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Kilkenny County Council ST. KIERAN'S STREET & MARKET SQUARE URBAN ENHANCEMENT SCHEME PRELIMINARY DESIGN REPORT



ST. KIERAN'S STREET & MARKET SQUARE URBAN ENHANCEMENT SCHEME

PRELIMINARY DESIGN REPORT

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Galway Office Fairgreen House, Fairgreen Road, Galway, H91 AXK8, Ireland. Tel: +353 (0)91 565 211	Dublin Office Block 10-4, Blanchardstown Corporate Park, Dublin 15, D15 X98N, Ireland. Tel: +353 (0)1 803 0406	Castlebar Office Market Square, Castlebar, Mayo, F23 Y427, Ireland. Tel: +353 (0)94 902 1401
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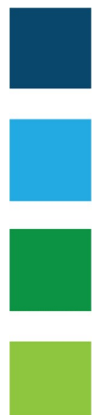


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1.0 BACKGROUND

In September 2021, Kilkenny County Council appointed TOBIN Consulting Engineers to lead a team for the detailed design and construction of the St. Kieran's Street and Market Square Enhancement Scheme. The street was pedestrianised over a decade ago, being car free throughout most of the day and a one-way street for the remainder of the day. This change resulted in significant growth in the restaurant and café industry.

St. Kieran's Street forms part of the medieval core of the city being located within the extents of the city walls. The extent of the project lies within the ACA (Architectural Conservation Area). St. Kieran's Street has changed name several times over the centuries but retains much of its character and is a favourite destination and thoroughfare for visitors and locals alike. The distinctive character of the links with High Street - namely St. Mary's Lane, Butter Slip and Market Slip greatly add to St. Kieran's St. from a practical and experiential point of view. Due to the growth of the restaurant and café industry and the facilitation of outdoor dining during the Covid-19 pandemic, the street has seen many establishments set up outdoor furniture. This private outdoor furniture is disorganised, not uniform and encroaches onto the carriageway. The current layout has become a hazard to pedestrians and is also obstructive to emergency vehicles. Over time the paving on St. Kieran's Street has seen settlement in some locations, creating trip hazards and rendering it unsafe to pedestrians.

The southern end of St. Kieran's Street has not seen the same growth and is currently showing a clear disconnect from the bustling northern end. Derelict buildings and overhead cables dominate the space. The proposed works would include renewing this urban space and maximising its potential, in turn attracting people and business to the area.

The existing Market Square is a small square located towards the northern end of St. Kieran's Street. The square is bounded by St. Kieran's Street and Market Yard Car Park and provides a small refuge for people to sit and relax. Under covid response measures, part of the Market Yard Car Park adjacent to Market Square was temporarily converted into an outdoor dining area and it is now proposed to incorporate this area into the Market Square as a permanent feature. The Market Yard car park was historically a market which sold fish, butter, wool and corn. This area has since lost its sense of place and meaning and is now a car park occupied by vehicles all day. The expansion of the Square into this area of the car park would radically transform the place, reimagining the space as it once was.

The aim of the project is to permanently enhance St. Kieran's Street and an enlarged Market Square with a cyclist and pedestrian focus. The scheme should create a high-quality public realm which has limited vehicular use and is safe for all users. The enhancement of St. Kieran's Street will give the southern end of the street a new sense of purpose, connectivity, and pedestrian flow.

1.1 SITE DESCRIPTION

The site is in the medieval core of Kilkenny City, in the province of Leinster, southeast of Ireland. The Market Yard car park can be found on the western side of the River Nore, north of Kilkenny Castle, as shown in Figures 1 and 2 below.

St. Kieran's Street can be found to the west of the Market Yard and can be accessed from Rose Inn Street to the south, and High Street to the north. There are access points via laneways on the western side of the street.

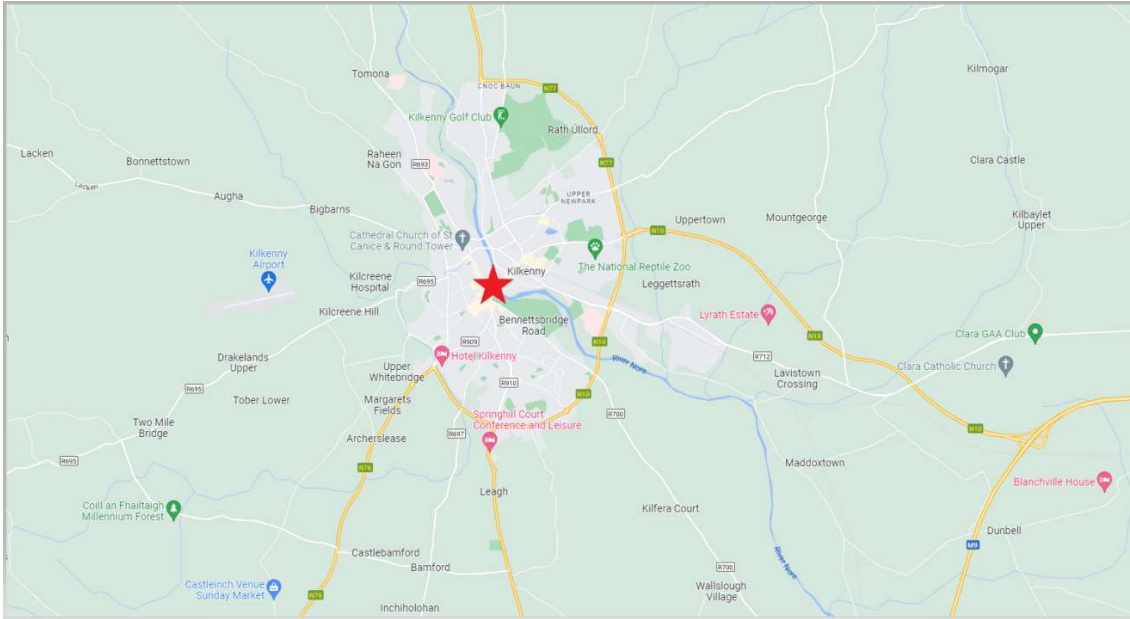


Figure 1 – Project Location

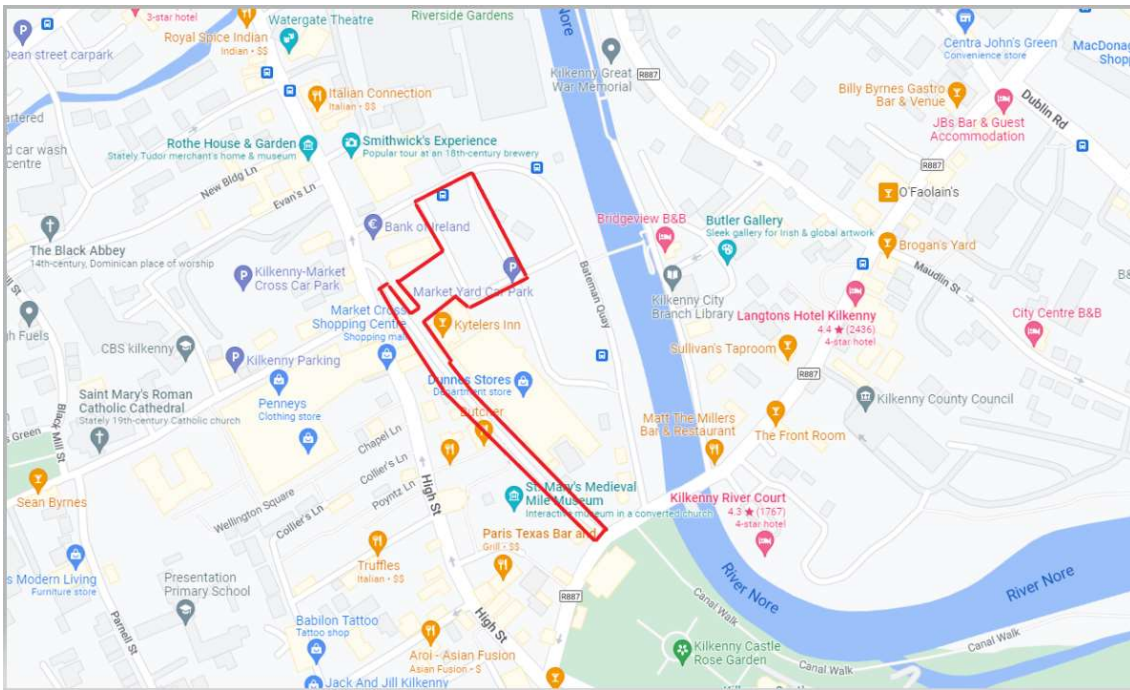


Figure 2– Site Location

1.2 SCOPE OF WORKS

The proposed development consists of public realm upgrades to St. Kieran's Street and Market Yard which include the following:

- New street furniture e.g. seating, cycle racks, etc.

- Urban Landscaping
- Public Sheltered Areas to facilitate outdoor dining i.e. parasols
- Outdoor Performance Area
- New Lighting
- New Pavements
- Reconfigured parking
- Drainage
- Utilities

1.3 PROJECT TEAM

The following consultants form the project team:

- TOBIN Consulting Engineers - PSDP, Civil Engineering, Quantity Surveying, Geotechnical and Structural Engineering
- Digby Brady - Landscape and Urban Design
- RMCE - Public Lighting
- Moore Group - Archaeology

2.0 DESIGN STRATEGY

2.1 PROJECT BRIEF

2.1.1 St. Kieran's Street Brief

St. Kieran's Street shall be developed as a high-quality public realm area, incorporating a high standard of hard and soft landscaping. The project shall take account of the existing uses of St. Kieran's Street while providing for future potential uses.

It is intended that St. Kieran's Street will be a pedestrian and cyclist dominated space, with limited vehicular access, primarily access for deliveries, bin lorry, and emergency vehicles. St. Kieran's Street is to be developed primarily as a shared surface with no vertical segregation of surfaces to be used by pedestrians and cyclists. The paved surface has deteriorated and should be replaced to reduce hazards to pedestrians. There has been a gradual accumulation of bollards, railings, signage, and other street furniture over the years. It would be beneficial to declutter the streetscape as much as possible from a visual and practical point of view.

The positive response to outdoor dining has resulted in restaurants vying for outdoor space on the street. This can sometimes lead to congestion of the pedestrian traffic between these seating areas. Outdoor dining is an important aspect in creating an ambiance in these areas and shall be maintained and enhanced where feasible. Due consideration must be given to public safety, including, but not limited to the access of emergency vehicles. It would be beneficial for traders to have an enhanced level of clarity as to the maximum extents of outdoor dining to allow adequate space for circulation. In addition to this private outdoor dining consideration should be given to the provision of public seating, particularly on the wider sections of St. Kieran's Street.

Shelter is generally provided by businesses in the form of awnings and windbreakers. However, there is an increasing demand for the provision of public sheltered areas so consideration shall be given to this where feasible.

The existing St. Kieran's Street consists entirely of hard landscaping. Whereas most of the street will have to remain as hard landscaping to accommodate pedestrians, cyclists, and low levels of traffic, it is hoped that some soft landscaping features such as trees or raised beds may be considered particularly on the wider areas of the street.

The core hours of operation of pedestrianisation on St. Kieran's Street are 10.30am to 6.00pm daily. These hours were extended as part of the Council's response to covid so that the current hours of operation are 10.30am to 9.00pm daily. The pedestrianisation is implemented by the erection of removable bollards at the High Street (northern) end of St. Kieran's Street. Local businesses have been facilitated with keys to allow access to St. Kieran's Street between the hours of 6.00pm to 9.00pm, although this is not being enforced and they are likely using the street at other times. There is a desire that St. Kieran's Street should be pedestrianised full time with only vehicles requiring access for deliveries, refuse collection, maintenance, and emergencies being facilitated. A new system of operation shall be considered that better meets these requirements.

St Kieran's Street already has high quality heritage style lighting which is mounted on building facades. Further lighting in the form of feature lighting should also be considered that may give the area a greater sense of place in the evening and enhance the night time economy.



Figure 3 – St. Kieran's Street (Northern end)



Figure 4 – St. Kieran's Street (Southern End)

2.1.2 Market Square Brief

The existing Market Square is a small public space measuring 13 metres by 11 metres with an approximate area of 140 square metres. This area incorporates some tree planting and outdoor seating and is bounded by buildings on 2 sides. In the summer of 2020 part of the adjacent Market Yard Car Park was converted to an outdoor dining area as part of the Council's response to Covid. Over twenty parking spaces were removed to accommodate the provision of twenty socially distanced hexagonal picnic tables with umbrellas. This scheme has proved so successful that it is now proposed to incorporate this area into the existing Market Square to provide an enhanced public space in the heart of Kilkenny's medieval core. The combined area of the Market Square and section of Market Yard Car Park to be incorporated into the square will be approximately 1,000 square metres.

The enhanced Market Square shall be developed as a high-quality public realm area, incorporating a high standard of hard and soft landscaping. It is intended Market Square will be a pedestrian and cyclist dominated space, with limited vehicular access. Market Square is to be developed primarily as a shared surface with no vertical segregation of surfaces to be used by pedestrians and cyclists.

Provision of seating for outdoor dining is an important aspect of this scheme. It is envisaged that some of the businesses that currently bound this area may in time convert to hospitality and consideration shall be given as to how they may be accommodated with licences for their own outdoor seating. Consideration should be given to the provision of public seating throughout the scheme.

There is an increasing demand for the provision of public sheltered areas so consideration shall be given to this where feasible. In particular it is envisaged that a large part of the enhanced Market Square would be covered by some form of shelter.

The Market Square has some existing soft landscaping in the form of trees and a small raised flower bed. Temporary planting in the form of planter boxes has been provided in the temporary seating area of Market Yard. Soft landscaping should be considered throughout this area in the form of trees and raised beds to provide a visual buffer between the new square and the adjacent car park.

The existing public lighting provision in the Market Square/Market Yard is insufficient to cover the area to the standard required. Consideration shall be given to new or enhanced public lighting so that the area can be safely used throughout the evening and night time. Further lighting in the form of feature lighting should also be considered that may give the area a greater sense of place in the evening and enhance the night time economy.

The temporary seating area at Market Yard was facilitated by the removal of 20+ parking spaces. Some of this space has been reserved free from seating to facilitate deliveries to adjacent businesses. This scheme will see the removal of this facility so that all of the space will only be accessible to pedestrians and cyclists. In order to compensate for the loss of parking and loading facilities, a re-design of the remaining car park shall be undertaken to provide alternative loading facilities and to maximise parking. There are a number of ways that this may be achieved such as relocating of the taxi rank, a relocation of the pay station (which requires upgrading) and a reconfiguration of access arrangements.

The Market Square in particular is likely to become part of a busy walking and cycling route connecting the city centre and the eastern side of the city. Consideration shall be given to the provision of bicycle parking within or directly adjacent the scheme.

Kilkenny City is known for its many festivals and events. Consideration shall be given to how the Market Square area may be used as an outdoor entertainment area during such festivals and events or for general entertainment. The provision of outdoor power points shall be considered to facilitate any such events.



Figure 5 – Market Yard car park



Figure 6 – Market Square

2.1.3 Market Yard Car Park

The car park adjacent to the Square and north of the main Market Yard car park is currently inefficient in its operation. There are two entrances to the car park and traffic flow is currently

two-way internally. The configuration of the entrance and barrier on the eastern side of the car park creates a backlog of traffic onto Bateman Quay.

There is little or no pedestrian refuge islands or safe pedestrian links to the Market Square or the River Nore's amenities. A redesign of this parking area will maximise its potential by creating additional parking spaces, introducing loading bays (time restricted) and taxi bays and improving overall connectivity to the retail core of the scheme. The current taxi bays are quite a distance away from the retail area with no clearly defined pedestrian linkage.



Figure 7 - Market Yard Car Park

2.2 DESIGN RATIONALE

2.2.1 St. Kieran's Street Design

St. Kieran's Street forms part of the medieval core of the city being located within the extents of the city walls. It has changed name several times over the centuries but retains much of its character and is a favourite destination and thoroughfare for visitors and locals alike. The distinctive character of the links with High Street - namely St. Mary's Lane, Butter Slip and Market Slip greatly add to St. Kieran's Street from a practical and experiential point of view. The enhancement of Market Square and improved links with, for example, the Abbey Quarter will no doubt lead to even greater pedestrian and cyclist flows through St. Kieran's Street.

The proposed design seeks to maximise the available space and be accessible to all, with principles of Universal Design to the fore. It is proposed to declutter the streetscape of superfluous railings etc., that are unattractive and limit usability of the space.

The paving concept for the street includes a central "carriageway" of wheel tracks with silver paving between them and grey paving to both sides. The intention is to create an attractive and practical pattern that flows through the street, delineating the central thoroughfare from the sides. This easily legible contrast in colours and materials will ensure the various uses of the

street can be accommodated in a rationalised, safe, and sustainable way. The "carriageway" has been checked with autotracking software to ensure delivery vehicles and especially emergency vehicles are easily able to access the street as required. Dark bands of paving run from the doorways of the individual units to meet the wheel tracks, breaking up the stretches of grey paving to the sides and reflecting the rhythm and scale of the buildings themselves. The paving pattern is intended to be legible to the visually impaired, whether or not the outdoor dining zones are in active use.

While the Northern end of the street is often bustling, the Southern (Rose Inn Street) end is comparatively quiet. The intention is to encourage greater numbers of pedestrians to use the Southern end of the street through the provision of public seating and street trees.

In addition, a new public space is proposed where St. Kieran's Street widens at the bottom of St. Mary's Lane and Butter Slip. This area is currently underutilised, and it presents an opportunity to enhance the public realm at the intersection of a number of thoroughfares. It is envisioned as a unique public space in its own right with seating, shelter and distinctive planting. Its location is well suited to draw people down from Market Square and up from Rose Inn Street. This should in turn not only create a new urban space but also enliven the Southern end of St. Kieran's Street.

A large blank wall on the rear façade of Dunnes Stores facing into the space offers potential as a blank canvas. Kilkenny has a rich and storied built heritage yet comparatively little non-ecclesiastical pre-Norman structures remain within the boundaries of the city. Before it was a Norman city Kilkenny was a religious centre and the Kings of Ossory had residence here; before there was any settlement Kilkenny was a landscape. The tribal name Osraige (from which derives the modern term Ossory) means "people of the deer".

A large scale mosaic (for example depicting deer) would give the space a definite identity of its own. It would also create an unexpected reveal, in particular to those walking down from the Butterslip and St. Mary's Lane. This cultural reference is intended to be an enhancement of the Architectural Conservation Area. Street art competitions could also be run to create murals along the length of the blank walls of St. Mary's Lane. These would draw visitors from the Medieval Mile Museum down into the new public space on St. Kieran's Street.

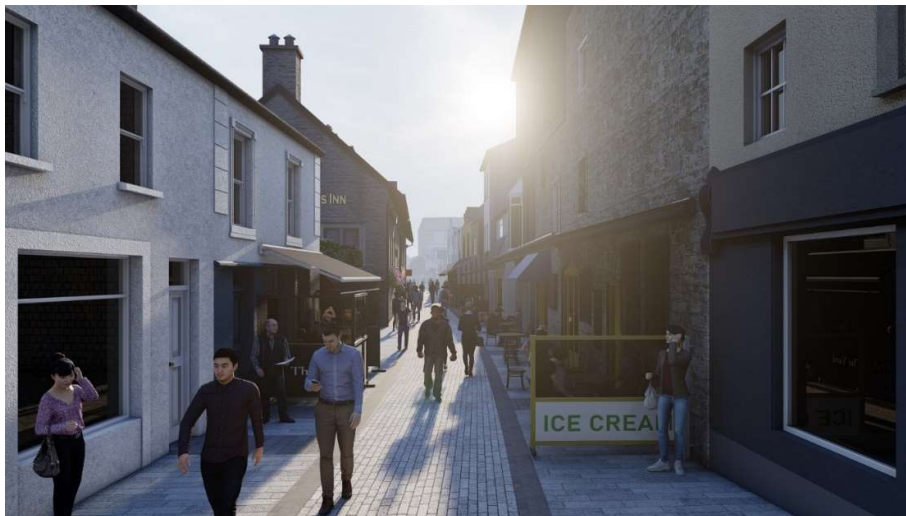


Figure 8 – St. Kieran's Street Proposal (Northern End)



Figure 9 – St. Kieran's Street Proposal (In the vicinity of St. Mary's Lane)



Figure 10 – St. Kieran's Street Proposal (Southern End)

2.2.2 Market Square Design

The proposed design seeks to reallocate valuable urban space from car parking to the pedestrian public realm. The enhanced Market Square will provide much greater potential for congregation, recreation, outdoor dining, performance etc.

A key goal of the design is to create visual definition from the remainder of the Market Yard Carpark. This is firstly to screen the parked cars from users of the square and secondly to vertically enclose the fourth side of the square. With buildings to three sides the formal clipped trees in a raised bed to the Eastern side define the space and enclose the area. Pedestrians entering and leaving the square are directed around the raised bed.

The layout has taken into account the potential for future additional licensed outdoor dining around the perimeter of the square. Within this outer perimeter the layout includes further definition of street trees, parasols, and public seating. These elements define the innermost part of the square which addresses the outdoor performance structure and features distinctive

paving. The flexibility of the space is of paramount importance to facilitate as many various planned and unplanned activities as possible. To this end it has been kept as uncluttered as possible especially in the central zone while creating an inviting space with flexibility for events, seasonal markets, etc.

The existing Market Square features seven street trees of poor health and declining vigour which it is proposed to remove. This area is envisaged as a space for this licensed outdoor dining and public seating, and a link and transition space between St. Kieran's Street and the enhanced Market Square. It is proposed to use flat-topped roof-form trees along with public seating to give this area its own distinct character, differentiated from St. Kieran's St. and the remainder of Market Square.

The need for a permanent sheltered outdoor performance area was established during the design process and became a main driver of the final layout. The position was chosen, in part, because Market Square is naturally higher to the Southwest and lower to the Northeast. This should allow spectators to the rear a slightly less obstructed view of the stage. Also, having the spectators facing Northeast will avoid the issue of solar glare in evening performances. Finally, the proposed roof structure is envisaged as having the espalier clipped trees as a backdrop when viewed from within the square. It will appear to rise up from behind the trees when viewed from outside the square, e.g., on the approach from the River Nore.

Market Yard, of which the proposed square is a part, takes its name from a Market that up to its closure in 1884 variously sold fish, butter, wool and corn. Historic mapping, for example Roque's 1758 Map, shows narrow rectangular burgage plots to the rear of St. Kieran's St. They are depicted as regularly laid out with rows of trees and grow beds. From the late sixteenth century onwards, when visitor accounts become available, the gardens and orchards of Kilkenny are consistently highlighted as a remarkable feature of the city.

This historic context has influenced the proposed design of the square in the following ways.

Firstly, trees including formally clipped espaliers have been used to define the space and create a sense of enclosure from the surrounding carpark. These trees serve to add visual definition and interest and improve the micro-climate of the space.

Secondly, the roof/canopy structure for the raised performance area is inspired by the form of a fish. A bold contemporary structure, it is inspired by the history of the site as a market and also the nearby River Nore. The use of the Nore as a transport link to the rest of Europe via the port of New Ross ensured the economic prosperity of the city. Imports such as wine and exports such as polished Kilkenny limestone were moved on flat bottomed barges between New Ross and Kilkenny for centuries. These economic ties should not be underestimated when considering the historic development of Kilkenny.

Thirdly the paving of the square is inspired by basket weave patterns which have a long history in Ireland including for example the Ormonde knot, the Ossory group high crosses and the Book of Kells. The proposed pattern is visually dynamic and is intended to encourage pedestrian circulation through the space in various directions.

Lighting is a key part of the design and multidirectional poles are proposed as well as feature lighting under public seating elements and recessed lighting in the large raised bed to the Northeast of the square. There is the potential to include catenary lights in the area of the original Market Square, between Kyteller's Inn and the Yard Café. Additional elements such as these will be considered at the detailed design stage.



Figure 11 – Market Square Proposal



Figure 12 – Market Square Proposal



Figure 13 – Market Square Proposal

2.2.3 Market Yard Car Park

Since approximately 20 car parking spaces are to be given over to the enhanced Market Square the adjacent section of the Market Yard Carpark has been redesigned. This rationalisation will be more efficient for cars and include a combined loading bay and taxi rank. The loading bay will serve the businesses adjacent to Market Square and will be time restricted and double as the taxi rank for most of the day. The taxi rank will be more accessible and user friendly than the existing one accessed via Bateman Quay. The internal configuration will be one-way with one entrance and one exit. The barrier at the entrance will be moved further into the car park which would reduce queueing onto Bateman Quay.



Figure 14 – Market Yard Car Park (north) proposal

3.0 DESIGN CONSTRAINTS

3.1 CULTURAL HERITAGE

County Kilkenny has a rich medieval heritage including a number of walled towns, of which Kilkenny City is one of them. The National Monuments Acts 1930-2004 provide protection for archaeological heritage. All listed monuments in the RMP (Record of Monument and Places) are afforded universal protection.

The scheme lies within the (RMP) – KK019-026, the historic town of Kilkenny. There are multiple cultural heritage sites along St. Kieran’s Street and Market Yard which are impacted by the project. Figure 15 clearly shows that the scheme falls within the zone of notification of recorded monuments. There are three national monuments within 500m of the proposed works:

- St. John’s Abbey
- Magdalan Castle
- St. Francis Abbey

There are several SMR’s (Sites and Monuments Record) within the vicinity of the scheme and these are not featured on the RMP. The full list of these can be found in the cultural heritage assessment report in Appendix 1.

It is for this reason that all groundworks be monitored by a licenced archaeologist. Notifications are to be sent to the NMS (National Monument Service) prior to any works commencing. It is the objective of the NMS that all archaeological sensitive matter be preserved insitu with minimal impact on the archaeological heritage. It is envisaged that if all protocols are adhered to, the impacts on the archaeological resource would be negligible.

St Kieran’s Street and Market Yard fall within the City Centre ACA (Architectural Conservation Area). Some of the well known structures include:

- St. Francis Abbey
- The Black Abbey
- St. Mary’s Church
- Rothe House
- Shee Alms House
- Hightown Circuit of the city walls
- The Tholsel
- Courthouse

The scheme also impacts the ACA with the inclusion of RPS (Record of Protected Structures) along St. Kieran’s Street. These structures include:

- Kyteler’s Inn
- Bollards Public House
- Tea Houses

There are several structures which are accounted for on the NIAH (National Inventory of Architectural Heritage) but do not at this stage feature on the RPS. A list of these can be found in Appendix 1. Figure 16 shows the ACA boundary.

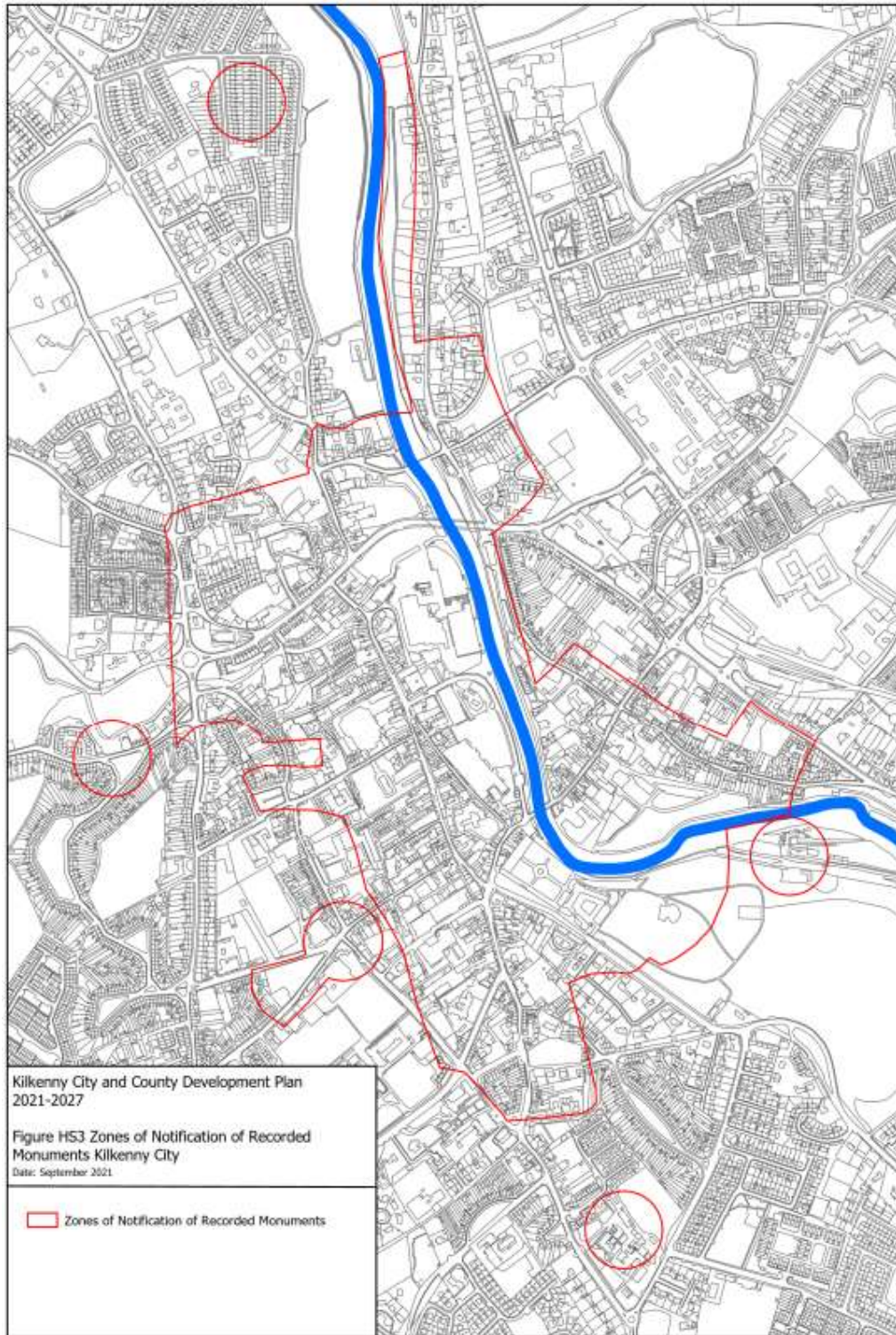


Figure 15 – Zones of Notification of Recorded Monuments (ref Kilkenny City and Council Development Plan 2021-2027)

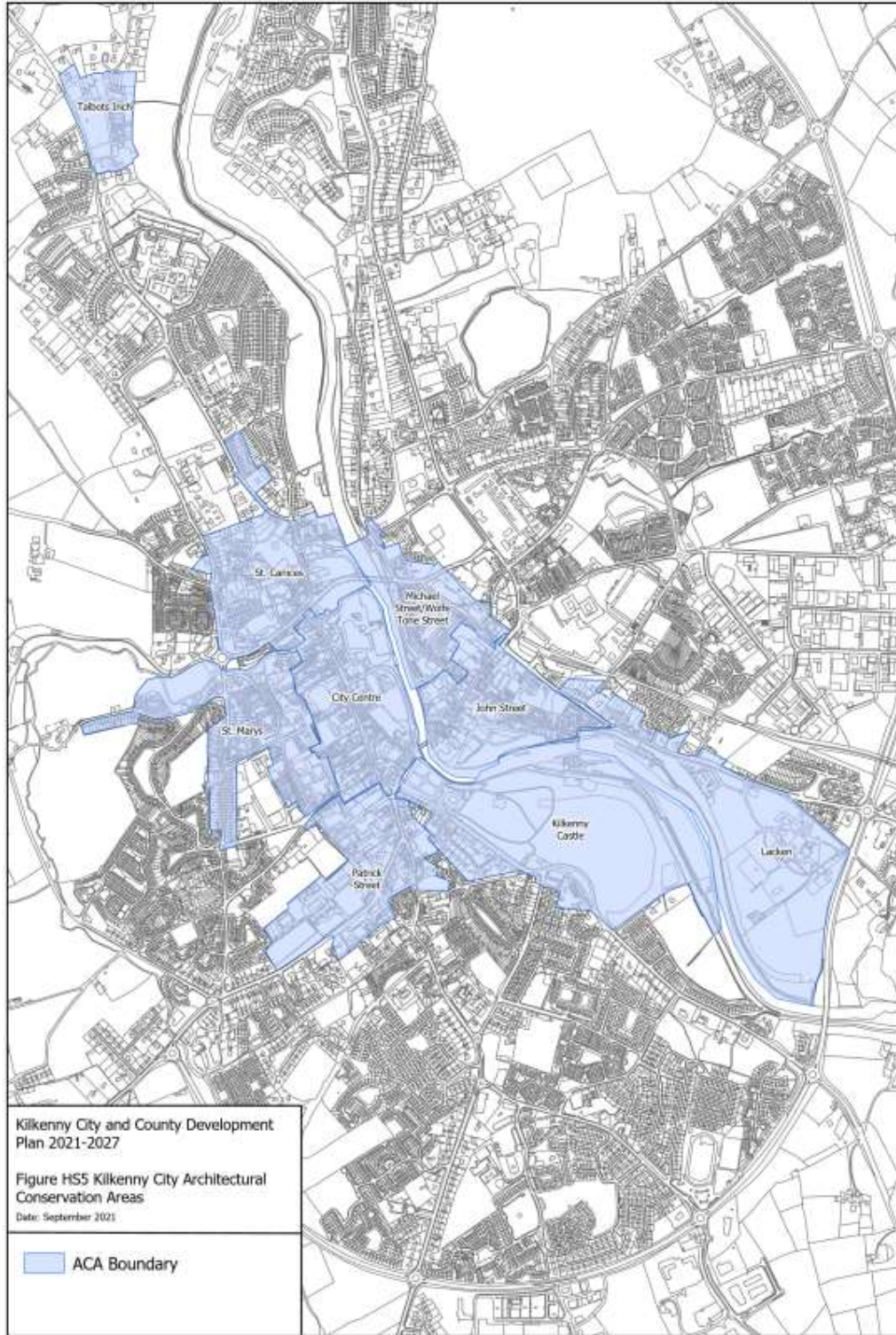


Figure 16 – ACA Boundary (ref Kilkenny City and County Development Plan 2021-2027)

3.2 FLOOD RISK / DRAINAGE

There is adequate drainage provision found on St. Kieran's Street, Market Square, and the adjacent Market Yard car park areas, with gullies provided in various locations. The main issue with the current arrangement is settlement of some of the existing pavements which have altered the low points in the paving, resulting in stormwater runoff not reaching all of the gullies, rendering them ineffective. Proposed pavement improvements and reprofiling of the paved surface will ensure that water is drained to these gullies.

As the design of the adjacent Market Yard car park is proposed to be a shared pedestrian and vehicle surface, at grade with the Market Square, the existing gullies would need to be raised or relocated depending on final design levels. The final number and location of gullies within the scheme is subject to a detailed design. It is also important to note that drainage from the entire area discharges to a combined sewer which in turn discharges to Market Yard Pumping Station from where it is pumped to Purcellsinch Waste Water Treatment Works.

As the site is located along the River Nore, a flood risk assessment was carried out. The findings of the assessment confirmed that the area is located in Flood Zones B and C and is prone to a low probability flood event (Flood Zones B is an area with 0.1-1% probability of flooding and Flood Zone C is an area with <0.1% probability of flooding). The public realm improvements are water compatible and do not impact flooding elsewhere.

The detailed flood risk assessment can be found in Appendix 2.

3.3 APPROPRIATE ASSESSMENT

As the public realm project is in the vicinity of the River Nore, which is classified as an SAC / SPA, it is protected by the EU Habitats Directive (92/43/EEC) and the EU Birds Directive (2009/147/EC). The River Nore was identified as the most important heritage resources and it encompasses built, natural and cultural heritage.

The designers have considered this for the development of the public realm from the outset. During construction, there will be no discharge of any kind into the watercourse. Construction activities will abide to best practice construction methodologies including noise and dust suppression. There is no direct route from the construction site to the river. All surface drainage feeds into the combined sewer which leads to the Market Yard Pumping Station from where it is pumped to Purcellsinch Waste Water Treatment Works.

It is likely that the site compound will be located in the section of the car park which is being reconfigured. All construction materials would be stored here. Liquids would be stored in a bunded area. A spill kit and necessary health and safety equipment will be present on site.

Construction management plans will be produced for the scheme and construction methodologies will be reviewed for approval prior to work commencing. All necessary measures will be put in place to keep the site and natural surrounds protected.

3.4 UTILITIES

A utilities survey was carried out for the scheme using non-intrusive ground penetrating radar survey (GPRS) techniques. The following services were found within the project area:

- EIR
- ENET
- ESB
- Gas
- Virgin
- Foul and Storm
- Water

The data received indicates a myriad of services within the Market Yard and St. Kieran's Street, most of which are below normally specified requirements in terms of depths ie. Shallow service ducts.

A utilities design will be carried out at detailed design stage, to rationalise these service ducts. The design team will liaise with service providers and future proof the utilities where possible. Additional ducts would be installed during the construction stage and these ducts could be used in the future for new utilities to avoid excavation of the new paving scheme. As the pavement make up would utilise a rigid base (concrete), there may be long term moratoriums put in place for excavations within the project area.

Multiple overhead cables are visible on the southern end of St. Kieran's Street. These can be seen strung along the walls of buildings as well as across the street. The intention of the public realm design is to underground these cables for a cleaner look. The design team would liaise with the relevant service providers in this regard.

3.5 COST ESTIMATE

As the design has developed to an acceptable level of detail, a preliminary cost estimate was developed for the proposals put forward. It must be noted that this is a high-level Order of Magnitude and may be subject to change. Every effort has been made to account for market fluctuations with regards to rates and construction costs. The construction cost estimate of the scheme is **€2,019,978.00 ex VAT**.

The detailed Order of Magnitude can be found in Appendix 3.

Appendix 1 – Cultural Heritage

Appendix 2 – Flood Risk Assessment

Appendix 3 – Cost Estimate (OOM)

www.tobin.ie



TOBIN Consulting Engineers



@tobinengineers

Galway

Fairgreen House,
Fairgreen Road,
Galway,
H91 AXK8,
Ireland.
Tel: +353 (0)91 565 211

Dublin

Block 10-4,
Blanchardstown Corporate Park,
Dublin 15,
D15 X98N,
Ireland.
Tel: +353 (0)1 803 0406

Castlebar

Market Square,
Castlebar,
Mayo,
F23 Y427,
Ireland.
Tel: +353 (0)94 902 1401

Limerick

Ducart Suite
Castletroy Commercial Campus
Limerick
V94 Y6FD
Ireland
Tel: +353 (0)61 574 413