

The Liberties

Greening Strategy

2015



FINAL VERSION



“With population densities as high as 18,000 per km² in places, the inner city has a social, economic, indeed moral claim for substantially greater ‘green’ investment.”

from; Beyond Pebbledash, by Paul Kearns and Motti Ruimy, Dublin 2014.



About the Strategy

The Liberties Greening Strategy is a strategic document that builds on the policies and objectives of the Liberties Local Area Plan. It is a strategy that seeks to improve the recreational and amenity resource for the community, while focusing specifically on projects that have a realistic chance of being implemented in the medium term. Whilst the strategy builds on what is directed by the Local Area Plan, the focus is primarily on sites that are within the charge of Dublin City Council. Crucially this approach allows the City Council to make proposals that can be realised without being dependant on third parties.

The strategy is an initiative of the Parks and Landscape Services Division of Dublin City Council in collaboration with the South Central Area Office. The strategy has been prepared with the assistance of Áit Urbanism + Landscape and Mary Tubridy & Associates.

The Greening Strategy puts forward a vision for a network of new urban parks, making accessible heritage green spaces and the refurbishment of existing green spaces and play areas. In addition the strategy puts forward an area wide tree planting strategy which champions best practice and promotes innovation. The design proposals for specific spaces illustrated in this document are indicative only. The design for any given spaces would be subject to further consultations and design in advance of being realised.

Project Manager :

Peter Leonard Executive Landscape Architect

Project Team:

Leslie Moore City Parks Superintendent, Parks and Landscape Services

Tony Flynn Area Manager, South Central Area.

Bruce Phillips Assistant Area Manager, South Central Area.

Sean Redmond Executive Parks Superintendent

Fiona Craven Environmental Engineer

Daibhí Mac Domhnaill Áit Urbanism + Landscape

Mary Tubridy Mary Tubridy & Associates

Jim Bloxam Áit Urbanism + Landscape

Margaret Egan Áit Urbanism + Landscape

The Dubline Project for High St. / St. Audeon's, St. James Churchyard and St. Lukes are all by Bernard Seymour Landscape Architects for and on behalf of Dublin City Council.

1.0 Why a Greening Strategy and why now?

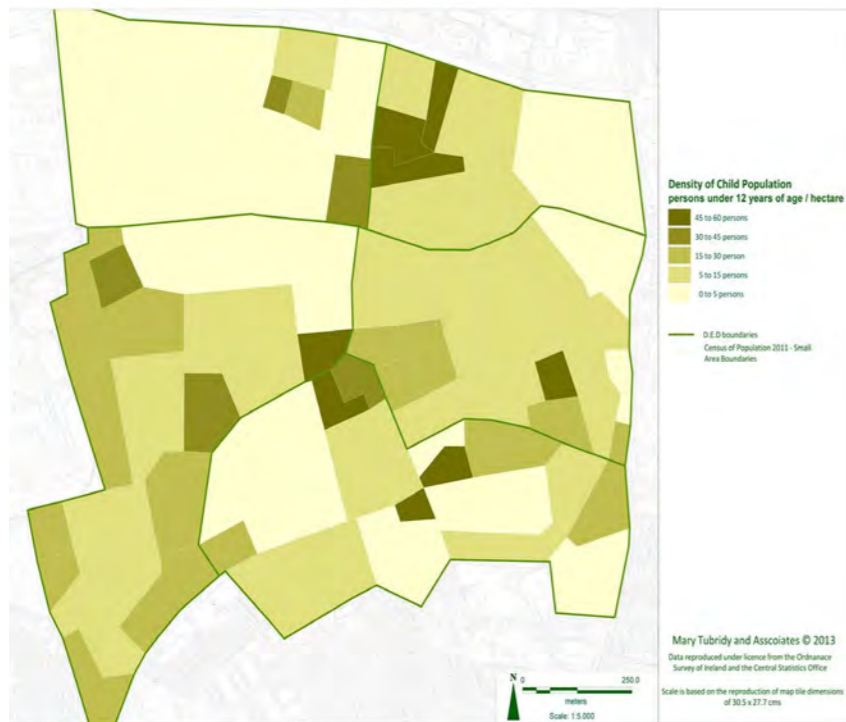


Fig. 1.1 Distribution of children under 12. Areas with greatest concentration of under 12s shown in dark green.

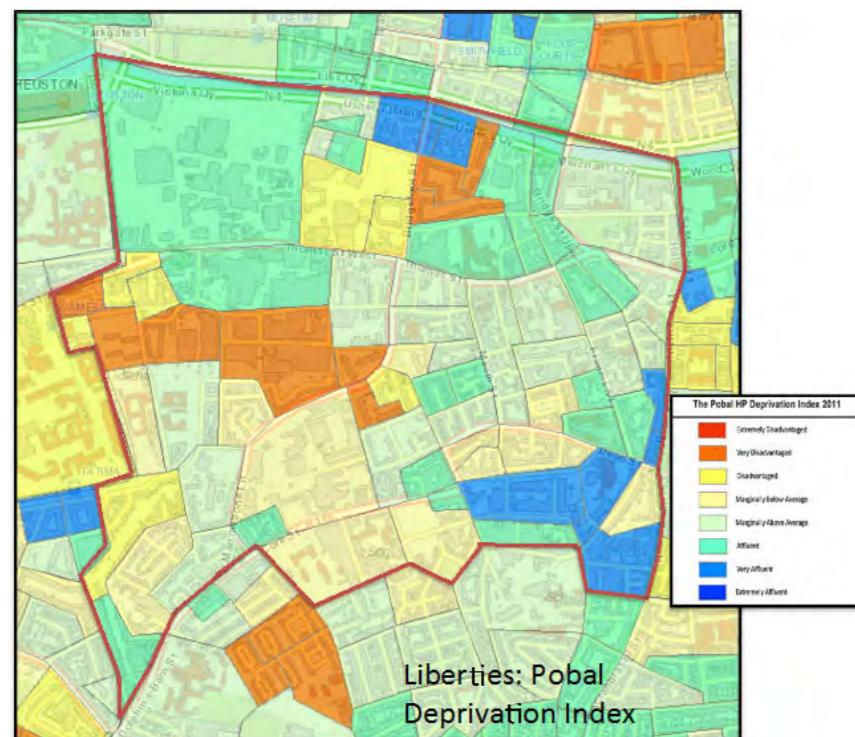


Fig. 1.2 Significant diversity within the population. Affluent areas shown in blue. Disadvantaged areas shown in orange and yellow.

The Liberties is amongst the most recognisable urban place names within Dublin and Ireland. A name with many strong associations; old Dublin, working class communities and old industries; brewing, distilling, close to the city centre. The urban history of the Liberties goes back to its emergence as the earliest centre of industry outside the walled Norman City, the availability of water from the Poddle and position along a dry access route, Slí Mhór into the city. In recent centuries the Liberties has also historically been amongst the poorest of Dublin's neighbourhoods and today there remain pockets of significant disadvantage. The area has also suffered significant urban decay and dereliction from a combination of old industries shutting down, slum clearance of condemned tenements and late 20th century road widening. Large tranches of once narrowed frontage streetscapes have been completely lost. Much of what was developed in its place failed to heal the urban street fabric and sense of place.

The Liberties has always been the poor relation to the Georgian part of the City that was arranged around spacious squares and wide streets. The urban form and structure of The Liberties is more organic and haphazard, reflecting its medieval origins and industrial functions. With the exception of St. Patrick's Park, The Liberties has not enjoyed the benefits of benevolent green space making on any significant scale.

Whilst an area steeped in history, stories and cultural capital; The Liberties remains an urban area with many physical place making and quality of life problems. There is still considerable dereliction in the area; an aspect exacerbated by the Celtic Tiger era when large sites were accumulated for large scale redevelopments. There are places within The Liberties where the urban fabric of streets and spaces breaks down and creates weak legibility and hostile 'no-man's land' or 'no-go' areas. The area is severely under-provided with high quality urban green space and this is compounded by the fact that most households live in apartments and small row houses with little or no private green space.

The recent property crash and economic crisis put a halt to almost all of the ambitious redevelopment proposals within The Liberties area. It is probable that many of the proposals will not go ahead in the form originally envisaged as market conditions have changed and future proposals will need to adapt

accordingly. A benefit of this hiatus is that it has provided the community and stakeholders with time and space to reflect on a future vision for the area unhindered by the pace and vigour of market led development.

The Liberties is a densely populated area with approximately 15,000 residents within a single square kilometre. Based on the 2011 Census approximately 70% of the population live in apartments and for those that live in houses very few have usable private gardens. In 2011, 15% of the population is under 18 years of age and an analysis carried out on under 12's reveals the concentration of this group in particular areas; predominantly associated with Local Authority flat complexes.

The Liberties area is extremely deficient in quality green space. Whilst St. Patrick's Park is proximal to the eastern end of The Liberties, the only quality green spaces in the area are Park Terrace, Oscar Square, St. Audeon's and St. Catherine's Park. Whilst these green spaces are attractive; they are all small and support only a limited range of passive recreational activity; with no play areas, sports facilities or space for growing food. Accessible quality public green space is provided at a rate of 0.7sqm per person, which is in stark contrast to an average of 49 sqm/person for Dublin city Council as a whole or 15sqm per person for the south east quadrant of the Canal Ring (figures for the City and South East Quadrant are from; Pebbledash, Greening the Arc of Disadvantage, by Paul Kearns and Motti Ruimy).

Large parts of the Liberties Area are of low urban landscape quality. During the late 19th to early 20th century; condemned tenements were pulled down and old industrial premisses cleared to make way for Local Authority flats; such as Bridgefoot St., Pimlico and Chamber St. The widening of roads also had a detrimental impact. The cumulative effect being the disruption of the historic streetscape of fine grain building frontages and the loss of the human scale of enclosure.

Tree coverage in The Liberties is sparse and good quality street trees are only found in a few small areas notably: Gray St. and Reginald St., along the South Quays, Cornmarket and the fountain at James St. There are approximately 1200 trees in The Liberties area equating to a canopy coverage of less than 5% of the plan area.

The Greening Strategy is timely in that it provides a platform to take stock of the existing urban condition and propose a long term strategy for its improvement and uplift and in particular consider opportunities to address the inadequacy of the areas green space provision and public realm quality in general. The strategy will be key to catalysing the redevelopment of the areas many vacant and under-utilised sites. Not development for development's sake but high quality redevelopment; high quality housing, high quality work, high quality learning spaces and an excellent public realm that make The Liberties among the most liveable and desirable of inner city neighbourhoods.



Above: photo of Liberties College taken from inside St. Patricks Park.

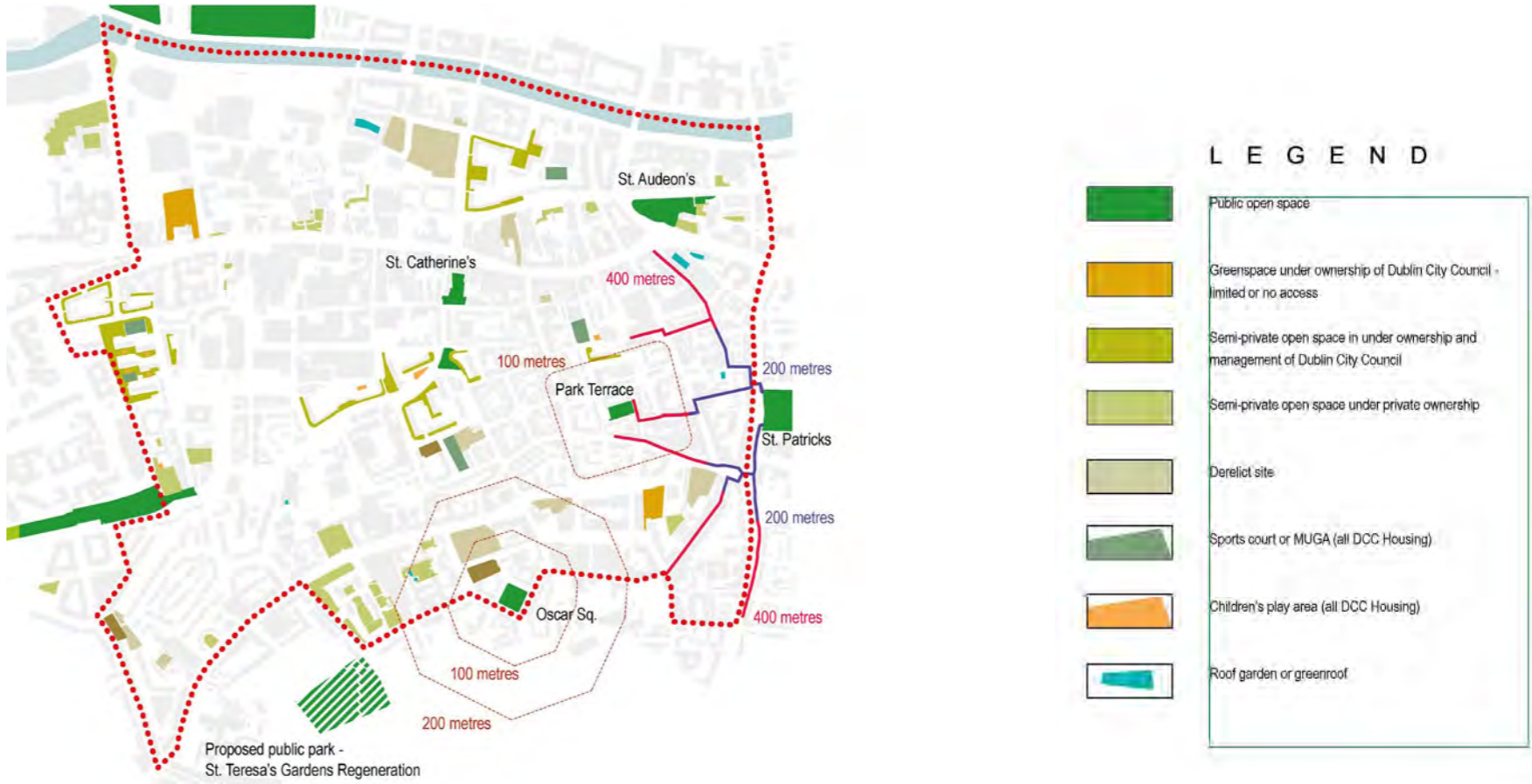


Fig. 1.3 Existing Green Spaces.



Fig. 1.4 Analysis of the impact of 'slum clearance' and road widening on the urban fabric of streets and spaces.

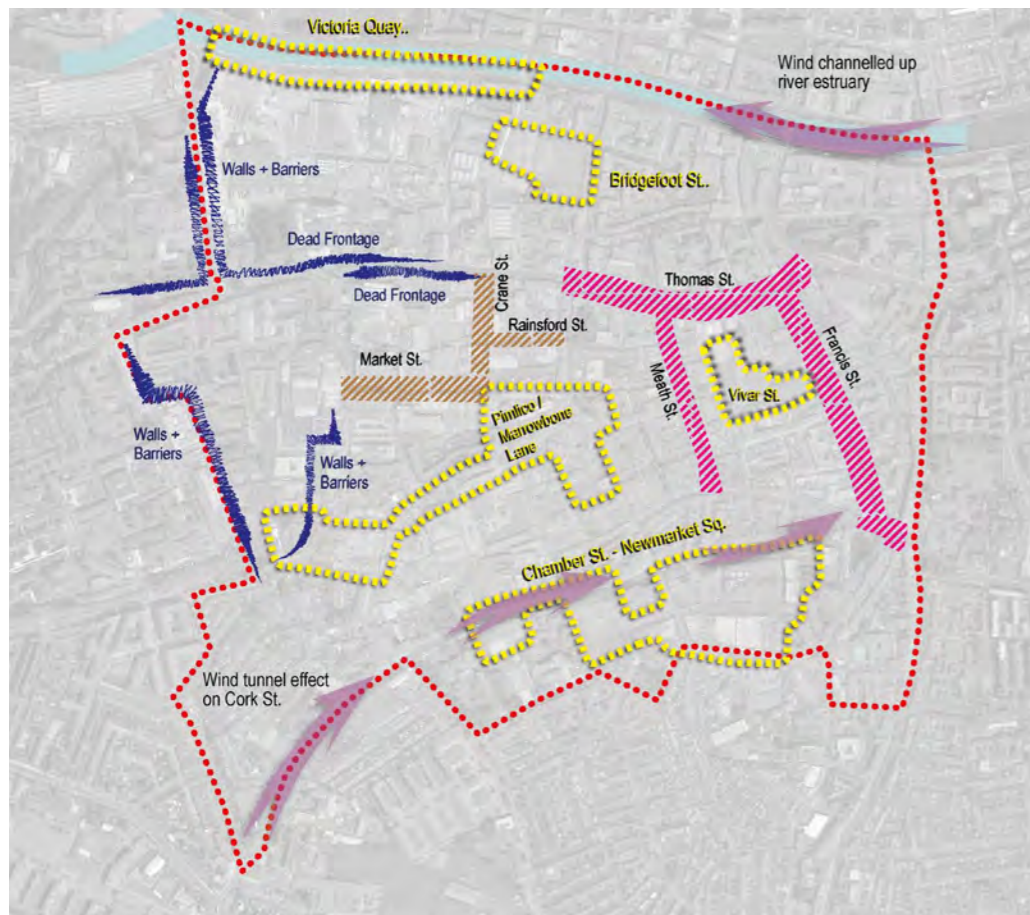


Fig. 1.5 Analysis of landscape quality.



| | |
|----------------------------|-------------------------|
| <i>Acer campestre</i> | <i>Liriodendron sp.</i> |
| <i>Acer platanoides</i> | <i>Magnolia spp.</i> |
| <i>Acer pseudoplatanus</i> | <i>Platanus</i> |
| <i>Aesculus hippo.</i> | <i>Pittospermum</i> |
| <i>Alnus sp.</i> | <i>Prunus</i> |
| <i>Aralia sp.</i> | <i>Pyrus</i> |
| <i>Betula spp.</i> | <i>Quercus ilex</i> |
| <i>Budleia davidii</i> | <i>Quercus spp.</i> |
| <i>Carpinus betulus</i> | <i>Salix</i> |
| <i>Corylus collurna</i> | <i>Sorbus ana</i> |
| <i>Cupressus spp.</i> | <i>Sorbus aucuparia</i> |
| <i>Fagus sylvatica</i> | <i>Sorbus sp.</i> |
| <i>Fraxinus excelsior</i> | <i>Tilia spp.</i> |
| <i>Ginkgo biloba</i> | |
| Scrub | Not accessible |

Fig. 1.6 Existing trees categorised by genus and species.

2.0 Plan objectives and benefits

High quality open spaces are parks and multi-functional green spaces that are visually attractive and provide multiple recreational opportunities. Visually attractive green spaces contribute positively to the image and identity of an area and are beneficial to the health and well being of the residents. The range of recreational opportunities that can be provided to the local community could include; play areas, community gardens, allotments, access to natural environments, exercise opportunities, places to gather and have community events, places to relax, walk the dog and meet neighbours.

It is notable that two social housing flat complexes; Bridgefoot St. and Chamber St. Demolished in recent times to make way for redevelopment have remained vacant. There has been a strong local grass roots movement campaigning to have new parks and playgrounds developed on these sites. The temporary allotments projects on the Chamber St. site has proved very popular and has been fully subscribed since opening and the Bridgefoot St. site has been used by local sports clubs for training and allotments.

The Greening Strategy demonstrates that both sites are well located and of a scale to make excellent neighbourhood parks to serve the local residents. Within the Dublin City Council flat complexes there are small play areas and kickabout spaces provided, however these two proposed parks provide a unique opportunity to add multi-functional green infrastructure that will be used by all sectors of the community and can be a source of local pride and identity for all.

The Greening Strategy seeks to capitalise on the value and benefits of the existing green spaces such as improving access to green spaces associated with de consecrated churches and archaeological sites; wholesale regeneration of local green spaces and small enhancements to existing well-functioning green spaces. Globally the strategy seeks to ensure all children living in The Liberties are within a short 5-8 minute walk of a high quality and secure play space and all residents are within a short 2-5 minute walk of high quality green space. The strategy will also provide a long term proposal for food production in the form of allotments and community gardens within The Liberties.

Additional benefits of implementing the Greening Strategy are:

- Enhancing the biodiversity of the area by improving habitats for native

flora and fauna.

- Provide for improved air quality with substantial additional tree planting to remove pollutants.
- Tree planting will also make a contribution to carbon sequestration.
- Diverting water from the Victorian sewer network; resulting in energy and cost savings in wastewater treatment and improved water quality by reducing overflow spills to watercourses downstream.
- Managing local flood risk by designing infrastructure to accommodate exceedance in the drainage network.
- During hot summers such as that experienced in 2013; the green spaces and street trees will provide shading and cooling.

Qualitative benefits of the Greening Strategy which are more difficult to measure but are equally important include:

- Enhanced landscape quality and positive 'sense of place' which in turn will support higher property values and rental yields.
- Enhanced presentation of local heritage sites for the benefit of local residents, workers and also city visitors.
- Environmental education resources for local schools and adult training initiatives.
- Enhanced health and well-being of residents through recreation and access to high quality urban landscape.
- Improved linkages for walking and cycling; providing shorter routes and enhanced permeability.
- Attract and support inward investment in high quality work space and learning facilities and investment in evening economy and tourist accommodation.

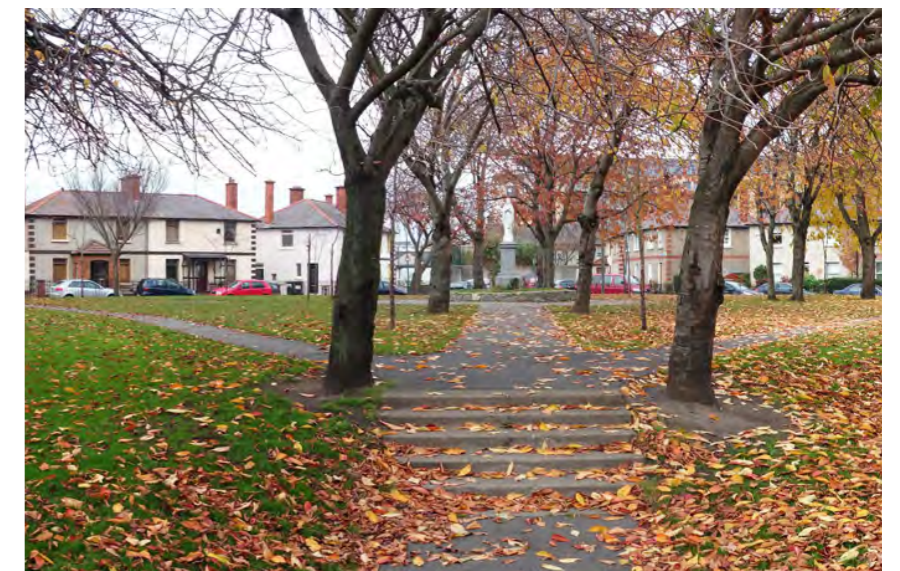
If the opportunities that exist to address the inadequacy of green space within The Liberties are passed up, it is unlikely they will arise again. The potential to leverage high quality green space scale from private sector redevelopments is limited due to the size of sites available. Now is the time to redeem The Liberties and put in place a green space and public realm network upon which the community and future generations can thrive.



Above: photo of Cupola and Sacred Heart Shrine at the junction of Gray and Reginald Street.



Above: photo of Chamber St allotments.



Above: photo of Oscar Sq. in winter.



Above: photo of St. Audeon's Park with St. Audeon's Church in the background.



Above: photo of Cherry Blossom trees in St. James Walk linear park.



Above: photo of St. Catherine's Park.

3.0 The Strategy

The Greening Strategy is a combination of proposals for new green spaces, enhancement of key streets and civic spaces; refurbishment and enhancements to existing green spaces, greening measures for streets and measures to improve linkages and legibility through the area. In considering the strategy at an area wide scale consideration has been given to ensuring a balanced distribution of play facilities, amenities and productive spaces across The Liberties.

3.1.1 New Green Spaces

Two new green spaces are proposed at Bridgefoot St and on Chamber St. As a working title this document refers to this proposed green space as Weaver Park to link with the weaving and textile history of the area. These parks will be of a neighbourhood scale or Community Parks Grade 1 (*parks serving local communities with a good range of amenities and a high standard of design and horticultural presentation*). Each park will accommodate a high quality and secure play area, allotments and/or community gardens, opportunities for informal play, flexible open areas for events and passive recreation and a high proportion of greening in the form of tree planting, hedging, lawn, meadow and groundcover planting. Each park is described in further detail later in this section.

3.1.2 Civic / Hard Landscape Spaces

The Greening Strategy sets out proposals for High St. and Newmarket. Both spaces will be predominantly hard landscape; High Street is a busy citywide thoroughfare and Newmarket will be a flexible market and events space with traffic access for residents and businesses. An environmental improvement scheme has been developed in collaboration with Fáilte Ireland as part of the Dubliner tourist trail project.

3.1.3 Heritage Green Spaces.

There are five green spaces that provide a setting and context for significant heritage features and sites of archaeological importance. St. Audeon's and St. Catherine's are presently accessible to the public as park spaces. St. Audeon's is classified as a Community Grade II Park within the Open Space Strategy for the City. Detailed proposals have been previously developed by Dublin City Council to make accessible as urban green spaces the churchyards of

St. James Church and St. Lukes and these projects are now incorporated within this strategy. In addition to the above it is proposed to undertake a small community garden and allotments project on the Thomas Abbey site.

3.1.4 Enhanced Local Green Spaces.

A core element of the strategy is the enhancement of existing green spaces to maximise their benefit for residents and visitors. The strategy sets out a range of measures for six such spaces; Pimlico, Oisín Kelly Park, Poole St., Vicar St., Oscar Sq and Park Terrace.

The strategy proposes significant redevelopment of the Vicar St. site; as it stands the space has no greening, consisting of a tarmac kickabout and very small play area and detracts from the character of its immediate context. Similarly the open space on Poole St is of very low visual quality and with the benefit of a range of greening measures can be greatly improved.

Pimlico is a pivotal space within the urban structure of The Liberties. Pimlico sits at an irregular cross road formed by Marrowbone Lane, Thomas Court, School St, Earl St and Ardee St. It is a place where the urban legibility breaks down; the well-defined residential streets west of Meath St. contrast starkly with the openness of the Council flats setback from the street edge. The existing green space of is low visual quality and is of little recreational benefit. The site has become important as a commemorative space for families affected by drug abuse; in particular a Whitethorn bush on the corner of the green. Detailed proposals for the uplift of this space are set out in detail later in this chapter.

Oisín Kelly Park is presently designated as a Community Grade II Park within the DCC Open Space Strategy. Enhancements to this park will be undertaken in close consultation with the adjoining residents and the Housing Dept. of Dublin City Council.

Oscar Sq and Park Terrace are two green spaces that benefit from a strong sense of community ownership and stewardship. Both spaces have good tree covers and contribute to the overall character of their neighbourhoods. A number of potential low key enhancements could be undertaken with active participation of the residents.

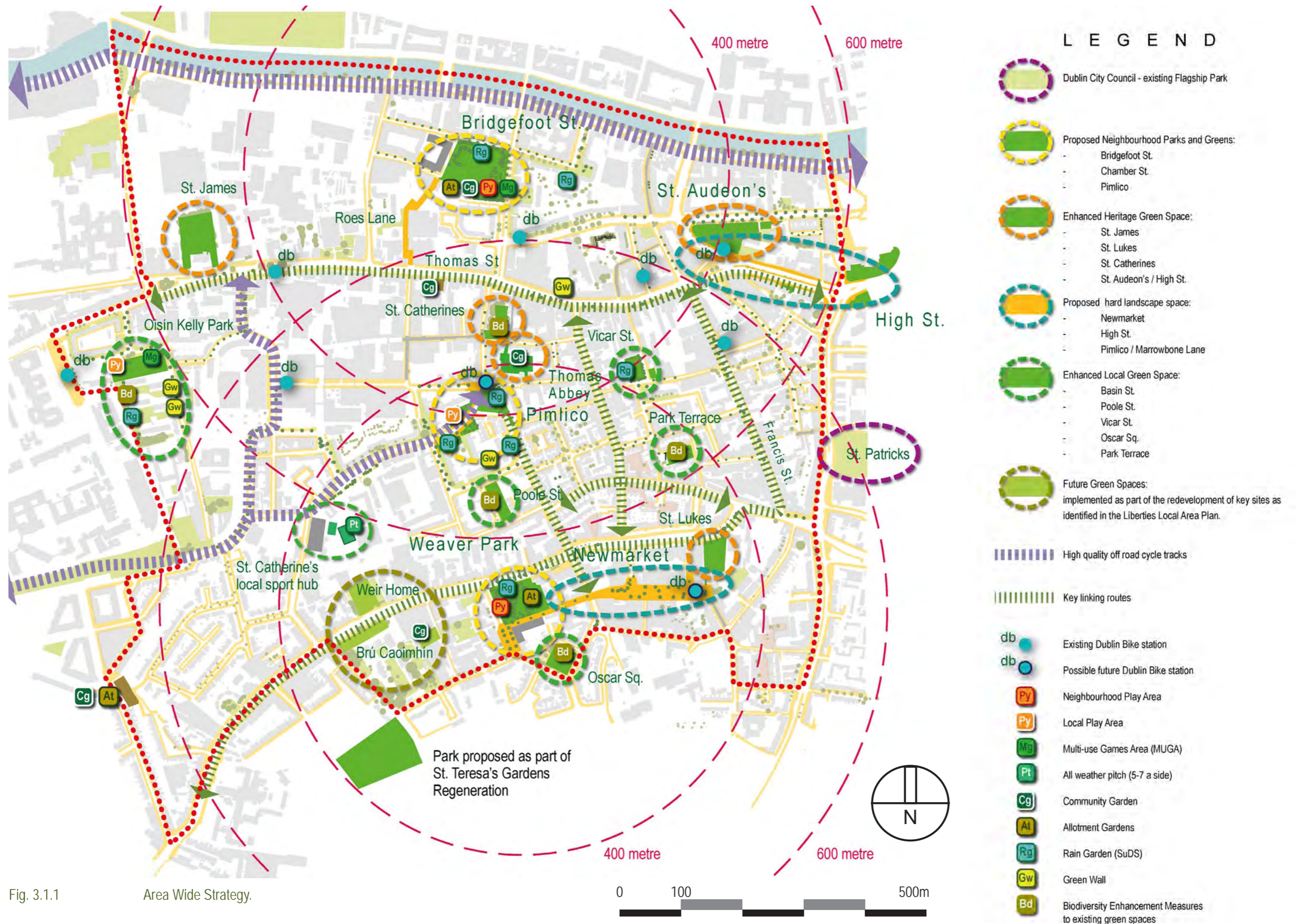









Fig. 3.1.1 Area Wide Strategy.



L E G E N D

-  Very High Local Biodiversity Value
-  High Local Biodiversity Value
-  Moderate Local Biodiversity Value
-  Low Local Biodiversity Value
-  Existing G.I. hubs
-  Green space with G.I. hub potential
-  Urban ecological linking corridors

There is potential for the addition of new green spaces through redevelopment of key sites. Of note are the potential for the Old Quaker Cemetery at the Weir Home on Cork St. and the green space to the Cork St. side of Brú Caoimhín, the former fever hospital. There is also potential for a community garden and/or allotments project as part of the redevelopment of a site on the eastern boundary of Brú Caoimhín. All of these proposals are included as objectives in the current Liberties Local Area Plan.

A new park is proposed as part of the Theresa's Gardens Regeneration Scheme. This park will be highly accessible to that part of the study area south of Cork St and the residential streets off Donor Ave.

There is considerable scope to reflect the rich history of The Liberties area in the design of each green space and park. This can be achieved in a number of ways; the naming/branding of the Park, picking up on historical footprints in the green space layout, bespoke items of furniture and/or a sculpture and interpretative signage. Some of the green spaces such as Bridgefoot St. Park, St. Catherines, Pimlico and St. James can be linked into the Dublin trail.

This strategy proposes that there is potential to create high quality off road cycle tracks to link from the Liberties to the proposed Grand Canal Greenway. A spur of the Greenway from Suir Road via James' Walk could continue into the Liberties along Forbes St. and Marrowbone Lane and/or along Long's Place, Grand Canal Place and Echlin St. The cycle tracks would be of city wide benefit and would integrate with the Dublin Bikes expansion to Kilmainham and the commuter cycle parking provided at Redline Luas Stops along Davitt Road.

3.1.5 St. Catherines as a Local Sport Hub

St. Catherines Community Sports Centre is to be further developed as the sports hub for the Liberties area. The existing St. Catherines has a range of existing sports and recreation facilities:

- Full Size Sports Hall
- Fully Equipped Gym
- Youth Area
- Outdoor mini-pitch (suitable 4/5 aside)

In addition to a conference room, meeting/training room and a dance Studio

It is proposed to augment the existing sports facilities with an additional all weather 5/7 a side pitch.

Fig. 3.1.2 Existing and potential local Ecological Hubs and Linkage.

3.1.6 Water Quality

In developing the Greening Strategy the project team have liaised closely with the Council Drainage Dept. to explore ways in which the implementation of green space projects and greening measures can make a positive contribution to water quality and divert surface water from the sewer network.

A number of principles emerged as being applicable to The Liberties area:

- Making new parks and green spaces self-sufficient for surface water drainage by; using porous hard landscape surfaces; incorporating swales, wetlands and/or rain gardens within green spaces and draining surface water off hard surfaces to large free draining tree pits and planting beds.
- Replacing surplus hard standing with soft landscape and where appropriate and feasible developing rain gardens.
- Introducing tree pits along streets and where feasible diverting surface water run-off from roads and footpaths to large free draining tree pits.

The above measures will also assist in managing and mitigating local flood risk by releasing additional capacity within the drainage network to Accommodate exceedance.

3.1.7 Implementation of The Liberties Local Area Plan 2009

The preparation of this Greening Strategy represents a positive step forward in implementing the policies and objectives of the Local Area Plan:

- The creation of a high quality network of public spaces, parks and streets; including the provision of new public parks.

- Development of a network of linked green spaces that would support community integration and provide for a diverse range of active and passive uses, as well as improvements to biodiversity.
- Improvements to existing parks.
- Active participation of the community through educational / training initiatives and productive horticulture.

The Greening Strategy diverges substantially from the adopted Local Area Plan in two aspects:

- The provision of a new public park; 'Weaver Park' as part of the Greening Strategy. In the Local Area Plan it is proposed to developed this site for housing and commercial uses. *
- The Bridgefoot St. Park as proposed in the Greening Strategy is larger than that proposed in the Local Areal Plan.

* To address the divergence in objectives for the Weaver Park site described above; the City Council have commenced the statutory process to include a variation to the Dublin City Development Plan 2011-2017 and an amendment to the Liberties Local Area Plan. This statutory process should be concluded in late 2014.

3.2 NEW GREEN SPACES

3.2.1 Weaver Park

A 0.6 hectare neighbourhood park on the site of the demolished Chamber St. flats. The site has been given a working title of Weaver Park; which reflects the history of the area as a centre of weaving and linen manufacture. As part of the proposal the existing allotments would be relocated north of Chamber St. and the allotments site redeveloped for housing. The new housing will remake the street edge to Chamber St. and the corner of Weaver Square and provide close passive supervision of the new park.

The park could comfortably accommodate:

- A substantial children's playground.
- A lawn area for informal play and events.
- The park can be self-sufficient for drainage purposes by using porous softfall and hard surfaces and cross-falling paths to swales and filter drains.
- A diagonal linking route from Cork St. to Weaver Sq. and a secondary

linking route from the east end of Chamber St. to Ormond St.

- Primary routes through the park should ideally be lit and accessible day and night. Primary routes will be designed to accommodate emergency vehicles and security patrols (Gardaí, Park Wardens).
- Skate opportunities in the form of incidental sloped edges and ramps incorporated into the park design.
- Possible outdoor gym area.
- The design of the park should reflect the importance of weaving and textiles to the history of the area and in particular the Tenter's Field and Tenter's House. There is particular scope for playful interpretation by incorporating over-sized textile paraphernalia as pieces of play equipment.
- A Dublin Bikes station could be accommodated on the north eastern corner of the park as part of any future expansion along Cork St.

The proposal to develop this park will require a variation to the Dublin City

Development Plan 2011-2017 and to the Liberties Local Area Plan 2009.

The existing allotments will be relocated to the eastern side of the park adjoining the existing apartments and housing. The existing allotments site will then be made available for the development of housing and the restoration of a cohesive street frontage to Chamber St. and Weaver Square.

In the longer term it is proposed to relocate the allotments to nearby sites within the Liberties; as identified in the area wide strategy (see. fig. 3.1.1). This will then release a site on the east side of the park for future development in line with those uses proposed in the Local Area Plan. This will provide greater passive surveillance of the park and a more satisfactory built edge or 'bookend' to the existing apartment scheme.

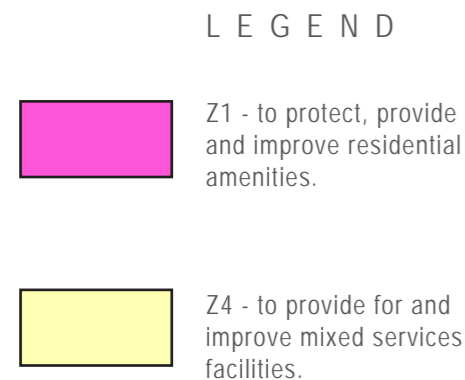


Fig. 3.2.1.1 Zoning map from the Dublin City Development Plan 2011-2017.



Fig. 3.2.1.2 Significant Redevelopment Site Proposal, Land-use map from the Liberties Local Area Plan 2009.

Fig. 3.2.1.3 Weaver Park - Short-Medium Term Proposal - Indicative Design

K E Y

- 1 Neighbourhood Playground
- 2 Central island with additional tree planting.
- 3 Swale
- 4 Primary link through park
- 5 Lawn
- 6 Allotments
- 7 Skate ramp
- 8 One way traffic calmed street
- 9 'Tenters field' structure
- 10 Residential Development overlooking park
- 11 Weaver Sq





Above: view of Weaver Square from North, Chamber St. allotments on LHS



Above: view of derelict site on Chamber St. looking towards Cork St.



Above: view of existing vacant site on Chamber St. / Cork St. from western boundary.



Above: concept sketch for Weaver Park.

Fig. 3.2.1.3 Weaver Park - Long Term Proposal - Indicative Design

- K E Y**
- 1 Neighbourhood Playground
 - 2 Central island with additional tree planting.
 - 3 Possible cafe as part of infill development on adjoining site.
 - 4 Swale
 - 5 Primary link through park
 - 6 Lawn
 - 7 Office/Residential Development overlooking park
 - 8 Skate ramp
 - 9 One way traffic calmed street
 - 10 'Tenters field' structure
 - 11 Residential Development overlooking park



3.2.2 Bridgefoot St.

To develop a 1.0 hectare area as a high quality neighbourhood park that provides for a range of recreation and events, improves urban permeability and delivers a range of ecosystem services. An 0.3 hectare area incorporating the vacant site adjoining The Maltings apartment complex is proposed for a mixed-use development. The indicative designs developed propose the realignment of the existing road (Bonham St.) that traverses the site to create a deeper development site and also to place the corner of a future building as a visual terminus to the proposed Roe's Lane (Digital Hub Site).

The indicative plan shows the arrangement of three terraces stepping down from south to north with the natural contours of the site. The old Parish Boundary of St. Audeon's and St. Catherine's forms the edge between the upper and middle terrace.

The park could comfortably accommodate:

- A community garden and allotments.

- A local playground - with the emphasis on providing for children under ten years of age.
- A market place – as a focal space for allotment growers across the city to have gatherings and sell or barter produce and seed.
- A lawn area in the heart of the park; a place to play, picnic, kickabout and for events. But also to reinforce the feeling of a green room within the city.
- The lower (northern end) of the park could accommodate a swale or pond as a SuDS and biodiversity feature. The wetland feature also reflects the pre-urban river landscape of Ushers Island, a small river island that sat at the edge of a broader river channel.
- A direct pedestrian link from Bonham street to Bridgefoot Street
- East-West route across park to link from Bridgefoot St. to Watling Street and Victoria Quay.
- Primary routes though the park should ideally be lit and accessible day and night. Primary routes will be designed to accommodate emergency vehicles and security patrols (Garda, Park Wardens).

- A Community Garden which can be used for training and environmental education.
- Skate opportunities in the form of incidental sloped edges and ramps can be incorporated into the park design.
- The park can be self-sufficient for drainage purposes by using porous sofffall and hard surfaces and cross falling paths to swales and filter drains. The park will also be used to manage surface water flows from hardstanding areas around the park, thereby reducing surface water discharge to the combined sewer system in the area.
- There is also scope within the park to accommodate outdoor gym equipment.

LEGEND



Z1 - to consolidate and facilitate the development of the central area and to identify, reinforce and strengthen and protect its civic design character and dignity.

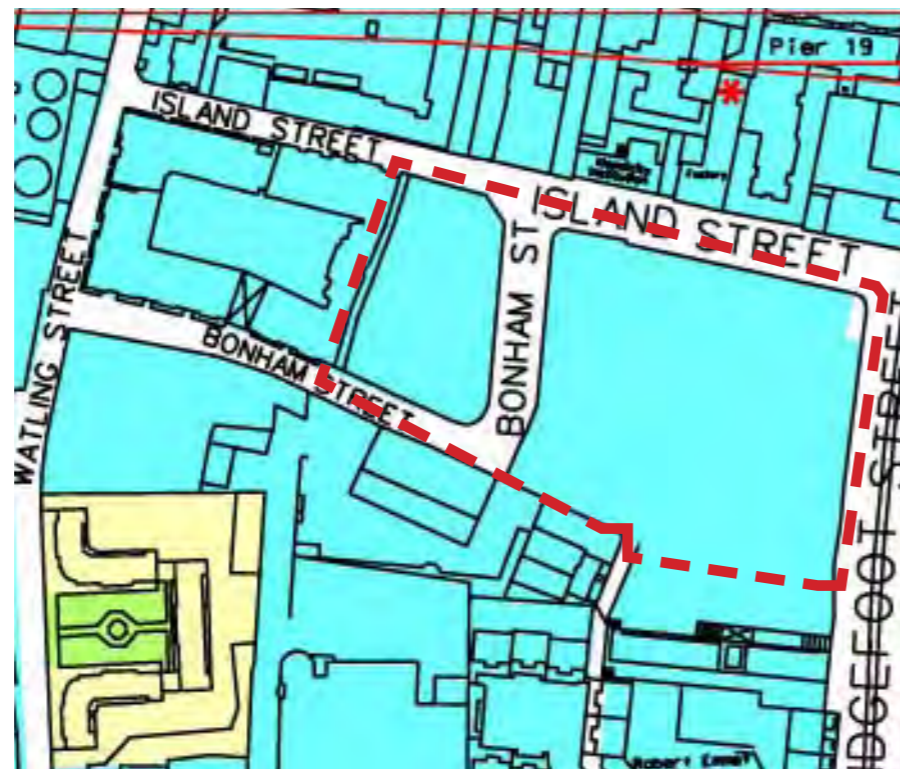


Fig. 3.2.2.1 Zoning map from the Dublin City Development Plan 2011-2017.

LEGEND

- Local Connection
- Pedestrian Connection
- Prospect
- Highly Active Frontage
- Moderately Active Frontage
- Key Heritage Landmarks
- Residential
- Mixed Use
- Commercial
- Green Open Space
- Sites with Planning Approval
- Existing Buildings
- Combination of Uses, e.g. Residential/Commercial
- Re-use of Existing Building e.g. Mixed Use



Fig. 3.2.2.2 Significant Redevelopment Site Proposal, Land-use map from the Liberties Local Area Plan 2009.

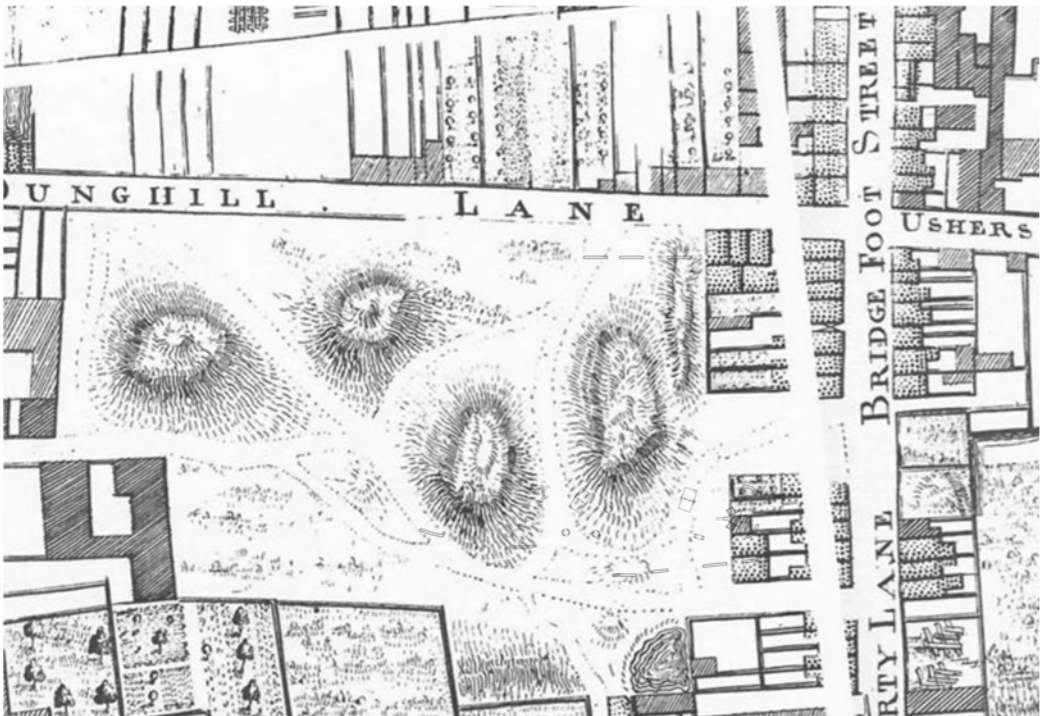


Fig. 3.2.2.3 Rocque's map - 1756.



Fig. 3.2.2.4 2nd Edition OS - c. 1911



Fig. 3.2.2.5 Bridgefoot St. Park - Indicative Design shown with existing OSi map overlaid in orange lines
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Above: view into derelict lands from corner of Bridgefoot St. and Island St.



Above: view of derelict lands from Thomas St. end of Bridgefoot St.



Above: view of derelict lands from south east corner

Fig. 3.2.2.6 Bridgefoot St. Park - Indicative Design



3.3 CIVIC HARD LANDSCAPE SPACES

3.3.1 High St. / St. Audeons

The urban fabric of High St. was drastically altered by demolitions and road widening works in the late 20th Century. Whilst the resulting sites have been redeveloped the street does not benefit from a fine grain of narrow frontages that characterise Thomas St and there is little at street level to engage the passer by. High St is also a very busy and inhospitable traffic artery. The proposals for High St. seeks to enhance the pedestrian experience and visual coherency of the Dublin route. High St. is an important linking corridor between Christchurch Cathedral and Cornmarket.

The proposals for High St. can be summarised as follows:

- Widening of pavement along the north side; incorporating planters along the road edge.
- Historical timeline of Dublin set into the new pavement surface.
- Greening of the central median; with groundcover planting.

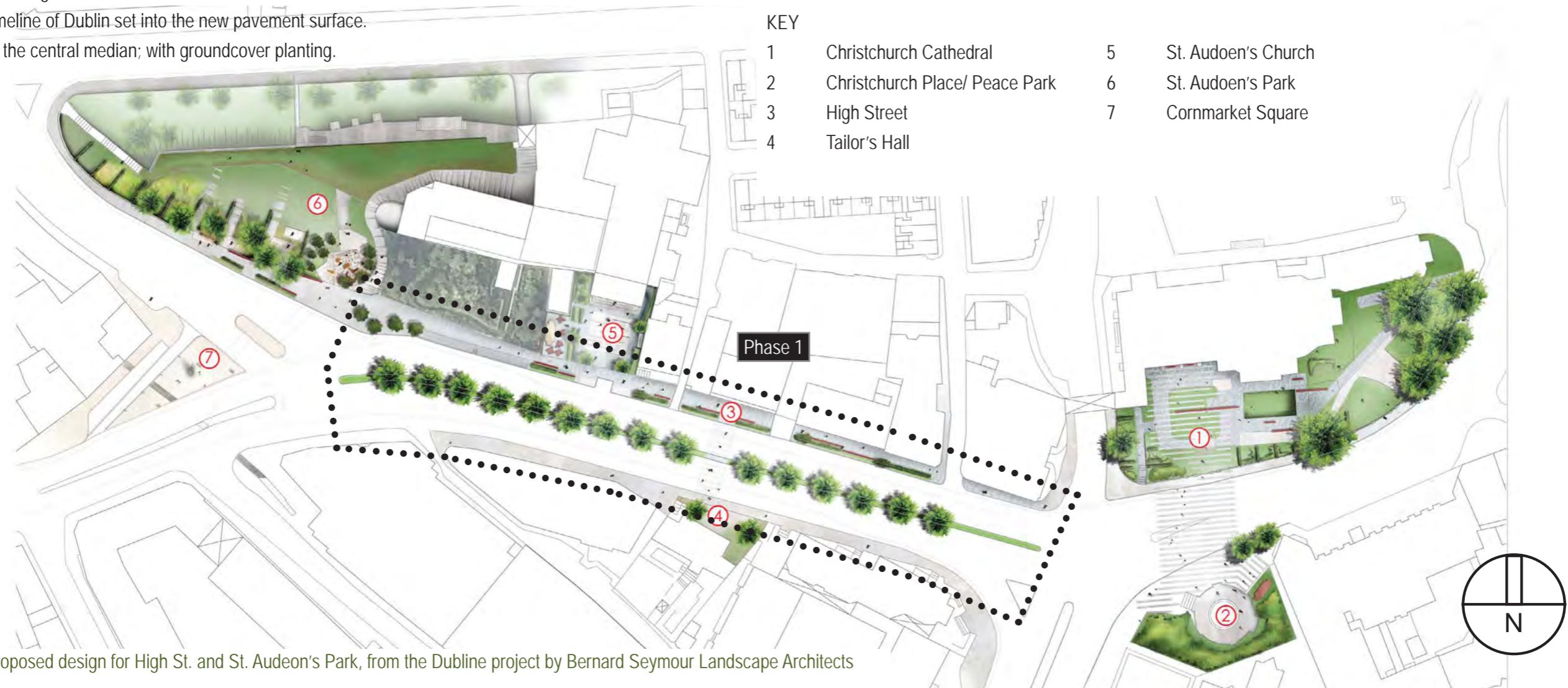


Fig. 3.3.1.1 Proposed design for High St. and St. Audeon's Park, from the Dublin project by Bernard Seymour Landscape Architects

St. Audeon's

As part of the Dublin project proposals have been developed for St. Audeon's Park. The proposals are summarised as follows:

- Redesigned to create a more open and publicly accessible park by removing existing railings and selective tree removal.
- Creating a series of mini-plaza's along the Bridge St. boundary
- One single large public plaza proposed at the top of St. Audeon's Park, overlooking the park.
- Temporary or permanent sculpture on Cornmarket Square of significant size and prestige to denote the space as a place of destination.
- Repointing of the city wall and removal of vegetation to enhance its presentation and conservation.
- Revised road crossing from St. Audeon's to Cornmarket, pedestrian crossing reduced from two to a single traffic island.
- Existing Dublin bikes station retained with the opportunity to increase the capacity by 50%.

- KEY
- 1 Open edge to park
 - 2 On street plaza
 - 3 Widening of pavement
 - 4 St. Audeon's Visitor Centre
 - 5 City Wall
 - 6 Dublin Bikes
 - 7 Cornmarket Square



Fig. 3.3.1.2 Proposed design for St. Audeon's Park, from the Dublin project by Bernard Seymour Landscape Architects

3.3.2 Newmarket

Newmarket is a planned and purpose built market space dating from the 1670s. It's historic importance is somewhat dislocated by the construction of the Cork St. extension (Luke's Avenue) and the low footfall activities around its edges. The emergence of the Dublin Food Co-op and later monthly Flea Market and Brocante Markets (furniture) have reinvigorated the space and once again placed it at the social heart of the city. A proposal to develop a boutique distillery and visitor centre on the south side of Newmarket would be another positive addition.

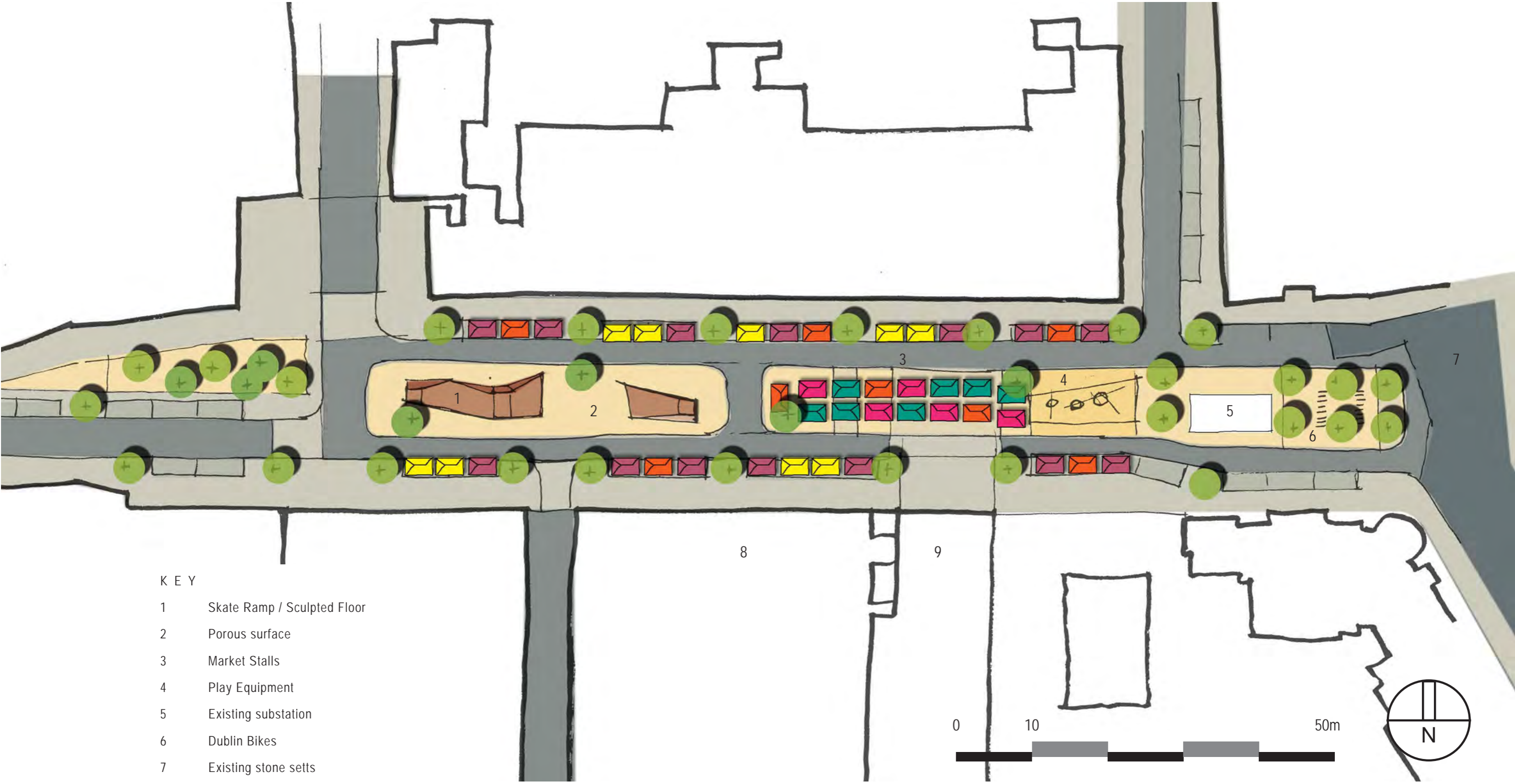
Central to developing proposals for Newmarket has been conserving the ability of the space to function as an open air market and space for as yet unforeseen cultural events and also to retain vehicular circulation through the space as outside of market days. Newmarket does not have the critical mass of footfall nor the use mix to be a pedestrianised space.

The indicative proposals for Newmarket are as follows:

- Reorganisation of traffic circulation to set aside a central zone for pedestrians and activities. Parking to be rationalised as side on with regular tree planting (20 metre centres approx.). Traffic will be split to single lanes north and south of the central zone. The traffic will be configured to permit partial or full closure of the square on market days.
- Potential location for a Dublin Bikes station at east end.
- Potential for skate opportunities in the form of ramps integrated with sitting edges.
- Potential for play opportunities; fixed equipment or moveable pieces placed in the square on weekends or Summer evenings.
- As part of the redevelopment of Newmarket, in accordance with DCC policy and the code of practice, separation of surface water is required and that surface water runoff be limited to greenfield runoff rates. This can be achieved by retrofitting sustainable drainage as part of the redevelopment; by making surfaces to pedestrian areas and/or car-parking bays porous and through the introduction of storm water intercepting tree pits.



Fig. 3.3.2.1 Proposed indicative design for Newmarket shown in urban context.



- K E Y
- 1 Skate Ramp / Sculpted Floor
 - 2 Porous surface
 - 3 Market Stalls
 - 4 Play Equipment
 - 5 Existing substation
 - 6 Dublin Bikes
 - 7 Existing stone setts
 - 8 Distillery Proposal
 - 9 Food Co-op

Fig. 3.3.2.2 Proposed indicative design for Newmarket.

3.4 HERITAGE GREEN SPACES

3.4.1 St. Catherine's Park

St. Catherine's Park is the former burial ground attached to St. Catherine's Church on Thomas St. The park is a well appointed if little used green space. It has a canopy of mature broad leaf trees; Ash, Horsechestnut, Lime, Oak and London Plane. The groundfloor of the park is under grass with drifts of Daffodil in Spring. The graveyard headstones are gathered along the eastern boundary of the park. Directly adjoining the eastern boundary is St. Catherine's Lane; a mediaeval right of way surfaced in traditional stone setts. The park was opened in 1985. The park design is understated with a single entrance forming a visual axis to a sculpted seat and a path network rectangular in plan with square widening for a bench and at corners. It is one of few remaining examples of Irish Landscape Design in the modernist style.

A number of minor interventions which would improve the usability and amenity of the park are as follows:

- New entrance to the park opposite the Primary Care Centre on Hanbury lane.
- New entrance to the rear of St. Catherines Church from Catherine's Lane. With potential outdoor café and/or break out space for the church with linkage directly into the park.
- Additional spring bulb planting incorporating native bulbous plants.
- Potential for modest play opportunity; one or two small features in south west corner.
- Hedge planting to screen the blockwork boundary walls of houses on Thomas Court.
- Repair boundary wall.
- Interpretative artwork on the Thomas St. end of Catherine's Lane to draw people down the laneway and to the park and to stitch the park into the Dublin tourist trail



3.4.2 St. James

Proposals have been previously developed by Dublin City Council in close consultation with the local community for the Church and Grave yard and with careful attention to the sites unique archaeological, architectural and ecological characteristics. The plans developed propose making the grave yard accessible as a vibrant city park, of value to local residents and visitors alike; whilst respecting the site's archaeology and its value as an oasis for inner city flora and fauna. The proposals for the church and grave yard includes a remodelled plaza to the front of the church, an entrance pavilion on James St. and an elevated walkway over the grave yard area north of the church.



Fig. 3.5.1 Proposed design for St. James Church yard by Bernard Seymour Landscape Architects.

3.4.3 St. Lukes

Opening up the church grounds of St. Luke's as publicly accessible gardens, in line with an adopted Conservation Plan. The park will be accessible from Luke's Avenue to the North (via steps and a ramp) and Newmarket to the south. The park will provide a new green linkage from Newmarket to Luke's Avenue and oasis of local biodiversity. The proposed works will provide for the long term retention and protection of the sites archaeology.



Fig. 3.6.1 Proposed new entrance to St. Lukes from Lukes Ave, design by Bernard Seymour Landscape Architects.

3.4.4 Thomas Abbey

The Thomas Abbey is a small plot of land landlocked to the rear of properties facing Hanbury Lane, Earl St. and Wilson Terrace and the rear of a HSE facility. The site is not suited to 'opening up' as a traditional park; the space it is not overlooked, is only obliquely visible from Earl St. and is unlikely to attract the levels of usage and footfall to sustain itself. The site is also an important archaeological site forming part of the Abbey of Thomas Court. A portion of the site was the subject of an archaeological dig in 1996 and as a result of finding such significant archaeology, the then Dublin Corporation entered into a land swap with the developer and acquired the site. The excavation was closed up with the intention of excavating and presenting the archaeology in the future.

The site has been declared a National Monument by the Statutory Authority. Any works requiring excavations would have to be preceded by archaeological excavation. However the site could be used on a temporary basis for allotments or a community garden set out in raised beds without any intrusion below the surface. The allotments would only be accessible to keyholders. Consideration will be given to allowing an archaeology education element as part of the temporary allotment proposals.



Fig. 3.7.1 Location of Thomas Abbey.

3.5 LOCAL GREEN SPACES

3.5.1 Pimlico

The green space at Pimlico is not of a sufficient size to be considered as a neighbourhood park; it is none the less a high profile space in the urban structure and a key linking space between Marrowbone Lane, Ardee St / Cork St., Meath St. and Thomas St. At present the overall urban character is one of disorientation as the scale of well-defined residential streets suddenly breaks down and is juxtaposed with the flat blocks set back from the street edge in addition to the scale and mass of the buildings on the Guinness Brewery site.

The proposals for the space are described as follows:

- At the centre of the proposal for Pimlico is making an attractive resting space within the existing green.
- Threading a number of pedestrian desire routes through the space to bring surveillance and vitality.
- Incorporating the unused hardstanding fronting the flats to the east to enlarge the space.
- The design of the space will be a hybrid of green and hard landscape. It is proposed to make the space open and visible from Marrowbone Lane, School St. and Earl St.
- The existing Whitethorn will be retained and its setting enhanced.
- A specimen Conifer on the corner of Marrowbone Lane / Earl St. can be decorated and illuminated for Christmas.
- The soft landscape areas can function as rain gardens to intercept runoff from adjoining roads and add an ephemeral layer of interest to the space.
- Localised realignment at the road intersection is proposed to make it easier for pedestrians to cross, including, tighter corner radii, narrower road carriageway width and/or raised table.
- The proposed Marrowbone Lane off road cycle track would terminate here. Cyclists can continue towards the city centre on road via Earl St. and Meath St.
- It is proposed to rationalise the on street parking bays along Marrowbone Lane and introduce street trees.
- The hardstanding areas to the front of the flats on the south side of Marrowbone Lane could accommodate low cost transitory landscape in advance of future infill development.
- The existing play area on the School Street flats complex could be improved with an additional planting to the edges and replacement of the macadam and softfall surfaces with softer and organic materials; gravel, sand / bark mulch.
- The space could also accommodate a Dublin Bikes station as part of a future phase of expansion.



Above: example of 'rain garden' hollow for attenuating run-off, Dynamic Garden, Treviso, Italy, by MADE Associati.

Fig. 3.5.1 Proposed indicative design proposals for Pimlico.

- K E Y**
- 1 Kerb buildout
 - 2 Raised table
 - 3 Proposed rain Gardens
 - 4 Staying space with seating and play elements
 - 5 Existing play area upgraded
 - 6 Existing tree and community art project retained
 - 7 Rationalisation of parking bays along Marrowbone Lane and tree planting
 - 8 Transitional landscape on hardstanding areas to be subject to future infill development.
 - 9 Specimen Coniferous Tree



Scale 1:500

3.5.2 Vicar St.

The existing open space has no planting or trees; it consists of a tarmac kickabout and very small play area. The play area is separated from the kickabout space by the vehicular carriageway of Vicar St. The west side of the space is used for the opportunistic parking of cars. Overall the existing condition of this space detracts from the character of its immediate context. Despite this the space has considerable potential; it is in close proximity to existing houses and flats, the adjoining streets are reasonably traffic calmed and the church and spire of St. Catherine's on Meath St. provides a dramatic landmark in the background.

The indicative design for Vicar St. proposes:

- Replacing the existing kickabout with a smaller but higher quality artificial grass surface sports court.
- The perimeter of the space that can incorporate substantial tree and groundcover planting to visually contain the space.
- Rationalisation of car parking on Molyneux Lane into side-on parking spaces accessed across a shared surface.
- Unify the play area with the main space by developing Vicar St. as a traffic calmed shared surface or Home Zone.
- Introduce planting to the play area and replace the existing surface with an organic softfall surface such as sand and/or bark chip.
- Element of surface art or bespoke piece of furniture to animate an aspect of the site history such as the narrow fronted row housing that once lined Vicar St.
- In the future it may be preferable to replace the sports court with a lawn or part-paved space for events / markets.

K E Y

- | | |
|----------------------------------|---|
| 1 Proposed new tree planting. | 6 Suggested ground artwork with historical theme. |
| 2 New porous pedestrian surface. | 7 Groundcover and low shrub planting. |
| 3 Shared surface. | 8 Play area. |
| 4 Rationalised parking spaces. | |
| 5 New sports pitch / court. | |

not to scale



Fig. 3.5.2 Proposed indicative design proposals for Vicar St.

3.5.3 Poole St.

Similar to Vicar St this space whilst serving active recreational functions (play area, kickabout, and basketball) is of very low visual quality. Part of what detracts from the space are the derelict sites adjoining to the east. In the longer term a regeneration scheme could be developed for the derelict lands and the open space together which would allow for the shape of the space to be reconfigured for improved overlooking and space making.

In the short term the space could be greatly improved from a range of resurfacing and greening measures:

- Planting of the perimeter of the space with hedge and groundcover planting under the existing trees.
- Resurfacing of play area in an organic or natural material, with pockets of hard surface removed to make way for tree planting.
- Painting or resurfacing of the kickabout area.
- Containing the basketball court to a smaller footprint and resurfacing the perimeter with a porous firm gravel.
- Repainting or resurfacing of the basketball court.

The replacement of hard surface with planting and porous materials will reduce the volume of surface water run-off from this space into the sewer network and could lead to annual cost savings in surface water treatment and conveyance of up to €400 per year based on 2014 estimates.



Fig. 3.5.3 Proposed indicative enhancements to Poole St.

3.5.4 Oisín Kelly Park

This green space is presently designated as a Community Grade II Park within the DCC Open Space Strategy. The green space includes a macadam kickabout area which dominates the eastern end of the space. The park is contiguous with a long narrow area of green space located between the existing Basin St. flats and the Luas Redline which is set behind the former boundary wall of St. James Hospital. Enhancements to this park will be undertaken in close consultation with the adjoining residents and the Housing Dept. of Dublin City Council.

The park can serve as the local green space not only for the Basin St. flats but also the residents living within a short walk. At present the boundaries of the park are overly defensive with a railing over a c. 1.2 metre high wall. There is scope to improve visibility into the park by removal or partial removal of the wall and railing. The long linear piece of green space between the Basin St. flats and the Luas line may need to be revisited and perhaps separated from the main body of the park; as its 'dead end' character creates a hostile niche for anti-social behaviour. The park could incorporate play opportunities, potentially using the existing grass hillock as a feature. Oisín Kelly Park and the adjoining flats are on the site of the former James's St. Basin; a reservoir that once supplied water to the city. The basin ceased to be used as a water supply in 1869 with the opening of the Vartry Reservoir in Wicklow. The fascinating history of this place should be reflected in the park by a piece of artwork and/or interpretative panels at the entrance from Basin St.

3.5.5 Oscar Sq

Oscar Square is a railed green space laid out with the construction of Corporation housing in the early 1930s. The square accommodated an air raid shelter during the Emergency years (1939-45) and this still influences the form of the park today, with the majority of the space set on a plateau over a metre above the surrounding streets. There is a Marian shrine in the centre of the square set in a now empty circular pool. The square has a substantial tree cover; predominantly Cherry Blossoms (*Prunus c.vars*).

This green space is attractive and well kept and benefits from a sense of ownership and custodianship by the local residents. Some small intervention could enhance the park and in particular enhance the biodiversity role of the park such as:

- Hedge planting against the railings to the perimeter of the park.
- Native and ornamental spring bulbs under the trees.
- Summer flowering herbaceous perennial planting in the now disused pond and/or on the perimeter.
- Phased planting of native trees to supplement and replace the Cherry Blossoms.

In addition the green space would benefit from some seating and the former use of the site as a bomb shelter could be elaborated on in a piece of artwork or interpretative panel. Any modifications proposed would be undertaken in partnership with the residents using the park.

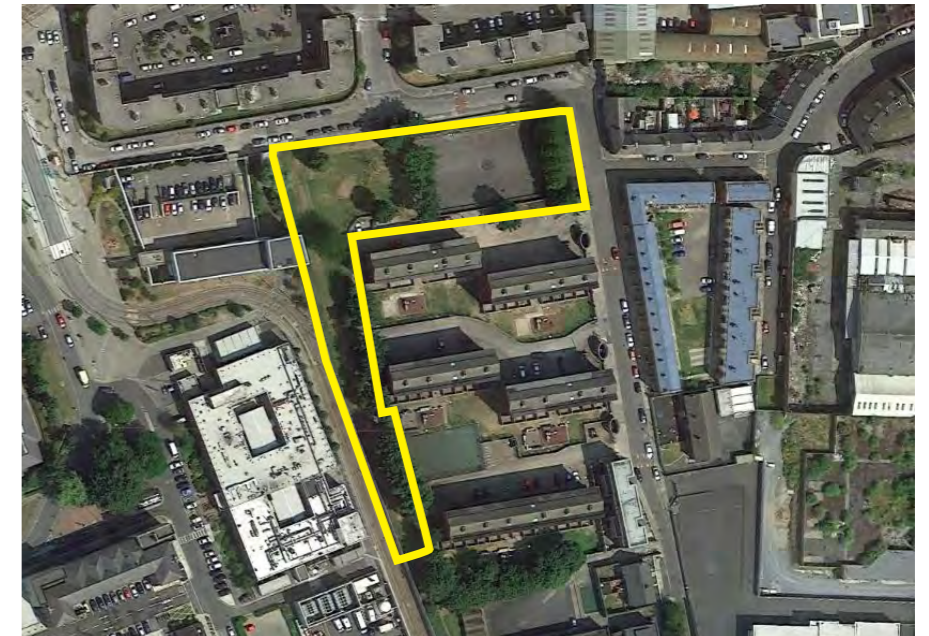


Fig. 3.5.4 Location of Oisín Kelly Park



Fig. 3.5.5 Location of Oscar Sq.

3.6 LINKING ROUTES

3.5.6 Park Terrace

Like Oscar Square, Park Terrace was established as a green space as part of a housing scheme. The green space is not enclosed but is defined by a low stone wall and is used as a through route by pedestrians. The space has been subject of refurbishment as the tree planting and hard landscape detailing are not contemporaneous to the row houses. The tree cover is exclusively Hornbeam (*Carpinus spp*) .

Again some small intervention could add layers of interest and enhance the biodiversity role of the green space:

- Native and ornamental spring bulbs under the trees.
- Phased planting of native trees to supplement and replace the Hornbeams.
- Incorporate some small blossoming trees such as; Amelanchier and Crab Apple.

The green space would benefit from some seating and could accommodate some small play elements. Any modifications would only be undertaken with the participation of the residents adjoining the park



Fig. 3.5.6 Location of Park Terrace.



Fig. 3.6.1 Visualisation of proposed 'Rain Garden' on Pimlico.

Beyond what is proposed within green spaces and parks, the public realm experience within The Liberties could be greatly enhanced by undertaking even modest interventions along some of the key linking routes; Thomas St., Cork St., Francis St, The Coombe and Ardee St / Pimlico.

Some of the measures would fall under the remit of existing schemes such as:

- Extending the Dublin Bikes scheme to Cork St. and Marrowbone Lane.
- Extending the City Council way finding signage across The Liberties area.

Additional greening to the linking streets could consist of:

- Street tree planting where there is space e.g. Francis St.
- Small rain garden or living wall projects e.g. Pimlico and Francis St.
- Tree and low planting in high quality planter boxes e.g. Thomas St. and

Cork St.

- Art interventions; such as the themed treatment of utility boxes e.g. Thomas St. and Cork St.



Fig. 3.6.2 Concept sketch of improvement works to Francis St.

3.7 TREE PLANTING STRATEGY

The tree planting strategy looks to maximise the opportunities for tree planting along the streets of The Liberties. The tree planting strategy will place emphasis on maximising the potential for long lived tree species where possible and to utilise native species where feasible. Including the tree planting proposed for parks and green spaces it is hoped to increase tree cover in The Liberties by up to 50% over the lifespan of the strategy see Fig. 3.7.3.

Typically opportunities for street trees along streets can be created with pavements build outs (in particular at street corners) and where on street parking or loading bays can be omitted. This ensures that new trees are not planted too close to existing building frontages and on top of utilities and services underneath the footpaths. A worked example of this tree planting approach applied to John Dillon St. is shown in Fig. 3.7.5.

The strategy proposes that tree species selection should reflect the scale of street or space for which it is chosen. Therefore wide streets and spaces such as Newmarket and the South Quays can accommodate large tree species such as London Planes and Lime trees, medium scale streets can accommodate moderately large trees such as Turkish Hazel, Robinia and Birch and smaller trees such as Hornbeam, Pear, Crab Apple and Honey Locust are better suited to narrow residential streets. These principles are presented in Fig. 3.7.1.

Fig. 3.7.2 demonstrates how by omitting every third parking bay on a street for a tree will give a spacing of 18 metre approx. from centre to centre; a spacing ideal for larger urban trees. Smaller tree species could be planted in groups to accentuate their presence on the street. The surface of the tree pit could be planted or where required can accommodate seating and/or cyclestands.

In order to achieve the best possible outcomes for the trees it is important that tree pits are adequately sized and well prepared. Every street tree pit should have a minimum rooting volume of 4 cubic metres of good quality growing medium (soil). Where possible rooting volumes in the order of 12-16 cubic metres should be provided; which would be equivalent to a tree pit



Large trees for wide street and big spaces



Medium trees for regular streets



Small trees for intimate residential streets

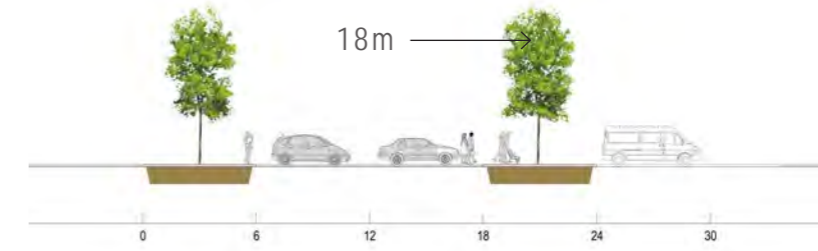
Fig. 3.7.1 Proposed streets tree size in proportion to street and urban spaces.

covering the area of an on-street parking space. On busy sections of streets it may be necessary to utilise load bearing soils in order to carry paved surfaces over the top of the tree pit.

The Greening Strategy seeks to maximise the multi-functionality of green spaces and this extends to the street tree planting. It is proposed that all streets tree pits will serve a Sustainable Drainage Function (SuDS), whereby surface water run-off from buildings and hard surfaces can be directed to tree pits. The soil in the tree pits can then filter and clean the water before it infiltrates to groundwater or overflows to the stormwater sewer network.



Existing street with on-street parking and loading bays



Omit parking space to make way for tree pits.



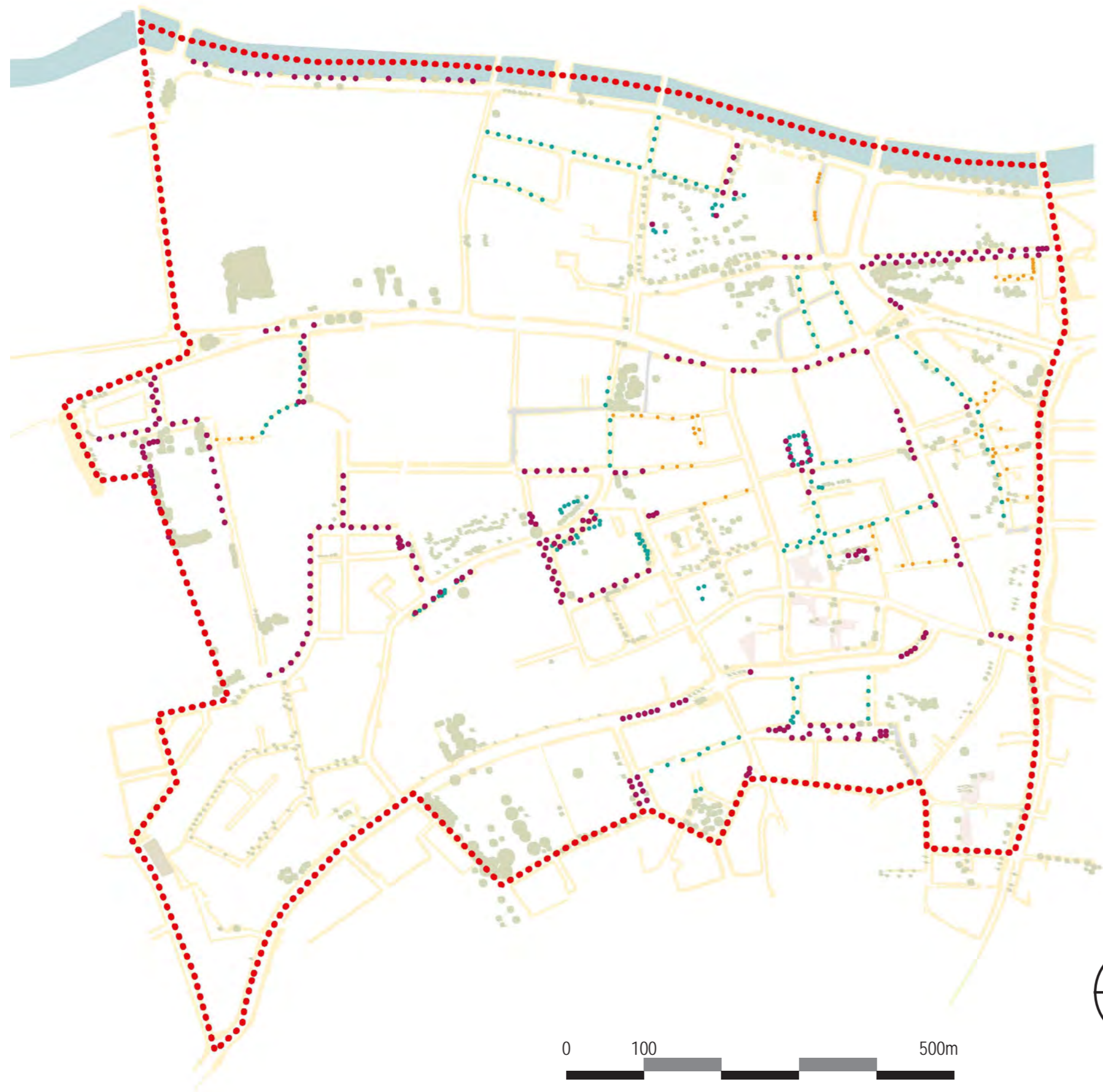
Introduce groundcover planting or seating/cyclestands



Smaller tree species can be planted in groups / copses

Fig. 3.7.2 Streets Trees - Spacing

These stormwater tree pits are well established in Seattle and Philadelphia (USA) and in Stockholm as successful measures in improving water quality and alleviating localised flooding. The principles of the stormwater tree pit are explained in further detail in Fig. 3.7.4.



L E G E N D

- Existing Trees
- Proposed Street Tree Planting - large
- Proposed Street Tree Planting - medium
- Proposed Street Tree Planting - small

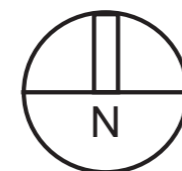
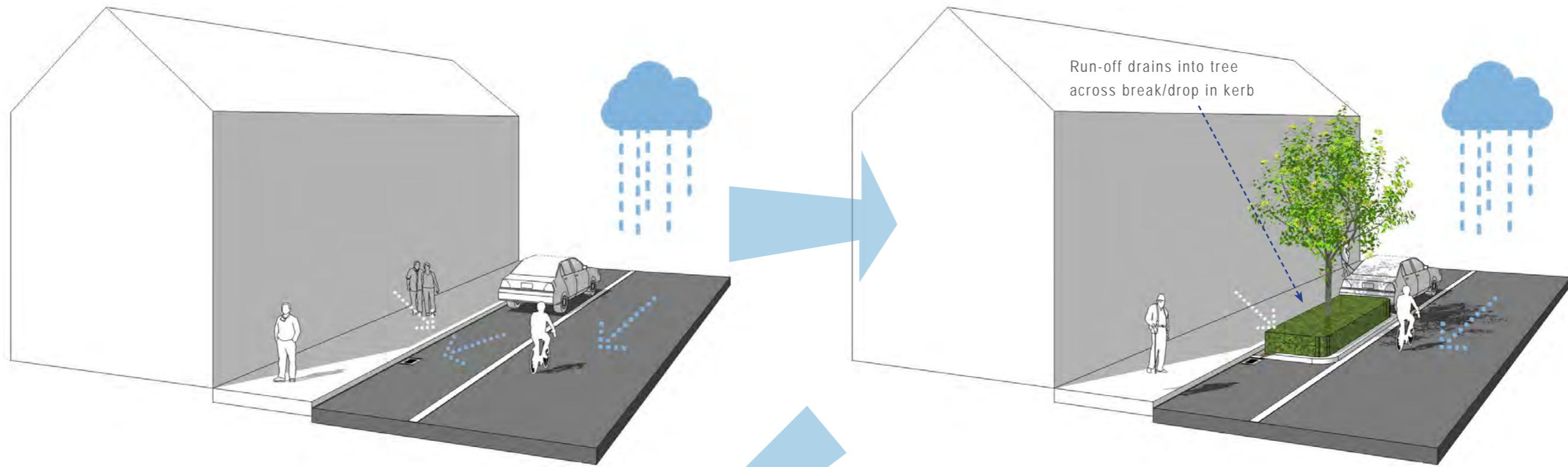


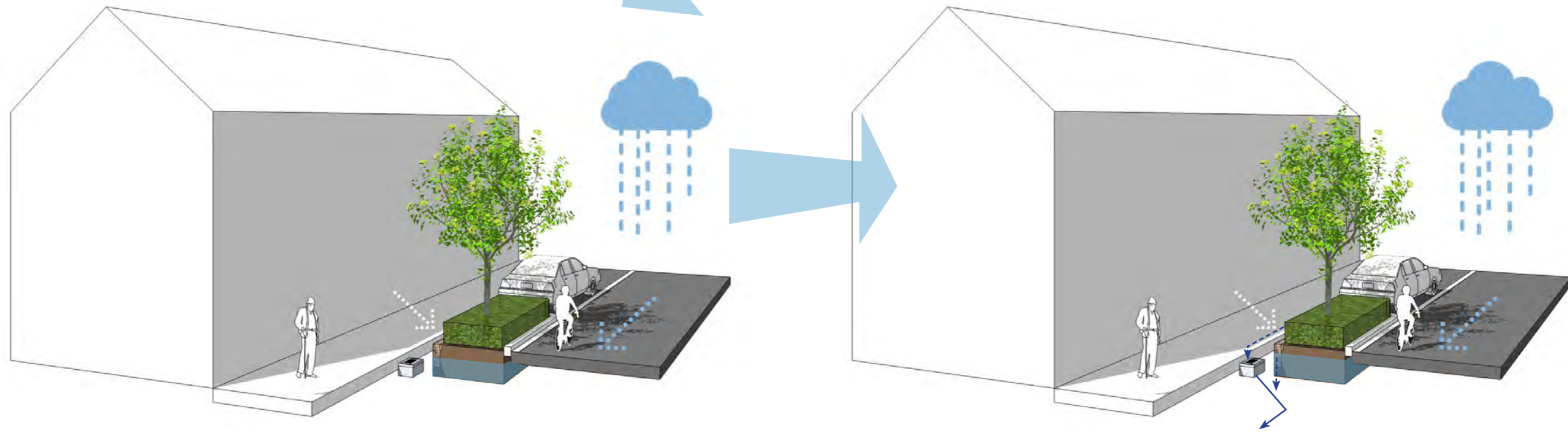
Fig. 3.7.3

Indicative locations for new street tree planting.



Existing situation - street with side on-parking along kerb.

Parking space omitted to make way for tree pit. Surface of tree pit planted with groundcover planting.



Water can be attenuated in tree pit.

When tree pit becomes saturated water overflows to the existing road gully or overflow through under-pit drainage.

Fig. 3.7.4 Streets Trees - stormwater tree pit - option 02

Schedule of suggested species for street tree planting.

Large trees:

| | |
|---------------------------|--------------|
| <i>Acer platanoides</i> | Norway Maple |
| <i>Fraxinus excelsior</i> | Ash* |
| <i>Pinus sylvestris</i> | Scots Pine |
| <i>Platanus</i> spp. | Plane |
| <i>Quercus robur</i> | Common Oak |
| <i>Quercus rubra</i> | Red Oak |
| <i>Tilia</i> spp. | Lime |

*Subject to lifting of Dept. of Agriculture Ash Dieback (Chalara) restrictions

Medium trees:

| | |
|-----------------------------------|----------------|
| <i>Alnus spaethii</i> | Spaeth's Alder |
| <i>Betula pendula</i> | Silver Birch |
| <i>Corylus collurna</i> | Turkish Hazel |
| <i>Liquidambar styraciflua</i> | Sweet Gum |
| <i>Pyrus calleryana</i> | Pear |
| <i>Quercus robur</i> 'Fastigiata' | Fastigate Oak |
| <i>Robinia pseudoacacia</i> | Robinia |
| <i>Sorbus aucuparia</i> | Rowan |

Small trees:

| | |
|--|-----------------|
| <i>Acer campestre</i> | Field Maple |
| <i>Amelanchier</i> spp. | Snowy Mespilus |
| <i>Crataegus monagyna</i> | Hawthorn |
| <i>Gleditsia triacanthos</i> | Honey locust |
| <i>Laburnum anagyroides</i> | Laburnum |
| <i>Magnolia</i> c.vars | Magnolia |
| <i>Malus sylvestris</i> c.vars | Crab Apple |
| <i>Prunus avium</i> | Wild Cherry |
| <i>Prunus</i> c. vars | Cherry Blossoms |
| Multi stem <i>Betula pendula</i> and <i>Sorbus aucuparia</i> | |



Avenue of London Plane trees, Caldas das Rainha, Portugal



Tree lined residential street, Ballymun, Dublin.



Visualisation of proposed Stormwater Tree Pit on John Dillon St.

- LEGEND
-  Existing Tree
 -  Proposed new street tree in buildouts.
 -  Proposed small trees closer to building lines (within 3.0 metres)
 -  Existing tree on footpath to be removed.



Fig. 3.7.5 Worked-up example streets tree planting - John Dillon St.

3.8 RAIN GARDENS

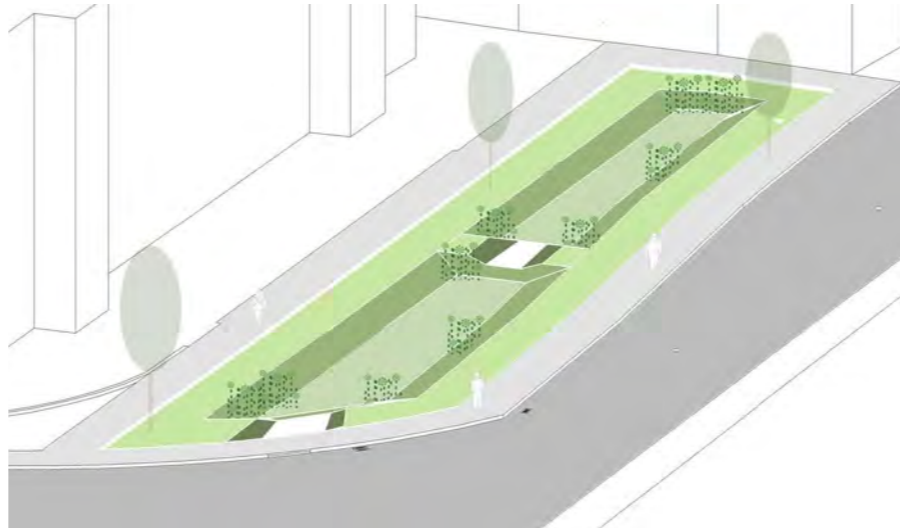
Some of the small green spaces are suited to development as rain gardens. The rain garden is a Sustainable Drainage feature which works as follows; stormwater run-off is channelled from hard surfaces (roads, footpaths) and buildings towards shallow depressions or hollows formed in the green space. Rainwater can thus attenuate or gather in the hollow. When the hollow reaches capacity (fills) the excess water is allowed to overflow to another hollow or overflow to the stormwater sewer network. The principle of the rain garden is illustrated in further detail in Fig. 3.8.1. Indicative locations for rain gardens are shown on the Area Wide Strategy plan see Fig. 3.1.1.

The rain garden approach provides opportunities to create new habitats and improve local biodiversity by planting native plants adapted to water logged soils such as Yellow Flag Iris, Purple Loosestrife, Meadowsweet, Marsh Marigold, Ladys Smock, and Sedges.

Rain Gardens can reduce the volume of water discharged to the stormwater sewer network and improve the water quality by natural filtering actions of soil, plants and micro organisms. Rain Gardens do not have permanent standing water and are designed to drain down with 6-24 hours of a heavy storm.



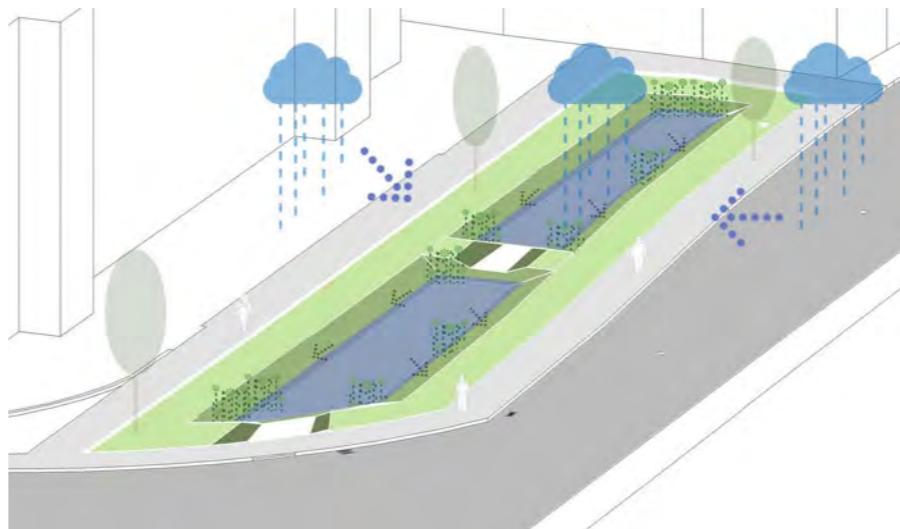
Photo above: rain garden in Ashby Grove, London (UK), here water is diverted from a downpipe. Designed by Bob Bray & Associates.



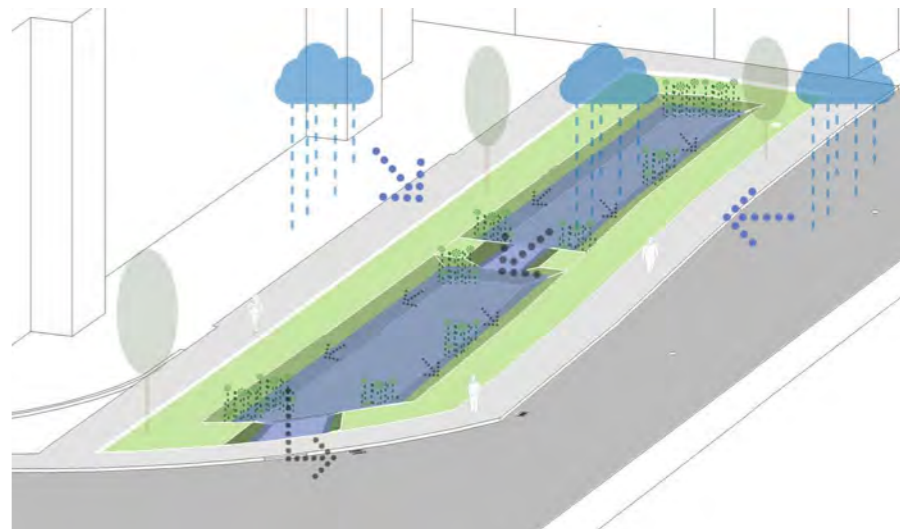
01 - A series of interconnected hollows is formed in existing green spaces.



02 - Surface water run-off from roads, footpaths and buildings is directed and channelled to the green space where it begins to accumulate in the hollows.



03 - As the hollow upstream fill excess water can overflow to downstream hollow.



04 - When all of the hollows are full, excess water can overflow from the green space to the existing stormwater network.

Fig. 3.8.1 Illustration of how a Rain Garden works.

3.9 URBAN PLANTING FOR BIODIVERSITY ENHANCEMENT

3.9.1 General Guidance

This section sets out additional guidance on how to improve local biodiversity through planting and advises on the preferred trees, shrubs and groundcover planting. The general aim is to create urban habitats which support as many native flora and fauna species improve conditions for species such as butterflies and song birds which are appreciated by the public and where possible to create or mimic semi-natural habitats which are rare in the area such as wetlands and hedgerows.

Within green spaces it is desirable to have a diversity of complementary habitats such as low grass, tall grass, shrubbery, trees, wetlands, allotments and walls. If not planting native trees or shrubs cultivated varieties of these species are a good alternative and if planting non-natives choose species which produce flowers and set seed, or have structural features which support wildlife such as fissured bark or dense foliage. When selecting herbaceous plants as far as is possible choose the older non-improved varieties.

3.9.2 Guidelines for Walls

Landscaping of bare vertical walls can dramatically improve their biodiversity value. Ivy (*Hedera helix*) is particularly useful, but also *Cotoneaster horizontalis* and *Pyracantha* as these two will provide food for birds. Bird boxes could be added to suitable trees or walls. Robin, Blue Tit and possibly Great Tit are the species most likely to use artificial nest boxes in the Liberties. Therefore the type chosen should be suitable for these species. Features can be added to walls such as cavities containing natural materials where insects could overwinter, bats roost etc. As management of bird nest boxes is important they should be places where they can be accessed each year to clean them or/and discover if they have been used.

3.9.3 Guidelines for Tall Grass/Wildflower Meadows

Tall grasslands/wildflower meadows can either be created by allowing the local flora to appear after the topsoil is removed or by spreading wildflower seed or hay. Existing grasslands can be managed to become more like wildflower meadows. If fertilizer is not added and grass is cut regularly (and cuttings collected and removed), nutrient levels will decline naturally thus

encouraging the growth of non-grass species. If a tall grassland/wildflower meadow is developed using a wildflower mix then on-going management will be needed to ensure the regular appearance of many of its colourful species as these are probably annuals. Management should involve early cutting in March/April to limit the growth of grass and late cutting after plants have flowered in August or September. All cuttings should be removed, a few days after the late cut to allow seeds to disperse. Scarifying may also be needed. Grassland type habitats can also be created on roofs.

3.9.4 Guidelines for Shrubberies

Shrubberies can be of varying size in many types of locations, including roofs. A low shrubbery can be of value to invertebrates and can be created using hawthorn or wildlife friendly non-native species: *Cotoneaster*, *Lavandula* and *Hypericum*. Medium height shrubberies could use native spindle (*Euonymus europaeus*) with native ivy (*Hedera helix*) as ground cover or/and the non-natives; *Berberis*, *Escallonia* ('Apple Blossom') and *Buddleia*. A tall shrubbery c. 2.0metres is of greatest value for wildlife, for feeding and nesting birds. Many species are suitable including *Ilex* (Holly), *Ribes*, *Syringa* (Lilac) and *Cotoneaster*. It could be planted to resemble a semi-natural hedgerow e.g. a Holly hedge with honeysuckle and guelder rose.

3.9.5 Guidelines for Wetlands

Wetlands can include incidental puddles in the ground (which provide drinking water for birds), to various types of semi-natural and man-made rain gardens of varying degrees of wetness. The type of habitat created depends on the degree of wetness. These can include open water, emergent habitats, wet grassland and scrub all of which can support different plant species. Open water habitats are of particular value as they will support large invertebrate populations, thus enhancing bird and bat numbers.

Typical Species:

| | |
|----------------------------|-----------------|
| <i>Carex elata</i> | Tufted Sedge |
| <i>Carex pendula</i> | Pendulous Sedge |
| <i>Caltha palustris</i> | March Marigold |
| <i>Filipendula ulmaria</i> | Meadowsweet |

| | |
|------------------------------|-------------------|
| <i>Glyceria maxima</i> | Reed Sweet Grass |
| <i>Iris leavigata</i> | Iris (Japanese) |
| <i>Iris sibirica</i> | Iris (Siberian) |
| <i>Iris pseudoacorus</i> | Yellow Flag |
| <i>Lythrum salicaria</i> | Purple Loosetrife |
| <i>Mentha aquatic</i> | Water Mint |
| <i>Phalaris arundinacea</i> | Reed Canary-grass |
| <i>Schizostylus coccinea</i> | Kaffir Lilly |
| <i>Typha latifolia</i> | Bulrush |



Native hedgerow planting along a park boundary, Ballymun, Dublin.



Native wetland planting in Father Collins Park, Dublin.

3.9.6 Garden plants of value to butterflies and birds.

Recommended species of benefit to native birds and butterflies are listed under this section and include both native and non-native species. It may not be possible to plant a green space or park exclusively with plant from the lists below as; aesthetics, long term maintenance and landscape heritage will also be considerations. However it should be possible to incorporate some native and wildlife beneficial planting into all green space projects.

Shrubby plants of value for butterflies:

| | |
|-------------------------------|--|
| <i>Artemisia arborescens</i> | |
| <i>Buddleia c.vars</i> | Especially B. x weyeriana and B. x weyeriana 'Sungold' attract Small Tortishell, Peacock, Painted Lady and Red Admiral butterflies |
| <i>Cytisus scoparius</i> | Common Broom |
| <i>Erica Erigena</i> | Heather |
| <i>Genista hispanica</i> | Spanish Broom |
| <i>Hebe beauty'</i> | Particularly H. 'Great Orme' and 'Midsummer' |
| <i>Hedera helix</i> | Ivy |
| <i>Juniperus commmunis</i> | Juniper |
| <i>Hypericum spp.</i> | St. John's Wort |
| <i>Lavendula c.vars</i> | 'Munstead' is one of the best cultivars |
| <i>Potentilla fruticosa</i> | |
| <i>Prunus spinosa</i> | Sloe / Blackthorn is the food plant for Ireland's rarest butterfly – the Brown Hairstreak whose larvae feed on the leaves and flower buds. |
| <i>Rosa pimpinellifolia</i> | Burnet Rose |
| <i>Rosa rugosa</i> | Rugosa Rose |
| <i>Rosmarinus officinalis</i> | Rosemary |
| <i>Rubus fruticosa</i> | Brambles are the staple source of nectar for most species, but in particular for the Silver Washed Fritillary. |
| <i>Syringa vulgaris</i> | Lilac |
| <i>Juniperus communis</i> | |

Herbaceous flowering plants good for butterflies:

| | |
|--------------------------------|--|
| <i>Achillea millefolium</i> | Yarrow |
| <i>Ajuga reptans</i> | Bugle |
| <i>Alchemilla mollis</i> | Lady's Mantle |
| <i>Aster amellus</i> | Michaelmas Daisy |
| <i>Cardamine pratensis</i> | Lady's Smock provides food for the Orange Tip |
| <i>Centaurea nigra</i> | Knapweed |
| <i>Eupatorium cannabinum</i> | Hemp Agrimony |
| <i>Filipendula ulmaria</i> | Meadowsweet |
| <i>Knautia arvensis</i> | Field Scabious |
| <i>Lotus corniculatus</i> | Bird's-foot trefoil; attracts the Common Blue while the larvae of the Dingy Skipper eat it. |
| <i>Lunaria rediviva</i> | Perennial Honesty |
| <i>Matthiola incana</i> | Stock |
| <i>Mentha spp.</i> | Mint |
| <i>Origanum marorana</i> | Marjoram visited by Gate keepers |
| <i>Polygonum c.vars</i> | Ornamental Polygonum |
| <i>Pulicaria dysenterica</i> | Fleabane; good for Small Copper – it grows in damp wettish areas. |
| <i>Sanguisorba officinalis</i> | Great Burnet |
| <i>Sedum spectabile c.vars</i> | Stonecrop; attract Small Tortishell, Peacock, Painted Lady and Red Admiral. Autumn flowering varieties are good for Browns, Small Tortishell, Peacock, Painted Lady and Red Admiral, and late Small Coppers. |
| <i>Tanacetum parthenium</i> | Feverfew |
| <i>Thymus spp.</i> | Thyme |

Non-native shrubs / trees with fruits or seeds for birds

| | |
|------------------------------------|--|
| <i>Chaenomeles japonica</i> | Chaenomeles or other flowering quince- + shelter and food for birds |
| <i>Pyracantha coccinea</i> | Pyracantha - shelter and food for birds (not yellow berried varieties) |
| <i>Parthenocissus tricuspidata</i> | Virginia creeper – shelter and food for birds |
| <i>Amelanchier lamarckii</i> | Juneberry tree – starlings, whitethroats, finches and robins |
| <i>Berberis spp.</i> | Barberry (Berberis) thrushes, flycatchers, finches, tits, nutcatchers |
| <i>Vaccinium myrtillus</i> | Bilberry - whitethroats, greenfinches, chaffinches, starlings and sparrows |
| <i>Daphne spp.</i> | Daphne - blackbirds, flycatchers, finches, whitethroats |
| <i>Cotoneaster spp.</i> | |
| <i>Malus sylvestris c.vars</i> | Ornamental crab apples |
| <i>Rosa rugosa</i> | Rugosa Rose |
| <i>Ribes rubrum</i> | Red currants - Blackbirds |

3.9.7 Trees and shrubs considered native in Ireland and their value to the birds of the Liberties

| English name | Latin name | Good for birds |
|--|---------------------------|----------------|
| Alder | <i>Alnus glutinosa</i> | + |
| tits, especially long tailed tits, finches and tree sparrows | | |
| Arbutus, the Strawberry Tree | <i>Arbutus unedo</i> | |
| Silver Birch | <i>Betula pendula</i> | |
| Downy Birch | <i>Betula pubescens</i> | |
| Hazel | <i>Corylus avellana</i> | |
| Alder Buckthorn | <i>Frangula alnus</i> | |
| Ash | <i>Fraxinus excelsior</i> | |
| Juniper | <i>Juniperus communis</i> | |
| Crab Apple | <i>Malus sylvestris</i> | + |
| Sessile Oak | <i>Quercus petraea</i> | |
| Pedunculate Oak | <i>Quercus robur</i> | |
| Scots Pine | <i>Pinus sylvestris</i> | |
| Aspen | <i>Populus tremula</i> | |
| Bird Cherry | <i>Prunus padus</i> | |
| Wild Cherry | <i>Prunus avium</i> | |
| Willow spp | <i>Salix spp.</i> | |
| Elder | <i>Sambucus nigra</i> | + |
| Rowan or Mountain Ash | <i>Sorbus aucuparia</i> | |
| Whitebeam spp. | <i>Sorbus aria</i> | + |
| | <i>S. rupicola</i> | |
| | <i>S. devoniensis</i> | |
| | <i>S. latifolia,</i> | |
| | <i>S. anglica</i> | |
| | <i>S. hibernica.</i> | |
| Yew | <i>Taxus baccata</i> | |
| Wych Elm | <i>Ulmus glabra</i> | |
| Hawthorn | <i>Crataegus monogyna</i> | + |

| | | |
|--|------------------------------|---|
| Broom | <i>Cytisus scoparius</i> | |
| Spindle | <i>Euonymus europaeus</i> | + thrushes, blackcaps, tits, including long-tailed its, finches |
| Alder Buckthorn | <i>Frangula alnus</i> | |
| Ivy | <i>Hedera helix</i> | + |
| Holly | <i>Ilex aquifolium</i> | |
| Juniper | <i>Juniperus communis</i> | |
| Privet | <i>Ligustrum vulgare</i> | + |
| tits, greenfinches, sparrow, song thrushes, robins | | |
| Honeysuckle | <i>Lonicera periclymenum</i> | + |
| Sloe, Blackthorn | <i>Prunus spinosa</i> | + |
| Purging Buckthorn | <i>Rhamnus cathartica</i> | |
| Dog Rose | <i>Rosa canina</i> | |
| Burnet rose | <i>Rosa pimpinellifolia</i> | |
| Bramble | <i>Rubus fruticosus</i> | + |
| Common (or European) Gorse | <i>Ulex europeaus</i> | |
| Western (or Mountain) Gorse | <i>Ulex gallii</i> | |
| Guelder Rose | <i>Viburnum opulus</i> | |

Appendix B - Green Infrastructure Benefits Report



1.0 What is Green Infrastructure?

There are various definitions for Green Infrastructure. The definition, published by Comhar Sustainable Development Council in their research and policy document; Creating Green Infrastructure for Ireland describes GI on a national scale.

'Green Infrastructure is a strategically planned and managed network featuring areas with high quality biodiversity (uplands, wetlands, peatlands, rivers and coast), farmed and wooded lands and other green spaces that conserve ecosystem values which provide essential services to society).

The definition developed by Natural England (2011) is more relevant to an urban area:

Green Infrastructure is a "strategically planned and delivered network of high quality green spaces and other environmental features which should be designed and managed as a multifunctional resource capable of delivering a wide range of environmental and quality of life benefits for local communities".

Based on current understanding of Green Infrastructure in the literature (see references at the end of this chapter) and the priorities for development in the Liberties, our definition of GI is:

Green Infrastructure = biodiversity + social and economic benefits + services

1.1 Green Infrastructure Benefits

GI in the Liberties describes all 'green and blue spaces', including parks, graveyards, yards and gardens, urban allotments and rivers. The GI is multi-functional in the sense that it provides interlinked Environmental (biodiversity), Social (quality of life) and Economic services and benefits:

1.1.1 Environmental /Biodiversity Services

Climate change: Mitigation and adaptation:

- Vegetation sequesters carbon and mitigates the Urban Heat Island Effect; both functions are important in inner city areas and likely to become more important with climate change.

Biodiversity and Wildlife:

- GI is likely to contain valuable habitats. A good GI network will allow for the movement of species via green corridors which will also provide pollination services.

Improving soil quality:

- Soil micro-organisms and other flora and fauna will assist in the development of soil in abandoned land, leading to improved permeability and reduced loading on drainage systems.

Sustainable water management:

- Vegetation and soils intercept and attenuate rainfall/ stormwater and thus improve water quality and reduce loading on drainage systems and waste water treatment plants, services which could easily be costed and are likely to become more important with climate change
- SuDS. Planned areas (of various types from rain gardens to permeable surfaces) which allow for more sustainable management of rainfall and surface water now accepted as good practise in all developments.

1.1.2 Social (Quality of Life) Benefits

Cultural and aesthetic:

- Well planned and managed GI in public spaces provides positive sense of place to residents and tourists travelling through the area.

Social cohesion:

- GI can support area regeneration and community cohesion through the provision of easily accessible public spaces which are safe and attractive and allow for enjoyable communal activities .

Air quality:

- Vegetation (particularly if dense, coniferous and tall) actively and passively removes pollutants from air and mitigates noise impacts.

Environmental education:

- In convenient local settings GI provides opportunities for formal and informal environmental education and the possibility of establishment of new social networks.

Archaeological and built heritage assets:

- As GI is commonly associated with cultural assets, appropriate



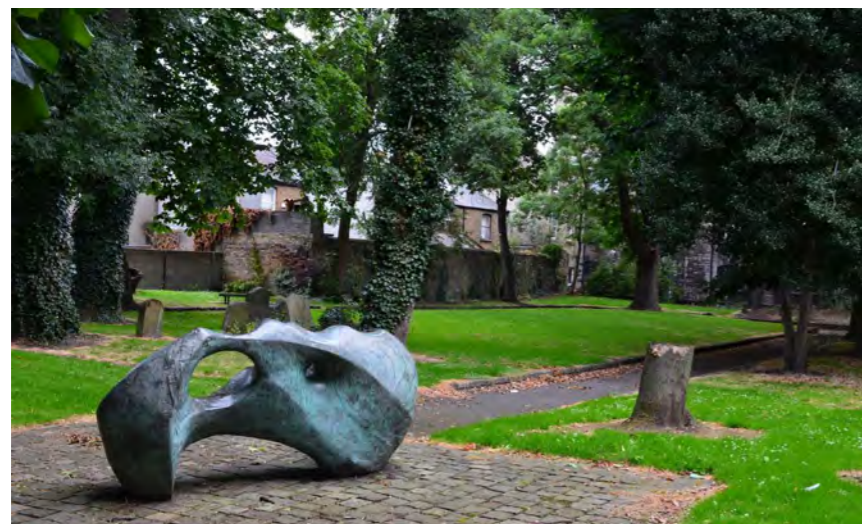
Fig. 1.0 Existing and potential local Ecological Hubs and Linkage.



Above: shrubbery and semi-mature trees at Borris St.



Above: allotments at Chamber St.



Above: St. Catherine's Park

management of GI will support the protection, enhancement and appreciation of these heritage items.

Health and Recreation:

- Proximity to and use of green spaces for recreation enhances human physical and mental health.
- Walking and cycling GI adds to the attractiveness of walking and cycling routes, and offers enhanced options for improving permeability.

Economic Benefits:

- Property Investment in GI (development and management) is known to add to financial value of nearby properties and support regeneration initiatives.
- Tourism: GI provides amenities for tourists (destinations and routes) which will enhance prospects for employment in local service sectors.
- Food production: Cultivated private and communal areas provide direct financial benefits to residents. Communal gardening activities allow for sharing of local knowledge.

GI Disservices

When reflecting on Green Infrastructure within an established urban environment one must also be cognizant of GI disservices. Within urban areas open spaces can provide opportunities for criminality and anti-social behaviour such as drug taking and excessive drinking. Where such activities occur in quieter and little used open spaces the anti-social activity can be perceived as the dominant human activity and discourages usage by other members of the community and visitors. In busier and larger parks and public spaces a degree of anti-social behaviour can occur without dominating the overall character or discouraging other park users. In addition, busier spaces benefit from passive and active surveillance by members of the public, park staff, parks wardens and Gardaí.

The physical attributes that make an area of open space beneficial for flora and fauna such as dense shrubby growth, tall meadow vegetation and the absence of dogs and cats can also make a space less visible and vulnerable to domination by anti-social activity or criminality. In considering the Green

Infrastructure value of any single open space it is always important to consider to what the degree the space is perceived as safe and secure. A space which is considered unsafe by the general public is not serving a social benefit and is contributing to a negative “sense of place”.

2.0 Overview of Existing Green Infrastructure within the Liberties Area.

2.1 The Biodiversity Value of GI in the Liberties

The multi-functional nature of GI suggests that different approaches can be taken to its valuation. This account examines the value of GI in the context of biodiversity in the Liberties. It is relevant to GI as there is a close relationship between biodiversity and the provision of many ecosystem services and there is reliable information on the status of biodiversity. This review is based on detailed field studies carried out in 2008 (habitats, flora, birds and bats) to inform the Liberties Local Area Plan and reconnaissance visits to public green spaces carried out by an urban ecologist (Mary Tubridy) in 2014. In contrast to 2008 interest focussed solely on publicly accessible and visible green spaces in 2014.

The most important feature of biodiversity interest is the River Liffey. This is a tidal river (habitats CW2/BL1) and connects the inner city to the ocean and mountains. While water and sediment quality are poor the river acts as a commuting corridor for eels and salmon and a feeding area for the rare seal and more common mute swan, cormorant and heron. Gulls use it as a highway to Dublin Bay. The rough walls and bridges provide a substrate for various plants including *Parietaria judaica* (pellitory-of-the-wall), a herbaceous plant of old walls near the coast, as well as species of algae located in particular bands which reflect tidal conditions.

The overgrown graveyards associated with St Luke's and St James's (habitats BL1/WS1/WS3/WD1) are the most important terrestrial "hot spots". They have dense vegetation dominated by native species particularly trees and shrubs and are completely undisturbed. Species include Sycamore, mature Ash, Brambles, Holly, Yew, Elder and Ivy. St. James's Graveyard is almost a woodland and because it is particularly large and undisturbed it supports the largest number of species of nesting birds (ten in 2008). Bats (Soprano pipistrelle) have been recorded feeding around St. Luke's.

Most public green spaces are of low biodiversity value if they are dominated by the habitat, mown grassland (habitat GA2) which is associated with low plant and animal diversity. Grasslands in the older parks (Brú Chaomhín, Borris Street, St. Catherine's etc) are probably more species rich. The biodiversity value of all grass dominated spaces is higher if planted trees are present

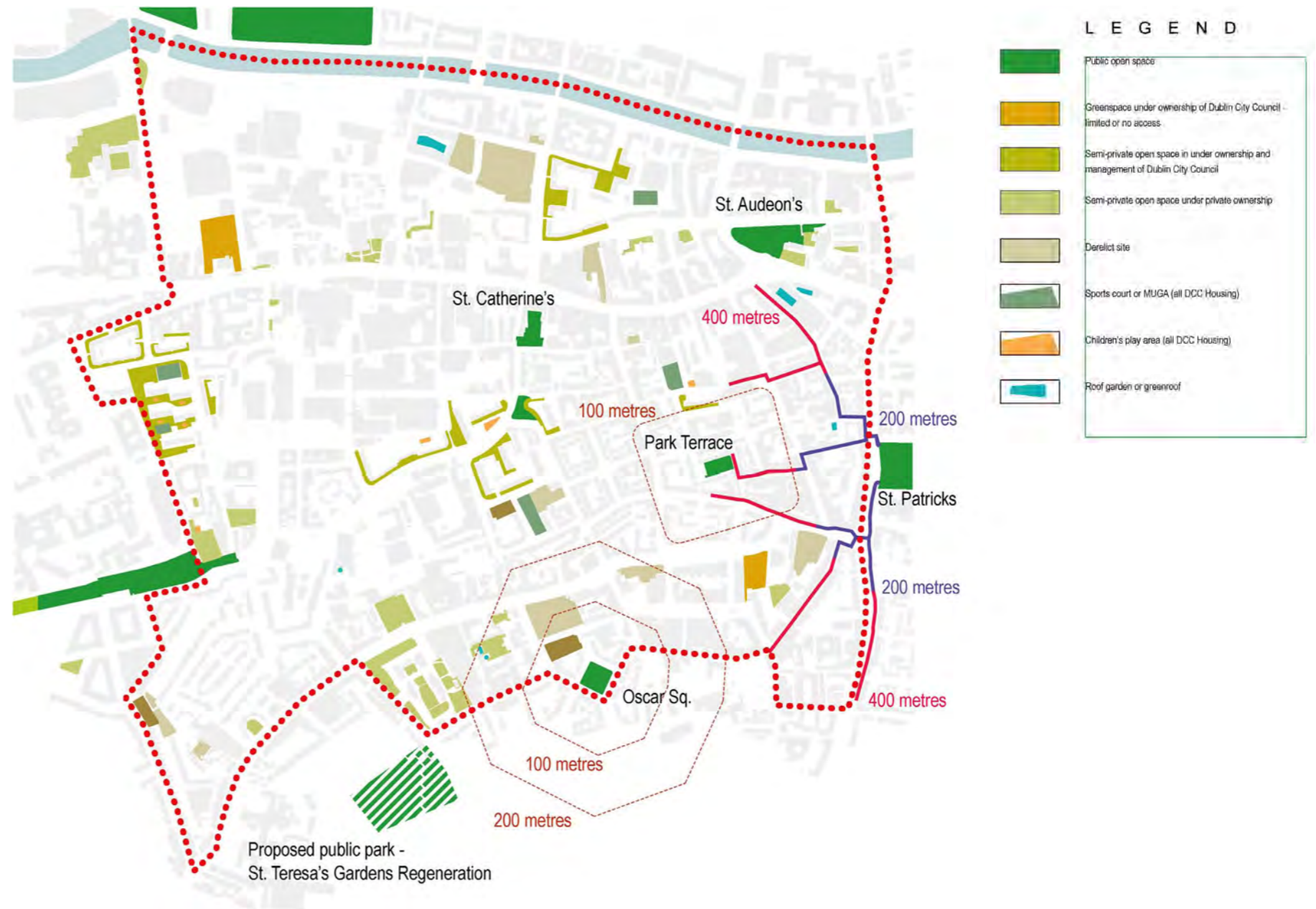


Fig. 2.2 Existing Green Spaces within the Liberties

and significantly increased if dense shrubberies are associated with old trees. Thus older sites such as St Catherine's and Brú Chaomhín support greater habitat and species diversity. A small public park near the Council offices in Borris Street (a mini Brú Chaomhín) is of biodiversity interest as it demonstrates the value of a small site close to a larger green space. It has an older casually managed grassland, some semi-mature trees and native shrubbery (ivy). Bird diversity includes; Greenfinches (in song), Chaffinch (in song), Grey Wagtail (probably nesting), Blackbird (in song) and Woodpigeon (recorded in 2008).

Where grassland is unmanaged in the fenced publicly owned sites at Cork Street and Bridgefoot Street a more diverse range of species associated with grassland can appear (Dry Meadow habitat GS2). This improves availability of food and overwintering sites for invertebrates and increases cover for small mammals. Shrubbery and old walls which have crevices add to the value of all green spaces by providing either feeding or/and safe nesting sites for birds. Shrubs which provide winter feeding (set seeds) are more valuable. Derelict sites are a mosaic of various habitats as the bare ground is colonized by plant species (habitats ED2 and ED3), to become an unmown grassland (GS2) or a shrubbery with non-natives (WS3) usually dominated by Buddleia. These fenced off brownfield sites are safe feeding and nesting areas for small birds and important for invertebrates. Ponded water, however transitory in derelict sites or roadways, is of high value to insects and birds.

Allotment sites have introduced a new habitat to the Liberties since 2008 (habitat BC2). They are associated with increased plant species diversity and depending on the attitude of allotment holders to chemical usage greater availability of food for certain groups of invertebrates, particularly butterflies. The principal habitat in the Liberties, hard surfaces (BL3) is associated with buildings and roads is of low biodiversity value. On the roads are regularly seen pigeons scavenging for food. They have been around for many decades if not centuries and are descended from the wild and native rock dove. They now nest in the cracks of buildings together with other bird species. Their population is regularly supplemented by escapees from the numerous pigeon lofts or those lost during races.

Salmon and all bats are protected by European legislation and thus particular care must be taken to protect water quality in the Liffey and roosting and commuting areas used by bats. As feeding Soprano pipistrelle and Leisler bats have been recorded there is a chance that roosts are present. Advice and guidance must be followed from the city Biodiversity Officer on the need for more detailed surveys if old buildings are being removed or refurbished. Planting should therefore be bat friendly everywhere and consideration should be given to erecting bat boxes. Increasing the area of freshwater wetland habitats would significantly increase bat populations.

Certain bird species are of particular importance in both the European and Irish context. The Herring Gull is a Red List species. Red list species are those whose populations have declined dramatically in recent years, breeding populations have undergone large and widespread declines since 1800 and are species of global conservation concern. It breeds in small numbers on a rooftop within the Diageo site. Amber list species (species whose populations or ranges have declined moderately in recent years, rare breeders, breeding or wintering population is localised or populations of international importance) include the Cormorant, Mute Swan, Lesser Black-backed Gull, Great Black-backed Gull, Swift, Sand Martin, Swallow, House Martin, Starling and House Sparrow. The most important of these are the species which nest/probably nest. These are lesser Black-backed Gull (localised breeding population), Swift (breeding decline), Starling and House Sparrow. Breeding sites for gull are the same as Herring Gull (Diageo site). Swift breed in Brú Chaomhín and House Sparrow is common throughout the area. Blackbird, Blue Tit, Starling and House Sparrow are the principal songbirds.

All sites of breeding birds (not only Red and Amber listed types) are highlighted by the City Biodiversity Plan. In this area the crevices in walls and bridges are often used by Grey Wagtail, Pied Wagtail, Blue Tit, Jackdaw, Starling and Swift. Dense low shrubbery is important for Wren, Dunnock, Robin, Blackbird, Mistlethrush (probably), Chaffinch, Bullfinch and Swift. Street trees are only used by Magpie and Hooded Crow. Therefore development should take care not to remove these features.

Trees and shrubs of particular value are the mature trees which produce flowers and fruits/seeds, have a fissured bark and produce dead wood. Wild herbs of particular value are older "garden escapes" such as Fennel, Soapwort and Red Valerian as these also flower each year. The spread of Canadian fleabane (*Conyza canadensis*) and the decline of mugwort (*Artemisia vulgaris*) since the 1970's is of ecological interest and confirms a close relationship between culture and ecology in the Liberties.



Above: illustration showing how habitat fragmentation can be overcome by means of green infrastructural links

2.2 Existing Green Space

The total cumulative green space in The Liberties is 9.4 hectares approximately or 6.7% of the plan area; much of which consists of small areas of open space in social housing complexes and small areas of semi-private open space and vacant sites. There are also two notable graveyards; St. Lukes and St. James that are presently inaccessible. The extent of quality open space is limited to a small number of parks/greens; St. Audeon's (0.4 ha), St. Catherine's (0.18 ha), Park Terraces (0.12ha), Oscar Square (0.2ha), a cumulative area of 0.9ha or 0.6% of the total Liberties area which provide for passive recreation. Part of the eastern end of The Liberties is also served by St. Patrick's Park, a high quality urban park of 19th Century origin. Within the study there are no active recreational or play areas located within public green spaces.

There is an outdoor 5-a-side soccer pitch at the Dublin City Council managed St Catherine's Community Sports Centre on Marrowbone Lane and an astro-turf pitch at Oliver Bond House. There are poor quality macadam sports courts and play areas of a visually low quality in Poole Street and Vicar Street. There are also play areas, sports courts or MUGAs provided within Dublin City Council flat complexes at Oliver Bond House, Basin St., School St and Marrowbone Lane, although these facilities are very much semi-private spaces for the residents of each complex.

Table 2.2 provides a summary of open space provision



Above: existing green space at Pimlico

Fields in Trust (UK) recommends a benchmark standard of 0.8 hectares for play in equipped and informal play spaces per 1,000 population. Based on an approximate population of 14,500 for The Liberties as a whole this benchmark standard would translate into a play area provision of 11.6 hectares (3.625 ha equipped, 7.975 informal). Adding the small local green spaces (0.72ha) to the play areas and MUGAs within the flat complexes (1.13ha); gives a total of 1.85 hectares of existing provision for play areas which is only 16% of the recommended benchmark. Even adding St. Patrick's Park to the total only brings provision up to 23% of what is recommended.

This is a particularly stark under provision considering that a large proportion of families live in apartments and houses with limited outdoor space (often only a small hard landscaped yard). It is probably unrealistic to set a target of meeting the Field in Trust benchmark within The Liberties, as the area is densely developed with few opportunities for making new green spaces. However a modest target of achieving a minimum of 50% of the Field in Trust Benchmark and bringing all residents to within a 5 minute walk (400m) of a high quality green space equipped for play and/or sports should be achievable. There is scope to provide additional high quality green space on former City Council flat complexes which are presently derelict (Bridgefoot St., Cork St/Chamber St), enhance access to and the amenity of existing sites such as St. James, St. Lukes and St. Catherine's and upgrade existing low quality green spaces to serve as local parks and greens.

| Open space type | Area (ha) | % of plan area | % of green space |
|--------------------------------------|--------------|----------------|------------------|
| Public Open Space | 1.07 | 0.8% | 12.0% |
| Allotments | 0.39 | 0.3% | 4.3% |
| Inaccessible graveyards | 0.76 | 0.5% | 8.5% |
| Derelict sites owned by City Council | 1.58 | 1.1% | 17.6% |
| Derelict sites privately owned | 1.08 | 0.8% | 12.1% |
| Open spaces within DCC Housing Dept. | 2.51 | 1.8% | 26.6% |
| Semi-private green space | 0.76 | 0.5% | 8.5% |
| Semi-private Institutional | 1.26 | 0.9% | 14.0% |
| Total | 9.4ha | 6.7% | |

Table 2.2 Open Space Provision in the Liberties

2.3 Food Production

There is presently 0.39 hectares of open space set aside for food production as allotments and community gardens across 3 locations at Chamber St., Braithwaite St. and Reuben St. The allotments are fully subscribed. The Reuben Street community garden is also used for providing training to the unemployed.

2.4 Flooding

Localised spot flooding during heavy rainfall has been recorded at a number of locations in the study area and are shown mapped on fig. 2.4. In Jan 2014 during high tides, the water level rose above the top of the quay walls on Victoria Quay. In general the surface drainage in The Liberties is to a combined foul and surface water network of sewers and is thus susceptible to overload from floods. Segregated surface water drainage is limited to streets subject to 20th Century road widening such as Clanbrassil St / New St, Marrowbone Lane and Cornmarket / High St.

2.5 Trees

There are approximately 1,200 trees within the study area, excluding trees in small private gardens. The Liberties is perceived to have a low tree cover and low quality street trees. Some notable and attractive small clusters of street trees include:

- Mix of small trees on Grey Street / Reginald Street.
- Mature London Planes on James's St.
- Mix of trees on Oliver Bond Street.

The canopy coverage of the existing tree stock equates to 4-5% of the total plan area. There were 26 species of tree recorded and the most common species represented are:

Table 2.5 Most Common Tree Species

| Common Name | Scientific Name | % |
|----------------------|---------------------|-------|
| Hornbeam | Carpinus betulus | 17.4% |
| Lime / Linden | Tilia | 12.7% |
| Sycamore | Acer pseudoplatanus | 12.5% |
| Rowan / Mountain Ash | Sorbus aucuparia | 9.7% |
| London Plane | Platanus spp. | 7.6% |
| Cherry Blossom | Prunus spp. | 6.9% |
| Birch | Betula spp. | 6.6% |
| Norway Maple | Acer platanoides | 4.9% |
| Turkish Hazel | Corylus collurna | 3.7% |

Self sown Buddleia is the most common shrub and native Ash and Yew can be seen in St James's Graveyard.

2.6 Socio-Economic Indicators

With the exception of the CSO Small Areas Statistics, there are limited databases available with which to develop a socio-economic baseline for the area. This is largely because aside from the Local Area Plan designation The Liberties area does not have any other statutory or geographic status designation.

Additional baseline information that would be beneficial is assessing the socio-economic benefits of implementing the Greening Strategy would be:

- Register of Vacant sites. Dublin City Council have produced a council area wide audit of vacant sites. From this it may be possible to generate data specifically for the Liberties area.
- Commercial property vacancy. An Post's Geo directory publishes an inventory of vacant commercial address points based on returns from postmen. Returns are published by post district for each quarter year. Latest results for Dublin 8 (4th quarter 2013) recorded a vacancy rate of 18% in Dublin 8 vs 14% of the city average. However no information is available for The Liberties and the the survey area includes; Inchicore, Islandsbridge and the urban area between the Liberties and the Grand Canal.
- Property prices. Currently, property prices are only available on a site/property basis. Summary figures are published for Dublin county and in some reports (Daft.ie) for South Dublin City.



Fig. 2.4 Recorded instances of local spot flooding during heavy rainfall events and tidal flooding.

3.0 Existing Green Infrastructure Assets

This Green Infrastructure assessment approach has been tailored specifically to The Liberties Area and current priorities for development. Some potential G.I. Benefits are not included as they are not considered to be readily applicable to green spaces within the plan area and some benefits are grouped together as considering the scale of the green spaces in the Liberties. It is not considered realistic to deliver all of the benefits together (e.g. products from the land; food and timber).

For the purposes of scoring, the benefits are weighted to give greater emphasis to key G.I. Benefits deficient in the Liberties area (biodiversity) and to emphasise issues of greatest short-medium term concern (e.g. sustainable water management).

3.1 Safety and Security for the Public

Negative scoring is applied to spaces with a heightened risk of crime and anti-social behaviour and/or as a result of their physical characteristics and spaces that are perceived by the general public as being unsafe.

Table 3.1 GI Disservices (Safety and Security)

| Value | Score | Perception |
|------------------------|-------|--|
| Extreme safety issues | -2 | Perceived by general public as a no go area. Regular occurrence of anti-social behaviour and/or criminal activity |
| Moderate safety issues | -1 | Some perception by the general public that the space is unsafe and the occasional occurrence of anti-social behaviour and/or criminal activity |

3.2 Measuring Urban Biodiversity

Biodiversity is scored to reflect the range of habitats and species present in any single area of open space. The explanation of reasons for scoring below are tailored to the habitat types typically found within The Liberties area.

Table 3.2 Measuring Biodiversity

| Value | Score | Reason |
|-----------|-------|--|
| Low | 1 | Typically mown grassland |
| Moderate | 2 | Typically mown grassland with planted trees |
| High | 3 | Typically mown grassland, trees and either long grass or shrubs |
| Excellent | 4 | Trees, shrub layer and ground flora and/or the presence of important species, e.g., breeding birds or commuting salmon |

The scoring matrix (Table 3.3) on the following page provides an aggregate GI score for the area being assessed.

Table 3.3 GI Benefit Assessment of the Liberties Area

| No. | Benefit/Disservice | Maximum Weighted Score |
|---|---|------------------------|
| Environmental and Ecosystem Service Benefits | | |
| 1 | Climate adaptation - Urban Heat Island Effect and/or windspeed reduction. +1 | 1 |
| 2* | Biodiversity value: Low +1 Moderate +2 High +3 Excellent +4 | 4 |
| 3 | Improving air quality and Carbon sequestration (maturing and mature trees) +1 | 1 |
| 4 | Sustainable water management: Porous surfaces +1 Improving water quality +1 Attenuation and/or infiltration to groundwater +1 | 3 |
| Social and Cultural Benefits | | |
| 5 | Access to high quality green space for recreation: Accessible for passive recreation +1 Supports active recreation (play, sports) +1 Supports social interaction and community cohesion +1 | 3 |
| 6 | Enhanced landscape quality and sense of place +1 | 1 |
| 7 | Protection and enhancement of the setting of major archaeological assets +1 | 1 |
| 8 | High quality urban linkage for walking and cycling +1 | 1 |
| Economic Benefits | | |
| 9 | Land produce - food ,timber, etc. +3 | 3 |
| Safety and Security | | |
| 10* | A space with a heightened risk of crime and anti-social behaviour as a result of its physical characteristics: Moderate -1 Extreme -2 | -2 |
| Maximum Score | | 18 |

As mentioned on the opposite page, applying this scoring matrix to an area of space provides an aggregate GI score. The spaces are then graded to reflect this score as set out in the table below. Spaces that achieve a G.I. Benefits score of 4 or less are considered to be of low Green Infrastructure Value. Open spaces with a score of 9 or more are of high Green Infrastructure Value. Scores of 5-8 are considered of moderate value.

| Score | GI Benefits |
|-------|-------------|
| 1-2 | Very Low |
| 3-4 | Low |
| 5-8 | Moderate |
| 9-12 | High |
| +13 | Excellent |

*See notes on previous page for explanation of scoring for Biodiversity and Safety/Security



Above: photo of Oscar Square



Above: St. Audeon's Park



Above: a banal courtyard at Oliver Bond House

3.3 GI Assessment of the Liberties

A map of the existing open spaces colour coded by their G.I. value is provided as fig. 3.0. None of the open space achieve an excellent score (13+). The existing open spaces that achieve the highest scores are St. Patricks Park, St. James Churchyard and the allotments at Chamber St. and Braithwaite Street. St. Patricks Park is a very high quality urban green space and is a 'Flagship' park within the Council's Open Space Strategy. It is highly accessible and provides for passive recreation and play for young children; it is also important as a local landmark and contributes positively to the visual character and quality of its urban environment. The churchyard of St. James Church is not accessible to the public, however it is a very important local habitat. It is also an important heritage site as it has been a church and burial ground since Mediaeval times. The allotments of Chamber St. and Braithwaite St. provide a rich habitat for insects and annual seed producing weeds which in turn provide a variety of food sources for small birds. The allotments are of great social benefit as they support interaction between allotment holders and generate a sense of community.

Four existing public open spaces; St. Audeon's, St. Catherines, Park Terrace and Oscar Square are scored as moderate. Park Terrace and Oscar Sq. are small green spaces used for passive recreation. They are of some biodiversity value as they have planted trees. St. Audeon's is negatively scored under safety and security as it is green space blighted by anti-social activity; a characteristic exacerbated by the fact the park is only accessible form one gate on Bridge Street Upper; which creates a cul de sac effect with no through footfall to provide passive surveillance.

The majority of the open spaces are scored 'Low'. This reflects the narrow range of habitats present; often just mown amenity grassland and occasional trees and the limited recreational potential of such spaces; which are often too small for any structured play or sports.

The spaces scored as 'Very Low' are hard landscape sports courts; which are of no biodiversity value and low permeability

3.4 Establishing a Baseline

The scoring of each area of open space provides a measurable baseline to assess the Green Infrastructure value of existing open spaces within The Liberties and to then assess the future G.I. Benefits of implementing the Greening Strategy. A future scoring of the green spaces based on the anticipated G.I. Benefits of implementing the proposals set out in the Greening Strategy is provided under section 4.0 of this document.

Fig. 3.0 The Liberties: Existing Open Space with Colour-Coded GI Value



4.0 Green Infrastructure Benefits of the Greening Strategy

4.1 Qualitative and Quantitative Benefits

The Green Infrastructure Benefits of implementing the Greening Strategy are many and can be described as quantitative benefits that can be easily measured and qualitative benefits that are more difficult to measure but generally acknowledged.

The Quantitative Benefits of implementing the proposals within the Greening Strategy can be summarised as follows:

- Biodiversity. New and enhanced urban habitats and the diversification of local flora and fauna.
- Improving air quality and carbon sequestration (maturing and mature trees).
- Climate adaptation. Increased tree cover will provide additional shading during warm summers and percolation of high wind.
- More sustainable water management by introducing porous groundwater. A range of measures are proposed to divert surface water runoff from the Victorian sewer network; resulting in energy and cost savings in wastewater treatment and improved water quality.
- Access to green space and recreation. The Environmental Improvement Plan seeks to ensure all children living in The Liberties will be within a short 5-8 minute walk of a high quality and secure neighbourhood scale play space and all residents are within a short 2-5 minute walk of high quality green space.
- High quality urban linkage for walking and cycling providing shorter routes and enhanced permeability.
- Products from the land. Food, timber etc. The Environmental Improvement Plan provides long term proposals for food production within The Liberties in the form of allotments and community gardens.
- Environmental education resources for local schools and adult training initiatives.

Qualitative Benefits can be summarised as follows:

- Enhanced landscape, quality and sense of place.
- Protection and enhancement of the setting of major archaeological assets and built heritage.
- Perceptions of safety and security.
- Enhanced health and well-being of residents through recreation and access to high quality urban landscape.

4.2 Additional Green Infrastructure Benefits

An enhanced landscape quality and sense of place arising from new and improved green spaces and planting of street trees can in turn support higher property values and rental yields. It may be possible to use international benchmarks to project estimated increases in property value and in turn property tax or rates yields or to undertake a baseline of property values and rental yields prior to Strategy implementation for later evaluation.

An enhanced public realm may also attract and support additional inward investment in high quality work space and learning facilities and investment in evening economy and tourist accommodation.



Above: sketch detail for stormwater tree pit (SuDS)



Above: illustration of urban greening using planters on a street

4.3 Assessing the GI Benefits of the Greening Strategy

The anticipated Green Infrastructure Benefits of Implementing the proposals of the Greening Strategy have been re-measured utilising the same methodology used to assess the G.I. Benefits of the existing open spaces (as set out in Section 3.0).

The headline proposals within the Greening Strategy are the creation of two new Neighbourhood Parks on vacant sites at Bridgefoot St and the proposed Weaver Park at Chamber St. / Cork St. Both parks will be high quality and multi-functional urban green spaces, serving a wide range of recreational uses, incorporating food production (allotments) and a range of urban habitats for flora and fauna. Each park will be entirely self-sufficient for surface water management and can also divert stormwater runoff from adjoining roads and buildings. Both parks will be transformative of their immediate urban setting and should stimulate further investment in the redevelopment of vacant and under-utilised sites nearby. When scored for G.I. Benefits both achieve a score of 16 which is in the highest 'Excellent grade' for G.I. Benefits.

Outside of the creation of two new parks the Greening Strategy focuses on maximising the benefit of existing green spaces. There are five green spaces described in the Greening Strategy as Heritage Green Spaces, by virtue of providing a setting and context for significant heritage features and/or being sites of archaeological importance. St. Audeon's and St. Catherine's are presently accessible to the public as park spaces. It is proposed to make publicly accessible the churchyards of St. James Church and St. Lukes. In addition it is proposed to undertake a small community garden and allotments project on the Thomas Abbey site. All five green space score a high G.I. Benefits rating.

The key improvements are:

- Making St. James's and St. Luke's accessible to the public.
- Improving access into St. Audeon's and improving the visual surveillance from Bridge St. / High St., to mitigate anti-social activity.
- Creating additional linkages into St. Catherine's Park to reduce GI

disservice score by supporting greater levels of usage.

The Greening Strategy sets out proposed enhancement of existing local green spaces to maximise their benefit for the community. In the case of Vicar St. and Poole St. the proposal is to transform two low quality hard landscape play spaces into multi-functional and attractive pocket parks. In both instances the extent of hard surface coverage will be greatly reduced and porous surfaces introduced to allow the spaces to be self-sufficient for drainage purposes. Both spaces will retain their active recreational function and will incorporate new tree planting and lower level planting to encourage local flora and fauna. A major regeneration of the existing green space at Pimlico as an inviting space to walk through and rest is proposed; including the use of soft landscape areas as rain gardens to intercept, store and filter stormwater from the adjoining roads. Some minor improvement measures are proposed to Oisín Kelly Park, Park Terrace and Oscar Square. They primarily focussed on improving the ecological diversity of these spaces by introducing native hedging, ground flora, native bulbs and longer lived native tree species. As a result of these changes, all of these local spaces will increase their GI score from low to moderate/ high (8-10).

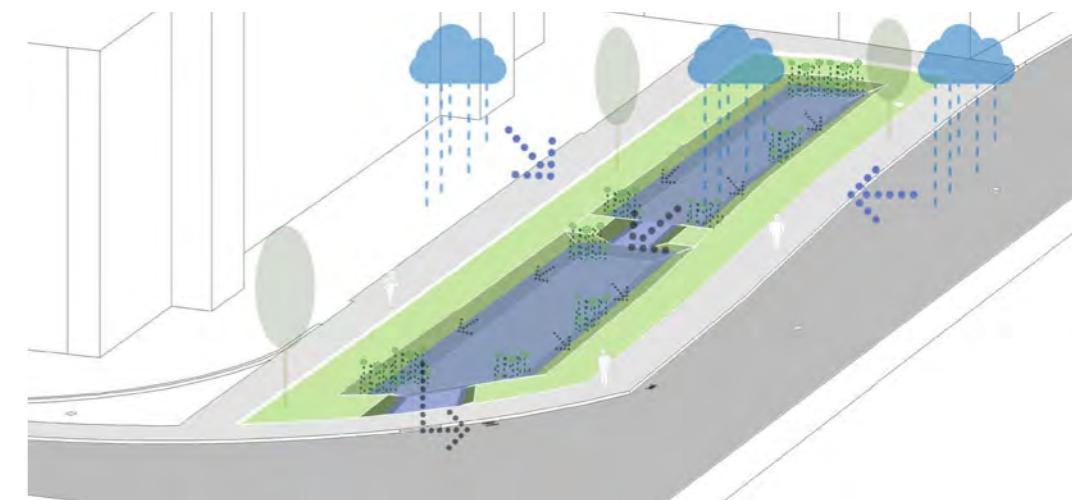
4.4 Street Tree Planting

The Greening Strategy seeks to maximise opportunities for tree planting along the streets of The Liberties. The tree planting strategy will place emphasis on maximising the potential for long lived tree species where possible and planting native or biodiversity friendly species where feasible. Including the tree planting proposed for parks and green spaces it is hoped to increase tree numbers in The Liberties by up to 50% over the lifespan of the plan. Where feasible it is proposed that tree pits will serve a Sustainable Drainage Function (SuDS), whereby surface water run-off from buildings and hard surfaces can be directed to tree pits. The soil in the tree pits can then filter and clean the water before it infiltrates to groundwater or overflows to the stormwater sewer network. These stormwater tree pits are well established in the United States cities of Seattle and Philadelphia and in Stockholm. The diversion of stormwater to the tree pit also provides irrigation for the tree and enhanced growing conditions. It is also worth mentioning that tree pits provide extra habitats for invertebrates.

4.5 Measure for Improving Water Quality

The Greening Strategy proposes greening measures that can make positive contributions to water quality and divert surface water from the sewer network:

- Making new parks and green spaces self-sufficient for surface water drainage by utilising the following: porous hard landscape surfaces, swales, wetlands and/or rain gardens within green spaces, draining surface water off hard surfaces to large free draining tree pits and planting beds.
- Replacing surplus hard standing with soft landscape.
- Where appropriate and feasible developing rain gardens. The garden is a Sustainable Drainage feature; stormwater run-off is channelled rain from hard surfaces (roads, footpaths) and buildings towards shallow depressions or hollows formed in the green and attenuated. When the hollow reaches capacity the excess water overflows to another hollow or to the stormwater sewer network. The rain garden approach provides habitats for invertebrates, drinking water for birds and in suitable locations may involve the establishment of native plants adapted to water logged soils.



Above: a diagram of a rain garden. An example of SuDS.



4.6 Cumulative Green Infrastructure Benefit

The cumulative benefit of implementing the Liberties Greening Strategy can be measured by multiplying the Green Infrastructure Benefit scores of the green spaces by the site area to obtain weighted scores. The cumulative total of all of the weighted scores can then be divided by the total area for audited green space to obtain a G.I. Benefits score per hectare for the area as a whole.

$$\text{GI Benefits score} \times \text{site area (hectares)} = \text{weighted score}$$

$$\frac{\text{Total weight scores}}{\text{total area of all audited green spaces (hectares)}} = \text{GI Benefit Score for area as a whole.}$$

Applying this methodology the GI Benefits score for the area prior to strategy implementation is 5.1.

$$67 \text{ (cumulative weighted score)} / 13.09 \text{ hectares (total area of audited green space)} = 5.1$$

The score post implementation assuming all projects are implemented as proposed would be 7.1, an improvement of 38.5%.

$$93 \text{ (cumulative weighted score)} / 13.09 \text{ hectares (total area of audited green space)} = 7.1$$

For a detailed breakdown of the GI Benefits scoring refer to the tables in the appendices

Limitations of the above methodology are that it does not take account of non-terrestrial habitats in this case the river Liffey nor does it apply a GI Benefits value to trees planted along otherwise hard landscape streets or proposed environmental improvement to predominantly hard landscape public spaces such as Newmarket and High St.

Fig. 4.0 The Liberties: Open Space Benefited from Greening Strategy Proposal

Case Study: Bridgefoot Street Park

Existing Condition

Biodiversity of some interest due to abundance of tall neglected grassland and undisturbed conditions. Used for feeding by common bird species. No public access or recreational benefit. The conspicuous appearance of vacancy has a negative impact on the character of the surrounding area and the perception of security and safety along adjacent streets.



GI Benefits Post Implementation of Proposals

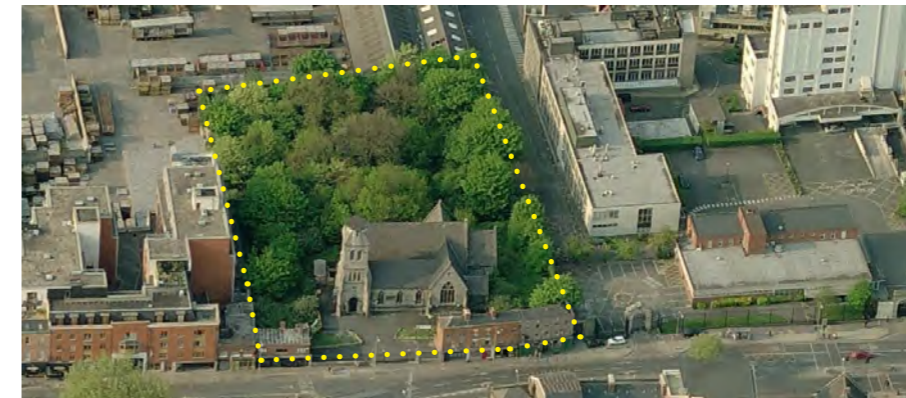
Biodiversity improved by the introduction of wetland type habitats and a diverse range of biodiversity friendly tree and shrub species and allotments which improve the habitat for invertebrates and song birds. Street tree planting adds to the value of nearby streets as commuting corridors linking certain types of wildlife in the park to nearby urban locations. The park will have substantial active recreational opportunities with a play area and all weather sports court in addition to lawn areas for informal play and a proposed market place for city allotment growers. The network of paths through the park provide new walking and cycling linkages and improve urban permeability. The park will also have an allotments and community garden for food production.



Case Study: Church Yard at St. James's

Existing Condition

Biodiversity of high local interest as it features semi natural woodland/scrub in an undisturbed location. These conditions provide nesting sites, feeding and roosting habitat for a wide range of songbirds. At present there is no public access to the site and therefore no recreational benefit.



GI Benefits Post Implementation of Proposals

Level of biodiversity increased by the implementation of measures to improve habitat diversity and enhance woodland. Monitoring will take place to confirm their impact on birds, bats and flora. A carefully designed and located access route in the form of a raised walkway allows for public appreciation of biodiversity in this unique urban "hot spot" without significantly disturbing important species. with accompanying information will maximise its environmental education value to visitors. Post implementation, the church yard which is situated on the Dubliner tourist rail could be a significant local landmark and be a positive addition to the character and identity of the Liberties area.



5.0 Conclusion

The Green Infrastructure Benefits of the Liberties Greening Strategy are clearly demonstrated by the preceding sections of this report. The strategy will deliver a multi-functional green infrastructure network that takes account of the physical challenges, constraints and social context of a dense inner urban area. The overwhelming benefit of the implementing the proposals will be of social benefit for the residents of the Liberties by providing high quality, accessible urban green space with new opportunities for play and recreation whilst increasing opportunities for food production in allotments and community gardens. By incorporating a Green Infrastructure mandate as part of the strategy making process, the Liberties Greening Strategy also optimises the ecological benefits that can be delivered. It provides new and enhanced habitats for urban flora and fauna, improves water management benefits by diverting surface water run-off from the combined sewer network and alleviates local spot flooding by providing alternative outlets into green spaces and tree pits. The increased tree coverage will provide micro-climatic benefits of shelter (reduced winds speeds) and mitigation of the urban heat island effect in Summer (shading). The additional vegetation will also improve air quality and sequester carbon.

The implementation of the Liberties Greening Strategy represents a commitment by Dublin City Council to sustained investment to regenerate physical fabric of the Liberties area and will be transformative in areas blighted by dereliction and vacant sites with a paucity of high quality and usable green space. The green spaces and public realm projects proposed will bring readily identifiable quality of life benefits to the residential and

working population. Although more difficult to quantify, the strategy will also lift the character and identity of the area and support sustained private sector investment in new housing, enterprise and workspace and visitor attractions.

The Green Infrastructure audit of existing green spaces together with background surveys undertaken as part of the Greening Strategy establishes a firm baseline with which to monitor and measure the benefits of the strategy. The methodology applied in the Green Infrastructure audit has been adapted specifically for this project. It is however a robust methodology that could be re-applied to other urban locations within Dublin or elsewhere in Ireland, providing a scoring method to benchmark the Green Infrastructure performance of green spaces and entire urban areas.

Recommendations for Further Research

Baseline data unavailable at the time of undertaking this project but that would be of great benefit in assessing the impact of implementing Liberties Greening Strategy going forward would be:

- Baseline of property values and rental yields within the Liberties area prior to strategy implementation for later evaluation.
- Register of Vacant sites for the Liberties area.
- Commercial property vacancy.

Future improvements in property values and reductions in commercial vacancy could never be attributed exclusively to environmental improvement as the major factors for such trends will be macro-economic. However it

may be instructive to monitor whether environmental improvements lead to above average trends over time. Without an established baseline it will not be possible to do so. Dublin City Council could potentially partner with local 3rd level institutes in undertaking the additional and specialised research to establish the above baseline data.

It would also be instructive to establish a baseline of cultural values of residents and visitors as applied to The Liberties area; utilising interview based questionnaires. For example such an interview process could ask questions related to perceptions of quality of green space, public realm and access to play space and recreation.

The Liberties Greening Strategy proposes to add an additional 600 trees within green spaces and along streets; an increase of 50% on the existing tree cover. Based on an estimated annual carbon sequestration of 6-12kg per tree per year the proposed tree planting will remove 3.6-7.2 tonnes of CO₂ from the atmosphere per annum. The rate of Carbon sequestration will increase as the trees mature. For example mature London Planes can sequester 27 kg of CO₂ per year (after Ningal Tine 2012). In the future it may be possible to fund green space works and street tree planting as Carbon Offsets for carbon emitting industries.

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Appendix 1: GI Audit Existing

| GI- Asset | | Weighted Score | | | | | | | | | | Total | Area ha | Weighted score |
|------------------------------------|----|----------------|-----------------------|-------------------|--------------------|---------------------|------------------|---------------|--------------|-----------------|--------------|--------------|---------|----------------|
| | | Climate 1 | Biodiversity max 4 | Air + Carbon 1 | Water Mgt max 3 | Recreation max 3 | Landscape Q 1 | Heritage 1 | Linkage 1 | Production 3 | Safety -2 | | | |
| River Liffey | 1 | | 3 | | | 1 | 1 | | | | | 5 | 2.700 | 13.5 |
| Heuston Stn | 2 | 1 | 1 | 1 | 1 | | | | | | | 4 | 0.080 | 0.3 |
| The Mallings | 3 | 1 | 1 | | 1 | | | | | | | 3 | 0.075 | 0.2 |
| Bridgefoot St. | 4 | 1 | 2 | | 1 | | | | | | | 4 | 1.000 | 4.0 |
| Oliver Bond House | 5 | 1 | 1 | 1 | 1 | | | | | | | 4 | 0.300 | 1.2 |
| St. Audeons Park | 6 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | | | -1 | 8 | 0.570 | 4.6 |
| St. Audeons Visitor Centre | 7 | 1 | 1 | 1 | 1 | | | | | | | 4 | 0.087 | 0.3 |
| Church of Adam and Eve | 8 | 1 | 3 | 1 | 1 | | | | | | | 6 | 0.045 | 0.3 |
| St. Audeons Terrace | 9 | 1 | 3 | 1 | 1 | | | | | | | 6 | 0.035 | 0.2 |
| Taylor's Hall | 10 | 1 | 1 | 1 | 1 | | | | | | | 4 | 0.018 | 0.1 |
| Back Lane Roof Gardens | 11 | 1 | 1 | | 1 | | | | | | | 3 | 0.066 | 0.2 |
| Derelict Site Augustine St. | 12 | 1 | 1 | 1 | 1 | | | | | | | 4 | 0.045 | 0.2 |
| NCAD | 13 | 1 | 3 | 1 | 1 | | | | | | | 6 | 0.056 | 0.3 |
| Derelict Site Thomas St. | 14 | 1 | 3 | | 1 | | | | | | | 5 | 0.227 | 1.1 |
| Digital Hub Windmill Site | 15 | 1 | 1 | | 1 | | | | | | | 3 | 0.056 | 0.2 |
| Guinness Power Station | 16 | 1 | 1 | | 1 | | 1 | | | | | 4 | 0.167 | 0.7 |
| Guinness Swimming Pool | 17 | 1 | 1 | | 1 | | | | | | | 3 | 0.014 | 0.0 |
| St. James garve yard | 18 | 1 | 4 | 1 | 1 | | 1 | 1 | | | | 9 | 0.515 | 4.6 |
| Mary Aikenhead House | 19 | 1 | 2 | 1 | 1 | | 1 | | | | | 6 | 0.210 | 1.3 |
| Basin St. Flats / Oisín Kelly Park | 20 | 1 | 1 | 1 | 1 | 1 | | | | | -1 | 4 | 0.830 | 3.3 |
| St. James Ave Voluntary Housing | 21 | 1 | 1 | | 1 | | | | | | | 3 | 0.050 | 0.2 |
| St. James Parochial Hall | 22 | 1 | 1 | | 1 | | | | | | | 3 | 0.026 | 0.1 |
| St. Catherines | 23 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | | | | 8 | 0.180 | 1.4 |
| Derelict Site Meath St. | 24 | 1 | 2 | | 1 | | | | | | | 4 | 0.029 | 0.1 |
| Marrowbone Lane Flats | 25 | 1 | 1 | 1 | 1 | | 1 | | | | | 5 | 0.156 | 0.8 |
| Pimlico | 26 | 1 | 1 | | 1 | | | | 1 | | | 4 | 0.520 | 2.1 |
| Thomas Abbey | 27 | 1 | 2 | | 1 | | | | | | | 4 | 0.088 | 0.4 |
| Summer St Flats | 28 | 1 | 1 | | 1 | | | | | | | 3 | 0.150 | 0.5 |
| Derelict Site - Ardee/Poole St. | 29 | 1 | 1 | | 1 | | | | | | | 3 | 0.174 | 0.5 |
| Braithwaite St. Allotments | 30 | 1 | 3 | | 1 | 1 | | | | 3 | | 9 | 0.094 | 0.8 |
| Michael Mallin House | 31 | 1 | 1 | | 1 | | | | | | | 3 | 0.056 | 0.2 |
| Park Terrace | 32 | 1 | 1 | 1 | 1 | 2 | 1 | | 1 | | | 8 | 0.117 | 0.9 |
| Derelict Site John Dillon St. | 33 | 1 | 1 | | 1 | | | | | | | 3 | 0.010 | 0.0 |
| Rueben St. Allotments | 34 | 1 | 3 | | 1 | 1 | | | | 3 | | 9 | 0.115 | 1.0 |
| Derelict Ground - Maryland | 35 | 1 | 2 | | 1 | | | | | | | 4 | 0.127 | 0.5 |
| Derelict Ground - Emerald Sq | 36 | 1 | 2 | | 1 | | | | | | | 4 | 0.060 | 0.2 |
| Huxley Crescent | 37 | 1 | 1 | 1 | 1 | | | | | | | 4 | 0.053 | 0.2 |
| Weir Home | 38 | 1 | 3 | 1 | 1 | | 1 | 1 | | | | 8 | 0.220 | 1.8 |
| Bru Caomhin | 39 | 1 | 3 | 1 | 1 | | 1 | | | | | 7 | 0.740 | 5.2 |
| Sophia Housing | 40 | 1 | 2 | | 1 | | | | | | | 4 | 0.200 | 0.8 |
| Derelict site - Chamber St | 41 | 1 | 2 | | 1 | | | | | | | 4 | 0.600 | 2.4 |
| Chamber St. Allotments | 42 | 1 | 3 | | 1 | 1 | | | | 3 | | 9 | 0.180 | 1.6 |
| Oscar Sq. | 43 | 1 | 2 | 1 | 1 | 2 | 1 | | | | | 8 | 0.190 | 1.5 |
| Derelict Site - Luke Ave | 44 | 1 | 2 | | 1 | | | | | | | 4 | 0.160 | 0.6 |
| St. Lukes Church yard | 45 | 1 | 2 | 1 | 1 | | | 1 | | | | 6 | 0.247 | 1.5 |
| New Row Square | 46 | 1 | 2 | 1 | 1 | | | | | | | 5 | 0.090 | 0.5 |
| Derelict Site - The Coombe | 47 | | 3 | | 2 | | | | | | | 5 | 0.294 | 1.5 |
| Basin St. Primary School | 48 | 1 | 1 | 1 | 1 | | 1 | | | | | 5 | 0.145 | 0.7 |
| Basin St. Secondary School | 49 | 1 | 1 | 1 | 1 | | | | | | | 4 | 0.250 | 1.0 |
| James Walk | 50 | 1 | 1 | | 1 | 1 | | | 1 | | | 5 | 0.139 | 0.7 |
| Oliver Bond House - Astroturf | 51 | | | | | 1 | | | | | | 1 | 0.100 | 0.1 |
| Vicar St. | 52 | | | | | 1 | | | | | | 1 | 0.148 | 0.1 |
| Poole St. | 53 | | 1 | 1 | | 1 | | | | | | 3 | 0.164 | 0.5 |
| St. Patricks Park | 54 | 1 | 3 | 1 | 1 | 3 | 1 | | 1 | | | 11 | | |
| Derelict Site - Thomas St. west | 55 | | | | | | | | | | | 0 | 0.034 | 0.0 |
| Brickfield Lane Site | 56 | | | | | | | | | | | 0 | 0.090 | 0.0 |
| | | | | | | | | | | | | 266 | 13.0904 | 67 |
| | | | | | | | | | | | | Score per ha | 5.1 | |

Appendix 2: GI Audit Proposed

| GI- Asset | | Weighted Score | | | | | | | | | Total | Area ha | Weighted score |
|------------------------------------|-----|----------------|-----------------------|-------------------|--------------------|---------------------|------------------|---------------|--------------|-----------------|-------|---------|----------------|
| | | Climate 1 | Biodiversity max 4 | Air + Carbon 1 | Water Mgt max 3 | Recreation max 3 | Landscape Q 1 | Heritage 1 | Linkage 1 | Production 3 | | | |
| River Liffey | 1 | | 3 | | | 1 | 1 | | | | 5 | 2.700 | 13.5 |
| Heuston Stn | 2 | 1 | 1 | 1 | 1 | | | | | | 4 | 0.080 | 0.3 |
| The Maltings | 3 | 1 | 1 | | 1 | | | | | | 3 | 0.075 | 0.2 |
| Bridgefoot St. | 4 | 1 | 3 | 1 | 3 | 3 | 1 | | 1 | 3 | 16 | 1.000 | 16.0 |
| Oliver Bond House | 5 | 1 | 1 | 1 | 1 | | | | | | 4 | 0.300 | 1.2 |
| St. Audeons Park | 6 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | | 10 | 0.570 | 5.7 |
| St. Audeons Visitor Centre | 7 | 1 | 1 | 1 | 1 | | | | | | 4 | 0.087 | 0.3 |
| Church of Adam and Eve | 8 | 1 | 3 | 1 | 1 | | | | | | 6 | 0.045 | 0.3 |
| St. Audeons Terrace | 9 | 1 | 3 | 1 | 1 | | | | | | 6 | 0.035 | 0.2 |
| Taylor's Hall | 10 | 1 | 1 | 1 | 1 | | | | | | 4 | 0.018 | 0.1 |
| Back Lane Roof Gardens | 11 | 1 | 1 | | 1 | | | | | | 3 | 0.066 | 0.2 |
| Derelict Site Augustine St. | 12 | 1 | 1 | 1 | 1 | | | | | | 4 | 0.045 | 0.2 |
| NCAD | 13 | 1 | 3 | 1 | 1 | | | | | | 6 | 0.056 | 0.3 |
| Derelict Site Thomas St. | 14 | 1 | 3 | | 1 | | | | | | 5 | 0.227 | 1.1 |
| Digital Hub Windmill Site | 15 | 1 | 1 | | 1 | | | | | | 3 | 0.056 | 0.2 |
| Guinness Power Station | 16 | 1 | 1 | | 1 | 2 | 1 | | | 3 | 9 | 0.167 | 1.5 |
| Guinness Swimming Pool | 17 | 1 | 1 | | 1 | | | | | | 3 | 0.014 | 0.0 |
| St. James garve yard | 18 | 1 | 4 | 1 | 1 | 2 | 1 | 1 | | | 11 | 0.515 | 5.7 |
| Mary Aikenhead House | 19 | 1 | 2 | 1 | 1 | | 1 | | | | 6 | 0.210 | 1.3 |
| Basin St. Flats / Oisín Kelly Park | 20 | 1 | 2 | 1 | 1 | 2 | 1 | | | | 8 | 0.830 | 6.6 |
| St. James Ave Voluntary Housing | 21 | 1 | 1 | | 1 | | | | | | 3 | 0.050 | 0.2 |
| St. James Parochial Hall | 22 | 1 | 1 | | 1 | | | | | | 3 | 0.026 | 0.1 |
| St. Catherines | 23 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | | 9 | 0.180 | 1.6 |
| Derelict Site Meath St. | 24 | 1 | 2 | | 1 | | | | | | 4 | 0.029 | 0.1 |
| Marrowbone Lane Flats | 25 | 1 | 1 | 1 | 1 | | 1 | | | | 5 | 0.156 | 0.8 |
| Pimlico | 26 | 1 | 2 | 1 | 3 | 1 | 1 | | 1 | | 10 | 0.520 | 5.2 |
| Thomas Abbey | 27 | 1 | 2 | | 1 | 1 | | | | 3 | 8 | 0.088 | 0.7 |
| Summer St Flats | 28 | 1 | 1 | | 1 | | | | | | 3 | 0.150 | 0.5 |
| Derelict Site - Ardee/Poole St. | 29 | 1 | 1 | | 1 | | | | | | 3 | 0.174 | 0.5 |
| Braithwaite St. Allotments | 30 | 1 | 3 | | 1 | 1 | | | | 3 | 9 | 0.094 | 0.8 |
| Michael Mallin House | 31 | 1 | 1 | | 1 | | | | | | 3 | 0.056 | 0.2 |
| Park Terrace | 32 | 1 | 2 | 1 | 1 | 2 | 1 | | 1 | | 9 | 0.117 | 1.1 |
| Derelict Site John Dillon St. | 33 | 1 | 1 | | 1 | | | | | | 3 | 0.010 | 0.0 |
| Rueben St. Allotments | 34 | 1 | 3 | | 1 | 1 | | | | 3 | 9 | 0.115 | 1.0 |
| Derelict Ground - Maryland | 35 | 1 | 2 | | 1 | | | | | | 4 | 0.127 | 0.5 |
| Derelict Ground - Emerald Sq | 36 | 1 | 2 | | 1 | | | | | | 4 | 0.060 | 0.2 |
| Huxley Crescent | 37 | 1 | 1 | 1 | 1 | | | | | | 4 | 0.053 | 0.2 |
| Weir Home | 38 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | | | 9 | 0.220 | 2.0 |
| Bru Caomhin - front | 39 | 1 | 3 | 1 | 1 | 2 | 1 | | | | 9 | 0.180 | 1.6 |
| Bru Caomhin | 39a | 1 | 3 | 1 | 1 | | 1 | | | | 7 | 0.560 | 3.9 |
| Sophia Housing | 40 | 1 | 2 | | 1 | | | | | | 4 | 0.200 | 1.4 |
| Derelict site - Chamber St | 41 | 1 | 3 | 1 | 3 | 3 | 1 | | 1 | 3 | 16 | 0.600 | 2.4 |
| Chamber St. Allotments | 42 | | | | | | | | | | 0 | 0.180 | 2.9 |
| Oscar Sq. | 43 | 1 | 3 | 1 | 1 | 2 | 1 | | | | 9 | 0.190 | 0.0 |
| Derelict Site - Luke Ave | 44 | 1 | 2 | | 1 | | | | | | 4 | 0.160 | 1.4 |
| St. Lukes Church yard | 45 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | | 9 | 0.247 | 1.0 |
| New Row Square | 46 | 1 | 2 | 1 | 1 | | | | | | 5 | 0.090 | 0.8 |
| Derelict Site - The Coombe | 47 | | 3 | | 2 | | | | | | 5 | 0.294 | 1.5 |
| Basin St. Primary School | 48 | 1 | 1 | 1 | 1 | | 1 | | | | 5 | 0.145 | 0.7 |
| Basin St. Secondary School | 49 | 1 | 1 | 1 | 1 | | | | | | 4 | 0.250 | 1.3 |
| James Walk | 50 | 1 | 1 | | 1 | | | | 1 | | 5 | 0.139 | 0.6 |
| Oliver Bond House - Astro turf | 51 | | | | | 1 | | | | | 1 | 0.100 | 0.5 |
| Vicar St. | 52 | 1 | 2 | 1 | 1 | 2 | 1 | | | | 8 | 0.148 | 0.1 |
| Poole St. | 53 | 1 | 2 | 1 | 2 | 1 | 1 | | | | 8 | 0.164 | 1.3 |
| St. Patricks Park | 54 | 1 | 3 | 1 | 1 | 3 | 1 | | 1 | | 11 | | |
| Derelict Site - Thomas St. west | 55 | 1 | 2 | | 1 | 1 | 1 | | | 3 | 9 | 0.034 | 0.4 |
| Brickfield Lane Site | 56 | 1 | 2 | 1 | 1 | 1 | 1 | | | 3 | 10 | 0.090 | 0.8 |
| | | | | | | | | | | | 351 | 13.0904 | 93 |
| Score per ha | | | | | | | | | | | | 7.1 | |

Appendix A - Urban History and Context



1.0 HISTORICAL DEVELOPMENT

'an almost indescribable aspect of dirt and confusion, semi-continental picturesque, shabbiness – less the shabbiness of dirt than that of untidiness – over population, and frowziness generally, perfectly original and peculiarly its own'.

An account of The Liberties by Charles Dickens, from; Maurice Cregg (2013) The Liberties.

1.1. Ancient Highways 700AD - Walled City

The area now known as the Liberties developed around the intersection of ancient highways (Slighe), the Slighe Mhór to the north along present day James Street and Thomas Street and east into the city centre, and the prehistoric and early medieval routeway from the north was called Slighe Midluachra, moving south of the Liffey at present day St. Augustine's Street and Francis Street in the direction of the River Poddle. The Slighe Chualann ran along present day New Street. The Slighe Dála ran to the south along the course of the Coombe and Cork Street. These highways were defined as 'roads on which chariots could pass one another'.

These two water courses, the Liffey and the Poddle, have influenced the development of Dublin City itself as well as the settlement patterns in the Liberties. The Liffey was a broad river that could be crossed at low tide. It is assumed that the original crossing of the ancient highways was at Ushers Island, an island that existed within the Liffey. Wattle was laid across the Liffey at Ushers Island so that it could be crossed at low tide, from Stoneybatter (the stoney 'bóthar' or 'cow track') to the north of the river to the area now known as Augustine Street in the south. Augustine Street led south east through the Cornmarket and into Francis Street, once an important thoroughfare to south Dublin. The Poddle provided a water source for early monastic settlements as well as a power source for the many mills, breweries, distilleries and weaving industries in the Liberties. It was the main water supply for the city of Dublin prior to the arrival of the Anglo-Normans in the twelfth century..

The Liffey was tidal up to Islandbridge and thus undrinkable. Due to increased growth and development after their arrival it became imperative for the authorities to provide a greatly increased water supply. The monks of the

Abbey of St. Thomas in 1242 diverted part of the River Dodder via a man-made channel to the River Poddle at Balrothery near Firhouse. This canal passed through Templeogue and flowed into the River Tymon, which flowed into the Poddle. The flow was separated at Mount Argus, near Mount Jerome Cemetery, by a construction known as the Tongue, one third of the flow being allocated to the city cistern. This part of the flow left the Poddle proper and proceeded to St. James Terrace, Dolphin's Barn. It advanced on to James' Walk on the summit of an elevated rampart of earth and stone which became known as the "Back of the Pipes" or the "Ridges", to a cistern near the present Waterworks Headquarters at Marrowbone Lane. This watercourse supplied the city for four hundred years. It also supplied the mills of the Abbey of St. Thomas at Thomas Court.

Many of the present day churches evolved from medieval monastic sites which were situated on large areas of open agricultural land to the west and south west of the city walls and were hugely influential on the development of the urban, social, economic and political landscape of the Liberties and its citizens

- Christchurch Cathedral (within the walls) 1030
- St Nicolas of Myra 1166 (on lands owed by the Franciscan Friars)
- Abbey of St Thomas 1177 (Augustinian abbey of St. Thomas the Martyr)
- St Audeon's 1190
- St Patricks Cathedral 1191
- St Lukes Church, The Coombe 1709
- St Catherine's Church 1782
- St John the Baptist Church/St Augustines 1874 (on the site of St John the Baptists Hospital 1182)
- St. James Church 1707 (original Church) : present day church was built in 1859

The Viking settlement at Wood Quay, Essex Street and Fishamble Street formed the primary focus of urban growth. Dublin became centre of English power in Ireland after the Norman Invasion of Munster and Leinster in 1169-1171, replacing Tara in Meath, the seat of the Gaelic High King of Ireland. By



the time of the Anglo-Norman invasion in 1170 the town had a street pattern, defensive walls and suburban development outside the walls.

Dublin's first written charter – 'Charter of Liberties was granted by John, Lord of Ireland, addressed to all his French, English, Irish and Welsh subjects and friends'. Liberties were areas of land located outside the city walls, generally to the south and west of the city, and existed essentially as suburbs of the city itself. They were granted by royal warrant to authorities that were loyal to the crown.

There were several Liberties including one on the north side of Dublin, but the two most important ones on the south west side of the city wall were the Liberty of St. Sepulchre, under the Archbishop of Dublin, and the Liberty of Thomas Court and Donore belonging to the Abbey of St. Thomas (later called the Earl of Meath's Liberty). The modern Liberties area lies within the former boundaries of these two, between the river Liffey to the north, St. Patrick's Cathedral to the east, Warrenmount to the south and St. James's Hospital to the west.

The Abbey of St Thomas was located at present day Thomas Court which was founded in 1177 by Henry II to atone for the murder of Thomas à Becket, Archbishop of Canterbury. It included the parish of St. Luke (just off The Coombe, Dublin) and three-quarters of the parish of St. Catherine (surrounding Thomas Street). It was divided into four wards: Upper Coombe, Lower Coombe, Thomas Court and Pimlico. At the Dissolution of the Monasteries in 1539 the Abbey lands were granted to William Brabazon, ancestor of the Earls of Meath. The area comprising the Liberty of St. Thomas and Donore grew to full urban maturity during the late seventeenth and early eighteenth centuries and greatly influenced the local street pattern.

In 1348 the Black Death was carried to Dublin by trading ships which reduced the population of the city by a half by 1400. Many of those who died, in particular the poor were buried in the area now known as The Blackpitts.

King Henry VIII disbanded monasteries, priories, convents and friaries in England and Ireland. Monasteries and church lands were confiscated and

catalysed an era of substantial property speculation after the seizing of the friary lands. It is believed that Francis Street developed into a substantial urban thoroughfare during this time as it was an important route linking the Coombe with Thomas Street, connecting with the West Gate in the city (New Gate) providing access into the walled city, and being the most convenient north-south thoroughfare in the emerging western suburbs.

1.2 Markets in the Liberties

The Liberties, with its main thoroughfare of Thomas Street located on the main western approach to the city centre became a hub of agricultural based commerce. The clusters of specialist streets such as Winetavern Street, Cook St, Fishamble Street, the Corn Market, identifies a long tradition centred on markets, trade and industry in the area. The 'Corn Premium Office', on Cornmarket was a long arcaded thirteen bay structured building in which corn could be bought and sold and is illustrated on Brookings Map (1728) and Rocques Map (1756) map indicating its importance before being demolished by the Wide Street Commission.

The Iveagh Markets (1900's) built by the Guinness family extinguished the rights of street traders to operate a market on nearby Patrick Street, to clear the area for social and sanitary reasons and in order to lay out St. Patricks Park and the Bull Alley housing complex.

1.3 17th Century Development to the west

The seventeenth-century building boom in Restoration Dublin (c.1660–1700) saw public and private development across the city. The population of the capital expanded and continued to grow into the eighteenth century with many immigrants settling in the Liberties. Most of the streets and property plots around Newmarket and Weavers' Square were conceived and laid out in the late 1600's and early 1700's. Surviving street names reflect this: Earl Street, Meath Street, Brabazon Row and Chamber Street are all names referring to the Brabazon family. The Meath Liberties appealed to developers because of the availability of undeveloped land and agricultural raw materials, its proximity to the city without Corporation regulations and its plentiful supply of water.

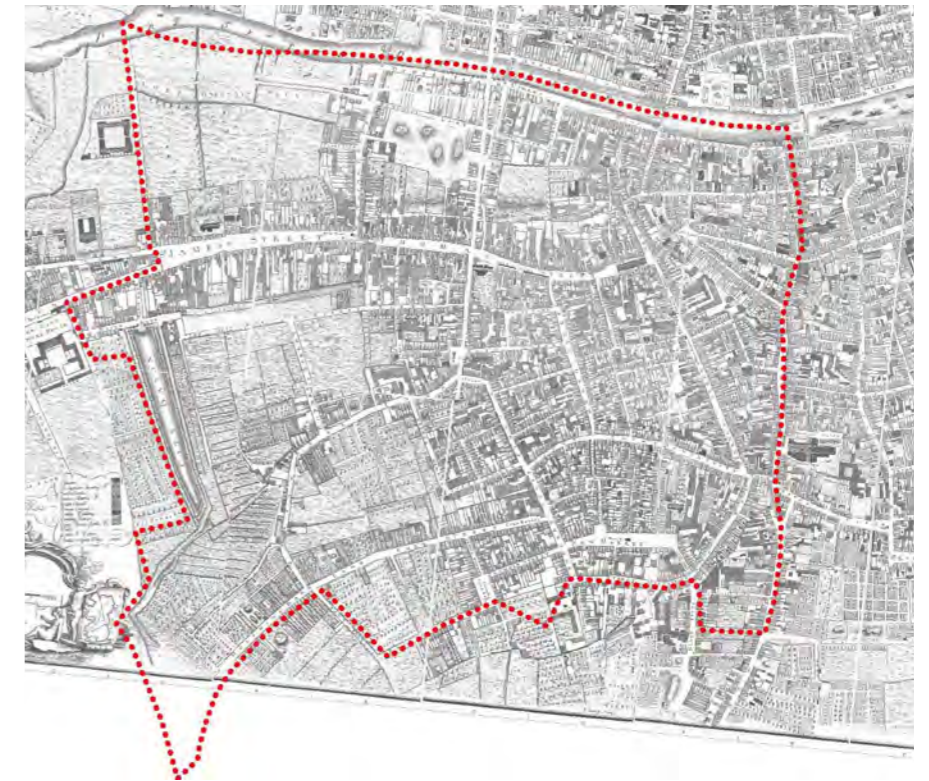


Fig. 1.2 Rocques Map of 1756

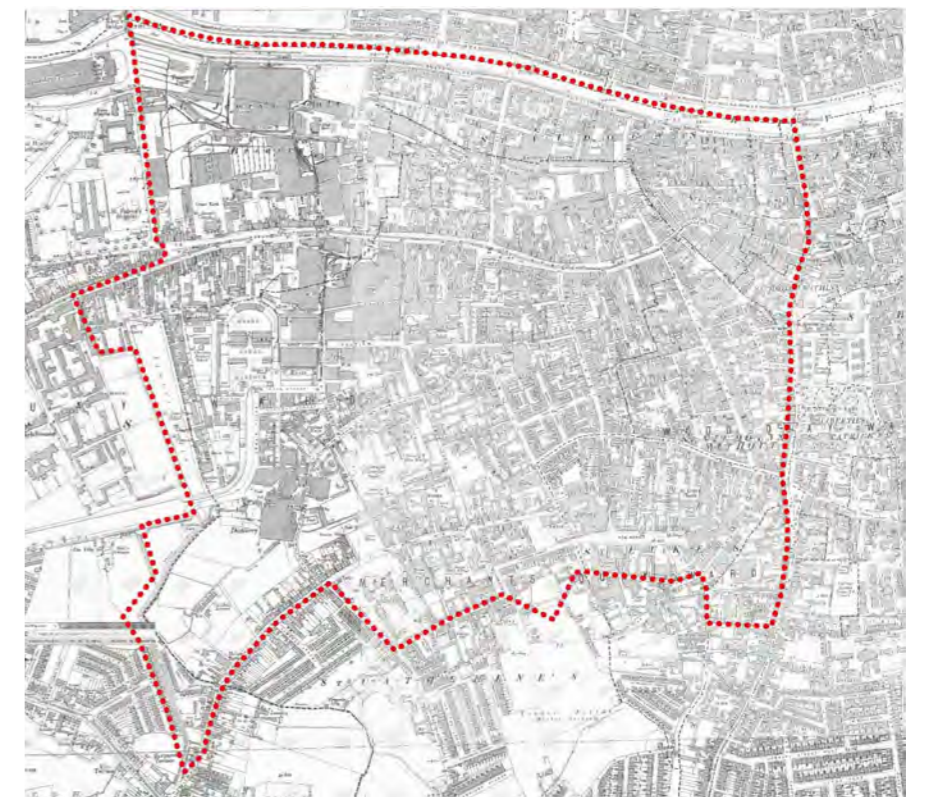


Fig. 1.3 2nd Edition OS map c. 1911



Meath Street in contrast to Francis Street was a planned street. John Speeds map of 1610 show the site of Meath Street as a large pocket of undeveloped agricultural land to the west of Francis Street and south of Thomas Street. In the 1680's plans were commissioned by the Earl of Meath for a new thoroughfare linking Thomas Street to the Coombe. It was a speculative development designed as a fashionable residential area in the western suburbs. Lanes and streets on either side of Meath Street grew organically linking Francis Street to the east. Charles Brooking's map 1728 depicts a fully urbanised quarter with densely developed thoroughfares and lanes circulating through to Thomas Street, Francis Street and Meath Street.

Population growth was fuelled by an influx of Huguenot refugees fleeing from persecution around the continent. Huguenot and Quaker settlers arrived from the mid 17th Century, many of which were crafts people skilled in weaving of wool and silk, as well as milling, tanning and brewing. They were attracted to the Liberties due to the ready access to the watercourses such as the Poddle and the Liberties became an important industrialised quarter of Dublin. The water from the river was used to power mills as well as for the disposal of waste. The Liberties was located close to the main routes out of Dublin, an important factor for distributing goods around the country. A further population surge occurred during the Williamite Wars when many of King William III allies settled in Dublin. The multi-culturalism of the new settlers influenced all aspects of life from religion, trade and architecture locally (Dutch Billy houses, curvilinear architecture, balconies). Many merchants and traders, artisans and weavers lived 'over the shop'. The Liberties was renowned for industries such as brewing and distilling, leather tanning and leather trades, rope making, wire making, woollen, silk and poplin manufacture as well as claypipe manufacturing.

The first Charter of the Weavers' Guild was granted in 1446 by the advice of the Archbishop of Dublin, Richard Talbot. Woven goods produced in the eighteenth century in Dublin included 'broad clothes, forest clothes, beavers, druggets, milled woollen goods, camblets, calimancoes, stuffs, crapes, shags, culgy handkerchiefs, poplins shot with clock reel and rock spun, velvets, Dutch velvets, Geneva velvets, German serges, taffety, Paduasoy and Persians'. In 1771 there were 3,400 looms in operation, of which 1,200

were weaving silk. The end of the seventeenth century and the beginning of the eighteenth century were a time of great growth and wealth in the city of Dublin, which was then regarded as the second city of the Empire. Many of the landowning classes built themselves fine houses in Dublin, and vied with one another in grandeur and elegance. The woollen, silk and poplin industries flourished but the decline began in the 1720's.

Jealousy amongst English manufacturers caused laws to be introduced to limit the export of woollen cloth from Ireland. This caused severe hardship despite petitions for relief from the Weavers' Guild to the Irish Parliament. There are accounts in the 1730's and 1740's of the weavers attacking the houses of merchants supposed to have stocks of English manufactured cloth. A little later, in 1753, the silk weavers were also in trouble due to the importation of foreign silks. An almshouse for impoverished members of the Guild was erected on one side of the Weavers' Hall in 1767. The Dublin Society came to the aid of the weavers by establishing a silk warehouse in Parliament Street in 1764, and a woollen warehouse in Castle Street in 1773, for the sale of home produced goods. For a time these measures were a help but the decline had set in.

When war was declared against France and raw materials were difficult to obtain, the silk weavers suffered greatly. The rebellion of 1798 completely ruined them. They are described as descending from the Liberties to the lower parts of the city 'with a certain wildness of aspect, pallid faces and squalid persons'. The guild system was abolished in 1840 as workers combined against their masters for better conditions. The exclusion of Irish Catholic merchants and craftsmen resulted in a large number of workers carrying on their trades and crafts unregulated.

In 1674, a royal patent was obtained for a twice-weekly agricultural market, and in 1675, William, 3rd Earl of Meath, sought its implementation. A map of the 'New intended Market of Donour' illustrates the planned 21-foot wide alleys and lanes, 31-foot wide main streets and a marketplace modelled on Smithfield across the Liffey. The first development plots in Newmarket date from approximately 1680's. Along with the yards, large tenter fields, in which cloth or skins were stretched to dry and cure on outdoor wooden frames

(hence the expression 'on tenterhooks'), provided large open spaces within the new urban landscape. Such tenter fields were present south of Chamber Street and Weavers' Square (near modern-day Oscar Square and Thomas Street) and off Skinner's Alley (Newmarket Street, beneath where St Luke's is now). 'The bleaching field' (along the present south end of Clarence Mangan Road) was another large open space used for the processing of textiles.

1.4 18th Century Decline

The steady decline of the trade and manufacturing in the Liberties began in the mid 18th Century.

- Competition from the gradual growth of the city to the east and north
- Break-up of the Guild System in the 1760's
- Competition from Britain
- 1800 Act of Union
- Political and Religious Unease – In Ireland and the continent
- Tax levies on exports weakened the viability of indigenous industries
- Impact of population growth/influx of famine victims from rural areas
- Development of the South Circular road, bypassing the Liberties

Due to political, religious and economic unease, poverty and overcrowding increased in the Liberties. The Wide Streets Commission 1757 saw the commission redevelop the old medieval city of Dublin. A new network of thoroughfares were built with the demolition or widening of old streets or the creation of entirely new ones to the east and north east of the Liberties. The grandeur of the new city centre appealed to the more wealthy with its' spacious streets, squares, parks and gardens, theatres and society events. Meanwhile, the Liberties declined and was regarded as a poor and squalid quarter of the Dublin city.

However some industries such as brewing continued to prosper, such as Sweetman's brewery on the site of the present day Iveagh Market. Other local breweries included Watkins Brewery on Ardee Street and Power's distillery on Thomas Street.

1.5 Hospitals

St. James Hospital was built originally as a poorhouse or workhouse in 1667. It later opened as a hospital in 1727. The Meath Hospital was founded in 1753. Situated in the Earl of Meath's Liberty, opened to serve the sick and poor in this overcrowded area of the Liberties.

The Fever Hospital (also known as the House of Recovery) was a hospital that opened in Cork Street in 1804. The hospital was located in a poor and densely populated part of the Dublin Liberties, The objectives of the hospital were to care for the diseased in the neighbourhood and prevent the spread of infection in the homes of the poor. Dublin had six typhus epidemics in the 18th century as well as cholera and influenza.

The story of the Coombe Maternity Hospital began in October 1770 when Lord Brabazon laid the foundation for a new general hospital in the Coombe area. The hospital, known as The Meath Hospital and County Dublin Infirmary was opened the following year. In 1823, the hospital was purchased by Dr John Kirby and renamed the Coombe Hospital on a site known as Dean Swift's Vineyard in Heytesbury Street. In 1867, the Coombe Lying-In Hospital was granted a Royal Charter of Incorporation, which gave the hospital its legal status. In 1964, the foundation stone of the hospital's current site in Dolphin's Barn was laid and the new hospital opened in 1967.

1.6 19th and 20th Century

Despite the local poverty many locally run businesses and enterprises emerged. These included shoemakers, grocers, wine, tea and spirit merchants, drapers, chemists, trunk and case manufacturers. The Myra Hall at No. 100 Francis Street (now the Legion of Mary) was a popular community centre in the latter part of the 19th Century. While businesses occupied ground floor units, overcrowding in upper floors by multiple families was common, with rows of squalid cottages along laneways. Tenements, poverty and brothels were common place in the Liberties by the late 18th and early 19th Century.

In 1911 Dublin had the worst housing conditions of any city in the United Kingdom. Its extensive slums were not limited to the back-streets or to

impoverished ghettos. By 1911 the city slums also incorporated great Georgian houses on previously fashionable streets and squares. As the wealthy moved to the suburbs over the course of the 19th century, their huge, red-brick buildings were abandoned to the rent-paying poor. Tenements in inner-city Dublin were filthy, overcrowded, disease-ridden, teeming with malnourished children and very much at odds with the elite world of colonial and middle-class Dublin.

The respective churches, Catholic and Protestant were heavily involved in charitable work but it was a feature of Dublin charities that they were divided along religious lines and competed with each other, particularly over the welfare of children.

In the city, many families were forced to put their children selling wares on the streets. A 1902 report dealing with the problem of the thousands of children street-selling, noted that in one in six cases, one or both parents were dead. Others were from homes rife with illness, alcoholism or unemployment. Help for some destitute children came from Mrs. Smyly's Homes and Schools, 11 of which were based in the city. The Coombe Ragged School was run for young Protestant boys, and the Dublin Working Boys Home and Harding Technical School operated on Lord Edward Street and was intended for boys working in the city who did not live with their parents.

As previously mentioned, the development of the Iveagh Markets by the Guinness family took place in the early 1900's after the Act of Parliament 1901 extinguished the rights of street traders to operate a market on nearby Patrick Street. It was built on the former site of the Sweetman Brewery, and as well as providing an indoor market it also provided public washhouses and disinfecting rooms. The Iveagh Market was the most modern building of its time in Dublin City and acted as a significant regenerating boost in the area.



1.7 Influence of the Guinness Family on the Landscape of the Liberties

Both the Guinness and Grand Canal development greatly influenced the urban development in the Liberties. The Guinness brewery was founded at St. James Gate in 1759, and expanded from 4 acres to 50 acres in 1859, encompassing lands as far north as the Liffey (a former distillery site). It was regarded as one of the best employers locally and was viewed as 'a city within a city'. The Grand Canal terminus at James's Harbour was established in 1780. This site was the focal point for canal traffic in Ireland for the next 180 years until its closure in 1960.

The Guinness Family set up the Guinness Trust also known as The Iveagh Trust in Dublin in 1890 in order to alleviate local poverty and was heavily involved in building new communities around Dublin City.

The most impressive collection of Trust buildings stands between Bull Alley and Bride Road, to the north of St. Patrick's Cathedral. Lord Iveagh himself, originally carried out the major developments here. The Bull Alley scheme was part of a fundamental redevelopment of the entire area between Christchurch and St. Patrick's Cathedral, a complicated procedure, requiring several private acts of parliament. This was one of the most extensive urban redevelopment projects in the city entailing total demolition of the area between the two medieval cathedrals and complete rearrangement of its street plan. From south to north, the development comprised the construction of:

- St. Patrick's Park: 1897 – 1904
- Bull Alley Buildings, Blocks A – D: 1901
- Bull Alley Buildings, Blocks E – H: 1904
- The Iveagh Hostel: 1905
- The Iveagh Baths: 1906
- The Iveagh Creche 1915

The Dublin Improvement (Bull Alley Area) Act of 1899 allowed Lord Iveagh to proceed with his plans. Complete clearance of the site rapidly proceeded and included the removal of an infamous inn, the Queen's Head, and demolition of St. Bride's Church and graveyard on the corner of Bride's Alley and Bride Street.



A prominent element of the new scheme was Iveagh House (later called the Iveagh Hostel) on Bride Road, a hostel for single men, completed in 1905. Five storeys in height with a basement, and almost 61 metres in length, Iveagh House was one of the largest residential buildings in Dublin. Almost all the building materials were Irish.

Described on completion as 'a palatial workmen's hotel' it contained 508 cubicles on the four upper floors while on the ground floor were public facilities including a dining room, smoking room and reading room. Ample sanitary facilities, a wash-house and barber's shop were among the many amenities.

Immediately opposite the hostel the Iveagh Baths were commenced in 1905 on a piece of Corporation land. Opened in 1906 the Baths were equipped with 198 private baths for men, 9 for women, and a swimming pool measuring 65ft x 30ft.

The final and most distinguished element in the great scheme was the large, two-storied Play Centre or recreational hall built between 1912 – 1915, intended for recreation and education.

1.8 19th and 20th Century Housing Developments

The disintegration of the street fabric of the Liberties began in the early 18th Century and continued into the early 20th century. The Wide Streets Commission 1757 saw the redevelopment of the old medieval city of Dublin with a new network of thoroughfares built with the demolition or widening of old streets or the creation of entirely new ones to the east and north east of the Liberties.

The Dublin Artisans' Dwellings Company was founded in 1876 by a consortium of wealthy business, legal and medical elite. Its foundation was prompted by the establishment of the 1875 'Cross Act'; the Artisans' Dwellings Act, which provided Government loans to those involved in building working-class housing. It also provided for local authorities to purchase an unhealthy area, clear it and either sell or let the land to an appropriate body who would build working-class dwellings.

Many of slums, old housing and tenement buildings were cleared around this time. The planned artisan and industrial workers housing schemes dating from the late 19th century were built by both the Dublin Artisans Dwelling Company as well as Dublin Corporation (established in 1661). One of the best examples of residential planning in the Liberties is by the Dublin Artisans Dwellings Company's (DADC). The Coombe Scheme, their first and most ambitious housing development, involved the arrangement of streets in an intersecting cruciform pattern and interspersed with squares of smaller housing. It consisted of 210 houses, 6 shops and premises for two caretakers. The development was started by the DADC and completed by Dublin Corporation. Thomas Court, a tenement block, designed by Charles Ashworth was built by the Dublin Artisans Dwellings Company in 1890.

Other DADC schemes include the Plunkett Street/John Dillon Street and Gray Street developments, where gabled corners bookend smart red brick terraces. Similar housing can also be seen at Pimlico Cottages. Small scale housing schemes include the red brick houses developed by the Earl of Meath along Thomas Court and Hanbury Lane. These terraces with their distinctive sturdy chimneys and small railed gardens mark one of the high points of artisan and lower middle class housing built in Dublin during the 19th century. Watkins Square is the best example of a planned cottage street in the area. Early 20th century developments of the DADC included the Spitalfields Scheme from 1918. In 1932 the Maryland housing development off Cork Street was constructed by Dublin Corporation. 1932 was a Marian year, hence the name Maryland.

Housing in the Liberties from the mid and late 20th century is dominated by the multiple occupancy flat and apartment block schemes as seen at Vicar Street and Swift's Alley as well as the flats west of Marrowbone Lane, developed in the late 1930s and 1940s. Smaller scale maisonette-type blocks from the 1960s are located off Carman's Hall. A departure from this social housing model is evident in the extensive Ash Grove housing scheme built along The Coombe in the late 1970s.

1.9 21st Century

The Liberties is home to many Dublin institutions, including Digital Hub , the National College of Art and Design (NCAD), Digital Skills Academy, St. James's Gate Brewery, The Gravity Bar, Dublin Food Co-op and Market, St. James's Hospital, St Patrick's Cathedral and Francis Street with a range of antique dealers and known as the 'Antique Quarter' of Dublin. There are numerous small businesses based in retrofitted ground floor units, swop shops and the Oxfam Furniture shop on Francis Street. Gallery spaces and cafes are sprinkled throughout Francis Street in particular which retains its eclectic character. There is a wealth of both ecclesiastical and industrial heritage, most of which can be appreciated on the Dublin skyline. Vicar Street and the Tivoli Theatre are both popular music venues attracting footfall into the area at night.

The Liberties Local Area Plan adopted in 2009, set out a vision for the comprehensive redevelopment of the Liberties with an emphasis on high density residential and modern employment activities. The Celtic Tiger building boom essentially by-passed the Liberties, although several plans were in place none came to fruition before the economic downturn in 2008.

The Guinness Storehouse and Gravity Bar is still considered the most popular visitor attraction in the Liberties, attracting approximately 1 million visitors each year. The Liberties is marketed as a key tourism destination in itself as part of the Dublin tourist trail, which was set up in 2011 by The Department of Transport, Tourism and Sport. It has a key role in delivering highly critical aspects of Ireland's economic activity including further development of our transport infrastructure and services and the support and enhancement of our significant tourism (and sports) sectors.

Digital Hub Development Agency : The Digital Hub Development Agency (DHDA) has secured new €40 million enterprise office space and a student accommodation development for The Liberties area in Dublin City. The project is expected to create up to 300 jobs in construction in the short term, and will result in 10,650 sq feet of enterprise office space in the Digital Hub area, as well as a housing development for 470 students on Bonham Street. Planning permission has already been secured for the project. Work on the

housing development is expected to begin in August, with the first students expected to be in residence by September 2016. Work on the refurbishment of a 19th-century grainstore building will start in May, and is expected to be complete within a year. It is believed the building was originally part of the historic Marshalsea debtors' prison located in The Liberties. It subsequently served as a grainstore for the Roe Distillery.

NCAD, the National College of Art and Design is located at 100 Thomas Street and the campus encompasses the old Power's Distillery and warehouses as well as the Fire Station building. Over 1,500 students attend day and evening courses daily. The original school of art was established in 1746 and has been based in numerous locations around the city, including Georges St, Grafton St, Hawkin Street and Leinster Lane. The present college was established by The National College of Art and Design Act in 1971. In 1980 it purchase part of the Powers Distillery building, and in 1999 acquires the Fire Station building. 1996 NCAD received NUI 'Recognised College' status.

The Dublin Food Co-Operative was established in 1983 and is Ireland's leading member-owned co-op. It is located at 12 Newmarket Square in the heart of the Liberties. Saturday is its main trading day, but it is also open Thursdays and Fridays, with a cafe and food stalls and organic vegetables. Its' Sunday Markets offer a variety of eclectic events which have proven very popular, creating a sense of community locally. Sunday events which run an alternative Sundays in the month include Irelands only dedicated monthly vintage fair, 'Fusion Sundays' is an international culture market with stalls from around the world, selling a range of handmade goods, arts and crafts, recycled products, jewelery, clothes and food. The 'Brocante Market' sells pre-loved furniture and homewear, second-hand, refurbished, antique and hand-crafted household and garden furniture. The last Sunday of the month the Dublin Food Co-Op hosts the Dublin Flea Market.

There are several new proposals for distilleries and craft breweries in the Liberties . One of these is a new whiskey distillery, Teelings, which will be located in Dublin's Newmarket Square.



The Five Lamps Brewery, originated in the North Strand in Dublin, near the Five Lamps pub. It has now opened a new brewery off Cork Street at Donore Road, creating a new line of Craft Beers. Some of these craft beers have local connections ; the Liberties Ale, Blackpitts Porter and Honor Bright's Red Ale, after a local girl from New Market Square who was murdered in 1925.

St. James's Hospital, once the site of a workhouse/poorhouse is now the largest university teaching hospital in Dublin. Its academic partner is the University of Dublin. The proposed National Children's Hospital, a €500 million scheme is now planned to be built at the St James Hospital site in Dublin 8.

Transport Initiatives for the Liberties includes a proposed Luas Line F, DART Underground and new Dublin Bike Stations. The Luas Red Line opened up in June 2004, a light urban rail system connecting Tallaght to the Point Depot. The current line skirts the west and south western edges of the Liberties. Part of the line at James Walk was built over the infilled Grand Canal that used to serve the Guinness Brewery at Grand Canal Harbour. A new Luas Line link (Line F2) is planned that if built, will move right through the heart of the Liberties. The proposed route will run on the existing Luas Red Line track along James's Street as far as Steeven's Lane before separating to run along Thomas Street to a Meath Street stop. From Meath Street Luas Line F will run along Cornmarket Street High Street and Christchurch Place to a Christchurch stop on Lord Edward Street. It will then continue along Dame Street to Trinity Stop at Trinity College Luas Line.




The DART for the Liberties : The station is planned to be one of five underground facilities serving the reconfigured DART services, and located next to Christchurch Cathedral near High Street. While a Railway Order for

the DART Underground was granted by An Bord Pleanála on 15 December 2011 the project has been indefinitely deferred.

The Dublin Bikes network of Bike stations is expanding into the Liberties. A new station has been built on Francis Street at the Iveagh Markets. Other planned bike stations include The Guinness Storehouse, two on St. James Street, Bridgefoot Street / Oliver Bond Street, Cornmarket, St. James Hospital and South Circular Road.

A QBC for James's Street / Thomas Street is currently underway and includes for general improvements to road and footpath pavements; extension of existing bus lanes inbound and outbound; improved cycle facilities along full length of scheme; new traffic signals and pedestrian crossings; new road markings and signage; public lighting upgrade works; general enhancement to street furniture as well as drainage works and services diversions.



- LEGEND**
-  Significant changes in urban structure of buildings and streets; from 2nd Edition OS and present day.
 -  Significant changes in urban structure of streets arising from late 20th century road widening.
 -  Figure Ground of existing buildings - present day

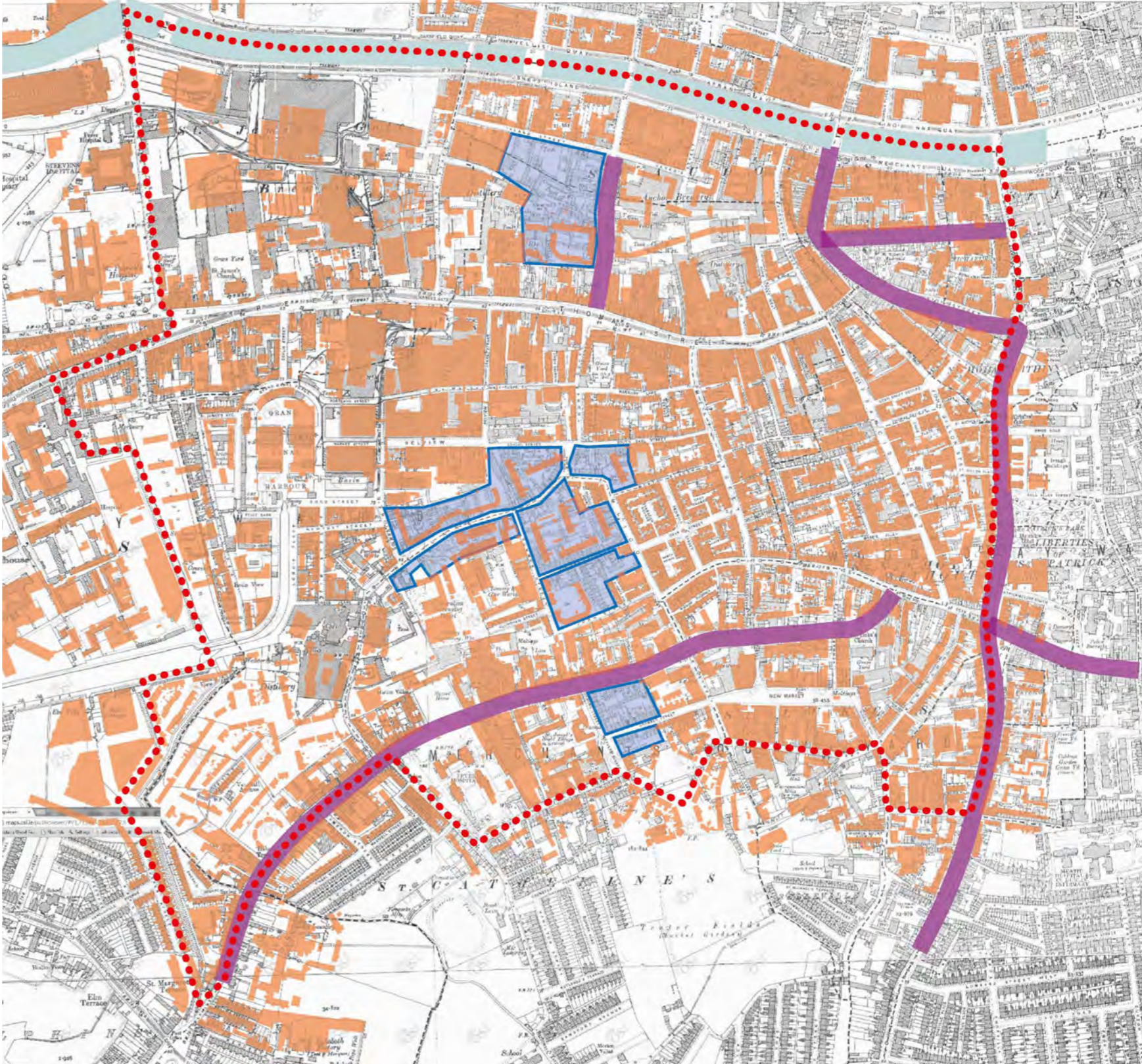


Fig. 1.4 Analysis of the impact of 'slum clearance' and road widening on the urban fabric of streets and spaces.

2.0 OVERVIEW OF EXISTING GREEN INFRASTRUCTURE WITHIN THE LIBERTIES AREA.



2.1 The biodiversity value of Green Infrastructure in the Liberties Urban biodiversity is associated with intensively managed environments. In contrast to other forms of biodiversity it is strongly influenced by cultural and social contexts. This review is based on detailed field studies carried out in 2008 (habitats, flora, birds and bats) and reconnaissance visits to public green spaces in 2014 by Mary Turbidity. The review is based on publicly accessible and visible green spaces and cannot take account of private rear gardens, enclosed courtyard gardens and roof gardens.

The Liffey is a tidal river (habitats CW2/BL1) and connects the inner city to the ocean and mountains. While water and sediment quality are poor the river acts as a commuting corridor for eels and salmon and a feeding area for the rare seal and more common mute swan, cormorant and heron. Gulls use it as a highway to Dublin Bay. The rough walls and bridges provide a substrate for various plants including *Parietaria judaica* (pellitory-of-the-wall), a herbaceous plant of old walls near the coast, as well as species of algae located in particular bands which reflect tidal conditions.

The overgrown graveyards associated with St Luke's and St James's (habitats BL1/WS1/WS3/WD1) support dense vegetation dominated by native species particularly trees and shrubs. Species include Sycamore, mature Ash, brambles, Holly, Yew, Elder and Ivy. St. James's graveyard is now a woodland and because it is particularly large and undisturbed it supports the largest number of species of nesting birds (ten in 2008). Bats (Soprano pipistrelle) have been recorded feeding around St. Luke's.

Most public green spaces are dominated by the habitat, mown grassland (habitat GA2) which is associated with low plant and animal diversity. Grasslands in the older parks (Brú Chaomhín, Borris Street, St. Catherine's etc) are more species rich. The biodiversity value of all grass dominated spaces is increased if planted trees are present. The biodiversity value of the planted trees depends on the species planted and their age. Thus older sites such as St Catherine's and Brú Chaomhín support greater habitat and species diversity. A small public park near the Council offices in Borris Street (a mini Brú Chaomhín) is of biodiversity interest as it demonstrates the value of a small site close to a larger green space. It has an older casually

managed grassland, some semi-mature trees and native shrubbery. Bird diversity includes; Greenfinches (in song), Chaffinch (in song), Grey Wagtail (probably nesting), Blackbird (in song) and Woodpigeon (recorded in 2008).

Where grassland is unmanaged in the fenced sites at Cork Street and Bridgefoot Street a more diverse range of species associated with grassland can appear (Dry Meadow habitat GS2). This improves availability of food and overwintering sites for invertebrates and increases cover for small mammals. Shrubbery and old walls which have crevices add to the value of all green spaces by providing either feeding or/and safe nesting sites for birds. Shrubs which provide winter feeding (set seeds) are more valuable. Derelict sites are a mosaic of various habitats as the bare ground is colonized by plant species (habitats ED2 and ED3), to become an unmown grassland (GS2) or a shrubbery with non-natives (WS3) usually dominated by *Buddleia*. These fenced off "brownfield" sites are safe feeding and nesting areas for small birds and important for invertebrates. Ponded water however transitory will increase their value to insects.

Allotment sites have introduced a new habitat to the Liberties since 2008 (habitat BC2). They are associated with increased plant species diversity and depending on the usage of chemicals greater availability of food for certain groups of invertebrates, particularly butterflies.

The principal habitat in the Liberties are hard surfaces (BL3) associated with buildings and roads. On the roads are regularly seen pigeons scavaging for food. They have been around for many decades if not centuries and are descended from the wild and native rock dove. They now nest in the cracks of buildings together with other bird species. Their population is regularly supplemented by escapees from the numerous pigeon lofts or those lost during races.

Salmon and all bats are protected by European legislation. As feeding Soprano pipistrelle and Leisler bats have been recorded there is a slim chance that roosts are present. However no roosts were found in St Luke's, James's graveyard or Brú Chaomhín. Advice and guidance must be followed from the city biodiversity officer on the need for more detailed surveys if old buildings are being removed or refurbished. Planting should therefore be

LEGEND

- Public open space
- Greenspace under ownership of Dublin City Council - limited or no access
- Semi-private open space in under ownership and management of Dublin City Council
- Semi-private open space under private ownership
- Derelict site
- Sports court or MUGA (all DCC Housing)
- Children's play area (all DCC Housing)
- Roof garden or greenroof

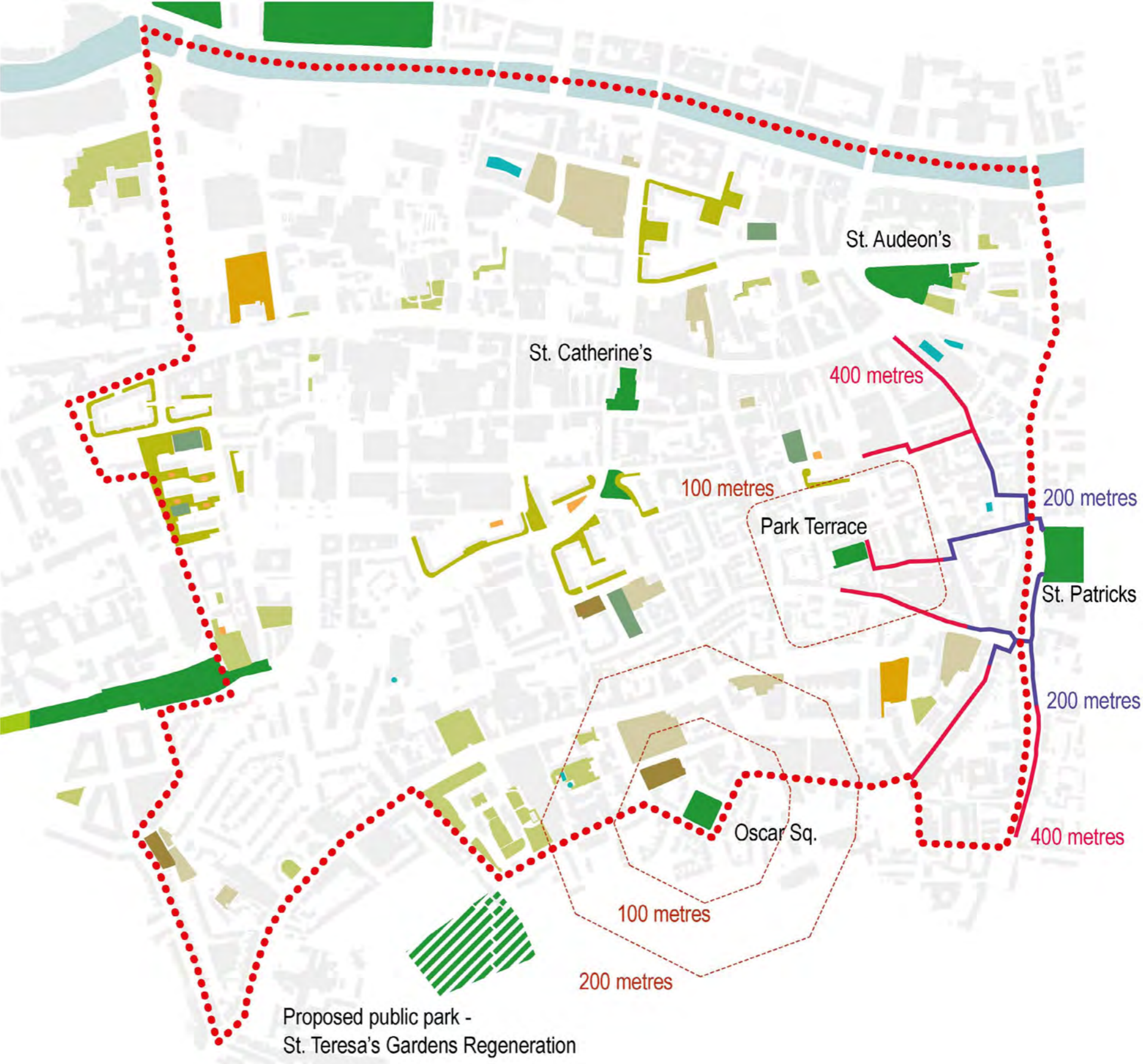


Fig. 2.1 Existing Green Spaces.



bat friendly everywhere and consideration should be given to erecting bat boxes. Increasing the area of freshwater wetland habitats would significantly increase bat populations.

Certain bird species are of particular importance in both the European and Irish context. The herring gull is a Red List species. This breeds in small numbers on a rooftop within the Diageo site. Amber list species include the Cormorant, Mute Swan, Lesser Black-backed Gull, Great Black-backed Bull, Swift, Sand Martin, Swallow, House Martin, Starling and House Sparrow. The most important are the species which nest/probably nest. These are lesser Black-backed Gull (localised breeding population), Swift (breeding decline), Starling and House Sparrow. Breeding sites for gull are the same as Herring Gull (Diageo site). Swift bred in Brú Chaomhín and House Sparrow is common throughout the area. Blackbird, Blue Tit, Starling and House Sparrow are the principal songbirds.

All sites of breeding birds are also highlighted by the City Biodiversity Plan. In this area the crevices in walls and bridges are often used by Grey Wagtail, Pied Wagtail, Blue Tit, Jackdaw, Starling and Swift. Dense low shrubbery is important for Wren, Dunnock, Robin, Blackbird, Mistlethrush (probably), Chaffinch, Bullfinch and Swift. Street trees are only used by Magpie and Hooded Crow?

Trees and shrubs of particular value are those mature trees which produce flowers and fruits/seeds have a fissured bark and produce dead wood. Wild herbs of particular interest are older “garden escapes” such as Fennel, Soapwort and Red Valerian. The spread of Canadian fleabane (*Conyza canadensis*) and the decline of mugwort (*Artemisia vulgaris*) since the 1970's is of ecological interest.

2.2 Existing Green Space

The total cumulative green space in The Liberties is 9.4 hectares approx. or 6.7% of the plan area; much of which consists of small areas of open space in social housing complexes and small areas of semi-private open space and vacant sites. There are also two notable graveyards; St. Lukes and St. James that are presently inaccessible. The extent of quality open space is limited to

four small parks/greens; St. Audeon's (0.4 ha), Park Terraces (0.12ha), St. Catherines (0.18ha) and Oscar Square (0.2ha), a cumulative area of 0.9ha or 0.6% of the total Liberties area. Part of the eastern end of The Liberties is also served by St. Patrick's Park, a high quality urban park of 19th Century origin. Within the study area there are no active recreational or play areas located within public green spaces.

There is an outdoor 5 a side soccer pitch at the Dublin City Council managed St Catherine's Community Sports Centre on Marrowbone Lane and an astro-turf pitch at Oliver Bond House. There are poor quality macadam sports courts and play areas of a visually low quality in Poole St and Vicar St.. There are also play areas, sports courts or MUGAs provided within Dublin City Council flat complexes; Oliver Bond House, Basin St., School St and Marrowbone Lane although these facilities are very much semi-private spaces for the residents of each complex.

Table 2.2 provides a summary of open space provision

| Open space type | Area (ha) | % of plan | % of green |
|--------------------------------------|--------------|-----------|------------|
| Public Open Space | 1.07 | 0.8% | 12.0% |
| Allotments | 0.39 | 0.3% | 4.3% |
| Inaccessible graveyards | 0.76 | 0.5% | 8.5% |
| Derelict sites owned by City Council | 1.58 | 1.1% | 17.6% |
| Derelict sites privately owned | 1.08 | 0.8% | 12.1% |
| Open spaces within DCC Housing Dept. | 2.51 | 1.8% | 26.6% |
| Semi-private green space | 0.76 | 0.5% | 8.5% |
| Semi-private Institutional | 1.26 | 0.9% | 14.0% |
| Total | 9.4ha | | |





Fields in Trust (UK) recommends a benchmark standard of 0.8 hectares for play in equipped and informal play spaces per 1,000 population. Based on an approximate population of 14,500 for The Liberties as a whole this benchmark standard would translate into a play area provision of 11.6 hectares (3.625 ha equipped, 7.975 informal). Adding the small local green spaces (0.72ha) to the play areas and MUGAs within the flat complexes (1.13ha); gives a total of 1.85 hectares of existing provision for play areas. Which is only 16% of the recommended benchmark. Even adding St. Patricks Park to the total only brings provision up to 23% of what is recommended.

This is a particularly stark under provision considering that a large proportion of families live in apartments and houses with limited outdoor space (often only a small hard landscaped yard). It is probably unrealistic to set a target of meeting the Field in Trust benchmark within The Liberties, as the area is densely developed with few opportunities for making new green spaces. However a modest target of achieving a minimum of 50% of the Field in trust Benchmark and bringing all residents to within a 5 minute walk (400m) of a high quality green space equipped for play and/or sports should be achievable. There is scope to provide additional high quality green space on former City Council flat complexes which are presently derelict (Bridgefoot St., Chamber St), enhance access to and the amenity of existing sites such as St. James, St. Lukes and St. Catherine's and upgrade existing low quality green spaces to serve as local parks and greens.

2.3 Food Production

There is presently 0.39 hectares of open space set aside for food production as allotments and community gardens across 3 locations at Chamber St., Braithwaite St. and Reuben St. The allotments are fully subscribed. The Reuben Street community garden is also used for providing training to the unemployed.

2.4 Flooding

Localised spot flooding during heavy rainfall has been recorded at a number of locations in the study area and are shown mapped on fig. 2.2.4. In Jan 2014 during high tides, the Liffey rose above the top of the quay walls on Victoria Quay. In general the surface drainage in The Liberties is to a

combined foul and surface water network of sewers. Segregated surface water drainage is limited to streets subject to 20th Century road widening such as Clanbrassil St / New St, Marrowbone Lane and Cornmarket / High St.

2.5 Trees

There are approximately 1,200 trees within the study area, this excludes trees in small private gardens. In the general The Liberties area has a low level of tree cover in the public realm and is not noted for the quality of its street trees. Some notable and attractive small clusters of street trees include:

- Mix of small trees on Gray Street / Reginald Street.
- Mature London Planes on James's St.
- Mix of trees on Oliver Bond Street.

The canopy coverage of the existing tree stock equates to 4-5% of the total plan area. There were 26 species of tree recorded the most common species represented are:

| | | |
|----------------------|---------------------|-----------------------------|
| Hornbeam | Carpinus betulus | 17.4% (of total tree stock) |
| Lime / Linden | Tilia | 12.7% (of total tree stock) |
| Sycamore | Acer pseudoplatanus | 12.5% |
| Rowan / Mountain Ash | Sorbus aucuparia | 9.7% |
| London Plane | Platanus spp. | 7.6% |
| Cherry Blossom | Prunus spp. | 6.9% |
| Birch | Betula spp. | 6.6% |
| Norway Maple | Acer platanoides | 4.9% |
| Turkish Hazel | Corylus collurna | 3.7% |

Self sown Buddleja is the most common shrub and native ash and yew can be seen in St James's Graveyard.



| | |
|----------------------------|-------------------------|
| <i>Acer campestre</i> | <i>Liriodendron sp.</i> |
| <i>Acer platanoides</i> | <i>Magnolia spp.</i> |
| <i>Acer pseudoplatanus</i> | <i>Platanus</i> |
| <i>Aesculus hippo.</i> | <i>Pittospermum</i> |
| <i>Alnus sp.</i> | <i>Prunus</i> |
| <i>Aralia sp.</i> | <i>Pyrus</i> |
| <i>Betula spp.</i> | <i>Quercus ilex</i> |
| <i>Buddleia davidii</i> | <i>Quercus spp.</i> |
| <i>Carpinus betulus</i> | <i>Salix</i> |
| <i>Coryllus collurna</i> | <i>Sorbus aria</i> |
| <i>Cupressus spp.</i> | <i>Sorbus aucuparia</i> |
| <i>Fagus sylvatica</i> | <i>Sorbus sp.</i> |
| <i>Fraxinus excelsior</i> | <i>Tilia spp.</i> |
| <i>Gingko biloba</i> | |
| Scrub | Not accessible |



Fig. 2.3 Existing trees categorised by genus and species.

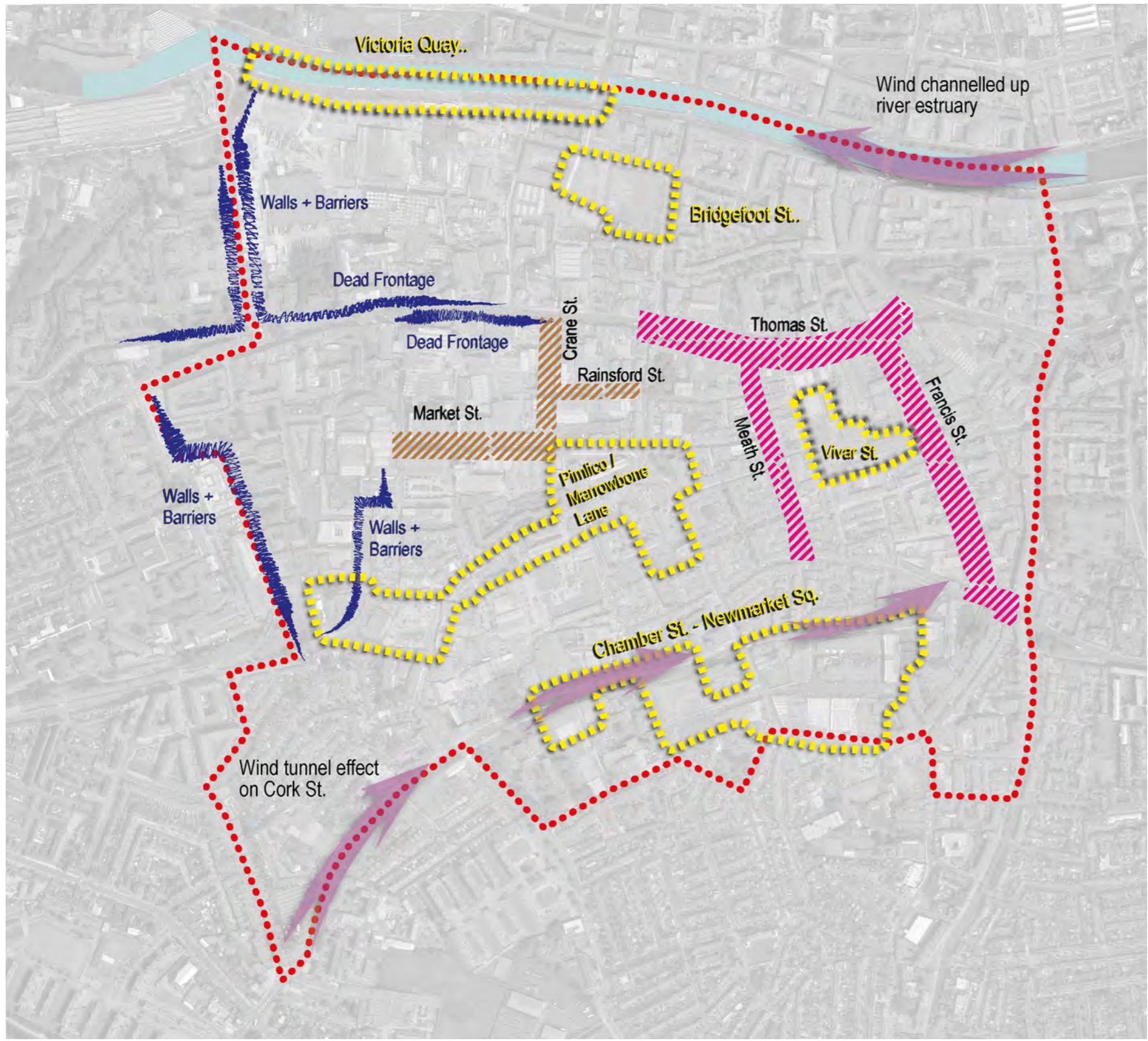


Fig. 2.4 Analysis of landscape quality.



Fig. 2.5 Panorama of Bridgefoot St. site.



Fig. 2.6 Panorama of Pimlico green space.



Fig. 2.7 Panorama of Chamber St. site.

3.0 PLANNING CONTEXT

3.1 Dublin City Development Plan 2011-2017

In the City Development Plan Green Infrastructure is interpreted as the network of parks, gardens, institutional grounds, allotments and community gardens and “green corridors” One of the six principal themes of the plan is to create a connected and legible city based on active streets and quality public spaces with a distinctive sense of place.

Policies and associated objectives (listed in Appendix 3) recognise and promote GI as an integral part of the form and structure of the city, seek to promote streets which contribute to urban greening, integrate greening with flood management, reduce the city’s eco footprint and require the use of SUDS to improve the management of storm water discharges. There is an objective to minimise the storm water drainage to the public drainage network using SUDS. Several policies recommend the provision of public parks in areas where a deficit exists. There is a policy to promote Strategic Green Routes. Strategic green routes are shown on Patrick Street, Cork Street along the quays and Luas line (See Fig. 1) . It is suggested that these are implemented through local area plans. An associated objective is to implement tree planting on a phased basis along these routes.

Relevant policies and objectives in the City Development Plan

SC16: To recognise and promote Green Infrastructure as an integral part of the form and structure of the city.

SC24: To promote streets and public spaces which contribute to urban greening.

SCO10: To produce a Public Realm Strategy to guide the development of Dublin’s public space. This will set out an action plan for the delivery of a greatly enhanced public realm network and standards for the design and management of streets, squares and parks, and will ensure that the Outdoor Advertising Strategy delivers a high quality public domain.

SI24 To reduce the city’s eco-footprint and to combat the key factors of climate change, in tandem with improving the city’s economic

competitiveness and driving the city into the future as a city of leadership on quality of life factors and sustainable living.

SI072 To minimise storm water discharge to the public drainage network by the use of Sustainable Urban Drainage systems in accordance with Dublin City Council’s Drainage Code of Practice.

SI52 To require the use of Sustainable Urban Drainage Systems in all new developments, where appropriate, as set out in the Greater Dublin Regional Code of Practice for Drainage Works. The following measures will apply:

- The infiltration into the ground through the development of porous pavement such as permeable paving, swales, detention basins.
- The holding of water in storage areas through the construction of green roofs, rainwater harvesting, detention basins, ponds, wetlands.
- The slow down of the movement of water

GC1: To progress the strategic green network shown in the plan. This strategic green network indicates routes in the study area (Fig. 1).

GC3: To make provision for habitat creation/maintenance and facilitate biodiversity by encouraging the development of linear parks, nature trails, wildlife corridors and urban woodlands.

GC4 To improve both biodiversity and access connections with the strategic network at the level of local planning. Green corridors will be pivotal in achieving this.

GC7: To co-ordinate between open space biodiversity and flood management in progressing a green infrastructure network.

GC14 To seek the provision of additional space in areas deficient in public open space – by way of pocket parks or the development of institutional lands.

GC16 To support the provision of community gardens/allotments/ local

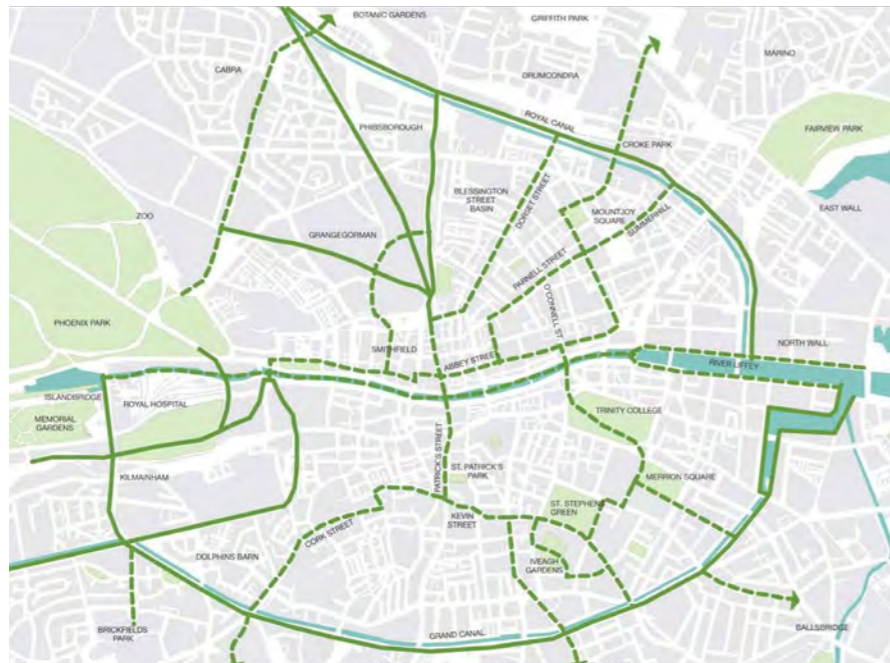


Fig. 3.1 City Centre Green Routes, from the Dublin City Development Plan 2011-2017

markets/pocket parks, where feasible and in particular as temporary uses on vacant, underutilized or derelict sites in the city.

GC17 To promote the development of soft landscaping in public open spaces, where feasible, in accordance with the principles of Sustainable Urban Drainage Systems.

GC37: To ensure the availability of a range of recreational facilities to the general population at locations throughout the city. In areas where a proven deficiency exists, Dublin City Council will work with the providers of such facilities, including schools, institutions and private operators, to ensure access to the local population

GCO14 To implement a programme for enhanced planting along proposed green routes through existing developed areas. This shall be carried out in accordance with a programme of works to be drawn up on an annual basis, specifying routes involved.

GCO19 To provide for allotments and community gardens, where appropriate, as a regular feature of city council parks and public open spaces.

GCO27: To implement the city Biodiversity Action Plan. This plan highlights the biodiversity value of sites with species of local importance such as nesting birds.

3.2 Public Realm Strategy (Draft)

The (Draft) Dublin City Public Realm Strategy 2011 was prepared as an objective of this plan. It suggests that consideration is given to the environmental impact of public realm works. While it emphasises building and street design, it also considers that certain drainage works and street greening can provide environmental benefits. It suggests that the greening of the city's streets must be approached strategically and practically. It recommends that design briefs be prepared for sites on Thomas Street as

this is classified as a Secondary Street in the hierarchy of inner city streets. Among the initiatives associated with the strategy and listed in the Appendix is a project linking Trinity College to IMMA along Thomas Street.

3.3 Liberties Local Area Plan 2009

One of the principal objectives of the Liberties LAP is the creation of a high quality network of public spaces, parks and streets. The plan identified and mapped key streets and key features in the Liberties and put particular emphasis on the potential of linkages between them which would benefit non motorized transport and Green Infrastructure (Fig. 2). Among the principal recommendations of the LAP was the provision of three new public parks, including a park at Bridgefoot Street.

The objective of the Biodiversity and Open Space Strategy associated with the plan is the development of a network of linked green spaces that would

support community integration and provide for a diverse range of active and passive uses, as well as improvements to biodiversity. Recommended actions include improvements to existing parks, the expansion of porous surfaces and street greening. As the Strategy is concerned with public and private green space it contained an objective to promote ownership and use of the public realm, biodiversity and open space network through a programme of education, empowerment and active participation.

To achieve that objective it recommended that resources should be made available to support a greening /environmental education service which would provide an environmental education programme for schools, highlight local environmental resources, introduce schoolchildren to biodiversity, provide advice and support to all residents and developers interested in greening and carry out landscaping works.

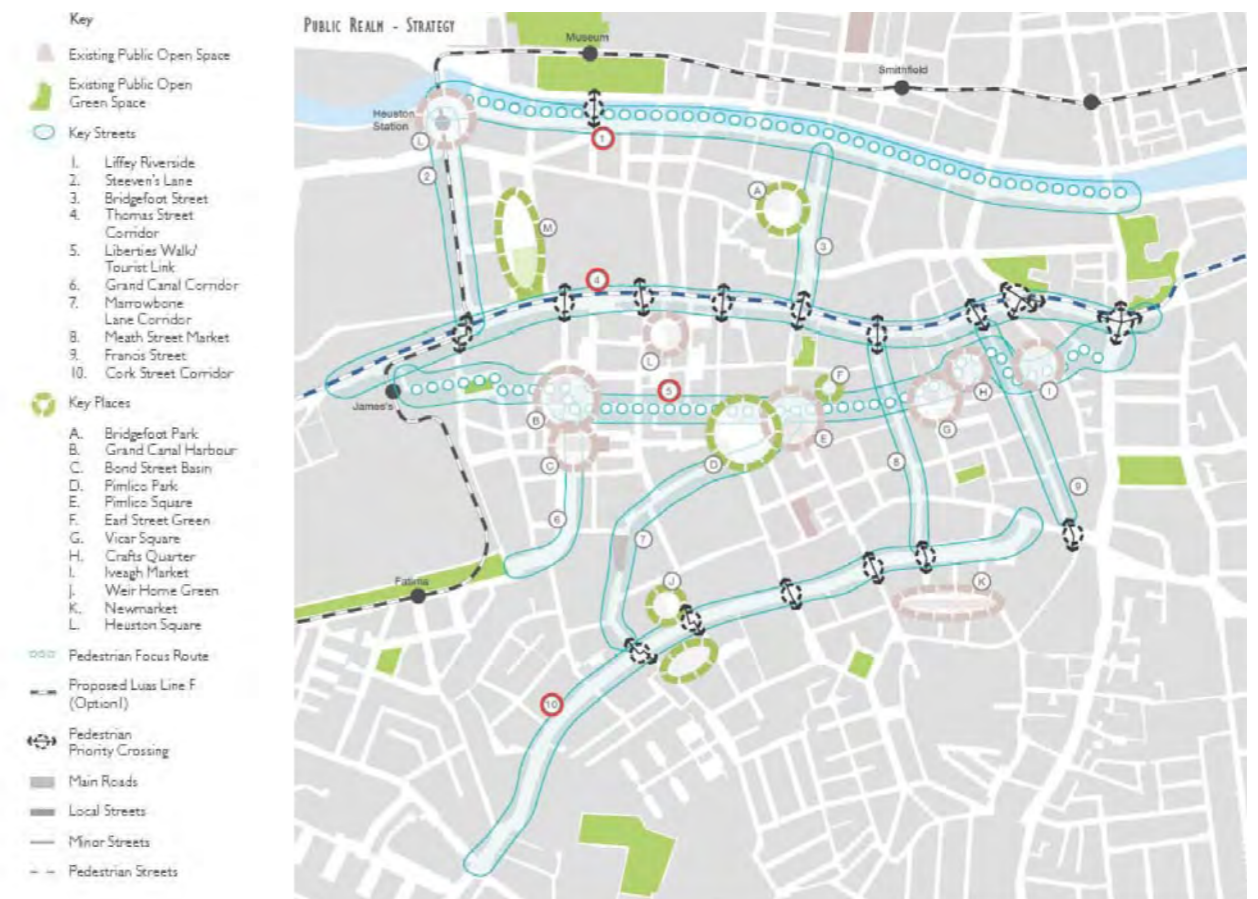


Fig. 3.2 Public Realm Strategy, from the Liberties Local Area Plan 2009.

4.0 DEMOGRAPHICS

4.1 Population change in study area

Population increased by 66% between 1991 and 2006 and 11% between 2006 and 2011. Trend seems stable. Presence of many development sites suggests further population increase likely. Table 2.4.1 shows how this pattern of increase differs from city city and country, which are growing at a slower rate.

Table 2.4.2 Population change (%) in the Liberties, Dublin City and country during the interval period.

| Interval | Liberties | Dublin City | Ireland |
|-----------|-----------|-------------|---------|
| 1991-2006 | 66 | 6 | 20 |
| 2006-2011 | 11 | 4 | 8 |

In 2011 15% of population is <18 compared to 19% <18 in Dublin City. Size of this cohort unchanged since 2006. Particular analyses carried out on < 12 cohort which involved representing their numbers on an area (SAPS) basis. Figure 2.4.3 reveals the concentration of this group in particular areas.

4.2 Housing type

70% of households live in apartments compared to 33% in Dublin City.

Nature and Ethnicity

22% of households have children and 12% are households with a lone parent.

The figure for lone parents is similar for Dublin City, but it can be assumed that they are particularly concentrated in certain parts of the study area.

In 2011 40% of census respondents identified themselves as non-Irish. This compares with 18% in Dublin City.

4.3 Diversity

Development of new apartment complexes has significantly increased cohort of well educated professionals, many non-national. A preliminary examination of SAPS data suggests that new arrivals are more likely to be Irish in housing and non-national in apartments. Surprisingly density of population is not significantly higher in new apartment complexes compared to older housing. Fig. 2.4.2 represents the significant diversity within the population.

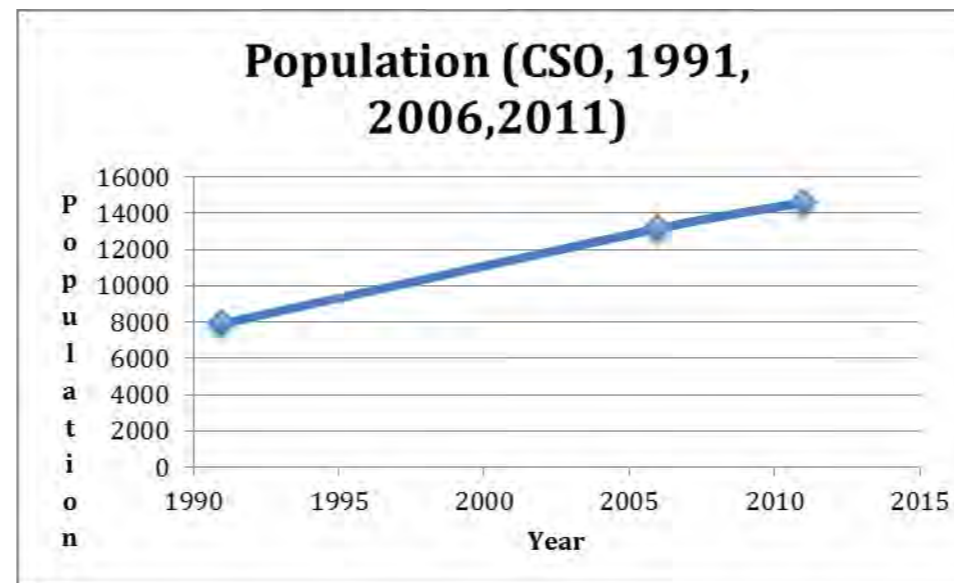


Fig. 2.4.1 Population change since 1991.

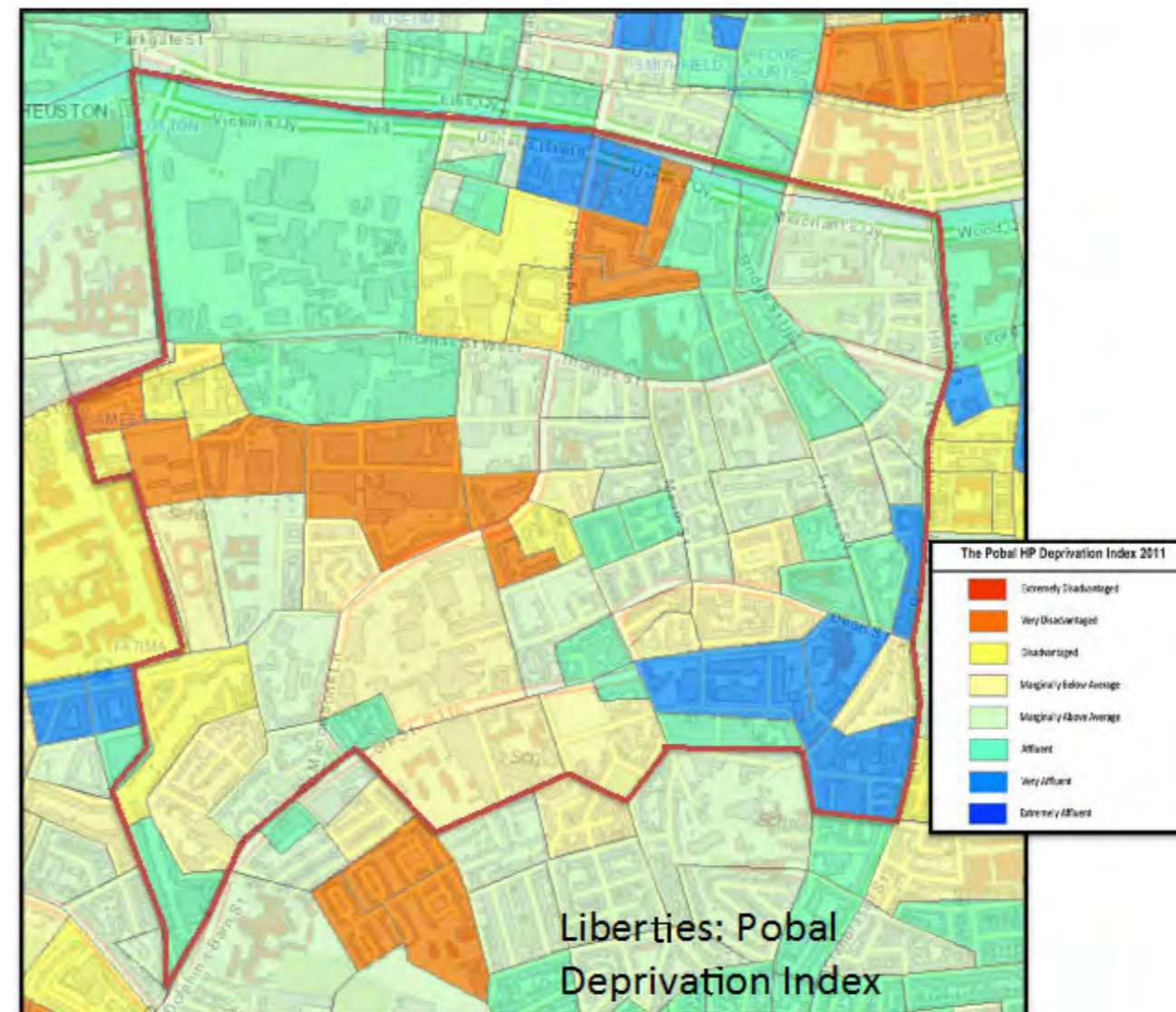


Fig. 2.4.2 Significant diversity within the population.

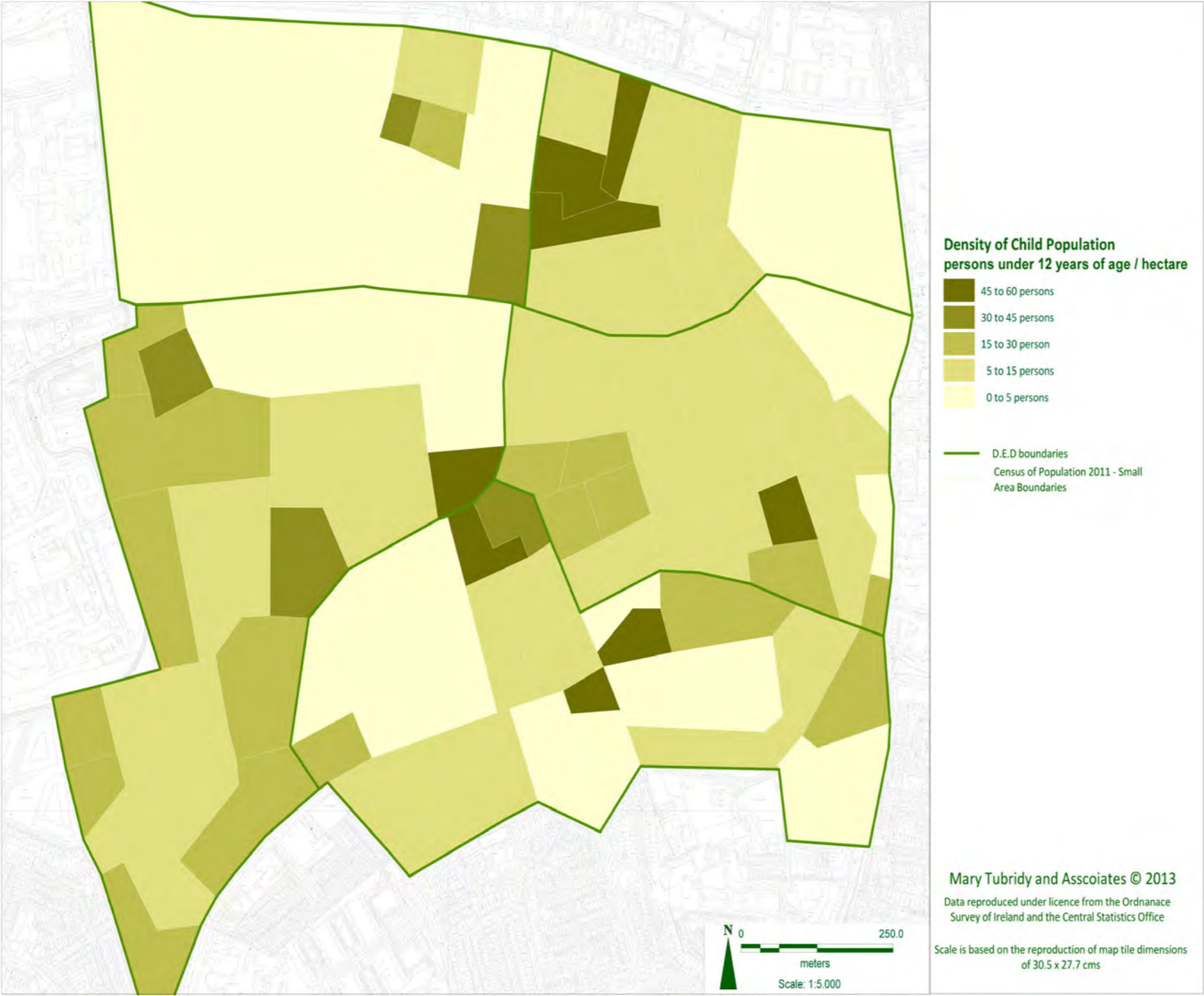


Fig. 4.3 Distribution of children under 12.





ait

urbanism + landscape

Resident at:

Fumbally Exchange
5 Dame Lane
Dublin 2
Ireland



e: daibhi@ait-place.ie
t: 087 7596581
w: www.ait-place.ie



Mary Tubridy & Associates
Environmental consultancy