

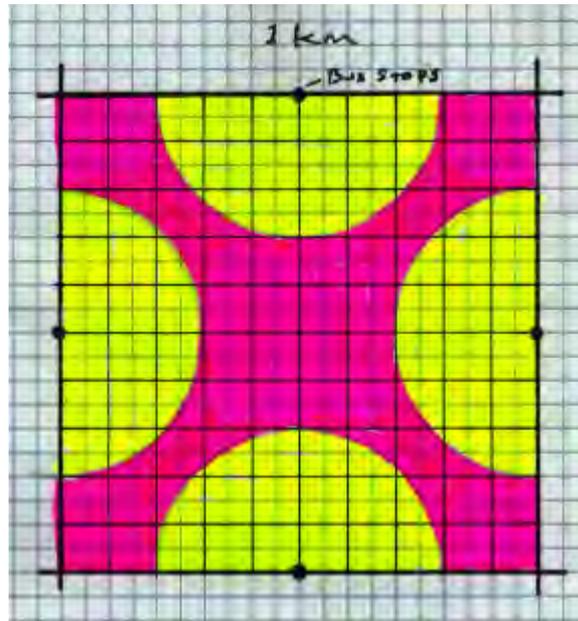
Milton Keynes Grid Roads - unsuited to high quality public transport

Planning for the growth of Milton Keynes provides an opportunity to configure the new development so as to encourage the use of walking, cycling and public transport. This would mean breaking away from the 1 kilometre “supergrid” of high speed roads which characterises Milton Keynes to date.

Extending the high-speed grid roads into the expansion areas would be bad for Milton Keynes.

1. The 1km grid is unsuited to high quality, high use bus services. Extending it into expansion areas would mean that bus use would be lower than with designs in the “city street” form, leading to higher levels of car use, more CO2 and other pollution than is necessary.
2. Existing residents would suffer (more traffic, delays and parking shortage/charges resulting from the additional population in the growth areas), and therefore logically should support the change to a public-transport oriented design.
3. If car use is higher in the expansion areas, this will undermine the commercial viability of bus services to those areas. This will add to the burden of bus subsidies in Milton Keynes in perpetuity, already running at more than £3 million per annum
4. These objectives in the Local Transport Plan will be pushed further away from achievement:
LTP3, April 2011:
*“1. Provide real and attractive transport choices to encourage more sustainable travel behaviour as Milton Keynes grows.
2. Support the economic growth of the borough through the fast, efficient and reliable movement of people and goods.
3. Reduce transport based CO2 emissions to help tackle climate change.”*
5. Road safety - 80% of pedestrian deaths in Milton Keynes occur on the grid roads. While safety may be good within the grid squares, the high speeds on the grid roads can have lethal consequences for anyone walking there.
6. If buses run on the grid roads, there are problems of security and safety at the bus stops, which are some distance away from habitation, and not overlooked. Distances to bus stops are also excessive for many residents (see Figure 1 below).
7. If instead buses run through the grid squares, the routes become tortuous and in some cases unsuitable for full size buses (see Figure 2 below).

Figure 1 Bus access from the Milton Keynes grid roads



43% of grid square more than 300m from a bus stop

Calculation:

- Area of grid square = 1,000,000 sq metres
- Area within 300m of a grid road mid-point = 656,714 sq m (57%)
- Given by: 4 half circles = $(\pi r^2) \times 2$
- Therefore 43% of grid square is more than 300m from a bus stop

This assumes direct walking routes to the bus stops, but in practice the configuration of paths and internal roads means that the proportion of homes further than 300 metres from a bus stop will be greater.

Quotes about the unsustainable structure of Milton Keynes

MK Bus Strategy 2008

“The principal highway network, the grid roads, is generally remote from the residential areas. In most cases, the residential streets within the grid squares were not designed for buses but these roads have to be used in order to bring bus services close to the population. This makes it **difficult to provide fast, frequent and attractive services** with stops often poorly related to housing and employment and journey times cannot compete with those by car. In addition, the bus stops along the grid roads are often poorly overlooked making them feel less safe.” (para 2.34)

MK Core Strategy 2010

“The convenience of car travel helps to attract and retain businesses to Milton Keynes However, growth is putting considerable pressure on the system, and the Council must seek to introduce changes to the way people travel around the city.” (Ch 7, App E, Para 11.3)

“Our analysis shows that without management, this congestion will increase significantly as the city grows. Even without growth, congestion would get worse as car ownership and usage patterns change.”

“In many cases, residential streets within the **grid squares were not designed for the bus**. This, combined with the low density and wide distribution of potential destinations, makes it difficult to provide fast, frequent and attractive bus services. As a result, the number of people who travel by bus is much lower than in other cities and towns with a similar population. (Ch 6, para 2.8, 2.9)

Transport strategy 2008

LTP 2 2006-2011

“The grid road network does not have sufficient capacity to contain the growth in traffic forecast.” (para 3.107)

“At present many bus stops are located on grid roads, and accessing them on foot is not a ‘pleasurable experience’. (para 4.70)

“**The grid system makes journeys by public transport unattractive**, as bus stops on the grid roads are some distance from residential areas and ultimate destinations. In addition, meandering routes through grids adds to journey times. Partly as a consequence, the current bus network is poor; its route structure is complex and service frequencies low.” (Para 4.78)

LTP 3 April 2011

“Car travel in Milton Keynes is at present very efficient due to the grid road network and the availability of parking, but this is **potentially unsustainable**.”

“low density neighbourhoods in the city, and the typical complexity of urban estate networks make it **difficult to provide a fast, frequent and efficient public transport network** to all residents and workers. These issues are highlighted by Milton Keynes’s low journey to work public transport mode share of 9%.” (page 13)

Quotes continued ...

A Public Transport Vision For Milton Keynes (Nick Richardson, MVA Consultancy - undated but approx 2008)

“The city’s layout makes bus services difficult and costly to operate with residential areas that are inaccessible to buses, with stops that are poorly related to housing and employment sites and journey times that cannot compete with car. The dispersed land uses hamper this situation with a wide diversity of origins and destinations. The result is that bus routes are complex and difficult for potential users to understand.”

Michael Edwards (“What went wrong with Milton Keynes?” UCL, 2001)

“...the macro-grid does not lend itself very well to public transport...”

Planning for sustainable travel

http://www.plan4sustainabletravel.org/case_studies/milton_keynes/
Towards Sustainable Travel

The MKSM area is *possibly one of the most difficult in the UK to work in with regard to achieving sustainable travel behaviour*. The area has a high proportion of journeys to work by car (70%), lengthy average journey to work distances (32% over 10km) and a high rate of traffic growth between 1997-2007 (16%). Transport CO2 emissions are relatively high at 2.87 tonnes per person. Like many parts of the country, the current travel patterns and particularly ‘business as usual’ future trajectories are unsustainable relative to headline national CO2 reduction targets. High car dependence in MKSM is due in part to the nature of the polycentric urban structure – with a variety of towns, linked largely by the road network. There is much tangential, suburb to suburb travel, which is very difficult to serve by public transport.

Terence Bendixson and John Platt (Milton Keynes, Image and reality, 1992)

“After much agonising, the Board chose to build a dispersed garden city designed for easy driving. If they thought that by doing so they had got transport under control, they could not have been more wrong. The shortcomings of the city’s buses were to preoccupy them for over a decade.” (page 155). The book contains details of the debate that ensued.