BACKGROUND
Kerb space in city centres has many competing users and often inflexible enforcement and expensive traffic management methods. Virtual Loading Bays (VLB) by Grid Smarter Cities, a real-time dynamic, solution which helps councils to intelligently manage restricted kerb space.

VLB allows councils to utilise kerb space by enabling drivers to reserve the space, anywhere from routes that traditionally prohibit loading and unloading to red routes to (no loading) double yellows outside peak traffic hours, therefore minimising congestion and allowing parking in busy and difficult to reach locations in close proximity to delivery points.

Booking VLB’s in advance of a driver’s arrival in the city enables an integrated and positive traffic management strategy, reducing congestion and smoothing traffic flows. The delivery point may be informed of the driver’s imminent arrival, on the approach to the booked VLB.

VLB’s can be used by fleet administrators and office-based transport staff to make multiple bookings in correct bays and timeslots, on behalf of drivers. The driver can set off with the knowledge of exactly where and when to park, so vehicles can be left and deliveries made with confidence.

This VLB concept can also be applied to virtual:
- Charging bays (The system can be applied selectively to vehicle type and class to encourage use of cleaner vehicle types)
- Parking bays (coach and car)
- Disabled bays
- Skip bays
- Street works and utilities

FIRST USE
Grid undertook its first proof of concept of Virtual Loading Bays in Westminster City Council in 2011. The trial lasted a period of 12 months and looked at the operation impact of these bays on enforcement and the impact and ease of their use for freight delivery companies.

The outcome based on the modelling and economic analysis indicated that the introduction of a VLB system in Westminster would not only provide a solution to managing congestion and smoothing traffic flows, but could also provide substantial economic benefits of around £1.7m a year.

APPLICATION
Virtual Loading Bays as a solution has been included in the Mayors Air Quality Action Plan. This document outlines the actions for boroughs to consider delivering locally as part of their London Local Air Quality Management action planning obligations. The document states that “benefits would arise from reducing the levels of illegal parking by goods vehicles during the busy peak periods, thus reducing levels of congestion”.

Furthermore, Grid is continuing its engagement with local authorities, freight operators and local businesses to identify penalty charge notice (PCN) ‘hotspots’ and ‘difficult to deliver’ locations.

An agreed list of VLBs will be uploaded to the Kerb system with details of operation and tariffs and will become available to ‘on the street’ freight operators and back office enforcement officers.

BENEFITS
Benefits include those to the council and the city residents directly, at a commercial and environmental level:
- Saving capital expenditure by reducing the time and fuel used searching for available kerb space, which will also reduce emissions and improve air quality.
- Preventing unnecessary PCNs and the cost of administering them, as the pre-booked bay becomes ‘legal’.
- Facilitating rapid loading/unloading due to alerting customer of the driver’s imminent arrival, which in turn will reduce congestion.
- Increasing residential parking bays due to effective kerb space management.
- Key routes are kept clear.
- Companies can efficiently manage multiple drop offs/pick-ups.

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