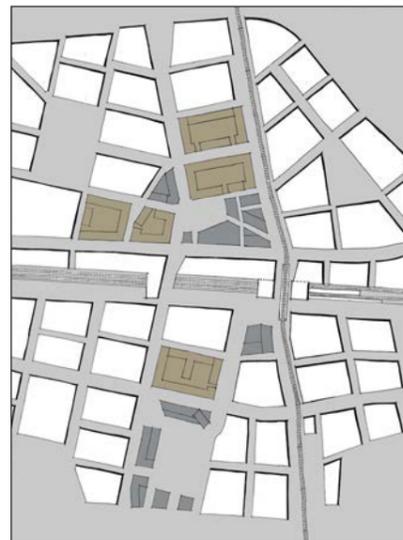


Clonburris District Centre Urban Form Development Framework 2010





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CONTENTS

1.0 INTRODUCTION

- 1.1 Background
- 1.2 Vision

2.0 CONTEXT

- 2.1 An Bord Pleanála Brief
- 2.2 Scope and Content
 - 2.2.1 Framework Area
 - 2.2.2 Content

3.0 METHODOLOGY AND APPROACH

- 3.1 Design Process
- 3.2 Consultation
- 3.3 Analysis Process
- 3.4 Options for Activity Distribution
- 3.5 UDFD Structure Plan
- 3.6 Infrastructure Considerations
 - 3.6.1 Location of Metro West Station
 - 3.6.2 Gas Wayleave and Watermain

4.0 BLOCK LAYOUT AND STREET NETWORK

- 4.1 Framework Development
 - 4.1.1 Block Structure
 - 4.1.2 Level Changes
- 4.2 Block Layout and Street Network Framework Plan
- 4.3 Supporting Strategies
 - 4.3.1 Shared Space Approach to Street Design
 - 4.3.2 Public Transport Priority Measures
 - 4.3.3 Critical Junction and Link Design
 - 4.3.4 Car Parking
 - 4.3.5 Loading and Service Facilities

5.0 LAND USE AND CHARACTER

- 5.1 Framework Development
 - 5.1.1 Strengthening the Nodes
 - 5.1.2 Retail Distribution
- 5.2 Land Use and Character Framework
- 5.3 Supporting Strategies
 - 5.3.1 Character Areas

6.0 BUILDING TYPOLOGY AND HEIGHT

- 6.1 Support Strategies
 - 6.1.1 Block Typology
 - 6.1.2 Height Structure
- 6.2 Building Typology and Height Framework Plan
- 6.3 Supporting Strategies
 - 6.3.1 Block Typology
 - 6.3.2 Balanced Neighbourhood Height Distribution
 - 6.3.3 Transfer of Residential Units to Employment
 - 6.3.4 Landmark Buildings as Place Markers
 - 6.3.5 Building Heights and Street Reserve
 - 6.3.6 Adjustments to Height for Solar Access

7.0 LANDSCAPE AND URBAN GRAIN

- 7.1 Developing the Framework
 - 7.1.1 Open Space Network
 - 7.1.2 Urban Grain Distribution
- 7.2 Landscape and Urban Grain Framework Plan
- 7.3 Supporting Strategies
 - 7.3.1 Perimeter Block Evolution
 - 7.3.2 Varied Block Types
 - 7.3.3 Major Public Spaces

8.0 DELIVERY AND PHASING

- 8.1 Introduction
- 8.2 Delivery Principles
- 8.3 Phasing Strategy
 - 8.3.1 District Centre Phasing Strategy
 - 8.3.2 Phasing of Individual Schemes
 - 8.3.3 Monitoring
- 8.4 Delivery Mechanisms for Cross Cutting Infrastructure & Facilities
- 8.5 Incentives and Penalties

APPENDIX A - SDZ STRATEGIC INFRASTRUCTURE

1.0 INTRODUCTION

1.1 Background

The Urban Form Development Framework (UFDF) for Clonburris District Centre has been prepared by South Dublin County Council, the Development Agency, with input from District Centre landowners.

The Clonburris Strategic Development Zone Planning Scheme was approved by An Bord Pleanála (APB) on the 5th of November 2008 in accordance with Section 169 of the Planning and Development Acts 2000-2007, subject to 30 no. conditions.

Condition no. 4 requires that, prior to any built development taking place in the centre, an Urban Form Development Framework be formulated in accordance with the Clonburris SDZ Planning Scheme.

This framework document has been produced in accordance with the requirements of ABP. This UFDF provides comprehensive guidance on all key aspects of the development of the District Centre and is consistent with the approved Clonburris SDZ Planning Scheme, 2008.

1.2 Vision

The Strategic Development Zone (SDZ) Planning Scheme sets out a vision for the development of a sustainable Eco-district at Clonburris. The Eco-district promotes a community that enjoys a higher quality of life whilst reducing energy consumption and waste outputs. The policy framework of the SDZ Planning Scheme is underpinned by a comprehensive policy framework that promotes:

- Well connected and walkable communities
- High standards of public transport service
- A range of community services to meet local needs
- High quality built environment
- Environmentally friendly living
- Vibrant local economy
- Inclusive community

The UFDF is at the core of this vision and represents the application of the SDZ Planning Scheme within the most intensive areas of retail, commercial and residential development within Clonburris.

The UFDF is structured around the major nodes of attraction within the SDZ Planning Scheme and the means to get people to the area. The UFDF presents a vision of an entertainment and leisure district for western Dublin and adjacent counties based on:

Clonburris Triangle: A destination for shopping, entertainment and leisure with a lively atmosphere. Attractions include a large open square hosting regular events and activities, a diverse range of high street, boutique and market based shopping, a cinema, a major civic facility and cafés, bars and restaurants trading into the night.

Grand Canal Basin: A destination for entertainment and leisure with a cultural flavour in a boardwalk like atmosphere. Attractions include a large open body of water that is a working harbour, a large gallery/performance space, sustainability information centre, boutique shopping and cafes, bars, and restaurants trading into the evening.

Clonburris Transport Interchange: A major regional public transport hub for western Dublin with interchange between rail, Metro West and buses.

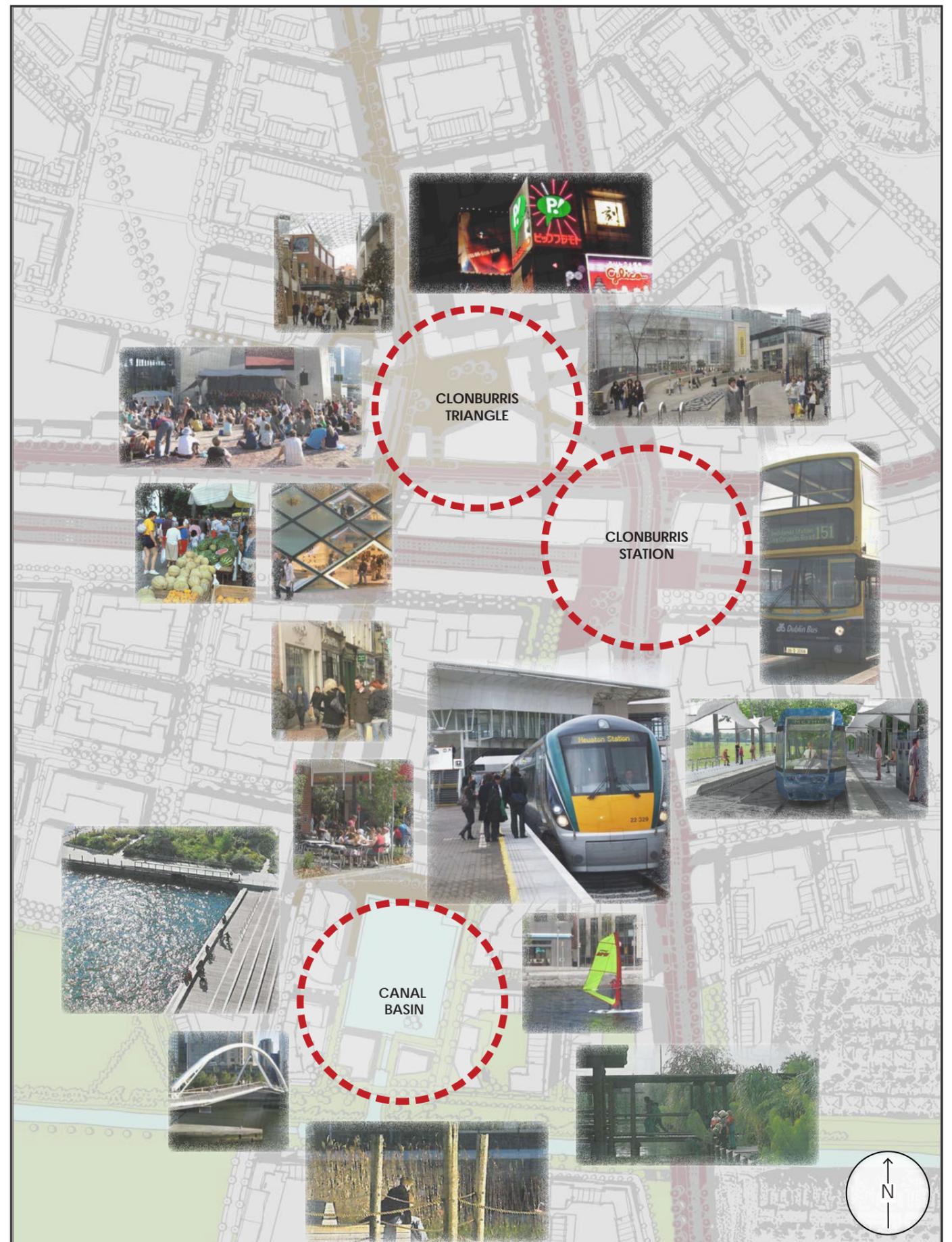


Figure 1.1: The unique attributes of Clonburris. Clonburris Triangle and the Grand Canal Basin will be major attractions with entertainment, leisure, cultural and shopping facilities. The transport interchange between Rail, Metro West and buses make the site highly accessible. These attributes will work together to make Clonburris a unique destination.

2.0 CONTEXT

2.1 An Bord Pleanála Brief

It is a requirement of the Clonburris Strategic Development Zone Planning Scheme 2008 that an Urban Form Development Framework be prepared for Clonburris District Centre prior to any development taking place in the centre. The direction of An Bord Pleanála (ABP) in respect of the Urban Form Development Framework is as follows:

“Achieving a successful urban form in the Clonburris town centre is critical. The centre crosses a number of different landownerships and incorporates a variety of constraints and opportunities. In order to ensure a comprehensive approach to the layout and urban form of the Clonburris town centre, it is a Phase 1 requirement of this Planning Scheme that, prior to any built development taking place in the centre, an Urban Form Development Framework be formulated in accordance with the Clonburris SDZ Planning Scheme.

The framework shall address, at a minimum, the area identified as 'primary retail/residential' on the land use strategy map and the infrastructure required in accordance with SDZ phases 1 and 2 (pages 114 and 115).

At minimum, the Framework shall address:

- Retail floorspace permissible in this area under SDZ phases 1 and 2;
- Associated non-retail floorspace proposed in this area under SDZ phases 1 and 2;
- Provision of infrastructure and facilities required to serve this area in accordance with SDZ phases 1 and 2;
- Future provision for additional retail floorspace permissible under Scenario B in accordance with SDZ phase 2;
- Future provision for Civic centre/library, worship centre and youth activity space in accordance with SDZ phases 4 and 12-13;
- Core retail centre street network;
- Public transport interchange including provision for buses;
- Urban blocks and urban grain;
- Height, scale and massing;
- Building typologies;
- The design and treatment of squares and the public realm;

- Traffic management including a car parking strategy that addresses the number of carparking spaces to be provided, the location and usage of car parks and on-street parking, initiatives to promote shared use of car parking and traffic management measures along the Main Street to provide priority for pedestrians, cyclists and public transport.

The Framework shall not alter the fixed elements, nor exceed the maximum building height, as set out in the Scheme. In the event of disagreement between the parties on any matters within the Framework, the matter in question shall be referred to An Bord Pleanála for determination.

Subsequently, the Framework shall be subject to revision and refinement:-

1. by the Development Agency in the event of disagreement between any of the relevant developers/landowners, or
2. by the relevant developers/landowners should they all be in agreement; or
3. by one or more developer(s)/landowners(s) should they be in agreement with the Development Agency in respect of matters that have no material impact on the remaining landowner(s).

Provided it remains consistent with the guiding parameters of the overall SDZ Planning Scheme.”

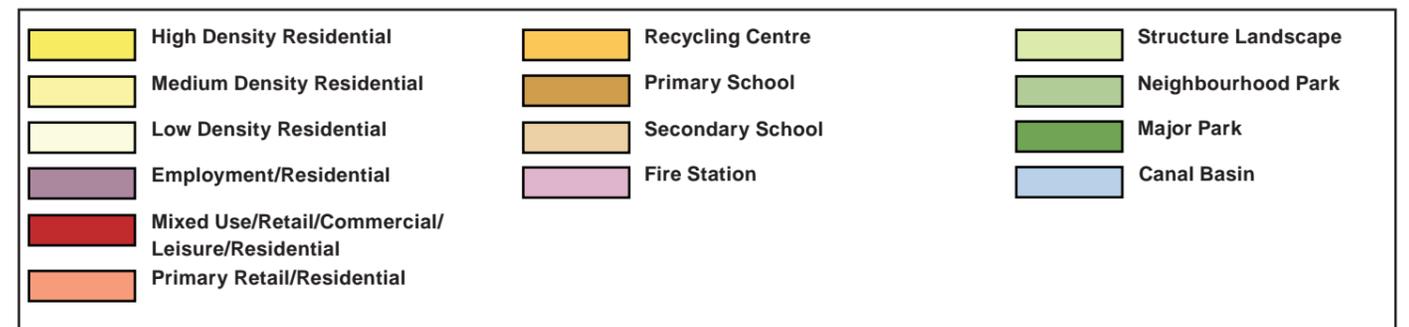
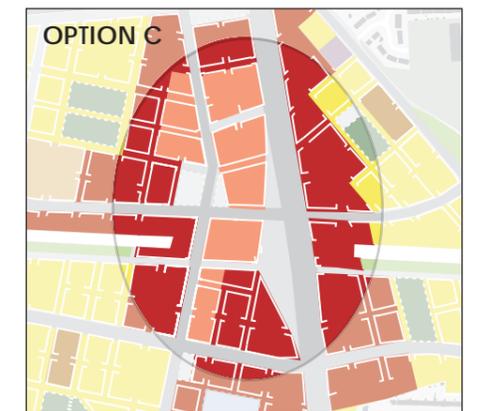
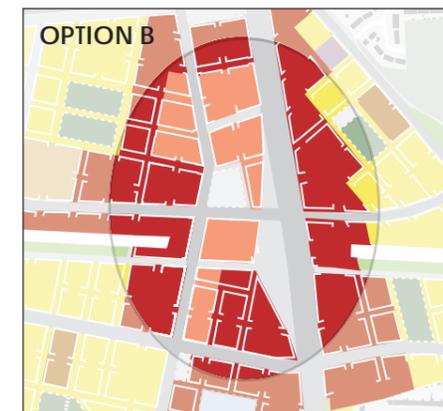
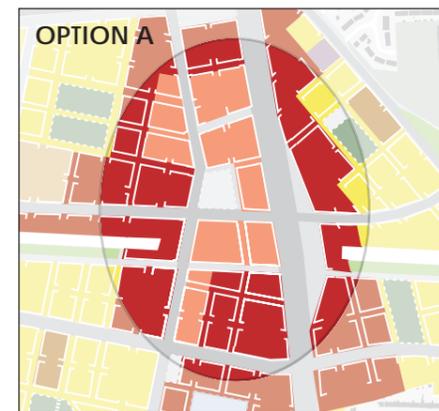
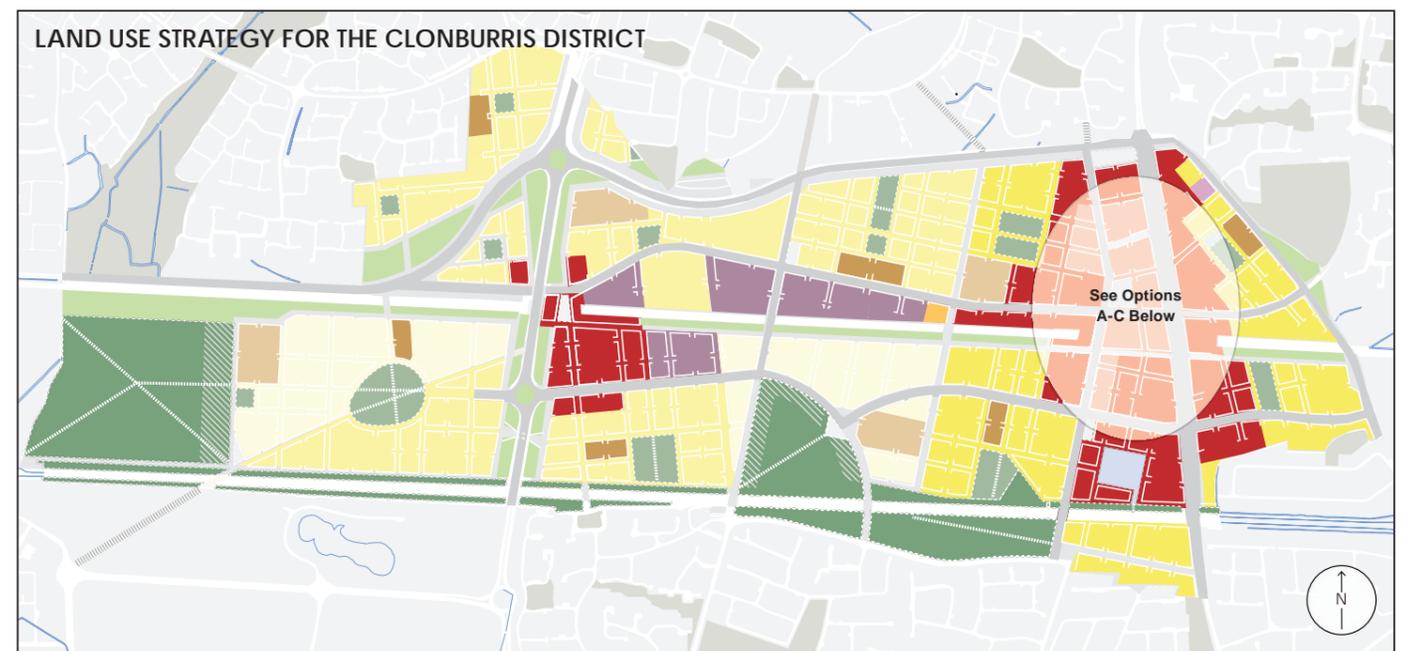


Figure 2.1: Land Use Strategy for the Clonburris District as approved in the Clonburris SDZ Planning Scheme (including options A-C which illustrate three different scenarios for the alignment of the Metro West). The UFDF is to address as a minimum the area identified as 'primary retail/residential' on the Land Use Strategy Map.

2.2. Scope and Content

2.2.1 Framework Area

An Bord Pleanála (ABP) specified that the Urban Form Development Framework (UFD) shall address, at a minimum, the area identified as 'primary retail/residential' on the land use strategy map (see Figure 2.1) and the infrastructure required in accordance with SDZ Phases 1 and 2.

To ensure that a comprehensive framework was developed for the entire district centre area, the minimum area required by ABP was expanded to include the "mixed use/retail/commercial/leisure" zone identified in the land use strategy map (See Figure 2.2). This area incorporates all major nodes and destinations in the District Centre area and the major street network around it.

The 'primary retail/residential' and "mixed use/retail/commercial/leisure" zones are contained within the Cappagh, Clonburris Lock and Clonburris Cross neighbourhoods. As floorspace allocation and development parameters, such as minimum and maximum densities, are set out on a neighbourhood basis in the Strategic Development Zone (SDZ) Planning Scheme, it was necessary to study the Cappagh, Clonburris Lock and Clonburris Cross neighbourhoods in their entirety, so that the consequences of the UFD could be assessed on a neighbourhood wide basis (see Figure 2.3).

The 'primary retail/residential' and "mixed use/retail/commercial/leisure" areas are addressed in detail. The wider neighbourhoods of Cappagh, Clonburris Lock and Clonburris Cross are explored in less detail, with particular emphasis on linkages between the District Centre and adjoining nodes.

The UFD area incorporates the public transport interchange at Fonthill Road. The transport interchange is a key infrastructural element of the SDZ Planning Scheme. The interchange has been explored in detail, focusing on the relationship between interchanging modes and the relationship between this node and the adjoining District Centre.

The UFD area extends to the Grand Canal to the south. The Canal Basin area has been explored in detail, focusing in particular, on the relationship between the 'primary retail/residential' area and the 'canal basin' as centres of activity. This relationship is considered to be fundamental to the commercial and civic success of the area as a whole.

The design of the Clonburris Triangle public open space has also been explored in detail, focusing on its importance as a civic core, as a link between the transport interchange and the District Centre and the need to reconcile ground level differences.

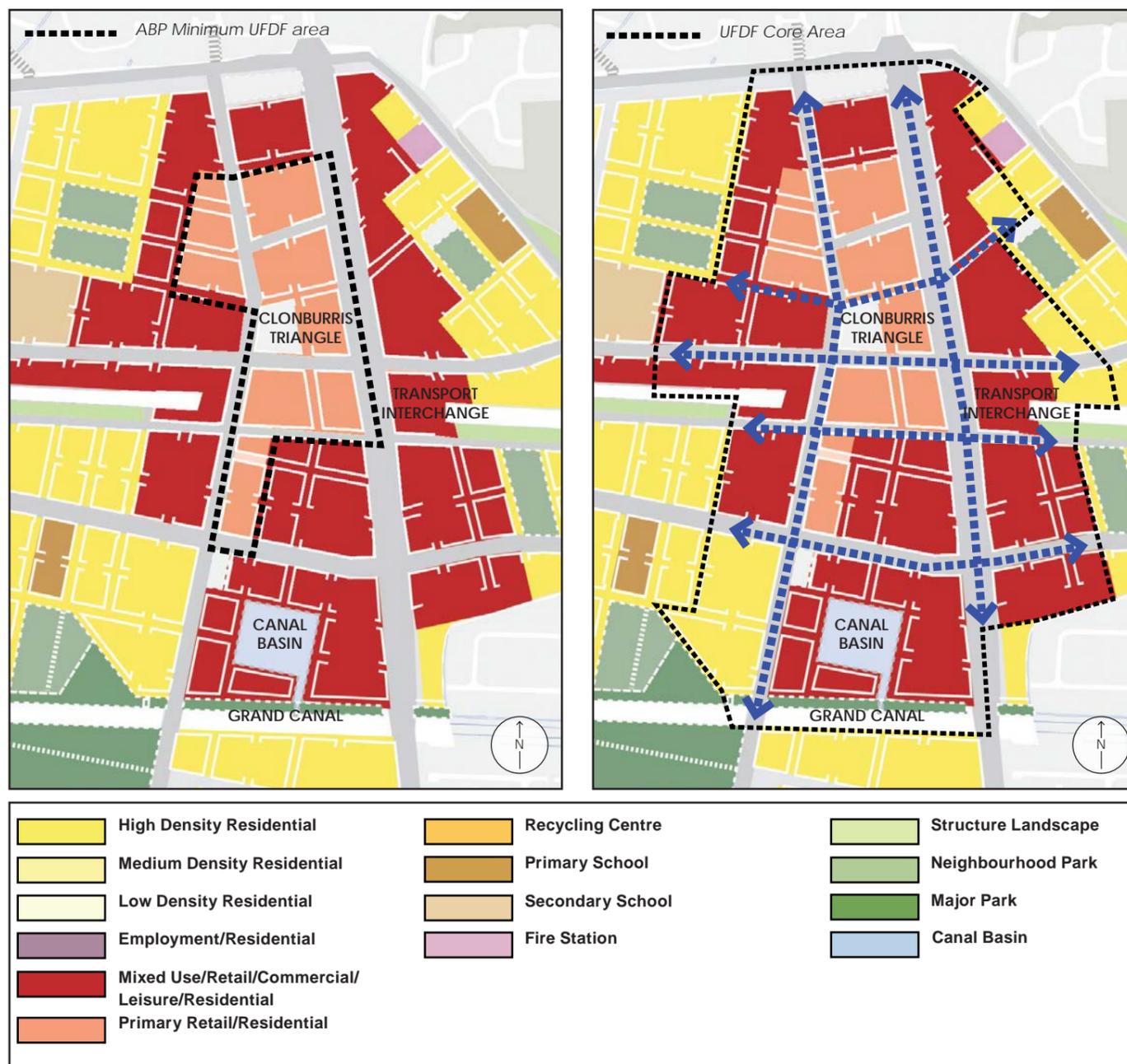


Figure 2.2: The minimum UFD area outlined by ABP (above). The area studied in detail for the preparation of this plan was further adjusted to take account of the street network, public transport routes and mixed use/commercial areas.

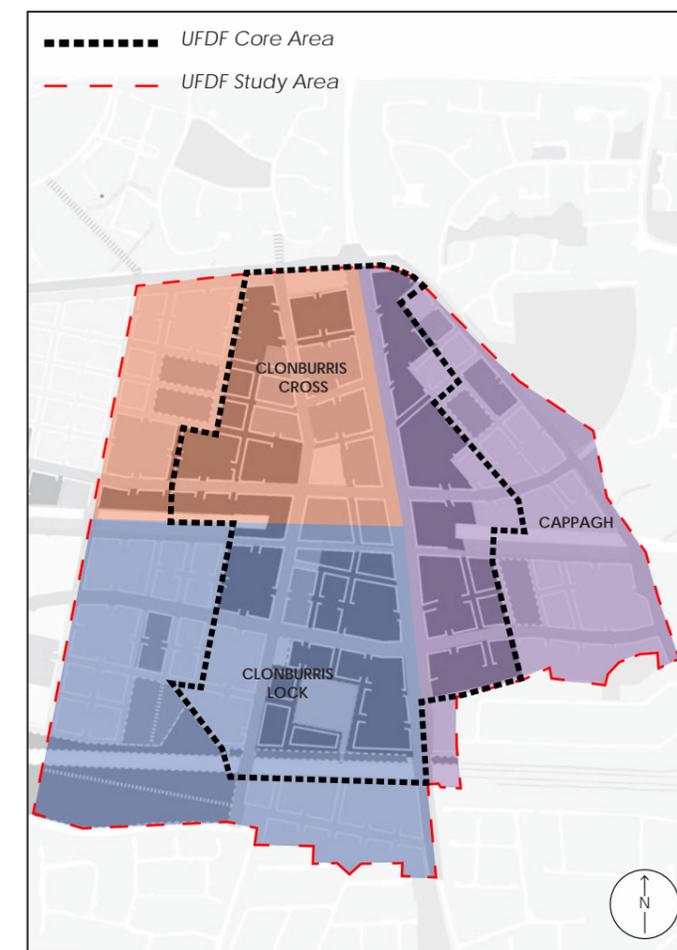


Figure 2.3: The three neighbourhoods affected by the UFD and the Core Area which is explored in detail.

2.2.2 Content

The UFDF provides an encompassing masterplan. The UFDF addresses the following items in detail:

1. The retail floorspace permissible in this area under SDZ Planning Scheme phases 1 and 2; non - retail floorspace permissible in this area under SDZ phases 1 and 2; and future provision for additional retail floorspace permissible under Scenario B;

The UFDF addresses *inter alia* the location and extent of primary and secondary retail floorspace; the location of specific retail elements such as anchor stores, grocery retailing and speciality retail (e.g. markets); the location and extent of non-retail floorspace including leisure and entertainment floorspace, employment, civic and residential floorspace; and the phasing of retail and non-retail commercial floorspace.

2. Provision of infrastructure and facilities required to serve this area in accordance with SDZ Planning Scheme phases 1 and 2;

The UFDF addresses the design of items of physical infrastructure required to support the District Centre (roads, bridges, drainage etc) within the parameters of the approved SDZ Planning Scheme. A particular challenge, in terms of placemaking and utilisation of infrastructure, is the severance caused by the existing railway line and canal.

3. Future provision for civic centre/library, worship centre and youth activity space in accordance with SDZ phases 4 and 12-13;

The UFDF addresses the location and general design requirements for community infrastructure and facilities required in the District Centre under the terms of the approved SDZ Planning Scheme, such as the civic centre and library, youth facility, place of worship and health centre.

4. Core retail centre street network, urban blocks and urban grain;

The UFDF addresses the function and design of streets within and leading to the core area, and the nature and scale of urban blocks. The physical and visual permeability of the District Centre are key considerations when addressing the ability of the public realm to provide an attractive and safe environment and to provide suitable conditions for social and economic interchange.

5. Public transport interchange including provision for buses; traffic management plan including a car parking strategy; and traffic management measures along the Main Street to provide priority for pedestrians, cyclists and public transport.

The framework addresses all aspects of transportation associated with the District Centre, including transport interchange (rail, metro, bus, taxi and private car); the location and extent of car parking provision; pedestrian and cyclist movements into and around the District Centre; the movement of public transport vehicles (bus/taxi), heavy goods vehicles and the private car.

6. Height, scale and massing; building typologies;

The UFDF addresses the height, scale and massing of buildings in the District Centre, within the general parameters of the approved SDZ Planning Scheme while taking account of the District Centres position within the urban hierarchy. The UFDF may define building lines and building height, but may also allow scope within the structured grid to propose different configurations.

7. The design and treatment of squares and the public realm;

The framework addresses the function, design and treatment of squares and public realm to expand on the framework set out in the approved SDZ Planning Scheme. The need for identity and coherence within the UFDF area through the use of, for example, materials, street furniture, lighting is addressed. The need to establish a legible hierarchy of public space, provide clear routing and way finding and create strong links with adjacent developments is also addressed.

3.0 METHODOLOGY AND APPROACH

3.1 Design Process

South Dublin County Council (SDCC) as the Planning Authority and Development Agency established a multi-discipline UDFD team to oversee the formulation of the UDFD. The team comprises the County Architect, SDZ Project Manager/Senior Planner, Project Planner, Project Engineer, Executive Planner & Urban Designer, Public Realm Officer and Assistant Planner.

The UDFD area incorporates a number of different landownerships and a variety of opportunities and constraints. To address the potentially complicated nature of working with multiple landowners/developers in producing a single development framework, South Dublin County Council approached the task by inviting principal landowners to attend a series of workshops and to appoint a single team to work, on the landowner's behalf, in conjunction with the SDCC UDFD team. It was envisaged that these initiatives would facilitate a collaborative approach. Four workshops took place between May and August 2009. During this process the UDFD area was defined and a preferred distribution option emerged.

The process did not lead to a joint design team or a collaborative approach. In August 2009 the workshop process was terminated. The SDCC design team developed the draft UDFD between August 2009 and February 2010.

A separate team was established within SDCC to carry out a Biodiversity Study for the UDFD area, to facilitate the preparation of the UDFD. The Biodiversity team comprises the SDCC Heritage Officer (for biodiversity) and Senior Executive Planner, with input from a specialist ecology consultant. The Biodiversity Study assesses the potential impact of the proposed development on known environmental features, such as the Grand Canal, protected species and hedgerows and outlines a range of mitigation measures to limit the impact of the development on the receiving environment. These mitigation measures have been incorporated into the UDFD and all development proposals in the UDFD area shall comply with the mitigation measures outlined in the Biodiversity Study.

The Biodiversity Study does not replace the requirement to prepare a Biodiversity Action Plan for the full area of the Planning Scheme in advance of any development (Part G.4.1 SDZ Planning Scheme refers).

3.2 Consultation

SDCC undertook consultation in respect of the draft UDFD and Biodiversity Study between February and May 2010. The draft UDFD and Biodiversity Study were presented to Clonburris Landowners, Government agencies and key stakeholders in February 2010; submissions were invited in respect of both documents over a six week period to April 2010; and South Dublin

County Council met landowners during April/May 2010 to clarify items outlined in submissions. The consultation process is documented in a separate consultation report. SDCC had regard to the items raised by landowners in submissions when finalising the UDFD.

3.3 Analysis Process

The approved SDZ Planning Scheme land use distribution and pedestrian movement patterns for the District Centre were analysed as the first step in the preparation of the UDFD. This process identified the following elements:

Major Nodes

The primary nodes within the study area are Clonburris Station, Clonburris Triangle and the Canal Basin. Secondary Nodes include Fonthill Cross, Canal Square and the surrounding neighbourhood parks (see Figure 3.1).

Major Movement Patterns

Primary routes for vehicular traffic include Main Street, Station Road, Park Avenue and Fonthill Road. Major pedestrian and cyclist routes also include a number of Station and Park Links (see Figure 3.1).

Distribution of Activity

The analysis identified two major movement patterns within the plan area that will have a significant influence on the distribution of activity. These patterns relate specifically to the northern and southern sides of the Railway line as follows (see Figures 3.2 and 3.3):

North: A semi radial pattern of movement that converges toward the major nodes from a number of different directions.

South: A regular grid pattern of movement that provides a number of options for direct north-south and east-west movement.

These distinctive patterns of movement will influence activity. In relation to radial patterns of movement the area of greatest activity tends to occur at the point of convergence. In relation to grid movement patterns the area of greatest activity tends to occur at major crossing points.

These movement patterns will have a major influence on the success of the District Centre and therefore it is imperative that the distribution of uses, particularly those dependent on higher levels of activity, must reflect movement patterns.

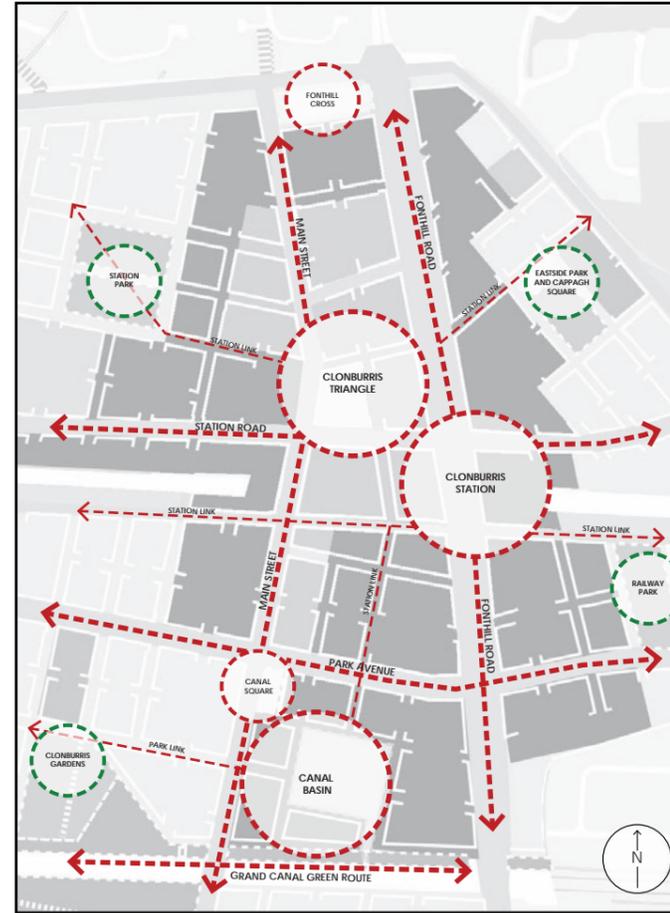


Figure 3.1: The location of major nodes and movement patterns within and around the core UDFD area.

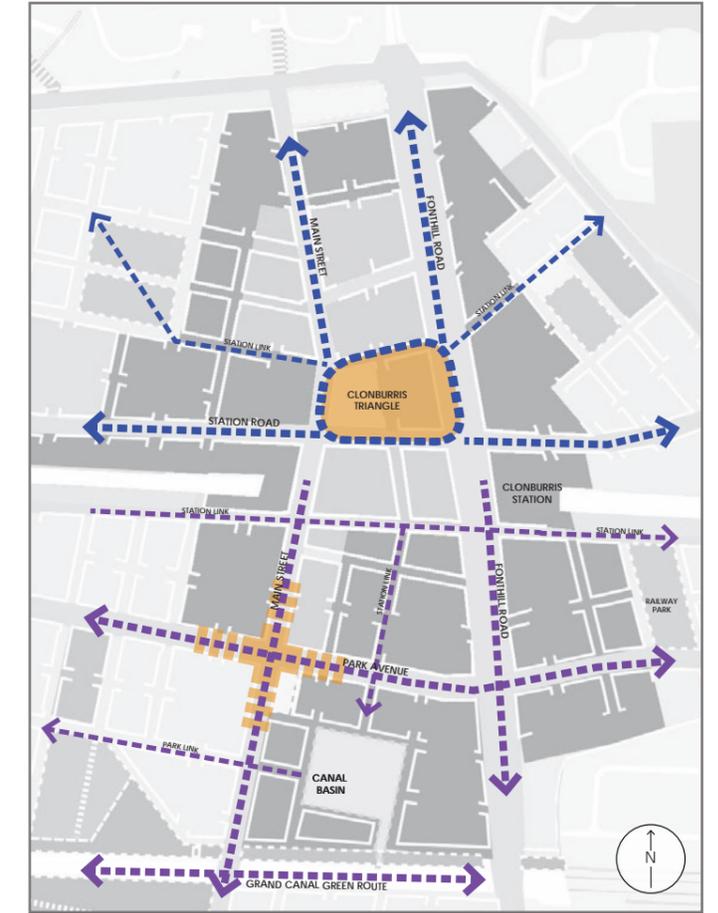


Figure 3.2: The radial movement pattern north of the railway and the grid movement pattern to the south.

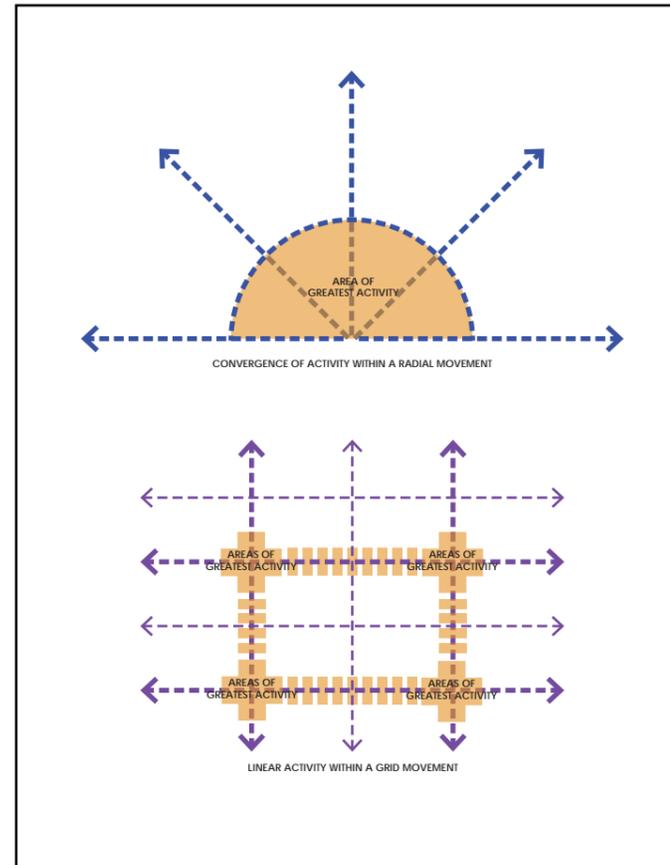
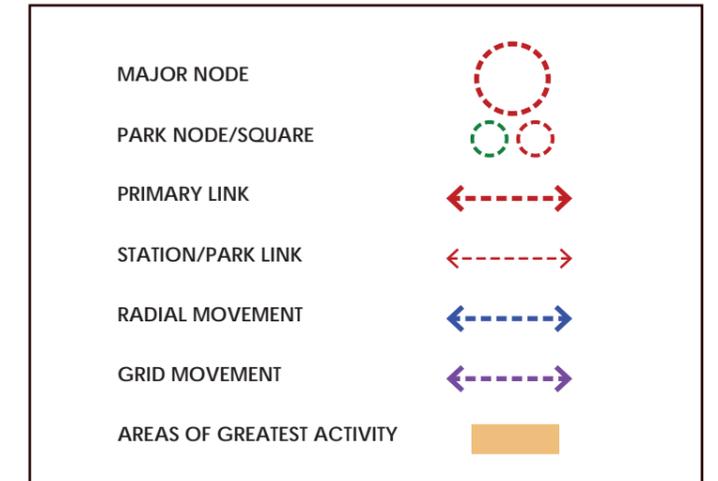


Figure 3.3: The patterns of activity associated with the two movement patterns found within the UDFD.



3.4 Options for Activity Distribution

Section C.4.8 and C.4.9 of the SDZ Planning Scheme outlines the permissible quantum of non-residential and commercial floorspace permitted within each of the SDZ neighbourhoods. This includes activity generating uses such as primary/secondary retail, major community facilities and commercial.

The quantum of activity generating uses were modelled across the three neighbourhoods. A number of options were explored in order to analyse land use distribution and movement patterns. Four options were explored in detail as follows:

Option 1 – Broader Plan

Option 2 – Consolidation

Option 3 – Loop

Option 4 – Grand Canal Basin Relocation

A summary analysis in relation to each of these options is discussed below:

Option 1 – Broader Plan

This option follows the general distribution of land uses as described within the SDZ Planning Scheme. Activity generating uses are distributed along multiple routes. Primary retail is focused along the Main Street from Park Avenue within Clonburris Lock to the area north of, and wrapping around, Clonburris Triangle. Secondary retail frontages are focused along Station Road. A Market Street is also proposed along the Station Link north-west of Clonburris Triangle. Commercial development is focused around the Station.

A balanced distribution of activity along multiple routes would be difficult to achieve and would draw activity away from the major nodes. Modelling carried out during the analysis indicated that the permissible quantum of retail floorspace would need to be spread over a single level to cover the full extent of frontages along these routes. This may serve to dilute activity away from the major nodes and reduce the feasibility of retail uses that are dependent on passing pedestrian trade.

Option 2 – Consolidation

This option consolidates activity generating uses around the major nodes. Within Clonburris Cross activity generating uses are drawn into Clonburris Triangle and the Transport Interchange. Within Clonburris Lock they are drawn into the junction of Main Street and Park Avenue and the Grand Canal Basin.

This option promotes a more sustainable model where pedestrian activity levels and activity generating uses are aligned. This model would assist in dealing with the transition between changes in levels around Main Street and Station Road by providing the flexibility for retail development to be provided over multiple levels. This model does not provide for a continuous linkage between the major nodes within Clonburris Cross and Clonburris Lock.

Option 3 – Loop

This option consolidates activity generating uses around Clonburris Triangle as per option 2. It also distributes activity generating development along the Main Street and the Station Link between the Grand Canal Basin and Clonburris Station to create a loop or circuit between the three major nodes. To facilitate this option the Market Street is moved to the Station link leading to the Grand Canal Basin.

This option would require high levels of activity to sustain two parallel areas of activity generating uses. Further modelling carried out during the analysis process indicated that there is not sufficient retail floorspace available within Clonburris Lock to sustain active frontages along both routes. This led to the exploration of a fourth option, to move the Grand Canal Basin northwards to meet the core retail area.

Option 4 – Grand Canal Basin Relocation

This option explored the relocation of the Grand Canal Basin further north into the site to bring it closer to the other major nodes. A number of versions of this scenario were examined, each problematic due to technical constraints arising from levels. The Basin would have to be raised resulting in major construction, a high bridge from Park Avenue and a need to fill and maintain water levels artificially.

Conclusion

Having considered the four options for activity distribution it was concluded that *Option 2 – Consolidation* represented the most rational response to the SDZ Planning Scheme. However one of the fundamental components of the SDZ Planning Scheme is a Main Street for Clonburris. As such *Option 2* needed to be developed further to ensure that an active Main Street is provided.

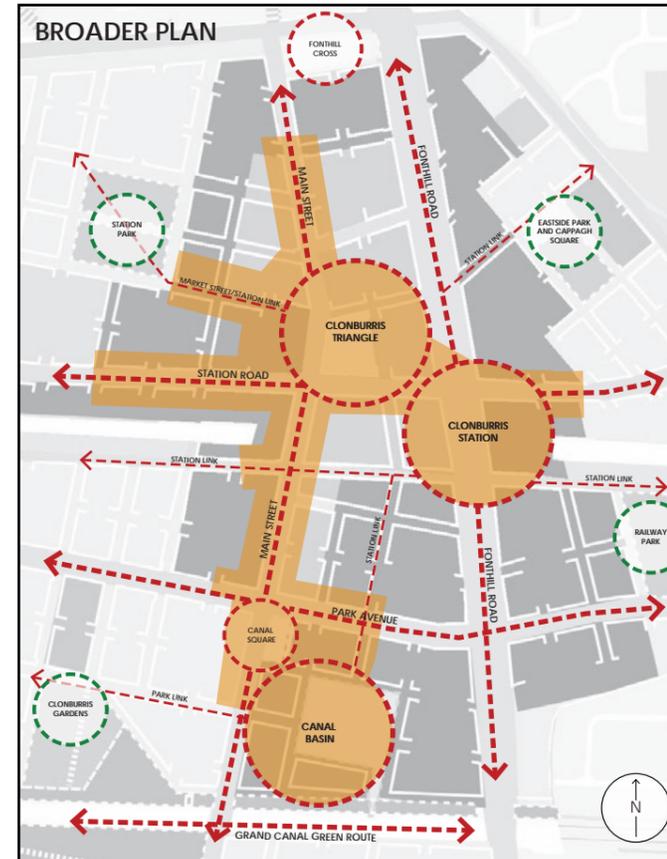


Figure 3.4: Option 1 - The broad distribution of active frontage areas (i.e. primary and secondary retail) based on the neighbourhood objectives of SDZ Planning Scheme.

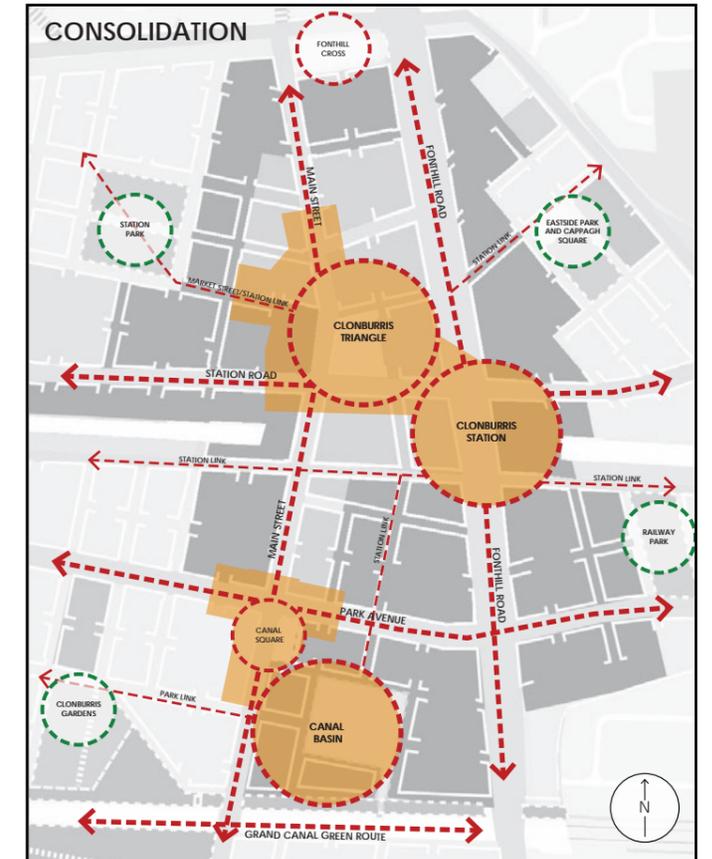


Figure 3.5: Option 2 - The distribution of activity by consolidating activity in the north and around a major cross roads in the south.

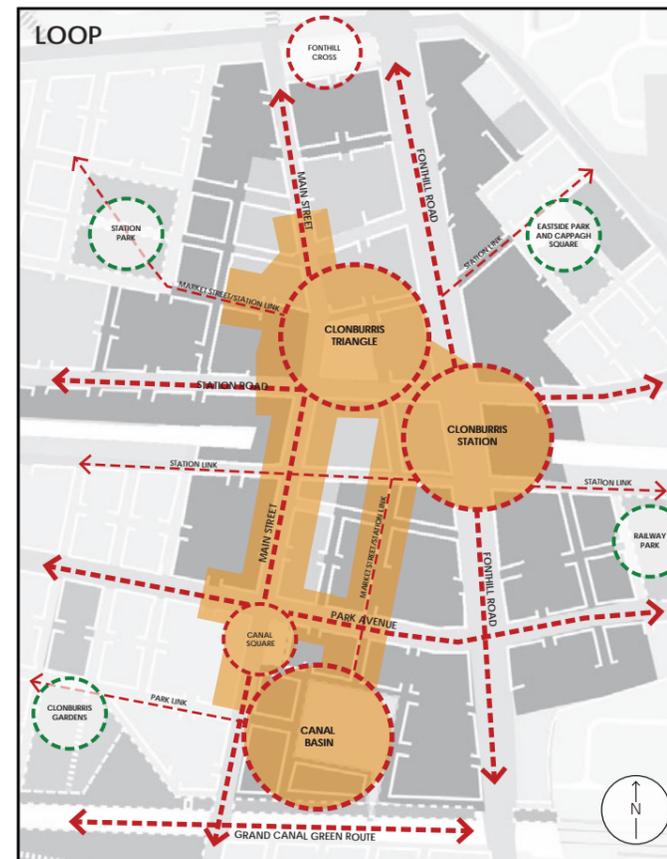


Figure 3.6: Option 3 - The distribution of activity by seeking to create an activity loop between the three major nodal points.

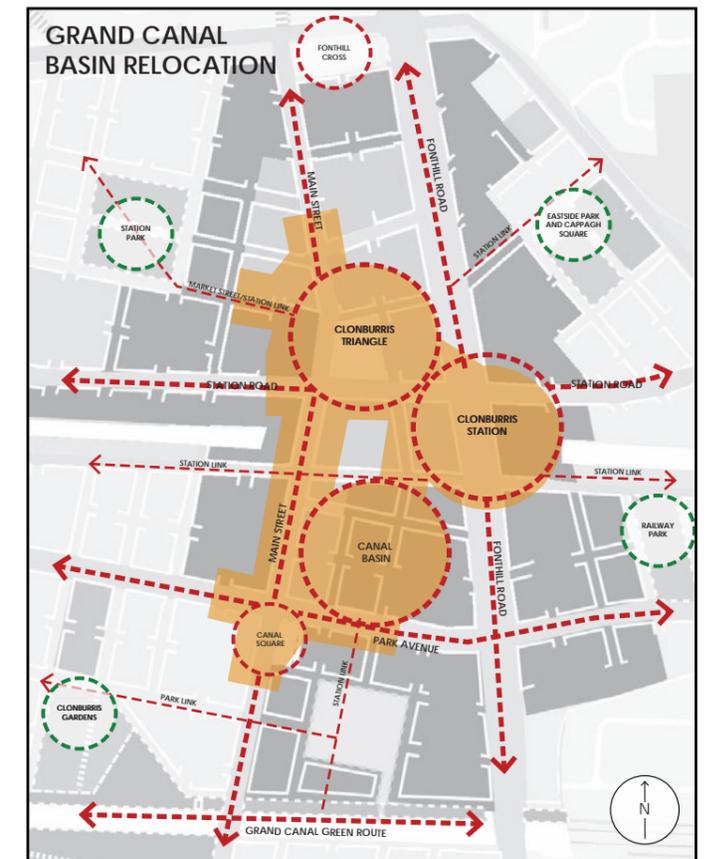


Figure 3.7: Option 4 - The distribution of activity, seeking to further consolidate activity by moving the Canal Basin north, closer to the other two major nodes.

3.5 UDFD Structure Plan

Option 2 - Consolidation was further developed to incorporate an active Main Street, although not at the same level of intensity as the major nodes (see Figure 3.8). Movement along the Main Street and other routes were also analysed, including links between adjoining community nodes (i.e. local centres and park nodes) and the interface between the UDFD area and the ecologically sensitive Grand Canal and Cappagh Overflow Stream. A number of conceptual ideas were developed to address these issues as outlined below and illustrated in Figure 3.9.

Chain of Retail Anchors

Spreading major retail anchors along the Main Street would encourage greater north south movement through this corridor. Major retail anchors are also located adjacent to Primary Links for easy vehicular access.

Mixed Business Main Street

Accommodating a wide range of commercial and retail uses on Main Street would enhance movement and serve the surrounding communities. Primary retail uses, which could not be sustained along the entire length of Main Street, are focused in the vicinity of Clonburris Triangle and the junction with Park Avenue. Less intense mixed business uses which focus on serving the local community (e.g. hardware, hairdressers and professional services) are located to the north and south of Clonburris Triangle.

Cross Community Links

Enhancing connections between communities along Station Links and Park Links across major nodes.

Canal Station Link Linear Park

Enhancing the movement principles established in Option 3 - Loop by introducing a linear park that creates a strong link between the Station and the Canal, without impacting upon the commercial viability of areas of intensive activity.

Green Fingers/Green Interface

Creating a 30 metre buffer on the northern side of the Grand Canal proposed Natural Heritage Area would comply with the recommendation of the Biodiversity report and would provide a green edge to the south of the UDFD area.

The UDFD Structure Plan has informed the development of a number of framework plans that deal specifically with issues regarding access, land use, built form and landscape, as illustrated in the ensuing sections of this document.

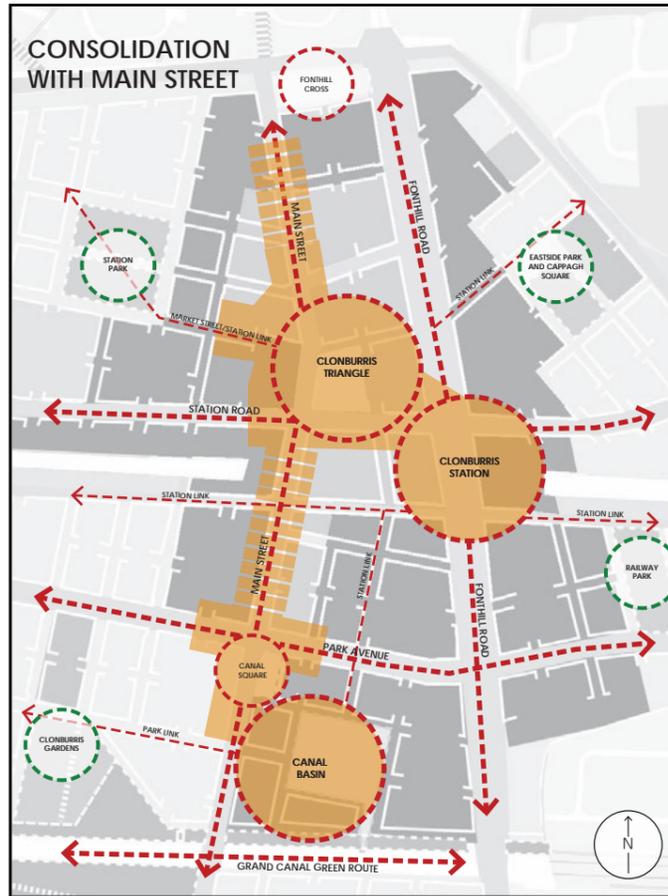


Figure 3.8: Option 2 - Consolidation Adjusted to take account of the plan objective to create an active Main Street.

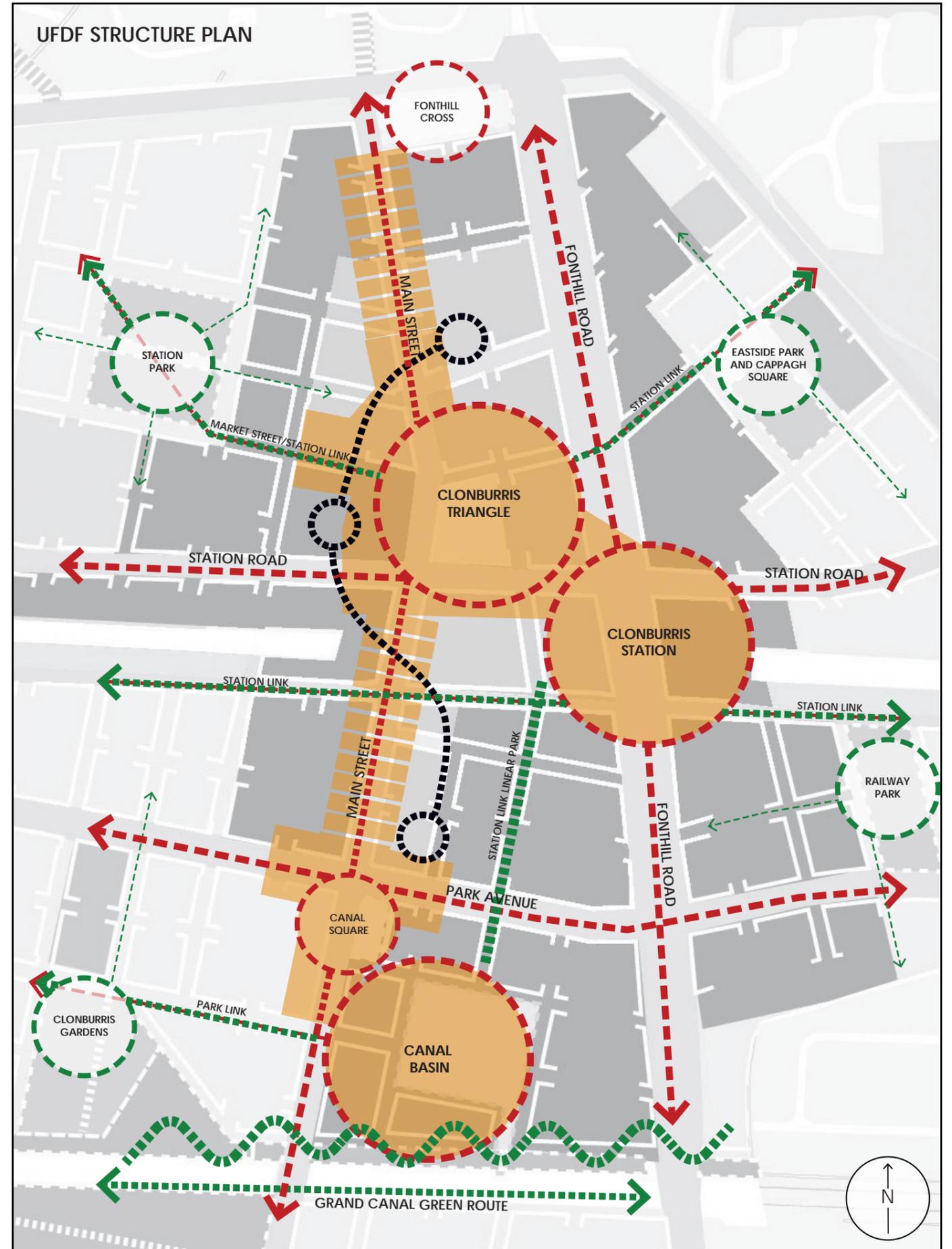
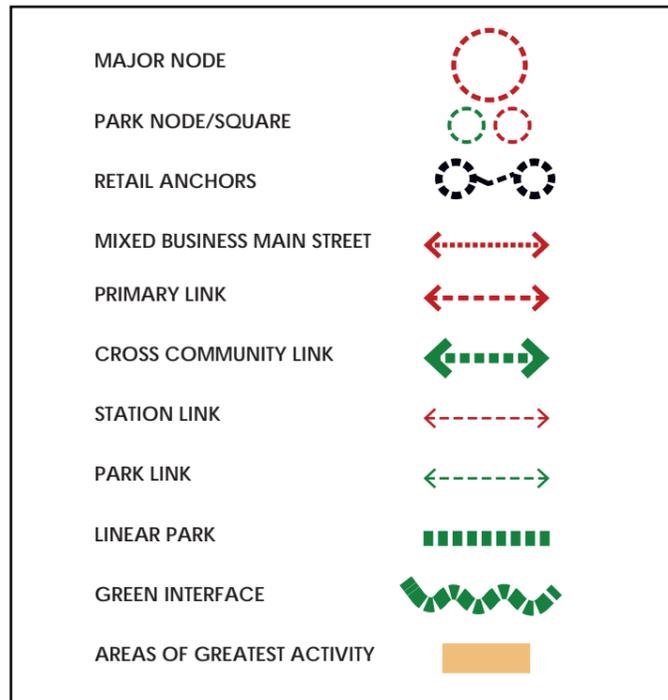


Figure 3.9: The plan that forms the over-arching structure for the UDFD area. All further detailed design considerations were taken from this plan which is based on the analysis process and led to Option 2 - Consolidation, the need to create a strong Main Street, and movement considerations as the preferred Structure Plan.

3.6 Infrastructure Considerations

3.6.1 Location of Metro West Station

Whilst the primary urban structure is fixed in its alignment throughout the SDZ Planning Scheme there is one exception, relating to the Cappagh, Clonburris Cross and Clonburris Lock neighbourhoods, which will be impacted by the alignment of Metro West. As noted in Figure 2.1, three metro alignments - Options, A, B and C are shown in the approved scheme.

SDCC, the Development Agency, has been in consultation with the Railway Procurement Agency (RPA) since the adoption of the SDZ Planning Scheme in relation to the alignment of Metro West in the District Centre area.

An alignment on Fonthill Road passing between the existing Kildare Route Rail Stations, with a stop over the rail line, is the preferred option (see Figure 3.10). It is noted that the routing of north-south bus routes down the Main Street and substitution of existing QBC along Fonthill Road with the Metro West line will facilitate these changes without any reduction in the number of lanes available to private vehicular traffic. This option emerged as the preferred option during consultation with Clonburris Landowners in May 2009 and is the preferred option of South Dublin County Council.

The RPA agreed to amend proposals for this section of Metro West to accord with the preferred option. The agreed alignment is incorporated as part of the UDFD.

A submission from the RPA during consultation on the draft UDFD formally supports the inclusion of the agreed Metro West alignment and welcomes the Clonburris Station Interchange as a major regional public transport hub for Western Dublin. The submission outlines that the revised Metro West alignment and stop location will necessitate a diversion of the Fonthill Road during the construction period. All efforts should be made to facilitate traffic diversions within the UDFD area during the construction phase of Metro West.

3.6.2 Gas Wayleave and Watermain

There is currently a major high pressure gas main routed through the UDFD area on a weaving route, adjacent to Fonthill Road. South Dublin County Council has consulted with Bord Gáis during preparation of the UDFD in relation to the relocation of the gas main.

Having regard to the proposed level changes and the intensity of development proposed within the UDFD area, the gas pipe will need to be relocated prior to the commencement of any affected development in the UDFD area. An alternative route will need to be agreed with Bord Gáis prior to the approval of any affected development in the SDZ Planning Scheme area.

There is also a strategic water main routed through the UDFD area along Fonthill Road. The proposed changes to ground level in the UDFD will necessitate a relocation of the water main. An alternative route will need to be agreed with South Dublin County Council prior to the approval of any development in the UDFD area.

A possible route for these pieces of infrastructure is identified to the west of the UDFD area, as indicated in figure 3.10.

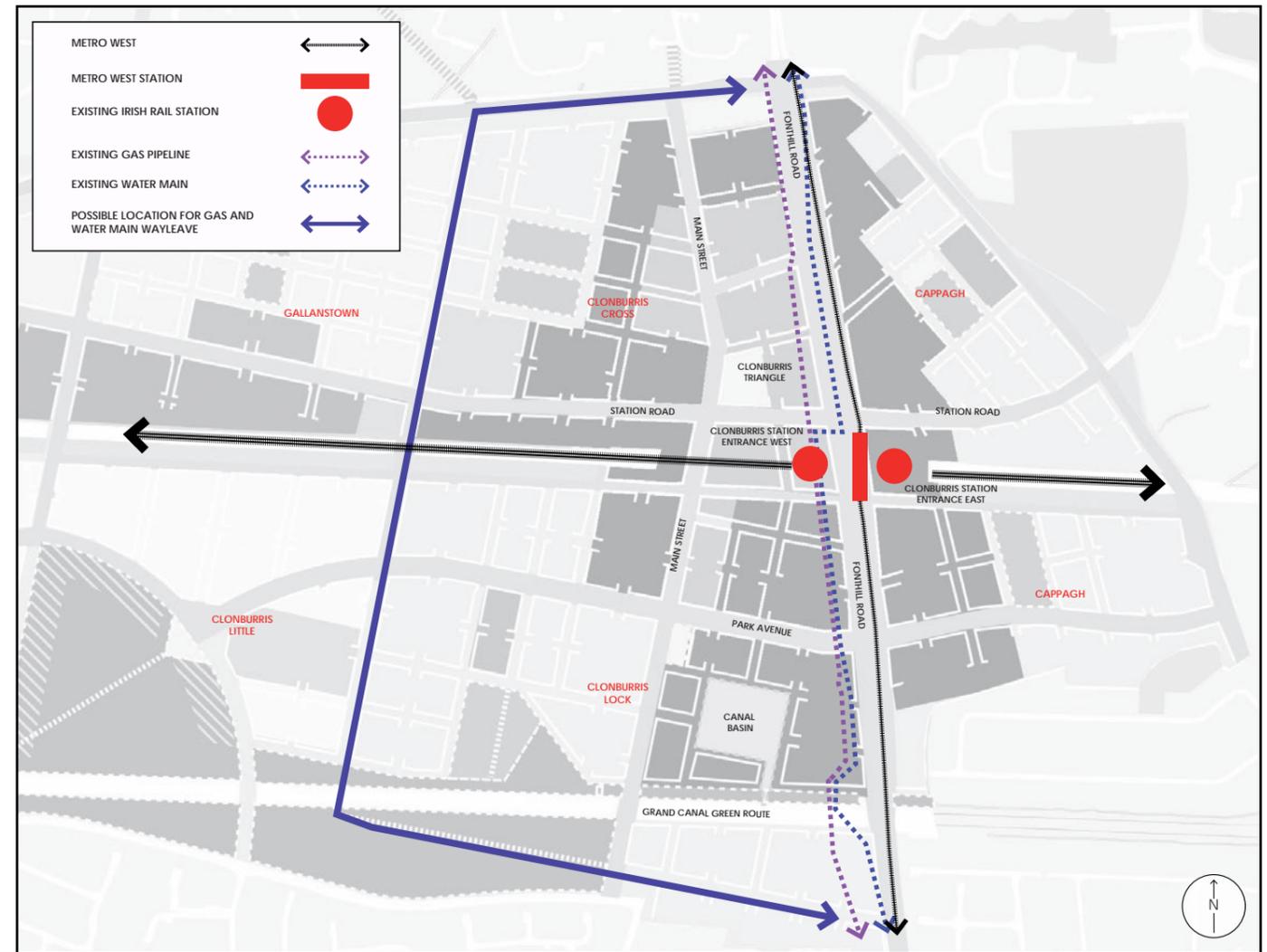


Figure 3.10: Illustration showing the preferred alignment of Metro West and the location of the station, the existing alignments of the gas and water mains and the possible re-routing of them to the west of the UDFD area.

4.0 BLOCK LAYOUT AND STREET NETWORK

4.1 Framework Development

4.1.1 Block Structure

The Block Structure of the UDF area was developed through a process that applied the Primary, Secondary and Tertiary Structures as a series of layers. Figure 4.1 illustrates the application of the Primary Structure, incorporating the agreed Metro West alignment.

Figure 4.2 illustrates the application of the SDZ Planning Scheme Secondary Structure incorporating the UDF Structure Plan. Eastside Park and Railway Park in the Cappagh Neighbourhood are also refined by the UDF to neighbourhood parks of 0.5ha in area, allowing for a better distribution of land uses within the neighbourhood.

Figure 4.3 illustrates the application of the 'indicative' Tertiary Structure, which has been further refined for application within the District Centre. A highly permeable street pattern that orientates blocks east-west, to channel movement toward Main Street, Fonthill Road and the Major Nodes has been applied. Block sizes are guided by Section D.6.5 of the SDZ Planning Scheme. However smaller blocks occur where multiple routes converge around Clonburris Triangle/Fonthill Station and the Grand Canal Basin. Whilst the Tertiary Structure remains 'indicative' design proposals must be generally consistent with the overall UDF block structure.

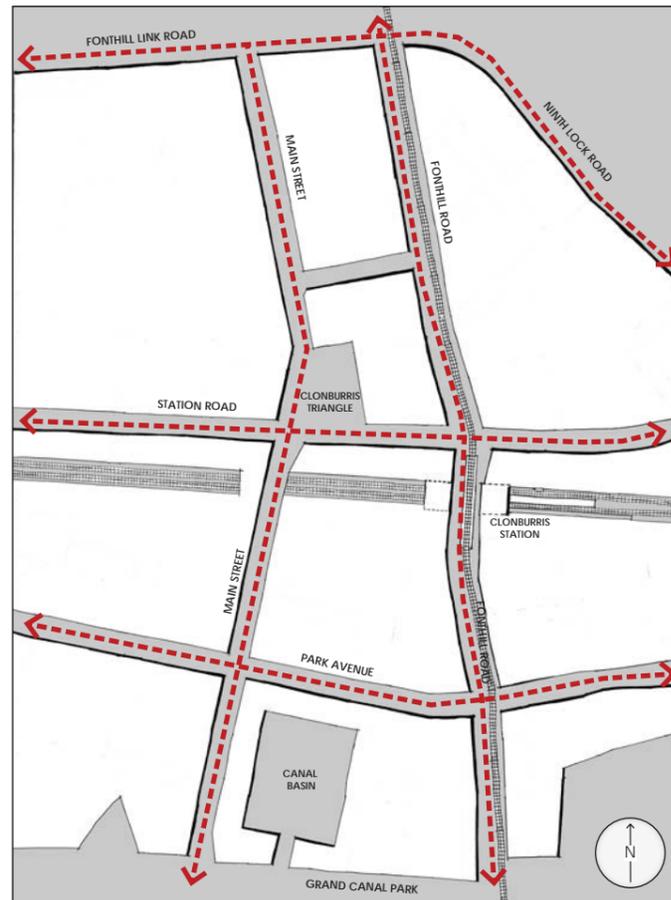


Figure 4.1: The Primary Structure as set out in the SDZ Planning Scheme including the agreed Metro West alignment.



Figure 4.2: The Secondary Structure is applied to reinforce the UDF Structure Plan.

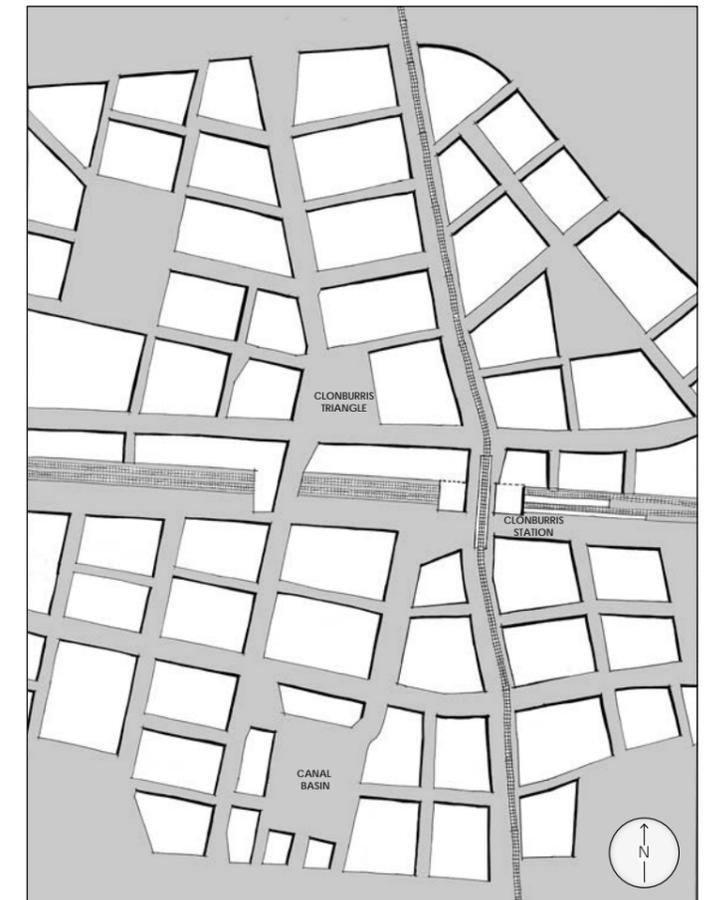


Figure 4.3: The Tertiary Structure is applied to create a highly permeable network of blocks and links.

4.1.2 Level Changes

The SDZ Planning Scheme requires Main Street and Fonthill Road to be elevated above natural ground level between the crest of bridges over the Grand Canal and Kildare Railway Line (refer to Table D4 of the SDZ Planning Scheme). All surrounding blocks and streets will need to be elevated to meet these streets to provide an even transition from natural ground level.

Figure 4.4 illustrates the levels with the height of the Main Street and Fonthill Road maintained at a constant level between the crest of the bridges over the Grand Canal and Kildare Railway Line. This approach would result in steep inclines adjacent to the Grand Canal Basin and Clonburris Triangle.

Figure 4.5 illustrates how the levels can be adjusted to avoid these steep inclines by:

- (A) Altering the configuration of Clonburris Triangle so that the level transition occurs through the centre of a block rather than through or on the edge of the Square.
- (B) Reducing levels at junctions of Main Street/Park Avenue and Fonthill Road/Park Avenue to provide a gradual incline between the bridges and Park Avenue.

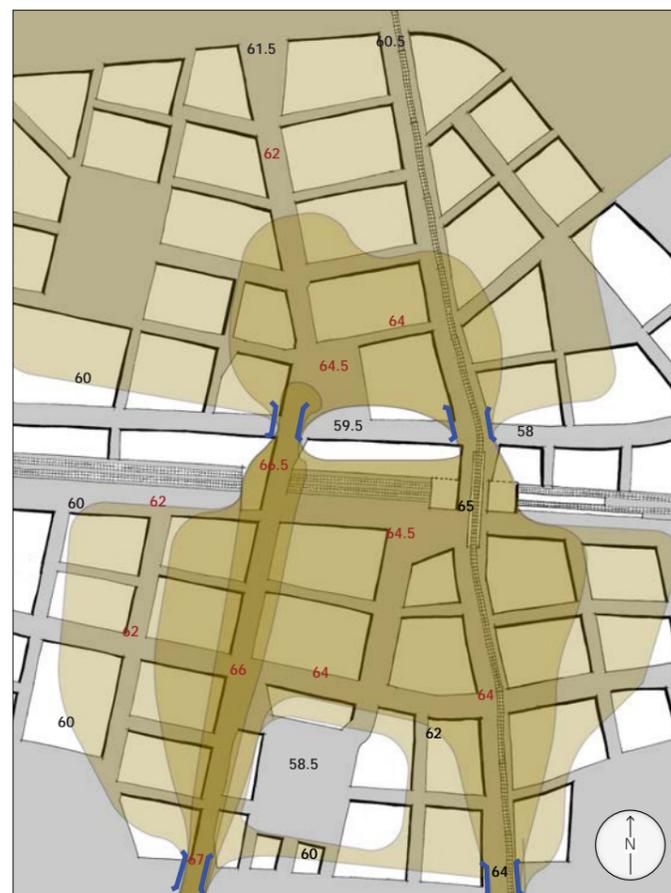


Figure 4.4: Application of approximate levels to the block structure where a constant height is maintained between bridges spanning the canal and railway.

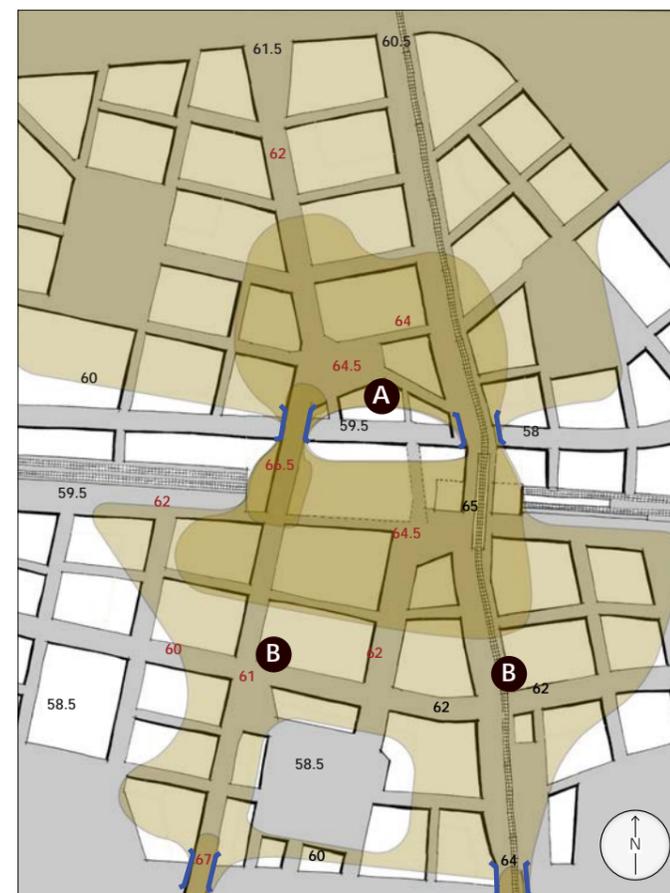


Figure 4.5: Adjustments to levels and block structure to create more optimal levels of transition at Clonburris Triangle and the Canal Basin.

PRIMARY LINK	
STATION LINK	
PARK LINK	
EXISTING SPOT HEIGHT	59.5
RAISED SPOT HEIGHT	64
APPROXIMATE 3M CONTOUR	
BRIDGE	

4.2 Block Layout and Street Network Framework Plan

A street hierarchy, based on the Clonburris Internal Movement Strategy (Sections D.2.5-D.2.5.8, SDZ Planning Scheme) is applied to the Block Structure to create the Street Network.

The network has been designed to balance the movements of pedestrians, public transport and private vehicles. The features of the network are:

(A) Fonthill Road as an Urban Boulevard

The environment of Fonthill Road will be radically changed by the presence of the Metro West/Fonthill Station and surrounding urban development. The characteristics of the road need to change accordingly with lower vehicle speeds and greater pedestrian movement.

(B) Main Street Bus Gate

A bus gate provides priority movement for public transport along the Main Street (refer to Tables D3 and D4 of the SDZ Planning Scheme).

(C) Pedestrianised Streets

Pedestrian only streets are provided around major nodes where there will be high levels of pedestrian activity through the day and into the evening.

(D) Taxi Ranks/Drop Zones

These are provided adjacent to major nodes to promote the use of surrounding facilities.

(E) New Primary Access Street and Junction

A new access is introduced to reduce pressure on junctions at the northern end of Main Street and Fonthill Road and provide direct vehicular access to the major car parks. Although the Access Street forms part of the Primary Structure, and is fixed, its alignment may need to adjust northward or southward to facilitate access to initial development phases.

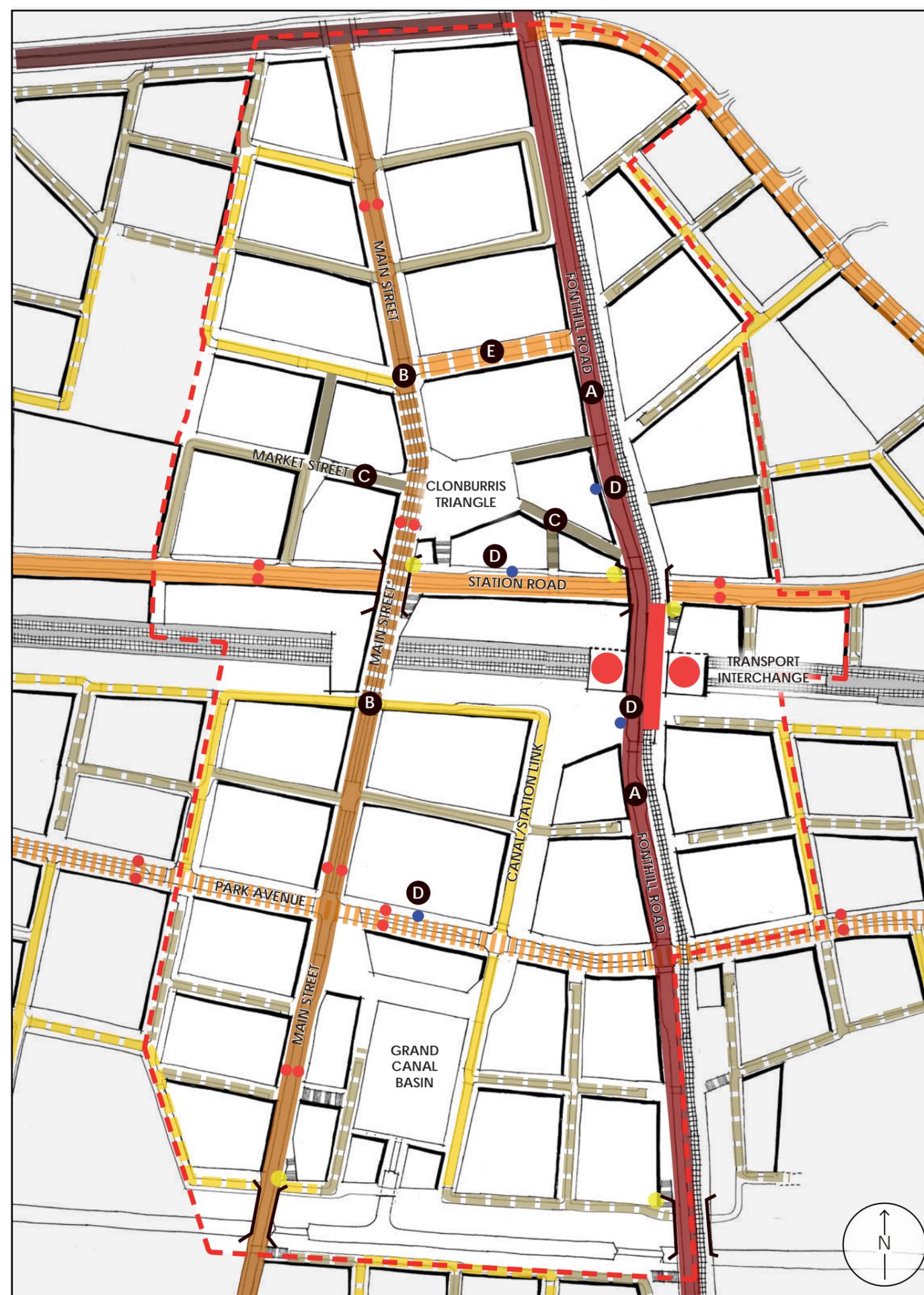
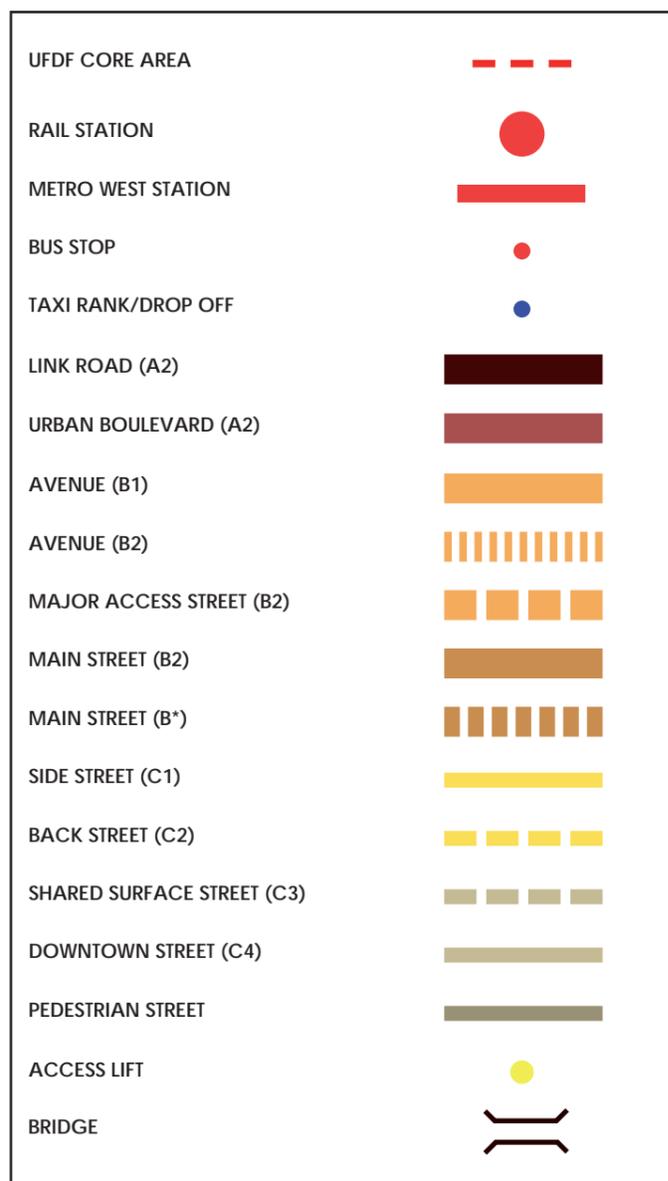


Figure 4.6: Layout and Street Network Framework Plan developed from a street hierarchy, based on the Clonburris Internal Movement Strategy.

4.3 Supporting Strategies

4.3.1 Shared Space Approach to Street Design

The SDZ Planning Scheme requires that the design of streets takes account of placemaking principles and seeks to establish safe and enjoyable streets that are places for people (Section D.2.8 refers). This approach is critical within the UDF Core Area where pedestrian activity will be at its greatest.

Streets within the UDF area must be designed to a hierarchy of considerations that prioritises pedestrian and cycle movement over other forms of transport (see Figure 4.7). Section G.7.1 of the SDZ Planning Scheme contains a number of design specification details in relation to street design that supports pedestrian movement. These measures include:

- Single phase crossing points on primary streets.
- Entrance treatments from minor streets to major streets that continue footpath levels across the vehicular carriageway.
- Avoiding the use of guard railing.
- Dedicated cycleways on all key primary streets.

(see also Figure 4.8)

In the absence of detailed national policy on place based street design, guidance should be taken from the *Adamstown Street Design Guide*. This document provides specific technical guidance on implementing place based/safe street design solutions. Guidance may also be taken from the *Manual for Streets (UK)*.

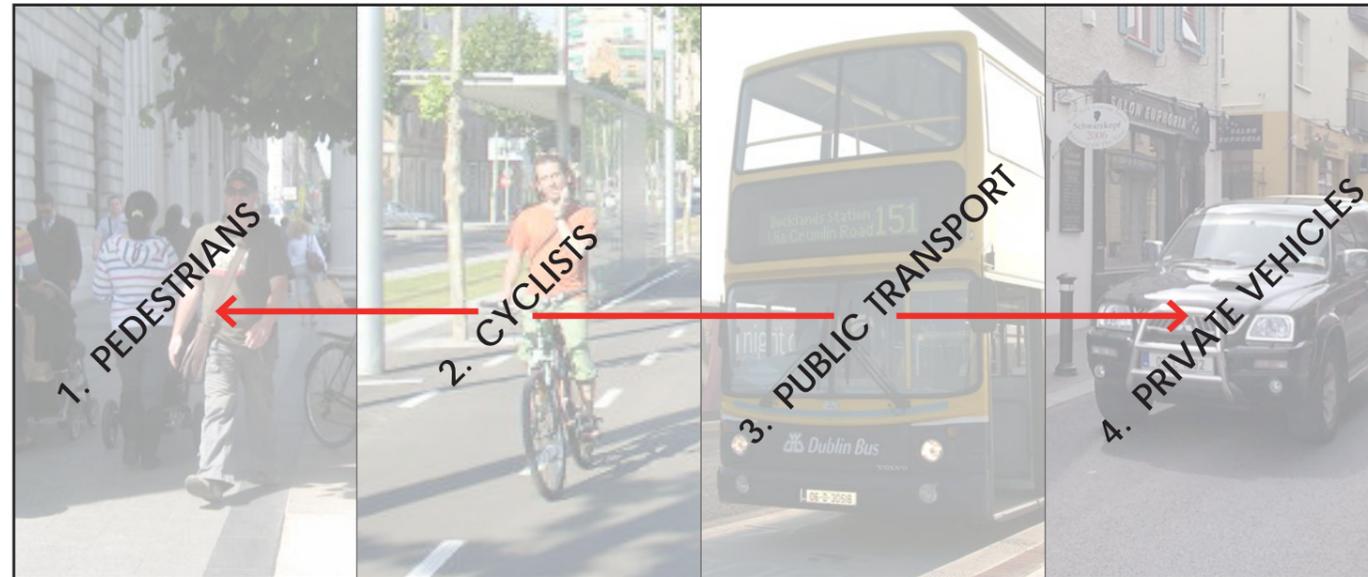


Figure 4.7: The hierarchy of considerations that should be applied to the design of all streets within the UDF area.

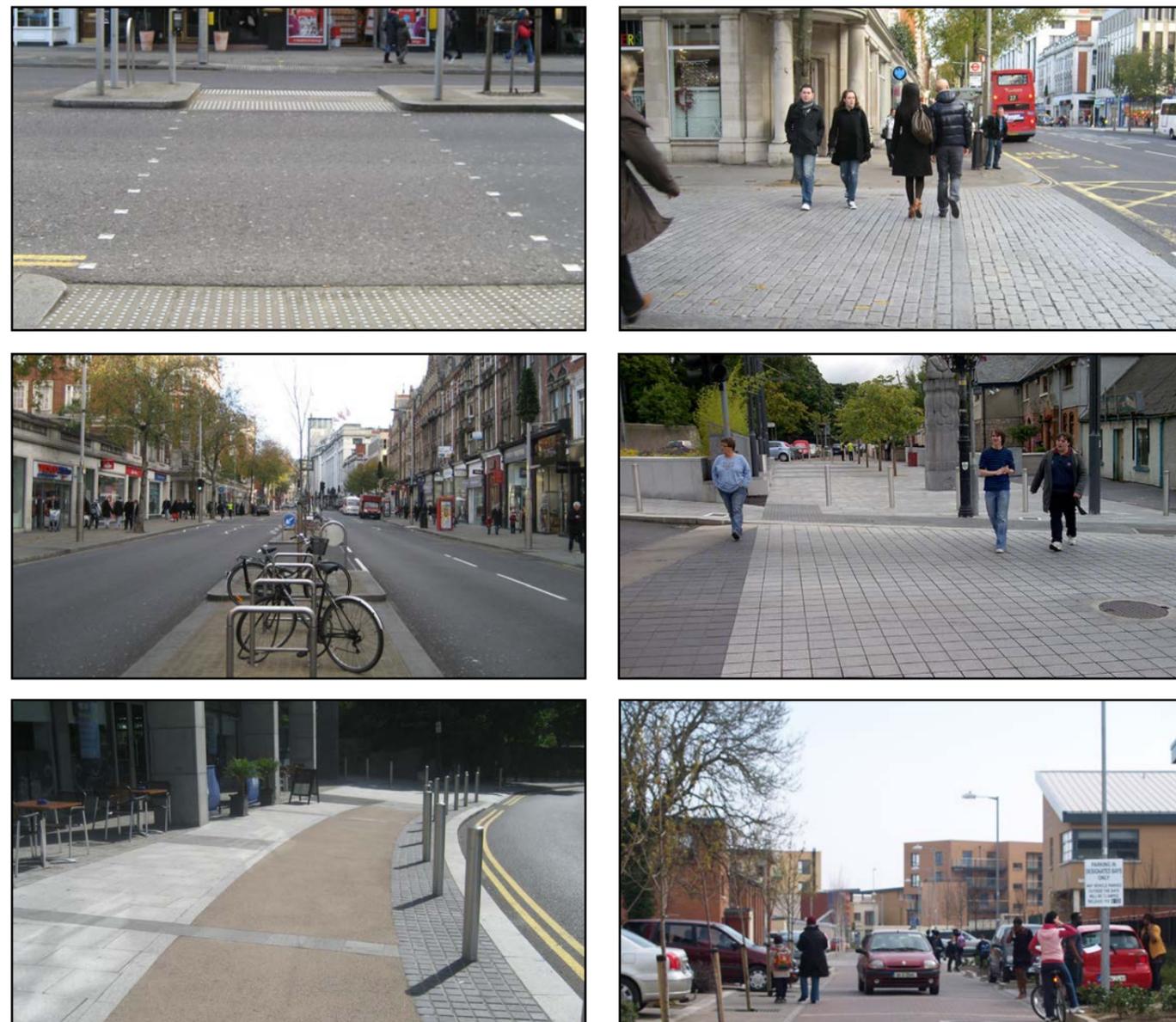


Figure 4.8: Examples of design features that provide calm traffic and promote a sense of shared space. Clockwise from top: Single phase crossing point; raised entrance treatments over minor street; wide paved crossing; shared surfaces; dedicated cycle path; and cycle facilities.

4.3.2 Public Transport Priority Measures

The SDZ Planning Scheme provides for a number of measures aimed at ensuring priority movements for public transport. Reference is made to Figure D7 of the SDZ Planning Scheme which includes provision for:

- A dedicated corridor for Metro West adjacent to the alignment of Fonthill Road.
- A Quality Bus Corridor along Station Road.
- A bus gate on Main Street.

As noted in Section 3.6 of this document SDCC has been working with the RPA to ensure the optimal route and station location for the Metro West within the UDF area. This has led to the development of a Transport Interchange around the existing railway station that will enable interchange between modes of rail and/or east-west routed buses along the Station Road QBC.

The Main Street bus gate for north-south routed buses should be scheduled to operate around business hours to ensure priority movement for commuters and visitors to the retail/commercial core (e.g. 8am to 6pm weekdays). Other measures may be required along Main Street to facilitate bus movement such as dedicated bus lanes leading to signalised junctions and selective vehicle detection traffic signals.



(image source www.oxford-chiltern-bus-page.co.uk)

4.3.3 Critical Junction and Link Design

There are a number of locations within the UDF where high pedestrian activity levels will require innovative approaches to junction and link design. Balanced solutions will need to be put in place to ensure pedestrians and cyclists are able to move about freely whilst also catering for vehicular movements. The following approach should be taken in regard to critical locations.

Main Street at Clonburris Triangle

- Bus Gate at Main Street beginning at the junction with Access Street which will reduce through traffic around Clonburris Triangle during core business hours, therefore increasing pedestrian movement.
- Pedestrian only streets along the Station/Community Links adjacent to Clonburris Triangle and along the link between the two retail anchors (Note: Limited vehicle access may be granted along these streets for delivery purposes).
- Wide pedestrian crossing across Main Street following the path of the Station/Community Link adjacent to Clonburris Triangle.
- Wide footpaths to cater for large volumes of pedestrian movement along the Main Street.
- All round pedestrian phase crossing at the intersection to the north of Clonburris Triangle between Main Street and Access Street to facilitate diagonal pedestrian movements between retail anchors.

Main Street at Canal Square

- Paved surface treatments extending across Park Avenue from the Canal Square to highlight pedestrian movements and enhance the space.
- Short stay on-street parking along Main Street in order to calm traffic and service businesses.
- All round pedestrian phase crossing at the intersection of Main Street and Park Avenue to facilitate diagonal pedestrian movements between Main Street and Canal Square.

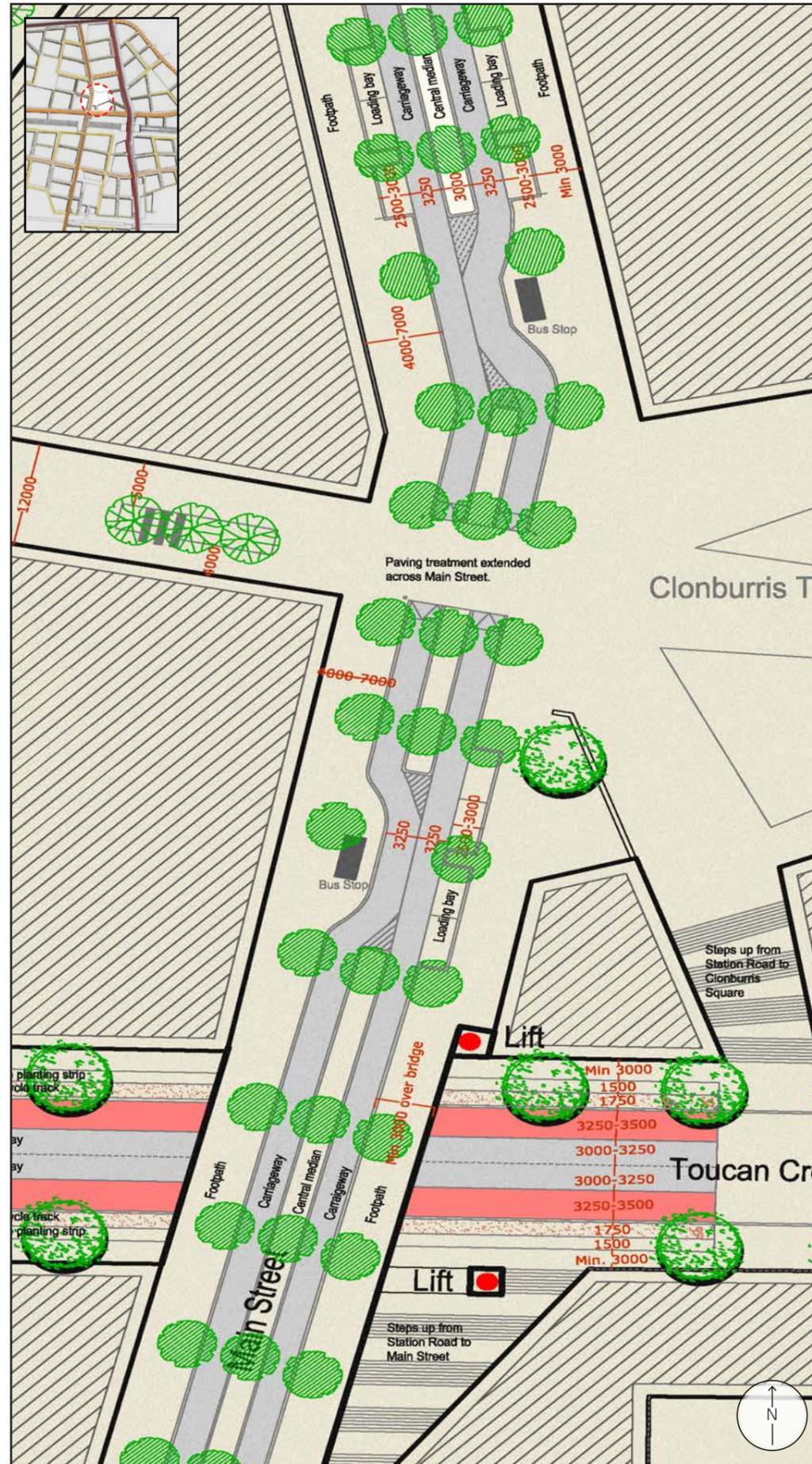


Figure 4.9: Design code for pedestrian and vehicular movements along the Main Street adjacent to Clonburris Triangle.

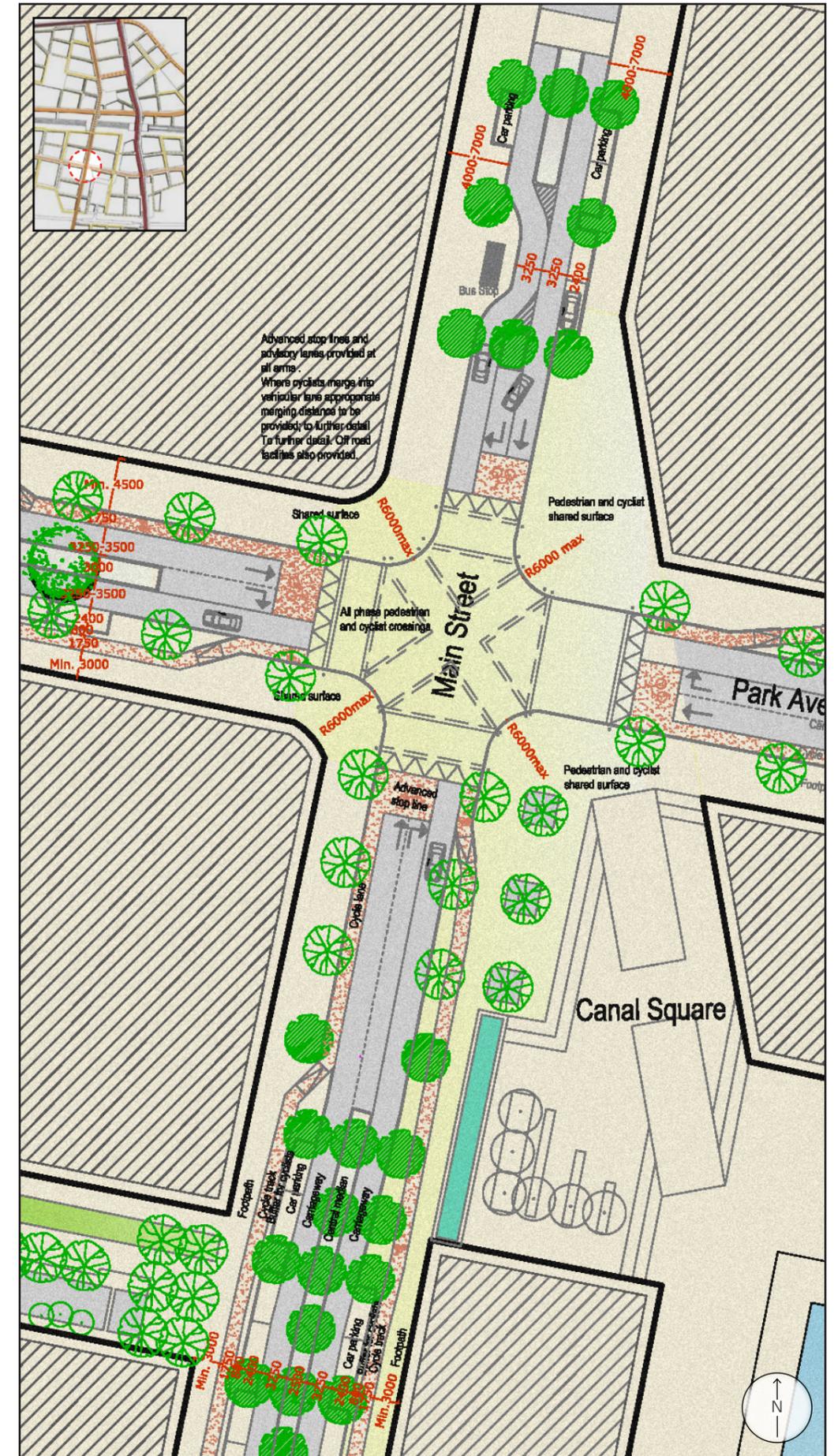


Figure 4.10: Design code for pedestrian and vehicular movements along the Main Street adjacent to Canal Square

Fonthill Urban Boulevard at Transport Interchange

- Signalised pedestrian crossings at the southern and northern ends of the Metro West Station and across Station Road at the lower level to allow direct access and interchange.
- A minimum of two lifts to facilitate movements between the upper level (Fonthill Road) and lower level (Station Road).

Access Street at Fonthill Road

- Three armed signalised junction to facilitate vehicle moving north and south onto/off Fonthill Road to provide direct access to major car parks and Main Street.

Canal Station Link at Park Avenue

- Minor junction to allow direct vehicle access to major car parks and facilitate pedestrian movement between Grand Canal Basin and Transport Interchange (via a signalised crossing).

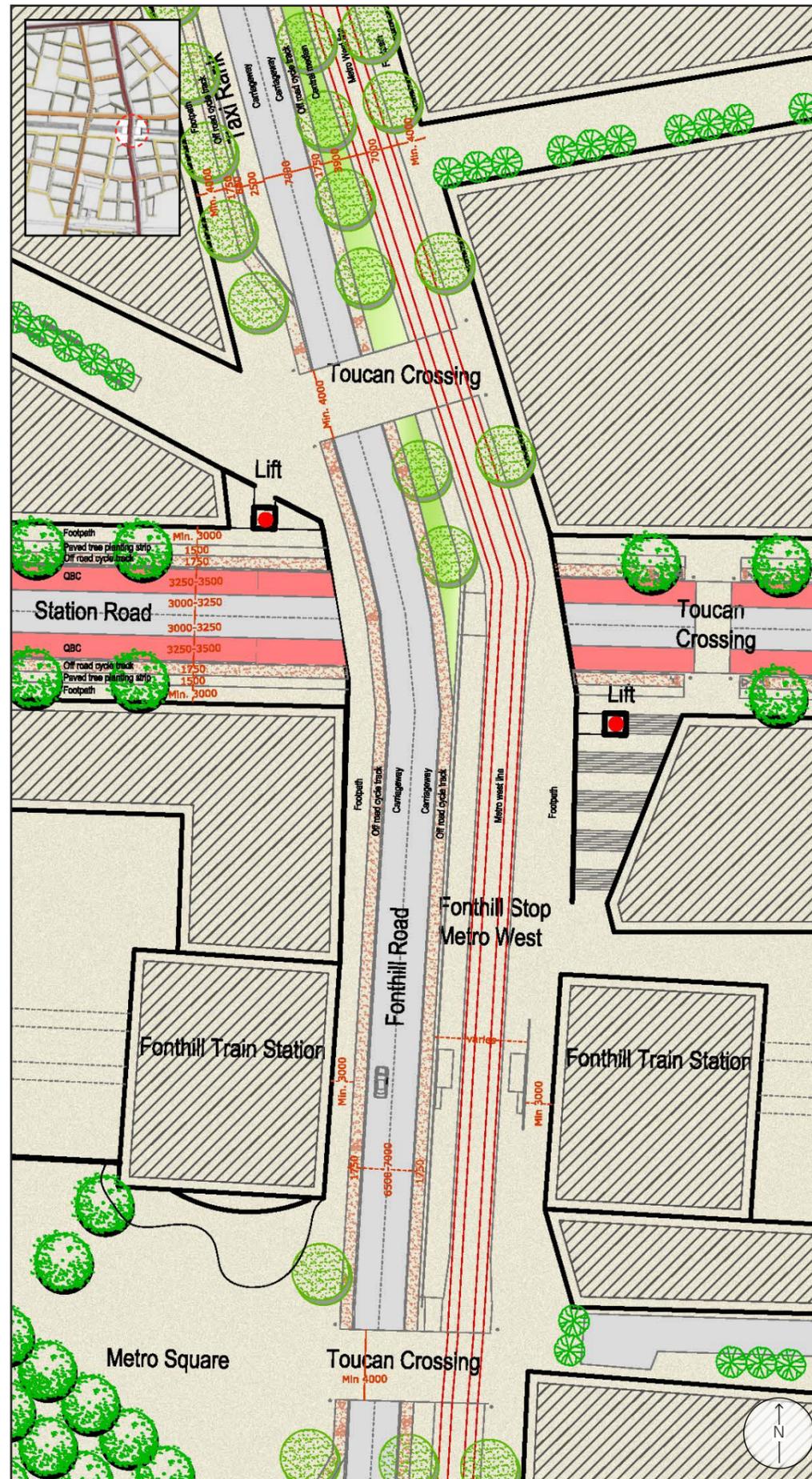


Figure 4.11: Design for pedestrian and vehicular movements along the Fonthill Road and Station Road at the transport interchange.

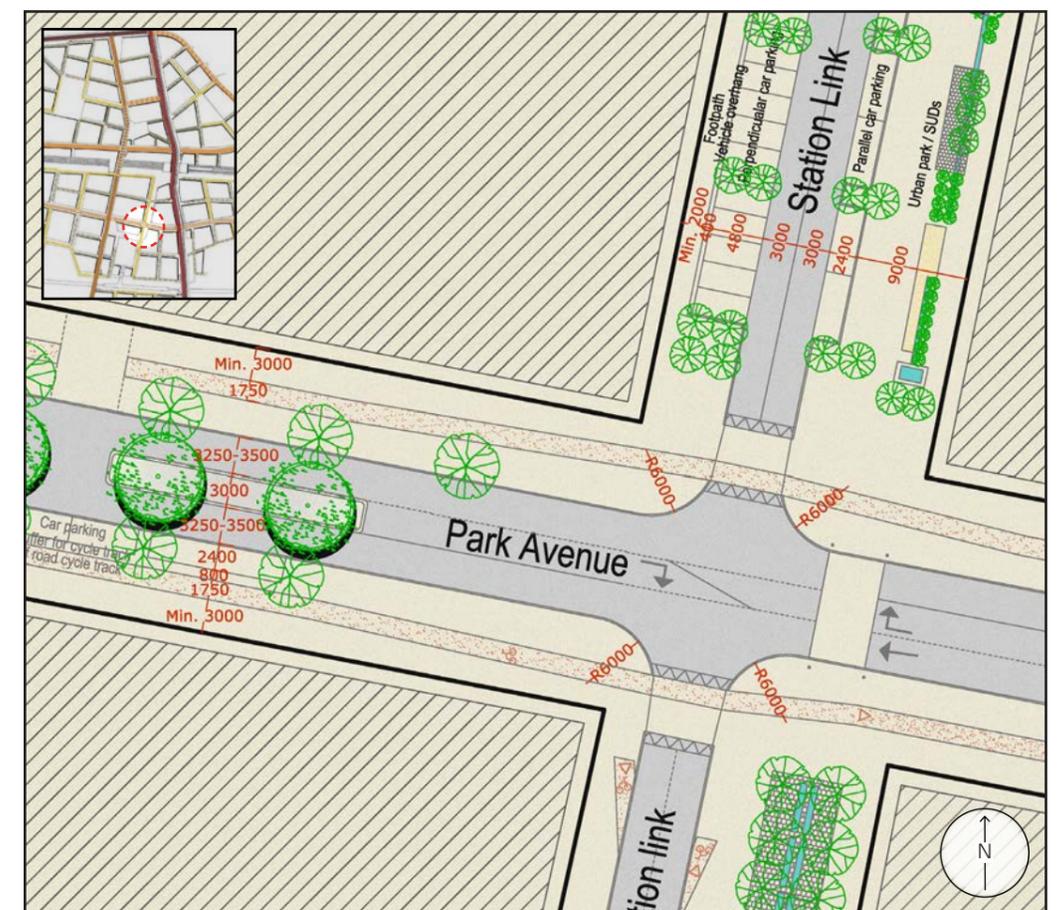
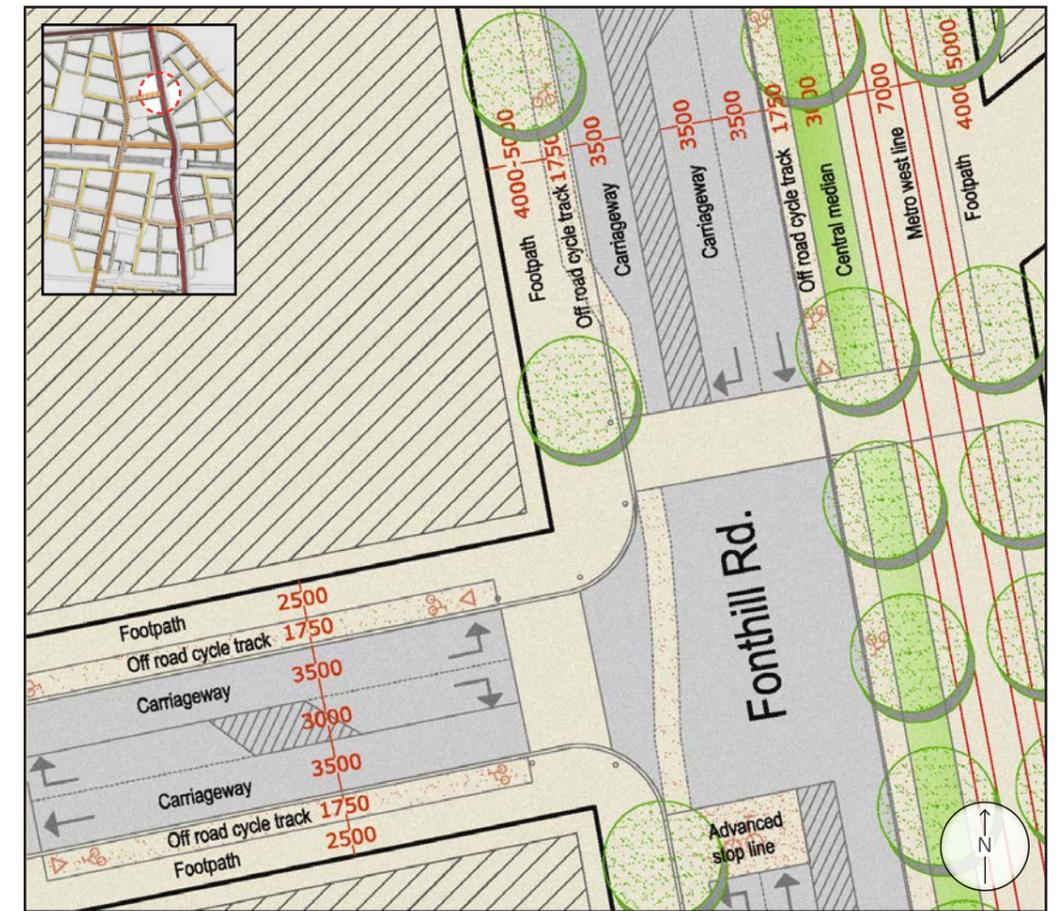


Figure 4.12 and 4.13: Designs for pedestrian and vehicular movements at the junction between Fonthill Road and the Access Street (top) and the canal Station Link and Park Avenue (bottom).

4.3.4 Car Parking

Standards for parking in Clonburris are set out in Section G.6.6 of the SDZ Planning Scheme based on the outputs of the Clonburris Transport Assessment. The UDFD has taken cognisance of the core principles of the SDZ Planning Scheme and the objective to create a sustainable and integrated transport system. Car parking is an integral component of the transport system and has a major influence on the preferred transport modes and in determining means of travel.

The UDFD area is the most accessible area within the SDZ Planning Scheme. It is therefore important that parking provision within the UDFD area is managed and that car based access does not dominate. The UDFD does not specify or limit car parking provision within the District Centre. Key parking areas are identified and testing during the analysis process confirmed that there is adequate capacity within these blocks to cater for the needs of the District Centre. It is a requirement of the UDFD that planning applications within the UDFD area are accompanied by a detailed car parking strategy. Parking standards outlined in the SDZ Planning Scheme are maximum standards and a holistic approach to parking provision will be required. A reduction in numbers will be appropriate based on:

- Mobility Management Plans for a number of individual or immediately adjoining developments.
- The potential for linked trips and dual use of spaces within a site (i.e. where spaces may be used for different uses at different times of the day/night).

Car parking within the UDFD area will be provided on-street and off-street and will be managed to balance the needs of different users and to support the objectives of the SDZ Planning Scheme.

On-Street Car Parking

Designated on-street parking will provide traffic calming along streets and ensure activity at street level throughout the day and night time. In the vicinity of major nodes on-street parking will be restricted to visitor parking primarily, to ensure that spaces are available to support street level retail and commercial activities. On more peripheral streets on-street car parking can be shared between residents and visitors. An indicative distribution of on-street parking within the UDFD area is illustrated in Figure 4.14 and includes:

- Visitor Short Stay to support street level retail and commercial activities with a continual turnover of car parking spaces. This type of parking is envisaged close to the core along sections of Main Street and Park Avenue.
- Visitor Medium Stay to allow for medium stay parking to support retail and commercial activities in the area with a lower level of turnover. This type of parking is envisaged adjacent to Main Street, Fonthill Road and the major nodes.

- Visitor Medium Stay/Resident Long Stay provides shared parking for residents and visitors and is envisaged along more peripheral streets within the UDFD area and adjacent to residential neighbourhoods. To ensure off-street parking facilities are utilised, longer stay on-street spaces will be limited to those residents who do not have access to off-street parking.

On-street parking will be provided within designated parking banks on all streets excluding Fonthill Road, Station Road and between the bus gates along Main Street and should be managed through a pay and display system with appropriate enforcement.

Off-Street Public Parking

Off-street public parking will be provided at the locations identified in Figure 4.14. This will be managed to provide shorter stay parking for retail, commercial and civic uses primarily. These car parks are located adjacent to the major nodes at points that are accessible from the Primary Street network without crossing areas of higher pedestrian or cyclist activity. Longer term public parking will be provided at the location of the existing park and ride facility associated with the transport interchange as shown on Figure 4.14.

Design of Off-Street Parking

Off-street parking should take the form of basement, semi-basement or multi-storey car parking. Large areas of surface car parking will not be permitted within the UDFD area. The raising of streets to meet Fonthill Road and the Main Street creates the opportunity to provide extensive areas of basement parking in the UDFD area with little or no excavation. A combination of podium/basement level parking may be provided in blocks which have interfaces to streets at different height levels adjacent to Station Road and Main Street. Multi-storey car parking should be wrapped by active uses. The existing park and ride facility will be built over or capped with more intensive development.

All major off-street car parks will be designed to address key issues of way-finding such as colour coding, directional signage and surface treatments. Entrances to all car parking areas should be no greater than 6 metres in width in the interests of pedestrian safety and maintaining active street frontages.

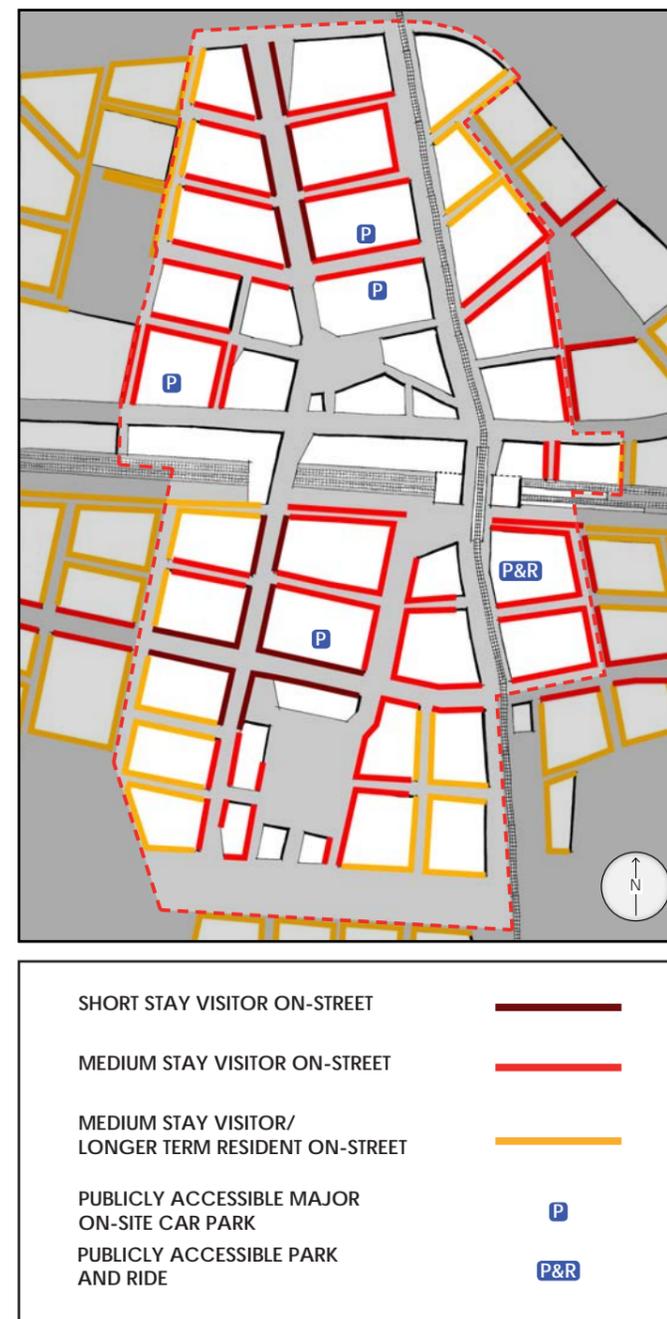


Figure 4.14: Car parking strategy showing on-street car parking restrictions, the location of major on-site car parks and the park and ride facility.

4.3.5 Loading and Servicing Facilities

Loading and servicing facilities should be provided through a combination of on-street bays and in-curtilage docks.

On-street loading bays should be spread along and immediately adjacent to all retail and commercial streets and balanced with on-street parking. These bays should be time limited, so that they revert to on-street parking bays or pedestrian paths outside of delivery hours.

Loading docks should be provided within all major retail anchors. To mitigate the impact of docks on the street environment the following design measures will need to be taken into consideration:

- Loading docks shall be located in areas where they are immediately accessible from Primary Routes.
- To reduce the number of vehicle openings onto streets, entrances to loading docks should be integrated with entrances to car parks and vehicle movements suitably managed.
- Where separate entrances to loading facilities are provided, the entrances should be no greater than 4 metres in width.
- In all cases turning movements should be managed in curtilage so that all larger vehicles enter and exit a site in a forward motion.

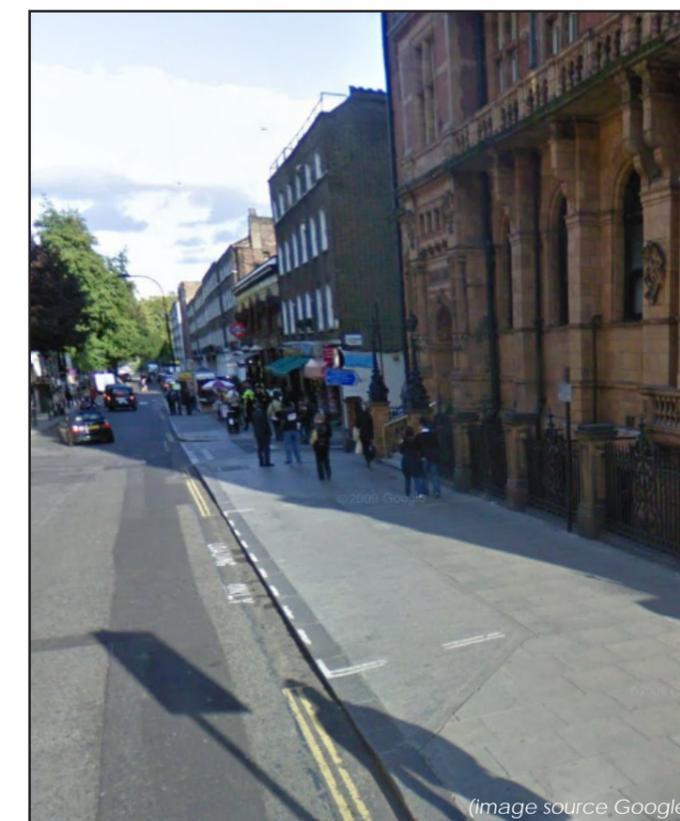


Figure 4.15: Example of an on-street loading bay that when not in use reverts to part of the footpath.

5.0 LAND USE AND CHARACTER

5.1 Developing the Framework

5.1.1 Strengthening the Nodes

To reinforce the major nodes as centres of activity, uses which are the most intensive, or will service the largest catchment have been placed around them. The uses have been applied with regard to the Land Use Strategy outlined in Section D.3.5 of the SDZ Planning Scheme. The location of uses are shown illustratively and vary according to level.

Figure 5.1 illustrates the location of major community and entertainment facilities adjacent to the major nodes. Smaller facilities with a more local catchment are located adjacent to the park nodes.

Figure 5.2 illustrates the location of intensive commercial development adjacent to the Transport Interchange. This will allow for easy access by daily commuters.

5.1.2 Retail Distribution

Figure 5.3 illustrates the distribution of the major retail anchors. These are located in accordance with the UDF Structure Plan to draw activity north and south along the Main Street and where they can be directly accessed by vehicles off Primary Routes.

Figure 5.4 illustrates the concentration of retail uses around Main Street/Clonburris Triangle where several streets and links converge. The Block Structure of Clonburris Cross is altered to facilitate circulatory or triangulated movement between the anchors and Clonburris Triangle. A smaller retail centre is also located at the junction of Main Street and Park Avenue adjacent to the Canal Square and Grand Canal Basin.

Figure 5.5 illustrates the location of mixed commercial development along the Main Street to bind together the northern and south ends of the UDF area.

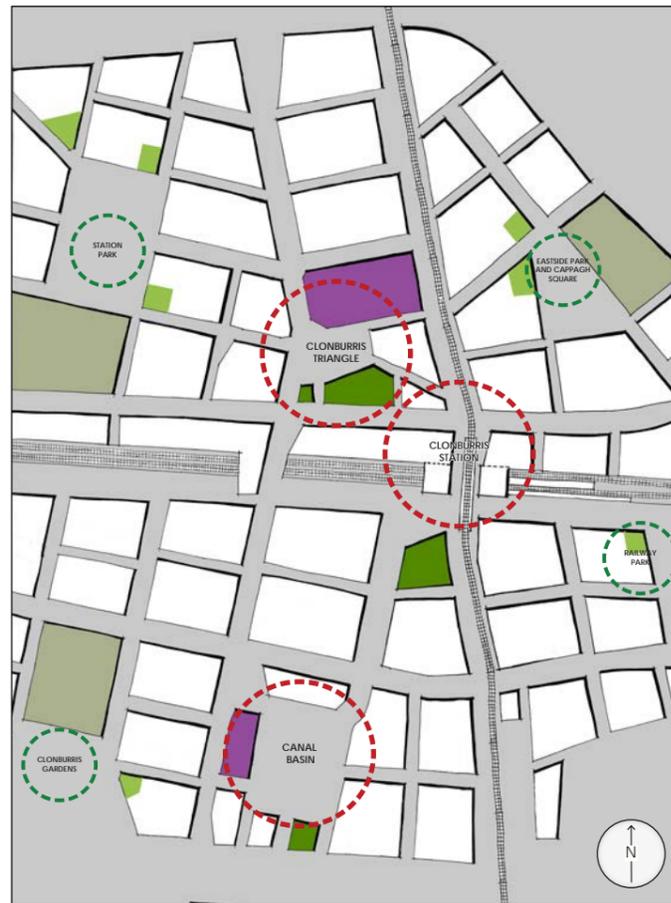


Figure 5.1: Strengthening nodes with community and entertainment uses.

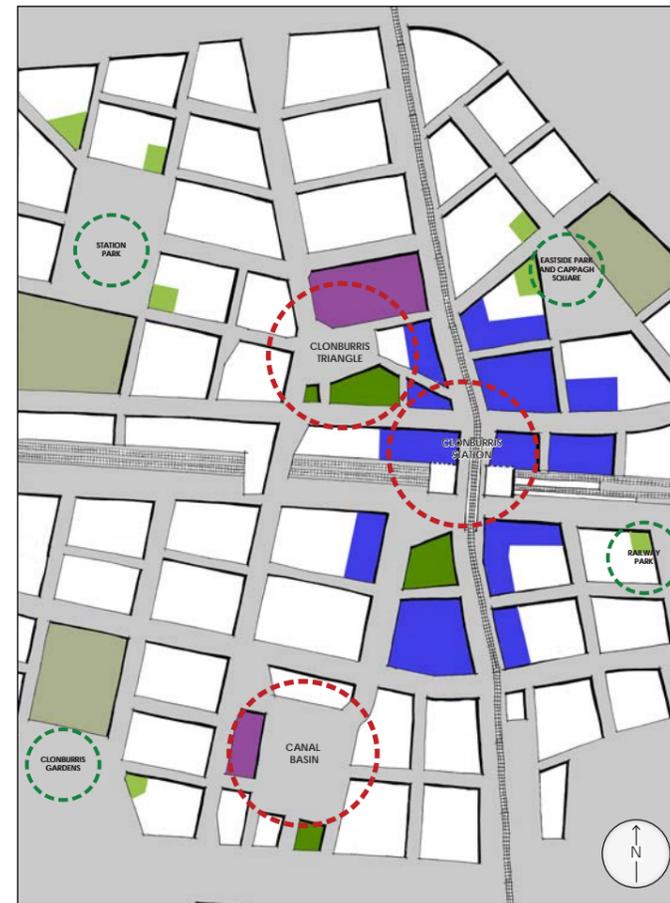


Figure 5.2: Focusing intensive commercial development adjacent to the station to attract commuters.

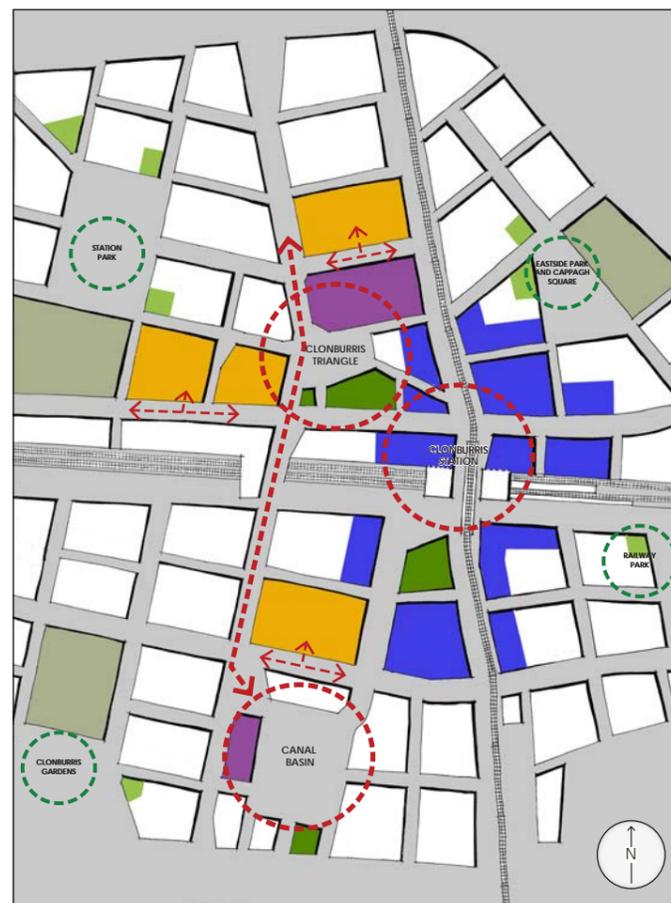
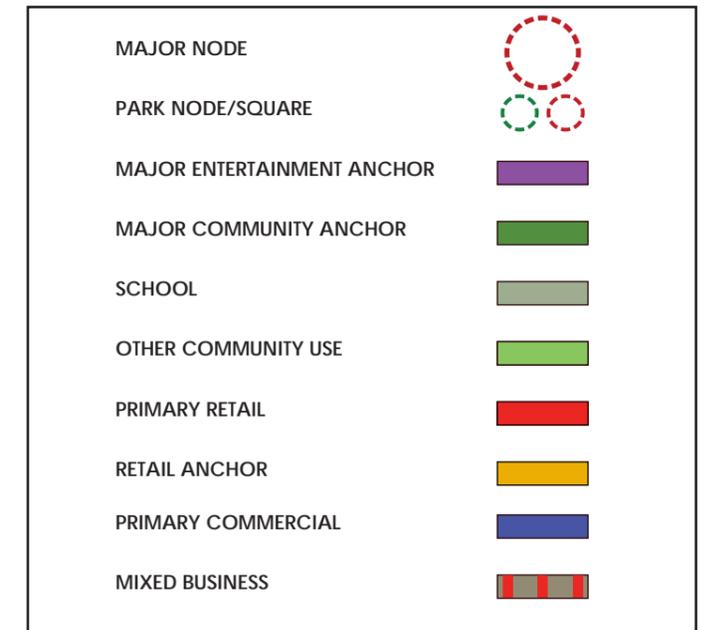


Figure 5.3: Retail anchors are located with direct access from the Primary Structure as a catalyst for movement along Main Street.

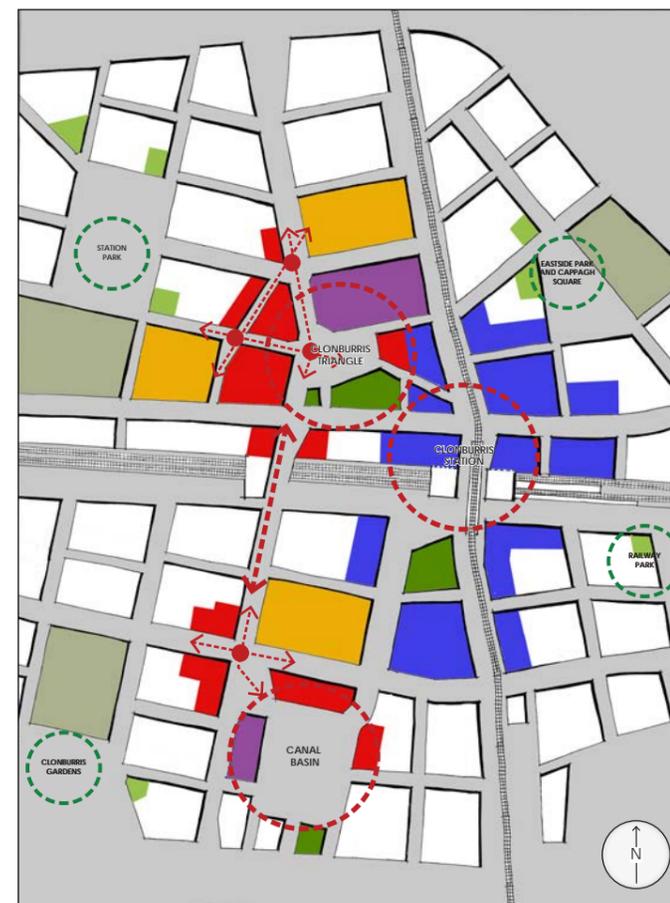


Figure 5.4: Retail development is used to reinforce the core areas of activity and influence movement.

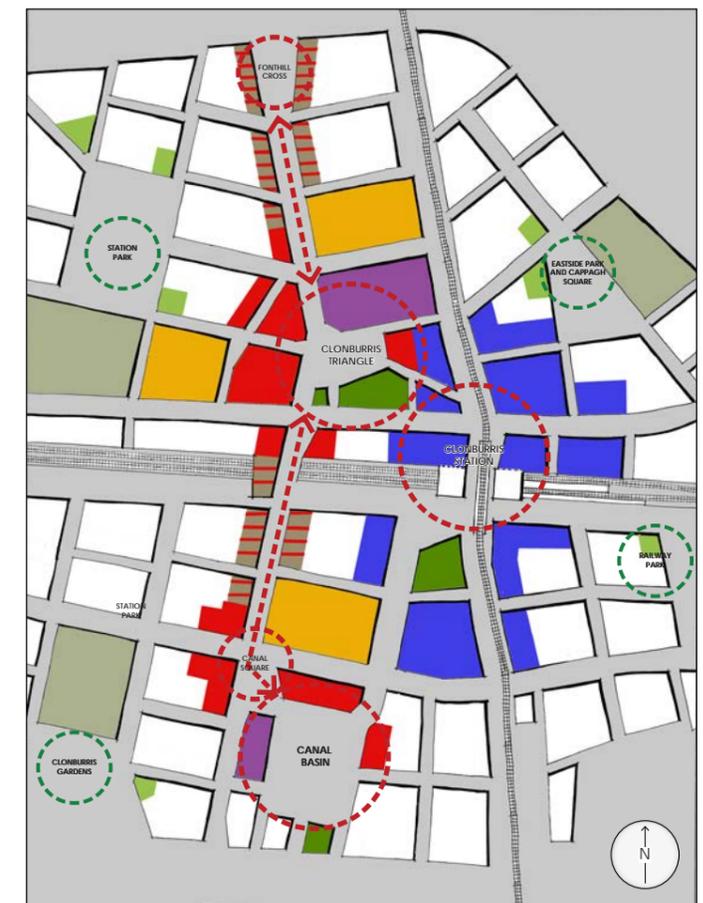


Figure 5.5: Mixed commercial development on Main Street to strengthens movement patterns.

5.2 Land Use and Character Framework Plan

The distribution of uses within the UDF area will create a number of areas with a distinctive character, defined by their levels of activity and the purpose of visit. Their character is reinforced by a number of major community, leisure, retail and entertainment uses as follows:

A) Civic Centre/Library:

The major community anchor has been transferred from Clonburris Lock to the Clonburris Cross neighbourhood adjacent to Clonburris Triangle to benefit from and reinforce activity levels around the space and the civic use of the space.

B) Clonburris Sustainability Information Centre

The major community anchor adjacent to the Grand Canal Basin. It is located at the interface of the Grand Canal and Grand Canal Basin to highlight ecological characteristics of the site.

C) Medical Centre:

The major medical anchor has been transferred from Clonburris Cross to the Clonburris Lock neighbourhood adjacent to the Transport Interchange so that it can be easily accessed by commuters.

D) Cinema:

The major entertainment anchor adjacent to Clonburris Triangle. It is located where it will be visible from Main Street and will generate activity within the space into the evening.

E) Gallery/Performance Space:

The major entertainment anchor adjacent to the Grand Canal Basin. It is located where people can gather around it and will generate activity around the Basin and in Canal Square into the evening.

F) Retail Anchors:

These are distributed along the Main Street adjacent to the principle areas of retail activity.

G) Youth Activity Space

This has been transferred from Clonburris Lock to the Clonburris Cross neighbourhood adjacent to high street shops, the cinema and the Civic Centre/Library as these uses are most likely to attract young people.

H) Place of Worship

This has been transferred from Clonburris Cross to the Clonburris Lock neighbourhood adjacent to a Park Node and Community Link in a quieter area.

Note: Table D23 and the neighbourhood guidance in Section E of the approved Planning Scheme identify the location of community facilities on a neighbourhood basis. The UDF alters the neighbourhood location of some facilities based on an assessment of where facilities would be best positioned within the UDF.

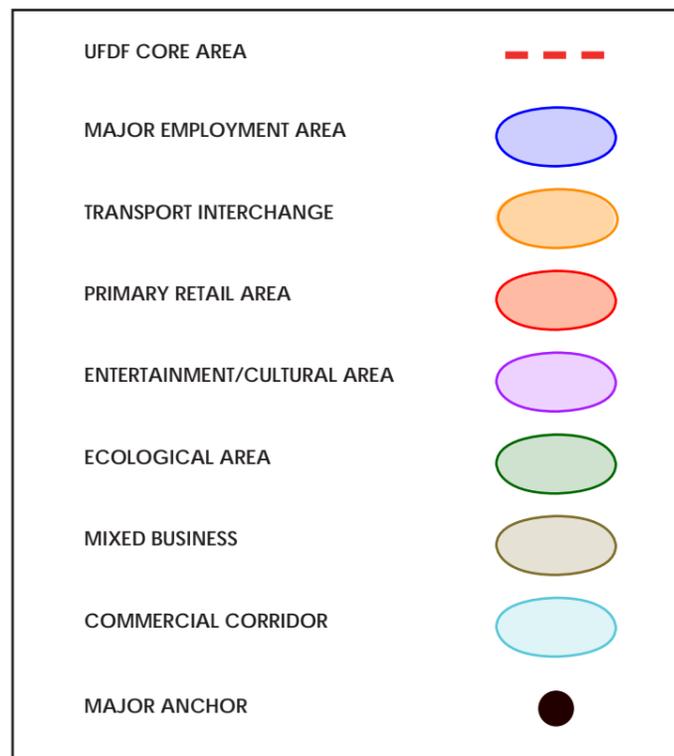


Figure 5.6: Land uses have been distributed and character areas developed in accordance with the SDZ Planing Scheme as directed by the UDF Structure Plan.

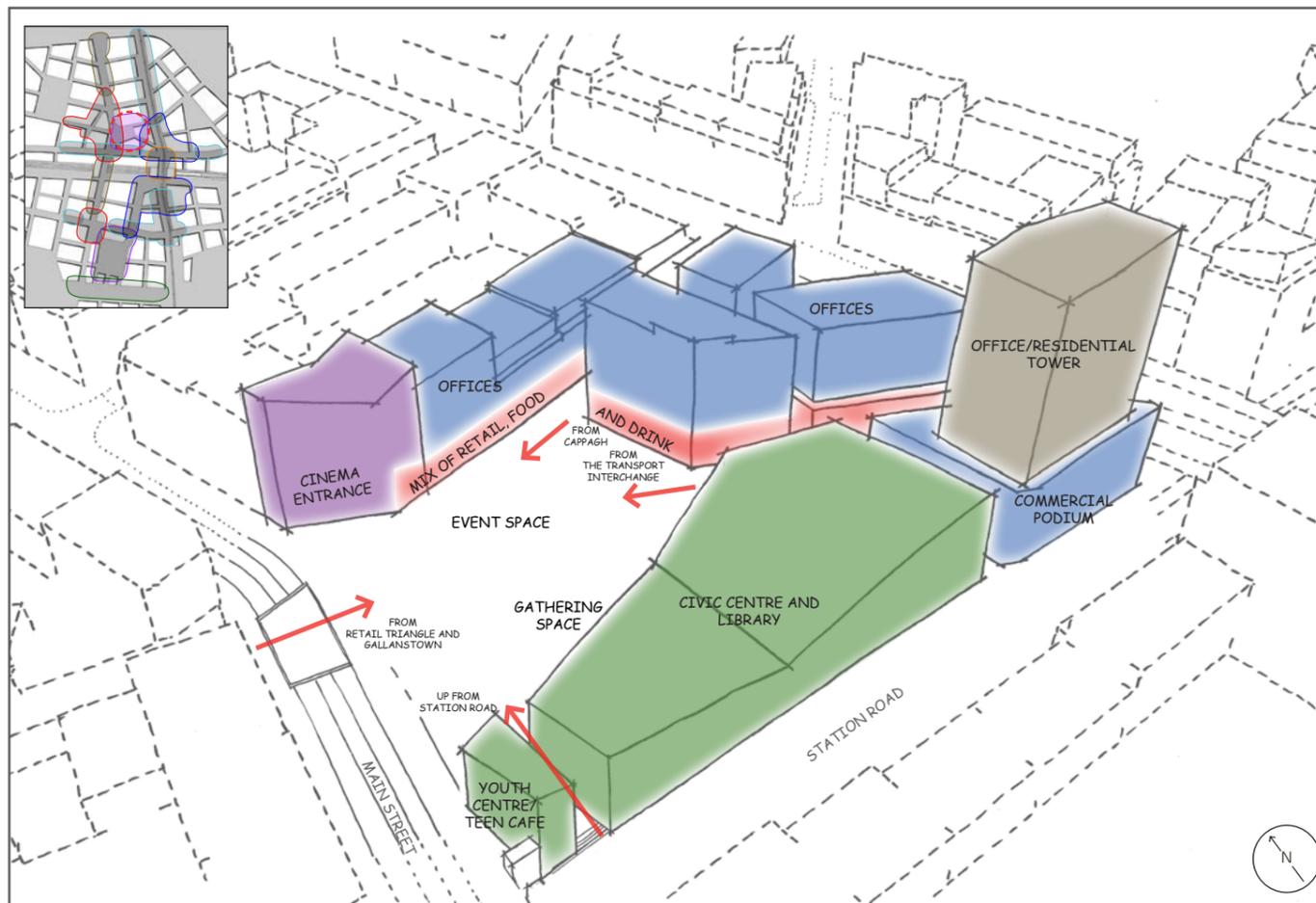
5.3 Supporting Strategies

5.3.1 Character Areas

Clonburris Triangle

A centre for shopping, civic events, entertainment and leisure. The Triangle will be a dynamic place characterised by:

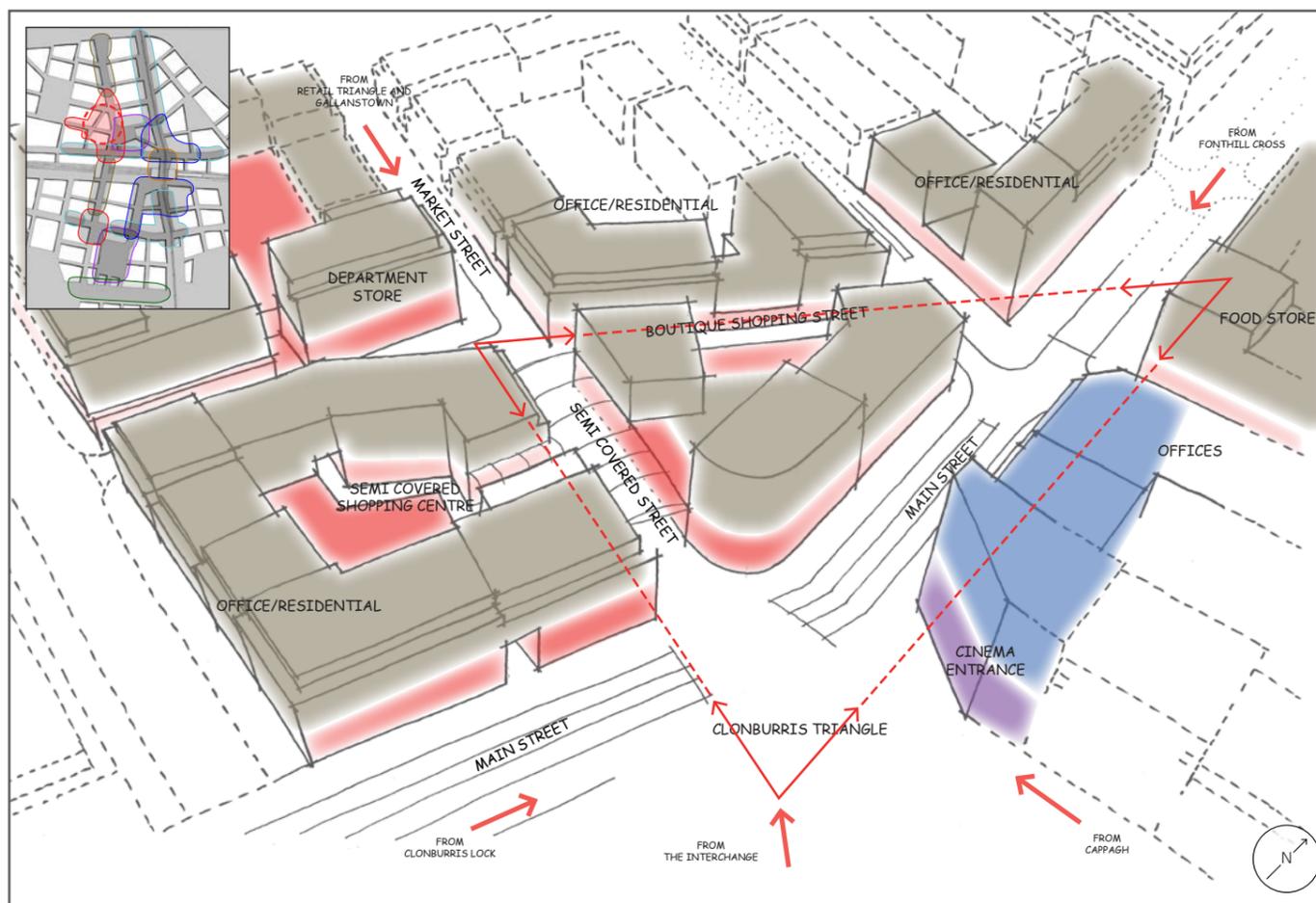
- A large civic space capable of holding major civic events and regular gatherings and will be animated with bright signage and multimedia displays.
- A place to gather and to be entertained throughout the day and night anchored by a cinema and civic centre/library and complemented by shops, cafes, bars and restaurants. Complementary commercial uses that generate activity may also be incorporated into the civic centre/library building.
- A continuous movement of people flowing into and out of the Triangle via small streets and links lined with cafes, bars, restaurants and small shops that open into the Triangle.
- A number of unique architectural buildings that reflect the civic importance of the space, flanked by a district level landmark tower.



Retail Triangle and Market Street

A busy trail of open, covered, enclosed and transparent spaces will be the focus of shopping activities. The area will be characterised by:

- Primary retail uses including two large retail anchors, a food store and department store/small shopping centre, that when combined with the location of the Clonburris Triangle, acts as a catalyst for a circulatory pattern of movement for shoppers.
- A diverse mix of higher end retail stores, principally focused on the Main Street, selling a range of comparison goods.
- Smaller pedestrian streets containing a finer grain of boutique and specialist retailers.
- An expandible market street capable of holding a number of permanent shopfronts and temporary outdoor stalls.
- Interconnected indoor and outdoor spaces (with 24 hour access along major links) through a mix of open and covered streets, courtyards and podium buildings.



Transport Interchange and Employment Quarter

A bustling interchange between different modes of public transport and employment generating activity. The area will be characterised by:

- Multi-level/multi-directional movements of people with interchange between rail, Metro West, buses and taxis.
- A highly accessible employment intensive zone anchored by a large medical centre and complemented by a range of offices and commercial services.
- A number of small streets and links consisting of a finer grain of enterprise/incubator office spaces.



Grand Canal Basin

The southern hub - a cultural, entertainment and leisure precinct that offers an alternative serene experience to Clonburris Triangle. The Basin will be characterised by:

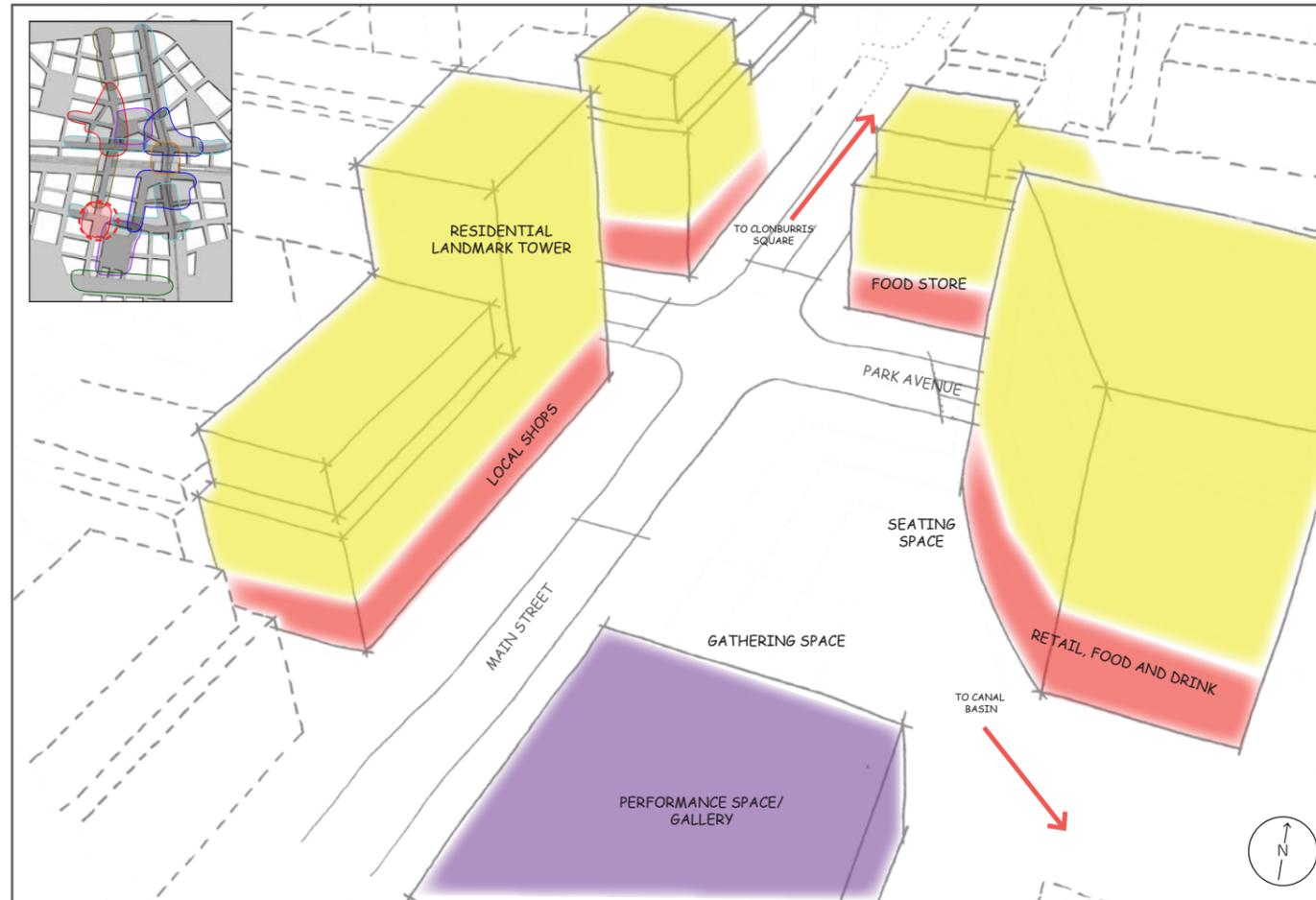
- A large open body of water surrounded by extensive board walks along which people can wander and interact with their surroundings.
- Day and night time activities anchored by a large performance/gallery space and sustained by cafés, restaurants, bars and small boutique shops.
- A focal point and destination for canal waterways activity that brings activity into the basin itself.
- A number of unique architectural flagship buildings that reflect the civic importance of the space, flanked by a district landmark tower.



Canal Square

A space with many functions that is the gateway to the southern end of Main Street, a transitional area between the Main Street and Grand Canal Basin and an area of convergence at a busy junction. The Canal Square will be characterised by:

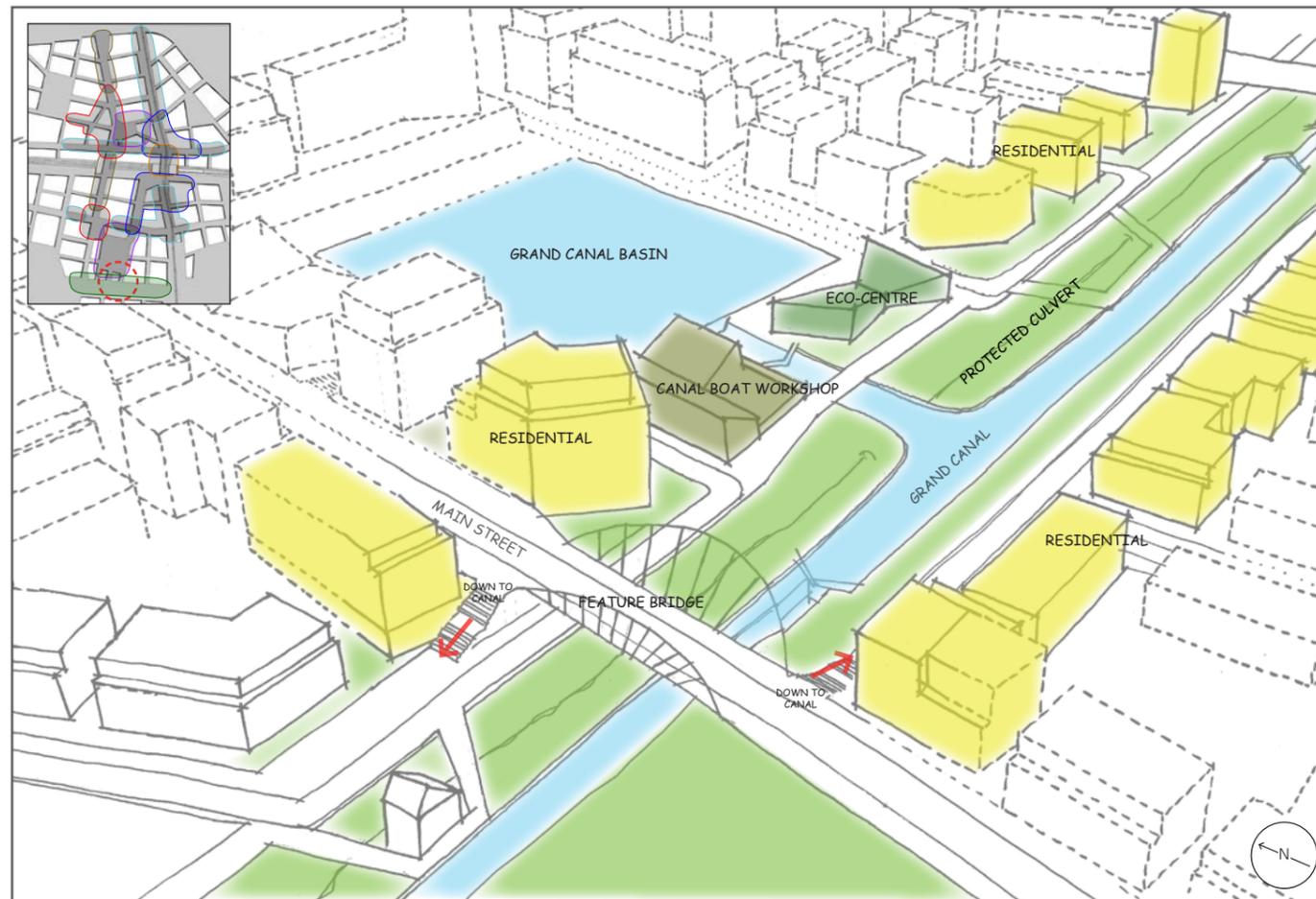
- A diverse mix of retail and other commercial uses that service the Clonburris Lock neighbourhood and anchor the southern end of the Main Street.
- A space for movement between the Main Street and Grand Canal Basin that subtly transcends changes in levels.
- Small areas for meeting and gathering prior to moving into the performance space or Grand Canal Basin.
- A space that anchors the Main Street, flanked by a tall local landmark.



Grand Canal

The interface between the compact urban neighbourhood and the ecological corridor of the canal. The Grand Canal will be characterised by:

- A soft green edge that protects ecologically sensitive areas and provides a sense of transition between the canal, overflow stream and urban edge (minimum setback of 30 metres from the proposed National Heritage Area (pNHA) boundary).
- A suitably designed information centre that symbolises the relationship between sustainable development and the environment.
- A series of elevated walkways that provide access to the edge of the canal without intruding on the overflow stream.



Mixed Business Main Street North and South

A long and busy street with a hard urban edge and active interface. The Main Street is characterised by:

- A diverse and wide ranging mix of retail (consisting mainly of local and secondary retail), retail services and commercial activities at street level.
- Upper levels that consist of a mix of residential and commercial uses.
- A solid street wall with strong urban edges that follows the undulating topography of the street.



Fonthill Road Urban Boulevard

A radically transformed street environment that takes on the characteristics of an urban boulevard with side by side corridors of pedestrian, Metro West and vehicular movement. The area will be characterised by:

- Predominantly street level commercial showroom development orientated towards people moving in vehicles and Metro West with some smaller commercial units orientated toward pedestrians.
- A hard urban edge and continuous streets wall. The street wall may be broken up around the station to allow for higher levels of permeability and solar access to open spaces/narrow streets.



Station Road/Park Avenue

Busy corridors of movement from east to west across the site, as these streets enter the UDF they will become more commercial in nature and be characterised by:

- A range of service oriented retail and commercial development at street level.
- Upper levels that consist of a mix of residential and commercial uses.
- A solid street wall with strong urban edges that follows the undulating topography of the street.



Canal-Station Link

A major pedestrian link between the Transport Interchange and Grand Canal Basin, the area shall be characterised by:

- A long liner park that draws people toward the Grand Canal Basin.
- Active ground floor uses such as live/work units that complement and do not compete with nearby retail and commercial uses.
- A hard urban edge with intermittent breaks to provide greater solar access along the link.



6.0 BUILDING TYPOLOGY AND HEIGHT

6.1 Support Strategies

6.1.1 Block Typology

Section D.6.5 of the SDZ Planning Scheme illustrates the use of the perimeter block as the main block typology within Clonburris. This block type clearly defines external areas as public and internal areas as private. Variations to this typology are set out in Table D.18 and are to be applied at the appropriate context.

Figure 6.1 illustrates blocks that may be adapted to cater for internal public access. This includes smaller blocks that may be occupied by pavilion buildings that people can move around on all sides and larger blocks occupied by podium buildings that cater for internal public access within retail/commercial areas.

Figure 6.2 illustrates the secure perimeter block as the basis for development in all other areas. Internal access is generally restricted to residents/workers and their guests. The block between Clonburris Station and Main Street is shown as a part perimeter block only. Whilst it is an objective of the SDZ Planning Scheme that this area be built over or capped with development, for the purposes of the UDF this should be viewed as a long term objective which would be subject to a more detailed design framework developed in consultation with Iarród Éireann.

6.1.2 Height Structure

Building height is distributed so that the most densely developed areas will be proximate to transport, shops and other services/attractions. Higher buildings are channelled toward the major nodes, allowing development to step down on the neighbourhood fringes.

Figure 6.3 illustrates the location of buildings primarily focused on community based activities. The height of these buildings is not specifically defined and will be determined by the type/range of activities within, whilst also having regard to the height, scale and massing of surrounding buildings and site context.

Figure 6.4 illustrates the location of district and local landmarks. These buildings have been strategically located to act as markers to indicate gateways and major nodes. The location of the buildings are aligned so to they will be clearly visible from key locations.

Figure 6.5 illustrates the placement of higher buildings adjacent to the three major nodes and along Primary Links to reinforce the structure of the UDF area and provide a sense of enclosure on wider streets. These buildings will be a minimum of 6 storeys around major nodes and a minimum of 4 storeys along primary links.

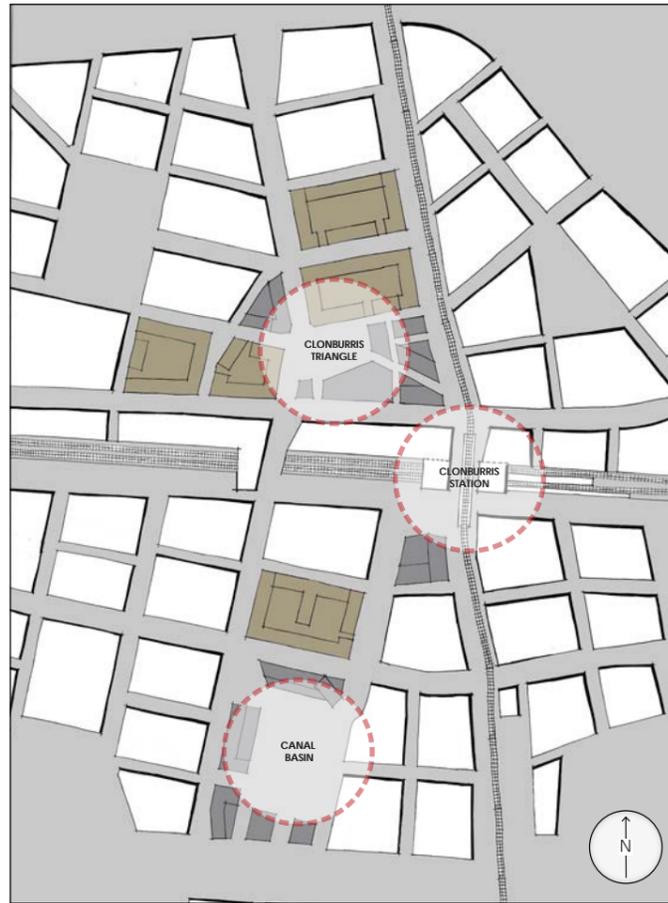


Figure 6.1: Locations for podium and pavilion style buildings around the major nodes to allow for greater public access into blocks.



Figure 6.2: Filling out the area with perimeter blocks which clearly define public and private spaces.

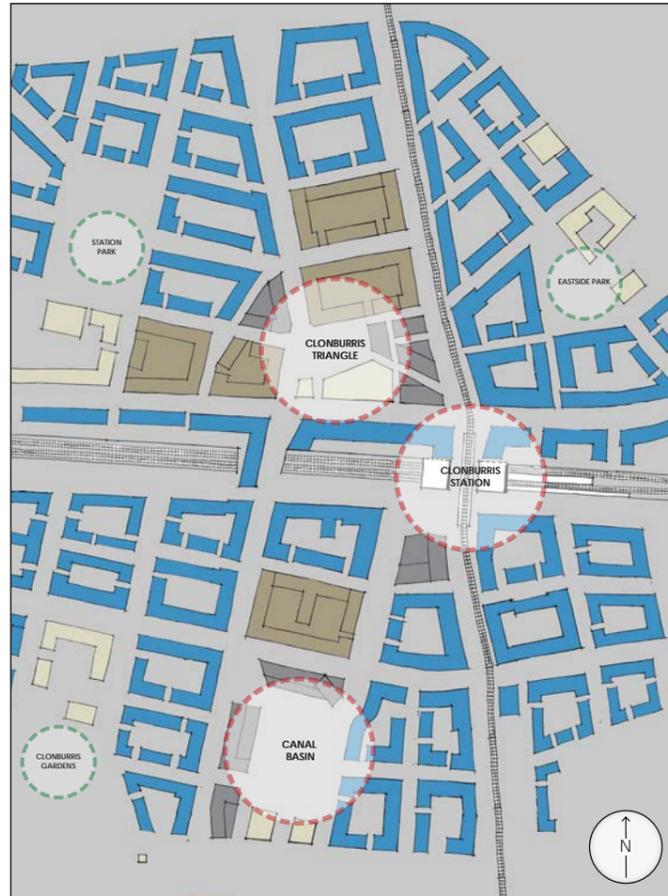
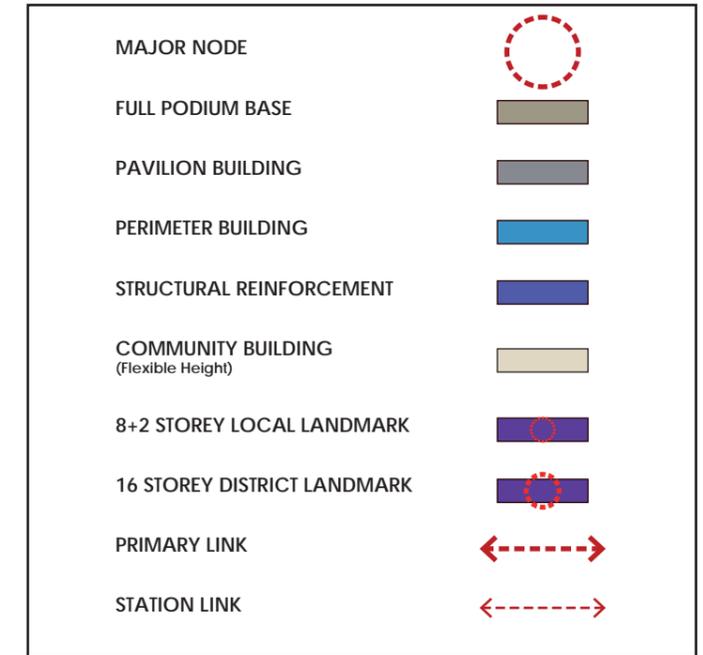


Figure 6.3: Location of buildings with community based activities. The form and height of these buildings may vary depending on need.

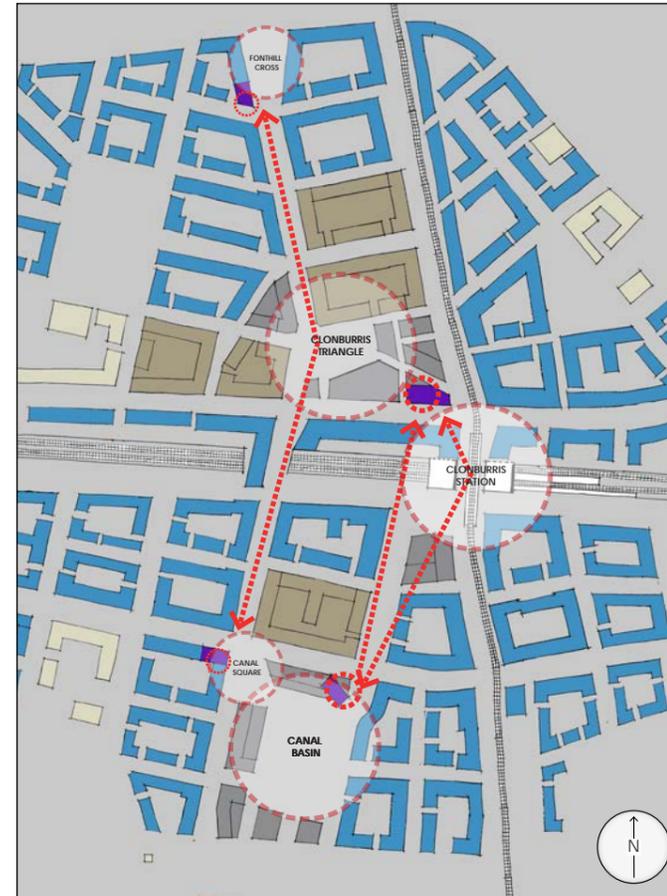


Figure 6.4: Locating landmark buildings to act as way finders to major nodes and gateways to the Main Street Commercial Area.

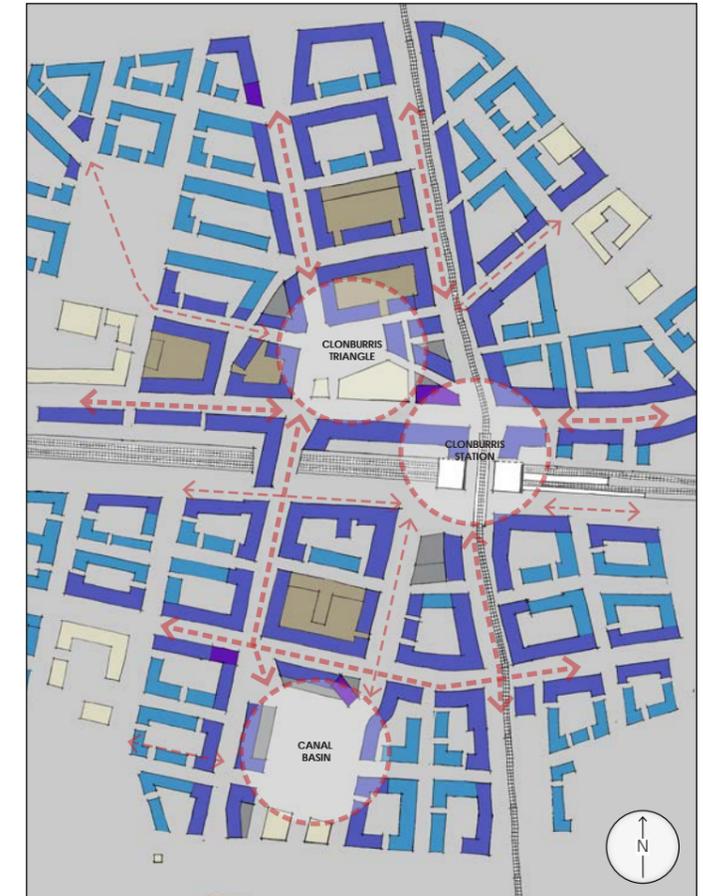


Figure 6.5: Reinforcement of the primary structure through the placement of medium/higher rise buildings.

6.2 Building Typology and Height Framework Plan

Ranges in height are given to allow for a degree of flexibility within the context of the minimum and maximum permissible densities within each neighbourhood. Building typologies and heights respond to the UDFC Structure Plan as follows:

- A) Major retail and entertainment anchors are placed within Podium Blocks. This will allow public access directly from street to interior spaces. Areas where movement will be restricted (i.e. offices and residential) are located on the upper floors.
- B) Pavilion Blocks with free standing buildings are placed in areas of high pedestrian activity. This will allow public access to all sides of the building at street level in areas of high activity. Pavilion buildings are also located around the southern end of the canal where they can be placed in a landscaped setting.
- C) Perimeter blocks are required throughout the site to provide a strong definition between external (public) and internal areas (private). This is the general model that will be applied across areas away from the major nodes.
- D) Landmark Buildings will be located adjacent to major nodes and gateways to act as place markers.
- E) Taller buildings are focused around the three Major Nodes and along primary links. This will reinforce the importance of these streets/links as the principle means of moving about the area. Greater height will also create a sense of enclosure on wider streets, calming traffic and increasing surveillance and pedestrian activity.
- F) Reduced height is focused on the edge of, and outside, the UDFC core area where proposed buildings will adjoin existing/proposed neighbourhoods of a lower density. The SDZ Planning Scheme specifies a minimum of four storeys within the UDFC neighbourhoods. The UDFC introduces more flexibility to reduce building heights to three storeys to promote a more diverse range of housing types (see Section 6.3).
- G) A height range has not been established for stand alone community buildings. These will be determined by the needs of the particular use, surrounding building heights and solar access levels.

Note: Minor variations to building heights that do not exceed the maximum provisions of the SDZ Planning Scheme may be acceptable provided that they are consistent with the principles of the Structure Plan and density targets can be adhered to within each neighbourhood.

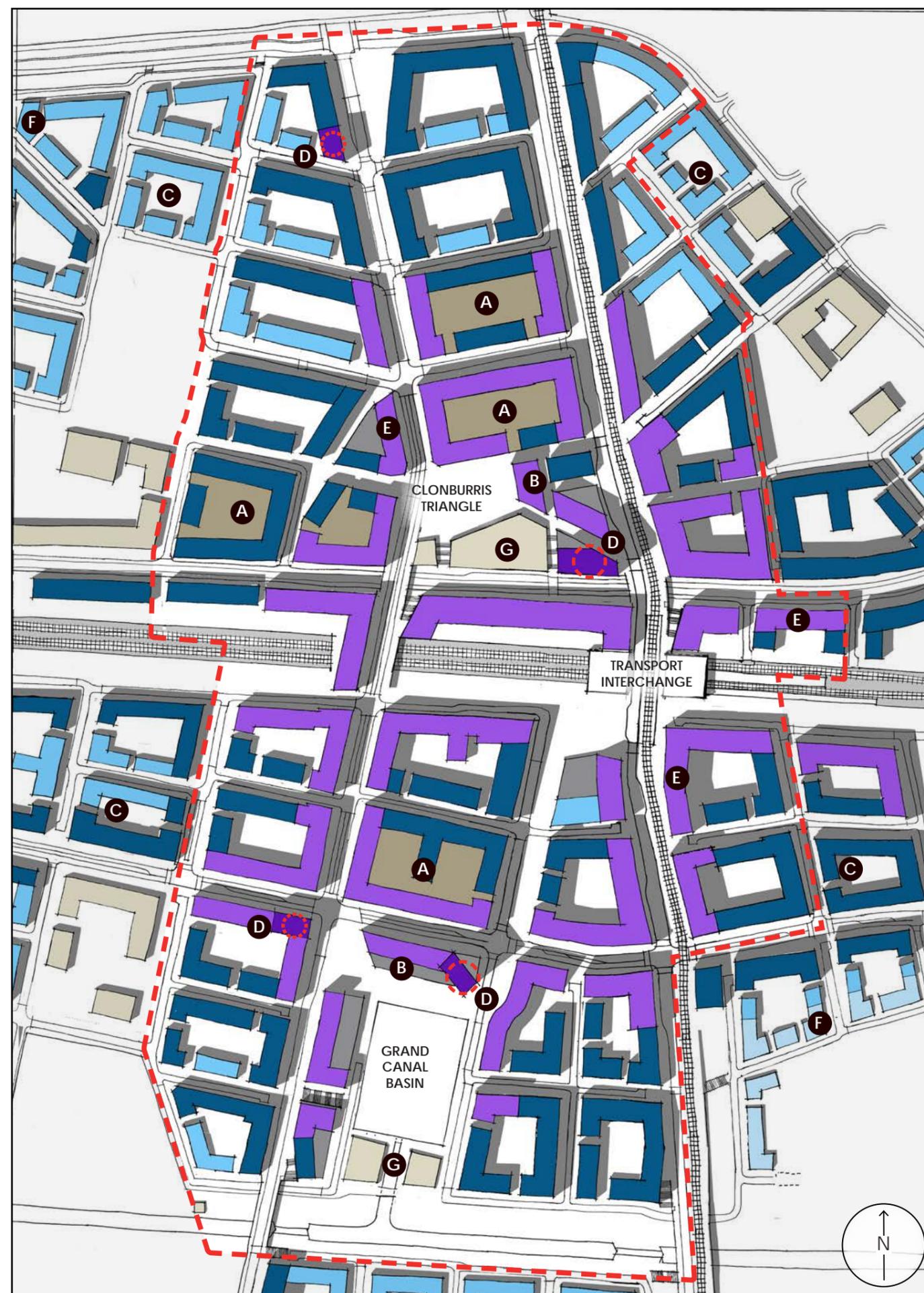
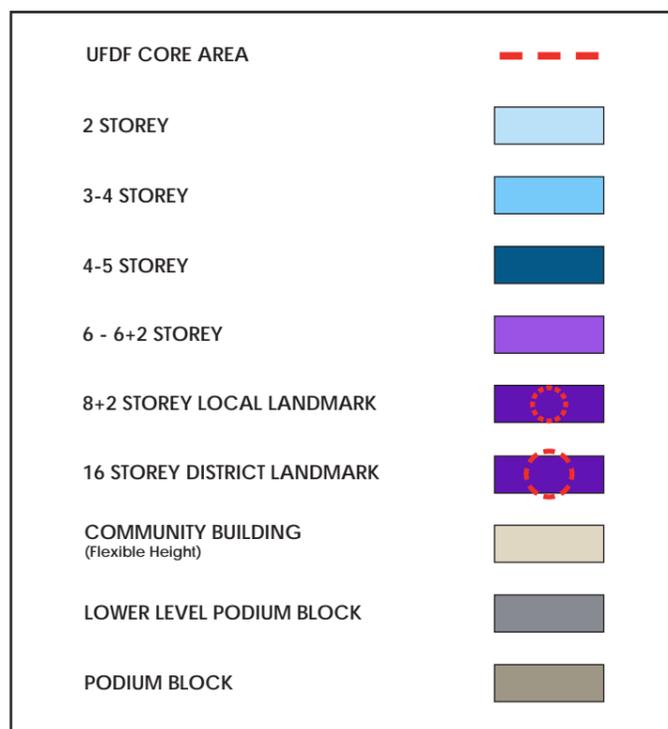


Figure 6.6: Building height has been distributed taking into account density requirements and to intensify development around major nodes and along primary links.

6.3 Supporting Strategies

6.3.1 Block Typology

Figure 6.6 illustrates the standard configuration of a perimeter block. This is the typology that will be most commonly applied throughout the area.

Figure 6.7 illustrates the perimeter block model over a large podium capable of containing a large retail anchor.

The width of building envelopes for residential buildings are applied at a maximum of 15 metres to ensure good levels of solar access to interior spaces (Note: The building envelope include zones for articulation and balconies). This will generally result in a minimum back-to-back separation of 30 metres across internal courtyards throughout the area.

The width of commercial envelopes may be increased to 20 metres provided adequate levels of solar access are achieved as stated in Section 6.3.5.

Figure 6.8 illustrates the use of pavilion style buildings within small blocks. These are applied at major points of convergence (Clonburris Triangle) and to frame an important public amenity (Grand Canal Basin). Pavilion buildings may also be placed on the edge of the Grand Canal within a landscaped setting.

Widths may vary within pavilion style buildings to suit specific needs. However the maximum building envelopes for residential towers should not exceed 20 x 30 metres.

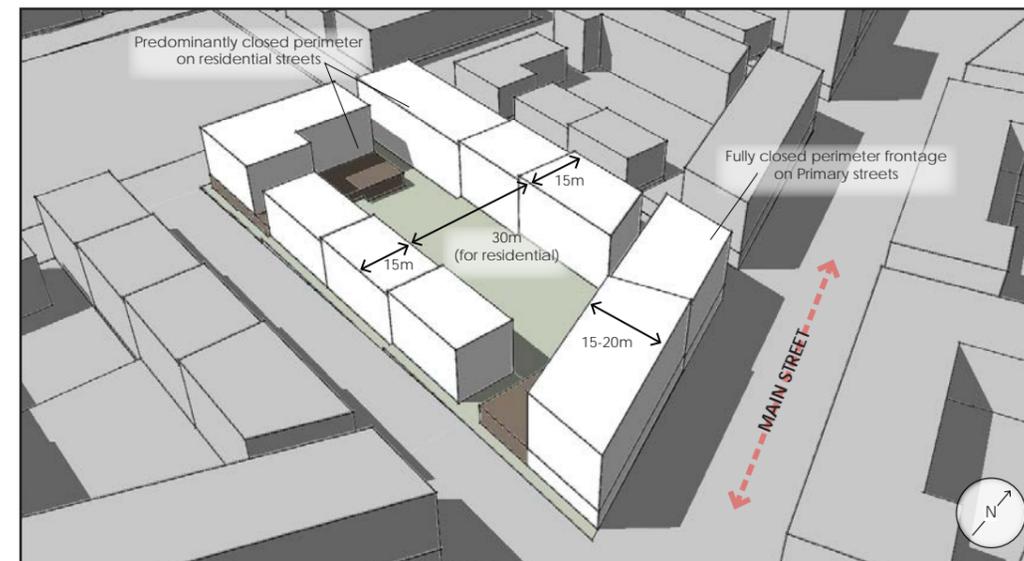
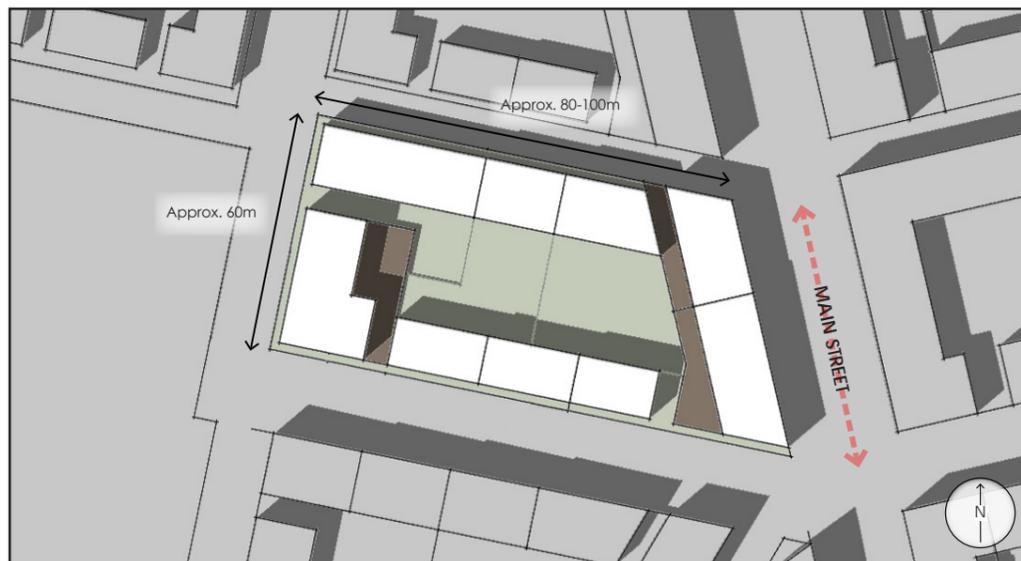


Figure 6.6: An example of the configuration of the standard perimeter block to be applied throughout the UDF area.

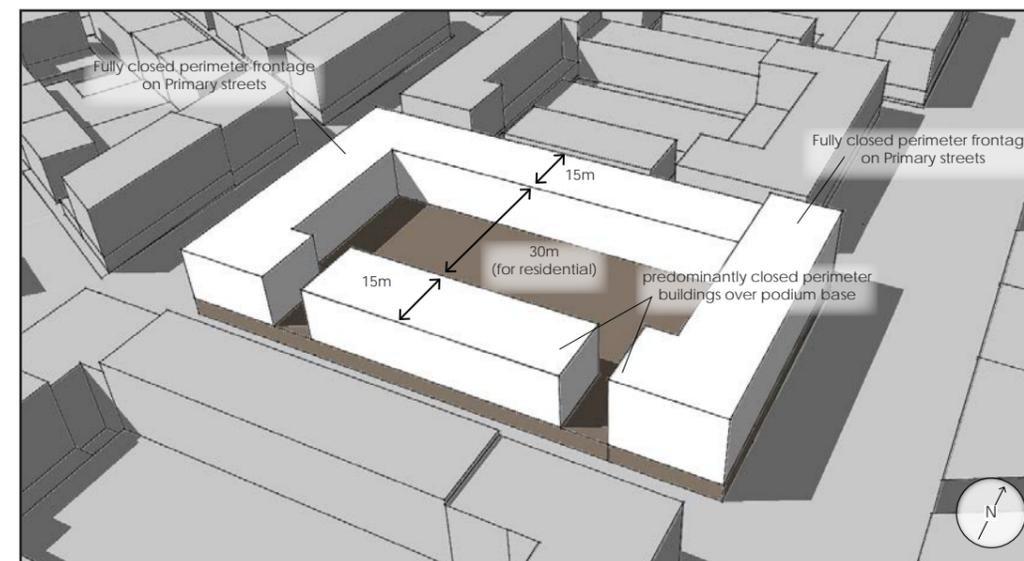
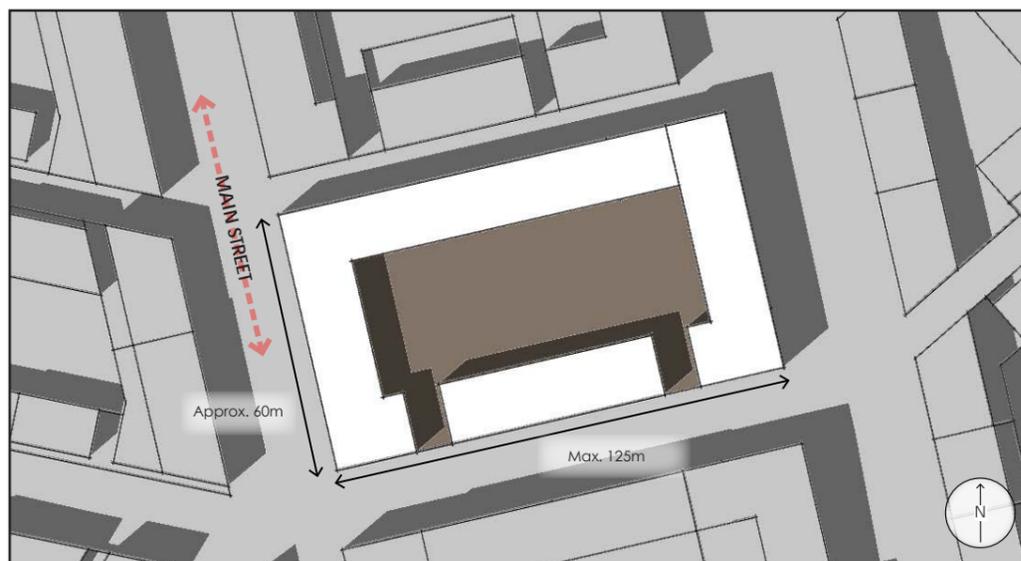


Figure 6.7: An example of the configuration of the standard podium block adapted to provide a large commercial podium at street level.

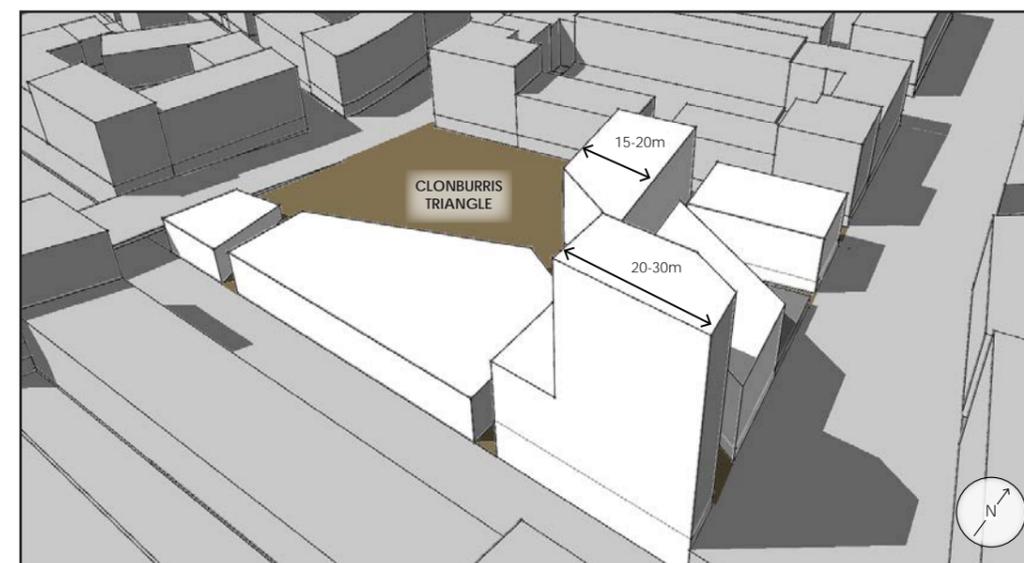
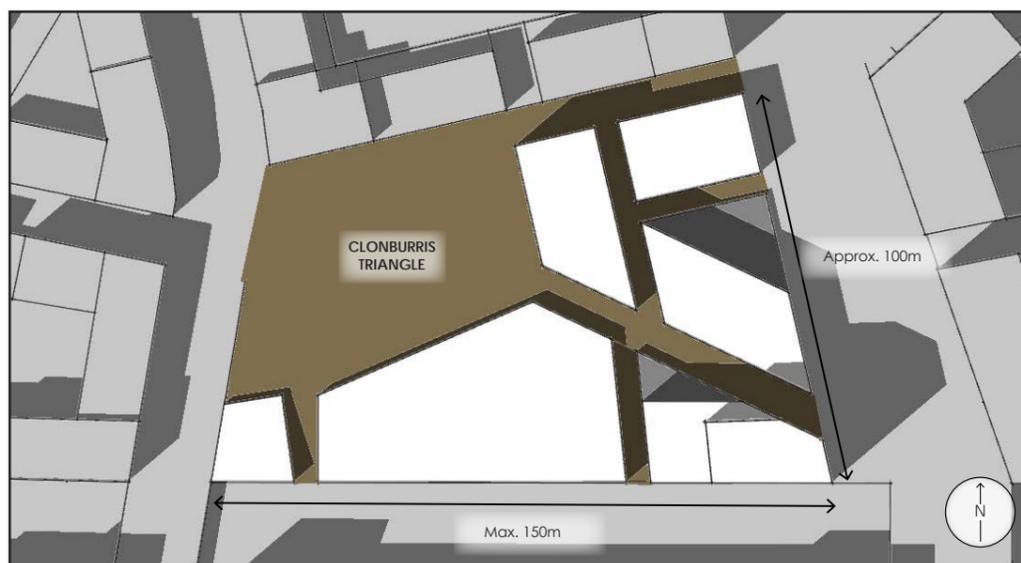


Figure 6.8: An example of the configuration of various pavilion style buildings around Clonburris Triangle. This building type can be applied in an area of high pedestrian activity with a publicly accessible ground floor interface. Pavilion typologies may also be applied within a landscaped setting adjacent to the Grand Canal.

6.3.2 Balanced Neighbourhood Height Distribution

Density levels, based on the minimum and maximum SDZ Planning Scheme density ranges, were modelled across the three UDFF neighbourhoods to illustrate the minimum and maximum development parameters of the scheme as a series of building envelopes.

The UDFF height structure seeks to achieve a balanced outcome in relation to the distribution of approved densities and heights. Overly intense development and building heights within the UDFF core area may leave outer areas of each neighbourhood underdeveloped. Conversely, more moderate development and building heights within the UDFF core area would place pressure on surrounding areas and result in a built form that is uniform in height throughout the UDFF area, thereby reducing legibility and diversity.

Figure 6.9 illustrates building heights across the three UDFF neighbourhoods within the minimum and maximum density ranges.

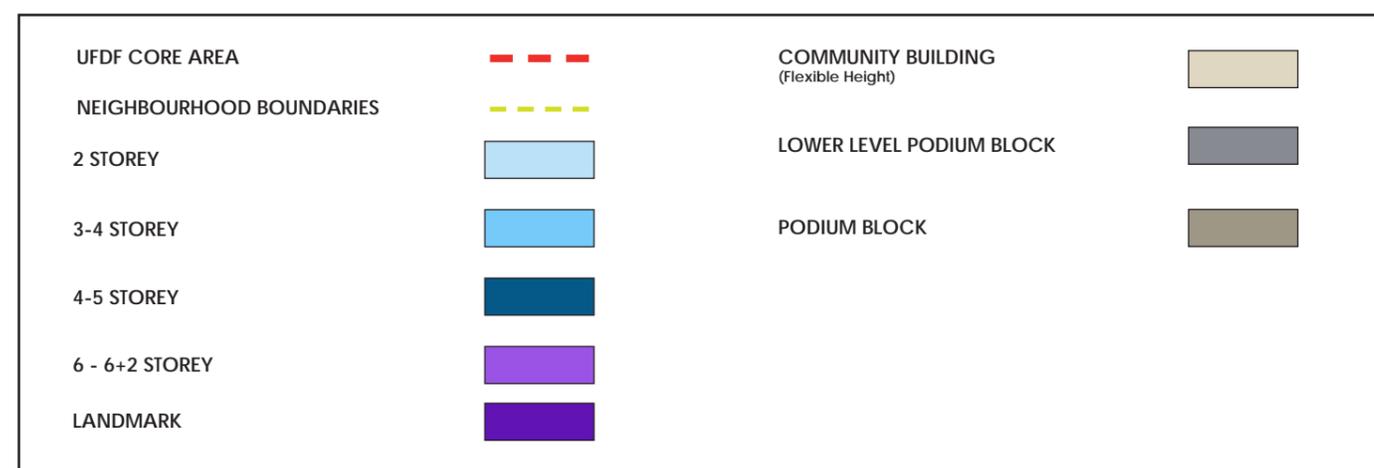
The UDFF focuses taller buildings into the core area around the Major Nodes and along Primary Links. This allows the intensity of development and building heights to step down on the neighbourhood fringes. This will promote more diverse building typologies by allowing a greater proportion of townhouse and duplex style development outside the core area and more intensive residential (i.e. apartments) and commercial development around the major nodes. The UDFF introduces greater flexibility in relation to building heights by allowing development to drop to 3 storeys away from major nodes, to better distribute densities and promote a more diverse range of housing types.

6.3.3 Density

Table C6 in Section C.4.4 of the Clonburris SDZ Planning Scheme sets out the minimum and maximum levels of development permissible in the net development area of each neighbourhood. Specific development proposals may fall below by up to 20% or exceed min-max figures, but this will necessitate a lower or higher average figure for development proposals elsewhere within the Neighbourhood to achieve the average overall. Subject to conditions outlined in Section 6.3.4, up to a maximum of 250 residential units may be transferred to employment use (on the basis of 250 sq.m gross employment space per residential unit based on an average of 100 sq.m gross floor area per residential unit). The application of reduced density and/or a transfer of residential units to employment may have an impact on plot ratio and building heights, however, the principles set out in Section 6.0 Building Typology and Height must be adhered to.



Figure 6.9: Buildings heights within the core of the UDFF area were modelled and adjusted to take into account the balance of development within the surrounding neighbourhoods



6.3.4 Transfer of Residential Units to Employment

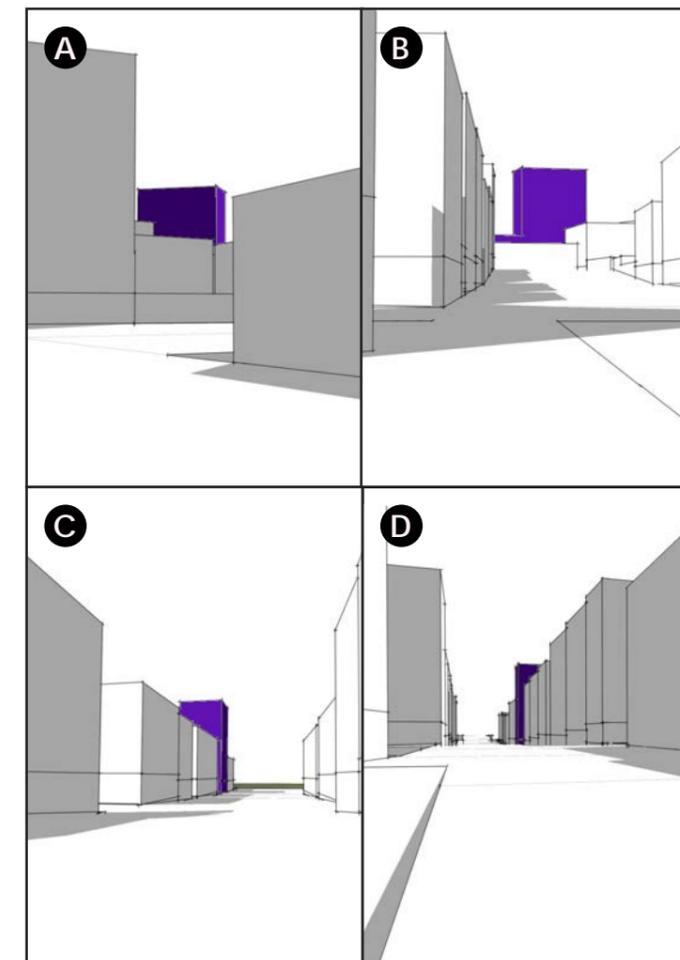
Section C.4.5 of the SDZ Planning Scheme allows up to a maximum of 250 residential units within Kishoge Grange, Kishoge Cross, Kishoge Bridge, Cappagh, Gallanstown and Clonburris Little neighbourhoods to be transferred to employment use on the basis of 125 sq.m gross employment space per residential unit. To allow added flexibility with regard to the UDF, it is considered appropriate to permit the transfer of a maximum of 250 residential units to employment use into the Clonburris Lock and Clonburris Cross neighbourhoods. Such transfer is subject to the conditions outlined within Section C.4.5 of the SDZ Planning Scheme.

6.3.5 Landmark Buildings as Place Markers

Figure 6.10 illustrates a perspective view of the strategic location of landmark buildings and how they will act as markers to help people find their way around the UDF area. (A) illustrates the view from the Railway/Metro West station to the Grand Canal Basin district landmark. (B) illustrates the view from the southern end of the Grand Canal Basin Station Link to the district landmark adjacent to the Clonburris Triangle. (C) illustrates the view looking north toward the Fonhill Cross local landmark. (D) illustrates the view looking south toward the Canal Square local landmark.



Figure 6.10: Basic perspective views illustrating how landmark buildings will act as markers directing people between the station area to the Canal Basin (A) and (B) and to either end of Main Street from Clonburris Triangle (C) and (D).



6.3.6 Building Heights and Street Reserves

The distribution of building heights also seeks to create a sense of enclosure along all streets whilst maintaining a human scale. The relationship between building height and street width is expressed as a ratio where the height of the building envelope is divided by the width of the street reserve.

Figure 6.11 illustrates this relationship for the major street types within the UDF area. The street width is measured from building line to building line. Building heights have also taken account of the Land Use Strategy and its implications for floor to ceiling heights within each building envelope (refer also to Section D.6.9 of the SDZ Planning Scheme).

The ratio applied throughout the UDF area will generally be between 0.5:1 and 1:1. This strategy supports the Building Height Structure by placing higher buildings along primary routes which are greater in width.

Figure 6.11 also illustrates how ratios should increase where there is a greater concentration of commercial activity to emphasise the urban form. Conversely in more residential areas ratio will be reduced to create a greater sense of openness. Ratios will be further reduced along park links to emphasise their green nature.

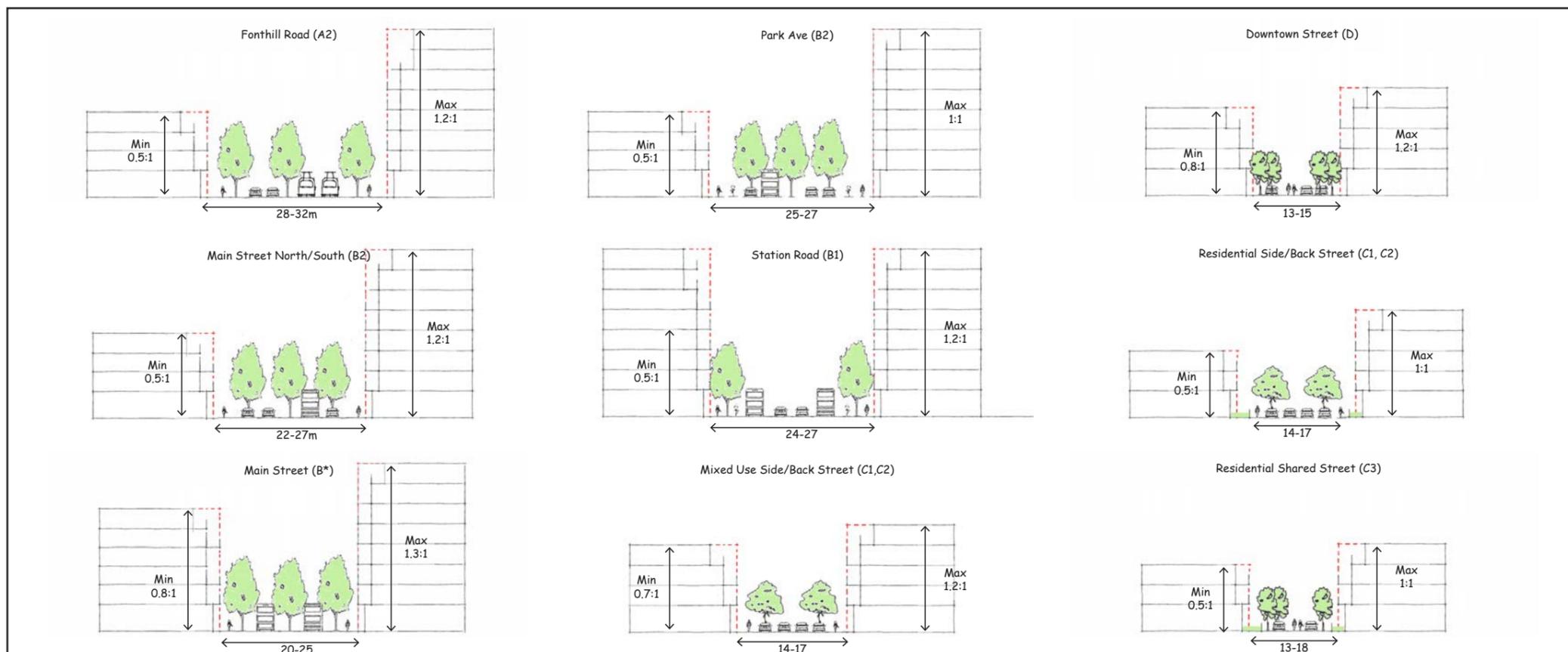


Figure 6.11: The relationship between building heights and street width throughout the major street types within the UDF area. A balanced outcome between creating a sense of enclosure and maintaining a human scale is achieved by placing taller building along wider streets.

6.3.7 Adjustments to Height for Solar Access

Figure 6.12 illustrates how building height within the UDF area has been adjusted to maximise solar access to courtyard areas within the overall height structure.

In general, height has been reduced along the western and southern sides of a block. Building height generally peaks at the north-eastern side of each block where midday-evening sun will principally be cast over junctions.

Figure 6.13 illustrates overshadowing across these blocks at critical times during the summer solstice and equinox periods. Height has been adjusted to ensure that approximately no more than 50% of courtyard areas are overshadowed at midday during the equinox period. This will ensure good levels of solar access to courtyards throughout the warmer months/growing season.



Figure 6.12: 3D perspective view of part of the UDF area adjacent to the northern end of Main Street illustrating how the Height Structure should be adjusted to provide greater levels of solar access to courtyard areas to support the development of more amenable landscaped space.

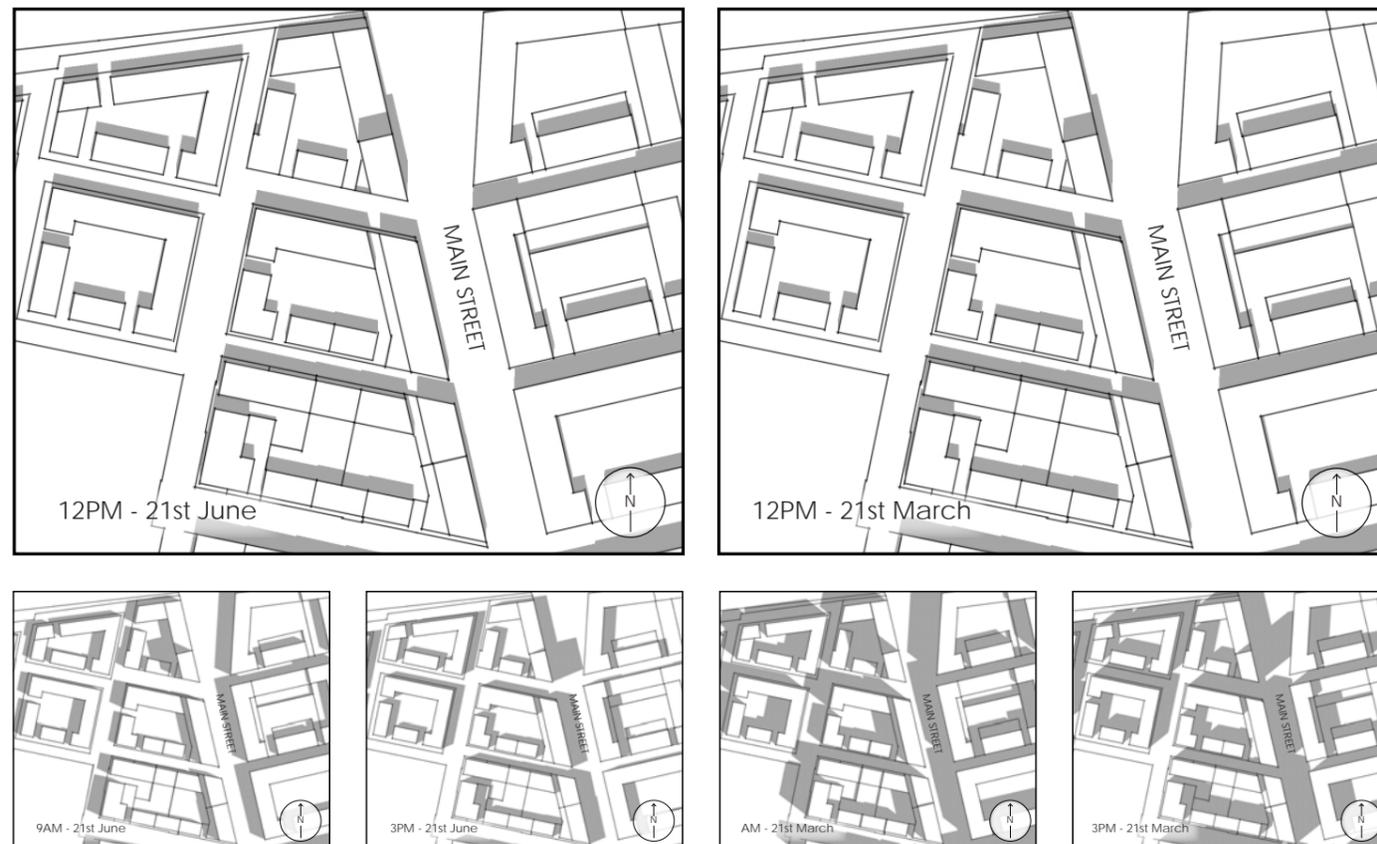


Figure 6.13: Illustration of overshadowing in the blocks adjacent to the northern end of Main Street. The general height structure has been adjusted to ensure adequate solar access is maximised to courtyard areas during the afternoon warmer months/growing season.

7.0 LANDSCAPE AND URBAN GRAIN

7.1 Developing the Framework

7.1.1 Open Space Network

Section D.4 of the SDZ Planning Scheme outlines the Landscape Structure and network of open spaces within the area. The UDF area contains major public spaces at the Clonburris Triangle and the Grand Canal Basin, along with smaller spaces located to the north and south of Main Street (Fonthill Cross and Canal Square) and adjacent to the station (Metro Square). There are also various neighbourhood parks and squares adjacent to the UDF core area. These areas are illustrated in Figure 7.1.

Figure 7.1 also illustrates a network of Park Links that connects these areas to the surrounding communities and the Major Nodes. To enhance the legibility of the Park Links they will form an integral part of the Sustainable Urban Drainage (SUDs) network containing swales. They will also be heavily planted to further enhance their green character.

Figure 7.2 illustrates how tree planting will further contribute to the legibility of the place as large trees are planted along the Primary Routes and Station Links.

7.1.2 Urban Grain Distribution

Section D.6.6 of the SDZ Planning Scheme illustrates how building blocks need to be broken down from large parcels of land into smaller units in order to promote a diverse built environment. This is referred to as the urban grain, where plot sizes respond to building height and street widths.

A fine urban grain is promoted throughout Clonburris. However the SDZ Planning Scheme also allows for a coarser grain in higher density - mixed use areas. A varied approach will be appropriate in areas where Pavilion Blocks are located.

Figure 7.3 illustrates areas where pedestrian activity is high and blocks may be broken into smaller fragments that contain pavilion buildings. Pavilion buildings are placed between the Grand Canal and the Basin within a landscaped setting to enhance the green edge.

Block perimeters along the Canal are also opened to respond to the ecologically sensitive area. A 30-50 metres buffer zone is created by setting back buildings and opening up blocks. The buffer zone is also heavily planted to create an ecological corridor.

Figure 7.4 illustrates areas where a coarser grain may be applied to reinforce the UDF Structure Plan in more intensively developed areas.



Figure 7.1: Reinforcing the open space network with SUDs swales along Park Links and the Canal/Station Link linear park.



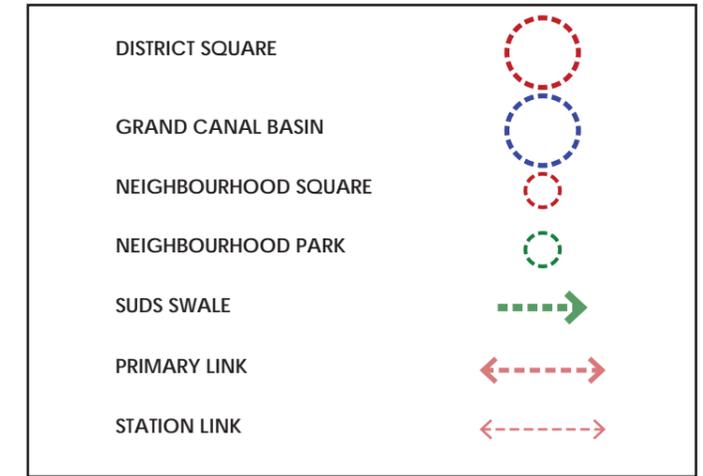
Figure 7.3: Placing pavilion style buildings and opening blocks around major spaces and along the edge of the canal.



Figure 7.2: Reinforcing the UDF Structure Plan with significant tree planting along Primary and Station Links



Figure 7.4: Reinforcing the primary structure of the core area with a Coarser Grain.



7.2 Landscape and Urban Grain Framework Plan

The final layers of refinement to the UDF are applied as surface treatments, planting and plot or building frontage widths. These refinements will collectively work together to reinforce the UDF Structure Plan and will contribute to creating a distinctive number of districts, streets and places as follows:

- A) Hard surface urban spaces are located within areas of higher activity. Softer green spaces are located within the centre of each neighbourhood and around environmental features. Green roofs and green walls are required at appropriate locations to supplement the removal of existing vegetation (Biodiversity study refers).
- B) A shared street network supports more sustainable modes of transport through passive traffic calming measures such as frequent crossing points/junctions, surface changes, on-street parking and shared carriageways.
- C) Neighbourhoods, precincts, primary streets and secondary links will be strategically planted to enhance the sense of place and reinforce the Structure Plan. SUDs swales are also required to bind the open space network.
- D) Buildings open up to, and are setback from, the edge of the canal to provide an undulating buffer zone of 30-50 metres. Heavy planting within the blocks enhances the green edge.
- E) Pavilion style buildings are inserted into fractured blocks in areas of higher pedestrian movement and along the edge of the Grand Canal. This will promote higher levels of architectural expression in areas of civic/environmental importance.
- F) Wider building frontages are provided along primary links and around major nodes for a coarser grain. This reflects the development of larger buildings that reinforce the UDF Structure Plan. These buildings will accommodate a variety of office and retail development and medium-higher density residential.
- G) Narrower building frontages are located on minor streets to create a finer more intimate grain. These buildings will accommodate small office development and medium density duplex or townhouse style housing in buildings that are four storeys or less.
- H) Buildings along primary routes are built to the street to provide a hard edge that enables street level retail/commercial development.
- I) Buildings on minor streets are setback to provide a green edge with privacy strips between the public and private domains.

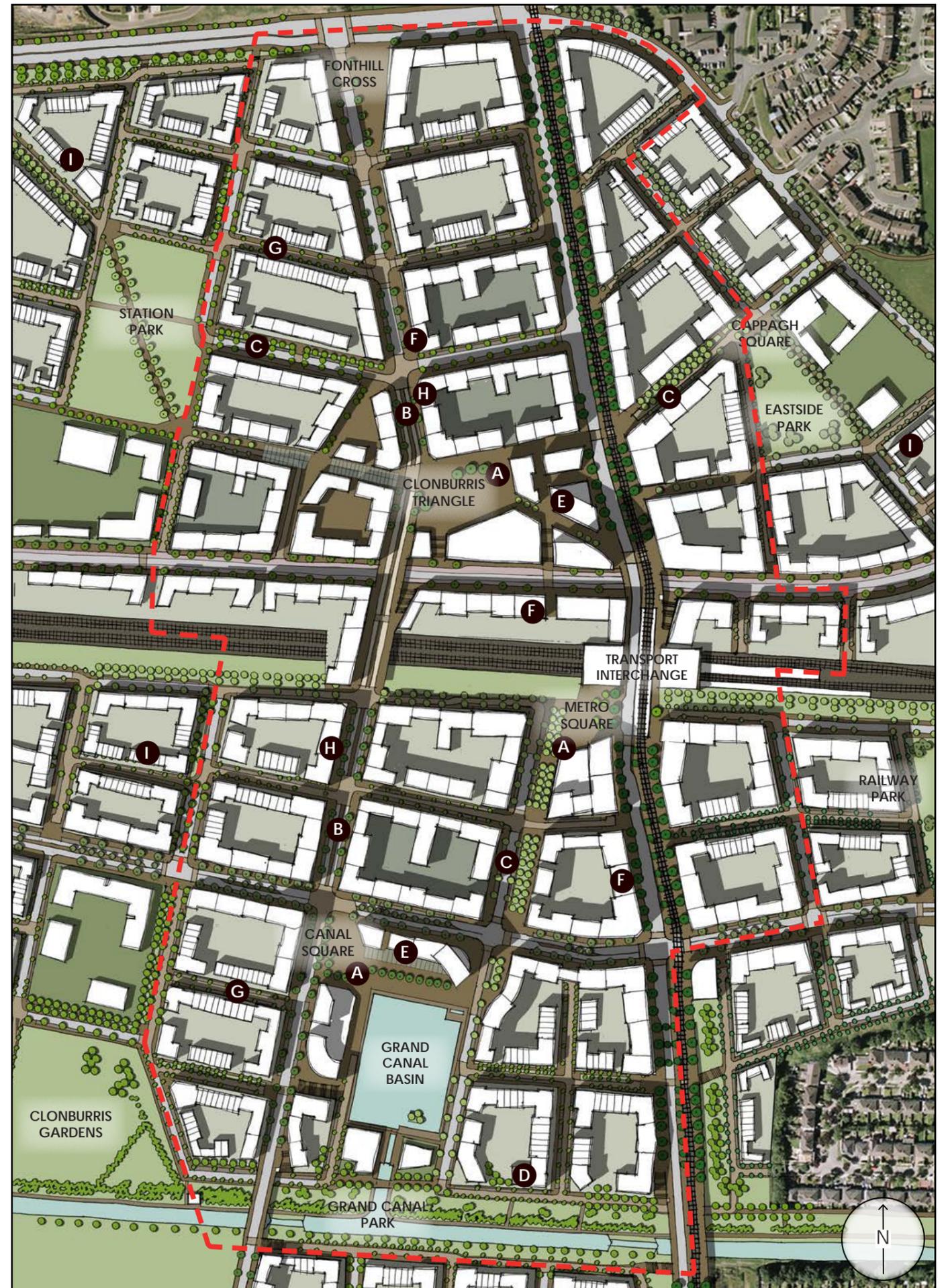


Figure 7.5: Landscape and Urban Grain illustrates the final layers of development and adjustment to the UDF Structure Plan.

7.3 Supporting Strategies

7.3.1 Perimeter Block Evolution

Section D.6.6 of the SDZ Planning Scheme seeks to create a varied built environment by restricting the width of frontages. This will promote a more varied grain where each block appears to consist of a number of different buildings, rather than a single or relatively few expansive buildings.

Figures 7.6 and 7.7 illustrate a design process that will achieve the requirements of the plan. This process will also allow or give the appearance that each block has developed more incrementally. Figure 7.6 illustrates a finer grain and Figure 7.7 illustrates a coarser grain, as follows.

- 1) The base of the building envelope is laid out around the perimeter of the block.
- 2) Frontage widths are applied and the base of the building envelope is sub-divided into a number of plots to create a finer or more robust grain.
- 3) Buildings are given height to create a series of subdivided 3D envelopes
- 4) Building envelopes are clustered into groups of two and three and height is varied through slight adjustments to internal floor to ceiling height. On sloping sites, buildings should be adjusted to take advantage of the topography.
- 5) Buildings are articulated to further enhance variations between clusters.

A varied approach to the design of roofs, parapets, windows, doors, materials and finishes can be applied to the block building process. This approach will balance individual architectural expression within a cohesive or collective approach to streetscape building.

Figures 7.8 and 7.9 show examples of a commitment to diversity that has been followed through to the final detailing. Even though each frontage or plot is highly varied the streetscape is rhythmically tied together through similarities in setback, height and frontage width. It should also be noted that whilst the areas depicted Figures 7.8 and 7.9 were developed over a single phase, they give the impression of a more incremental pace of development.

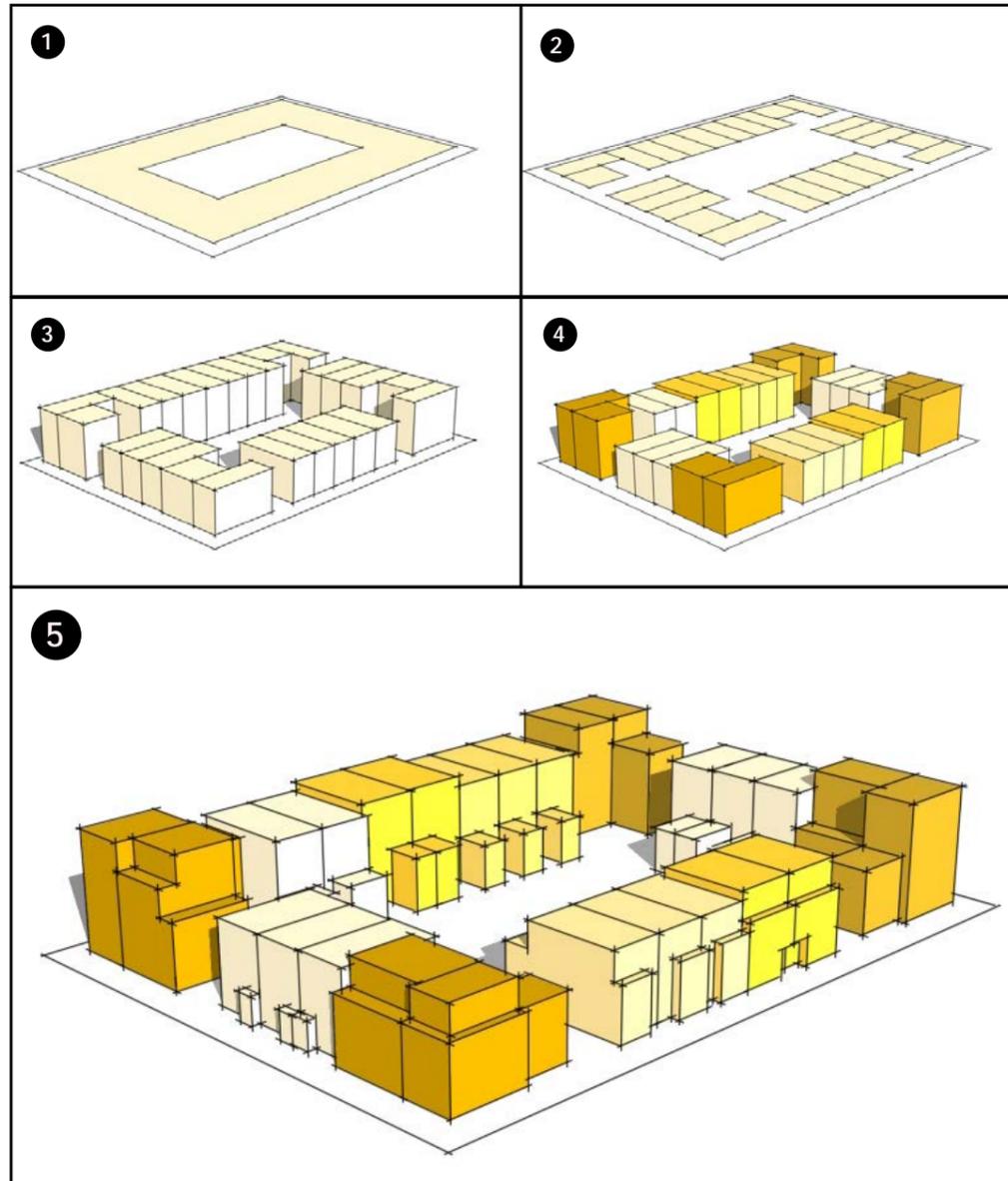


Figure 7.6 A block building process for creating a fine grain with a highly varied built form, that allows for small clusters of buildings with common floor plates to be constructed.



Figure 7.8: An example of how the diversity of a finer and largely uniform grain has been enriched through a highly individualised approach to openings, materials and finishes.

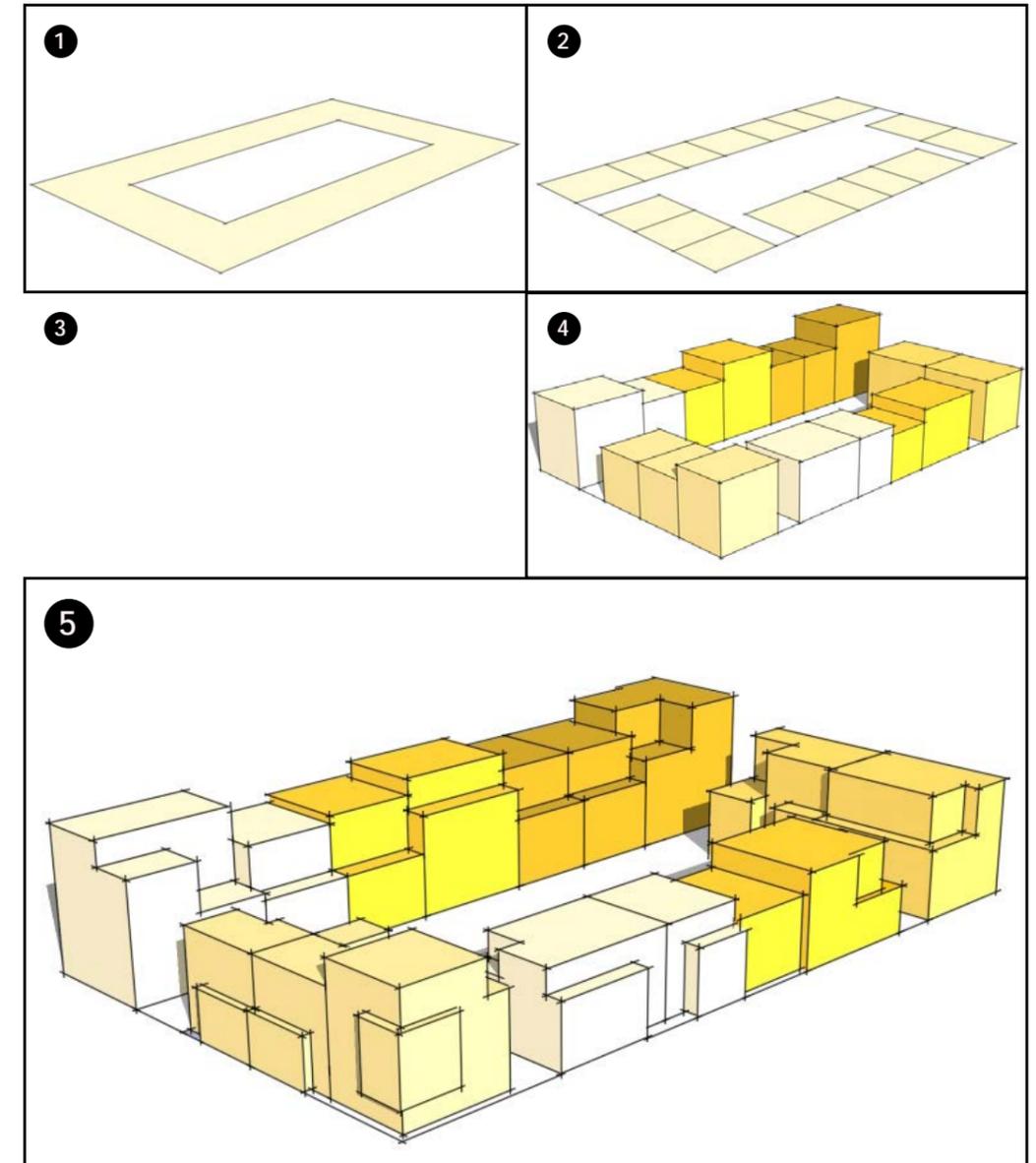


Figure 7.7: A block building process for creating a coarse grain with a varied built form, that allows for larger buildings with common floor plates to be constructed to avoid long, monotonous frontages.



Figure 7.9: An example of how the individualised approach to openings, materials and finishes has been applied to a coarser grain to promote diversity at a more intensive scale.

7.3.2 Varied Block Types

Figures 7.10 and 7.11 illustrate how the block building process can be applied in the context of a podium block (Figure 7.10) and mixed grain block (Figure 7.11).

The block building process is applied to the upper level of the podium block. At street level, smaller units are placed around the perimeter to provide active street frontages and reduce the impact of car parking/service entrances.

The block building process is varied within the mixed grain block. This is the type of block that will most commonly be provided on the edges of the UDF Core Area to provide a rich and varied transition to surrounding neighbourhoods.

The images depicted in Figure 7.12 show a number of examples of pavilion style buildings that have been designed as 'one off' architectural pieces. Although such buildings will be subject to a highly individualised design process, it must be demonstrated that each building has responded to its context.

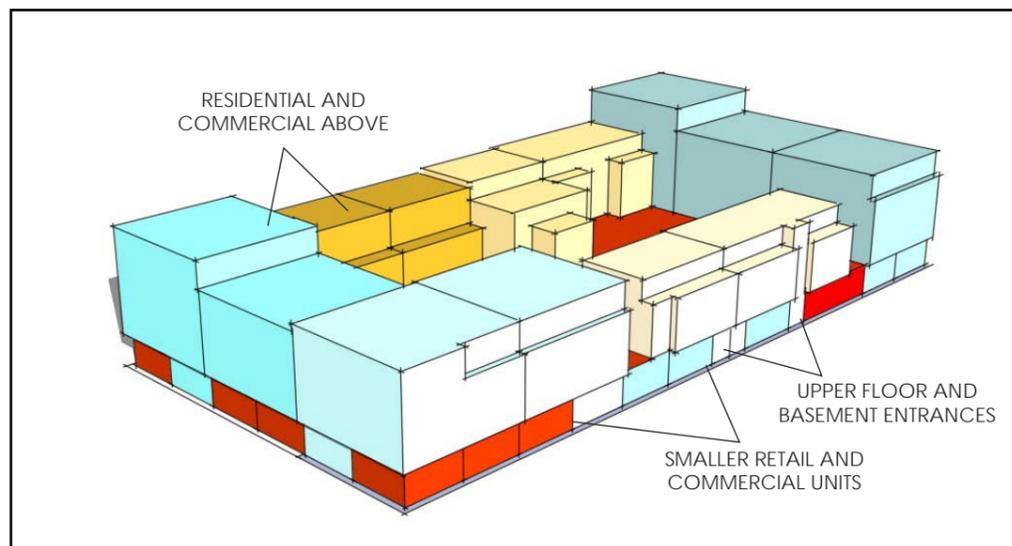


Figure 7.10: Examples of the form and layout of a podium block that addresses the perimeter of the site and provides frontages that are predominantly active on all sides. The photo example illustrates a change in the design approach taken to street level and the upper levels.

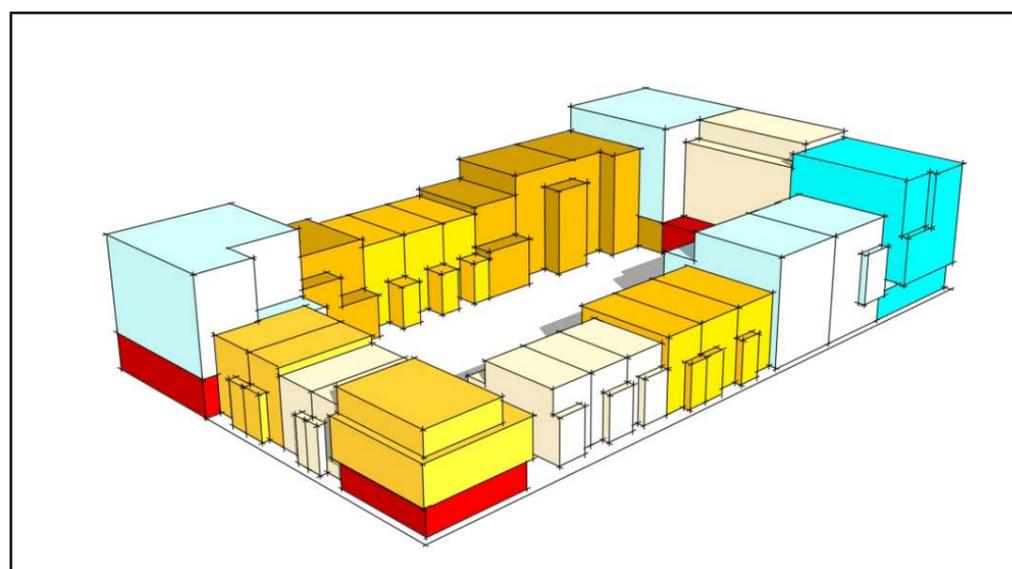
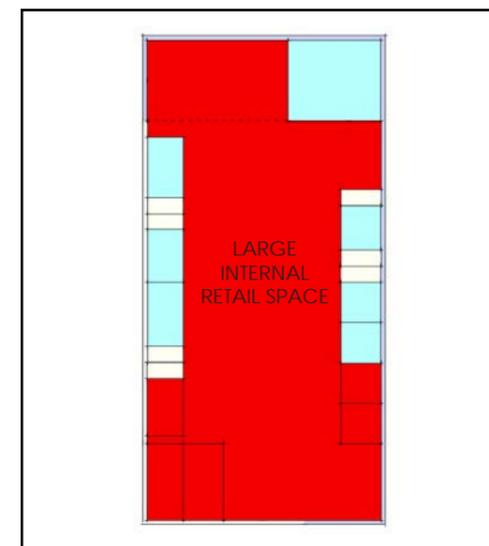


Figure 7.11: An example of a mixed use block which contains buildings of a coarser and finer grain. This typology will be used throughout the UDF area and will provide transitions between areas of differing grains. The photographic example shows a transition between finer grain commercial and residential frontages.



Figure 7.12: Photographic examples of 'one off architectural pieces'. These individual designs should be used to highlight areas of civic importance within the UDF area.

7.3.3 Major Public Spaces

There are a number of public squares in the UDFD area that are central to the economic, social and civic life of the District Centre. Detailed design responses have been developed for significant spaces based on the intended function of the space. While the design responses do not seek to stifle other innovative design solutions, designers will be required to respond to the design responses presented and the parameters set out as follows.

Clonburris Triangle

Clonburris Triangle is the primary urban space in Clonburris. Clonburris Triangle will be a vibrant open space that will accommodate movement, public events, relaxation and socialising. The Triangle will be located at the higher Main Street level. The southern edge of the Triangle will negotiate the level difference down to Station Road. The main space will be enclosed by retail, leisure, entertainment and civic uses and the height of surrounding buildings will serve to define the space. Figure 7.13 illustrates a design response to Clonburris Triangle. Detailed design proposals should meet the following design requirements:

- The design and treatment of the Triangle should reflect the important social and movement function it accommodates.
- The urban space should be paved in local stone such as limestone.
- Major desire lines should be clear and unhindered.
- Smaller sub-spaces should be paved in a contrasting coloured stone and consisting of seating and planting to accommodate meeting and resting in this busy urban space.
- The sub-spaces shown are flexible in use. One is planted with trees to provide a sheltered seating space. The second space contains trees set in bespoke planters/seats, which are movable to provide sufficient space for larger gatherings.
- Seating should be orientated towards the library/ civic centre, so that multi media performances may be projected onto the library façade.
- Views to the Dublin Mountains should be maintained to the south from Clonburris Triangle.
- Paving should extend to adjoining streets along key routes to aid legibility within the central area of Clonburris.
- Lighting, seating, cycle parking and other street furniture should be distinct and specific to the central area of Clonburris.
- Three sets of publicly accessible steps and 24-hour lifts will be required at the locations shown in Figure 7.13 to provide access between Clonburris Triangle and Station Road below.

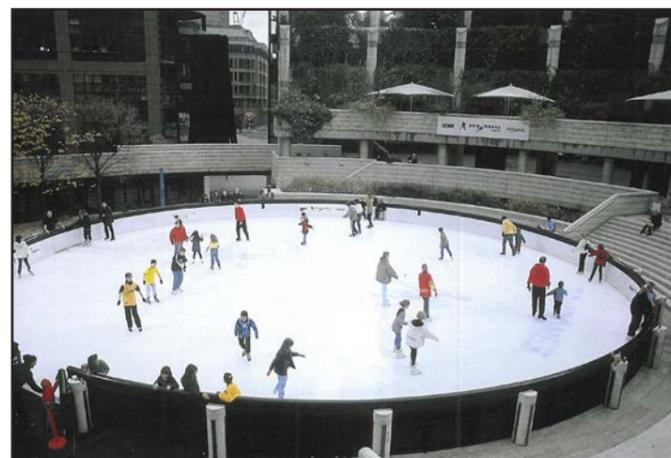
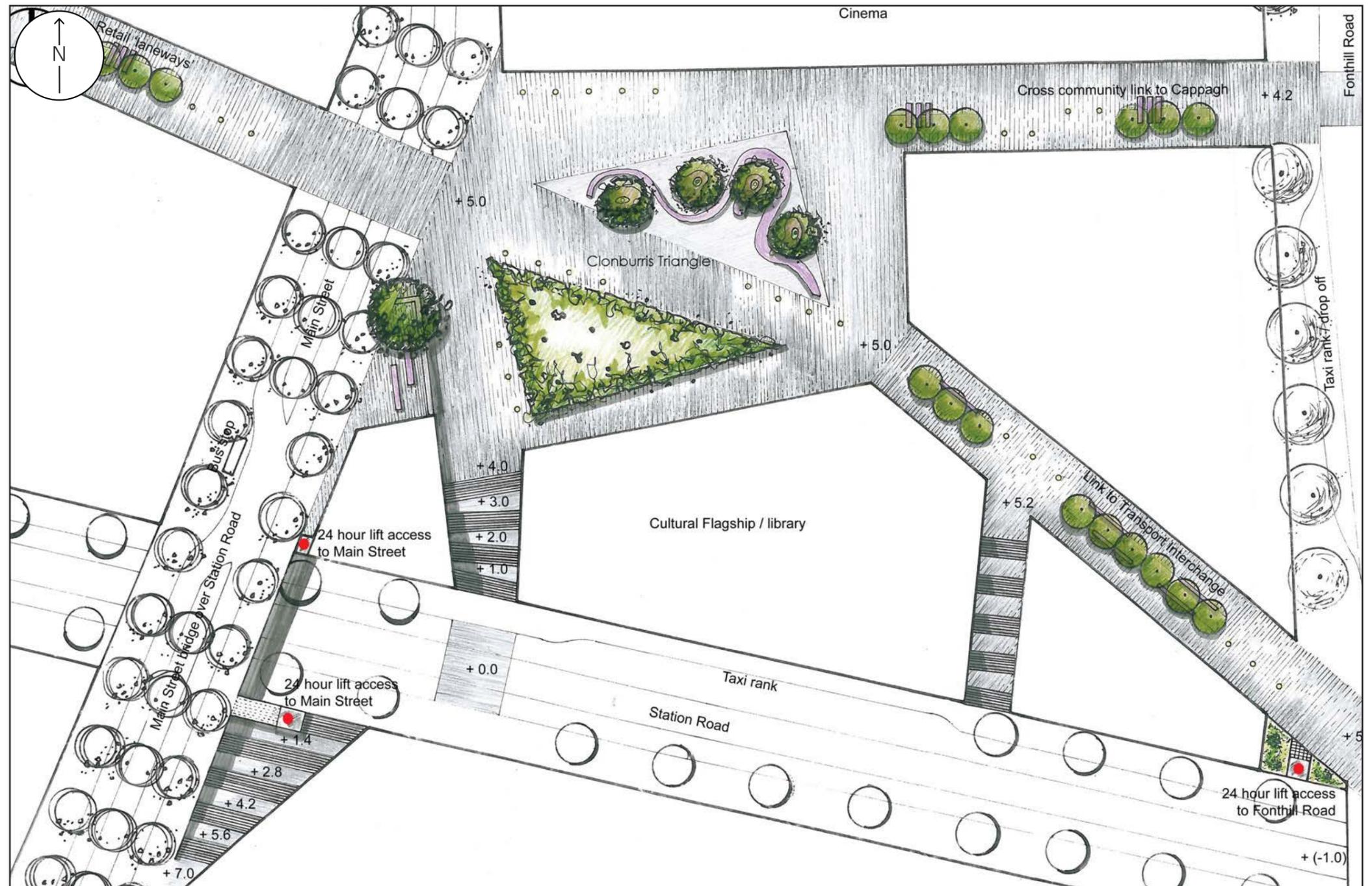


Figure 7.13: Landscape design response and reference images for Clonburris Triangle.

Canal Basin (See also Clonburris Interface)

The Canal Basin area is a primary leisure and entertainment destination in Clonburris. It is a complex space comprising a centrally located basin. The design of the Canal Basin has been refined to take into account the UDF Structure Plan and adjacent changes in ground level. The required minimum area of 1ha (as outlined in the red line boundary) has also been reviewed and includes the surrounding boardwalk and public spaces where vehicle access is not provided. Figure 7.14 illustrates a design response to the Canal Basin. Detailed design proposals should meet the following design requirements:

- A Basin area shall be provided as the centre point for this space. The Basin should be of sufficient size to accommodate an active harbour (min. area of 0.6ha).
- Mitigation measures outlined in the UDF Biodiversity Study requires that the basin have a gravel/stone base and that underwater sides should be roughly textured to create suitable habitats for local ecology (crayfish). A wildlife refuge is also required in the basin.
- To address the differing levels the Basin should be surrounded by a wide side deck (boardwalk and/or masonry set a maximum of 750mm above water level); be fully accessible to the area above via steps and ramps; and incorporate a shallow flight of south facing steps at the northern edge to provide seating and an extension to the space to the north. Behind this planting buffers the commercial uses (restaurants, bars and cafes) that occupy the south facing units to the north
- The circulation space surrounding the Basin should be paved, include street furniture and be planted with rows of trees and shrubs.
- South of the Basin a Cultural Flagship/Eco Centre is required. The building should be raised and constructed over a reconstructed wetland habitat (using displaced vegetation where possible).
- To the north east of the Basin an upper level deck will be required to accommodate the termination of the Urban Park/SUDs swale that travels north along the Station Link to Metro Square. As the urban park enters the Canal Basin it should become harder in character. It should be paved and planted with trees such as Weeping Willow (*Salix x Chrysocoma*), contain seating and act as a viewing platform. The watercourse should become a rill that continues east of the Canal Basin and connect to the SUDs system further south. A similar system will be required to the west to ensure that no surface water from the site drains to the Canal.
- Vehicular access shall not be continuous around the Basin area. A side street should be provided to the east, and a shared surface street provided half way along the Basin (delivery access and emergency access can be catered for).

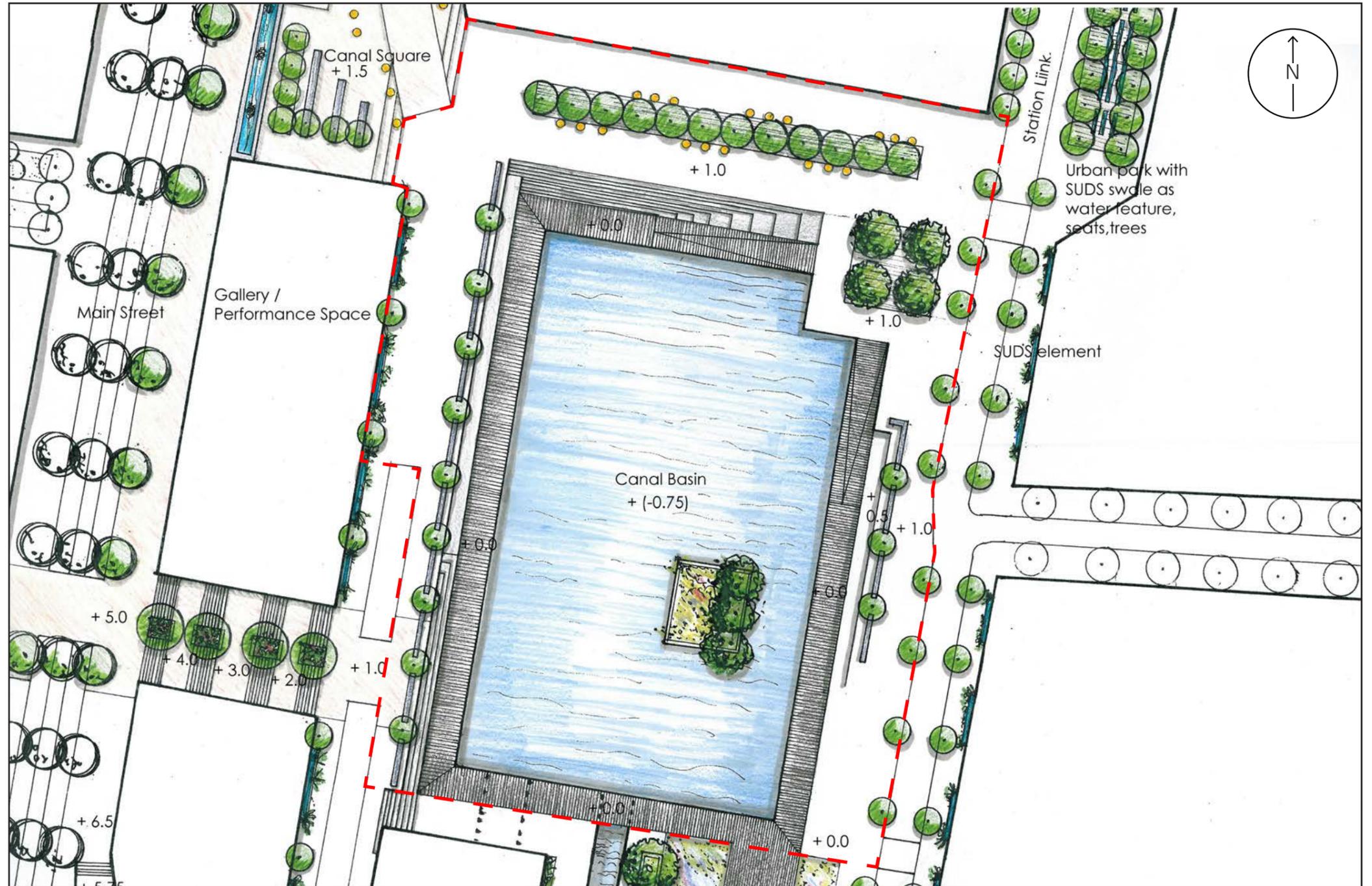


Figure 7.14: Landscape design response and reference images for The Grand Canal Basin.

Grand Canal Interface

The urban building line is set back 30 meters from the edge of the Grand Canal proposed National Heritage Area (pNHA). The Grand Canal is an important biodiversity corridor comprising the Canal itself, the Cappagh Overflow Stream, the tow path, hedgerows, trees and other planting. Known protected species in the corridor include crayfish. Bat species are also known to commute along this corridor. Figure 7.15 illustrates a design response to the Clonburris Interface. Detailed design proposals should meet the following design requirements:

- The urban building line should maintain a minimum set back of 30 meters from the pNHA boundary. The southern edge of the Clonburris Lock neighbourhood should be designed as a soft urban edge with 'green fingers' of trees, hedges, shrubs, herbaceous plants and water infiltrating the built environment. The design response outlined in Fig 7.15 shows retained planting, trees, a wetland habitat, canal basin, wildlife refuge, planted semi-private open spaces and swales.
- A new navigable channel is required between the Canal and the Basin for barges and boats. This access channel must be carefully designed to minimise impacts on the sensitive ecology such as the Canal and the Cappagh Overflow Stream and will be subject to agreement from the appropriate authorities (refer to Biodiversity Study).
- Within the interface area there will be limited development and proposals should seek to retain existing planting and to minimise the impact on sensitive ecology, as far as possible.
- Designated access boardwalks should be provided between the Canal Basin area and the Grand Canal to provide defined paths and to minimise the impact on existing ecology.
- Lighting in the area should be sensitive to the local ecology (e.g. bats) and buildings at the edge of the 30 m buffer should demonstrate that no negative impact will result to species along the Canal.
- A new hedgerow will be required on the southern edge of the Basin area to protect the Grand Canal edge from intrusion and to decrease light spill. Large sized trees will be required within the hedge.
- Bridges over the navigable channel should operate on a pivot or other system that allows level access across the bridge.

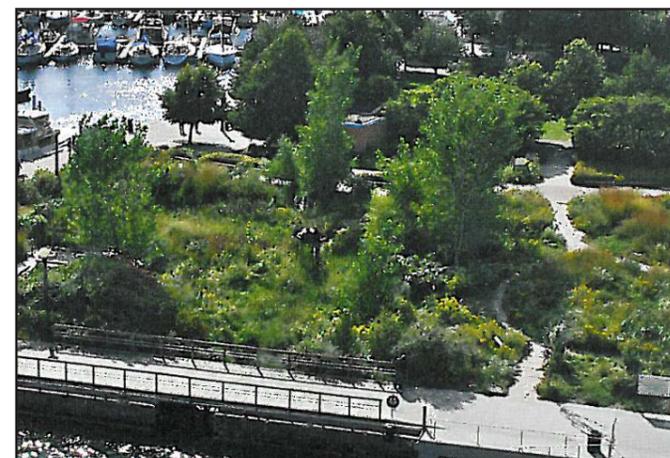
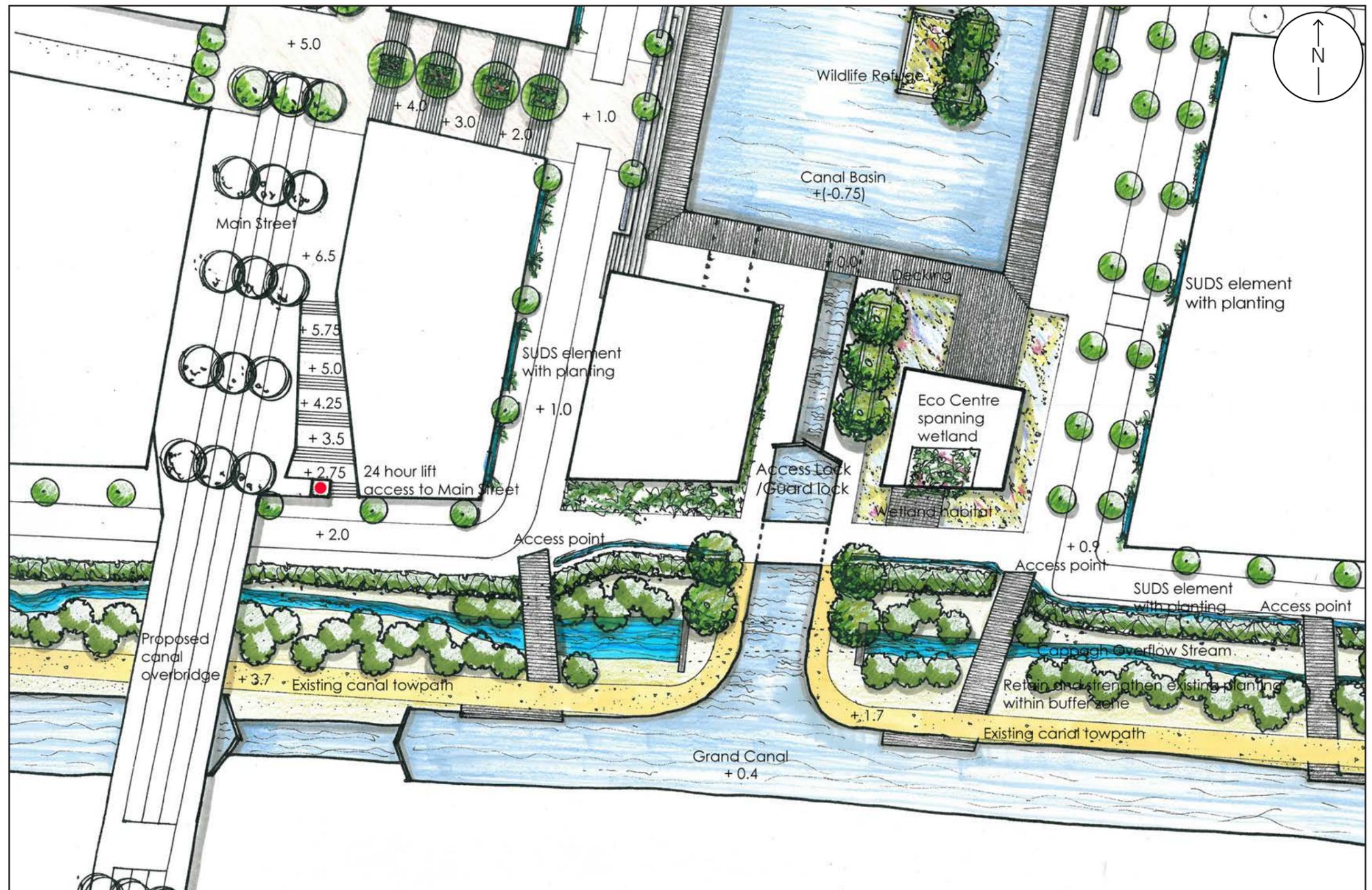


Figure 7.15: Landscape design response and reference images for The Grand Canal Interface.

Metro Square

Metro Square is located to the south west of the Clonburris Transport Interchange. It is an important gateway for people entering and leaving Clonburris and the design of the square should reflect this. Figure 7.16 illustrates a design response to Metro Square. Detailed design proposals should meet the following design requirements:

- The design of the square should mark its importance as a gateway and as a waiting area, with high quality paving, planting and seating.
- The important movement function for pedestrians and cyclists needs to be reflected through the provision of secure cycle parking in Metro Square for short stays. Longer term parking will be provided within the P&R facility adjacent to the station and adjacent to buildings.
- Ease of movement to and from the station is paramount and the design of pedestrian routes should accommodate all routes, as shown in the adjoining design response, and reflect the importance of the Station Link to the south.
- Paving, planting, lighting and furniture should be distinct from that proposed elsewhere in Clonburris District Centre, to reflect the more functional aspects of the interchange area and provide a landmark for this major gateway for residents and visitors to Clonburris.
- Large sized trees should be planted to provide shelter within the Square. The Trees will also give a human scale to the taller buildings proposed along Fonthill Road.
- A set of steps and lifts will be required at the north eastern edge of the square, to the east of Fonthill Road Bridge, to provide access to Station Road underneath.

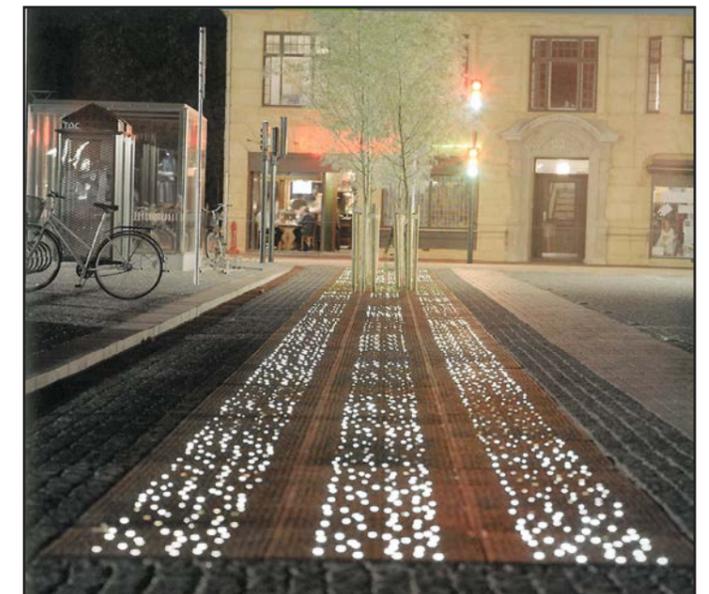
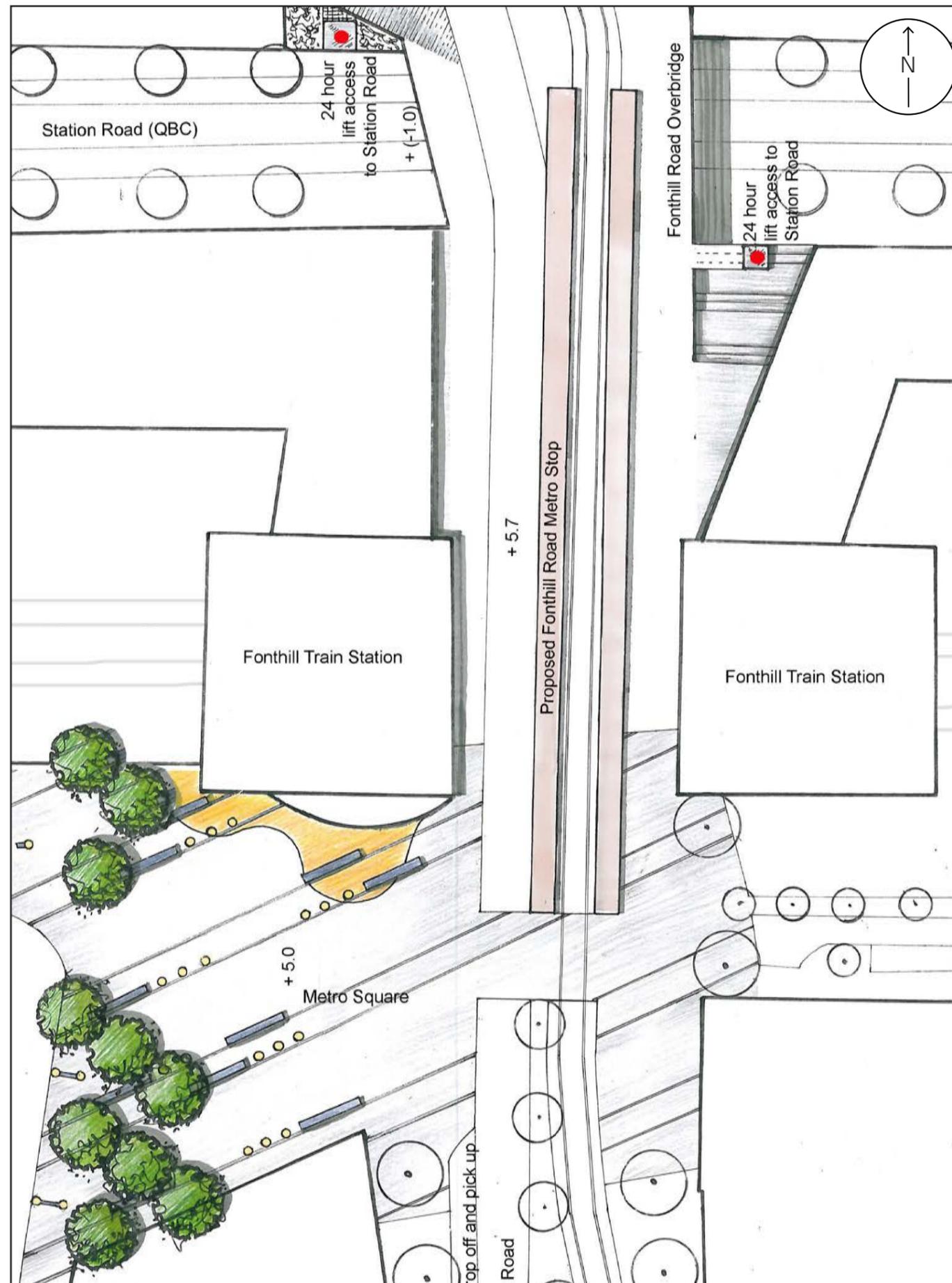


Figure 7.16: Landscape design response and reference images for the Metro Square.

Canal Square

Canal Square is a local public square at the junction of Main Street, Park Avenue and the Canal Basin. It is an important way finding space, marking the end of the primary retail area, acting as a gateway to the Canal Basin and addressing the level difference between Main Street and the Canal Basin.

Figure 7.17 illustrates a design response to Canal Square. Detailed design proposals should meet the following design requirements:

- The Square serves an important movement function and it should be designed to provide direct diagonal movement between Main Street and the Canal Basin.
- A level area should be provided in the centre of the space to allow adjacent buildings to open out onto the space. This will also facilitate the creation of a sub-space within the square with features such as seating, trees and a water feature, providing a protected space for sitting.
- Warm coloured stone, such as sandstone should be provided as paving to complement the tone of the boardwalk and decking in the adjoining Canal Basin area and to give a less formal feel as one enters the leisure and entertainment zone.
- The treatment of the Square should be continued across to Main Street as a way finding cue that guides people from Main Street to the Canal Basin area.
- Tree species should reflect the waterside nature of the Square e.g. Aspen (*Populus tremula*) or Birch (*Betula ermanii*).
- Lighting features should be used to reinforce the movement function.
- All round pedestrian phase crossing is required on the junction of Main Street and Park Avenue to allow for diagonal pedestrian movement.



Figure 7.17: Landscape design response and reference images for the Canal Square.

Fonthill Cross

Fonthill Cross is a highly visible public space situated at the junction of Main Street and Fonthill Link Road and adjacent to the northern landmark building. This space marks the gateway to Clonburris from the north.

Figure 7.18 illustrates a design response to Fonthill Cross. Detailed design proposals should meet the following design requirements:

- The space should be designed as an open, hard space, with a high visual impact.
- Lighting should be a key feature within the space. The design response provided suggests fibre optic lighting to highlight the paving pattern and light water jets. The lighting features can be utilised for movement and display.
- Water features, such as jets, could be incorporated into paved areas, with sensors to decrease water heights in windy conditions given the open nature of the space.
- Tall, sculptural items of public art should be provided at the park edge to distinguish the space. It is important that the visual features are incorporated into a strong design.
- Planting should be low key but large scale. The design response incorporates three large Oak (*Quercus rubra*) trees to provide some relief from the hard treatment of the space.



Figure 7.18: Landscape design response and reference images for Fonthill Cross.

8.0 DELIVERY AND PHASING

8.1 Introduction

The UDFD sets out a detailed framework for the delivery of Clonburris District Centre. This Chapter sets out a phasing strategy for the District Centre area to ensure that infrastructure, services, facilities and amenities are provided in tandem with development.

8.2 Delivery Principles

The delivery concept for the District Centre is based on ensuring that there is sufficient flexibility within the UDFD to support the delivery of sections of the District Centre on an incremental basis. The co-ordinating guidance that is set out in the framework will ensure that the core urban structure and key services, facilities and amenities are delivered in an integrated manner, at the earliest possible stage, irrespective of landownership and site constraints.

Section H.6 of the approved Clonburris SDZ Planning Scheme, 2008, sets out a sequential phasing strategy for the delivery of strategic infrastructure and facilities throughout the SDZ area. Specified infrastructure works, services, amenities and facilities must be provided no later than set out in the phasing scheme. The UDFD Phasing Strategy builds on the strategy contained in Part H of the SDZ Planning Scheme and is to be used in conjunction with that Strategy for development within the UDFD area.

8.3 Phasing

8.3.1 District Centre Phasing Strategy

The District Centre phasing strategy will be applied as follows:

- The UDFD Phasing Strategy is similar to the Phasing Strategy set out in Part H of the approved Clonburris SDZ Planning Scheme and is to be used in conjunction with that Strategy. Phases are defined by residential output.
- Infrastructure works, services, amenities and facilities outlined for each phase of development in the Clonburris SDZ Planning Scheme (Part H) must be completed and available for use no later than completion of the number of residential units specified for that phase.
- The UDFD Phasing Strategy merges SDZ Phase 1 and Phase 2 into a single phase, in so far as they relate to the UDFD area. Infrastructure works, services, amenities and facilities outlined for Phases 1 & 2 must be completed and available for use no later than completion of Phase 2 (1,600 residential units), save the exceptions set out in Table 8.1.

- In addition to the requirements of the Clonburris SDZ Planning Scheme Phasing Strategy (Section H.6 refers), Table 8.1 sets out permissible retail and commercial quanta in each UDFD neighbourhood by phase and specifies infrastructure works, services, amenities and facilities that must be completed and available for use prior to the occupation of development within each neighbourhood.

The initial phases of development will focus around Fonthill Station and Clonburris Main Street. The largest quantum of permissible Phase 1 and Phase 2 retail development is in the Clonburris Cross area, due to the presence of important nodes and links, such as the Transport Interchange and Clonburris Square. Retail development can also commence in the Cappagh and Clonburris Lock areas in SDZ Phase 1 and 2. There are no restrictions on the provision of commercial development.

8.3.2 Phasing of Individual Schemes

Prior to the delivery of Phase 1 and 2 infrastructure the Planning Authority/Development Agency will consider development proposals up to end of Phase 2 (1,600 units). Development proposals will be assessed against the phasing requirements of the SDZ Planning Scheme and UDFD and the applicant/developer will be required to demonstrate that adequate provision can be made for Phase 1 & 2 infrastructure as part of or in parallel with the development.

8.3.3 Monitoring

The role of the Development Agency is to manage and oversee the delivery of development of Clonburris in accordance with the Clonburris SDZ Planning Scheme. The developers/landowners will be required to assist the Development Agency in this role, by such methods as providing data and/or site access, in order to enable the Development Agency to monitor progress including the rate of commencement, completion, occupation and overall quantum of residential units, non-residential development, infrastructure and amenities; monitor compliance with approved planning permissions and conditions; and monitor adherence on site to regulated and agreed environmental standards.

8.4 Delivery Mechanisms for Cross Cutting Infrastructure and Facilities

Strategic Infrastructure and Facilities refers to infrastructure and facilities that form part of the core urban structure of Clonburris but which cannot reasonably be provided by a single landowner/developer due to cost and complexity. Strategic infrastructure must, therefore, be cross funded by landowners or by alternative means. Appendix A lists infrastructure items that would require cross funding. All other items should be provided by landowners/developers, as part of individual or joint schemes.

It is a requirement of the approved Clonburris SDZ Planning Scheme, 2008, that a robust delivery mechanism(s) be agreed between the landowners and the Development Agency/Planning Authority before any development shall take place within the SDZ Planning Scheme area. Planning permission will not be granted within the UDFD area until such time as a delivery mechanism (s), with appropriate safeguards, is agreed.

The SDZ Planning Scheme does not prescribe the format that the delivery mechanism (s) shall take. However, a key element of the mechanism (s) will be that each landowner will be required to work closely with the other landowners to deliver strategic infrastructure and that a clear management structure is put in place to provide the necessary governance and leadership of the process.

The Planning Authority/Development Agency will continue to investigate alternative means of funding for cross-cutting infrastructure and may use whatever powers are available to it to secure the funding and delivery of the necessary infrastructure and amenities set out in the Infrastructure Phasing Scheme. This could include the establishment of alternative Delivery Vehicles, led by the public sector and/or the development of Development Contribution Scheme(s) under Sections 48 and 49 of the Planning and Development Act, 2000-2007.

8.5 Incentives and Penalties

A number of incentives and penalties are included within the approved SDZ Planning Scheme to secure successful, high quality early stage delivery. The incentives will take the form of reductions in the extent of permissible non-residential development in the high accessibility zones, and transfer of non-residential development opportunities to other landowners if key pieces of urban structure fail to be delivered in accordance with the requirements of the Plan.

In the case of Clonburris Main Street North and Station Road East, the following applies:

“Failure on part of any landowner over whose landholding the route crosses, to facilitate delivery of this strategic route in entirety as part of the first phase will result in a reduction of 25% in the quantum of permissible net retail floorspace and 10% of the permissible gross non-retail commercial floorspace permitted within his/her landholding. This retail and non-retail floorspace will be transferred to the other landowners through whose holdings the route runs, on a pro-rata basis. In the event that this circumstance arises, landowners will be required to link the permanent elements of the route to the Fonthill and Fonthill Roads on a temporary basis pending construction of the full permanent route”.

The incentives and penalties outlined in Part H of the approved Planning Scheme will apply within the UDFD area.

Table 8.1 - UDF Phasing Sequence

Phase	Fixed Strategic Infrastructure, Facilities & Services
Phases 1 and 2 0-1600 units	<p><i>Cappagh</i></p> <ul style="list-style-type: none"> Maximum 3000sq.m net retail floorspace. Station Road East (M.03.e) east of Fonthill Road – including junction (J.02) - prior to the occupation of any development in Cappagh neighbourhood. <p><i>Clonburris Lock</i></p> <ul style="list-style-type: none"> Maximum 7000sq.m net retail floorspace. Clonburris Main Street South (M.04) from Railway to Park Avenue, inc eastern link to Fonthill Road - prior to the occupation of any development in Clonburris Lock neighbourhood. <p><i>Clonburris Cross</i></p> <ul style="list-style-type: none"> Minimum 15000sq.m or Maximum 20000sq.m net retail floorspace to include one food supermarket. Clonburris Main Street from Railway to east/west Access Street, including link to Fonthill Road – prior to the occupation of any development south of Access Street. Clonburris Main Street from Fonthill Link Road to east/west Access Street, including link to Fonthill Road – prior to the occupation of any development north of Access Street. Links via Clonburris Square to Transport Interchange – prior to occupation of any development south of the east/west Access Street. <p>In the event that development has occurred in both the Cappagh and Clonburris Cross neighbourhoods by end of Phase 1 (0-800 units), Phase 2 development shall not be occupied until such time as the Fonthill Road underbridge (1.03.a) is completed and available for use.</p> <p>In the event that development has occurred in both the Clonburris Lock and Clonburris Cross neighbourhoods by end of Phase 1 (0-800 units), Phase 2 development shall not be occupied until such time as the Main Street railway bridge (1.02.a) is completed and available for use.</p> <p>In the event that development has occurred in the Clonburris Cross neighbourhood by the end of Phase 1 (0-800 units), Phase 2 development shall not be occupied until such time as Station Road East (M.03e) from Fonthill Road to western extent of SDZ boundary is completed and available for use.</p> <p>No development will be approved within the affected UDF area until such time as an alternative route for the relocation of the high pressure gas main is agreed with Bord Gais.</p> <p>No development will be approved within the UDF area until such time as an alternative route for the relocation of the Fonthill Road watermain is agreed with South Dublin County Council.</p>
	<p><i>Clonburris Lock</i></p> <ul style="list-style-type: none"> Clonburris Main Street (M.04) from its junction with Park Avenue across the canal, to include bridge over the canal (1.01.a) prior to the occupation of any Phase 4 development. Canal Square (S.04.3) prior to the occupation of any Phase 4 development.

Phase 4 2401-3200 units	<p><i>Clonburris Lock</i></p> <ul style="list-style-type: none"> Total Maximum 10000sq.m net retail floorspace (cumulative retail floorspace Phases 1-4) if development occurring under Scenario B. Minimum 2750sq.m Primary Health Centre floorspace delivered prior to occupation of any phase 5 development. Minimum 300sq.m Worship/Ecumenical floorspace prior to occupation of any phase 5 development. Clonburris Canal Basin (1.04) . <p><i>Clonburris Cross</i></p> <ul style="list-style-type: none"> Minimum 15000sq.m or Total Maximum 27000sq.m net retail floorspace (cumulative retail floorspace Phases 1-4) if development occurring under Scenario B. Minimum 3000sq.m Civic Centre/Library floorspace prior to the occupation of any phase 5 development. Minimum 300sq.m Youth Activity Space prior to the occupation of any phase 5 development.
Phase 5 3201-4000 units	N/A
Phase 6 4001-5000 units	N/A
Phase 7 5001-6000 units	<p><i>Clonburris Lock</i></p> <ul style="list-style-type: none"> Balance of 300sq.m Worship/Ecumenical floorspace if not all provided in Phase 4. Any under provision in Phase 4 would be subject to the agreement of the Planning Authority/Development Agency. Balance of 300sq.m Youth Activity Space if not all provided in Phase 4, completed and available for use by end of phase 7. Any under provision in Phase 4 would be subject to the agreement of the Planning Authority/Development Agency.

Notes:

The location of the Access Street between Main Street and Fonthill Road is indicative only, and may need to adjust northward or southward to facilitate access during initial phases.

To enable a comprehensive plan for the District Centre and to facilitate the early delivery of core infrastructure, the UDF reallocated Phase 4 "Scenario A" retail provision (10,000 sq.m) to Phase 2. This was recommended in the Managers Report on the draft SDZ Planning Scheme in November 2007 and approved by Council. The proposals was not opposed during the Oral Hearing on the SDZ document, but was omitted from the final decision in error.

Appendix A

SDZ Strategic Infrastructure

Vehicular Bridges

Clonburris Main Street Railway Overbridge
Clonburris Boulevard Railway Overbridge
Clonburris Main Street Canal Overbridge
Clonburris Park Canal Overbridge (Bus & Ped only)
Fonthill Road Underbridge

Pedestrian Bridges

Gallanstown Railway Bridge
Kishoge Railway Bridge
Clonburris Boulevard/St. Cuthberts Road Canal Bridge
Kilmahuddrick Canal Bridge
ORR Pedestrian Underpass

District Community Space

Library & Civic Centre & Youth
Worship/Ecumenical Space

Leisure/Culture

Canal Basin
Omar's Lock House
ECO Centre

Parks

Grand Canal Park (North & South)
Clonburris Park

Water Supply - Fonthill Rd Water main relocation

Utilities

Fonthill Gas Main relocation
ESB – Sub Station Bond
District Heating Infrastructure

Waste

Recycling Centre

Project Management
Finance Cost