

# Kildare County Library

Landscape Part 8 Report

Date: 10/03/2023



**AECOM**



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07-KE-7464

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191-D-33921

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1.0

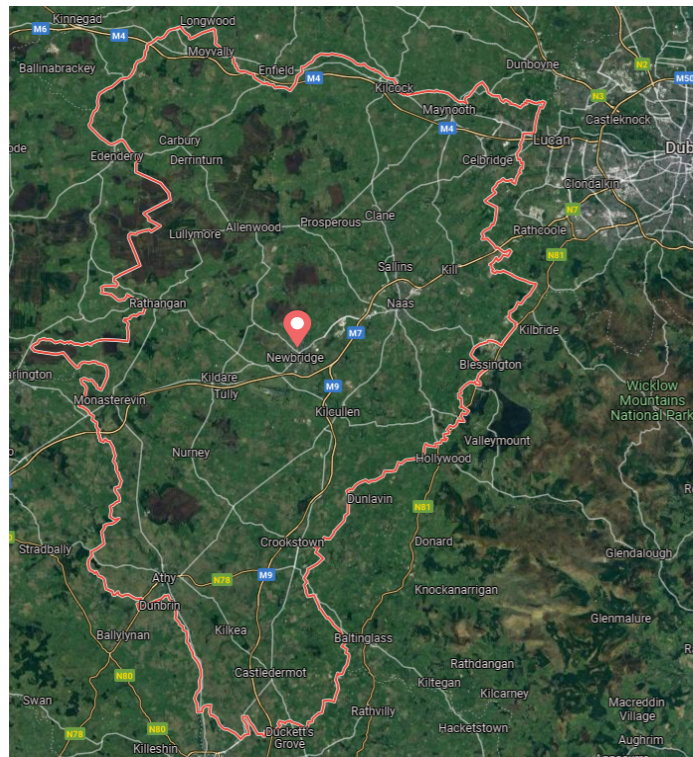
Landscape Conditions



# 1.1 Overview

## Brief

Kildare County Council has engaged a multi-disciplinary design team including MetWorks and AECOM to develop the design for the Kildare County Library, interior courtyard and the surrounding public realm. The Stage 1 report explores the conceptual design for the landscape site in preparation for the detailed design and planning applications.



Regional Context - the site is in the centre of Kildare County



Newbridge town context, landmarks around Kildare County Library

# 1.2 Receiving Environment & Policy Review

## County Development Plan (2017-2023)

### County Development Plan (2017-2023)

As of February 2017, Kildare County Council have been tasked with enforcing the principles and strategies as outlined in detail in the County Development Plan. The primary aim of this is to ensure, support and promote quality and sustainable development across the county. These plans are for large towns, Newbridge is identified as a Large Growth Town Type 2.



Each of the plan's key chapters focus on the delivery of specific objectives - many of which relate to the development of town centres through quality means. Various objectives relate to the delivery of quality public realm works and town centre improvements.

### 5. Economic Development, Enterprise and Tourism

#### ECD 16 - High Quality Environment

Ensure a high quality living environment in Kildare which will help to retain the county's indigenous skilled population and attracted additional high skilled labor into the county.

#### ECD 39 - Festivals

Support and promote existing festivals and sporting events to increase the cultural heritage and lifestyle profile of the county, and where appropriate to promote and facilitate the development of new events.

### 6. Movement and Transportation

#### MT 6 - Co-operate with NTA

Co-operate with and support the National Transport Authority and relevant regional agencies to facilitate the planning, delivery and implementation of improvements to the transport network of the county and the Greater Dublin Area

### WC 1 - High quality walking and cycling facilities

Prioritise sustainable modes of travel by the development of high quality walking and cycling facilities within a safe street environment.

### WC 8 - Require secure cycle parking

Require the provision of secure cycle parking facilities in towns, at public service destinations and in all new residential and commercial developments.

### PK 2 - Design car park

Design car parking layouts in accordance with the Design Manual for Urban Roads and Streets (DMURS) 2013.

### PK 8 - Utilise SUDS

Encourage the use of materials and engineering solutions that optimise natural surface water drainage as part of Sustainable Urban Drainage Systems (SUDS).

## 11. Social, Community and Cultural Development

### LEO 1 - Liaise with community for infrastructure

Liaise with community and economic stakeholders to promote the sustainable development of economic and community services and infrastructure in the county, in accordance with the objectives and actions set out in the Kildare LECP 2016-2021.

### C 2 - Promote use of community facilities

Promote the shared use of educational and community facilities for community and non-school purposes where possible, so as to maximise the sustainable use of such infrastructure and promote community cohesion.

### C 4 - Promote accessibility

Promote the highest levels of universal accessibility in all community facilities.

### SC 2 - Cultural facilities are focal points

Ensure that all arts and cultural facilities in the ownership and management of the Council are accessible to the wider community and to promote the role of these facilities as focal points for the community.

### LBO 2 - Improve library provision

Support the development of the county's library services to all settlements/areas in which population and/or the county's library services and the implementation of the objectives and actions set out in the Kildare Library Service Plan 2015-2019 in delivering educational, cultural, training and learning centres across the county.

### LBO 3 - Disabled access

Provide and improve access for the disabled in both proposed and existing library accommodation

## 14. Landscape Recreation and Amenity

### GI 3: Native Planting

To ensure planting within developments is of native species.

### GI 5 - Connect to parks

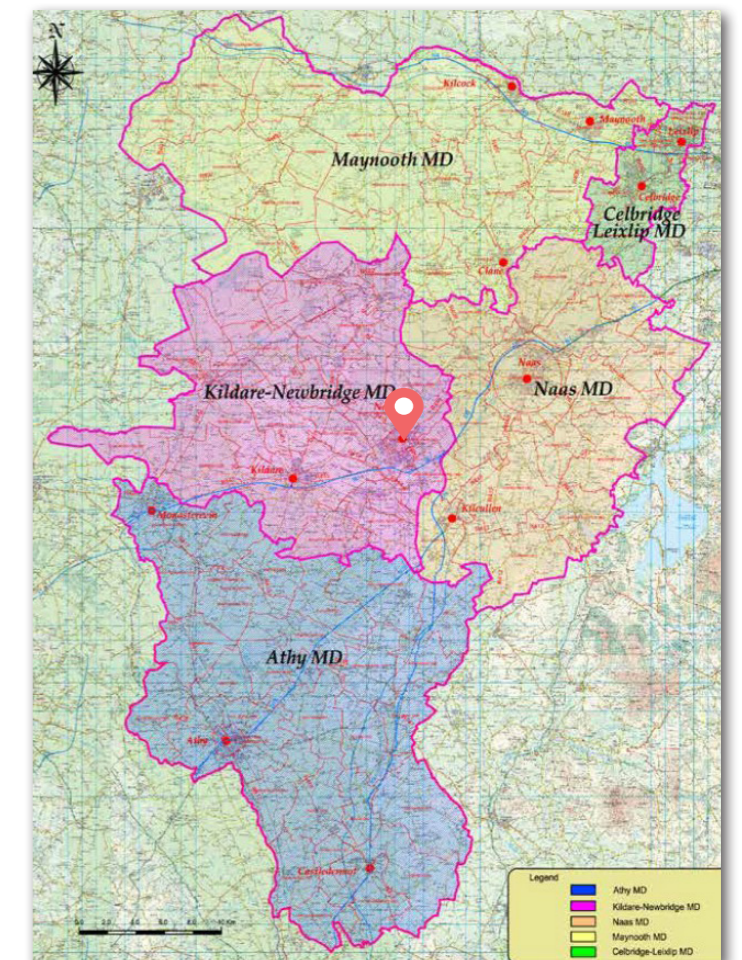
Connect parks and areas of open space with ecological and recreational corridors to aid the movement of biodiversity and people and to strengthen the overall Green Infrastructure network.

## 15. Urban Design

### 15.8.9 Sustainable Urban Drainage Systems (SUDS)

SUDS should be an important part of drainage infrastructure of a development....It is important that all development considers the relationship with SUDS as an element of drainage infrastructure as well as a leisure and visual amenity.

The use of swales to retain and discharge water. SUDS should be planted utilising indigenous species that can withstand both very wet and dry conditions.

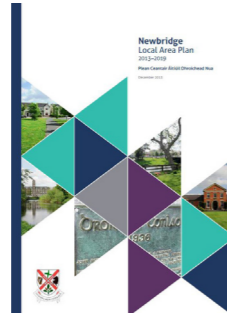


Municipal districts in Kildare County

# 1.2 Receiving Environment & Policy Review

## Newbridge Local Area Plan (2013-2019 ext. 2021)

Newbridge LAP sets out the current context and profiles of Newbridge along with policy and objectives for sustainable development. The LAP has been extended until December 22nd 2021 by the members of the Municipal District. Newbridge is classified as a Large Growth Town according to The Regional Planning Guidelines 2010–2022.



### Town Centre Development

#### TC1 - Hierarchy of Civic Spaces

To create a hierarchy of civic spaces in order to increase legibility and the general attractiveness of the town centre

#### TC2 - Attractive Town Centre

To create a more attractive, vibrant and consolidated town centre by utilising quality urban design principles.

#### TC3 - Protect Town Centre Role

To ensure that the important economic, social, cultural and residential role of the town centre is protected and enhanced and that its vibrancy, vitality and environmental quality are maintained and improved.

#### RR6- Improve High Street

To reinforce Main Street/Edward Street as a vibrant town centre with a diverse mix of uses and to consolidate the town centre areas and surrounding these streets by incentivising development in order to create a compact core

#### RR8- Improve Streetscape

To promote and encourage high quality urban design and to improve the image of the town by enhancing the physical environment and streetscape.

#### GMO 2: Promote pedestrian modes

That all development proposals would promote walking and cycling modes in Newbridge by ensuring consistency with the relevant measures in the Draft Transportation Strategy for the Greater Dublin Area 2011-2030 during the period of this plan.

#### SRO 2: High quality

To provide a high quality footpath network by improving pedestrian facilities through the refurbishment of footpaths, construction of new footpaths and the provision of appropriate crossing facilities as required.

#### PKO 1: Accessible car parking spaces

To provide accessible car parking spaces, designed in accordance with best practice, at appropriate locations throughout the town.

#### PKO 3: High standard car parking

To ensure that all public and private car parking facilities are constructed with at permanent durable surface and landscaped to a high standard.

#### PKO 4: Cycle parking

To promote and secure the provision of secure cycle parking facilities within the town at all public facilities.

#### SW 1: SUDS

To ensure that new developments incorporate appropriate SUDS facilities, designed, constructed and maintained in accordance with the requirements of the Greater Dublin Strategic Study (GDSS) for treating and controlling the discharge of surface water from developments.

#### SW 4: Site specific solutions

To require developers to adopt site specific solutions to surface water drainage systems in all cases.

#### CF 10: Accessible facilities

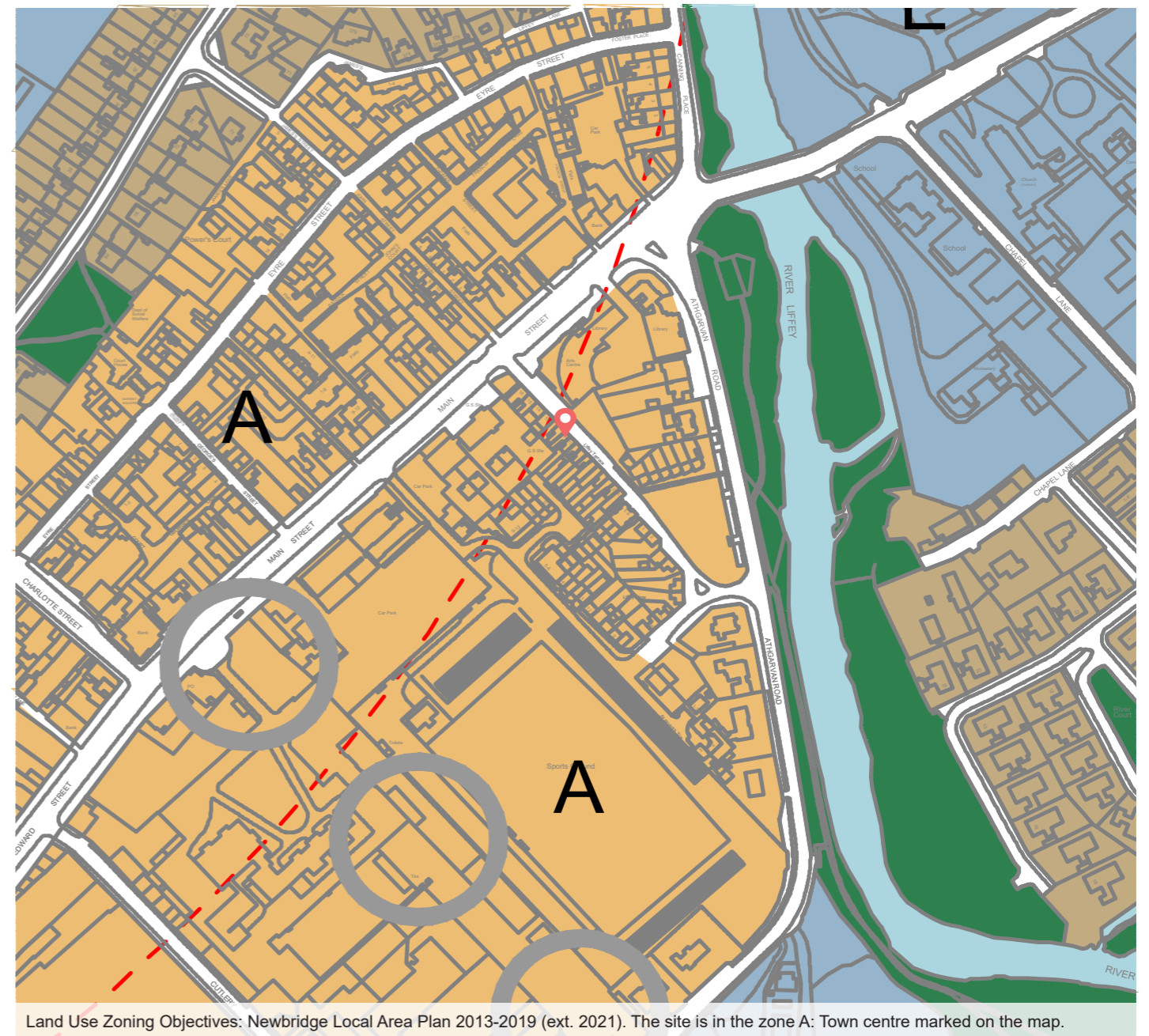
To ensure that all arts and cultural facilities in the ownership and management of the Council are accessible to the wider community and to promote the role of these facilities as focal points for the community.

#### AH 1: Resist demolition

To resist demolition of vernacular architecture of historical, cultural and aesthetic merit, which make a positive contribution to the character, appearance and quality of the local streetscape and the sustainable development of Newbridge.

### LEGEND

- A: Town Centre
- B: Existing Residential/Infill
- E: Community & Educational
- F: Open Space & Amenity
- 500m Intervals from Train Station
- Movement Objectives



Land Use Zoning Objectives: Newbridge Local Area Plan 2013-2019 (ext. 2021). The site is in the zone A: Town centre marked on the map.

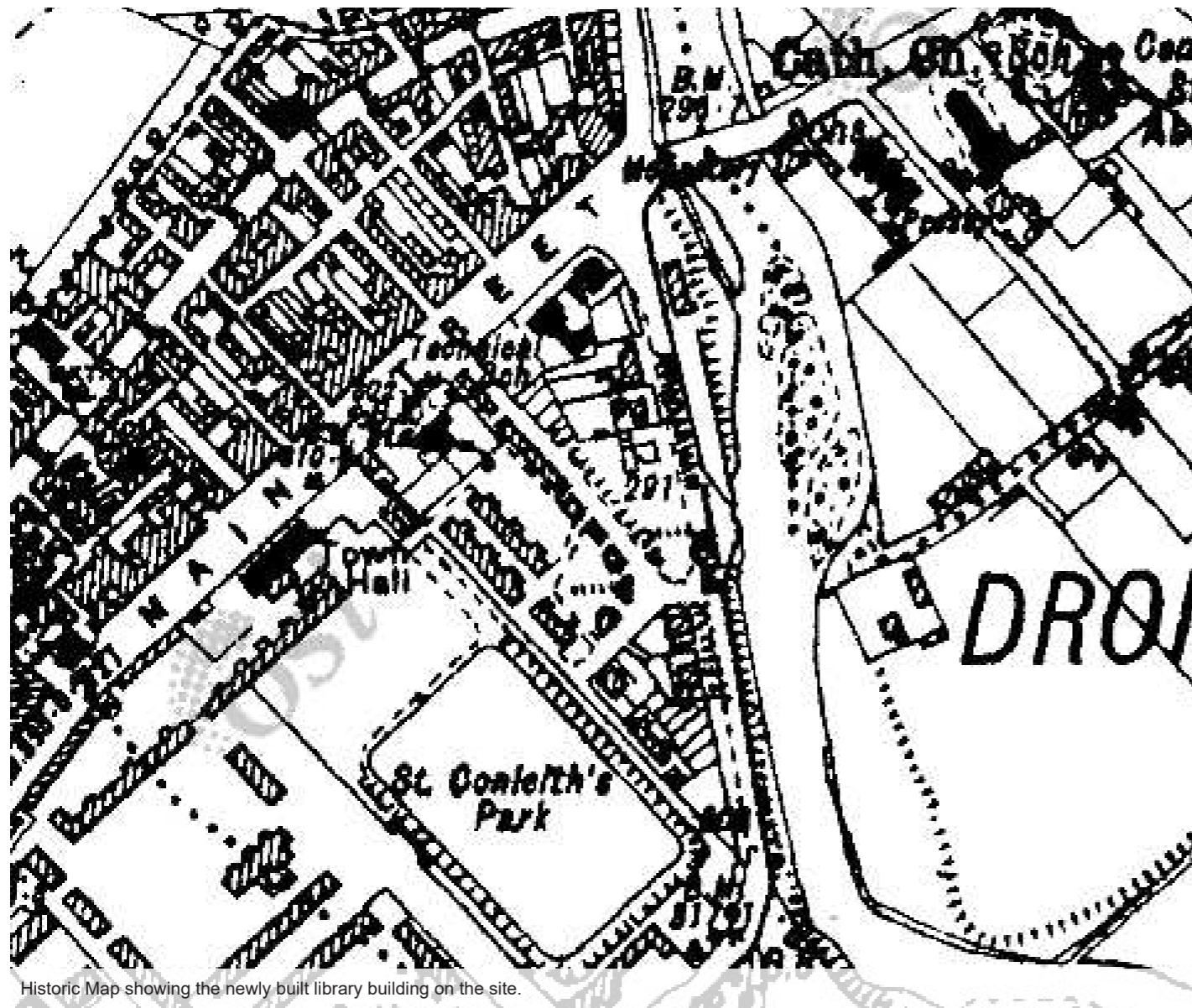


## 1.3 Historic Context

### History of the Site

The site was a mix of residential and green space areas during the 1800s with a pond on site, see the map and image on the right. This sets a precedent for retaining water on site which will be utilised with SuDS interventions, such as rain gardens.

The historic library building will be retained and redeveloped, this is in line with the Newbridge LAP policy AH 1. This building is a part of Kildare's built heritage trail. The library building was built in 1936, see map below, and is located on the junction between Main Street and R416 and acts as a landmark into the city centre.



Historic Map showing the newly built library building on the site.



Historic Map 1837-1842 in Colour showing the wood near the Barracks and the sand, terrace housing and front gardens around the site.



Picture from 1933 showing the site by the river (from britainfromabove.org.uk copyrighted Historic England, 2021).

# 1.8 SWOT analysis



Strengths

Community Resource

Library is a community resource and listed building adds character.



Location in centre of Town

Location has existing transport links and pedestrian access.



Existing Green & Blue Infrastructure

River Liffey and Liffey Linear Park adjacent to site, existing street trees.



Limited Cycle Provision

The cycle lanes and parking are limited around main street.



Proximity to Road

The formerly part of the N7 between cities the Main road is wide and the space is dominated by vehicles. This is a weakness for pedestrians.



Weaknesses

Extend public realm

The NTA is extend the public realm with the Junction of Main Street and Athgarvan Road project.



Views

Views of the River Liffey and Liffey Linear Park from the Library



Landmark building

The site marks the entrance to the centre of town and is a community building.



Opportunities

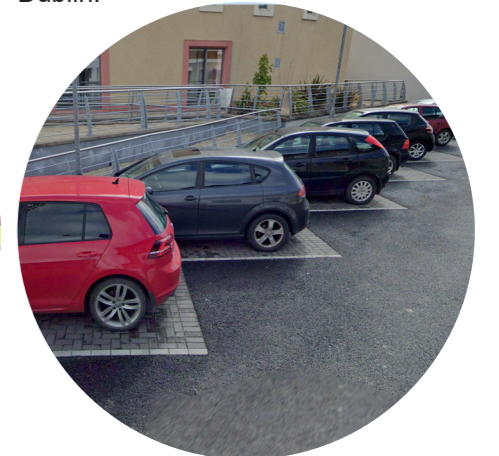
Fire Tender

Fire tender on site restrict areas and treatments able to be used on site.



Over reliance on vehicles

Newbridge town centre prioritises vehicles with the width of roads and car parking due individuals driving from elsewhere in the county and to Dublin.



Threats

2.0

Landscape Strategies

# 2.1 Conceptual Approach

## Conceptual Approach

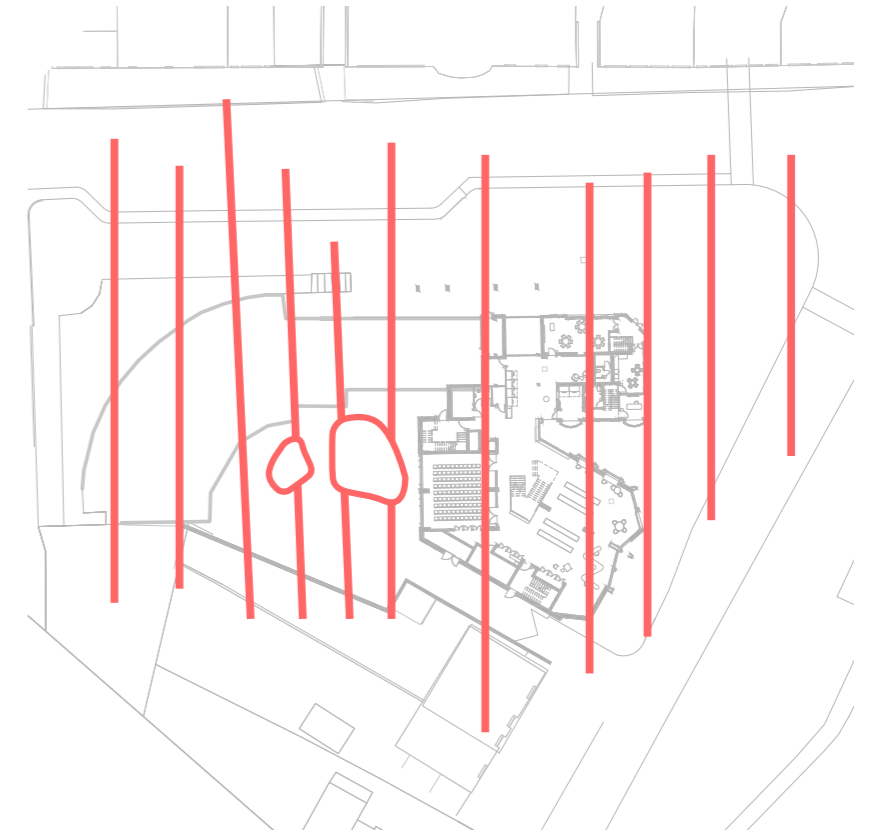
The concept for the library will draw on the inspiration from a literary context giving a grounding to the library in its immediate context and drawing the internal common themes to the external spaces. Drawing inspiration from the strength of geometry created by book spines while looking to explore negative spaces created to develop the public realm design.



Stacked Books



Extract



Apply

# 2.2 Design Approach

## Design Approach

The design approach for the public realm will aim to be cognisant of the existing public realm fabric of Newbridge town. This will influence the overall design of the public realm and streetscape interventions. The new and existing library building will aid in the activation of the street creating a more integrated intervention.

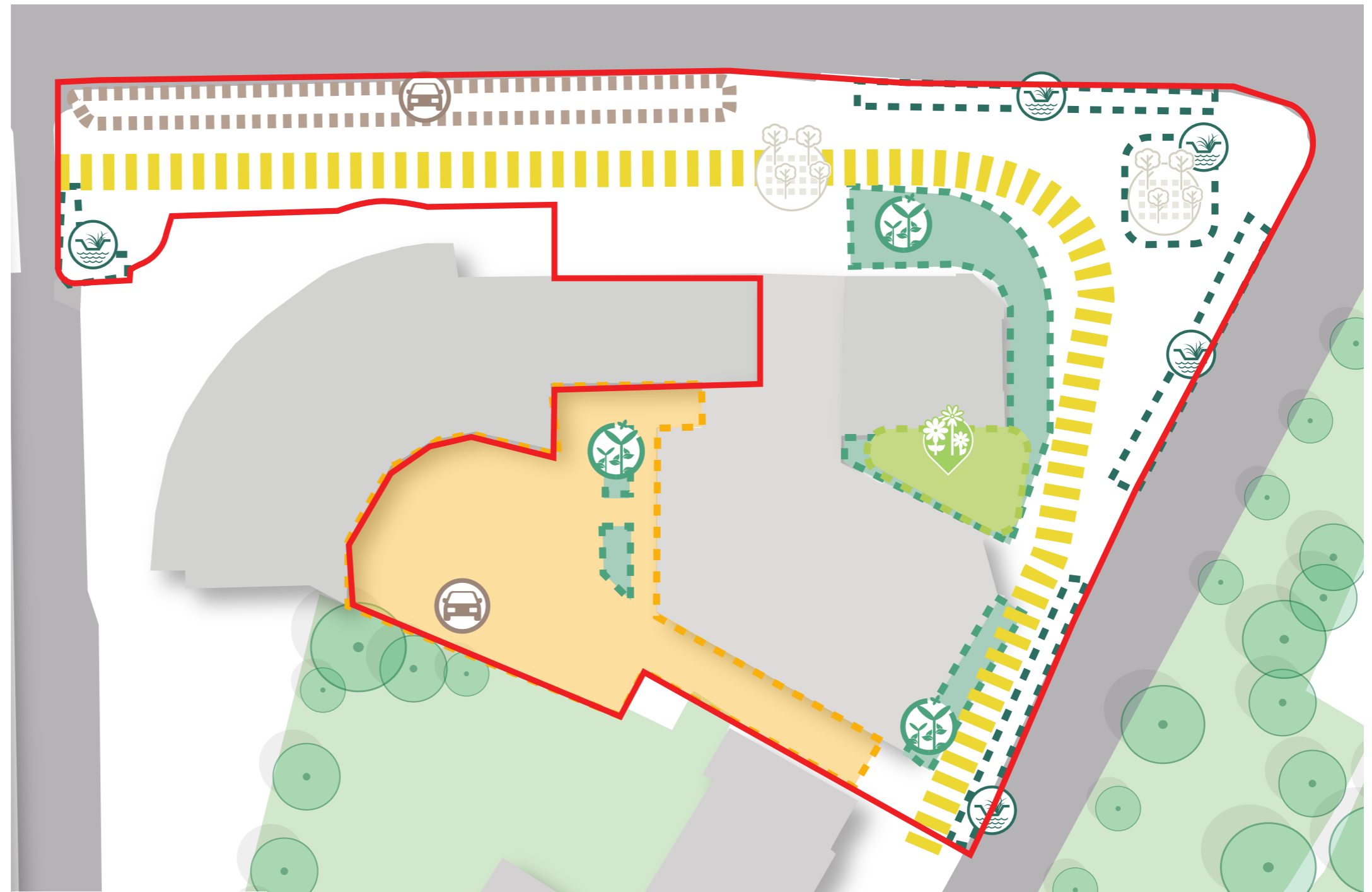
The streetscape design will link the main street with the wider town whilst being cognisant of wider proposals which will influence the design of the townscape and allow the Library to become a landmark space when entering Newbridge.

The treatment of the new library with the existing building will be further enhanced through the development of a rain garden space between the built form to create overlooked space giving separation to the buildings.

The courtyard will be developed as a multi functional space that will support a number of programmed spaces. The courtyard will be designed as a void space with sub spaces creating opportunities for sensory space, recreational seating, reading room and more functional parking areas. This adaptable space will allow for events throughout the year such as markets, culture nights, theatre events and small concerts. This will give the courtyard a dynamic approach that can support the day to day function of the theatre and library while giving flexible options to the space.

Within the courtyard an enclosed space for quiet recreation will be created with planting. This space can also be used for group reading sessions in the courtyard.

Green and blue roofs will be incorporated into the design with opportunities for SUDs to be explored as part of the design to create a more sustainable intervention.



Legend



Plaza / Threshold space

Garden Space



Communal Space

Rain gardens

Planted areas



Parking

Vehicle entrance

# 2.3 Open Space Comparison

## Capacity Study

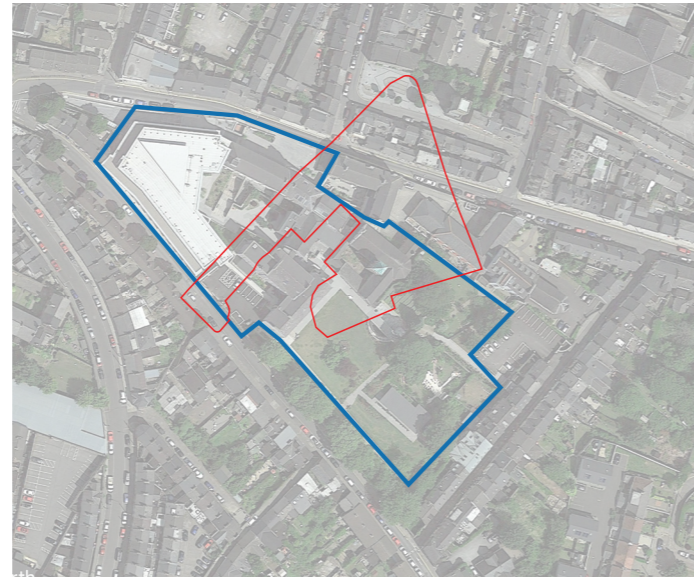
This study aim to consider the quantity of usable open space in the proposed scheme for Kildare County Library and how this compares to similar projects and character areas which are further highlighted in the following precedent examples.

- Kildare County Library Site**
- Total Area: 4,097 m<sup>2</sup>
- Total public realm open space: 2,737m<sup>2</sup>



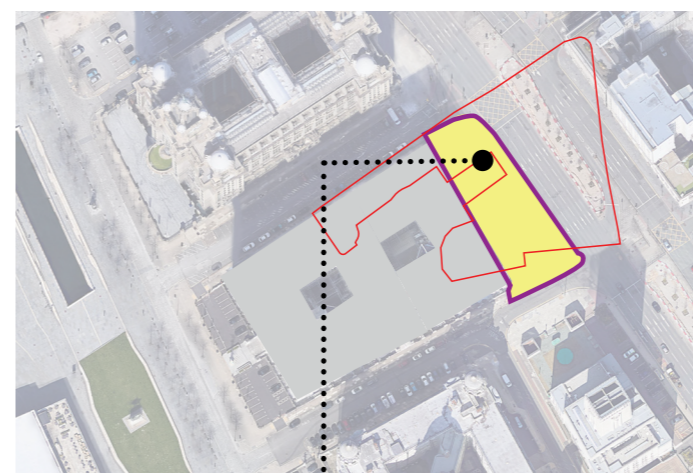
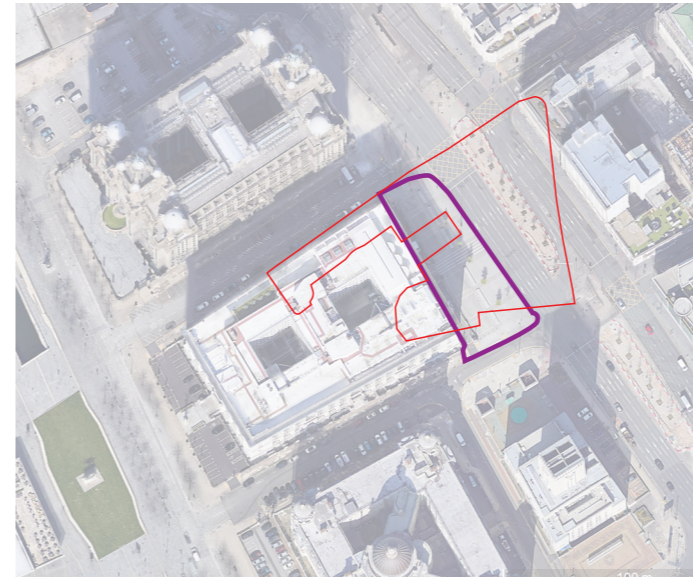
Building = 1703m<sup>2</sup>  
 Courtyard = 808m<sup>2</sup>  
 Rain Gardens = 304m<sup>2</sup>  
 Streetscape and Car parking and cycle track = 1625m<sup>2</sup>

- Nano Nagle Heritage Centre, Cork**
- Total Area: 14,985m<sup>2</sup>
- Total courtyard area: m<sup>2</sup>



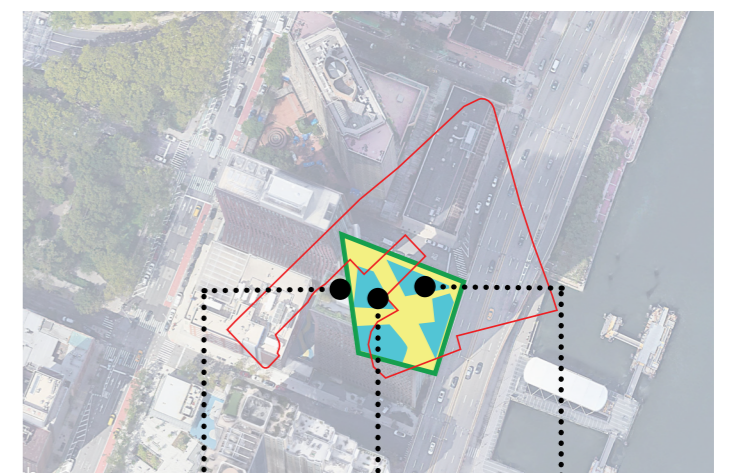
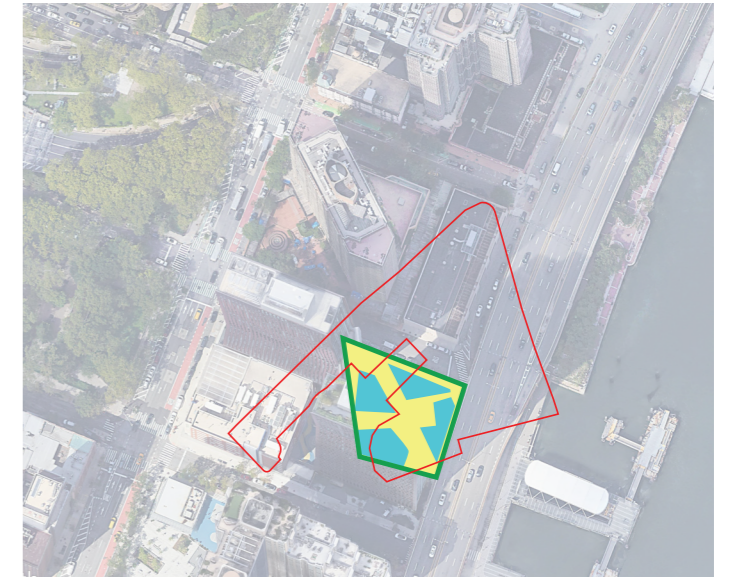
Buildings = 5431m<sup>2</sup>  
 Courtyard = 1041m<sup>2</sup>  
 Streetscape = 2643m<sup>2</sup>  
 Green Spaces = 5870m<sup>2</sup>

- The Voyage, Liverpool**
- Total Area: 189m<sup>2</sup>



Streetscape = 189m<sup>2</sup>

- Water Plaza, New York**
- Total Area: 1830m<sup>2</sup>



Open Space = 1230m<sup>2</sup>  
 Water Feature = 60m<sup>2</sup>  
 SUDs Swales = 540m<sup>2</sup>

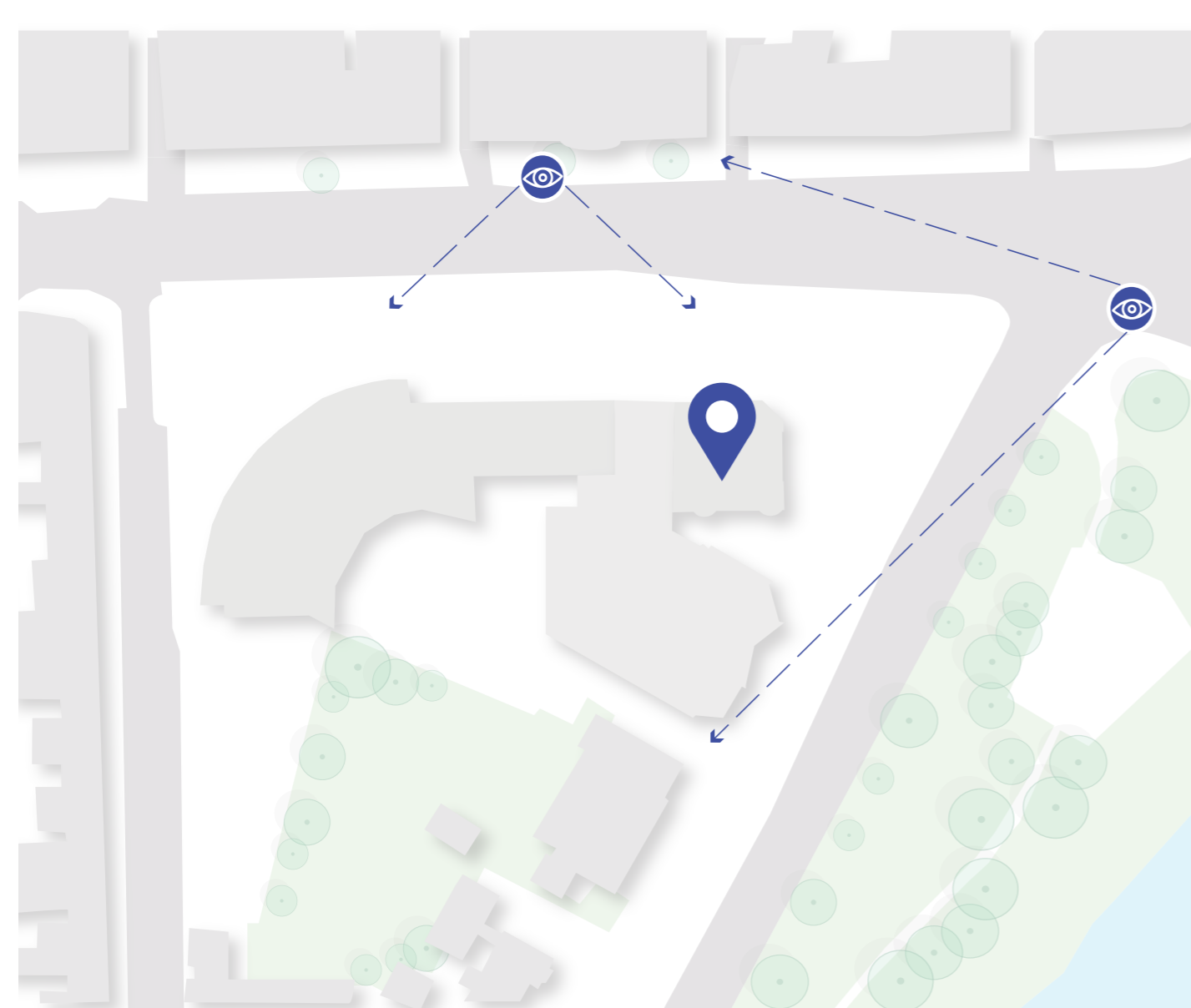
## 2.4 Design Drivers

### Landmark

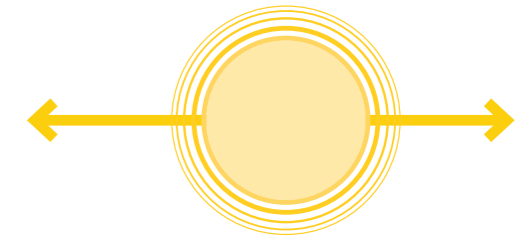


The Kildare County Library makes the entrance to the centre of Newbridge when crossing the River Liffey. The historic library and the new library structure adds character to Newbridge and creates walkable communities by incentivising visitors to explore the wider townscape. The site of the new library gives the opportunity for a landmark space to be created that gives context to the main street and an key entrance space to Newbridge.

The Kildare County Development Plan: SC 2 - Cultural facilities are focal points

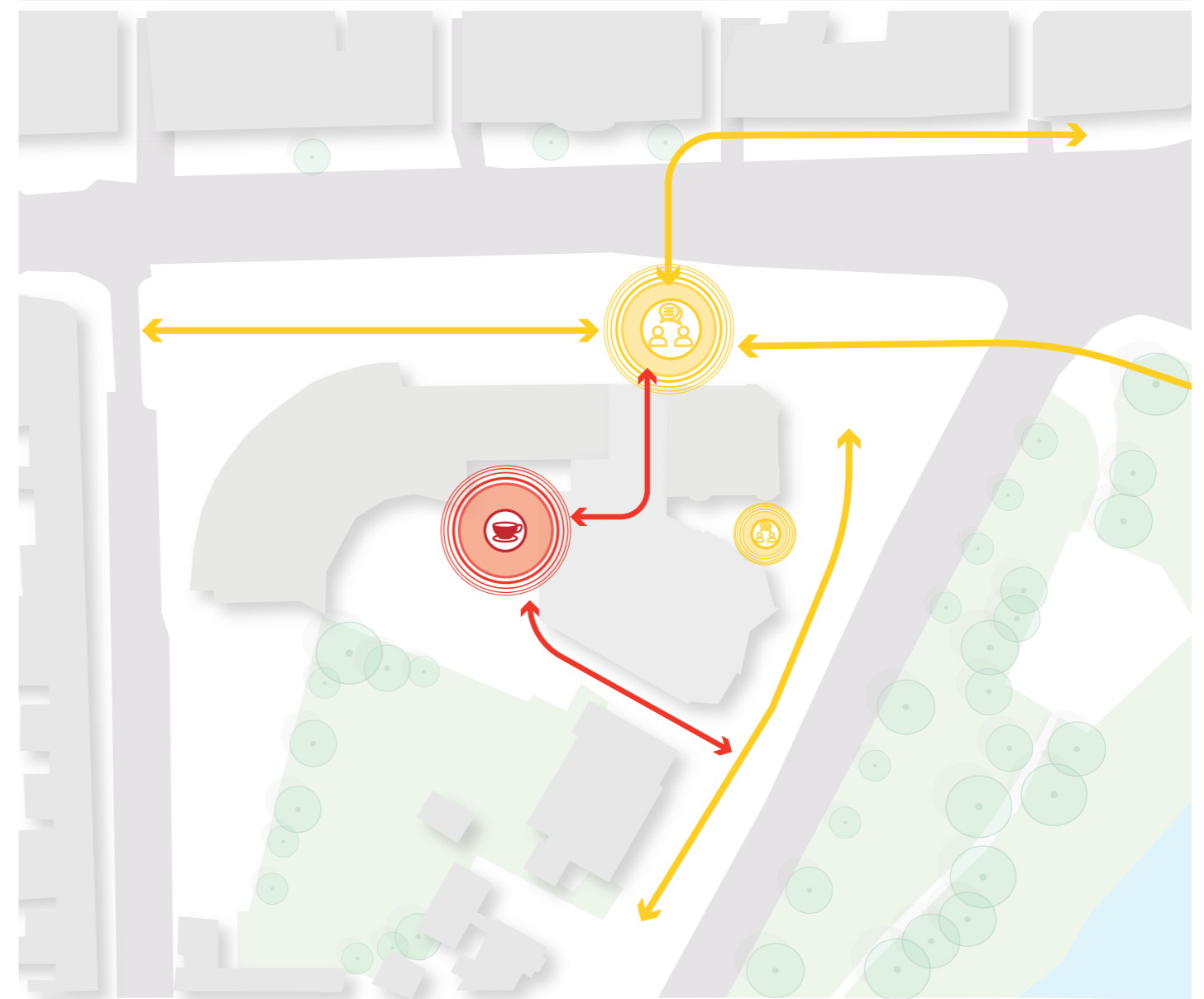


### Education and cultural centre



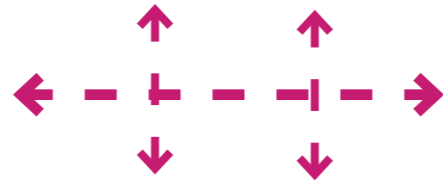
A place of learning visually, auditory, experientially through sensory space. The conservation and teaching of the heritage of Kildare County for future generations. Mixed-use void space allows for adaptability, the space can accommodate a variety of community activities and gatherings in collaboration with the theatre. The cultural centre will need to cater to everyone in the community and will be accessible.

The Kildare County Development Plan: LED 1 - Liase with the community for infrastructure, LBO 2 - Improve library provision, ECD 39 - Festivals, ECD 16 - High Quality Environment, C 2 - Promote use of community facilities, C 4 - Promote accessibility





## Activated Street



Improve legibility and amenity of streetscape to increase pedestrian footfall and use of space. The expansion of the public realm and the addition of bicycle lanes will add to the permeability of the site in tandem with the Newbridge Transport Plan (NTP). Activated streets grants ease of movement in Newbridge and retention time in these spaces will be increased due to the quality of the public realm and pocket spaces.

The Kildare County Development Plan: WC 1 - High quality walking and cycling facilities, WC8 - Require cycle parking, MT 6 - Co-operate with NTA, LBO 3 - Disabled access.

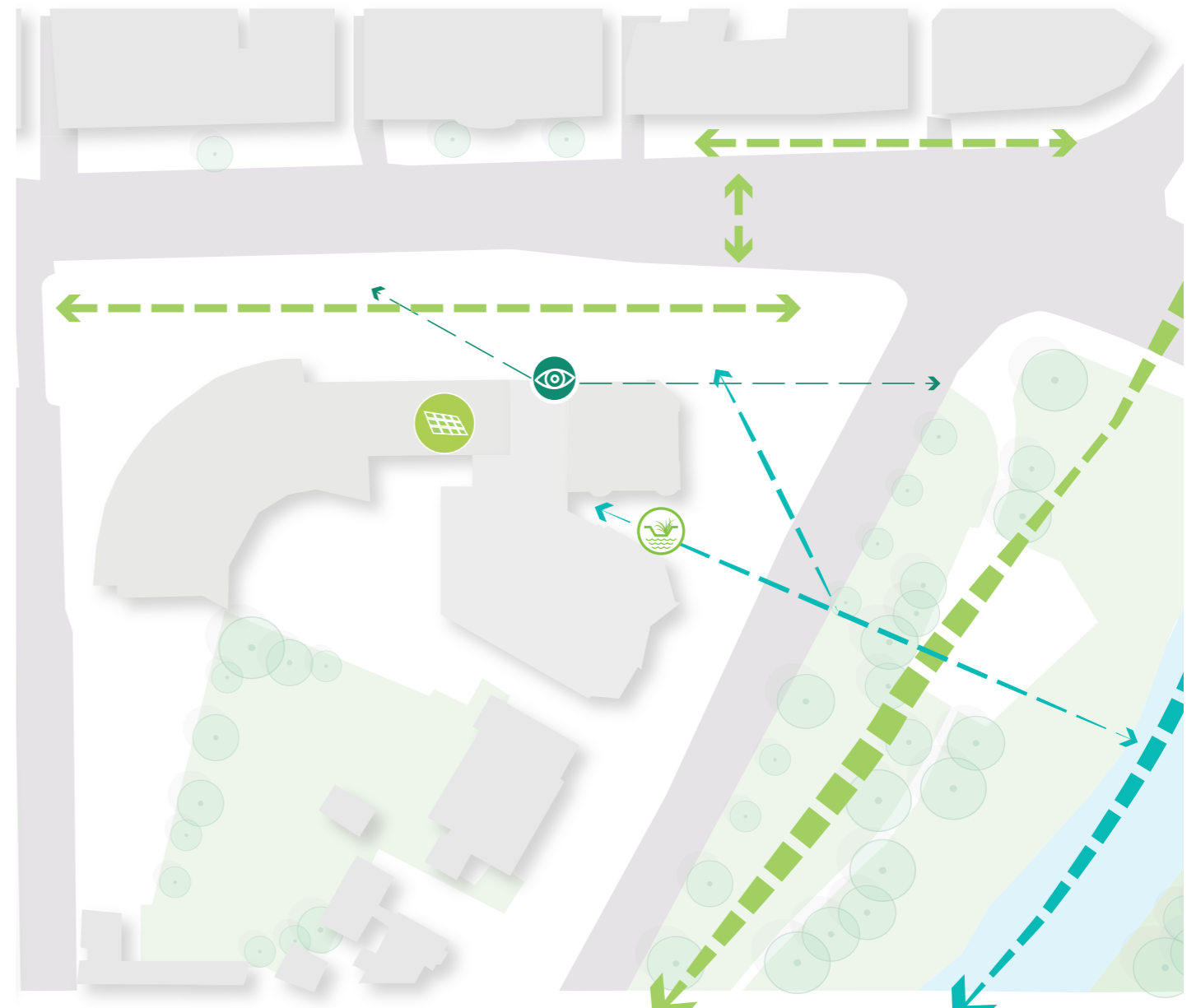


## Connection to Liffey Park and River



Following the Winter Garden idea, wherein the new central entrance will link to the adjacent Liffey Linear Park and the River Liffey, there will be Green and Blue Infrastructure links in the landscape design. These interventions will consist of a green roof, blue roof and rain gardens in the streetscape that will aid attenuation, contribute to biodiversity and provide amenity spaces. Additionally street trees will retain surface water run-off below surface level and provide shade, reducing the urban heat island effect. This will also add diversity to the space in Newbridge creating spaces for biodiversity in the project.

The Kildare County Development Plan: GI 3 - Native Planting, GI 5 - Connect to parks, 15.8.9 SuDS.

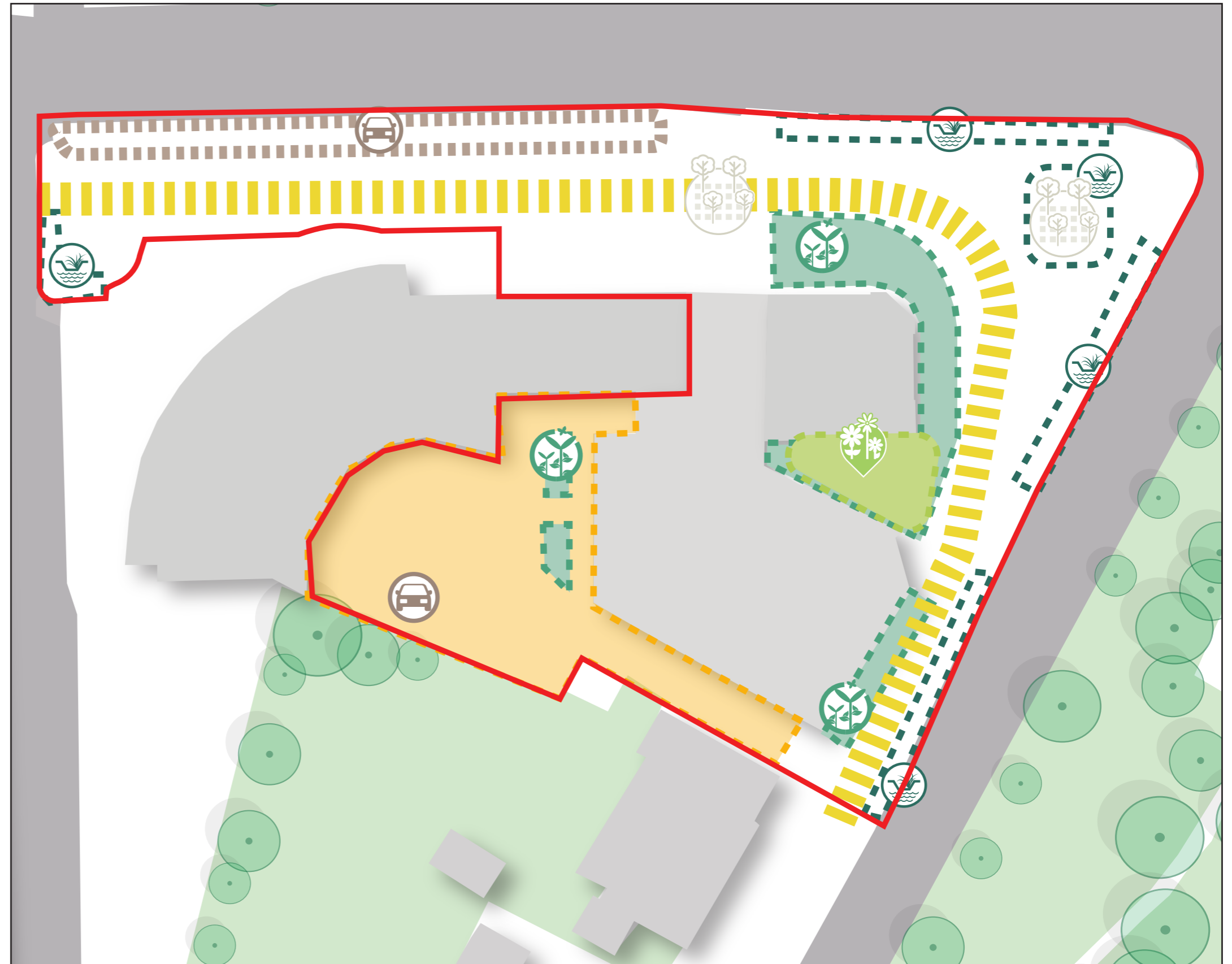


# 2.5 Landscape Character Areas

## External Space Types

The public realm space can be divided into the following open space typologies:

- **Activated Street**  
Public realm to Athgarvan road and Main Street  
Swales to retain water and provide a planted edge and feature space in the plaza.
- **Courtyard**  
The Courtyard will be mixed use void space creating opportunities for a number of programs within this space. This will include the following mix of open spaces:
  -  Parking provision for staff that will create a flexible void for programmed events throughout the year.
  -  Sensory garden / reading space
  -  Social space to extend the internal multifunction room
- **Rain Garden**  
Landscape interface between the new and existing library buildings creating an overlooked space.

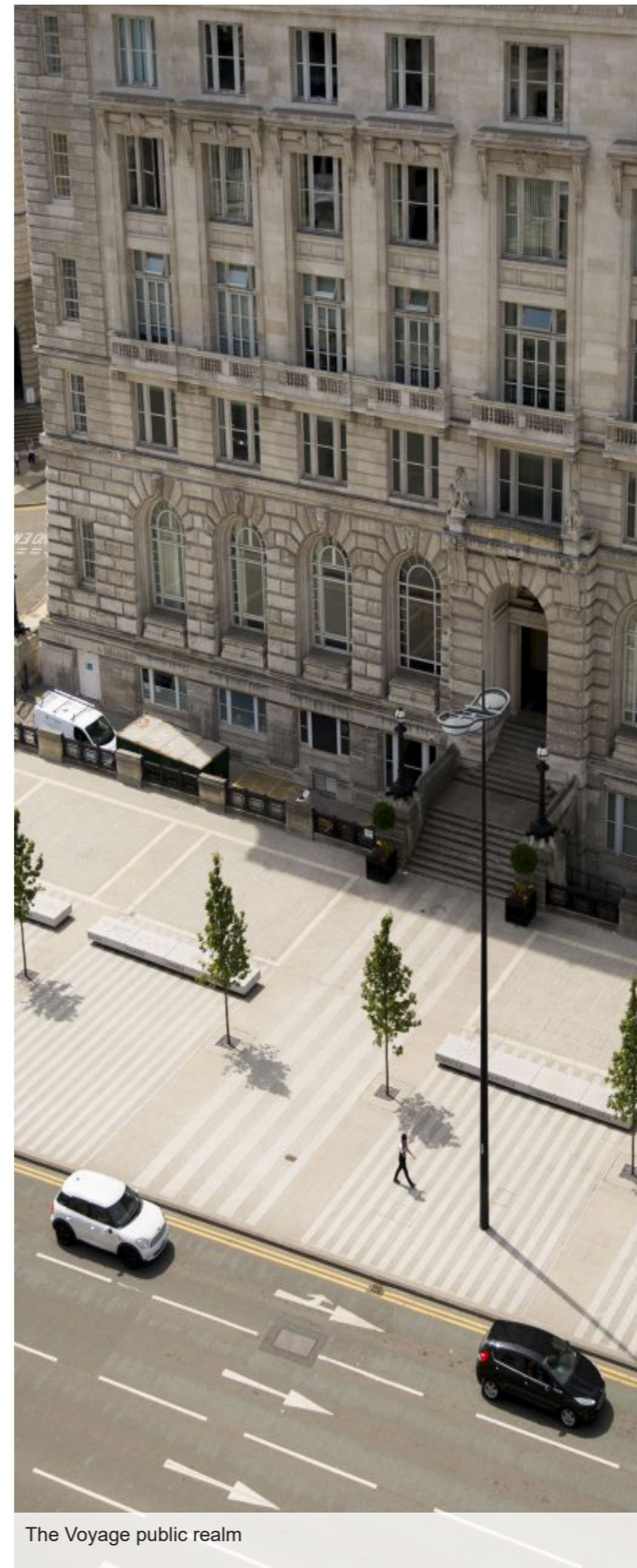
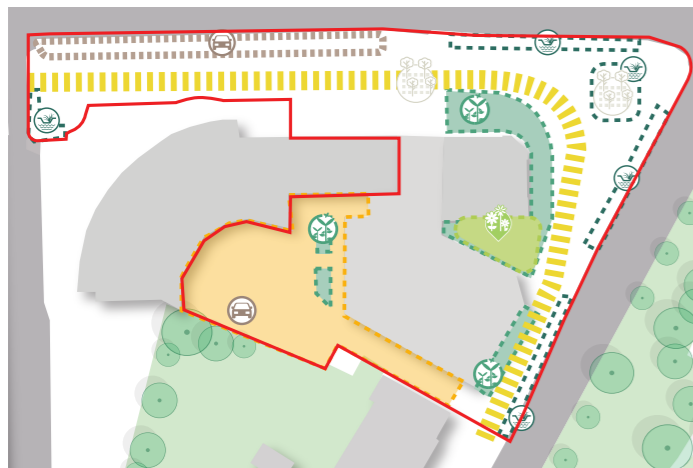


## 2.6 Activated Street

### Public realm to Athgarvan Road and junction

The extension of the pedestrian areas aims to reduce the current visual clutter thereby improving legibility of the streetscape and allowing for ease of movement. The extension of the public realm will be as a result of narrowing the roads to create a more inviting town centre. Additionally, the Library will act as a landmark for Newbridge as visitors and residents cross over the bridge on the altered road layout establishing the character of Newbridge. Paving will mark the entrance of the library and lead visitors to character areas within Newbridge adding to the legibility of the site and creating a high quality site.

The Kildare County Development Plan has objectives including WC 1 - High quality walking and cycling facilities and ECD 16 - High Quality Environment. Objective MT 6 - co-operating with the NTA will be necessary for this site as a temporary Section 38 intervention will be taking place on main street and a Part 8 proposal around the extension of the public realm through the removal of a left hand turn at the cross roads of Main street and Athgarvan Road in front of the library. The activated street aligns with Newbridge LAP aims of TC2 - Attractive Town Centre, RR6 - Improve High Street and RR8 - Improve Streetscape.



The Voyage public realm

### The Voyage, Liverpool Precedent Activated Street

The public realm project in front of a Grade 2 listed Cunard Building by BCA Landscape uses paving details, bespoke benches and lighting to tell the story of the 16 ships launched between 1840 and 1947 from Liverpool. The benches define the area that occasional service vehicles will perform drop offs without the use of bollards reducing the visual clutter in the area.

Applicability to Kildare County Library:

- The project renewed the public realm context of a listed building and key streetscape.
- It is designed to be robust, attractive and easy to manage.
- Bespoke elements, such as writing and images on the benches, tell the story of the historic building



Herringbone paving of alternating shades add texture to the site



Street trees to soften the landscape



Lettering on the granite benches name the Cunard Workers



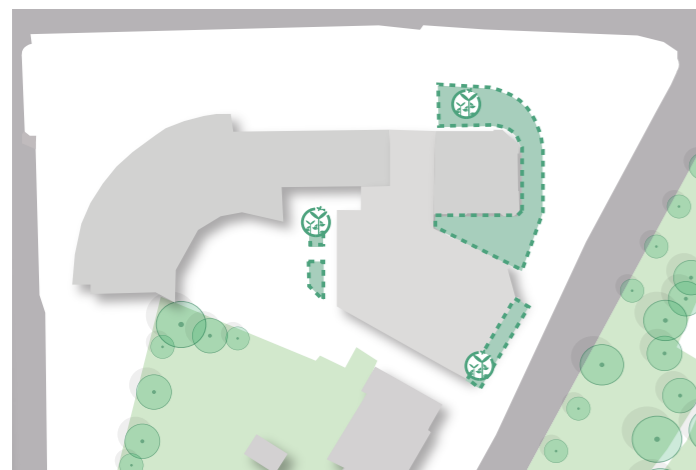
Durable seating opportunities personalised to the space

# 2.7 Activated Street

## The Rain Garden

Rain gardens provide opportunities for water retention, biodiversity and play. SUDs spaces respond to the design driver of connecting the site to the nearby River Liffey, a blue corridor through Kildare County. Native planting will be used to connect to and enhance the existing green spaces around the site. The rain garden is overlooked by the historic library building and the new building so a bio-diverse planting pallet would add to the visual amenity.

This is in line with policy in the Kildare County Development Plan as PK 8 - Utilise SUDS, 15.8.9 Sustainable Urban Drainage Systems (SUDS) which includes utilising local species to create amenity spaces and GI 5 - Connect to parks. Rain gardens, green roofs and permeable paving align with the Newbridge LAP goals of SW 1: SUDS and SW 4: Site Specific Solutions for controlling surface water drainage.



## Water Plaza, New York

### Precedent Rain gardens

The Water Plaza is situated between the American Copper buildings and is designed to be able to retained water during storm events or flooding by SCAPE. The swales are rock lined and have an underground retention system located between the plaza and the parking structure before slowly releasing the water to the East River. The bioswale plants were selected for retention and cleansing storm water.

Applicability to Kildare County Library:

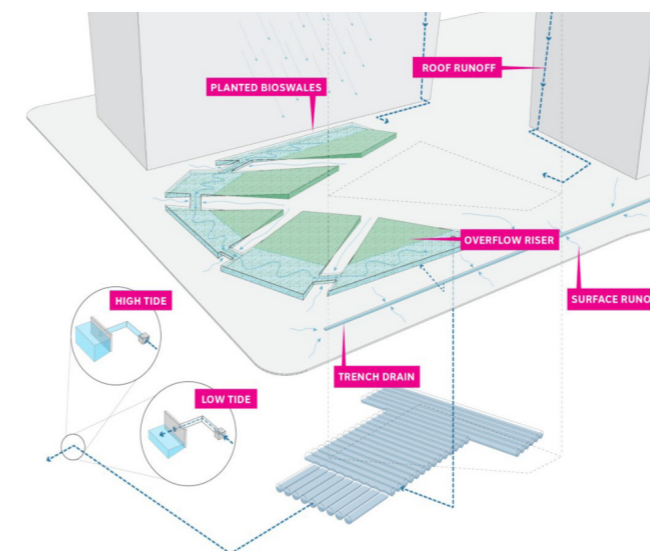
- The project is an intervention that is designed to retain water.
- The site is overlooked and shadowed by a building.
- The site has seating opportunities around planters for the general public and staff to use.



Water feature with play opportunities



Feature paving and permeable tree pits



Water Management onsite with SUDS systems



The Meeting House Square used as informal pedestrian space The Water Plaza creates rooms within the space

# 2.8 Courtyard

## The Courtyard

The Mixed-Use Courtyard is a void space between the Kildare County Library and the Newbridge Library. Currently it is utilised as a parking space but the space could provide an outdoor community space. Festivals including the Kildare Readers Festival 2020 could be accommodated in this space. The space can also be used for deliveries to the library and the theatre. This landscape typology has two sub-areas. Car parking and pedestrian space.

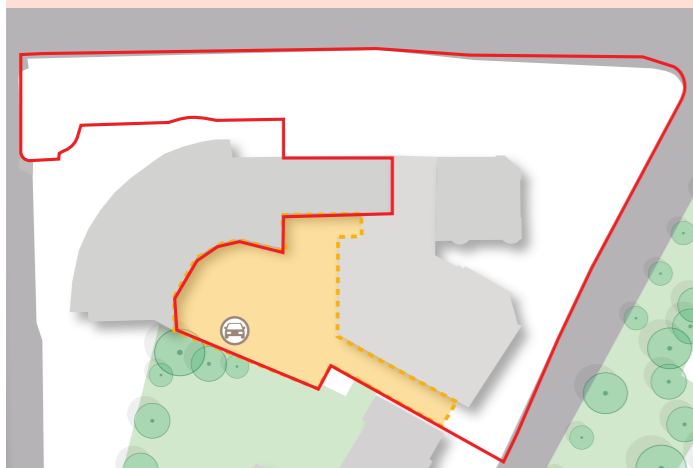
### Pedestrian Space objectives:

Kildare County Development Plan have objectives around mixed-use spaces including ECD 39 - Support Festivals, WC 8 - Require secure cycle parking, C 2 - Promote the use of community facilities and SC 2 - Cultural facilities are focal points and LBO 2 - Improve library provision. Newbridge LAP aims that are relevant to this typology include TC3 - Protect Town Centre Role and CF 10 - Accessible facilities.

Newbridge LAP has objectives about pedestrian spaces including PKO 4: Cycle parking, CF 10 - Accessible facilities, GMO 2: Promote pedestrian modes and TC3 - Protect Town Centre Role.

### Car parking objectives:

The car parking landscape typology adheres to the Kildare County Development Plan objectives of WC 8 - secure cycle parking, PK 2 - Design Car Parking using DMURS, C 4 - promote accessibility and LBO 3- Disabled Access for Libraries. Newbridge LAP has aims for car parking including PKO 1: Accessible car parking space and PKO 3: High standard car parking.



Outdoor Cinema

## Meeting House Square, Dublin

### Precedent Multi-functional Courtyard

Home of the Irish Film Institute since 1992 and surrounded by Gallery of Photography, The National Photographic Archive and the Ark, boasting its Calatrava stage. It is used as an outdoor room for cultural activities, acting as a cinema, a performance venue and a Saturday Food Market. The Temple Bar Cultural Trust commissioned Sean Harrington architects to create a retractable canopy roof to make the space usable in all weathers.

### Applicability to Kildare County Library:

- Multi-functional space provides an area for revenue generating events throughout the year.
- Movable furniture allow for flexibility within the space
- A community space that brings residents and visitors together.



Market Place use for the Square



Concert Venue



Moveable furniture and paving marking the central activity space.



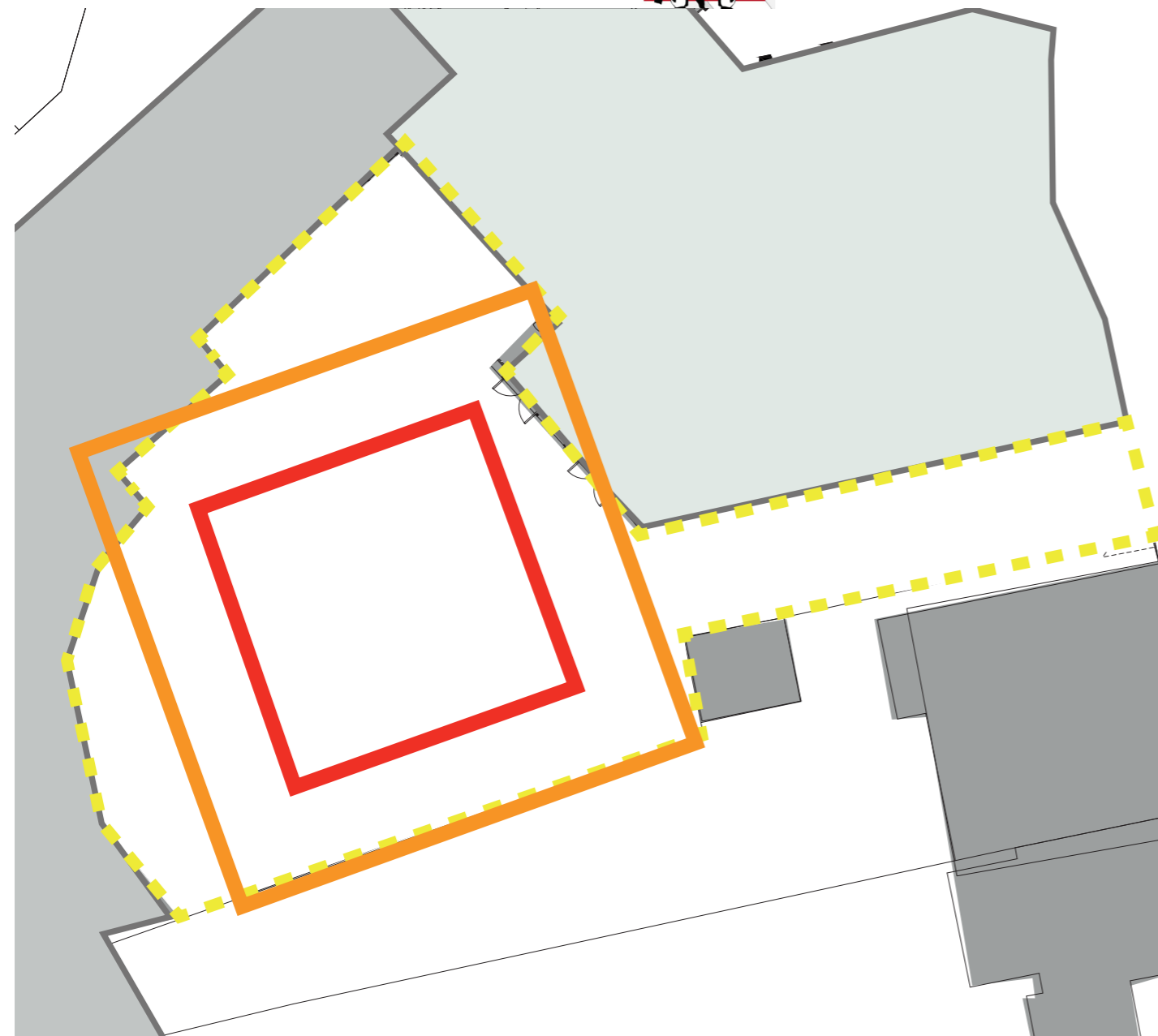
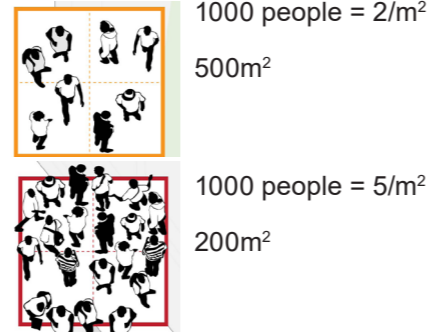
The Meeting House Square used as informal pedestrian space

# 2.8 Courtyard

## Pedestrian capacity

Studies have led the design team to analyse adaptability within the site, including multi-use and performance spaces. This study has also demonstrated the capacity of the site, using varying densities of congregation.

Courtyard Area Total: 808m<sup>2</sup>



Markets taking place in a public space.



High density concert within a courtyard.

## 2.8 Courtyard

### Courtyard - Parking

The courtyard parking provision should be integrated into the wider design allowing the space to be used by pedestrians during big events. Some methods of doing this include, car parking subtly marked within the paving design, different colours of pavers showing parking lines, demarcation studs and SUDs paving.

### Kildare County Development Plan

#### PK 2 - Design car park

Design car parking layouts in accordance with the Design Manual for Urban Roads and Streets (DMURS) 2013.



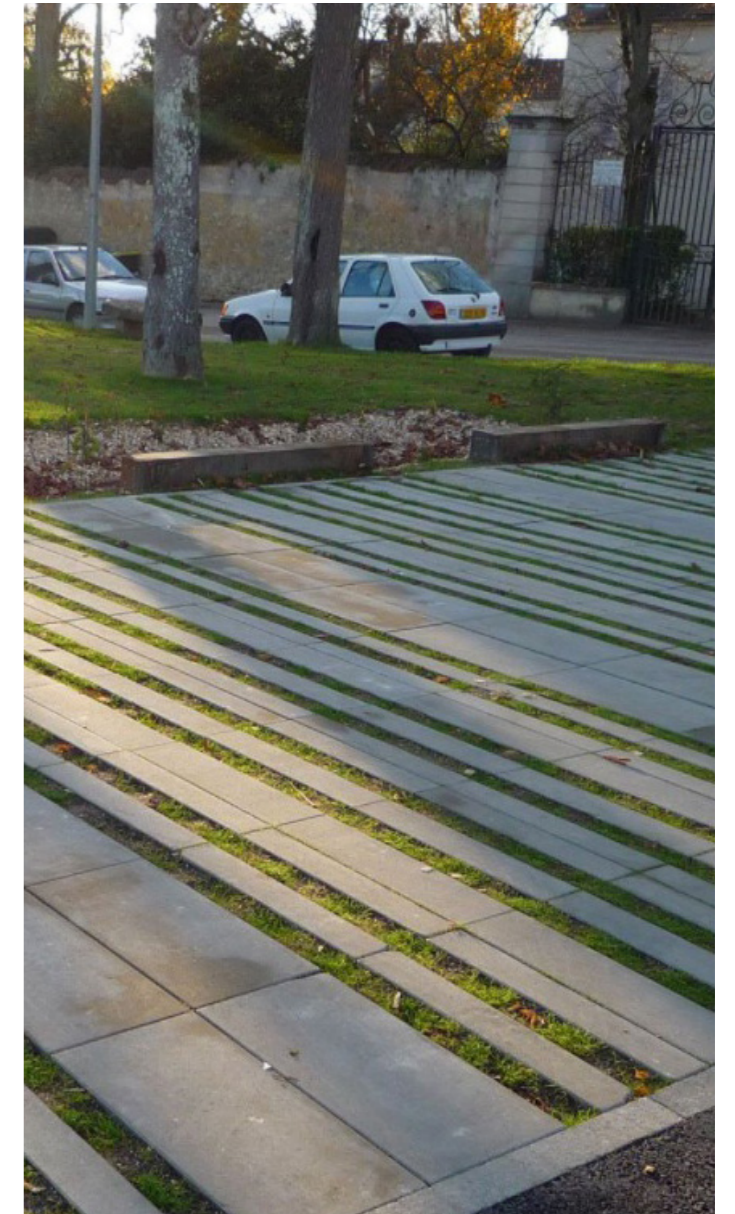
The parking areas for the Plaza de la Luna are marked by a band of paving and the change in direction of the paving stripes.



The John Lewis store in Tamworth has hydro-paving, laid out so that the parking lines and the parking spaces are defined.



Demarcation studs are used in Durhamgate to show the edges of the car park.



The Guitran Court Place du Village is town hall and church space that has a amphitheater, play area and linear grasscrete car parking spaces.

# 2.9 Sensory garden

## Sensory garden

The sensory garden will be an enclosed space which will be planted on the external edges and give a different feel to the rigidity of the bands.

This will allow for seating to be developed on the internal edges for reading events to be held creating an outdoor reading room.

Planting will provide enclosure and allow for smell, sound and tactile experiences in this space.

Smaller planting areas will bolster the sensory planting opportunities and provide a soft landscape elements within the multi functional space.

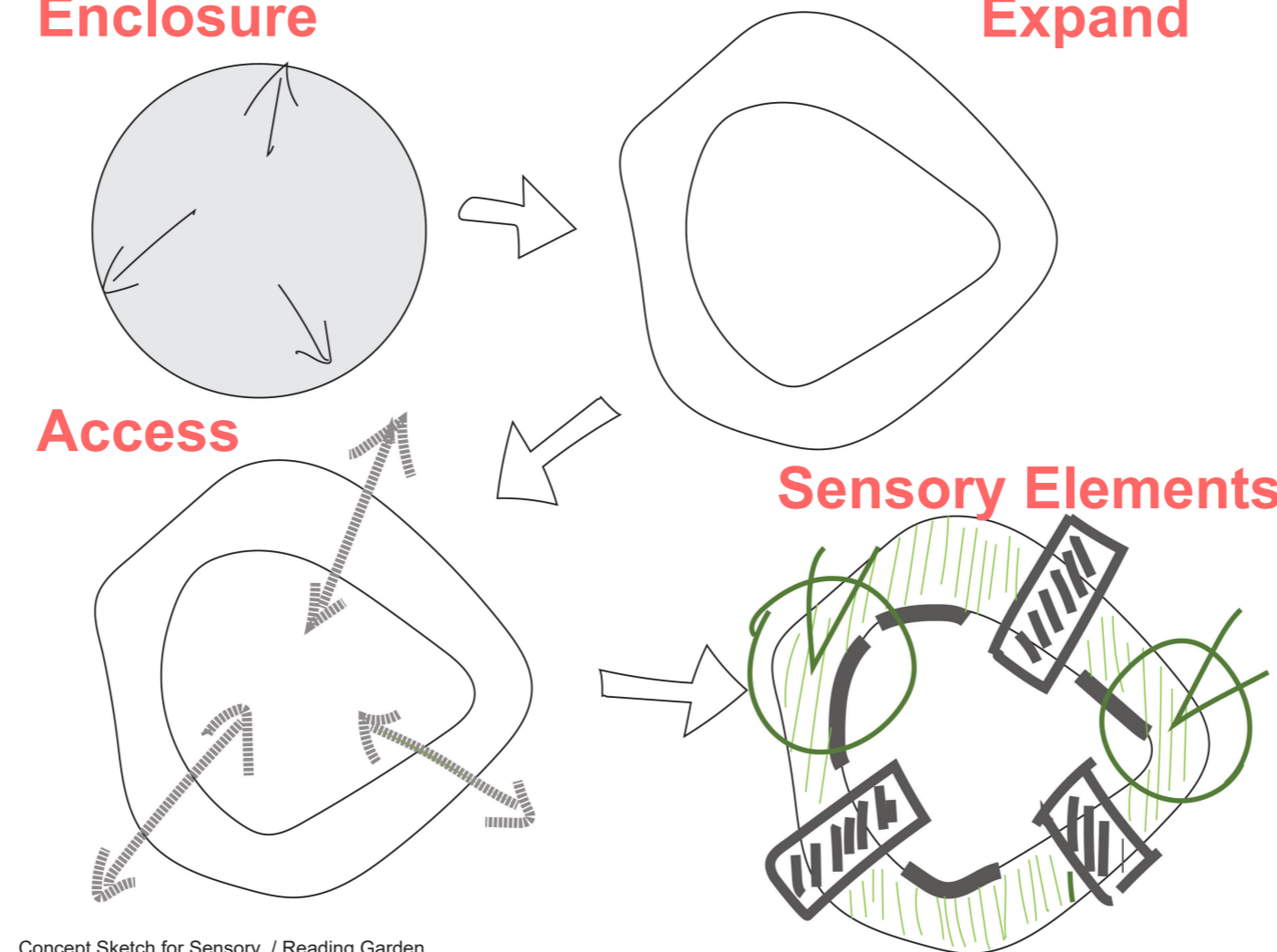
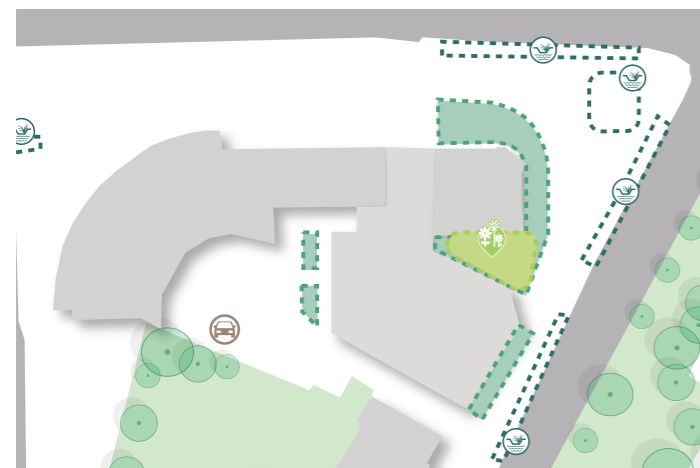


**Enclosure**

**Expand**

**Access**

**Sensory Elements**



Concept Sketch for Sensory / Reading Garden

## Kildare County Development Plan

### LBO 2 - Improve library provision

Support the development of the county's library services to all settlements/areas in which population and/or the county's library services and the implementation of the objectives and actions set out in the Kildare Library Service Plan 2015-2019 in delivering educational, cultural, training and learning centres across the county. .

### WC 8 - Require secure cycle parking

Require the provision of secure cycle parking facilities in towns, at public service destinations and in all new residential and commercial developments.

### C 2 - Promote use of community facilities

Promote the shared use of educational and community facilities for community and non-school purposes where possible, so as to maximise the sustainable use of such infrastructure and promote community cohesion.

### ECD 39 - Festivals

Support and promote existing festivals and sporting events to increase the cultural heritage and lifestyle profile of the county, and where appropriate to promote and facilitate the development of new events.

## Newbridge Local Area Plan

### TC3 - Protect Town Centre Role

To ensure that the important economic, social, cultural and residential role of the town centre is protected and enhanced and that its vibrance, vitality and environmental quality are maintained and improved.

### CF 10: Accessible facilities

To ensure that all arts and cultural facilities in the ownership and management of the Council are accessible



## 2.10 Early Design Concept Sketch



3.0

Landscape Masterplan

# 3.0 Landscape Masterplan

## Landscape Layout

The landscape layout for the courtyard, the plaza, the pedestrian pathway along Main Street and the new cycle lane and vehicle parking layout.

**LEGEND**

**SOFTWORKS**

- SORBUS AUCUPARIA
- SORBUS ARIA
- BETULA PENDULA
- RETAINED EXISTING TREE
- SCREENING PLANTING  
SEE SOFTWORKS SHEET 7001
- SWALE PLANTING  
SEE SOFTWORKS SHEET 7001
- ORNAMENTAL PLANTING  
WITH HEDERA HELIX ON WALL  
SEE SOFTWORKS SHEET 7001
- SENSORY PLANTING  
SEE SOFTWORKS SHEET 7001

**HARDWORKS**

- NATURAL STONE  
GRANITE  
MID GREY
- NATURAL STONE - TYPE A  
GRANITE  
LIGHT GREY
- NATURAL STONE - TYPE B  
GRANITE  
LIGHT GREY
- RESIN BOUND GRAVEL  
BUFF
- BRICK PAVING  
COLOUR - RED MIX, HERRING BONE  
215 mm x 102.5 mm x 65 mm
- GRANITE SETTS  
LIGHT GREY - 100 x 100mm
- GRANITE SETTS  
COLOUR: DARK GREY - 150 x 150mm
- PRECAST CONCRETE PAVING  
COLOUR: LIGHT GREY  
200 x 100 x 100mm
- PRECAST CONCRETE PAVING  
COLOUR: MID GREY  
200 x 100 x 100mm
- ROOF LINE
- EXISTING GRAVEL  
BUFF
- PCC KERB  
125 x 150 x 914mm
- PIN KERB  
50 x 150 x 914mm PCC
- DROP KERB  
125 x 150 x 914mm

**SOFTWORKS**

- GALVANISED STEEL EDGE
- TACTILE PAVING  
400 x 400 x 80mm, PCC BLISTER AND  
CORDUROY PAVING
- ASPHALT ROAD SURFACE  
TO OTHERS
- CYCLE SURFACE
- RETAINING WALL  
CONCRETE
- SLOT DRAIN  
SEE CIVIL LAYOUT  
FOR DETAILS

**SITE FURNITURE**

- RETAINING SEAT WALL  
CONCRETE
- BENCH  
TIMBER BENCH
- CURVED RADIUS BENCH  
TIMBER BENCH
- SEATING WALL BENCH  
TIMBER BENCH
- CYCLE HOOPS  
SEE DETAILS
- INFILL TREE GRILLE  
1500 x 1500
- DEMARICATION STUDS  
STAINLESS STEEL  
TO COURTYARD PARKING SPACES
- CAR PARKING SPACES
- RAILING  
1.2m HIGH GALVANISED STEEL
- HAND RAILING  
1.2m HIGH
- CYCLE AND BIN SHELTER  
TO ARCHITECTS
- LAMP POST TYPE A  
REFER TO LIGHTING LAYOUT
- UNDER SEAT LIGHTING  
SEAT WALL
- UNDER SEAT LIGHTING  
BENCH
- STEPS LIGHTING  
TO OTHERS



4.0

Materials

# 4.1 Materiality

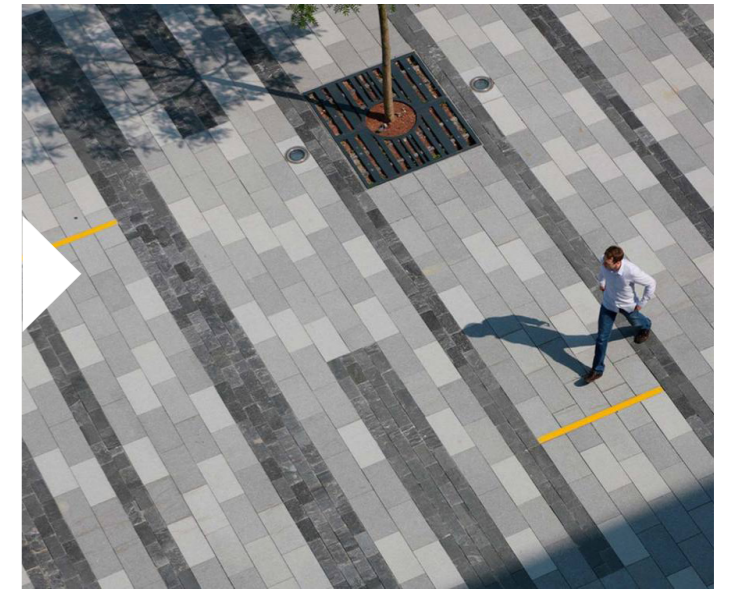
## Materiality for the site

Drawing on our extensive experience of design projects of similar scale and complexity, we will develop a bespoke hierarchical materials palette for both hard and soft landscape areas within the public realm.



## Hardworks Palette

The hardworks palette has been chosen to be sympathetic and contextual to the surroundings, yet the materials equally need to be robust and durable with the intention of bringing a more modern and contemporary feel to enhance the space.



The design will be mindful of the need for ease of maintenance and with an focus on long term management. Existing features which benefit the environment will be retained wherever possible. A unifying palette of materials appropriate for use, which include vehicular; cyclist; and pedestrian areas will be developed to ensure that cost is controlled, while quality is delivered at every scale.



## Softworks Palette

The softworks palette will consist of robust street trees to give colour and seasonal interest as well as under planting to create distinct spaces. Grasses will be used to give movement and form as well as being durable. Semi-mature trees will be included complete with underground drainage and guying systems to help promote establishment.

Soft landscaping with native provenance and trees appropriate to location will be specified to further reinforce the character and enhance biodiversity.



## Furniture

Street furniture has been chosen to be robust and solid but similarly to the hardworks palette we have selected furniture with a contemporary and modern design to help promote and stylise the space and thereby give ownership to users of the public realm and courtyard spaces.



## 4.2 Surface Treatment



*Paving Type -01*  
Granite | Feature Banding Plaza  
Mid Grey



*Paving Type -02 / Type 03*  
Granite | Plaza and streetscape  
Light Grey



*Paving Type -04*  
Existing Gravel | Historic wall  
Buff



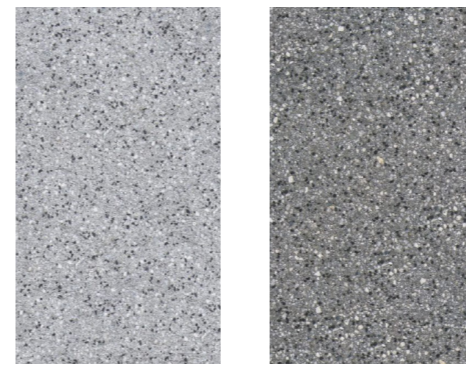
*Paving Type -05*  
Resin bound gravel | Historic wall  
Buff to match existing stone



*Paving Type -06*  
300 x 100 x 100mm  
Clay Brick Paving | Garden  
Buff



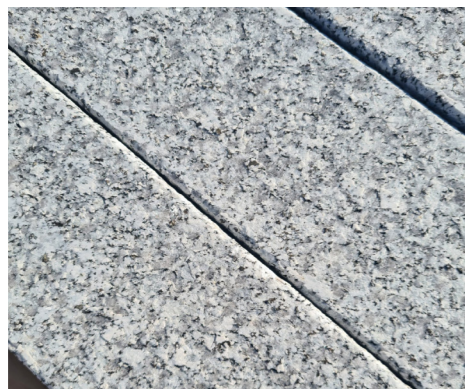
*Paving Type -07*  
Concrete setts | Historic walls



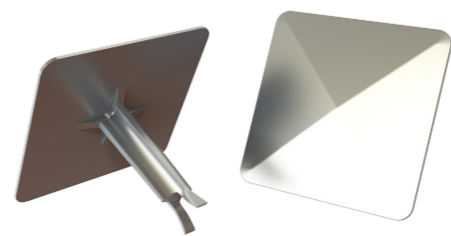
*Paving Type -08*  
PCC Paving |  
Coutyard car park  
Grey / Mid Grey



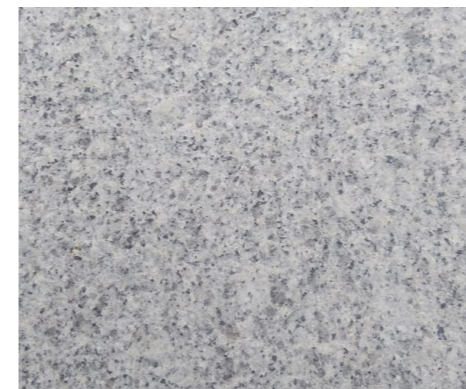
*Paving Type*  
Granite | Public Realm parking  
Dark Grey



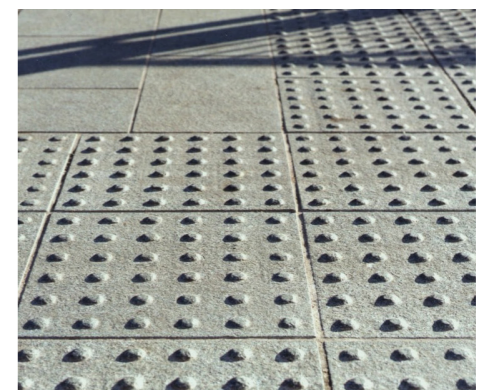
*Kerb*  
Kerb | Road side



*Demarcation studs*  
Aluminum | Demarcation studs



*PCC Kerb*  
Pin kerb | Site Wide  
Silver



*Tactile paving*  
Granite  
Tactile Paving | Road crossings  
Contrast to adjacent paving

## 4.3 Site Furniture



Seating Wall | Site Wide  
Precast Concrete  
Acid etched finish



Bicycle Rack | Plaza  
Public Use  
Stainless steel



*Tree Grille*  
Heavy-duty galvanised steel  
structure | Plaza  
*Trays filled with paving to match*



Seating Wall Bench  
Timber | Site Wide



Bollards | Site Wide  
Removal Bollard



Bins | Site Wide

# 4.4 Lighting

## Public Realm Lighting

The lighting in the public realm allows the public to utilise the space outside of daylight hours, during everyday operation and for the events. There will be ambient lighting and task lighting with bollards and lighting columns making up the later and meeting the minimum lighting requirement.

The following sources have been used in the development of a lighting strategy that provides sufficient light for street typologies and the courtyard and rain garden spaces:

- Public Realm Design Manual
- BS EN 40: 'Lighting columns. Design and verification'
- Dark Sky Ireland: 'Best Practice Public Lighting'



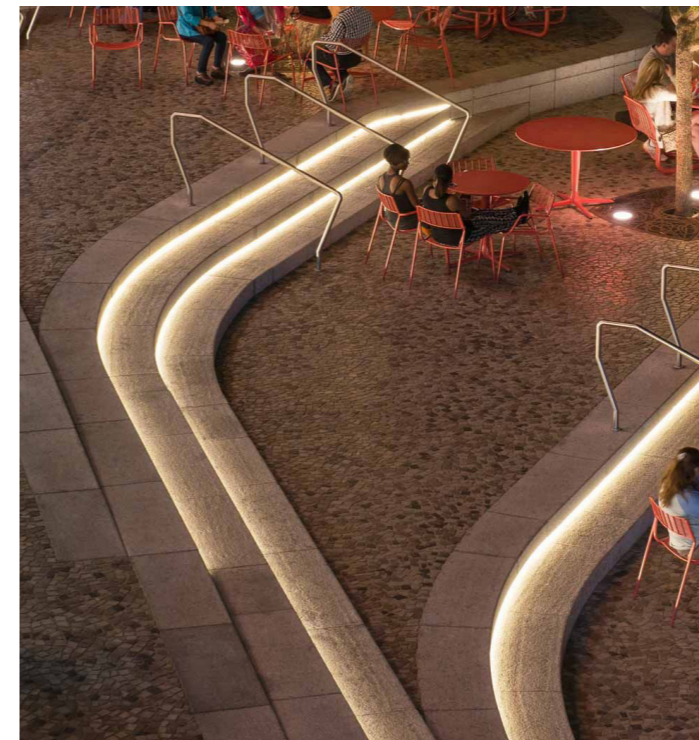
Bollard lights 0.8m high that illuminates the public realm in the courtyard and rain garden.



Light posts 8m high that illuminates the public realm in the courtyard and rain garden. 3000K lighting for a warm white colour tone that is suitable for night vision whilst reducing glare.



Under seat lighting with LED strips, the downward direction of the reduces light pollution.

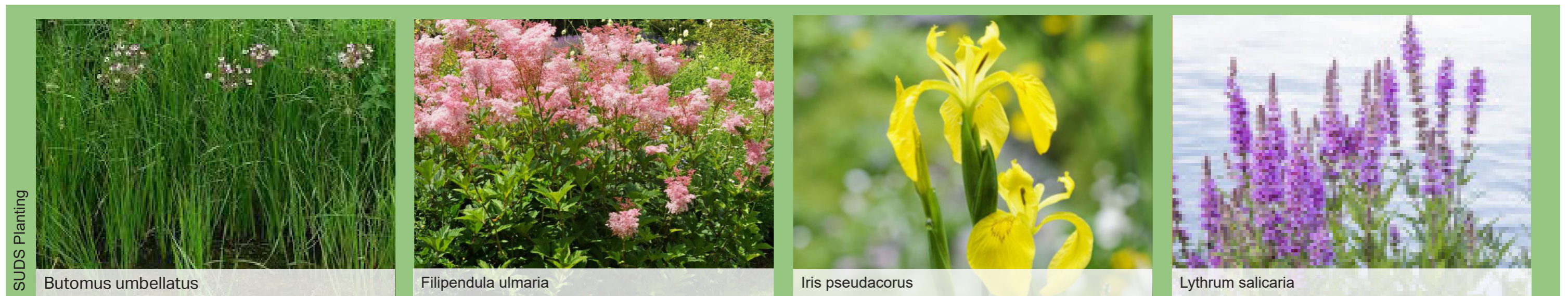
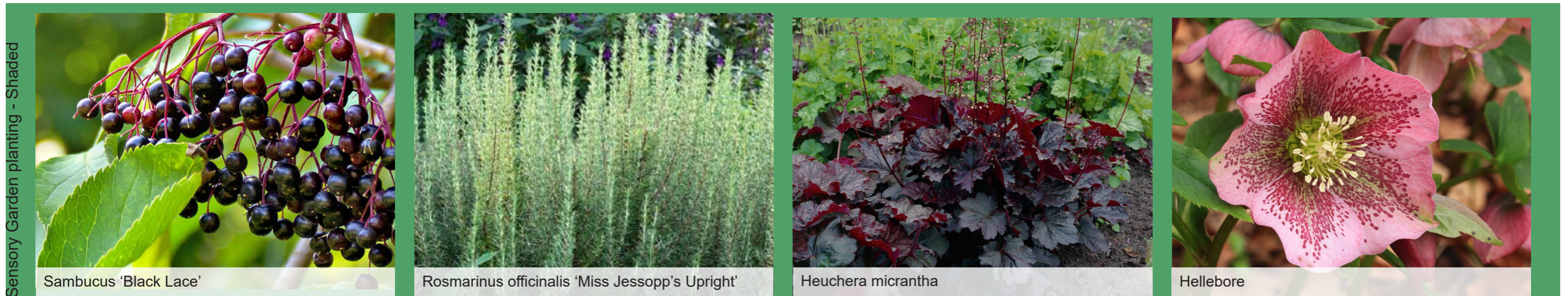


LED lighting under steps to increase visibility of the steps and add a landscape feature.



# 4.5 Softworks

## Softworks Palette



# 4.5 Softworks

## Softworks Palette

Formal Planting



Filipendula ulmaria



Lavendula angustifolia



Artemisia ludoviciana

Ornamental Planting



Aruncus dioicus



Achillea millefolium 'Summer Pastels'



Achillea filipendulina 'Cloth of Gold'

Screening Planting



Sambucus 'Black Lace'



Rosmarinus officinalis 'Miss Jessopp's Upright'



Leucanthemum vulgare

# 4.6 Green Infrastructure

## SUDs Typologies

Across the site there are many opportunities to incorporate SUDs into the project through a variety of typologies including green roofs, permeable paving, rain gardens and underground storage. These typologies add to the character of the area and retain water during peak rainfall events. Please refer to Civil Engineers package, drawing 60669624-ACM-XX-00-DR-CE-10-0520 shown here.

### Kildare County Development Plan PK 8 - Utilise SUDs

Encourage the use of materials and engineering solutions that optimise natural surface water drainage as part of Sustainable Urban Drainage Systems (SUDs).

#### 15.8.9 Sustainable Urban Drainage Systems (SUDs)

SUDs should be an important part of drainage infrastructure of a development....It is important that all development considers the relationship with SUDs as an element of drainage infrastructure as well as a leisure and visual amenity.

The use of swales to retain and discharge water. SUDs should be planted utilising indigenous species that can withstand both very wet and dry conditions.

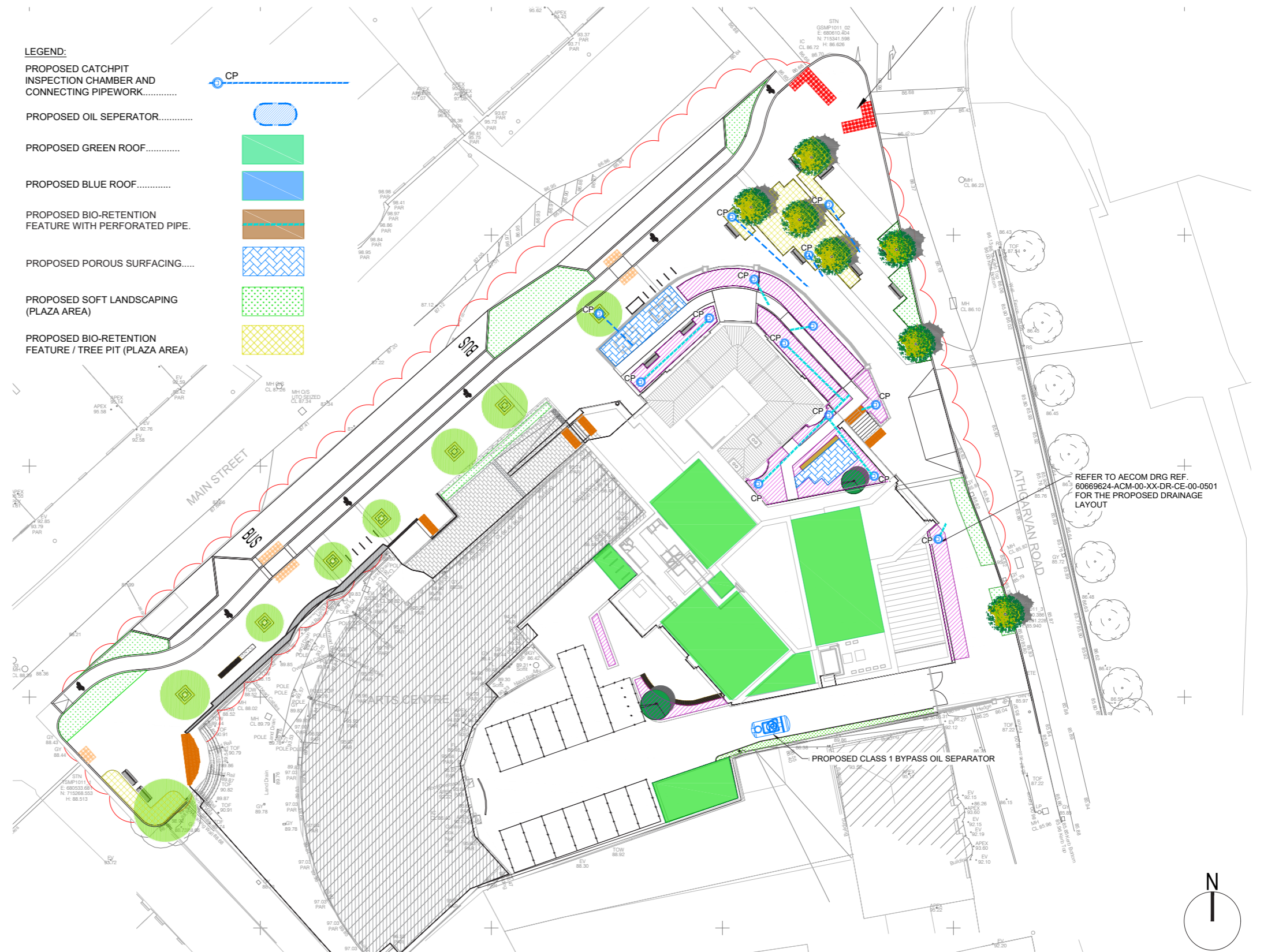
### Newbridge Local Area Plan

#### SW 1: SUDs

To ensure that new developments incorporate appropriate SUDs facilities, designed, constructed and maintained in accordance with the requirements of the Greater Dublin Strategic Study (GDSS) for treating and controlling the discharge of surface water from developments.

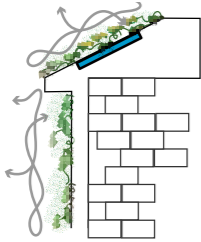
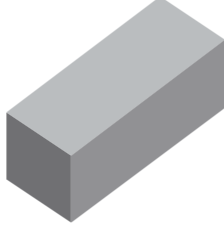


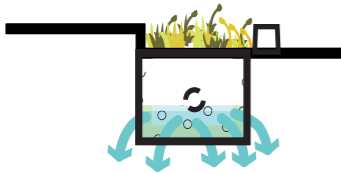
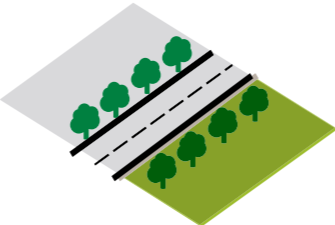





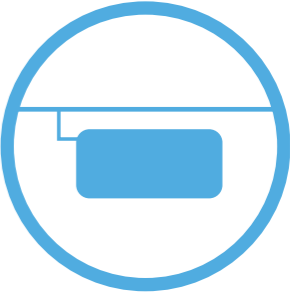
#### SW 4: Site specific solutions

To require developers to adopt site specific solutions to surface water drainage systems in all cases.



# 4.6 Green Infrastructure

## SUDS Typologies

Type	Description	Setting	Required Area	Precedent	Symbol
 <p>Green Roofs</p>	<p>A planted soil layer is constructed on the roof of a building to create a living surface. Water is stored in the soil layer and absorbed by vegetation.</p>	 <p>Building</p>	<p>Building integrated</p>		
 <p>Bio-retention Area</p>	<p>A vegetated area with gravel and sand layers below designed to channel, filter and cleanse water vertically. Water can infiltrate into the ground below or drain to a perforated pipe and be conveyed elsewhere. Bio-retention systems can be integrated with tree-pits or gardens.</p>		<p>Typically surface area is 5-10% of drained area with storage below.</p>		
 <p>Underground Storage</p>	<p>Water can be stored beneath the ground to provide attenuation for example in tree pits</p>	 <p>Street/Open Space</p>	<p>Dependant on runoff volumes and soils.</p>		

# 4.7 Green Roofs

## Extensive Green Roof: Substrate and Structure

The Green Roof typology will be an extensive green roof and will be inaccessible to residents. It will primarily be a space for biodiversity and heat absorption. The biodiversity will be achieved through a variety of techniques to produce different habitats.

### Substrate and Structure

#### Structure

Green roof structure must adhere to the criteria set out in BS EN 1990:2002 'Eurocode - Basis of Structural Design' particularly 'EN 1991 - Eurocode 1: Additions on structures.'

The depth of the soil will be an average of 115mm depth total with varying depths of soil up to 150mm thick.

#### Green roof substrate requirements:

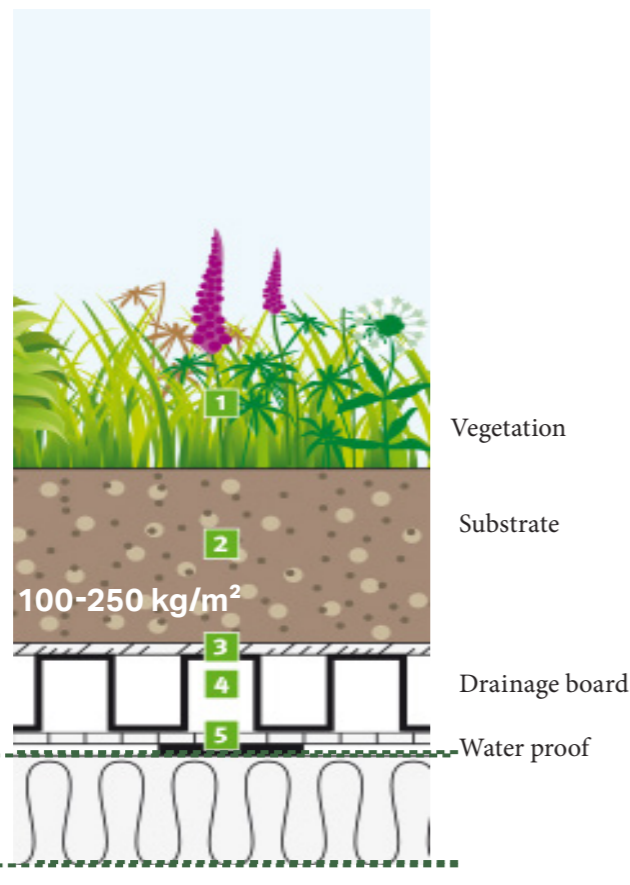
- Light weight, no more than 20% organic content.
- Wind and water erosion resistant
- Promote plant anchorage due to risk of wind uplift
- Essentially free of weeds, diseases and contaminants.
- Peat free and fire resistant.
- Suitable water permeability, retention and release.
- Adequate air porosity and resistance to compaction to prevent root damage.
- Not contain sharp points that would damage the water proof layer.

#### Origin and composition to be used:

- Green roof substrates must be tested according to BS8616:2019 or equivalent.
- Green roof substrates must be supplied within the Republic of Ireland or within the EU.
- Extensive green roof has a lower nutrient requirement.
- Can contain recycled aggregates.



Self seeded brown roof - Laban data centre



Green roof substrate cross section



Extensive green roof - Swarthmore College

# 4.8 Sustainability

## Sustainability

Sustainability comprises of 3 spheres, social, economic and environment.

The landscape for Kildare County Library will be a space that can be utilised by the local community and visitors from across the county adhering to the social sphere of sustainability. The sensory garden will provide an accessible space, encourage end users to engage all their senses and help children develop their fine motor skills. The invigorated public realm will provide an attractive open space marking the entrance to Newbridge and creating a sense of place. This space will encourage pedestrian use increasing utilisation for the space.

Economically the landscape will provide opportunities for funding through the use of the space. The courtyard will become an event space for festivals, art installations and markets.

The environmental aspect of the landscape for KCL links the existing green infrastructure to planting onsite, native plants, the use of SUDS onsite and the materiality onsite.

The existing green and blue infrastructure of the nearby Liffey Linear Park and the River Liffey will link to the site through the tree line and the use of local plants. Additionally the green roof will provide materials that will allow local birds and insects to thrive.

The SUDS will be incorporated into the project through a variety of typologies including green roofs, permeable paving, rain gardens and underground storage. These typologies add to the character of the area and retain water during peak rainfall events creating a more resilient space. The green roof with 100mm can retain 369mm of run-off (Metens, 2006). Rain gardens provide biodiversity by using flood tolerant plants. Underground storage will be utilised under permeable parking and under street trees to retain water.

Native planting will be utilised across the site for better integration into the local habitat.

The materiality will include permeable paving that allows for water infiltration and reclaimed hardscape materials.

Policy supporting the social sphere:

Kildare County Development Plan have objectives around mixed-use spaces including ECD 39 - Support Festivals, WC 8 - Require secure cycle parking, C 2 - Promote the use of community facilities and LBO 2 - Improve library provision.

Newbridge LAP has objectives about pedestrian spaces including PKO 4: Cycle parking, CF 10 - Accessible facilities and GMO 2: Promote pedestrian modes



Sensory gardens have opportunities for exploration through planting that engages all the senses.

Policy supporting the economic sphere:

Kildare County Development Plan have objectives around mixed-use spaces including ECD 39 - Support Festivals and SC 2 - Cultural facilities are focal points

Newbridge LAP aims that are relevant to this typology include TC3 - Protect Town Centre Role



Event taking place within a mixed use courtyard.

Policy supporting the environmental sphere:

Kildare County Development Plan: PK 8 - Utilise SUDS, 15.8.9 Sustainable Urban Drainage Systems (SUDS) which includes utilising local species to create amenity spaces and GI 5 - Connect to parks.

Rain gardens, green roofs and permeable paving align with the Newbridge LAP goals of SW 1: SUDs and SW 4: Site Specific Solutions for controlling surface water drainage.



SUDS underground storage for tree pits in hardscape.

5.0

Plaza Development

# 3.3 Plaza Design

## The Plaza

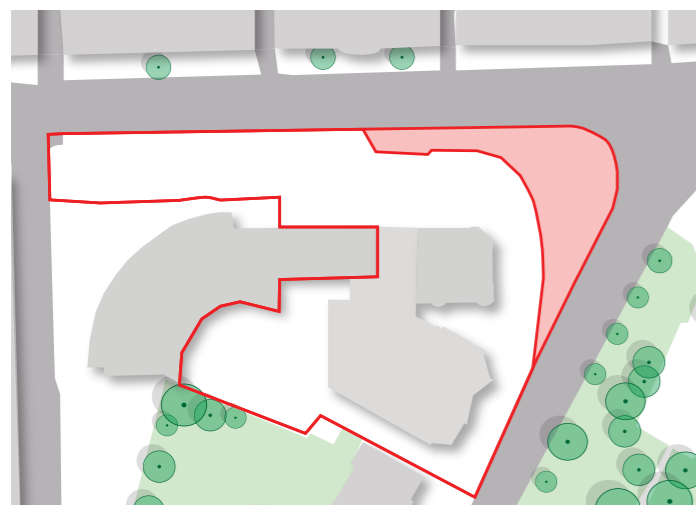
The plaza design is reflective of a proposed NTA layout for the kerb and road alignment.

The paving pattern is relating to the facade of the library and Historic building with subtle changes in the banding intensity as it approaches entrance space of focal points along the street. The rectilinear shape reflects the paving and the garden within the historic wall. The overall orientation of the paving bands address the riverbank Theatre, Kildare library entrance and the historic library building given them a grounding in the public realm.

The design is reflective of the concept approach of books stacked. The banding will contain inlay text as pedestrians move along the street relating to the library and adapted from local literature.

The corner plaza space will create a gateway point when entering Newbridge and highlight the landmark buildings and civic uses.

Pedestrian desire line have been factored into the design of this space while maintaining the concept approach outline previously.

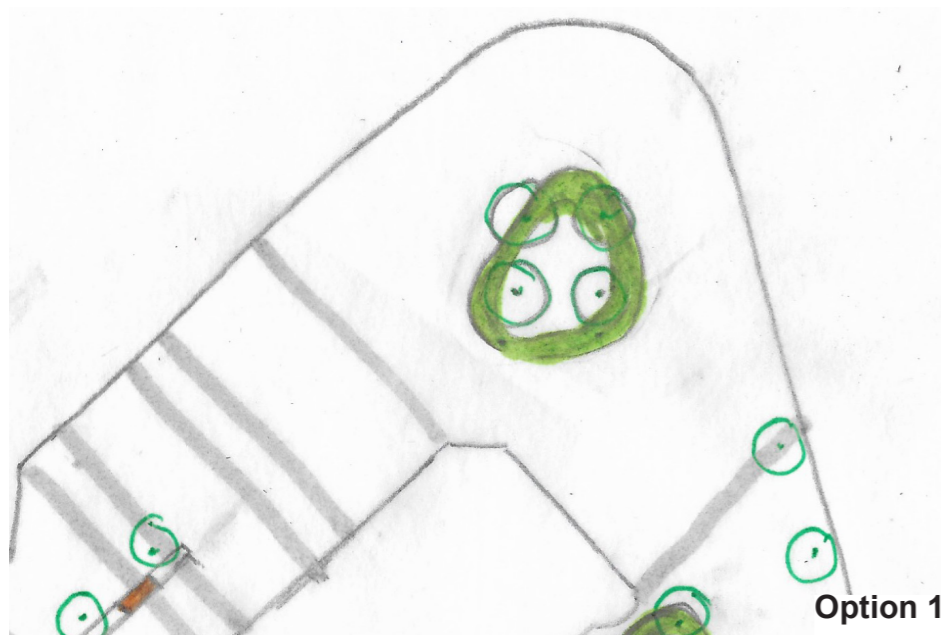


Scale Bar: 1:250





# 3.3 Plaza Design Development



Option 1

Echoing the sensory garden shape from Stage 1 the void shape would provide a shelter space within the plaza.

**Pros**

Creates a focal point seating area at the Newbridge Main street entrance given definition to the street

**Cons**

It contrasts the linear paving bands and the shape is no longer elsewhere in the design.



Option 2

This allows for access through the planting space, inspired by open book, the design creates a shelter space in the centre of the plaza.

**Pros**

Shelter space is rectilinear which relates to the current banding within the design

**Cons**

The planting is large for the plaza space and reduces the permeability for pedestrians to walk across the space



Rectangular planters with feature seat walls incorporating book titles and quotes from Kildare literature within the seats and planter edges.

**Pros**

In line with the rectilinear design of the plaza and relating to the geometry of the Historic building and Library entrance on Main street.

**Cons**

Need further development with proposed desire lines through the space.

