

Lorry Management Strategy



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This document has been prepared by
Milton Keynes Council

For further information please contact:
Milton Keynes Council
Traffic Management
Civic Offices
1 Saxon Gate East
Central Milton Keynes
MK9 3EJ

Tel: 01908 252531

Fax: 01908 254212

Email: traffic.management@milton-keynes.gov.uk

Web: www.milton-keynes.gov.uk/transport

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1. Introduction

Delivery of freight is an integral part of modern life. Freight is essential to industry and commerce and if we are to enjoy the quality of life we expect we must accept that such freight deliveries are not only necessary but essential.

Currently well over 60% of freight is carried by road and even freight carried by rail will generally require a journey by road in order complete its journey to the final destination. Much effort is put into increasing the amount of rail freight, but even a doubling of the amount of rail freight will not significantly reduce lorry traffic.

Every property will at some point in time require access for lorries for delivery, removal or building purposes. Refuse and recycling vehicles and fire engines are also large vehicles which need access.

Within Milton Keynes, extensive ongoing development in order to deliver the growth agenda is attracting many lorry movements - these movements also need to be accommodated on the network.

The lorry is therefore a fact of life, and we must live with it.

Clearly however, the lorry can have a detrimental impact upon our environment and quality of life and therefore alongside making very necessary provisions for the lorry it is also important to be able to minimise the possible detrimental impact that lorries can sometimes have.

Many of our roads were not built for modern lorries and as such, they may often create a variety of issues for local communities and other road users and we frequently receive requests for measures to be taken that will reduce the adverse effects of lorries travelling on roads and delivering to locations in both urban and rural areas.

In addition, there is also a need to effectively manage both final destination deliveries and also provide lorry parking and rest facilities.

This strategy seeks to set out the issues involved in managing lorries on our roads and identify actions that can be taken to minimise their impact.

2. Existing Strategic and Policy Background

The Milton Keynes Local Plan and the Local Transport Plan establish the principles for the adoption of a road hierarchy for different transport uses. This underpins the development of a Lorry Route Network within Milton Keynes.

The Council's Local Transport Plan is centred on four national priorities, these being:

- Improving Road Safety,
- Reducing Congestion,
- Improving Accessibility; and
- Improving Air Quality.

All four of these are critical when considering lorry movements on our road network in Milton Keynes.

In addition the Local Plan identifies the need for additional lorry parking facilities to be provided in order to deal with the increasing number of lorries parking on our roads.

Finally, both the Council's Air Quality Management Strategy and Traffic Management Plan place responsibility upon the Council for locally managing air quality and congestion on our roads.



3. The Impact of Lorries

3.1 What is a Lorry?

The definition of “What is a lorry?” often causes some confusion – lorries may be rigid or articulated and come in a variety of sizes.

For the purposes of our lorry management strategy, lorries are subdivided into two types, defined by the maximum gross weight of the vehicle (which is the combined weight of the vehicles and its maximum permitted payload). They are:

- Those over 7.5 Tonnes - vehicles must display red and yellow rear reflective markings, and,
- Those over 18 Tonnes (up to a maximum of 44 Tonnes) – vehicles will have a minimum of 3 axles.

These distinctions are made in several aspects of legislation, particularly in respect of weight restrictions.

The impact that lorries can have on both the urban and rural road network and environment falls generally into three categories, an assessment of which can be used to assess the suitability of routes for lorries. These are:-

- Environmental Impact
- Hazards
- Nuisance and Congestion

3.2 Environmental Impact

Environmental impact can be observed in two ways, either by physical measurable characteristics or by people’s perception.

Issues of concern are generally:

Noise Levels

Lorry noise is one of the major concerns for people in their houses or on the street. A common complaint is that the tranquil rural environment is being disturbed by lorry traffic.

The current permitted noise emission levels are still quite loud. Lorry noise is affected by traffic speed and is made worse when vehicles have to stop and start. In addition uneven road surfaces and manhole covers within the road can result in additional vibration and noise.

Other than for new road construction or highway improvement there is no formal acceptable noise threshold limit for roads, however clearly heavy lorry flows could well result in noise levels that may be deemed intrusive and inappropriate.

Under the Land Compensation Act and Noise Insulation Regulations of 1975, where a new road is being provided, or an existing road improved, mitigation action is required where

the noise levels exceed 68dB (and are predicted to rise by 1dB). This legislation is enforced by central government agencies.

Mitigation measures such as acoustic fencing or bunding should be considered at the design stage.

As a standard low noise surfacing is being used when ever roads are resurfaced in Milton Keynes.

In many areas specific night-time curfews are in place on deliveries to Supermarkets to minimise disruption and noise. This is dealt with in more detail in Section 7.

Vibration

Vibration is frequently a concern due to its nuisance effect and the perception that it causes structural damage, particularly to older and historic buildings.

Extensive research from within the industry on a range of building types has not shown any clear link between exposure to traffic vibration and structural defects.

Generally speaking observed damage to buildings can be attributed to site factors other than the exposure to traffic.

Air Pollution

Within Milton Keynes the areas of poorest air quality are located in some of the heaviest HGV flow corridors. Regular monitoring of the two main pollutants associated with traffic emissions, particles (PM₁₀) and nitrogen dioxide (NO₂) has been undertaken since 1998 by the Environmental Heath Division.

The council has a duty to review and assess local air quality, a function known as Local Air Quality Management (LAQM). Where prescribed air quality levels are likely to be exceeded the council must designate the area as an Air Quality Management Area (AQMA). In order to tackle the air pollution and bring about improvements, an Air Quality Action Plan is drawn up following public consultation.

There is currently one AQMA located in Olney. There are no other AQMA's within Milton Keynes even though the M1 motorway runs through Newport Pagnell and has a high flow of lorries and other vehicles. The concentrations of NO₂ usually reduce rapidly with distance from the road and emissions rapidly disperse to levels below the levels at the measurement locations (usually in residential areas).

The nitrogen dioxide concentration can be elevated in older towns subjected to high traffic flows through narrow streets. The concentration exceeds the prescribed level along Bridge Street and the High Street South in Olney. An AQMA was designated on 1st December 2008. Houses are very close to the road and the dispersion and dilution of pollutants is reduced because of the enclosed nature of the road known as the "street canyon" effect.

The prescribed level for particles (PM₁₀) is not exceeded at all locations throughout the council area.

Whilst there are significant moves from within the industry to develop and encourage cleaner lorries, there is no doubt that lorries do contribute heavily to air pollution and visible smoke and dust - this is of concern in both urban and rural areas. Further advances

by the industry will seek to continually improve this and the use of “greener” fuels is being actively promoted.

Within MK the areas of poorest air quality are located in some of the heaviest HGV flow corridors. Regular monitoring of Oxides of nitrogen and particulates is undertaken and the following areas have been highlighted as being just below the permitted acceptable threshold levels:

- M1 - Junction 14,
- M1 - through Newport Pagnell, and,
- Olney High Street South (tunnel effect of buildings contributes).

Any sites which exceed the threshold levels may require the designation of an Air Quality Management Area which will require an action plan to be implemented to enhance air quality.

3.3 Hazards

Concerns regarding hazards fall into 5 main categories

- Personal Injury Collisions
- Speed of Lorries
- Impact damage to Buildings & Structures
- ‘Weight’ damage to the highway
- Overloading and insecure Loads



Personal Injury Collisions

Generally speaking collisions involving lorries are infrequent and per mile travelled have the lowest collision rate.

However the size and often speed of such vehicles does lead to a greater perception of danger and vulnerable road users may be particularly at risk from lorries. Extra care should be taken by vulnerable road users when crossing roads or being passed by large lorries and lorry drivers should take care when passing such road users.

Table 1 shows, for the past 5 years, data for collisions on roads within Milton Keynes involving lorries by road classification.

Table 1 : Personal Injury Collisions involving Lorries on all Roads within MK

Road Class	2003	2004	2005	2006	2007
Motorway	33	28	38	42	38
A class	26	55	40	39	23
B class	9	4	6	2	7
C class(inc. some grid roads)	27	20	32	29	25
Unclassified	11	11	15	10	12
Total	106	118	131	122	105

Personal injury collisions involving lorries have remained reasonably static over the past 5 years with peak being experienced in 2005. The classification of road which these are occurring on does however vary.

Clearly factors such as the traffic flows, the volume of lorries on the roads and the length of road of that classification play an important part and the fact that both "B" Class and Unclassified roads show low incidents of collisions is reflective of this.

Higher levels on Motorways, A Class roads and C Class roads (which include the remainder of the grid road network not classified as A or B Class) are reflective of the greater volumes of lorries using them

Table 2 below provides an analysis of the number of goods vehicle casualties by severity which shows a comparison with the national picture

Table 2 : Lorry Casualties by Severity on all roads within MK

Severity	2003	2004	2005	2006	2007
Fatal	0	1	4	1 (91)	1 (110)
Serious	3	3	5	7 (856)	7 (747)
KSI	3	4	9	8 (947)	8 (857)
Slight	50	36	49	47 (7497)	43 (6959)
Total	53	40	58	55 (8444)	51 (7816)

The national figures for 2006 and 2007 (shown in brackets in Table 2) show a 7% reduction in total collisions, this equates with the local reduction over the same period. Nationally, Killed or Seriously Injured (KSI's) have reduced by 10%, however, within MK this figure has remained static.

A comparison of the casualties per million HGV kilometres (km) would provide a more accurate position as to how MK roads are performing when compared to the national picture.

Traffic flow estimates for MK suggest an HGV flow figure of 129.8 million HGV km per year on our roads giving figures of 0.06 KSI's per million HGV km and 0.42 casualties per Million HGV km.

It has not been possible to obtain comparative national data however this is still attempting to be sourced.

All locations demonstrating high numbers of collisions are analysed and if lorry collisions are a key factor this fact will be taken into account when identifying potential solutions

Speed of Lorries

The Highway Code details the maximum speed for vehicles of different types. In the absence of any lower restriction set by the highway authority, the maximum speeds that lorries are permitted to travel at are detailed below:

- Maximum Gross Weight not exceeding 7.5Tonnes
 - Single Carriageways not subject to a lower limit = 50mph
 - Dual Carriageways not subject to a lower limit = 60mph

- Maximum Gross Weight exceeding 7.5Tonnes
 - Single Carriageways not subject to a lower limit = 40mph
 - Dual Carriageways not subject to a lower limit = 50mph

All goods vehicles over 3.5Tonnes are required by legislation to have speed limiters set at 56mph.

If there is evidence of speeding lorry traffic this can be dealt with through the Council's speed management strategy and policies.

Slow moving lorries can also lead to problems as this may lead to driver frustration in vehicles which are following.

Impact Damage to Buildings and Structures

Although rarely occurring, quite rightly so, incidents of lorries colliding with buildings or highways structures cause great concern.

Within MK there are very few reported impacts to bridges by lorries. Figures are not available for impact or damage to buildings however there have been very few known incidents in recent years.

Low bridges are required to have adequate warning signs in advance to minimise potential collisions.

'Weight' damage to the Highway.

Recent "scanner" surveys covering the whole of the Council's highway network have identified the roads with the weakest carriageway construction. Clearly, roads which are used by lorries suffer a greater load impact and it is important that such roads are adequately maintained.

Whilst this is a key concern for the local authority, often the public's perception is that the issues are not as severe as the more visible damage caused to footpaths and verges

which have been subject to over-running by lorries. These are potentially dangerous to pedestrians and can cause extensive and costly damage to underground services.

Overloading and insecure loads

Lorries that are suspected by the Police as being overloaded are able to be taken to the Vehicle and Operator Services Agency (VOSA) managed weighbridge at J14. VOSA do undertaken regular checks on roads within MK in conjunction with the Police. Insecure loads can create problems (particularly on high speed roads) and Thames Valley Police traffic patrols are particularly careful to ensure that lorries are loaded properly and securely.

3.4 Nuisance, Obstruction and Congestion

Due to their size, lorries often contribute to vehicle congestion on our roads, particularly when delivering and when roads are narrow and heavily trafficked. For some, the mere large physical presence of lorries creates a significant safety concern and often a nuisance factor.

Visual Obstruction and Intrusion

In some places the quality of the built or natural environment is such that lorries are seen as a blight on the scenery or urban environment.

In rural areas on narrow lanes and through villages the issues created by rat running vehicles seeking to avoid congestion on more appropriate routes are compounded and are seen to contribute to the reduction of hedgerows, verges and walls and may cause damage to tree canopies. In some areas with particularly large lorry flows, there are concerns that difficulties in pedestrian movements across roads may contribute to community severance.

Parked lorries often obscure light from windows and obstruct views. In some instances continued parking of large vehicles where there are no appropriate facilities can generate unsightly litter and other antisocial behaviour activities which can create health risks.

Congestion and Accessibility

In many town centres and rural villages, congested or narrow roads mean that lorries, if accessing or parked to deliver or load can create considerable congestion problems on the road. Alternatively lorries often park on or partly on the footpath in order to keep traffic flows moving - this in itself however creates obstruction problems for pedestrians and other users of the pavements and is likely to result in damage to the footpath and underground services.

In many cases delivery or service yards have been provided however they are often inaccessible to lorries due to the presence of parked cars.

4. The Lorry Route Network

4.1 Development of the Lorry Route Network (LRN)

Lorry traffic within Milton Keynes is likely to be of two distinct types:

- Lorries travelling through Milton Keynes, and,
- Lorries with either an origin or destination within Milton Keynes.

Due to its location, Milton Keynes is likely to have a high proportion of both as it is positioned on the strategic national road network and also functions as a distribution centre for a large number of major national freight companies as well as a local service centre.

The Council's adopted Local Plan clearly establishes a road hierarchy the purpose of which is to aid the management of traffic within and through the Council area. This is supported in Council's Local Transport Plan.



In order to make the most efficient use of the network users need to be directed onto the most appropriate parts of the network for their journey. The road network has therefore been divided into four different categories each with differing characteristics:

- **Primary Distributors** – The main routes for through traffic allowing traffic to take a direct and efficient route through the area – these include all A Class roads and the Highways Agency Trunk Road network (The M1 and A5),
- **District Distributors** – These roads carry some through traffic but mainly traffic whose origin or destination is within the Borough. These include most grid roads (other than those designated as Primary Distributors) and B class roads. In CMK the “Gates” are classified as District Distributors,
- **Local Distributors** – These provide access to grid squares and other settlements, and,
- **Access Roads** – These give direct access to buildings.

The road network associated with the older towns in the Borough do not always easily fit within the District and Local Distributor definitions.

The Primary Distributor road network through Milton Keynes (made up of Motorway and “A” class roads forms the strategic lorry route network for those vehicles travelling **through** Milton Keynes.

There are however a number of major lorry trip attractors and generators within Milton Keynes (and within close proximity in neighbouring Local Authorities). These are made up of major industrial and commercial centres, major retail areas, major landfill and mineral extraction sites.

Ongoing large scale expansion sites on the north, east and western flanks have commercial and retail sites associated with them and as such will attract lorry movements in the future which need to be accommodated in the local road network. They are also likely to attract large volumes of localised construction traffic during their development. .

Residential properties, small local centres and small industrial premises will also generate a small number of lorry movements; however these are not considered to be significant lorry trip attractors or generators due to the relatively small numbers involved.

In order for lorry traffic to adequately serve the various major attractors and generators it is necessary to develop a lorry route network using district distributor roads.

Figure 1 shows the location of all the identified major lorry trip attractors and generators within Milton Keynes and an associated network of routes made up of Motorway, "A" Class, "B" class roads and the remaining MK Grid Road network which together directly serve virtually all of the attractors or generators.

Where there is a more satisfactory alternative route nearby, some of the poorer quality routes (where the road layout or environment may not be conducive to lorry travel) have been omitted. These include:

- B565 Olney to Lavendon,
- B5388 Olney to Yardley Hastings,
- B4034 Buckingham Road Bletchley, and,
- A5130 Northfield Roundabout to Woburn Sands.

This forms the preferred **Lorry Route Network (LRN)** for Milton Keynes dealing with not only through trips but also trips to and from destinations within Milton Keynes.

4.2 The "Abnormal Loads" Route Network

Abnormal loads are loads that are wider, taller or heavier than the normal maximum allowed on the roads of the UK. If the load can be split, it must be, but if the load is a single indivisible load, then there is a legal provision for the load to travel subject to notification of the route and in many cases, with an escort.

Abnormal loads may have to be routed on alternative routes through Milton Keynes in order to avoid certain structures or physical restrictions. A long established network of routes exists and is constantly updated when road improvements take place or new problems are detected.

4.3 Publicising the Network

The LRN should be adequately signed and publicised to encourage its use. It is however recognised that lorry drivers may well divert from this route in order to take short cuts or avoid congestion and where this results in environmental or other concerns such

movements need to be minimised and any restrictions in place will also be signed in accordance with regulations and well publicised.

In order to encourage lorries to use the most appropriate routes on the network the requirement for additional signing will be assessed and where necessary, provided.

Specific lorry route signs will be used in order to provide additional guidance to drivers on routes to locations on the network in order to minimise rat running through residential urban and rural areas.

Information relating to the LRN should be made widely available to operators through a variety of media. This is discussed in more detail in **Section 9**.



5. Managing the Impact of Lorry Traffic on the LRN

Generally speaking, those roads which make up the LRN do so because they are of a high standard and the concerns identified in section 3 are unlikely to have any great impact. Routes should not have any features likely to restrict access such as low bridges or weight restrictions.

There are however some roads and settlements on the LRN in both urban and rural areas where there may be some direct impact associated with passing lorry traffic. These are identified in Table 3.

Table 3 : MK settlements on the LRN potentially subject to direct Impact

Route	Settlements
A428	Lavendon, Cold Brayfield.
A509	Olney and Emberton & Warrington.
A422	Chicheley
B526	Newport Pagnell, Gayhurst, Lathbury & Stoke Goldington
B4034	West Bletchley

A regular programme of traffic and air quality monitoring will be undertaken at locations within these settlements in order to assess any detrimental impacts which may be attributed to the fact that they are located on the LRN. Action may be necessary to mitigate the impact of lorries travelling through these areas.

5.1 Restriction of Lorry Movement

In normal cases, measures to restrict lorries from using roads on the LRN will **not** be proposed or supported. However where UK and European air quality objectives are exceeded measures to restrict lorries from using the LRN will be considered when all other options have been discounted.

5.2 Casualty Reduction Measures

All roads undergo an annual casualty analysis, if casualty sites requiring action are identified on the LRN (whether involving lorries or not), any measures implemented should, as far as is possible, be complimentary to the lorry use of the road.

5.3 Speed Management

Speed management measures will be implemented in accordance with our Speed Management Strategy and policies, regardless of whether the road is on the LRN or not.

5.4 Traffic Calming

If it becomes necessary to implement traffic calming measures on part of the LRN, for either speed or casualty reduction purposes, traffic calming will need to be designed with lorry traffic in mind. Traffic may be required to slow however measures resulting in an increase in pollution due to continued stopping and starting will not be promoted.

Speed cushions are likely to be utilised more than full width humps which can generate excessive noise however where there is demand for pedestrian facilities, flat topped humps and tables may still be used.

5.5 Accessibility

It is important to ensure that pedestrian and cycle accessibility and safety is not compromised on the LRN. Priority should be given to the provision of such facilities where none currently exist. Facilities for other road users may be able to be enhanced through traffic engineering techniques.

5.6 Congestion Relief

It is essential that traffic delays are actively minimised on the LRN, not only to ensure the network is effective in delivering its objectives, but also to minimise the negative environmental impacts associated with particularly slow moving lorries.

Where congestion is occurring on the LRN, priority should be given to the introduction of effective congestion relief measures.



5.7 Air Quality

Should regular air quality review and assessments indicate that the prescribed air quality levels are likely to be exceeded, the area may be designated as an Air Quality Management Area (AQMA) as is the case of Bridge Street and High Street South in Olney.

Further monitoring can be undertaken using mobile air quality monitoring stations and an Air Quality Action Plan put in place to reduce pollution. Such proposals will ideally need to accommodate lorry movements on the LRN, however ultimately it may become necessary to consider alternative routing for lorries if it is not possible to improve air quality below objective levels through other measures proposed within an AQMA action plan.

6. Managing the Impact of Lorry Traffic off the LRN

6.1 Restriction of Lorry Movement

If a road **not** on the LRN is being used by lorries as a “through route”, then a Traffic Regulation Order (TRO) prohibiting this use will be considered.

It is however important to stress that lorry restrictions will not necessarily be automatically applied to every road that is **not** on the LRN. It is a costly process generating much street clutter in additional signage, requires regular enforcement to ensure effectiveness and often has uncertain benefit.

There can often be a significant number of lorries which need access to serve residential urban and rural areas. If lorries are seen in such areas it is often assumed they are rat-running, this may not however be the case.

It is not the function of TRO's to bring about changes in land use by denying access by Lorries to existing business premises. Orders proposed for such purposes will not be progressed.

Ongoing surveys have been undertaken at a number of locations of different road classification on and off the LRN. These identify levels of both general and lorry traffic. It is therefore possible to determine the average flow expected on differing road types.

Table 4 : Threshold Values for Various Road Classifications

Road Type	DfT Hourly Flows (1 way)	Traffic Flow Threshold Values (Observed Mean 2 way Survey Results)		
		Total Flow	HGV Flow	% of HGV;s
URBAN				
Local Distributor	1,140 -1,860	4,826	60	1.3
Access Road	750 - 1,320	862	6	0.7
RURAL				
s/c A class & Grid		12,490	455	3.6
d/c A class & grid	3,350 - 4,000	-	-	-
B Class		5,229	73	1.4
C Class		3,498	59	1.7
Un classified		1,266	30	2.4

NOTE : The data will be annually updated using most recent count data and sites.

For roads not on the LRN, if two of the three relevant average flow threshold figures contained in table 3 are exceeded, consideration will be given to promoting and implementing restrictions upon lorry movement on these roads.

6.2 Types of Lorry Restriction

Restrictions on large vehicles may be implemented on the basis of weight or physical dimensions. Restrictions can be based on environmental considerations (such as where European and UK air quality standard objectives are not met) in which case they will often

be area wide, or on physical constraints, such as a low or weak bridge or a physical narrowing.

Area wide restrictions will have exemptions for access, permitting those vehicles that have business at an address within the area to enter it to complete their business. Physical restrictions generally do not have exemptions for access as they are based on the fact that passage for restricted vehicles is not possible or dangerous.

Weight Restrictions

Weight restrictions are based on the maximum gross weight of a vehicle. They can only be set at 7.5T or 18T.

Lorry restrictions will invariably need to contain an exemption for access to premises inside the restricted area and therefore some legal lorry movement will occur even if the restriction is complied with fully. There is no size limitation on goods to be collected or delivered to qualify for an exemption. Where the restriction applies to a structure, there is generally no exemption.

Obviously the larger the restricted area the more “legal” movements will be permitted and the enforcement task of Thames Valley Police becomes more onerous. In addition it is difficult to communicate to drivers the extent of the large area restrictions often resulting in drivers unknowingly contravening a restriction.

The most effective restriction is one that covers a short length of road only as this will have very few exemptions. Environmental weight restrictions apply to goods vehicles only, they do not apply to buses or coaches.

Height Restrictions

Height restrictions are only used when there is a structure over the road that cannot be removed, such as a bridge. Most bridges have advisory (triangular) signs warning of the low clearance. Some have regulatory signs indicating a legal restriction backing up the physical restriction. Legal restrictions may also apply to the approach to the structure, particularly if turning a large vehicle at the structure itself is hazardous.

Height restrictions are always set at the maximum safe height, never higher. Drivers should be aware that the height of a bridge above the road might be different on the far side of the bridge. A vehicle that can get under one side of the bridge might not be able to pass under the whole structure. Arch bridges pose a particular problem in that the clearance is obviously dependent on the line of approach. Regulatory signs will not be appropriate and signs advising high vehicles to use the centre of the road, with corresponding advice for vehicles in the opposite direction may be considered.



Width Restrictions

Like height restrictions, width restrictions should only be used where available road width is physically restricted to less than the width of a heavy vehicle.

Critical locations will normally be at corners or on bends. At these locations, it is not the absolute width of a vehicle that is the problem. The width that a vehicle requires when turning will be considerably more than the width of the vehicle itself and will depend on many things, particularly the vehicle's length.

There are many locations where a width restriction designed to prohibit a particular size of vehicle would have to be set so low that very many smaller vehicles that have no problem at the location would also be restricted (for example camper vans and large transits). This may mean that the restriction would have very many unwanted side effects. There are often calls for the width restrictions to be supported by physical restrictions set up earlier on the route to render the restriction self enforcing.

Length Restrictions.

As well as weight height and width, it is possible to restrict vehicles on the basis of length. There are however unlikely to be many locations where the length of the vehicle is the single critical dimension. If the problem is a combination of length and width, maximum gross weight restrictions are considered the best option.

6.3 Casualty Reduction Measures

All roads undergo an annual casualty analysis. For casualty reduction sites identified on roads off of the LRN, measures may be implemented that are inconvenient for large vehicles although safe operation of refuse and fire service vehicles will always have to be incorporated in any scheme.

6.4 Speed Management

Speed management measures will be implemented in accordance with our Speed management strategy and policies, regardless of whether the road is on the LRN or not.

6.5 Traffic Calming

If traffic calming is proposed on a road not on the LRN, the full range of traffic calming measures available may be considered as appropriate. Measures may be implemented that are inconvenient for large vehicles although safe operation of refuse and fire service vehicles will always have to be incorporated in any scheme.

6.6 Accessibility

It is important to ensure that pedestrian and cycle accessibility and safety is not compromised on any routes whether on or off the LRN. However as previously indicated those routes on the LRN may be weighted more highly when prioritising requests.

6.7 Congestion Relief

It is important to ensure that potential congestion is minimised on any routes whether on or off the LRN. However as previously indicated those routes on the LRN may be weighted more highly when prioritising requests.

Congestion resulting from lorries parking and delivering will however be considered individually and measures set out in *Section 7* will be considered.

6.8 Air Quality

As with lorry traffic on the LRN, if regular air quality review and assessments indicate that prescribed air quality levels are likely to be exceeded, the area may be designated as an Air Quality Management Area (AQMA). In areas that are not on the LRN the Air Quality Action Plan may require measures that directly impact upon lorry movements

6.9 Assessment of Route Suitability off the LRN

There will of course be a need for lorries to use roads **not** on the network, primarily for delivering and accessing local facilities and services in town centres, residential and rural areas.

In such instances, where there are a number of potential routes available for lorries, route assessments will be undertaken in order to identify the most suitable route to serve these areas. These may be designated and signed as the most appropriate route.

7. Managing Lorry Deliveries

At the start and end of all lorry journeys there will be a need to load or unload – depending upon the location and circumstances, this will have a variety of impacts.

On industrial estates and retail parks there should be sufficient provision made on-site for deliveries, however early arrivals do need to be catered for as many companies will not allow drivers to enter the premises until their allocated time slot. If this occurs regularly resulting in either safety or congestion issues then measures identified in Section 8.0 on Lorry Parking Facilities will need to be employed.

Provision may be made at some locations for 24/7 deliveries, however the planning process must clearly be able to respond to any concerns regarding noise and inconvenience which this may cause and such operations should not be permitted in areas where such issues are likely to cause concern.

In vibrant town centre “high street” areas there are competing requirements of providing an efficient delivery service whilst maintaining and further enhancing the environment of town centres. There can be no ‘one size fits all’ solution for such “high street” dilemmas, however a best fit solution should be sought in order to minimise the time goods vehicles spend delivering to such locations. The Lorry Route Network Maps contain detailed preferred access arrangements into Town Centre areas which will be signed accordingly

Safety, air quality, accessibility and congestion concerns are paramount and the potentially detrimental impact of loading or unloading can be minimised by considering use of the following:

- Use of dedicated servicing areas away from the highway,
- Provision of dedicated loading bays for dual use (i.e. loading bays during the day and general parking in the evenings and weekends),
- Enforceable loading restrictions,
- Restrictions upon delivery time (i.e. avoiding night time, peak traffic times and if appropriate, school drop off and pick up times),and,
- Development of signed appropriate routes.

Local centre shops in residential areas often have deliveries made by large vehicles and this may create minor congestion and disruption issues within the residential area. In addition this may result in safety concerns and damage to verges and footways. Plus early morning or late night deliveries can cause concerns and should be avoided. However if such facilities are to be provided then local residents must accept some degree of disruption, however minimal.

Concerns should initially be raised with the local shop and hauliers to ascertain if alternative arrangements can be made such as changes to routing, size of vehicles or delivery times. Future proposed developments must be designed to cater for such movements.

Many supermarkets do have night-time delivery curfews imposed by the planning authority in order to minimise overnight noise. Whilst on the face of it delivery curfews may seem beneficial, a 2002 survey by the 10 biggest retailers found that if half its curfews were lifted they would be able to reduce their fleets by 630 vehicles (10%). Distance travelled would fall by 63 million miles, saving 36 million litres of fuel and reducing CO2 emissions by 96,000 tonnes.



There is clearly a balance to be achieved between environmental impacts on individual communities and the wider perspective. The Freight industry has however recently drawn up a “good neighbour” code of practice aimed at ensuring that night time deliveries are as quiet as possible. In conjunction with the FTA and RHA this should be rolled out across MK.

In rural areas deliveries to local village shops and other attractors is necessary and as such restrictions imposed would need to provide exemptions for access.

In all areas, local contact with the companies concerned, business associations and town centre managers should be the first step in trying to resolve local issues through voluntary means.

Lorry loading and delivery requirements must be given very careful consideration in planning stages of any new development or highways improvement scheme to ensure that facilities are acceptable and functional whilst minimising the detrimental impact on accessibility, air quality, safety, congestion and the environment.

8. Lorry Parking Facilities

8.1 Local Plan Policy

The Milton Keynes Local Plan (*section 7.54 on*) indicates that:

“there may be a need to provide a new lorry park in the City, particularly to reduce the problem of lorry parking in residential areas. Other policies require the retention or replacement of lorry park facilities in areas affected by new development proposals at Fen Farm in the Eastern Expansion Area”

Any new lorry park facility will need to satisfy the general design policies in this plan and also be in a suitable location to minimise its potential environmental effects.

POLICY T16 states:

- *Site shall not be in the open countryside as defined in Policy S9*
- *The site must be well related to the Primary Distributor Road network*
- *Any ancillary uses are closely related to the main use of the site as a lorry park – such as petrol filling station, refreshments, motel and vehicle repairs*
- *Proposals should not have a significant adverse effect on the amenity of nearby residential areas.”*

8.2 Requirement for lorry parking

Over recent years, lorry driver rest facilities and lorry parking have become increasingly prominent issues facing the Council.

Areas for goods vehicles to stop and park when away from the operating centre do play a vital role for freight operators to enable their drivers to refresh themselves and maintain their vehicles. Driver rest facilities and lorry parking provide an important support service to road freight, particularly for freight companies based outside the area.

Lorry drivers are required to take both daily driving breaks and overnight rest by the European Union Driver Hours Directive 3820/85. In addition to the health, safety and welfare of drivers, inadequate lorry parking provision can have an adverse impact upon other road users, and poor security can put cargo at risk.

There is no doubt that well designed and strategically located lorry parks can play a significant role in reducing the mileage run by visiting lorries, promoting driver well-being, helping with efficient deliveries and minimising disruption to communities.

It is preferable for lorries to be parked at a managed, secure site that offers safe entry and egress and encourages lorries to park in a formal and well designed location, rather than parked in roadside lay-bys or on or adjacent to minor roads in industrial estates where the vehicle itself may cause disturbance to residents (including any noise from refrigeration units). Such facilities should also provide drivers with food and proper rest facilities which help compliance with drivers' hour's regulations, and also contribute towards road safety.

Within Milton Keynes there are essentially three types of lorry parking requirement:

Goods Vehicle Operating Centres

The Traffic Commissioners require that all Goods Vehicle Operators are normally required to park their vehicles at their registered Goods Vehicle Operating Centre (GVOC). This may be a private facility owned by the company however many local businesses in Milton Keynes and some national distributors currently use “Fen Farm” as their registered GVOC. This has a capacity of some 350 lorry parking spaces and some 400 vehicles are currently registered.

Generally speaking GVOC do not cater for transient vehicles although the “Fen Farm” facility does operate as both a GVOC and to a lesser extent as a transient lorry park

The Fen Farm lorry park facility is shortly to be redeveloped and those vehicles using the site as their registered GVOC would not be permitted to park on the highway as doing so would be in contravention of their Operators Licence and the Traffic Commissioners are able to take enforcement action.

Early Arrival Parking

Frequently lorries arrive at their destination prior to the designated delivery “slot” and in many cases due to insufficient on site parking on site or local site management procedures are required to park on the highway

Transient Parking

Facilities are required for statutory breaks during lorry trips, these may be for short durations or for overnight stays. There is now a tendency for some of these stays to be lengthy with some drivers being reported to be parked for up to 10 days before making their return pick up and journey home.

8.3 Current Parking Facilities

There are currently within Milton Keynes very few designated facilities for off street lorry parking these are shown in Table 5.

Table 5 : Current Off street lorry parking (excluding private GVOC)

Site	Capacity	Comments
Fen Farm	350	Primarily used as a GVOC
Water Eaton Road	12	Poor location, not promoted
M1 N Pagnell Services	Unknown	Charges in operation
M1 J13	Unknown	Charges in operation
North Crawley Road	0	CLOSED in 2005

Much of the lorry parking currently occurs on industrial estates and in lay-bys adjacent to the grid roads. There is however currently little evidence (either anecdotal or qualitative) to suggest that there is a problem with large lorries parking in residential areas or within MKC operated car parks.

Surveys undertaken overnight in lay-bys and industrial estates during February 2008 indicate the following demand for overnight parking.

Table 6 : Summary of Night-time Lorry Parking Surveys

Type	2003	2008	% Change
Rigid	18	14	-22%
Artic	99	116	+17%
Cab only	13	7	-46%
Trailer Only	15	34	+126%
Total	149	171	+15%

Over the 5 year interim period there has been an increase in the overall number of lorries parked by 15% (22). In many locations the volume is similar or has declined however there has been a significant increase in lorry parking in the Kingston/Brinklow areas where the number has increased from 40 to 89. This is probably as a result of the provision of marked lorry parking bays in the Kingston area.

8.4 Lorry Parking Issues

In the absence of a designated off street facility, use is being made of fairly remote wide roads on industrial estates and lay-by's such as those in Kingston and Brinklow.

This has, in the past led to congestion problems and safety concerns and schemes have previously been implemented to attempt to manage this parking by providing advisory on-street lorry parking bays. These are now being backed up with restrictions in areas where parking would lead to safety or congestion concerns.

Whilst parking on industrial estates and in lay-by's may be appropriate for short stay Transient Parking and Early Arrival Parking it is not a suitable solution for parking for longer stay and overnight stops as there are a number of deficiencies:

- Some sites may be adjacent to busy roads and safety may be compromised.
- There are limited or no facilities available leading to health and litter issues
- There can be associated safety and traffic congestion, access obstruction and consequent safety problems
- In some circumstances it does lead to related anti social behaviour activities

It is clear that further increases in demand for lorry parking will create further pressures on the highway, such as those indicated above.

The following proposals should therefore be considered:

- Enforcement agencies should be encouraged, through working with local Neighbourhood Action Groups (NAG's), to undertake effective enforcement of vehicles parked inappropriately or away from their operating centre.
- Within the planning process sufficient land should be provided in all industrial and commercial units for the anticipated lorry parking requirements - this should include the needs for operators to provide GVOC.

- In addition, industrial estates should provide an area of spare land available for overflow lorry parking to ensure that vehicles are not parked on the highway.
- Where lorry parking does result in safety concerns or congestion problems continued use should be made of short stay time-limited lorry parking bays or lay-by's backed by parking restrictions in inappropriate areas. Where short stay parking is encouraged then facilities for litter disposal should be provided.
- In accordance with Local Plan Policies a location in the vicinity for the Eastern Expansion area should be considered as a lorry park as this will have good transport links with both the A421 and the M1 and is in or adjacent to the current Eastern expansion area and would be available to be "designed in". Potential suitable sites are the strategic reserve sites at Eagle Farm, Glebe Farm and Church Farm (during the current economic down turn it may be that there are current development sites which may be made available on a temporary basis).

The Council would not seek to manage or operate a lorry parking facility and would seek expressions of interest from operating companies to develop and manage the facility possibly in conjunction with development on the site.

Whilst the DfT's publication "*The Local Authority Freight Management Guide*" suggests that three levels of parking facility are able to be provided, the basic provision is not dissimilar to that which is currently available in Milton Keynes (i.e. roadside with little or no facilities) which is deemed unsatisfactory as a long term solution

Therefore the suggested functional specification for the site should be as follows:

- Lorry Park with at least 200 spaces for transient users (based on recent lorry parking survey results - it may be that the site in addition offers an Operating Centre Facility)
- Secure (CCTV and/or security patrols)
- Well Lit
- Lorry Washing Facilities
- Lorry Maintenance facilities
- Spares and Fuel available
- Toilet Block and Shower Facilities
- Reasonable prices
- Reasonable quality Meals/snacks available
- Well promoted and signed.

It is imperative that the cost for using such facilities is reasonable a concern is that even with such provision drivers would seek to park in other areas. Therefore, once such provision is made it will be necessary to implement a programme of restrictions to ensure that overnight lorry parking in unsuitable locations is minimised.

In order to encourage private sector investment it is essential that an area be identified within the Local Plan or Local Development Framework as being suitable for lorry parking

and driver rest areas. However, the means of financing and managing the lorry park need to be deliverable and this may require a named operator.

9. Communications and Information.

If the delivery of this strategy is to be successful then it is essential that actions are communicated to all stakeholders appropriately.

It is essential that the agreed LRN, lorry restrictions and provision of lorry parking facilities and agreed access routes to commercial centres is publicised as widely as possible this will be undertaken through a variety of media including:

- Direct consultation with the Freight Transport Association and the Road Haulage Association,
- Maps (in various languages) should be available to lorry drivers distributed through local companies showing the designated route,
- Included on Information Boards at rest stops and Lay-bys,
- Made available to all map producers,
- Made available to Satellite Navigation Companies via their trading associations,
- Available on the MKC Website, and,
- Incorporated into emerging Intelligent Transport Systems Strategy.

In addition, it is important that the LRN itself together with key destinations and parking areas are adequately signed so that drivers are aware of the appropriate routes and facilities, however, consideration will be given to the environmental impact of such signing.

Where destinations are off the LRN, appropriate routes will be signed.

Any lorry restrictions implemented will be appropriately signed and information will be included alongside the general publicity regarding lorry routes.

10. Partnership Working

In order to ensure that lorries are able to use our road network safely and efficiently it is essential that we work in partnership with stakeholder groups on a number of levels.

- With hauliers and the representative associations (the Freight Transport Association and Road Haulage Association) to ascertain needs for appropriate routing, lorry parking and rest stops,
- With neighbouring local authorities to ensure consistency in the LRN and particularly dealing with cross boundary issues associated with appropriate routing off the LRN,
- With individual business, business associations and city centre managers to ensure that their servicing and delivery needs are met in the most appropriate way and that any issue arising are able to be resolved,
- With the wider local community and environmental groups to ensure that concerns regarding lorry routing and parking are heard and where possible acted upon,
- With Thames Valley Police who will be responsible for enforcing any restrictions implemented,
- With Developers and the Planning Department to maximise opportunities for enhancing facilities available for lorries and lorry drivers, and,
- With SATNAV operators to ensure as far as is possible that correct information regarding the LRN and any restrictions in place is conveyed to drivers via SATNAV's.
- Arising from the consultation on this strategy a formal Freight Partnership should be established in order to provide a forum for industry and the Council to work together to:
 - Formalise the development of the freight strategy work,
 - Oversee the delivery of Freight Strategy Action Plan,
 - Reduce the adverse effects of freight on the environment and implementing economical, safe, efficient and community friendly freight transport, and,
 - Encourage best practice.

11. Proposed Lorry Management Strategy Delivery Plan and Financial Assessment

Ref	Action	Who	08/0910	09/10	10/11	11/12	12/13	Capital Cost
1	Establish a formal Freight Partnership to monitor the implementation of the strategy and action plan.	MKC	Y					Nil
2	Agree the LRN	FP	Y					Nil
3	Consider actions and priorities for proposals to mitigate impact on and off the LRN	FP	Y					Nil
4	Implement a Rolling Programme of restrictions where appropriate	MKC	ongoing					£20,000 pa
5	Sign the LRN appropriately	MKC		Y	Y			£20,000 pa
6	Production of Lorry Route Maps	FP	Y		Y		Y	£10,000 pa
7	Production and Implementation of Lorry Route information Boards	FP			Y	Y		£20,000 pa
8	Place/update Lorry Route info on MKC website	MKC	ongoing					£5,000 pa
9	Liaison with SATNAV operators to ensure correct information is conveyed to lorry drivers via SATNAV's	MKC		Y				
10	Integration with Intelligent Transport Systems Strategy development	MKC		Y	Y			Nil
11	Monitor traffic and air quality at sites regularly on and off LRN	MKC	ongoing					Nil
12	Review management of Lorry Deliveries	FP		Y				Nil
13	Liaise with planning regarding parking facilities for developers	MKC	Y					Nil
14	Identify site for lorry park and prepare detailed brief	FP	Y	Y				Nil
	Total Estimated Capital Cost per Year (£'000)		35	45	75	45	35	

FP – Freight Partnership
MKC – Milton Keynes Council

Milton Keynes Council

Traffic Management
Civic Offices
1 Saxon Gate East
Central Milton Keynes
MK9 3EJ

Tel: 01908 252531

Fax: 01908 254212

Email: traffic.management@milton-keynes.gov.uk

Web: www.milton-keynes.gov.uk/transport

