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## Annex 1 - Norwich Bus Charter

# Norwich Bus Charter

Improving travel from A to Better

## Your Better Bus service

1. We will do everything we can to make sure your bus is on time
2. We will ensure that printed and electronic information at your bus stop is clear and up-to-date
3. If your bus is more than 15 minutes late and it was within the bus company's control we will refund your bus fare
4. Where we have let you down, we will fully look into it and contact you within 14 working days
5. We will ask your views on any big changes to your bus service and tell you when bus services are changing

## Your fares

6. We will give up-to-date information on fares and let you know of any changes
7. We will provide discounted ticket products to regular customers

## Your facilities

8. We will provide safe and clean buses, shelters and bus stations for your journey, reporting and fixing any problems as soon as possible

## Your safety

9. We will endeavour to provide CCTV and lighting on your bus, at shelters and bus stations

## Your accessibility

10. We will provide space for one Standard Reference wheelchair on all of our buses and ensure that our drivers have good training to make your journey easier and safer
11. We will provide information in accessible formats free of charge
12. We will make access to buses at bus stops as convenient as possible



Supported by





## Annex 2 - Bus services from (through) Norwich city centre

Service	Key Destination(s)	Frequency Mon to Fri
<b>Operator   First Bus</b>		
11	Sprowston – Norwich – Norfolk & Norwich University Hospital (Pink Line)	Every 10 mins
12	Wroxham – Sprowston – Norwich – Norfolk & Norwich University Hospital (Pink Line)	Every 30 mins
13	Spixworth – Sprowston – Norwich – Wymondham – Attleborough (Turquoise Line)	Every 30 mins
X13	Spixworth – Sprowston – Norwich – Attleborough (Turquoise Line)	Twice a day
14	Dussindale – Thorpe St Andrew – Norwich City Centre – Hethersett – Wymondham (Green Line)	Every 15 mins (to Wymondham) Every 30 mins (to Dussingdale)
15	Acle – Thorpe St Andrew – Norwich City Centre – Hethersett – Wymondham (Green Line)	Every 15 mins (to Wymondham) Every 60 mins (to Acle)
21	Norfolk & Norwich University Hospital – Bowthorpe – West Earlham – Norwich City Centre – Old Catton (Orange Line)	Every 15 mins Every 30 mins (out to hospital)
22	University (UEA) – Bowthorpe – West Earlham – Norwich City Centre – Old Catton (Orange Line)	Every 15 mins Every 30 mins (out to UEA)
23	Heartsease – Norwich City Centre – Costessey (– Queens Hill) (Red Line)	Every 15 mins
24	Thorpe St Andrew – Norwich City Centre – Costessey – Queens Hill (Red Line)	Every 15 mins
25	Norwich: Riverside & Rail Station – City Centre – Unthank Road – University (UEA) (Blue Line)	Every 5-10 mins
26	Norwich: Rail Station – City Centre – Earlham Road – University (UEA) – Norfolk & Norwich University Hospital (Blue Line)	Every 5-10 mins Every 30 mins (to hospital)



Service	Key Destination(s)	Frequency Mon to Fri
28	Norwich – Hellesdon – Taverham – Thorpe Marriott (Yellow Line)	Every 30 mins
29	Norwich – Hellesdon – Taverham (Yellow Line)	Every 15 mins
X29	Norwich – Hellesdon – Taverham – Fakenham (Yellow Line)	Every 60 mins
30	Norwich – Hellesdon – Norwich	Every 30 mins
36	Horsford – Norwich via Aylsham Road (Purple Line)	Every 30 mins
37	Hellesdon – Norwich City Centre – Mulbarton (Purple Line)	Every 30 mins
38	Ives Road – Norwich – Long Stratton (Purple Line)	Every 30 mins
39	Mile Cross – Norwich – Lakenham (Purple Line)	Every 20 mins
40	Norwich – Poringland (Charcoal Line)	Every 15-30 mins
41	Norwich – Poringland - Bungay (Charcoal Line)	Every 30-60 mins
X41	Norwich – Poringland – Bungay (Charcoal Line)	Every 60 mins
X1	Norwich – Great Yarmouth – Gorleston – Lowestoft	Every 30 mins
X2	Norwich – Beccles – Carlton Colville – Lowestoft	Every 30 mins
X11	Norwich – Great Yarmouth - Gorleston - Belton	Every 30 mins
X21	Norwich – Beccles – Carlton Colville – Lowestoft	4 per day
X22	Norwich – Beccles – Carlton Colville – Lowestoft	Every 30 mins
Excel	Norwich – Dereham – Swaffham – King’s Lynn – Wisbech – Peterborough	Every 30 mins
<b>Operator   konectbus (part of the Go-Ahead Group)</b>		
3	Norwich – Norfolk & Norwich University Hospital – Hingham – Watton	Every 30 mins
4	Norwich – Norfolk & Norwich University Hospital – Mattishall – Dereham	Every 60 mins
5A	Eaton – Norwich – Thorpe St Andrew – Blofield Heath	Every 60 mins
5B	Hoveton & Horning – Wroxham – Dussindale – Thorpe St Andrew – Norwich	Up to every 60 mins
5C	Great & Little Plumstead – Dussindale – Thorpe St Andrew – Norwich	Up to every 60 mins
6	Norwich – Wymondham – Watton	Every 30 mins
6A	Norwich – Wymondham – Attleborough – Watton – Shipdham – Toftwood	2 hourly daytime
8	Norwich – Dereham – Toftwood	Up to every 15 mins
13B	Norwich – Easton College	College days only



Service	Key Destination(s)	Frequency Mon to Fri
37A	Mulbarton – Norwich	Every 30 mins
50	Eaton Park – Norwich City Centre – Mousehold Heath	Every 30 mins
50A	Mousehold Heath – Norwich City Centre – Cringleford	Every 30 mins
84	Norwich – Stoke Holy Cross – Hempnall – Harleston	Approx. every 120 mins
X6	Sprowston – Norwich – Attleborough (– Great Ellingham)	2 hourly daytime
<b>Operator   Sanders Coaches</b>		
5A	North Walsham – Norwich	Every 120 mins
43/43A	Holt - Norwich	8 a day, variable intervals
44/44A/ X40/X44	Holt – Sheringham – Norwich	Every 30 mins
45/45A	Holt – Norwich	2 a day
55/X55	Mundesley – Norwich	Approx every 60 mins
210	North Walsham – Norwich	6 a day, variable intervals
<b>Operator   Simonds</b>		
1 / 2	Diss – Norwich	Every 30-120 mins



## Annex 3 – Schemes that were sifted out

The table below provides a summary of the schemes that were sifted out during the development of our Transforming Cities application. This outlines why selected schemes were not taken forward for further assessment as part of developing our final Strategic Outline Business Case (SOBC) application in November 2019.

Scheme Name	Description	Comments	Reason(s) for not being taken forward
Magdalen Street Flyover – Option 1	Enable interchange between Magdalen Street and St Crispins Road. Remove St Crispins Road flyover and have this as an at-grade junction with Magdalen Street.	The Magdalen Street flyover forms part of the inner ring road of Norwich, which is currently elevated above ground level. The structure is costly to maintain. All traffic on Magdalen Street, which is a key bus route and is dominated by public transport, can only travel on a N-S link. This project would give public transport operators the opportunity to operate orbital bus journeys from this location, avoiding the need to serve the city centre with all journeys.	<ul style="list-style-type: none"> <li>• Poor fit with TCF objectives</li> <li>• Unable to deliver within the TCF timescales</li> <li>• Bus operators not supportive of network benefits</li> <li>• This project is not compatible with the Anglia Square proposals and unless the inner ring road is downgraded this construction would harm the conservation area and the demolition of several listed buildings</li> </ul>
Magdalen Street Flyover – Option 2	Enable interchange between Magdalen Street and St Crispins Road. Retain St Crispins Road flyover and provide ramped access from Magdalen Street to St Crispins Road.	The Magdalen Street flyover forms part of the inner ring road of Norwich, which is currently elevated above ground level. The structure is costly to maintain. All traffic on Magdalen Street, which is a key bus route and is dominated by public transport, can only travel on a N-S link. This project would give public transport operators the opportunity to operate orbital bus journeys from this location, avoiding the need to serve the city centre with all journeys.	<ul style="list-style-type: none"> <li>• Poor fit with TCF objectives</li> <li>• Unable to deliver within the TCF timescales</li> <li>• Bus operators not supportive of network benefits</li> <li>• This project is not compatible with the Anglia Square proposals and unless the inner ring road is downgraded this construction would harm the conservation area and the demolition of several listed buildings</li> </ul>
Theatre Street	Minor improvements to junctions and access and relocation of disabled parking.	Theatre Street is within the city centre in an area where general traffic has been restricted. Amendments are proposed to provide increased facilities for pedestrians and bus movements.	<ul style="list-style-type: none"> <li>• Scheme offers poor value for money</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Riverside Road	Make bus only on approach to Foundry Bridge.	Riverside Road is a busy bus corridor with a bus every 7 mins. This is also an air quality hotspot with poor conditions regularly experienced. This scheme removes general traffic on the approach to the Foundry Bridge junction, making this bus and cycle only. Traffic modelling is under way to identify impacts of reallocation of general traffic. This project will bring benefits to traffic exiting the city centre via Prince of Wales Road by simplifying the performance of this junction. This project also complements proposed works to improve interchange between sustainable transport modes at Norwich rail station.	<ul style="list-style-type: none"> <li>• Impacts on local road network are significant and would require substantial alterations to traffic flows in a much wider area</li> <li>• The modelling and design of this are outside the timescales for delivery of the 'Transforming Norwich' programme</li> <li>• Will be considered as part of the review of the wider TfN Strategy</li> </ul>
Colman's Link – Option 1	Southbound traffic on King Street (up the hill) to bypass traffic signals and join at the Martineau Lane roundabout.	The King Street junction with Martineau Lane is busy and congested for all modes. The upcoming availability of the existing Colman's site provides an opportunity to investigate options for relieving congestion. This project seeks to utilise land within the existing highway boundary where possible. By taking traffic out of the King Street junction, improved pedestrian facilities can be provided.	<ul style="list-style-type: none"> <li>• Discussions regarding future use of the Colman's site are at a stage that is too early for firm decisions to be made about use of land.</li> </ul>
Colman's Link – Option 2	Southern end of King Street closed at Martineau Lane junction with new two-way link between Martineau Lane roundabout and King Street.	The King Street junction with Martineau Lane is busy and congested for all modes. The upcoming availability of the existing Colman's site provides an opportunity to investigate options for relieving congestion. This project would require access to third party land. Dedication of land through future land use planning is likely to be the best course of action. Delivery within the timescales of TCF would be challenging. By taking traffic out of the King Street junction, significantly improved facilities for pedestrians and cycles can be provided along Bracondale.	<ul style="list-style-type: none"> <li>• Discussions regarding future use of the Colman's site are at a stage that is too early for firm decisions to be made about use of land.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Colman's Link – Option 3	New highway route and bridge across the river from Martineau Lane roundabout to Hardy Road.	The King Street junction with Martineau Lane is busy and congested for all modes. The upcoming availability of the existing Colman's site provides an opportunity to investigate options for relieving congestion. This project would require access to third party land on both sides of the river but would create an important link where the inner and outer ring road meet. There are significant opportunities to improve walking and cycling links in this city centre area. Dedication of land through future land use planning is likely to be the best course of action. Delivery within the timescales of TCF would be challenging.	<ul style="list-style-type: none"> <li>• Discussions regarding future use of the Colman's site are at a stage that is too early for firm decisions to be made about use of land.</li> </ul>
St Stephen's Street roundabout – Option 2	Removal of pedestrian subway and replacement with at-grade roundabout.	The St Stephen's Street roundabout forms a key junction on the inner ring road where significant numbers of buses, pedestrians and general traffic converge. As well as hundreds of bus movements into and out of St Stephen's Street, there are thousands of pedestrian movements to and from City College and nearby residential areas. Pedestrians are currently catered for via a pedestrian subway that, like many features of this type, offers an unpleasant environment to many potential and existing users. This project is based around removal of the subway and replacement with an at-grade roundabout junction with associated pedestrian facilities incorporated.	<ul style="list-style-type: none"> <li>• Initial traffic modelling indicated that this option performed poorly in terms of traffic congestion</li> <li>• An alternative option of retaining the existing roundabout but improving the pedestrian and cycling environment has been taken forwards in our High cost programme</li> </ul>





Scheme Name	Description	Comments	Reason(s) for not being taken forward
Grapes Hill Roundabout – Option 1	Vehicle underpass avoiding need to travel through junction.	This is a busy and constrained junction on the inner ring road where delays are persistent for general traffic and high frequency bus services. This project represents a significant scheme that would take the dominant movement of traffic out of the junction via an underpass. Space is constrained and this location on the edge of the medieval city centre would provide a major challenge to delivery.	<ul style="list-style-type: none"> <li>Unable to deliver within TCF timescales.</li> </ul>
Grapes Hill Roundabout – Option 3	Remove all traffic control signals from roundabout and surrounding crossings.	This is a busy and constrained junction on the outer ring road where delays are persistent for general traffic and high frequency bus services. This project seeks to remove all traffic control signals, including those for pedestrians and cyclists. Whilst this is likely to benefit buses and general traffic, this poses significant severance on pedestrians and cyclists without significant mitigation measures being put in place.	<ul style="list-style-type: none"> <li>Loss of signalised control for pedestrian and cycle movements is unacceptable.</li> </ul>
Workplace Charging Levy	Implementation of a levy on workplace parking with income to be reinvested in public transport once all administrative costs have been accounted for.	Little preparatory work has been done in Norwich for this, although the example of Nottingham would be instructive. Implementation within the timescale of TCF is unlikely from this position given inevitable challenge. Would require inclusion of entire urban area and cross-council support to avoid counter-productive decentralisation of investment and development from city centre.	<ul style="list-style-type: none"> <li>Unable to deliver within TCF timescales</li> <li>Lack of political support</li> <li>Will be considered as part of the review of the wider TfN Strategy</li> </ul>
Congestion charging	Implementation of a congestion charge for all vehicles entering a defined area, with income to be reinvested in public transport once all administrative costs have been accounted for.	Little preparatory work has been done in Norwich for this although the example of London would be instructive. Implementation within the timescale of TCF is unlikely from this position given inevitable challenge. Would require careful definition of area and cross-council support to avoid counter-productive decentralisation of investment and development from city centre.	<ul style="list-style-type: none"> <li>Unable to deliver within TCF timescales</li> <li>Lack of political support</li> <li>Will be considered as part of the review of the wider TfN Strategy</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Wymondham rail station super mobility hub accessibility improvements – Option 2	Provision of step-free access to Cambridge-bound platform at Wymondham rail station – provision of lift between platforms.	Latest figures reveal that more people than ever travelled between Norwich and Cambridge by rail in 2018. More than 1million used the line in 2018, up by 3.6% on 2017. New trains are coming in 2019, which should see passenger numbers rise further. Around 180,000 people use Wymondham station each year. The Cambridge-bound platform is inaccessible for those in wheelchairs and with pushchairs or heavy luggage as there is no ramped access. This project is based around a lift being provided between platforms. Discussions are ongoing with the train operator, Network Rail, MPs, District Council, County Council and developers.	<ul style="list-style-type: none"> <li>Discussions with stakeholders has highlighted that the provision of ramped access is a more appropriate option to consider</li> <li>A ramped access option is in our Low, Medium and High cost programme</li> </ul>
Thickthorn A11 off Slip	Provision of direct highway access to the Thickthorn Park & Ride site from the A11 without the need to access the Thickthorn roundabout. Exit from the P&R site will be via existing route.	Deliverability will be dependent on Highways England scheme to improve Thickthorn junction for delivery 2020/21. A review of future Park & Ride provision in Norwich is under way, which consideration of this scheme forms part of.	<ul style="list-style-type: none"> <li>Work by Highways England has identified that this scheme is not compatible with their preferred scheme for Thickthorn junction.</li> </ul>
Thickthorn Park & Ride super mobility hub expansion – Option 1	Expansion of the existing Park & Ride site to accommodate a further circa 620 cars. Extension utilised only for Norwich Research Park staff / visitors.	Uses land for which Norfolk County Council already has the option to build on. Bus service to the Norwich Research Park would be funded by Norwich Research Park. Could be delivered with or without the A11 off-slip, although benefits likely to be higher if delivered with the off-slip. A review of future P&R provision in Norwich is under way, which consideration of this scheme forms part of. Consideration will also be given to smart energy opportunities, such as solar panels and battery storage.	<ul style="list-style-type: none"> <li>Option to increase by circa 1000 spaces has been taken forward in our Low, Medium and High cost programmes.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Thickthorn Park & Ride super mobility hub expansion – Option 2	Expansion of the existing Park & Ride site to accommodate a further circa 620 cars. Extension available for all site users with a bus service to Norwich Research Park as well as the city centre.	See comment above relating to Option 1 for Thickthorn Park & Ride.	<ul style="list-style-type: none"> <li>Option to increase by circa 1000 spaces has been taken forward in our Low, Medium and High cost programmes.</li> </ul>
Thickthorn Park & Ride – Increase in facilities	Provision of additional facilities, such as café, office facilities (drop in), franchise services, etc.	Could be delivered as a stand-alone or in conjunction with expanded parking. Benefits likely to be higher with increased parking provision. A review of future Park & Ride provision in Norwich is under way, which consideration of this scheme forms part of. Consideration will also be given to smart energy opportunities, such as solar panels and battery storage.	<ul style="list-style-type: none"> <li>Scheme offers poor value for money.</li> </ul>
Thickthorn pedestrian cycle/PT improvements across A47	Improved links 'across' Thickthorn junction for pedestrians, cycles and buses. New bridge across A47 from McDonald's roundabout on B1172 (Norwich Road) to link with development land at Roundhouse Way.	Would service Thickthorn P&R and bus services from Wymondham and Hethersett and could provide convenient access to new transport interchange being built at Roundhouse Way. Discussions with Highways England regarding interaction with Thickthorn junction scheme, including funding and delivery.	<ul style="list-style-type: none"> <li>Unable to deliver within TCF timeframe.</li> </ul>
Thickthorn pedestrian and cycle improvements across A47 – Option 2	Improved links 'across' Thickthorn junction for pedestrians and cycles. Suspend pedestrian and cycle facilities beneath the A47 bridge.	Consider opportunity for pedestrians and cycles to navigate Thickthorn junction without the need to interact with traffic at ground level. Would need to ensure there is sufficient height clearance above slip roads, which would prove very challenging. Discussions with Highways England regarding interaction with Thickthorn junction scheme, including funding and delivery.	<ul style="list-style-type: none"> <li>Unable to deliver within TCF timeframe.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Cross Valley Link – Option 1	Provide new bus, cycle and pedestrian bridge across Yare Valley at the western end of Chancellors Drive as well as appropriate links on either side of the bridge connecting to Chancellors Drive and Hethersett Land via NRP and the hospital (NNUH) – single vehicle width with walking and cycling in same span.	Sensitive environmental site. Currently a busy pedestrian and cycle only route. Shared use across the bridge is not ideal. Consideration required as to form of propulsion used by buses to mitigate impact (e.g. zero/low emission). The principle of a Cross Valley Link has overwhelming support across the NRP and has the potential to provide a step-change improvement in public transport access to the site across the Greater Norwich Area.	<ul style="list-style-type: none"> <li>Option to segregate pedestrians, cycling and buses across this link has been taken forwards in our Medium funding programme.</li> </ul>
Cross Valley Link – Option 2	Provide new bus, cycle and pedestrian bridge across Yare Valley at the western end of Chancellors Drive as well as appropriate links on either side of the bridge connecting to Chancellors Drive and Hethersett Land via NRP and the hospital (NNUH) – two-way width with walking and cycling in same span.	Sensitive environmental site. Currently a busy pedestrian and cycle only route. Shared use across the bridge is not ideal. Consideration required as to form of propulsion used by buses to mitigate impact (e.g. zero/low emission). Two-way width would require significantly more land and space in this sensitive environmental site. The principle of a Cross Valley Link has overwhelming support across the NRP and has the potential to provide a step-change improvement in public transport access to the site across the Greater Norwich Area.	<ul style="list-style-type: none"> <li>Option to segregate pedestrians, cycling and buses across this link has been taken forwards in our Medium funding programme.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Cross Valley Link – Autonomous vehicle link	Provision of autonomous vehicles running across the Cross Valley Link between the western end of Chancellors Drive, Centrum and the Norfolk & Norwich University Hospital.	The delivery of this would be over and above the provision of a bridge for buses and sustainable modes. Consideration needed to whether such a link would require dedicated track to run on, or would operate on rubber tyres using conventional highway infrastructure. Carrying capacity of such a link would need to be considered in terms of benefits. Would also need to carefully consider potentially negative impacts on use of the link for cycles, pedestrians and conventional buses in terms of delivering wider journey time and economic impacts.	<ul style="list-style-type: none"> <li>• Would not enable wider public transport access benefits to be realised.</li> <li>• Will be considered as part of the review of the wider TfN Strategy</li> </ul>
Newmarket Road – comprehensive red route	Provide red route facilities along entire corridor.	This option seeks to restrict on-street parking along the entire length of the corridor from the city centre to the edge of the urban area. This aims to provide sufficient carriageway width for dedicated bus lane facilities in specific locations, removes localised pinch points currently caused by on-street parking and the safety risk for cyclists of “dooring” incidents.	<ul style="list-style-type: none"> <li>• Lack of Councillor support</li> <li>• Option to only focus on problem areas to be taken forwards</li> </ul>
City Centre – NRP corridor – red route	Provide red route facilities along entire corridor between the city centre and the Norwich Research Park.	The corridor between the city centre and the Norwich Research Park serves the most frequent and highest patronage bus service in Norfolk. This project seeks to restrict on-street parking along the entire length of the corridor from the city centre to the Norwich Research Park. This aims to provide sufficient carriageway width for dedicated bus lane facilities in specific locations, removes localised pinch points currently caused by on-street parking and the safety risk for cyclists of “dooring” incidents.	<ul style="list-style-type: none"> <li>• Lack of Councillor support</li> <li>• Option to only focus on problem areas to be taken forwards</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Southbound approach to Magdalen Gates	Bus and cycle space on southbound approach to Magdalen Gates.	Cyclists approaching the city centre on the blue pedalway and bus passengers approaching on the Wymondham - Sprowston corridor are delayed by queuing on the approach to Magdalen Gates where several routes from the north converge. The highway space is heavily constrained and the design is likely to include some widening and a considerable initial reduction in general highway capacity.	<ul style="list-style-type: none"> <li>Unable to deliver a scheme based on highway limitations without a fundamental review of traffic restrictions and rerouting across a wider area, which is beyond the timescales of this project</li> <li>Will be considered as part of the review of the wider TfN Strategy</li> </ul>
Wroxham Road: Russell Avenue – Blue Boar Lane	Provision of inbound or outbound kerb separated cycle track between Russell Avenue and Blue Boar Lane.	Provide safe space for cycling alongside bus lane and without interfering with pedestrians, based on design of successful existing facility on Newmarket Road. To support enhanced cycle network.	<ul style="list-style-type: none"> <li>Insufficient space to construct a segregated cycle track and bus lane.</li> </ul>
Wroxham Road – outbound approach to Blue Boar Lane roundabout	Provide northbound bus lane on approach to roundabout near Tesco – would link with bus bypass below. Improve bus journey reliability and reduce journey times.	This is a busy bus corridor serving the existing Sprowston Park & Ride site as well as a significant number of bus services from North Norfolk. This project complements proposed works for buses to bypass a busy roundabout by providing priority through dedicated road space on the approach to the junction. This complements other bus priority schemes along this corridor.	<ul style="list-style-type: none"> <li>Scheme represents poor value for money.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Wroxham Road / Blue Boar Lane roundabout	Enable northbound buses to bypass the existing roundabout via a bus and cycle only link, improving bus journey time reliability and cycling safety.	This is a busy bus corridor serving the existing Sprowston Park & Ride site as well as a significant number of bus services from North Norfolk. This project enables buses to bypass a busy roundabout using land within the highway boundary. This complements other bus priority schemes along this corridor.	<ul style="list-style-type: none"> <li>• Scheme represents poor value for money.</li> </ul>
Sprowston/ Wroxham Road parking – red route	Provide red route facilities along entire corridor.	This option seeks to restrict on-street parking along the entire length of the corridor from the city centre to the edge of the urban area. This aims to provide sufficient carriageway width for dedicated bus lane facilities in specific locations, removes localised pinch points currently caused by on-street parking and the safety risk for cyclists of “dooring” incidents.	<ul style="list-style-type: none"> <li>• Lack of Councillor support</li> <li>• Option to only focus on problem areas to be taken forwards</li> </ul>
Longwater Junction improvement – Option 1	Improve highway capacity of Longwater junction and improve ability for pedestrians and cyclists to navigate through the junction and serve growth at Easton.	Longwater junction is a strategic highway junction on the A47 to the west of Norwich. There is considerable current housing growth in this area, as well as significant future growth expected. In addition, there is substantial retail and other employment in this area. Previous work by the County Council has sought to identify ways in which the junction can be upgraded to increase capacity and reduce persistent delays. Discussions with Highways England are ongoing to better understand how such works can align with other programmes of investment.	<ul style="list-style-type: none"> <li>• Unable to deliver within the TCF timeframe</li> <li>• Will be considered as part of the review of the wider TfN Strategy</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Longwater Junction improvement – Option 3	Pedestrian / cycle bridge over A47. Longwater and Forest Way.	There is considerable current housing growth in the Longwater area, as well as significant future growth expected. In addition, there is substantial retail and other employment in this area. This project is based around the provision of a new pedestrian / cycle bridge over the A47 to link existing communities and future growth from Easton to Costessey. This will link these areas to the Green Pedalway, providing important links to schools and communities.	<ul style="list-style-type: none"> <li>Alternative option of a pedestrian / cycle bridge at an alternative location taken forwards and is in our High funding programme.</li> </ul>
Dereham Road / Ernest Gage Avenue	New bus link between Dereham Road and Ernest Gage Avenue.	Dereham Road is a key public transport corridor into the city centre from the west. This project is based around the provision of a new bus link between Dereham Road and Ernest Gage Avenue. This will provide a key public transport link to serve the Queens Hills residential development. Consider designing for general traffic access.	<ul style="list-style-type: none"> <li>Poor fit with TCF objectives</li> <li>Will be considered as part of the review of the wider TfN Strategy</li> </ul>
Dereham Road outbound approach to Sweet Briar Road	Outbound bus lane approach to Sweet Briar Road.	Dereham Road is a key public transport corridor into the city centre from the west. This project is based around the provision of a new outbound bus lane on the approach to Sweet Briar Road.	<ul style="list-style-type: none"> <li>Environmental impact considered too significant in terms of substantial removal of mature trees.</li> </ul>
Dereham Road parking – red route	Provide red route facilities along entire corridor.	This option seeks to restrict on-street parking along the entire length of the corridor from the city centre to the edge of the urban area. This aims to provide sufficient carriageway width for dedicated bus lane facilities in specific locations, removes localised pinch points currently caused by on-street parking and the safety risk for cyclists of “dooring” incidents.	<ul style="list-style-type: none"> <li>Lack of Councillor support</li> <li>Option to only focus on problem areas to be taken forwards</li> </ul>
Kett’s Hill roundabout – Option 2	Cycle safety improvements at roundabout.	Implementation of local safety scheme to slow vehicle speeds through the roundabout and improve cycle positioning.	<ul style="list-style-type: none"> <li>Alternative scheme taken forwards in Low, Medium and High cost programmes.</li> </ul>





Scheme Name	Description	Comments	Reason(s) for not being taken forward
Plumstead Road – 5 ways roundabout – Option 1	Improve capacity at 5 ways roundabout on Plumstead Road. Lining and signing only.	This junction is very busy and congested at peak periods and through much of the day and is next to a local shopping centre. Buses every 7 mins currently go through this junction. This junction serves the NE of Norwich where significant growth is coming forward. This project is a low-cost option to improving lining and signing for all traffic as failure to correctly position road users on approaches is a contributing factor to delays.	<ul style="list-style-type: none"> <li>Alternative option based around the enlargement of the roundabout, as well as bus priority on approaches and improvements to pedestrian and cycle facilities taken forwards in our High cost programme.</li> </ul>
Plumstead Road parking – red route	Provide red route facilities along entire corridor.	This option seeks to restrict on-street parking along the entire length of the corridor from the city centre to the edge of the urban area. This aims to provide sufficient carriageway width for dedicated bus lane facilities in specific locations, removes localised pinch points currently caused by on-street parking and the safety risk for cyclists of “dooring” incidents.	<ul style="list-style-type: none"> <li>Lack of Councillor support</li> <li>Option to only focus on problem areas to be taken forwards</li> </ul>
Salhouse train station neighbourhood mobility hub	Provision of a mobility hub at Salhouse train station.	To serve residents of Salhouse, users of Salhouse train station and enable interchange with bus services.	<ul style="list-style-type: none"> <li>Not felt to be an optimum location for a mobility hub.</li> </ul>
Broadland Growth Triangle – Plumstead Road Roundabout	This scheme comprises the delivery of a new roundabout, as well as footways/ cycleways, a new pedestrian crossing, road realignment and associated services.	The roundabout will service two strategic allocated development sites that are currently stalled, totalling 650 dwellings and 57,480sqm of office and industrial/storage floorspace. This roundabout is a key part of a proposed inner link road through the Broadland Growth Triangle. New footways and cycle facilities and a new pedestrian crossing will be provided. This scheme was submitted for funding in Tranche 1 of Transforming Cities and although this was not successful, inclusion as part of a wider package of transport measures along this corridor and the wider TCF programme will enable wider benefits to be delivered.	<ul style="list-style-type: none"> <li>Being delivered using alternative funding.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Aylsham Road parking – red route	Provide red route facilities along entire corridor.	This project seeks to restrict on-street parking along the entire length of the corridor from the city centre to the edge of the urban area. This aims to provide sufficient carriageway width for dedicated bus lane facilities in specific locations, removes localised pinch points currently caused by on-street parking and the safety risk for cyclists of “dooring” incidents.	<ul style="list-style-type: none"> <li>• Lack of Councillor support</li> <li>• Option to only focus on problem areas to be taken forwards</li> </ul>
Yarmouth Road – contraflow between Clarence Road and Carrow Road – Option 2	Enable contraflow cycle flow on Yarmouth Road between the junctions of Clarence Road and Carrow Road.	Cyclists accessing the city centre along Yarmouth Road currently have to take a 500m route, with all other traffic, to get from the junction of Carrow Road and Clarence Road, which requires navigating steep downhill and uphill sections of highway. This project for cycles only avoids this ‘detour’, saving 250m of travel and avoids travelling on steep downhill and uphill sections.	<ul style="list-style-type: none"> <li>• Option that provides contraflow facilities for buses and cyclists has been taken forwards in the Low, Medium and High cost programmes.</li> </ul>
Postwick Park & Ride to Broadland Gate pedestrian/ cycle bridge	Provide new pedestrian/ cycle link (bridge) from Postwick Park & Ride into Broadland Gate.	Broadland Gate is a key employment area located off the Postwick Junction at the eastern end of the Broadland Northway. Utilisation is currently made of the Postwick Park & Ride site for parking with employees then walking from the site to Broadland Gate. This project considers the benefits that could be delivered through the provision of a new pedestrian / cycle bridge from the Park & Ride site into Broadland Gate.	<ul style="list-style-type: none"> <li>• Unable to deliver within the TCF timescales</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Postwick Park & Ride – Option 1	Expansion of existing site for Park & Ride.	The existing Park & Ride site at Postwick serves the city centre and provides parking for nearby business parks. Space is available for the expansion of the existing site, with much of the required earthworks already completed. A review of future Park & Ride provision in Norwich is under way, which consideration of this scheme forms part of. This project would cater for use of an expanded site primarily to serve the city centre and nearby business parks. Consideration will also be given to smart energy opportunities, such as solar panels and battery storage, which could be used to support zero-emission propulsion provision for buses, cycles and private vehicles.	<ul style="list-style-type: none"> <li>Will be considered in wider TfN Strategy review.</li> </ul>
Postwick Park and Ride – Option 2	Expansion of existing site – use for lorry/coach parking.	The existing Park & Ride site at Postwick serves the city centre and provides parking for nearby business parks. Space is available for the expansion of the existing site, with much of the required earthworks already completed. A review of future Park & Ride provision in Norwich is under way, which consideration of this scheme forms part of. This project would cater for use of an expanded site primarily to serve lorry/coach parking, which we know is in short supply in Norwich. Consideration will also be given to smart energy opportunities, such as solar panels and battery storage, which could be used to support zero-emission propulsion provision for buses, cycles and private vehicles.	<ul style="list-style-type: none"> <li>Will be considered in wider TfN Strategy review.</li> </ul>
St Andrews to Broadland Business Park bus connection	Bus-only connection between St Andrews and Broadland Business Park through Northside.	This project would deliver a key link between two significant business parks that is currently not in place.	<ul style="list-style-type: none"> <li>Discussions will take place with bus operators on a commercial arrangement.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Yarmouth Road / Thorpe Road parking – red routes	Provide red route facilities along entire corridor.	This project seeks to restrict parking along the entire length of Yarmouth Road from its junction with Riverside Road at the rail station to the junction with Pound Lane. This aims to provide sufficient carriageway width for dedicated bus lane facilities in specific locations. removes localised pinch points currently caused by on-street parking and the safety risk for cyclists of “dooring” incidents.	<ul style="list-style-type: none"> <li>• Lack of Councillor support.</li> <li>• Option to only focus on problem areas has been taken forwards.</li> </ul>
Electric vehicle charging infrastructure (private motorists)	Provision of a network of <b>plug-in</b> electric vehicle charging points in residential areas, off-street parking and public/private car parks and taxi ranks.	Whilst there are also almost 20,000 public charging point connectors across the UK but the number in Greater Norwich remains relatively low with under 40 being provided. Further work is needed to identify specific requirements (operational, ownership, maintenance) but this project is based around the facilitation of a significantly expanded charging infrastructure. Roll-out of such infrastructure would require consideration around policy development and scheme delivery around low/zero emission zones and parking provision, including Park & Ride and permitting. This infrastructure is based on existing plug-in technology.	<ul style="list-style-type: none"> <li>• Will be considered in wider TfN Strategy review.</li> </ul>
Electric vehicle charging infrastructure (private motorists)	Provision of a network of <b>wireless</b> electric vehicle charging points in residential areas, off-street parking and public/private car parks and taxi ranks.	Whilst there are also almost 20,000 public charging point connectors across the UK but the number in Greater Norwich remains relatively low with under 40 being provided. Further work is needed to identify specific requirements (operational, ownership, maintenance) but this project is based around the facilitation of a significantly expanded charging infrastructure. Roll-out of such infrastructure would require consideration around policy development and scheme delivery around low/zero emission zones and parking provision.	<ul style="list-style-type: none"> <li>• Will be considered in wider TfN Strategy review.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Retro-fitment of equipment to buses to reduce emissions to minimum Euro VI (6) standard	Retro-fitment of equipment to buses to reduce emissions to minimum Euro VI (6) standard for all buses serving the city centre.	We have an air quality issue in Norwich that needs urgent action, particularly as the most polluted area, Castle Meadow, acts as one of the main public transport, walking and cycling thoroughfares in the city. Norfolk County Council has significant experience of working in partnership with bus operators on the retro-fitment of equipment to the exhausts of buses to reduce emissions.	<ul style="list-style-type: none"> <li>Retro-fitment not consistent with funding criteria for TCF.</li> </ul>
Electric vehicle charging infrastructure (public transport)	Provision of appropriate electric charging infrastructure for public transport vehicles out on the highway network.	We have an air quality issue in Norwich that needs urgent action, particularly as the most polluted area, Castle Meadow, acts as one of the main public transport, walking and cycling thoroughfares in the city. This project is based around working in partnership with bus operators to identify what electric charging infrastructure is required on the highway network to support a roll-out of electric powered public transport vehicles within the timescales of the TCF delivery.	<ul style="list-style-type: none"> <li>Included in Future Mobility Zone application.</li> </ul>
Provide a single new London electric taxi for taxi operators to try for a period of 1 month before deciding whether to buy	Provide new London electric taxi for taxi operators to try for a period of 1 month before deciding whether to buy.	We have an air quality issue in Norwich that needs urgent action, particularly as the most polluted area, Castle Meadow, acts as one of the main public transport, walking and cycling thoroughfares in the city. This project is based around the provision of a latest generation London electric taxi being provided for taxi operators to try for a period of time before deciding whether to buy/lease.	<ul style="list-style-type: none"> <li>Will be considered in wider TfN Strategy review.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Provision of high-occupancy vehicle lanes – use of bus lanes	Convert all bus lanes to also operate as high occupancy vehicle lanes for 3+ people.	Bus lanes are provided on the majority of the key radial routes into Norwich. One of these, on Newmarket Road, can also be used by freight consolidation vehicles from Snetterton. This project is based around the option of enabling high-occupancy vehicles, such as for 3+ people, to use these bus lanes. Consideration needs to be given to how this would be enforced, as well as impact on the public transport network and the safety and comfort of cyclists.	<ul style="list-style-type: none"> <li>Will be considered in wider TfN Strategy review.</li> </ul>
Provision of high-occupancy vehicle priority – specific locations	Prevention of ahead movements by single-occupancy vehicles inbound across the outer ring road on some or all of our corridors.	This project is based around the option of only enabling high-occupancy vehicles, such as for 3+ people, to use inbound highway links across selected outer ring road cordon points. Consideration needs to be given to how this would be enforced, exemptions that may be applied, etc.	<ul style="list-style-type: none"> <li>Will be considered in wider TfN Strategy review.</li> </ul>
Pedestrian crossing control enhancements – all signalised crossings	Installation of radar/camera equipment at all signalised crossings so that pedestrian 'calls' can be cancelled if pedestrians are no longer there to cross.	This project is based around the application of new technology to ensure that the efficient operation of the highway and pedestrian networks is maximised by cancelling requests for traffic to be stopped if pedestrians are no longer waiting at the crossing to cross. This would be applied to all signalised pedestrian crossings.	<ul style="list-style-type: none"> <li>This will be considered on a case-by-case basis and delivered locally.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Pedestrian crossing control enhancements – only signalised crossings where there is a known problem of pedestrians crossing before traffic stops	Installation of radar/camera equipment only at signalised crossings where there is a known problem of pedestrians crossing before traffic stops.	This project is based around the application of new technology to ensure that the efficient operation of the highway and pedestrian networks is maximised by cancelling requests for traffic to be stopped if pedestrians are no longer waiting at the crossing to cross. This would only be applied to signalised pedestrian crossings where there was a known problem with traffic being stopped when no pedestrians are present.	<ul style="list-style-type: none"> <li>This will be considered on a case-by-case basis and delivered locally.</li> </ul>
Branding of bus services to provide clear distinction between stopping and express services	Branding of bus services to provide clear distinction between stopping and express services.	To ensure that passengers understand that express buses will only stop at mobility hubs. Provision of express and all stop services is limited but could bring significant benefits in journey time to potential users, whilst maintaining a comprehensive bus network. Clarity of information will be key to initiatives such as this.	<ul style="list-style-type: none"> <li>To be delivered by operators on a commercial basis.</li> </ul>
Demand Responsive Service Provision	Provision of Demand Responsive Transport services to hard-to-reach areas.	Demand responsive services operate across the Greater Norwich area but there is little or no interaction between these services and conventional bus services in terms of routing or interchange. This project would seek to identify how better linkages could be delivered, both through service provision and infrastructure.	<ul style="list-style-type: none"> <li>Will be considered in wider TfN Strategy review.</li> </ul>



Scheme Name	Description	Comments	Reason(s) for not being taken forward
Martineau Lane – additional traffic lane / traffic lane control	Provision of additional traffic lane provides additional capacity and could be combined with ITS to enable tidal flow use of Martineau Lane.	Martineau Lane provides a key link in the outer ring road for traffic accessing the city centre from the south from the A47 at Trowse. There are significant volumes of traffic inbound in the AM peak, with significant volumes outbound in the PM peak. Additionally, this route serves County Hall (circa 2,500 employees), Riverside Retail Park and Norwich City Football Club. This project is based around the consideration of tidal flow being used, with additional infrastructure, to better manage the capacity of the ring road at this location.	<ul style="list-style-type: none"> <li>• Poor fit with TCF objectives</li> <li>• Will be considered in wider TfN Strategy review</li> </ul>
Pedestrian/ cyclist bridge part of Deal Ground development	New pedestrian / cyclist bridge part of Deal Ground development.	The Deal Ground comprises an extensive area of disused former industrial land and buildings on the south-eastern fringe of Norwich situated between the main Norwich-London rail line and the confluence of the rivers Wensum and Yare. The Deal Ground is one of three adjoining and closely related strategic regeneration sites in east Norwich. The site has potential to deliver a new section of the purple pedalway route, which can be expanded primarily via the Deal Ground to Whitlingham Country Park and the National Cycle Network route no.1.	<ul style="list-style-type: none"> <li>• Unable to deliver within the TCF timescales</li> </ul>
Whitlingham Lane Cycle Route Link Bridge	Installation of cycle/ pedestrian bridge and extension of surfaced cycle way across the River Yare at the end of Whitlingham Lane to reconnect the cycle route between East and Southern City.	This proposal is based around improvements to the Whitlingham Lane cycle route, providing an important sustainable transport connection.	<ul style="list-style-type: none"> <li>• Unable to deliver within the TCF timescales</li> </ul>