Transport Report on proposed schools on Killinniny Road

This report will endeavour to determine the more favourable transportation scenario for the location of two proposed schools along Killinniny Road. These schools are being proposed to serve mainly the Old Court LAP lands in the south.

Existing road conditions

The Killinniny Road is a key distributor road linking Tallaght and Old Bawn area to the M50. There are two significant junctions along the Killinniny Road. One is the Firhouse Rd/Killinniny Rd junction, which is at one of the few bridge crossings across the Dodder and therefore is a very important transport link. The other junction is the Ballycullen Rd/ Killinniny Road junction which links the M50 interchange and Old Court. There is a LAP for Old Court which indicated that there will be an additional 1600 units constructed in this area. Many of the traffic movements will be towards the Killinniny/Firhouse Rd junction and the Ballycullen Rd/ Killinniny Rd junction. As a result it is expected that delays will increase on these junctions.

Proposed School Locations



There are two scenarios for the location of the two primary schools in the Killinniny Road Area.

1. Two 16 classroom schools accessing Ballycullen Drive and Killinniny Road. (see 2 and 3)

2. One 16 classroom school accessing Ballycullen Drive and Killinniny Road and one at the junction of Killinniny Road/Firhouse Road accessed from Killinniny Road.(see 1 and 2)

Site No 1 (Site 4)

This site is at the junction of the Firhouse Rd and Killinniny Road. It had been determined in a previous report that the best outcome for access to site No 1 is to and from Killinniny Road. This is due to the fact that most of the school population would access the site from the east via Killinniny Road and this would reduce movements through the Killinniny Road/Firhouse Road junction. The main concern is the proximity of the access both to the Old Court Road and the Killinniny Road/Firhouse Road junction, which could exacerbate congestion at this junction. The access would need to be carefully designed, in order to reduce its impact on the Killinniny Road/Firhouse Road junction.



Proposed school access Site no 1

Pedestrian and bicycle access

A pedestrian and cycle access from the Firhouse Road could be facilitated which would allow access for children from the north. However there are already a number of schools in Firhouse, therefore it is expected that most of the pupils will be attending the schools from the south. A separate pedestrian and cycle access will be facilitated from Killinniny Road and pedestrian crossing facilities provided.

Proposed school access

The initial proposal is for a priority junction into the school immediately west of the Old Court junction. An alternative proposal is to connect the Old Court Rd and the school entrance and install a mini-roundabout or signals at this junction.

Identification of peak hour

The peak hour for the Killinniny Rd/Firhouse Rd junction is between 8 and 9am. It would greatly help all traffic movements in the area if the school opened after 9.15 am at the earliest.

Trip generation

For a 16 classroom school it has been accessed that there would be 480 pupils at the school. From other schools it has been accessed that 60% of the pupils will travel by car and 35% walk with 5% cycling. Generally 100% of teachers drive.

Assumptions for school travel

- 480 pupils and 20 teachers/staff
- Car occupancy is generally taken as 1.5 pupils/car due to families/car sharing etc.

• 288 pupils arriving by car equates to 192 car trips and 20 staff is total trip rate of 212 trips in and 192 trips out.

It has been assumed that most of the trips will come from the Old Court/Killinniny Rd direction, due to the fact that many of the pupils from Firhouse are likely to be dropped off at the pedestrian gate and because there are already schools serving Firhouse. However there is a large number of houses in the Kiltipper Area which could patronise the school. We have therefore assumed that 60% of the trips will come from the Old Court – Killinniny direction and 40% from the Killinniny Rd/Firhouse Rd junction. We have also assumed an even split between the Killinniny Rd and Old Court traffic.

Trips from	%	No trips in
Killinniny Rd/Firhouse Rd	40%	86
Old Court Rd	30%	63
Killinniny Rd	30%	63
		212



View on Killinniny Road at Old Court Rd junction showing future site access

In terms of the impact on the Firhouse Rd/Killinniny Rd junction, enclosed is a survey carried out for a recent planning application in April 2014.

Site 1	To Firhouse Rd	Killinniny Rd	Bohernabreena Rd	Old Bawn	Total
From Firhouse Rd	0	59	100	373	532
Killinniny Rd	106	0	41	18	165
Bohernabreena Rd	160	170	0	132	462
Old Bawn	372	361	44	0	777
Total	638	590	185	523	

It has been assumed that 86 trips to Site No 1 have travelled from the Firhouse Rd/Killinniny Rd junction with 60% or 52 returning through this junction, the rest travelling on to the M50/City. This gives a total increase in trips through this junction during the peak (assuming the school is open during this period) of 138 trips. Since the total trips through the junction is 1936 trips this gives an increase of 7%.



Aerial photo showing site No 1



Sites No 2 and 3

Both of these schools will be accessed off Ballycullen Drive and Killinniny Road. There is proposed to be a drop off facility to and from Killinniny Road, which will help to manage the traffic. It is considered likely that considerable numbers of children will be dropped off on the way to work as many parents will be travelling towards the M50 and the City Centre. This will have the distinct advantage of not adding additional trips to the road network.

Pedestrian and bicycle access

A pedestrian and cycle access from both the Ballycullen Drive and the Killinniny Road could be facilitated which would allow access for children from the northern and southern directions. A separate pedestrian and cycle access will be facilitated from Killinniny Road and pedestrian crossing facilities provided.

Existing conditions

The two main junctions affected by these schools on the Killinniny Rd will be the Killinniny Rd/Parklands Rd roundabout junction and the Killinniny Rd/Ballycullen Rd junction. While the Killinniny Rd/Ballycullen Rd junction is also a critical junction in the area, which is approaching capacity, it has longer lanes and can be widened in the future, unlike Firhouse Rd/Killinniny Rd junction. The main access from the north will be from Ballycullen Drive.

The significant advantage of this location is that the school can be accessed relatively easily especially from the north and should not affect local junctions too significantly. The initial proposal is for a drop off into the school immediately east of the Rd/Parklands Rd roundabout. A short right turn should be provided to allow access into the school, there is enough width for this to be facilitated.

Trip Generation

For a 16 classroom school it has been accessed that there would be 480 pupils at the school. From other schools it has been accessed that 60% of the pupils will travel by car and 35% walk with 5% cycling. Generally 100% of teachers drive.

Assumptions for school travel for Site No 2

- 16 classroom school with 480 pupils and 20 teachers/staff
- Car occupancy is generally taken as 1.5 pupils/car due to families/car sharing etc.

• 288 pupils arriving by car equates to 192 car trips and 20 staff is total trip rate of 212 trips in and 192 trips out.

It has been assumed that there will be a fairly even distribution of trips from the four main access routes that is, Killinniny Rd East Killinniny Road West, Parklands Rd and Ballycullen Drive. We have assumed that 70% of the trips will come from the Killinniny Road area due to the Old Court LAP and 30% from the Ballycullen Drive area as there are already schools in this area.

Site No 2		
Trips from	%	No trips in
Killinniny Rd East	30%	64
Parklands Rd	20%	42
Killinniny Rd West	20%	42
Ballycullen Drive	30%	64
Total		212

Assumptions for school site no 3

School no 3 is also assumed to be a 16 classroom school.

Sites Nos 2 and 3

Trips from	%	No trips in
Killinniny Rd East	30%	128
Parklands Rd	20%	84
Killinniny Rd West	20%	84
Ballycullen Drive	30%	128
Total		424

While if both schools were situated at the Ballycullen Drive sites, this would obviously double the volumes at this location, the availability of access routes in four directions i.e. Ballycullen Drive, Killinniny Rd East, Parklands Drive and Killinniny Road West provides the required capacity to facilitate these volumes.