits as well as features were revealed along the waterfront during previous investigations. Works associated with the rivers in previously unexplored areas will be appropriately archaeologically investigated where necessary.
- All proposals as set out in the archaeological strategy will be subject to agreement with the relevant state bodies including the National Monuments Service, Dept. of Arts Heritage & the Gaeltacht, OPW etc.



St. Francis Abbey (OPW 1966)

Conservation and Repair

The Archaeological strategy for the site has documented the following conservation priorities:

1. Immediate stabilisation works
2. Archaeological investigation works in order to inform conservation practices
3. Conservation works fit for purpose;
 - Future proposals associated with St Francis' Abbey will have to be agreed in advance with the relevant authorities. Previous interventions and additions to fabric such as the concrete superstructure and iron pillars now examples of historic conservation should be retained where appropriate and where these do not diminish the integrity of the structure.
 - The conservation of other heritage structures within the Masterplan area, including;
 - Evan's Tower and wall walk
 - City defences
 - Tea houses
 - Bull Inn wall
 - Mill buildings

will be dependent on the proposed future function of these historic features and the role that they will have in the overall development proposal. A Conservation Plan will be prepared and agreed with the relevant stakeholders and the conservation of these structures will be considered and incorporated into the detailed design of the immediate area surrounding them.

It is the policy of Kilkenny County Council to promote awareness of and facilitate access to the archaeological inheritance of Kilkenny City and Environs. The Masterplan presents an opportunity to open up access to those heritage structures which were previously inaccessible to the general public.

Finance

There will be a need to identify and secure sources of funding from the EU, Government, development-led and private sources in order to support the archaeological investigation of the site.



Evans Turret and Wall Walk



Wall of Bull Inn



Sentry Post and Tea House



Chancellors Mill

4.2.4 Heritage Structures Strategy

An analysis of all of the existing National Monuments and Protected Structures within the Masterplan areas has been carried out. Outlined below are the detailed strategies for each individual structure.

St Francis Abbey:

- Archaeological investigation of the Abbey and Environs
- Protect the fabric of the structure
- Develop proposals for reuse of ruins and existing building
- Allow for safe public access
- To prepare a Heritage Conservation Plan for St. Francis Abbey, St. Francis Abbey Well, and Evans Turret in conjunction with the Heritage Council, the OPW, the National Monuments Service, the Department of Arts Heritage and the Gaeltacht and other relevant stakeholders.

St Francis Abbey Well:

- Archaeological investigation of the Well to be carried out once demolition of brewery buildings takes place.
- Inclusion in landscaping plans for linear park.

Tea Houses:

- Archaeological and conservation investigations
- Preservation of existing interiors
- Restoration of teahouses to suitable civic uses.

Chancellors Mills:

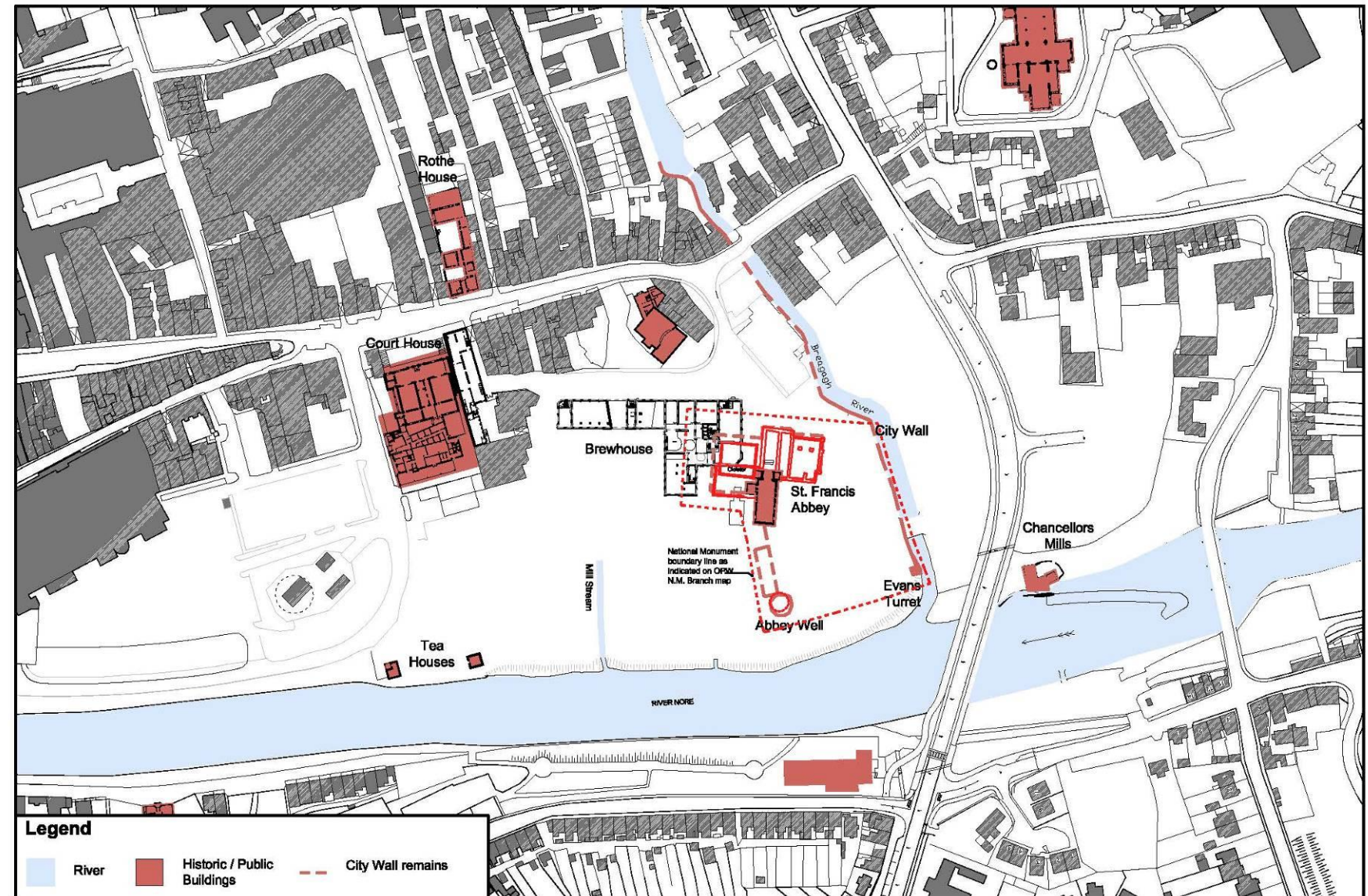
- Archaeological investigation of the Mills and Environs
- Public site access
- Protection of the structures.

City Wall:

- Archaeological investigation of the Wall and Environs
- Determine possibility of a new pedestrian bridge at the location of Bull Lane
- Propose solutions for the preservation of original fabric of the wall.

Evans Tower:

- Archaeological investigation of the Tower and Environs
- Secure the structure
- Propose future use and provide safe public access
- Retain Arcadian Setting.



4.2.5 Existing Structure Strategy

Kilkenny County Council carried out an assessment of all of the existing buildings / structures in response to the statement in the “Architectural Heritage Protection - Guidelines for Planning Authorities” published by the Department of Arts Heritage and Gaeltacht, that:

“sympathetic maintenance, adaptation and re-use can allow the architectural heritage to yield aesthetic, environmental and economic benefits even where the original use may no longer be viable. The creative challenge is to find appropriate ways to satisfy the requirements of a structure to be safe, durable and useful on the one hand, and to retain its character and special interest on the other.”

This policy stresses the value of existing buildings as a resource to be exploited in the production of a sustainable built environment, and that subject to retaining its cultural value, the continuing use of the existing building stock should be an important objective in both public and privately led development.

The principle of sustainable development is a fundamental principle of the Kilkenny City & Environs Development Plan 2014-2020. It is noted that Kilkenny Borough Council (now Kilkenny County Council), is a signatory to the Aalborg Charter of European Cities and Towns Towards Sustainability and the charter is referenced and contained in the Kilkenny City & Environs Development Plan 2014-2020. The reuse, where possible, of some of the existing buildings on site accords with the principles of sustainable re-use of building assets.

Following a review of the existing structures in the St.Francis’ Abbey Brewery site, the following buildings were identified as being suitable for re-use;

- The Brewhouse Building
- The Mayfair Building

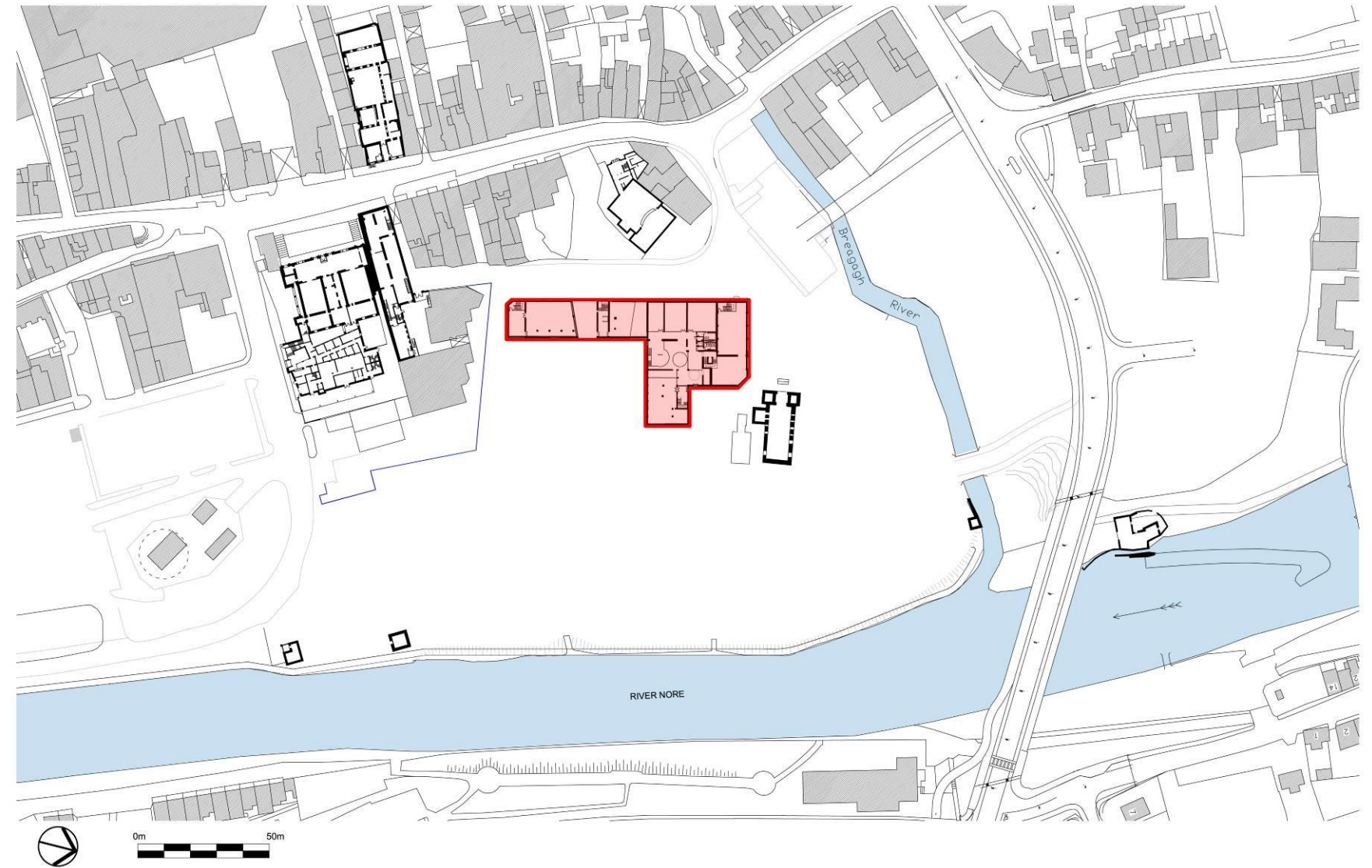
4.2.5.1 Brewhouse Building

Description:

This is a large three and part four storey concrete structure, with some steel framed clad infill elements. The building was commenced in the 1960’s and has had a number of accumulated extensions up to the 1980’s.

Condition:

- A robust concrete framed structure which appears to be suitable for adaptation and future use.
- There are issues in relation to moisture ingress and damp on the uninsulated walls.
- The roof appears to have failed in a number of locations.
- The glazing system on the earliest portion of the building may need to be replaced, subject to conservation architects comments.



Brewhouse Location Map

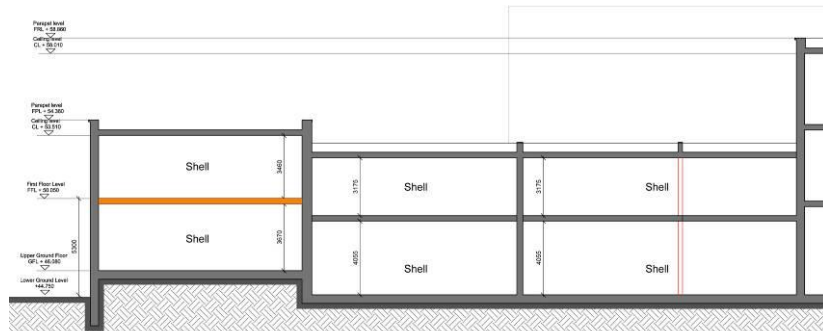


Status:

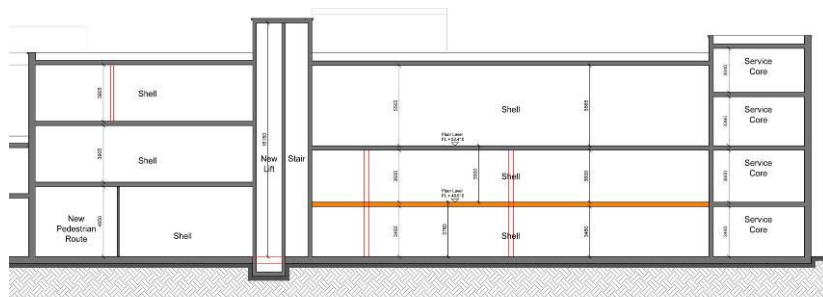
Not a protected structure (but has architectural merit as an industrial building of its type, and is not replicated elsewhere in the city).

Recommendation

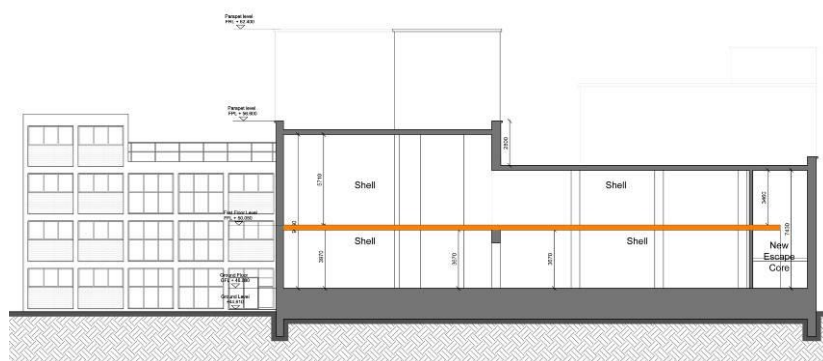
- This building has great potential for a number of uses, from exhibition to commercial / workshops / third level education.
- The existing tanks and brewing equipment should be carefully removed to enable retention of the building.
- A number of the infill steel structures should be demolished in full, which have been constructed around the disused mild steel brewing chambers.
- Other key considerations include the ease of removal of the industrial equipment without demolition, and the potential requirement for remediation under the building.



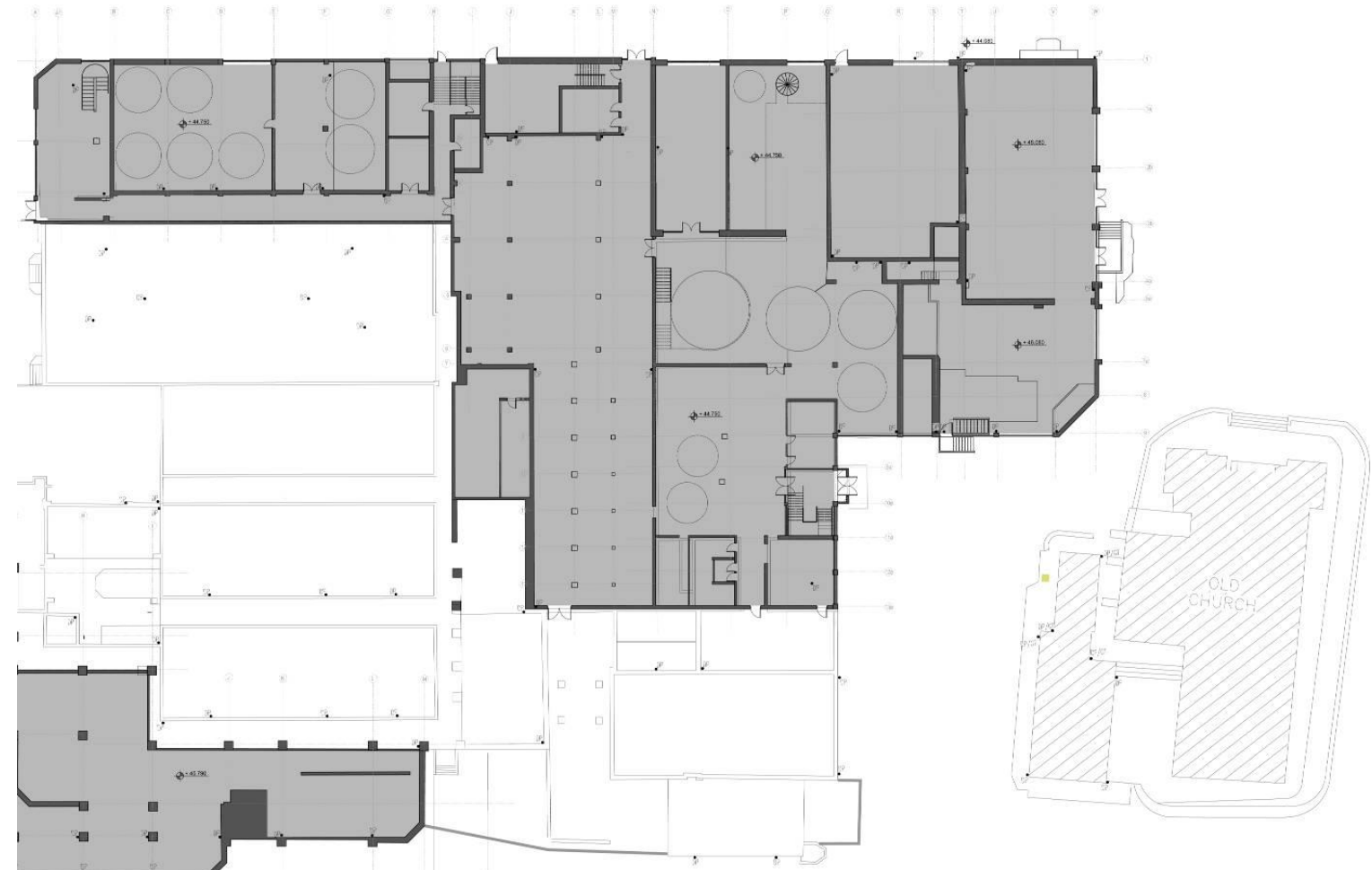
Part Long Section AA



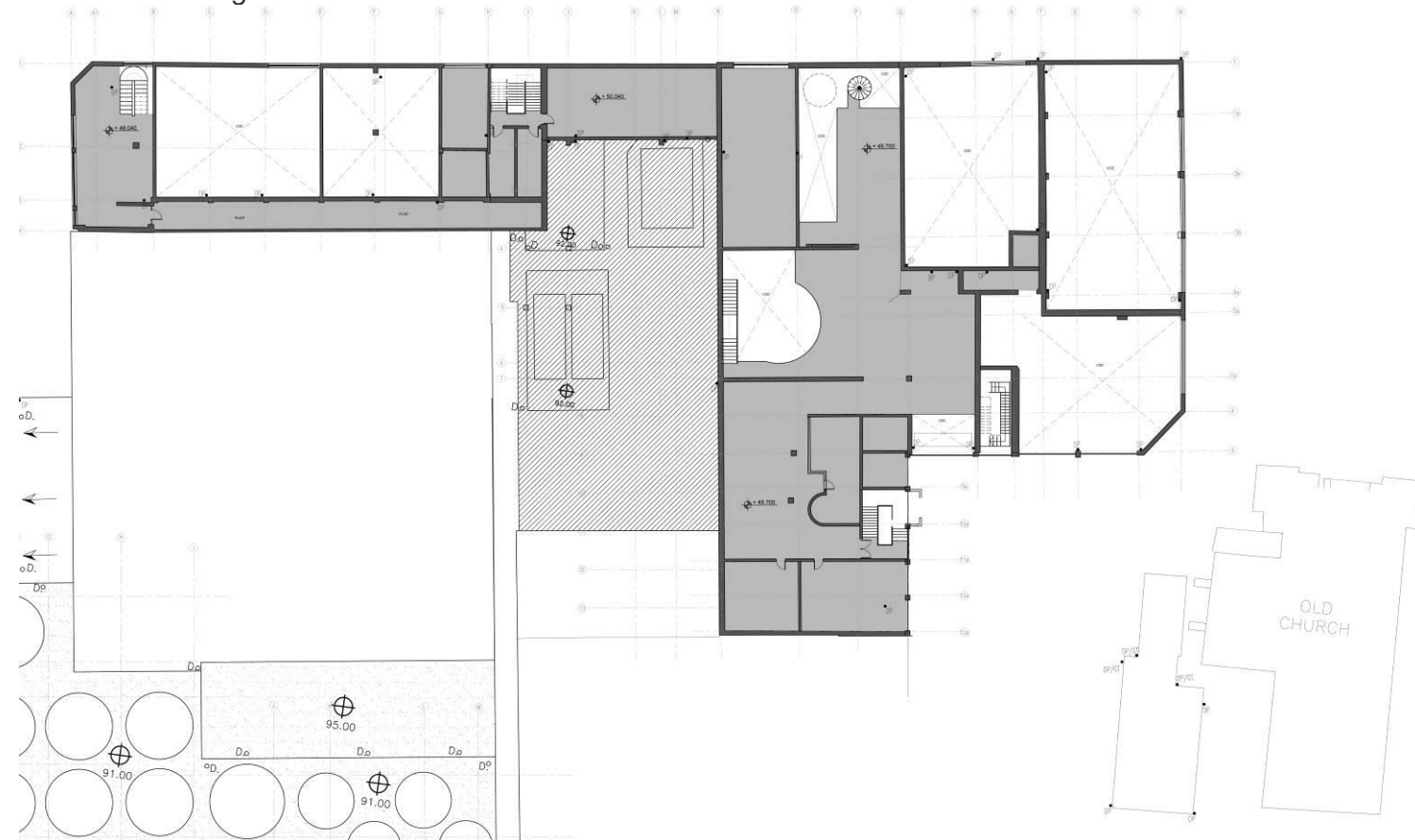
Part Long Section AA



Section BB



Brewhouse : Existing Ground Floor Plan



Brewhouse : Existing First Floor Plan

4.2.5.2 Mayfair Building

Description:

This is a small two storey concrete structure characterised by the double gabled form. The building was commenced in the 1960's and has had a number of accumulated extensions up to the 1980's. The Mayfair was one of the main ballrooms in Kilkenny during the '50s, '60s and '70s. It first opened its doors on St Stephen's night 1943. The Mayfair closed in 1973 and was subsequently converted to Office, Staff Canteen and Staff Locker Rooms by Diageo. Diageo vacated the building in 2013.

Condition:

- A robust concrete structure which appears to be suitable for adaptation and future use.
- There are issues in relation to moisture ingress and damp on the uninsulated walls.
- The concrete asbestos roof should be replaced
- The glazing system on the earliest portion of the building needs to be replaced

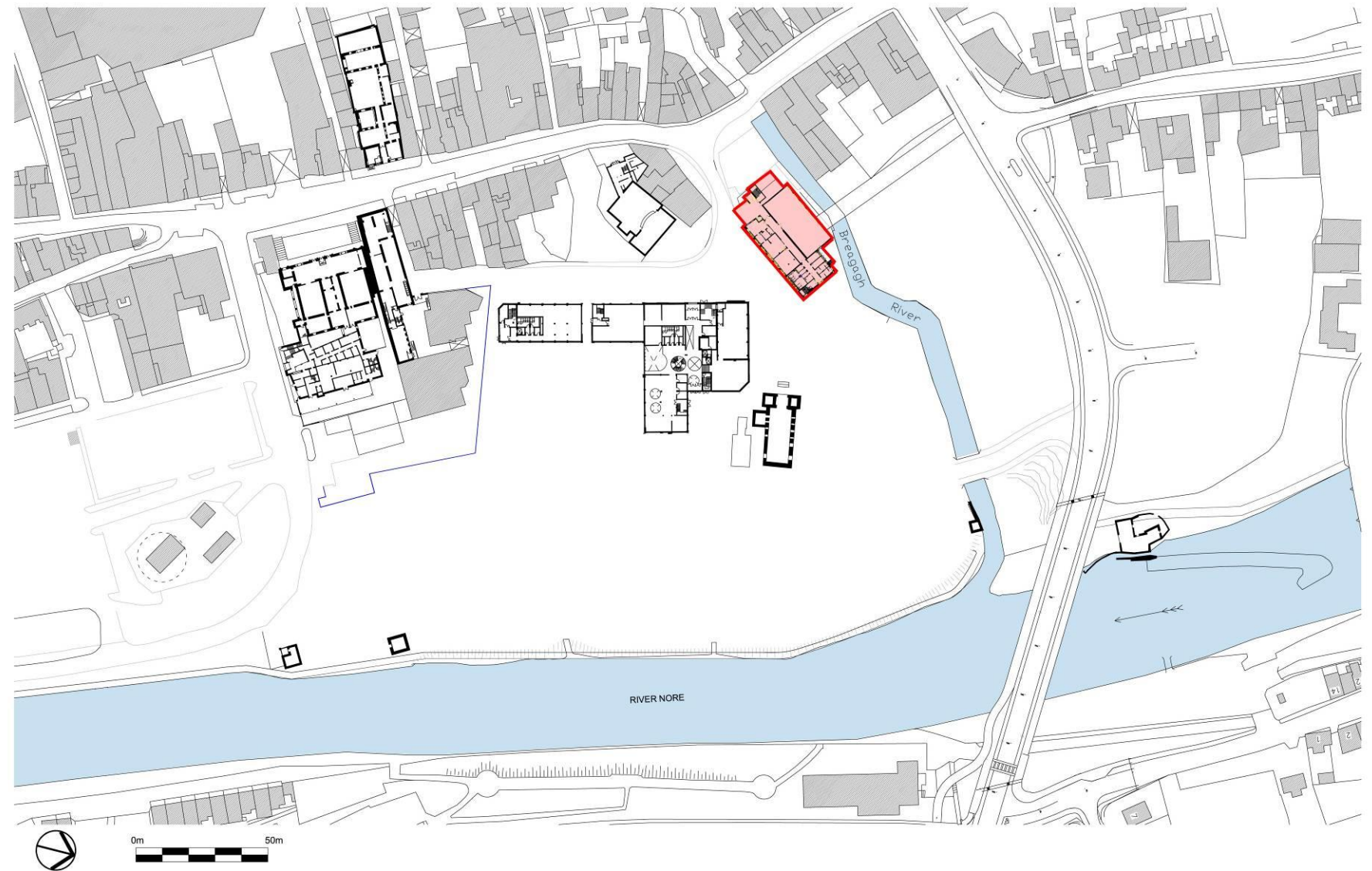
Status:

While not a protected structure a detailed appraisal of the existing two storey building suggests that it is of little architectural significance internally or externally. What merit the building has lies in its social heritage.

Recommendation:

- The refurbishment and extension of the building will create a building of distinction more appropriate to its location at a primary entrance to the new Abbey Quarter precinct.
- While it is proposed to replace the roof covering to the existing pitched roofs the proposed building the overall scale of the existing building i.e. the existing ridge height should be maintained.
- The overall physical form of the proposed building which consists of a random series of single and two storey extensions to the central double gabled form can be replaced by a more regular two storey form.
- External concrete steps and Boiler Room abutting the City Wall to be carefully removed
- Trees and associated vegetation abutting the City Wall to be removed.
- Remove internal dividing wall and suspended ceiling to reveal original form of the ballroom.

These recommendations will be subject to compliance with the EU Habitats and Birds Directive.

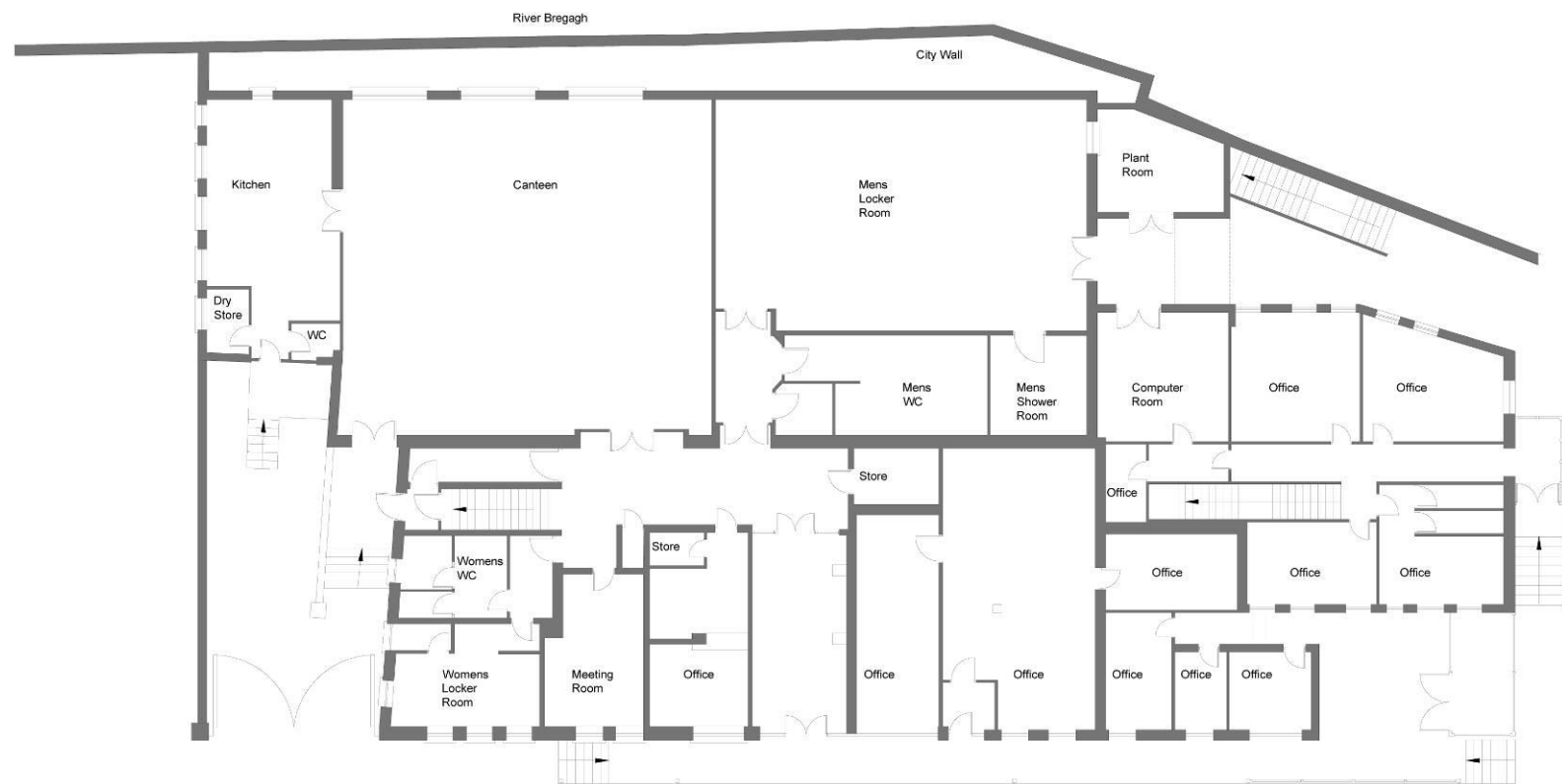


Mayfair Location Map





Mayfair: Cross Section



Mayfair: Existing Ground Floor Plan



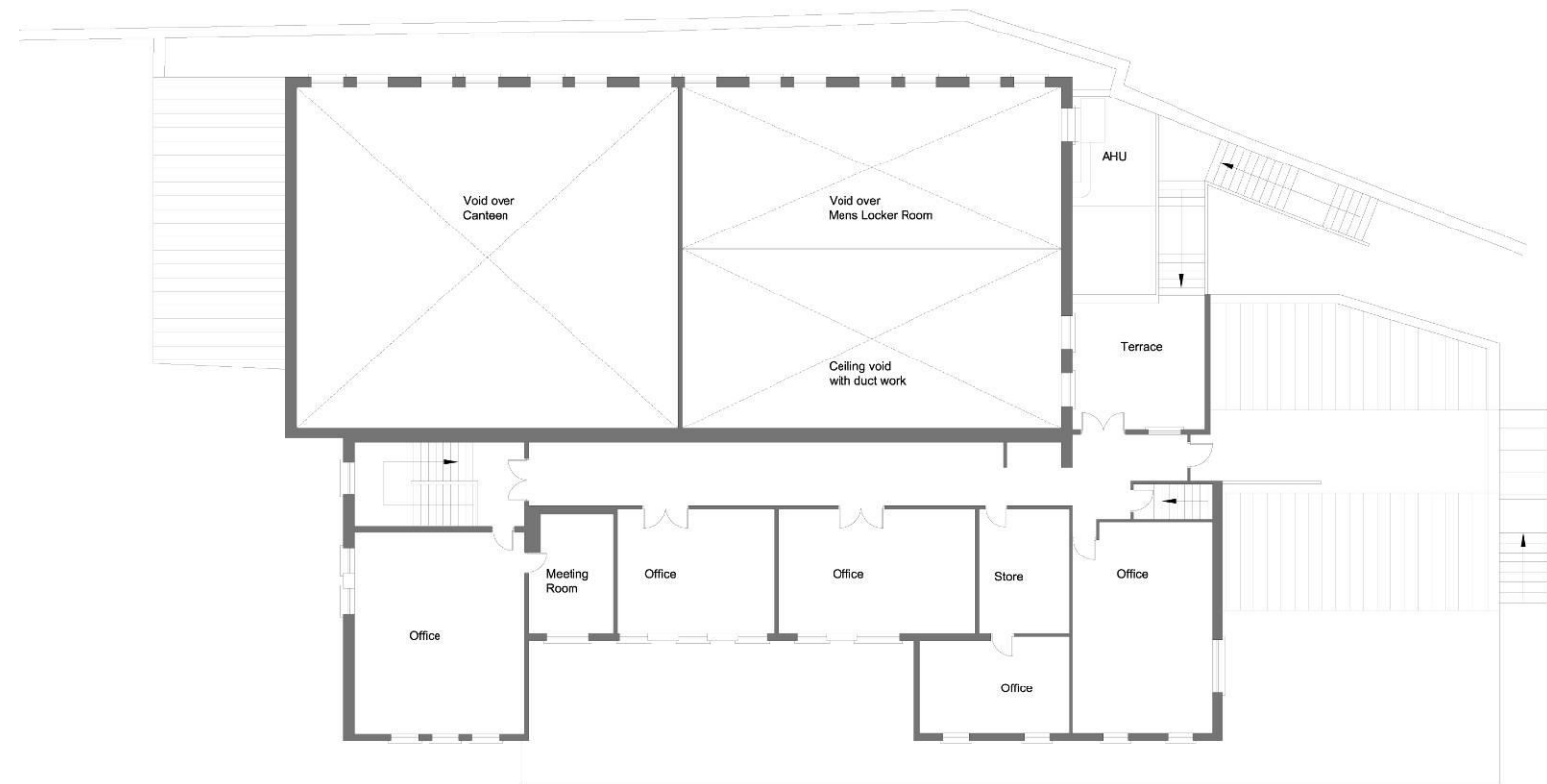
View of concrete steps along city wall



View of ground floor hallway



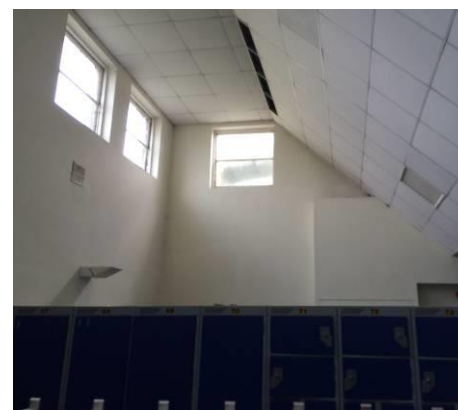
View of typical office



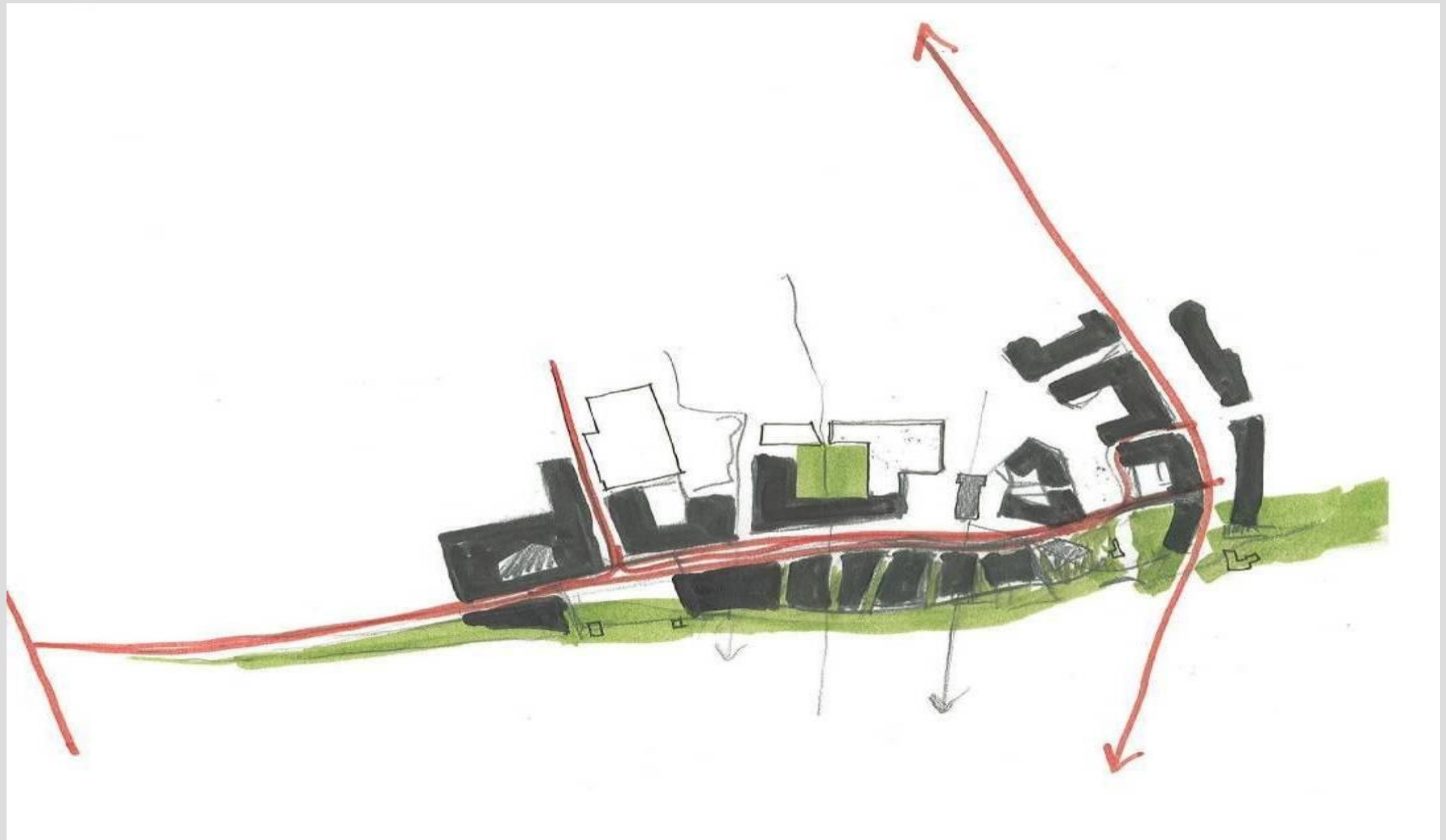
Mayfair: Existing First Floor Plan



View of Canteen / Ballroom



View of ceiling to Locker Room



Urban Design Strategy

4.3

- 4.3.1 Character Areas
- 4.3.2 Environmental Strategy
- 4.3.3 Linear Park Strategy
- 4.3.4 Archaeological Sensitivity Mapping
- 4.3.5 Public Park and Gardens
- 4.3.6 Public Realm Strategy
- 4.3.7 Movement Strategy
- 4.3.8 Pedestrian Streets / Lanes Strategy
- 4.3.9 New Building Strategy
- 4.3.10 Urban Grain Strategy
- 4.3.11 Further Masterplan Development

4.3.1 Character Areas

The Abbey Creative Quarter area can be subdivided into four distinctive character areas. The character of each area is distinguished by the prevailing scale, built character and land uses. Some characteristics are shared by more than one area, and the boundaries between some areas may also overlap. However, in the main, there is a distinctive quality to each of the four character areas, which is useful to consider when developing a policy on scale for the future development of the Quarter.

1. Sweeney's Orchard (The Gardens)

This area is located to the rear (east) of Vicar Street which is a primarily residential street with some commercial uses, such as the Kilkenny Inn Hotel and north of the Central Access Scheme. The garden is a notable feature of the individual residential plots with commercial uses converting their rear gardens into car parking areas.

The area itself was used by Diageo as a Marshalling Yard for its articulated vehicles. The ground is predominantly covered with a concrete slab. The prevailing height is 2 to 3 storeys.

While abutting the River Nore the construction of a 2.4 metre high wall along its south and east boundaries removes its connection with the river.

2. Breagagh North (Mills and Industry)

This area is located to the north of the River Bregagh and to the south of the Central Access Scheme. It was used by Diageo as a Marshalling Yard for their larger articulated vehicles and as a car park. The area is visually dominated by the Truck Wash Building and concrete yard which extends over the majority of the area. Both the Truck Wash and Hop Store buildings will be removed from the site prior to the Council taking possession.

Prevailing height of this area is 2 storeys.

Localised sections of upstanding walls associated with the Bull Inn remain along the western boundary.

3. The Brewery

This area is currently dominated by the existing St. Francis' Abbey Brewery Buildings consisting of; Bottling Store, Kegging Store, the Mayfair Building, Brewhouse Building and the Maturation Building.

The large Maturation Tanks extending to effectively seven stories in height (25 metres) are currently the dominant feature in this area. However most of the Diageo Brewery Buildings will be removed from the site prior to the Council taking possession. It is proposed to retain the Mayfair and Brewhouse Buildings.

The Brewhouse Building will be the most significant building within this character area. It has a strong industrial aesthetic whose design in part is reminiscent of the Bauhaus Building¹. Sections of the building are clad in red brick with a framed structure with glazed infill sections characterising the remainder

of the building. It is a 3 and part 4 storey building with chimneys punctuating the skyline.

St. Francis' Abbey, a National Monument, sits at the centre of this area. It is unfortunately surrounded by a concrete yard reflecting its location within a modern brewery.

Kilkenny's City Wall, also a National Monument, sitting on the southern bank of the River Bregagh forms the northern boundary of this area with Evans Turret located at the end of the city wall at the confluence of the Rivers Nore and Bregagh.

While abutting the River Nore it has no connection with the river.

Immediately adjoining this area is Kilkenny Courthouse. This protected structure was recently extended to its rear (east) with a modern 4 and part 5 storey granite clad building.

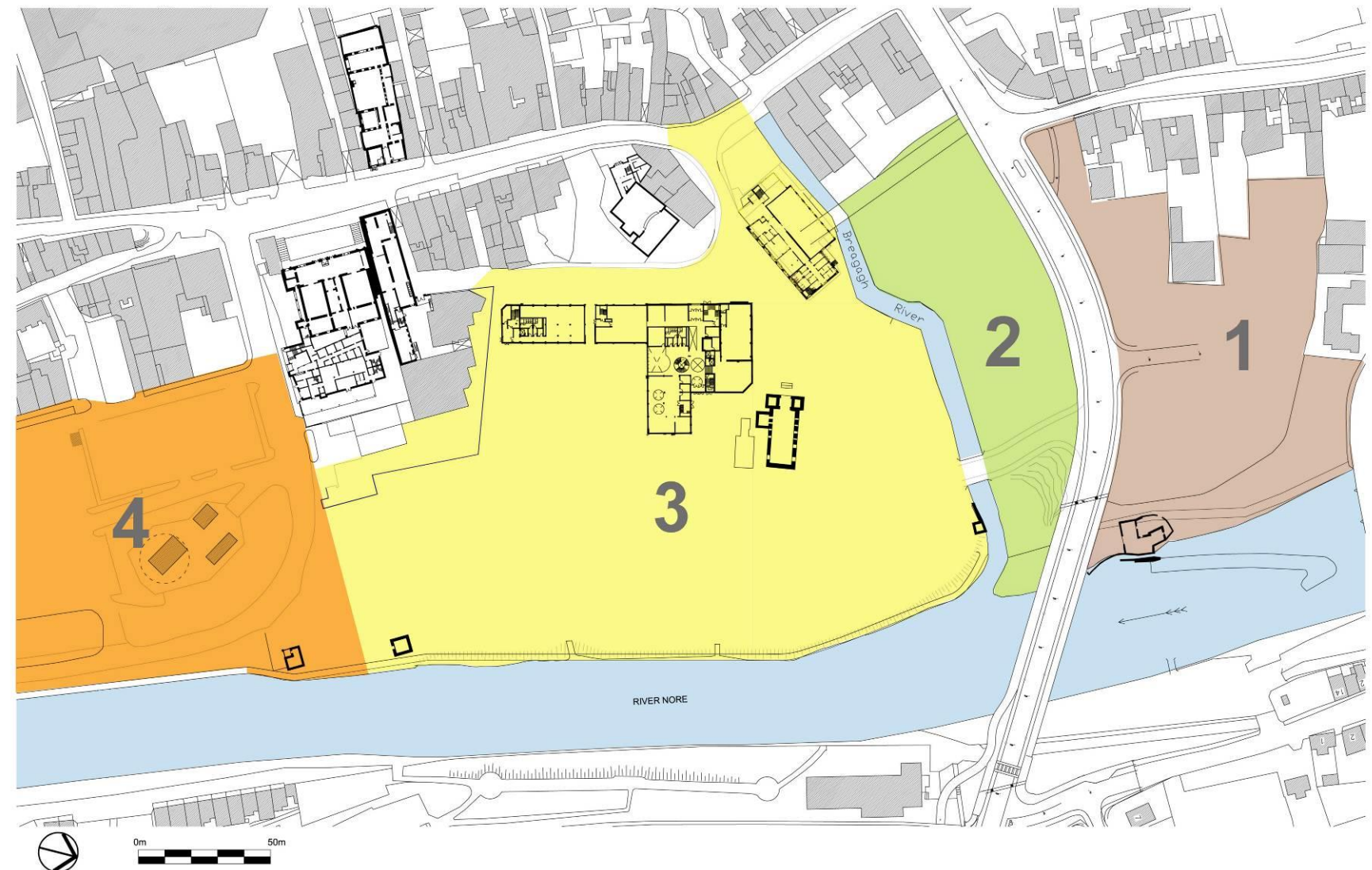
4. The Market Yard

This area is primarily retail uses with some commercial. It contains fine grain and larger footprint/scale buildings. The area is characterised by the expansive surface level public car park providing spaces for approximately 700 cars. While abutting the River Nore this area has no connection with the river.

The prevailing height is 2 storeys (Dunne's Stores) with notable exceptions such as Winston's and the Bank of Ireland Building which are 4 and 3 storeys in height respectively.

Conclusion

The Character Areas described above are important in considering the appropriate scale of new development in Kilkenny and are used to inform guidance on scale.



1. The Bauhaus was first founded by Walter Gropius in Weimar. It was founded with the idea of creating a "total" work of art in which all arts, including architecture, would eventually be brought together. The Bauhaus style later became one of the most influential currents in modern design, modernist architecture and art, design and architectural education. The Bauhaus had a profound influence upon subsequent developments in art, architecture, graphic design, interior design, industrial design and typography.

4.3.2 Environmental Strategy

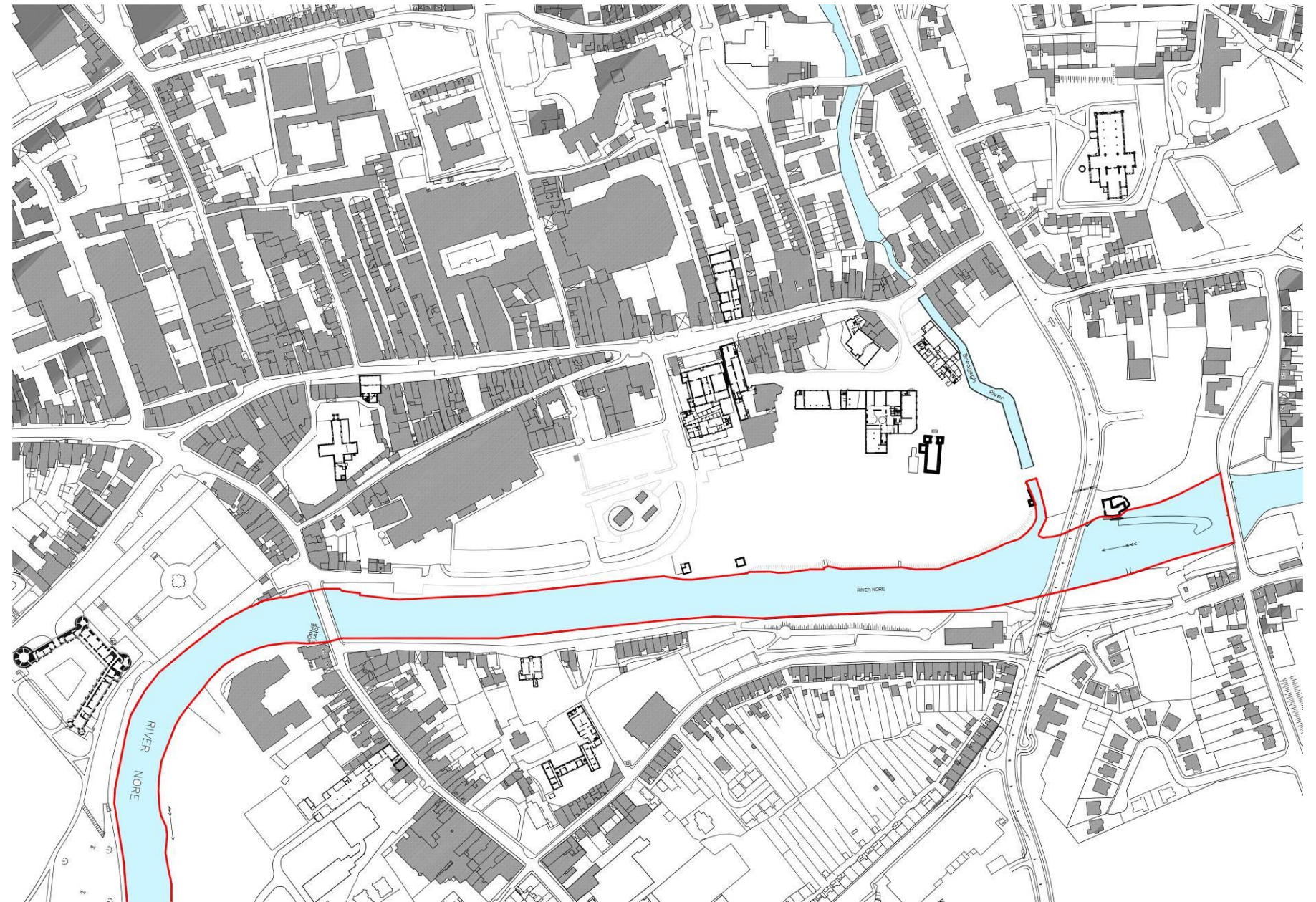
In addition to the archaeological requirements of the site, the location of the riverside park, adjoining the River Nore, and the designation of the river as a candidate Special Area of Conservation (cSAC) and Special Protection Area (SPA), will need to be considered in the preparation of the detailed design of the scheme. This will be very significant factor in the design process and it is likely to have a very significant impact on layout and facilities to be provided within the riverside park area.

Developments which may lead to adverse impacts on the River Nore will not be permitted as part of the Masterplan. Linear Park development and associated works will not be permitted within the boundaries of either Natura 2000 site, unless it is demonstrated, by means of project level Appropriate Assessment, that such development will not lead to adverse impacts on the integrity of the sites¹.

The boundary of the cSAC as indicated was provided by the National Parks and Wildlife Service (NPWS). This boundary was drawn using the OSI 6 inch mapping overlaid on the most current OSI Mapping. The intended boundary of the cSAC in the vicinity of the masterplan area is likely to correspond with the SPA boundary (drawn using the most recent mapping.)

A detailed Environmental Report has been prepared by Kilkenny County Council. This report is available in full in Appendix B.

Any contaminated soils identified during the development of existing brownfield lands shall be remediated and managed appropriately. The Southern Regional Waste Management Plan should also be taken into account as appropriate in this regard.



Map showing Natura 2000 boundary

Legend

Natura 2000 Boundary 

¹ Except as provided for in Section 6(4) of the Habitats Directive, viz.

There must be:

a) no alternative solution available,

b) imperative reasons of overriding public interest for the plan to proceed; and

c) Adequate compensatory measures in place.

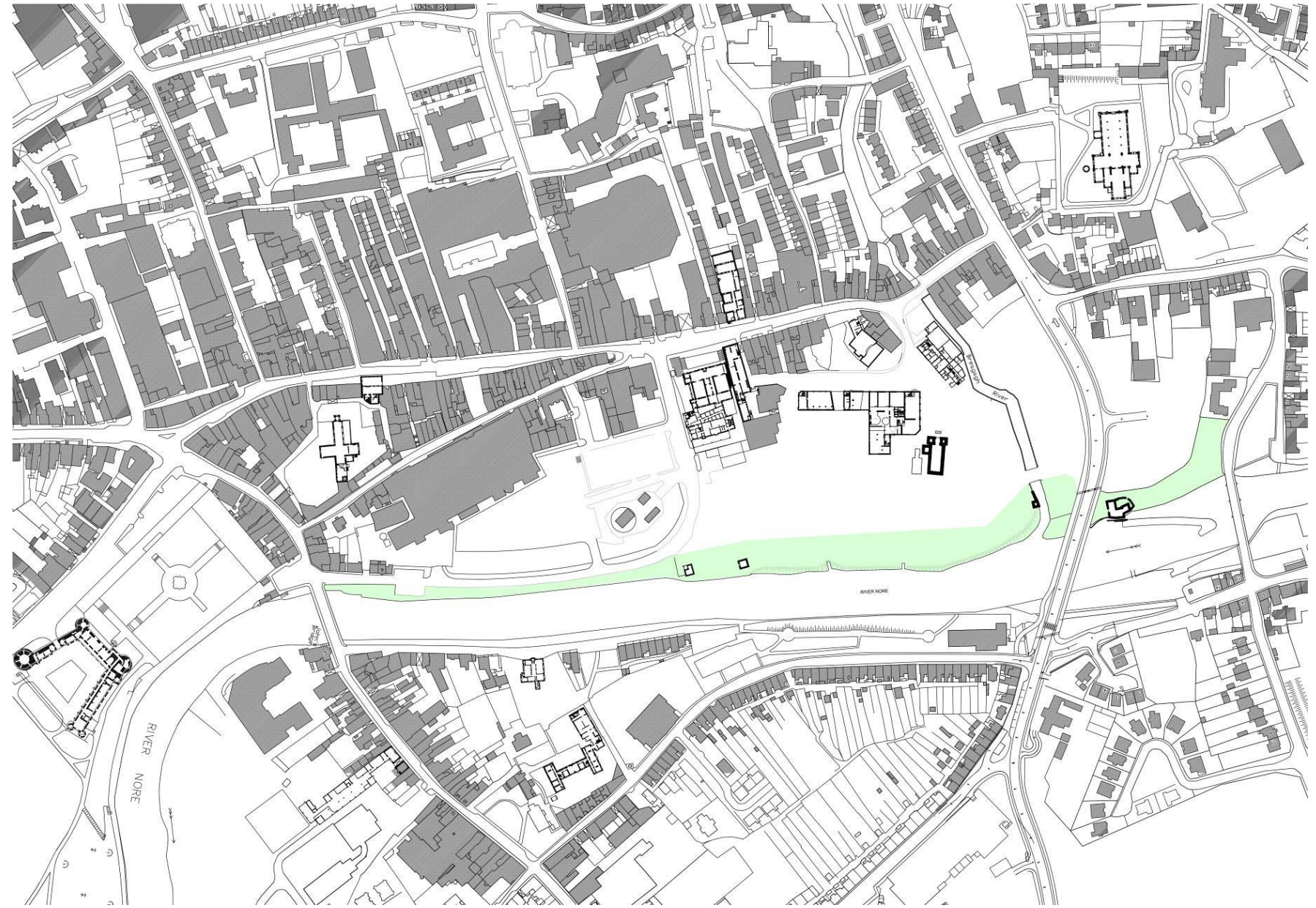
4.3.3 Linear Park Strategy

At the heart of the city lies the River Nore flowing from north to south and dividing the town into two distinct halves. The River is the predominant landscape feature in the City providing many opportunities for the enjoyment of nature in the centre of the City. Historically, and more recently, there has been emphasis placed on providing access to the river with a series of river walks on both banks of the river to the north and south of the town. The missing link is right at the centre of the city along Bateman Quay where pressure from development and, in particular, car parking has detracted from the riverside experience. The development of a new City 'River Garden' seeks to provide a redress to this missing link.

To achieve these objectives the Council ran a competition in 2014 for the design of a Linear Park and subsequently appointed Mitchell & Associates (Landscape Architects) to prepare design for the Linear Park along the River Nore within the Abbey Quarter Area.

The Council has secured funding from Failte Ireland for the development of a linear park which is to occupy the section of river bank in the centre of the City between John's Bridge and Green's Bridge and, by doing so, increase connectivity to the already established riverside walks further up and down stream. This Linear Park represents the first phase of delivery of the development principles set down in the Masterplan for Abbey Creative Quarter.

The Appropriate Assessment for the linear park shall be informed by an ecological impact assessment which shall consider issues including ecological connectivity and species such as otters and kingfishers (including potential interactions with food sources and aquatic and terrestrial habitats) and bats (including potential interactions with roosts, foraging sites and lighting). The ecologist working on the AA for the project shall be consulted at the start of the project so that any necessary mitigation or design changes can be incorporated early into the project.





Walking Trails

The Noreside walking trails include the Nore Valley Walk from the city centre to Bennettsbridge stretching South for 11km, and the Bishops Meadows Walk to the North of the city stretching north for 2.6km. These walks are both on the western bank of the River Nore. Currently there is a fracture in this trail as the Smithwick's Brewery site does not allow public access along the river bank.

In line with objective 6B of the Kilkenny City & Environs Development Plan 2014-2020 "To complete the River Nore Linear Park within the lifetime of the Plan", provision has been made in the Masterplan for the development of a riverside park along the western bank of the River Nore between Bateman Quay and Greens Bridge. This riverside park will complete the missing link in the Nore Valley Walk.

This riverside park will incorporate a meandering circulation route along the riverbank, accommodating both Pedestrians and Cyclists.

The detailed design of the riverside garden will divide the park into a number of sections, with different planting and landscape layouts, suitable to its riverside location, provided along the route. This will create interesting focal points in the garden, creating a sense of place and inviting people to further explore the garden.

The garden will be designed to reflect the former and historical uses of the site, with the layout of the site to give consideration to the location of burgage plots and historical planting such as orchards within the site. Subject to their availability, it is also intended to incorporate elements from the brewing process into the park design as features, to reflect the former use of the site as a brewery.

River Amenities

The river is at the heart of the city and the completion of the linear park through the city will help to provide a focus onto the river. The creation of the park will ensure that the river is opened up to the city, inviting people to enjoy and embrace the opportunities presented to the city by the river.

In addition to the provision of walking and cycling facilities along the river bank, access to the river for water based leisure facilities will be considered in the detailed design of the park subject to compliance with the EU Habitats and Birds Directives.

The existing boat slip to the north of the confluence with the River Breagh will be incorporated into the park design providing continued access for the Canoes, Kayaks and other boats to the river.

In addition to the protection and improvement of existing access points to the river, the design of the park will look to facilitate additional access points to the river, subject to environmental considerations. This will facilitate access to the river for other leisure uses such as swimming, which has become increasingly popular along this section of the river in recent years with the annual River Nore Swim and the holding of various national and international triathlon events in the city.

Other Amenities

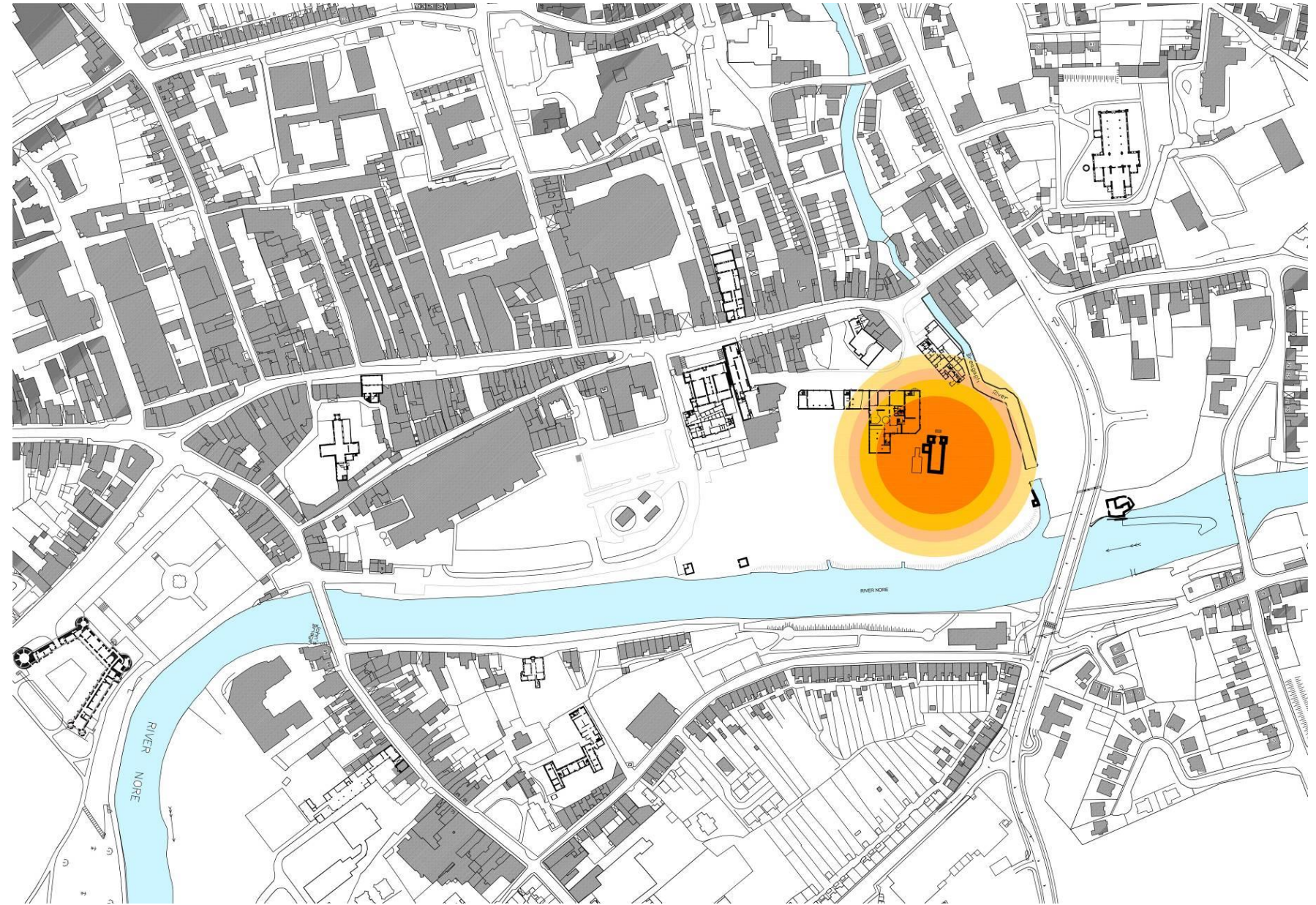
The design of the park will also provide for a skate park facility within the masterplan area.



4.3.4 Archaeological Sensitivity Mapping

The archaeological review undertaken in the preparation of this Masterplan has identified the area incorporating St. Francis' Abbey, Evans Turret, St. Francis Well and the City Walls as an area of high archaeological potential, requiring archaeological excavations. These excavations are required to answer key questions about the history and development of the site and to gather information to appropriately conserve the upstanding monuments and understand their setting and how the site developed over time. Preservation in-situ is considered the preferred option when developing and constructing within such an archaeological sensitive area.

A detailed Archaeological Strategy has been prepared by Kilkenny County Council. This report is available in full in Appendix C.



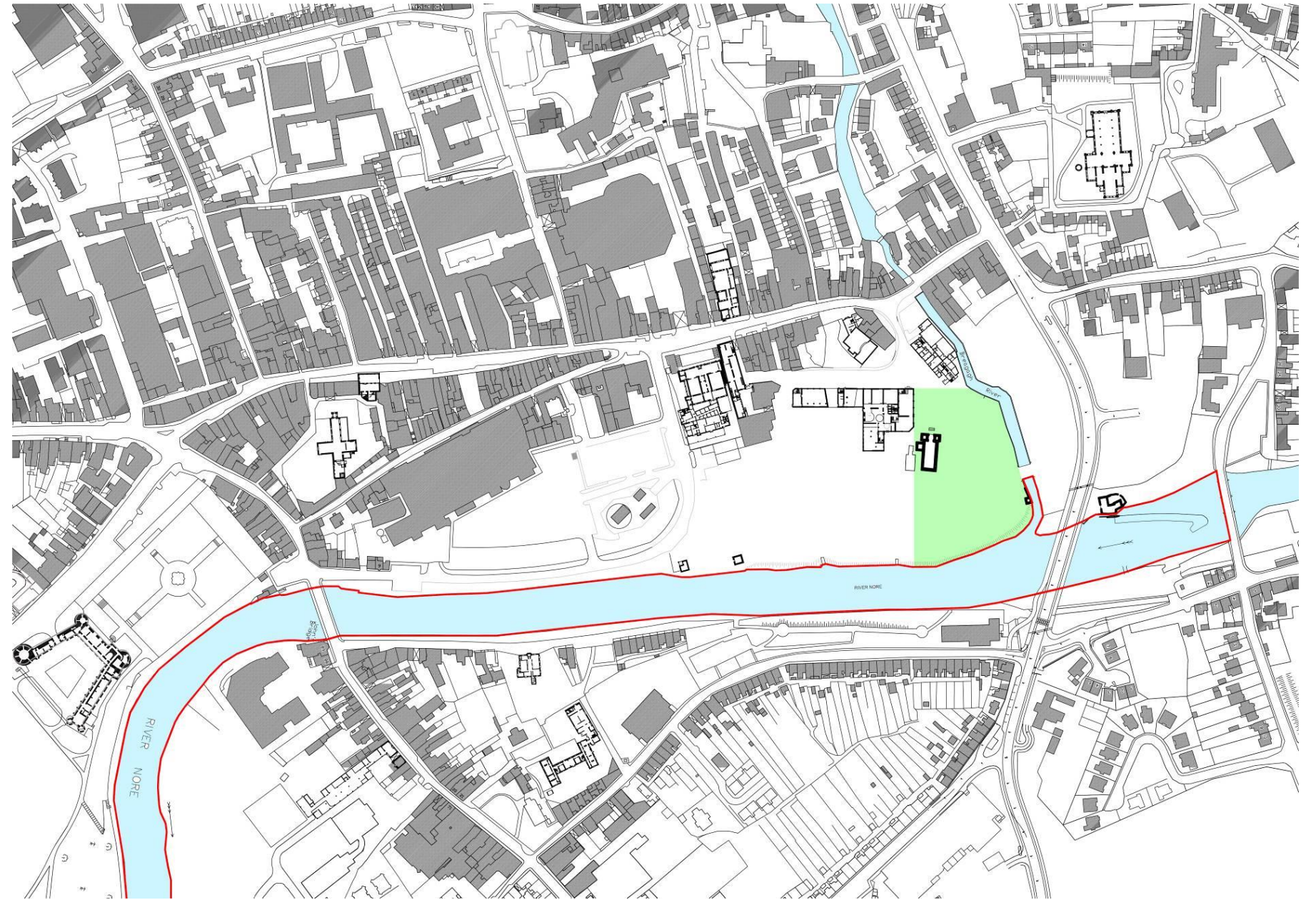
4.3.5 Public Park / Garden

The archaeological review undertaken in the preparation of this Masterplan has identified the area incorporating St. Francis Abbey, Evans Turret, St Francis' Well and the City Walls as an area of high archaeological potential. Accordingly, it is proposed to develop a park / garden in this area with St Francis' Abbey as its focus.

The design of the park area will incorporate, where possible, any archaeological remains that might be uncovered in the archaeological excavations and to represent other buried features through either soft or hard landscaping as appropriate. The detailed design and development of a park in this area will be informed by the archaeological review and excavations, with the detailed design subject to consultation and agreement with the relevant statutory bodies.

It is intended that the access to the site through this area will be developed as a civic space, with any vehicular movement through the area to be restricted through the provision of bollards in the area of the existing bridge over the River Breagagh. This will ensure that the space is dominated by pedestrians and cyclists, creating an appropriate setting for the National Monuments in the area and creating an important sense of place.

This civic area will be designed as a 'shared space' using a layout and materials that will clearly identify it as being a pedestrian focused area. The area will be designed to be suitable for hosting outdoor events such as the Kilkenny Arts Festival and other outdoor performances.



4.3.6 Public Realm Strategy

Kilkenny City & Environs Development Plan 2014-2020 and Kilkenny City Centre Local Area Plan set out a series of policies to develop the public realm within the city centre.

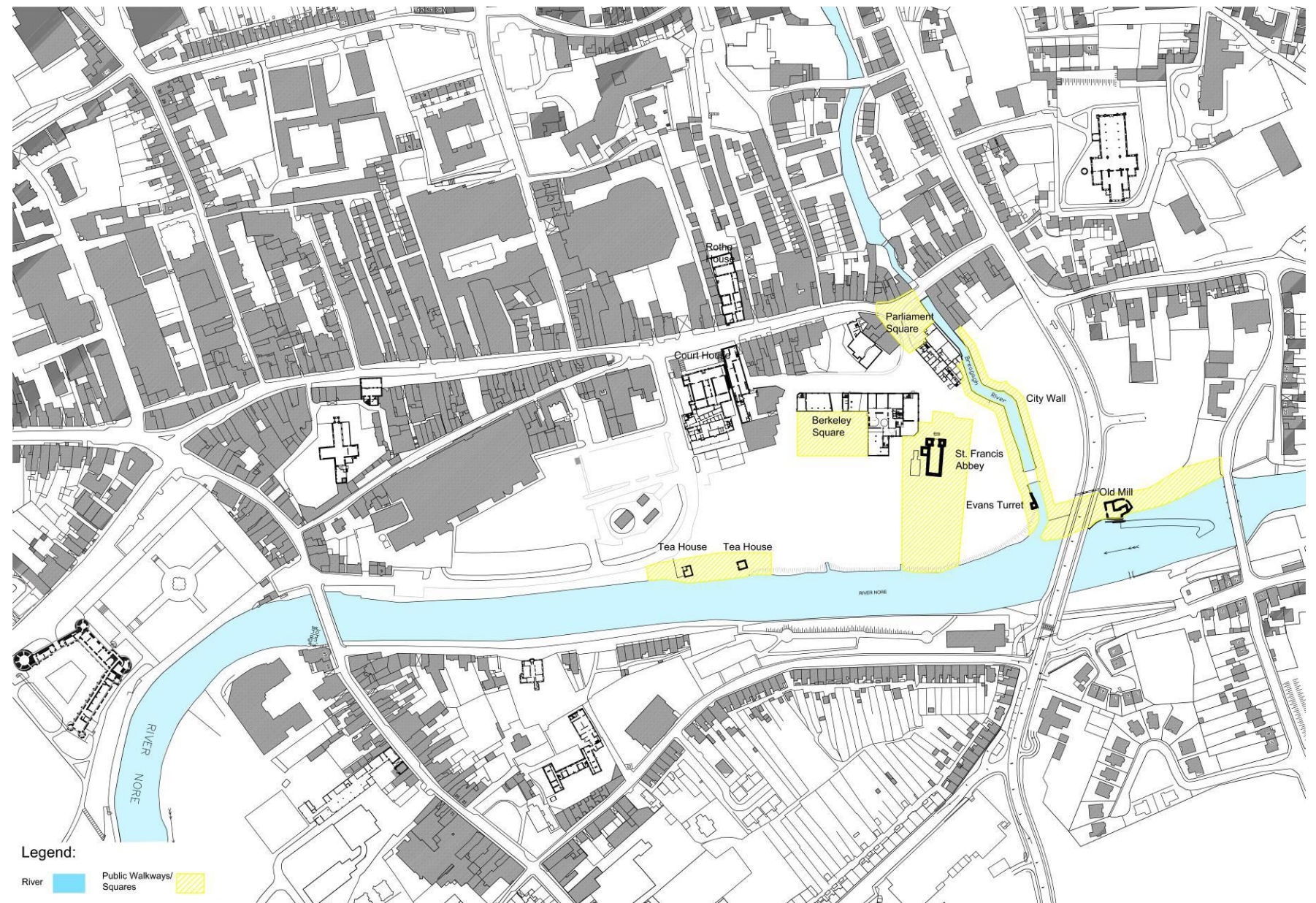
- To protect, enhance, improve, extend and where appropriate create new public/civic spaces throughout the city.
- To maintain important historic details within the civic spaces such as historic paving, cobblestones, post boxes, spur stones etc.
- To reduce the impact of traffic congestion in the historic centre by traffic calming measures, more efficient signage and pedestrianisation.
- To conserve and enhance biodiversity in new and existing civic spaces.

In response to these objectives it is proposed to create appropriate new civic spaces as new settings for the existing heritage structures on site:

- St. Francis Abbey, - New Square
- Evan's Turret, - New walkway
- Old City Wall, - New walkway
- Old Mill buildings - New Promenade / Linear Park
- Tea House. – New Promenade / Linear Park

In addition it is proposed to create appropriate new civic spaces for the buildings proposed to be retained on site:

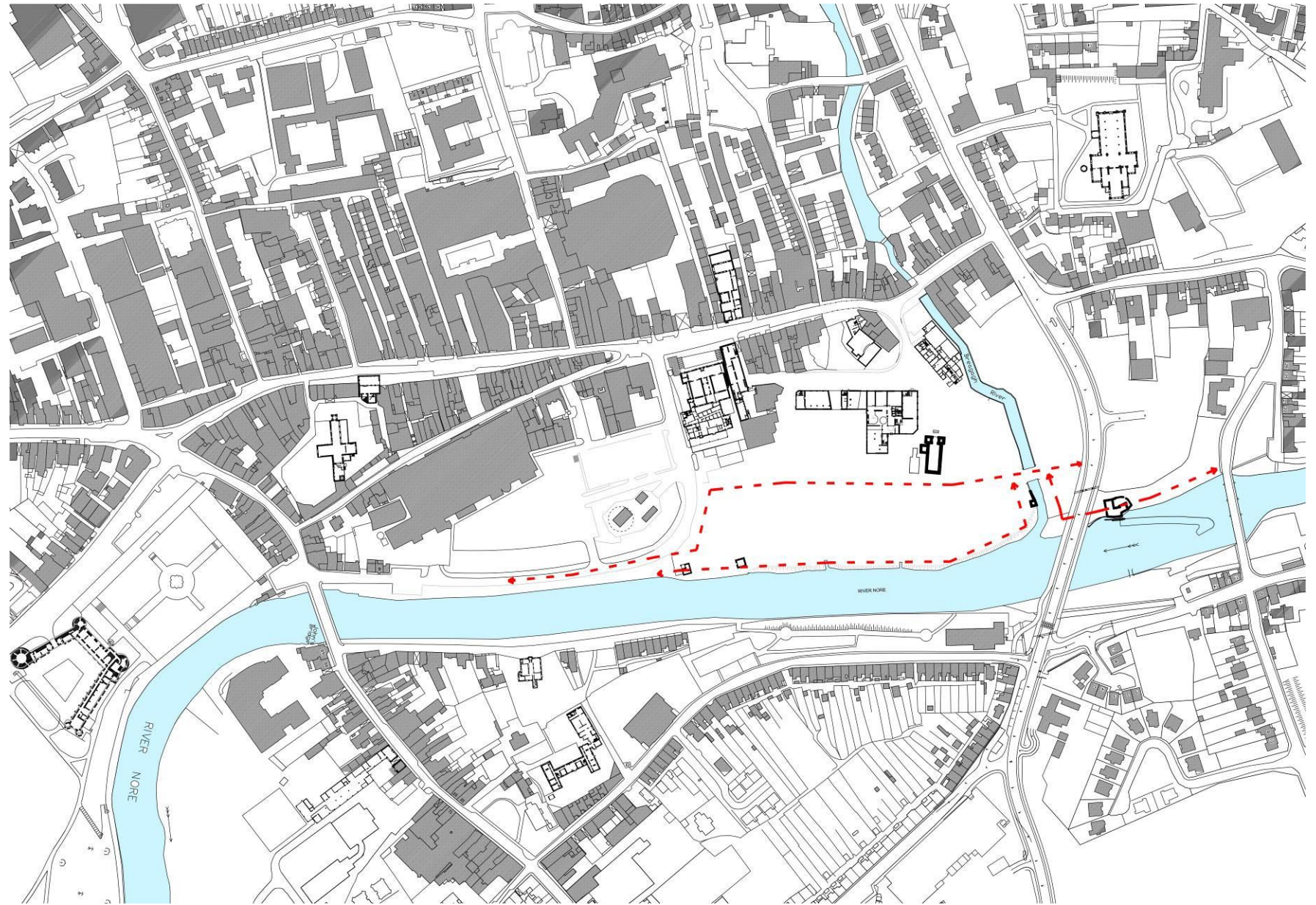
- Mayfair – New Public Square
- Brewhouse – New Square



Plan of Proposed New Public Spaces

4.3.7 Movement Strategy

- Need for a route on a north south axis through the site utilising the existing bridge over the River Bregagh in order to minimise disturbance in the area of the City Walls (a National Monument) identified.
- Within the Masterplan area, pedestrian and cyclist movements shall take precedence over vehicular traffic.
- Secure bike parking facilities will be provided at Bateman Quay, centrally adjacent to St. Francis' Abbey and to the north of the Bregagh River, adjacent to the CAS.
- Provision of a pedestrian dominant shared surface within the central section of the Masterplan area.
- Provision of a shared surface along Bateman Quay.
- Provision of a pedestrian crossing of the River Bregagh



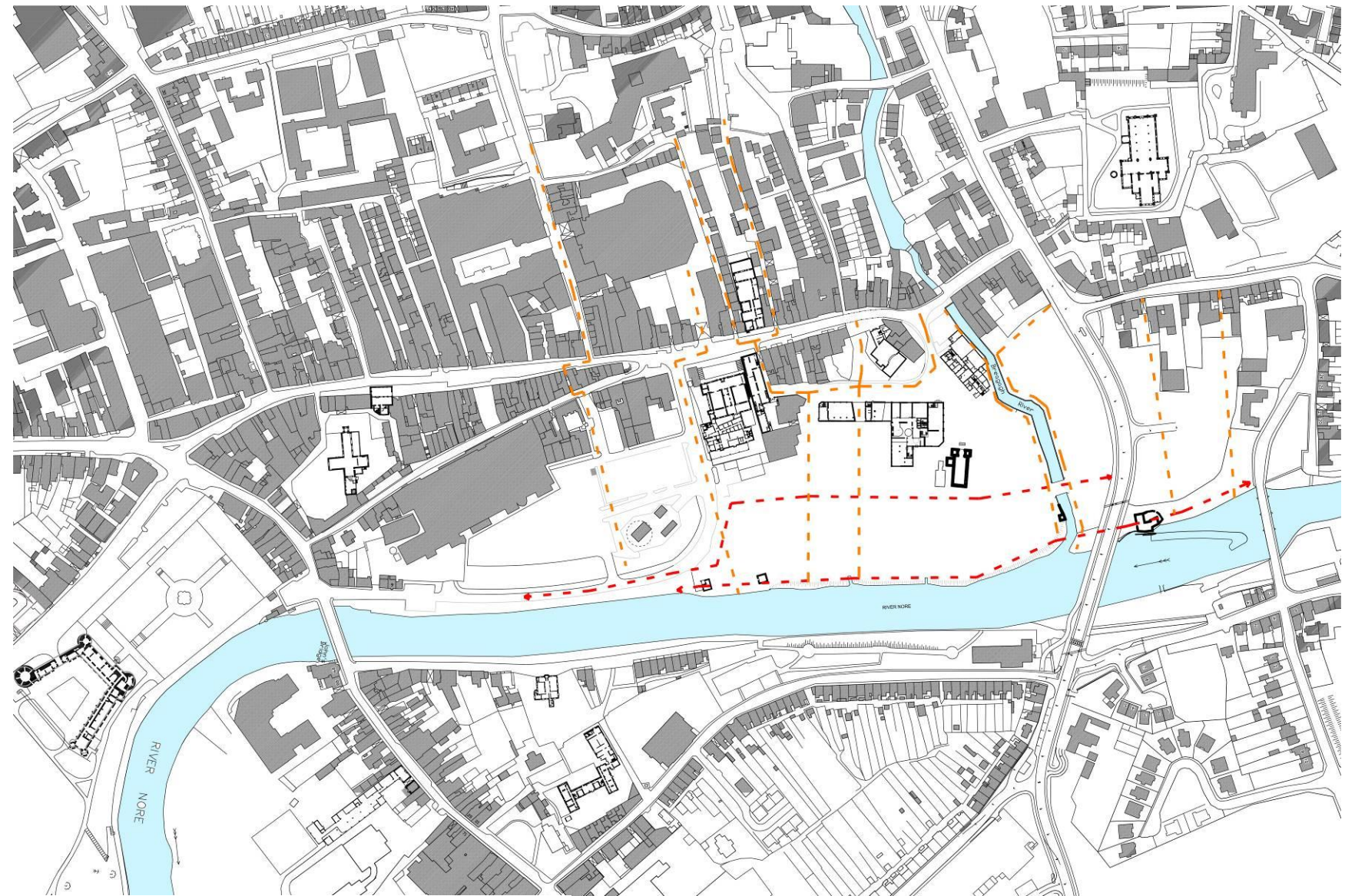
Plan of Proposed Routes

4.3.8 Pedestrian Streets / Lanes Strategy

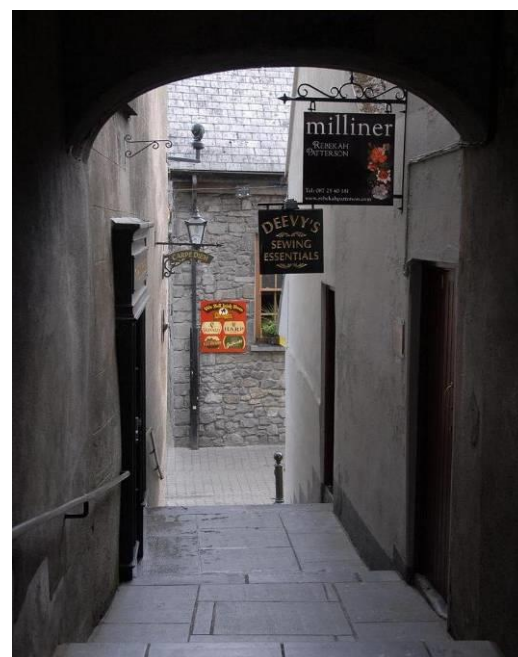
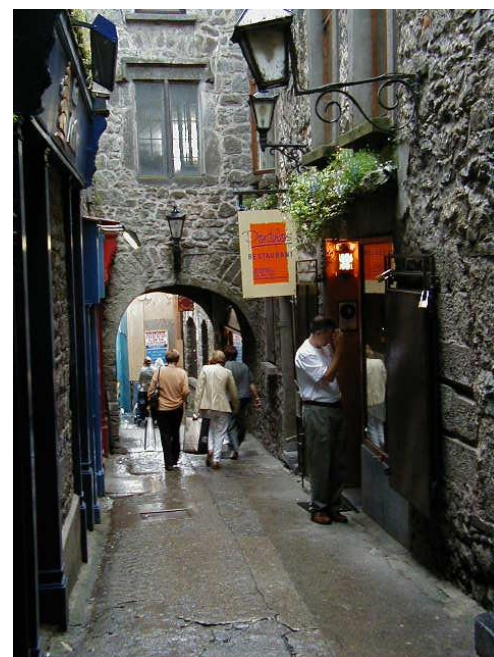
- Various movement desire lines on an east west axis linking Parliament Street to the River Nore.

In response to the Council's objectives with regard to urban grain and slipways it is proposed to:

- Create extensions of existing slipways located to the west of Parliament Street on an east west axis reminiscent of the historical burgage plot.
- Implement traffic management and calming schemes for the City as the need arises.
- Have regard to the Architectural Heritage
- Have regard to the natural heritage and ensure compliance with the requirements of the EU Habitats and Birds Directives.



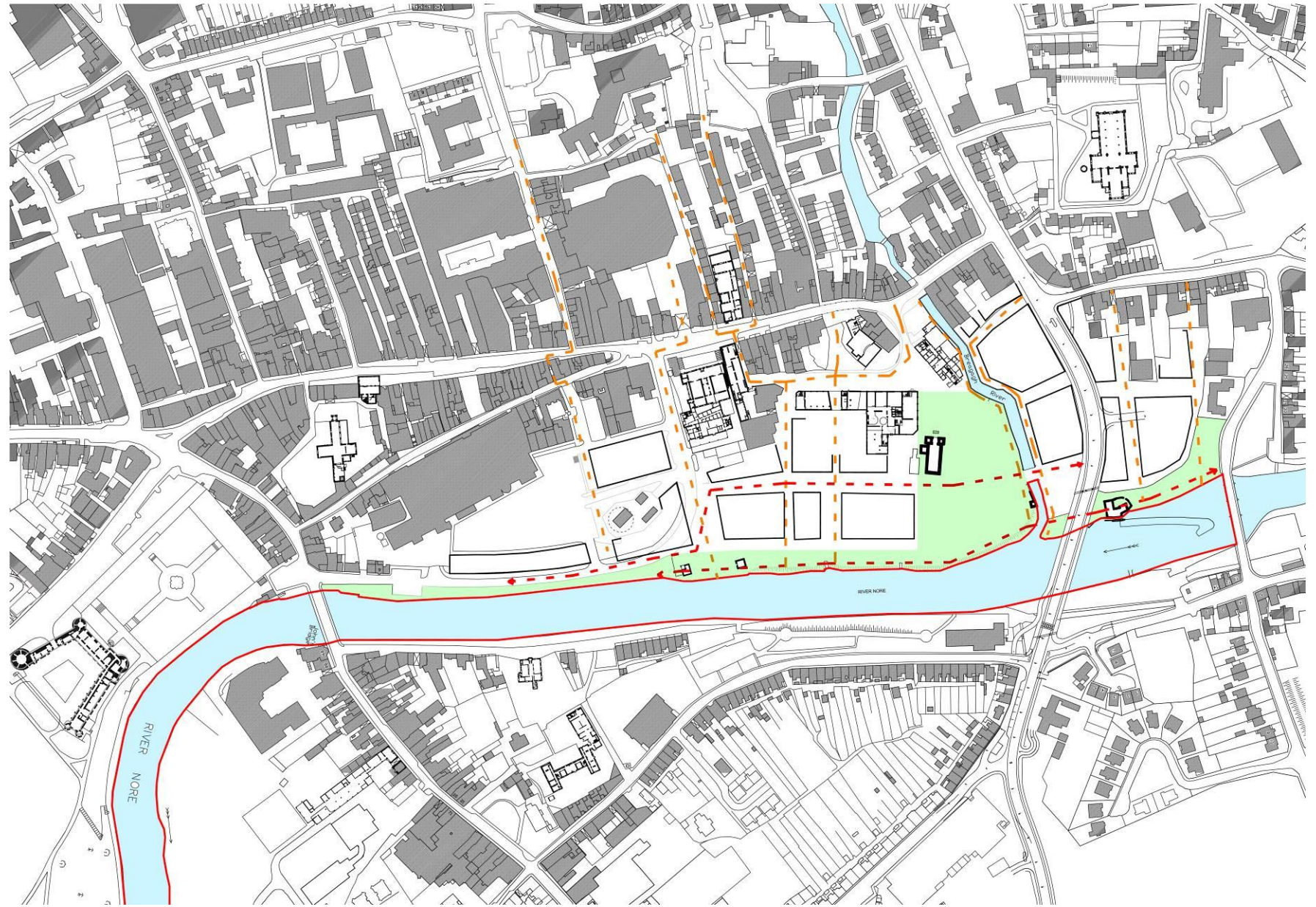
Plan of Proposed Pedestrian Streets / Lanes



4.3.9 New Building Strategy

In response to the Council's objectives to extend the existing street pattern and scale into the Masterplan Site it is proposed to:

- Provide appropriately scaled new buildings to form edges to the Linear Park and new public squares.
- Provide appropriately scaled new buildings to form streets, lanes and slipways along the proposed routes previously identified.
- Compile an Architectural Design Guide specifying the building design requirements for each plot within the Masterplan Area.

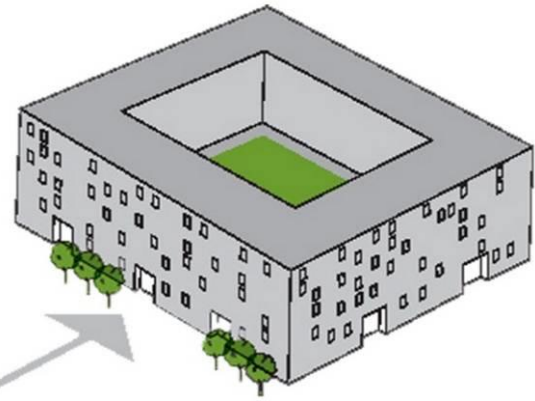


Plan of Proposed Building Edges

4.3.10 Urban Grain Strategy

In response to the Council's objectives to extend the existing street pattern and scale into the Masterplan Site it is proposed to:

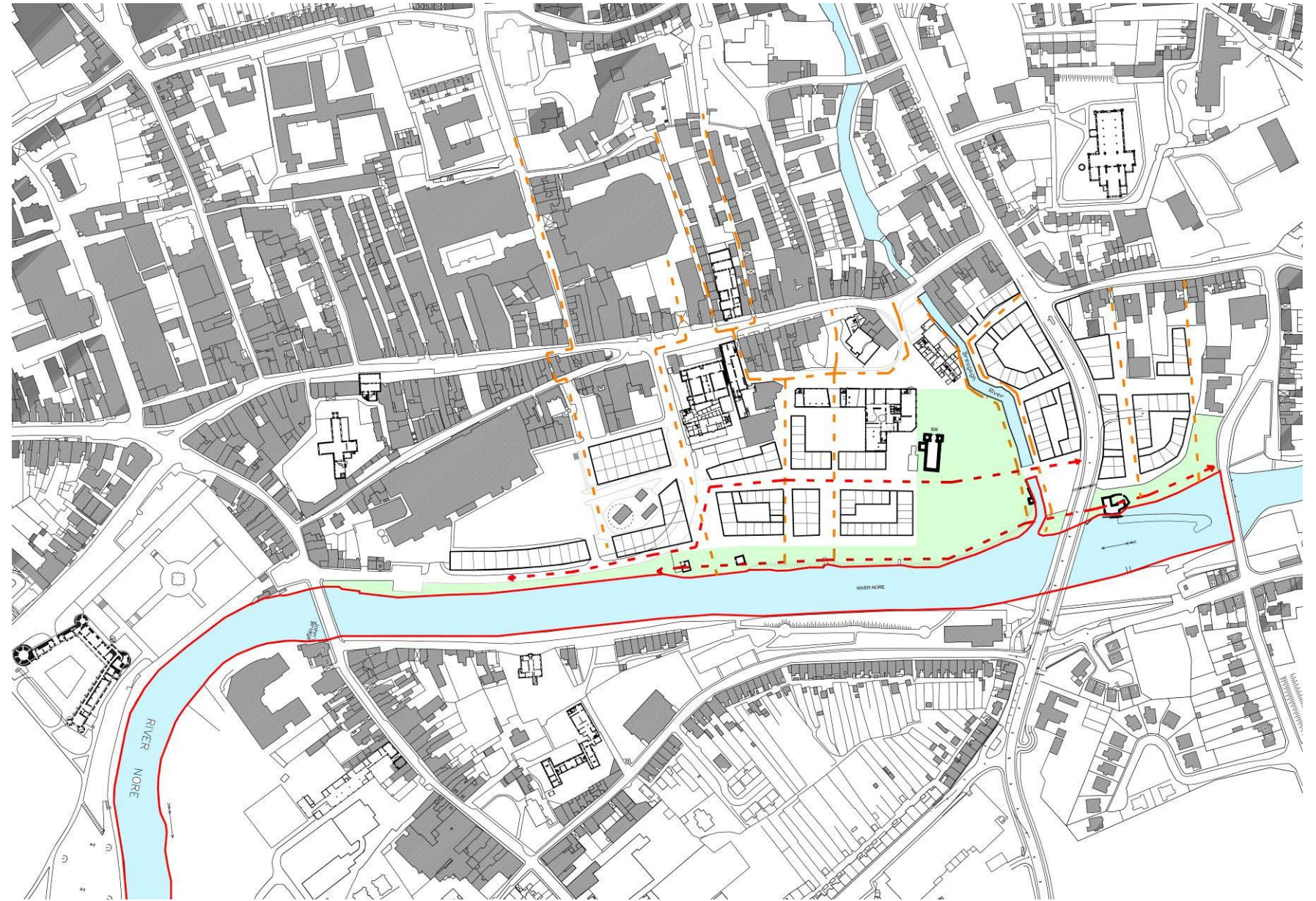
- Sub-divide the urban blocks into building units more in keeping with Kilkenny.
- Provide varied building heights and façade treatments in keeping with the architecture of Kilkenny City.



Mono block:
Hierarchy makes it difficult for residents to relate to individual dwellings.



Mixed block:
Residents have the feeling that they are living in a comprehensible social unit where it is easy to belong. Variation and architectural hierarchy create an exciting and eventful environment.

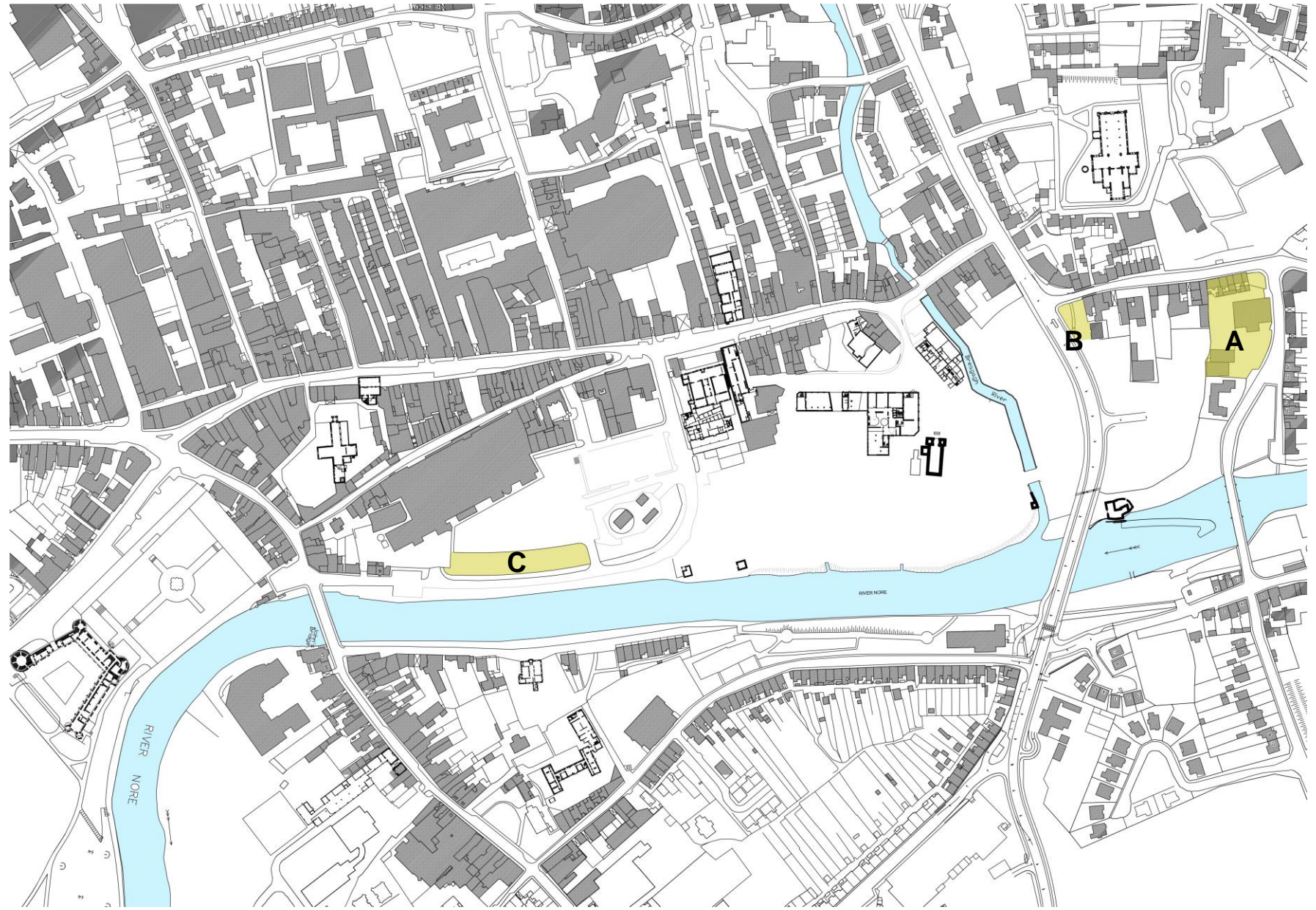


Plan of Urban Grain

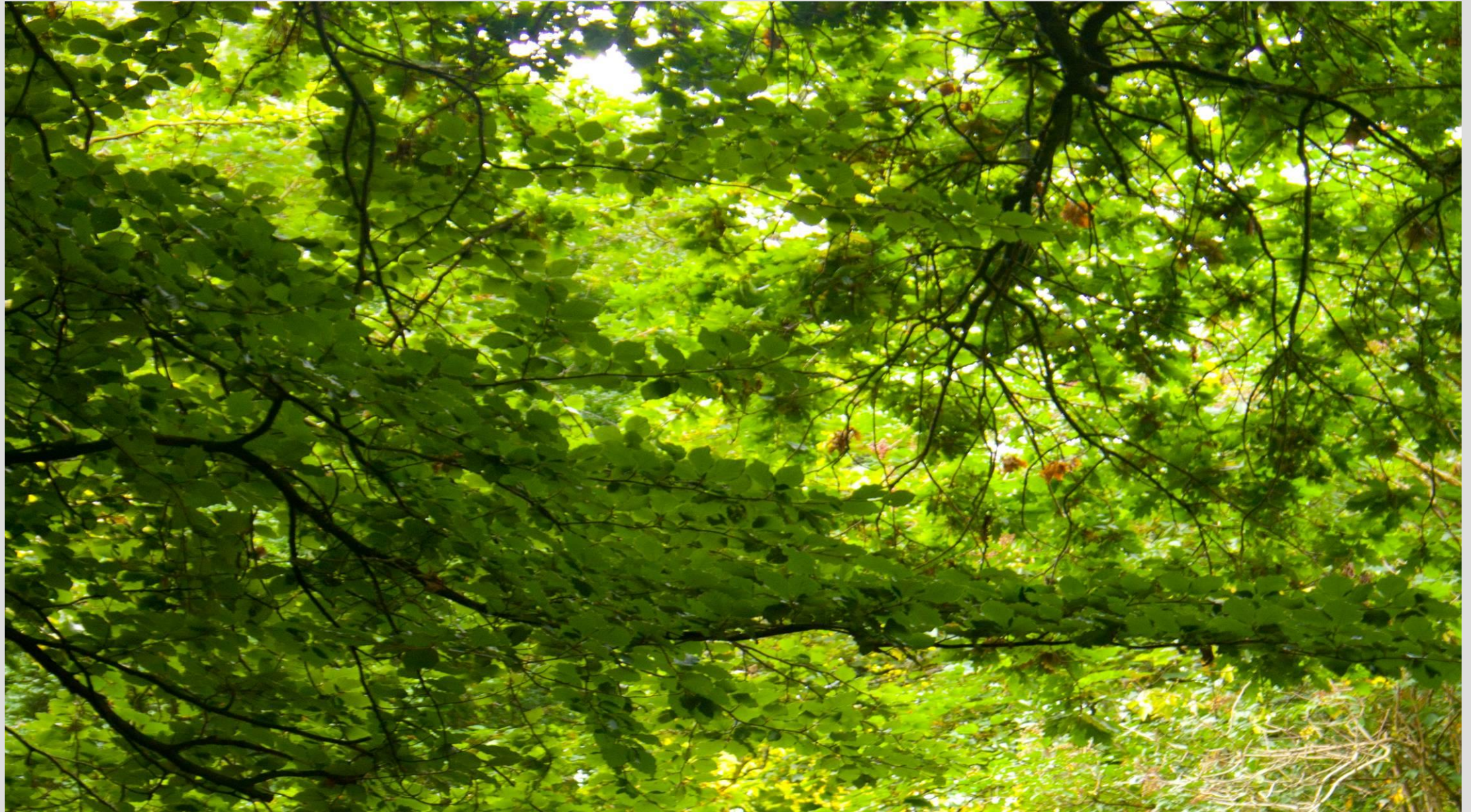
4.3.11 Further Masterplan Development

Further design development will be required to determine the most appropriate urban design response to the following;

- a) Area between the Masterplan and Vicar Street / Green Street / New Road
- b) Corner of Vicar Street and Central Access Scheme
- c) Bateman Quay



Further Masterplan Development Areas Map



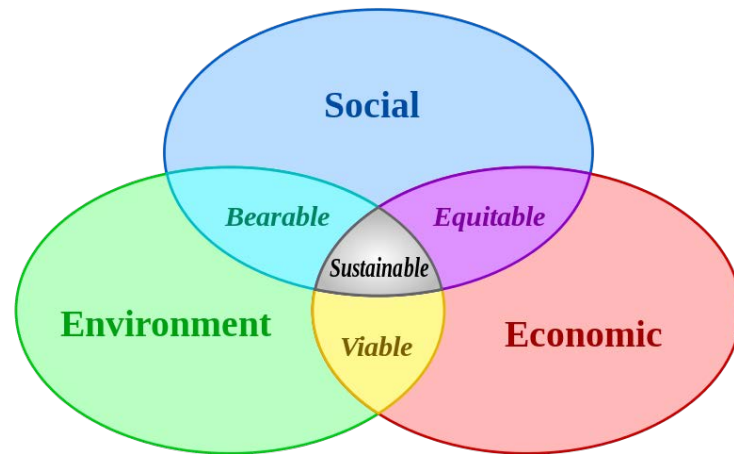
4.4

Sustainability

- 4.4.1 Sustainability Strategy
- 4.4.2 Density and Mixed Uses
- 4.4.3 Transport
- 4.4.4 Environmental Quality
- 4.4.5 Energy Strategy
- 4.4.6 Zero Brown Waste
- 4.4.7 Water Conservation
- 4.4.8 R&D Funding
- 4.4.9 Exemplar Developments

4.4.1 Sustainability Strategy

The sustainability strategy proposed will be in line with the National Sustainable Development Strategy of the Government of Ireland, The Southeast Regional Planning Guidelines 2010-2016 and the Kilkenny City & Environs Development Plan 2014-2020



Sustainability Venn Diagram: The achievement of sustainability requires a balance between economic, environmental and social concerns in equal harmony (Image Source: Wikimedia).

4.4.2 Density and Mixed Uses

This masterplan aims to expand the city centre and provide for mix of uses reducing urban sprawl and expansion in line with Section 3.2 and 3.3 of the City & Environs Development Plan. The Masterplan promotes mixed use development with close proximity of housing, jobs, services and amenities. Development should create an attractive and vibrant environment that appeals to a wide range of people.

The mix of uses should allow for synergies to be established between them. The density of the scheme should be compatible with the existing density of development in the retail core.

4.4.3 Transport

The master plan seeks to strike a balance between the need for good vehicular access whilst promoting reduced dependency on the private car and increased use of cycling, walking and public transport. The density and mixed use envisaged for the area will reinforce the idea of the compact city for Kilkenny in keeping travel distances between homes work and other services to within the ten minute city concept.

4.4.4 Environmental Quality



The masterplan seeks to develop a high quality and sustainable environment within the Abbey Quarter. This will be achieved within the energy and water management for the area.

The Appropriate Assessment for the linear park shall be informed by an ecological impact assessment which shall consider issues including ecological connectivity and species such as otters and kingfishers (including potential interactions with food sources and aquatic and terrestrial habitats) and bats (including potential interactions with roosts, foraging sites and lighting). The ecologist working on the Appropriate Assessment for the project shall be consulted at the start of the project so that any necessary mitigation or design changes can be incorporated early in the project.

4.4.5 Energy



Strategic Objectives to achieve Net Zero Energy Green Zone as an Exemplar Urban Redevelopment model.

The redevelopment of an urban brownfield site presents a unique opportunity to create an exemplar low carbon urban centre that will extend through the existing network and infrastructure. This site has the potential to provide the economic, sustainable and climate friendly stimulus towards a truly sustainable urban centre.

In the development and maturing of this site the opportunities for Research and Development in the green smart economy cannot be underestimated in terms of job creation.

In moving towards these objectives, the Local Authority will propose and implement holistic problem-solving approaches, integrating the most appropriate technologies and policy measures. This will incorporate ambitious and pioneer measures in buildings, energy networks and transport.

Section 9 of the Kilkenny City & Environs Development Plan sets out in detail the Energy Objectives for the city.

1) Net Zero Energy / Carbon Neutral Site

a) Passivhaus Standards for all New and Old Buildings on Site ranging as low as 15kWh/m² for all buildings. (reference La Confluence Site – Paris) – Each building owner contracted at the time of site purchase or lease will be required to achieve Passive standard as an absolute requirement in construction.

i) New buildings with net zero energy requirements or net zero carbon emissions when averaged over the year by 2018, thus anticipating the requirements of the recast Directive on the energy performance of buildings (EPBD). This requirement could be anticipated (e.g. 2012) for all new buildings of the local public authority (city).

ii) Refurbishment of the existing buildings to bring them to the lowest possible energy consumption levels (e.g. passive house standard or level of efficiency that is justified by age, technology, architectural constraints) maintaining or increase thermal performances and comfort. This would include innovative / natural insulation material (solid insulation, vacuum insulation, vacuum windows, cool roofs, living roof space etc.)

b) Integrate renewable heat and electricity generation and export potential in site development with site becoming a net exporter of heat and electricity.

2) Energy Strategy

An energy strategy will be developed for the Masterplan area. This strategy will consider the following principles:

a) Demand Side Management:

- i) Smart grids, allowing renewable generation, electric vehicles charging, storage, demand response and grid balancing / stabilisation on site.
- ii) Smart metering and energy management systems domestically and commercially.
- iii) Smart appliances/services (ICT, domestic appliances), lighting (in particular low energy solid state lighting for street and indoor), equipment (e.g. motor systems, water systems/waste pumping systems designed to Triple-E standards etc.)

b) Heat & Cooling Supply

- i) District Heating network powered by innovative and cost effective biomass, solar thermal and heat pump applications – allowing for the uptake of the Renewable Heat Incentive tariffs programmed in DCENR for 2017 and beyond.
- ii) Innovative hybrid heating and cooling systems with advanced distributed heat storage technologies.
- iii) Highly efficient co- or tri-generation centralised CHP utilising renewables where feasible (Biomass, BioGas, Solar Thermal)

iv) Install district heating Network that delivers connection point to each serviced site location Heat pumps from

- (a) River
- (b) Sewerage System

v) Ground Source Install solar thermal roof panels to allow individual building owners to export excess hot water to the DH network.

vi) Install other communal facilities planned in the buildings to include capturing heat from warm grey-water to pre-heat hot-water tanks. Greywater is collected from showers, washing machines and washbasins; and then, once biologically treated and cooled, it can then be used for watering.

c) Electrical Energy Supply

- i) Positive site generation – foster local Renewable Energy Supply (RES) and trading and envision the site as a future Net Exporter to Other Areas of Urban Space
- ii) Hydro power for Renewable Electricity from River

Nore.

- iii) Install smart grid network in utility service delivery package to allow buildings to export excess Photovoltaic Solar energy into network generated from Rood top/Brie-soleil's solar generators.
- iv) Lead to potential to expand energy supply network to the older developed areas of the city along existing service network routes.

4.4.6 Zero Brown Waste Site

- a) All brown bin waste will be recovered
- b) Rainwater recovery.
- c) Brown Water reuse for non- potable uses.

4.4.7 Water Conservation

The specifications for buildings should encourage architects to prefer methods that save drinking water; and encourage the public- and greenspace designers to address the water-management issue at a very early stage. In this district, saving water should be approached holistically, both inside and outside of buildings.

The public spaces that feature vegetation will be designed to be water-frugal and able to incorporate rainwater-harvesting systems. The aim will be to limit watering by selecting appropriate tree and plant varieties; and to supply them with water from rainwater stocks. And also to limit the flood risk by avoiding too much impermeable ground.

Excess rainwater will be conveyed via channels and released into the River Nore. These channels restore rainwater to the natural environment while limiting pollution, as slow natural filtration takes place en route.

Details of this proposal will need to consider the potential for adverse effects on the ecology of the River Barrow and Nore cSAC and the River Nore SPA as required under Article 6 of the EU Habitats Directive.

4.4.8 R&D Funding and EIB Funding Opportunities

Options for the funding of the research and development of the energy strategy for the masterplan area will need to be identified and considered.

4.4.9 Exemplar Urban Developments:

The following is a bibliography of examples of similar type European developments:

- http://www.wbarchitectures.be/en/architects/MDW_ARCHITECTURE/Savonnerie_Heymans/454/ which is in the middle of the old centre and it was previously a soap factory
- <http://www.lyon-confluence.fr/en/index.html> which is in the middle of the centre of Lyon- in the past, you were able to find the jail and wholesale markets.
- <http://www.archdaily.com/164519/chevalnoir-housing-with-artists-studios-lescaut-ateliergigogne/> which was previously the Hallemans breweries
- <http://www.molenbeek.be/fr/la-vie-amolenbeek/espace-public/contrats-de-quartiers> (in French or NL) in Brussels – there are working neighbourhood / neighbourhood – phase 3
- [www.molenbeek.be/fr/la-vie-a-molenbeek/espacepublic/contrats-de-quartiers/fichiers/066CQLEO_dossier PH3_FRopt.pdf](http://www.molenbeek.be/fr/la-vie-a-molenbeek/espacepublic/contrats-de-quartiers/fichiers/066CQLEO_dossier_PH3_FRopt.pdf) and phase 1 & 2 :
- www.molenbeek.be/fr/la-vie-a-molenbeek/espacepublic/contrats-de-quartiers/fichiers/CQLEO_dossierphase12_FR.pdf
- Hammerby Sjostad – Stockholm
www.hammarbysjostad.se
- Wels – Austria
- Vaxjo – South East
- Tralee – Ireland

