

Appendix A: Parking technology options

Barrier controlled car parks	
Positives	Negatives
<ul style="list-style-type: none"> • Increases income • Reduces the number of enforcement patrols 	<ul style="list-style-type: none"> • Initial high capital out lay (estimated at £74,800 for Coopers Square plus cost of civil works in 2012) • Resisted by County when proposed in 2012 • Rejected in 2012 as too costly • Incompatible with the machines installed in 2017 • System failures can be disruptive. Loss of income or visitors excluded or unable to leave • Still requires payment machines of some description • May require a separate specialist maintenance contract • Potential maintenance costs and life expectancy of product • Old technology • Reduces but does not remove the need for enforcement • Can generate negative media and public perceptions about the management of parking • Reduces income from PCNs.
ANPR (barrier less controlled car parks)	
Positives	Negatives
<ul style="list-style-type: none"> • Increases income • Reduces the number of enforcement patrols 	<ul style="list-style-type: none"> • Initial high capital out lay (Non-ANPR camera plus works recently quoted at £10,000 by CCTV provider) • Still requires payment machines of some description • Regulatory landscape is restrictive for local authorities • Similar system employed at local hospital which has attracted some negative press over the years • Reduces but does not remove the need for enforcement

	<ul style="list-style-type: none"> • Can generate negative media and public perceptions about the management of parking • Local authorities are unable to use for enforcement activity unless coupled with a barrier which incurs additional costs
ANPR (barrier controlled)	
Positives	Negatives
<ul style="list-style-type: none"> • Can be used in conjunction with barriers • When used with barriers can enable a pay on foot system to be installed 	<ul style="list-style-type: none"> • Initial high capital out lay (estimated at £74,800 for Coopers Square plus cost of civil works in 2012 for barriers only + additional £10,000 per camera) • Still requires payment machines of some description • Barriers were rejected as an option in 2012 • Incompatible with the machines installed in 2017 • Potential maintenance costs and life expectancy • Would require a separate specialist maintenance contract • Local authorities are unable to use for enforcement activity unless coupled with a barrier • Reduces but does not remove the need for enforcement • Can generate negative media and public perceptions about the management of parking • Reduces income from PCNs.
Contactless payments	
Positives	Negatives
<ul style="list-style-type: none"> • Provides customers with an alternative payment method • 50% of the machines were made contactless in 2017 • On trend with move to a cashless society • Reduces costs for handling and processing cash 	<ul style="list-style-type: none"> • Offers no increase in income • Does not reduce the need for enforcement • Capital out lay required to replace/upgrade machines • Card processing costs absorbed by the Council
App based charging	
<ul style="list-style-type: none"> • Limited capital outlay required • Can be ran in conjunction with traditional P&D machines or as a replacement. Reducing or removing maintenance costs 	<ul style="list-style-type: none"> • Offers no increase in income • Does not reduce the need for enforcement • Provider takes percentage cut or fee

<ul style="list-style-type: none"> • Provides customers with greater flexibility when paying • On trend and becoming increasingly popular • Reduces costs for handling and processing cash. 	<ul style="list-style-type: none"> • Not all visitors may possess a mobile phone
Emissions based charging	
Positives	Negatives
<ul style="list-style-type: none"> • As App based charging plus • Tangible example of ESBC tackling air quality 	<ul style="list-style-type: none"> • As App based charging plus • Residents with lower incomes are likely to own less clean cars
EV charging points	
Positives	Negatives
<ul style="list-style-type: none"> • Tangible example of ESBC tackling air quality through provision of charging points • On trend and currently popular • Potential option to be funded by S106 agreement 	<ul style="list-style-type: none"> • Diminishing returns as more competitors enter the market and the infrastructure adapts • EV capacity/capability increasing rapidly and need on car parks could diminish • Needs an initial capital out lay. • Vehicle capacity and the EV infrastructure is expanding rapidly.
Autonomous vehicles provision	
Positives	Negatives
<ul style="list-style-type: none"> • Potential to be “market leader” outside of the M25. 	<ul style="list-style-type: none"> • Technology is in its infancy • Risk of moving too soon
SMART parking	
Positives	Negatives
<ul style="list-style-type: none"> • Useful in areas where parking spaces are at a premium 	<ul style="list-style-type: none"> • East Staffordshire is rarely short of parking spaces • Some initial technological and capital outlay • Provider fee or percentage cut.
Operative handhelds	
Positives	Negatives
<ul style="list-style-type: none"> • Modernises the equipment carried by officers and reduces the amount they are required to carry. • Current handhelds are expensive to repair due their age • Frees up officer time and makes the parking service more efficient and effective. 	<ul style="list-style-type: none"> • Capital outlay required • Life expectancy of the product.