

Introduction				
Document Title		Sprint Standards		
Purpose of Document		To set standards of Sprint in West Midlands		
Author		ITA Policy and Strategy Team		
Endorsed By		ITA		
Version Control				
Version Number		V1		
Date Effective From		16 <sup>th</sup> March 2016		
Review Frequency (If applicable)		Annually		
Next Review Date (If applicable)		March 2017		
Revision History				
Version	Date	Author	Action	Reviewed By
V0.05	29/12/15	T Skidmore	Draft	L Shoaf
V0.06	06/01/16	T Skidmore	L Shoaf feedback incorporated	STOG
V0.07	13/01/16	T Skidmore	STOG feedback incorporated	TDC
V0.08	26/01/16	T Skidmore	TDC, Bus Alliance, and Sprint Board feedback incorporated	L Shoaf
V1	07/03/16	T Skidmore	Presentation amendments	L Shoaf
Distribution				
Name/Title			Date of Issue	Version
STOG			06/01/16	V0.06
TDC			14/01/16	V0.07
Bus Alliance			18/01/16	V0.07
ITA			09/03/16	V1

Sprint Standards

Document for  
adoption by the  
ITA

March 2016

## Contents

<b>Page</b>	<b>Title</b>
<b>4</b>	What is Sprint?
<b>5</b>	Why Sprint?
<b>5</b>	Headline benefits of Sprint
<b>6</b>	Sprint performance and service standards <ol style="list-style-type: none"><li>1. Sprint operation – timetables, frequencies and service integration</li><li>2. Vehicles</li><li>3. Sprint shelters and interchanges</li><li>4. Fares and fare collection</li><li>5. Highways and priority</li><li>6. Intelligent transport systems – including real time information</li><li>7. Branding, marketing and customer service</li><li>8. Environmental credentials</li></ol>
<b>7</b>	The Sprint Standards – Summary Table
<b>8</b>	Sprint operation <ul style="list-style-type: none"><li>• Key features of the timetable</li><li>• Key features of the route</li><li>• Punctuality and reliability targets</li></ul>
<b>9</b>	Sprint vehicles <ul style="list-style-type: none"><li>• A great customer ambience</li><li>• The latest technologies</li><li>• World class maintenance and upkeep</li></ul>
<b>10</b>	Sprint shelters and interchanges
<b>11</b>	Fares and ticketing
<b>12</b>	Highways and priority <ul style="list-style-type: none"><li>• Highways arrangements</li><li>• Sprint stops</li><li>• Junction arrangements</li><li>• Construction and maintenance</li></ul>
<b>14</b>	Intelligent transport systems
<b>15</b>	Branding, marketing and customer service
<b>16</b>	Environmental credentials

## What is Sprint?

Successful and exciting cities require cutting-edge forms of mass transit, elevating urban transport to a new level of excellence while making communities more liveable, competitive, and sustainable.

Sprint is a bus based rapid transit mode which is part of the vision for the future network of world class public transport in the West Midlands. Sprint is an innovative mode of transport with journey times and comfort levels that are based on those of a light rail system while maximising the flexibility and lower costs associated with bus technology. Sprint means faster journeys, improved reliability, higher quality public transport environment, greener environment, and easier access to transport and our communities.

It will play a key role in improving the journey experience for people living, working and visiting the West Midlands and with its stylish looks will become the image of a modern and successful region.

The Sprint programme will deliver significant benefits to the West Midlands including:

- Providing a significant transformational effect on the image of public transport in the Metropolitan area;
- Meeting the mobility needs of the West Midlands conurbation as outlined in the Transport Prospectus, Birmingham's Mobility Action Plan (BMap), HS2 Growth packages, and emerging West Midlands Strategic Transport Plan;
- Generating a significant uplift in public transport patronage;
- Providing a high capacity and low emission vehicle resulting in less environmental pollution; and
- Delivering a tram-like vehicle while maximising the flexibility and lower costs associated with bus technology compared to that of a tram.

Included in the 'Towards a World Class Integrated Transport Network' Prospectus, Birmingham City Council's Birmingham Connected Report, the HS2 growth strategy, and the West Midlands Strategic Transport Plan, Sprint is part of the vision for the future of a network of world class public transport in the West Midlands. The 2014 Strategic Economic Plan for the Birmingham & Solihull LEP identified Sprint as a very worthwhile intervention providing high value for money. Funding has already been allocated to deliver the programme across the A456 (Birmingham to Quinton) and A45 (Birmingham to Birmingham Airport) corridors between 2015 and 2020.

The Sprint Standards are required, in order to ensure a basic service specification which can be applied to a new network of bus rapid transit corridors, as part of a world class public transport system that supports growth, jobs and inclusion.

## Why Sprint?

Branded the same throughout the West Midlands, Sprint will be recognised as a benchmark for high quality rapid transit. Along with heavy rail and Metro, Sprint will form part of the high capacity rapid transport network. The network links the metropolitan area's key centres to their travel-to-work areas and underpins the regeneration of key corridors.

The West Midlands vision of world class public transport is to have an integrated system of four tiers:

- Rail and rapid transit network
- Principal bus corridors
- Local bus networks
- Complementary travel services

With a generational shift in the quality of public transport, Sprint supports Centro and local authorities' visions for improved urban centres served by very low-emission vehicles with characteristics similar to trams. The passenger experience of the Sprint network will be very different to that of a bus in service today. Off-vehicle ticketing, conductors and multi-door boarding, coupled with highway priority, will help to reduce journey times to be more competitive with the private car.

Sprint will offer a 'turn-up-and-go' timetable with journey times and comfort levels that are based on those of light rail systems (trams) while maximising the flexibility and lower costs associated with bus technology. Similar systems already operate in the continent in cities such as Metz, Bergen, Geneva, Barcelona, Luxemburg and Malmo among other cities.

The required investment in highways and passenger infrastructure for Sprint will be matched by the service operators' investment in vehicles and staff. Presentation will be to agreed exceptional standards – vehicles will always be clean and damage-free, passenger-facing staff will be informative and project a positive image of public transport. A rigorous customer charter will clearly set out the expectations of all parties involved and be focused on delivering a world-class public transport service.

### Headline benefits of Sprint

- A new mode of transport – bus rapid transit with the comfort and speed of light rail
- State-of-the art vehicles, with low noise, low vibration, and low emission vehicles (Euro VI or better emissions, with an aspiration to operate with zero emission vehicles when practicable)
- Great passenger comfort, with airy interiors, plenty of legroom, and air conditioning
- Wi-Fi, audio-visual announcements, and on-board next stop information
- Faster journeys including dedicated priority at key junctions – competitive with the car, and quicker journey times compared to conventional bus (journey times will be at least 20% quicker on average than conventional bus)
- Extensive smartcard and limited driver interaction to speed up journeys
- Dedicated stops and interchanges, with easy boarding and simple onward connections
- High quality customer service
- A distinctive brand and identity

## Sprint performance and service standards

The standards have been structured according to the key components of Sprint. The following key components are considered:

1. Sprint operation – timetables, frequencies and service integration
2. Vehicles
3. Sprint shelters and interchanges
4. Fares and fare collection
5. Highways and priority
6. Intelligent transport systems – including real time information
7. Branding, marketing and customer service
8. Environmental credentials

The proposed standards for each of these components are detailed further in later sections below and a summary chart can be found on page 7.

As part of the communication of the Sprint vision to a wide range of stakeholders and interested parties, these standards will:

- Present the features and concept of Sprint
- Guide the design of the physical and operational characteristics of Sprint
- Provide a benchmark against which scheme alternatives can be assessed

The development of these standards has been guided by local transport policy and in reference to worldwide established good practice. Further incremental improvements on Sprint routes are expected following delivery, this will ensure the standards can be built upon as additional best practice is recognised.

There are a number of important themes underlying the development of the standards:

- A strong focused brand image that delivers a clear identity for Sprint across the West Midlands
- High quality in all aspects of Sprint including fixed infrastructure, vehicles, operations and customer services
- High standards of reliability with punctual departures and predictable journey times
- Integration at all levels where possible, including policy areas such as social inclusion and economic regeneration, and with other modes of transport including public transport services, private car users, cyclists and pedestrians
- Strong support to improving environmental emission standards through the use of greener vehicles

## The Sprint Standards – Summary Table

For the best Sprint solution, the Target standard must be achieved. The Minimum standard should only be applied to individual factors when the Target level is not practical or economically feasible. It is expected that a Sprint route should achieve the Target standard in a majority of factors to provide the step change required.

	Target standard – required for high standard Sprint. Provides a high level of attractiveness and efficiency.	Minimum standard – required for a good standard of Sprint. This is an acceptable solution that provides a good level attractiveness.
FACTOR	TARGET STANDARD	MINIMUM STANDARD
<b>Sprint Operation</b>		
Frequency and reliability	A “turn-up and go” service with 95% reliability	A “turn-up and go” service with 95% reliability
Stop distance	Stops every 500-800m	Stops 300-500m or more than 800m apart
<b>Vehicles</b>		
Identity	Easily distinguishable with an appearance closer to tram and multi-door boarding	<i>Easily distinguishable with an appearance closer to tram and multi-door boarding</i>
Features	Free Wi-Fi, on board CCTV, on board real-time information, and next stop announcements	<i>Free Wi-Fi, on board CCTV, on board real-time information, and next stop announcements</i>
Accessibility	Access for all	<i>Access for all</i>
<b>Sprint shelters and interchanges</b>		
Shelters	High quality shelters with real time information, CCTV, wayfinding and walking passage-ways	High quality shelters that clearly signify they are served by Sprint, include wayfinding, and promote accessibility
Interchanges	Park and ride provided on Sprint route	Stops in key locations to interface with other forms of transport
Cycle facilities	Storage provided at shelters where Sprint routes interface with cycle routes	Wayfinding to cycle facilities provided at stop
<b>Fares and fare collection</b>		
Fares	Payment systems to encourage cashless payment and fares aligned with local bus services	<i>Payment systems to encourage cashless payment and fares aligned with local bus services</i>
Ticketing	Ticketing facilitated through conductors	Off board ticketing and on board validation
<b>Highways and priority</b>		
Carriageway separation	Dedicated bus lanes	Dedicated bus lanes in priority locations with mixed traffic roads elsewhere
Signalling	Full signal priority with no interfering vehicles at junctions	Active measures for Sprint vehicles, such as priority at traffic signals
Stop approaches	Clean approach to allow close docking, easy boarding and marked boarding positions	<i>Clean approach to allow close docking, easy boarding and marked boarding positions</i>
Local bus Interaction	Lay-bys provided for local bus services	Sprint priority over local bus services
Journey times	Comparable to car journey times	Approximately 20% quicker than conventional bus
Enforcement	Priority measures actively enforced with fixed CCTV cameras	Priority measures will be self-enforcing
<b>Intelligent transport systems</b>		
Systems	Vehicles with automatic vehicle location for signal controlled junctions, fleet operation and headway management	Real time passenger information will be provided at all Sprint shelters, and through internet and smartphone services
<b>Branding, marketing and customer service</b>		
Brand	Distinct Sprint brand to be used on vehicles, stops, signage, information and marketing material	<i>Distinct Sprint brand to be used on vehicles, stops, signage, information and marketing material</i>
Customer service	Regular customer satisfaction surveys, continuous specialised training programmes and an on-board presence	<i>Regular customer satisfaction surveys, continuous specialised training programmes and an on-board presence</i>
<b>Environmental credentials</b>		
Emissions	Better than Euro VI technology	<i>Better than Euro VI technology</i>

## 1. Sprint operation

Sprint will provide fast and reliable services along its corridors, linking key centres and residential areas. It is our aspiration that Sprint will integrate with other planning processes including land use development, environmental enhancement, education and health care. Longer-term we envisage that the network of Sprint services will provide through services across major centres, with high quality interchange facilities between services in the city and town centres.

### Key features of the timetable

- Operating with a core timetable 0700-1900 Monday to Friday, and 0900-1800 on Saturdays
- Night time and Sunday services to operate after these hours according to demand
- Daytime services at least every 10 minutes
- Early morning and late evening services at least every 20 minutes, with regular 'clock face' spacing
- Services will be increased at times of peak demand, such as major sporting or entertainment events

### Key features of the route

- Stops approximately every 800m (to ensure fast journeys) except where there is high demand for closer locations
- Complementary to feeder services, ensuring a coordinated network, with appropriate interchange stops provided and service schedules aligned
- Enforced priority lanes where possible to ensure Sprint lanes are kept free of obstructions

### Punctuality and reliability targets

- 99% of journeys to operate
- 95% of services to depart no more than 5 minutes late
- No services will operate early



## 2. Sprint vehicles

The Sprint vehicles are a key part of the system image as they will portray a modern network that is a new mode of transport for the region. The vehicles will:

- Have a strong identity and high quality appearance
- Be easily distinguishable from non-Sprint buses
- Possess an appearance closer to tram than regular bus, internally and externally
- Provide a high quality environment for passengers, with comfort and space
- Provide access for all
- Feature comprehensive on-board information

As well as these quality attributes, Sprint vehicles must combine high capacity with fast boarding and alighting.

The recommended requirements for the vehicles are as follows.

### A great customer ambience

- High quality vehicles with high capacity that allow for growth in patronage, such as articulated or bi-articulated vehicles
- A mix of seating and standing areas, with standing made easier and more comfortable
- Easy access boarding and on board areas for wheelchairs and pushchairs
- Multiple double-width doors with boarding and alighting at all doors
- Spacious interior design to provide adequate circulating room to enable rapid access and egress, to minimise stop dwell times
- Low density seating and good legroom
- Interiors to use high quality materials

### The latest technologies

- Air-conditioning and double-glazed windows
- Low noise, low vibration and low emission engine
- Multiple information screens visible throughout the vehicle, with real time information, visual and audible next stop and destination announcements
- Wi-Fi
- On board CCTV, and with road facing CCTV for bus lane enforcement (when powers for the use of such equipment is devolved to local authorities)

### World class maintenance and upkeep

- Fleet to be less than 8 years old or subject to complete refurbishment at intervals of no more than 8 years, unless otherwise agreed between Centro and service operators
- Vehicles to be subject to high standards of maintenance and cleanliness
- Interior panelling to be maintained to be free of rattles, with all quality standards will be monitored through a KPI regime
- Internal graffiti, window scratching and damage to seat backs and side panels will be repaired overnight
- No vehicle will enter service each day with internal damage, subject to agreement with Centro

### 3. Sprint shelters and interchanges

Sprint shelters will also be a key part of the system image.

Just like the vehicles, the stop environment will have a distinct and high quality appearance that separates them from standard bus shelters. The shelters will provide a high quality waiting environment, providing shelter, safety, security and information. Dependent on the ticketing system specified, ticket purchase facilities may be provided, or facilities to collect/validate pre-purchased tickets by smartcards. The shelters will enable quick and easy access to the vehicles.

The recommended requirements for the Sprint stop environment are:

- High quality branded stops with illuminated shelters, seating, real time passenger information, CCTV facilities, help points and information including an orientation map
- Off-board ticketing machines, and/or smartcard top-up/validation points where possible
- Revenue generation opportunities of shelters will be maximised (for example advertising or vending)
- Safe, secure and signed pedestrian routes will be provided, linked to signals and vehicle priorities as appropriate
- Secure cycle parking facilities may be provided at stops, where demand exists and suitable land is available
- Marked door locations for speedy boarding and adequate circulating room to minimise vehicle waiting times
- Easy access for wheelchairs and pushchairs, and a stop environment that promotes accessibility

Interchanges are important to ensure that the Sprint network is fully integrated with other modes of transport.

The recommended requirements for Sprint interchanges are:

- Interchange stops in city centres and key locations, to allow easy access to other public transport services
- Park & Ride facilities, if provided, will be sited at key locations with high quality and secure parking facilities for vehicles and cycles. Preferably Park & Ride sites will achieve Secure Car Park status
- Where Sprint stops interface with cycle routes and networks, opportunities to improve cycle infrastructure and storage to facilitate interchange will be included in the stop design, subject to availability of space and appropriate funding to support additional cycle infrastructure measures

## 4. Fares and ticketing

Sprint fares will be fully integrated with existing public transport services to maximise accessibility and the opportunities for interchange.

Tickets for Sprint services will be purchased prior to boarding in order to minimise waiting times at the Sprint stops, or may be purchased from the on-board conductor, dependent on the final specification for the ticketing system.

The key features of the Sprint fares and fare collection systems will be:

- Fares aligned with those charged on local bus services
- The driver will have no direct contact with passengers and will not check tickets
- Ticketing will be facilitated through conductors and/or off board ticketing machines, enabling quicker interchange and stop times
- Ticketing integrated with other public transport services to enable seamless interchange
- Concessionary fares in operation in line with current Centro policy with reimbursement consistent with that offered to bus operators
- Off-board ticketing facilities where possible to minimise stop waiting times supported by on-vehicle ticket inspection (and potentially sale)
- Payment systems and tariffs to encourage cashless payment
- Existing Swift smartcard system to be extended to Sprint and payment by debit card, contactless (EMV), mobile phone app and other emerging technologies to be pursued

## 5. Highways and priority

In order to achieve journey times that are at least 20% quicker on average than conventional bus, Sprint corridors will include mixed traffic roads, dedicated bus lanes and priority measures at junctions.

The philosophy for establishing a running way for Sprint routes acknowledges that the priority measures may reduce road capacity for general traffic and may impose increased delays on non-public transport modes.

Increased delays for general traffic are, in effect, accepted as part of the trade-off of providing an enhanced public transport system that will be designed to achieve sustainable modal shift targets.

Effective priority for Sprint services will be essential to ensure rapid and reliable journeys. The reallocation of road space is likely to be undertaken in conjunction with the implementation of Park & Ride facilities, in order to encourage modal shift to public transport. The possibility of its introduction will be reviewed by Centro and the partner highway authority, considering such implications as land acquisition or highway operational impacts.

### Highways arrangements

Priority measures will generally be based on a whole-corridor approach, and the key features will be:

- Any on-street bus lanes will be for use by Sprint and other designated vehicles only
- Hours of bus lane operation will generally be 0700-1900 Monday to Friday, 0800-1800 Saturday, and appropriate Sunday operation
- The bus lanes may be arranged as either with-flow lanes (where Sprint vehicles travel in the same direction as the traffic in the adjacent lane) or contra-flow lanes (where Sprint vehicles travel against the main direction of general traffic flow)
- The bus lanes will generally be discontinuous across junctions to allow for turning of traffic that is entering onto and coming from side roads
- Bus lanes should be maintained to a good standard which will allow for the optimal journey experience
- General traffic will normally be permitted to enter a bus lane for the purpose of legally accessing a driveway or access way
- Priority measures will be designed to be self-enforcing as far as possible, but provision will be made for the active enforcement of the bus lane with fixed CCTV cameras where possible
- Where the Sprint route runs on roads with mixed traffic it will be essential to provide active measures for Sprint vehicles, such as priority at traffic signals, to maintain reliable journey times through these sections
- Existing parking provision will be maintained or relocated to alternative locations where practicable, whilst ensuring that access to parking will not obstruct operation of Sprint services

### Sprint stops

- Approaches to Sprint stops will operate 24 hours per day, in order to maximise the perception of the Sprint route as a fixed link, to avoid road user confusion and to maximise compliance.
- Sprint bus lanes and stops will be interdependent, with the placement of the bus lane dictating the options for stop arrangements and vice versa

- Stop designs will be assessed on a location-by-location basis, but where possible within the standard templates, addressing pedestrian accessibility, impact on signal junctions, journey time and passenger demand
- Approaches to stops will be designed to ensure that Sprint vehicles are afforded a clean approach to close docking and ease of boarding
- Lay-bys will not be used for Sprint vehicles at stops, but where possible lay-bys should be provided for local bus services to allow Sprint vehicles to overtake stationary local buses, as long as the local services are not delayed in resuming their journey due to passing traffic

### Junction arrangements

- At signal-controlled junctions, the bus lane to run to the signal stop line where practicable
- To maximise priority, it may be necessary at some junctions to ban either right or left turns to side streets; at such locations traffic management arrangements to be put in place to provide alternative routes for turning traffic
- Pedestrian phases at signals to be provided where junctions are close to Sprint stops

### Construction and maintenance

- Working with the highway authorities and their maintenance contractors, the carriageway will be maintained to a suitable condition and any defects notified will be assessed and repaired within the appropriate timescale depending on the assessed risk of the defect

## 6. Intelligent transport systems

Effective use of intelligent transport systems will help encourage maximum take-up of Sprint. The key to this will be the supply of effective pre-trip and real time information.

Intelligent transport systems will also assist the effective operation of priority measures at signalised junctions and the operational management of the Sprint fleet.

Recommended features for the Sprint intelligent transport systems include:

- All vehicles will be fitted with an automatic vehicle location system used for real time passenger information, operation of priority at signal controlled junctions and fleet operation and management and headway management
- Real time passenger information will be provided at all Sprint shelters, and through internet and smartphone services
- 'Next stop' on board announcement will be provided
- At-stop display signs will have voice activation announcements, via personal key tags issued to visually impaired users
- Priority will be provided at signalised junctions through linkage of the automatic vehicle location system and central or localised signal control systems as appropriate
- All intelligent transport systems will conform with current and planned standards and specifications
- Two-way driver communication to allow emergency calls
- Training on all Sprint intelligent transport systems to be provided for operators, drivers and traffic control room staff as appropriate
- Documented maintenance regime to be maintained by monitored KPIs

## 7. Branding, marketing and customer service

A key part of the successful delivery of high quality transit systems is the development of a strong brand image. This image must provide a clear message as to the quality service that is being provided together with differentiation from existing services. The brand image should be established during system development and used consistently for all aspects of the system, including promotional material, information, Sprint stops, vehicles, running ways and signage.

Recommended features of the Sprint branding include:

- Distinct Sprint brand to be used on vehicles, stops, signage, information and marketing material
- Vehicles to share similar liveries that identify them as part of the Sprint brand

Recommended features of the Sprint marketing include:

- Pre and post-opening marketing campaigns to launch and maintain product image
- Distribution of appropriately-branded service and timetable information throughout each corridor
- A regular update newsletter during construction and the initial period of operation
- Bespoke marketing campaigns directed at current car users

Recommended features of the Sprint customer services include:

- High quality website with real time information and opportunities for customer feedback
- Dedicated training and continuous improvement programme for drivers and customer-facing staff
- Regular customer surveys and monitoring of performance and satisfaction levels to drive a continuous improvement process
- Potential for participation in loyalty schemes for smartcard users
- An on-board customer-facing presence to provide passenger information, a deterrent for anti-social behaviour and support accessibility

## 8. Environmental Credentials

A key objective of the Sprint vision is the reduction of CO2 emissions and improvement of air quality. Sprint provides a viable alternative to the use of the car and will drive modal shift to a more sustainable method of travel. The vehicles will also incorporate greener technologies.

The key features of Sprint's environmental credentials are:

- Vehicles not only meet the latest emissions standards, but subsequent vehicles are future proofed for more demanding air quality management measures
- Sprint vehicle engine technology will be specified initially for Euro VI technology and progress towards zero emission engine technology as and when this technology is suitable for the scheme
- Sprint vehicle depot will also have the appropriate infrastructure to support zero emission technology as and when this technology is suitable for the scheme
- Further provision of Sprint fuelling stations and any health and safety implications arising will be addressed as and when this technology is required for the scheme
- Sprint will maintain to support any Park and Ride agenda where present, to ensure that emissions from regular vehicular traffic is contained to a minimum, and reduced within our urban centres