An Bord Pleanála

Inspector's Report PL29S.JA0039

Development	Development of a new civic plaza, ancillary traffic management measures and minor works.
Location	College Green. Dublin.
Planning Authority	Dublin City Council.
Applicant(s)	Dublin City Council.
Type of Application	Section 175 Local Authority
Prescribed Bodies	Department of Education and Skills Failte Ireland National Transport Authority Transport Infrastructure Ireland Dublin Bus
Observers	100 + (Listed overleaf)
Date of Site Inspection	November 13th, December 1st, 2017 & February 19th, 2018
Inspector	Breda Gannon.

Appendices

1. Observers submissions
2. Oral Hearing submissions
3. Transport Insights Report
4. Traffic Consultant's Report

List of Observers

1. Abercrombie & Fitch, Costa Coffee and Others
2. Adrian Borowski
3. Aperitivo
4. APK Compressors Ltd
5. Arnotts
6. Blooms Hotel
7. Brown Thomas Clarendon St Car Park
8. Brown Thomas Group Ltd
9. Christine Kostick
10. Cllr Ciaran Cuffe
11. Conor Coyle and Omer Keser
12. Cows Lane Designers Studio
13. Dame Property Plaza designated Trading Company
14. Di Fontaine's Pizzeria
15. Dualway Group
16. Dubarry of Ireland
17. Dublin Bus
18. Dublin Chamber
19. Dublin City Centre Trader's Alliance
20. Dublin Town
21. Find
22. Fitzwilliam Real Estate Capital Ltd
23. Irish Hotel federation

24. Irish Parking Association
25. Irish Taxi Driver's Federation
26. IrishCycle.com
27. Jim O'Connor
28. John O'Flaherty, Gavin Ward & Stephen King
29. John Weldon Auctioneers
30. Jonova Properties Ltd
31. Justin Marsden
32. Lorien Enterprises Ltd t/a Zaytoon & Café Topolis
33. Lowstrand Properties Ltd
34. Luigi Santoro-Ascot Catering
35. M.E.Hanahoe
36. Michael Nolan
37. Michael Walsh
38. Paramount Hotel and Turks Head
39. Queen of Tarts
40. Reads Cuttlery
41. Restaurants Association of Ireland
42. Ronan Fallon
43. SPAR
44. Stanberry Investments
45. Stock Design (Ireland) Ltd
46. Street 66 Bar
47. Temple Bar Company
48. Temple Bar Residents
49. TESCO Ireland Ltd
50. The Bakery
51. The Clarence Hotel
52. The Fitzwilliam Hotel, Shelbourne & Others

53. The Gutter Bookshop Ltd
54. The Ink Factory
55. The Keoghan Partnership
56. The Larder Restaurant and Brew House
57. The Porterhouse Brewing Company
58. Thomas Newton
59. Thomas St Multi Storey Car park
60. Tiomanai Tacasia na hEireann
61. Toscanna Ltd
62. Trinity College Dublin
63. Trinity Street Car Park
64. Weir& Sons
65. Wendy Crawford -SCOUT
66. West Hotel Trading Company.
67. Thee Olympia Theatre

Submission received following receipt of further information

1. Transport Infrastructure Ireland
2. APK Compressors Ltd
3. Brown Thomas Clarendon St Carpark
4. Dublin Bus
5. Dublin Chamber
6. Dublin City Centre Traders Alliance
7. Dublin City Public Participation Network
8. Irish Hotel Federation
9. IrishCycles.com
10. Jonava Properties Ltd
11. Justin Marsden
12. Lowland Properties
13. National Council for the Blind of Ireland

14. Park Rite
15. Robbie Sinnott
16. Ronan Fallon
17. Strawberry Investments Ltd
18. Tesco Ireland Ltd
19. The Fitzwilliam Hotel & Others
20. The Keoghan Partnership
21. Thomas St Multi-storey car park
22. West Hotel Trading Company.

Submissions received following republication of public notice

1. CIE/Dublin Bus
2. National Transport Authority
3. Transport Infrastructure Ireland
4. Ciaran Cuffe
5. Mannix Flynn
6. Roisin Shorthall TD
7. Coach Tourism & Transport Council of Ireland
8. Fairline Fashion Group
9. Incoming Tour Operators Association-Ireland
10. Irish Guide Dogs for the Blind
11. Irish Wheelchair Association
12. Kate O Neill
13. Mary Costello & Others
14. Hanahoe Solicitors & Others
15. Anthony T Hanahoe & Others
16. M.E Hanahoe Solicitors
17. My Taxi
18. National Disability Authority
19. Sue Uda -A Touch of Ireland

Contents

1.0 Site Location and Description

The site is located within a built urban environment in the centre of Dublin. It encompasses an overall site of 13,960m^2 (c. 1.396Ha). The plaza covers an area of c 7,300 m^2 and includes the full area of College Green and Foster Place and parts of Dame Street, Trinity Street, St Andrews Street, Church Lane and the northern end of Grafton Street. The plaza site runs west as far as Anglesea Street and its eastern edge is demarcated by the north-south alignment of Luas Cross City.

The site lies to the south of the River Liffey, within the historic core of the city and includes a number of landmark buildings, the most significant being Trinity College and the Bank of Ireland. There are a large number of protected structures in the locality, on either side of College Green and in the surrounding streets. The site is located within a Conservation Area and parts of the site lie within the O'Connell Street Architectural Conservation Area (ACA), the South City Retail Quarter ACA and the Grafton Street and Environs ACA. It also lies within a zone of archaeological interest.

The site, which is fully developed, is located at the junction of a major traffic artery for traffic traveling north-south and east-west. It contains a number of roads that are paved or tarmacadamed which are flanked by footpaths, some with original paving stones. It includes a traffic island in the centre of the urban space that accommodates the Henry Grattan statue and the Thomas Davis memorial fountain and plaque. It also accommodates a permanent taxi rank, an informal area for parking motor cycles, heritage lamp standards and some trees.

Foster Place is bounded to the east by Bank of Ireland (former Parliament Buildings), to the west by office buildings/coffee shop and by the former Armoury Buildings to the north. The carriageway is surfaced with stone setts and the footpaths consists of historic granite flags. Five mature London Plane trees provide soft landscaping. The cul-de sac provides vehicular access to the rear of Bank of Ireland and accommodates a taxi rank.

College Green currently operates with traffic restrictions i.e. only buses and bicycles between 07.00-10.00 am and buses, taxis and bicycles from 10.00-19.00 Monday - Friday. It carries two lanes of traffic travelling from College Street to Dame Street and one lane from Dame Street to Westmoreland Street. Construction on Luas

Cross City is now complete and the service came into operation on December 9th, 2017. It includes stations at College Street and Westmoreland Street, to cater for south and north bound services, respectively.

The area is one of mixed uses and the site is surrounded by commercial properties including offices, shops, restaurants and banks.

2.0 Proposed Development

The development comprises the development of a (i) civic plaza, (ii) the introduction of traffic management measures and (iii) some minor road works on an overall site of 13,960 m2.

(i) The proposed **civic plaza** would extend west-east from the junction with Anglesea Street to the front of Trinity College and north-south from College Street to the end of Grafton Street. It would occupy an area of c 7300m2 with a maximum length of 63m (east-west) and a maximum width of 34m (north-south).

The space would be divided into three distinct zones from east to west;

- A 'circus' on the axis of Foster Place and Church Lane (diameter circa 24.5m). It would separate the pedestrian priority area to the east from a more conventional street arrangement to the west. The centre of the 'circus' would accommodate the relocated Thomas Davis monument with the Four Angels fountain. The 'circus' would provide a turnaround for the limited traffic entering from Dame Street.
- The east end would be designed as a fully pedestrianised space framed by the facades of the Bank of Ireland and Trinity College. It would accommodate a new central water fountain feature and the space would be available for events and celebrations. The existing Henry Grattan statue would remain in this area, its position largely unchanged, except for a minor adjustment to align with the axis of the plaza.
- Foster Place would be developed as a pedestrian priority square framed by London Plane trees.

The plaza design also includes the removal of 8 no. trees from the area of the traffic island and replanting of trees (10 no. in a single line on the south side of the plaza

and a further 12 no. forming an avenue on the approach to the space from Dame Street), new public lighting and the installation of infrastructure services to accommodate public and social events. Paving in light and dark granite would be used to define the space. Where historic paving exists, such as around the Bank of Ireland it would be salvaged and re-laid. The existing flags and setts in Foster Place would also be retained, as would the mature trees. The proposed 'circus' would be created in asphalt with the same tone as the dark granite, defined by light granite edging.

(ii) The development of the pedestrian orientated space would necessitate the implementation of new **traffic management measures**, including the re-routing of buses, removal of taxi ranks, provision of new taxi ranks, provision of loading bays, cycle lanes and new signage (to direct traffic away from College Green, bus passengers to new stops and taxi customers to relocated ranks). There would be modifications to the pedestrian crossing being installed as part of the Luas Cross City Project to the south of the gates of Trinity College, which would be changed to Touscan crossings to facilitate safe crossing of Luas tracks by cyclists.

As part of these measures, buses would continue to run along the same route as the new Luas tracks, north and south in front of Trinity College. This route would be used to access Nassau Street heading south and Westmorland street heading north. Most buses currently using Dame Street to cross the city would be diverted to other routes, while buses which continue to use Dame Street would turn around at College Green, in the new turning circle at the junction of Church Land and Foster Place. The implementation of the scheme would see taxis, buses and general traffic excluded from College Green on a continuous basis.

As part of the bus re-routing measures Parliament Street will be used by public transport only from 07.00-19.00 hours Monday-Friday, with buses continuing to travel southbound only. Access to loading facilities would be permitted on the southern side of Parliament Street up to 11am via Essex Gate.

(iii) **Minor road works** would be required on Dame Street to tie in with the plaza and to provide additional bus stops, taxi/ loading facilities and cycling and pedestrian facilities between the civic plaza and South Great Georges Street. These works

would take place within the red line indicated on the planning drawings. The works on Dame Street would maintain one lane eastbound with an additional length of bus stop (40m long). The bus stop would be located at the northern side of Dame Street. There would be no bus stops on the southern side between the plaza and South Great Georges Street, with the alighting/boarding of passengers all taking place on the northern side.

In the westbound direction the two lanes have been reduced to one and additional taxi ranks and loading bays are being provided on the southern side of Dame Street. The reduction in lanes and realignment allow for the opportunity to build out the footpaths i.e. at the junction of Dame Street/South Great Georges Street and at Trinity Street and Anglesea Street junctions.

The application is supported by the following documents:

- Application Drawings.
- Environmental Impact Statement.
- Report for the purposes of Appropriate Assessment Screening.
- College Green Civic Space Design Report.
- College Green Photomontages.

3.0 Further Information

3.1. On August 10th, 2017 the Board sought further information on the proposal from Dublin City Council. The response which was received by the Board on October 20th, 2017 included the submission of an Environmental Impact Assessment Report (EIAR), to comply with the requirements of amending Directive 2014/52/EU and the consideration of the environmental factors prescribed under Article 3(1). The response also included a report responding to the various issues raised by the Board. together with supporting appendices. A new public notice was published on November 16th, 2017.

3.2. The Board also sought the republication of the public notice to ensure compliance with Article 6(7) of the amending Directive 2014/52/EU regarding time frames for consulting with the public. The notice was published on January 19th, 2018.

4.0 Construction Strategy

An indicative construction programme is set out in Section 4.5.2 of the EIAR. The construction stage is expected to take 12-18 months. The main construction works are associated with the development of the civic plaza area. Standard City Council requirements, control procedures and permits will apply to other works such as road realignments on Dame Street, Trinity Street, St Andrews Street, Church Lane and Grafton Street.

The main stages of construction are set out in Section 4.5.3 of the EIAR and include the following;

- Enabling works in advance of main works including the set-up of construction facilities, hoarding, signage etc. The initial works area is expected to include the northern side of the site, with pedestrian and cyclist access being retained along the southern side. Once the main section of the plaza is complete, the works area will move to the south with pedestrian and cyclist access provided on the north side. Construction vehicles will gain access though designated routes and access points.
- Site clearance and excavation – Following erection of hoarding, street furniture such as cycle features, traffic lights, bins, public lighting columns etc will be removed and stored for reinstatement following the works. The statues of Henry Grattan and Thomas Davis with the Four Angles Fountain will also be stored off-site. Identified trees will be removed and measures will be put in place to protect the trees to be retained in Foster Place. Footpath and road surfacing will be removed and trenches will be excavated for utility diversions. A significant proportion of the surplus excavation material will consist of rock and stone and will be sent for recovery/recycling at waste facilities.

  Excavation will typically be carried out using excavators where cut and re-profiling works are carried out on the site. Material to be taken off site will be transferred to trucks for onward transportation to the waste disposal/recovery site as soon as possible after excavation to reduce the amount of excavated material stored on the site. Similarly, materials required for the works will be delivered on a ‘just in time basis’ so as to minimise storage of materials on site. Archaeological monitoring of ground works will take place.

- Provision of services – Construction activity at this stage will focus on the installation/diversion of underground utilities to provide the infrastructure required for drainage, electricity and telecommunications. The existing drainage system will be retained, supplemented with the installation of SuDS where possible. The SuDS features will consist of new attenuation/infiltration areas filled with crushed stone/ soil. These will predominantly be located beneath the trees and new gullies will be provided so that any overflow from the attenuation/infiltration areas will discharge to the piped surface water drainage system. A drainage channel will be constructed around the proposed fountain to harvest rainwater and to return water from the fountains to the water pumps.
- Construction of Civic Plaza – This will involve the construction of the hard landscape throughout the site. Light and dark granite setts will be laid in the central area. The original setts at Foster Place will be reinstated. The proposed turning circus will be constructed in asphalt. The construction of the soft landscape works will be carried out in tandem with completion works on elements of hard landscaping.
- Replacement of street furniture, statues and replanting – The final part of the construction process will involve the replacement/placement of street furniture including seating, litter bins, bollards, cycle stands, lighting, planters and tree grilles. The monuments of Henry Grattan and Thomas Davis will be repositioned as described above. The final part of the construction effort will involve the planting of 22 no. new trees as described in Section 4.4.3 of the EIAR.

It is expected that there will be an average construction workforce of c. 50 people. The hours of working will be 07.00 to 18.00 hours Monday -Friday and 08.00 to 14.00 hours Saturday. Access to all properties will be maintained and signage and hoarding will be provided as necessary. A Construction and Environmental Management plan will be prepared by the Contractor in advance of any works.

5.0 Policy Context

The policy context for the proposed development at a national, regional and local planning level is set out in Chapter 5 of the EIAR. It is summarised below for the information of the Board. Reference is also made below to the National Policy Framework -Project Ireland 2040, which was published following the completion of the EIAR. To a large extent, particularly at national and regional level, the focus is on the role of Dublin and the City Centre. At a local level there is specific reference to the scheme.

5.1. National Policy

The **National Planning Framework-Project Ireland 2040**, published in 2018 is the Government's plan for shaping the future growth and development of Ireland out to 2040. It is envisaged that the population of the country will increase by up to I million by that date and the strategy seeks to plan for the demands this growth will place on the environment and the social and economic fabric of the country. It sets out 10 no. goals, referred to as National Strategic Outcomes. Those considered most relevant to the proposed development include **Sustainable Mobility**, **Transition to a Low Carbon and Climate Resilient Society** and **Enhanced Amenity and Heritage (including investment in well-designed public realm**), which are referred to in more detail under the Planning Assessment section of this report.

With regard to Dublin it states as follows;

'While Dublin has generally performed well in recent years, key challenges relate to housing affordability, transport and urban amenities/liveability. Dublin needs to accommodate a greater proportion of the growth it generates within its metropolitan boundaries and to offer improved housing choice, transport mobility and quality of life. Dublin needs to become a greener, more environmentally sustainable city in line with international competitors'.[1]

It sets out a number of key growth enablers for Dublin, some of which are relevant to the proposed development (bus transport, cycling infrastructure and public realm) and are referred to under the planning assessment below.

[1] Page 36 of National Planning Framework.

Smarter Travel – A Sustainable Transport Future (2009) establishes objectives and targets for transport. It sets out targets for the period 2009-2020 which include a reduction in the total share of car commuting from 65% to 45% and a related increase in walking, cycling and public transport modes to 55% of total commuter journeys to work. Actions to encourage Smarter Travel include;

Action 4 – The delivery of public transport, cycling and promotion of more sustainable travel patterns generally in many existing urban centres can only be achieved by retrofitting. We will require local authorities to prepare plans to retrofit areas towards creating sustainable neighbourhoods so that walking and cycling can be the best options for local trips, for example to reach local facilities such as shops and schools.

Action 15 – To create a strong cycling culture in Ireland and ensure that all cities, towns and villages and rural areas will be cycling friendly….Business people will see the bicycle as the best way to travel for part or all of their daily commute. Shopping by bike will be as normal as it is in many of the Northern European cycling-friendly countries. The bicycle will be the transport mode of choice for all ages…

Action 16 – To create a culture of walking in Ireland….We will ensure that urban walking networks are strengthened by increasing opportunities for walking and removing constraints as part of planning for more attractive public realms.

5.2. Regional Policy

The **Regional Planning Guidelines for the Greater Dublin Area 2010-2022** set out the planned direction of growth within the GDA up to 2022. Its vision statement is as follows;

'*The GDA by 2022 is an economically and vibrant, active and sustainable international Gateway Region with strong connectivity across the GDA region, nationally and worldwide; a region which fosters communities living in attractive, accessible places well supported by community infrastructure and enjoying high quality leisure facilities'.*

One of the core principles from the strategic vision for these RPG's is that

'development within the urban footprint of the Metropolitan Area will be consolidated to achieve a more compact urban form, allowing for the accommodation of a greater population than at present, with much enhanced public transport system, with the expansion of the built up areas providing well designed urban environments linked to high quality transport networks, enhancing the quality of life for residents and workers alike'.

The **Transport Strategy for the Greater Dublin Area 2016-2035** sets out a framework for the planning and delivery of transport infrastructure and services in the GDA. Its purpose is;

'*To contribute to the economic, social and cultural progress of the GDA by providing for the efficient, effective and sustainable movement of people and goods.*

Its focus is on the transport network and not on specific measures for the city centre. It acknowledges that addressing urban congestion is a priority and that a significant reduction in the share of trips undertaken by cars is required with an associated increase in walking, cycling and public transport use. A safe cycling network, with extensive coverage in Metropolitan Dublin is needed to cater for the increased use in cycling and to reduce the dominance of the private car. The enhancement of the pedestrian environment, including measures to overcome severance and to increase permeability is also a priority. All measures are underpinned by the necessity to protect and enhance the GDA environment.

The strategy examines the relationship between the city centre and suburban areas given the importance of the origin and destinations for various modes and purposes of trips. It notes that the city centre has maintained its position as the pre-eminent location for employment in the region. It also notes that major regional scale shopping centres such as IKEA, Dundrum Town Centre, Liffey Valley, The Square Tallagh, Pavillions in Swords and Blancharstown Shopping centre have challenged Dublin City Centre as the primary destination for shopping trips.

5.3. Local Policy

The operative development plan is the **Dublin City Council Development Plan 2016-2022.** A number of sections are relevant to the proposal;

Zoning - The dominant zoning within the area is 'Z5' with the following objective;

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

There are also areas zoned Z8 and Z9 with the following objectives;

Z8 – '*To protect the existing architectural and civic design and to allow only for limited expansion consistent with the conservation objective.*

Z9 – '*To preserve, provide and improve recreational amenity and open space and green networks'.*

Core Strategy - It is an overarching aim of the core strategy of the development plan *'to consolidate and enhance the inner city in order to strengthen its crucial role at the heart of the capital city and the city region'.*

It is acknowledged that the quality of the city's environment is an important element of its competitiveness and economic well-being and as a place to live, work and visit. This is reflected in numerous objectives/policies throughout the plan which seek to strengthen the city centre area and improve its competitiveness, attractiveness and permeability through public realm improvements, accessibility etc. These are documented in Section 5.8 of the EIAR, the following are considered the most relevant.

Shape and Structure of the City - In terms of the *Shape and Structure of the City*, the plan (4.5.1.1) sets out a number of objectives /policies;

Objectives

SCO1 – To implement a programme of improvements along the Grand Civic Spine from Parnell Square to Christchurch Place, including College Green and Dame Street arising from the opportunities provided by the introduction of the College Green Bus Priority System, the Luas Cross City and the 'Dubline' initiative'.

SCO2: To implement the actions and projects contained in the Dublin City Public Realm Strategy 2012 and any successor public realm strategy.

SCO8 – To prioritise the redevelopment of College Green as a pedestrian friendly civic space, including the pedestrianisation of Foster Place.

Policies

SC2 – *To develop the city's character by cherishing and enhancing Dublin's renowned streets, civic spaces and squares; to create further new streets as part of the public realm when the opportunities arise; to protect the grain, scale and vitality of city streets; to revitalise the north and south Georgian squares and their environs and to upgrade Dame Street/College Green as part of the Grand Civic Spine.*

SC3 *– To develop a sustainable network of safe, clean, attractive pedestrian routes, laneways and cycleways in order to make the city more coherent and navigable.*

SC4 *– To promote a variety of recreational and cultural events in the city's civic spaces.*

SC5 *– To promote the urban design and architectural principle set out in chapter 15, and in the Dublin City Public Realm Strategy 2012 in order to achieve a quality, compact well-connected city.*

SC19 *– To promote the development of a network of active, attractive and safe streets and public spaces which are memorable, and include, where appropriate seating, and which encourage walking as the preferred means of movement between buildings and activities in the city. In the case of pedestrian movement within major developments, the creation of a public street is preferable to an enclosed archway or other passageway.*

SC20 *-To promote the development of high quality streets and public spaces which are accessible and inclusive, and which deliver vibrant, attractive, accessible and safe places and meet the needs of the city's diverse communities.*

SC21 *– To promote the development of the built environment and public spaces which are designed to deter crime and anti-social behaviour, which promote safety and which accord with the principles of universal design as set out in the Dublin City Public Realm Strategy.*

SC28 *-To promote understanding of the city's historical architectural character to facilitate new development which is in harmony with the city's historical spaces and structures.*

City Economy and Enterprise - Chapter 6 of the Plan also acknowledges that the quality of the city environment is an important element of its competitiveness and economic well-being. It notes:

'Significant improvements in the urban environment such as new spaces and parks, cleaner streets, improved apartment housing, new arts and cultural facilities, and an increasing open and multi-cultural city at ease with its diversity have made the city more attractive and competitive'.

Relevant policies/objectives include the following;

CEE5 (iii) – To recognise the need to improve linkages between the key economic areas of the city such as the Docklands, the central business district, Heuston, Newmarket and the Digital hub area by improving facilities for pedestrians and cyclists, facilitating public transport, improving the public domain and tackling vacant sites/dilapidated buildings.

CEE7- To recognise that 'quality of place', 'clean, green, safe', is crucial to the economic success of the city, in attracting foreign and domestic investment, and in attracting and retaining key scarce talent, tourists and residents.

CEE14 –To recognise that many of our key tourist attractions are in regeneration areas with challenges of dilapidated buildings, vacant sites and public domain in need of improvement and to develop projects such as Dubline that will address these challenges

The **Heart of Dublin City Centre Public Realm Masterplan,** prepared by Dublin City Council in 2016 sets out guidance and priorities to improve public realm within the city centre over the next 20 years. Its vision for the city core is that it is uniformly pedestrian and cycle friendly and that barriers to permeability and movement are removed. It identifies the gaps that need to be filled in order to deliver a unified pedestrian friendly core. The development of College Green is identified as one of the projects required to achieve this (Phase 1 Public Realm Projects).

The **Dublin City Centre Transport Study (May 2016)** sets down a framework for how the Dublin City transport network can be redefined to cater for increased travel demand, by better utilising the existing infrastructure available, and by moving towards a more sustainable and efficient use of the public realm within the city centre. It states that the study will facilitate Dublin with an opportunity to grow as a

city both physically and economically, whilst also creating a better public realm which can be enjoyed by residents and visitors.

The Transport Study sets out 6 guiding principles which include i) to protect the investment made and that continues to be made in public transport in the city; ii) to increase the capacity for the movement of people and goods into and within the city centre; iii) to develop a safer city centre; iv) to improve accessibility and permeability for pedestrians, cyclist and public transport whilst also maintaining an appropriate level of access for vehicular traffic for commercial and retail purposes; v) to make it easier to use transport networks and vi) to provide opportunities to enhance the Public Realm through transport interventions in the City Centre.

At Section 5.3.2 it recognises *'that current congestion for all modes of transport, together with the traffic changes brought about by Luas Cross City and the need to cater for growth in travel demand, will require the re-allocation of road space on certain streets from general traffic to sustainable transport modes. This will safeguard the critical role of public transport and it will ensure that it is possible to transport more people in and out of the City Centre.'*

The creation of a civic space at College Green is part of the vision set out in the transport study.

6.0 Submissions Received

Submissions were received from prescribed bodies, public representative, umbrella groups and members of the public. This section of the report seeks to draw the attention of the Board to the significant matters raised by these parties.

6.1. Prescribed Bodies

Department of Education and Skills

The submission refers to the EIS in the context of projected households and the educational requirements that will be generated if the population growth were to materialise. If none of the projected numbers were to be catered for in existing schools, the projected population increase in the College Green area would generate

a requirement for an additional primary school (8 classroom) and a post primary school (1000 pupils). Land would need to be reserved for that purpose.

No further observations were submitted following the receipt of further information and the submission of the EIAR.

Failte Ireland

Bord Failte welcomes the proposed development which has the potential to provide a valuable new addition to the City for both locals and visitors.

It believes that the new space will also contribute considerably to the *'Dublin. A Breath of Fresh Air'* tourism brand by supporting the following objectives;

- *Orientation and navigation* – Provide opportunities to improve visitor's mobility around the city and environs and ensure visitors are comfortable and well informed when exploring Dublin, finding their ultimate destination etc. Any opportunities this new civic space can provide to support this would be welcome.
- *Festivals and Events* – The College Green area provides a large and very central location in the City to hold festivals and events. It is recommended that this use be maintained in any future design proposals.
- *Improved access to Dublin's stories and its literary* – Heritage and literary culture are the key parts of the Dublin proposition and ways to animate the stories behind Dublin's history and heritage are key to bringing Dublin to life for visitors.

Having reviewed the proposals for the new civic plaza it is believed that the development will meet all of these tourism objectives. Bord Failte is supportive of the project from a tourism perspective, subject to proper planning and environmental requirements being met.

No further observations were submitted following the receipt of further information and the submission of the EIAR.

National Transport Authority

Policy Background – The development of the College Green Project is underpinned by several policies at national, regional and local level. The Dublin City Development Plan incorporates various objectives such as SC08 '*To prioritise the redevelopment of College Green as a pedestrian friendly civic space, including the pedestrianisation of Foster St'.* This objective and other related statements were informed by the Dublin City Centre Transport Study, prepared jointly by DCC and the NTA.

The Dublin City Centre Transport Study examined the City Centre in a holistic basis and set out a comprehensive package of proposals to address the transport issues facing the core city centre area. It identified an integrated set of proposals in relation to the traffic network, bus/BRT, rail needs, cycling provision and the pedestrian network/public realm schemes. It made specific reference to the delivery of a civic plaza at College Green (Executive Summary). The proposed development is also supported by the Transport Strategy for the Greater Dublin area 2016-2035, which has a number of relevant objectives in Section 5.7.

Transport Considerations – College Green currently caters for pedestrians, cyclists, buses, taxis and cars (restricted at certain times). The introduction of Luas Cross City will fundamentally alter the way that College Green can operate from a transport perspective. For the first time in decades Grafton Street Lower between its junctions with Nassau Street and College Green, will operate as a two-way street, with trams running in both directions. Other traffic, particularly buses will operate in conjunction with the trams.

The implementation of two-way Luas operation on Grafton Street Lower introduces new conflicting movements into the signalised traffic junction in College Green. An additional phase is required to be introduced to the signal cycle to cater for the new northbound movement. This coupled with the reduction of available road space to one shared lane northbound /southbound at the signalised junction location, substantially reduces the overall vehicular capacity of the junction. These changes have required both DCC and the NTA to evaluate how this area should operate from a transport perspective and this has informed the College Green proposal.

College Green is more than a vehicle link in the transport network. It also has a very high level of pedestrian and cyclist activity. Surveys carried out in May 2015 show

that over 124,000 pedestrians use College Green along a north-south axis each day. Pedestrian movements are even higher when east-west movements are included. The current layout and operation of College Green creates significant severance for that large cohort of users and they could not be considered to be well served by the existing arrangements.

College Green also forms an important link in the overall bus network for the city and the removal of east-west movements through College Green has required careful consideration and balancing of the needs of bus users, the needs of the high volume of pedestrian users of College Green and the objectives for the public realm of the city. With careful design of alternative bus routings, coupled with the potential for a higher proportion of north-south/south-north buses in College Green under the plaza proposal, it is the view of the NTA that the overall bus network can continue to perform satisfactorily in tandem with the College Green project, delivering a world class civic space with the current impediments to pedestrian movement fully removed.

Bus Network Changes –As part of the work undertaken by NTA during the development of proposals for the College Green project, proposed bus network changes that would enable the plaza proposals were examined. A consultation documents titled *'College Green Traffic Management Measures'* was prepared and issued for public consultation in April 2016.

Section 6 sets out various bus route and bus stop changes which were proposed to facilitate the College Green proposal. They included the introduction of a bus only lane on Parliament Street in the southbound direction and the introduction of a contra-flow bus lane on Parliament Street in the northbound direction. It was NTA's view that this two-way bus arrangement on Parliament Street, together with other separate but beneficial measures, such as additional bus lanes on the north and south quays and new permitted junction turns, provided an acceptable alternative routing for many of the buses currently travelling through College Green. The overall arrangements were considered by the NTA to provide an appropriate alternative bus network that could operate satisfactorily.

Subsequent work carried out by DCC in relation to air quality on Parliament Street revealed that the use of a two-way buses on the street would breach European NO_2

limits. DCC addressed the issue by retaining the current one-way southbound movement on Parliament Street and restricting its use to public transport vehicles only from 07.00 -19.00 hours Monday to Friday.

Bus Vehicles and Air Quality – Since 1992 the EU has applied emission limits relating to gaseous pollutants including nitrogen dioxides to diesel bus engines. The relevant standards are referred to as 'Euro' followed by the Roman numeral I to VI. The current standard is known as Euro VI, which reduces the limit for NO_x emissions by approximately 80% down to 0.4g/kWh. Research by Transport for London and the Norwegian Centre for Transport Research report extremely low levels of PM and NO_x from buses with Euro VI diesel engines.

From 2015, the NTA will have funded the provision of 300 double deck buses with Euro VI engines, representing one third of the Dublin Bus fleet. Future vehicles to be purchased will all be Euro VI or lower emission vehicles.

Parliament Street as Bus Route – The bus network changes envisaged in the 'College Green Traffic Management Measures' were predicated upon two-way bus movement on Parliament Street. The subsequent change to one-way movement, limited to public transport vehicles only between 07.00-19.00 hours was triggered by air quality modelling indicating a potential breach of air quality limits at certain receptor locations on the street. The consequence of this changed arrangement is that, following the implementation of the College Green proposal, buses would have to use Winetavern Street as an alternative to Parliament Street. This is a significant additional detour from the current South Great Georges Street axis and is much less desirable as an alternative bus routing to facilitate the closure of College Green.

From the perspective of the NTA, it is highly desirable that Parliament Street should be available for two-way buses. It is considered that DCC has taken a cautious and conservative approach to air quality assessment. The assessment was based on the average bus fleet composition. However, as Dublin Bus services are delivered under a contract with the NTA, the NTA is in a position to restrict the use of Parliament Street by Dublin Bus scheduled routes to only buses fitted with Euro VI engines (or lower emission engines in the future).

The NTA has used the same air quality model as used for the EIS assessment to re-calculate the nitrogen dioxide levels in Parliament Street if the Dublin Bus services

were all Euro VI vehicles. For the assessment, the NTA assumed 53 buses in the northbound direction and 77 buses in the southbound direction in the morning peak hour. Based on the same receptors in the EIS (i.e. receptors P701-P751), the modelled results indicated no exceedance of the 40ug/m3 EU limit value for NO_2. A second modelling exercise examined what the levels of NO_2 would be in the case if the number of buses doubled. Even in this scenario, the use of vehicles with Euro VI engines maintained NO_2 levels well below the European limits.

The implications of this analysis is that the introduction of a limited number of buses with Euro VI engines on Parliament Street would not cause a breach of the European air quality standards for NO_2. In relation to a suitable limit on buses along this street, it would be the objective of the NTA to limit the use of the street by Dublin Bus to no more than 60 buses per hour per direction, which equates to one vehicle per minute in each direction. This number could be potentially lower depending on the outcome of the bus network redesign process, discussed below.

In addition, if the scheme is approved and two-way use of Parliament Street is introduced, the NTA proposed that an air quality monitoring unit for NO_2 be installed in Parliament Street for the first year of operation to provide continuous monitoring of NO_2 levels and to confirm that the arrangements do not breach European limits.

BusConnects Project and Bus Network Redesign – BusConnects is a plan being implemented by the NTA to fundamentally transform Dublin's bus system, enabling many more people to use the bus system. This involves a review and redesign of the bus services network in the Dublin Area.

Work on the network redesign element of the project has commenced. Following feedback from the initial consultation, the redesign work will continue for the rest of the year with proposals being brought forward for public consultation in the first quarter of 2018. The network redesign project is likely to introduce a significant level of changes to the bus system, including the city centre. In developing the revised network proposals, it is intended to take full account of the College Green proposals.

The design team undertaking the review has undertaken similar projects internationally. One of the key features that they have found is that the redesign usually results in fewer buses through the central area, but carrying more people.

Accordingly, it is an expectation of the NTA that fewer buses will be required on the key spines through the city centre.

Dame Street – The section of Dame Street between its junction with South Great Georges Street and College Green forms part of the application. The layout includes cycling facilities which are generally in the form of unsegregated cycle lanes on the carriageway. The facility to provide segregated cycle tracks, physically separated from vehicular traffic should be examined at the detail design stage of the project and implemented to the extent practicable.

Recommendation – The College Green project should be approved subject to the following recommendations;

- That two-way bus movement is facilitated on Parliament Street, subject to a limit in the number of buses on the street and full adherence to European air quality limits on nitrogen dioxide; and
- That the lane layout on Dame Street is further refined during the later design development stage to provide segregated facilities along this street as this link forms part of the overall Clonskeagh to City Centre cycle route of the Greater Dublin Area Cycle Network Plan.

A further submission was received on February 21st which raised similar issues. It included an air quality modelling report prepared by Jacobs, which examined the implications of using Euro VI buses on Parliament Street.

Transport Infrastructure Ireland

The primary concern of the TII is to ensure and maintain the safe and efficient operation of Luas. Unlike buses, trams require fixed tracks, overhead lines, etc which are more difficult and costly to alter. In addition, changes to this infrastructure and also the implementation of the amended street management practices can create disruption to the Luas network service which should be avoided and/or ameliorated.

To ensure no adverse impact on Luas operation and safety a condition should be attached to ensure that the development complies with TII's *'Code of engineering practice for works on, near or adjacent the Luas light rail system'* 2016.

Drawing 1721/PA/104A shows cyclists' movements along the southbound Luas track. None of the drawings identify the provision of a cycle path for these cyclists

moving southbound through the proposed College Green scheme. The appropriate management of cyclists sharing the tram alignment is an important concern for the safe and efficient operation of Luas and for all road users. Prior to the commencement of development, an appropriate management approach should be agreed and undertaken with TII.

It is noted that public realm elements such as landscaping, tree planting road/footpath improvements and street furniture will be located in close proximity to the Luas line and associated infrastructure. It is requested that DCC engage and agree an approach with TII to ensure orderly and appropriate development. Any changes to the Overhead Conductor System or other Luas infrastructure arising from the propose scheme shall be agreed with TII. Details of the Construction Traffic Management Plan to be agreed.

TII considers that Section 6.4.2.1 *'Scheduled to be completed by 2018': No right turn to Nassau Street from Dawson Street. Two-way traffic along Dawson Street between St Stephen's Green and Duke Street, public transport only north of Duke Street'* is a misleading statement as only tram vehicles will be permitted to travel two-way between St Stephens Green and Duke Street. TII require clarification and if required amendments to this section to reflect Luas operations.

Refers to Section 6.6.2.1 regarding the dispersal of traffic flows around the wider network of streets with no significant change in traffic conditions in the surrounding network. It is noted that there are a number of streets sharing road space with Luas Cross City which show increases greater than 2.5% in both 2018 and 2035 'Do-Something' periods. Grafton Street between College Green and Suffolk Street shows an increase in morning and evening peak flows of 62% and 96% respectively. The ability of the extended Luas Green Line to operate reliably to its designated timetable must not be impeded by the reassignment of traffic through the city centre to facilitate the plaza scheme. TII requests clarification on how consideration of this Luas requirement has been accommodated in the proposed scheme.

TII notes that Section 6.6.2.3 'Public Transport Impacts' does not mention Luas services. TII requests that this section is amended to take account of the requirements for, and also appropriate mitigation measures to preserve the Luas Cross City tram service within the final assignment of city centre traffic.

Drawing No 172/PA/110/A indicates a new substantial pedestrian crossing facility. It is expected, due to the size of the facility, that a long pedestrian phase will be required to allow pedestrians to cross. This will reduce the amount of time available to service northbound and southbound traffic including Luas services to College Green. TII requests clarification and mitigation of the impact of the operation of the length of the pedestrian crossing facility to ensure that the efficiency of the junction for pedestrians, public transport facilities and other road users prior to a decision being made on the scheme.

Works are proposed to be carried out in close proximity to the Luas Overhead Conductor System (OCS). A permit will be required from the Luas operator, with prior consultation with Transdev.

Two further submissions raising similar issues were submitted following the receipt of further information on October 20th, 2107 and the republication of the public notice on January 19th, 2018.

Dublin Bus

Introduction

The submission by Reid Associates & Stephen Reid Associates on behalf of Dublin Bus, broadly welcomes and supports the proposal and the role of public transport as a means of accessing a connected city.

Dublin Bus represents 58% of the public transport market share in Dublin. Almost two-thirds (61%) of all public transport journeys into Dublin city centre are made on Dublin Bus and these customers account for 39% of retail spend in the city. Dublin Bus and its customers are critical to Dublin's economy and should not be deterred in any way from accessing the heart of the city.

It is critical to recognise that College Green is of strategic importance to public transport acting as a main artery for transport services throughout the city. It provides a vital cross city connection to all public bus services running north/south, east/west and vice versa. The College Green bus corridor has given faster, consistent and more reliable journey times for the 128 million customers who travel through annually. This in turn benefits customers on all cross city routes increasing reliability and efficiency across the network. The corridor has been the single most

progressive element of the Bus Priority Programme in the GDA and has delivered major benefits.

The Cross City Luas project has already resulted in a major loss of centrally based bus stops in Lower O'Connell Street, (north bound at Eason's); College Green (southbound) and Lower Grafton Street (southbound at Trinity College) and the bus stops on Dawson Street have been pushed back from the Nassau Street end to the St Stephen's Green end (northbound). Further knock-on impacts arising from the College Green Plaza undermine the resilience of public bus transport to provide the capacity necessary to support the modal shift from private car to public transport and would have unintended consequences for public transport mode share and the overall sustainability of public transport mobility and capacity to serve future growth of the city.

Bus rerouting - The proposal provides that bus routes will no longer have a direct route through College Green. Routes that previously travelled through College Green westbound are routed to travel along the South Quays and along Parliament Street southbound to meet Dame Street. The number of buses permitted on Parliament Street will be limited on the basis of ensuring compliance with Air Quality Standards.

It is noted (section 3.3 of this submission) that issues of air quality on Parliament Street have been resolved by further modelling by the NTA and a commitment by Dublin Bus to use Euro VI engines, which significantly reduce NO_2. Routes previously travelling through College Green eastbound are proposed to be re-routed to travel along Winetavern St northbound, across O'Donovan Rossa Bridge and along the North Quays. There is no sound basis for this given the updated work on air quality assessment.

Displacement of customers – It is a major concern of Dublin Bus that the development of the plaza and the traffic management measures will result in the following;

- The displacement of over 4m (4,276,996) per/annum of bus passengers from the College Green area to the Quays.
- A potential reduction of 5 million (5,229,781) per/annum passengers boarding in the area.

- Excessive distances and walking times to potential bus stops.
- The severance of an existing connected bus service.

Displacement and severance must be avoided to prevent a major knock on socio-economic impact on the city. Dublin Bus believes that some bus movement (at least west to east services) and options for two-way running on Parliament Street, using buses with Euro VI engines and better are essential components in a final plan for the civic plaza.

Scoping and testing – While there has been some engagement with Dublin Bus over an 18 month period, the original proposal was less onerous in terms of its implications for severance of public bus transport from the central civic area. Dublin Bus have major concerns regarding the rerouting of bus customers out of the central area. The intended objective for a modal shift from car transport to public transport requires an increase in the attractiveness of bus transport as the most flexible option to serve the city. The potential reduction of 5 million passengers boarding in the College Green area may not be accommodated on the Quays or in alternative off centre city locations. The project has not been fully or adequately tested (modelled) nor have the implications for public bus transport in the city.

Collaboration: The submission should be one stage in a continuous process of meaningful engagement and collaboration between DCC and Dublin Bus as stakeholder and this process must be formally provided for as part of the project management and any planning conditions the Board may seek to attach.

Integrated public realm with public transport – The success of public realm improvements in the city warrants a successful integration with public transport. Given the key function of College Green as a cross city hub for public transport it is not sufficient to provide for Luas and re-route public bus, which has a deeper penetration of the city public transport catchment area and significantly greater customer capacity numbers by a factor of 10. There is a need for an integrated approach for public transport to support the public realm improvements at College Green. In this context the preferred option must always be one which is inclusive of public bus services and there is a need for DCC and Dublin Bus to work together to make this happen in a sustainable manner.

Dublin Bus is working to shift to more efficient bus engines. All buses purchased in the past 5 years are Euro VI engines (c. 39% of fleet). In the very near future there will be a shift to even more efficient engines (gas, hybrid and electric) as Dublin and Ireland plays its part in achieving climate change targets.

Policy Context

A significant increase in public transport capacity is required to satisfy travel demand in Dublin which is estimated to increase by 25%. Central to national transport planning policy is the integration of land use and transport to minimise travel demand and ensure that where travel is necessary it is undertaken by sustainable modes such as walking, cycling and public transport.

In this context only public bus services can address the anticipated growth and demand for public transport in a timely and flexible manner as demand materialises. The immediate priority of the NTA is to transform the bus system and the recently published BusConnects programme sets out how the bus system can be radically improved. It is acknowledged therefore that public bus transport is assuming an even more significant role in the future sustainability of the city's economy.

The Greater Dublin Area Transport Strategy 2016-2035 includes plans for a core bus network which provides for Bus Rapid Transit, radial corridors, orbital corridors and regional corridors. Comparing the Core Bus Network to the Metropolitan Light Rail Network there are extensive areas of the GDA that are entirely dependent on bus transport. It is critical that the land use and civic design of the College Green Plaza is integrated with public bus planning both now and in terms of future planning to support sustainable transport patterns and modal shift to public bus in a city wide context as well as a local context.

The proposed displacement of passengers from east west routes is socially regressive limiting lower socio economic areas accessibility to the centre city. International examples of public realm and civic spaces which accommodate light rail are not dependent on bus transport as the major work horse of the public transport both now and in the future, as is the case in Dublin.

Dublin Area Bus Network Redesign – This will see a major re-design of the Dublin Bus network to enable more people to travel by bus, to improve the efficiency of the network and ensure appropriate integration with other transport infrastructure

developments including public realm improvements at College Green. Given that the project is only at a very early stage, to remove buses from College Green would pre-empt any outworkings of this review. It is anticipated that a reviewed network plan will be complete by the end of 2017/early 2018. The current reliance on the network on the radial network system with all routes leading to the city centre is under review. This has major implications for both the future manner in which Dublin Bus will serve the city centre bus transport needs and the intensity of the traffic implications.

Dublin City Development Plan – supports sustainable transport including public transport, cycling and walking. It also seeks to optimise use of existing/proposed infrastructure. The plan is clear in its support for public bus and envisages its integration within public realm improvements. It seeks to facilitate the integration of active travel with public transport making it easier for people to access and use the public transport system.

Dublin Bus supports the policies/objectives of the Plan for the improvement of the public realm. The objective is to secure a pedestrian friendly space and in this context a balanced and integrated approach to the inclusion of public transport supports a pedestrian friendly space and supports mobility. Dublin Bus view its role as significantly contributing to ease of access of all persons within the city and bus has a major role to play in the upgrading of the public realm.

The Public Realm Masterplan highlights the need for collaboration and Dublin Bus recognise and supports the importance of collaboration to achieve an improved public realm, supported by an improved bus service to meet those unique needs. The 'Need for Pedestrian Priority' and 'Mobility Means Success' are key themes of the Masterplan policy.

The traffic management policies of the plan seek to ensure '*full accessibility to maintain the economic competitiveness of the City'.* The policy states that *'account will be taken of the number of people who travel and not exclusively the number of vehicle movements'.* The policies of the plan therefore support priority being afforded to the 10 million bus customers in resolving the adverse impacts arising from the proposal to ensure full accessibility to the city centre.

Integrated public transport/public realm strategy – It is recognised that successful 'places' tend to integrate all components. This means that the bus is part of the

overall solution even in a west-east/east-west direction. It is important not to rule out Dublin Bus accessibility and inclusion as a key public transport provider to serve the College Green Plaza in a west-east direction. It is a question of balance and design to ensure that it integrates in a manner that gives priority to the pedestrian.

Integration of west east bus lane - Integration of a west east lane would require a lane width of 3.5m. This would only take an area of c. 250m^2 of civic space, which is considerably less than the turning area which takes up 450m^2. The lane option, which continues public bus accessibility west-east, takes up less civic space than the option of stopping west-east routes and could be designed as a more integral element and more discretely than the turning area. The lane supports connectivity, while the turning area supports severance.

The west-east lane would eliminate the need for two-way buses on Parliament Street, reducing bus traffic. Furthermore, an integrated west-east lane keeps customers and the public in the city centre where they want to be. Movement would be contained to the edge of the civic plaza and services could be organised to have a minimal time in the plaza zone. The turning area poses problems on both practical and urban design terms and would draw bus movements and other vehicle movements into the plaza area.

Turning area - The turning area is designed such that it will be accessible to cycles and other vehicles as well as buses. It comprises a shared surface that pedestrians could wander into, which poses significant safety and logistics concerns for Dublin Bus. The contrasting surface materials in the turning area provides a complete lack of coherence, which will make it almost impossible for the average person to read. Pedestrians with vision impairment, who are unable to discern shades and colours or surface materials are likely to experience difficulty in negotiating the plaza, particularly at the western end.

Without a simple and straightforward arrangement by which the various users negotiating this turning area can comprehend where they are, what line they are supposed to take and where they are likely to come into conflict with other turning area users, including cyclists and pedestrians, the layout poses safety concerns. The option of a west-east lane at the edge of the civic plaza would be preferable in urban

design, pedestrian priority and safety grounds and would avoid the adverse impact on customer displacement.

The failure to provide a west east bus corridor would undermine the long-term design resilience of the plaza for the following reasons;

- The design aspect is premature pending the outcome of the Dublin Area Bus Network Design.
- It is not integrated and resilient, given that the design cannot cater for future adaption to accommodate bus transport if demand and need warrants such a change.
- The future form and manner of bus transport within the civic plaza may be entirely different e.g. slow moving city pace, quiet and non-pollutant, environmentally friendly.

Therefore, it is vital that the current design of the plaza includes for provision of public bus access west-east and builds this into the design brief irrespective of current restrictions regarding public bus transport west east. Failure to do so would:

- Continually push public bus transport off centre.
- Intensify public bus transport onto other environmentally sensitive civic routes such as the Quays, where there are scheduled future public realm improvements.
- Ignore public bus demand in the core pedestrian area.
- Fail to satisfy modal shift to public transport at a city level.
- Shift discretionary leisure related trips from the city centre to out of down locations.
- Incorporate an unsatisfactory turning area as an alternative solution.

The review of the bus network and its integration within the city public realm is in the process of considering long term options. It is critical that the design of the civic plaza includes flexibility in the design at the outset to integrate buses.

Public Consultation

Dublin Bus commissioned research and public consultation in respect of attitudes to the planned College Green Plaza among Dublin Bus users and external stakeholders. In general, the public welcomed the plaza but were surprised at the level of impact on bus journeys and re-routing which is required. They were not aware that it would result in movement of bus routes and stops. Up to 23 routes are impacted by the west to east two-way restrictions. Alternative rerouting to Winetavern Street is beyond the acceptable 400m walking distance people are prepared to travel to reach public transport. The main findings were;

- Workers/necessary trips – workers may adapt because they have to. The journey time is an issue but their trips are necessary and it is not envisaged that there will be a drop off in bus use.
- Impact on leisure use/optional trips -if changes are going to make the trip more complicated the user would only travel into the city centre when necessary (particularly for those with accessibility issues). Leisure user trips are optional and this discretionary choice is a factor that will influence whether they make the journey. The public can understand making it harder to travel by car into the city centre but not to use the bus.
- There were concerns regarding unintended consequences of bus rerouting on customers and that the implications were not fully thought through and that knock on effects elsewhere were not planned for.
- Improving bus transport was seen as a key requirement for the city. The findings highlighted the need for improvements to the supporting city infrastructure to facilitate bus travel including improvements to the Quays, improve the priority and capacity of major routes into the city to take pressure off South Great Georges Street, James Street, Patrick Street and O'Connell Street, improve traffic signalling to favour buses and pedestrians etc.
- Improvements to pedestrian infrastructure connecting the civic plaza to bus routes.
- Improvements to infrastructure within the civic plaza to include information/communications during initial transition and launch period. Other

facilities considered essential were travel kiosk with trained staff providing interactive maps, walking distances to departure areas etc. Introduction of facilities such as café/toilets to serve the public.

- Security policing and overall management of the plaza.

Dublin City Council Consultation - It is acknowledged that DCC engaged in widespread public consultation regarding the *Public Realm Strategy*. The public consultation was unclear and misleading as to the extent of the rerouting of buses from the plaza. The *College Green Traffic Management Measure-Public Consultation Document* issued in April 2016 by DCC and the NTA clearly shows Parliament Street accommodating two-way bus routes. This was the basis upon which Dublin Bus and the NTA understood the public transport arrangements and traffic management proposals. The subsequent change to one-way bus traffic on Parliament Street has significant adverse implications for public bus transport.

The focused consultation undertaken by Dublin Bus reveals that there are a number of unintended consequences not appreciated in terms of the knock-on impacts on bus customers arising from east west bus rerouting.

Over 10 million customers displaced per annum - The changes will result in the displacement in over 10 million customers per/annum The scale of displacement is so significant that it warrants a re-evaluation of bus rerouting from first principles in terms of the alternative options considered in the EIS in order to secure successful and easy bus transport to sustain and serve the civic plaza and the economy of the city as a whole. Of the alternatives considered in the EIS, the selection of Alternative 12, which displaces west east bus access is inadequately justified in terms of the consequent impacts arising from the exclusion of all bus access.

National Transport Authority - Since the original air impact assessment modelling was undertaken, it is understood that the NTA commissioned a further Air Impact Assessment of Parliament Street with buses required to meet Euro VI engine emission standards. Dublin Bus is committed to using Euro VI engines on their central Dublin bus fleet. The results of the revised Air Quality Assessment using the same receptors used by AWN Consulting show no exceedance of the 40 $\mu g/m^3$ EU limit value. The results indicate average values of 26.11 NO_2 $\mu g/m^3$ for buses two way and 27.77 NO_2 $\mu g/m^3$ for double the number of buses two way, which

demonstrates that there is negligible impact from a change to Parliament St to accommodate buses two way.

In the context of the up to date Air Quality Impact Assessment there are no grounds for limiting Parliament Street buses to one way only. The return of Parliament Street to accommodating west east /east west buses two way was the original basis on which the project was proposed. The commitment of Dublin Bus to clean engine technology and in particular the Euro VI engine resolves any outstanding concerns regarding air pollution and will contribute an overall air quality improvement compared to baseline conditions.

Review of EIS

Consultation – Dublin Bus met with DCC and Arup Consultancy in April 2017 and made a submission to the College Green Civic Plaza Project consultation process on May 5th 2016. The initial consultation undertaken by DCC with Dublin Bus in 2016 revealed the extent of the impact of the development on the east/west route services. Parliament Street was identified as the alternative route to make this work and it was on this basis that Dublin Bus proceeded to evaluate the project. In the interim at a second consultation meeting in 2017, it was raised that Winetavern Street would be the alternative route for diverted routes, which has created significant uncertainty for Dublin Bus. The Winetavern Street re-routing could never work because of distance, security and accessibility issues.

Alternatives – The EIS states that 12 alternative public realm options were considered and these are listed in Table 2.1. Option 12 was considered the most viable option. The justification of Option 12 is unsustainable and ignores the design input and encroachment of the turning area. The option does not provide for a full shared pedestrian cyclist plaza as stated. Dublin Bus note that the Options assessment was not issued for public consultation/comment. As a key stakeholder and most likely to be impacted upon by changes to bus services and access through College Green, Dublin Bus were not in a position to contribute or collaborate in achieving a more resilient integrated and workable design. Other groups and the travelling public did not have the opportunity to review and assess the impacts of each option and have a fully informed opinion.

Transportation assessment in EIS –There has been no assessment of the wider impacts on bus users across the bus network. There are a number of public transport and traffic management/road infrastructure projects that are assumed to be in place by 2018. Several of these measures will impact positively/negatively on the proposed re-routing of buses. The assumption listed in the EIS states that College Green eastbound is still available to buses, which is fundamentally different from the full closure being proposed. Therefore, the EIS approach supports the case for an integrated bus lane west-east, which would corroborate the EIS assumption.

The assumptions on 2018 infrastructure seem to suggest that east to west services would be diverted via Aston Quay and Parliament Street, but west to east services would remain on Dame Street and through College Green. Whilst this needs to be clarified by the EIS team, this scenario is a more logical and sustainable approach.

There are a number of wide ranging infrastructural projects (such as BRT lines, DART expansion and New Metro North) which are excluded in the design horizon modelling year. While the delivery of these projects are welcome to further improve public transport and demand management, Dublin Bus have to have primary regard for the current situation and the shorter term issues that the proposed project would have for its operations/customers.

While the construction traffic generation volumes are predicted to be relatively low, the impact on accessibility will be high during the construction period with significant disruption to bus services.

There are a number of concerns with the approach and methodology adopted in the traffic modelling. These are;

- The modelling approach using the NTA Regional Model does not provide data on capacity and queuing, which are fundamental to determine the impacts on traffic flows and journey times through a fine grained city centre network, which is generally at or over capacity in many locations and therefore there is a fine balance to be made, with a complex range of junctions and competing demands for road users.
- The data in Appendix 6.1 only reports road link results where the change in flow is greater than 2.5%, comparing traffic flows in terms of vehicles on each link and noting the percentage increase.

- The modelling takes no account of the resultant queuing and delays which could occur on the various affected links, or on the existing capacity of particular links to absorb these predicted changes in traffic flow.
- There are large increases on Christchurch Place between Werburgh Street and Nicholas Street in both AM and PM peaks, and an AM increase on Christchurch Place between Fishamble Street and Werburgh Street in the AM peak but a large PM decrease although the reason for this is unclear.
- Fishamble Street, which is not suitable to carry large volumes of traffic as it has limited capacity to exit onto Christchurch Place, shows large increases in traffic which are likely to result in blocking at either end and a standing queue along its length,
- Significant increase in High street.

Cumulative Impact

The design of the project initially identified a significantly smaller space in the area immediately in front of the Bank of Ireland. As this was in the original design brief from DCC, it was what they considered satisfied the objective contained in the Dublin City Council Public Realm Strategy and Development Plan. The design team proposed a significantly greater civic space area, based on historic research and proceeded on that basis, without consultation with Dublin Bus as a stakeholder or with the public. The cumulative impacts of the expanded space on public transport accessibility and human beings was not considered. The assessment of the original design brief area as an alternative was not considered and this is a fundamental flaw in the EIA process as it has implications in terms of cumulative impacts arising on public accessibility and public bus transport.

The EIS has failed to adequately assess the cumulative impacts on public bus transport either in the immediate local context or on the wider network where there are knock-on impacts e.g. impacts on passengers arising from relocation of east-west routes to Parliament Street and the Quays giving rise to increased journey times, increased walking distances etc. There is concern that DCC proposals to reduce general traffic using the Quays to facilitate improved bus priority measures are optimistic and do not had due regard to the fixed element of private car and commercial vehicles which will remain on the Quays. A large number of car trips

using private/public car parks are ‘fixed’ and will remain on the network irrespective of the traffic management measures that are implemented.

Whilst the development of the plaza will result in the removal of traffic from College Green, the knock-on impact on the Quays has not been considered. There is already a high volume of bus movements on the Quays and the displaced services will add to this. This would lead to congestion at stops along the Quays between Grattan Bridge and O’Connell Bridge, with resultant impacts on existing bus routes serving the Quays. Adding a large number of diverted buses to the Quays, onto a section of route that is already well serviced and which is parallel to the Luas Red Line is unnecessary and provides no benefit to any of the existing bus passengers using the routes along the Quays.

Health & Safety Risks/Disaster Planning

There is no comprehensive major incidents and disaster planning assessment included in the EIS. This is a significant omission given the strategic civic location and the intention to use the space for major public events. The need for Dublin Bus to integrate in such emergency planning is vital. The closure of a main city centre artery puts more pressure on the remaining primary areas of the Quays and limits alternative diversion options in the event of an emergency.

Summary of Impacts/Key Issues

General – Integration of an east west bus lane 3.5m in width within the design of the plaza would avoid most of the adverse impacts identified. The assessment of the impact on bus users in the EIS is totally inadequate. There are direct/indirect impacts arising from the proposed development. Direct impacts include the following;

- Design of plaza does not include a west-east bus lane to connect bus traffic.
- The turning circle poses safety and technical concerns.
- The bus stops on the quays must now accommodate customers alighting as well as boarding resulting in a doubling up of customer movement in the vicinity of the bus stops, in an already congested pedestrian space disaffecting comfort levels and the attractiveness of public transport.

This contributes to significant indirect impacts arising from;

- The traffic management proposals to re-route bus routes,
- Customer displacement to alternative locations.
- Impacts on journey times.
- Impacts on severance of bus network within the prime city centre area.

It is noted that there are differences between what was modelled and the proposals and that therefore the changes to the City Centre Traffic management proposals set out in section 6.9.2 of the EIS have not been modelled.

Customer displacement - The proposal will result in customer displacement due to the removal of east west services through College Green. It will result in a significant decrease in the number of buses serving College Green, the number of passengers boarding at stops and will also impact on the serviceability of Westmoreland Street and D'Olier Street. The aggregate total of passenger movements (boarding and alighting) in the area, which will be directly affected by the proposal would be in the order of 10.46 million per annum.

Existing key bus stops are within a 2-3 minute walk of the focal point in College Green. The proposal to divert east-west routes from College Green will significantly impact on the ability of Dublin Bus to provide access directly to the area. East west bus services generally operate on three corridors and pass through College Green. The radial corridors are George's Street (services via Rathmines), Patrick Street (services via Terenure) and James Street (services via Inchicore and Ballyfermot) and these services will have to be diverted under the College Green proposal.

Under the original proposal inbound services were to be diverted onto Winetavern Street and across O' Donovan Rossa Bridge, turning right onto Upper Ormond Quay. Dublin Bus strongly objected to this as it would have resulted in the last stops on the south side of the Liffey for inbound services being located some 900m from College Green at Patrick Street/High Street or on Lord Edward Street for buses from Georges Street.

Under that option, Parliament Street was proposed for east-west services. The NTA have advised that the key reasoning behind this proposal was to mitigate against the NO_2 emissions on Parliament Street resulting from possible two-way operation. The NTA have suggested that the NO_2 issue could be mitigated by a commitment to

operate buses with Euro VI engines. On this basis, the NTA suggested that Parliament Street could operate for two-way bus traffic, allowing for a relocation of the displaced west-east services to Parliament Street northbound and Grattan Bridge northbound, before turning onto Lower Ormond Quay.

Looking beyond the traffic management issues required to facilitate the Parliament Street two-way bus proposal and whether it is even technically a practical solution, it is noted that the proposed displacement of west-east services to Parliament Street would remove direct and convenient access to College Green and the areas immediately north and south of Dame Street for a significant number of bus passengers. There will be longer walking distances from existing stops further west (on the south side of the Liffey) and from stops on the North Quays. The shorter distances from the proposed stops on Ormond Quay using Ha'penny Bridge are not suitable for mobility impaired with further steps at Merchant's Arch to access Crown Alley. There is also a cobbled environment in Temple Bar combined with narrow footpaths and street furniture. Further steps occur adjacent to the Central Bank plaza area.

The displacement of east-west services will also have an impact and while this will not experience the same level of severance from College Green, as the displaced routes will remain on the south side of the Liffey, the walk distances between College Green and the relocated stops will be significantly greater than existing with distances of c 350-400m (5-6 minutes) to the various westbound stops on the Quays which would serve the displaced routes.

Customer-journey experience – In addition to the displacement of routes and stops due to the proposal for College Green, the impact on the quality of the passenger journey and experience is also a key consideration. The proposal results in significant increases in journey times for existing passengers residing in the south west suburbs of Dublin City and accessing the College Green corridor on east-west corridor routes.

Existing customers will be significantly discommoded by the proposed displacement of routes and stops. Proposed measures to improve priority on the Quays will clearly be outweighed by the increased journey times and in particular by significantly increasing the walking distance part of the journey. It is also noted that customers

alighting at the displaced stops to the west of Dame Street, or on the North Quays will be markedly different to the existing, requiring multiple road crossings, key junctions at either Dame Street, Georges Street or Parliament Street if arriving from the west, or both Quays if arriving from the north. To mobility impaired or elderly customers, the Quays represents a significance severance.

Dublin Bus support and acknowledge that the NTA proposals for a two-way bus operation on Parliament Street would reduce the overall extent of diversion to the west for the west-east bus service. However, it remains the opinion of Dublin Bus that the preferred option for west-east services are best maintained through College Green as the least intrusive and most pedestrian friendly option.

Mitigation - The mitigation measures identified in the EIS do not specifically address the direct and indirect impacts on public bus transport and bus customers. The potential increased journey times, the increased and indirect routing of buses, the displacement of customers are largely ignored. The mitigation measures are largely a response to rerouting and not appropriate to mitigate the loss of the College Green through access for bus routes. There has been no testing of alternative routes in terms of impacts on bus transport.

Many of the impacts could be avoided by integrating a bus lane west-east to retain bus transport connectivity.

Recommendations

Dublin Bus make the following recommendations for consideration by the Board;

- Retain west-east bus movements but remove east west bus movements to the South Quays and Parliament Street.
- Disregard the option of using Winetavern Street as an alternative routing for bus passengers from the south and south west areas of Dublin as it is too far from the centre.
- Collaborate closely with Dublin City on all aspects of bus rerouting options for east-west bus flow including safe bus and pedestrian paths, way finding for discommoded customers, bus stops, shelters, RTPI (Real Time Passenger Information) and bus priority measures.

- Agree a pre-plaza plan that maximises bus access and allows full LUAS Cross City running.
- Examine a two-way bus option on Parliament Street as investigated by the NTA, in the context of cleaner bus engines and innovative lower pollution vehicle technology.
- Fully model all traffic management proposals at a micro level to gauge detailed impact on running times, queue lengths, junction capacity etc.
- Design a public realm project that takes due cognisance of all public transport modes interacting in a connected way through the core of the City Centre.

Concluding Statement

Dublin Bus welcomes and supports the College Green Plaza Project. Meaningful engagement between DCC and Dublin bus must be provided for as part of the project management.

The development plan states that Traffic Management Policy will afford priority to the number of people who travel and not the number of vehicles. The proposal has a disproportionate adverse impact on bus customers and this needs to be resolved prior to the implementation of the project in its current form and design.

Over 10 million customers will be directly affected by the proposal. Accommodation of future growth of 25% in public transport demand is necessary to support a sustainable city in line with NTA policy.

It is premature to preclude access to bus in the plaza until the BusConnects programme has been undertaken.

The NTA proposals for a two-way bus operation on Parliament Street would reduce the overall extent of diversion to the west for the west to east bus services. Further assessment is required on this option. Winetavern Street is not a suitable alternative due to increased journey times etc. The maintenance of west to east services through College Green is the best option.

Whilst the proposal proposes a plaza free of buses, insufficient detail and testing of the alternative options has been undertaken to assess the true long term impact both direct/indirect arising from the proposed development.

The proposal will result in the displacement of customers and it is inescapable that there is significant potential for economic impact on the sustainability of the city. The displacement impacts will fall on those sectors of the City with less choice or perhaps no suitable public transport alternatives and where there are higher concentrations of social disadvantage thereby imposing an unintended socially regressive impact on already disadvantaged communities.

Requests that the Board carefully consider and take on board the recommendations made above as there are made in the context of supporting a successful and vibrant public civic space and vibrant city centre served by accessible bus transport.

Two further submissions were made by Dublin Bus following the receipt of further information on October 20th, 2017 and the republication of the public notice on January 19th, 2018.

6.2. Public Representatives

Cllr Ciaran Cuffe welcomes and supports the proposal, which represents the return of a civic space to the people of Dublin after a century of dominance by motorised vehicles. It is an opportunity to enhance the city and encourage families, residents, visitors and shoppers to linger and enjoy the city. It also has the potential to reduce air and noise pollution.

Requests the following by way of planning conditions;

That the local authority liaises with TII with a view to removing the overhead Conductor System poles that have recently been erected within the College Green Plaza curtilage and replacing them with direct attachment of the supporting cable system to the buildings in their vicinity.

Support poles for Luas Cross City have been placed in close proximity to several important buildings which is a poor reflection of their listed status. Aesthetically it contrasts with the high level of design consideration given to the plaza itself. The solution may be to attach the support wires directly to eye-bolts or similar fixings attached e.g. on to the building themselves using chemical anchors or other appropriate fixings.

Requests that the Board be satisfied that the plaza surfaces will be able to withstand the maximum loading that will be placed on them e.g. such as those used to load/unload associated with festivals.

Requests that the contraflow cycle lane proposed for South Andrew Street be protected from motorised vehicles by the use of flexible bollards or similar preventative measures.

A further submission was received on 21/2/18. It stated that best practice should be followed and that the design caters for the needs of all users. It was considered that the provision of additional seating may be appropriate. Bicycle lines should align with desire lines entering/leaving the plaza and a significant amount of bicycle should be provided close to the plaza.

The suggestion by Dublin Bus that an eastbound bus lane be incorporated into the plaza would significantly alter its appearance and use. The significant redesign of Dublin bus routes through the BusConnects programme has the capacity to address any perceived shortcomings that may be attributed to the pedestrianisation of this part of College Green.

Taxi services play an importance role in transport provision in the city. It is crucial that the needs of the taxi industry feed into the proposed traffic management measures that may be imposed by way of condition in the Board's decision. It would appear to be unwise to facilitate undue amounts of taxi traffic on College Green and College Street during morning peak hours, particularly if they are not carrying passengers.

It is important that the private car can continue to access car parks and hotels located in the environs of College Green. However, it is important to note that for far too long private cars have dominated the transport hierarchy in the city centre. It is important that adequate car parking for drivers with disabilities is provided near the plaza.

Councillor Mannix Flynn

The EIAR does not address the significant impact direct and/or indirect long and/or short-term effects the proposed plaza will have on the city centre or the city as a

whole. The EIAR is flawed, not fit for purpose and is not compiled in accordance with statutory obligations.

Queries the motivation of those driving the proposed development in the face of public outcry to the upheaval of commuters, residents, workers and business owners in the city centre.

The impact of a two-way bus corridor on Parliament Street, presently calculated at 1500 buses per day in terms of noise, vibration, pollution, congestion and visual attractiveness, will destroy the Temple Bar area.

Roisin Shorthall TD

Concerned that the closure of College Green to bus traffic will have serious implications for the sustainability and effectiveness of bus transit as the predominant form of public transport in Dublin and as the sole option for the constituency of Dublin North-West for the foreseeable future. The area has already experienced access restrictions due to the construction and operation of Luas Cross City, Further restrictions on access to the city centre undermines the resilience of bus transport and its ability to contribute to the modal shift from private cars to public transport.

The current proposals to re-route northbound buses via Winetavern Street is unsatisfactory as it will move passengers from the city core area and increases walking distances to the south and east city centre. The use of Parliament Street as an alternative north-south axis for bus traffic is unrealistic given the unprecedented strain that this would place on a very narrow street and the absence of pavement space for the loading/unloading of passengers.

If the plans proceed as planned, it is estimated that c 4 million passengers will be displaced per annum, from College Green to the Quays. Given the gridlock on the Quays, it is unrealistic to expect buses to be able to maintain an adequate level of service on an east-west axis. The scope for additional stops for the loading/unloading of passengers along the Quays is virtually non-existent. The walking distances involved and access pathways through Temple Bar are not suitable for the those with mobility impairment.

College Green is central to the bus network with few comparable alternatives. The success of the Luas line and increase in passenger numbers is to be welcomed but it is not acceptable that this would result in seriously discommoding high volumes of

existing bus users. The plans do not reflect the reality of the severe constraints already on public transport in Dublin. To undermine the ability of the bus network to operate effectively undermines the civic spirit which the creation of the plaza seeks to enhance. Requests that permission for the development be refused.

6.3. Observers

In response to the application, submissions were received from 67 no. observers. Following the receipt of further information 22 no. responses were received. There were further submissions made following the republication of the public notice. The list of observers and the issues raised are summarised in Appendix 1 of this report. The key issues raised in the submissions are identified and addressed below in the assessment section of the report

6.4. The Response Document

In addition to responding to the request for further information, the applicant responded to some of the matters raised by the observers in their submission to the Board dated 20th October, 2017. The document will be referred to hereafter as the Response to Further Information (RFI).

7.0 Oral Hearing

An oral hearing was held in relation to the proposed development over a period of 12 days between 12th March 2018 and 28th March 2018. The documents produced during the oral hearing are submitted for the Board's consideration (Appendix 2). Issues discussed during the oral hearing are considered below.

The Board retained the services of Mr Pierce Regan, Artane Recording Studio to record the proceedings. This constitutes the official recording of the proceedings.

8.0 Assessment

In order to comply with the requirements of the Planning and Development Act, 2000 (as amended), the assessment is divided into three parts to include planning assessment, environmental impact assessment and appropriate assessment.

There is an inevitable overlap between the assessments with matters falling within both the planning assessment and the environmental impact assessment. In such

cases, matters are not repeated but such overlaps are referred to in subsequent sections of the report.

8.1. Planning Assessment

I have examined the file, considered national, regional and local policy and guidance and I have inspected the site. I have assessed the proposed development including the various submissions/observations received. I consider that the key issues that arise for consideration by the Board in this case are as follows: -

1. Principle of the development
2. Legal & Procedural
3. Public Consultation
4. Alternatives
5. Construction
6. Traffic & Transportation
7. Townscape and Visual
8. Socio-Economic Impacts
9. Archaeology, Architectural & Cultural Heritage
10. Air Quality & Climatic Factors
11. Noise & Vibration
12. Environmental Impact Assessment
13. Appropriate Assessment.

Each section of the report is structured to guide the Board to the relevant section of the EIAR relating to the particular topic, relevant policy and the substantive issues raised in the submissions, applicant's response and the oral hearing proceedings.

8.2. Principle of the development

Dublin City Council's vision for the delivery of enhanced and improved public realm, including College Green, is encapsulated in both current and previous development plans, adopted public realm strategies and transport plans.

The proposal accords with national, regional and local policy, which emphasises the need to retain the pivotal role of Dublin as the economic power house for the economic well-being of the city, the region and the State. The recently published *National Planning Framework* identifies public realm and urban amenity projects focused on streets and public spaces especially in the area between the canal as a key future growth enabler for the city[2]. The creation of an attractive well designed urban environment is considered crucial to the economic success of the city in terms of attracting foreign and domestic investment. It is also perceived as critical to its competitiveness, both by influencing the image of the city abroad and by being an attractive place for people to live in, work in or visit[3].

The '*Your City Your Space: Dublin City Realm Strategy (2012)* identifies College Green as the most important public space within the city, strategically located along the city's civic spine and acknowledges that it has the potential to be a great civic space, but is at present dominated by movement functions;

'At College Green, Dublin's most recognisable, connected and iconic urban space, the flow of the civic spine from Christchurch along Dame Street opens out to create a majestic space before turning dramatically northwards along the colonnade of Parliament Buildings (Bank of Ireland) to become the capital's main thoroughfare, O'Connell Street. Despite the erosion of its quality by the need to accommodate large traffic volumes with its associated signage, controls and markings, College Green still retains a magnetic attraction and claims a major role in our most important civic occasions'. [4]

The Heart of Dublin City Centre Public Realm Masterplan (2016) which identifies specific projects and priorities for the next 20 years, identifies College Green as a Phase 1 Public Realm Project to be developed within the period 2016-2022. The area is prioritised as it represents the most important and historic part of the city. The mobility strategy underpinning the Masterplan is in line with national, regional and city policies that place pedestrians and cyclists at the top of the movement hierarchy.

The creation of a civic space at College Green and the rebalancing of space in favour of pedestrians is also in line with the objectives of the *Dublin City Centre*

[2] Page 37 of NPF.
[3] Your City Your Space: Dublin City Public Realm Strategy (Pg 7).
[4] Your City Your Space: Dublin City Public Realm Strategy (2012) Page 26

Transport Study (2016) which recognises that additional space will be required to expand and improve the public realm and that this space will come from a rebalancing away from vehicular traffic over time.

The Dublin City Development Plan 2016-2022 also highlights the importance of high quality urban realm in terms of the attractiveness of a place, improved quality of life and positive impacts in terms of Dublin's competitiveness for both investment and tourism.

The vision is to strengthen the city centre area and improve its competitiveness attractiveness and permeability through public realm improvements, accessibility etc. It is to create a network of interconnected spaces that are an expression of Dublin's unique character. It is for a pedestrian friendly city core where there is a greater balance between pedestrians and vehicles and more opportunities for pedestrians to move through the city core. It is recognised that this will require a rebalancing of space in favour of pedestrians.

Upgrading Dame Street/College Green as part of the Grand Civic Spine (runs from Parnell Street through O'Connell Street, College Green and Dame Street to Christchurch Place) is identified (Policy SC2) as one of the Key Spaces and Connections necessary to enhance the legibility of the city (Fig 3). The development also accords with Objective SCO8 of the Plan which seeks *'to prioritise the redevelopment of College Green as a pedestrian friendly civic space including the pedestrianisation of Foster Place'.*

The development accords with the zoning objectives for the area. It will consolidate and facilitate the development of the central area (Z5), protect its architectural and civic design and character (Z8) and will provide and improve recreational amenity and open space and green networks (Z9). It also accords with various objectives and policies of the development plan and the recommendations of the City Centre Public Realm Masterplan.

The development of the plaza will remove traffic from the College Green area and reduce congestion. This will encourage modal shift to more sustainable means of transport such as public transport, walking and cycling as expressed in national, regional and local policy. The development of the plaza will enhance the pedestrian environment and create a safer environment for cyclists.

The development will deliver a quality public realm, which will significantly enhance this important centre city location. It will remove congestion and visual clutter, enhancing and protecting the role of College Green as an historic civic place, and improving the overall setting of its landmark buildings including Trinity College and the Bank of Ireland. It will deliver a high quality urban environment enhancing the vitality and viability of the city centre to the benefit of residents and visitors.

Conclusion

There is clear policy support for the proposed development and the principle of developing a civic space at College Green has been a longstanding objective for Dublin City Council. I conclude that the principle of the development is acceptable.

8.3. Legal & Procedural Matters

The issues raised by observers during the course of the application and the oral hearing relate to the following;

- Validity of the application.
- Adequacy of the planning application drawings.
- Material contravention of the development plan.
- Planning Authority has acted contrary to Article 6(7) of amending Directive 2014/52/EU.
- High Court Judgement O Nuallain -v-Dublin Corporation.
- Inadequate weight given to High Court judgement in O' Moore - v- Department of Arts, Heritage and the Gaeltacht.
- Board's obligations under the Disability Act 2005.
- Submission made by M.E Hanahoe Solicitors.
- Breach of intellectual property and copyright laws.
- Judicial review.

Assessment

The following provides an assessment of the various issues raised in the submissions and during the oral hearing.

Validity of the application

The validity of the application is challenged by M.E Hanahoe Solicitors[5] on the basis of the public notice submitted in support of the application. It is contended that the notice identifies the site where the works are to be carried out namely College Green, Foster Place, part of Church Lane, Trinity Street, St Andrew Street, Grafton Street and College Street, but fails to identify all the streets that will be affected by traffic management measures. It is stated that these areas need to be identified to adequately inform the public of the impacts of the scheme. The City Council's opinion is that the public notice is robust and that it adequately describes the nature and location of the development, as prescribed by the regulations.

The public notice clearly states that the proposal involves the development of a civic plaza and that the implementation of traffic management measures will be required. It also draws attention to the EIAR, wherein impacts on the wider environment are assessed. I consider that the notice satisfies statutory requirements and has clearly set out the nature and extent of the proposed development.

It was clarified following questions from the Inspector during the oral hearing that no 'works' as defined by the Planning Acts will take place outside the planning application boundary. The proposal will include various ancillary traffic management measures that will result in diversion of bus routes, increases/ reduction in traffic on various routes etc. These measures do not constitute development in their own right and do not form part of the application.

The application for development consent does not allow Dublin City Council to do anything except construct the development for which consent is sought. Matters regarding re-routing of traffic, diversion of buses, relocation of bus stops etc., are independent of that, and are matters for the National Transport Authority (NTA) but are identified and considered in the EIAR in terms of their potential impacts outside the application site and on the environment.

I would point out to the Board that similar issues arose in the case of the North-South Interconnector Project (JA0017), which sought permission for the construction of a 400kV electricity transmission line between Woodlands Substation in Co Meath and a planned substation in Co Tyrone. The access roads for construction were not

[5] Submission No 35 to An Bord Pleanala

included in the application but were subject to environmental impact assessment. Barrett J concluded[6] that the issue of access to property did not need permission. Access was properly subjected to EIA and conditions were properly imposed, notwithstanding that the permission does not authorise the access itself.

I would point out to the Board that on Day 8 of the hearing Mr Tom Phillips also raised issues regarding the restricted area considered in the application. It was his contention that Parliament Street should have been included. Referring to section 50 of the Road Traffic Act, 1994, it was his opinion that Parliament Street would be considered a 'busway' with mandatory EIA.

Section 50 (1)(a) states as follows;

'A road authority shall prepare a statement of the likely effects on the environment of any proposed road development consisting of-

(ii) the construction of a busway.

Busway is described in section 44(1) as follows;

'A busway means a public road or proposed public road specified to be a busway in a busway scheme approved by the Minister under section 49'.

I accept as stated by Dublin City Council that Parliament Street is part of the city centre road network, which has been used and will continue to be used by bus transport. There is no proposal to 'construct a busway' as prescribed and, accordingly, the provisions of Section 50 of the Road Traffic Act do not apply.

Adequacy of planning application drawings

On Day 9 the oral hearing Mr Michael O' Donnell SC raised issues regarding the level of detail on the planning application drawings stating that it was not safe to scale for precise dimensions. He pointed to the lack of engineering drawings and the absence of clarity regarding what precisely is being proposed.

In response, Mr J Fitzsimons SC for Dublin City Council, noted that this is an application under Section 175 of the Planning and Development Act 2000, as amended, and as such is not specifically governed by the provisions of article 23 of the Planning and Development Regulations 2001(which specifies the requirements

[6] NEPPC & anor v. An Bord Pleanala & ors [2017] IEHC 338

for particulars to accompany an application (maps, plans, drawings etc., to appropriate scale). The provisions of article 23 relating to 'plans, drawings and maps' refer back to the provisions of article 22 i.e. to applications made under section 34 of the Act. Accordingly, there is no requirement to comply with article 23 of the Regulations.

Notwithstanding the above, I draw the attention of the Board to the series of drawings submitted in support of the application. These include a site location map showing the site clearly outlined in red together with plans, elevations and sections through the site. The works required to facilitate the traffic management measures within the site are also clearly identified on a series of drawings (Drawing No's RT-5169-651-001-006).

Mr O' Donnell raised issues with regard to the lack of figured dimensions on the drawings for the turnaround area and the fountain/associated underground tank. Both features are indicated on scaled drawings and are easily understood (Dwg No's 1721/PA/108A & 109A). Whilst I accept that it would be preferable for more detailed dimensions to be shown, I do not consider that this is a serious omission, which would prejudice the Board in its consideration of the application.

Material contravention of the development plan

Mr O Donnell SC noted that while the Board was not bound by the development plan, the local authority could not bring forward proposals which materially contravened its own plan. It was his opinion that as there was no specific reference to the project in the development plan, this amounted to a material contravention. He referred to the judgement in the case of Roughan v. Clare Co Council [7] where Mr Justice Barron ruled that a proposed temporary halting site in a special development zone would be a material contravention of the development plan. He noted that the development plan made no express provision for such accommodation and did not accept that it is not necessary for a local authority to include all its development objectives in the plan;

'If such a submission was to be accepted it would mean that this would enable the local authority, in perhaps only exceptional cases but certainly in some cases, to

[7] Roughan v. Clare Co Council 1996

totally override not only the plan but the consultative procedures preceding the making of a development plan. In my view this cannot be the law'.

Mr O Donnell stated that the development plan objectives referred to by DCC could not be relied on to ground the project. Objective SCOI, for example, refers to environmental improvements extending from Parnell Square to Christchurch Place and while College Green is referred to, there is nothing specific regarding the project. Objective SCO8 refers to the creation of a pedestrian friendly space which he said explicitly implies vehicular traffic and anticipates a range of uses. He further stated that exclusively pedestrian proposal is limited to Foster Place under the same objective.

I accept that Objective SCO8 is open to interpretation and that it would not be unreasonable to assume that 'pedestrian friendly' could be construed as facilitating some level of traffic integrated with improvements to the public realm. However, I draw the attention of the Board to Objective SCO2 which specifically states that it is an objective of the Plan '*to implement the actions and projects contained in the Dublin City Public Realm Strategy 2012 and any successor public realm strategy*'. The *Heart of Dublin City Centre Public Realm Masterplan* which was published in 2016, specifically identifies College Green as a project to be developed within the lifetime of the development plan. The masterplan is set within the statutory context of the development plan and makes specific reference to the removal of vehicular traffic from College Green[8]. I do not therefore accept, that it could be construed that the current proposal is a material contravention of the development plan.

Planning Authority has acted contrary to Article 6(7) of amending Directive 2014/52/EU.

Hanahoe Solicitors raised issues regarding the public notice following the submission of further information, which allowed 21 days for submissions/observations to the Board. The additional information included an EIAR at the request of the Board. Under the provisions of Article 6(7) of amending Directive 2014/52/EU, the time frames for consulting the public on an EIAR must not be shorted than 30 days. A new notice was subsequently published which allowed a

[8] The Heart of Dublin City Centre Public Realm Masterplan 2016 -Page 28.

minimum 30 days for additional observations pursuant to these requirements. There are, therefore, no outstanding matters in this regard.

High Court Judgement O Nuallan v. Dublin Corporation

Reference is made by Hanahoe Solicitors to the judgement of Smyth J in *O' Nuallan v. Dublin Corporation* [9]. In this case Mr O' Nuallan sought a judicial review of the decision of Dublin Corporation to grant planning permission for the millennium spire in O'Connell Street in the absence of EIA. Dublin Corporation concluded that EIA was not required on the basis that the proposed urban project fell below the area thresholds set out in the implementing Regulations. The decision was subsequently quashed, as the court took the view that the project was likely to have significant effects on the environment and that there was an obligation on the competent authority to undertake an EIA.

It is unclear what parallels Hanahoe Solicitors seeks to drawn between this and the current proposal. In the extant case, while Dublin City Council concluded that the development is sub-threshold, it did require EIA on the grounds that the project could result in potential significant impacts on the environment, and the application was accompanied by an EIAR.

The matter of contention appears to revolve around the extent of the development as described in the public notice, which is considered by Hanahoe Solicitors should have included a far greater area. The adequacy of the public notice, the scope of the EIAR and its assessment of the impacts of the development on the wider area have been addressed above. I do not consider that there are any outstanding matters in this regard.

Inadequate weight given to High Court judgement in O' Moore - v- Department of Arts, Heritage and the Gaeltacht.

The submission by Hanahoe Solicitors argues that due weight must be given to the High Court judgement Moore-v-Ireland and the Attorney General, which is contended raises the status of the city centre to that of a national monument, which must be referred to in the public notice.

[9] O'Nuallan v. Dublin Corporation [1999] IEHC 137

In his judgement, which is correctly cited as *Moore-v- Department for Arts Heritage and the Gaeltacht* [10], Barrett J made a declaration that the extent of the national monument at Moore Street, Dublin is significantly greater than acknowledged by the Minister's Preservation Order (14-17 Moore St). The judgement did not have universal application as contended by Hanahoe Solicitors, as it applied to the particular circumstances of the case.

'There are a number of reasons why the Moore Street Battle Site is unique and why comparison with other historic events around the city, whether in 1916 or previously, is unfounded. In consequence there are a number of reasons why the facts of this case are unique and why, as it happens, the courts conclusion need not have consequences beyond the parameters of the circumstances now presenting'.

In any event, the Court of Appeal[11] subsequently overturned the High Court ruling that gave protection to a larger area of buildings and laneways on Moore Street, on the grounds that the High Court did not have the jurisdiction to grant declarations that protected the site.

Whilst College Green is important in its own right and is of significant historical, archaeological, architectural and cultural importance being located within the area of archaeological potential for the historic centre of Dublin City and framed by buildings of historical and architectural interest, it is not a national monument as contended.

Board's obligations under the Disability Act 2005

On Day 1 of the oral hearing Mr Robbie Sinnott, representing both himself and the Blind Legal Alliance, raised issues regarding the availability of the application documents in an accessible format. The hearing was adjourned by the Inspector to ascertain what reasonable efforts could be made to accommodate Mr Sinnott and to allow him to fully participate. Mr Sinnott indicated that he was satisfied to be provided with assistance during the hearing and that documentation was made available to him in word format at the same time as it was circulated to everyone else in the room. Mr Sinnott declined use of a laptop to magnify the documents and a position at the top of the room closer to microphones etc. Dublin City Council agreed to make the documents available as requested throughout the hearing.

[10] O'Moore v. Department of Arts Heritage and the Gaeltacht [2016] IEHC 150
[11] O'Moore v. Department of Arts Heritage and the Gaeltacht [2018] IECA 28

On Day 3 of the hearing Mr Sinnott stated that his rights were infringed by the unavailability of a submission made by Ms A Greghan an behalf of Dublin City Council. Mr Fitzsimmons SC confirmed that all reasonable steps were made to facilitate Mr Sinnott, noting that as the document was too large to be sent by email, it was made available by hyperlink and was downloadable. Mr Sinnott also stated that he was being marginalised as only parts of the EIAR was made available by DCC in pdf format and that the matter was currently before the Equality Tribunal.

On Day 4 Mr Sinnott stated that he had not been issued with a copy of the Order of Proceedings in the email forwarded to him by the Board on February 26th, 2018. He was informed by the Inspector that two registered letters were posted to his address containing the document. He stated that this was not an accessible format and that he was at a disadvantage in terms of how the hearing was scheduled to progress. I would point out to the Board that the hearing agenda was set out clearly on Day 1 in the Inspector's opening statement and a copy of the Order of Proceedings was emailed to Mr Sinnott for his information.

On Day 10 of the hearing Mr Sinnott stated that he did not have access to a submission by the National Disability Authority (NDA), which was referred to by Mr Mac Gearailt during cross-questioning. He stated that he had met with a Board representative who informed him that the Board was not in a position to provide the document in an accessible format. Mr Sinnott brought the attention of the hearing to the provisions of the Equal Status Act, the Disability Act and the European Charter for Human Rights, stating that he was placed at a significant disadvantage participating at the hearing without access to the document. He further stated that if the project failed, it would be preferable that it did so on substantive grounds rather than on procedural matters.

Reference was again made to the document on Day 11 of the hearing. Mr Sinnott noted his legal right under the Freedom of Information Act, 2014 to have a copy of the document made available to him in an accessible format. He questioned whether the Board was aware of its obligations under Part 3 of the Disability Act, 2005 and the NDA's Code of Practice on Accessibility of Public Services and Information provided by Public Bodies, which was now a statutory instrument (S.I No 163/2006 - Disability Act 2005 (Code of Practice) (Declaration Order) 2006.

The submission referred to by Mr Sinnott was received by the Board on February 21st, 2018, following the republication of the public notice and was in the public domain prior to the hearing. Mr Sinnott was repeatedly informed throughout the hearing that the Board does not alter the original format of any documents it receives. To my knowledge, Mr Sinnott did not communicate any issues regarding access to documentation at any stage prior to the hearing. I would point out to the Board that Mr Sinnott made submissions which reflected a comprehensive understanding of the proposed development. He also actively participated during the hearing.

Mr Sinnott was absent during the final parts of the hearing. His request to make his closing statement by telephone was refused by the Inspector on technological grounds, the ability of other parties to hear the statement and on the grounds of precedent.

I consider that the Board has made all reasonable efforts to accommodate Mr Sinnott both prior to, and for the duration of the hearing to ensure that he was not placed at a disadvantage.

Submission made by M.E Hanahoe Solicitors

The submission by Hanahoe Solicitors following the republication of the public notices was accompanied by a box containing 49 no. documents. The documents included copies of various plans, strategies and other documentation. Hanahoe Solicitors questioned why the documents were not available for public display at the offices of Dublin City Council in accordance with the requirements of article 76 of the Planning and Development, Regulations 2001 and an adjournment of the hearing was sought prior to its commencement.

In correspondence dated March 9th, 2018, the Board took the view that the provisions of article 76 of the Planning and Development Regulations did not apply in this case. In any event, I note that all of the submitted documents are publicly available and were accessible during the oral hearing. I would also question why the documents were submitted in the first instance as there was only very limited reference to them by Hanahoe Solicitor's both in their submissions and during the course of the oral hearing. The Board requested an electronic copy of the documents on two occasions but this was not provided prior to the hearing.

Breach of intellectual property and copyright laws

Mr Justine Marsden[12] contends that Dublin City Council have breached design/intellectual and copyright laws. He states that there are similarities to Celtcias' designs, that the designer of the scheme has not been identified etc. Other matters raised include tendering of the project in the EU, discrimination against non-architect international designers etc. These are clearly non-planning matters over which the Board has no jurisdiction. Further discussion on the matter was not facilitated during the oral hearing and Mr Marsden request to appear by video link and phone was denied prior to the hearing.

Judicial Review

Some of the observers raise issues regarding the potential for long-term moderate negative impacts on business on Parliament Street arising from changes in traffic access to the street and day time servicing arrangements. They state that they will seek redress through judicial review if it is demonstrated that the Board's decision has an adverse impact on the value of properties.

It is of course open to the observers to challenge the legality of the Board's decision by judicial review. However, judicial review is not concerned with the merits of a case but with the legality of the decision-making process.

Conclusion

I do not consider that there are any outstanding legal or procedural matters which require further consideration by the Board.

8.4. Public Consultation

Environmental Impact Assessment Report

Chapter 3 of the EIAR outlines the non-statutory consultation activities undertaken by Dublin City Council in advance of the lodgement of the planning application. This included the publication in April 2016 of a document titled *'College Green Traffic Management Measures Public Consultation Document',* which was jointly issued by Dublin City Council and the National Transport Authority. It invited the public and interested parties to make submissions in relation to the proposal. Over 2,700

[12] Submission No 31 to An Bord Pleanala

submissions were received most of which indicated support for the project but with opposition from the taxi industry, car park owners and some retail interests. It is noted in the EIAR that bus diversion routes was one of the most contentious issues, with both residents and businesses on Parliament Street objecting to the proposed re-routing of buses through the street.

In November 2016, DCC in association with the NTA, hosted a public consultation workshop which was attended by over 200 people representing a cross section of residents, businesses and interested parties in the city. The *Imagine College Green Public Consultation Workshop* provided an interactive public forum which resulted in the publication of a report containing transcripts of the contributions made and a record of the activities and outcomes arising from the workshop. The report was issued to the Design Team and was used to inform the College Green Plaza Design Brief and is accessible on DCC's website.

This was followed in January 2017 by a street survey with face to face interviews carried out at College Green. A total of 434 respondents took part over 4 days. The respondents indicated that the most favoured aspects of College Green were 'architecture', 'buildings' and 'history/culture'. 'No traffic/less traffic /pedestrianisation', 'public seating' and 'more greenery' were the most common responses to a question regarding changes to a newly laid out College Green. In terms of the most important functions of College Green, respondents noted 'linking/central/transit point for city', 'social/meeting point', 'transport hub/access to transport' and 'tourism' as their most valued functions.

A total of 1,029 people responded to an online survey commissioned by DCC in January 2017 to gain an understanding of the wider public's views and ideas on the proposed new civic plaza. The majority of respondents agreed that the space needed to be redeveloped as a major new civic space for the city and would like to see it laid out 'traffic free/pedestrianised', with 'greenery', 'seating' and 'cycling access'. Concerns about the proposed project related to 'too much traffic/any traffic' and 'congestion elsewhere'.

During the preparation of the EIAR, a scoping process was undertaken and an outline of the proposed EIAR was provided to a large number of consultees requesting comment/input on the final scope and content of the EIAR.

During the design development stage there was further consultation with the Department of Arts, Heritage, Regional Rural and Gaeltacht Affairs (DAU and Archaeology and National Monuments Divisions). Presentations were also made to business organisations including Dublin Town, IBEC, Dublin Chamber and Temple Bar Company to obtain feedback on the proposed development. The issues raised related to the increased number of buses on Parliament Street, cycling on the plaza, impact on city centre footfall, access retention, consideration of alternatives, waiting times for buses etc. There was also consultation with other interested parties including the Office of Public Works, Failte Ireland, Bank of Ireland, National Council for the Blind, Taxi Regulator etc.

Issues raised by observers during the course of the application and the oral hearing.

The main issues raised relate to the following;

- Current proposal brought forward without public consultation.
- Unclear and misleading public consultation.
- Visually impaired ignored in the consultation process.
- The right of the public to participate at earliest possible stage.

Assessment

The following provides an assessment of the issues raised in the submissions and during the oral hearing.

Current proposal brought forward without public consultation

The observers correctly note that the original design brief was for a smaller civic space at the front of Bank of Ireland extending from Church Lane towards Grafton Street and incorporating Foster Place and facilitating some east-west traffic movement. However, the Design Team concluded that this space did not represent the historic definition of College Green and the design was adjusted to include the entire area depicted in Bernard De Gomme's map of 1673, being the first to show College Green as an urban space. The vision was to reclaim the historic wedge shaped footprint of College Green and respond to one of the city's core objectives *'to prioritise the redevelopment of College Green as a pedestrian friendly civic space,*

including the pedestrianisation of Foster Place'. It was from here the proposal to provide a fully pedestrianised space evolved with no through traffic.

The assertion that the current proposal was brought forward without consultation with the public is without foundation. As noted above, the non-statutory public consultation process, which began in April 2016, encouraged the public, relevant stakeholders, statutory consultees, business interests and various organisations etc., to engage with Dublin City Council in respect of the proposal. Each phase in this consultation process indicated that east/west traffic would be removed from the College Green area allowing a pedestrianised civic space to be created.

In addition, statutory consultation following the lodgement of the application has facilitated three rounds of submissions, which together with the oral hearing provided a wide forum for public engagement. Over 100 no. observations were received from individuals/interest groups indicating that there has been significant engagement in the consultation process. I conclude that there is no justification for the assertion that DCC did not actively consult with the public with regard to the proposed development.

Unclear and misleading public consultation

It is argued in the submissions that the public consultation undertaken by Dublin City Council was unclear and misleading regarding the extent of re-routing of buses from College Green. Reference is made to the *'College Green Traffic Management Measures Public Consultation Document'* (April 2016), which clearly shows Parliament Street accommodating two-way bus routes. It is also stated that the current proposal (with one-way bus movement on Parliament Street) was developed without consultation with Dublin Bus.

I accept that the original proposal as set out in the *'College Green Traffic Management Measures Public Consultation Document'* (April 2016) was predicated on two-way bus movement on Parliament Street. The subsequent change to one-way movement, limited to public transport vehicles only from 07.00-19.00 hours, was triggered by air quality modelling, with predicted exceedance of air quality standards due to the potential increases in the number of buses. As a result, it is proposed as part of the scheme to retain Parliament Street in its current form with southbound buses only. These changes to the proposal were made without consultation with the

NTA or Dublin Bus and it appears only come to light following the making of the application to the Board. However, both bodies have actively participated in the consultation process since the application was lodged.

The level of consultation with Dublin Bus was questioned during the oral hearing and it was argued by Ms Anne Mulcrone (on behalf of Dublin Bus) that bus passengers should have been specifically consulted. Mr Herron (Taxi Drivers Federation) noted there was no direct consultation with representatives from taxi industry or customers. It was also queried why the residents and businesses on Temple Bar etc., who it is considered would be most directly affected by the re-routing proposals were not targeted in the public consultation process.

DCC responded by stating that the consultation was as open as possible targeting the public at large. The public, including bus users, taxi associations, residents and businesses would have had the opportunity to engage in both the non-statutory and statutory consultation process conducted by DCC. It was noted that Dublin Bus were consulted both during the preparation of the EIAR to which they responded (Table 3.1 of the EIAR), and through statutory consultation following the lodgement of the application, which resulted in 3 no. submissions to the Board. Mr O Brien for DCC stated that numerous meetings were also held with the taxi regulator, taxi associations, NTA etc as part of consultative process.

Whilst I accept that changes have been made to the originally proposed bus routes, this is acknowledged in the application. The consultation process has facilitated active public engagement and, judging from the number of submissions, I do not consider that third party rights have been compromised in any way.

Visually impaired ignored in the consultation process.

Mr Robert Sinnott, who made a submission on his own behalf and as a member of the Blind League Alliance, stated that the visually impaired were excluded and ignored in the public consultation process. He noted the difficulty experienced regarding accessibility for the visually impaired to public notices, Dublin City Council's website information etc.

During the oral hearing, Dublin City Council documented its engagement and consultation directly with Mr Sinnott and through representative groups such as the National Council for the Blind (NCBI), the Centre for Excellence in Universal Design

(CEUD) and the Public Participation Network Disability Linkage Group. It was noted[13] that as part of the 'Imaging College Green Workshop' a video was produced which contained an audio voice over, with details of the date and location of the workshop. The video was circulated along with the written invitation to the workshop on DCC's website and social media platforms. When it became aware of Mr Sinnott's difficulty in accessing the original EIS documentation, the EIAR and the Response to Further Information (RFI) were adapted to ensure they were accessible using a screen reader which enabled Mr Sinnott to make a submission.

Whilst I accept it is particularly challenging for the visually impaired to engage in public consultation, through his submissions Mr Sinnott has demonstrated that he was not precluded from actively participating in the process. He also attended the oral hearing and displayed a comprehensive understanding of the proposal.

Matters raised by Mr Sinnott regarding his interaction with the Board and the availability of documents in an accessible format etc, have been addressed above under Legal and Procedural.

The right of the public to participate at earliest possible stage

Mr O' Donnell SC noted the requirements of the Directive and the right of the public to participate in the process at the earliest possible stage. He stated that the 10 day notice of the Board's intentions regarding the oral hearing was inadequate to vindicate his clients rights to participate.

I do not consider that there has been any breach of the Board's statutory obligations. There is no obligation on the Board to hold an oral hearing but due to the level of public interest, the Board considered it appropriate in this case. The public was made aware early in the process of the Board's intentions in this regard.

The Board will also be aware that the hearing was originally scheduled to commence in January 2018, but was rescheduled to March 2018 to allow re-publication of public notice. The parties would, therefore, have been on notice allowing adequate time to prepare for the hearing.

Summary and Conclusion

[13] Statement of Evidence of Ali Grehan – Oral hearing 12th March 2018

I accept that the original proposal was subject to extensive non-statutory consultation. I accept that the changes incorporated in the subject application were subject to statutory consultation as required. I accept that all reasonable efforts have been made to actively engage with the public regarding the proposed development. I do not accept that the rights of the public to participate have not been compromised in any way.

I accept that DCC's approach to consultation is adequate to meet statutory requirements, including those of Article 6(4) of the amending EIA Directive.

8.5. Alternatives

Environmental Impact Assessment Report

The main alternatives considered are outlined in Section 2.4 of the EIAR and in Appendix F of the RFI document.

The alternatives were developed in the context of achieving the specific objective of the development plan for the area which is to *'prioritise the redevelopment of College Green as a pedestrian friendly civic space, including the pedestrianisation of Foster Place'*, and the project objectives as set out in College Green Traffic Management Measures Public Consultation Document 2016, which include the following;

- the creation of major civic space,
- alleviate traffic congestion by barring all traffic travelling in an east-west direction across College Green,
- transform the area of College Green into a more accessible and usable space by linking the Luas to a fully pedestrianised area,
- provide an uninterrupted pedestrianised route from St Stephen's Green to the quays significantly improving journey times,
- Provide cyclists with a designated cycle track which will physically separate the cyclist from the Luas and bus movements,
- The cycle provision in the plaza area will generate a key safe city centre link connecting to the cycle provisions planned for Dame Street and Westmoreland Street.

Alternatives were considered under the following headings;

- Public Realm Strategy Alternatives.
- Road Design and Traffic Management Alternatives.
- Architectural Design Alternatives.

Public Realm Alternatives were considered initially to establish how the proposed project i.e. the development of a civic plaza in line with the City Council's long standing objective for the area and its identified objectives could be achieved. Clifford Scannell Emerson Associates (CSEA) were commissioned to assess a number of different public realm options and these are listed in Table 2.1 of the EIAR. A total of 12 no. options were considered and following a multi-criteria analysis, Option No 12 emerged as the most viable in terms of achieving the objectives of the project.

Option 12 provides for a fully shared plaza with no buses eastbound or westbound and with the monument locations retained. Traffic management (section 2.4.4) and architectural alternatives (section 2.4.5) were then developed and assessed to generate the proposed development.

Issues raised by observers during the course of the application and the oral hearing.

The main issues raised relate to the following;

- Options assessment was not open for public consultation/comment.
- Alternatives considered focused on a single site rather than the city as a whole.
- Consideration of alternatives not in compliance with the requirements of the Directive.
- Lack of justification for Option No 12 in terms of consequent impacts arising from exclusion of all bus access.
- Failure to consider original design brief as an alternative, which has implications in terms of cumulative impacts arising on public accessibility and public transport.

- Consideration of alternatives focused on traffic options. No alternative design options.
- None of the options considered included keeping open an east-west route for private car traffic.
- Failure to consider alternatives for the needs of vulnerable pedestrians.
- No consideration of the Do-Nothing Option.

Assessment

The following provides an assessment of the various issues raised in the submissions and during the oral hearing. Alternatives were considered on Day 5 & 6 of the hearing.

Options assessment was not open for public consultation/comment.

Dublin Bus raised issues regarding the consideration of alternatives in a separate document to the EIAR, and that the options assessment was not open for public consultation. As noted above Dublin City Council commissioned Clifton Scannell Emerson Associated (CSEA) to assess a number of different public realm options for College Green. The EIAR (section 2.4.3) contains a summary of the options and the conclusions reached. The full text of the report was submitted to the Board in response to further information (Appendix F). In the period following the RFI response there were two rounds of submissions, providing the public with ample opportunity to comment on the alternatives considered.

The alternatives are put forward as part of a specific project and whilst early participation with the public concerned is recognised as good practice, there is no legal requirement as contended for separate public consultation in the manner that applies to policy documents. I would point out that the policy documents that support the project such as the Dublin City Development Plan 2016-2022, the Dublin City Centre Transport Study 2016 and The Heart of Dublin: City Centre Public Realm Masterplan 2016, were themselves subject to public consultation.

Whilst it is argued in the submissions that stakeholders including Dublin Bus did not have the opportunity to review and assess the impacts of the various options put forward as part of the proposed development, the Clifton Scannell Emerson Associates report specifically states that the options were developed in consultation

with stakeholders including Dublin Bus, TII and the NTA[14]. This was also verified by Mr Brendan O Brien (Transportation Department DCC) during the oral hearing who confirmed that non-statutory consultation did take place with Dublin Bus.

Alternatives considered focused on a single site rather than the city as a whole.

It is contended in the submissions that the consideration of alternatives focussed on a single site, which is being developed in isolation from the city as a whole. During the oral hearing Councillor Mannix Flynn continued in a similar vein and queried why options were not considered for the overall city, which contains other spaces that could be developed as a place of public assembly such as Smithfield, the Fruit & Vegetable Market, the area around the Civic Offices etc. It was his contention that the space was chosen as a quick and easy way to solve the traffic problems on College Green, which would have huge implications for other areas of the city arising from traffic diversions, re-assignment of buses etc.

As noted in the preceding sections of this report, it has been a long-standing objective of the City Council to carry out public realm improvements within the city core, including College Green and this has been carried forward in the current development plan (Objective SC08). The development of the civic plaza is not identified in isolation but as part of a network of interconnected spaces and a unified pedestrian friendly core, and part of the Grand Civic Spine from Parnell Square to Christchurch.

The *Heart of Dublin City Centre Public Realm Masterplan* (2016) identifies a list of projects to be delivered in the city in the short, medium and long term. It acknowledges that the time line for delivery of projects could extend out to 18-20 years, as many of the public realm improvements will be underpinned by major infrastructure. Within the masterplan, the College Green project is identified as a Stage 1 project to be implemented between 2016-2022.

It is clear from the Masterplan that other spaces within the network will take longer to realise, constrained by major infrastructure and financial resources. Whilst their delivery may occur over different time frames, it will not be ad-hoc as contended in the submissions, but in accordance with the visions and strategies outlined in the

[14] Page 5 of CSEA report

various planning and policy documents which are set out in the EIAR. Whilst the proposed development will be advanced faster than other projects identified, I would not accept that the site is being considered or progressed in isolation from the overall public realm strategy for the city core.

With regards to alternatives, the proposal before the Board is for a specific project relating to the development of a civic amenity space at College Green. Article 5 (d) of the amending Directive, requires *'a description of the reasonable alternatives studied by the developer which are relevant to the project'*. The alternatives considered understandably focus on the subject site, in compliance with the requirements of the Directive. There is no requirement for DCC to consider alternative locations.

Consideration of alternatives not in compliance with the requirements of the Directive.

The consideration of Alternatives is a mandatory requirement under the Directive. The legal requirement under Article 5 (1) (d) is as follows;

'A description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment'.

As noted 12 no. options were considered in the assessment. The CSEA report sets out the project objectives (provide for transport function/provide for a civic space), the key questions/constraints (can monuments be relocated, can buses be relocated westbound, extent to which Luas lines can be adjusted, pedestrian and cyclist movement cannot be removed and volumes will increase significantly over time etc) and the issues arising for each transport mode (LUAS, pedestrians, cyclists and buses).

The assessment looks at various different options for transport modes such as alternative Luas alignments, the provision of double/single bus lanes, one/two-way cycle tracks and various combinations. Appendix A contained a series of drawings (Dwg No's 14_189_1050 to 14_189_1063C) showing the various options considered and Appendix B provides a comparative assessment of the 12 no. options, where each option was graded with respect to a number of determining factors. Figure 4.1 of the report provides a multi-criteria analysis of the various options based on 4 no.

key questions (relating to the provision of segregated facilities for cyclists to avoid conflict with Luas, relocation of monuments, relocation of eastbound and westbound buses from College Green and relocation of westbound buses to the South Quays).

Following this analysis, Option No 12 emerged as the preferred option to satisfy the project objectives. It was judged on the basis of safety and in terms of impacts on pedestrians, cyclists, trams, public realm and monument location to be significantly better than the other options considered. It was recognised that there would be impacts on bus operations which required further analysis.

A significant part of the oral hearing was taken up by a discussion of the perceived inadequacies of the alternatives considered, with continued reference to the CSEA report. Mr Evan Hanahoe (Hanahoe Solicitors) referred to the title of the report, it's size for a project of this type, and questioned why its authors were not present at the oral hearing to answer questions. Issues were also raised regarding when the process of the consideration of alternatives began, how the process was conducted, what instructions were given to CSEA and in the absence of this information how there is potential for bias to be introduced into the production of the report. Mr Hanahoe concluded that the CSEA document is fundamentally flawed and, as it provides the foundation on which the entire EIAR is based, this is also deficient. It is further contended that cyclists were prioritised over all other modes of traffic in the analysis and that there is inadequate justification for Option No 12.

It was clarified by Mr Brendan O' Brien that CSEA were instructed in October 2014 as part of a project, which was to look at the cycle route from Clonskeagh to the City Centre. As part of the route went through College Green, CSEA were requested to look at how cycling would be accommodated in College Green and that explains why the Project Title is 'Clonskeagh to City Centre Cycle Route' and the report title is 'College Green Improvements'[15].

Mr Hanahoe raised a number of matters, which I do not consider are material in the consideration of the adequacy of the alternatives considered, but are outlined below in the interests of completeness. He sought for example to discredit the CSEA based on the order of questions listed in Fig 4.1 and the factors listed in Appendix B, where

[15] Clifton Scannell Emerson Associates report Document Control Sheet

it is asserted that undue priority was given to cyclists over buses. It was confirmed by DCC that there is no order of priority in the way the report is structured.

Reference was also made by Hanahoe Solicitors to another report prepared by CSEA who were engaged by DCC to undertake a design for the provision of street layout improvements on College Green and Dame Street, including the provision of a civic space outside the Bank of Ireland. The design provided for the alignment of the carriageway to the south side of the College Green with a plaza created to the north in front of Bank of Ireland and the existing statues would be relocated towards the Bank of Ireland. The design was incorporated into a report to support a Part 8 application under the Planning and Development Regulations 2001, as amended[16].

Mr Evan Hanahoe stated that there was a striking resemblance between the Part 8 option and Option 10 in the alternatives considered in the EIAR, which is correct. He queried how the same firm of consulting engineers (CSEA) could come up with two different design approaches for the same place and questioned how they were instructed. Mr O' Brien explained the Part 8 process and how a project is initially presented to the area committee and if not approved, it does not proceed. The Part 8 report was presented to the South East Area Committee in November 2015 and opposed by a number of councillors on a number of grounds including cyclist safety, speed of bus lanes, relocation of monuments etc. At that point DCC had to pursue other options. The option that was rejected by the Area Committee was included in the alternatives considered in the EIAR, which I consider is entirely reasonable.

I consider that reasonable alternatives relevant to the proposed project and its specific characteristics have been considered by DCC. I consider that the reason for the selection of the preferred option has been demonstrated. I accept that this section of the EIAR may lack the level of detail envisaged under the amending Directive, which requires a 'description of reasonable alternatives' (as opposed to an 'outline'), but I note EPA guidance which states that *'it is generally sufficient to provide a broad description of each main alternative and the key issues with each, showing how environmental considerations were taken into account in deciding on*

[16] Oral hearing submission No 27

the selected option. A detailed assessment of each alternative (or 'mini-EIA) of each alternative is not required'. [17]

I consider the Board has before it sufficient information to consider the various alternatives considered and the environmental effects.

Lack of justification of Option No 12 in terms of consequent impacts of exclusion of bus access.

The preferred option provides for a full shared pedestrian/cyclist plaza with no buses eastbound/westbound. It is assessed to rank highest in terms of overall safety, with stated minimal interaction of different transport modes. It was assessed as ideal from a public realm perspective, maintaining the symmetry of the space and the position of the existing monuments. It also stated to be ideal from a pedestrian, cyclist and Luas perspective, but it is acknowledged that it ranks lower in terms of bus transport.

Whilst Option 12 is considered the optimal solution in terms of meeting the need for, and the overall objectives of the project, it is acknowledged that there will be impacts on bus operations, accessibility to bus users, relocation of bus stops, re-routing of traffic etc arising from removal of the significant east- west/west-east bus corridor and that further analysis is required. Chapter 6 of the EIAR (Traffic and Transportation) provides further analysis of these impacts.

Failure to consider original design brief as an alternative, which has implications in terms of cumulative impacts arising on public accessibility and public transport.

The original project brief was to develop a smaller pedestrianised civic plaza in front of the Bank of Ireland and to include Foster Place, and maintain traffic movements to the south. The various alternatives considered included various traffic management measures, some of which included bus movements to the south of the plaza.

The current design emerged following a considered response to the historical context and the original extent of College Green, which extended from Trinity College westwards along Dame Street to the junction with Trinity Street. It resulted in the enlargement of the overall pedestrianised space, further west along Dame St. However, this option gave rise to safety issues and potential conflicts between

[17] Guidelines on the information to be contained in EIAR (Draft August 2017)-Section 3.4.

pedestrians, cyclists and other vehicles using the same ‘shared space’. As a result, the final design emerged with three distinct zones within the plaza with a turnaround for buses separated from a fully pedestrian-priority plaza at the front of Trinity College and the Bank of Ireland and a more conventional street to the west of Church Lane.

It is accepted in the EIAR that the removal of the bus movements from College Green will have implications for public transport and these are assessed and discussed in more detail under Traffic & Transportation below.

Consideration of alternatives focused on traffic options. No alternative design options.

As noted above, the consideration of alternatives took place in a series of steps, with the first step focussing on the potential feasible means by which the project could be advanced, with due regard to its various functional requirements i.e. the accommodation of the various transport modes, but also being cognisant of the requirements for a public space. Having established that Option 12, which removed east-west traffic movements from College Green was the preferred option, the next step involved the consideration of traffic management alternatives within the space. The alternative design options were developed to achieve the optimum solution for the space, having regard to its historic and national importance within the centre of the city, but also refined and progressed having regard to the likely consequences for traffic management and safety.

Alternative design issues were considered. The site is located in a central city location, which is an important transport corridor accommodating north-south and east west traffic movements. The formulation of traffic management measures to accommodate the civic space was understandably a primary consideration and alternative designs formed the final stage of what was an iterative process.

None of the options considered included keeping open an east-west route for private car traffic.

The project was advanced on the basis of the elimination of the current east-west/east-west movements through College Green and accordingly the alternatives considered did not include the maintenance of private car access in either direction. These measures were advanced on the grounds of safety and efficiency and were

highlighted in the College Green Traffic Management Measures-Public Consultation Document (April 2016).

The consideration of alternatives for the needs of vulnerable pedestrians

Mr R Sinnott queried if DCC had looked at alternatives from the perspective of vulnerable pedestrians. Mr Paul Keogh on behalf of DCC stated that the design of the plaza had taken on board the concerns raised by various disability groups and best practice had been adopted applying the principles of universal design.

On the same matter, Mr Seamus Mac Gearailt stated that the provision for pedestrians, including vulnerable pedestrians, was central to the consideration of alternatives and universal access. There was consideration given to how the design could be varied and alternatives considered within the scope of the plaza area. The proposal would result in existing hazards within College Green being removed creating a barrier free space where other functions would be diminished to the lowest point of the hierarchy so that the safety and comfort of pedestrians, and particularly vulnerable pedestrians, would be maximised.

No consideration of the Do-Nothing Option

I accept that the 'Do-Nothing' option is not specifically considered in the EIAR under the consideration of alternatives. Whilst there is no legal requirement to do so, it is useful to outline what is likely to happen to the environment should the project not be implemented. The Board will note that in the case of Traffic/Transportation the 'Do-Nothing scenario is considered and under the other environmental topics the baseline (existing conditions) and the Do-Minimum scenario (without the development in place) is considered, where the consequences of not implementing the proposal are clearly identified.

Conclusion

Notwithstanding the observers' contention that there is undue emphasis on cycling over other transport modes, it is my opinion that the Board has before it adequate information on the alternatives considered by the applicant. I consider that the reason for the preferred option has been outlined and its environmental effects have been identified. I consider that the applicant has complied with the requirements of the Directive.

8.6. Construction

Environmental Impact Assessment Report

An indicative construction programme is set out in Section 4.5.2 of the EIAR, which is summarised in Section 4 of this report. It is expected that the initial works area will be centred on the northern side of the site with access for pedestrians and cyclists being maintained along the southern side. When this section of the plaza is complete, the works will move to the southern side of the site. Construction vehicles will gain access to the site using designated routes. A Construction & Environmental Management Plan (CEMP) will be prepared by the contractor in consultation with DCC in advance of the works. An outline CEMP is included in Appendix 4.1 of the EIAR.

Issues raised by observers during the course of the application and the oral hearing.

The main issues raised relate to the maintenance of access to property, access for serving, access for pedestrians/cyclists and access to other construction sites (Central Plaza). Other issues relate to noise/disruption to businesses and the visual impact of construction activity on College Green.

Assessment

The following provides an assessment of the issues raised in the submissions and during the oral hearing.

Construction related impacts were discussed on Day 10 of the hearing. It was confirmed by DCC that construction would take place in phases with discrete areas hoarded off while the various construction activities took place. This would be required to ensure that access to individual property, servicing etc and movement for pedestrian/cyclist activity is maintained and to ensure compliance with health and safety requirements. These arrangements would be similar to any construction project implemented in the city centre.

I accept that noise/vibration arising from construction has the potential to impact on the operation of businesses, residents etc. I note that normal working hours are to be observed during the construction period, which coupled with other mitigation (control

of noise sources, screening etc) and the temporary nature of the works, will help to mitigate adverse impacts.

Construction activity has the potential to detract from the visual amenity of the College Green. According to the EIAR solid hoarding will be erected around the works area. It is suggested in the submissions that attractive hoarding, perhaps depicting the history of the site could be used to mitigate visual impact. I note that DCC are not opposed to such an arrangement (Section 11.5 -Mitigation measures).

It is recognised in the EIAR that it is necessary to ensure that College Green does not become a place to be avoided during the construction period. Effects that could give rise to reduced footfall are congestion, way-finding difficulties, dust/debris, noise etc. The mitigation measures proposed, together with proactive engagement with businesses and the public will help to ameliorate potential impacts. Having regard to the temporary nature of the works and the overall benefit of the plaza to the city following completion, I consider these impacts are acceptable.

Dame Property Plaza Designated Trading Company are currently advancing proposals for the complex of buildings in the vicinity of the former Central Bank, known as the Central Plaza and including 6-8 Dame St/1-2 Anglesea St. Work has commenced on the former Central Bank building with most operations taking place from the Temple Bar side. There is potential for construction activity associated with the Dame Street/Anglesea Street to take place in tandem or following the completion of the proposed plaza development. In such an eventuality, the timeframes for implementation, intended construction practice, traffic management etc are matters that will require agreement with DCC and between the appointed contractors to ensure that construction on both sites can be effectively and efficiently managed and that potential impacts are minimised.

Mr M O'Donnell queried why there was no reference in the EIAR to the impacts of construction on public transport. Mr Mac Gearailt confirmed that the plaza area would be closed to traffic at the commencement of construction and that the permanent traffic arrangements would be implemented at that stage. There would, therefore, be no difference between the construction and operational phase. In accordance with established practise the appointed contractor would prepare a

Construction Traffic Management Plan as part of the Construction and Environmental Management Plan.

Summary & Conclusion

I accept that there will be environmental impacts associated with the construction stage such as noise and disturbance, increased levels of public inconvenience and a deterioration in the visual amenity of the area. I accept that these impacts can be mitigated through appropriate construction methodologies and best practice.

8.7. Traffic & Transportation

Environmental Impact Assessment Report.

The relevant sections of the EIAR are Chapter 6 and Appendix 6.1 (Traffic Modelling Report).

The EIAR describes the receiving environment in the context of the local street network, existing public transport etc. It also describes the future receiving environment (public transport and road network projects including those scheduled to be completed by 2018 and 2035).

The streets that will be directly or indirectly impacted by the proposed development are presented in Figure 6.2 of the EIAR. Core streets that will be impacted are described in Section 6.3. Public transport facilities operating in the area include buses (operated by Dublin Bus, Bus Eireann and private operators), taxi (ranks at College Green and Foster Place) and Dublin bikes (bike stations on Exchequer Street and on Fownes Street Upper near the former Central Bank).

The EIAR identifies a number of public transport projects scheduled to be completed by 2018 (Luas Cross City and DART frequency increase) and by 2035 (proposals included in the Transport Strategy for Greater Dublin 2016-2035). It also documents the road network proposals in the vicinity of the site which are assumed to be in place by 2018, prior to the opening of the civic plaza and a number of long term proposals that are envisaged to be completed by 2035.

As part of the proposal, the proposed plaza will be reserved for pedestrian and cyclists, preventing all traffic (except emergency vehicles) from travelling from Dame Street through College Green to Westmorland Street, and travelling in the opposite

direction, from D'Olier Street to Dame Street. Buses currently using Dame Street to cross the city will be diverted onto other routes. Buses that will continue to use Dame Street will turn around at College Green in a new turning circle at the junction of Foster Place and Church Lane. Parliament Street will be restricted to public transport between 07.00 and 19.00 hours Monday to Friday.

The proposal will also include a dedicated cycle track on the eastern and southern sides of the plaza and 32 no. bicycle parking spaces will be provided. The existing permanent taxi rank on College Green will be relocated to Dame Street with capacity increased from 5 to 8 no. taxis. The existing night-time rank with a capacity for 3 no. taxis on the northern side of Dame Street will be converted to a permanent taxi rank. Additional night time capacity equating to 21 no.spaces will also be provided through the use of proposed loading bays on Trinity Street, Church Lane and Dame Street.

The EIAR describes the impacts on traffic and transportation that will arise during the construction and operational stages of the development. It is envisaged that access to the site during the construction phase will be from Dame Street. College Green lies within the restricted zone for HGV's and construction traffic will be obliged to use one of three designated HGV routes within the city centre. Construction vehicles will arrive and depart the site via one of the following routes:

- North or South Quays/Bridge Street/High Street/Dame Street; and
- Patrick Street /Dame Street.

Construction traffic will be generated from a number of sources during the development of the plaza including soil removal, materials delivery and equipment delivery. It is envisaged that peak daily HGV traffic would be in the region of 8-10 one-way trips during the most onerous construction stage (excavation) and that 30% of these trips would occur in the peak hour equating to 6 two-way trips. It is expected that up to 50 people will be employed on the site during peak construction. Allowing an 11 hour working day (07.00-18.00), it is expected that most staff will arrive before the AM peak and depart after the PM traffic peak. On the basis that the development would result in 6 trips on Dame Street during the peak hour, it is concluded in the EIAR that the impact of construction traffic will be slight and result in a negligible impact on the surrounding road network.

Operational impacts are discussed in Section 6.6.2 of the EIAR. Modelling using the NTA's Regional Modelling System - East Regional Model (ERM) has been carried out to assess impacts on general traffic, accessibility and public transport in the vicinity of College Green and the wider city centre area. The road network has been modelled in SATURN. The assessment has been carried out for the 2018 model year do nothing, do-minimum, do something scenarios. A comparison of do-minimum versus do something for 2035 is also included. This year assumes the completion of the GDA Transport Strategy and compares impacts with and without the proposed project. The results of the transport modelling are provided in Appendix 6.1

Impacts on access to car parking, loading/unloading facilities, commercial/residential premises are assessed, together with impacts on transport modes including bus transport, taxi, pedestrian and cyclists.

Mitigation measures during construction include controls on construction traffic (certain routes and times of the day), hours of working, mobility management for staff and implementation of a Construction Traffic Management Plan. Other than the mitigation measures included as part of the proposed project, no additional mitigation measures are proposed for the operational phase of the development.

Residual impacts are assessed as positive in terms of improving pedestrian, cyclist and public transport mobility through the centre of the city. It is acknowledged that the development will result in changes to traffic flows on a number of road links within the city centre. The residual impacts are considered further under *Air Quality and Climate Factors* and *Noise and Vibration,* which are the direct environmental impacts as a result of increased traffic.

Policy Context

The National Planning Framework under National Strategic Outcome 5 **(**Sustainable Mobility) states that Dublin is heavily dependent on road and private, mainly car based transport with the result that roads are becoming more and more congested. It makes provision for investment in public transport and sustainable mobility solutions to progressively put in place a more sustainable alternative. It recognises the need to *'expand attractive public transport alternatives to car transport to reduce congestion and emissions*..' and that It is envisaged that this will

be achieved through the delivery of the key public transport objectives of the Transport Strategy for the Greater Dublin Area 2016-2035 by investing in projects such as New Metro Link, DART Expansion Programme and BusConnects in Dublin and in the development of a comprehensive network of safe cycling routes to address travel needs.

The **Dublin City Centre Transport Study (May 2016)** sets down a framework for how the Dublin City transport network can be redefined to cater for increased travel demand, by better utilising the existing infrastructure available, and by moving towards a more sustainable and efficient use of the public realm within the city centre. One of its guiding principles is to improve accessibility and permeability for pedestrians, cyclists and public transport whilst also maintaining an appropriate level of access for vehicular traffic for commercial and retail purposes.

At section 5.3.2 it recognises *'that current congestion for all modes of transport, together with the traffic changes brought about by Luas Cross City and the need to cater for growth in travel demand, will require the re-allocation of road space on certain streets from general traffic to sustainable transport modes. This will safeguard the critical role of public transport and it will ensure that it is possible to transport more people in and out of the City Centre.'*

Chapter 8 of the **Dublin City Development Plan 2016-2022** (Movement and Transport) acknowledges that transport has an important contribution to make towards achieving a sustainable city. It actively promotes modal change increasing capacity on public transport including bus corridors, DART, suburban rail lines and Luas to reduce reliance on private car usage. The Plan supports the sustainability principles set out in national and regional policy frameworks and guidelines (Policy MT1) and acknowledges that promoting modal change, encourages active travel (such as cycling and walking) in general but also as a means to access public transport routes.

Policy MT2 states;

Whilst having regard to the necessity for private car usage and the economic benefit to the city centre retail core as well as the city and national economy, to continue to promote modal shift from private car use towards increased use of more sustainable forms of transport such as cycling, walking and public transport, and to co-operate

with the NTA, Transport Infrastructure Ireland and other transport agencies in progressing an integrated set of transport objectives. Initiatives contained in the government's 'Smarter Travel' document and in the NTA's Draft Transport Strategy are key elements of this approach.

Section 8.5.2 refers to public transport and it is the policy of Dublin City Council to support and facilitate the development of an integrated public transport network and to increase the capacity of public transport etc. Relevant policies include MT3 – MT6, MT20 and objective MTO.4

The Plan (section 8.5.4.) encourages increased levels of cycling and walking, as active means of travel which are more sustainable modes than the private car and which can form part of sustainable journeys in conjunction with public transport use. There is increased emphasis on improving the environment for pedestrians/cyclists including improvements to pedestrian/cycle routes, the development of the Strategic Cycle Network, improved permeability, increased footpath width, public realm improvements etc . Relevant policies/objectives include Policies MT7-MT12 and Objectives MTO9, MTO10, MTO13, MTO18, MTO21, and MTO22.

Car parking is discussed in section 8.5.6 and it is the policy of Dublin City Council *'to continue to implement a policy on car parking that seeks to manage and provide car parking as part of the overall sustainable transport needs of the city'.* Relevant policies MT14-MT16.

With regard to Traffic Management (section 8.5.8) it is acknowledged that a wide range of public realm, traffic management and public transport projects will occur in the city centre during the life of the Plan and that the city's road network must be effectively managed during this period in order to keep all road users interacting safely and efficiently whilst ensuring full accessibility and maintaining the economic competitiveness of the city.

Policy MT21 states;

To improve the management and control of traffic in the city, to increase internal and external sustainable accessibility, to improve road safety, to safeguard commercial servicing requirements, to mitigate the impact of construction works and to minimise the adverse environmental impacts of the transport system.

Issues raised by the observers during the course of the application and during the oral hearing.

Submissions to the oral hearing on behalf of Dublin City Council were made by, Brendan O Brien (Head of Technical Services- Traffic), Donal Mc Daid (Director Arup) Seamus Mac Gearailt (Roughan & O Donovan Consulting Engineers). Submissions were also made by the NTA, Dublin Bus, Mr Julian Keenan on behalf of residents/businesses on Parliament Street, Tom Phillips on behalf of the Dublin City Centre Traders Alliance, Mr Robbie Sinnott on behalf of Blind Legal Alliance, Irish Taxi Drivers Association, Tiomanai Tacsai na hEireann, hotel groups, car parking interests and others.

Mr Danny O' Connor was appointed by the Board to assist with the assessment of matters relating to Traffic and Transportation. He prepared a separate report (Appendix 4), to which I have had regard.

The issues raised in the submissions and during the oral hearing may be summarised as follows:

- Adequacy and scope of modelling and methodology used.
- Impacts on Luas.
- Impacts on bus transport.
- Impacts on cyclists.
- Impacts on pedestrians.
- Impacts on taxis.
- Access to car parks.
- Access to premises for deliveries.
- Access for emergency vehicles
- Cumulative impacts of proposed traffic changes on the city.

Assessment

Before dealing with the substantive issues, I wish to point out to the Board that the main traffic changes that will occur as a result of the development will be the removal of vehicular traffic east to west and west to east through College Green. This traffic will be redistributed on other parts of the network.

Within the application site as indicated by the red line on the planning application drawings, there are three locations of traffic management changes which were described during Day 1 of the oral hearing (Section 4.3- 4.6 of Submission No 1, supported by Slides 40-43 on Submission No 1A). These show the location of the bus stops, details of cycling facilities, loading bays, taxi ranks, kerb build outs, new pedestrian crossing, relocated pedestrian crossing adjacent to Trinity Street etc.

The right turn to Trinity Street will be maintained and a right turn from Dame Street to Georges Street will be permitted. At this junction it is also proposed to remove the restriction on private cars turning right from George's Street to Dame Street. It is proposed to remove the current restriction on public transport turning left from Wellington Quay to allow westbound and southbound routes to access George's Street and Lord Edward Street.

The following provides an assessment of the various issues raised in the submissions and during the oral hearing.

Adequacy and scope of modelling and methodology used

Modelling was carried out using the NTA's East Regional Model (ERM). It is one of a suite of models developed by the NTA. Although it has a broad geographical extent (13 counties), it was clarified during the oral hearing (Day 6) that the level of detail is adjusted to the level of activity in particular areas. The NTA was commissioned by DCC to conduct the modelling exercise, which was carried out at the beginning of 2017, using census data from 2012. It was confirmed during the oral hearing that no other modelling was undertaken (including micro-simulation) in the analysis of this project.

There were specific questions relating to the model during the oral hearing e.g. whether it took into account impacts on pedestrians, whether it had the capacity to assess the impacts of pedestrians on traffic movement and whether it had to be refined to reflect the new traffic arrangements. I consider that these matters were adequately addressed during the oral hearing. Specifically, Mr Mc Daid (Arup) stated

that the model is multi-modal and takes account of all travel demand, including pedestrians. Mr Barry Colleary (Head of Transport Modelling, NTA) noted it is developed to a fine level of detail across the entire GDA, including at street network level.

Mr Julian Keenan (Trafficwise) stated that while SATURN is capable of forecasting the assignment of traffic volumes and journey times, it does not provide refined junction capacity and queuing information specific to junctions. Mr Reid for Dublin Bus expressed similar concerns.

I draw the attention of the Board to the report prepared by Mr D O' Connor. In his analysis he identifies difficulties with model interpretation, potential inaccuracies associated with baseline information, the absence of some streets from the analysis (particularly those east of D' Olier Street and College Green and no mention of Winetavern Street which will cater for a considerable number of re-routed buses), the reliability of the model based on an identified error in taking a model output (refers to replacement of Table 5.3 of the RFI document with Table 1 of Submission No 6 giving traffic figures on Parliament Street), the potential to identify significant effects and the magnitude of those effects, all of which casts doubt on the reliability of the model.

I accept that the modelling report was difficult to follow due to the scale of the drawings. This made it difficult to interpret, which I accept presented particular challenges for third parties. I draw the attention of the Board to the drawings included in the report which show for example V/C ratio at junctions and road links, delays on road links etc under different scenarios (Figure 3-5 to Figure 3-19). These drawings provide little clarity on the particular junctions/road links likely to be impacted. Similarly, difficulties arise in relation to the interpretation of information on the redirected bus routes (Figure A14 - A85) in terms of the changes that will occur on individual streets. There are also difficulties correlating the road link data (Appendix 1) with projected traffic flows (Table 6.3).

With regard to the reliability of the model, Mr O Connor raises concerns with regard to observed and predicted journey times, noting that the difference was *'extremely large'* and concludes that the *'modelled journey times could not be accepted as accurate'.* These matters were specifically raised in the Board's request for further

information and again by Mr O'Connor during the oral hearing. Mr O Connor also notes the manner in which the information is presented in Table 6.3 of the EIAR which highlights increases/decreases in projected traffic flows in percentage terms rather than actual increases in AADT. This was not considered helpful in identifying the significance of impacts on particular streets (as identified in Mr O Connor's report) and the main problem junctions i.e. those with significantly increased flows and which are at/near capacity at present.

The absence of certain streets which are likely to be impacted was also a concern including those east of College Green and D'Olier Street, the lack of reference, for example, in Table 6.3 – 6.8 of the EIAR to Winetavern Street, which will accommodate a considerable number of re-routed buses and the absence of information on traffic flows over Grattan Bridge, likely to be impacted by the closing off of the straight ahead option towards Parliament Street. Mr O Connor includes a table which identifies shortcomings in the modelling report, showing details of links which are not included in Table 6.3 of the EIAR, some of which are likely to be significantly impacted by the development and to indicate potential knock on impacts.

The matter of junction performance within the city centre was raised during the oral hearing (Day 7). Mr O' Donnell SC questioned the content of Fig 3.5 of the modelling report which suggests that all junctions within the city centre are working within capacity in the Do Minimum scenario (with the exception of College Green). This he said bears no resemblance to what is actually happening on the ground and is at variance with the level of congestion regularly observed. In response Mr Colleary (NTA) stated that with regard to individual junctions they are not a specific concern for the totality of all movements at those junctions, as represented by the volume to capacity ratio's. He acknowledged that congestion can arise from a lack of capacity in the approach roads and that the totality of the junction i.e. junctions and approaches are considered together;

'There may be a number of approaches that are at capacity and a number that are not. As a result, the totality of the junction may not reflect the specific experience of people using the links that are over capacity'

Mr O' Donnell took serious issue with such a proposition, concluding that if the model did not reflect the capacity of the junctions correctly, it was not fit for purpose. In this regard I draw the attention of the Board to Mr O'Connor's report, which concludes;

'The extent of the gap between volume and capacity appears to be greater in practice than that predicted by the model. This may arise from the fact that census data is from 2012 and may have changed in the interim. While the model indicates sub-capacity links with only one sub-capacity junction, the reality appears to be considerably worse. Overall, I consider that while the model indicates areas of difficulty, the extent of the difficulties is underestimated'.

I would point out to the Board that Mr O'Connor's report has cast significant doubt on the reliability of the model to accurately identify the significant effects of the proposed development on traffic. I accept his conclusion that the direct impacts on traffic are likely to be more significant than predicted in the EIAR as set out below;

'Based on the examination of links and junctions, the very large discrepancy between observed journey times and those predicted, and the absence of streets from the analysis which are likely to be impacted by the proposal, I consider that the model does not form a reliable basis on which to quantify the extent of the traffic impacts arising from the project. The model gives an indication of likely impacts, but the magnitude of the impacts predicted is considered to be greatly understated.

Impacts on Luas

Luas Cross City became operational on December 9th, 2017 and runs along a north-south corridor to the east of College Green. The delivery of Luas Cross City has fundamentally altered the way College Green can operate from a transport perspective. It has impacted significantly on street and junction capacity in the vicinity of College Green. As noted in the EIAR (Section 6.6.2.8) journey time and level of service is compromised due to conflict between the various forms of transport currently using the junction e.g. between vehicles moving north-south and east-west. Trams cannot be signalled simultaneously both north and southbound, due to the right turn movement towards Dame Street and the lack of queuing space for vehicles making the turn. Luas services are also not at their target frequency

(tram takes 45 seconds to clear the junction compared to the target of 39 seconds)[18], all of which had impacts on the level of service.

I accept that the traffic management measures proposed as part of the scheme, which will close College Green to vehicular traffic, will significantly reduce existing traffic conflict and congestion at this important junction. Luas trams will be able to pass each other without being impeded, which will improve level of service and reliability, contributing to its overall attractiveness as a public transport mode. Reduced congestion will also mean that the north-south public transport corridor will operate more efficiently for buses and taxis. All of these factors combine to facilitate better use of existing infrastructure and through improved journey times and reliability of service, encourage modal change away from private car to public transport in line with national policy.

Transport Infrastructure Ireland (TII) in its submissions to the Board requests that it be consulted in relation to any streetscape activity in the vicinity of Luas infrastructure including placing of street furniture, changes to the Overhead Conductor System etc arising from the proposed development. It also requests that details of the final Construction and Traffic Management Plan be agreed with TII prior to the commencement of works. In his submission to the oral hearing Mr B O'Brien confirmed that a works permit would be sought for works which would be carried out in proximity to the overhead conductors and that the Code of Engineering Practice will be adhered to during construction. I accept that any outstanding matters could be addressed by condition, should the Board be minded to grant approval for the development.

The matters raised by Cllr Ciaran Cuffe regarding the imposition of a condition requiring the replacement of the overhead conductor system with a more suitable alternative and the provision of more aesthetically suitable fixtures to listed buildings are matters which are outside the scope of this application.

Impacts on bus transport

The development of more sustainable travel and transport services are supported by national, regional and local policy documents. The *National Planning Framework* identifies '*the development of an improved bus-based system with better orbital*

[18] Mr B O'Brien DCC -Day 7 of oral hearing.

connectivity and integration with other transport networks' as a key future growth enabler for Dublin[19]. *Smarter Travel-A Sustainable Transport Future* sets out policies to achieve a sustainable transport system by 2020. It recognises that existing travel trends are unsustainable and that improvements are required. It states that commuters will only begin to consider a shift from private car to public transport when the advantages are greater than those of the car. It sets out key actions to ensure that alternatives to the car are more widely available, mainly through a radically improved public transport service.

The issues surrounding urban congestion and the need to address the operation and efficiency of the existing bus network are highlighted in a number of policy documents. *The Greater Dublin Area Transport Strategy 2016-2035* recognises that the bus system will continue to be the main form of public transport for most people and that the bus system needs to be fundamentally transformed to meet the needs of the region and to improve its attractiveness as a mode of transport. It highlights issues regarding reliability, efficiency and delays for customers. It sets out proposals to enhance the service (including the development of a Core Bus Network) removing current delays and enabling the bus to provide a faster alternative to car traffic along these routes, making bus transport a more attractive alternative for road users. It states that addressing urban congestion is a priority and that there must be a significant reduction in the share of trips undertaken by car and an associated increase in use of public transport, cycling and walking.

The Dublin City Centre Transport Study (May 2016) also highlights the difficulties with the reliability, efficiency and complexity of the existing bus network in the city and sets out a number of proposals (Section 6.2) to achieve the objective of improving its operation, management and efficiency. These include increasing the passenger carrying capacity (expansion of fleet), maximising the performance of the network (ensuring that sufficient road capacity and junction priority are provided) and the introduction of a high capacity Bus Rapid Transit (BRT) service along specific routes. The measures also include optimising the routing of the bus corridors through the City Centre area and optimising the efficiency of the service etc.

[19] Page 37

In terms of the city core, it acknowledges that the operation of Luas Cross City dictates that the traffic arrangements in the vicinity of College Green and O'Connell Street will have to change. It sets out proposals to be implemented during the period of the Study, which include the rerouting of certain bus services that use Dame Street and College Green to a new dedicated bus link on Parliament Street to facilitate the new plaza development.

BusConnects also emphasises the problems caused by increased congestion and the need to transform Dublin's bus system so that journeys by bus will be fast, reliable, punctual, convenient and affordable. It sets out proposals to overhaul the current bus system including the development of a network of continuous bus lanes on the busiest routes, BRT on the busier corridors, reconfiguration of routes and services, provision of low emission vehicles etc. A key outcome of 'BusConnects' will be a simplified, more legible bus network to and through the city centre.

The *Dublin City Development Plan* acknowledges that one of the challenges going forward is ensuring that maximum benefits are achieved from public transport improvements. It also supports improvements to the city's bus network to encourage greater usage.

As part of the proposed development two-way movement of buses, trams and taxis will be accommodated along the eastern edge of the plaza using the north-south corridor between Grafton Street and Westmoreland Street. Buses that will continue to use Dame Street will turn around at College Green at the new turning circle proposed at the junction of Foster Place and Church Lane. Buses that currently use College Green to cross the city will be diverted onto other routes. Buses on the eastbound direction will use Winetavern Street, before crossing the Liffey and travelling along Ormond Quay and Bachelor's Walk to O'Connell Bridge. Westbound buses will travel along the south Quays using Aston Quay and Wellington Quay before turning left into Parliament Street (Fig 6.28 of EIAR). The re-routing of buses will result in the relocation of bus stops to alternative locations along the new bus routes, with a stated maximum relocation distance of c.500m.

There are a number of issues that have been raised in the submissions and during the oral hearing which require further consideration by the Board. These relate to the following;

- Adequacy of modelling and assessment.
- Impacts on bus routes/passengers.
- Impacts on people with mobility issues and visually impaired.
- Cumulative impacts.
- Other Matters

Adequacy of modelling and assessment

Cross questioning on bus transport took place on Day 7 and much of the discussion revolved around the accuracy of the number of buses (53 no. buses) that DCC state would travel down Parliament Street during the AM peak arising from the development. Mr M O' Donnell, acting on behalf of the residents and businesses on Parliament Street, questioned how this figure was arrived at and how it could be reconciled with the figures presented in the *Transport Insights Report*[20] and the *College Green Traffic Management Measures Public Consultation Document* (April 2016). These indicate that there would be a significantly higher number of buses travelling through Parliament Street in the peak hour.

Mr D Mc Daid, responding on behalf of DCC, clarified that the documents referred to by Mr O'Donnell indicated two-way bus movements on Parliament Street. This was not part of the proposal before the Board, which was for southbound buses only. With regard to how the figure was arrived at, Mr Mc Daid clarified that the time tabled peak hour movements for each of the southbound bus routes was taken with an allowance made for private licensed and other buses that would use Parliament Street during the peak hour. He stressed that the figure of 53 is a not an estimate, it is an input to the model, which was agreed with the NTA, being the only statutory authority with responsibility for bus routing in the GDA, and the frequency of service.

He stated that the difference between this figure and those presented by others is that they assumed that the bus routes included in the public consultation document (which included both northbound and southbound buses) would all remain on Parliament Street, which is not the case. All of the northbound buses indicated in the document have been excluded, in addition to other routes that will be diverted via the

[20] Traffic Insights – College Green Traffic Management Measures Consultation Submission on behalf of Parliament Street Businesses and Residents (May 2016). Copy attached at Appendix 3 of this report.

North Quays (79, 79A) and Grafton Street (122) and elsewhere (65, 65B, 68, 68A & 150). The following bus routes indicated in the report would remain southbound on Parliament Street (123, 13, 40, 27, 151, 56A, 77A, 83, 9, 16 & 54A).

Whilst Annex 2 of the modelling report provides information on buses redirected from College Green, the text of the EIAR does not provide a comprehensive list of where each bus route is proposed to go within the network, which makes an evaluation of the impacts more difficult. However, I accept that a degree of clarity was provided during the oral hearing, as set out above. I note that details of changes in traffic patterns on various sections of the network, including Parliament Street under the different scenarios is provided in the EIAR (Tables 6.2 – 6.4) but this refers to total traffic and not specifically buses. Information on peak bus numbers under the different scenarios is provided in Appendix 6.1 (Figures 3-42, 3.43 and 3.44 for Parliament Street).

I accept the conclusion reached in the EIAR that the elimination of east west/west east bus movements on College Green will reduce conflict, improve the level of service and journey time reliability etc along the north-south public transport corridor. I accept that the overall impact on College Green will be positive and significant arising from the removal of traffic and the delivery of a quality urban space which affords priority to pedestrians and cyclists.

Outside the application site, the conclusion reached in the EIAR is that the diversion of east-west/west east bus services, to what is considered to be a high-performance corridor along the Quays, will improve the level of service, even considering the impact brought about by the relocation of bus stops, increased walking distances etc.

I consider that there is potential for negative impacts arising from the redistribution of buses onto the local road network outside the site (discussed below). I also accept that there will be residual impacts on streets outside the application site arising from increased traffic flows including emissions to air, noise and vibration etc. These are discussed under other sections of the EIAR and are considered in proceeding sections of this report.

Impacts on bus routes/passengers.

The issues raised relate to the removal of buses from College Green, the restriction of two-way bus movement on Parliament Street, the capacity of the Quays to accommodate re-routed buses, severance of an existing connected service, reduced access to the city centre, potential displacement of customers, excessive walking distance to relocated bus stops, impacts on journey times etc. Dublin Bus also state that the proposals, which will also make bus transport less attractive will militate against modal shift from car transport to public transport.

Both the NTA and Dublin Bus stress the importance of College Green as a major artery in the bus network for the city. The NTA in its submission (30/6/17) noted the significant number of buses currently passing through College Green, with maximum hourly flows in peak conditions in excess of 100 buses in each direction. The majority of the buses will be re-directed to the Quays, routed via Parliament Street southbound (one-way) and via Winetavern Street northbound. Both the NTA and Dublin Bus consider that Parliament Street should be used for two-way bus movement and both consider that using Winetavern Street for northbound buses as an alternative to Parliament Street is a significant detour and a less desirable alternative for bus users.

It is the view of the NTA (Submission of 30/6/17) that with careful design of alternative bus routings, coupled with a higher proportion of north-south/south-north buses in College Green under the plaza proposal, that the overall bus network can continue to perform satisfactorily in tandem with the College Green project. On the other hand, Dublin Bus considers that the removal of east-west movement through College Green will fragment a connected service, have significant impacts on accessibility and result in the displacement of over 10 million passengers a year. It is their contention that public transport should be incorporated with the public realm strategy and the recommendation is that west-east bus movements should be retained and east-west movements should be removed.

In their submission to the Board (30/6/17) Dublin Bus highlights the advantages of retaining a bus route west to east through College Green. It would require a lane width of 3.5m and eliminate the need for a turning area, which is perceived by some of the observers, including Dublin Bus, as problematic both technically and from a safety perspective (discussed in more detail below). It is considered that a bus lane could be designed as an integral part of the scheme and incorporated more

discreetly than a turning circle. It would also take up less civic space, eliminate the need for two-way buses on Parliament Street and keep bus customers in the city centre.

I accept the merits of such a proposal. It would remove many of the concerns associated with the total removal of bus services from the area. It would ensure that issues regarding severance of existing routes and displacement of bus passengers are addressed and that current accessibility to the city centre would be maintained as existing. It would simplify the cycling arrangements and vehicular access to the Bank of Ireland and a well-designed public plaza would still be possible.

Whilst there are many examples of pedestrianised areas that co-exist with public transport corridors, DCC do not accept that it is possible to maintain pedestrian priority in a shared space with buses, noting that the area would have to be controlled by traffic signals and have a raised kerb to delineate it. It is also opposed on the basis that it would be contrary to the overall design philosophy. Whilst I accept that it would not accord with DCC design principles for the proposed plaza, it would convey advantage to bus passengers over a bus free plaza. However, such a proposition would involve a significant alteration to the proposed scheme which I do not consider could be addressed by way of a condition. I would also point out to the Board that DCC have expressly stated that they do not wish '*to have a condition attached to any approval requiring a thoroughfare through the plaza'* (Closing Statement -Ms Deirdre Hughes).

A significant number of the buses prevented from using College Green will be diverted, primarily towards the north and south Quays. The capacity of the Quays to accommodate additional buses has been raised in the submissions. It was also raised in the Clifton Scannell Emerson Report dated February 2016, in the consideration of alternatives.

As noted, the Quays have been improved as a public transport corridor by the *'North and South Quays Traffic Management Measures'* implemented at the end of August 2017. The reduction in general traffic lanes and increase in bus lanes coupled with other measures (the introduction of traffic signals on Bachelor's Walk to prioritise public transport and a right turn ban from Bachelor's Walk onto O'Connell Bridge for all traffic except buses/taxis), results in significant priority being afforded to buses.

During the oral hearing Mr B O' Brien for DCC highlighted the benefits of these changes, including the significant reduction in private car traffic on the North Quays at Bachelor's Walk (60% since 2009). He also noted that the initial results following the introduction of the improved bus priority measures in 2017 showed significantly reduced journey times (50%) and that during the entire operating period the journey time (off peak/morning peak virtually flat) along the North Quays, which is a major contributor to bus operations in the city centre. He acknowledged that bus operations slowed down on the North Quays and O'Connell Bridge following the introduction of Luas Cross City, but that this will be reversed with the introduction of the simplified arrangements at College Green and the development of a strong north-south public transport corridor.

In response to questions on how increasing the volume of buses onto the quays (i.e. more buses operating within the same limited space) would impact on journey times, Mr O' Brien stated that delay would be minimised by the significant changes that have been implemented on both sides of the Quays. There are now two bus lanes, one which allows buses to stop and pick up/drop off customers, and another which allows buses to continue its passage uninterrupted. There is no longer the necessity for a bus to be delayed while another is stopped at a bus stop. Bus stops would be extended out along the Quays to cater for the increase.

In response to questions by Dublin Bus on whether any further measures were envisaged that would be appropriate or necessary as a result of the scheme, Mr O' Brien confirmed that DCC had no other proposals at present. He stated that DCC work closely with Dublin Bus and have a specific project team in place to analyse the data and have a system in place that links DCC to the public transport fleet. They were, therefore, in a position to analyse the data, identify and react to problems and ameliorate difficulties as they arise.

While the bus priority measures introduced along the Quays may have improved efficiency and reliability under existing conditions, Mr O Connor's report questions the capacity of the Quays to accommodate significant additional buses. He also notes that the consequences for bus operations, efficiency and reliability have not been demonstrated, particularly when some of the bus lanes also operate as loading bays at particular times of the day. There are also issues regarding the capacity of the Quays to accommodate additional stops, and the effects of extending the stops

out along the Quays to cater for additional buses, has not been examined in terms of impacts on accessibility for passengers etc.

Neither the NTA nor Dublin Bus consider that bus movement on Parliament Street should be restricted to one-way. However, this is the only proposal that is before the Board for consideration. As already noted, the NTA reserves sole responsibility for the routing of buses, frequency of services, location of bus stops etc. In his closing statement to the oral hearing, Mr Hugh Creegan stated that if two-way bus movement is not permissible and the Board considers a grant of approval of the proposal is appropriate, the NTA would assess the available options for the required bus network changes and determine the appropriate revised bus system to put in place taking account of the particular circumstances applicable at the time. This confirms that the NTA reserves the right and has the power to revise the bus routes following any grant of approval by the Board. Furthermore, it is my opinion that the Board cannot attach a condition requiring two-way bus movement on Parliament Street, as this would not be within the power of the applicant (DCC) to implement.

Mr O' Brien did not accept the proposition that there would be any significant reduction in accessibility by bus to the city centre as a result of the proposal. He noted that a number of buses will come all the way into the plaza (typically 7 buses per hour which is approximately one every 8 minutes), that there will be high frequency services close to the plaza from South Great Georges Street turning into Dame Street and vice versa, and an improved level of service on the north-south corridor outside Trinity College. While I accept that the volume of buses serving the immediate area of College Green will be significantly reduced, the level of service on the adjacent network will facilitate convenient bus access in the vicinity of the plaza. While the proposal will sever the existing through route through College Green, I do not consider that accessibility to the city centre, which extends both to the north and south of the River Liffey will be seriously compromised by the relocated bus routes.

The re-routing of buses will result in the relocation of bus stops to alternative locations. The observers raise concerns that this will significantly impact on bus customers and accessibility by bus to the city centre. Dublin Bus state that the proposals will result in over 50,000 passengers being transferred from College Green onto the Quays. I note from the EIAR that it is intended that bus stops will be

relocated by up to a maximum of 500m from their existing location, which is considered to be a comfortable walking distance.

To assess the impact on bus passengers a walk catchment analysis was carried out, to compare existing walk catchments for existing routes that pass through College Green with those proposed as part of the proposed project. The assessment looked at residential/employment populations living/working within a 5 minute catchment of stops along each route. The 5 minute walk catchments are illustrated in Figures 6.31 and Figures 6.32 of the EIAR for both the existing and future routes. The results of the assessment are presented in Table 6.5. It shows that while bus stops may be moving further away from some users, it will be moving closer to others and overall there is a small increase in the total number of people that would be served by buses along future routing. It is stated that the routes which are moving are all within comfortable walking distance of the existing routes and it is concluded that the local impact of the bus route changes on bus users is considered to be neutral.

Referring to Figure 6.31 of the EIAR, Mr M O' Donnell questioned the accuracy of the walk time catchments (Day 11 of the hearing). He stated that whilst College Green lies within the 5 minute catchment in the existing scenario, it appears to lie outside or partially outside in the future scenario, suggesting that it will take longer than 5 minutes to access the area from the relocated bus routes. He also questioned how the 5 minute walk time was calculated, noting that whilst the existing situation may have been analysed, this took no account of the obstacles that would be encountered in the future such as increased pedestrian numbers on the Quays etc. I do not consider that these matters were adequately rebutted by DCC.

There were also questions raised regarding the concept of 'easy walking distance' and whether a distance of 400m would be more appropriate, with reference made to the current apartment guidelines. These refer to sites within easy walking distance as 'up to 5 minutes or 400-500m to/from high frequency urban bus services'.[21] Whilst I accept that a distance of 500m would generally be considered as an acceptable distance to walk, I concur with the views expressed by both DCC and the observers that this is influenced by many factors including the quality of the urban environment, pedestrian comfort etc.

[21] Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities (DHPLG, March 2018)-Section 2.4

From my observations it takes between 6-7 minutes to walk at a normal pace (with no delays from traffic lights etc) from the old Central Bank to mid-way down Winetavern Street, which is in excess of what is considered to be an easy walking distance. I accept as contended by both the NTA and Dublin Bus that this involves a a considerable detour and is a less desirable alternative for bus users.

Sections of the footpaths along the Quays are deficient in terms of their capacity to cater for existing pedestrian flows. This raises concerns regarding their capacity to accommodate significantly increased numbers following the relocation of bus routes/bus stops (discussed below under Pedestrians). There are sections of the footpaths, particularly along the north Quays, which are very narrow and obstacles (poles, cabinets etc) restrict movement. There has been no analysis to establish how these footpaths will accommodate significantly increased pedestrian flows. There are also potential congestion issues associated with the more direct route from Dame Street via Temple Bar, Merchant's Arch and the Ha'penny Bridge.

Whilst I accept that DCC has been proactive in terms of gradually improving the pedestrian environment directly from O'Connell Bridge through Westmoreland Street, D'Olier Street etc, it has not been demonstrated how additional bus passengers will be accommodated on the Quays, or, on the more direct route from Dame Street to the Quays via Temple Bar and Ha'penny Bridge. It would clearly be highly undesirable if the proposed development resulted in a less comfortable environment for bus users, which would make greater use of the bus service less attractive and act as a disincentive to modal shift from private car to public transport use.

Impacts on vulnerable pedestrians

Mr R Sinnott raised issues with regard to the potential safety concerns for pedestrians in situations where bunching or clustering of buses occurs and whether this would be exaggerated on the Quays. Whilst Mr O'Brien accepted that this does create difficulties for people trying to access a bus, he considered that the bus priority measures introduced on the Quays, which allowed buses in the outer lane to by-pass a stopping bus, significantly reduces the potential. Other measures include reduction in variability of journey times making it easier for buses to adhere to time schedules and preventing a number of bus arriving at a bus stop at the same time.

I accept that vulnerable pedestrian face significant challenges arising from altered bus routes/ bus stops and this has not been addressed in the EIAR. In response to questions from Mr Sinnott on how, for example, blind people would orientate themselves following such changes, Mr O Brien stated that there have been major alterations to bus routes in the past and these were communicated to customers. He noted that Dublin Bus has a much further reach with its customers but accepted that it is a matter that will need to be addressed and all acceptable avenues will be used to communicate those changes.

Cumulative Impacts

It is contended that the proposal is developed in isolation of other bus priority measures for the city such as those outlined in the BusConnects and the Dublin Area Bus Network Redesign project, and that the NTA, DCC and Dublin Bus have failed to come together and provide a full review of bus routing.

I accept that the EIAR provides little clarity on how the current proposal to remove buses from College Green will interact with other initiatives to improve the overall efficiency of the bus service and that the potential cumulative impacts positive or negative that may arise have not been identified.

Conclusion

- National, regional and local policy supports improvements in bus transport to address congestion in the city, to improve its reliability and efficiency and increase its attractiveness as an alternative to private car usage and promote modal shift.
- College Green is identified as strategically important to public transport acting as a main artery for transport services through the city and providing a vital cross city connection to all public buses services running north-south and vice versa. Its role as a major transport artery is currently undermined by significant congestion, particularly at peak hour.
- The removal of east west/west east bus movement on College Green, in line with the provisions of the Dublin City Centre Transport Study, will reduce traffic conflict at this important junction thereby improving the level of bus

service, journey time reliability etc along the north-south public transport corridor.

- Whilst I accept that a reasonable level of accessibility by bus to the College Green area will be maintained following the proposed scheme, I consider that care needs to be exercised to ensure that the proposals do not undermine the attractiveness of bus transport, which will remain the main form of public transport for most people in the city. In this context, I consider that there would be merit in maintaining a west-east bus lane through College Green as a Stage 1 approach. This would address many of the concerns associated with the proposed project. However, given the scope of such a proposal, I do not consider that this can be addressed by way of condition.
- The removal of buses from College Green will result in their re-direction to other parts of the road network, with a significant number being relocated to the Quays. Notwithstanding the measures implemented to improve bus priority, I do not consider that the capacity of the Quays to accommodate the additional buses has been adequately addressed in the EIAR.
- I accept that the re-located bus routes will displace passengers to areas further removed from College Green, with increased walking distance to access relocated bus stops. I consider that Winetavern Street is beyond the reasonable walking distance people are prepared to travel and that the capacity of the Quays to cater for increased pedestrians has not been established. This is particularly significant in terms of the policy intention that bus transport will assume an even more significant public transport role in the city in the future.
- I note that two-way bus movement on Parliament Street remains the preferred option for both the NTA and Dublin Bus. I accept that as the NTA exercises final control on where buses move within the city, that it is entirely within their remit to alter these routes going forward, regardless of the Board's decision on this application.
- I accept the conclusion reached by Mr O' Connor that the impact on bus transport and passengers is likely to be significant and negative arising from the scale of the proposed re-routing, involving up to 50,000 passengers per

day, the potential for overcrowding of footpaths and bus stop capacity issues on both sides of the Quays, the additional walk distances to College Green for most routes and congestion issues associated with the route from Dame Street via Temple Bar through Merchants Arch and the Ha'penny Bridge.

- Having regard to the critical importance of bus transport to the city centre, the concerns raised by Mr O Connor regarding the adequacy of the traffic modelling, the potential for congestion levels to be higher than predicted and the capacity issues associated with the Quays, I consider that there is potential for significant adverse impact on bus operations in the city centre.

Impacts on Cyclists

There is strong policy support to ensure that a cycling culture is developed, supported and enhanced in order that the country has sustainable travel and transport in line with Government objectives. This is established in the *National Planning Framework* which identifies the delivery of the metropolitan cycle network set out in the *Greater Dublin Area Cycle Network Plan* inclusive of key commuter routes and urban greenways, as a key future growth enabler for Dublin. Other important policy documents include the following; *Smarter Travel- A Sustainable Transport Future (2009), National Cycle Policy Framework (2009-2020), GDA Cycle Network Plan (2013), National Cycle Manual (NTA, 2011), Transport Strategy for the Greater Dublin Area 2016-2035 (NTA 2016), Dublin City Centre Transport Study (2016)* and the *Dublin City Development Plan 2016-2022.*

Under the *Smarter Travel Initiative*, the Government has set a national target for a reduction in the levels of those commuting by private car from 65% to 45% by 2020, with the remainder of trips made by sustainable travel modes such as walking, cycling and public transport. *The National Cycle Policy Framework* outlines objectives/actions aimed at ensuring that a cycling culture in Ireland is developed to the extent that 10% of all journeys will be made by bike.

Under the *Greater Dublin Area Cycle Network Plan,* it is proposed to expand the urban cycle network and a set of routes have been prioritised for implementation as part of the Study. It contains proposals for several major cycling routes to pass

through College Green,[22] emphasising its importance as a key node in the city centre for a number of key cycle routes. These include Primary Cycle Route 7 which follows Dame Street from the western part of the city through College Green, merging with Route 11 from Trinity Street/ Church Lane towards O'Connell Bridge and Route 8 from the south-west via Cork Street converging with Route 11 in George's Street. It is also part of the North-South Central Spine extending from Parnell Street through O'Connell Street to College Green. The *National Cycle Manual* aims to bring a standardised and more logical approach to the design of cycling facilities, which have traditionally been designed haphazardly where space allowed.

The *Transport Strategy for the Greater Dublin Area 2016-2035* recognises the need for a safe cycling environment and expresses the intention that many of the key routes will be developed as segregated facilities with a corresponding level of priority given to cycle movements at road junctions. Under *BusConnects*, it is intended that high quality cycling facilities will be provided on each of the Core Bus Network corridors, segregated from the bus lanes and traffic lanes as far as is practicable. The *Dublin City Development Plan* seeks to reduce dependence of private car usage and provide opportunities for people to alter their travel behaviour. New infrastructure works will concentrate on improving cycle safety, access, parking and developing and improving the Dublin Cycle Network.

I would also draw the attention of the Board to the provisions of the *Design Manual for Urban Roads and Street* (DMURS) published in 2013. It provides guidance on the design of urban streets and roads and presents a series of principles, approaches and standards[23] that are necessary to achieve balanced best practice design outcomes with regard to street networks and individual streets. It acknowledges that *'this will require a shift away from conventional design solutions towards those which prioritise sustainable modes of transport, safeguard vulnerable users and promote a sense of place. The approach will be based on a more integrated model of street design, where real and perceived barriers to movement are removed to promote more equitable interaction between users in a safe and traffic calmed environment'.*

[22] Map Sheet N1a of the Greater Dublin Area Cycle Network Plan -reproduced as Image 6 & 7 of Submission No 5 to the oral hearing.
[23] Section 2.2 DMURS

It embraces the concept of the 'shared space' and the 'self-regulating street', stating that better street design will achieve a better balance between all modes of transport and road users and will encourage more people to walk, cycle or use public transport by making the experience safer and more pleasant.

'An appropriate design response can successfully balance the functional needs of different users, enhance the sense of place and manage speed in a manner that does not rely on extensive regulatory controls and physically intrusive measures for enforcement. In short, place can be used to manage movement. Such environments are referred to as being self-regulating. Within this self-regulating street environment, the design response is closely aligned with the design speed[24]*.*

Under the proposed development the arrangements for cyclists are as follows. Cyclists will continue to share the north-south public transport corridor at the front of Trinity College with Luas, buses and taxis. Cyclists approaching the plaza from the east will travel along a two-way fully segregated cycle route to the south side of the plaza joining up with the route travelling west on Dame Street. The cycle route (3.5m wide), which will be indicated by standard signage will be separated from the footpath by a delineation paving strip. No cycle routes are proposed on the northern side of the plaza at the front of the Bank of Ireland/Foster Place, which will be maintained as a pedestrian priority area, with occasional vehicular access for vehicles/cash in transit vans entering Bank of Ireland.

Cyclists will approach the plaza from the west (and to the east side of Anglesea Street) via a cycle route to be provided adjacent to the row of trees. This part of the route will be eastbound only. Cyclists will use the outer edge of the turnaround facility to connect onto the cycle route to the south of the main plaza approaching Trinity College, or, alternatively to continue west on Dame Street. Outside the plaza (to the west of Anglesea Street) advisory cycle lanes[25] will be provided to the north and south of Dame Street (Fig 6.46 of EIAR).

The main submission to the oral hearing on behalf of Dublin City Council was made by Seamus Mac Gearailt, Roughan & O'Donovan Consulting Engineers (Submission No 5 & 5A). He also responded to questions. Cross questioning took place on Days

[24] Section 4.1.2 DMURS.
[25] Advisory cycle lane is a cycle lane identified by a broken line where vehicular traffic can enter or cross the space.

8, 9, & 10 of the hearing. Mr Mac Gearailt is noted to have been involved in the development of various design standards including the National Cycle Manual (Technical Advisor to the NTA), DMURS (Peer Reviewer), the Greater Dublin Area Cycle Network Plan etc.

There are a number of issues that have been raised in the submissions and during the oral hearing which require consideration by the Board. These relate to the following;

- Lack of priority afforded to cyclists over motorised traffic in accordance with stated policy and lack of provision made for cyclists of all ages and abilities.
- The provision of non-continuous and non-segregated cycling tracks and the potential for conflict with other transport modes.
- Potential points of conflict between cyclists and other modes of transport.
- Interaction between cyclists and pedestrians.
- The development is contrary to development plan Objective MT013 regarding the provision of contra flow cycling on side streets.
- Insufficient bicycle parking is provided.
- Segregation of pedestrians/cyclists during construction.

Lack of priority afforded to cyclists over motorised traffic in accordance with stated policy and provision is not being made for all ages and abilities.

It is contended in the submission by IrishCycle.com and other submissions that the proposed development does not give priority to cyclists over motorised traffic in accordance with stated policy and that the provision of facilities for all ages and abilities is not met by the scheme.

The EIAR provides details of the existing cycling environment (Section 6.3.1) in the vicinity of the site. With the exception of an on-street advisory cycle lane southbound on South Great Georges Street, a dedicated contra-flow cycle lane on St Andrew Street, and a dedicated cycle facility from Foster Place to Westmoreland Street, the area is otherwise devoid of dedicated cycle facilities. This has implications for the use of the area by cyclists and their comfort and safety.

Within the main plaza area, cyclists will be segregated from motorised traffic. This will be achieved by the creation of pedestrian priority zone with cycling routes. With the exception of a small number of vehicles (access to Bank of Ireland) and emergency vehicles as required, vehicular traffic will be excluded from the area. The separation of cyclists from vehicular traffic will give them a higher level of priority than currently exists. Cycling infrastructure will be designed with a level surface and suitable materials to ensure accessibility by all ages and abilities.

Outside the plaza, I accept there will be competition for road space between the various modes of transport. Cyclists will continue to share road space with Luas Cross City, buses and taxis along the front of Trinity College and with other vehicular traffic to the west of Anglesea Street. Whilst this would be similar to existing conditions, there would be reduced potential for conflict and greater comfort for cyclists arising from the removal of east-west/west-east movements of buses, taxis etc., and reduced traffic volumes on Dame Street.

I accept that the provision of cycling infrastructure as proposed will be a significant improvement on existing conditions. The proposal will improve cyclist movement through the area, which coupled with a reduction in motorised traffic (particularly buses), will afford greater priority, convenience, comfort and safety to cyclists, all of which will improve the overall attractiveness of this transport mode, in accordance with Government policy.

The provision of non-continuous and non-segregated cycling tracks and the potential for conflict with other transport modes.

The NTA considers that segregated cycle tracks, physically separated from vehicular traffic should be provided between College Green and St Great Georges Street as it forms part of the Clonskeagh to City Centre cycle route. IrishCycle.com are of the opinion that mandatory[26] cycle lanes should be provided on Dame Street.

I accept that the current cycling network within the city centre lacks continuity and there are gaps where road space remains prioritised for general traffic and buses. In these areas, providing cyclists with improved priority is a significant challenge. However, the provision of a well-connected cycle route remains a priority as set out

[26] Mandatory cycle lane is a cycle lane identified by a solid white line prohibiting vehicular traffic except for access and where parking and loading is not permitted.

in current policy and facilitating cyclists will involve retrofitting city streets. The competition for road space between various users, means that there is insufficient space in many city centre areas to provide segregated facilities or mandatory cycle lanes. The provision of advisory lanes coupled with low traffic speeds is therefore considered to be an acceptable solution.

Outside the plaza, cyclists will become part of the existing transport network and will be integrated with existing traffic. Currently there are no dedicated cycle lanes on Dame Street, but advisory lanes are proposed as part of the proposal. Under the provisions of the National Cycle Manual, the 30km/h speed limit is central to the concept of mixed traffic and is considered suitable for shared use by cyclists and general traffic, where traffic volumes are low (less than 10,000 AADT). All of the streets within the area lie within this speed limit zone and arising from the proposed development traffic volumes on Dame Street will be low.

In response to questions from the Inspector regarding the NTA's requirement for segregated facilities, Mr Mac Gearailt confirmed that in accordance with the National Cycle Manual, the first preference in terms of a cycling environment is to start with passive provision and to bring other traffic down to the speed of cyclists, such that the speed differentials are largely removed. Within the 30km/h zones, the speed differential between the cyclist and other traffic is low which creates a safe and comfortable environment for cyclists. Advisory cycle lanes are an acceptable solution in this context. He also noted the competing uses on Dame Street (taxi ranks, loading bays etc) and adding cycle tracks as suggested by the NTA would further erode available road space.

Whilst segregated/mandatory cycle facilities may be the preferred option where road space permits, having regard to the competing users for road space within this city centre location, the low speed environment and the low traffic volumes that will result from the proposed development, I accept that advisory cycle lanes as proposed are adequate and in compliance with national guidance.

Potential points of conflict between cyclists and other modes of transport

Issues have been raised regarding potential areas of conflict between cyclists and other modes of traffic within the plaza. The main areas of concern relate to the proposed bus turning area and at the access to the Bank of Ireland. Hanahoe

Solicitors also raised concerns regarding the impact of increased bus movements on cyclists on Parliament Street and TII have raised issues regarding the lack of a cycle path for cyclists moving along the southbound Luas track.

The issue of potential conflict between buses and cyclists on the proposed turning area was debated at length during the oral hearing. There will be no physical separation of cyclists from traffic using the area. Cyclists will travel around its outer perimeter, which will be differentiated by a lighter toned asphalt material with embossed cycle logos at regular intervals providing guidance along the route. The turning area will accommodate low traffic flows with a small number of buses (7 per hour) and limited other vehicles including delivery trucks, cash in transit vans and other vehicles accessing Bank of Ireland.

During the oral hearing, questions were raised by the Inspector regarding the appropriateness of this arrangement having regard to the provisions of the National Cycling Manual (Section 4.8.2). It recommends that cycle lanes should not be included in the circulatory section of a roundabout and should be either mixed with traffic in a single circulating lane (i.e. cycle logos in the traffic lane, no cycle lane) or segregated from traffic by physical means. It is also stated that cyclists can mix with traffic at roundabouts with traffic volumes of less than 6000 vehicles per day.

In his response Mr Mac Gearailt clarified that what is being proposed is not a standard roundabout and is provided to allow a limited number of vehicles to carry out u-turns to exit the area. He stated that the turnaround area was not comparable to a standard roundabout, which would have many interactions and crossing movements and accommodates significantly more motorised traffic. The cycle route would essentially by-pass and not traverse through the turnaround area and the use of a different tonal colour would provide a strong visual distinction between the cycle route and the turning area, guiding the cyclist onto the remaining parts of the route. (Figure 8.8 of RFI).

Dublin City Council does not accept that there are any safety issues generated by the use of the turnaround area by cyclists in conjunction with buses and other limited traffic. According to the information presented at the oral hearing, swept-path analysis conducted using a double-axle bus confirms that the design is adequate and that turning movements will not result in any over run into the cycle route (Image

14 of Submission No 5). Mr Mac Gearailt confirmed that the turning area was designed for a two-axle bus, as these constituted the majority of the Dublin Bus fleet and the type of bus anticipated to use the area. He said that particular attention was given to the design geometry to ensure that the turning space was sufficient to allow buses to turn and for cyclists to pass outside.

Responding to questions from Mr M O' Donnell, he confirmed that an exercise was undertaken to look at a more demanding situation should it arise. Live testing was carried out of the largest tri-axle Dublin Bus vehicle in Broadstown Bus Depot and Dublin Fire brigade training centre in Marino which confirmed the design provisions. He accepted that the use of tri-axle buses would cover a larger space, but that these buses represent a very small proportion of the fleet (70 out of 1000) and were assigned to particular routes (e.g.145, 46A and 39). He continuously stressed that the underlying principle for the entire scheme is that of the self regulating street, with a small number of vehicles operating at low speeds, where the dominant users would be cyclists outside the pedestrian zone. I draw the attention of the Board to Mr O'Connor's report which states that further study and checks may be necessary before the feasibility of the proposal could be determined.

Mr O'Donnell raised the question of road safety audit and it was DCC position that the TII guidelines (which were not mandatory in this case) provide for a Stage 1/ 2 for minor schemes and these take place post planning. Mr O 'Donnell's raised concerns that this created a situation where if conflicts were identified, there would be no opportunity to modify the scheme.

Bearing all of this in mind, I would point out to the Board that under the provisions of the National Cycle Manual there is no requirement for a separate cycle lane under these arrangements. Under its provisions, it would be quite acceptable for buses and cyclists to mix within the circulatory carriageway of the turnaround area. Therefore, what is proposed goes beyond the requirements of the National Cycle Manual and would appear to be a safer arrangement. I accept that this is a traffic calmed environment, where turning manoeuvres will be at a very slow speed and the potential for conflict would therefore be minimised.

As part of the proposal, the existing Bank of Ireland access from College Green will be retained. The bank has a car park to the front, which according to the evidence

provided at the oral hearing generates limited movements in and out. Vehicles and cash in transit vans also use Foster Place to access the rear of the bank. These vehicles will turn left off the turning area and across the cycle route to access the bank. Concerns have been raised that this has the potential to create conflict with cyclists travelling along the route.

Mr Mac Gearailt stated that the principle here is no different to a private driveway off any busy traffic route. Vehicles must give way to cyclists and pedestrians and the same rules would apply for vehicles entering Foster Place and the Bank of Ireland. Parking at the bank was noted to be limited and would take place by prior arrangement. Retractable barriers would prevent unauthorised access. Mr Mac Gearailt noted again the low speed environment, the low volume of vehicles traversing the space and the shared street arrangement advocated in DMURS guidance. Responding to questions from the Inspector, he confirmed there are no other elements required to be incorporated into the design to make the cyclist aware of the driver and vice versa. He noted that a comparable situation exists at the access from O' Connell Street into Princess Street beside the GPO (for Arnott's car park) where cars must cross the heavy flows of pedestrians and an informal cycle lane without formal controls, and this works satisfactorily.

I accept that this will be a traffic calmed environment and that the design response can successfully balance the functional needs of the different users, without extensive regulatory controls. It embraces the concept of the self-regulating street advocated by DMURS, which recognises the importance of assigning higher priority to pedestrians and cyclists, where travel speed is maintained low to ensure the safety and comfort of all users.

The impact of increased bus movements on Parliament Street was also considered at length during the oral hearing. Mr O 'Donnell questioned why there was no consideration of how cyclists would be accommodated on Parliament Street and no analysis of the interaction with cyclists on the street. Mr Marcus Hanahoe questioned whether the left turn from Wellington Quay to be introduced as part of the scheme presented a particular danger for cyclists. He referred to the modelling report which indicates that the number of buses in the peak hour would increase from 60 in the DM to104 in the DS scenario.

The response from DCC noted that the impacts on cyclists generally were considered in Section 6.6.2.14 of the EIAR. There is no analysis of interactions on individual streets, as this was not considered necessary. Buses co-exist in the same environment with cyclists across the city centre and while there would be an increase in bus movements on Parliament Street as a result of the proposal, this would be off-set by a reduction in general traffic. Mr O' Brien noted that the increase in buses will introduce a change that can pertain at any point in the city. The street is located in the city core that has been, and will continue to be used by cyclists, in conjunction with buses and in a low speed environment.

With regard to the Wellington Quay junction, Mr O Brien confirmed that a trial run was not carried out to establish if a bus could negotiate the junction. Again, this was not considered necessary as the junction was used in the past by HGV's and other traffic. The left turn was banned due to congestion before the introduction of the port tunnel and not for safety reasons as suggested by observers. An auto-track analysis was completed and details were submitted to the oral hearing for both double axle (Submission No 31) & tri-axle buses (Submission 31A). According to Dublin City Council, while these demonstrate that buses will come right up to the footpath on the western side of Parliament Street, there will be no overhang. Mr Mac Gearailt also stated that in his opinion swept path analysis often overestimates the space required and in practice drivers can do better. This is borne out by Section 4.3.3 of DMURS which states *'While swept path analysis should be taken into account, designers need to be cautious as the analysis may overestimate the amount of space needed and/or the speed at which the corner is taken'*. It further notes that reduced corner radii significantly improves pedestrian and cyclist safety at junctions by lowering the speed.

In response to questions from Mr Danny O Connor, it was confirmed by Mr O' Brien that there are many examples of similar tight corners both in the city centre and further out. He also stated that Dublin Bus restrict the type of bus it uses in these situations and that the majority of buses that would use this turn would be two-axle. Responding to questions from Mr O'Donnell he said that a road safety audit was not carried out and not required. No works were being carried out, there would be no alteration to alignment, kerbs etc and buses have used the junction historically.

Transport Infrastructure Ireland raise concerns regarding the lack of a cycle path for cyclists moving along the southbound Luas track. This area is outside the application site and is not, therefore, considered in the EIAR.

I accept that the overall design of the plaza, which adheres to the principles of the self-regulating street and the creation of a traffic calmed environment with low speeds, facilitates interaction between cyclists and other modes of transport without creating significant conflict and safety considerations. Outside the plaza, cyclists will continue to share the same space (as they have done in the past) with other vehicular traffic, albeit with improved infrastructure adjacent to College Green.

Interaction of cyclists with pedestrians

Issues have been raised regarding the design of the plaza and the potential for safety concerns arising from the close interaction of cyclists with pedestrians.

The main pedestrianised area of the plaza will be clearly segregated from the cycle route to the south and from the turning area to the west by a row of trees, street furniture etc. Outside this area, there will be clear delineation between the cycle route and the surrounding pedestrian areas. A tactile delineation of the edges of the cycle route will be provided by means of a cobbled drainage channel. There will be two main points of interaction between cyclists and pedestrians. These will occur at the south-eastern and south western corners of the plaza, where cyclists will be required to negotiate sharp bends to continue along the cycling route. A number of the observers contend that this will create safety considerations for pedestrians and that cyclists should be required to dismount.

In response to questions from Mr Robbie Sinnott and Mr Mc Quillan, it was confirmed by Mr Mac Gearailt for DCC that the dismount option was not considered on the basis that if a cycle facility is provided it must be fit for purpose. Either the routes go through College Green and are continuous or are diverted elsewhere. Due to the other limitations in the surrounding street network to the north and south of College Green (as set out in his statement of evidence-Submission No 6), the cycle routes are routed through the area. Mr Mac Gearailt stated that it would be difficult to achieve a satisfactory network for cyclists if the route was not channelled through College Green. Whilst a pedestrian only zone could have been provided, where cyclists would be required to dismount, it was an objective of the project to provide a

cycle route within the plaza as part of the overall network within the city and it was a necessary connection to make the city traversable by bikes.

With regard to the safety of pedestrians, Mr Mac Gearailt stated the cycle route was designed within the principles of universal access in mind without rigid segregation. The design response would create an environment that is safe and comfortable for all road users. The bends incorporated into the design were a conscious decision to slow cyclists down and the unconventional manner of segregation would influence cyclist behaviour to travel safely. He further stated that this was an arrangement that operates at other locations in the city and examples were produced in his submission (Submission No 5 -Image 12 & 13).

Mr Mac Gearailt stated that the design adhered to the guidance provided in DMURS and through design, paving materials and geometry, everything possible had been done to discourage high speeds. It would be a passively safe arrangement where the edges of the footpaths, gaps between buildings etc were delineated, where pedestrians have priority and cyclists must give way. He stated that what has been designed is a scheme which addresses pedestrians at the top of movement hierarchy followed by cyclists, creating a self-regulating street as defined by DMURS.

The Board will note that the cycle route does not follow the most direct route. The desire line for cyclists traveling east would be across the northern side of the plaza. Should the Board be minded to grant approval for the development and consider that the proposed design creates an unacceptable risk of conflict between pedestrians and cyclists with safety considerations, this could resolved by extending the eastbound cycle route along the northside of the plaza. This would provide a shorter more direct route (desire line) to Westmoreland Street. It would eliminate the need for east bound cyclists to use the turning area, for a two-way route on the south side of the plaza or the need for cyclists to negotiate bends at the south eastern and south western corners.

Whilst this would appear to be a more logical route, I would point out to the Board that DCC are not, however, in favour of such an alternative on the basis that it would increase interactions between cyclists and pedestrians (on north side of plaza) and

would also provide a straighter route, which would allow cyclists to travel at higher speeds with potentially increased safety considerations.

I do not share the views of Mr O'Connor that the impact on cyclists will be significant and negative. Retrofitting city centre locations to provide cycling infrastructure will always presents significant challenges. Whilst I accept that it is preferable that cyclists have continuity, it is inevitable within an urban environment that interruptions/delays will occur associated with signalised crossings etc. I accept that a balance must be achieved between the need to accommodate cyclists and pedestrians in a safe environment and adherence to universal design principles. I accept the position of DCC that the design of the plaza, which embraces the concept of shared space and the self-regulating street within a traffic calmed environment, provides an environment where cyclists and pedestrians can interact safely without physical barriers.

The development is contrary to development plan Objective MT013 regarding the provision of contra flow cycling on side streets.

Objective MT013 of the Dublin City Development Plan states:

In accordance with cycle routes identified in the National Transport Authority's Greater Dublin Area Cycle Network Plan

(i) To improve permeability for cyclists by reducing speed limits to 30kph and allowing contraflow cycling on all single lane one-way streets, and to provide a segregated contra flow cycle lane on all one way streets with two or more lanes, except where engineering report demonstrates risk is too high.

The submission by IrishCycle.com states that two-way cycle routes must be provided on Church Lane and St Andrew Street as they are both part of the Primary Route 11 to Ranelagh outlined in the Greater Dublin Area Cycle Network Plan. It is argued that the proposal loading bay on Church Lane should be removed and the space allocated to a segregated contra-flow cycle lane.

The *Greater Dublin Area Cycle Network Plan* advocates the provision of contra-flow cycle routes on all one-way streets, where these would provide for shorter cycle trip length. It recognises that one-way restrictions are not good for cyclists as they prevent cyclists from taking the most direct routes, involve longer journeys, complex junction negotiations etc. It considers that even where streets are narrow, contra-flow

cycling should be possible without formal designation of a cycle lane within a very low speed environment.

In response to questions from the Inspector on this matter, Mr Mac Gearailt confirmed that there are no proposals to provide contra-flow facilities on Trinity Street and Church Lane. He noted that the principle behind the city centre elements of the cycle network plan is to work with the existing street arrangements where speeds are below 30km/h and traffic volumes are low and active provision of facilities was not required. He noted that there is a network of narrow streets in the area in close proximity, which work in a complementary fashion and it would not provide any more convenience to provide a contra-flow system in these areas. It was his opinion that contra-flow facilities would not be necessary or viable on such narrow streets and that such facilities are generally provided on large streets where more space is available and significant detours are involved connecting to other areas.

The Board will note that the both Trinity Street and Church Lane have very narrow carriageways. Having regard to the competing use for limited space on both streets and the limited identified overall benefit to cyclists traversing the city, I accept that the provision of contra-flow cycling facilities would not be warranted.

Insufficient bicycle parking is provided

The adequacy of cycle parking within the plaza was raised in both the submissions and during the oral hearing (Day 9). The development will result in 32 no. cycle parking spaces, which is an increase of just 6 no. spaces over that currently provided. The decision not to provide additional stands was influenced by the desire to avoid interference with historic paving, to avoid clutter and to allow the space to be available to host large events, an approach which appears reasonable.

Mr O' Brien did note that it is the intention of Dublin City Council[27] to provide significant additional parking (3000 spaces) in key city centre locations to meet cycle demand as it continues to increase in line with established mode share targets. An increase in provision in Drury Street carpark is also proposed. It is intended that 1,000 of these will be rolled out by June 2018.

[27] Dublin City Centre Cycle Parking Strategy Report (October 2015)

I accept that the unavailability of adequate spaces would deter people from cycling and that the additional spaces to be provided as part of DCC's cycle parking strategy will supplement the spaces to be provided within the plaza, which will help to encourage cycling as an alternative mode of transport.

During Day 9 of the hearing Mr T Phillips noted that an area in the middle of College Green has been used for parking of significant numbers of motor bikes over the past 20-30 years. In response to questions on how these will be accommodated, it was confirmed by Dublin City Council that no provision has been made in the proposed scheme for parking motor bikes.

Provision for cyclists during construction

It is envisaged that the initial works area will include the northern side of the site, with pedestrian and cyclist access retained along the southern side. Once the main section of the works is complete, the works area will move to the southern side, with pedestrian and cyclists to be provided on the northern side. Whilst I accept that this will involve inconvenience and potentially less than comfortable conditions for cyclists, it will be for a temporary period during the construction phase.

Conclusion

- I accept that the proposal accords with national policy to develop a cycling culture and support modal shift to more sustainable transport modes. It also accords with other policy documents, including the development plan which seeks to develop and improve cycle routes through the city and to improve cycle safety, access and parking.
- I do not agree with the conclusion reached by Mr O'Connor that the proposed development will have a significant negative impact on cyclists. Cyclists currently using College Green have to share limited road space with other modes of transport. Cyclist safety and permeability will be improved due to significantly reduced interaction with motorised vehicles within a low speed environment. It will enable cyclists to cross this part of the city in a safer, more comfortable and attractive environment and will be a significant improvement on existing conditions.

- I accept that the interaction between cyclists and pedestrians on the south side of the plaza generates potential safety considerations. However, I accept DCC's position that there is little point in the provision of a cycle route, where cyclists would be required to dismount to traverse the area. Whilst the extension of the eastbound section of the cycle route across the northern side, would reduce such interaction on the south side of the plaza, it would enable higher speeds and increased interaction to the north. Having regard to the traffic calmed environment and that the scheme is designed to balance the needs of all users, embracing the concept of shared space and the self-regulating street set out in DMURS, I am not persuaded that this is required.
- Taking all these matters into consideration, I accept as concluded in the EIAR that the proposed development will have an overall positive impact on cyclists.

Impacts on pedestrians

Pedestrians will be accommodated within the scheme in various ways. The core area of the plaza area to the east will be reserved for pedestrians and Foster Place will also be pedestrianised. The south side of the plaza which will provide a shared space for pedestrians and cyclists, will be separated from the main plaza area by a row of trees, lighting columns and street furniture. The west end of the plaza will be lined with trees on both sides to separate the footpaths from the carriageway. Outside these areas, pedestrians will integrate with general traffic. A signalled controlled pedestrian crossing will be provided to the south of the gates of Trinity College and an uncontrolled crossing will be provided at the junction of Trinity Street. Informal crossings will be provided at other junction locations. The scheme is designed in accordance with DMURS guidance embracing the concepts of 'self regulating' spaces and pedestrianised/shared surfaces.

Walking is placed at the top of the movement hierarchy. There is strong support for improvement of the pedestrian environment as expressed in national, regional and local policy. *Smarter Travel (2009)*, for example, requires greater priority to be given to the movement of pedestrians in order to facilitate more sustainable travel patterns. The *Transport Strategy for the Greater Dublin Area 2016-2035 (NTA, 2016)* highlights the factors that render the walking experience suboptimal (such as inadequate footpath widths, obstacles on footpaths, inadequate crossing points, time

delays at crossings etc) and the issues that need to be addressed to enhance the pedestrian environment. The *Dublin City Centre Transport Study (2016)* identifies areas of the city which have significant pedestrian footfall and that need specific attention to improve the pedestrian network and the levels of service for pedestrians. It outlines the key changes that need to be implemented to reprioritise space for the increased number of commuters, shoppers and tourists using the city streets. The measures include the development of strategic pedestrian routes and the development of complementary public spaces, including the College Green Plaza.

The *Heart of Dublin City Centre Public Realm Masterplan (2016)* proposes the creation of a pedestrian friendly core which will require a rebalancing of space in favour of pedestrians. Strengthening, enhancing and expanding the existing pedestrian-friendly network and prioritising pedestrian movement within the movement network are key recommendations. The *Dublin City Development Plan 2016-2022* seeks to improve the pedestrian environment and to open up the city to pedestrians through the development of a network of pedestrian routes and to support public realm improvements that contribute to an improved pedestrian environment. College Green forms part of the Civic Spine and Liffey Corridor, identified as a Strategic Pedestrian Route in the Plan (Fig 11).

It is recognised in the EIAR (Chapter 6 - Traffic & Transportation) that significant volumes of pedestrians cross College Green on a daily basis (up to 75,000) and that this corridor could be considered to be one of the primary walking routes in Dublin City Centre. There are also significant pedestrian flows on adjacent streets including Dame Street and the western side of Lower Grafton Street to cross College Green. Pedestrians are catered for by pedestrian crossings, the majority of which are signalised.

The impact on pedestrians is assessed as positive in the EIAR arising from the development of the plaza where pedestrians will be prioritised and space is provided for congregation. It concludes that there will be positive benefits to pedestrian movements and wider linkages within the city centre area. The removal of pedestrian crossings will improve directness of routes along pedestrian desire lines, journey times and the level of service for pedestrian movement. Along the route between Westmoreland Street and Grafton Street Lower for example, arising from the removal of two signal controlled crossings at College Green there would be an

unimpeded pedestrian priority route provided from O'Connell Bridge to St Stephen's Green.

The issues raised in the submissions and during the oral hearing relate to the following;

- Proposal is not designed correctly for pedestrian priority and elements of the scheme could detract from the creation of a pedestrian friendly environment.
- Proposal is not designed safely for pedestrians with vision or mobility difficulties.
- The development will improve pedestrian permeability within the plaza but conditions outside the plaza will deteriorate.

Proposal is not designed correctly for pedestrian priority and elements of the scheme could detract from the creation of a pedestrian friendly environment.

Within the core area of the plaza, as large an area as possible is afforded to pedestrians where they will be completely separated from other transport modes, affording them a significantly higher level of priority than currently exists. Pedestrians will integrate with cyclists outside the main plaza area,but will retain priority. While the design is a departure from conventional arrangements, the lack of segregation of pedestrians from cyclists and other transport modes, accords with good design principles and the self-regulating street as set out in DMURS.

It is suggested that there are elements of the scheme which could potentially detract from the creation of a pedestrian friendly environment. These include the design of the scheme which is contended includes parking/stacking of buses in the Dame St/College Green area and the maintenance of vehicular access to the Bank of Ireland. Other concerns relate to the restricted width of the footpath on the north side of Dame Street at its junction with St Great Georges Street, which is stated creates a bottleneck and should be addressed on safety grounds. It is requested by Dame Property Plaza Designated Trading Company that the pedestrian crossing in the vicinity of Trinity Street and Dame Street be relocated further east in front of 6-8 College Green and 15 College Green.

A 40m long bus stop will be provided on the north side of Dame Street to the east of Fownes Street Upper and the west of Anglesea Street (Dwg RT-5169-651-002). It is

from here that bus passengers will embark/disembark, as no bus stops will be provided on the south side of the street. It will occupy an area of the carriageway which is currently in use a bus lane and contains a number of bus stops. The proposal will not result in any encroachment onto the existing footpath and no additional impacts on pedestrians will arise. I note that there will be kerb build-outs along various stretches of Dame Street and at junctions as indicated on Dwg No's RT-5169-651-001- RT-5169-651-003, which remove pinch points and improve pedestrian safety and comfort. Having regard to the significantly reduced number of buses that will be using College Green, and the general improvements proposed, I do not consider that the proposed development will militate against the creation of a pedestrian friendly environment.

Vehicular access to Bank of Ireland will be maintained through the proposed plaza and via Foster Place for cash in transit vehicles accessing the rear of the bank. During cross questioning, DCC stated that as the car park and portico have been closed for over a year, it has not been possible to do accurate counts of vehicles accessing the car park. It was confident that as there is limited parking and a defined access which does not interfere with the main plaza, the safety of pedestrians would not be compromised. In the case of Foster Place, there would not be a large number of vehicles accessing the area and accordingly it was not considered that the maintenance of access raised significant issues.

As noted above, there is potential for conflict where vehicles leave the turnaround area and traverse areas otherwise reserved for pedestrians in order to gain entry to the bank. Specific measures proposed to manage these movements are not considered to be warranted by DCC on the grounds that the plaza is designed as a shared space for multi-functional use in a traffic calmed environment. As stated above, I do not have specific concerns with these arrangements on the grounds that they are consistent with the approach advocated in DMURS.

There is considerable pedestrian flow along Dame Street and footpaths on both sides of its junction with South Great Georges Street are narrow. I accept that congestion arises where pedestrian flows from both streets converge and queue to cross the street. As part of the current proposal, footpath widening of up to 2.25m is proposed on the east side of the junction (Dwg RT-5169-651-001), which will help to alleviate some of the pressure experienced by pedestrians. In response to questions

from the Inspector, it was confirmed by Mr O' Brien that there are currently no proposals to build out the footpath on the west side of the junction, but that it may take place in the future as part of other public realm improvements being undertaken throughout the city. I consider that there would be significant benefits to both pedestrian safety and comfort if the footpath was built out in a similar way to the east side. I note that it is included within the application site (Dwg RT-5169-651-001).

There is an existing pedestrian crossing and traffic island close to the junction of Trinity Street and Dame Street, which it is intended to relocate marginally to the east (Dwg RT-5169-651-003). Dame Property Plaza Designated Trading Company have recently obtained planning permission for the redevelopment of properties to the east of the former Central Bank for retail/restaurant uses. It is their contention that the pedestrian crossing should be moved further east to align with the properties to be redeveloped on the opposite side of the street. Whilst this would create a direct pedestrian link which would benefit these new uses, I am mindful that Dublin City Council's proposal is designed to ensure that the pedestrian crossing is aligned with the eastern footpath on Trinity Street and to suit the main pedestrian desire line between Trinity Street and Temple Bar via the former Central Bank Plaza, which is considered reasonable.

Proposal is not designed safely for pedestrians with vision or mobility difficulties.

Concerns were raised both in the submissions and during the oral hearing regarding the suitability of the plaza design for people with accessibility issues and the visually impaired. There were numerous submissions including those from the National Disability Authority (NDA), Dublin City Centre Participation Network, Irish Wheelchair Association, NCBI, National Guide Dogs for the Blind, Mr Robbie Sinnott representing both himself and the Blind Legal Alliance. The main issues raised related to potential conflicts between vulnerable pedestrians and other transport modes and the appropriateness of the measures used in the design to facilitate vulnerable users.

Mr Sinnott representing both himself and the Blind Legal Alliance, noted that there are 54,000 blind people in the State and over 250,000 with some sort of visual impairment. Whilst this represents a significant portion of the population with real

difficulties, his contention was that their needs are not addressed in the scheme. He questioned DCC expertise and their failure to actively consult with the appropriate bodies to understand the fundamentals. He questioned how the space would be navigated safely and comfortably by vulnerable pedestrians, noting the threat to safety posed by cyclists within the plaza and other forms of transport to the east and west.

Mr Sinnott considers that kerbs should be provided within the scheme, noting that guide dogs require a kerb of 60mm to differentiate footpath from roadway. He questioned the use of tactile paving, noting that people who have lost their sight due to diabetic retinopathy cannot detect it underfoot to use it as a guide. He also considered that the provision of landmarks in the plaza area would help blind people to orientate themselves. He stated that the whole concept of universal design is that it must be useable by everyone and requested that the Board adopt the precautionary principle and put safety before aesthetics.

Mr Mac Gearailt confirmed that the proposed plaza will be provided with a flush surface with no raised kerbs. This he said was in line with best practice for universal access within central urban streets that have a minor traffic function (Image 5 of Submission No 5a), and was common in many towns and cities both in Ireland and internationally. In all areas where there is no raised kerb, edge delineation would be provided by corduroy tactile paving. Tactile delineation of the cycle route would be provided by means of a cobbled drainage channel (Image 10). Pedestrians with vision difficulties would navigate around the plaza by generally following the existing building lines at the edges. Additional tactile guidance strips would be provided to bridge a number of gaps between buildings such as across the entrance to Foster Place (Image 2 of Submission No 5). Existing footpath routes around the plaza will be maintained and it was concluded that the overall experience for pedestrians with vision difficulties will improve due to reduced interactions with traffic compared to existing conditions.

I accept that shared surface streets can be hazardous and intimidating for vulnerable users. I also accept that providing for the needs of one group could create difficulties for another e.g. the provision of a kerb would benefit guide dog owners but could present difficulties for wheelchair users. Catering for visually impaired people with reduced sensitivity in their feet requires the provision of tactile paving that is rigorous

enough to be detected by most people, without presenting a trip hazard/discomfort to other users.

The different types of tactile devices that have been developed convey information to visually impaired people about their environment such as hazard warning, directional guidance etc. DMURS, whilst it recommends the concept of shared space, acknowledges the difficulties it can present for vulnerable users. It recommends the use of tactile paving that directs movement across the street/space, the creation of distinct zones that delineate pedestrian only space from shared space and the use of flush kerbs, drainage lines and/or sections of tactile paving to assist guide dogs and indicate movement from a pedestrian only space to a shared carriageway. These are standard measures, which if employed correctly and in accordance with established guidance will assist vulnerable pedestrians to negotiate the space. I note[28] that the various tactile surfaces have been developed through consultation with a wide range of disability groups including wheelchair owners.

While I accept that shared space and the concept of the self regulating street creates particular difficulties for vulnerable pedestrians and the visually impaired, I consider that these issues can be overcome. Should the Board be minded to grant approval for the development, I recommend that a condition be attached requiring that the measures set out in DMURS be provided consistently and coherently throughout the plaza area in order to assist vulnerable users to navigate and move safely and conveniently through the space. Furthermore, I recommend that further consultation take place with various organisations including the Irish Wheelchair Association, National Disability Authority, Dublin City Centre Participation Network, Blind Legal Alliance etc, to ensure that the needs of each group is properly and adequately addressed in the final design of the scheme and that live testing be carried out with users groups prior to construction.

The development will improve pedestrian permeability within the plaza but conditions outside the plaza will deteriorate.

Whilst it is generally accepted that the creation of a pedestrianised plaza which will be segregated from traffic will improve pedestrian permeability within College Green, there is doubt that these benefits will be experienced in the wider area.

[28] UK Guidance on the use of Tactile Paving Surfaces (2005)

Reference was made by Mr Stephen Reid (Reid Consultancy on behalf of Dublin Bus) on Day 6 of the oral hearing to Section 6.6.2.13 of the EIAR, which analyses pedestrian desire lines for movement along pedestrian routes through College Green. He noted that changes were marginal to negligible and not a basis on which to conclude that there would be significant improvements in pedestrian movement as a result of the proposed development.

In its rebuttal DCC noted that pedestrian route directness (PRD) looks at directness of route and does not take delays into account, which will be significantly improved by the traffic management measures proposed as part of the scheme. Pedestrians currently have to cross several conflicted routes and the management proposals i.e. removal of controlled pedestrian crossing points, will provide an unimpeded route with a much improved environment for pedestrians.

Notwithstanding the issues raised in Mr O' Connor's report, I consider that pedestrians will benefit from reduced waiting times and simplified crossing arrangements, particularly on the route between O'Connell Street and College Green, which will improve pedestrian comfort and permeability.

The ability of the north and south Quays to cater for the significant volumes of pedestrians arising from the relocation of bus stops was also raised during the oral hearing. As already noted Dublin Bus have stated that c. 50,000 customers would be displaced as a result of the diverted routes who would have to use the Quays on a daily basis. Mr Reid (Dublin Bus) questioned why there was no proper assessment of these impacts, why there were no up to date surveys of pedestrian movements on the Quays and whether it had been established that moving bus customers onto the Quays was in fact appropriate.

He referred to the assessments carried out for other projects such as Metro North, including extensive surveys of pedestrian flows and pavement surveys in key areas to establish the level of service provided. The analyses indicated a poor level of service at different locations and at different times of the day, with one of the worst areas being the corner of Westmoreland Street and the south Quays. He questioned why similar work had not been done for the current project. He concluded that the Quays were a particular flash point with a lot of different movements including people

waiting/boarding/alighting from buses, tourists, east-west pedestrian movements etc, which had not been properly analysed or assessed.

Mr O Brien's noted the various improvements that have been carried out by DCC to increase pedestrian space/comfort (increased width of pavement on O'Connell Bridge, doubling of pedestrian crossing at Bachelors Walk, works on east side of Westmoreland Street etc), which he said must to be taken into account. Mr Mc Daid stated that DCC were confident that they had considered the Quays in the context of bus diversion routes and in the context of the north/south Quays bus improvement scheme. He stated that while there will be increased bus passengers boarding/alighting on the Quays, this has to be considered in the context of a much improved bus service provided on the quays, together with other factors including ticketing service, Leap etc.

I accept that the footpaths along the Quays are far from ideal in terms of facilitating the needs of pedestrians. They vary considerably in width, with very narrow sections and significant obstacles (poles, cabinets etc), which do not allow pedestrians to pass each other in comfort. During peak hours there is high pedestrian activity, particularly east of Capel Street Bridge associated with high concentrations of bus stops. It has not been demonstrated by DCC how additional pedestrians would be accommodated on the Quays, which appear to be inadequate to cater for existing flows at particular times of the day. In response to questions from the Inspector, Mr O Brien stated (Day 9) that there are no proposals to widen the footpaths, but that going forward bus stops could be spaced out along the Quays to cater for increased footfall.

Notwithstanding the measures undertaken by DCC to improve pedestrian facilities from O'Connell Bridge towards College Green, and the proposals to space out bus stops on the Quays, questions remain regarding the adequacy of the footpaths to accommodate the considerable volume of pedestrians that will be displaced as a result of the re-routing of bus routes/relocation of bus stops and how issues surrounding pinch points (Ha'penny Bridge, Merchants Arch) etc would be resolved. The restricted width of the carriageway along sections of the Quays limits the potential for footpath build out, without impacting on the level of service of buses and other vehicular traffic. In the absence of opportunities to widen footpaths, it is unclear what alternatives are available to DCC to accommodate the increase in footfall that

will arise from the diversion of buses. There are also issues surrounding access for vulnerable pedestrians that have not been addressed.

Conclusion

- At present the pedestrian environment in the vicinity of College Green is under pressure for competing demands and inadequate space. The proposal will provide an expanded pedestrian and attractive urban space for the estimated 75,000 pedestrians that use College Green on a daily basis. I accept that it will enhance the pedestrian environment, through the removal of barriers to permeability and movement (such as signal-controlled pedestrian crossings), which together with the exclusion of vehicles, will improve pedestrian comfort and journey times. This will help to improve the attractiveness of walking as an alternative and sustainable means of transport consistent with national, region and local policy to promote modal shift and reduced dependence on private car usage.
- Outside the plaza, the traffic management measures that will be provided as part of the scheme, particularly the diversion of bus routes, relocation of bus stops etc, will result in increased footfall particularly along the Quays. Whilst Dublin City Council point to the improvements carried out along the Quays to allow more efficient access/egress for buses and reduce delays for customers (additional bus lanes, increased length of bus bays to improve kerbside capacity), it does not consider the adequacy of the footpaths which currently provides a low level of service and pedestrian comfort at particular times of the day, or, how points of conflict likely to be encountered by pedestrians would be resolved.
- In conclusion, whilst I accept that the proposal will result in enhanced pedestrian facilities within the plaza area, it has not been demonstrated that outside the area, and particularly the Quays, have the ability to cater for the significant volumes of pedestrians predicted as a result of the development. There are also outstanding issues regarding access for vulnerable users.
- I conclude that the overall impact on pedestrians, particularly on the Quays will be negative and significant.

Impacts on taxis

The issues raised relate to confusion regarding taxi routes, restrictions on taxi movements through College Green, on Parliament Street and the use of the north south corridor in front of Trinity College on a trial basis only. It is contended that there is lack of consideration of impacts on journey times, costs etc associated with these changes and no consideration has been given to how taxis will access hotels etc to the west of Grafton Street. There is also concern regarding the removal of taxi ranks and the adequacy of provision to meet demand.

Submissions were made on Day 6 of the oral hearing by Mr Gerard Macken, Tiomanai Tacsai na hEireann (Submission No 21) and Mr Joe Herron, Irish Taxi Federation (Submission No 22). The submissions from various hotel groups also raised concerns regarding how changes in taxi routes would impact on their operations. Cross questioning took place on Day 7.

Impacts on taxis are described in Section 6.6.2.10 of the EIAR. It focuses on taxi rank provision, with no discussion of impacts on routes or journey times. For the information of the Board, taxis are currently prohibited from using College Green between 07.00-10.00 am weekdays. Existing and proposed rank facilities are as follows. There is an existing permanent taxi rank adjacent to the traffic island on College Green (5 spaces), and the subsidiary rank on Foster Place (9 permanent taxi bays and 11 night time bays), which feeds taxis to the rank on College Green. These taxi ranks will be removed as part of the proposal.

A new taxi rank will be provided on the southern side of Dame Street between South Great Georges Street and Trinity Street with capacity for 8 taxis. The existing tank rank (3) on the north side of Dame Street will be converted to a permanent rank and additional night time capacity will be provided through the use of proposed loading bays on the eastern side of Trinity Street (7), on the western side of Church Lane (4) and southern side of Dame Street (7), operating between 19.00-07.00hours. The use of the loading bay as a taxi rank on St Andrew Street will remain. In addition, DCC propose the provision of an additional tank rank on College Street (10 bay) as part of a separate proposal.

Whilst I accept that there may have been confusion regarding the restrictions that would apply to taxi access, this was clarified during the oral hearing. DCC confirmed

that taxis will be permitted to use the public transport corridor northbound and southbound at the front of Trinity College, to use Parliament Street southbound, availing of a left turn from Wellington Quay, and in all other locations taxis would continue to use the same routes as buses. It was also confirmed by DCC in response to questions from the taxi groups that there are no plans to make any alterations to Anglesea Street (as a route for taxis to access Fleet Street), which will continue to be a pedestrianised route from 11.00 hours daily (following deliveries).

In response to questions regarding how closing off College Green to east west/west east taxi movements will impact on access to the Grafton Street Quarter and various hotels in the vicinity, it was confirmed that the left turn from Wellington Quay into Parliament Street will facilitate taxi access via Dame Street to this part of the city. There is also alternative access via Winetavern Street further along the south Quays.

With regard to impacts on access to hotels, Mr Mc Daid for DCC, referred to Appendix 2 of his statement (Submission 6(c)) which shows current taxi routes to/from city centre hotels, to/from various strategic locations such as the airport, convention centre, Heuston Station. He stressed that further out from the city centre there are routes to the hotels that do not logically take you through College Green. There are, however, logical routes through College Green, for example, to the Westin Hotel from Dublin Castle/Heuston Station or to/from Marker Hotel from Heuston, which will change as a result of the proposal. Whilst I accept that this will generate a level of inconvenience for both taxi drivers and passengers, having regard to the relatively short distance involved and the small number of hotels which are likely to be directly impacted, I consider that the impacts are acceptable.

Both Mr Macken and Mr Herron queried the adequacy of taxi rank provision. Whilst DCC confirmed that there was no assessment of whether supply would meet demand, it was confident that provision was adequate. Mr O' Brien highlighted the balance that needs to be achieved between available street space and meeting the needs of street users. Some space allocated to loading/unloading operations during the day will therefore function as taxi ranks at night. As the greatest demand in the area is at nightime, I accept that the marginal reduction in daytime ranks (14 to 11 bays), will be compensated by the increase in night time capacity (14-17 bays) and the proposal for an additional taxi rank at College Street close to the site.

Conclusion

- The removal of taxis from College Green is necessary to facilitate the proposed development. Whilst I accept that this will result in some inconvenience, increased journey time etc, I consider that this must be balanced against the overall benefits to the city as a whole that will arise from the proposed civic plaza (reduced congestion, improved public realm, improved walking/cycling environment). I note the conclusion reached by Mr O'Connor and I accept that the impacts on taxis will be moderate.

Access to car parks

Issues have been raised in the submissions regarding more restricted access and severance of access routes to various public car parks arising from the proposed development and other transport initiatives undertaken in the city centre. It is contended that these changes together with future proposals have, and will continue to impact on the future survival of the car parks, and will have knock-on effects on the economic viability of the city centre area. It is stated that these impacts have not been properly assessed in the EIAR.

The car parks referred to in the submissions include Arnotts, Fleet Street, Trinity Street, Clarendon Street, Woodquay and Thomas St. Concerns have also been expressed regarding impacts on access to the basement car park at Crane Lane, and to car parking associated with IBAT College and the Paramount Hotel at Essex Street East. As a result of the proposed development, College Green will cease to become an access route for all general traffic, including to off-street car parks.

Lowland Properties documented the changes to the access arrangements to Fleet Street car park as a result of various traffic initiatives undertaken by DCC. These include the introduction of the all-day bus gate on College Green in August 2015, and the right turn ban from Bachelor's Walk over O'Connell Bridge, both of which have reduced access to Fleet Street car park from various directions (Dame St, College Green, Westmoreland St, D'Olier St etc). It is stated that these changes have resulted in a significant reduction in parking events, which impacts on the economic viability of the car park.

The EIAR discusses impacts on access to car parking at Section 6.6.2.5. It notes that College Green and the immediate area does not cater for significant numbers of

on-street carparking and as such the proposal will have negligible impact. In terms of off-street car-parking, it limits its consideration to the two car parks located closest to College Green, namely Trinity Street and Fleet Street. It notes the changes brought about by Luas Cross City, which effectively curtails access to car parks from College Green. The implementation of the *'North and South Quays Traffic Management Measures* (August 2017), which introduced a right turn ban from Bachelor's Walk onto O'Connell Bridge added a further restriction on access to the Fleet Street car park from the west (via the north Quays).

As a result of the changes, the Fleet Street car park is currently accessed inbound via Burgh Quay, Aston Quay and Aston Place and outbound via Fleet Street and Bedford Road to Aston Quay. These arrangements will not be altered as a result of the proposed development (Fig 6.10 & 6.11).

Car-parking was discussed on Day 9 and Day 10 of the oral hearing. Cllr Flynn stated that the proposal seems to be placing obstacles on access to city centre car parks. He expressed concern that the ban on traffic turning left from Wellington Quay into Parliament Street would impact on accessibility to other car parks such as Drury Street, Brown Thomas and St Stephen's Green. Mr B O' Brien noted that there is a an existing prohibition on cars turning left from Wellington Quay into Parliament Street and that cars wishing to use the car parks can travel down to Fishamble Street or Church Street and High Street. The proposal will not change these arrangements. It will also be possible to make a right turn from Dame Street into Trinity Street and access the car parks as before.

Mr O Brien acknowledged that coming from Capel Street there is a change due to the prohibition on cars on Parliament Street between 07.00-19.00 hours on weekdays. Cars wishing to access the car parks can either divert before Capel Street or use Capel Street Bridge to turn right onto the south quays and access Fishamble Street, Church Street and High Street. So, while a change is proposed, there are alternatives close by.

Mr Tom Phillips referred to Mr Mc Daid's submission to the oral hearing (Submission No 6B) which details access maps for city centre car parks. The maps were previously published by the NTA and DCC as part of the public consultation process in relation to the Dublin City Centre Transport Study. Mr Phillips queried why the

maps were not annotated so that comparisons could be made between what is existing and what is proposed. At the request of the Inspector, Mr Mc Daid provided revised maps on Day 10 of the hearing (Submission No 31B), which show the impact on access to the car parks (13 no.) with/without the development of the plaza. The green/ orange routes shown on the maps are currently available through College Green outside restricted hours (i.e. after 19.00 hours and at weekends).

Mr Mc Daid confirmed that following the development of the plaza, the green/orange routes would be severed and this would affect access to 5 no. car parks in total (Trinity Street, Drury Street, Drury Street Underground, Fleet Street and St Stephen's Green). Mr Philips drew attention to the Brown Thomas Street car park noting that the availability of College Green at weekends facilitated better access to the car park, which was important given that Saturday was considered to be a major shopping day. He questioned whether Mr Mc Daid would accept that severing of the green route would result in a significant impact. Mr Mc Daid did not accept this position either from a traffic impact perspective or from the operational management of the network. He did accept that the removal of these routes will result in customers having to take alternative routes.

Mr Phillips concluded that there is a point that can be reached where there is a perception that the city is closed to traffic which would damage trade further. In response Mr Mc Daid stated that the intention is to improve overall accessibility to the city centre and this is policy driven. Through investment and the use of more sustainable modes of transport the policy is to make provision for uncongested and unconstrained public transport, cycling and walking so that the available road capacity in the city centre is available for those who have a need to access the city centre.

With regard to access to private car parks such as the basement car park on Crane Lane and the car parks associated with IBAT College, the Paramount hotel etc, there are no changes to traffic arrangements that would impact on accessibility.

There was also discussion regarding the availability of accessible car parking. Although it is stated in Section 4.4.2 of the EIAR that 2 no. spaces would be provided in Foster Place, it was confirmed on Day 10 of the hearing that it is not proposed to provide any within the plaza area. It was considered that car parking on a cobbled

surface was not ideal and was also incompatible with the pedestrian zone on Foster Place. DCC noted the availability of other accessible car parking in the vicinity both on-street and in adjacent car parks (total 19 spaces), and which were noted to be underutilised. Mr Sinnott raised the issue of the convenience of these spaces to the plaza area, which is to become a place of public assembly.

I draw the attention of the Board to the provisions of the *Dublin City Centre Transport Study* (2016) which recognises that continued access by car is essential for sustaining retail and commercial activity within the City. It notes that access to/from car parking facilities has had a major influence in the routing and configuration of road space in the city centre;

'to a certain extent the arrangement of the transport network in Dublin City has been constrained by the presence of certain multi-storey car parks. Proposals which have benefited the city by improving the efficiency of the transport network, or the attractiveness of the public realm and streetscape have been difficult to progress due to conflicts with current access arrangements to large car parks' (para 5.3.5).

It questions whether the city should continue to be designed around such car parks or whether they should be adapted to fit into the needs of the city. Whilst it is recognised that it is desirable from an operator's perspective, to allow access to a car park from all directions, such an approach is not compatible with the overall objective of achieving an optimised public transport network and modal shift to more sustainable transport modes and pedestrian friendly public realm.

The study proposes improved management of car parking within the city centre through the creation of a car park access plan, which will see access to each car park focused on a routing from outside the core central area. Motorists would be assisted through increased signage, including electronic variable message signs, to channel vehicular traffic accessing car parks along designated routes. This would allow motorists to predetermine the access arrangements to specific city centre carparks and reduce the need to facilitate access routes through the core central area. It is intended that the revised access arrangements to car parks will be cognisant of the public transport, cycling and pedestrian networks across the city and will be designed to reduce conflict between these modes.

I accept that city centre car parks support a wide range of facilities including retail, commercial, tourism, hospitality etc, which are critical to the economic well being of the city. I also accept that continued access to the city centre by private car with related parking provision is essential for sustaining these activities. The proposal will not alter the access/egress arrangements that are currently in place for the majority of car parks in the city centre. I accept that the arising from the development, access to 5 no. car parks will be made more circuitous. Whilst this may impact on usage of individual car parks, the proposals have been progressed in light of the overall benefits that will accrue to the city as a whole.

I accept that the improved management of car parking within the city centre as proposed in the Dublin City Centre Transport Study, with clearly defined routings to car parks, which will allow drivers to make decisions on car parking outside the central core, will minimise circulating traffic in search of car parking, which will in turn improve journey times and congestion within the city core.

Conclusion

- Whilst there will be no alterations to existing access arrangements to existing car parks arising from the proposed development, the closure of College Green to general traffic will impact on existing access routes to 5 no. car parks in the vicinity of the site. This will sever routes currently available in the evenings and on Saturdays and will result in more circuitous routes and longer journey times. Whilst I accept that the impact is significant and negative, I consider that this must be balanced against the overall benefit to the city as a whole arising from the development including reduced congestion at College Green, improved environment for pedestrians and cyclists and enhanced public realm.

Access to premises for deliveries

Concerns have been raised regarding access to commercial premises and the adequacy of loading/unloading facilities, particularly in the vicinity of Parliament Street, West Essex Street and Crane Lane. The adequacy and safety of the proposed loading bay on Church Lane has been drawn into question by Tesco and other observers, who raise issues regarding how deliveries will be made in a safe manner.

The current arrangements are that loading/unloading operations associated with existing commercial premises on College Green/ Dame Street take place from the street, some using bus stops on a time limited basis. Arising from the proposed development, there would be no loading/unloading facilities within the main plaza area, but it is proposed to formalise existing loading and unloading facilities in the vicinity including the introduction of time-limited facilities on Dame Street, Trinity Street and Church Lane and the retention of an existing time limited loading/unloading bay on St. Andrew's Street. Outside these periods the loading bays would operate as taxi ranks.

It is proposed that commercial premises to the east of Church Lane, will be serviced via the 20m loading bay to be provided on Church Lane that will operate between 07.00-19.00 hours. As noted in the submissions the proposed loading bay would be on a downward gradient and concerns have arisen regarding its suitability and safety close to a junction particularly where large heavy crates are involved.

Responding to questions from the Inspector regarding the suitability of this loading bay, Mr O Brien acknowledged the gradient, but did not consider this to be a particular concern. He was confident that operations could be carried out safely and noted that the street has a two-lane carriageway and will not be as busy following the implementation of the proposed traffic arrangements.

Issues were raised by Mr M O' Donnell regarding the changes that will take place on Parliament Street and how this will impact on existing loading and unloading operations. There will be a ban on general traffic using Parliament Street between 07.00 -19.00 hours and accordingly alterations will be required to servicing arrangements. At present commercial premises on Parliament Street are serviced from small loading bays on either side of the street. There is also a small loading area on Essex Street East close to the junction with Parliament St. Access is via Grattan Bridge or from Exchange Street Lower-Essex Gate. Access is also available from Essex Street West but only until 11am, after which the street becomes pedestrianised.

In order to mitigate the loss of access to loading bays on Parliament Street during the day it is proposed that a deliveries-only right turn is retained on Essex Gate up to 11am, which will allow service vehicles to continue access from Exchange Street

Lower-Essex Gate. The northern end of Parliament Street will be restricted to public transport and therefore loading/unloading access will only be possible via the alternative route described. It was confirmed by Mr Mc Daid for Dublin City Council that the facilities on Essex Street East will remain unchanged but that the changes to traffic arrangements on Parliament Street means that it will be accessed from a slightly different location on the network. There are a number of businesses on Essex Street West and Cow's Lane (which is pedestrianised) which could be affected by the traffic management proposals for Parliament Street. The proposal to retain a deliveries-only right hand turn on Essex Gate ensures that the existing access arrangements to loading bays are not compromised.

No alterations are proposed to existing service and access arrangements on Fownes Street Upper, Cope Street and Anglesea Street. Similarly, there will be no alterations to existing access/egress arrangements on Trinity Street, St Andrew Street and Church Lane which operates in a one-way system in an anti-clockwise direction off Dame Street.

Conclusion

- There will be no reduction in loading /unloading facilities as a result of the proposed development. There will be more formalised arrangements in the vicinity of the plaza and in other locations such as Essex Street East. While the location of facilities will remain the same, access will be from a slightly different location.
- I accept that the supply of goods and services is essential to the commercial life of the city and I do not consider that this will be compromised in any significant way by the proposed development and associated traffic management measures.

Access for emergency vehicles/plaza security

This issue was raised on Day 10 of the oral hearing. Mr Tom Phillips questioned the adequacy of access for emergency vehicles. It is proposed to use the area to the south of the plaza to access the area. It was his opinion that the available width of 3.5m was not sufficient and referred to the New Geometric Handbook (Submission No 32) which indicate that a width of at least 4m was required to allow two vehicles

to pass. He also questioned how this space, which is shared by cyclists and pedestrians would be managed in the event of an emergency.

DCC in their response noted that this access was intended to service emergencies during events at the plaza and not as a through route for emergency vehicles to traverse the area. In the event of an emergency, the area would be managed in the same way as similar events are managed in other parts of the city. Control of the area would be undertaken by the police and the area would be closed to all forms of traffic. Cyclists and pedestrians would move out of the area through the pedestrian zone.

It was stated by DCC that there was consultation with the Chief Fire Officer and the Gardai regarding how the space would be used by them. I note from the Building Regulations (Technical Guidance Document B - Table 5.2) that a minimum width of road between kerbs of 3.7m is specified for fire appliances which, it would appear, can be comfortably accommodated on the cycle route/pedestrian area to the south of the plaza which will be provided with a flush surface.

Issues were also raised in the submissions regarding security at the plaza and the potential for terrorist attacks, such as a rogue vehicle entering the area from the turning area to the west or from the access to the east. I note that the design incorporates metal planters and retractable bollards which would prevent vehicles entering the plaza from the west or from Church Lane. During major events these planters would remain in place.

Access will not be prevented in the same way to the east as the route is intended to facilitate emergency vehicles. The maintenance of the access route to the Bank of Ireland could also pose a risk. Whilst I do not consider, that on a day to day level this presents any more risk than any other area in the city, the plaza could be a potential target when significant crowds are attending events. In such a scenario, the area would have a high police presence and be carefully monitored to reduce the potential for impacts on public safety. I note that it is the intention of DCC to prepare a Management Plan for the management and maintenance of the space and that the police will be consulted in relation to policing issues. I do not, therefore, consider that this matter requires further consideration by the Board.

8.8. Townscape and Visual

Environmental Impact Assessment Report

Section 11 of the EIAR describes the landscape context of the proposed development and assesses the likely landscape and visual impacts on the receiving environment and residual impacts. The assessment includes the core study area associated with the plaza and a wider study area potentially affected by traffic management impacts resulting from the scheme.

It is acknowledged that College Green has been an important civic and social place in Dublin for over 500 years. The area has evolved and is a major thoroughfare within the city containing several landmark buildings including Trinity College and the Bank of Ireland. Given the relatively closed nature of College Green, it is only visible in its entirety from within its immediate setting. This includes from within College Green itself, Foster Place and from the Dame Street approach to Trinity College. Partial visibility can be obtained from the Westmoreland Street and Grafton Street approaches as well as other converging streets such as Church Lane and Anglesea Street. Pedestrians exiting Trinity College are also afforded good views over the area.

The baseline for College Green is a busy and cluttered visual environment where the main aspects of visual amenity are the heritage buildings that define the space. There will be negative impacts on the streetscape and the visual amenities of the area associated with construction. These will include the movement of heavy vehicle traffic on the site and on the surrounding network, removal of surface material, excavations, temporary hoarding, dust debris etc. The construction works and hoarding may intrude on views of Trinity College and the Bank of Ireland. Trees within the central island and at the corner of Grafton Street will be removed. Whilst this will reduce the visual amenity, one of the perceived benefits is that the visual axis along Dame Street from Dublin Castle to Trinity College (an indicative designated view in the CPD) will be improved. The reinforcement of the physical and visual axis is considered central to the proposed College Green plaza design.

Following the completion of the construction works, it is concluded in the EIAR that College Green will appear transformed. The high quality stone paving will be a consistent pattern across the whole of College Green without kerbs or other vertical

delineation. This will give a much stronger sense of College Green being a broad plaza and a destination space in its own right, rather than a divided and cluttered transport node in the space between heritage facades. The removal of visual clutter including signposts, traffic lights, vehicles and buses will provide an improved context from which to appreciate the heritage landmark buildings of Trinity College and the Bank of Ireland. The removal of traffic will transform the area from one of dynamic traffic movement, potential danger and congestion to a social and meeting place that is likely to be regarded as the heart of the city centre. It is concluded that the overall impact of the development, once completed will be positive in terms of townscape character and the very high sensitivity urban setting will be enhanced.

The main ameliorating factor in relation to construction stage visual impacts is that they will be temporary/short term in duration. Standard best practice methodologies will be implemented, as set out in the Construction and Environmental Management Plan to ensure impacts are minimised. By way of compensation for the removal of trees it is proposed to retain the mature Plane trees around Foster Place and to replant a row of semi-mature Plane trees along the southern side of the plaza. As they establish will contribute to the amenity of the space in a similar manner as the existing mature trees, but more appropriately placed so as not to divide and shade the plaza or restrict visibility of Trinity College and the Bank of Ireland.

A series of photomontages were prepared to aid the appraisal of operational stage visual impacts. The photomontages were prepared from six viewpoints and each are independently appraised in Section 11.4.2.3 of the EIAR. The conclusion is that the visual impact will be positive, and the visual setting enhanced at each location arising from the transformation of the space from a cluttered and traffic dominated junction into a simply organised and social space. It is also a function of the high-quality materials that reflect the heritage setting, strengthening the visual axis, the opening up of clearer views of landmark buildings and monuments as well as general de-cluttering of the space.

As the impacts are considered to be positive, no mitigation measures are considered necessary during the operational stage.

Policy Context.

The *Dublin City Centre Transport Study (2016) s*tates that the traffic measures outlined in the study will have positive outcomes for the city including an improved urban environment as a result of vastly reduced level of traffic passing through the heart of the city*. 'The reconfiguration of the movement of vehicular traffic away from the City Centre and a rationalisation of how public transport will serve the centre, will allow much more space to be devoted to pedestrians and facilitate the development of new landmark civic spaces such as College Green' (Section 12.6).*

The *Heart of Dublin; City Centre Public Realm Masterplan* (June 2016) sets out a vision for the city core that it is uniformly pedestrian and cycle friendly where barriers to permeability and movement are removed. It identifies the gaps that need to be filled in order to deliver a unified pedestrian friendly core. The development of College Green is identified as one of the projects required to achieve this (Phase 1 Public Realm Projects).

Chapter 4 of the *Dublin City Development Plan -Shape and Structure of the City*, contains relevant policies in respect of city centre public realm and urban design, some of which relate directly to College Green;

SC2 – *To develop the city's character by cherishing and enhancing Dublin's renowned streets, civic spaces and squares; to create further new streets as part of the public realm when the opportunities arise; to protect the grain, scale and vitality of city streets; to revitalise the north and south Georgian squares and their environs and to upgrade Dame Street/College Green as part of the Grand Civic Spine.*

Other relevant policies regarding development/improvement of the urban environment include SC3, SC4, SC5, SC19, SC20, SC21 & SC28.

Relevant Objectives include the following;

SCO1 – To implement a programme of improvements along the Grand Civic Spine from Parnell Square to Christchurch Place, including College Green and Dame Street arising from the opportunities provided by the introduction of the Dublin Green Priority System, the Luas Cross City and the 'Dubline' initiative'.

SCO2: To implement the actions and projects contained in the Dublin City Public Realm Strategy 2012 and any successor public realm strategy.

SCO8 – To prioritise the redevelopment of College Green as a pedestrian friendly civic space, including the pedestrianisation of Foster Place.

Issues raised by the observers during the course of the application and during the oral hearing.

The main issues raised relate to the following;

- Piecemeal approach to the development of an urban space within the city centre.
- Size of the space proposed.
- Type and colour of materials proposed.
- Density and type of trees proposed.
- Street furniture.
- Provision of other facilities such as toilets, facilities for causal trading.
- Event management.

Assessment

The following provides an assessment of the various issues raised in the submissions and during the oral hearing. Cross-questioning in relation to public realm and visual impact took place on Day 11 of the oral hearing.

Piecemeal approach to the development of an urban space in the city centre

The contention that the proposed development at College Green is being developed in isolation, without due regard to an overall urban design strategy for the city centre is without foundation. As already noted in previous sections of this report, College Green is identified as the primary civic space in the city, being strategically located along the city's central spine. Proposals to upgrade College Green form part of a strategic programme of public realm improvement works to significant spaces and streets in the city, as identified in the *City Centre Public Realm Masterplan*. It defines priorities for these developments that will be implemented on a phased basis in the short, medium and long term.

It is accepted in the masterplan that the proposals will of necessity take place over a long period of time and that the phasing or order of delivery may change depending on national projects and the availability of financial resources. It adopts a long term horizon for the delivery of these projects spanning a period of 18 years. The College Green proposal is identified as Phase 1 to be implemented in the short term (2016-2022). It is envisaged that these projects taken together with the various transport initiatives identified in the City Centre Transport Study to reduce congestion, improve pedestrian permeability etc, will improve linkages between spaces and streets, improving the vibrancy and attractiveness of the city for all its users.

The development of the civic plaza will not, therefore, be developed in isolation as contended, but as part of a network of interconnected spaces that will significantly improve public realm within the city centre.

Size of space proposed

Issues have been raised regarding the size of the space proposed and that it conflicts with public realm design philosophies e.g. a large urban space that will be empty most of the time. Comparisons have been drawn in the submissions to experiences elsewhere in the city such as Smithfield.

In her submission to the oral hearing Ms A Grehan (City Architect), did not accept that Smithfield was not a successful space. She noted the differences between the two spaces, which had very different functions and required different design responses. She compared the size of the pedestrianised area of College Green (7300m2) with other urban spaces, noting that it was modest in scale compared to

other European capital cities (Copenhagen's City Hall is 9800m2, London's Trafalgar Square is 12,000m2). She further noted that the size of the proposed plaza is inspired by its historical context and the desire to re-establish the original extent of College Green.

The development of good public realm is not dictated by the size of the space but by its importance to the city and the qualities it offers to users. The area has significant attributes which will contribute to its attractiveness and success as an urban space, including its central city location well served by public transport, its historical and architectural significance, the level of usage by both pedestrians and cyclists as they traverse across the city and its proximity to tourist attractions.

The creation of a level surface across the plaza will facilitate movement and accessibility by users of all ages and abilities. Through its permeability and potential for multifunctional use (area to hold special events and celebrations/place of assembly etc), it will promote usability and connectivity with the wider city, contributing to its attractiveness and vibrancy. Through its design, the judicious planting of trees, choice of surface finishes, appropriate lighting and the use of street furniture, it will create a sense of place and a meeting area that will promote social interaction and provide a significantly improved urban environment for the benefit of citizens and visitors.

To conclude, I consider that the space incorporates the essential attributes for the creation of a high quality urban space and that its size is not inappropriate having regard to the overall design concept and its intended function.

Type and colour of materials proposed

It is contended in the submissions that the contrasting surfaces and tonal colour results in a lack of coherence and creates difficulty for users to comprehend. During the oral hearing, Cllr Mannix Flynn stated that the new surface will be the dominant impact, creating an overproduced environment that is monotonous and sterile. Other matters raised relate to the need for the use of hard wearing materials to ensure longevity and protection against constant maintenance. The appropriateness of using charcoal setts, which may create an uneven surface and not conducive to free and easy movement was also questioned.

The surface of the plaza will comprise 10 bays each surfaced with charcoal granite setts, which will be defined by bands of lighter granite flags. The edges of the space will be finished in honey coloured Leinster, or equivalent flags, which will be laid to match the remnants of existing historic paving in the area. Bands of contrasting tactile paving will be provided along the outer edges of the pedestrian priority zone to facilitate vulnerable pedestrians. The turnaround area will be surfaced in asphalt (in a similar tone to the dark granite) and it will be defined by an edge of lighter coloured granite to distinguish the cycle path from the bus carriageway.

Addressing questions by the Inspector, Mr Paul Keogh for DCC confirmed that while it may appear from the photomontages that the granite setts would result in a rough surface, this was not the case. The materials to be used would be tested for smoothness, durability, slip resistance, suitability for wheelchair use etc, to ensure that the plaza was accessible by users of all ages and abilities. He referred to DCC's familiarity with these type of issues and that all the requirements would be addressed in the work specifications. The honey coloured granite slabs would be sourced from the same quarry used in the eighteenth century to tie in with the finishes at the front of Trinity College.

I do not share the concerns expressed by Cllr Flynn. I consider that the use of different types of materials, textures and subtle differences in colour prevents the creating of a sterile environment and will define the space, its functional zones and create legibility. Taken together with the proposed planting, street furniture etc, I do not accept that the materials will dominate the space or detract from its landmark buildings. I consider that the overall treatment of the space will significantly enhance its quality, producing an attractive environment which will be positive in terms of visual impact.

Density and type of trees proposed

A number of the submissions comment on the type and density of the trees proposed. It is considered that the trees will be too large and will block views both of historic buildings to the south and the emerging retail environment associated with the Central Bank Plaza to the west. It is suggested that smaller trees would be more appropriate such as Beech or Lime, pleached like those outside the GPO.

As part of the proposal it is proposed to remove all of the large mature Plane trees within the traffic island on College Green and at the corner of Grafton St Lower. The mature trees on Foster Place will be retained. New planting will be carried out along the southern side of the plaza, comprising a row of 10 no. semi-mature Plane trees. Further west, a row of similar trees will be provided on both sides of Dame Street, forming an avenue on the approach to the turnaround area. The planting proposals will increase the number of trees from 8 to 22.

I accept that the removal of existing trees, particularly those on the traffic island will also have positive outcomes including the opening up of the vista of Trinity College from Dame Street and the exposure of views of existing historic buildings and monuments, which currently go unnoticed in the existing cluttered environment of College Green.

With regard to the type of trees proposed, the EIAR does not provide any rationale for the species chosen. I note that the Design Report states that a number of species were considered, but does not specify types. This is clarified in the RFI (Section 4.4.2), which states that the species of tree was selected in consultation with the Dublin City Council Park's Department, with regard being had to the key objectives of the Dublin City Tree Strategy 2016-2022 to plant large growing trees in urban areas.

'The Council will also seek to plant large canopy trees, wherever possible, to achieve the maximum benefits that trees provide. Large growing tree species confer much greater benefits to urban areas than small trees. Where space allow, preference will be given to planting as large a tree as is appropriate for the location' (Section 3.8.7).

The Strategy acknowledges that *'while all trees are beneficial to an urban environment, it is the larger species (trees that can attain heights of over 15m) that are the particularly significant elements that can match and compliment the architecture of the city and create great city places'*.

I note that London Plane (*Planatus x acerifolia*) has been grown successfully in Dublin since the eighteenth century and is popular in urban areas due to its resilience to pollution. A mature tree would grow to between 20-30m, which would be considered a large tree and which would obscure views of building facades on the south side of the plaza and the buildings further west.

In her submission to the oral hearing Ms Grehan stated that other species were considered including limes, evergreen oaks and pleached limes but London Plane emerged as the preferred species due to its robustness in urban environments. She referred to their tall trunks and attractive winter crown (when sculpturally pollarded), and concluded that they were the species that would least detract from the facades of the buildings.

While I accept that there are many smaller tree species that could be used to define the space and result in reduced impacts on buildings, having regard to DCC's overall strategy to plant larger trees in urban areas, the suitability of the species to the urban environment and their resilient to pruning and general maintenance, I consider that the proposed trees are acceptable in this location.

Street furniture

Contrasting views are expressed regarding the installation of street furniture with some observers of the opinion that there should be a restrained approach while others considering that additional seating, for example, should be provided. Issues have also been raised regarding the maintenance of the proposed water feature having regard to Dublin's experience with the Anna Livia Fountain and the water feature in Grand Canal Square. It is also suggested that the Thomas Davis fountain should be re-orientated to face in the opposite direction.

Limited seating will be provided in the plaza, comprising two benches opposite Bank of Ireland and two adjacent to the row of trees to the south side of the urban space. The statue of Henry Grattan will be surrounded by four benches. It is Dublin City Council's contention that adequate seating is provided to allow an amenity for the public while at the same time not restricting the capacity for events and celebrations. The need to avoid clutter was also cited as a consideration. Whilst I consider that the amount of seating appears to be low, given the objective to create a civic place where people can congregate, linger and relax, I accept that this must be balanced against the various functional requirements of the plaza. It will be possible to provide additional seating, if deemed appropriate, in the future.

A new fountain with ground mounted jets will form the central feature of the pedestrianised eastern end of the plaza opposite Trinity College. When not in use the plates will be barely visible and events can take place above them. The fountain

will include 32 jets, which will be computer controlled to turn on/off the water flow. As such it will not present the same challenges as conventional fountains which have a continuous flow of water (creation of foam, deposition of litter etc). This type of feature maximises the use of the space when the fountain is not in use and adds significantly to its interest and vibrancy when in use.

As already noted the Thomas Davis statue, its fountain and plinth will be relocated to a new position on the proposed turning area and the place previously occupied by a statue of King William. Its orientation will be reversed to face westwards, which in my opinion will create a more positive overall appreciation of the monument in a prominent position at the entrance to the plaza.

Provision of other facilities

Trinity College raised significant concerns regarding absence of toilet facilities for the increased number of people using the plaza. Retailing interests do not wish to see facilities for casual trading provided within the plaza.

There are no proposals to provide toilet facilities and I do not consider that there is any necessity to do so. I accept that temporary facilities can be provided during major events.

The use of the plaza for casual trading would require a licence and currently there are no plans for this to be facilitated within the plaza area.

Event management

The question of how the space will be managed during major events and how accessibility by public transport would be maintained was the subject of discussion during Day 11 of the oral hearing. Ms Grehan stated that an event management plan would be put in place, which would be proportionate to the scale and significance of the event. The major event would be managed (including traffic management) in a similar way to other large events held in the city such as St Patricks Day parade, New Year's Eve celebrations etc. She also noted that in terms of the day to day management of the plaza that there is a commitment by DCC to employ resources and proactively manage the space. A public realm domain officer would be appointed with specific responsibility for this area.

I accept that each event will require to be managed on a case by case basis involving all stakeholders.

Conclusion

- College Green is a critical element of the urban fabric of Dublin City, defined by important landmark buildings, protected structures and monuments. It is currently dominated by traffic and visual clutter which significantly detracts from its visual amenities and the appreciation of its architectural, historical and cultural significance.
- The proposal is to reclaim the area as an important civic space and to develop it in conjunction with other public realm projects in the city centre, creating a network of interconnected spaces which will enhance public realm within the city centre. Having regard to the importance of College Green to the city, the design of the plaza and its intended function, I consider that the size of the space is wholly appropriate.
- The design of the proposal, including the removal of traffic and visual clutter together with the choice of materials, trees and street furniture will in my opinion significantly enhance the area, create a sense of place in the core of the city and significantly enhance the visual amenities of the area.
- I consider that the proposal accords with the policies/objectives of the development plan and other policy documents with regard to the development, enhancement and improvement of the public realm within the city centre, the overall impact of which will be positive.

8.9. Socio-Economic Impacts

Environmental Impact Assessment Report

Chapter 15 describes the material assets and various land uses in the vicinity of the site. The baseline environment is described in the context of two study areas, the core area that aligns with the red line boundary of the proposed development where there is potential for direct impacts on adjoining land use and property, and the wider study area which considers the potential for broader indirect impacts arising from

movement and access associated with the project. The latter has been defined as a 10 minute walk time catchment area, which is considered a reasonable distance people are prepared to walk to a destination.

During construction, while there will be no direct impacts on property, there will be temporary inconvenience and disturbance during the works such as disruption of pedestrian/vehicular access to properties, dust, noise etc. There will also be removal of through traffic, taxi parking and taxi ranks and bus stops at College Green and Dame Street as a result of the route changes. This will be mitigated through proactive communication with businesses and the public, construction management measures, including the provision of high quality hoarding, signage etc. Access to all properties will be maintained during the construction phase.

Once operational, the direct and indirect impacts on property and land uses are expected to be positive arising from the provision of an improved quality urban environment, removal of vehicles, visual clutter etc. No mitigation measures are considered necessary. Replacement taxi ranks/taxi parking and additional night time ranks will be provided. The impacts on property and land use from these measures is considered to be neutral.

To address the requirements of amending Directive 2014/52/EU, Chapter 16 (Socio - Economic) of the original EIS submitted with the application has been replaced with a socio-economic assessment of the proposed development, prepared by FutureAnalytics. Adhering to the EPA's *Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Report* (2017), which states that detailed socio-economic analysis should be avoided in an EIAR[29], the report is provided as a separate document (Appendix G of response document). The report is considered in greater detail below.

Policy Context

The *Guidelines for Planning Authorities - Retail Planning (*DoECLG, 2012) recognise the importance of the retail sector to the Irish economy and that a strong retail sector is a key element of the vitality and competitiveness of cities, town and villages throughout the country. The guidelines stress that planning for the retail sector must be more focussed on the creation of vibrant, quality spaces, accessible by

[29] Section 3.3.6 of EPA Guidance

sustainable transport including for pedestrians and cyclists. It contains five key policy objectives which include;

- facilitating a shift towards increased access to retailing by public transport, cycling and walking in accordance with the Smarter Travel strategy and
- delivering quality urban design outcomes.

The *Retail Strategy for the Greater Dublin Area 2008-2016* confirms the role of Dublin City Centre as the prime retailing centre (Level 1) within the GDA. It sets out the challenges that must be addresses which includes competition from regional centres vis-a-vis the city centre, which are accessible by public transport as well as by private car.

'As the primary centre for retail, located at the terminus of almost all public transport connections in the GDA, it is essential that the City continues to reinvent itself to provide a modern attractive retail environment that can compete with the modern level 2 centres but also with other international cities in both attracting trade and new retail formats' (Section 6.15)

Its recommendations for the city centre include;

- *Maintaining the role of the city centre as the main retail centre for comparison goods in the Country through continuing to develop the retail environment, urban design of centres, ranges of retail uses and quality of public realm to the highest quality to ensure that the city retail core competes on a national and international scale…(Section 6.33).*

The *Dublin City Centre Transport Study 2016* seeks to ensure that the city can continue to grow and be economically vibrant. It sets down a framework for how Dublin City's transport network can cater for forecast increased demand, by better utilising the existing infrastructure available, and by moving towards a more sustainable and efficient use of public realm within the city centre.

The *Dublin City Development Plan 2016-2022* seeks to protect the status of the city centre retail core as the premier shopping area in the State (Policy RD13).

Policy CEE1 seeks to promote the role of Dublin as the national economic engine and driver of economic recovery and growth, with the city centre as its core economic generator.

Policy RD22 seeks to encourage environmental and streetscape improvement works conducive with the improvement of the pedestrian environment and the creation of better linkages within and between shopping areas in the city centre retail core in line with the objectives of 'Your City-Your Space – Dublin City Public Realm Strategy' 2012.

Policy MT2 recognising the benefits to the city centre retail core and the city seeks to promote modal shift away from the private car towards more sustainable forms of transport.

Issues raised by the observers during the course of the application and during the oral hearing.

While businesses facing College Green consider that the proposed development will have positive effects and be good for business, there is widespread concern regarding potential negative impacts by retail and hospitality interests including hotels. It is contended that the impacts on trade are not fully explored and that the conclusions reached are poorly supported in the absence of a proper cost benefit analysis. The conclusion reached that the development will be positive is challenged and there is concern that many of the claimed benefits would be merely displaced from other areas.

Much of the concern centres around further restrictions that will be imposed on private car access to the city centre. The concern is that this would result in reduced footfall and retail sales in the city centre and increase the attractiveness of out of town shopping centres. Issues have also been raised regarding the cumulative impacts of the development taken in conjunction with other traffic proposals, which are being implemented incrementally around the city and that the proposal is premature pending the adoption of an holistic transport plan for the city centre.

Assessment

Socio-Economic Impacts were discussed on Day 3 of the oral hearing. Mr Richard Hamilton (Future Analytics Consultancy) responded to issues raised in the submissions made to the Board on behalf of Dublin City Council (Submission No 10). Mr Tom Philips represented on behalf of Dublin City Centres Traders Alliance (Submission No 17) and Mr Richard Guiney spoke on behalf of Dublin Town. Other submissions made by various hotel groups, car parking interests etc emphasised the

importance of their activities to the economy of the city centre and of maintaining access to the city core. Cross-questioning took place on Day 10 &11 of the hearing.

The main issues raised relate to the following;

- Socio-economic impacts on the city centre not adequately addressed.
- Impacts of reduced private car access to city centre.
- Development will increase attractiveness of out of town shopping centres and on-line retail sales.
- Socio-economic impacts of proposed changes to bus and taxi movement.
- No analysis of socio-economic impacts on local businesses during construction.

Socio-economic impacts on the city centre not adequately addressed.

It is asserted that the socio-economic impacts arising from the development have not been adequately assessed. It is stated that the assessment is overly reliant on international research and that the proposed development will give rise to significant negative socio-economic impacts that have not been identified.

The *Socio-Economic Impact Assessment Report* prepared by Future Analytics on behalf of Dublin City Council (Appendix G - RFI document) highlights the success of the city's economy. It provides an overview of macro-economic trends in the city centre using established indicators. It reveals that consumer sentiment is rising year by year and this is mirrored by rising economic activity and retail sales. There are positive trends in employment growth and a significant fall in the unemployment rate, as the economy approaches full employment. The city centre office market is vibrant with vacancy rates decreasing and leasing arrangements increasing, reflecting positive business sentiment for the city. Tourism continues to flourish with increases in holiday and business trips, generating significant revenue and supporting jobs.

The economic indicators identify strong economic growth and a robust city centre, notwithstanding disturbance due to major infrastructural projects such as Luas Cross City. Based on current trends and forecasts for the future, strong economic growth is predicted to continue, albeit at a slower pace with positive outcomes for retail, commercial and tourism interests in the city centre.

In 2016 Dublin City Council commissioned EY and DKM Economic Consultants to assess the impact of the proposed changes to transport arrangements (arising from the Dublin City Centre Transport Study 2016) on the City Centre retail market and to address the concerns raised by the retail sector. The report '*City Centre Transport Proposals, Assessment of Impact on Retail Market'* considered the potential impact on retail activity of the changes to the road, rail and bus networks as well as proposals to make the city easier to navigate for pedestrians and cyclists. It includes consideration of the College Green traffic management proposals.

The report provides an analysis of key economic indicators which shows that the Irish economy continues to grow and is one of the fastest growing in the EU. The growth has resulted in increased footfall, feeding into improved retail sales within the city centre. The economy is expected to continue to grow and the outcome for the future (based on economic trends, retail trends and retail property market trends) is expected to be positive with strong future retail growth in the centre of the city. It concludes that future growth would be curtailed if the transport network cannot support convenient access. It concludes that the overall impact of the proposed changes to the city centre will be positive and should lead to increased numbers of consumers in the city centre and subsequently increased retail opportunities.

The *Dublin City Centre Transport Study 2016* also recognises that the city centre is intensifying as an employment, retail and tourism destination. However, it also states that *'the current transport arrangements for each mode are reaching the limits of their capacity as currently configured within the city centre'*. It identifies problems with the existing system and *'that the timely implementation of the proposals outlined in the transport study are critical to ensure that transport can function effectively and has the capacity to cater for Dublin's future growth'*.

The conclusion reached in both economic reports and the transport study is that the city centre is thriving with high consumer sentiment reflected in higher footfall and increased retail activity. The indicators suggest that notwithstanding access restrictions to the city centre by private car arising from disturbance due to major infrastructural projects such as Luas Cross City, and other traffic management measures including the Bus Gate on College Green, Quality Bus Corridors etc, the economy has remained resilient over the last number of years. However, this growth would be held back if the transport system cannot support convenient access.

The proposed development will introduce significant transport changes to the College Green area and the question is how will these changes impact on this robust economic environment going forward. There are no comparable public realm projects in this country, and accordingly reliance is placed on international experience to determine how public realm interventions and restrictions to central urban cores impact on retail activity. The overwhelming evidence (as documented in the reports) is that interventions, which improve the public environment attract users to the area with significant benefits for retailers. Whilst there may be a period of adjustment, the long-term evidence is that such interventions such as those proposed (pedestrianisation, public realm expansions and re-allocation of road space from private cars to public transport, cycling and walking etc) create more attractive urban spaces resulting in improved footfall and positive impacts on businesses.

Responding to questions from the Inspector regarding the identification of any studies which showed negative impacts, Mr Hamilton stated that in a full review of the literature available, the vast majority found positive or neutral effects. The only cases where negative impacts were identified dated back to the early 1990's in the US. The focus in the assessment was on up to date European experience. Mr Hamilton confirmed that there were no comparable examples in the Irish context that could have been used in the analysis.

During the oral hearing Mr Tom Phillips also questioned the sole use of international evidence and why there was no reference to the report commissioned by Dublin City Council, which he said provided empirical evidence of the negative impact of restricting bus movements on College Green. The report *'Economic Assessment of the Impact of the College Green Bus Corridor'* prepared by CBRE (August 2010) was undertaken to assess the economic impact of the introduction of the College Green bus gate on retail activity in the city centre (Submission No 33).

Dublin City Council introduced the bus corridor initially in July 2009 for a total of 30 hours a week. The report was completed one year later during a period that coincided with the worst decline in economic activity in the State. Whilst it accepted that many city centre retail businesses in Dublin had experienced a significant deterioration in business, it was considered that this was most likely a consequence of the economic downturn;

'*We believe that the decline in trade in the city centre is largely a result of the general decline in economic performance and retail sales activity that has materialised in the Irish economy over the last two year period. Determining the specific extent to which the bus corridor has impacted on trade in the city centre without comprehensive transactional or economic data is therefore impossible considering that its introduction coincided with the biggest decline in economic activity ever experienced in the Irish economy.*

There is now a growing acceptance of the bus corridor and the traffic restrictions that are in place and we believe that the impact on the city centre economy and the retail sector is less significant than when the corridor was initially introduced in 2009. This is borne out in peak and non-peak traffic data analysed'. [30]

Mr Phillips made specific reference to the fluctuation in visitors to the Brown Thomas car park, stating that the report provided empirical evidence that the introduction, of the bus corridor in 2009 resulted in a decline in visitors. He argued that the increase in visitors following its suspension (during Christmas period) and subsequent decline following its re-introduction (after Christmas) provided evidence of the impact on the bus corridor on economic activity in the city centre. Whilst Mr Phillips sought to establish a correlation between use of car parks and the bus gate, Mr Hamilton referred the hearing to Page 39 of the report which states;

'It could be argued that the additional decrease in visitor numbers during the Bus Corridor period had nothing to do with the Bus Corridor and is simply the effect of further deterioration in the economy'.

Whilst the report did acknowledge that the Bus Corridor did have a negative impact on some car parks in the city centre, it was noted in the report that '*shoppers and commuters who travel to the city centre were relatively quick to modify their behaviour and adapt to the new reality.*

The report failed to draw definitive conclusions regarding the impact of the bus gate on car parks in the city centre.

'Establishing what proportion of the decline in trade is attributable to the global and domestic downturn and what proportion, if any, is attributable to the introduction of

[30] Executive Summary CBRE Report.

the bus corridor, which coincided with this economic decline, is not possible without comprehensive transactional evidence'.

I accept that concrete evidence of a link between a decline in economic activity in the city core and the bus corridor has not been established.

I would also draw the Board's attention to the conclusions on international evidence as documented in Section 4.4 of the EY/DKM report;

'International evidence shows that the impact on retail businesses is a common concern when such schemes are proposed. When such schemes have been subjected to detailed examination however these concerns have not been supported by the evidence. Instead the evidence shows that such schemes can be of significant benefit to retailers as they improve the urban environment and attract users to the area who may have previously been deterred due to the perceived lower quality environment. Though there is some evidence of adjustment periods, the long term evidence all points to such schemes being good for business. …As such it shows that the quality of the Dublin City Centre environment, and how it is viewed by its users, will be more important to its success than the ability of users to access it by car'.

Impacts of reduced private car access to city centre.

The impacts of reduced car access to the city centre is raised in many of the submissions. Mr Tom Phillips questioned how it could be concluded that the impacts of the development would be positive, when the evidence from the CBRE report suggests that the removal of cars is driving down the retail health of the city.

The concerns that restrictions on private car access will result in less people entering the city and reduce overall consumer spending is not supported by international research. In the case studies documented in the socio-economic assessment (Appendix G of RFI), which includes cities such as Oxford, Kajaani (Finland), Wolverhampton, Strasburg and Ljubljana (Slovenia) the changes implemented, which included restrictions on private car access, pedestrianisation and public realm improvements did not lead to a reduction in consumer numbers or a fall in trading figures.

The cities experienced improvements in the use of other transport modes, including public transport and higher percentages of pedestrians. This indicated the

consumers' willingness to adapt and that impeding access for private vehicles does not necessarily mean that there will be less people entering the city or that reducing the space available for cars in the City Centre will reduce footfall or retail sales. Whilst I accept that every city is different, there is strong evidence that the effects of pedestrianisation are generally beneficial to the local economy of the area undergoing improvement and that consumers adapt to restrictions on private car access and switch to another mode of transport.

Business opposition to proposals to restrict access to urban centres is also based on the perception that car users account for the majority of consumers and therefore reducing access for private vehicles will result in fewer car users shopping, which in turn will result in a lower turnover. The socio-economic assessment report documents surveys carried out on consumers in areas including London, New Zealand, Portland Oregon and Copenhagen to establish impacts of modal choice on retail activity, frequency of visits etc. While car users tend to spend more per visit, their visits are less frequent. When it came to weekly or monthly expenditure, they lagged behind other transport mode users, particularly walkers and public transport users. These case studies demonstrate that more sustainable transport modes contribute significantly to the economic viability of local shopping areas.

The Dublin City Centre Transport Study (Section 2.4.3) refers to a survey carried out for the NTA by Millward Brown in October 2014, which highlights the importance of public transport to the retail sector. Over 60% of shoppers surveyed had travelled to the city by public transport (compared to 19% by private car) and accounted for more than double the amount of retail spend than car users. Similarly, market research undertaken by Red C in 2016 revealed that public transport modes were the most common used modes for travelling to and from the City Centre (Section 3.4 EY/ DKM report).

Whilst it is understandable that retailers have concerns regarding restrictions on private car usage within the area, the importance of public transport to the retail sector in the city centre has been demonstrated in the assessments carried out to date. The perception amongst retailers that the private car is the most important mode of transport for shoppers and that those who travel into the city centre by car account for the highest average spend, is not borne out in reality. International evidence has shown that the changes made to transport which involved reducing car

access, has been overwhelmingly positive in the majority of cases and in no case have they had more than a temporary negative impact. The CBRE report referred to by Mr Phillips did not definitively conclude that impacts on retail activity in the city core was exclusively related to reduced car access (as reflected in car park usage).

Having regard to the experience in other countries and the lack of evidence to the contrary, it is difficult to conclude that the restriction on private car access would have a negative impact on city centre retail trade. The overwhelming evidence suggests that the proposed development, which will deliver significant public realm improvements, will attractive footfall into the area with benefits for retail and other activity in the city centre.

In conclusion I note the following from the EY/DKM report (Section 4.2);

'Copenhagen, Stockholm, Brussels, Budapest, Istanbul, London, Madrid, Rome Florence Milan and Amsterdam are only some of the cities where it is not possible to drive freely through defined areas. In fact, it is difficult to find a European city comparable to Dublin that has not moved to increasing restrictions on through traffic. People no longer expect to be able to drive through or within centres unimpeded, but they do like to spend time on foot in city centres, enjoying the experience and the retail and cultural opportunities they have to offer. City and transport authorities have found that the available road space is of more value when diverted to users other than cars, with the exception of those cars travelling to essential destinations in the city centre itself, which include car parks which support retail activities'.

Development will increase attractiveness of out of town shopping centres and on-line retail sales.

There is concern among retailers that reduced car access to the city centre will make it less competitive and make out of town shopping centres and on-line shopping more attractive. Questions were raised during the oral hearing regarding the accuracy of footfall figures in the city centre presented in the socio-economic report.

I note that extensions/refurbishments are proposed to some of the out of town shopping centres (Section 2.3.3 of the DKM/EY report). This will improve their retail offer, which coupled with public transport access and the availability of significant car parking will create challenges for the city centre retail environment. During the oral hearing Mr Richard Guniney (CEO Dublin Town) referred to regular consumer

surveys carried out by Dublin Town which identified access as one of the biggest barriers to the city centre.

Research surveys (by Millward Brown, Red C[31]) indicate that the city centre is the most popular shopping destination (compared with Dundrum, Blanchardstown and Liffey Valley). The most common reasons for visiting the city centre is for shopping and social activities and these activities are expected to increase as the economy continues to grow. Whilst car is a well-used mode, more people travel to the city centre by public transport than by car[32].

Access to the City Centre by public transport is therefore vital to support retail activity. The existing public transport system is noted to be at the limit of its capacity and incapable of accommodating increased demand. It is acknowledged in the *Dublin City Centre Transport Study 2016* that without positive intervention increased congestion and longer journey times will become an increasing feature of the City. It is stated (Section 2.1) that *'if growth continues as predicted, by 2023 it is likely that the City's transport network will have to cater for circa 40,000 additional trips coming into the City Centre each day, as well as 15,000 new residents living within the canals, in addition to an expanded retail and tourism market'.* The failure to address the identified deficiencies in the transport network will impact on the reliability and efficiency of public transport system and its ability to cater for predicted growth, which will impact on convenient access to the city centre and its overall attractiveness for shopping and other activities.

The use of the private car to cater for the volume of additional trips required is clearly not an option. On a practical level, the limited city centre road space should be available to maximise the number of people that can be moved and the delivery of the required additional public transport capacity, new cycling corridors and pedestrian/public realm improvements. It is also not an option on the grounds of sustainability and promoting more sustainable modes of transport such as public transport, cycling and walking. By utilising the street space more efficiently as proposed under the scheme, improvements to the public realm are possible, creating a more pleasant environment for both shoppers and other users.

[31] Surveys carried out in support of studies by NTA in 2014 and 2016.
[32] Section 3.5 of EY/DKM report

The importance of quality public realm as a contributor to the competitiveness of the city centre is emphasised in the *Retail Strategy for the Greater Dublin Area*. The value of a good public environment has also been shown to lead to direct benefits to the retail sector (DKM/EY report Section 4.2). The failure to address the current transport issues and provide additional capacity to cater for forecast growth would result in an inefficient and unreliable transport system, further congestion and increased degradation of the urban environment, making it a less attractive place to visit. I accept that this would hold back the City's development and is likely to divert users to other shopping destinations.

Concerns were expressed in the submissions regarding reduced footfall and the health of the city centre. The accuracy of footfall figures presented in Table 1 of Mr Hamilton's submission (Submission No 10) and the potential for double counting was raised by Mr Tom Phillips during the oral hearing. It was his contention that between 2007-2018 the data sheets indicate a decline in footfall and is evidence that in retail terms Dublin city centre is in trouble.

In his response Mr Hamilton stated that while there are some localised upward/downward trends, the overall trend in footfall figures is upwards from 2014. He stood over the accuracy of the figures, stating that they were taken from Dublin Town, a consistent independent source. The data was collected from fixed cameras along key shopping streets and any potential for double counting would be insignificant and at an acceptable level of tolerance. He stated that he could not access more historic data, which Mr Phillips said was available back to 2007. He stated that by not developing the plaza there would be a significant risk to footfall as conditions are currently so poor for pedestrians. He did not envisage that the proposed development would have negative outcomes as suggested by Mr Phillips but that it would be a positive intervention that would generate footfall and create linkages with other areas of the city and become a destination in itself.

Mr Phillips presented figures (Submission No 35A), which he sourced from Data.Gov.ie. These data sets (2007-2018) are from 5 no. cameras at O'Connell Street, Grafton St and Henry Street and do indicate a general downward trend. There are gaps in the data sets for a period of nearly two years (2014-2016). In response Mr Hamilton confirmed that there are now 13 no. cameras in fixed positions which gives a better overall picture. I note that a similarly short period was

used by EY and DKM in their report which noted) that *'while data collection had been ongoing since 2007, the locations of cameras have moved during the years meaning that it is not possible to get a consistent data series for the entire period to analyse'.* [33]

I accept that the number of people visiting the city centre is a good indicator of the health of the retail sector and that fluctuations in the economy will cause upward and downward trends in footfall. I accept that concentrating on the last number of years will produce evident of improved footfall, arising from increased economic activity, consumer confidence etc., which was not apparent during previous years, which coincided with the economic recession. Based on macro-economic indicators it is predicted that this upward trend will continue. How this impacts on the city centre will undoubtedly be influenced by both ease of access and the overall attractiveness of the city centre as a shopping location. I accept that in the absence of intervention to improve both these factors the city centre is likely to face significant challenges to compete with out of town shopping destinations. I also accept that the increasing trend in on-line shopping poses a significant threat to retail activity generally, including the city centre.

Measures are required to ensure that the city centre remains competitive and this will include improvements to the public realm to make the area more attractive as both a shopping destination and a place of social interaction. I accept that the proposed development will provide renewed focus on this important urban space which will not be dominated by traffic and visual clutter. This may help to counteract the potential attractiveness of out of town shopping centres and on-line retail activity.

Socio-economic impacts of proposed changes to bus and taxi movement

The impact of proposed changes in access to the city centre by buses and taxi, was also raised in the submissions. Taxi will be subject to the same restrictions as other vehicles travelling east-west/west-east through College Green. However, they will have close access to the plaza area along the north-south public transport to the east and via the turning area. Taxis will also be able to turn left on Wellington Quay and use Parliament Street to access South Great Georges Street and the Grafton Street quarter. Whilst this is likely to impact on overall journey times, it is

[33] Page 12 of EY and DKM report.

considerable acceptable in the context of the benefit of the proposal to the city centre as a whole.

As outlined in previous sections of this report, the most significant traffic change will arise from the diversion of buses to areas that are further removed from College Green. A significant number of buses will be re-routed to the Quays, resulting in a significant increase in pedestrians in this area. It has not been demonstrated how the bus system will operate under these altered conditions, how additional bus stops will be provided along the Quays and the impact on walk time. Furthermore, it has not been established whether the existing footpaths, which are inadequate to cater for existing flows at peak times will cater for significant increases.

The bus is identified as the most popular mode of transport into the city centre for shopping and other social activity. The attractiveness of bus transport must therefore be maintained to support and sustain the economic viability of the city centre. Whilst I accept that the proposals will result in a reduction in the number of bus routes with direct access to College Green, based on the evidence provided by Mr O Brien, I consider that a reasonably high level of service will be maintained, supported by improvements along the north-south corridor, direct access via the turning area and by the high frequency service on South Great Georges Street etc.

My concern is that the attractiveness of bus transport may be eroded if the pedestrian environment is not capable of accommodating existing and future growth in passenger numbers embarking/disembarking on the Quays. Limited footpath capacity would increase pedestrian discomfort and may act as a deterrent for people wishing to travel to the city for non-essential purposes. This could have significant consequences for the economic viability of the city centre and would have the potential to make out of town centres more attractive. It has not been demonstrated how this impact could be effectively mitigated.

I would again draw the attention of the Board to the concerns raised by Mr O Connor regarding the reliability of the traffic modelling exercise and the potential for congestion levels that are higher than predicted which would significant impact on bus operations within the city centre.

Concerns were expressed that the re-routing of buses would impact on disadvantaged communities. In response Mr Hamilton stated that the use of different

modes of transport by different socio-economic groups was not a relevant consideration in the assessment. He did not accept that socio-economic inequalities would arise, noting that access to the city centre would not be made more difficult as a result of the proposal. I would point out to the Board that the bus routes and the frequency of service on each route is dictated by demand and is the responsibility of the NTA.

No analysis of socio-economic impacts on local businesses during construction.

The matter of impacts on business etc, during the construction phase was raised by Mr O'Donnell, which he noted was absent from the EIAR. I note that there is limited discussion of the impacts on material assets in Section 15.4.1 and Section 15.5.1 (Mitigation measures) and that the socio-economic assessment report understandably focusses on conditions with the development in place.

During the construction period, access to individual premises will be maintained and loading/unloading operations will be facilitated. Whilst this will allow businesses to function, I accept that the overall attractiveness of the area will deteriorate arising from the construction effort. Potentially, convenience of access may also be reduced, with the potential to impact on economic activity.

Whilst this phase of the development will inconvenience both business owners and the general public, it will be temporary in nature and consequently the impacts are more acceptable. The types of impacts that will occur are an inevitable part of any construction activity that will occur in the city centre area. I note that despite the significant disruption associated with Luas Cross City, retailers within College Green have expressed their support for the proposal. I accept that active and continuous liaison with businesses will be required to mitigate impacts.

Notwithstanding the impacts, which I accept will be significant during the duration of the works, having regard to the mitigation measures proposed and the overall benefit of the completed project to the College Green area and the city generally, I consider these impacts are acceptable.

CONCLUSION

- The analysis of key macro-economic indicators (recent reports documented above) indicates that Dublin is a robust and vibrant growing economy with increased consumer confidence and rising economic activity and retail sales. The indicators suggest that this growth will continue going forward with expansion in population, employment, increased retail investment etc. These economic conditions will have a significant impact on future transport demand and the system needs to be able to cope with this.
- The transport plans for the city centre recognise that this growth will be curtailed going forward if the transport network cannot support convenient access to the city centre. The current transport arrangements for each mode are noted to be reaching the limits of their capacity as currently configured within the city centre. It is recognised that better utilisation of the existing infrastructure available will be required to cater for increased demand going forward and modal shift away from private car usage towards public transport, walking and cycling.
- There are concerns within the business community that the changes proposed including reduced private car access will negatively impact on trade within the city centre area. From the documented research it has been shown that these concerns are not uncommon when such schemes are proposed. The research evidence presented suggests that improvements to the urban environment including restrictions on private car access make it more attractive to shoppers leading to higher retail sales. The contention that the development would give rise to negative outcomes for retail and commercial activity are not substantiated.
- Bus transport remains the main form of access to the city centre for shopping and other activities and it is imperative that it retains its attractiveness to ensure that the economic viability of the city centre is maintained. Notwithstanding the restriction on direct access to College Green, I consider that a reasonable level of service is maintained in close proximity. However, I note the issues raised regarding the adequacy of the traffic modelling which presents significant uncertainty regarding the potential for increased congestion affecting bus performance. I also have concerns that the

attractiveness of bus transport may be reduced if pedestrian infrastructure is not adequate to accommodate increased flows along the Quays.

- With regard to improvements to public realm, whilst I accept that each city is unique and that direct parallels cannot be drawn between different centres, based on international experience it is expected that enhancement of the public realm and the pedestrianisation of the College Green area will improve the ambience of the city core, making it a more attractive shopping destination.

8.10. Archaeology, Architectural & Cultural Heritage

Environmental Impact Assessment Report

The relevant sections of the EIAR are Chapter 10, Appendix 12.2 (Historical Setting of Area) and Section 2.02 (Historical Context) of the Design Report.

The site is located within the Zone of Archaeological Potential for the historic centre of Dublin City (DU018-020). It is located c. 270m outside the Medieval walls and there are no recorded monuments within the site. Recorded monuments within 150m of the site are shown on Fig 10.1

There are a number of Protected Structures immediate to the site, the most impressive being Trinity College and the former Houses of Parliament (now Bank of Ireland). The Record of Protected Structures includes most buildings in College Green, Dame Street and Grafton Street, along with others in surrounding streets. It also includes the statues of Thomas Moore on College Street, the Henry Grattan monument on College Green and the statues of Oliver Goldsmith and Edmund Burke within the grounds of Trinity College. The Protected Structures fronting onto the proposed development are listed in Table 10.2 of the EIAR.

Sections of the site lie within the following Architectural Conservation Areas (ACA);

- O' Connell Street ACA, which includes Westmorland Street/College Street.
- South City Retail Quarter ACA crosses over Suffolk Street to include the frontage of College Green to the east of Church Lane as well as the south-eastern side of St Andrew Street.

- Grafton Street & Environs ACA, which includes the eastern side of Grafton St at its northern end.

The entire site is located within a Conservation Area.

It is noted in Section 10.4.8.3 of the EIAR that none of the streets that form part of the proposed project are listed in Appendix 7 of the development plan (*'Stone Setts to be retained, restored or introduced'*..) It is also noted that the plan lists locations where there are *'paved areas'* (Appendix 8.1) and *'paved areas and streets with granite kerbing' ..to be retained, restored* ...(Appendix 8.2). College Green (Trinity College and Bank of Ireland) are included in Appendix 8.1.

With regard to impacts on the archaeological resource, it is recognised in the EIAR that although the area has been subject to development since the 1650's and has been subject to moderate disturbance, it is possible that archaeological features or deposits may survive beneath the current ground level. This is particularly the case in the eastern part of the site where later medieval burials were found at a significant depth as part of the Luas Cross City project. It is possible, therefore, that the groundworks associated with the development may have a significant or profound negative impact on features of archaeological significance that may exist below ground level.

With regard to architecture, the proposed works would require some revisions to the street furniture including paving and lamp standards as well as works to the statues in College Green. There is an historic footpath to the front of Bank of Ireland, which is described as one of the most significant elements of street furniture in the area. The granite paving in this area will not be directly impacted by the development, except that new paving will be provided across the end of College Green, between the northern and southern sides of the street across from the bank to the northern end of Grafton Street. The granite flagstones and diorite setts on Foster Place will be lifted and re-laid and the more recent projecting islands will be removed.

The traffic islands and lamp standards on College Green will be removed. While the traffic island includes historic granite kerbing and paving, these elements were brought from elsewhere during the 20th century when the traffic island was installed. The historic Scotch Standard street lights will be removed. These are early 20th century but were not installed in College Green until the 1960's at the earliest. The

statues of Henry Grattan and Thomas Davis and the Thomas Davis plaque will be relocated but retained within College Green. The Henry Grattan statue will be moved slightly to the east to align with the axis of the plaza and the lamps associated with the statue will be retained. The Thomas Davis statue, its fountain and plinth will be relocated to the proposed turning area. The assemblage will be reversed so as to face westwards. Trees will be planted towards the southern side of College Green, which will obscure the facades of the protected structures in this location.

To ensure impacts on archaeology will be mitigated, all ground works will be subject to continuous monitoring. A suitably qualified archaeologist will be appointed as part of the design team to monitor and advise on potential impacts.

With regards to the architectural resource, all mitigation measures will be undertaken in accordance with best conservation practice and the Architectural Heritage Protection Guidelines for Planning Authorities (DAHG,2011) and under the supervision of a Conservation Architect. The historic paving at the front of Bank of Ireland will be protected from damage during the works and additional paving will be provided adjacent to existing as required and in accordance with relevant guidance. The lamp standards on College Green will be removed and put into storage for potential use elsewhere. The statues and plaque will be lifted and relocated within College Green. These works will take place in accordance with a conservation method statement.

Following the implementation of the mitigation measures it is concluded that there will be no impacts on the archaeological resource. It is concluded that impacts on the architectural resource will be positive removing traffic from College Green and allowing it to become a high quality urban space with the surrounding buildings and memorials, all of which are of architectural heritage significance, to become an integral part of that space.

Policy Context

Chapter 11 of the development plan (Built Heritage and Culture) recognises the significant contribution of built heritage to the city's identity. It is the policy of Dublin City Council '*To seek the preservation of the built heritage of the city that makes a positive contribution to the character, appearance and quality of the local streetscape and the sustainable development of the city'* (Policy CHC1).

Section 11.1.5.3 refers to Protected Structures. Policy CHC2 seeks to ensure that the special interest of protected structures is protected.

Section 11.1.5.4 refers to Architectural Conservation Areas & Conservation Areas. Policy CHC4 seeks to protect the special interests and character of all Dublin's Conservation Areas. Policy CHC5 seeks to protect Protected Structures and preserve the character and setting of Architectural Conservation Areas.

Section 11.1.5.13 refers to preservation of Zones of Archaeological Interest. Relevant policies include Policy CHC9 – To protect and preserve National Monuments.

Section 11.1.5.16 refers to the Dublin City Heritage Plan. Policy CHC15 seeks to preserve, repair and retain in situ, historic elements of significance in the public realm including…street furniture and historic kerbing and setts identified in Appendix 7 and 8 and promote high standards of design, materials and workmanship in public realm improvements. Works involving such elements shall be carried out in accordance with the Department of Arts Heritage and the Gaeltacht Advice Series: Paving, the Conservation of Historic Ground Surfaces.

Relevant Appendices include the following: -

- Stone Setts to be Retained, Restored or introduced (Appendix 7).
- Paved Areas and Streets with Granite Kerbing (Appendix 8)

The Record of Protected Structures is contained in Volume 4 of the Plan.

Issues raised during the course of the application and the oral hearing

The issues raised in relation to archaeology, architectural and cultural heritage relate to the following;

- Impacts on archaeological resource.
- Impacts on historic buildings in Parliament Street.
- Impacts on views of City Hall.

Assessment

The following provides an assessment of the issues raised in the submissions and during the oral hearing. Cross-questioning took place on Day 12.

Impacts on archaeological resource.

There were no issues raised regarding impacts on archaeology in the observations received by the Board. During the oral hearing Mr Michael O'Donnell SC questioned the potential for impacts on sub-surface archaeology during the construction stage. Reference was made to skeletal remains uncovered outside the gates of Trinity College during the works associated with Luas Cross City, which were ascribed to the Viking period. He queried whether any archaeological investigation had been carried out on the subject site which was located within the area previously known as '*Hoggen Green'* and thought to have contained a number of Viking burial mounds.

In response DCC noted that this area has been heavily disturbed. It has been paved before and dug up for services and accordingly archaeological assessment was not considered necessary. The majority of the works would involve excavation of road surface and sub-grade down to a level of 0.5m, which would not extend as deep as archaeological layers. There would be a tank associated with the proposed fountain that would necessitate a deeper excavation (2m) and it is possible that archaeological material could be discovered.

Having regard to the limited size of the tank (Dwg No 1721/PA/106A), and the mitigation measures proposed, which include archaeological monitoring during construction in accordance with established practice, I accept that impacts are not likely to be significant.

Impacts on historic buildings in Parliament Street

Mr O'Donnell noted that most of the buildings in Parliament Street were protected structures and that indirect effects arising from traffic should have been considered in the architectural assessment. This view was not shared by Mr Rob Goodbody (DCC), who stated that Parliament Street could not have the significance attributed to it set out in the submissions, noting that it was laid out as a thoroughfare and was not designed as an architectural set piece. He considered that the buildings were generally 'unremarkable' and bore no comparison to the architectural and historic significance of College Green. In his submission Mr Des Mahon (for residents/businesses on Parliament Street) considered that Parliament Street is the most important street in the urban history of Dublin (Submission No 25).

The EIAR does not specifically refer to Parliament Street in the context of built heritage, as it is located outside the application site. I note that the majority of the buildings on both sides of the street are listed in the Record of Protected Structures (Volume 4 of the Plan). In some cases, this includes the entire building and in other cases protection is reserved to the upper floors.

The proposed development will not result in any works that would directly impact on the protected buildings on Parliament Street. The issues raised in the submissions relate to the potential for impacts on the buildings of historical significance arising from increases in atmospheric pollutants and vibration due to the re-routing of additional buses down the street.

I accept that over time increased emissions from traffic has the potential to impact on both the appearance and fabric of protected structures. These impacts may be minor such as soiling of the building to a more gradual destruction of building fabric arising from acid rain. I also accept that in order to reduce Ireland's carbon emissions, avoid EU fines etc., there will be increased pressure to provide improved engine/fuel technologies including electric, hybrid vehicles which due to reduced emissions, will mitigate impacts on protected structures.

Under the proposed scheme there will be a restriction on general traffic on Parliament Street between 07.00- 19.00 hours, but the street will accommodate a larger number of buses. In its submission, the NTA states that it has funded the provision of 300 buses (representing one-third of the fleet) equipped with Euro VI and that it is intended that the entire fleet will gradually be replaced with lower emission vehicles. These buses have significantly lower emissions than other bus diesel engines. I accept that the replacement of the existing bus fleet with lower emission vehicles will reduce the potential for negative impacts on protected structures going forward.

Impacts on views of City Hall

City Hall, commands a prominent position on Dame Street/Cork Hill overlooking Parliament Street to the north. It is best appreciated from Parliament Street where it closes the vista on the south side of the street. It was originally known as the Royal Exchange and is a fine example of Georgian Architecture. It is identified in the

development plan as a landmark building within the historic core of the City Centre (Fig 17).

It is the policy of the plan (Policy SC7*) 'to protect and enhance important views and view corridors into, out of and within the city, and to protect existing landmarks and their prominence'.* Fig 4 of the Plan *Key Views and Prospects* (Indicative) indicates that views from City Hall eastwards along Dame Street towards Trinity College and southwards up Parliament Street are to be protected.

No works are proposed which would interfere with existing views of the building from Parliament Street. Whilst concerns have been raised regarding impacts on the building arising from the increased number of buses using the street, I am mindful of the elevated position of the building and its scale and proportions relative to its surroundings. Having observed bus traffic, both operating in the street and stationary close to the junction with Dame Street, I do not consider that increased bus traffic will interfere with the overall appreciation of the building and views from Parliament Street/Capel Street as contended. I also accept that regard must be had to its urban context, its traditional role as a street in the centre of the city where public transport has and will continue to be accommodated.

The proposal will result in the removal of significant clutter on College Green, including the traffic island and trees, bicycle stands etc. This will open up views and improve the vista from City Hall eastwards towards Trinity College, the overall impact of which will be positive.

Summary & Conclusion

I accept that the construction phase of the development has the potential to impact on subsurface archaeology. However, the development will involve limited excavation on previously disturbed ground. Subject to the monitoring of all ground works associated with construction, in accordance with standard practice and the appointment of a suitably qualified archaeologist, I accept that potential impacts can be effectively mitigated.

There will be no direct impacts on any building of architectural significance during construction. Existing street furniture including statues, monuments and paving will be removed and reinstated in accordance with best conservation practice, or,

alternatively preserved in situ. I accept that the impacts, which have been identified can be effectively mitigated and that there will be no residual impacts arising.

I accept that during the operational stages increased emissions from traffic has the potential to impact on protected structures. The restriction on general traffic in the vicinity of College Green/Parliament Street and the gradual replacement of the existing bus fleet with more environmentally friendly options will gradually mitigate these effects.

Having regard to the scale, prominence and elevated position of City Hall relative to its surroundings, I do not accept that increased bus traffic on Parliament Street will impact on its visual qualities or views of the building from the street and surrounding areas. Furthermore, I do not consider that the proposed development would significantly damage the character of Parliament Street or the surrounding area.

I consider that the proposal accords with the policies/objectives of the development plan regarding the protection of the archaeological, architectural and cultural resource. I consider that the proposal will deliver a high quality urban space free of traffic and visual clutter, that will allow this historic area and its surrounding buildings to be more fully appreciated. I consider that in terms of architectural and cultural heritage the overall impact of the development is positive.

8.11. Air Quality & Climatic Factors

Environmental Impact Assessment Report

The relevant section of the EIAR is Chapter 7, which assesses the air quality and climate impact associated with both the construction and operational stage of the proposed development.

The construction stage will involve earthworks (excavation, haulage, tipping and stockpiling), construction (installation of paving material etc.) and trackout with the potential for dust emissions. Using the assessment criteria outlined in the EIAR, the risks of dust impacts as a result of the proposed development are assessed as medium (Table 7.23 of the EIAR). The impacts on climate arising from construction are accessed as negligible.

The ADMS-Roads dispersion model, developed by the Cambridge Environmental Research Consultants (CERC) and approved by the EPA was used to assess the impact of the proposed scheme on air quality in Dublin City Centre, with a particular focus on Parliament Street. It was used to model road traffic emissions and predict the ground level concentrations of nitrogen dioxide and PM_{10} and $PM_{2.5}$ for 2012 (base year) and the proposed opening year of 2018 and 2035 for both the Do Minimum (DM) and Do Something (DS) scenarios[34].

The modelling methodology is described in Section 7.2.5 of the EIAR. The model was validated against Dublin City Centre monitoring data for 2012 and the validation study found that good agreement was achieved between the observed and modelled data. The validation study was undertaken based on traffic data from the study area from the SATURN model for 2012.

The study area is shown in Fig 7.2 and includes the most significantly impacted roads. The road network extends to High Street to the west, the North Quays to the north, Dame Street to the south and College Green to the east. Parliament Street and Winetavern Street are expected to experience large increases in the number of buses as a result of the proposed development. More detailed modelling is provided at these locations.

Annual reports on air monitoring are produced by the EPA and the report published in 2016[35] is used in the EIAR. As part of the Air Quality Framework Directive (1996/62/EC) Dublin city is categorised as Zone A for air quality management and assessment purposes. It has three urban monitoring stations at Rathmines (urban background), Winetavern Street (urban traffic) and Coleraine St (urban traffic).

The EIAR provides a summary of background concentrations of pollutants NO_2 and PM_{10} over the period 2010-2015 from the three monitoring stations (Tables 7.6 and 7.7). Figure 7.4, which is based on a three year rolling average over the period

[34] DM-represents movement across the city as it currently exists, taking into account developments with approved planning permissions as well as projects committed to be implemented prior to the proposed project. It includes the continuation of east-west through traffic at College Green during the weekends and public transport access only from Monday-Friday. It does not include the plaza at College Green.
DS -there are two representative 'do-something' scenarios, one where the proposed project has been implemented as well as other planned projects outlined in the DM scenario to 2018 and the second where the Dublin City Centre Transport Study has been implemented in totality. It includes the proposed project as well as 'other planned projects'. It includes the plaza at College Green.
[35] Air Quality Monitoring Annual Report 2015 (EPA, 2016)

2010-2015, indicates that ambient NO_2 levels have been slowly decreasing at the three stations, which is stated to be attributed to a combination of improvements in engine technology, vehicle turnover and possible changes in traffic levels. The long-term data at Winetavern Street (urban traffic) shows a downward trend in PM_{10} concentrations.

The 2012 validation study found that annual mean concentrations of NO_2 are above the ambient air quality standard along busy roads within the study area including the North and South Quays, O'Connell Bridge, College Green, D'Olier Street and Dame Street /Lord Edward Street. There are also exceedances of the short-term limit value. Levels along Parliament Street are also above the annual mean peaking at approximately 50 µg/m3 at the junctions, and Winetavern Street remains in compliance with air quality standards. In relation to PM_{10} and $PM_{2.5}$ all levels were in compliance with the ambient air quality standards.

Modelling for NO_2, PM_{1O} and PM $_{2.5}$ was conducted for the Do Minimum and Do Something scenarios for both 2018 and 2035. Each scenario is based on the traffic data from NTA traffic model (2018 and 2035). Modelling was undertaken using 2018 and 2030 emission factors (the upper limit of the emissions factor database) and based on meteorological data from Dublin Airport for 2011-2015. In each scenario each year was modelled using the relevant emission factors, giving the highest modelled results. An average speed of 15km/hr was selected for the study area.

Do Minimum Scenarios

In terms of what is predicted going forward in the absence of the proposed civic plaza, the modelling indicates that in the Do Minimum Scenario 2018 (Fig 7.9), peak concentrations of NO_2 will occur along the North Quays and along D'Olier Street, College Street and College Green. Roadside levels are above the EU annual mean ambient air quality standard for NO_2 (40 µg/m3) peaking at 91µg/m3 at the ground level façade of the buildings (67 µg/m3 at first floor level) near the junction of College Street and College Green. Along Parliament Street, there are localised peaks at the Dame Street and Wellington Quay junctions, with maximum levels peaking at 38 µg/m3 at ground floor level (I µg/m3 lower at first floor level) and in compliance with the limit values. The Winetavern Street station is predicted to record a level of

approximately 22 µg/m3 in compliance with the NO_2 annual mean air quality standard.

It is also predicted that the NO_2 short-term ambient air quality standard (200 µg/m3) will be exceeded at the façade near the junction of College Green and College Street at both ground and first floor levels. Although localised peaks will occur along Parliament Street at the junction of Dame Street and Wellington Quay (115 µg/m3), the modelling indicates that the short term limit value ($99.8^{th\%}$ile of one hour means) will not be exceeded. Winetavern Street will also remain in compliance with the short term ambient air quality standard.

By 2035, in the Do Minimum modelling scenario without the civic plaza in place, it is predicted that peak concentrations of NO_2 will also occur along the North Quays, Lord Edward Street/Dame Street and D'Olier Street/College Street/ College Green, (Figure 7.13 and Table 7.14). Roadside levels are below the EU annual mean ambient air quality standard for NO_2, peaking at approximately 29 µg/m3 at the façade of buildings along Ormond Quay Lower. Along Parliament Street there will be peak concentrations at the Dame Street and Wellington Quay junctions (25 µg/m3). Compared to 2018 levels there will be a significant decrease at the worst case facades in the ambient annual limit values and on the short terms limit value.

The results of PM_{10} and $PM_{2.5}$ modelling in 2018 (Tables 7.9 & 7.10) indicates that all locations will be in compliance with the ambient air quality standard. Peak concentrations will occur along the North Quay, D'Olier Street and College Green. The short term PM_{10} concentrations are also all below the limit value (50 µg/m3), with the highest concentration again occurring along the North Quay, D'Olier Street and College Green. Levels of $PM_{2.5}$ in both Winetavern Street and Parliament Street are predicted to be well below the ambient air quality limit value of 25 µg/m3.

The results of the PM_{10} and PM $_{2.5}$ modelling in 2035 indicate that all locations will be in compliance with the ambient air quality standards. Compared to 2018 levels, the ambient levels of PM_{10} at the worst case facades in the study area will marginally increase and remain largely unchanged along Parliament Street. Levels of PM 2.5 are essentially unchanged from the 2018 level.

Do Something Scenarios

In the Do Something Scenario for 2018 (with the proposed development in place) peak concentrations occur along the North Quays/D'Olier Street/College Street/ Grafton Street. Exceedances of the annual mean ambient air quality standard for NO_2 remain, peaking at the façade of the buildings along College Street. Localised peaks are still apparent at the Dame Street and Wellington Quay junctions on Parliament Street (37.6 µg/m3) but both Parliament Street and Winetavern Street remain in compliance with the annual mean ambient air quality standard. With regard to the short-term limit value (99.8th%ile of one hour means) levels approach the ambient limit value of 200 µg/m3 with levels peaking at the façade along College Street (195 µg/m3). Along Parliament Street, localised peaks remain apparent at the Dame Street and Wellington Quay junctions. Winetavern Street will remain in compliance.

Compared to 2018 DM levels, the ambient DS levels of NO_2 in 2018 levels at the worst case façade decrease significantly by up to 55% of the annual limit value and by 31% of the short term limit value. Compared to 2018 DM levels the ambient DS levels of NO_2 along Parliament Street show some small changes (both increasing and decreasing) of the order of 2% of the ambient annual limit value and by 10% of the short-term limit value.

In the Do Something scenario for 2035, peak concentrations of NO_2 occur along the North Quays, D'Olier Street/College Street and Dame Street/Lord Edward Street. Roadside levels are below the EU annual mean ambient air quality standard for NO_2. Along Parliament Street there are localised peaks at the Dame Street/ Wellington Quay junctions with maximum levels of 24µg/m3. Winetavern Street station will remain in compliant with the annual mean ambient air quality standard.

In relation to the short-term limit the maximum predicted level for the DS scenario in 2035 is below the ambient limit value of 200 µg/m3. Levels are predicted to peak at approximately 106 µg/m3 at the façade along Ormond Quay Lower. Both Parliament Street and Winetavern Street will remain in compliance.

Compared to the DM 2035 levels, the ambient levels of NO_2 in 2035 at the worst case facades in the study area have increased slightly by up to 2% of the ambient annual limit value and by 1% of the short term limit values. Compared to 2035 DM

levels, the ambient DS levels of NO_2 in 2035 along Parliament Street have remained essentially unchanged.

Modelling of the Do Something (DS) scenario for PM_{10}/$PM_{2.5}$ in both 2018 and 2035, confirms that compliance with the air quality standard is maintained for all years and scenarios and that the impact of the proposed development on the level of PM_{10}/$PM_{2.5}$ in the study area is negligible. Compared to the 2018 DM levels, the ambient level of PM_{10} along Parliament Street in the DS scenario has decreased slightly by up to 3% of the annual mean ambient limit value. Levels of $PM_{2.5}$ for the DC scenario are generally lower than the DM scenario.

Comparing the DS 2035 with the DM 2035, the ambient levels of PM_{10} along Parliament Street have increased slightly by up to 1% with all levels less than 73% of the ambient limit values. Levels of $PM_{2.5}$ are less than 47% of the ambient annual limit value and are essentially unchanged compared to the DM scenario.

The EIAR then compares the modelling for both the DM and DS scenarios for both 2018 and 2035 and examines the significance of the changes in the concentration of annual mean NO_2 on the ground and first levels of the 1149 buildings identified. In terms of sensitive receptors (such as residential units, crèche, care homes, schools, hospitals etc), none are identified at ground level along the specific ‘hot-spots’ of the North Quays, D’Olier St, College St and Lord Edward Street.

It is predicted in the 2018 scenario that while the proposed project will result in both increases and decreases in long term levels of NO_2 at building facades at both ground and first floor building facades, the scheme would be overall beneficial in terms of annual mean NO_2 concentration (Tables 7.30 & 7.31). By 2035 the proposed project will remain overall beneficial in terms of annual mean NO_2 concentration (Table 7.32 & 7.33).

It was determined having reviewed the significance of the proposed project at the worst case building facades on a year-by year basis from 2018 onwards that there would be no exceedance of the NO_2 annual mean quality standard at all first floor facades by 2022 and by 2024 for ground floor facades (Table 7.34). The improvements in ambient air quality in future years are attributed to improvements in engine technology and the replacement of more polluting vehicles.

In terms of PM_{10}, comparison of the DS and DM scenarios indicates that all receptors will either have a negligible or slightly beneficial impact. For $PM_{2.5}$ it is indicated that the impact of the development in both the opening year and in 2035 will be negligible.

Mitigation

Mitigation measures to ameliorate the likely impacts on climate and air quality associated with the construction and operational stages of the development are set out in Section 7.5. During construction good work practices will be implemented to prevent migration of dust. Measures to mitigate impacts on air quality during the operational phase of the development will include the use of alternative engine technologies and fuel to reduce traffic derived pollutants.

In terms of residual impacts, it is concluded that the construction stage of the proposed project will have no residual impacts on climate and a negligible impact on air quality.

With regard to the operational phase, there will be no impacts of significance on climate. The EIAR concludes that the proposed project will be beneficial overall in the study area. By 2035, all ground and first floor facades will have ambient air quality in compliance with the ambient air quality standards. In relation to 2018, the proposed project will improve air quality at significantly more receptors relative to the number of receptors which deteriorate in air quality. There will be a period between opening year and 2022 during which a number of first floor facades are likely to remain above the annual mean NO_2 ambient air quality standard and between opening year and 2024, during which some ground floor facades are likely to be in excess of the annual mean NO_2 ambient air quality standard. In the absence of the proposed project, the impact on existing ground floor and first-floor facades will be greater, with a higher number of receptors experiencing air quality in excess of the annual mean NO_2 limit value for a period of time.

Policy/Guidance

A significant body of European and National climate change policy exists which pursues a common goal to reduce greenhouse gas emissions and a transition to low carbon economies, with reduced dependence on fossil fuels and greater reliance on renewables. The Government White Paper, *'Ireland's Transition to a Low Carbon*

Energy Future 2015-2030', recognises the radical transformation that is required across all sectors, including the transport sector to achieve binding targets. It sets out policies and measures to achieve this including the promotion of modal shift to more sustainable forms of transport and the use of alternative vehicle fuels and technologies.

Ireland's Environment-An Assessment (EPA, 2016) notes that while Ireland's air quality is good, maintaining the standard is a growing challenge. It states that in urban areas such as Cork and Dublin, levels of nitrogen dioxide are close to specified EU limit values. Transport is identified as a significant contributor to Ireland's greenhouse gas emissions and that pollutants released from transport are a key public health issue. It recognises that tackling transport sector pollutants will require a combination of secured national investment, advancements in technology, policy developments and more importantly a shift in behaviour where viable alternatives are provided.

The recently published *Project Ireland 2040 –National Planning* Framework identifies a number of National Strategic Outcomes including Sustainable Mobility;

'In line with Ireland's Climate Change mitigation plan, we need to progressively electrify our mobility systems moving away from polluting and carbon intensive propulsion systems to new technologies such as electric vehicles and introduction of electric and hybrid traction systems for pubic transport fleets, such that by 2040 our cities and towns will enjoy a cleaner, quieter environment free of combustion engine driven transport system.

The *Dublin Regional Air Quality Management Plan 1999* was primarily directed at protecting air quality in the region and to ensure that measured levels of pollutant concentrations complied with air quality target values. It sets out a number of policies and strategies to improve air quality. Policy 6 sought to encourage a modal change from private car use towards other modes of travel and the strategies to implement this policy included promotion and encouragement of cycling/walking and to encourage the use of public transport (light rail and QBC etc). Policy 7 states that local authorities *will 'manage and control traffic flows within their functional areas to reduce congestion and queuing time at road junctions and in urban areas, thereby*

improving air quality at these locations'. One of the strategies to help implement Policy 7 included the introduction of traffic management strategies as a means to prevent a further deterioration in air quality at traffic 'hot spots'.

The updated *Regional Air Quality Management Plan 2009-2012* identified emissions from the transport sector as the main challenge to future air quality, with NO_2 and PM_{1O} identified as the two pollutants of most concern. It is acknowledged in the Plan that sustained efforts are required to protect air quality and it sets out a number of strategies to achieve this, similar to those identified in the 1999 plan.

Issues raised during the course of the application and the oral hearing

The issues relate primarily to potential impacts on air quality arising from construction and from the re-routing of additional buses down Parliament Street. During the oral hearing issues were raised regarding the accuracy of air quality modelling and the degree to which it can be relied upon to predict future pollutant concentrations, particularly on Parliament Street. It is also contended that the use of more environmentally friendly buses to ameliorate impacts cannot be enforced under the current application.

Assessment

The following provides an assessment of the of the issues raised in the submissions and during the oral hearing.

Construction activities have the potential to generate dust emissions, which in the absence of appropriate mitigation could impact on the local environment and sensitive receptors. As noted in preceding sections of the report, a series of measures will be implemented to prevent the migration of dust from both the site and from vehicles transporting materials on/off site. These measures are standard practice on construction sites and include the placement of hoarding around the site, covering of vehicles transporting materials, careful stockpiling of material, implementation of road cleaning systems etc. The measures will be incorporated in the Construction and Environmental Management Plan to be implemented by the developer.

Having regard to the limited scale of the development, the temporary nature of the works and the mitigation measures proposed, I consider that the construction phase of the development can be effectively managed without giving rise to significant

emissions to air which would result in significant adverse effects on air quality or climate.

The impacts of the operational stage of the development and traffic related emissions on air quality in Parliament Street, in particular, were raised in a number of submissions and during the oral hearing. In addition to the material contained in the EIAR, I would also draw the attention of the Board to the air quality modelling report by Jacobs, which supports the NTA's submission of 21st February 2018, to the AWN Consulting submission to the oral hearing (Submission No 7B) on behalf of Dublin City Council, and to the material submitted by Dr Imelda Shanahan on behalf of the residents and businesses on Parliament Street (Submission No 25A, 25B, 25C & 25D). Ms Whyte summarised Dublin City Council's position (Submission No 7) and cross-questioning on this matter took place on Day 12.

Arising from the development Parliament Street will become a public transport route (restricted to buses and taxis) between 07.00 to 19.00 Monday-Friday. Traffic will be one-way (southbound) and there will be an increase in the number buses using the street. In its various submissions to the Board, the NTA outlined its support for two-way bus movement on Parliament Street, subject to a limit in the number of buses using the street and full adherence to air quality limits. Dublin Bus also supports two-way buses on the street.

The Board will be aware from previous sections of this report that while two-way bus movement on Parliament Street was originally considered as part of the proposal for the development of College Green, it was ruled out by Dublin City Council due to predicted exceedance of the air quality standards. The air modelling carried out as part of the EIAR is therefore based on one-way bus traffic and the results suggest that the project will be beneficial overall in terms of annual mean NO_2 concentrations in the study area.

The NTA consider that Dublin City Council have taken a cautious and conservative approach to the air quality assessment (based on average bus fleet composition). It conducted modelling using the same air quality model used in the EIAR (and based on 53 buses in the northbound direction and 77 in a southbound direction in the morning peak) to recalculate the NO_2 levels on Parliament Street if all the buses (Dublin Bus) were powered with Euro VI engines. The results showed no

exceedance of the EU 40 µg /m3 limit. It also conducted a second modelling exercise to calculate the levels in the number of buses doubled (106 northbound and 154 southbound) and showed that with the use of Euro VI engines that NO_2 levels remained below the EU limit.

The NTA, therefore, concludes that Parliament Street is suitable for two-way bus movement, without exceedance of air quality standards. It further notes that as Dublin Bus services are delivered under contract with the NTA, the NTA is in a position to restrict the use of Parliament Street by Dublin Bus scheduled routes to only buses fitted with Euro VI engines (or even lower emissions in the future).

Before addressing the substantive issues, I would point out to the Board that suitability of the model used in the assessment was not challenged in the submissions or during the oral hearing. In response to questions from the Inspector, Mr Edward Porter (AWN Consulting Ltd) who completed the EIAR air modelling exercise, confirmed that the ADMS-Roads dispersion model (as opposed to the ADMS-Urban) was the appropriate model in this context, where the primary focus is on modelling road traffic emissions. He confirmed that ADMS-Urban is a more complex model, suitable for modelling a large urban area and looking at a range of emissions sources (industrial, home heating, road etc). He also stated that the ADMS-Roads version is widely used across Europe and is fit for purpose.

In her submission to the oral hearing (Day 4) Dr Imelda Shanahan (TMS Environmental Ltd), challenges the conclusions reached by DCC, stating that the modelling exercise conducted to support the EIAR understated the potential emissions and air quality impacts, which undermined the conclusions reached in the EIAR. Her concerns related to the model inputs such as the lack of up-to-date air quality data, lack of consideration of existing baseline traffic conditions, data on fleet composition, vehicle speed and the heights of buildings on Parliament Street etc.

With regard to the baseline conditions presented, Dr Shanahan questioned why the most up to date air quality data was not used, referring to the recently published EPA data. It shows higher baseline levels of pollutants and an increasing trend in pollutant concentrations, compared to a downward trend presented in the EIAR. In response, Ms Whyte confirmed that the 2016 EPA data, which was published in November 2017, post-dated the completion of the EIAR in October 2017 and if the data was

available it would have been used. Dr Porter confirmed that 2012 was used as the validation year because it was the year for which all the relevant data was available, including NTA traffic model data (no data available for 2013, 2014 etc). He noted as outlined in the EIAR that good agreement was reached between the model and the monitoring data, which provided confidence in its robustness. This approach would not seem unreasonable.

Regarding baseline traffic, Dr Shanahan took issue with the documented peak hour bus movements on Parliament Street, stating that they have been seriously underestimated by Dublin City Council and that this has consequences for the assessment of air quality impacts. The figure presented in the EIAR is stated to be based on NTA modelled data presented in Appendix 6.1. It indicates that the AM peak hour bus movements on Parliament Street post development equates to 53 buses one-way. This figure was strongly disputed by Dr Shanahan, who considered that this figure is likely to be an average and not a peak figure. To support her argument, she referred to the Transport Insights Report, which concluded that there would be 145 bus movements during the 09.00-09.59 am peak (includes 115 Dublin Bus and 30 Other Bus), which is a significantly higher figure than that presented by Dublin City Council. She also noted that the figures presented do not appear to consider buses other than the Dublin Bus fleet. This she said was a serious omission given that they could represent up to 20% of the total number of buses using Parliament Street during the peak hour and are likely to be powered with older engines and hence more likely to produce larger quantities of NO_2.

The *Transport Insights* report referred to by Dr Shanahan is a document prepared in response to Dublin City Council's public consultation on the proposed College Green Traffic Management Measures. It raised concerns regarding the impact of high volumes of bus traffic through Parliament Street, resultant emissions and impacts on air quality. At the time of the report 4 no. Dublin bus routes (85 buses per day) were travelling through Parliament Street. Post development additional buses would be redirected through the street, which according to the report would result in 1660 buses per day. When the report was prepared both Parliament Street and Winetavern Street were compliant with air quality standards. A copy of the document is appended to the back of the report for the information of the Board (Appendix 3).

Dr Shanahan carried out a separate analysis using Dublin City Councils amended bus routes[36] northbound and southbound post development, which were used in conjunction with Dublin Bus timetables to calculate the number of buses that will travel along the various different bus routes. The exercise determined that 977 buses would travel southbound and 941 buses would travel northbound along Parliament Street per day (Submission No 25D). Averaged across a typical 18-hour day (06.00-24.00) this would equate to 52-54 buses per hour (average) and it is contended by Dr Shanahan that the peak would be much higher than the daily average. This, she said, further supports the argument that the figure presented in the EIAR (which she contends is an average and not a peak figure) underestimates the number of buses and the rate of pollutant emissions and impacts on air quality.

I would point out to the Board that under cross questioning (Day 7), Mr Mc Daid for Dublin City Council stated that Dr Shanahan's assumptions were based on all buses currently using College Green being diverted to Parliament Street, which is not the case. During the oral hearing, Mr Mc Daid provided clarity on the actual bus routes that would use Parliament Street post development (as referred to in the Traffic & Transportation section of this report).

Dr Shanahan also questioned the accuracy of the information presented on emission factors in the EIAR. She noted that the fleet composition data for Northern Ireland was used in the model, taking account of technology conversion in Ireland. No details of this fleet composition or the technology conversion were provided in the EIAR to derive the pollutant emission rates and accordingly it is asserted that the information has not been demonstrated to be robust and reliable. She concluded that the data used does not reflect the actual fleet composition and the net effect of this is to understate the emissions and air quality impacts by at least 20%. She further noted that the analysis also appears to have been restricted to Dublin Bus with no consideration of private buses that will be routed through Parliament Street, which are likely to be older that the public transport fleet with higher emission rates.

Research carried out by Dr Shannon and presented in Table 4 of her submission, using the Dublin Bus website, gives an indication of the potential emission rates from the Dublin Bus Fleet based on engine types. According to the published information,

[36] Information extracted from the College Green Traffic Management Measures-Public Consultation Document April 2016.

as documented by Dr Shanahan, the vast majority of the Dublin Bus fleet are older Euro11 - Euro V buses, which have significantly higher emissions for both NO_X and PM than Euro VI. I accept that there is wide variation in the emission rates from different bus engines, reflecting the importance of using the correct fleet composition data to accurately determine impacts on air quality.

Dr Porter accepted that some of the Dublin Bus fleet is older than the default Northern Ireland fleet which may have resulted in an underestimation of emissions. However, he stated that there were changes taking place and that by the end of the year data from Dublin Bus indicates that the difference between the two fleets is essentially zero. He further stated that Dublin Bus had confirmed that by February 2019, over 50% of the fleet will be Euro VI and that Project Ireland 2040 -National Development Plan 2018-2027 states that from July 2019 no more diesel-only buses will be purchased for the urban fleet going forward[37]. He therefore accepted that there is a slight underestimate of the emissions from the Dublin Bus fleet but that the worst case scenario was assumed in the EIAR reported results.

Dr Shanahan disputes the conclusions reached in the EIAR and Ms Whyte's statement to the oral hearing that the proposed development will be beneficial in terms of air quality overall in the study area. She contended that while the number of vehicles in the peak hour may be reduced (due to the exclusion of general traffic on Parliament Street), pollutant emission rates increase as buses emit significantly more pollutants (based on the current fleet composition) than other vehicle types (Table 6 of Submission No 25A). She did not accept that the impact of increased bus movements on the street would be offset by reductions in overall traffic volumes (of 61% daily and 44 % in the peak hour).

Dr Shanahan also referred to the narrowness of Parliament Street and its uniqueness in the context of how significant the canyon effect would be in the dispersion of pollutants. In his rebuttal, Dr Porter confirmed that the ADMS Roads model incorporates an advanced street canyon module, which takes account of the length/width of street, height of buildings etc. He confirmed that he used software made available by Dublin City Council which provided a three-dimensional representation of the city centre and this was used for the study area.

[37] Page 54

He stated that the overall streetscape on Parliament Street was taken into account, and that average, minimum and maximum building heights were inputted into the model. He confirmed under cross questioning that the height of individual buildings was not verified on the ground and that slight variations in height would not have a significant bearing on the outcome. He concluded that the information provided by Dublin City Council provides a reasonable representation of the existing streetscape (using a maximum height of c 14m), a position that was not accepted by Mr O' Donnell or Dr Shanahan who argued that the actual height of buildings is more likely to be 18-19m, which adds significantly to the canyon effect. I accept that exceedance of air quality standards would be more significant in the context of Parliament Street than College Green due to the narrow width of the street and the level of activity at ground floor level (cafes, restaurants etc).

Mr O Donnell raised matters relating to the choice of vehicle speed used in the model, noting that emission rates are higher with lower speeds. It was his opinion that emissions were predicted at a level of speed that underestimates the design speed. He referred to the junction of Parliament Street and Wellington Quay where the highest levels of emissions on Parliament Street are predicted. He questioned why a speed of 15km was used in the model when it was made clear during the hearing that the junction had a design speed of 5km.

In his response Dr Porter confirmed that traffic speed was modelled at 5, 15 and 25km/h and that the model showed better agreement at 15km than at 5km. He also noted that 15km/h was the average speed over a year driving cycle in an urban context and was not a design speed. He further noted that if one was to look at instantaneous speed as suggested, there would be significant fluctuations over a driving cycle and that there was no air dispersion models that could input that data. He confirmed that modelled at 5km/h would see an increase in emissions for both the DM and the DS scenarios and that even at that speed the scheme is beneficial to Parliament Street.

From the forgoing, it is clear that there is confusion regarding some of the model inputs which makes it difficult to be conclusive. DCC for example argue that the disputed figure of 53 buses during the AM peak is correct, stating that this figure was derived directly from the NTA model. If the figure is incorrect and the emission factors have not been applied correctly, it may be that emissions to air have been

underestimated. Similarly, it is unclear why DCC did not conduct a similar exercise to that carried out by Dr Shanahan and use the information on bus routes to be redirected down Parliament Street together with the emission factors for the Dublin Bus fleet to predict future emission concentrations.

Conclusion

- Having regard to the limited scale of the development, the temporary nature of the works and the mitigation measures proposed, I consider that the construction phase of the development can be effectively managed without giving rise to significant emissions to air, which would result in significant adverse effects on climate or air quality.
- The greatest potential for impacts on air quality/climate will arise during the operational stages of the development and the pollutant of concern is NO_2.
- I accept that the pedestrianisation of College Green will be beneficial in terms of air quality in the vicinity of Dame Street and College Green with the exclusion of vehicular traffic and the significant reduction in traffic along Dame Street east of South Great Georges St. I also accept that the shift in traffic flows arising from the development has the potential to give rise to increases in air pollutants in other city centre streets.
- There will be a significant increase in buses on Parliament Street as a result of the development. Whilst it is concluded in the EIAR that the proposal will be beneficial overall in terms of air quality in the study area, there were issues raised during the oral hearing with regard to the veracity of the modelling which I do not consider were adequately rebutted by Dublin City Council. I consider that confusion is generated by the lack of clarity on model inputs which potentially understate emissions and undermine the conclusions reached in the EIAR. It is not possible, in my opinion, to conclude with a degree of certainty that there will be no exceedance of air quality standards in the short term.
- However, I accept that polluting emissions to air from transport will reduce going forward arising from Government's transport and climate change policies including the promotion of modal shift to more sustainable methods of transport (such as increased public transport use, cycling and walking),

decarbonisation targets (10% of transport energy from renewable sources by 2020) and fiscal measures to encourage the use of alternatively fuelled vehicles and the introduction of cleaner fuels. These will have positive outcomes for air quality and climate.

- I accept that the replacement of the bus fleet with improved engine/fuel technologies is an important determinant of future urban air quality. The NTA in its closing statement stated that whilst two-way bus movement on Parliament Street continued to be its preferred option, if the Board approved the proposal as planned, it would ensure that the number of routes and the volume of buses that would use Parliament Street was commensurate with the need to protect the air quality environment of the street and would use Euro VI buses or better to meet the air quality standard.
- It is clear that restricting buses on Parliament Street to Euro VI engines would significantly reduce pollutants and mitigate potential impacts. Having regard to the policy of moving towards more sustainable transport there is a reasonable prospect that these matters will be addressed in the medium to long term. I do not, therefore, consider that the issue of air quality provides sufficient grounds to prevent the development proceeding. However, I would point out to the Board that whilst it is the NTA that designs the bus network and defines the bus services to be operated, it is not the applicant for the development. Should the Board consider that the development is otherwise acceptable, it cannot in my opinion attach a condition requiring the use of Euro VI buses on Parliament Street as it would not be in the power of the applicant (Dublin City Council) to implement.

8.12. Noise & Vibration

Environmental Impact Assessment Report

Potential noise and vibration impacts during construction and operation are assessed in Chapter 8 of the EIAR. Section 3.5 of the RFI report supported by Appendix C (GPS survey) and Appendix D (Vibration Monitoring Report) are also relevant.

Noise and vibration will be generated during both the construction and operational stages of the development. Construction will involve site clearance, excavation and the development of the plaza using a wide variety of plant (including excavators, breakers, crushers, lifting equipment, dumper trucks, compressors and generators), together with the movement of vehicles with the potential to create noise and vibration impacts.

Construction noise is assessed under the criteria set out in *BS 5228 2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites -Noise.* Table 8.1 of the EIAR sets out the assessment categories (night, evening, day) and the relevant threshold values in decibels as presented in BS5228. The main vibration source during construction will be during the excavation of existing road and pavement surfaces. Vibration limits during construction are as set out in the TII's *'Guidelines for the Treatment of Noise and Vibration in National Road Schemes'*.

The operational phase of the development will result in the removal of all vehicular traffic from College Green and this traffic will be redistributed elsewhere within the wider city road network. According to the EIAR, the re-routing of buses arising from the closure of College Green to east-west/west-east traffic is the transport change likely to contribute to noise impacts. These re-routings are inputted into the noise model to determine the impact. Due to the narrowness of streets such as Parliament Street and the proximity of building facades to the road, more detailed results are provided in these areas. During the operational stage there is potential for an increase in vibration due to the redistribution of buses.

To assess the potential impact of the operational stage noise modelling was carried out using the Bruel & Kajer Predictor V11.1 noise modelling softwear and incorporating CRTN (TRL) assessment Method 3. This method is accepted by the EPA for strategic noise mapping as per the EU Directive 2002/49/EC and Statutory Instrument S.I No 140 of 2006. Modelling was conducted for five scenarios, including 2012 base year, 2018 Do Minimum, 2018 Do Something, 2035 Do Minimum and 2035 Do Something (described in Section 8.4.2 of EIAR). The model was used to calculate the change in ambient sound levels at total address points and residential address points within the study area. An assessment of the impact of the various

scenarios was carried out using the 'Desirable/Undesirable' description as set out in the *Dublin Agglomeration Environmental Noise Action Plan 2013-2018*. These are as follows;

Desirable Low Sound levels

<50 dB(A) L_{night}

<55 dB(A) L_{day}

Undesirable High Sound levels

>55 dB(A) L_{night}

>70 dB(A) L_{day}

The traffic volume inputs for the sound model were derived from the NTA Regional Modelling System East Region Model (ERM), except for the 2012 base year scenario. The model structure including building heights, barriers, ground hardness etc were extracted from Dublin City Council's main ambient sound model datasets, which are used to calculate 'noise maps' for the purposes of compliance with Directive 2002/49/EC. The outputs from this model have been accepted by the EPA, the European Commission and the European Environmental Agency, to be in compliance with this Directive. The robustness of the model was assessed using 2012 traffic volumes and measurements taken from Dublin City Council's ambient sound monitoring network and deemed to be robust.

In terms of the baseline environment, the Dublin City Noise Maps (DCC, 2013) produced to fulfil the requirements of Directive 2002/49/EC, indicate that sound emissions from traffic in the College Green area currently fall within the 60-65 dB(A) band for night time band (L_{night}) and greater than 75 dB(A) band for the day time period (L_{day}). These levels are considered undesirable with reference to the Noise Action Plan.

The result of the modelling indicates that in the 2018 Do Minimum scenario (without the project in place) the highest noise levels during the day will occur along Dame Street, from the Trinity Street junction through to College Green, Westmoreland Street, D'Olier Street and O'Connell Bridge. In this scenario, the noise levels at building facades on Parliament Street and Winetavern Street are predicted to fall

within the undesirable band 70-75dB(A). The majority of road facing facades building facades along the North and South Quays are predicted to fall within the 65-70dB(A) i.e between the desirable and undesirable noise bands. At night, the highest levels are predicted between College Green and O'Connell Bridge and from College Green along Dame Street to South Great Georges Street. The majority of the road facing facades on Parliament Street have an average night time value within the predicted 60-65dB(A) band (undesirable).

In the 2018 Do Something scenario (with the proposed development in place) the highest noise levels are predicted to occur on O'Connell Bridge, High Street and Winetavern Street. On Parliament Street, the noise levels along the road facing facades are again predicted to be undesirable i.e. 70-75dB(A). Buildings along Winetavern Street, particularly those at the junction of Merchant's Quay are also predicted to have undesirable levels (75-80 dB(A)). However, daytime noise levels are predicted to drop by 10 dB(A) to the 60-65 dB(A) band in front of the Central Bank of Ireland at College Green from 70-75 dB(A) in the DM scenario. The highest night time levels are predicted in the same locations as daytime. The majority of the building facades on Parliament Street are predicted to fall within the 60-65 dB(A) band i.e. undesirable and similar to the DM 2018 scenario. It is predicted that on Winetavern Street the portion of the road closest to the Merchant Quay junction will be exposed to a sound level 65-70 dB(A), compared to the 60-65 dB(A) band in the DM 2018 scenario (undesirable).

In the 2035 Do Minimum scenario (without the development in place), the highest noise levels both during day and night time are predicted to occur on Burgh Quay, O'Connell Bridge junctions, College Green and High Street/Bridge Street. Most building facades facing onto Parliament Street in the daytime are predicted to be exposed to noise levels in the 65-70dB(A) (between desirable/undesirable bands), with most facades exposed to 55-60 dB(A) at nightime i.e. undesirable.

In the 2035 Do Something scenario, with the development in place, the highest day time noise levels are predicted in similar locations as the Do Minimum scenario but including a portion of Winetavern Street. Most building facades facing onto Parliament St are predicted to be exposed to an average sound level in the 70-75dB(A) band during the day and 60-65 dB(A) at nightime (undesirable), compared to 65-70dB(A) 55-60 dB(A) respectively for 2035 DM scenario. It is predicted that on

Winetavern Street the portion of the road closest to Merchants Quay, will be exposed to a daytime sound limit of 75-80 dB(A) compared to the 70-75 dB(A) band in the DM 2035 scenario.

With regard to vibration, the proposed development requires the redistribution of buses with the potential for an increase in vibration levels at properties where the largest increases in buses are predicted. It is concluded in the EIAR that the additional buses are unlikely to generate a noticeable vibration effect. As there will be restricted private vehicle access to Parliament Street this will have the effect of reducing traffic volumes overall and the additional buses are unlikely to generate a noticeable vibration effect.

In terms of mitigation, the EIAR describes typical measures to minimise the potential for noise disturbance and vibration during construction as set out in BS 5228 including the use of acoustic enclosures, use of quiet plant, screening etc. These are incorporated into the Outline Construction and Environmental Management Plan (Appendix 4.1).

No mitigation measures are deemed necessary for the operational stage as the locations where potential noise impacts may arise are located in the busy city centre environment, where noise levels are already elevated.

Policy

The **Dublin Agglomeration Environmental Noise Action Plan 2013-2018** was prepared by DCC to comply with the requirements of the Environmental Noise Regulations which give effect to EU Directive 2002/49/EC. The Regulations set out a requirement for the assessment of noise impacts through the use of strategic noise maps. There is a requirement to review and revise the maps, if necessary every 5 years. The most recent maps were produced in 2017.

The plan was adopted by Dublin City Council to be used in the management of various transport related sound emissions within the Dublin Region. The key objective of the plan is *'to avoid, prevent and reduce, where necessary, on a prolonged basis the harmful effects, including annoyance, due to long term exposure to environmental noise'*. *This will be achieved by taking a strategic approach to managing environmental noise and following a balanced approach in the context of sustainable development.* It includes sets of possible noise mitigation measures

(Section 7.5) including improved public transport, modal shift away from private cars to walking/cycling traffic management, vehicle speed management etc, improved engines etc.

Issues raised during the course of the application and the oral hearing

Ms S Whyte summarised Dublin City Council's position on noise/vibration during the oral hearing (Submission No 7). The submission by Brian Mc Manus was not read into the record (Submission No 7A). Mr David Hiller addressed potential vibration impacts resulting from the development (Submission No. 8). Mr Tom Ryan TMS Environmental Ltd (Submission No.25E), represented residents and businesses on Parliament Street. Cross-questioning took place on Day 12.

It was confirmed by Mr Fitzsimons SC that Mr Brian Mc Manus's report was included for information purposes only. It relates to two-way traffic and pre-dates the current application for consent which proposes one-way southbound traffic only on Parliament Street. Therefore, no further consideration of this report is required by the Board.

The main issues raised in the submissions and during the oral hearing related to the impacts of increased noise and vibration on Parliament Street arising from the proposed development. Concern were expressed regarding the baseline data used, the use of inappropriate noise descriptors, lack of internal noise surveys and the failure to consider noise in terms of nuisance/annoyance and impacts on individual businesses/residents in Parliament Street. The primary concerns regarding vibration related to impacts on the structural stability of buildings on Parliament Street, potential annoyance to residents and the lack of consideration of the effects of airborne vibration.

Assessment

The following provides an assessment of the issues raised in the submissions and during the oral hearing.

Noise

The results of the noise modelling indicates, as expected, that there will be a shift generally in the areas experiencing the highest noise levels corresponding to redistributed traffic away from College Green. However, according to the EIAR and

the evidence presented by DCC, the increase in bus numbers would be offset by a reduction in general traffic and there will be no change in noise levels experienced in Parliament Street arising from the development. This was strongly disputed by Mr Tom Ryan who stated that this conclusion is arrived at due to the use by DCC of incorrect data. It was his opinion that the most up to date baseline information was not used, contrary to EPA guidance[38], which has resulted in a very favourable and positive outcome for the application.

He referred to the Strategic Noise Maps published by DCC in 2017, noting that this was the most up to date baseline data available. These indicate that average daytime noise levels at the building facades on Parliament Street fall between 60 to 64 dB L_{day} and 65 to 69 dB L_{day}, depending on the road link. This is up to10 dB(A) lower than indicated in the existing noise levels predicted in the EIAR, which are within the 70-75 dB(A) band on Parliament Street. It was his contention that DCC have used a falsely elevated baseline scenario which has the effect of minimising the impact of the proposed development.

In her response, Ms Whyte for DCC, also referred to EPA Guidance (Section 3.6) which states;

'The environment will change over time, even without the introduction of the proposed project. Therefore, the EIAR must include a description of the likely evolution of the environmental factor in the absence of the project. The predicted changing baseline may be referred to as the likely future environment'.

Ms Whyte stated that this is precisely what DCC have done in their noise assessment. They have considered the DM scenario or the likely future receiving environment and have compared the DM scenario with the DS scenario to determine the impacts of the development on Parliament Street. The conclusion reached is that there would be no change in the noise environment following the implementation of the scheme. However, under cross-questioning by Mr O'Donnell, Ms Whyte confirmed that what is predicted post scheme is 70-75 dB(A) and that the current noise levels as indicated on the current noise maps is 60-65 dB(A) and 65-70 dB(A), depending on the road link.

[38] Guidelines on the information to be contained in Environmental Impact Statements EPA, 2017

While I accept that baseline noise levels within the city centre change over time with the introduction of new traffic management measures, changes in traffic flows etc, I accept as stated by Mr Ryan, and as set out in the EPA guidance, that it is important to ensure that the worst-case scenario is assessed, as this is the scenario that would be likely to give rise to the most significant environmental impact. In this case it appears that, as the worst-case scenario has not been presented, the impacts of the development on the noise environment have potentially been underestimated.

Whilst it was contended at the oral hearing that the current noise map information was concealed from the Board in an attempt to underplay the impacts of the proposal on the environment, I would not accept this to be the case. I note that the original EIS was submitted to the Board in May 2017, which predates the publication of later versions of the maps in June 2017. This provides a reasonable explanation for the reference to 2012 data in the original EIS. The opportunity would of course have arisen for this information to be incorporated into the subsequent EIAR, which was submitted to the Board in October 2017.

Issues were also raised regarding the lack of assessment of how noise levels resulting from the development would impact on various land uses operating in premises on Parliament Street including offices, apartments, restaurants etc. Concern was also expressed that using the L_{day} and L_{night} noise indicators provided long term averages without any indication of peak levels that may be experienced, which could affect different uses during the day. Ms Whyte noted that the use of L_{day} and L_{night} are mandated by the Environmental Noise Directive and transposing regulations in the assessment of noise from traffic. She also indicated that no internal noise surveys were conducted, that the issue of elevated noise levels within buildings is addressed under Health & Safety Legislation and is not a function of traffic modelling under Environmental Noise Directive.

Ms Whyte stated that the EIAR assessed noise impacts at various receptor points within Parliament Street which included a range of residential and other uses. She confirmed that noise surveys were not carried out by DCC. Mr Ryan, referring to noise measurements carried out by TMS Environment Ltd on January 31st, 2018, stated that he noted a clearly observable increase in ambient noise levels with the passage of buses along the street. I would point out to the Board that none of the details that would normally accompany a noise survey including the type of

equipment used, survey location, duration, noise readings etc were made available. Furthermore, it was noted by Ms Whyte that the sound pressure level of 85 dB L_{pA} referred to by Mr Ryan is not a relevant parameter for the assessment of road traffic noise and generally related to a health and safety impact assessment.

The Strategic Noise Maps provide an indication of the number of people within the city that are likely to suffer annoyance/sleep disturbance due to noise. The Board will note that many parts of the city centre experience noise levels that are in the undesirable band during daytime/nightime. The existing urban noise environment is changing constantly and will continue to change, influenced by many factors including changing traffic flows, traffic management measures, speed controls etc.

While residents and businesses in the vicinity of College Green are likely to experience a significant improvement in noise levels as a result of the development, the resultant redistribution of traffic onto other routes, including Parliament Street may result in a deterioration in the noise environment in those areas. I accept that exceedance of noise limits would be more significant in the context of Parliament Street than College Green due to the narrowness of the street, the proximity of facades to the road and the concentration of cafes, restaurants etc at ground floor level.

Notwithstanding the removal of general traffic from Parliament Street, based on the information before the Board, I accept that the re-routing of additional buses down Parliament Street is likely to increase noise impacts, which has the potential to impact on residents and businesses on the street.

The implementation of measures that would significantly change the traffic noise environment in this city centre location, some of which may act at a national or regional level and others which may be localised (as set out in the Dublin Agglomeration Environmental Noise Action Plan 2013-2018), extend beyond the scope of this application. These include traffic related policies such as encouraging modal shift to cycle, walking and use of public transport, speed management/traffic calming measures, traffic management, improving road surfaces etc.

Vibration

The issues raised regarding vibration relate to the potential impacts on the structural stability of buildings, impacts on residential amenity and the lack of consideration of the effects of airborne vibration.

The conclusion reached in the EIAR is that the increased number of buses using Parliament Street is unlikely to generate a noticeable vibration effect. In response to the Board's request for additional information on this matter, a vibration monitoring survey was carried out at the facades of a number of buildings on the street. The results of the survey indicate that vibration from heavy vehicles, including buses, currently leads to vibration up to 0.7mm/s peak particle velocity at the façade of buildings. Higher levels recorded (1.15mm/s and 2.75mm/s), coincided with the use of portable forklift trucks to off-load deliveries.

Reference is made in the response to BS7385-2:*1993 'Evaluation and measurement for vibration in buildings-Part 2 : Guide to damage levels for cosmetic damage to buildings'.* It states that no cosmetic damage is likely to occur if transient vibration does not exceed 15mm/s at low frequencies rising to 20mm/s at 15Hz and 50mm/s at 40Hz and above. The standards state that these guidelines relate to relatively modern buildings and should be reduced to 50% or less for more critical buildings.

It is noted in the vibration report that road traffic tends to produce vibrations with frequencies predominantly in the range from 5 to 25Hz and that a reasonable stringent value in this instance would be 7.5mm/s. The results of the monitoring indicate that recorded levels are significantly below this level. The conclusion reached in the report is that the increased number of HGV's (including buses) between the 2018 DM and DS scenario that will use the street during the peak hour (13 no.) is not expected to generate significant additional vibration impacts, and that levels are significantly below that at which cosmetic or structural damage to buildings would occur.

The submission made to the oral hearing by Dr Hiller (Ove Arup) concurs with the conclusions reached by Dublin City Council. He stated that traffic vibration is currently well below levels likely to cause damage to any buildings and this would not be changed by the scheme. To support his conclusion he referred to extensive studies undertaken by the UK Transport Research Laboratory[39]. It reports on a

[39] Transport & Road Research Laboratory Research Report 246-Department of Transport UK 1990

number of investigations into the effects of traffic vibration on buildings. Studies included comparisons of structural defects in houses exposed to high levels of vibration with similar properties exposed to relatively low levels, and case studies of heritage buildings. It is concluded that although vibration can cause severe nuisance to occupants, there is no evidence to support the assertion that traffic vibration can cause significant damage to buildings. An extract from the research report is appended to Dr Hillers submission (Submission No 8).

Mr Tom Ryan (TMS Environment Ltd) representing the businesses and residents on Parliament Street did not accept these conclusions. In his submission to the oral hearing (Submission 25E) he referred to the German standard DIN 4150 Part 3[40] which provides vibration velocity guidelines for use in evaluating the effects of vibration on structural integrity. The guideline limits are defined as 'safe limits' up to which no damage due to vibration effects has been observed for a particular class of building. It assigns a guideline value of 2.5mm/s to structures that are considered sensitive such as listed buildings. His contention was that as many of the buildings on Parliament Street are listed and contain 18th century basements that an absolute maximum vibration limit of 2.5mm/s should be applied.

Mr Ryan considered that the vibration limit of 7.5mm/s proposed by DCC was therefore inappropriate having regard to the sensitivity of the buildings on Parliament Street. Furthermore, he did not accept that the increase in bus numbers using the street arising from the proposed development would not result in increased vibration impacts. He was critical of the survey methodology (carried out from road surface as opposed to basements level) and the duration of the survey, which was limited to three hours (08.00-11.00). Concerns were also expressed that the basements on Parliament Street were not inspected by Dr Hiller and that he was not, therefore, aware of their geographical extent and that some of the basements are potentially medieval in origin.

It is clear from the submissions that there is no consensus regarding potential impacts that may arise from vibration due to the increase in bus movements on Parliament Street. There are many factors that influence traffic induced vibration and the size, weight, speed of vehicles and the quality of the road surface all play a part.

[40] DIN-4150-3(2016-12). Vibration in Buildings Part 3-Effects on Structures. German Institute for Standarisation

The heavier the vehicle the stronger the vibration, the faster the speed the bigger the vibration and well maintained road surfaces will reduce vibration impacts. There are also many factors that influence the intensity of vibration transferred to buildings and these include the age, structure and construction of buildings, proximity to road, condition of road, nature of ground etc.

I accept that the monitoring survey was limited and that increasing bus movements on the street has the potential to increase vibration impacts and that this may not be offset, as contended by Dublin City Council, by the overall reduction in traffic volumes (arising from exclusion of general traffic during the day), due to the size and weight of buses relative to cars and LGV's.

Accepting all of these complexities, I would point out to the Board that no evidence has been produced to suggest that traffic generated vibration would cause significant damage to buildings. Whilst Mr O' Donnell SC queried damage to the basement of Sunlight Chambers on Parliament Street and the collapse of a building adjacent to it (No's 22-24 Parliament Street), no evidence was produced to suggest that these were a result of traffic induced vibration. In fact, the evidence produced by Ms A Grehan (DCC) confirmed that the most significant issue that arose with respect to No's 22-24 Parliament Street related to the partial demolition of the roof in the 1980's, most likely as a result of neglect, with no report of any collapse. In the case of Sunlight Chambers, Mr Tom Ryan confirmed that he did inspect the basement and *'found it to be in a moderate condition structurally'*. He did observe a crack along one of the underground walls and expressed concern that this would be vulnerable to additional vibration impacts.

Dr Hiller stated that he relied on a ground penetrating radar (Appendix C of Response Document) to identify the extent of basements under Parliament Street, which confirmed that the basements extend by 1.6m from the buildings under the road surface. Mr O' Donnell stated the basement beneath Sunlight Chambers (offices occupied by Hanahoe Solicitors at the corner of Parliament Street/ Wellington Quay) did not coincide with that shown on the map. In response Dr Hiller stated that there were a suite of basements running under the street, all of them exposed to traffic including buses and HGV's. There is no historic evidence of damage to buildings, which are standing and occupied. He also noted that prior to the left hand turn being removed at Wellington Quay, buses and HGV's did take the

manoeuvre and accordingly the assertion that buses would traverse a different track with increased impacts on the basement to Sunlight Chambers is incorrect.

I accept that Parliament Street is narrow and is aligned with sensitive buildings (incorporating basements) in close proximity with the street. However, there is no evidence that suggests that any building within the city has suffered structural damage as a result of exposure to traffic vibration. In fact, the only evidence produced (TRRL Research Report 246) suggests that there is no evidence to support the assertion that traffic vibration has a significant damaging effect on buildings. Whilst this position is also accepted in TII guidance[41] which states that *'ground vibration produced by road traffic is unlikely to cause perceptible structural vibration in properties located near to well maintained and smooth road surfaces',* I accept that the guidance refers to national road schemes and may not be directly applicable to an urban context like Parliament Street.

With regard to impacts on residential amenity, I accept that vibration can be a source of significant annoyance to people living in heavily trafficked streets arising from sleep disturbance, rattling of windows etc. I accept that increasing the number of heavy vehicles travelling along the street has the potential to increase these impacts and that mitigation is complex and expensive. The number of buses using the street will fall off during evening/nightime reducing potential impacts during these hours. I accept that regard must also be had to the city centre location which experiences significant levels of traffic and where the level of amenity cannot reasonably be expected to be similar to areas outside the city core.

The EIAR does not make specific reference to airborne vibration from traffic. In contrast to ground vibration which is produced from the interaction of the traffic with the road surface, it is produced by the drive-train of vehicles by the engine and the exhaust. The latter can cause rattling of windows etc, especially if buildings are close to the road. The mitigation of airborne vibration requires changes to the vehicles technologies.

Conclusion

[41] Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes (NRA, updated by TII March 2004) - Section 7

- I accept that the impacts of noise and vibration during construction are capable of effective mitigation using standard noise/vibration abatement measures including screening, the use of acoustic enclosures/ quiet plant etc. Subject to the mitigation measures proposed including control on the hours of construction, I consider that the impacts are acceptable. Whilst I accept that the construction phase has the potential to be a source of annoyance particularly for local residents, the impacts will be short lived and temporary.
- The operational stage of the development will result in changes to traffic flows and the redistribution of buses within the city centre. This will result in a shift generally in where the highest average day/night time noise levels are experienced.
- I accept that if the 2017 noise data was incorporated as the baseline into the modelling exercise, the conclusions with regard to impacts may have been more significant.
- I accept that the implementation of measures that would significantly change the traffic noise environment in this city centre location, extend beyond the scope of this application. Some of these may act at a national, regional or local level as described in the Dublin Agglomeration Environmental Noise Action Plan 2013-2018 (Section 7.5). These include traffic related policies such as encouraging modal shift to cycling, walking and use of public transport, reducing traffic density, speeds reduction/traffic calming measures, reducing the percentage of goods vehicles in the city centre, traffic management, improving road surfaces etc.
- Having regard to the policy of moving towards more sustainable transport, I consider that there is a reasonable prospect that these matters will be addressed in the medium to long term. I do not, therefore, consider that the issue of air quality provides sufficient grounds to prevent the development proceeding.
- No evidence has been produced which would suggest that any existing structural damage to buildings/basements on Parliament Street has occurred due to traffic induced vibration. The evidence suggests that vibration levels from traffic are rarely high enough to be the direct cause of structural damage in buildings.

- I accept that the evidence suggests that the redistribution of buses is unlikely to result in any cosmetic or structural damage to buildings or associated basements on Parliament. I accept that there are factors which would reduce the potential for vibration associated with road traffic, such as maintaining good road surfaces, speed controls etc, which remain under the control of Dublin City Council.

9.0 Environmental Impact Assessment

This section of the report comprises an environmental impact assessment of the proposed development. Many of the matters considered have been addressed above in the Planning Assessment. This section, therefore, should be read, where necessary, in conjunction with the relevant sections of the Planning Assessment.

Whilst the development is sub threshold, it was concluded by Dublin City Council following a screening determination (carried out by CAAS) that, as the likelihood of significant effects of the proposed development on the environment could not be excluded, an environmental impact assessment should be carried out. In accordance with the requirements of Article 102 of the Planning and Development Regulations, I have conducted an environmental impact assessment of the proposed development.

The application was submitted to the Board after 16th May 2017, the date for transposition of Directive 2104/52/EU amending the 2011 Directive. The application is therefore supported by an EIAR. The Directive was transposed into Irish legislation on September 1st, 2018 under the European Union (Planning and Development) (Environmental Impact Assessment) Regulations, 2018.

The EIAR is contained in two volumes. Volume 1 contains a Non-Technical Summary and is divided into 19 no. chapters. Each element of the environment is described in a separate chapter. Chapter 18 covers Cumulative Impacts and Interaction of Effects and Chapter 19 provides a summary of Mitigation Measures and Residual Impacts. Volume 11 contains Appendices.

I am satisfied that the information provided in the EIAR is sufficient to allow the Board to reach a reasoned conclusion on the significant effects of the project on the environment. I am satisfied that the information contained in the EIAR complies with

the provisions of Article 3, 5 and Annex (IV) of EU Directive 2014/52/EU amending Directive 2011/92/EU.

As is required under Article 3(1) of the amending Directive, the EIAR describes and assesses the direct and indirect significant effects of the project on the following factors: (a) population and human health; (b) biodiversity with particular attention to the species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; (c) land, soil, water, air and climate; (d) material assets, cultural heritage and the landscape. It also considers the interaction between the factors referred to in points (a) to (d).

Article 3(2) includes a requirement that the expected effects derived from the vulnerability of the project to major accidents and/or disasters that are relevant to the project concerned are considered. Arising from the nature and characteristics of the project, I do not consider that there is any potential for it to cause a major accident and/or disaster. Furthermore, the site is not located in an area where a natural disaster is likely to occur.

Whilst it is accepted in the EIAR that the project is not of a type that would be vulnerable to major accidents and/or natural disasters, an assessment is carried out for the sake of completeness. Chapter 17 includes an evaluation of potential risks including Luas derailment/accident, major traffic accidents, extreme weather events, act of terrorism etc. The highest risk in terms of a major accident and/or disaster was identified as ‘unpermitted vehicle on pedestrian plaza’. This matter is addressed in the Planning Assessment and mitigation measures are set out in the EIAR (Section 17.5).

In accordance with Article 5 and Annex IV, the EIAR provides a description of the project comprising information on the site, design, size and other features. It also provides a description of the likely significant effects of the project on the environment and a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible offset likely significant effects on the environment.

The alternatives considered by the applicant are described in Section 2.4 of the EIAR and are discussed above under the planning assessment. I am satisfied that the EIAR provides a description of the reasonable alternatives studied by the

developer which are relevant to the project and that the main reasons for the chosen option, including a comparison of environmental effects, has been provided by the applicant in compliance with Article 5(1)(d) of the amending Directive.

Table 1.1 provides details of the EIAR specialists and their qualifications. I am satisfied that competencies are consistent with the requirements of the amending Directive.

9.1. Likely Significant Direct and Indirect Effects

In accordance with the requirements under Article 3(1)(a) to (e) of the EIA Directive my assessment of the environmental effects of the proposed development are considered under the following headings:

- Population and human health.
- Biodiversity, with particular attention to the species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC.
- Land, soil, water, air and climate,
- Material assets, cultural heritage and the landscape.
- The interaction between the factors referred to in points (a) to (d).

My assessment is based on the information provided by the applicant, including the EIAR, the response to further information and the additional material presented at the oral hearing, the submissions made in the course of the application and during the oral hearing by the prescribed bodied and the observers.

Population and Human Health

Population and human health is addressed in Chapter 16 of the EIAR. It acknowledges that potential impacts on population and human health could arise from traffic and transportation, air quality and climate, noise and vibration, townscape and visual, material assets, utilities and the risk of major accidents and/or disasters, each of which is assessed under separate chapters in the document.

In terms of *Traffic and Transportation***,** it t is recognised in the EIAR that road traffic is a major cause of negative health effects arising from air pollution, noise etc. I accept that the impacts during the construction stage are capable of effective mitigation as documented in previous sections of this report.

During the operational stage, I accept that there will be both positive and negative effects on population and human health arising from traffic and transportation. There will be positive impacts on the operation of Luas Cross City as congestion is removed allowing the service to operate more efficiently. The removal of vehicular traffic and the creation of improved accessibility for public transport (on the north-south corridor) and improved walking and cycling infrastructure will also have positive impacts in the immediate area of College Green.

However, outside the plaza there are likely to be indirect negative impacts on population and human health arising from redirected traffic with the potential to negatively impact on population and human health. These matters have been comprehensively addressed in previous sections of this report.

With regard to *Air quality/climate***,** air pollution is identified in the EIAR as a significant health risk giving rise to premature death arising from heart disease and stroke. During the construction stage, I accept that emissions to air can be effectively mitigated using standard best practice procedures.

The removal of traffic from College Green will result in a reduction in pollutants which will result in improvements in air quality, with positive outcomes for population and human health. The redistribution of traffic to other parts of the network outside the site will result in negative impacts on air quality on affected streets. Therefore, while there will be a reduction in emissions in one area and an increase in another, the cumulative effect on the overall city centre is not likely to be significant. I accept that it is possible to mitigate these impacts but that addressing the issue of air pollution from traffic and transportation in the city centre goes beyond the scope of this application.

It is recognised in the EIAR that excessive *Noise/vibration* is a significant environmental health concern resulting in annoyance, sleep disturbance, heart and circulatory problems and reduced quality of life. I accept that noise/vibration during construction can be effectively mitigated.

The exclusion of vehicular traffic from College Green will have positive impacts in terms of noise and vibration during the operational stage. The re-routing of buses onto adjacent streets including Parliament Street will result in indirect negative impacts outside the site. The improvements in the noise environment in College Green will, therefore, be achieved at the expense of other parts of the city centre. However, the overall cumulative effect on the city centre is not likely to be significant. I accept that while mitigation is possible it requires measures that go beyond the scope of the application including traffic management measures, improved engine technology etc.

With regard to *Townscape /Visual Impact*, I accept that the impacts during construction will be negative, but these will be temporary, short lived and can be mitigated. Once complete, I accept the conclusions reached in the EIAR that the creation of a well-designed urban environment is likely to attract people into the area and the overall impacts on population and human health and well-being will be positive.

Regarding *Material Assets*, the EIAR refers to material assets including gas, electricity, water supply and drainage, the lack of which has the potential to impact on the physical and mental health of a population. It is noted that there may be some minor diversions of utilities, installation of new ducting etc required, but that the Contractor will be obliged to ensure that there are no interruptions to existing services. These impacts will be confined to the construction stage and are capable of effective mitigation. I accept that the impacts are not likely to be significant.

In conclusion, I am satisfied that following the implementation of the mitigation measures outlined in the various chapters of the EIAR, the residual impact on population and human health within the site would be positive arising from the removal of traffic, lower air emissions and a reduction in noise levels.

However, I accept that there will be indirect negative impacts on areas outside the site arising from the proposed development (increased bus traffic, and associated impacts on air quality and noise).

I have considered all of the written and oral submission made in relation to population and human health and I conclude that the potential for likely significant effects on population and human health within the application site can be ruled out. I

am satisfied that the impacts that have been identified would be managed and mitigated through the measures outlined in the EIAR and that no significant adverse direct, indirect or cumulative effects on population and human health are likely to arise.

Outside the subject site, there will be negative impacts on population and human health arising from traffic, air quality and noise. While it is considered that impacts on air quality and noise are capable of mitigation in the medium to long term, the development would not be acceptable by reason of the potential significant impacts on traffic and transportation.

Biodiversity

Chapter 9 of the EIAR provides information on ecological features of particular significance within or adjacent to the site. It notes the urban context of the subject site. The site is not within a designated conservation area, nor does it support any species of conservation interest. The location of designated conservation areas within 15km of the site are identified. The River Liffey runs to the north and provides a hydrological connection between the site and the designated conservation areas centred on Dublin Bay. Screening for appropriate assessment was undertaken by the applicant and it concluded that Stage 2 Appropriate Assessment was not required (considered further below).

There will be no direct impacts on any designated site as a result of the proposed development. During construction, the potential for indirect impacts could arise from accidental spillages of polluting material and contaminated runoff to enter surface water. These will be mitigated by standard construction methodologies as set out in the Construction and Environmental Management Plan. During the operational stage, surface water will drain to the municipal stormwater system and will not impact on the River Liffey or any site of conservation interest.

It is proposed to remove the trees from the traffic island and along the south side of the site. The loss of the trees will be mitigated by replacement planting, with additional trees planted to the west and south. The increase in trees will contribute positively to biodiversity within the site.

I have considered all of the written and submission made in relation to biodiversity. I am satisfied that they have been appropriately addressed by the applicant and that

any impacts that are predicted to arise would be avoided, managed and mitigated through the measures outlined in the EIAR and that no significant adverse direct, indirect or cumulative effects on biodiversity, flora and fauna are likely to arise.

Land, Soils, Water, Air & Climate

The impacts of the development on **Land, Soil and Water** are addressed in Chapter 12 of the EIAR. It provides details of the baseline environment and assesses the likely impacts associated with both the construction and operational stages of the proposed development.

The site is located within an entirely built up area in the heart of the city centre. It consists of 'Made Ground'. It is possible that there is soil contamination due to the location of the site in a heavily trafficked area.

The bedrock underlying the site is classified as 'Locally Important' Aquifer, with a vulnerability rating of 'Medium' to 'High' in the western side of the site, and 'Extreme' in the eastern section. The site is located within the catchment of the River Liffey, which is located 0.2km to the north. There are no surface water courses on the site.

Construction activity will give rise to excavation of made ground and soils (typically 0.5m). It has the potential to result in contamination of ground water due to the release of sediments and pollutants. Bedrock is noted to be at 3.2mbgl and overlain by clay which is considered limits the potential for contaminants to enter groundwater. It was confirmed during the oral hearing that a deeper excavation may be required for the storage tank associated with the plaza (2.5m). Should the water table be encountered and dewatering is required, this will be managed in a similar way to other surface water discharges, in accordance with standard good practice.

The operational stages of the development will result in a similar man-made environment but with reduced traffic and less potential for hydrocarbon spillages. Surface water discharges will discharge into the public collection system.

Having regard to the location of the site in an urban area, the limited excavation required, the depth to bedrock, the substantially altered nature of the ground and the mitigation measures proposed, I accept the conclusions reached in the EIAR that impacts on land, soil and water will not be significant.

Chapter 7 of the EIAR assesses the **air quality and climate** impacts associated with the proposed development. These are comprehensively addressed under previous sections of the report and accordingly are not repeated here.

I have considered all of the written and oral submissions made in relation to land, soil and water and I am satisfied that they have been appropriately addressed in terms of the application and the information submitted by the applicant. I am satisfied that the identified impacts would be avoided, managed and mitigated through the measures outlined in the EIAR and that no significant adverse direct, indirect or cumulative effects on land, soil and water are likely to arise.

I have also considered all of the written and oral submissions made in relation to air quality and climate. My conclusions are set out in previous sections of the report.

Material Assets, Cultural Heritage and Landscape

Material Assets -The assessment of the impacts of the development on material assets is divided into Utilities (Chapter 14) and Land Use and Property (Chapter 15).

During construction some local diversions, upgrades or replacement of utility infrastructure may be required. Provision will also be made for the installation of SuDS and associated infrastructure. The impacts arising will be temporary in nature. In terms of mitigation, the appointed contractor will be required to put measures in place to ensure that there is no interruption of services and that all existing services /utilities are maintained. Once the plaza is complete no mitigation measures are required.

With regard to Land Use and Property, there will be no direct impact on any building/land use arising from the development. There is potential for inconvenience to businesses arising from proximity to the works and temporary disruption to pedestrian/vehicular access to premises. These impacts will be mitigated using appropriate site management measures in conjunction with proactive engagement with residents and businesses in the area. Having regard to the temporary and short duration of the works, these impacts are considered acceptable.

Cultural Heritage – Chapter 10 of the EIAR considers the potential impacts of the development on archaeology, architecture and cultural heritage. The likely significant direct and indirect effects on archaeology, architecture and cultural heritage have been considered under the planning assessment section of this report. I have

concluded that potential construction related impacts on sub-surface archaeology and any impacts on the architectural/cultural resource (relocation of monuments, removal of historic pavement etc) have been identified and assessed and are capable of effective mitigation. Following completion, the impacts on the archaeological, architectural and cultural resource are considered to be significant and positive. No mitigation is required.

Landscape and Visual Impact - Chapter 11 of the EIAR assesses landscape and visual impact in the context of Townscape and Visual Impacts. The assessment was undertaken in accordance with the guidelines for Landscape and Visual Impact Assessment (2013), which includes specific provision for 'Townscape Assessment'. The townscape appraisal considers the way the proposed development ties into the existing urban fabric and character in terms of both form and function. Photomontages are used to assess the effects of visual change to the street.

The sensitivity of College Green is assessed as 'very high', being a critical element of the urban fabric of Dublin city. Construction activity will have a negative impact on townscape and visual impact and mitigation is considered necessary to ensure that the area is not avoided by locals and visitors. During this temporary phase the works will be enclosed by hoarding, to reduce visibility of the works and to contain dust and noise emissions from the site. Standard mitigation measures will be employed to reduce dust and noise levels. Once constructed, the proposed development will be overwhelmingly positive in terms of its enhancement of townscape and visual impacts.

I have considered all of the written and oral submissions made in relation to materials assets, cultural heritage and the landscape and I am satisfied that they have been appropriately addressed in terms of the application and the information submitted by the applicant. I am satisfied that the identified impacts would be avoided, managed and mitigated through the measures outlined in the EIAR and that no significant adverse direct, indirect or cumulative effects on material assets, cultural heritage or the landscape are likely to arise.

Interaction between environmental factors

Chapter 18 deals with the interaction of environmental factors. A matrix was produced and a summary of the potential interactions is provided in Section 18.4. The major interactions between the recorded environmental impacts are assessed within the individual chapters of the EIAR.

I have considered the interrelationship between factors and whether these as a whole affect the environment, even though the effects may be considered acceptable when considered on an individual basis.

I would note that in particular that traffic generated both during construction and the re-organisation of traffic during the operational stage has the potential to interact with most environmental media (air quality and climate, noise and vibration, archaeology, architecture and cultural heritage, townscape and visual, material assets, population and human health and risk of major accidents and/or disaster).

Reasoned Conclusion of Significant Effects

Having regard to the examination of environmental information contained above, and in particular to the EIAR and the further information provided by Dublin City Council, the submissions from the prescribed bodies and the observers during the course of the application, including the submissions made to the oral hearing, it is considered that the main significant direct and indirect effects of the proposed development on the environment are as follows:

Traffic and Transportation - Serious shortcomings have been identified with the modelling exercise which undermines its reliability in terms of identifying the extent of traffic impacts arising from the development and, while the model provides an indication of likely impacts, the magnitude of those impacts is considered to be significantly understated.

There is lack of clarity regarding the impacts on traffic and the level of congestion that may arise, and the potential impacts on bus transport, which is a critical element of city transport. The proposal will result in the relocation of buses onto the Quays and it has not been demonstrated that the Quays have the capacity to cater for increased flows. The relocation of buses will also result in the transfer of significant volumes of additional pedestrians onto the Quays. It has not been demonstrated that the existing footpaths, which have limited capacity can accommodate additional

pedestrian flows, or how these impacts could be mitigated. I consider that this constitutes significant grounds to refuse to approve the application.

Emissions to air – The restriction on vehicular traffic, particularly buses will have positive impacts on air quality within the application site. However, there will be knock-on effects on parts of the network outside the site associated with redistributed traffic, particularly buses. Therefore, while there will be a reduction in emissions in one area and a corresponding increase in another, the cumulative impact on the overall city centre is not likely to be significant. Having regard to the policy of moving towards more sustainable transport, there is a reasonable prospect that these matters will be addressed in the medium to long term. I do not, therefore, consider that this constitutes sufficient grounds to prevent the development proceeding.

Noise – Similar issues arise with regard to noise in that the redistribution of buses from one part of the city (College Green) to surrounding streets (Quays, Parliament Street) will result in positive outcomes for one part of the city centre with a corresponding deterioration in the noise environment of another. Mitigation is also required at a more strategic level, as documented in the Planning Assessment and is beyond the scope of this application. The cumulative effect on the overall city centre noise environment is not likely to be significant. I do not, therefore, consider that this constitutes sufficient grounds to prevent the development proceeding.

10.0 Appropriate Assessment

10.1. Introduction

The EU Habitats Directive 92/43/EEC provides legal protection for habitats and species of European importance through the establishment of a network of designated conservation areas collectively referred to as Natura 2000 or ‘European sites’. The network includes sites designated as Special Areas of Conservation (SAC) under the Habitats Directive and Special Areas of Conservation (SPA) designated under the Birds Directive. In general terms they are considered to be of exceptional importance for protecting rare, endangered or vulnerable habitats and species within the European Community.

Under Article 6(3) of the Habitats Directive, an Appropriate Assessment must be undertaken on any plan or project not directly connected with or necessary to the management of a European site but likely to have a significant effect on the site in view of its conservation objectives. The proposed development is not directly connected with or necessary to the management of a European site and accordingly screening for Appropriate Assessment was carried out. A Stage 1 Screening Report is contained in Appendix 9.1 of the EIAR.

10.2. Screening for Appropriate Assessment

In accordance with departmental guidance[42] the screening report (Appendix 9.1) identifies 16 no. Natura 2000 sites located within 15km of the study area. These include;

- 000199 Baldoyle Bay SAC (10.5km)
- 000202 Howth Head SAC (11.5km)
- 000205 Malahide Estuary SAC (14km)
- 000206 North Dublin Bay SAC (5.5km)
- 000210 South Dublin Bay SAC (2.5 km)
- 001209 Glenasmole Valley SAC (13km)
- 002193 Ireland's Eye SAC (14.5km)
- 003000 Rockabill to Dalkey Island SAC (11.5km)
- 004006 North Bull Island SPA (7km)
- 004016 Baldoyle Bay SPA (10.5km)
- 004024 South Dublin Bay & River Tolka Estuary SPA (3.5 km)
- 004025 Malahide Estuary SPA (14 km)
- 004040 Wicklow Mountains SPA (12 km)
- 004113 Howth Head Coast SPA (11.5km)
- 004117 Ireland's Eye SPA (14.5 km)
- 004172 Dalkey Island SPA (13 km)

[42] Appropriate Assessment of Plans and Projects In Ireland – Guidance for Planning Authorities (Section 3.2.3)

The majority of these sites were screened out (12 no.) at the preliminary stage on the basis of distance and the lack of direct ecological or hydrological connectivity with the proposed development, which would create the potential for direct/indirect significant impacts. This is considered reasonable.

Four sites were brought forward for Stage 1 Screening, all of which are associated with Dublin Bay. Arising from the separation distance between the site and the designated sites, there is no potential for direct impacts on the Natura 2000 sites. However, due to the proximity of the subject site to the River Liffey, which discharges into the bay, it was considered that there is potential for hydrological connectivity between the site and these designated European sites. The European sites brought forward are;

- 000206 North Dublin Bay SAC (Site Code 000206)
- 000210 South Dublin Bay SAC (Site Code 000210)
- 004006 North Bull Island SPA Site Code (004006)
- 004006 South Dublin Bay & River Tolka SPA (Site Code 004024).

North Dublin Bay SAC is located 5.5km from the site of the proposed development. The site covers the inner parts of north Dublin Bay extending from the Bull Wall to the Martello Tower at Howth Head. The site is selected for a number of coastal habitats and species listed on Annex 1/11 of the EU Habitats Directive which include;

[1140] Tidal Mudflats and Sandflats

[1210] Annual Vegetation of Drift Lines

[1310] *Salicornia* Mud

[1330] Atlantic Salt Meadows

[1410] Mediterranean Salt Meadows

[2110] Embryonic Shifting Dunes

[2120] Marram Dunes (White Dunes)

[2130] Fixed Dunes (Grey Dunes)* (* = priority)

[2190] Humid Dune Slacks

[1395] Petalworth (*Petalophyllum ralfsii*)

South Dublin Bay SAC is located c 2.5km from the site. It lies south of the River Liffey and extends from the South Wall to the west pier at Dun Laoghaire. It is an intertidal site with extensive areas of sand and mudflats. The site is selected for a number of coastal habitats/species listed on Annex 1/11of the Habitats Directive and includes the following;

[1140] Tidal Mudflats and Sandflats

[1210] Annual Vegetation of Drift Lines

[1310] Salicornia and other annuals colonising mud and sand

[2110] Embryonic Shifting Dunes

North Bull Island SPA is located 7km from the site. It covers the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The site overlaps with North Dublin Bay SAC and adjoins South Dublin Bay & River Tolka Estuary SPA.

The site is of special conservation interest for the following species: Light bellied Brent Goose, Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Golden Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone, and Black-headed Gull. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterfowl. It supports internationally important populations of three species, Light-bellied Brent Gooose, Black Tailed Godwit and Bar-tailed Godwit.

South Dublin Bay & River Tolka SPA is located 3.5km from the site. It comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. The site is of special conservation interest for the following species: Light bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank, Black-headed Gull, Roseate Tern, Common Tern and Artic Tern. Four of the species that regularly occur at this site are listed on Annex 1 of the E.U Birds Directive, i.e Bar-tailed Godwit, Common Tern, Arctic Tern and Roseate Ter. The site and its associated waterbirds are of special conservation interest for Wetlands and Waterbirds.

Site specific Conservation Objectives have been published for each of the four designated sites. The Screening Report documents the conservation objectives that apply to each of the qualifying habitats and species within the individual SAC's/SPA's. It also identifies the key environmental and ecological conditions that supports site integrity as well as current threats (Table 3). The majority of the qualifying interests are marine and groundwater dependent with varying sensitivities to hydrological change. The proposed development will not compromise or change these environmental conditions. Qualifying interests including 'Mudflats and sandflats not covered by seawater at low tide' and 'Wetlands and Waterbirds' would be sensitive to polluting pressures including run-off. The overarching objective for each feature is to maintain/restore the favourable conservation condition of the various habitats/species and to maintain the favourable condition of bird species and the habitats that support them.

10.3. Potential Impacts on Natura 2000 sites

The proposed development is not directly connected with or necessary to the management of any of the Natura 2000 sites and therefore potential impacts must be considered.

The site is well removed from all Natura 2000 sites, which eliminates the potential for direct effects on qualifying habitats or species. The construction stage of the project will involve excavation below ground level, the storage of stockpiled material, pumping of ground water etc., which has the potential to release sediment, contaminated material/water, hydrocarbons and other polluting material to the drainage system that discharges into the River Liffey. The river's outfall is into Dublin Bay, creating the potential for indirect impacts on the four Natura 2000 sites associated with the bay.

The proposal is designed to ensure that construction will be undertaken in a manner that will allow potential impacts to be managed to prevent impacts on the water environment. This will be achieved through a series of best practice measures that are detailed in the Outline Construction and Environmental Management Plan, contained in Appendix 4.1 of the EIAR. It sets out a number of measures to control run-off and the discharge of pollutants to the water environment. These are well established and recognised measures implemented on construction sites to protect

water e.g. secondary containment of all hazardous materials (fuels, cleaning agents etc), appropriate storage of stockpiled material, temporary bunds for oil/diesel storage tanks etc. Subject to the implementation of the proposed best practice measures, I accept that the potential for likely significant effects does not arise.

The screening report also considers potential in-combination effects associated with other developments. The developments considered are generally limited to traffic management projects, involving minimal works. The EIAR documents the planning history (Section 15.3.2) including proposed and permitted development in the vicinity of the site. These are projects involving a greater construction effort, which may have warranted inclusion for consideration for potential in-combination effects.

However, I accept as stated in the EIAR that each of these projects would also be required to adhere to best practice in their construction methodologies to avoid surface water run-off/contamination. I accept, therefore, that cumulative impacts are not likely to arise.

Having regard to the nature of the proposed development, the location within an established and fully serviced urban centre, the character and specific environmental conditions of the European Sites concerned, which are coastal habitats/species, the distance to the designated sites and the diluting effects of the River Liffey and Dublin Bay, I consider that the proposed development either alone, or, in combination with other plans or projects, would not be likely to have significant effects on North Dublin Bay SAC (000206), South Dublin Bay SAC(000210), North Bull Island SPA (004006), South Dublin Bay & River Tolka Estuary SPA (004024), or any other European site, in view of the sites conservation objectives and that, therefore, a Stage 2 Appropriate Assessment and the submission of a Natura Impact Statement is not required.

11.0 Conclusion & Recommendation

In conclusion, the principle of the development is acceptable, and will produce a quality public realm which will significantly enhance the amenity and attractiveness of this city centre location. The traffic dominated environment will be replaced with a clutter free space with significantly improved facilities for pedestrians and cyclists. It

will significantly improve the visual amenities of the area and facilitate improved appreciation of the architectural and cultural heritage of this important site.

However, outside the site the proposed development will have impacts on surrounding streets associated with the redistribution of traffic, particularly buses. Significant shortcomings have been identified with the modelling exercise which undermines its reliability in terms of identifying the extent of traffic impacts arising, and while the model provides an indication of likely impacts, the magnitude of those impacts is considered to be significantly understated. This gives rise to uncertain, but likely significant negative impacts on bus transport, having regard to the scale of re-routing proposed and the critical importance of bus transport to the city.

A significant number of additional buses will be re-routed onto the Quays and the capacity of the Quays to accommodate this increase has not been analysed or assessed. Furthermore, the redirection of buses will result in significant increases in passenger numbers on both sides of the Quays. It has not been demonstrated that existing footpaths have the capacity to accommodate increased pedestrians, and the effects of extending bus stops out along the Quays, to mitigate the effect has not been analysed or assessed.

I accept that other impacts associated with redirected traffic, such are air emissions and noise will effectively be transferred from one part of the city centre to another. In terms of overall cumulative impact on the city centre, the effect is not likely to be significant. I accept that that there is a reasonable prospect that these impacts will be mitigated in the medium to long term. It is not considered, therefore, that these matters constitute sufficient grounds to prevent the development proceeding.

I conclude that the proposed development would not be acceptable by reason of the identified potential significant impacts on traffic and transportation, particularly bus transport.

12.0 Recommendation

On the basis of the above assessment, I recommend that the Board **Refuse to APPROVE** the proposed development for the Reasons and Considerations set out below.

13.0 Reasons and Considerations

Having regard to the

i. significant shortcomings associated with the traffic modelling in relation to its reliability to accurately quantify the traffic impacts of the proposed development and the magnitude of those impacts,

ii. consequential uncertainty but likely significant negative impacts for bus transport, having regard to the scale of re-routing proposed, the critical importance of bus transport to the city, and, its future role in facilitating modal shift from private car usage in line with national policy,

iii. identified and unresolved capacity issues on the Quays in relation to their capacity to accommodate the scale of bus re-routing proposed, and

iv. the restricted capacity of existing footpaths on both sides of the Quays to accommodate the significant volumes of pedestrians that would be re-directed onto the Quays as a result of bus re-routing, and the absence of clear proposals to address same

it is considered that the proposed development would give rise to significant adverse impacts on traffic generally, and on bus services in particular, within the city centre. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area

Breda Gannon
Senior Planning Inspector

17th September, 2018