
6.3 Blakes Site and Lesureplex

While a number of proposals had been developed in the past for both the Blakes site and the Leisureplex site, there were no immediate plans to progress either. The professional consultants were in a position to articulate the constraints and opportunities previously encountered and considered. It was acknowledged that any interim changes in the village environment, particularly in relation to road access, might alter the relative importance or difficulties in the event of re-embarking on significant redevelopment plans.

The key points emerging included:

1. Vehicular access to the Leisureplex site: This could only remain as existing under current circumstances, but may be required to change in the event of significant redevelopment, and may require access to be relocated to the western or eastern side of the site.
2. Vehicular access to the Blakes site: This was dependent on both the junction with Lower Kilmacud Road and Old Dublin Road, and also on the slipway off the N11 onto The Hill. Depending on the details of the Framework Plan, there may be scope to review access arrangements that could be beneficial to the village and also to the sites.

Engagement with the professional consultants was positive and constructive, and the mutual benefits of a collaboration with other stakeholders acknowledged.

6.4 Overview of Collective Stakeholder Consultations

Consultation with the key stakeholders indicated enthusiasm for the Framework Plan, acknowledged the potential benefits it could bring to Stillorgan, and also highlighted a number of areas of mutual or common interest which might be facilitated, directly or indirectly, through the process.

Between stakeholders:

1. The boundary between the overflow car park and Kilmacud Crokes access. If any flexibility could be afforded at this location, it would greatly assist the establishment of segregated vehicular and pedestrian access to the club, as well as greater visibility of the club from the main street
2. The irregular shape of the overflow carpark gave rise to a sub-optimal car parking layout. A small adjustment along part of the boundary with Lower Kilmacud Road, if the cross section of the road was to be modified, could allow for an improved layout and less redundant space.
3. The latter, if it could be secured, might offer some flexibility along the eastern boundary to resolve the access issues to Kilmaud Crokes.
4. The main Shopping Centre car park is slightly constrained at the south eastern corner. If there was any modification to the cross section of the street, it might be possible to incorporate a minor adjustment to the effective boundary.

Framework Plan and Stakeholders

1. Recognition of the benefit of an enhanced streetscape and safer with a more managed traffic environment, and greater provision for safe movement of pedestrians throughout the village.
2. Acknowledgement of the changing nature to streets in village [District Centre] environments, and the value of re-balancing streetscapes to make better pedestrian provision while maintaining appropriate vehicular access.
3. Overall alignment of the proposals with individual stakeholder objectives, including the short through to longer term objectives.

The outcomes of Stakeholder consultation have been considered in full in developing the details for the Framework Plan and are incorporated as possible in the *Preferred Option*.

7. Emerging Preferred Option

Lower Kilmacud Road/ Overflow Parking (existing)



Figure 7.1: Lower Kilmacud Road/ Overflow Car Park (Existing)

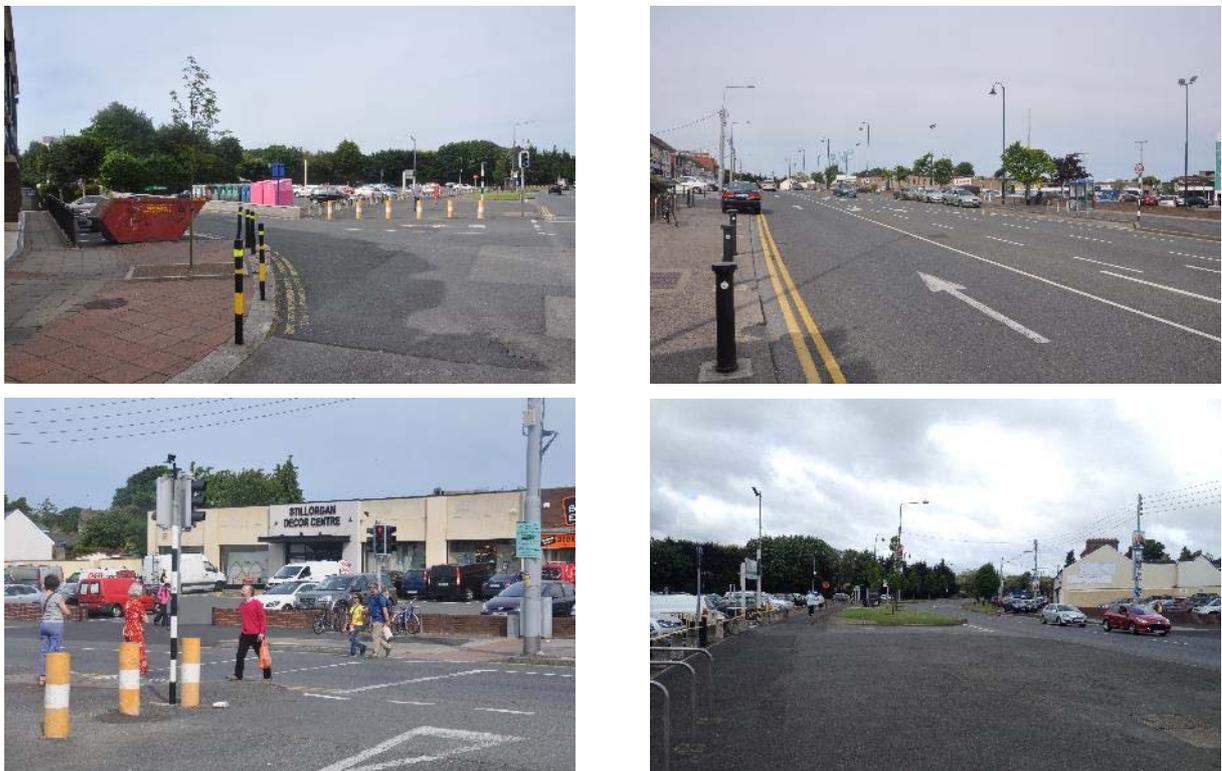


Figure 7.2: Roadway character of Lower Kilmacud Rd, overflow car park and Kilmacud Crokes access

Lower Kilmacud Road/ Overflow Parking (medium term proposal)



Figure 7.3: Lower Kilmacud Road/ Overflow Car Park (Indicative Medium Term Proposal)

Key interventions

- Creation of high quality urban space at the entrance to Kilmacud Crokes to enhance the visibility of Kilmacud Crokes within Stillorgan, and also to improve the pedestrian offer and experience of movement between the shopping centre and the overflow car park.
- Lower Kilmacud Road transitions from west to east, from general carriageway to an urban centre, with slow speed environment and enhanced pedestrian facilities.
- Cycle facilities incorporated throughout.
- Southern side of street developed as stronger footpath / urban space to encourage greater east-west pedestrian movement, with the introduction of a new pedestrian crossing point that corresponds to established desire lines.
- Adjustment for boundary between overflow car park and Lower Kilmacud Road, and consequent rationalisation of car park layout, incorporating enhanced pedestrian offer and boundary landscaping.
- Incorporation of pavement facility along re-aligned access to Kilmacud Crokes.

Lower Kilmacud Road/Old Dublin Road Junction/N11 (existing)



Figure 7.4: Lower Kilmacud Road/ Old Dublin Road/ N11 (existing)



Figure 7.5: Vehicle-centric roadways and outdated pedestrian provision

Old Dublin Road (existing)



Figure 7.7: Old Dublin Road (Existing)



Figure 7.8: Vehicle-centric roadways, poor pedestrian provision and legibility.

Old Dublin Road (medium term proposal)



Figure 7.9: Old Dublin Road (Indicative Medium Term Proposal)

Key interventions

- Rationalise roadway provision to one lane in each direction.
- Increase pavement space, particularly on western side of the road.
- Provision of high quality pedestrian crossings.
- Re-configuration of retail frontage and parking area at local centre.
- Enhanced landscape along Old Dublin Road
- Maintaining connectivity to adjoining residential lands.

Lower Kilmacud Road at Mill House (existing)

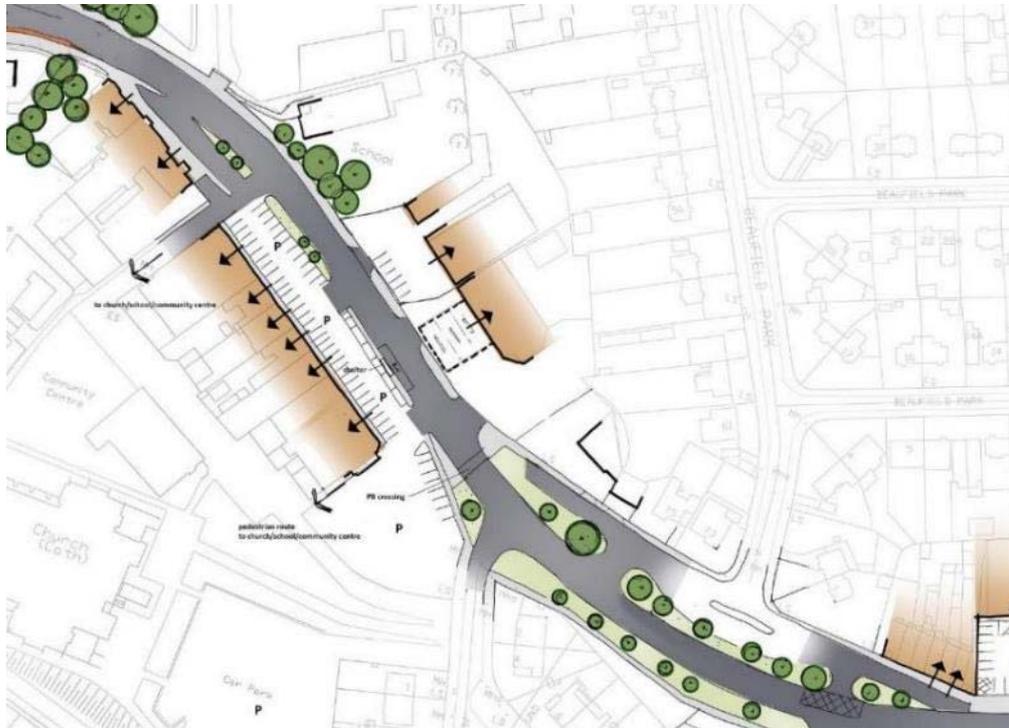


Figure 7.10: Lower Kilmacud Road at Mill House (Existing)



Figure 7.11: Opportunity for better utilisation of space, enhanced pedestrian provision and retail frontages

Lower Kilmacud Road at Mill House (medium term proposal)



Figure 7.12: Lower Kilmacud Road at Mill House (Indicative Medium Term Proposal)

Key interventions

- Rationalise roadway provision to one lane in each direction, with continuous cycle facilities.
- Enhanced landscaping in green street connection between main core and local core.
- High quality pedestrian crossings at key desire lines.
- Re-configuration of retail frontage and parking area at local centre to include legible pedestrian routes through parking area.
- Maintaining and reinforcing connectivity to adjoining land uses.

Upper/Lower Kilmacud Road South Avenue Junction (existing)



Figure 7.13: Upper/ Lower Kilmacud Road, South Avenue Junction (Existing)



Figure 7.14: Limited footpath space, excessive road engineering and conflict between cyclists and vehicles.

Upper/Lower Kilmacud Road South Avenue Junction (medium term proposal)



Figure 7.15: Upper/ Lower Kilmacud Road, South Avenue Junction (Indicative Medium Term Proposal)

Key interventions

- Rationalise roadway provision to one lane in each direction with continuous cycle facilities.
- Removal of left turn slip lane onto Upper Kilmacud Road and provision of a shared left turn lane to minimise cyclist / vehicular conflict.
- Increased pedestrian space to incorporate landscaping at junction to bring visual interest and human scale elements to streetscape.
- Single stage pedestrian crossings.

The Hill/ N11 Slip Lane (existing)



Figure 7.16: The Hill/ N11 Slip Lane (Existing)



Figure 7.17: Limited footpath space, excessive road engineering and lack of cycle facilities

The Hill/N11 Slip Lane (medium term proposal)



Figure 7.18: The Hill/ N11 Slip Lane (Indicative Medium Term Proposal)

Key interventions

- Closing the left slip access from the N11 to eliminate rat-running and change the traffic regime – speed and volume – to a more pedestrian friendly environment that is safe and encourages walking and footfall
- Opportunity to establish more attractive residential frontages onto the street by virtue of new cul-de-sac profile.
- Facilitate pedestrian and cycle movement from N11 onto The Hill, and create pocket park at N11 junction.

Oatland College (existing)



Figure 7.19: Oatland College (Existing)



Figure 7.20: Limited footpath space, excessive road width

Oatland College (medium term proposal)



Figure 7.21: Oatland College (Indicative Medium Term Proposal)

Key interventions

- Improved pedestrian crossing at Woodlands Avenue
- New Pedestrian crossing at top end of Dublin Road to N11 Bus Stop
- Widened and improved footpath along Oatland College boundary

8. Feedback from Public Information Period

Public information was provided on the emerging options from October to December, 2015. The proposed design drawings showing emerging options were put on public display and the public were invited to provide feedback on the proposal.

Table 8.1 provides a summary of the submissions received, with a response provided for each submission/ comment/ issue listed.

Ref. no.	Submission / comment	Response
1	30km/hr. speed limit requested on Old Dublin Road, Stillorgan.	It may not be possible to legally reduce the speed limit on the Old Dublin Road to 30km/hr. However the proposed moderations should result in the roadway becoming a 'Slow Zone.'
	Request for no through traffic for HGVs on Old Dublin Road.	HGVs will be restricted by the proposed modifications to the Old Dublin Road. However local access to businesses will need to be maintained.
2	Glenalbyn Road – existing footpaths are too narrow and need to be widened in the interest of health & safety, particularly for users of the HSE baby clinic.	It is acknowledged that the widths of the existing footpaths along Glenalbyn Road are very narrow. Surveys will be undertaken to see if the existing roadway can accommodate wider footpaths.
3	Feels that Stillorgan Village is vibrant and doesn't need to be altered	Noted
4	Stillorgan Village needs updating / modernisation, plus will ease traffic movements.	Noted
5	Replacement of trees bordering interface from St. Laurence Park and the Stillorgan Leisureplex site.	Proposals for both soft and hard landscaping will be developed as part of the overall Plan.
	Improvements to footpath interface between St. Laurence's Park and Stillorgan Leisureplex site.	Footpaths will be upgraded, altered or widened depending on their location, in line with the proposals in the Plan.
	Re-alignment of car parking outside retail units at junction of St. Laurence's Park and the Old Dublin Road, however concern with drivers parking on footpaths.	It is proposed that the parking area outside the retail units, at this location, will be completely revamped. Parking will be within indented bays. Parking on footpaths to be controlled by means of hard landscaping and street furniture.
	General upgrade requested of all footpaths within St. Laurence's Park Estate, due to the level of footfall through the area.	The Stillorgan Movement Framework Plan provided for the upgrade of all footpaths etc. within the areas of the Public Realm.

	Replacement of section of existing footpath along the Old Dublin Road with tree planting welcomed but concern that they don't overshadow residential houses.	All tree planting and landscaping proposed as part of the Stillorgan Movement Framework Plan will be chosen to suit the intended areas.
	Closure of the slip road from the N11 onto The Hill, Stillorgan acknowledged and welcomed.	Noted
	Final design to ensure no decrease in parking to front of shops at junction of St. Laurence's Park and Old Dublin Road.	The Stillorgan Movement Framework Plan is intended to improve the Public Realm and balance the needs of all users. Therefore it unlikely to be possible to maintain the existing level of parking at this location.
	Litter bins requested for outside Nimble Fingers / Joseph Kramer, Old Dublin Road.	The number and extent of litter bins required will be decided at detail design stage.
	Proposed Pedestrian crossing points, within St. Laurence's Park welcomed.	Noted
	Concern about illegal parking within St. Laurence's Park.	Illegal parking is a Garda Enforcement matter and doesn't form part of the Brief for the Stillorgan Movement Framework Plan
	Request for a yellow box junction on the Old Dublin Road, at the entrance to St. Laurence's Park.	The type and extent of new road markings required will be decided at detail design stage.
	Request that the location of the existing Pedestrian Crossing on the Old Dublin Road be reviewed, as it is felt to be too near the exit from the Stillorgan Shopping Centre.	Disagree. However it should be noted that increased safety will be provided by the modifications proposed for the Old Dublin Road.
	Request that the first phase of the Stillorgan Village Area Movement Framework Plan incorporate the area that includes St. Laurence's Park.	Phasing of the construction works for the Stillorgan Movement Framework Plan will be based on the maximum return / gains and the level of funding, combined with the co-operation of the relevant stakeholders.
6	Pedestrian lights requested on the slip lane at the Lower Kilmacud Road and Upper Kilmacud Road junction in the interest of safety, particularly for local school-children.	In the interest of improved safety, especially for school-children, it is proposed to completely remove the slip lane, as part of the total re-design of the Lower Kilmacud Road – Upper Kilmacud Road signalised junction.
	Request that no modifications are made to the green open space or trees at the junction of South Avenue / Lower Kilmacud Road as part of any junction upgrade works.	Noted.
7	Unsure how new layout will address traffic flows through Stillorgan Village.	The proposed Plan provided for one traffic lane in each direction along Lower Kilmacud Road for through traffic, as per the existing arrangement. However the proposed revised

		layout will impose greater control on internal traffic speeds and movements.
	Objections to any introduction of Pay & Display, as part of the proposed re-design of the Public Realm.	The introduction of Pay & Display is a Policy issue, to be decided at a later date, and therefore is not part of the proposals under consideration in the Stillorgan Movement Framework Plan.
	Request for reinstatement of old 46A Dublin Bus route through Stillorgan Village.	This is a matter for Dublin Bus, as the Bus Operator.
	Proposal that a local feeder bus service, (IMP bus system), be introduced to Stillorgan Village to serve the Luas and the residential estates along Lower and Upper Kilmacud Road, thus reducing the level of car use in the area.	The Purpose of the Stillorgan Movement Framework Plan is to develop the Public Realm within and around Stillorgan Village. The provision of a local bus service is a matter between the businesses and the residents.
8	Welcome for the proposals in attempting to improve safety for pedestrians, motorists and cyclists.	Noted
	Request for a signalised traffic junction, incorporating the existing Pedestrian Crossing, at the Lower Kilmacud Road / Allen Park Drive in order in order to improve access and egress to Merville Estate.	Noted and will be considered in developing the proposals for the Stillorgan Movement Framework Plan.
9	Dangerously narrow width, (0.6m – 1.0m), of existing footpaths on Glenalbyn Road needs to be addressed as part of the improvements to the Public Realm.	It is acknowledged that the widths of the existing footpaths along Glenalbyn Road are very narrow. This issue will be reviewed. However, it should be noted that Glenalbyn Road lies outside the extent of the study area.
10	Welcome for the proposed Pedestrian crossing point between The Children's House Montessori Primary School and the 'Fruit World' premises but request for traffic calming measures to be incorporated in order to increase safety.	The objective of the Plan is to provide an improved and safer environment for all users. Therefore the proposed measures in terms of narrower traffic lanes, cycle tracks, pedestrian crossing points, wider footpath etc. will provide for increased traffic calming in the area.
	Consideration that the existing drop off / pick up parking on the Lower Kilmacud Road, to serve The Children's House Montessori School, be allowed for in the new design for this section of roadway, also consideration for deliveries etc.	In order to provide for upgraded footpaths and new cycle tracks, combined with reduced traffic lanes widths, it won't be possible to allow on-road parking along any section of the Lower Kilmacud Road.
11	Welcome for the improved safety for families and children with the increased pavement widths, enhanced cycling facilities, single lane traffic and an island separating the lanes.	Noted

	Concerns about the continuing grid-lock caused by traffic accessing the Stillorgan Shopping Centre car park.	Traffic grid-lock within Stillorgan Village is currently an issue at certain times of the day. It is intended that measures will be incorporated into the final design to address, as best as possible, this problem.
	Query if cycle lanes could be moved away from edge of traffic lanes for safety consideration.	Available space doesn't allow for off-road cycle tracks. However the proposed cycle tracks will be vertically separated from the adjoining roadways, except at junctions, in line with the National Cycle Manual.
12	Objection to the closure of the slip road from the N11 onto The Hill, Stillorgan due to concerns about loss of business due to removal a link to the customer catchment area.	Objection noted and accepted from the local business interests. Further surveys will be undertaken before any final decision is made on closing the slip road from the N11.
13	Welcome for the proposals and looking forward to the completion and implementation of the Plan.	Noted
14	Supports proposals for the upgrade of roadways and pedestrian areas within the vicinity of Stillorgan Village but feels that the Public Consultation could have been better advertised.	Noted. The purpose of the Information Period was to receive some initial feedback on the emerging options from a cross-section of local businesses and residents. This we feel was achieved and will help to inform the approach and final layout of the Stillorgan Village Area Movement Plan.
15	Supportive of the measures in the Plan, in addressing traffic and parking arrangements in the Stillorgan area.	Noted
16	Reduction in traffic lanes will cause tailbacks and queuing for drivers accessing Stillorgan Village. Review Plan with a view to improving traffic flows.	While the traffic lanes particularly on the Lower Kilmacud Road will be reduced in width, two-way traffic flows will be maintained by preventing any on-road parking and improving junction design.
17	Smarter layout, especially for pedestrians. A pedestrian flyover on the N11 at the junction with Oaklands School would make it safer for pedestrians and allow traffic to exit the Old Dublin Road in a more organised manner.	Aside from the high cost involved, there is the insufficient land available to construct the required access ramps and pedestrian flyover infrastructure. There is a new Pedestrian crossing point, on the N11, included in the proposals.
18	Supportive of Plan but disappointed that there is very little proposed for the redesign of the Allen Park Road – Lower Kilmacud Road junction, very difficult to exit when turning right towards Stillorgan Village.	Noted and the installation of traffic lights at the Lower Kilmacud Road / Allen Park Road junction will be considered in the development of the Stillorgan Movement Framework Plan.
19	Impressed with the improvement in crossing points on the Lower Kilmacud Road and the installation of cycle lanes.	Noted.

	Request for cycle lanes to be included on the Old Dublin Road to serve Oaklands School, including the provision of cycle parking area.	The installation of cycle lanes on the Old Dublin Road will be considered in the development of the Stillorgan Movement Framework Plan. However it should be noted that this may require the removal of the existing on-road parking.
20	Welcomes the re-location of the out-bound bus stop on the N11, the proposed access from Patrician Villas and the new Pedestrian crossing on the N11.	Noted.
	Request for a Pedestrian crossing on South Avenue, at the junction with Lower Kilmacud Road and on Redesdale Road, at the junction with Lower Kilmacud Road in order to improve safety for children going to the local schools.	It is proposed, as part of the upgrade of the existing traffic lights at the Lower Kilmacud Road / South Avenue junction, to incorporate a Pedestrian crossing on South Avenue. In relation to Redesdale Road, it is not possible or safe to provide an isolated Pedestrian crossing on a side roadway.
21	The use of unclear technical jargon e.g. “modal shifts,” “soft modes,” “balance movement” and “place” makes the proposals very hard to follow and evaluate.	While sometimes technical jargon can be difficult to understand, the photographs, drawings and artist’s impressions were designed to fully convey the objectives and emerging options for the proposed Stillorgan Village Area Movement Framework Plan.,
	Creating a “traffic calmed environment” with “reduced lane widths” will result in traffic diverting through Mount Merrion to bypass Stillorgan Village. The Plan doesn’t consider the wider traffic management issues which are likely to result in the adjoining residential areas.	Extensive traffic surveys were undertaken and traffic modelling reviewed in order to inform the development of the proposals for the Stillorgan Village Area Movement Framework Plan. The proposals are designed to facilitate a level of throughput traffic, while restoring a village feel to the centre of Stillorgan.

Table 8.1: Summary of Submissions Received

9. Key Feedback Items

The key items requiring further investigation that emerged from the public information period on emerging options were as follows:

9.1 Allen Park Drive:

Submissions 8 and 18 refer to the difficulty drivers experience turning right from Allen Park Drive onto Lower Kilmacud Road and request consideration for the redesign of this junction as part of the scheme.

A survey was undertaken on Monday 27th June between 8:40 and 9:00 which recorded a maximum queue length on the approach to the junction of three passenger car units and a maximum delay of less than eighty seconds for right turning vehicles.

This indicates that signalisation of the junction is not appropriate at this location. However, in order to assist right turning vehicles exiting Allen Park Drive, the proposal has been modified to include a yellow box at the junction. It is also proposed to modify the operation of the pedestrian crossing located west of Allen Park Drive to increase its activation frequency during busy periods.

9.2 *Glenalbyn Road*

Submission 9 refers to 'dangerously narrow footpaths' on Glenalbyn Road. This issue was reviewed and upon preliminary investigation it appears that the existing carriageway widths are not sufficiently wide to accommodate the use of roadway space to increase the width of the footpath. It should be noted that Glenalbyn Road is outside the extent of the study area, and thus, a detailed assessment (i.e. land acquisition potential etc.) was not undertaken as part of this study.

9.3 *Closure of the left Slip lane from The N11 onto 'The Hill'*

The proposals provided for public consultation included the closure of the left slip lane from the N11 onto The Hill. During consultation concerns were raised with respect to the impact the closure of this slip lane would have on local businesses.

In particular, the Orchard Pub and 'Village Vets' veterinary practice were concerned regarding the impact it would have on their businesses. Traffic and parking surveys were conducted in order to quantify any potential impacts the closure of the Hill may have.

CSEA conducted these surveys on Friday 22nd January 2016, with observations made adjacent the junction of the Hill and Glenalbyn Road during three time periods as follows:

- 09:30 -11:30;
- 12:30 -14:30; and
- 16:00 -18:00.

The results of the survey can be found in Appendix C. The removal of direct access from the N11 left slip lane onto the Hill may deter a small percentage of customers from these local business as they would have to Access these business via. a left turn onto Lower Kilmacud Road and a second left turn onto the Hill. However, the redesign of Stillorgan Village as a more attractive vibrant town centre with the implementation of the scheme is likely to offset any negative impacts resulting from modified access arrangements.

Thus, it is not proposed to close The Hill initially but the operation of the junction of the Hill, Lower Kilmacud Road and Old Dublin Road will be reviewed following implementation of the scheme. If this junction becomes congested, it may be advisable to implement the Closure of the slip lane from the N11 in the medium to long term.

9.4 Pedestrian Crossing at Oatlands College

Further to review during the consultation period, it is proposed to provide a new controlled pedestrian crossing on Old Dublin Road. The pedestrian crossing will be located adjacent to Oatlands College on the west side of Old Dublin Road and a healthcare clinic on the east side of the road.

10. Proposal

This chapter shows the overall concept designs for the medium and long term proposals, focusing on the Village Core Area. Detailed engineering drawings of the proposal covering all areas of the scheme are provided in Appendix E and Chapter 10 should be read in conjunction with these drawings.

10.1 Existing Village Core

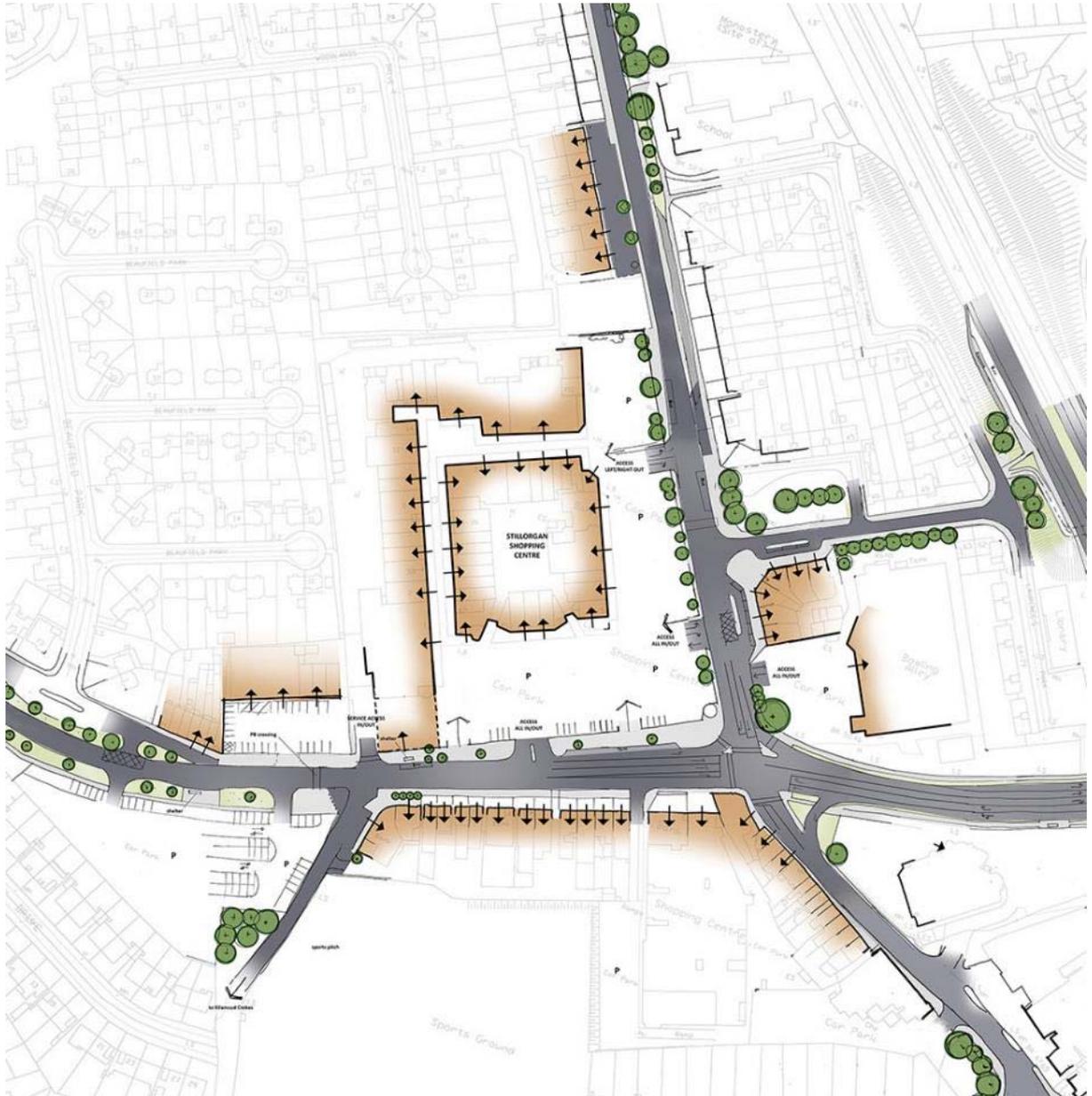


Figure 10.1: Existing Village Core

Key Overall Issues:

- Disconnected village sections;
- Wide traffic lanes;
- Impression of car priority;
- Inadequate Pedestrian/ Cycle facilities;
- Extensive parking areas dominate landscape.

- Further rationalising of car parks layouts, typologies, locations and access points in conjunction with regeneration opportunity lands.

10.4 Photomontages



Figure 10.4: Lower Kilmacud Road Currently (looking East)



Figure 10.5: Lower Kilmacud Road Potential (looking East)



Figure 10.6: Lower Kilmacud Road Currently (looking West)

Lower Kilmacud Road Potential (looking West)



Figure 10.7: Lower Kilmacud Road Potential (looking West)



Figure 10.8: Lower Kilmacud Rd / The Hill Junction Currently



Figure 10.9: Lower Kilmacud Rd / The Hill Junction Potential



Figure 10.10: Old Dublin Road Currently (South section)



Figure 10.11: Old Dublin Road Potential (South Section)



Figure 10.12: Old Dublin Road Currently (Middle section)



Figure 10.13: Old Dublin Road Potential (Middle section)

10.5 Indicative Sections through Lower Kilmacud Road



Figure 10.14: Section AA (as existing)



Figure 10.15: Section AA (as proposed)

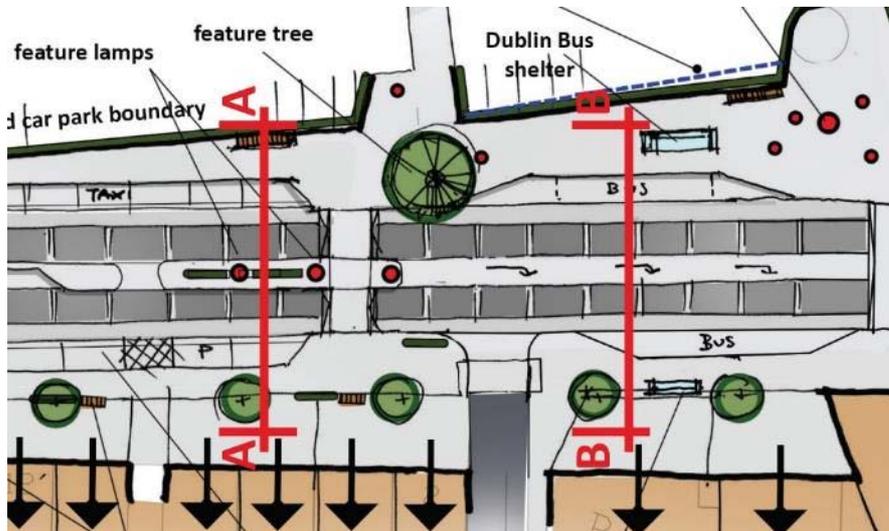


Figure 10.16: Section Location Plan



Figure 10.17: Section BB (as existing)

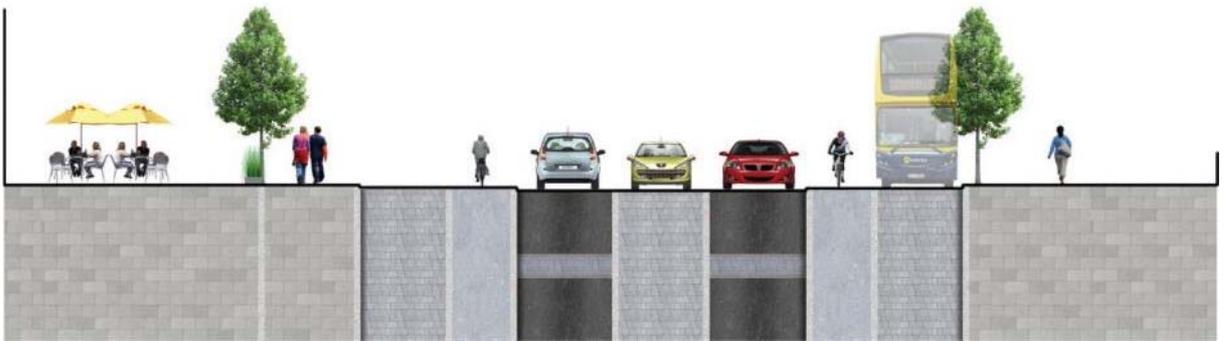


Figure 10.18: Section BB (as proposed)

10.6 General Materials



Figure 10.19: numerical values indicating location of materials listed below

-
1. Quality asphalt to carriageway
 2. Exposed aggregate tarmac to cycle tracks/lanes
 3. Grey concrete setts to pedestrian crossing and parking/taxi bays
 4. Grey concrete/granite kerb
 5. Light grey concrete flag paving to footpaths and other pedestrian areas
 6. Granite/concrete planters with low planting
 7. Semi-mature trees in tree grille
 8. Selected modern 'heritage' style feature street lamps

11. Cost Estimate

The scheme can be broken down into a number of separate work packages, with each section costed individually. The extent of these sections and the costs associated with each package of work are shown graphically in Appendix D. It should be noted that Section 2, as indicated on the drawing, will be implemented as part of the N11 scheme and thus, this sum may be subtracted from the total cost of the scheme

Appendix A: Public/ User Attitudes Survey

File Note

Project Stillorgan Framework – Phase 1
Subject Interview Questionnaire

File No. FN14_059_001
Date 21/10/2014

Survey Dates: Thursday 25th September (9am-6pm) & Saturday 27th September (11am-3pm) 2014.

Surveys conducted:

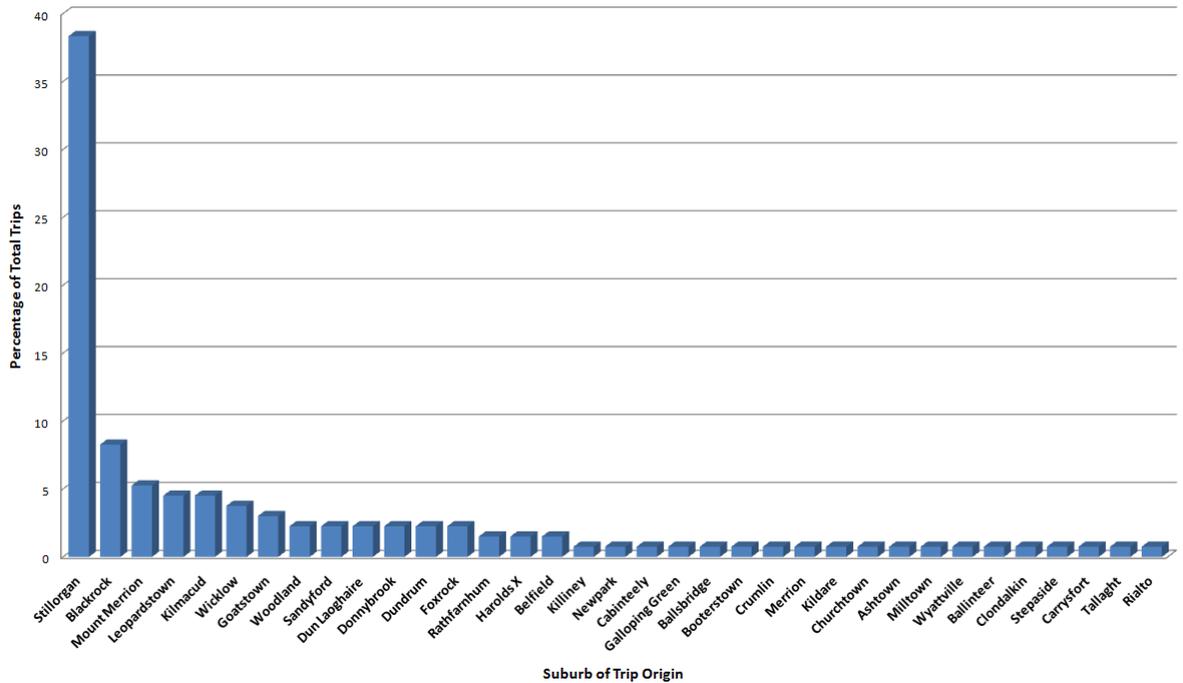
- Within the shopping centre complex outside Tesco supermarket;
- Within the shopping centre complex outside Tesco Liquor Store;
- Along Old Dublin Road, opposite Stillorgan College of Further Education;
- Along Old Dublin Road, at its intersection with St. Laurence’s Park;
- Along Old Dublin Road, at its intersection with Lower Kilmacud Road and the Hill;
- On the Hill, outside Boland’s pub;
- On Lower Kilmacud Road, outside the AIB;
- On Lower Kilmacud Road, outside Centra.

Number of Responses: 133

Interview Questions and Responses

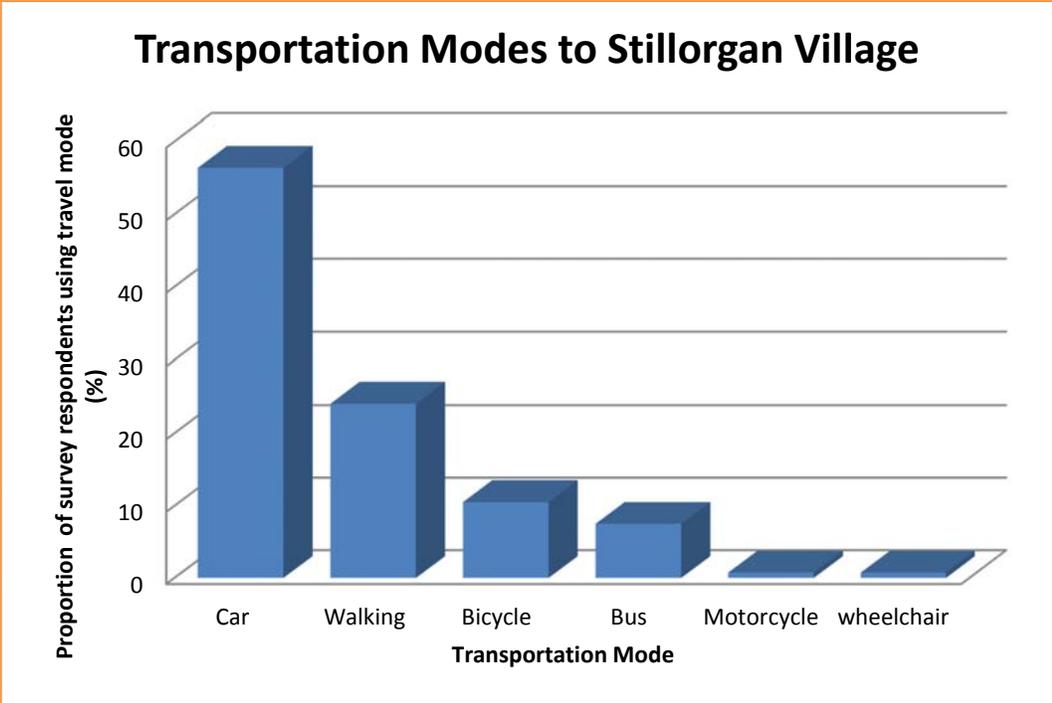
1. **Where did your trip originate?**

Trip Origin of Interview Survey Candidates



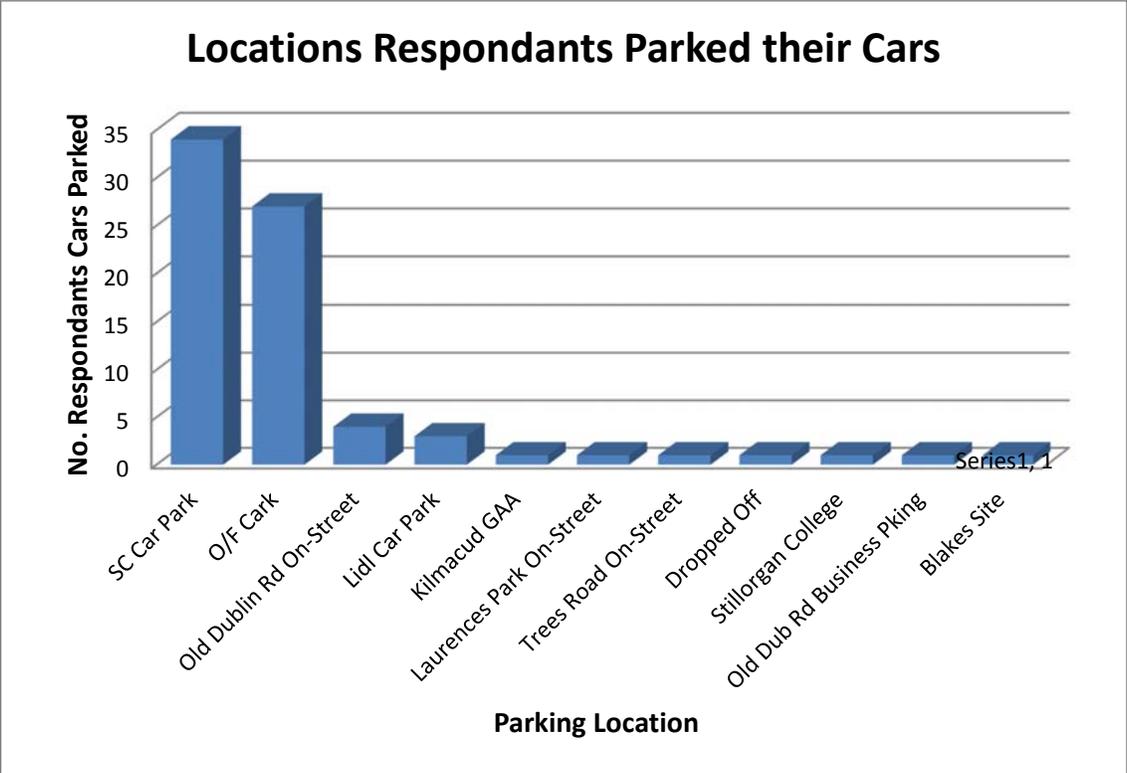
2. **Travel Mode** : Car Push Bike Bus Motorcycle Walking Other

If other, specify



3. If you travelled by car (please ignore questions 4 & 5):

(i) Where did you park?.....



(ii) Length of stay?.....



(iii) How easy was it to find parking?.....



(iv) Would you ever consider cycling, walking or taking public transport to the shopping centre?

Would you consider walking, cycling, taking bus?					
yes				no	yes (not grocery shopping)
total	Walking	Cycling	Bus	32	2
38	21	6	10		

What improvements would you like to see in the area to encourage you to do so?

.....

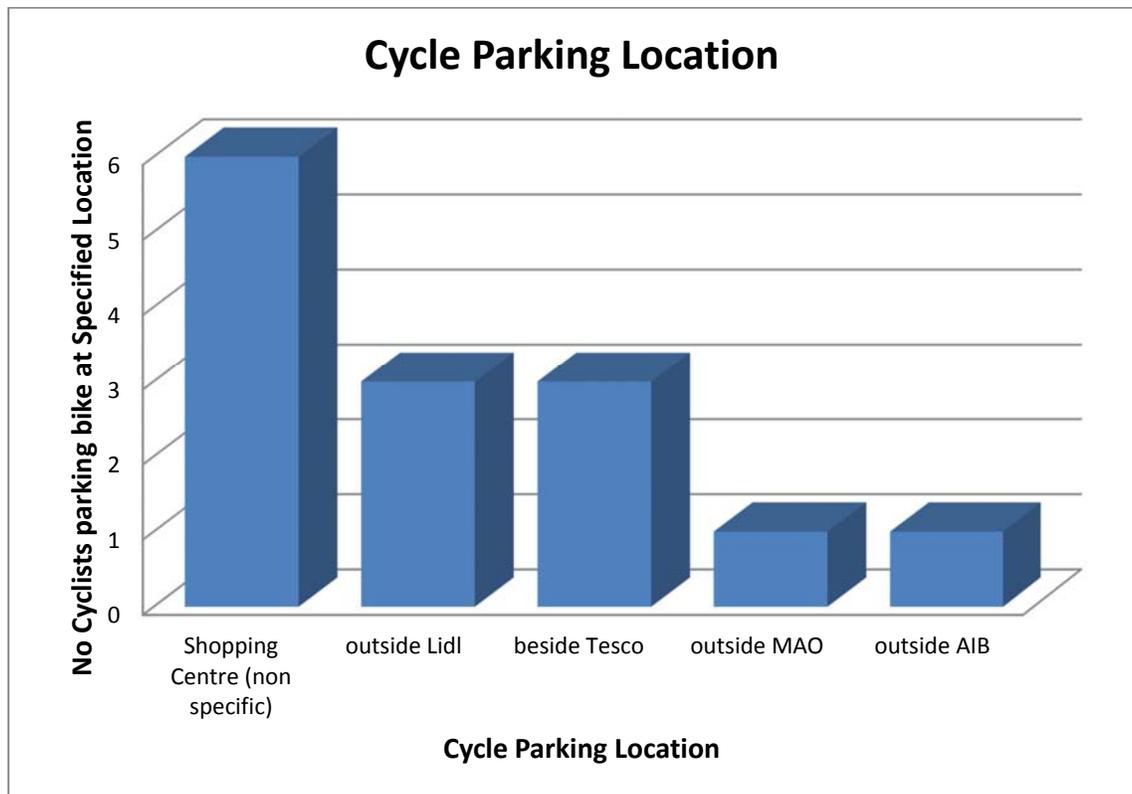
(main/ most useful data collected):

- More street furniture e.g. Benches

- Refurbish footpaths and provide better pedestrian crossings
- Bring No. 11 bus back into Stillorgan village
- provide better desognated cycle lanes along N11 that are not shared with busses
- bring 46A bus back into Stillorgan village
- more cycle Parking
- cycle lane improvements (e.g. from Goatstown)
- introduce Dublin Bikes to Stillorgan

4. **If you travelled by bicycle** (please ignore questions 3 & 5):

(i) Where did you park your bike?.....



(ii) Do you think there is enough conveniently located cycle parking in Stillorgan?

Enough conveniently located cycle parking?	
yes	5
No	9

If not, where would you like to see more cycle parking located?

- near CCTV and in busier locations
- near Nimble Fingers
- within shopping centre
- near McDonalds (sc)

(iii) Where would you like to see cycle lane improvements within Stillorgan?

- Improvements on N11
- Along Lower Kilmacud Road
- Along Old Dublin Road
- improve connection to N11 x 2 - make it safer/ trees block street light/ conflicts between pedestrians and cyclists.
- improve cycle links from Carrysfort Avenue and Kilmacud Road
- improve cycle track between Blackrock and Dun Laoghaire
- dedicated cycle lane from back of Kilmacud church to Stillorgan village, improve public lighting at back of church
- better lanes from Roebuck/Mount Merrion

5. **If you travelled by bus** (please ignore questions 3 & 4):

(i) Did you have a positive or negative experience? Explain why.

Positive	ok	Negative
7	3	0

Positive feedback	Negative feedback	improvement suggestions
App makes transportation by bus easier	n/a	make busses more comfortable
no 47 bus is frequent		provide more space on seats
appreciates WIFI x 2		

6. **Regarding the general layout of Stillorgan town centre;**

(a) What do you like?

-
- Free parking
 - Local feel
 - Open layout of shopping centre
 - Good Mix of shops
 - Good amenities
 - Nice cafes
 - Familiarity
 - Single storey shopping centre
 - Easy to get around

(b) What do you dislike?

-
- Traffic
 - No village feel
 - Not enough Parking
 - Outside residential housing on Old Dublin Road, south of northern section of St Laurences Park, cars mount footpath on corner-dangerous for pedestrians
 - no parking outside oakland school
 - lack of street furniture
 - dated-needs revamping and refurbishment
 - not child friendly,
 - lack of shelter
 - car park spaces too narrow
 - bus service very infrequent + dont go into stillorgan village
 - Abandoned shops
 - lack of crossings, more lights for pedestrains

- not sufficient time to cross at lights on Old Dublin Road for Elderly
- long wait for green light at pedestrian crossing connecting the overflow car park with the shopping centre

(c) What would you like to change?

.....

- zebra crossing on Lower Kilmacud Rd
- more parking
- better street lighting
- better public transport – in particular bring bus services back into village (e.g. 46A)
- crossing to get to N11 bus stop
- more landscaping
- traffic calming
- play area for children e.g. at Blakes site
- plant trees and provide more cafes
- more shelter
- park with seating, water features and birds
- crossing at roundabout via Orpen estate
- more crossings on Old Dublin Road
- occupy derelict sites
- public transport connection from Blackrock to Stillorgan
- improve accessibility for wheelchairs – provide refuges in middle of road
- make better bus stops (Old Dublin Rd near school)
- ped. crossing - St. Laurences Park, conflict at entrance/exit of SC
- better lighting at back of church
- more public toilets
- more public bins

(d) How do you think Stillorgan village could be made more vibrant?

.....
.....

- redirect the through traffic around the village
- covered-less cold
- hanging baskets and trees
- more pedestrian crossings
- community areas + more public playgrounds
- markets on Saturday
- landscape areas and refurbishment of existing
- attractions in evenings and weekend
- bridge accross N11-safer for users
- events for older people, geared for families
- outside eating areas, lighting, pedestrain areas
- more reasonably priced cafes
- more street furnature

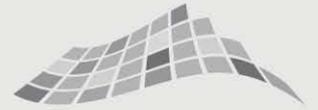
Project Number: 14_059

Project: NTA Stillorgan Village Area Movement Framework Plan

Title: Stillorgan Village Area MFP Preliminary Design and Options Report



Appendix B: Traffic Modelling Report



Clifton Scannell Emerson
Associates

Stillorgan Village Area Movement Framework Plan

Junction Traffic Assessment



Client: Dun Laoghaire-Rathdown
County Council

Date: January 2015

Job Number: 14_059

Civil
Engineering

Structural
Engineering

Transport
Engineering

Environmental
Engineering

Project
Management

Health
and Safety

CONSULTING ENGINEERS



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Issue No.	Issue Status	Date	Prepared by	Checked by
D1	Draft	08/01/2015	EC	GE

Table of Contents

1. Introduction.....	4
2. Lower Kilmacud Road/ The Hill Junction	4
3. Lower Kilmacud Road Car Park Access junction.....	13
4. Stillorgan junction.....	15

1. Introduction

CSEA has produced the following Traffic Analysis Report as part of the Preliminary Design Stage of the Stillorgan Village Area Movement Framework Plan.

The following junctions were assessed:

- Lower Kilmacud Road, The Hill and Old Dublin Road;
- Lower Kilmacud Road and south west shopping centre car park access;
- Lower Kilmacud Road and N11 Stillorgan Road; and
- Lower Kilmacud Road, Upper Kilmacud Road, and South Avenue (Staggered junction).

The existing and proposed junction layouts were modelled in OSCADY, PICADY and SIDRA using Thursday am and pm and Saturday midday peak-hour vehicle turning counts obtained from a classified 12-hour traffic count carried out at the junctions on 25th and 27th September 2014 and 3rd October 2013 (N11 junction). A summary of the OSCADY, PICADY and SIDRA analysis results is provided for each scenario along with a brief discussion on the traffic implications for the junctions.

2. Lower Kilmacud Road/ The Hill Junction

2.1 Existing Junction Layout

The existing junction layout is shown in Figures 2.1 and 2.2 below.

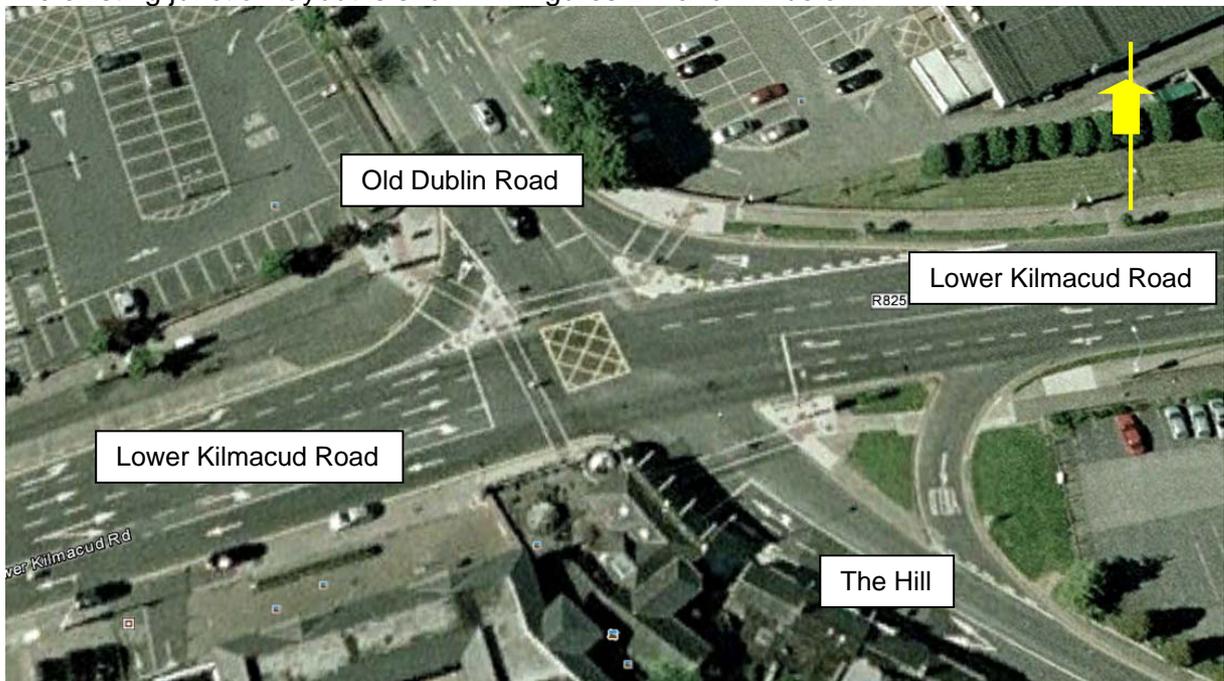


Figure 2.1 Existing Junction Layout (Satellite)

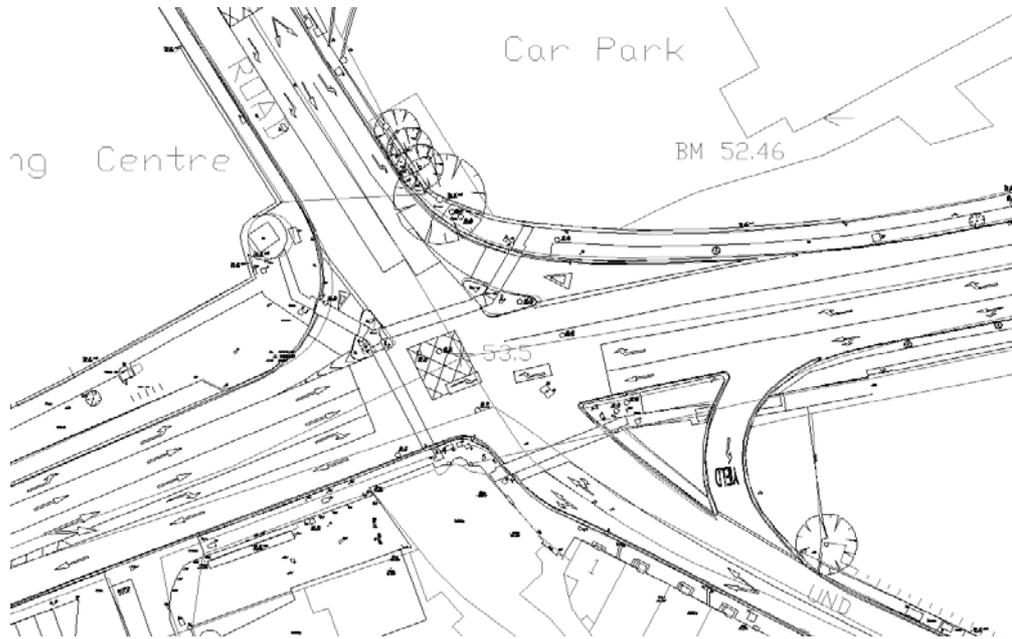


Figure 2.2 Existing Junction Layout (Schematic)

2.2 Existing Traffic Counts

Traffic surveys were conducted on Thursday 25th September and Saturday 27th September 2014. The Thursday am peak hour was recorded between 8am and 9am, the Thursday pm peak was recorded between 5pm and 6pm and the Saturday mid-day peak was recorded between 12pm and 1pm.

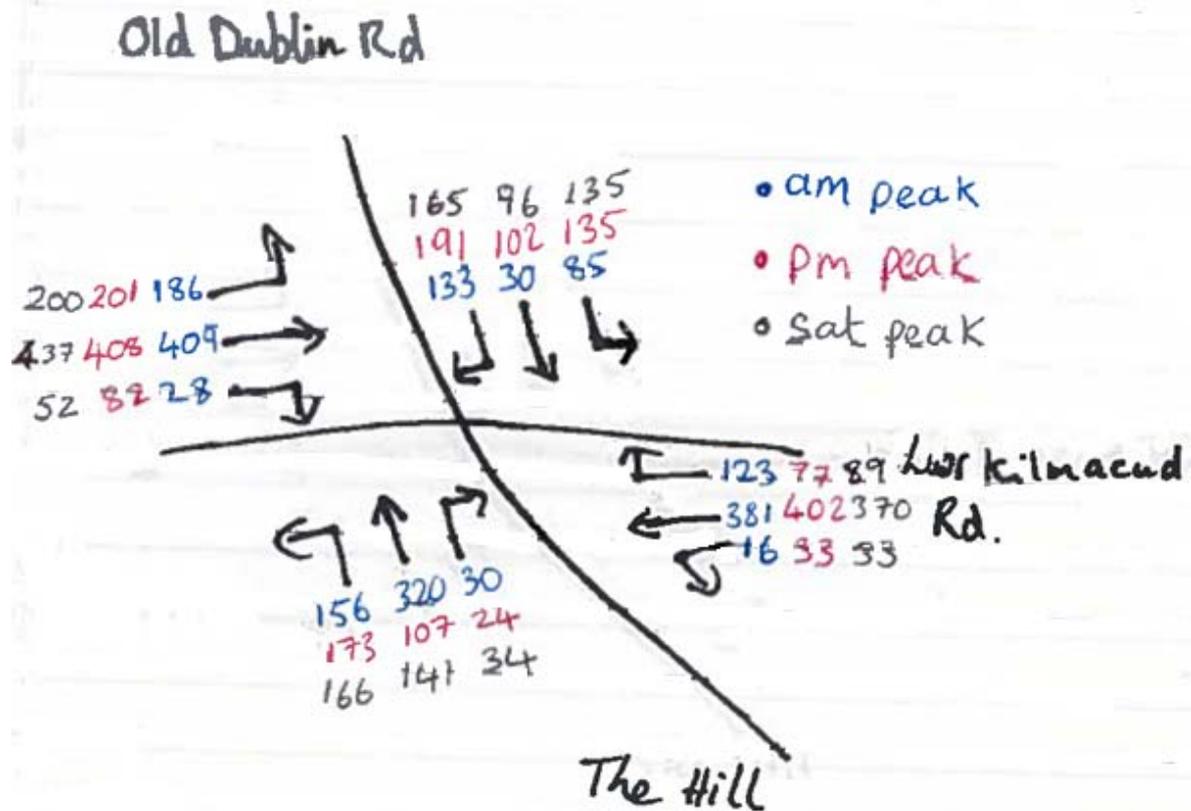


Figure 2.3 Existing Peak Hour Classified Turning Counts (vehicles)

2.3 Existing Traffic Signal Plan

Figure 2.3 is a screenshot from the SCATS intersection monitoring window for the junction showing the intersection layout and stage design. It shows that the existing junction has five stages and a cycle time of 120 seconds. Further information is provided in the Appendix on the phasing used for the traffic analysis, including minimum times required for each phase to accommodate pedestrian crossings.

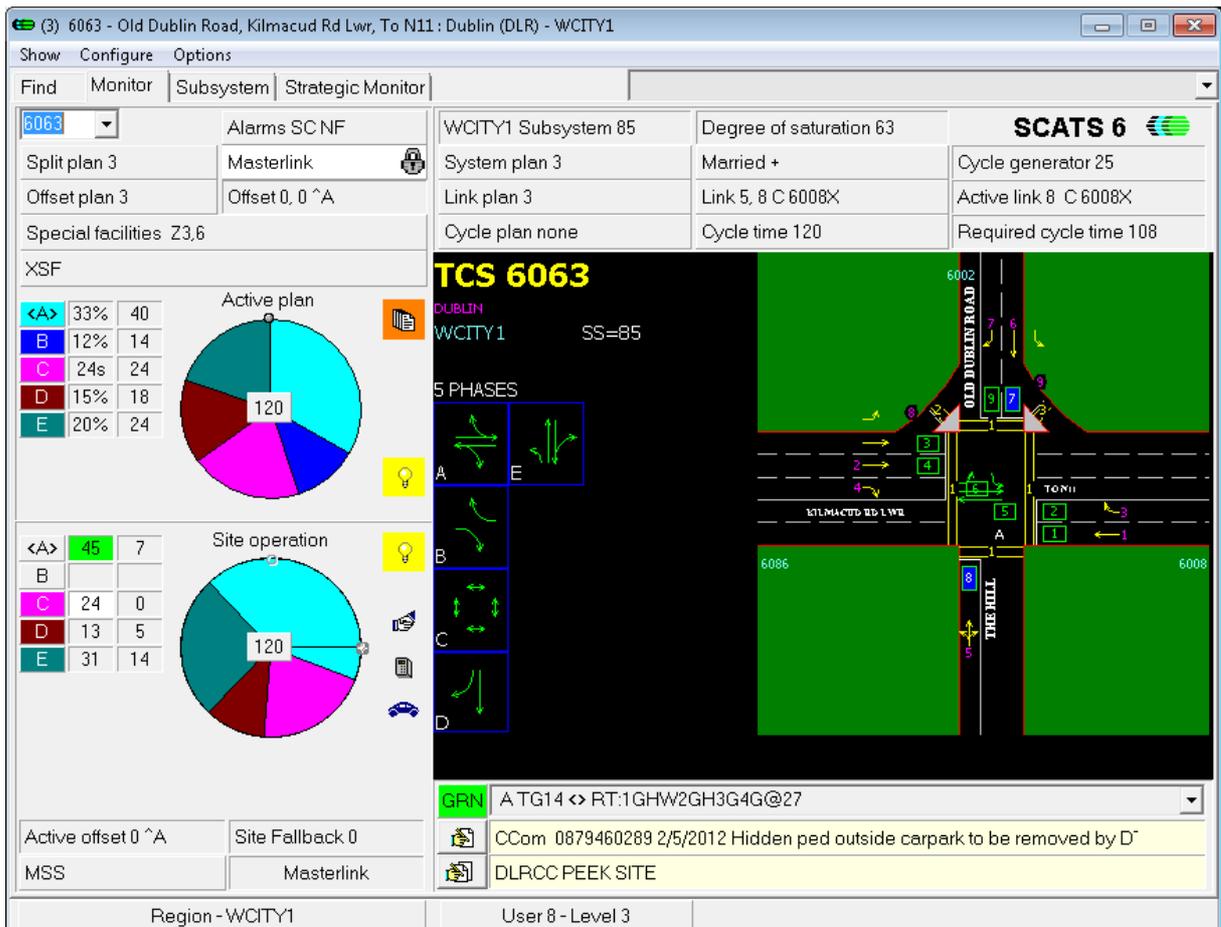


Figure 2.4 Screenshot of SCATS main window

2.4 Proposed Junction Layout Options

Eight case scenarios were tested for the junction as follows:

1. Non-Staggered, 3 lane approach from west, N11 slip open;
2. Non-Staggered, 2 lane approach from west, N11 slip open;
3. Non-Staggered, 3 lane approach from west, N11 slip closed;
4. Non-Staggered, 2 lane approach from west, N11 slip closed;
5. Staggered, 3 lane approach from west, N11 slip open;
6. Staggered, 2 lane approach from west, N11 slip open;
7. Staggered, 3 lane approach from west, N11 slip closed; and
8. Staggered, 2 lane approach from west, N11 slip closed.

Case Scenario 1

Figure 2.5 shows the junction layout for Case Scenario 1. It is a non-staggered intersection and includes one through traffic lane and left and right pockets on the Lower Kilmacud Road west approach and one traffic lane and a left pocket with capacity for five vehicles on The Hill (south approach). This option maintains the left slip lane from the N11 onto The Hill. It should be noted that pedestrian crossings will be provided on all legs of the intersection and 2 metre cycle lanes will be provided on Lower Kilmacud Road in both directions.

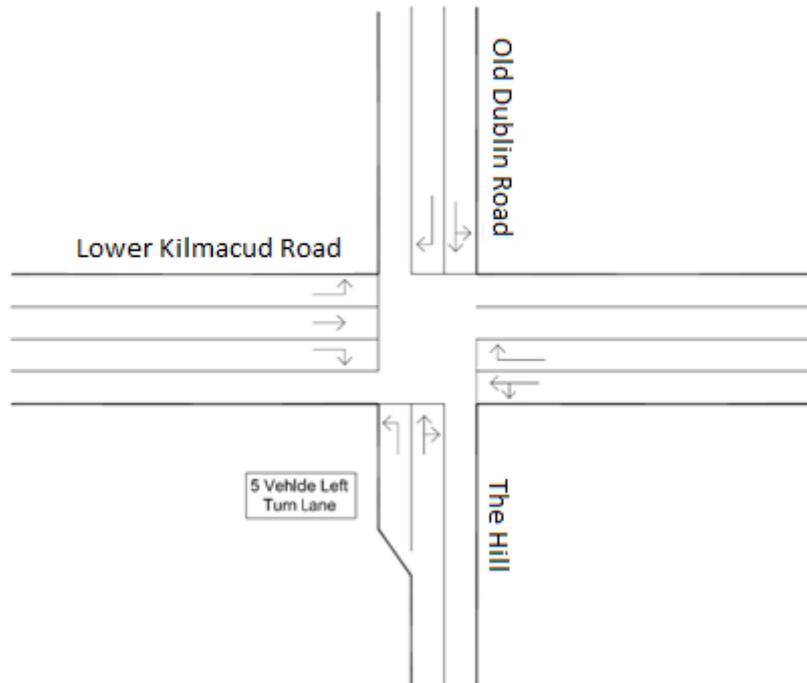


Figure 2.5 Case Scenarios 1 & 3

Case Scenario 2

Figure 2.6 shows the junction layout for Case Scenario 2. It is a non-staggered intersection and includes one left/through traffic lane and one through/right lane on the Lower Kilmacud Road west approach and one traffic lane and a left pocket with capacity for five vehicles on The Hill (south approach). This option maintains the left slip lane from the N11 onto The Hill. It should be noted that pedestrian crossings will be provided on all legs of the intersection and 2 metre cycle lanes will be provided on Lower Kilmacud Road in both directions.

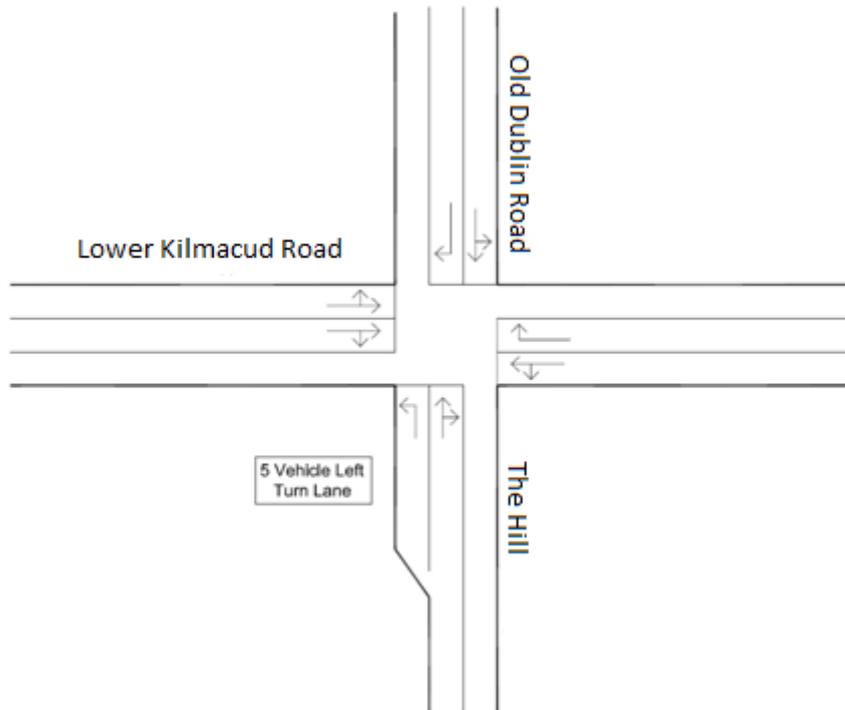


Figure 2.6 Case Scenarios 2 & 4

Case Scenario 3

Figure 2.5 shows the junction layout for Case Scenario 3. It is a non-staggered intersection and includes one through traffic lane and left and right pockets on the Lower Kilmacud Road west approach and one traffic lane and a left pocket with capacity for five vehicles on The Hill (south approach). This option involves the closure of the left slip lane from the N11 onto The Hill. It should be noted that pedestrian crossings will be provided on all legs of the intersection and 2 metre cycle lanes will be provided on Lower Kilmacud Road in both directions.

Case Scenario 4

Figure 2.6 shows the junction layout for Case Scenario 4. It is a non-staggered intersection and includes one left/through traffic lane and one through/right lane on the Lower Kilmacud Road west approach and one traffic lane and a left pocket with capacity for five vehicles on The Hill (south approach). This option involves the closure of the left slip lane from the N11 onto The Hill. It should be noted that pedestrian crossings will be provided on all legs of the intersection and 2 metre cycle lanes will be provided on Lower Kilmacud Road in both directions.

Case Scenario 5

Figure 2.7 shows the junction layout for Case Scenario 5. It is a staggered intersection and includes one through traffic lane and left and right pockets on the Lower Kilmacud Road west approach and one traffic lane and a left pocket with capacity for five vehicles on The Hill (south approach). This option maintains the left slip lane from the N11 onto The Hill. It should be noted that pedestrian crossings will be provided on all legs of the intersection and 2 metre cycle lanes will be provided on Lower Kilmacud Road in both directions.

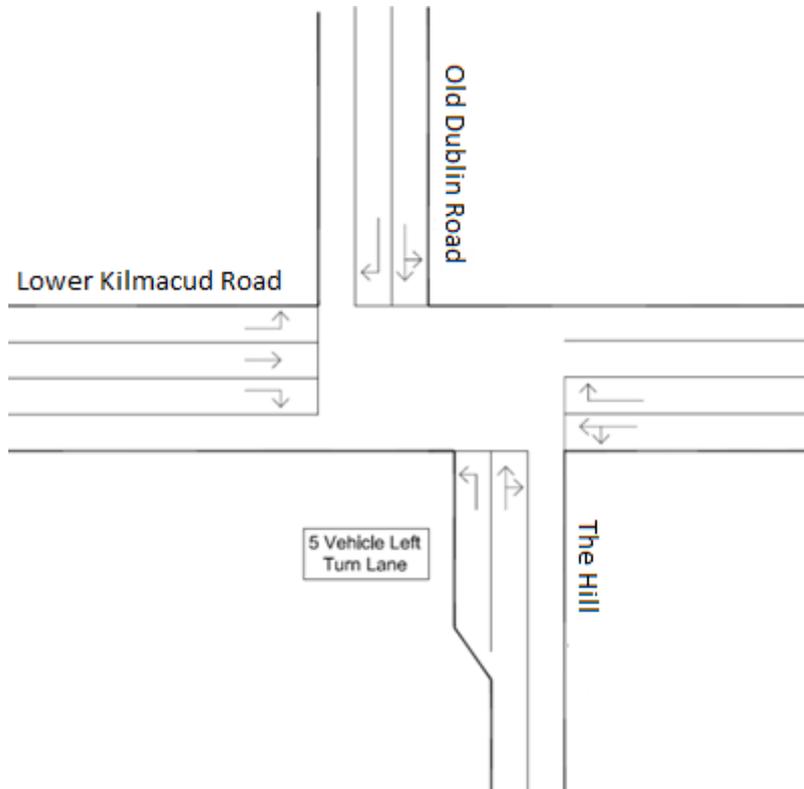


Figure 2.7 Case Scenarios 5 & 7

Case Scenario 6

Figure 2.8 shows the junction layout for Case Scenario 6. It is a staggered intersection and includes one left/through traffic lane and one through/right lane on the Lower Kilmacud Road west approach and one traffic lane and a left pocket with capacity for five vehicles on The Hill (south approach). This option maintains the left slip lane from the N11 onto The Hill. It should be noted that pedestrian crossings will be provided on all legs of the intersection and 2 metre cycle lanes will be provided on Lower Kilmacud Road in both directions.

Case Scenario 7

Figure 2.7 shows the junction layout for Case Scenario 7. It is a staggered intersection and includes one through traffic lane and left and right pockets on the Lower Kilmacud Road west approach and one traffic lane and a left pocket with capacity for five vehicles on The Hill (south approach). This option involves the closure of the left slip lane from the N11 onto The Hill. It should be noted that pedestrian crossings will be provided on all legs of the intersection and 2 metre cycle lanes will be provided on Lower Kilmacud Road in both directions.

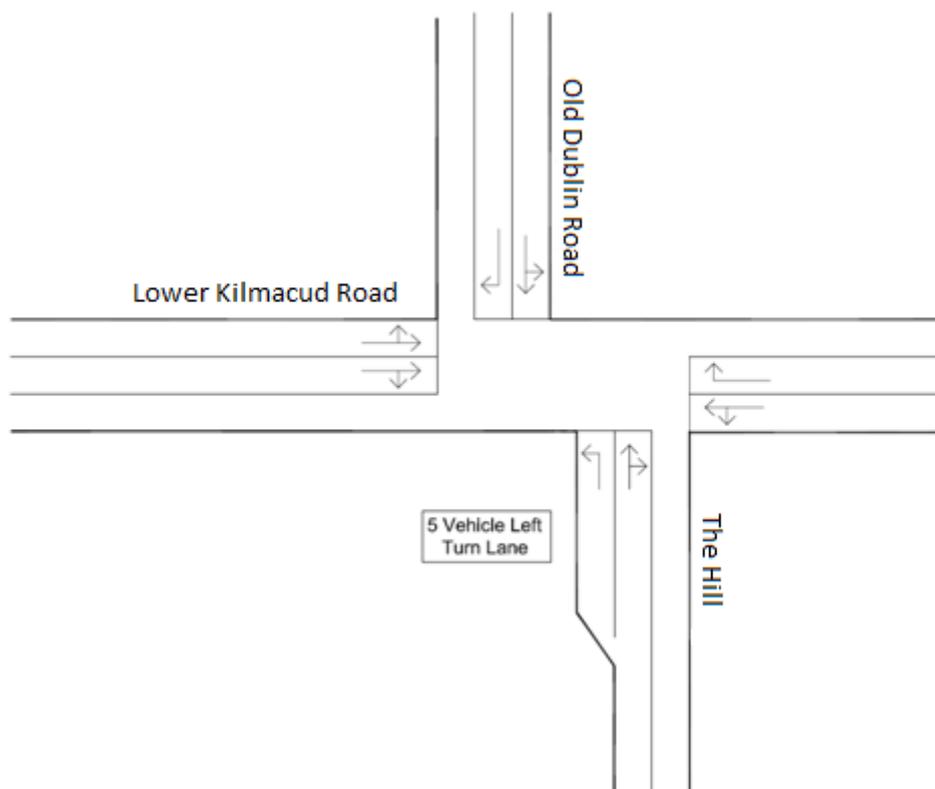


Figure 2.8 Case Scenarios 6 & 8

Case Scenario 8

Figure 2.8 shows the junction layout for Case Scenario 8. It is a staggered intersection and includes one left/through traffic lane and one through/right lane on the Lower Kilmacud Road west approach and one traffic lane and a left pocket with capacity for five vehicles on The Hill (south approach). This option involves the closure of the left slip lane from the N11 onto The Hill. It should be noted that pedestrian crossings will be provided on all legs of the intersection and 2 metre cycle lanes will be provided on Lower Kilmacud Road in both directions.

2.5 Proposed Traffic Signal Plan

Separate phasing diagrams are provided for the non-staggered (see Figure 2.9 (a)) and the staggered proposed junction layout options – see Figures 2.9 (a) and (b). Maximum cycle times of 120 seconds were applied to the models, with minimum all-traffic stage times set at 5 seconds and all-pedestrian stage times set at the time taken for a pedestrian to cross the widest crossing at a speed of 1.2 metres/ second. Intergreen times were set at 5 seconds for the non-staggered junction layouts and at 10 seconds for the staggered junction layouts. The increase in the intergreen time associated with the staggered junction layout would be used to compensate for the additional time required for vehicles to clear the intersection with the staggered geometry.

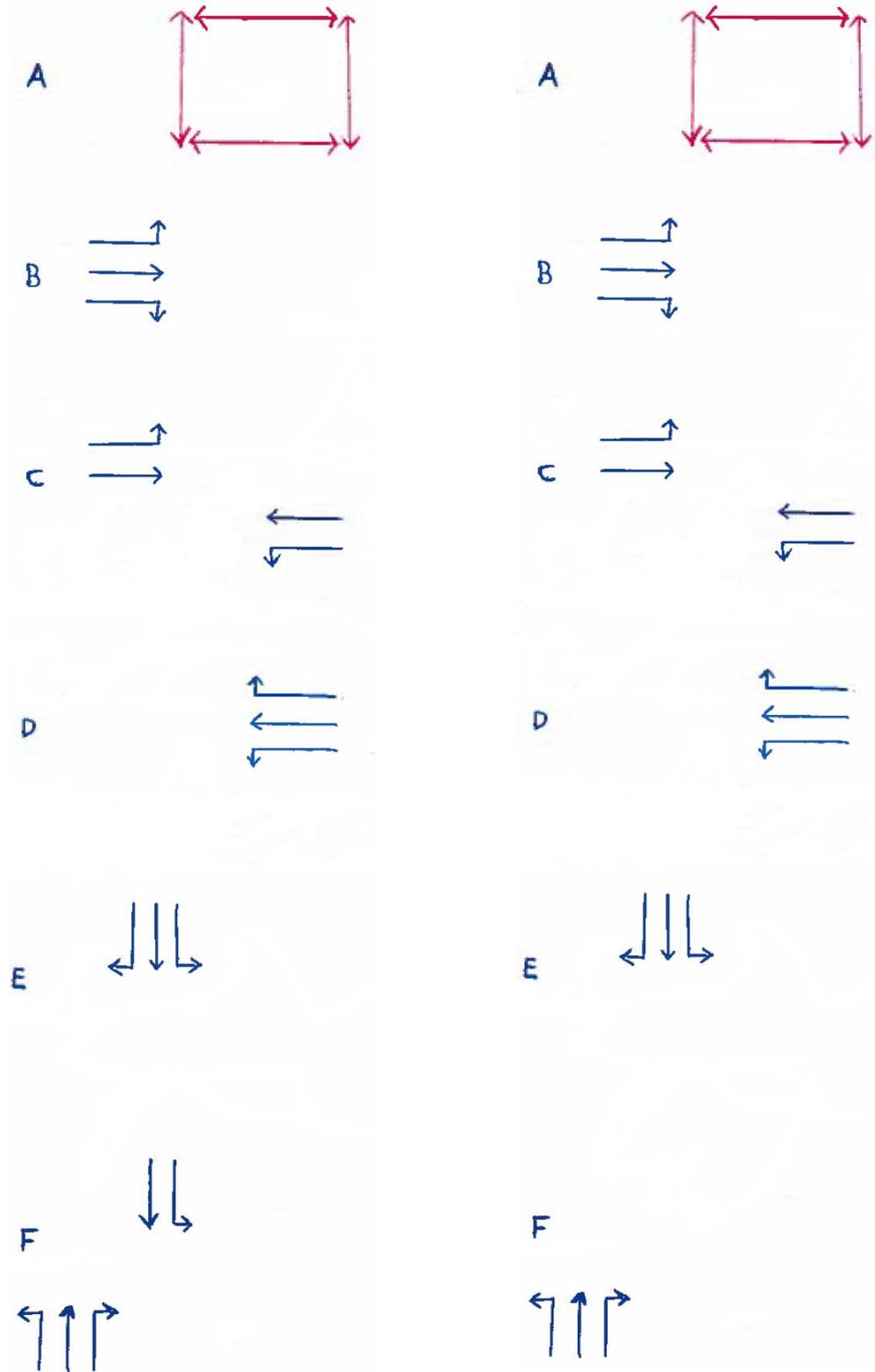


Figure 2.9 (a) non-staggered

(b) staggered

2.6 Traffic Analysis

The results of the OSCADY traffic modelling are shown in Tables 2.1 and 2.2. These tables give values for degree of saturation, flow-capacity ratios and queue lengths. The complete OSCADY outputs are included in the Appendix.

Table 2.1 OSCADY Outputs – Existing Layout (120s fixed cycle time, splits optimised)

Period	Max. Degree of Saturation (%)	Max. RFC (ratio flow to capacity)	Max. Queue (vehs/lane)
am peak (08:00 – 09:00)	84.4	0.93	17.7
pm peak (17:00 – 18:00)	75.9	0.841	11.9
sat peak (12:00 – 13:00)	76.7	0.851	11.9

Table 2.1 shows that the existing junction is operating within capacity during the peak hours and has spare capacity to cater for additional demand.

Table 2.2 OSCADY Outputs – Proposed Layout, Case Scenarios 1-8 (120s fixed cycle time, splits optimised)

Case Scen.	Description	Max. Degree of Saturation (%)			Max. RFC (ratio flow to capacity)			Max. Queue (vehs/lane)		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
1	NS, 3L, N11 open	86	76.7	77.5	0.952	0.848	0.868	20.3	12.1	12.0
2	NS, 2L, N11 open	99.1	88.9	90.3	1.096	0.979	1.010	46.9	24.0	26.9
3	NS, 3L, N11 closed	73.9	74.8	70.5	0.800	0.824	0.776	12.1	11.4	10.6
4	NS, 2L, N11 closed	88.2	83.9	86.2	0.971	0.924	0.949	22.7	18.3	20.6
5	S, 3L, N11 open	105.7	102.2	101.9	1.171	1.125	1.129	60.0	43.4	43.3
6	S, 2L, N11 open	128.0	123.4	129.0	1.417	1.359	1.420	144.3	131.1	157.3
7	S, 3L, N11 closed	94.1	93.4	90.5	1.036	1.029	0.996	31.9	30.4	24.8
8	S, 2L, N11 closed	112.6	117.5	124.8	1.239	1.294	1.374	86.9	108.5	142.0

Table 2.2 shows the results for the eight options described in Section 2.4. All four staggered intersection options (Options 5 – 8) operated above capacity during the peak hours. Of the non-staggered options, Option 2 (two approach lanes on the west leg of the intersection and N11 slip lane open) was also found to operate above capacity.

The results show that non-staggered junction layout Options 1, 3, and 4 operate within capacity during the peak hours and, out of the eight options, are the only acceptable solutions from an operational point of view.

Therefore, the staggered intersection layout is not feasible and it is necessary to either provide three lanes on the junctions west approach or to close the N11 slip lane on the Hill approach or implement both of these measures to achieve an acceptable level of junction operation.

3. Lower Kilmacud Road Car Park Access junction

3.1 Existing Junction Layout

The existing junction layout is shown in Figure 3.1 below.

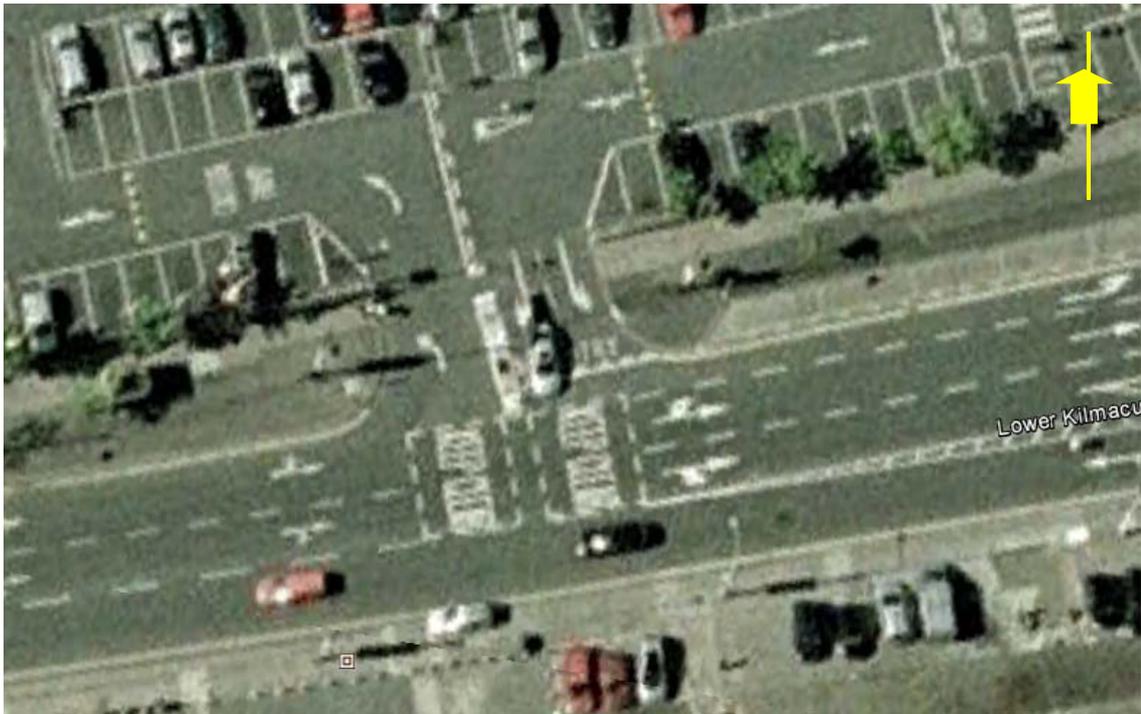


Figure 3.1 Existing Junction Layout

3.2 Existing Traffic Counts

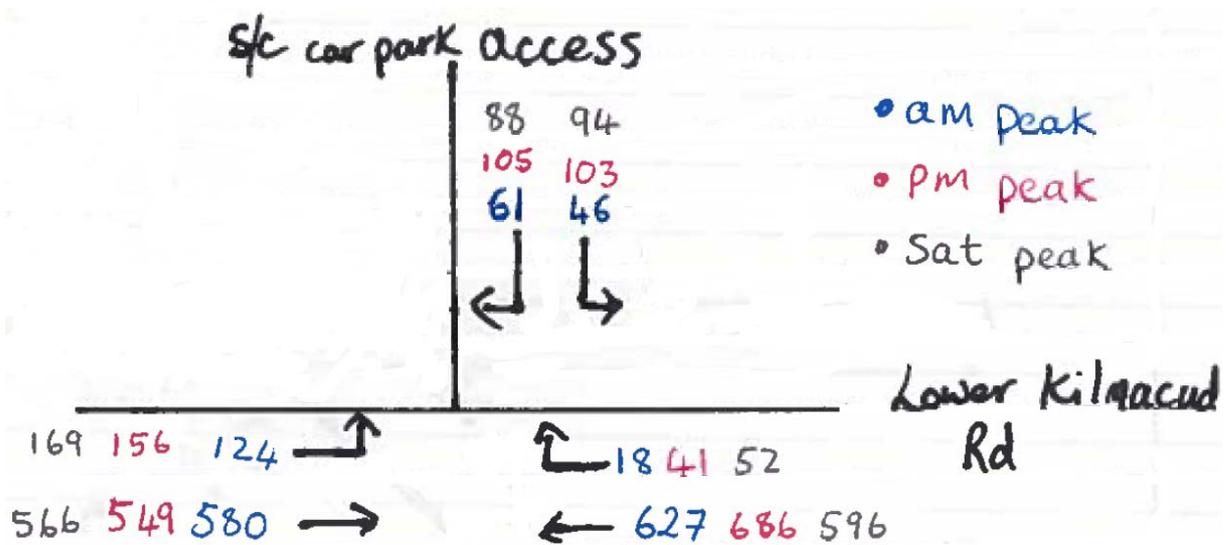


Figure 3.2 Existing Peak Hour Classified Turning Counts (vehicles)

3.3 Proposed Junction Layout Options

Two junction layout options were modelled using PICADY as follows:

1. Option 1 (shown in Figure 3.3) to include:
 - West approach: one left/through traffic lane;
 - East approach: one through traffic lane and one right turning pocket; and
 - North approach: one left and one right turning lane.
2. Option 2 to include:
 - West approach: one left/through traffic lane;
 - East approach: one through/right turning lane; and
 - North approach: one left and one right turning lane.

Traffic and cycle lanes along Lower Kilmacud Road would be three and two metres wide, respectively.

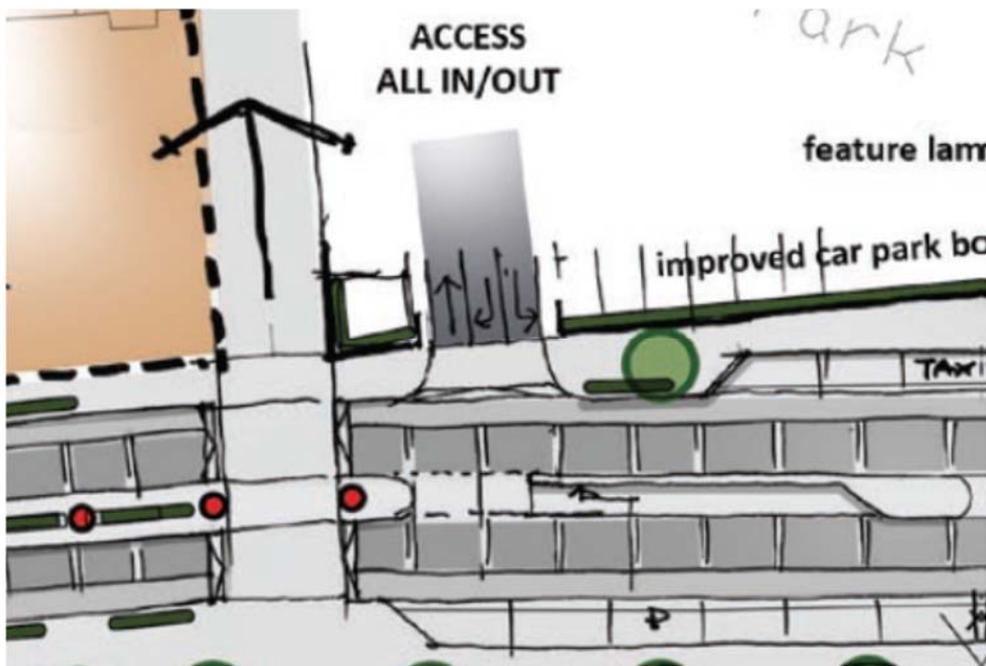


Figure 3.3 Proposed Junction Layout – Option 1

3.4 Traffic Analysis

The results of the PICADY traffic modelling are shown in Tables 3.1 and 3.2.

Table 3.1 PICADY Outputs – Option 1

Period	Max. RFC (ratio flow to capacity)	No. Right turnin g veh	Delay for traffic on Lwr Kilmacud Rd turning right into car park (sec/veh)	No. Vehs travelling straight through	Delay for through traffic travelling west on Lwr Kilmacud Rd (sec/veh)	Total Delay (sec)
am peak (08:00 – 09:00)	0.403	18	7.8	627	0	140
pm peak (17:00 – 18:00)	0.455	41	7.8	686	0	320
sat peak (12:00 – 13:00)	0.456	52	8.4	596	0	437

Table 3.1 shows that the junction is operating within capacity during the am, pm and Saturday peak hours for Option 1, with spare capacity to cater for additional demand and the total delay at the junction is relatively low.

Table 3.2 PICADY Outputs – Option 2

Period	Max. RFC (ratio flow to capacity)	No. Right turnin g vehs	Delay for traffic on Lwr Kilmacud Rd turning right into car park (sec/veh)	No. Vehs travelling straight through	Delay for through traffic travelling west on Lwr Kilmacud Rd (sec/veh)	Total Delay (sec)
am peak (08:00 – 09:00)	0.473	18	7.2	627	7.2	4644
pm peak (17:00 – 18:00)	0.542	41	11.4	686	11.4	8288
sat peak (12:00 – 13:00)	0.535	52	12.6	596	12.6	8165

Table 3.2 shows that the junction is operating within capacity during the am, pm and Saturday peak hours for Option 2, with spare capacity to cater for additional demand. However, the delay at the junction is substantially greater for Option 2 than for Option 1.

Therefore, Option 1 is recommended at the junction.

4. Stillorgan Junction

4.1 Existing Junction Layout

The existing junction layout is shown in Figure 4.1 below.



Figure 4.1 Existing Junction Layout

4.2 Existing Traffic Counts

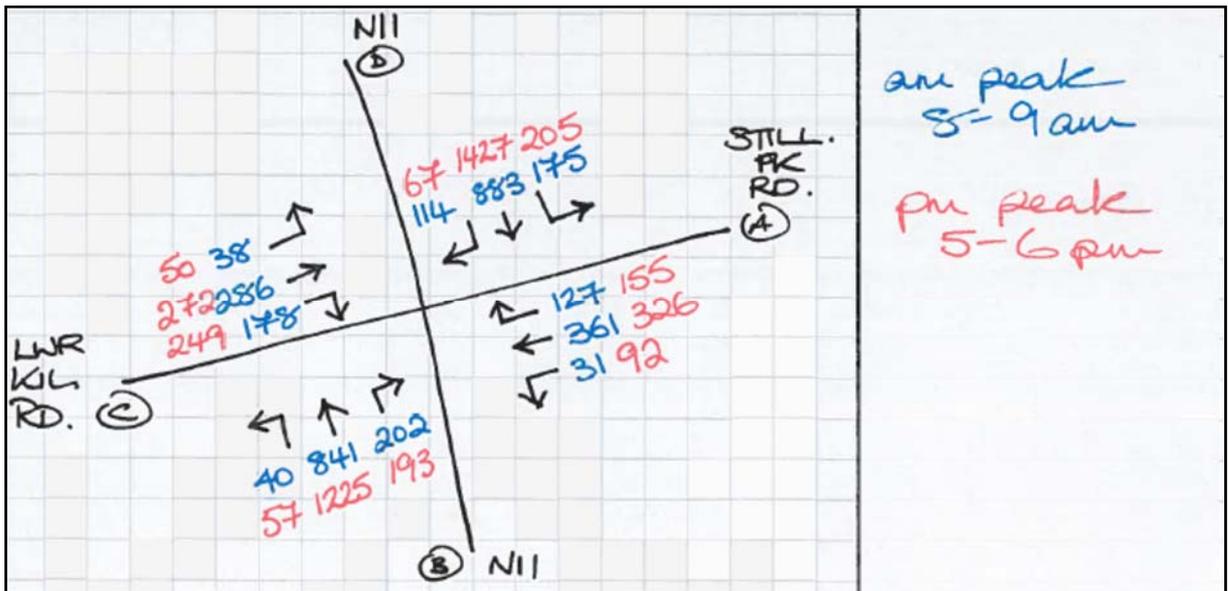


Figure 4.2 Existing Peak Hour Classified Turning Counts (vehicles)

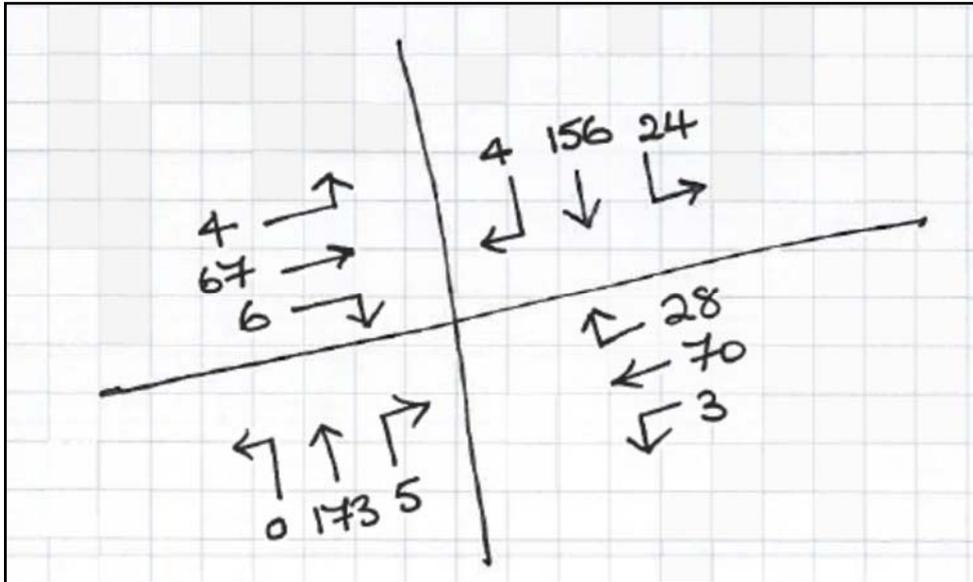


Figure 4.3 Existing 12-hour Bicycle Turning Counts

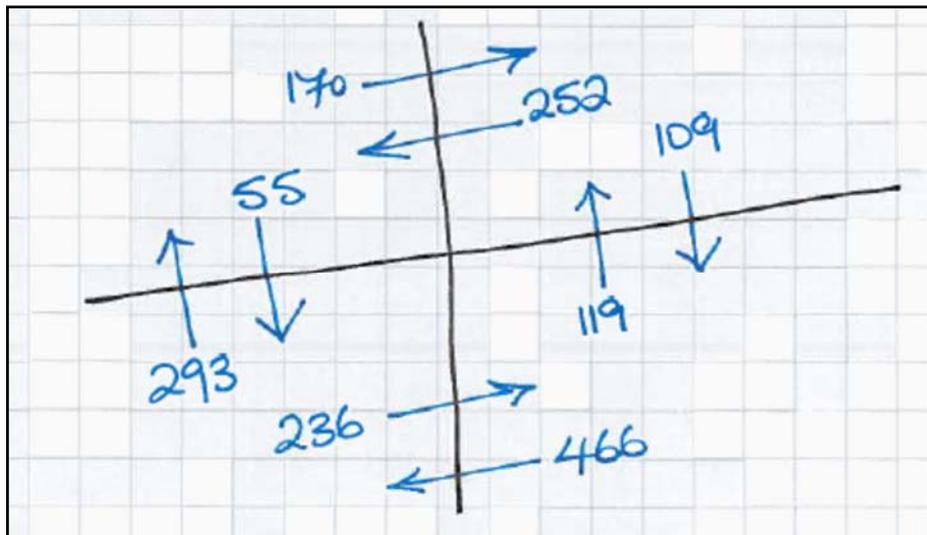


Figure 4.4 Existing 12-hour Pedestrian Crossing Counts

4.3 Existing Traffic Signal Plan

- Five stages
- 120s cycle time



Figure 4.5 Existing Traffic Signal Plan

4.4 Proposed Junction Layout

The junction layout proposed as part of the N11 scheme includes the following:

- Left-turn slip lane onto N11 from Lower Kilmacud Road to be removed
- Left-turn slip lane onto N11 from Stillorgan Park Road to be removed
- Existing traffic lanes on N11 to be reduced (to a minimum of 3.25m) in order to provide widened central islands on N11 at staggered pedestrian crossings.

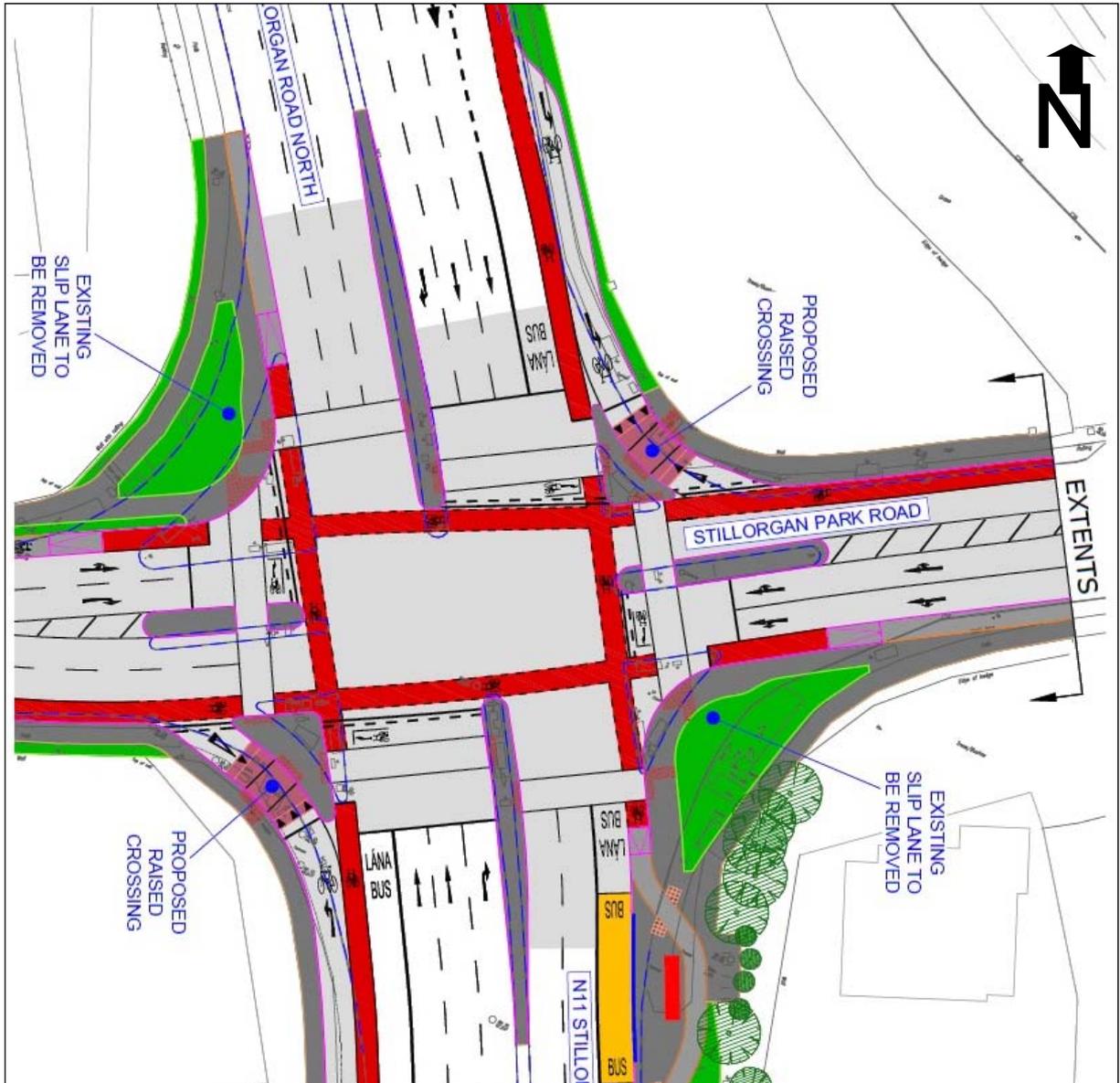


Figure 2.6 Proposed Junction Layout

4.5 Proposed Traffic Signal Plan

Existing signal plan to be retained.

4.6 Traffic Analysis

The results of the OSCADY traffic modelling are shown in the following tables. The tables give values for degree of saturation, flow-capacity ratio and queue lengths.

Table 4.1 OSCADY Outputs – Existing Layout (120s fixed cycle time, splits optimised)

Period	Max. Degree of Saturation		Max. RFC (ratio flow to capacity)		Max. Queue (vehs/lane)	
	Existing traffic	With reassigned traffic	Existing traffic	With reassigned traffic	Existing traffic	With reassigned traffic
am peak (08:00 – 09:00)	74.0%	74.8%	0.814	0.894	11	11.2
pm peak (17:00 – 18:00)	83.9%	84.0%	0.917	0.922	18	17.9

The table above shows that the existing junction is operating within capacity during the peak hours and has spare capacity to cater for additional demand.

Table 4.2 OSCADY Outputs – Proposed Layout (120s fixed cycle time, splits optimised)

Period	Max. Degree of Saturation		Max. RFC (ratio flow to capacity)		Max. Queue (vehs/lane)	
	Existing traffic	With reassigned traffic	Existing traffic	With reassigned traffic	Existing traffic	With reassigned traffic
am peak (08:00 – 09:00)	80.6%	81.2%	0.888	0.894	13	12.9
pm peak (17:00 – 18:00)	89.7%	89.7%	0.988	0.988	24	24

The table above shows that, due to the N11 scheme, the degree of saturation at the proposed junction has increased. This is due to the shortened left-turn pockets and the removal of the slip lanes on the Lower Kilmacud Road and Stillorgan Park Road approaches to the junction. There is reserve capacity in the am peak. However, the junction is reaching capacity in the pm peak.

These tables also show that the impact of the additional left turning traffic (reassigned traffic) associated with the closure of the N11 slip lane onto the Hill has a negligible impact on the performance of the junction.

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Appendix C: Parking and Traffic Surveys on The Hill

Parking and Traffic surveys on the Hill

While the data collected in sections 3.1 to 3.7 was used to inform the initial design of the options, the surveys described in this section were conducted following consultation with local businesses. The initial and emerging preferred design options are described in detail in Chapters 4 and 7, with one proposed design option involving the closure of the N11 slip lane onto the Hill. In order to establish the potential impact this could have on local businesses – in particular on a veterinary practise on St Bridgid’s Church Road and on the Orchard Pub – parking and traffic surveys were conducted in the vicinity of the Hill.

CSEA conducted traffic and parking surveys on Friday 22nd January 2016, with observations made adjacent the junction of the Hill and Glenalbyn Road during three time periods as follows:

- 09:30 -11:30;
- 12:30 -14:30; and
- 16:00 -18:00.

It should be noted that the surveys were conducted on a Friday to reflect the Orchard pubs busiest weekday.

The following information was gathered from the surveys:

1. The number of vehicles parked in 4 separate parking areas; the Veterinary Practice, On-Street Parking (both side of the Hill), Orchard Pub Car Park and Blakes Car Park (See Table 1). It also provides information on the direction from which they came (i.e. The Hill, Glenalbyn Road, N11 Slip Road).
2. The number of Pedestrians entering the Orchard Pub and the direction from which they came (i.e. The Hill, Glenalbyn Road). See Table 1 below.
3. The amount of traffic approaching the survey area from the N11 Slip lane that continued through the junction of the Hill, Lower Kilmacud Road and Old Dublin Road without stopping in any of the 4 parking areas listed above, and traffic from the N11 that continued onto Glenalbyn Road without stopping in any of the 4 parking areas listed above (See Table 2).

Orchard Pub

Table 1 shows the results of the parking survey. With respect to vehicles and pedestrians entering the Orchard Car Park/ Pub during the 6 hour survey period; 12% of vehicles/pedestrians entered the pub between 9:30-11:30, 46% between 12:30-14:30 and 42% between 16:00-18:00.

21% of total trade during these 6 hours comprised vehicles coming from the N11, 28% comprised trade coming from Glenalbyn Road (94% of which were vehicles, 6% were pedestrians), and 51% comprised trade coming from The Hill (67% of which were vehicles, 33% were pedestrians).

Blakes Car Park

The results of the parking survey showed that, with respect to the Blakes Car Park; 53% of vehicles recorded during the 6 hour survey period entered the car park between 9:30-11:30, 28% between 12:30-14:30 and 19% between 16:00-18:00.

22% of vehicles entering the car park during these 6 hours comprised vehicles coming from the N11, 33% comprised vehicles coming from Glenalbyn Road, and 45% comprised vehicles coming from The Hill.

Veterinary Practice

The results of the parking survey showed that, with respect to parking at the veterinary practice; 55% of vehicles recorded during the 6 hour survey period entered this parking area between 9:30-11:30, 15% between 12:30-14:30 and 30% between 16:00-18:00.

15% of vehicles entering the car park during these 6 hours comprised vehicles coming from the N11, 30% comprised vehicles coming from Glenalbyn Road, and 55% comprised vehicles coming from The Hill.

On-Street Parking.

The results of the parking survey showed that, with respect to on-street parking located on both sides of The Hill; 28% of vehicles recorded during the 6 hour survey period entered on-street parking spaces between 9:30-11:30, 32% between 12:30-14:30 and 40% between 16:00-18:00.

17% of vehicles entering on-street parking spaces during these 6 hours comprised vehicles coming from the N11, 32% comprised vehicles coming from Glenalbyn Road, and 51% comprised vehicles coming from The Hill.

Table 1: Parking survey results detailing number of vehicles parked in 4 parking areas and direction from which they came

Parking Area	Time Period	Road of Origin						Notes
		N11 Slip		Glenalbyn Road		The Hill		
		No. Veh	% business Origin N11	No. Veh	No. Ped	No. Veh	No. Ped	
Orchard Pub Car Park	09:30-11:30	5	25%	6	0	6	3	1 veh from Glenalbyn Road bin truck
	12:30-14:30	16	21%	22	3	24	11	
	16:00-18:00	13	19%	16	0	26	14	1 veh from the Hill = motorbike; 13 veh from N11 incl. 1 veh parked on-street carrying pub patrons
Total	6 hours	34	21%	44	3	56	28	
Blakes Site Car Park	09:30-11:30	4	21%	8	0	7	0	
	12:30-14:30	3	30%	2	0	5	0	
	16:00-18:00	1	14%	2	0	4	0	
Total	6 hours	8	22%	12	0	16	0	
Veterinary Practice	09:30-11:30	1	9%	2	0	8	0	1 veh from Glenalbyn Rd = delivery
	12:30-14:30	2	67%	1	0	0	0	
	16:00-18:00	0	0%	3	0	3	0	
Total	6 hours	3	15%	6	0	11	0	
On-street Parking	09:30-11:30	6	24%	7	0	12	0	
	12:30-14:30	6	21%	11	0	11	0	
	16:00-18:00	3	9%	10	0	22	0	4 vehicles parked on-street from N11 but 1 discounted as it carried pub patrons – counted above
Total	6 hours	15	17%	28	0	45	0	

Traffic approaching survey area from N11 Slip Road

Table 2 shows the results of the traffic survey. It focused on obtaining information with respect to travel patterns of traffic approaching the survey area from the N11 slip road.

The results show that 360 vehicles entered the survey area from the N11 slip road from 09:30-11:30. 94% of these vehicles passed through the junction of The Hill, Old Dublin road and Lower Kilmacud Road without stopping to park in any of the parking areas listed above. A further 2% continued along Glenalbyn Road without stopping to park, with the remaining 4% stopping to park in one of the four parking areas listed above.

Similarly, 397 vehicles entered the survey area from the N11 slip road from 12:30-14:30. 90% of these vehicles passed through the junction of The Hill, Old Dublin Road and Lower Kilmacud Road without stopping to park in any of the parking areas listed above. A further 3% continued along Glenalbyn Road without stopping to park, with the remaining 7% stopping to park in one of the four parking areas listed above.

And finally, 339 vehicles entered the survey area from the N11 slip road from 16:00-18:00. 90% of these vehicles passed through the junction of The Hill, Old Dublin road and Lower Kilmacud Road without stopping to park in any of the parking areas listed above. A further 5% continued along Glenalbyn Road without stopping to park, with the remaining 5% stopping to park in one of the four parking areas listed above.

Table 2: Travel patterns of traffic approaching survey area from the N11 slip road

Time Period	N11 traffic that continues along/Passes through/ stops at						Total
	Glenalbyn Road		Junction of the Hill/Old Dublin Rd/Lwr Kilmacud Rd		Parking area listed above		
	No. veh	Proportion of total	No. veh	Proportion of total	No. veh	Proportion of total	
09:30-11:30	6	2%	338	94%	16	4%	360
12:30-14:30	10	3%	360	90%	27	7%	397
16:00-18:00	17	5%	304	90%	18	5%	339

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Appendix D: Cost Estimate