Catford Town Centre

Department for Transport
Major Road Network
Strategic Outline Business Case

Options Assessment Report (OAR)

Version 1.0: March 2023

Prepared by	Raymond Cheung Sponsor	Signature	Date
Checked by	Thomas Holmes Lead Sponsor	Signature	Date
Approved by	Thomas Holmes Lead Sponsor	Signature	Date

Document History / Business Case Version information

Version	Description	Date
1.0	First formal issue for DfT review	10 March 2023

Glossary of Terms

Abbreviation	Term
ASL	Advanced Stop Line
BCR	Benefits-to-Cost Ratio
BLE	Bakerloo Line Extension
GLA	Greater London Authority
Healthy Streets	The Mayor has requested the delivery of the Healthy Streets Portfolio, which is aimed at increasing the use of sustainable transport modes, supporting good growth etc. Fiveways forms part of this portfolio of projects.
HIF	Housing Infrastructure Fund
IMD	Indices of Multiple Depravation
LAEI	London Atmospheric Emissions Inventory
LBL	London Borough of Lewisham – the borough in which Catford is situated
LPA	Local Planning Authority
MAP	Model Audit Process
MoV	Management of Value
MRN	Major Road Network
MTS	(London) Mayor's Transport Strategy
NR	National Rail
NTEM	National Trip End Model
OA	Opportunity Area
PERS	Pedestrian Environment Review Study
PTAL	Public Transport Accessibility Level
RICS	Royal Institution of Chartered Surveyors
SIPDR	Surface Investment Programme Directors Review
SRN	Strategic Route Network
SuDs	Sustainable Urban Drainage systems
TLRN	Transport for London Road Network

Table of Contents

1. Introduction

1.1 Scheme background

1.1.1 In July 2019, Transport for London and London Councils submitted a joint bid for Major Road Network (MRN) funding to the Department for Transport. This identified ten priority schemes on the MRN, based on an extensive regional evidence base aligned with the five MRN objectives.

1.1.2 DfT subsequently indicated its provisional support for these priority schemes, subject to the development of a satisfactory business case for each scheme, within the timescales required by the MRN programme.

1.1.3 The transformational A205 Catford Town Centre scheme was identified as one of the ten priority schemes through this assessment, given its strong alignment with MRN objectives, mature and credible designs, and strong political support.

1.2 Report purpose

1.2.1 This standalone report sets out the optioneering work carried out by TfL between 2017 to 2019 during scheme's Outcome Definition and Feasibility Stages. Whilst the work was carried out internally and correctly per applicable TfL guidance at the time, TfL and LB Lewisham have not had an opportunity to formally inform the public and wider stakeholders outside of both organisations on the different options available, and the rationale for choosing the preferred option.

1.2.2 TfL and LB Lewisham are scheduled to hold a joint public consultation event for the Catford Town Centre scheme in April 2023, just after its SOBC submission. Should the scheme secure MRN programme entry, all views gathered from the public and wider stakeholders will be analysed, responded to where appropriate and findings summarised in the next iteration of the OAR that will accompany the OBC as a complete optioneering exercise. In addition, further analysis for the do-min options as comparators will feature in the OAR as a means to illustrate the overall relative performance gap between the options, per para 1.6.5.2 of the Economic Case.

1.2.3 In light of the above, this iteration of the OAR should be considered as work in progress. When examined against DfT's current Transport Appraisal Process (TAP) [1] and its process map shown overleaf, the scope of Stage 1 of *Option Development* can be considered as largely complete minus the public consultation part; OBC, in effect is the Stage 2 of the said appraisal process, where further appraisal is carried out.

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/938766/tag-transport-appraisal-process.pdf

1.2.4 For the future iteration of the OAR, TfL will ensure it is compliant with the TAP. If and where the required criteria are not met, TfL will seek DfT's views prior to finalising the OAR.

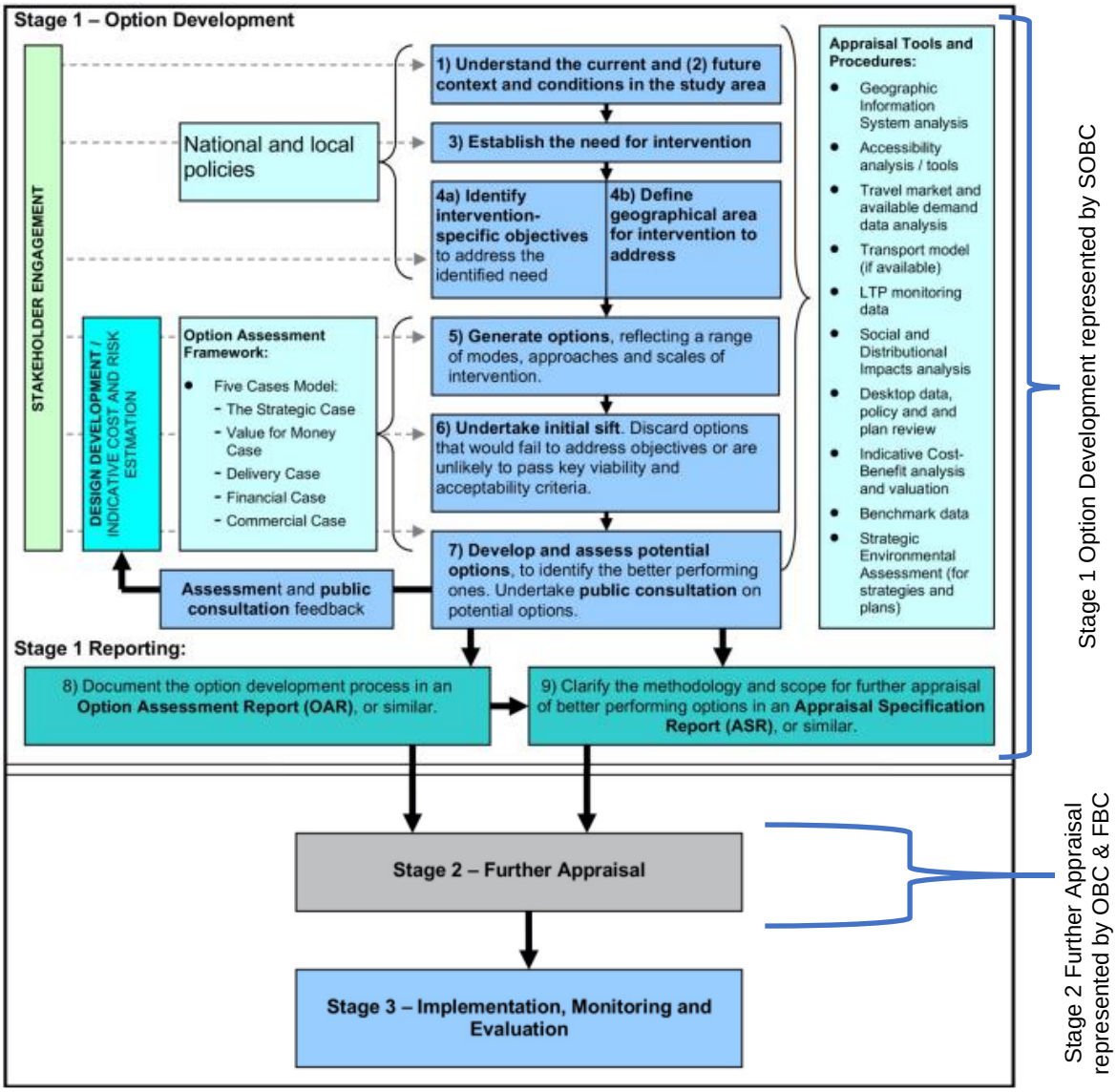


Figure 1-1: DfT's Transport Appraisal Process with its Stage 1 expanded diagrammatically; reproduced from page 4 of said document.

1.3 Report structure

1.3.1 Inputs from the SOBC

1.3.1.1 This version of the OAR draws largely from the work undertaken for the SOBC, in particular from the Strategic Case, explored to a greater level of detail where required. The below table shows which part of the said SOBC cases informed the OAR:

Theme areas	Taken from which Section of the Strategic Case (1.x) & Economic Case (2.x)	New Section number in the OAR
Section 2, Current and future context		
• Catford's socio-economic and physical context	Section 1.3	Section 2.1
• Role of the A205, and the transport, environmental and growth issues faced by the area	Section 1.4	Section 2.2
Section 3, Policy context and objectives		
• Alignment of preferred option with applicable national, regional and local policies	Section 1.7	Sections 3.1 – 3.4
• Scheme (MRN and scheme's own local) objectives	Section 1.2	Section 3.5
• "SMART" scheme objectives	Section 1.7.5	Section 3.6
Section 4, Options Generation		
• Options development	Section 1.5	Section 4.1
• Options assessment	Section 1.6	Section 4.2
Section 5, Expected OAR next steps		
• Expected OAR next steps	Section 2.11	Section 5.1

Table 1-1: Sources of information for the OAR

2. Current and Future Context

2.1 Catford's socio-economic and physical context

2.1.1 Catford's high deprivation levels

2.1.1.1 Lewisham is an inner London borough situated in Southeast London. Lewisham has experienced rapid growth, in both population size and number of households, over the last ten years and has a relatively young, and very ethnically diverse, population. The rapid population growth experienced in Lewisham in recent years is expected to continue, with projections estimating a 14% population growth between 2020 and 2040 [2].

Figure 2-1: Location of the London Borough of Lewisham.

2.1.1.2 Although levels of deprivation have improved, Lewisham remains within the 20% most deprived local authorities in England and is the 7th most deprived London borough [3]. There is a high proportion of economic deprivation for vulnerable groups,

[2] Paragraph 2.3, page 31 of Regulation 19 Draft Lewisham Local Plan
[3] Paragraph 2.6, page 33 of Regulation 19 Draft Lewisham Local Plan

with 1 in 4 (25.7%) of older people in Lewisham living in deprivation. Also 39% of children in Lewisham live in households below 60% of median income, after housing costs, based on 2019/20 data. There are also pronounced concentrations of deprivation in many local areas within the borough, including in Catford. Life expectancy in the borough for males at birth remains under the national average, although the same for females exceeds it [4]. Children living in the borough's most deprived areas are twice as likely to be obese or overweight as other children [5].

2.1.1.3 Lewisham is one of the greenest boroughs in London, with around one-quarter of its area being green/open space. Despite this, there are parts of the borough which are deficient in public access to open space, Catford has a high density of homes and is a growth area, which will increase the population further, requiring more public spaces.

2.1.1.4 Catford is situated in the centre of Lewisham borough. Catford town centre falls within the Rushey Green and Catford South wards, although the scheme extents fall entirely within the former. Catford is a designated Major Town Centre in the London Plan. It also forms part of the New Cross, Lewisham, and Catford Opportunity Area.

Figure 2-2 (right): Lewisham borough wards map and location of Catford town centre.

[4] Paragraph 2.7, page 33 of Regulation 19 Draft Lewisham Local Plan

[5] Paragraph 2.8, page 33 of Regulation 19 Draft Lewisham Local Plan

2.1.1.5 Based on ONS 2019 data, the Rushey Green Ward has a population of 19,234, 51.4% of which is male and 48.6% female[6]. The demographic make-up of the ward is 30.4% White and 30.6% Black African / Black Caribbean, which represents a significant difference from the English average, in which 79.8% of residents are White[7].

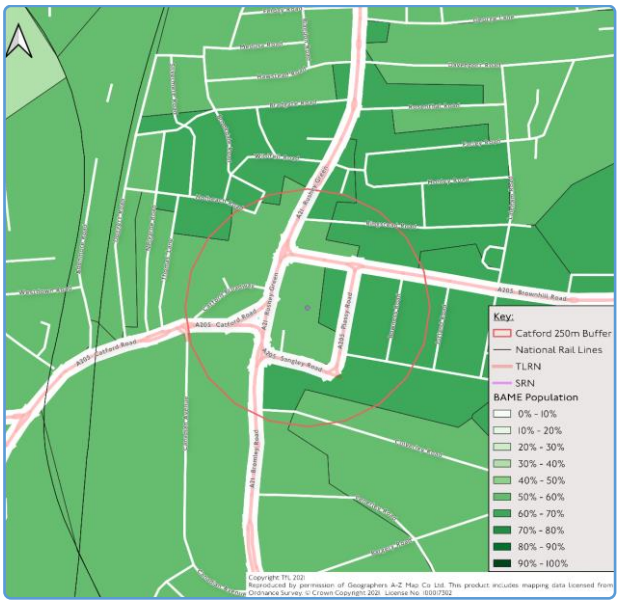


Figure 2-3 (right): Catford town centre ethnicity profile: 50-70% of Catford's population come from a Black, Asian or Minority Ethnic (BAME) background.

2.1.1.6 39.6% of the population of Rushey Green were born in other countries (not UK, nor Ireland, nor other EU countries), compared to the English average, where only 16.5% of residents were born in other countries. Other disparities in comparison to England are in regard to household language. In Rushey Green, 82.6% of residents speak English as their main language. This is 9.4% lower than the English average and represents a culturally more diverse population with a wider range of needs.

Figure 2-4 (left): Catford town centre IMD 2019: Catford town centre is in the top 10% of most deprived areas, nationally.

[6] https://www.observatory.lewisham.gov.uk/wp-content/uploads/2022/05/Rushey-Green-digital.pdf, page 10.

[7] https://www.observatory.lewisham.gov.uk/wp-content/uploads/2022/05/Rushey-Green-digital.pdf, page 12.

2.1.1.7 The living environment deprivation domain in the IMD (2019) indicates that Catford town centre is in the 10% most deprived neighbourhoods in the country for issues such as poor quality of housing, the number of houses without central heating, poor air quality, and poor safety for pedestrians and cyclists on local roads. Issues such as poor housing quality and lack of central heating means that there is a high risk of fuel poverty in the local area. A household is considered to be fuel poor if it has higher than typical energy costs and would be left with a disposable income below the poverty line if it spent the required money to meet those costs. In the 11 Lower-Super Output Areas (LSOAs) that make up the Rushey Green ward, the proportion of households considered to be in fuel poverty ranges from 17.9% to 31.1% [8], compared to 13.4% of the English average [9]. With the above inflation increases in energy costs being experienced in the winter of 2022/3, more households are being pulled into fuel poverty.

2.1.1.8 Rushey Green ward has relatively high levels of deprivation under the Barriers to Housing and Services domain (overcrowding, homelessness, and housing affordability), with some areas within the 10% most deprived neighbourhoods in England. Parts of the town centre are also within the top 10% most deprived areas under the Crime domain (recorded crimes). Under the Living Environment domain (air quality and road traffic accidents) areas within Rushey Green ward are also in the 10% most deprived neighbourhoods [10].

2.1.1.9 Neighbourhoods in Rushey Green are within the top 20% most deprived areas under the Employment Deprivation domain (people involuntarily excluded from the labour market who would like to work but are unable to do so due to unemployment, sickness or disability, or caring responsibilities) with certain areas in the top 10% most deprived areas under the Income Deprivation domain (people who are out-of-work and those who are in work but have low earnings).

2.1.1.10 In terms of employment, within Rushey Green ward, a higher proportion of residents are employed within the 'wholesale and retail trade' than in Lewisham as a whole (12.6% compared with 11.4%) but lower in 'professional occupations' (19% compared with 22.6% for Lewisham). Employment in 'professional, scientific and technical services' is lower in Lewisham than in London as a whole (6.1% compared with 13.1%).

2.1.1.11 Within the ward, the most common industry for the residents to be employed in is 'Human health and social work activities', which employs 15.3% of the population. This is followed by 'Wholesale and retail trade; repair of motor vehicles and motor-cycles', employing 12.6% of residents, and 'Education', employing 10.7% of the population in Rushey Green.

[8] https://www.observatory.lewisham.gov.uk/wp-content/uploads/2022/05/Rushey-Green-digital.pdf, page 20.

[9] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/966509/Annual_Fuel_Poverty_Statistics_LILEE_Report_2021__2019_data_.pdf, page 1.

[10] https://lewisham.gov.uk/-/media/catford-town-centre-framework.ashx, page 24.

2.1.1.12 ONS data shows the average gross weekly earnings of residents in Lewisham range from c. £540 - £655. This is somewhat lower than the average gross weekly earnings of residents in London which ranges between c. £620 - £770. The IMD for Employment Deprivation Domain (based on indicators such as recipients of jobseekers' allowance and participants in the New Deal) indicates that Rushey Green is in the 20% most deprived neighbourhoods in England.

2.1.2 Traffic dominance and redevelopment potential

2.1.2.1 Catford's physical character is heavily dominated by infrastructure for motorised vehicles, with the A205 South Circular Road crossing the area east-west, the one-way Gyratory system passing around Plassy Island to the west of the town centre, and the A21 Rushey Green / Bromley Road providing a north-south route. The main commercial areas are Catford Shopping Centre, situated to the north of Catford Broadway, plus commercial frontages on the A21 between Catford and Lewisham. Catford Shopping Centre and Milford Towers were built in the 1960s and are both designated by LBL for redevelopment.

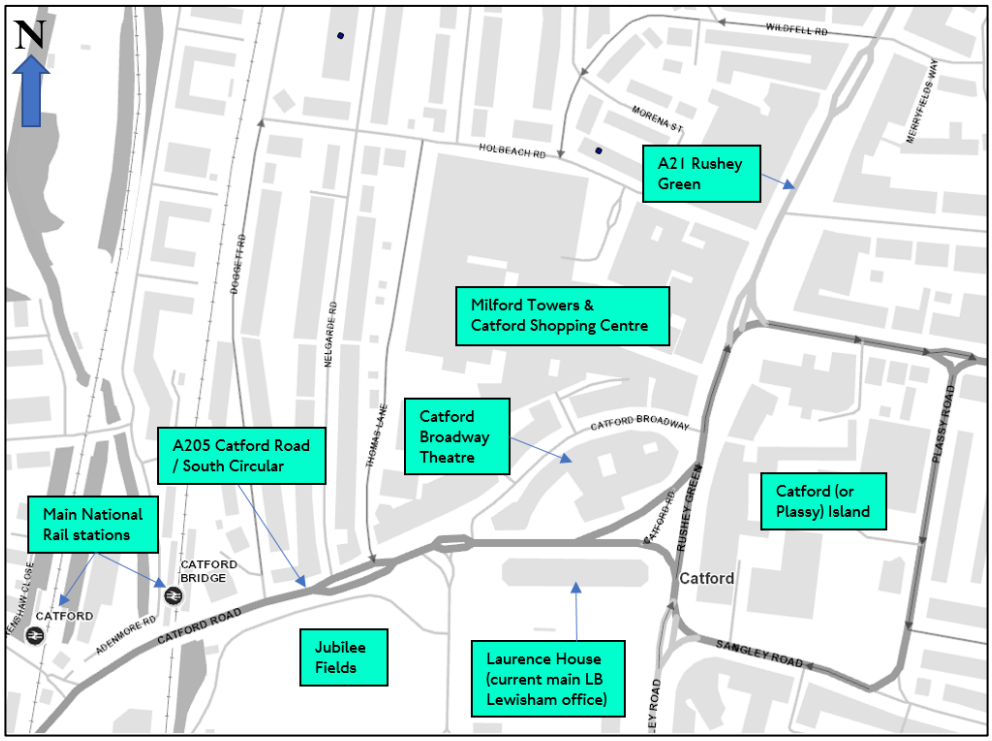


Figure 2-5: Catford town centre location overview: Intersection of the A205 South Circular Road and A21, two nearby National Rail stations and local landmarks. Source: TfL in-house GIS Mapping (City Planner Tool).

Plate 2-1: Catford Road (Eastbound) next to Lewisham Town Hall.[11]

Plate 2-2: Entrance to Catford Shopping Centre and Milford Towers, both designated for redevelopment.

[11] Taken from Google Streetview

2.1.2.2 Between the A205 South Circular Road and Catford Shopping Centre is the Broadway area, which houses, on the south side, the Catford Broadway Theatre, a Grade II-listed building in regular commercial use, and Catford town centre's covered market area on the north side, which is open for business 6 days a week.

Plate 2-3, showing the use of Catford Broadway.

2.1.2.3 Eros House is another prominent landmark situated at the north-west corner of Plassy Island and shares a similar 1960s architectural styling with Catford Shopping Centre. The A21-facing side of the island has active commercial frontages, whilst the rest of the island is dominated by low-rise retail park, with generous provision for private car parking. The whole of Plassy Island has also been designated by LBL for redevelopment.

2.1.2.4 The town centre is a busy pedestrian environment, with the Broadway Theatre crossing used by over 1,300 people in the morning peak and nearly 3,000 people in the evening peak, in February 2019. Although these figures are pre-Covid, significant redevelopment is expected on the Plassy Island site which will create additional footfall and public transport modal interchange challenges.

2.1.3 **Public transport and modal interchange challenges**

2.1.3.1 Catford is an important centre for bus and rail services, both for access and interchange. However, bus speeds have deteriorated significantly, due to frequent congestion in the town centre.

2.1.3.2 There are two NR stations, Catford Bridge and Catford. The former provides services to Charing Cross, Cannon Street and Hayes, whilst the latter provides services to Blackfriars and Sevenoaks. The typical off-peak frequency to all stated destinations is 2 trains per hour (TPH) except for services to Hayes, which are 4 TPH.

Plate 2-4: Congestion regularly experienced on the A205 South Circular Road.

2.1.3.3 The severance and noise associated with the South Circular Road, two railway lines and A21 define the experience of Catford for pedestrians, cyclists, and road users. Severance caused by the road network is a particular issue.

2.1.3.4 The high volume of traffic on the South Circular, combined with its variable widths, make it an imposing road for pedestrians to cross, creating significant levels of severance. The noise is also not mitigated by planting or wider pavement widths/level changes as it is in other parts of the South Circular.

2.1.3.5 The gyratory system around Plassy Island also causes severance between the island and the surrounding town centre. The A21 is a key road within South London and carries a high volume of traffic. This furthers the severance experienced by the retail park and limits its integration with the surrounding context.

2.1.3.6 There are 15 no. daytime bus services and 3 no. night-time routes serving the Catford town centre area, as shown in Table 2-1, below. There is no bus station provision, at present, and the stops for the various routes are located throughout the town centre, as shown below, in Figure 2-6.

Catford Bus Services	
Number	**Serving route**
47	Shoreditch High Street station – Catford Garage
54	Elmers End Interchange – Plumstead Road / Burrage Road
75	Lewisham station – Fairfield Halls
124	Stanstead Road / St Dunstan's College – Southend Crescent / Southend Close
136	Grove Park bus station – Elephant & Castle / Newington Causeway (+ Night-time service)
160	Thomas Lane – Sidcup station
171	Newquay Road – Holborn station (+ Night-time service)
181	Lewisham station – Grove Park bus station
185	Lewisham station – Victoria station
199	Canada Water bus station – Catford Garage (+ Night-time service)
202	Crystal Palace Parade – Blackheath / Royal Standard
208	Lewisham station – Orpington / Perry Hall Road
284	Lewisham station – Grove Park Cemetery
320	Biggin Hill Valley – Catford Bridge station
336	Thomas Lane – Locksbottom / Pallant Way

Table 2-1: List of bus services passing through Catford town centre.

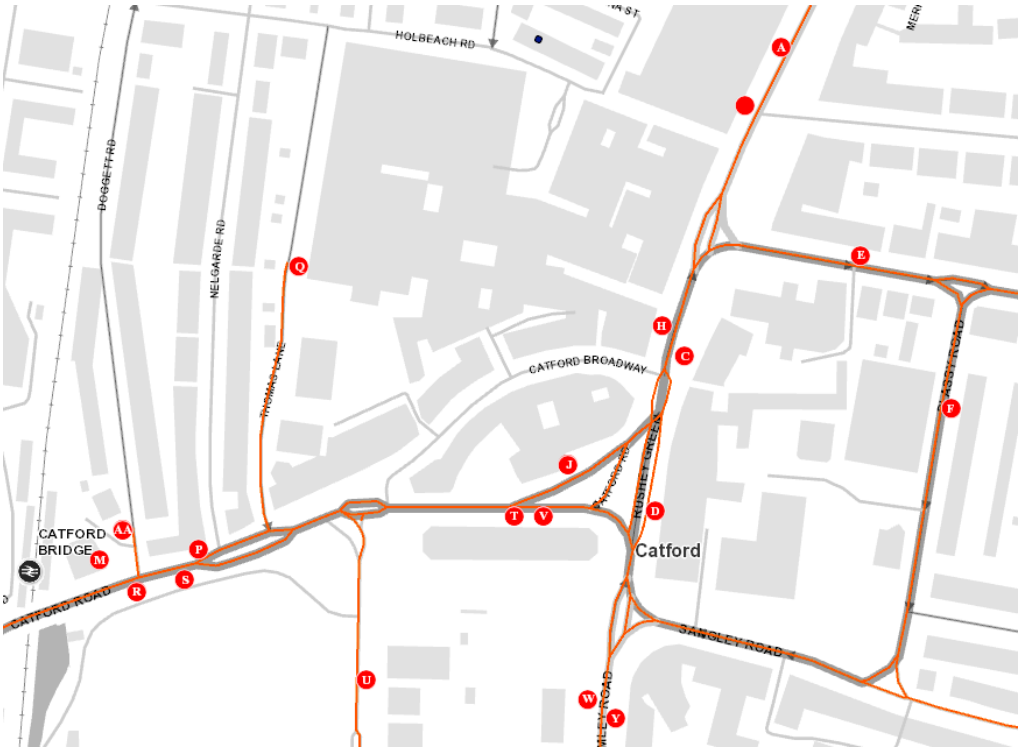


Figure 2-6: Catford town centre's bus stops and their proximity to Catford Bridge NR station.

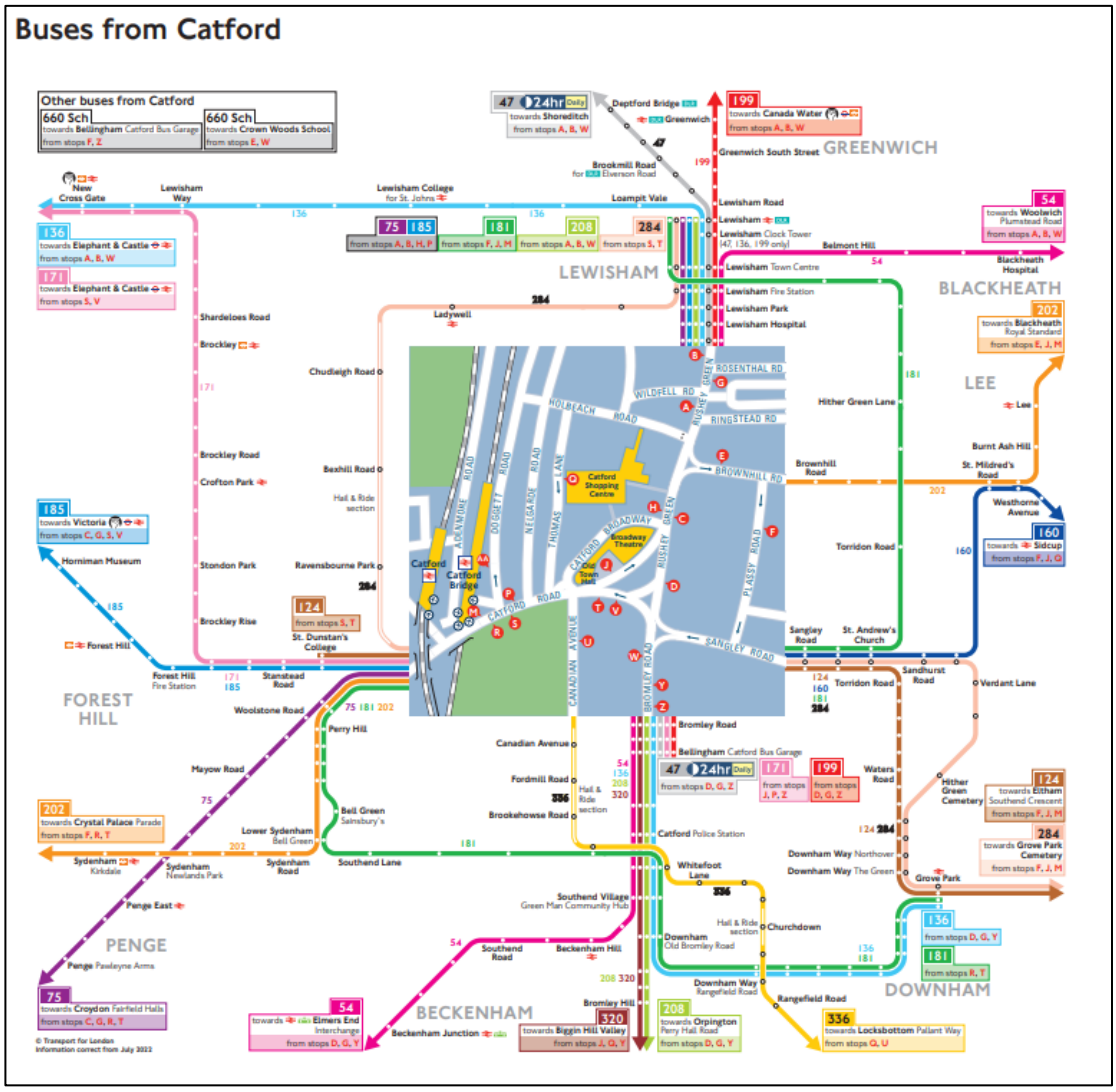


Figure 2-7: Catford town centre bus 'spider' diagram.

2.1.3.7 The existing pedestrian and cycle links are convoluted and confusing for users. People using the A205 Catford Bridge for active modes are compromised by narrow lanes and traffic on the South Circular. The narrow pavements and road make walking and cycling along the route feel unsafe.

2.1.3.8 Whilst cycle routes away from the main road network of A205 and A21 have been successfully delivered – the most recent notable example being Waterlink Way, with an approximate north-south alignment, which passes by all major NR and TfL DLR stations within LB Lewisham – Cycle Superhighways-style schemes on the main thoroughfares have not been brought forward, due to technical difficulties. The only exception is TfL's Streetspace cycle scheme on the A21, running between the junctions of Brownhill Road and Courthill Road. This is a temporary scheme, operating on an experimental TRO, designed to assist with pandemic recovery. The scheme is described further in paragraph 2.2.5.5

2.1.4 Air pollution and car ownership levels

2.1.4.1 Catford's air quality is poor. The annual mean NO_2 levels along the main thoroughfares of A205 and A21, at their most congested parts, are greater than 50 μg/m^3, exceeding the UK national statutory limit of 40 μg/m^3. This is further discussed under Section 2.2.6.

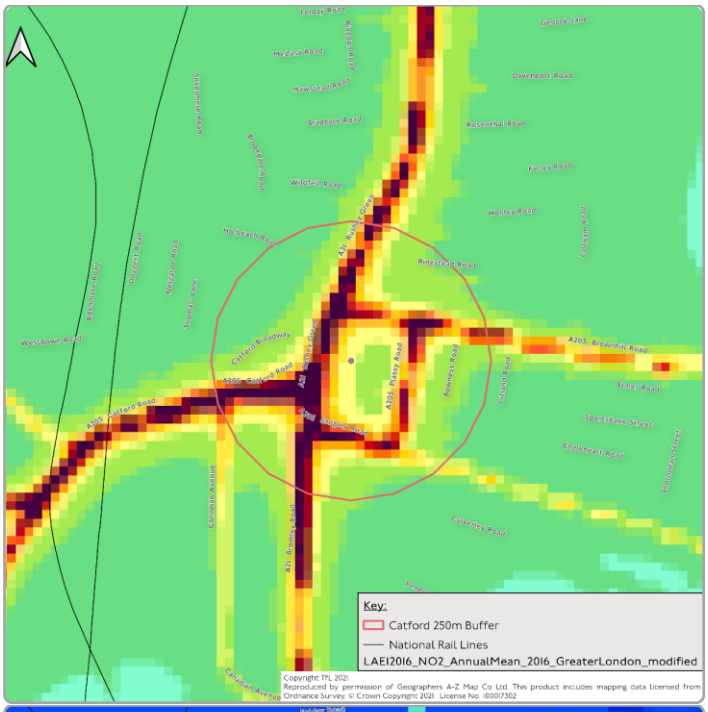


Figure 2-8 (left): Catford town centre NO_2 2016 modelled air pollutant levels. These align to the A205 and A21 corridors, especially the western half of the gyratory.

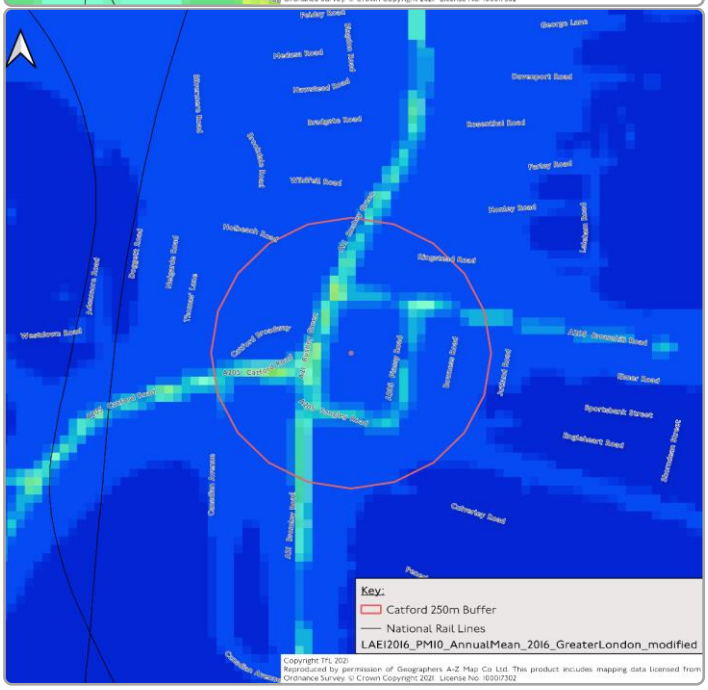


Figure 2-9 (left): Catford town centre PM_{10} 2016 modelled air pollutant levels. These align closely to the two Transport for London Road Network (TLRN) corridors and the western half of the gyratory.

2.1.4.2 The total number of cars owned by households in Lewisham increased by 12,432 (19%) to 79,270 between the 1991 and 2001 census. The latest similar statistic of Licenced Private and Light Goods Vehicles, compiled by DfT and GLA up to the end of 2020, recorded a drop to 72,360 vehicles in Lewisham borough. The same statistic for the neighbouring and geographically similar boroughs of Greenwich and Newham is 73,678 and 63,726 vehicles, respectively[12].

2.1.4.3 Within the borough, however, there are significant variations between wards, ranging from over 50% (Brockley, Evelyn, and New Cross) to under 33% (Catford South and Grove Park) of households not having access to a car. The level of car ownership can reflect the location's transport connectivity, but it is also a product of many factors, such as the level of home ownership and the type of housing available.

Percentage of Households with one or more cars in affected areas:

- Lewisham – 50.4%
- Rushey Green – 53.4%
- Catford South – 71.9%

2.1.4.4 Catford has high levels of climate vulnerability based on the Greater London Authority's climate risk mapping, which identified the area as having a high overall climate risk, high flood risk and high heat risk. This high climate risk coincides with areas of income and health inequalities, as well as other social factors set out above. This is further discussed under Section 2.2.7.

[12] https://data.london.gov.uk/dataset/licensed-vehicles-numbers-borough

2.2 Role of the A205 and the transport, environmental and growth issues faced by the area

2.2.1 The A205 South Circular Road and Catford

2.2.1.1 A key orbital route across south London, the A205 South Circular Road runs from the Woolwich Ferry in the east, to the Chiswick Flyover in the west. Together with the North Circular Road and Woolwich Ferry, it makes a complete ring-road around central London. At Catford, the A205 intersects with the A21 arterial road, linking Catford with the town centres of Lewisham to the north, and Bromley to the south.

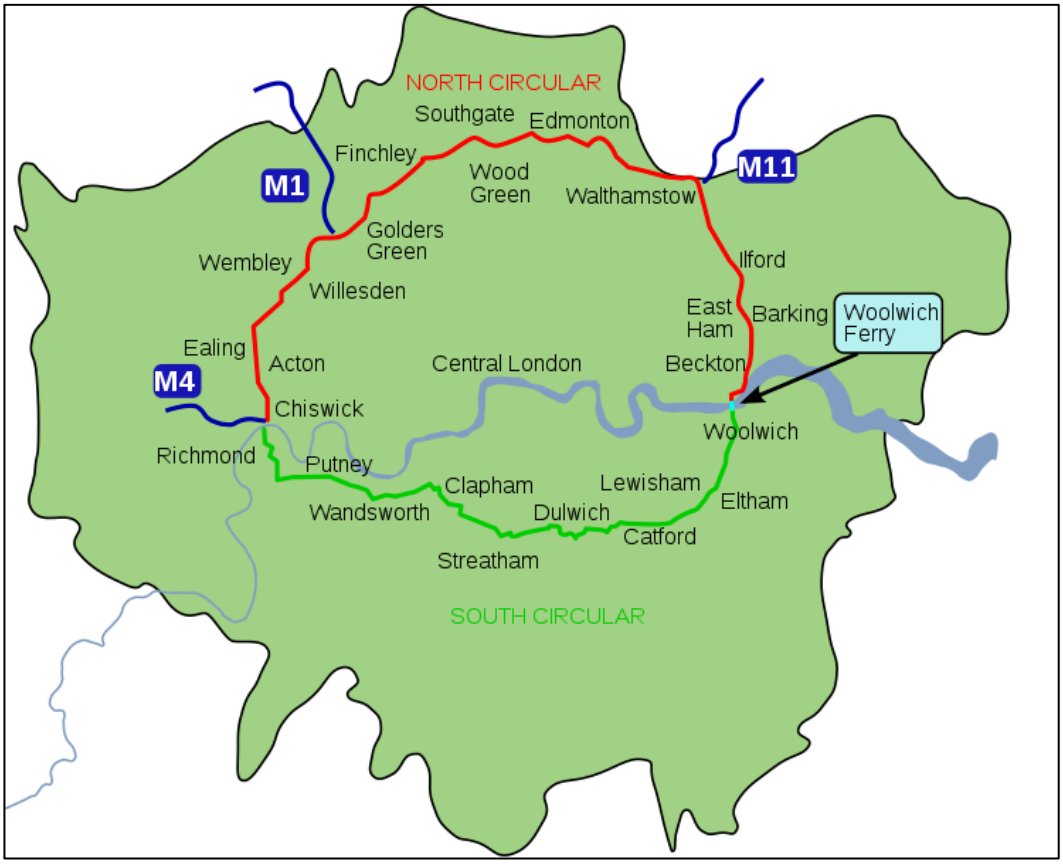


Figure 2-10, showing the extents of the A205 South Circular Road.

2.2.1.2 The South Circular Road is largely a sequence of urban streets joined together, requiring several at-grade turns, unlike the mostly purpose-made carriageways of the North Circular. As a result, it is frequently congested.

2.2.1.3 The Catford gyratory recorded a daily use of 43,096 vehicles at the last pre-pandemic manual classified count, from 2018, which represents an increase of 18%

from the previous full classified count carried out in 2013 [13]. This is the main cause of delays and congestion through the town centre. This congestion affects all modes and exacerbates the already poor air quality. Air quality data, extracted from the latest 2019 London Atmospheric Emissions Inventory, (LAEI) and exceedances in the Catford town centre area are, further discussed under paragraph 2.2.6.1.

2.2.1.4 The Annual Average Daily Flows (AADF) from the latest and prior manual classified counts, on both the A205 and A21 are, as follows:

*Count point 46788 on A205 (within scheme extents as shown in Section **Error! Reference source not found.**).*								
Year	**Count Method**	**Pedal cycles**	**Powered 2wheelers**	**Cars & Taxis**	**Buses & Coaches**	**Light Goods Vehicles**	**Heavy Goods Vehicles**	**Total**
2021	Estimated using previous year's AADF on this link	808	1,268	27,249	2,106	5,789	1,552	37,965
2020	Manual count	905	1,112	25,257	2,089	5,430	1,458	35,346
2018	Manual count	783	1,069	31,552	2,014	7,178	1,256	43,069
2013	Manual count	510	854	27,775	1,793	5,121	1,046	36,589
*Count point 38461 on A21 (within scheme extents as shown in Section **Error! Reference source not found.**).*								
Year	**Count Method**	**Pedal cycles**	**Powered 2wheelers**	**Cars & Taxis**	**Buses & Coaches**	**Light Goods Vehicles**	**Heavy Goods Vehicles**	**Total**
2021	Estimated using previous year's AADF on this link	492	575	15,113	1,804	3,530	773	21,794
2018	Manual count	475	626	18,432	2,159	3,799	837	25,854
2012	Manual count	731	699	17,637	1,855	3,111	12,04	24,506

Table 2-2: Showing the AADFs on both the A205 and A21.

2.2.1.5 The A21 and A205 carry 15 no. daytime bus routes through Catford town centre, which equates to 82 buses per hour, in each direction, during weekday peak hours, with heavy passenger loads. Bus patronage information, compiled by TfL, estimated that the Rushey Green northbound bus stop 'H' served 20,072 passengers, whilst the

[13] https://roadtraffic.dft.gov.uk/manualcountpoints/46788

corresponding southbound bus stop ‘C’ served 16,975 passengers, on a typical weekday, from November 2018 to November 2019 [14].

2.2.1.6 The South Circular Road has long been the target of criticism over its poor capacity and lack of improvement schemes. The whole of the South Circular is designated as a red route, a classification which is allocated to roads in London which, together, carry over 30% of the capital’s traffic. A red route classification prohibits any stopping or loading, to maximise efficient use of this key strategic network. Some sections of the road through the borough of Lewisham incorporate bus lanes.

2.2.1.7 Since October 2021, the South Circular has demarcated the boundary of the Ultra-Low Emission Zone (ULEZ). This daily charge for driving the most polluting vehicles into the ULEZ area dissuades drivers with older vehicles from travelling to and through the Catford area. The proposal to extend ULEZ area to the Greater London boundary, from August 2023, would bring the full Catford area within the zone.

2.2.1.8 The existing highway gyratory arrangement, which dominates Catford, causes severance and hostile active travel conditions, reflected in high walking and cycling collision numbers (125 no. collisions reported between March 2017 and March 2019), as detailed under Section 2.2.3**Error! Reference source not found.**.

2.2.2 Poor journey time reliability

2.2.2.1 Strategic modelling, carried out by TfL, indicated that the traffic growth levels on approach to the gyratory in the Do-nothing scenarios, in both 2026 and 2041, are classified as ‘moderate’. This is likely to reflect a capacity cap arising from the existing layout[15].

[14] As extracted from TfL’s in-house Bus GIS data, further details provided under Appendix A01.

[15] Section 3.3, page 11 – 18 of the Catford Town Centre MRN SOBC Forecasting Report, provided under Appendix B08(2) of the Economic Case.

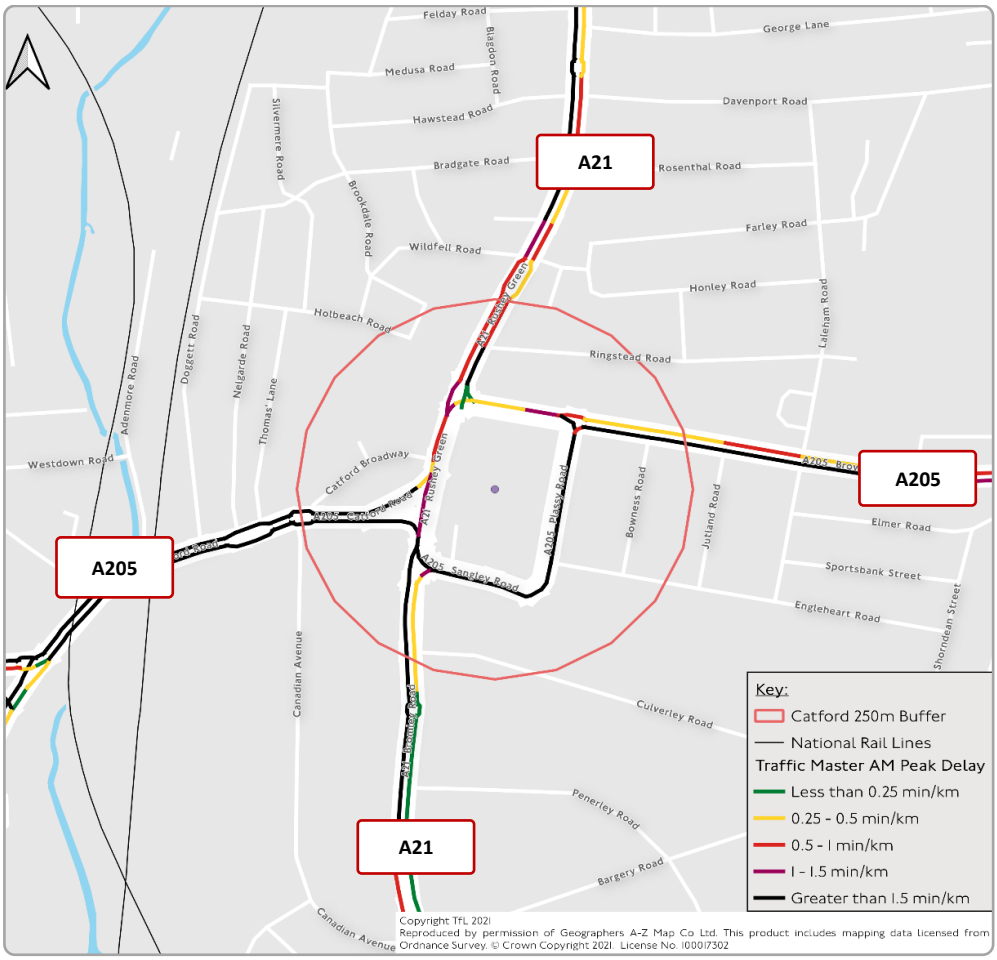


Figure 2-11 (left): Traffic Master data from 2019 indicates Catford town centre corridors (A205 and A21) experience extensive delays (as measured by minute/km), often at the maximum TfL delay classification.

2.2.2.2 Whilst the modelled bus mode journey times are not substantially worse in 2026 compared to the existing levels[16], in order to achieve the London Mayor's specific objectives relating to public transport modes, especially with regards to ensuring that 80% of all trips are made by walking, cycling and public transport, by 2041, a shift is needed in bus reliability and the relative attractiveness of active modes. The Bus Action Plan, published by Transport for London in March 2022, states "*We need to provide a modern network that feels safe and secure and connects Londoners with the places they want to go, with fast and reliable journey times.*"

2.2.2.3 Specifically, Figure 17 of the Bus Action Plan illustrates, spatially, where improving bus journey times and performance is of the highest priority across Greater London. The roads around Catford, including the A205, are identified in this as 'very high priority' for improving bus performance.

[16] Table 9 from Section 4, page 22 – 23 of the Catford Town Centre Gyratory Removal VISSIM modelling LMVR & Scheme Assessment Report, provided under Appendix B07 of the Economic Case.

2.2.2.4 Further details of the strategic and micro-simulation modelling are provided under Section 1.3 of the Economic Case.

2.2.3 Poor road safety record

2.2.3.1 The existing highway gyratory causes a hostile environment for active travel options and public transport users. This is reflected in the high number of collisions for pedestrians and vulnerable road users.

2.2.3.2 Out of the recorded 125 no. of collisions between March 2017 and March 2020[17], 28% involved pedestrians, 12% cyclists and 60% all other motorised modes. Included in these figures is 1 no. fatal collision, involving an HGV and a pedestrian, which occurred in May 2017. Road safety indicators for Catford gyratory, and their rankings, as compared to other parts of the TLRN, are further discussed in paragraphs 2.2.3.4 to .

2.2.3.3 There are multiple collision clusters across the Catford town centre area. Cars and taxis have the highest collision numbers, when analysed by mode, which relates to their flow dominance. Please refer to Figure 2-12, overleaf, which shows the location of these clusters and the severity of recorded collisions.

[17] The consideration period included the start of the nationally mandated Covid lock-down, which saw traffic levels reduced along with collisions. TfL will also consider the post-Covid position regarding types and causes of collisions to prepare the OBC design.

Figure 2-12: Location of all collisions in and around the Catford Gyratory.
For March 2017 to March 2020. Source: TfL Surface Playbook GIS Tool (Collstats layer).
Full plot is provided in Appendix A02(1).

2.2.3.4 TfL's internal database of Road Safety Priorities, compiled in 2020, devised a number of road safety-related indicators, to better reflect high-risk areas. Specifically, this approach to identifying road safety priorities considers historic casualty harm and

expected harm, by mode, in order to identify locations with excess harm, and therefore where intervention should have the biggest impact by reducing risk the most.

2.2.3.5 Using this approach, an updated analysis of Catford's collisions was carried out by TfL, in May 2022. The full results are provided under Appendix A02(2) and can be summarised, as follows:

Name of road section analysed	Sum of total harm	Sum of KSI collisions	Highway Authority	Expected Harm	Harm standard deviation	Divergence from the mean	Priority Roads (Nodes) Ranking (Approx.)
Catford gyratory nodes only	48.4	3	TLRN	11.2	12.5	3.0	96
Catford gyratory nodes & whole links	98.6	7	TLRN	11.2	12.5	7.0	5

Table 2-3: Summary of TfL's updated collision analysis from May 2022

2.2.3.6 This shows that Catford is a high priority area for intervention to improve road safety within London. Both methods of classification – either treating the nodes (junctions) separately from the links (the roads approaching the junctions) or viewing both in aggregate, demonstrate an urgent need for intervention, since Catford's nodes and links – taken in aggregate – are the 5th highest priority for safety improvement in TfL (viewing nodes only, a position of 96 out a total of 4000 nodes London-wide is still significant, being within the top 2.5%). The excess harm of each of the individual links is shown below, in Figure 2-13.

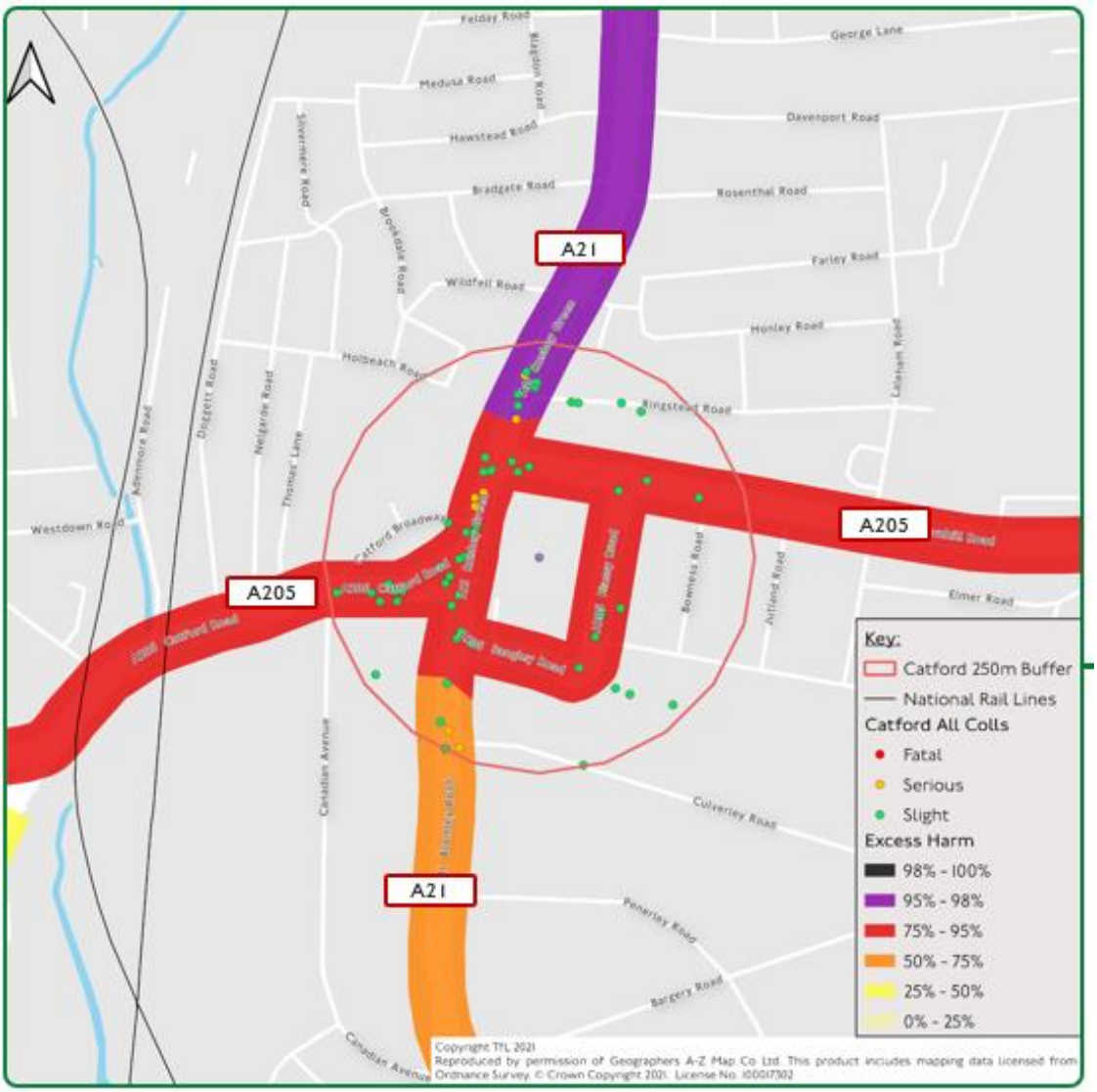


Figure 2-13: Catford Town Centre's categorisation of excess harm.
On the A205 and A21 corridors a 'high' excess harm rating is applied (75% ~ 95%).
The rating for A21 north is even higher (95 ~ 98%).

2.2.4 Outdated pedestrian crossing facilities

2.2.4.1 There are 9 no. pedestrian crossing facilities around the gyratory, on the A205 as well as on the A21; some are dedicated crossings, whilst others are signalised carriageway junctions with pedestrian phases built in. There are no at-grade crossings within 50m of either NR station entrances, with the closest crossing to the Catford Bridge station being around 110m west on the A205. Whilst there is an existing subway that connects the A205 southern footway to the Catford Bridge NR station, as shown by Plate 2-5, overleaf, on-site observations suggested that pedestrians preferred to cross at-grade and 'gap-seek' between the traffic, leading to a clustering of collisions involving pedestrians in the vicinity. Figure 2-14, overleaf, shows the current crossing locations within the scheme extents (highlighted in blue ovals):

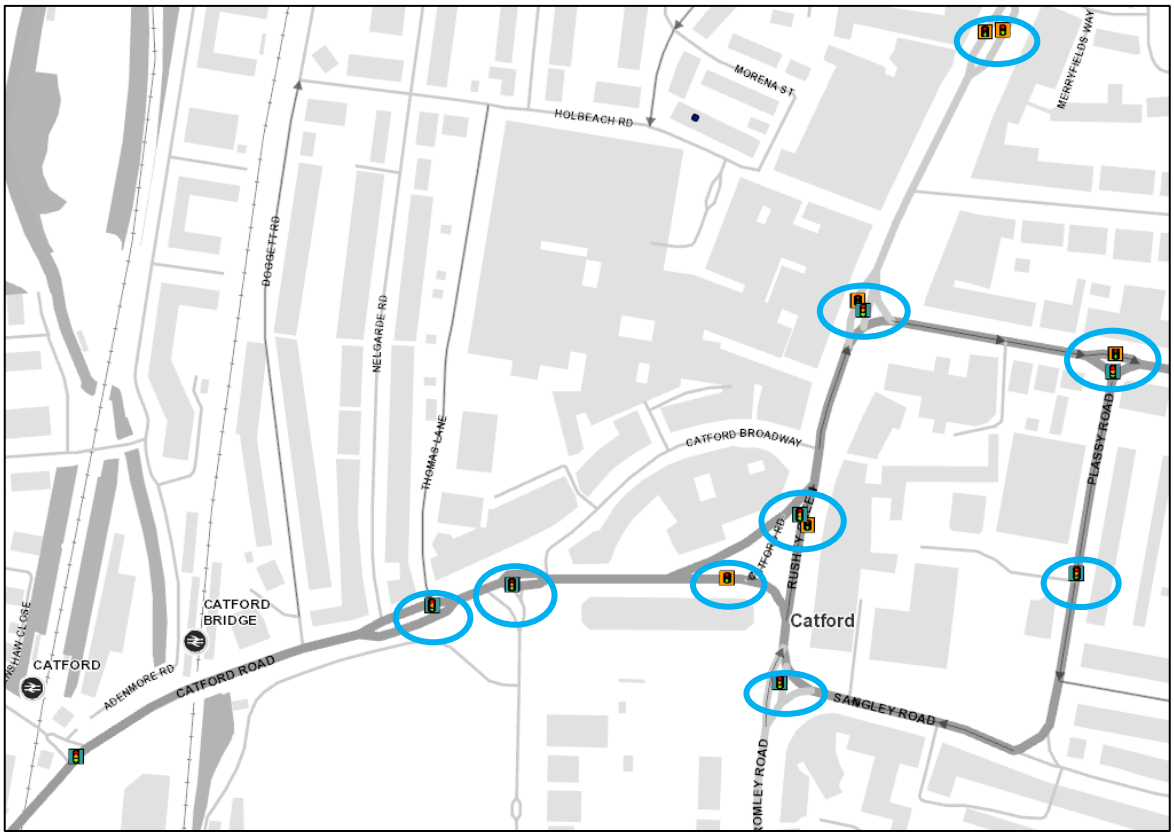


Figure 2-14: Location of pedestrian crossings in and around the Catford Gyratory. Catford train stations also shown for information. Source: TfL in-house GIS Mapping (City Planner Tool).

Plate 2-5: Photograph of the existing Catford Bridge station subway underneath the A205.

2.2.5 Lack of high-quality cycling facilities

2.2.5.1 The existing provision of high-quality cycling facilities around the gyratory, on the A205 and the A21 within Catford town centre is limited, particularly when compared with other similar inner London town centres.

2.2.5.2 Orbital routes that serve high volumes of traffic, such as the A205, tend to see lower levels of cycle usage in shared carriageway conditions/where no high-quality cycling facilities are available, due to their subjective unattractiveness. Lower levels of cycling usage are also noted on the A21, even though it functions more as main arterial route. Both routes have observed circa 2% of cyclist usage, as a total of their Annual Average Daily Flows from recent manual classified counts, as shown by Table 2-2 on page 23.

2.2.5.3 When approaching the A205 from the west, heading east, there is a short stretch of mandatory (but unsegregated) cycle lane between the Catford NR and Catford Bridge NR stations. This becomes an advisory cycle lane (both sections at c1.5m wide) as it approaches the Doggett Road junction, after which there are no further cycle lane facilities, although there are 5m-long cycle reservoirs at subsequent signalised junctions. There are no other similar facilities on the gyratory beyond Catford Road.

2.2.5.4 With regards to the A21, the bus lanes in both directions on approach to, and within, the scheme extents do permit cycle use but at circa 3m in width, they are not wide enough to allow buses to safely overtake cyclists without leaving the bus lane, as shown by Plate 2-6, below. There are no cycle reservoirs on the A21 at its signalised junctions within the scheme extents (shown under paragraph **Error! Reference source not found.** of the Strategic Case).

Plate 2-6: Approach from A21 to Catford town centre [18]

[18] Taken from Google Streetview

2.2.5.5 Since October 2020, a London Streetspace (LSP) scheme has been in use on the A21 between Brownhill Road and Molesworth Street. This provides temporary combined bus and cycle lanes, in both north and southbound directions, to encourage a sustainable modes-led pandemic recovery. As of March 2022, its Temporary Traffic Order (TRO) was changed to an Experimental Traffic Regulation Order (ETRO) to allow TfL more time to monitor scheme impacts post-pandemic. The extents of this TfL LSP scheme are shown, overleaf, by Figure 2-15.

2.2.5.6 Besides this temporary facility, and those mentioned above, there are no cycling facilities within the scheme extents that are compliant with either TfL's London Cycling Design Standards or the national LTN 1/20 cycle infrastructure design guidance.

2.2.5.7 This severely limits the growth of cycling in the area, despite the significant levels of local potential set out in TfL's Strategic Cycling Analysis [19], which shows that Catford is in the top 5 per cent for potential cycling, London-wide. The Department for Transport's Propensity to Cycle Tool [20] also indicates significant unrealised cycling potential around Catford.

[19] https://content.tfl.gov.uk/strategic-cycling-analysis.pdf, Figure 2.2. page 19.

[20] https://www.pct.bike/

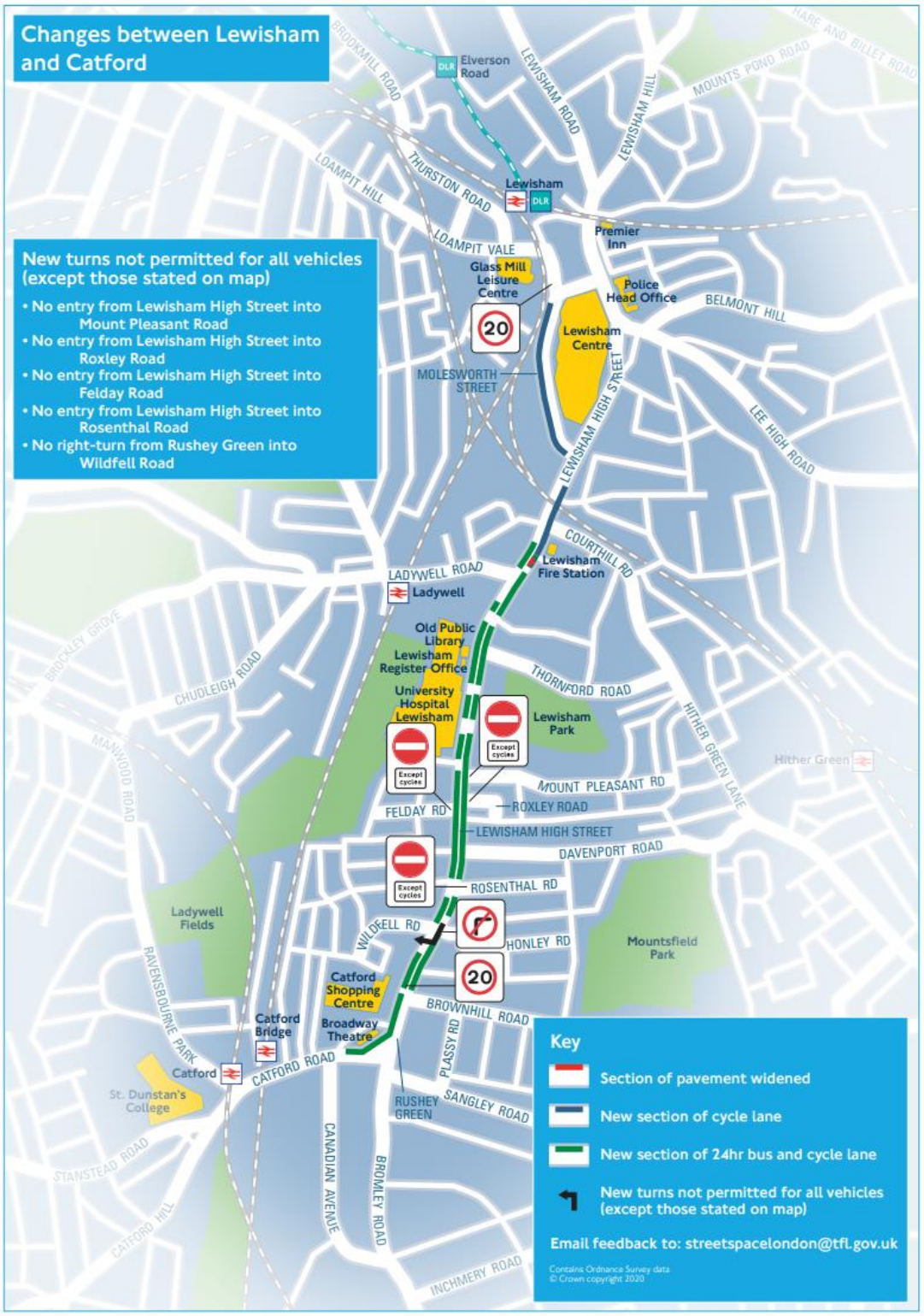


Figure 2-15: The A21 Lewisham to Catford walking and cycling changes under an ETRO (as of March 2022).[21]

[21] https://haveyoursay.tfl.gov.uk/11522/widgets/34917/documents/27391

2.2.6 High NO2 and particulate matter pollution

2.2.6.1 The London Atmospheric Emissions Inventory (LAEI) data from 2019, indicate that Catford's annual mean NO_2 levels exceeded the UK national statutory limit of 40 μg/m^3, recording levels of 50+ μg/m^3. This level of NO_2 is harmful to health, even given short-term exposure. Particulates at PM_{10} and $PM_{2.5}$ levels have also similarly exceeded their statutory limits, creating further serious health impacts, especially among vulnerable groups [22]. NO_2 and PM_{10} are primarily caused by tailpipe emissions, braking action, and tyre wear. Extreme NO_2 concentrations are found at the junctions of A21 Rushey Green / Brownhill Road and A205 Catford Road / A21 Bromley Road, as well as along the section of road adjacent to the council offices. This is where a large number of bus passengers wait at bus stops within the town centre, increasing their exposure to poor air quality.

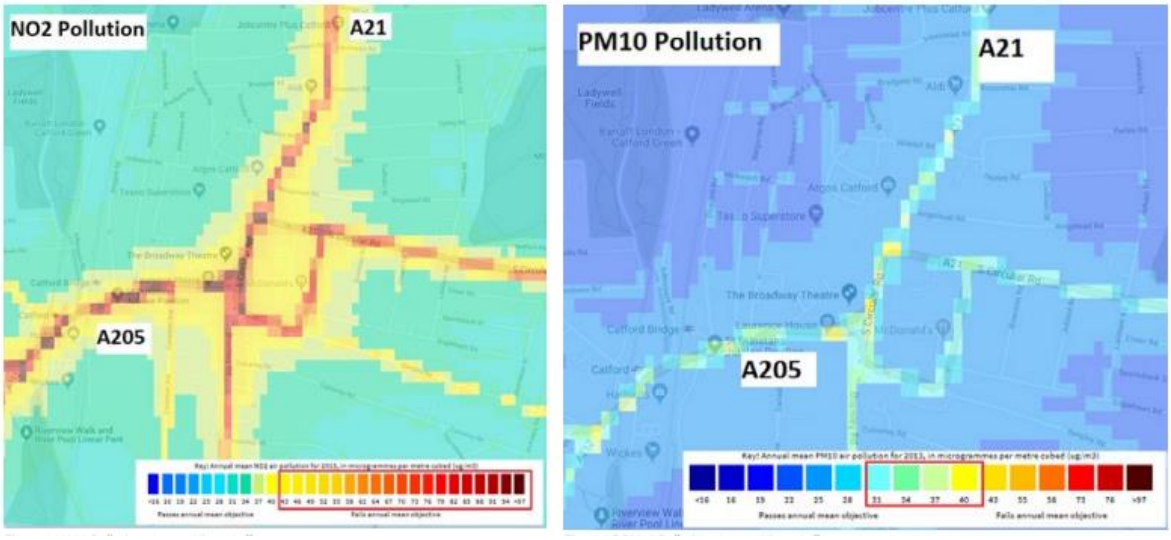


Figure 2-16: Concentration of NO_2 and PM_{10} pollution within scheme extents

2.2.6.2 In a landmark ruling in December 2020, nine-year-old Ella Adoo-Kissi-Debrah became the first person in the UK to have air pollution listed as a cause of death. Ella lived near the South Circular Road in Lewisham.

2.2.7 High climate risk

2.2.7.1 GLA's in-house climate risk mapping[23] was published in 2021 and remains relatively novel, in that it combines social vulnerability metrics with those measuring environmental and climate change risks. With respect to the applicable metrics for the Catford town centre area, they combine to paint a picture of certain vulnerable social groups facing a disproportionately greater risk to environmental and climate effects. Key impacts arising are mainly surface water flood risk, (a lack of) tree canopy cover as well as surface temperature risk, all of which combined to give the

[22] See Appendix A15(1) for NO_2 mapping and A15(2) for PM_{10} mapping. Alternatively, both can be downloaded from this LAEI link: https://data.london.gov.uk/download/london-atmospheric-emissions-inventory--laei--2019/ea6edf44-1adc-4ae1-a6f0-0bec82ee322e/LAEI2019-Air-Quality-Maps.zip

[23] https://cityhall.maps.arcgis.com/apps/instant/media/index.html?appid=fdd13b10c8784ebe8356abc032e03cc3

Catford town centre area the second-highest climate risk score. The first two impacts are directly referenced by the London Mayor's Environmental Strategy; Table 3-3 describes how the proposed scheme aims to address these issues. Figure 2-17, below, shows the combined overall climate risk for the Lower Super Output Area within which the Catford MRN scheme is located:

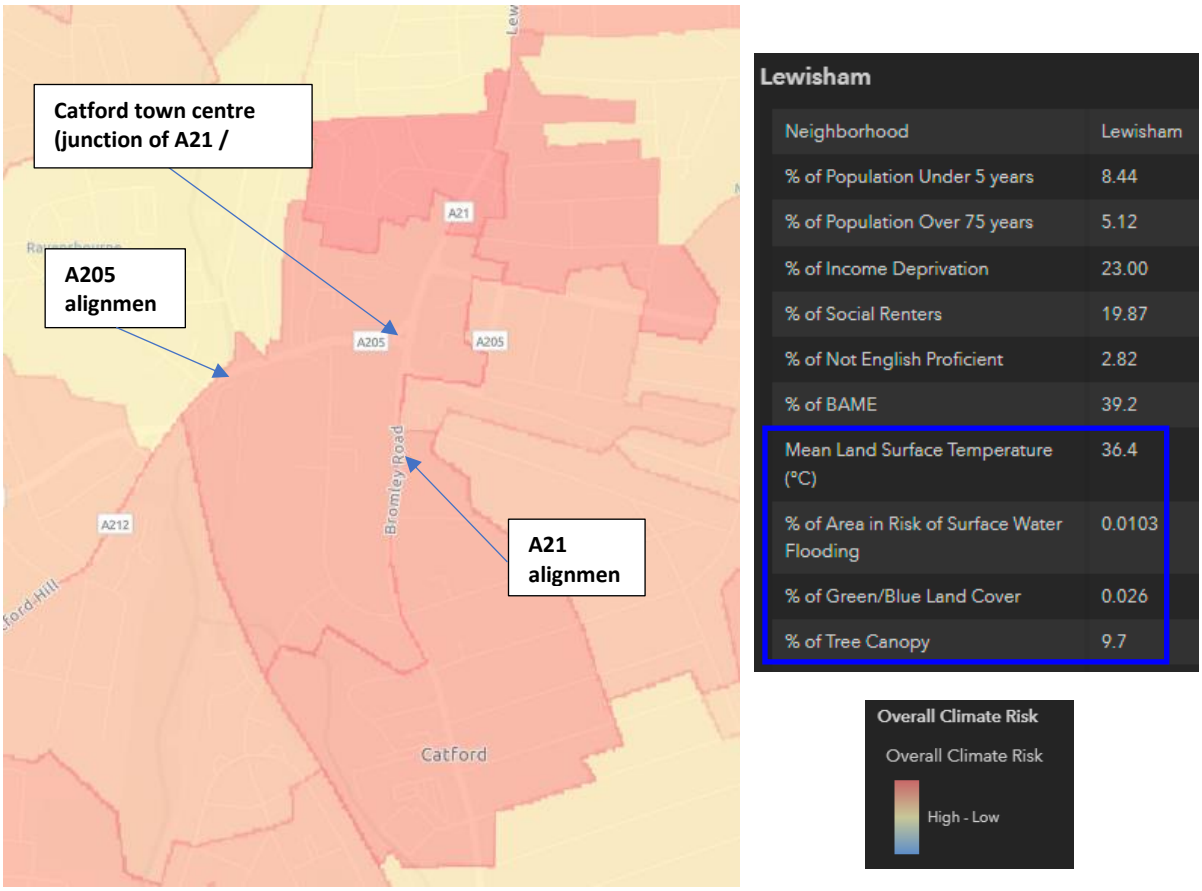


Figure 2-17: Overall climate risk map for the Catford town centre area; key metrics that informed the scoring are highlighted in blue in the upper right corner. The subject of mean land surface temperature is also separately discussed under paragraph 2.2.7.3

2.2.7.2 Flooding risk: According to UK Government's 'Flood map for planning' portal, there are two main sources of flood risk for the Catford area[24]. Firstly, the risk arises from the nearby River Ravensbourne, located between the NR stations, with nearby areas acting as the river's natural floodplain. Secondly, the risk also arises from excessive surface water run-off and the lower general topology of the Metropolitan Open Land (MOL), especially its northern half. Parts of the existing A205, as well as the developed areas to the north of Catford town centre, are also at risk.

2.2.7.3 Lack of tree canopy cover: According to GLA data, there is a lack of mature tree planting and, therefore, canopy cover along the A205 and A21 within the Catford town centre area, leading to high daytime surface temperatures during the summer

[24] https://check-long-term-flood-risk.service.gov.uk/map?easting=537286&northing=173631&map=SurfaceWater

months, as shown by Figure 2-18, from slide 4 of the Intra-urban temperature variability presentation to GLA in February 2021 [25].

[25] Appendix A16, slide 4. Alternatively, it can be downloaded from this GLA link: https://data.london.gov.uk/download/major-summer-heatspots-using-landsat-8-thermal-satellite-data/77f4fb74-e76f-4c4a-bea1-0858b6b06a21/EXTREMA%20GLA%20Presentation%20Delivered%2018Feb2021.pdf

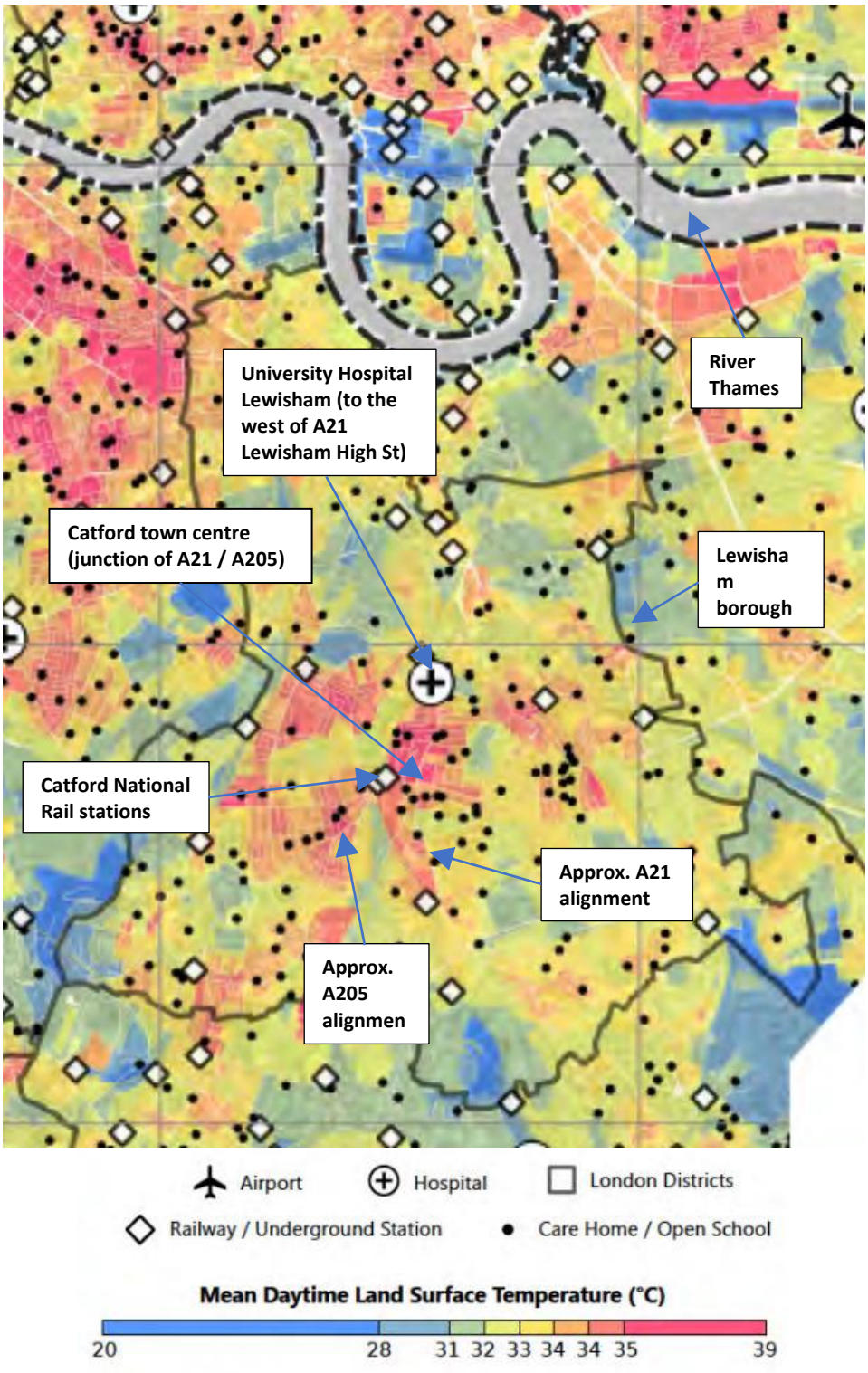


Figure 2-18: Mean daytime land surface temperature, measured during the summer months of 2016 to 2020, surveyed by Extrema for GLA (see footnote 25 on page 39).

2.2.8 Tale (of the growth) of two town centres (1): Lewisham Gateway

2.2.8.1 Lewisham has two major town centres within its borough boundary: Lewisham town centre, serving the north of the borough, and Catford town centre, serving the south of the borough. They form part of the New Cross, Lewisham, and Catford Opportunity Area. The London Plan 2021 highlights both places as strategic areas for regeneration, with high residential growth potential. Both have similar Public Transport Accessibility Level[26] (PTAL) ratings – Lewisham has a PTAL of 6b and Catford has a PTAL of 6a, see Figure 2-19 and Figure 2-20, overleaf. Accessible town centre locations, such as these, are expected to provide significant development capacity. The GLA's former density matrix set ranges for appropriate residential density in different urban character settings and with different levels of public transport accessibility. The matrix recommended that urban settings with PTAL ratings of 4 to 6 should secure between 200 and 700 residential units per hectare.

2.2.8.2 Lewisham town centre has experienced a significant amount of growth over the last 15 years. The catalyst for this was the approval of Lewisham Gateway in 2009, a multiphase development which relied on upfront major infrastructure investment, including the removal of the Loampit Vale roundabout and diversion of two local rivers to create a peninsula for development. The density of this scheme is 260 dwellings per hectare.

2.2.8.3 The London Plan 2021 states, "Lewisham will grow in function and population and has potential to become a town centre of Metropolitan importance. The town centre retail and commercial functions are being intensified, rationalisation of the public highway will create improved pedestrian routes, and significant residential developments surrounding the town centre are underway, including Lewisham Gateway[27]."

2.2.8.4 Since 2009, there have been 12 major applications in Lewisham town centre, most of which are either complete or under construction. The majority of the development opportunities considered most straightforward to deliver are now complete. This includes over 3,300 new homes, over 1,300 student bed spaces and 119 co-living units, as well as ground floor commercial space and a new leisure centre. A number of these schemes are on former retail parks, industrial sites, and a former car park. Residential development on these types of sites has achieved densities ranging from 287 to 622 dwellings per hectare. Student housing is even more densely developed, ranging from 842 to 1,223 dwellings per hectare.

[26] https://tfl.gov.uk/info-for/urban-planning-and-construction/planning-with-webcat/webcat

[27] Paragraph 2.1.19, page 40 of the London Plan 2021

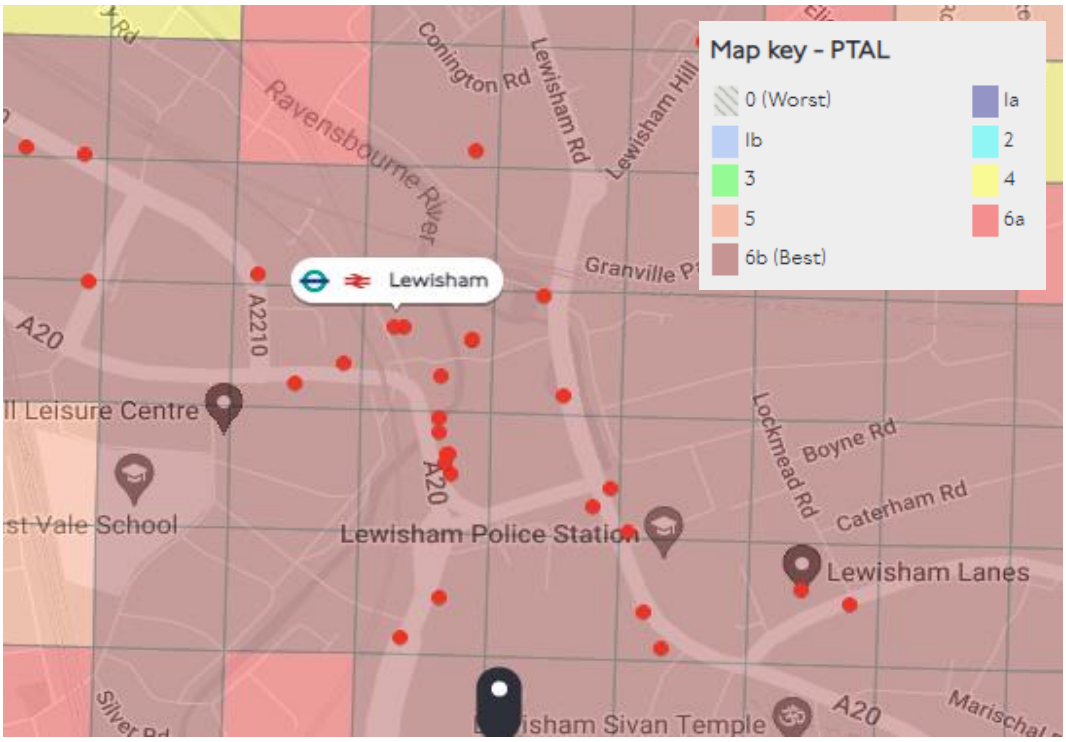


Figure 2-19: Lewisham Town Centre area PTAL. Red dots indicate bus stops.

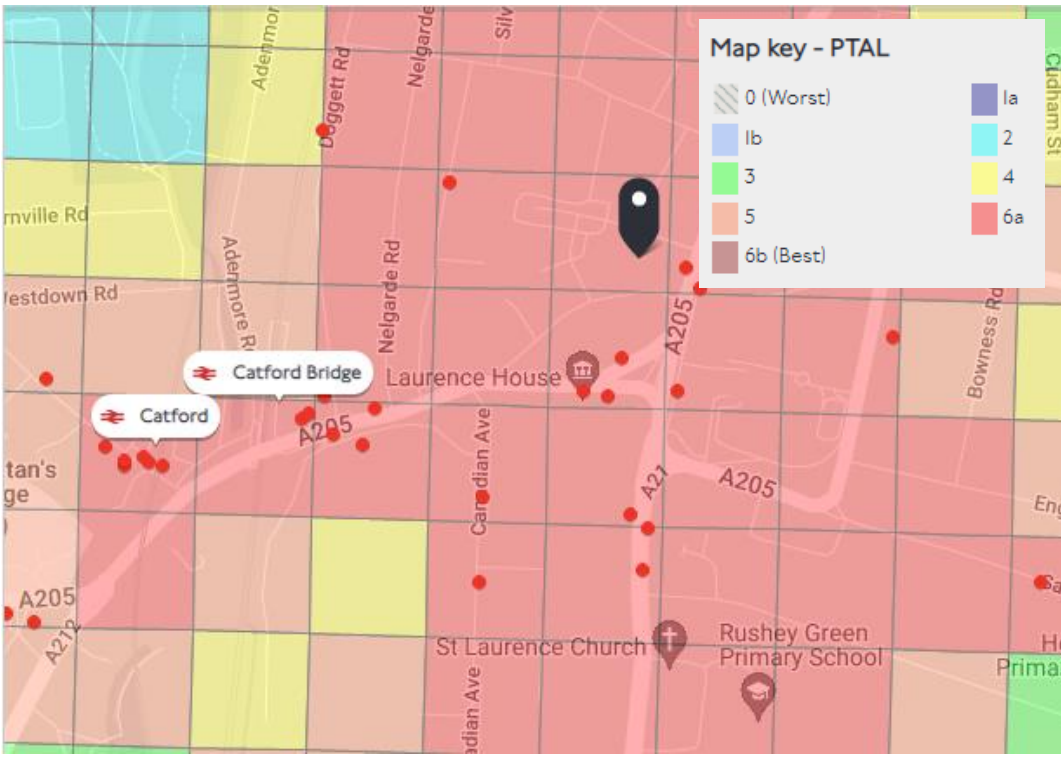


Figure 2-20: Catford Town Centre area PTAL. Red dots indicate bus stops.

2.2.9 Tale (of the growth) of two town centres (2): Catford Town Centre

2.2.9.1 When compared with Lewisham Town Centre, Catford has experienced far less development over the same 15-year period. This is despite the area containing three at-grade car parks, which would be considered to have straightforward routes to delivery for development. Evidence of developer appetite for this can be seen at Lewisham Town Centre, where a number of retail and car park sites have been redeveloped (see paragraph 2.2.8.4).

Plate 2-7: View from the Plassy Island car park looking north towards Eros House (built in 1963) and Mecca Bingo building.

Plate 2-8: View from Thomas Lane car park looking north towards Catford Shopping Centre (built in 1968).

2.2.9.2 There has only been one notable major development (Catford Green) which has delivered a significant number of new homes. The scheme was approved in 2014 and has delivered 589 new homes, at a density of 138 dwellings per hectare. This scheme was brought about via a public procurement in the early 2010s.

2.2.9.3 The London Plan 2021 states "Catford has potential for significant urban renewal. Large-scale redevelopment of five key sites – Catford Shopping Centre and Milford Towers, Laurence House, Town Hall and Civic Centre, Plassy Island, Wickes, and Halfords – will help to transform the town centre by 2026. There is scope to restore the fractured town centre and to re-invigorate it by boosting the existing civic and cultural facilities and by providing an improved retail, office, and leisure offer. To support the area, approximately 2,700 new homes can be accommodated in the heart of the town centre. The realignment of the A205 will assist in the transformation of the town centre[28]."

2.2.9.4 It should be noted that the latest Regulation 19 draft LB Lewisham Local Plan has incorporated the land required for a realignment of the A205, as proposed by this scheme, into its allocation, and states that it recognises the role of a realigned A205 in supporting the key development sites in and around Catford town centre[29].

2.2.9.5 In July 2021, LB Lewisham adopted the Catford Town Centre Framework – its latest draft is provided under Appendix A03 and a live version can be downloaded from this live LB Lewisham hyperlink. This sets out the borough's aspirations to regenerate the

[28] Paragraph 2.1.20, page 40 - 41 of the London Plan 2021

[29] Regulation 19 Draft Lewisham Local Plan, page 511. Also see paragraphs 14.108 - .109 on page 509 (for the Laurence House & Civil Centre site), paragraph 14.101 on page 503 (for the Catford Shopping Centre and Milford Towers site).

town centre, delivering 2,700 new homes of which 50% should be affordable, plus new jobs and a green and accessible town centre. The framework centres on the realignment of the A205 which moves the road behind Laurence House, creating a new public space and a more cohesive town centre. Figure 2-21 below, shows the main development areas and aims of the framework:

Figure 2-21: Catford town centre placemaking principles.[30]

1) Consolidating the public realm to create better places for people;

2) Enhancing the sense of arrival at stations to improve the first impressions of Catford;

3) Establishing a green public space and verdant public realm in a sequence of welcoming public spaces;

4) Creating a more natural setting for the River Ravensbourne, including the unveiling of the culverted river;

[30] https://lewisham.gov.uk/-/media/catford-town-centre-framework.ashx, page 7.

5) Strengthening the civil and cultural offer of the town centre;

6) Framing the new public spaces and creating a permeable edge;

7) Making the back of Catford Broadway a high-quality place with workspace, shops, and new public spaces;

8) Providing new homes on key opportunity sites.

2.2.9.6 The purpose of the Catford Town Centre Framework is to provide area and site-specific guidance on the application of policies within the Lewisham Local Plan; to inform discussions with developers and designers on detailed plans for sites located within the Catford town centre study area; to help justify investment in new homes and job creation, as well as showing how existing character and communities can be supported; to inform bids for regeneration initiatives; and to enable strategic public realm and transport infrastructure improvements.

2.2.9.7 It consists of an area framework for land within the Catford town centre policy boundary. This centres on three critical themes:

2.2.9.8 A green town centre: There is an ambition for Catford to be the greenest town centre in London. A ‘stepping-stone’ approach to bringing nature into the urban design will be prioritised, to create a cleaner, healthier and a more sustainable town centre for the benefit of people, urban wildlife, and ecology. The pandemic showed the importance of public space. A variety of spaces will be created in and around gathering places, such as the train stations, Catford Broadway, and the riverside, with a new heart created for the town centre. Planting will be encouraged on streets and in public spaces to enhance biodiversity, providing new habitats for birds, insects and other species, to create ‘green stepping-stones’ from natural spaces around the town centre, including the River Pool linear park and Ladywell Fields. Green space also helps to cool the urban environment, improve air quality, reduce noise pollution, and support sustainable drainage, thereby reducing the risk of flooding and providing resilience against climate change.

2.2.9.9 A vibrant town centre: Affordable workspace and more flexible retail space is planned, to encourage and nurture local employment opportunities, start-ups and growing businesses, as well as providing new space for existing businesses. A reorganised Old Town Hall and Civic Suite, for Lewisham Council’s offices, will provide an opportunity to celebrate the Grade II-listed Broadway Theatre and create public space around this important heritage building. Catford will remain the civic heart of the borough, and there will be an opportunity to introduce educational institutes, leisure uses, new public space and entertainment and performance venues.

2.2.9.10 An accessible town centre: New residential neighbourhoods are planned in and around the town centre with affordable homes. Safe and attractive cycling routes are proposed to create active links into surrounding neighbourhoods. More, and safer, crossing points on the realigned South Circular Road will reduce real and perceived threats to pedestrians and lessen severance, while a new network of routes will improve the connectivity across the town centre. Improvements around the stations will create a sense of arrival in Catford, providing a generous pavement width to encourage walking between the stations and the town centre.

2.2.9.11 Whilst the Framework Plan does not constitute statutory planning policy, it does reflect and support the draft Local Plan and will help the borough in guiding priorities and change in the town centre, utilising the 3 main pillars described above, in

paragraph 2.2.9.7. It presents an overarching vision for the future of Catford and establishes a set of guiding principles to achieve this. It defines spatial strategies and identifies and illustrates a variety of projects, large and small, with the potential to cumulatively achieve strategic objectives for the area, over time.

2.2.9.12 To inform the Framework, LB Lewisham has held 134 community engagement events since 2017, and has received more than 2,000 comments on various related subjects. The latest non-statutory consultation was carried out in early 2021. The feedback received has been summarised by the latest draft Framework document, published in June 2021. The key themes arising are summarised under Section 1.12.4 of the Strategic Case.

2.2.9.13 The Framework's phasing strategy focuses on the large-scale projects that will re-structure key elements of the town centre and surrounding area, enabling the full range of redevelopment activities to be delivered. Within this phasing strategy, LB Lewisham states that a key catalyst for releasing Catford's regeneration potential is the realignment of the South Circular Road and the removal of the gyratory at the Rushey Green Road junction (shown as "A" in Figure 2-22 below).

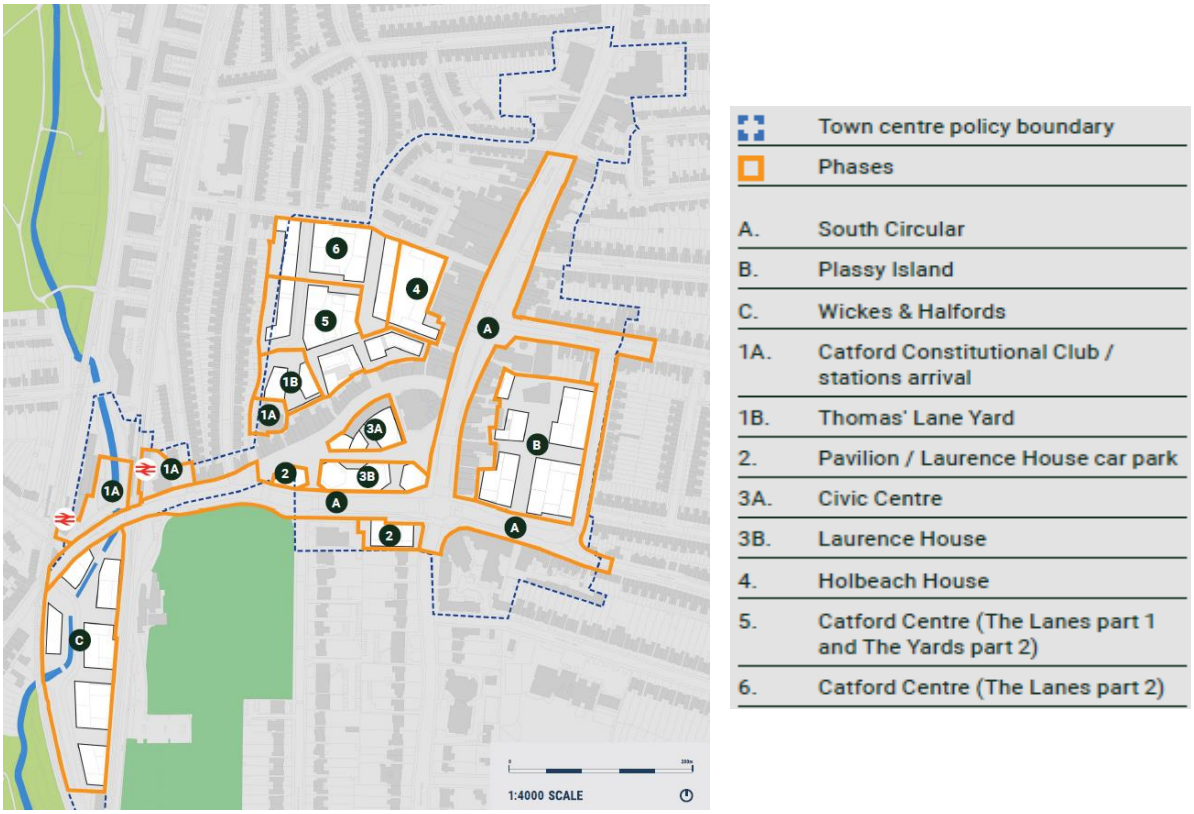


Figure 2-22: Catford Town Centre's indicative re-development phasing and delivery strategy[31]

2.2.9.14 The Framework is supported by a viability assessment. The viability assessment assumes the highway intervention is delivered in phase 2. The viability assessment assumes an increase in residential and commercial values following the delivery of

[31] https://lewisham.gov.uk/-/media/catford-town-centre-framework.ashx, page 121.

the highway intervention. This, in turn, allows the Framework to remain viable. The phasing is assumed to maximise the viability of the later phases, with expected increase in value of 5% from phase 3 onwards, and phase 6 securing a growth in value of 15%.

2.2.9.15 Since the Framework has been adopted, a number of developers have begun progressing schemes in the town centre on all three at-grade car parks. In 2021, Catford Timberyard was granted permission to deliver 52 units, at a density of 297 dwellings per hectare. There are also active pre-application discussions across a number of sites for over 700 further residential units; this includes an LB Lewisham-led scheme for 100 units, and a developer-led scheme for 602 units at Plassy Island. This demonstrates the effectiveness of the Framework in achieving its desired purpose, as the developer acquired the Plassy Island site from the Church Commissioners after the adoption of the Framework. As of May 2022, the owners of

the Halfords and Wickes site have also commenced the pre-application process with LB Lewisham.

2.2.9.16 Directly and indirectly adjacent development sites to Catford town centre, and their respective developmental capacities, are shown below by Figure 2-23 and Table 2-4, overleaf:

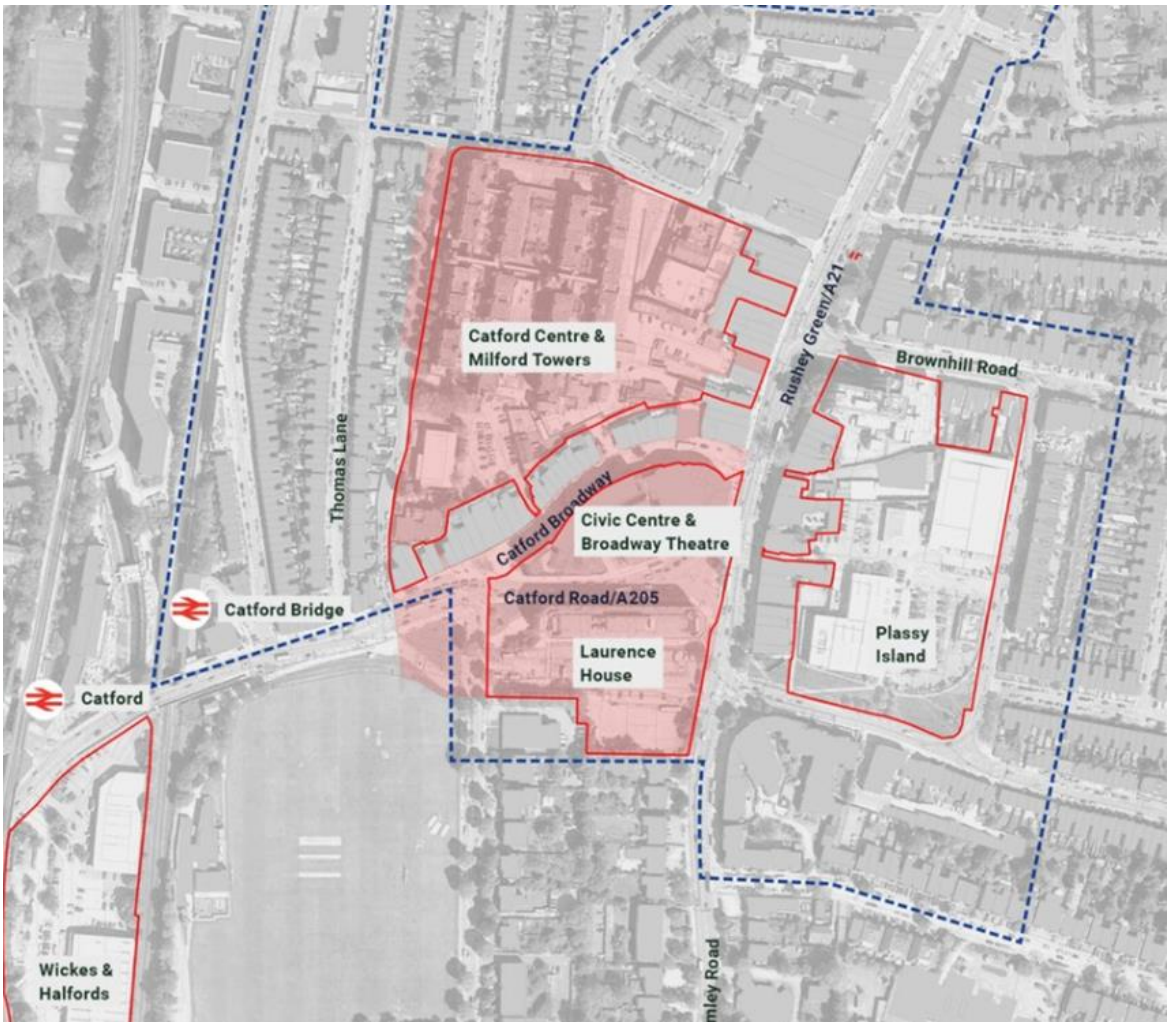


Figure 2-23: showing proposed developments directly and indirectly adjacent to Catford Town Centre.[32]

[32] https://lewisham.gov.uk/-/media/catford-town-centre-framework.ashx, page 60.

Site Name	Indicative development capacity[33]	Timeframe for delivery	Current development status (as of July 2022)
Directly adjacent developments			
Laurence House and Civic Centre (Section 2.2.10**Error! Reference source not found.**)	262 residential units, 12,935 ft² of employment	Up to 2030	No formal applications yet made to LBL.
Catford Shopping Centre and Milford Towers (Section 2.2.10**Error! Reference source not found.**)	1,084 residential units, 5,387 ft² of employment	Up to 2040	No formal applications yet made to LBL.
Capacity sub-total	1,346 residential units, 18,322 ft² of employment		
Indirectly adjacent developments			
Plassy Island (Section 2.2.12**Error! Reference source not found.**)	602 residential units, 6,206 ft² of employment	Up to 2030	Main developer in active pre-application discussions with LBL; Secondary developer secured planning permission and in the process of selecting a suitable delivery partner.
Wickes and Halfords (Section 2.2.13**Error! Reference source not found.**)	512 residential units, 8,946 ft² of employment	Up to 2030	Project promoter in pre-application discussions with LBL
Capacity sub-total	1,114 residential units, 15,152 ft² of employment		
Capacity total	*2,460 residential units, 33,474 ft² of employment*		

Table 2-4: Key housing sites details in and around Catford town centre.

2.2.10 Major development site supported by the A205 realignment (i): Laurence House and Civic Centre

2.2.10.1 The Laurence House building is currently used as Lewisham borough's main office building. Over recent years, borough buildings have been consolidated, and now the majority of borough staff (c.1,200 people) are based at Laurence House. Laurence House has also received investment to extend its useful life.

2.2.10.2 As per the Framework, the release of this site is predicated on the realignment of the A205. The proposed infrastructure delivery will increase land values sufficiently to create a viable scheme, which, in turn, allows for the relocation of the civic centre. A new office and civic campus (valued at c. £30m) must be re-provided at the beginning of the regeneration, before Laurence House can be released for residential

[33] As extracted from the latest Regulation 19 Draft Lewisham Local Plan. Please refer to the follow pages for details: Laurence House and Civil Centre: Page 508. Catford Shopping Centre and Milford Towers: Page 502. Catford Plassy Island: Page 505. Wickes and Halfords, page 513.

development. This valuation is similar to the upfront investment which was required at Lewisham Gateway. Achieving a sufficient positive cash flow position and delivering an increase in value for the wider development of borough-owned sites is, therefore, critical for the scheme, to allow the £30m upfront reallocation cost to be achieved at the beginning of the redevelopment, when values and viability will be more challenging.

2.2.10.3 The relocation of the South Circular Road also creates marriage value between Laurence House and the Civil Centre site, as it enables a larger site footprint than if Laurence House came forward independently.

2.2.10.4 The realignment of the road creates significantly improved public amenity, through the delivery of open space in place of the road, while simultaneously addressing the severance in the town centre, increasing the overall attractiveness of the development proposition. The development plot, shown in Figure 2-24 below, has an indicative site capacity of 262 net additional homes, in addition to 12,935 ft^2 of commercial floorspace on the ground and lower floors.

Figure 2-24: Constituent parts and planning classes of the Laurence House and Civic Centre site.[34]

[34] https://lewisham.gov.uk/-/media/catford-town-centre-framework.ashx, page 69.

2.2.11 Major development site supported by the A205 realignment (ii): Catford Centre and Milford Towers

2.2.11.1 Catford shopping centre and Milford Towers form 'the Lanes'. This is the largest site in the Framework and is currently formed of a shopping centre and multi-storey car park with residential units above. The site has an indicative capacity of 1,084 net residential units and 5,387 ft^2 of commercial floor space. Its layout is shown by Figure 2-25, below:

Figure 2-25: Constituent parts and planning classes of the Catford Centre and Milford Towers site.[35]

2.2.11.2 In terms of pure transport access, it could be argued that this site could come forward without the realignment of the road, due to its proximity to Catford and Catford Bridge NR stations and the existing frequent bus services nearby. However, in practice, LB Lewisham would not bring this site forward without significant market confidence, which is not achieved by Catford's current offer. LB Lewisham does not have the

[35] https://lewisham.gov.uk/-/media/catford-town-centre-framework.ashx, page 77.

financial capacity or risk appetite to bring forward a site of this scale alone and would rely on a development partner to help deliver its aspirations. However, developers are unlikely to partner with the borough for the site of Catford Centre and Milford Towers alone, owing to various challenges associated with its delivery (see paragraph 2.2.11.3) and the risks associated with financial return, given the current land values. Viability of the site would be significantly improved with delivery of the full masterplan, including the road realignment and public realm enhancements, to enable achievement of the Framework's objectives.

2.2.11.3 The site is complex, with a number of challenges, including land assembly. The Lanes and the remaining Yards (phases 4 to 6) are subject to a number of abnormal costs (defined by RICS's New Rules of Measurement as "costs accruing due to circumstances outside the project manager's control. Examples include those arising from issues such as: Access constraints, legacy data issues, unforeseen events due to the nature of the assessment of works, statutory bodies and listed buildings."), due to the sheer size of the redevelopment proposed, including demolition methodology of the current 1960s-built housing and retail structure, and various land interests which must be acquired. The property cost estimate for acquiring the third-party land is approximately £20m, 87% of which is planned to fall within phase 5 of the Framework.

2.2.11.4 Without infrastructure, such as the road realignment and public realm improvements proposed under this investment, there is likely to be insufficient "regeneration bounce" to support delivery of the borough's planning policy, especially for this site and the earlier-referenced Laurence House and Civil Centre site. An increase in land values is particularly important to deliver the Framework's aim of 50% affordable housing (70% of which are planned to be offered at social rent levels), alongside workspace and other community benefits. Without this investment, LB Lewisham would not be able to finance the required early acquisitions, as it is relying on the positive net present value achieved in phases 1 to 3 for later acquisitions. A piecemeal approach to development of this site, without the proposed investment under this scheme is, therefore, considered to be undeliverable.

2.2.12 Major development site in the wider area aided by the A205 realignment (i): Plassy Island

2.2.12.1 As of July 2022, the Plassy Island site developer is currently in pre-application discussions with LB Lewisham to deliver 602 homes and 6,206 ft^2 of commercial space. Its layout is shown in Figure 2-26, below:

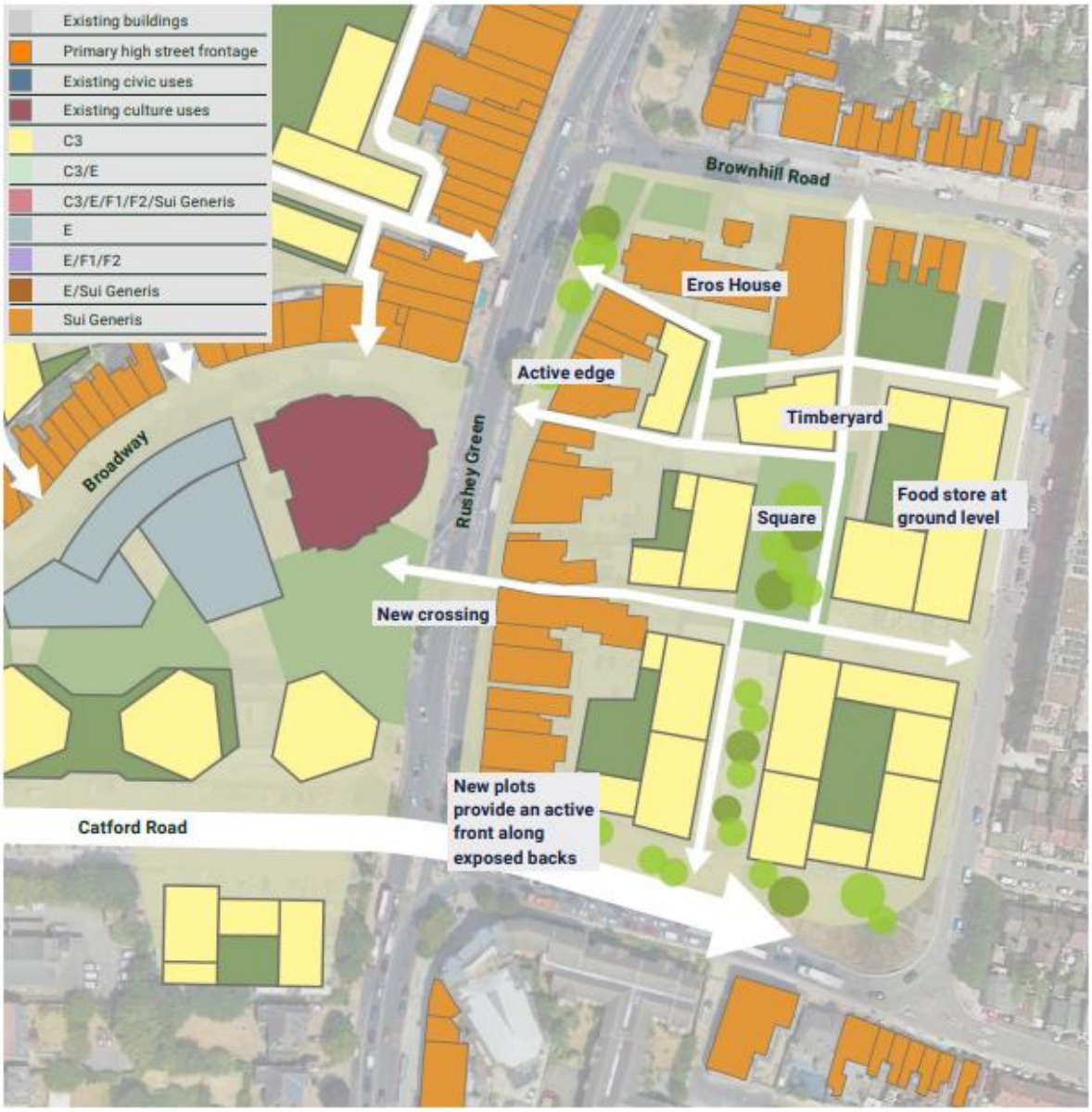


Figure 2-26: Constituent parts/planning classes of Plassy island sites[36]

2.2.12.2 The developer's interest in the site crystallised when the Framework was adopted in July 2021. Since then, the developer has acquired the site, subject to planning approval, and is in detailed pre-application meetings with LB Lewisham, having completed an initial consultation exercise. The developer's scheme has been

[36] https://lewisham.gov.uk/-/media/catford-town-centre-framework.ashx, page 101.

designed in line with the Framework, including maximising the opportunities afforded by the implementation of a new direct, 10m-wide crossing into the town centre, giving pedestrian and cycle access and creating a new public space.

Figure 2-27: Proposed building heights and massing of the Plassy Island development.[37]

2.2.12.3 The site is not contingent on the road realignment, but it is reliant on achieving strong sales and commercial values. The viability assessment which supported the Framework assumed that land values would rise by 15% in phases 3 to 6, and it is highly likely that the developer is forecasting similar increases. Without the road realignment and the associated town centre regeneration, development values would be suppressed, which may affect the pace and scale of delivery.

[37] https://catfordisland.commonplace.is/proposals/proposed-building-heights-and-massing/step1

2.2.13 Major development site in the wider area aided by the A205 realignment (ii): Wickes and Halfords

2.2.13.1 Like Plassy Island, the Framework has given landowners confidence to begin considering a redevelopment of the Wickes and Halfords site. LB Lewisham has recently had initial discussions with one landowner on the site, with a formal pre-application meeting taking place, in May 2022. Indicative massing, undertaken as part of the Framework development, estimated a capacity to deliver 512 homes, alongside gross non-residential floorspace of 8,946 ft^2. The developer will benefit from the improvements on the A205 on the western element of the road scheme, including new and improved crossings and a segregated cycle route. The layout of this site is shown, below, in Figure 2-28:

Figure 2-28: Potential of the Wickes / Halfords site.[38]

[38] https://lewisham.gov.uk/-/media/catford-town-centre-framework.ashx, page 107.

2.2.14 Summary of evidence base and alignment with MRN objectives

2.2.14.1 The evidence set out in Sections 1.3 and 1.4 provides a clear picture of the poor current performance of the A205 at Catford, and the significant potential for a scheme in this location to deliver benefits against the MRN objectives. This section takes each of the MRN objectives in turn and provides an assessment of how the proposed Catford Town Centre scheme will support their achievement.

2.2.14.2 The scheme aims to achieve the first MRN objective on reducing congestion, as follows:

- *Optimising road space*: if London does not reassess road allocation at congested locations, pressures from population growth will become greater and congestion will increase. By seeking the most efficient allocation of road space, taking into consideration the needs of general traffic, including freight, and prioritising sustainable modes of transport, congestion will be reduced;

- *Enhancing facilities for sustainable modes*: by offering better facilities and enhanced prioritisation for sustainable modes, people will be encouraged to transfer away from the less space efficient modes, which will reinforce the reductions in congestion as the population grows and economic activity increases;

- *Protecting bus journey times*: currently buses are impeded by congestion, which is a disincentive to growth in bus use and impedes the crucial shift towards sustainable modes. The initial modelling of a simplified two-way road layout through Catford, has been shown to improve bus route journey times overall, while also improving journey time for general traffic. This indicates that the proposal would lead to a more efficient use of road space;

- *Improving local air quality*: by reducing the level of congestion, the scheme aims to improve local air quality (to be verified via quantitative modelling during the OBC stage).

2.2.14.3 The scheme aims to achieve the second MRN objective of supporting economic growth and rebalancing, as follows:

- *Supporting the delivery of affordable housing*: London's economy is impeded through the cost of living, particularly housing costs. Affordability issues exist across London, and firms may choose not to locate in an area if housing costs are too high and essential services will be unable to attract the necessary employees. The scheme will help to mitigate these issues in the Catford area and be the catalyst for the delivery of the wider Catford Town

Centre Framework's ambition of up to 2,700 homes[39], 50% of which will be affordable, alongside new affordable workspace;

- *Encouraging inward investment*: quality of life is important for multi-national companies when choosing where to locate, in order to attract top talent. Creating a modern, sustainable travel-based city, that is not dominated by the car and has plenty of space for pedestrians, cycling, public transport and street life is crucial in building this environment, to allow London to grow and continue competing, internationally. The scheme will improve the local environment and encourage prospective businesses into the area;

- *Enhancing urban design*: the proposed scheme will reduce severance caused by the existing urban design and poor pedestrian crossing facilities and will open up new space for development. Re-routing the A205 away from the town centre will also help to reduce noise pollution and encourage greater footfall in the town centre;

- *Supporting the delivery of new jobs*: the scheme directly supports the delivery of 18,322 ft^2 of commercial floor space, in total, over the two nearest adjacent sites, as set out under Sections 2.2.10 and 2.2.11, and further indirectly supports the delivery of 15,152 ft^2 of commercial floor space, in total, over the two wider adjacent sites, as set out under Sections 2.2.12 and 2.2.13;

- *Encouraging sustainable growth*: London's long-term plan is to identify the most efficient balance of road space between sustainable modes and general traffic. This will allow more people to travel using the limited road space available, which will support the sustainable growth of the economy;

- *Rebalancing and enhancing the natural environment*: in addition to supporting economic growth, the scheme will also support a rebalancing of the area, taking due account of the natural environment and supporting the town centre to increase its resilience to climate change. The next stage of the scheme will establish in detail its environmental impacts and the potential degree of betterment on offer, in particular, regarding biodiversity and flood risk. The areas offered by the "old" A205 (upon its realignment, and planned for use under LB Lewisham's urban realm project – see bullet 3 of Figure 2-21) and other lightly-trafficked areas, such as the dedicated cycle lanes on the realigned A205, offer the potential to house new underground floodwater storage for the adjacent River Ravensbourne, and thereby improve the area's climate resilience. Where no betterment is considered possible, mitigations will be identified, to achieve net-gain via off-site measures (thus benefitting a

[39] https://lewisham.gov.uk/-/media/catford-town-centre-framework.ashx, page 53, top left paragraph.

wider area). This is aligned with current best practice and has been achieved elsewhere in other local authorities[40].

2.2.14.4 The scheme aims to achieve the third MRN objective of supporting housing delivery, as follows:

- *Enhancing urban design*: the current road layout causes severance, congestion and associated worsening of local air quality. This reinforces the lack of interest from developers in investing in new housing in the area, (notable relative to the investment in nearby Lewisham town centre) and creates an environment where housing development is impeded. By reducing car dominance, increasing the ease with which pedestrians and cyclists can travel into the town centre and improving the environmental ambience, the aspirations of the Catford Town Centre Framework can be achieved. This is set out in detail from Section 2.2.9;

- *Encouraging housing development*: the scheme directly supports the delivery of 1,346 residential units, in total, over the two nearest adjacent sites, as set out under Sections 2.2.10 and 2.2.11, and further indirectly supports the delivery of 1,114 residential units, in total, over the two wider adjacent sites, as set out under Sections 2.2.12 and 2.2.13;

- *Supporting sustainable growth*: the scheme will improve conditions for those walking, cycling, and using public transport. A marked improvement across a greater range of travel choices – particularly the most space efficient modes of transport – supports good growth in an area with good public transport connectivity, which is currently negatively affected by congestion.

2.2.14.5 The scheme aims to achieve the fourth MRN objective of supporting all road users, as follows:

- *Encouraging growth in sustainable travel*: TfL aims to encourage the delivery of sustainable developments and make walking, cycling and public transport the first choices for travel; the current low cycle mode usage is reflected by the flows shown in Table 2-2, with local issues and potential described in Section 2.2.5. As growth occurs in Catford, mode shift towards sustainable travel options is more likely to be achieved if facilities are delivered for sustainable modes and improvements made to the public realm. The proposal will efficiently reallocate road space and provide modern facilities for active modes, catering for the sustainable growth of London;

- *Improving road safety*: the location has a poor safety record for vulnerable road users. TfL aims to address this directly, in support of its Vision Zero agenda, by improving junctions, providing safe crossing routes and offering segregated cycleways. This will reduce the number of collisions, and prevent some types entirely, reducing the social cost of road traffic accidents in the

[40] https://www.trustforoxfordshire.org.uk/biodiversity-net-gain

area, improving the overall resilience of the local road network and encouraging people to make active travel choices;

- *Supporting vulnerable road users*: The design will cater for disabled users by improving pedestrian access to public transport and local facilities. There are no blue badge bays in the town centre currently and the need for accessibility improvements will be discussed` with local stakeholders, to ensure that disabled people's needs can be accommodated.

2.2.14.6 The scheme aims to achieve the final MRN objective of supporting the SRN, as follows:

- *Supporting freight & servicing*: to achieve successful economic growth, the needs of freight and servicing must be fully considered and incorporated into designs, as these are modes that often must still be road-based. Providing non-car-based travel options for people who can travel sustainably, and optimising road space for the full range of uses, including general traffic, will reduce congestion for those who cannot switch to sustainable modes, providing greater resilience to the network in London and to the wider SRN.

- *Improving journey time reliability*: The conversion of the gyratory to two-way operation assists with both the length of journey times and their variability. The reliability metric is as important as the length of the journey time itself, and both play a crucial role in making sustainable modes, like the bus, more attractive to the general public. The impact of journey time reliability arising from the scheme has shown positive results in initial analysis and will be further investigated at the next stage.

2.2.14.7 In summary, the scheme has the potential to improve the attractiveness of the town centre for all, including vulnerable users; improve road safety in one of the highest priority areas for addressing current collision rates; optimise road space, creating greater resilience for the SRN; encourage local residents to switch away from the private car to sustainable modes of transport, increasing their health and wellbeing and reducing congestion; increase resilience to climate change; and encourage inward investment in homes and jobs, to restore civic and local pride in an area with high levels of deprivation, which has been left behind relative to neighbouring town centres.

3 Alignment of preferred way forward with national, regional & local policies

3.1 List of relevant policies

3.1.1 The Catford Town Centre scheme contributes to a range of national, regional, and local policies. Table 3-1, below, highlights the key relevant policy areas, as enacted by the national, regional and local authorities. Table 3-2 to Table 3-4 summarise how the current situation falls short of the stated policy aims, and how the proposed scheme can address them.

UK Central Government strategic policies	DfT Creating Growth Cutting Carbon DfT Transport Investment Strategy DfT 25 Year Environment Plan DfT Gear Change – A bold vision for cycling and walking DfT Decarbonising Transport – A Better, Greener Britain DfT Outcome Delivery Plan: 2021 to 2022 Levelling Up the United Kingdom
GLA / TfL regional policies	London Plan Mayor's Transport Strategy Mayor's Environmental Strategy Mayor's Economic Development Strategy
LB Lewisham local policies	Lewisham Transport Strategy and Local Implementation Plan Lewisham Air Quality Action Plan Catford Town Centre Framework Lewisham Local Plan

Table 3-1: Key national, regional and local policies applicable to the Catford Town Centre scheme.

3.2 Scheme relevance to UK national policies

3.2.1 Table 3-2, overleaf, further details the national-level strategic policy context, within which the Catford Town Centre scheme has been developed:

Strategic policy context Policy/strategy	Relevance / key ambitions	Current situation without intervention	Contribution of this scheme
DfT Creating Growth Cutting Carbon (2011)	This policy illustrates how increasing the uptake of active modes and the attractiveness of public transport modes can help with reducing carbon emissions from the transport sector. Achieving this, in parallel with other current and future initiatives, will make the sector, as a whole, more sustainable in the longer-term.	There are few active mode facilities in the Catford town centre area that meet current TfL and DfT standards, leading to their relative unattractiveness and low usage. The congestion on the major routes of A205 and A21 also worsens journey times for bus users (buses represent the major public transport mode in the area) and worsens the attractiveness of buses for those currently using the private car who need to switch to sustainable modes to reduce carbon and achieve net zero.	The scheme contributes by improving the walking and cycling facilities in Catford town centre, including cycleways on both of the main routes of A21 and A205, encouraging the transfer of trips towards active modes. For bus passengers, bus priority will be incorporated in the town centre proposals and signal timings will be optimised to support journey times for this key sustainable mode.
DfT Transport Investment Strategy (2017)	The key applicable objectives of this strategy are, as follows: - Create a more reliable, less congested, and better-connected transport network that works for its users; - Build a stronger, more balanced, economy by enhancing productivity and responding to local growth priorities; Enhance our global competitiveness by making Britain a more attractive place to trade and invest; - Support the creation of new housing.	- As above, regarding A205 and A21 congestion and the effect on the bus mode; - Slow pace of new housing indicated under Section 2.2.9.	The scheme will deliver a revised road layout for Catford town centre, to reduce levels of congestion through the area and enable the development of a more attractive town centre, encouraging investment in new housing and bringing jobs to the area. This will support economic development in the area, aligned to local priorities, whilst ensuring that the South Circular (A205), A21 and local bus services are reliable for its users. NB These objectives are further distilled via the Major Road Network (MRN) programme, which was firstly proposed by the publication of this strategy. This scheme is being proposed in support of the MRN programme. Please see

Strategic policy context Policy/strategy	Relevance / key ambitions	Current situation without intervention	Contribution of this scheme
			Section 4.2.4 on how this scheme meets the MRN objectives.
25 Year Environmental Plan (2018)	The applicable policy areas from this plan are as follows: - Embedding environmental net gain principle for development (already translated to National Planning Policy Framework (NPPF) requirements on mandatory net gain levels); - Putting in place more sustainable drainage systems (from Chapter 1: Using and managing land sustainably); - Increasing green infrastructure and planting more trees in and around our town and cities (from Chapter 3: Connecting people with the environment to improve health and wellbeing); - Reducing (air) pollution (from Chapter 4: Increasing resource efficiency and reducing pollution and waste); - Tackling climate change and enhancing sustainability (from Chapter 6: Protecting and improving our global environment).	Issues noted, include: - Existing biodiversity levels not enhanced; - No SuDs within the existing highway; - Little or no green infrastructure around Catford town centre; - Frequent congestion exacerbates the already poor air quality; - Catford area is at high climate risk, in that it has a high exposure to flood risk and high surface temperatures due to lack of canopy cover (see paragraphs 2.2.7.2 and 2.2.7.3).	The scheme will achieve biodiversity net gain, on-site, if possible, otherwise off-site via the nearest Environmental Trust. Details will be provided during future design stages and reported by the O/FBCs. The scheme aims to use SuDs as part of the future design, with consideration given especially to the more lightly trafficked surfaces, such as cycle lanes and footways. The scheme aims to plant more trees in and around the Catford town centre area and increase the amount of green infrastructure, improving the climate resilience of the area and reducing surface temperatures in simmer. The scheme aims to reduce congestion. Initial modelling results confirm improved journey times for buses and general traffic. Less idling traffic should translate into less tailpipe emission (to be proven via air quality modelling in the next stage), supporting other planned policies in the area, such as further ULEZ expansion and hybridisation/electrification of the TfL bus fleet, to yield positive air quality impacts.

Strategic policy context Policy/strategy	Relevance / key ambitions	Current situation without intervention	Contribution of this scheme
Gear Change – A bold vision for cycling and walking (2020)	The following are the key policy themes being promoted by the Gear Change policy paper: - Theme 1: Better streets for cycling and people; - Theme 2: Cycling at the heart of decision making; - Theme 3: Empowering and encouraging Local Authorities; - Theme 4: Enabling people to cycle and protecting them when they do.	There are few active mode facilities in the Catford town centre area that meet current TfL and DfT standards, acting as a disincentive to cycling and walking.	The scheme contributes by improving the walking and cycling facilities on the A21 and A205, bringing about a transformational level of change to the local road network, and encouraging development and regeneration of the town centre, making it a more enjoyable place to walk, cycle and spend time. Furthermore, the majority of the proposed new cycleways are segregated from motorised traffic and pedestrians, encouraging and enabling people to cycle and protecting them when they do.
DfT Decarbonising Transport – A Better, Greener Britain	Various themes are promoted by this policy paper. The most relevant theme is the promotion of active modes to encourage the associated health, social and environmental benefits. The funding source for these improvements is identical to that of Gear Change.	As above.	As above.
DfT Outcome Delivery Plan: 2021 to 2022 (2021)	The following are the priority outcomes arising from the delivery plan: - Improving connectivity across the UK and growing the economy by enhancing the transport network, on time and on budget;	Issues noted, include: - The link between the rail stations and the town centre is not attractive which inhibits connectivity between modes;	The scheme enhances the local area's connectivity by improving the ease of transfer between modes, especially from cycling to rail. The scheme design proposes alterations and new facilities in and around the town centre to reduce the causes of collisions, as well as ensuring no particular groups are disproportionately affected

Strategic policy context Policy/strategy	Relevance / key ambitions	Current situation without intervention	Contribution of this scheme
	- Building confidence in the transport network as the country recovers from COVID-19 and improving transport users' experience, ensuring that the network is safe, reliable, and inclusive; - Tackling climate change and improving air quality by decarbonising transport.	- High priority for road safety improvements due to the number of collisions in the local area; - Catford has good bus service connectivity, but congestion on the TLRN worsens journey times, and deters new users from switching modes away from the private car; - Little or no incentive to use active modes (especially cycling) due to the lack of facilities; - Poor air quality around the town centre, worsened by idling traffic in congested conditions.	(via Equality Impact Assessment [EqIA] and policy fit checks). Improved bus journey times and active mode facilities should further facilitate mode switch (to be proven by detailed strategic modelling in the O an FBC stages), and thus assist with reducing carbon emissions from transport. Air quality is expected to be improved from reduced instances of vehicular idling (TBC with air quality modelling).
Levelling Up the United Kingdom (2022)	Levelling Up objectives are: - Boost productivity, pay, jobs and living standards by growing the private sector, especially in those places where they are lagging; - Spread opportunities and improve public services, especially in those places where they are weakest;	Issues noted, include: - The number of jobs available in the Rushey Green ward lags behind the nearest comparable town centre area of Lewisham Central (6,400 vs 10,900 jobs, in 2015).[41] In the latest 2020 NOMIS's Business Register and Employment Survey, the number of jobs in Catford is shown to have fallen by 16% between	The scheme is a key enabler for the regeneration of Catford town centre, in that it provides an improved highway and physical environment, within which key development sites can benefit and realise their full potential. The regeneration which this scheme is critical to enabling will directly benefit residents of Rushey Green ward. The Catford Town Centre

[41] https://data.london.gov.uk/download/ward-profiles-and-atlas/a187b63e-bf4f-4449-b644-ab86a0a8569d/ward-profiles-excel-version.xls

Strategic policy context Policy/strategy	Relevance / key ambitions	Current situation without intervention	Contribution of this scheme
	- Restore a sense of community, local pride and belonging, especially in those places where they have been lost; - Empower local leaders and communities, especially in those places lacking local agency.	2015 and 2020, while remaining unchanged in Lewisham, increasing the gap between Catford and its near neighbour even further;[42] - Rushey Green residents face significant deprivation across a range of IMD factors, as set out under Section 2.1.1; - Lack of opportunities are exacerbated by outdated and limited commercial and shopping facilities in the town centre area.	Framework outlined[43] the following themes to address the deprivation currently experienced: - Provide high-quality affordable housing to reduce access and service barriers; - Encourage uptake of sustainable travel modes to improve air quality; - Incorporate measures to create a safe street environment; - Provide play space and childcare facilities as part of the future design process; - Create urban designs which support a reduction in crime and anti-social behaviour as part of the future design process; - Provide new commercial floor space to attract new employment to the area (combined with local training opportunities to benefit local residents and improve their quality of life).

Table 3-2: Catford Town Centre scheme alignment with national policies.

[42] As informed by the NOMIS Business Register and Employment Survey, by choosing 2019 electoral wards (*Lewisham Central, E05000448* and *Rushey Green, E05000451*, then the dates of *2020* and *2015*, Employment Status of *Employment* only, no industrial breakdown, Percent on *Count only*. Downloaded statistics from these filters are available as a Microsoft Excel file under Appendix A03(2).

[43] https://lewisham.gov.uk/-/media/catford-town-centre-framework.ashx, page 24.

3.3 Scheme relevance to regional policies

3.3.1 The A205 scheme also aligns closely with the regional and local policy aims of the GLA, TfL and LBL. Table 3-3, below, details the context of London-wide strategic policies and how the Catford Town Centre scheme aims to meet them:

Regional policy context Policy/strategy	Relevance / key ambitions	Current situation without intervention	Contribution of this scheme
London Plan (2021)	The London Plan is the strategic guide for London, setting out an economic, environmental, transport and social framework for development. To ensure that London's growth is Good Growth, each of the policy areas in the new London Plan is informed by the six Good Growth objectives: - GG1 - Building strong and inclusive communities; - GG2 - Making the best use of land; - GG3 - Creating a healthy city; - GG4 - Delivering the homes Londoners need; - GG5 - Growing a good economy;	Issues noted, include: 1. Sub-optimal and short-term use of some public (LBL-owned) land parcels; 2. Existing highway and area layout, as well as the current facilities, do not fully meet Healthy Streets requirements (see MTS alignment, overleaf); 3. Slower rate of development for new homes when compared with comparable areas e.g., Lewisham Gateway.	1. GG1 - The scheme promotes the development of Catford town centre, underlining the crucial role town centres have in the social, civic, cultural, and economic lives of Londoners; 2. GG2 - The scheme will enable development of brownfield public land in an opportunity area within a town centre, which is well connected by public transport; 3. GG3 - The scheme, and the wider development, will use the Healthy Streets Approach[44] to prioritise health in the urban design; 4. GG4 - Improving the access to private sector-owned sites, such as Plassy Island, and transforming the town centre's urban environment will improve developer confidence to invest in the area with further new homes, and will encourage those new homes to be well-linked into the public realm;

[44] https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/healthy-streets

Regional policy context Policy/strategy	Relevance / key ambitions	Current situation without intervention	Contribution of this scheme
	- GG6 - Increasing efficiency and resilience.		5. GG5 - The scheme provides the catalyst to redevelop the wider LBL-owned portfolio, within which significant commercial, retail and food and beverage space is proposed; 6. GG6 - The scheme will reduce congestion, thereby improving efficiency of the local transport network. Its design supports LBL's aspiration to be carbon neutral by 2030 [45] (this requires that buildings and infrastructure be designed to adapt to a changing climate, thereby reducing impacts from natural hazards). It is planned to incorporate additional planting and sustainable drainage to support resilience to natural
The Mayor's Transport Strategy (MTS)	The MTS sets out how walking, cycling, and using public transport in London can be improved. The strategy has three main objectives: 1. Healthy Streets and healthy people (in road safety terms); 2. A good public transport experience; 3. New homes and jobs.	Issues noted, include: 1. Existing highway and area layout, as well as the current facilities, do not meet Healthy Streets requirements; see Appendix A08; 2. Connectivity is good, as existing bus and rail services reach multiple locations, far and near. However, inter-mode connectivity could be improved. Frequent congestion on	The proposed layout scored more highly than the existing situation when assessed using the Healthy Streets Toolkit; see Appendix A08. The scheme design provides safety improvements that reduce the likelihood of all collisions and therefore assist with achieving the safety targets associated with the Mayor's Vision Zero. The scheme's proposed improvements to bus journey times and facilities (upgraded bus stops and real-time travel information), as well as

[45] https://lewisham.gov.uk/myservices/environment/making-the-borough-carbon-neutral-by-2030-climate-emergency-declaration

Regional policy context Policy/strategy	Relevance / key ambitions	Current situation without intervention	Contribution of this scheme
		the TLRN makes the bus mode subjectively less attractive; 3. Slower rate of development for new homes, when compared with other similar areas e.g., Lewisham Gateway + lower availability of jobs within the Rushey Green ward.	improved access to the NR stations, all contribute towards an enhanced public transport experience. This scheme will directly support the area's regeneration by improving the environs and unlocking further space for development, which in turn supports developer confidence and enabling growth.
The Mayor's Environment Strategy	The following chapters from the strategy (with specific objectives listed) are applicable: 1. Chapter 4 on Air Quality (Objective 4.1: Reduce poor air quality exposure for the most disadvantaged, Objective 4.2: Achieve compliance with existing statutory limits on air quality, Objective 4.3: Tighten the limits during transition to net zero, by 2050); 2. Chapter 5 on Green Infrastructure (Objective 5.1: Make more than half of London's area green by 2050, Objective 5.2: Conserve and enhance wildlife and natural habitats, Objective 5.3: Value London's natural capital as an economic asset and support greater	Issues noted, include: 1. Regular exceedances over and above current statutory limits on Air Quality continue in the Catford town centre area, especially at congestion hotspots; 2. Higher than average surface temperatures, due to the lack of greening and canopy cover, continue in the Catford town centre area; 3. High climate risk due to a lack of capacity to deal with high-impact events, such as 1 in 50 year or beyond floods;	The scheme aims to reduce congestion for all traffic. Initial modelling results suggest a slight easing of congestion in the form of improved journey times for both buses and general traffic; less idling traffic should translate into less tailpipe and particulate emissions (to be proven via Air Quality modelling). Other associated TfL policies, such as the proposed further ULEZ expansion and hybridisation / electrification of the TfL bus fleet, are likely to achieve even greater positive impacts. The scheme aims to plant more trees in and around the Catford town centre area and increases the amount of green infrastructure, improving the climate resilience of the area and reducing surface temperatures. The scheme aims to secure biodiversity net-gain of the area via both on-site and off-site measures. Improved bus journey times and active mode facilities should further facilitate mode switch (to be

Regional policy context Policy/strategy	Relevance / key ambitions	Current situation without intervention	Contribution of this scheme
	investment into green infrastructure); 3. Chapter 6 on Energy Use (Objective 6.3: A zero-emission transport network, by 2050); 4. Chapter 8 on Adapting to Climate Change (Objective 8.1: Manage risks and impacts to critical infrastructure arising from severe weather and climate change events, Objective 8.2: Reduce risks and impacts to London arising from flooding, Objective 8.3: Improved preparation for extreme heat events).		proven by detailed strategic modelling in the O an FBC stages), and thus assist with reducing carbon emissions from Transport. The scheme will consider the use of SuDs as part of the future design, especially over the more lightly trafficked surfaces, such as cycle lanes and footways. Use of SuDs could also potentially offer additional flood storage volumes to the nearby River Ravensbourne, and thereby increase the climate resilience of the area.
The Mayor's Economic Development Strategy	The following policies from the strategy are applicable: 1. Policy 3: A lower cost of living (references to the London Plan and Mayor's Housing Strategy, as well as promotion of active travel choices); 2. Policy 6: Inclusive and safe communities (new projects to better promote inclusive design principles and reduce social division, plus projects that result	Issues noted, include: 1. A continued lack of good quality affordable housing; 2. The town centre area continues to be severed and without up-to-date facilities that improve accessibility and safety (as some of the key aspects of inclusivity); 3. A continued lack of dedicated facilities for the active mode, with	As the scheme aids the area's regeneration, the amount of affordable housing post-regeneration should also increase and enable residents on lower incomes to stay in the area. Please also refer to earlier comments against the London Plan, The Mayor's Transport and Environmental Strategies.

Regional policy context Policy/strategy	Relevance / key ambitions	Current situation without intervention	Contribution of this scheme
	in tangible improvements to quality of life as well as catering to London's diverse and changing population); 3. Policy 8: Transport (references to Mayor's Transport Strategy); 4. Policy 9: Infrastructure (references to Mayor's Environmental Strategy).	associated downsides for health, sustainable growth and rebalancing; 4. A continued lack of environmental improvements that reduce the area's climate resilience.	

Table 3-3: Alignment of the Catford Town Centre scheme to regional policies.

3.4 Scheme relevance to local policies

3.4.1 Table 3-4, below, details the context of LB Lewisham's local policies and how the Catford Town Centre scheme aims to meet them:

LBL Policy/Strategy	Relevance/Key Ambitions	Current situation without intervention	Contribution of this scheme
Lewisham new Local Plan	The new local plan will set out a long-term strategy for development, from 2020 to 2040.	Slower rate of development for new homes and jobs, when compared with comparable areas e.g. Lewisham Gateway.	The proposed scheme supports the policy goals. The Sustainable transport and movement policy, TR1, states "The integration of land use and transport, along with an effective public transport network, are essential to delivering inclusive, healthy, liveable, walkable and sustainable neighbourhoods in Lewisham". The A205 is a strategic transport intervention and "the council will work positively and in partnership with stakeholders to secure improvements".
Catford Town Centre Framework	The long-term vision is to guide development in the town centre over the next couple of decades – by creating an accessible place for everyone. The framework has three overarching objectives: • Transforming Catford into a green town centre; • Making Catford an accessible and connected place for all;	The current layout will not support the key objectives of the framework. For example, it is difficult to bring forward the proposed developments of the Civic Centre and the Laurence House in unison (and treating them as one single site) if the A205 isn't realigned. Another example is the lack of active mode travel choices due to a severe lack of highway space. Commercial viability issues also inhibit achievement of greater housing development and 50% affordable homes.	The strategic intervention at the A205 South Circular, and partial removal of Catford gyratory, are central to the vision of the Framework. The Framework sets out the council's regeneration aspirations, including the delivery of 2,700 homes alongside new commercial space, enhancing residents' sense of civic pride and creating community spaces. The road scheme supports the delivery of greenery to the town centre and increases active and sustainable travel opportunities.

LBL Policy/Strategy	Relevance/Key Ambitions	Current situation without intervention	Contribution of this scheme
	• Making Catford a vibrant place to live, work and visit.		
Lewisham Air Quality Action Plan (AQAP)	The AQAP is a central component of the council's commitment to improving air quality in the borough and across London. It sets out the importance of working with TfL, residents, businesses, and other local stakeholders to achieve a range of improvements to the transport network and transform the way people travel.	Regular exceedances over and above current statutory limits on air quality continue in the Catford town centre area, especially at congestion hotspots.	Improvements to the scheme will support Lewisham's AQAP by encourage more trips to be made by walking, cycling, and public transport to reduce car use, in line with the Mayor of London's Transport Strategy. It will also raise awareness and implement a range of mitigations to reduce personal exposure to poor air quality, in compliance with the coroner's recommendations: Ella Adoo-Kissi-Debrah Inquest and the Prevention of Future Deaths report.
Lewisham Transport Strategy and Local Implementation Plan 2019-2041	The main priorities are to minimise emissions from new developments, expand sustainable transport infrastructure, raise public awareness of air pollution and work with GLA and other London boroughs. The relevant longer-term projects listed below: • Expansion of the Ultra-Low Emission Zone (ULEZ) to encompass the entire borough (or strengthening of existing LEZ standards);	No improvements to sustainable modes (public transport, walking and cycling).	The roads covered by the scheme form the boundary of the recently expanded ULEZ. The scheme will contribute to the transport strategy by encouraging more trips by walking, cycling, or using public transport to reduce car use, in line with the Mayor of London's Transport Strategy. The scheme will deliver a section of the Lewisham Spine, from Patrol Place to just south of Sangley Road, as Rushey Green transits to Bromley Road. It will also deliver segregated cycling facilities east-west from Catford Bridge NR station to the junction of Plassy Road and Sangley Road.

LBL Policy/Strategy	Relevance/Key Ambitions	Current situation without intervention	Contribution of this scheme
	• The Lewisham Spine (A21 Healthy Streets Corridor), including Cycle Superhighway standard facilities, low emission bus zone, healthy streets improvements with piazza-type environments; • Catford Regeneration Masterplan will include rerouting the South Circular Road to provide more pedestrian space and improvements to transport infrastructure.		

Table 3-4: Alignment of the Catford Town Centre scheme with local policies.

3.5 Scheme (MRN and scheme's own local) objectives

3.5.1 MRN objectives

3.5.1.1 In December 2018, the Government announced the creation of a Major Road Network (MRN), forming the middle tier of the country's busiest and most economically active roads, between the national Strategic Road Network (SRN) and local road networks. This included a funding stream dedicated to improvements on MRN roads, alongside an associated set of MRN objectives.

3.5.1.2 The five central MRN objectives, and their assessment criteria, are defined as [46]:

Objective	Criteria
1: Reduce congestion.	Alleviate congestion.
	Take account for impacts on air quality, biodiversity, noise, flood risk, water quality, landscape and cultural heritage sites.
2: Support economic growth and rebalancing.	Support regional strategic goals to boost economic growth.
	Improve ability to access new or existing employment sites.
	Improve international connectivity, for example access to ports and airports.
3: Support housing delivery.	Support the creation of new housing developments by improving access to future development sites and boosting suitable land capacity.
4: Support all road users.	Deliver benefits for public transport and non-motorised users, including cyclists, pedestrians and disabled people.
	Safety benefits: Ability to reduce the risk of deaths/serious injuries for all users of the MRN.
5: Support the SRN.	Improve end-to-end journey times across both networks.
	Improve journey time reliability.
	Improve SRN resilience.

Table 3-5: MRN objectives

3.5.1.3 In January 2022, the Department for Transport indicated that 'Active travel and bus improvements are issues that have grown in [national] importance and any opportunities to promote these in major schemes should be reflected, where possible'.

3.5.1.4 Active travel and buses are at the heart of the Mayor's Transport Strategy, and TfL has a mature and well-established approach to developing major schemes with high-quality facilities for walking, cycling and public transport. Therefore, developing a scheme that meets London-wide strategies and design guidance will also achieve national expectations around sustainable modes.

3.5.2 Local scheme objectives

3.5.2.1 Six scheme objectives have been defined, aligning with: the London Mayor's policies; TfL's own objectives; and LB Lewisham's policies and strategies, including the

[46] https://www.gov.uk/government/publications/major-road-network-and-large-local-majors-programmes-investment-planning/major-road-network-and-large-local-majors-programmes-investment-planning-guidance#mrn-objectives, Section 2

Catford Town Centre Framework (provided under Appendix A03(1), and further discussed under paragraph 2.2.9.5). These are:

1) Optimise the allocation of road space, protecting bus journey times and reliability through the town centre;

2) Improve safety for vulnerable road users by providing increased and improved crossing points and segregated cycle routes;

3) Increase active travel by providing segregated cycle provision, improved way-finding and improved walking & cycling links;

4) Provide a new public space in the town centre by rerouting the A205 behind Laurence House, improving the attractiveness of the town centre;

5) Improve town centre air quality by moving the A205, reducing NO_x and PM_{10} impacts and improve local climate change resilience;

6) Promote growth, and support the viability of development proposals, by removing severance between Laurence House and the town centre.

3.5.2.2 There is a strong alignment and synergy between these local scheme objectives and the MRN objectives, as set out in Table 3-6, below, meaning that when options were assessed for compliance with the six scheme objectives, they were highly compatible with the overarching MRN aims:

Scheme objective	MRN objectives				
	1: Reducing congestion	**2:** Support economic growth & rebalancing	**3:** Support housing delivery	**4:** Supporting all road users	**5:** Supporting the SRN
1: Optimise the allocation of road space, protecting bus journey times and reliability through the town centre.	Y			Y	Y
2: Improve safety for vulnerable road users by providing increased and improved crossing points and segregated cycle routes				Y	Y
3: Increase active travel by providing segregated cycle provision, improved way-finding and improved walking & cycling links.	Y			Y	
4: Provide a new public space in the town centre by rerouting the A205 behind Laurence House, improving the attractiveness of the town centre.		Y	Y		
5: Improve town centre air quality by moving the A205, reducing NO_x and PM_{10} impacts and improve local climate change resilience.	Y			Y	
6: Promote growth and support the viability of development proposals by removing severance between Laurence House and the town centre.		Y	Y		

Table 3-6: Alignment between scheme objectives and MRN objectives.

3.5.3. "SMART" objectives

3.5.3.1 Table 3-7, shown overleaf, is taken from the scheme's Benefits Plan, provided under Appendix A04. It details how each of the scheme objectives are to be achieved, and

associated Mayor's Transport Strategy (MTS) Outcomes[47] and ways in which these can become SMART.

[47] MTS Outcomes are defined in three main categories of improved area outcomes for London, of 1) *Healthy Streets and Healthy People,* 2) *A Good Public Transport Experience* and c) *New Homes and Jobs*. Each of these categories are further broken down into ten individual outcomes of *Active*, *Safe*, *Efficient*, *Green*, *Connected*, *Accessible*, *Quality*, *Good Growth* and *Unlocking*. These individual outcomes are described on Figure E2 on page 7 of the Mayor's Transport Strategy Outcomes Summary Report.

Scheme objective + relevant MRN objectives and MTS outcomes	Benefit description & expected beneficiaries	Measure	Relevant datasets	Potential timing of monitoring and evaluation	Impact ascertained vs objective target	Relevant stakeholder groups
Objective 1: Optimise the allocation of road space, protecting bus journey times and reliability through the town centre. MRN Objectives: 1 - Reducing congestion; 4 - Supporting all road users; 5 - Supporting the SRN. MTS Outcomes: Quality, Connected, and Accessible PT (Public Transport); Mode Share (ensuring 80% of all trips are made by walking, cycling and public transport modes by 2041).	• Existing journey times maintained or improved, where possible and increased reliability plus quality of bus service; • Increased bus patronage. • Expected beneficiary for this benefit: Bus passengers	Pre- and post-scheme analysis of: • Bus speeds; • Bus delays: • Bus Excess Wait Time (EWT); • Passenger counts; • Numbers of disabled passengers; • Number of people using bus stops.	• TfL iBus data; • Bus Origin and Destination (BODs) data for buses using Oyster card and ticketing information.	Pre-delivery: Data representing peak and off-peak periods before construction commences. Post-delivery: Comparative data post-construction.	Predicted 2026 Do-something bus journey times from VISSIM to decrease by -8% for the AM peak and increase by 3% for the PM peak, on average. Whilst TfL has proposed to use a different bus-centric strategic model (Railplan - see Appendix B09(1) from the Economic Case) to better reflect demand-side changes for the OBC, the measurement of journey times is likely to remain with VISSIM - TBC during the course of the OBC. Bus reliability: To be agreed with the TfL Bus Client Team during future design stages / OBC. 15 bus routes currently cross the area. As a minimum, current journey time performance standard deviations should be maintained; some routes are expected to have such deviations reduced.	TfL Bus Client Team: To act as the lead representative for TfL's bus modal function. All bus journey time predictions and means of protecting and/or improving those are to be agreed with this team. TfL Network Performance Directorate: To act as first-line technical assurance by ensuring the journey time prediction methodology is credible and can be readily realised.
Objective 2: Improve safety for vulnerable road users by providing increased and improved crossing points and segregated cycle routes. MRN Objectives: 2 – Supporting economic growth and rebalancing; 4 - Supporting all road users; 5 - Supporting the SRN. MTS Outcomes: Safe.	• Reduced levels and severity of collisions; • Improved perception of road safety. • Expected beneficiaries for this benefit: Vulnerable road users, such as walking and cycling modes.	Pre- and post-scheme analysis of: • Total accidents and casualties (KSIs) statistics; • Pedestrian and cyclist satisfaction.	• TfL collisions data; • Stage 4 Road Safety Audit to be carried out; • Bespoke commissioned satisfaction surveys using standard TfL methodology.	Pre-delivery: Analysis of data across at least 3 years before construction; Post-delivery: Analysis of data across at least 3 years after construction.	Current analysis predicts a reduction of 1.80 collisions per annum.	TfL Road Safety Team: To act as second-line technical advisory on how best to achieve optimal collision savings without being unconservative. Local community and user groups: To act as official consultees on the scheme proposals. Any applicable feedback will be considered in the design development post-consultation.

Scheme objective + relevant MRN objectives and MTS outcomes	Benefit description & expected beneficiaries	Measure	Relevant datasets	Potential timing of monitoring and evaluation	Impact ascertained vs objective target	Relevant stakeholder groups
Objective 3: Increase active travel by providing segregated cycle provision, improved way-finding and improved walking & cycling links. MRN Objectives: 1 - Reducing congestion 4 - Supporting all road users MTS Outcomes: Active; Green.	• Increased levels of walking and cycling for trips to, from, and through Catford town centre. • Expected beneficiaries for this benefit: Active modes, such as walking and cycling.	Pre- and post-scheme analysis of: • Public transport accessibility; • Travel time statistics; • Pedestrian modelling; • Pedestrian flows; • Pedestrian and cyclist satisfaction.	• Bespoke commissioned surveys using standard TfL methodology.	Pre-delivery: Data representing peak and off-peak periods before construction commences. Post-delivery: Comparative data post-construction.	Walking - Increased footfall at key locations: Method shown by Appendix B12(3) shows an averaged induced growth of 304 trips, or 7.7% over the 2019 base of 3,921 trips due to background population growth; hence, it is likely to be conservative and TfL will ascertain at the start of OBC how best to further reflect Do-something effects. NB induced walking trip active benefits have not been included in the CBA at this juncture, due to a need to understand more about their prior travel behaviour. Cycling - Increased flows at key locations: Cynemon modelling results from Appendix B09(4) and (5) show an induced growth of 135 cyclists, over the average base usage of 4237 cyclists due to the scheme intervention. The Cynemon models are based on older growth assumptions and thus will be fully updated and re-reported upon for the OBC. The agreed target of active mode share increase is to be confirmed at the OBC stage.	TfL Outcomes and Benefits and City Planning Teams: To act as TfL's future work pipeline check and to ensure any future work (e.g. the A21 Lewisham Spine proposals) is compatible with the current proposals and will attract more users to take up active travel. TfL Strategic Analysis Team to offer first-line advisory on the modelling outcomes that can predict on the likely uplifted usage levels (such as that from cycling) due the scheme intervention. Local community and user groups: To act as official consultees on the scheme proposals. Any applicable feedback will be considered in the design development post-consultation.

Scheme objective + relevant MRN objectives and MTS outcomes	Benefit description & expected beneficiaries	Measure	Relevant datasets	Potential timing of monitoring and evaluation	Impact ascertained vs objective target	Relevant stakeholder groups
Objective 4: Provide a new public space in the town centre by rerouting the A205 behind Laurence House, improving the attractiveness of the town centre. MRN Objectives: 2 - Support economic growth and rebalancing; 3 - Support housing delivery. MTS Outcomes: Active, and Good Growth.	• Improved quality of public space in town centre, and reduced perception of adverse impacts of road traffic. • Expected beneficiaries for this benefit: Active modes through the town centre, and LBL generally from delivering a public space that is Local Plan-compliant.	Pre- and post-scheme analysis of: • PERS (Pedestrian Environment Review Study) audit; • Pedestrian satisfaction survey; • Provision of trees and benches.	• Infrastructure and user satisfaction surveys using standard TfL methodology.	Pre- and post-delivery surveys / audits.	The objective target of delivering a public space can be achieved by the A205 realignment and should not require a specific means of measure. The fashion in which this new public space is realised, and its associated wider benefits can be measured against with the associated MTS outcomes. This will be covered by the emerging Benefits Management Strategy, current live version provided under Appendix A04. The area of public space created by the A205 re-alignment is approximately 4,000 m^2; this quantum is to be updated in future design stages. It is of course just as, if not more important to assess the effects arising from the creation of this public space.	LB Lewisham: To provide specialist input into the urban design process (to be called-off by TfL), such as Arboriculture and Planning on how best to achieve the borough's vision of the new public space; all other relevant functional stakeholders within the borough will be similarly consulted to ensure their inputs are had and valid requirements met (and explained if not, with mitigation where required). Local community and user groups: To act as official consultees on the scheme proposals. Any applicable feedback will be considered in the design development post-consultation.
Objective 5: Improve town centre air quality by moving the A205, reducing NOx and PM_{10} impacts and improve local climate change resilience. MRN Objectives: 1 - Reducing congestion; 4 - Supporting all road users. MTS Outcomes: Active, and Good Growth.	• Improved air quality for the local environment; • Improved climate resilience for the local area. • Expected beneficiaries for this benefit: Active modes through the town centre.	Pre- and post-scheme analysis of: • Observed and forecast pollutant levels and limit level exceedances.	• London Atmospheric Emissions Inventory (LAEI) modelling using key road traffic data and assumptions.	Pre-delivery: Data representing peak and off-peak periods before construction commences Post-delivery: Comparative data post-construction.	As no quantitative modelling has been carried out for the SOBC, further analysis will be considered during the OBC / concept design stage. Assessment will be made of climate change resilience in the post-delivery state based on the successful delivery of new infrastructure, for instance the presence of SuDs.	LB Lewisham: To provide baseline air quality data and specialist input (if LBL has any) into possible mitigation measures. Other specialists outside of TfL and LBL: To provide specialist input into possible mitigation measures. Local community and user groups: To act as official consultees on the scheme proposals. Any applicable feedback will be considered in the design development post-consultation.

Scheme objective + relevant MRN objectives and MTS outcomes	Benefit description & expected beneficiaries	Measure	Relevant datasets	Potential timing of monitoring and evaluation	Impact ascertained vs objective target	Relevant stakeholder groups
Objective 6: Promote growth and support the viability of development proposals by removing severance between Laurence House and the town centre. MRN Objectives: 2 - Support economic growth and rebalancing; 3 - Support housing delivery. MTS Outcomes: Good Growth.	• Regeneration and housing and employment growth in the town centre and its immediate vicinity. • Expected beneficiaries for this benefit: Active modes through the town centre, and LBL generally from delivering a public space that is Local Plan-compliant.	Pre- and post-scheme analysis of: • Local Plan ambitions vs planning permissions and completions; • Town centre footfall; • Town centre retail and employment floorspace unit rates vs background trend in comparable locations.	• London Development Database; • Bespoke commissioned surveys; • Means of measuring employment and deprivation.	To be determined, could be monitored and evaluated for up to 5 years post-delivery.	The reduced severance is reflected by the Healthy Streets check, provided under Appendix A08 (Section 1). Specifically, Criterion 8, 9, 10 and 11 related to the ease, quality and number of crossings all scored higher under the do-something scenario when compared to the existing. The Healthy Streets check will be repeated during concept design / OBC to cater for any changes arising during the stage. The quantum of growth arising post-scheme will be measured against the agreed Local Plan.	The continuing partnership between TfL and LBL will ensure the delivery of this aspect whilst meeting the requirements of both parties.

Table 3-7: Scheme and MRN objectives, how they could be measured, and commentary on relevant targets, as applicable at this Business Case stage.

4 Options Generation

4.1 Options development

4.1.1 Overview of options and development process

4.1.1.1 There has been a longstanding ambition to make changes to the A205 in Catford town centre, in order to address the transport, economic and social challenges caused by this major road. Calls for change were first proposed by the Greater London Council (GLC) in the 1970s. TfL took control of the A205 and A21 roads in 2000 and has since progressed various studies to inform scheme development.

4.1.1.2 From 2009 to 2016, TfL and the London Borough of Lewisham (LBL) embarked upon a renewed effort to develop proposals for a transformational highways scheme at Catford. This resulted in a credible, mature set of design proposals that would achieve Mayoral, TfL and LBL objectives and commanded political support at Mayoral and borough levels. The case for the scheme was set out in a 2017 internal Strategic Business Case, and continued feasibility design throughout 2018 and 2019.

4.1.1.3 In 2019, the Department for Transport invited TfL to submit a list of schemes for consideration as part of the newly established Major Road Network fund. An assessment of eligible schemes on the MRN found a strong level of strategic fit with the scheme, which was at the feasibility design stage at the time.

4.1.1.4 The scheme was, therefore, included in TfL's July 2019 MRN programme submission to the Department for Transport, with the DfT indicating support in principle for the scheme, subject to development of a satisfactory business case, in line with MRN timescales.

4.1.1.5 This section sets out the design options developed in 2016 - 2017. Section 1.6 then sets out the options assessment that took place to identify the shortlist of options progressed to the feasibility stage, together with a new detailed assessment against both the MRN and scheme objectives, used to identify a single preferred option.

4.1.2 Overview of options and development process

4.1.2.1 During the work undertaken by TfL from 2016 to 2018, a long list of options was produced, comprising 8 options, plus a Do-nothing scenario.

4.1.2.2 As the scheme is situated in a built-up urban environment, with various physical and environmental constraints, these 8 options were essentially variations of the 3 main design approaches shown by Table 4-1:

Design approach	Summary	Design options identified	Indicative cost range (2017 prices)
1: Do-minimum	Local pedestrian and urban realm improvements along A205.	2 design options	£6m - 10m
2: Do-something (Gyratory removal)	Gyratory converted to two-way operation, with substantial elements of work beyond the highway boundary, plus potential improvements for active travel.	1 design option	c. £31m
3: Do-something (Gyratory removal and realignment of A205)	Realignment of A205 through Catford town centre, gyratory converted to two-way operation with substantial elements of work beyond the highway boundary, plus potential improvements for active travel.	5 design options	£36 - 42m

Table 4-1: Design approaches for Catford town centre.

4.1.2.3 The design approaches and specific design options are set out in further detail, below.

4.1.2.4 **Design approach 1:** Do-minimum (Local pedestrian and urban realm improvements along the A205)

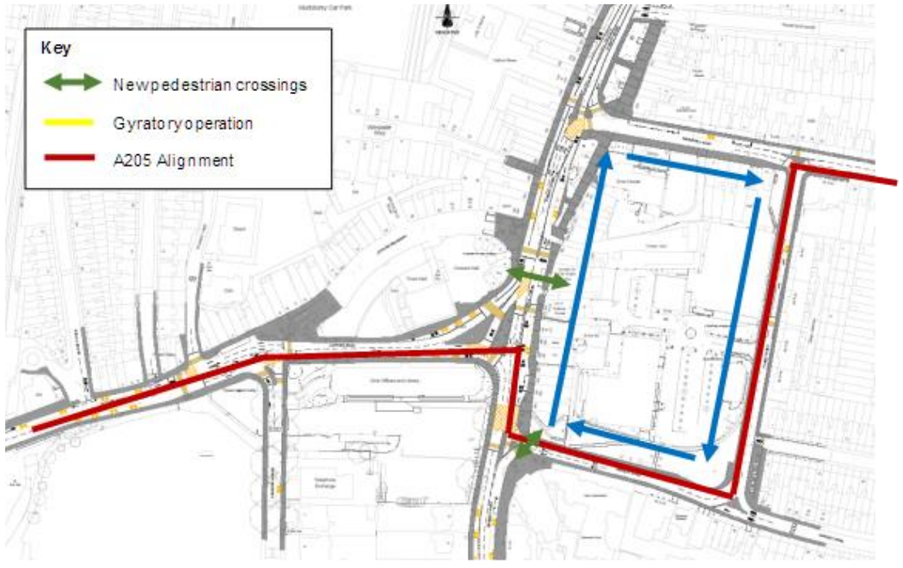


*Figure 4-1, **Do-minimum Option A**: Gyratory & highway alignment retained, with revised pedestrian crossings, new public space & enhanced streetscape along A205.*

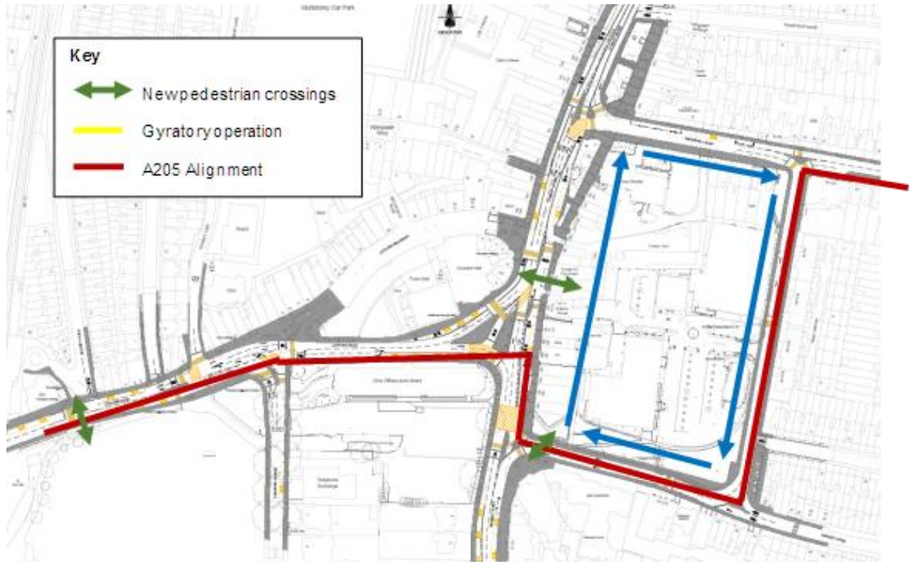


*Figure 4-2, **Do-minimum Option B**: Gyratory & highway alignment retained with revised pedestrian crossings, including a new crossing at Catford Bridge station, new public space & enhanced streetscape along A205.*

4.1.2.5 **Design Approach 2:** Gyratory removal (Gyratory converted to two-way operation with substantial elements of work beyond highway boundary, active travel improvements)

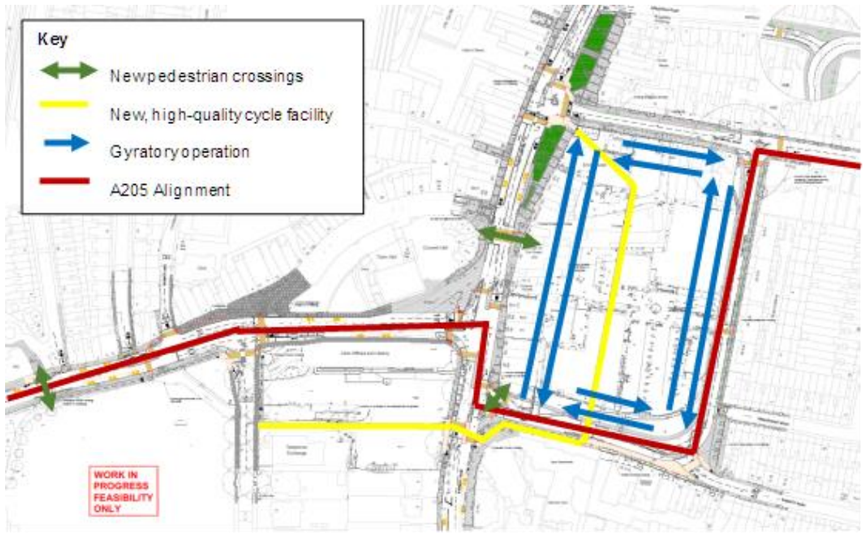


*Figure 4-3, **Hybrid Option A**: Gyratory removal, with provision of new pedestrian crossings (highlighted in green) and high-quality cycle facilities (highlighted in yellow). Gyratory operation shown in blue.*

4.1.2.6 **Design approach 3:** Gyratory removal and A205 realignment (Realignment of A205, gyratory converted to two-way operation with substantial elements of work beyond highway boundary, active travel improvements)

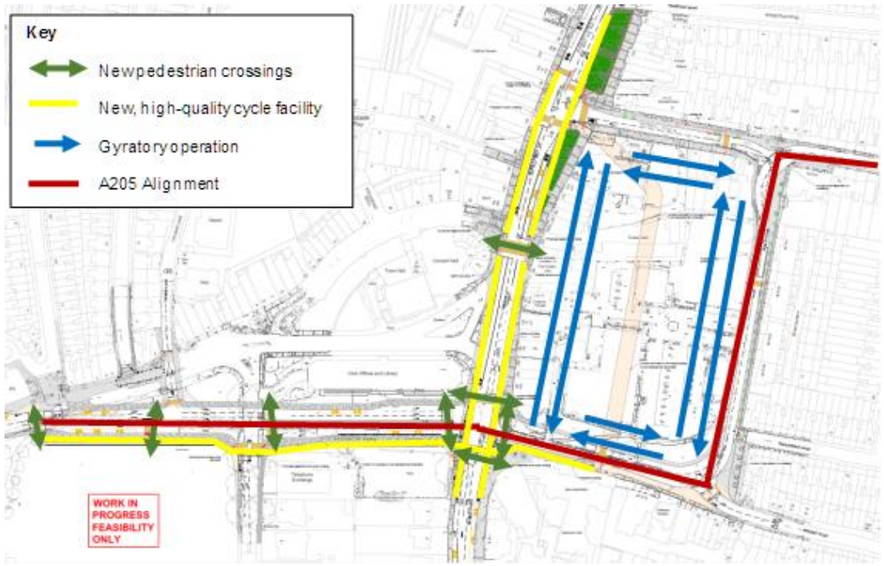


*Figure 4-4, **Hybrid Option B**: A205 realigned south of Laurence House and gyratory removal, with new pedestrian crossings and high-quality cycle facilities.*

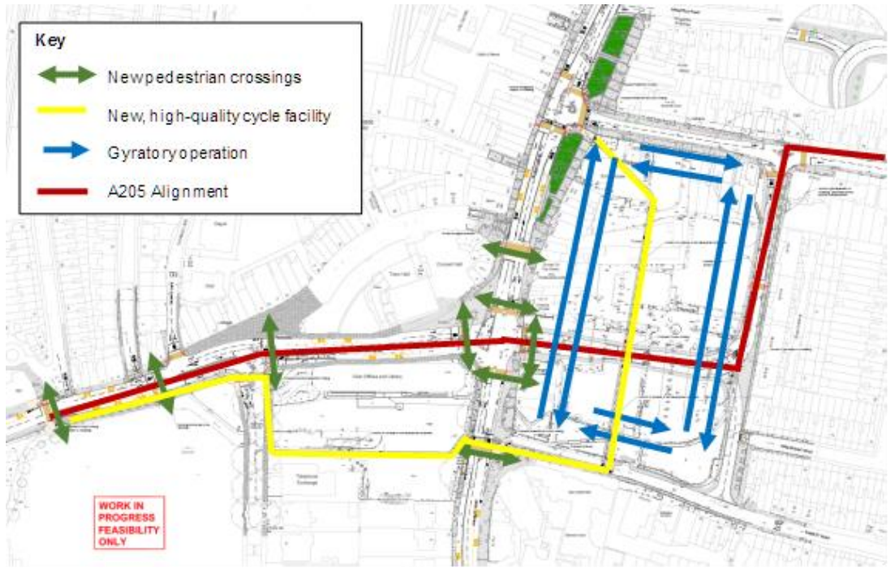
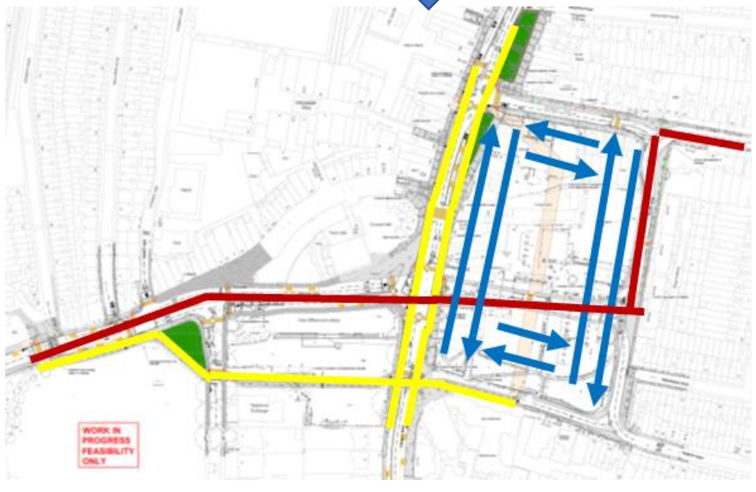
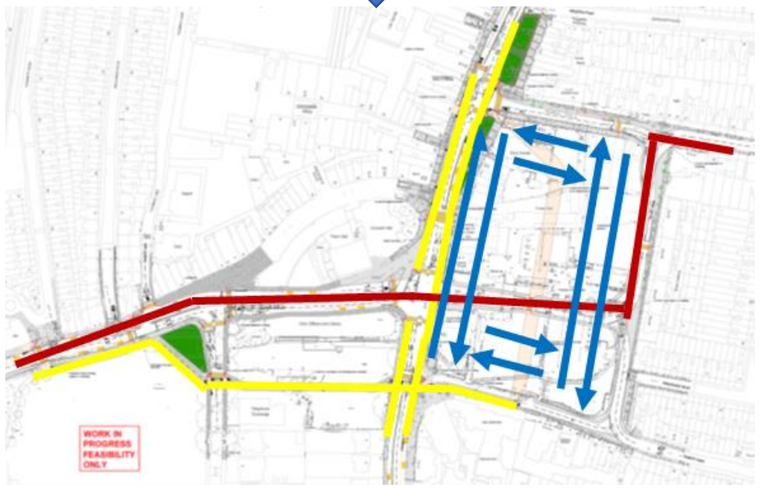
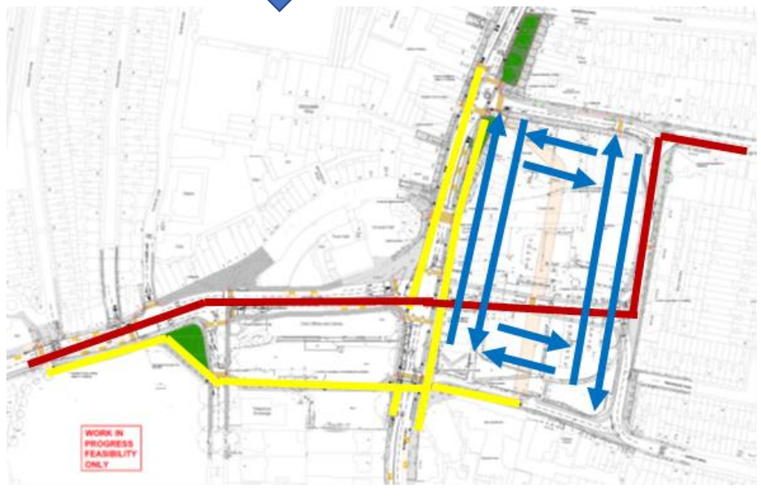


*Figure 4-5, **Hybrid Option C**: A205 realigned through Plassy Island and gyratory removal, with new pedestrian crossings and high-quality cycle facilities including part-pedestrianisation of Sangley Road.*







Figures 4-6, 4-7 and 4-8, Hybrid Options D, E and F: These are all design variations on Hybrid Option C, with differing configurations of high-quality cycling facilities. Pedestrian crossings (not shown) and other features are as in Hybrid Option C, above.

4.1.2.7 The key design differences between these options are summarised by Table 4-2, below:

Design approach 1 (Do-minimum Options A & B)			
	Retained?	**Revised?**	**New?**
Gyratory	Yes		
Highway alignment (A205)	Yes		
Pedestrian Crossings			Yes
Cycle facilities	Yes		
Public space		Yes	
Design approach 2 (Hybrid Option A)			
	Retained?	**Revised?**	**New?**
Gyratory		Two-way operation introduced	
Highway alignment (A205)	Yes		
Pedestrian Crossings			Yes
Cycle facilities			Yes
Public space		Yes	
Design approach 3 (Hybrid Options B, C, D, E, and F)			
	Retained?	**Revised?**	**New?**
Gyratory		Two-way operation introduced	
Highway alignment (A205)			Yes
Pedestrian Crossings			Yes
Cycle facilities			Yes
Public space			Yes

Table 4-2: Summary of key design differences in the 3 main design approaches.

4.1.2.8 In addition to these design options, a bus-focused option ("Hybrid Option B2") was briefly considered at an early stage of scheme development but was summarily discarded after December 2017 as the scheme moved from the Outcome Definition Stage into the Feasibility Design Stage, because of significant modal imbalance and a clear lack of fit with the scheme objectives. It was therefore not considered in the assessment below.

4.2 Options assessment

4.2.1 Overview of assessment process

4.2.1.1 These design approaches and design options have been subject to a range of assessments throughout the scheme lifecycle to date, alongside the Do-nothing case. Through this process, a preferred option has been identified:

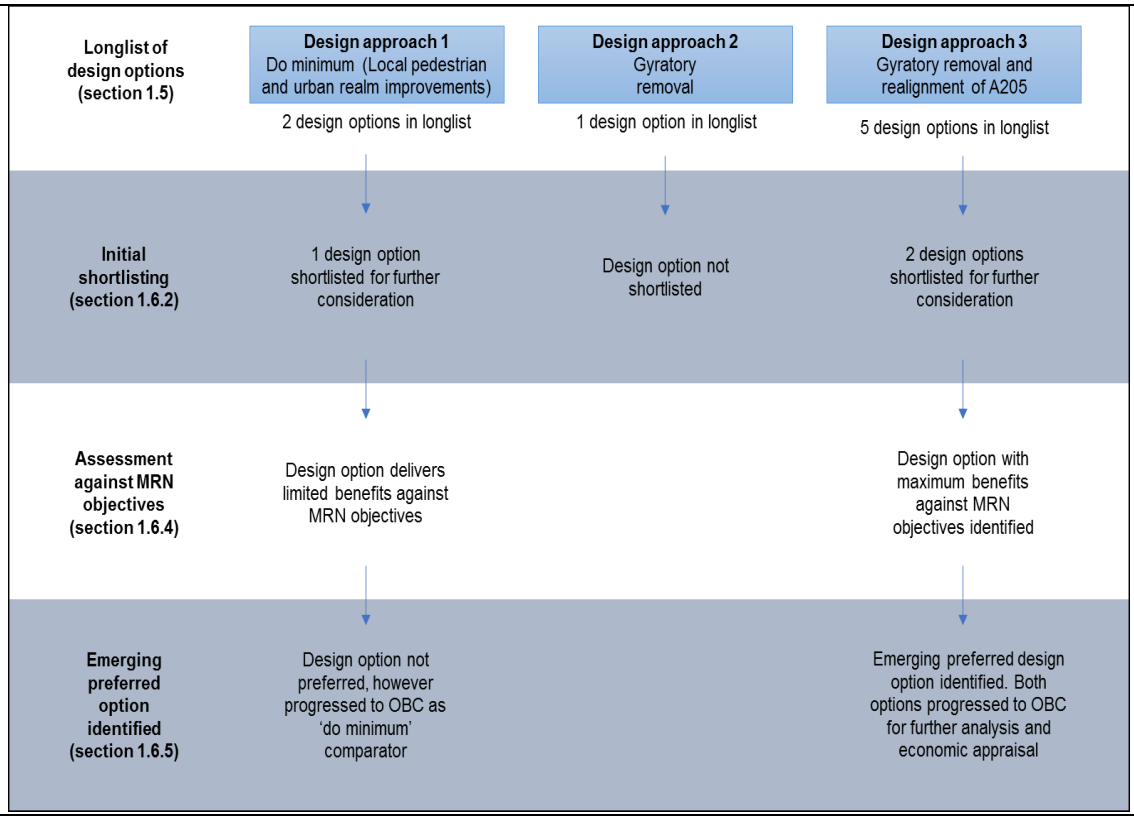


Table 4-3: Overview of assessment process.

4.2.2 Initial short-listing from long-list of options

4.2.2.1 To produce a shortlist of potential options, TfL used a qualitative scoring system using the Surface Transport (ST) Outcomes, composed of nine main criteria split into various sub-indicators:

Surface Transport outcomes	Potential indicators
Quality Bus Network.	Bus stops. Bus stands & driver facilities. Bus priority measures. Bus journey times. Bus journey time reliability.
Reliable Roads.	Principal user movements. Opportunities for revised street uses. Key junction degrees of saturation. General traffic journey times. Network resilience. Strategic road network use.
Improving the Environment.	Transformational place change. Traffic dominance. Town centre public realm space. Broadway Theatre public realm space. Green spaces.
More & Safer Cycling.	Town centre cycle facilities. On-highway segregated cycle routes. Connectivity to existing & planned cycle routes. Town centre cycle parking opportunities. Cyclist journey times.
Better Places to Walk.	Number of pedestrian crossing facilities. More straight-across crossings. Pedestrian crossing desire lines. Pedestrian journey times.
Reduced Casualties.	User conflict situations. Collision reductions e.g. KSI & Slight user collisions.
Sustainable Freight.	Town centre loading space provision. Freight & servicing journey times.
Quality Door to Door Transport.	Taxi stand provision. Door-to-door vehicle journey times.
Reduced Crime.	Town centre crime.

Table 4-4: TfL's Surface Transport (ST) Outcomes and their detailed criteria.

4.2.2.2 Schemes on the MRN which perform well against the Surface Transport Outcomes can be expected to perform well against the MRN Objectives, particularly Objectives 1 (Reducing congestion), 4 (Supporting all road users) and 5 (Supporting the SRN).

4.2.2.3 Estimated costs and deliverability challenges for each option were also considered alongside the Surface Transport Outcomes, including extensive consideration of land-take requirements for the emerging shortlist (see Section 4.2.3, below). The scoring details are described, in detail, in Appendix A05 and the total scores are shown in Table 4-5 on page 92.

4.2.2.4 Based on this assessment, Design Approach 2 (Gyratory removal) was ruled out, due to its relatively low score compared to other options. In addition, Design

Approach 1 (Do minimum) was narrowed down to 1 design option for further consideration, and Design Approach 3 (Gyratory removal and realignment of A205) was narrowed down to 2 design options for further consideration.

4.2.2.5 Therefore, at the end of this assessment, four options were shortlisted for further consideration: **Do-nothing Option**, **Do-minimum Option A**, **Hybrid Options B** and **Hybrid Option C**. An internal Strategic Business Case (SBC) was developed in 2017 based on these options; a copy is provided under Appendix A06. The SBC included consideration of a potential bus-focused option, which was quickly discounted as per para 4.1.2.8.

4.2.2.6 With land-take considerations accounted for (section 4.2.3), Hybrid Option B was regarded as the emerging preferred option at this stage.

Option name and details	Do-nothing	Design approach 1: Do-minimum		Design approach 2: Remove gyratory	Design approach 3: Remove gyratory and realign A205				
	Do-nothing	Do-minimum Option A	Do-minimum Option B	Hybrid Option A	Hybrid Option B	Hybrid Option C	Hybrid Option D	Hybrid Option E	Hybrid Option F
Intervention summary	Retain existing layout.	Gyratory & highway alignment retained with revised pedestrian crossings, more public space & enhanced streetscape.	As for Do Minimum A, with additional A205 crossing at Catford Bridge station.	Gyratory removal with current A205 / A21 highway alignment retained.	Gyratory removal with A205 realigned southwards through Laurence House site towards telephone exchange.	Gyratory removal & A205 realigned through Plassy Island.	As for Hybrid C, but with A21 cycle lanes.	As for Hybrid D, with removal of A21 Bromley Rd northbound cycle lane at A205 junction.	As for Hybrid E, with A21 cycle lanes, new A21 Bromley Rd northbound left-turn lane at A205 junction.
Estimated cost (2017 prices)	N/A	c. £6-10m		c. £31m	c. £36-42m				
Analysis score total **- using 2017 TfL Surface Transport Outcomes** **(See "ST Outcomes" tab in Appendix A05 of Strategic Case)**	**0**	**+5**	**+5**	**+4**	**+10**	**+9**	**+10**	**+10**	**+10**
Option shortlisted for further development?	**As comparator**	**As comparator**	**No**	**No**	**Yes**	**Yes**	**No**	**No**	**No**
Justification	Taken forward as the base comparator.	Taken forward to shortlisting as the lowest-specification and cost Do-minimum comparator option.	Not taken forward as Do-minimum Option A is the lowest-specification and cost comparator option.	Not taken forward due to its lowest score against the ST Outcomes.	Taken forward to shortlisting as the highest-scoring option that meets the ST Outcomes criteria. Whilst it also required land-take, it was only required from 2 areas with clear ownership chain (MOL and BT telephone exchange building, the latter of which was designed-out by 2019).	Taken forward to shortlisting as the second highest-scoring option. Challenges relating to deliverability, concerning multiple shorter-term private leaseholders, as well as the main freeholder, were noted.	Not taken forward as its main derivative of Hybrid Option C has been shortlisted. Also, it was felt that its key differentiating feature was replicable on Hybrid Option C itself, given sufficient design development time.	Not taken forward as its main derivative of Hybrid Option C has been shortlisted. Also, it was felt that its key differentiating feature was replicable on Hybrid Option C itself, given sufficient design development time.	Not taken forward as its main derivative of Hybrid Option C has been shortlisted. Also, it was felt that its key differentiating feature was replicable on Hybrid Option C itself, given sufficient design development time.

Table 4-5: Outcome of initial long-listing.

4.2.2.7 In finalising the shortlist, LB Lewisham officers had, in parallel, prepared a paper that recommended Hybrid Option B, as it was considered best suited for the strategic priorities of the borough[48]. The recommendations were endorsed by Lewisham cabinet members in July 2017 [49].

4.2.2.8 LB Lewisham's assessment was that without the realignment of the A205, for viability reasons the amount of housing, and in particular affordable housing and commercial space, could not be optimised. This aligns with scheme objective 6, (paragraph 3.5.2.1) and both LB Lewisham and MRN objectives regarding housing delivery.

4.2.3 Deliverability considerations: land take

4.2.3.1 Whilst Do-minimum Option A, Hybrid Option B and Hybrid Option C all require land-take, the emerging preferred option at this stage – Hybrid Option B – requires land-take from the designated Metropolitan Open Land (MOL) of the St Dunstan's College Jubilee Sports Ground (west of the gyratory, the town centre and just to the east of Catford Bridge station and Catford station).

4.2.3.2 The requirement to take land is driven by two needs: Firstly, at the junction between Catford Road (A205) and Canadian Avenue, the land is needed to connect the realigned A205, running south of Laurence House, to the retained section of A205 to the west. Secondly, land on the northern boundary of the Sports Ground is needed to enable Catford Road (A205) to be widened to provide improved facilities for pedestrians and cyclists.

4.2.3.3 TfL acknowledges that significant statutory and non-statutory processes are required to secure the land at the Sports Ground. However, the key objectives of reducing severance between Laurence House and the town centre, improving the public realm and enhancing the provision of pedestrian and cycle facilities, cannot be achieved without this parcel of land.

4.2.3.4 Hybrid Option C included provision for a re-routing of the A205 east-west through Plassy Island, which firstly straightened the A205 alignment, removed the staggered junction layout between the Catford Road and Sangley Road, and permitted a slightly closer connection to Plassy Road. Secondly, the old Sangley Road alignment was proposed to be partly pedestrianised to an active-mode only corridor, which connected to the dedicated cycle track south of Laurence House and the proposed cycle track running north-south of the Plassy Island.

4.2.3.5 Compared to Hybrid Option B, Hybrid Option C requires less land-take from the MOL, but requires land-take from Plassy Island in order to provide north-south cycling facilities. This represents a significant delivery risk, as the Plassy Island

[48] https://councilmeetings.lewisham.gov.uk/documents/s51438/Appendix%201%20A205%20Realignment%20Top%20Level%20Assessment%20Criteria.pdf

[49] https://councilmeetings.lewisham.gov.uk/ieDecisionDetails.aspx?Id=3558

landowners (both the numerous leaseholders and the sole freeholder) are unlikely to entertain the proposition of selling parcels of land, versus selling the entirety of the land to a developer for a single primary use (see section 2.2.12). A Compulsory Purchase Order (CPO) is not expected to be viable in this context, as is it not the case that land-take from Plassy Island is the only way to provide north-south cycling facilities; for example, Hybrid Option B includes a workable proposal for this without requiring land-take from Plassy Island.

4.2.3.6 In overall terms, Hybrid Option C has almost as many benefits as Option B, so on this basis it was decided to take Hybrid Option C forward for shortlisting. However, it is noted that Hybrid Option C does not align with LB Lewisham's objectives of creating a new public space in the town centre area and relocating the A205. It also carries an unusually complex delivery risk for TfL associated with the land assembly process, as set out in section 4.2.3.5.

4.2.3.7 Both the Do-minimum options were assessed as delivering minor transport benefits, whilst supporting some delivery of new homes (c1,000 units, estimated in 2017). However, neither would resolve the issue of the severance of LB Lewisham's Laurence House site, currently used as their offices, and Lewisham Library from the rest of the town centre to the north of the A205; nor would they enable any major improvements for active travel or to the public realm. These are all key objectives for the project, necessary to make the redevelopment of the town centre sites more viable, both north of the A205 and the wider parcels of land near the TLRN. However, as a lower specification comparator case is necessary for the purposes of appraisal, it was agreed to take forward Do-minimum Option A, as this represented the lowest cost option of the two possibilities.

4.2.4 Assessment against MRN objectives

4.2.4.1 Following the shortlisting process, the three shortlisted options **Do-minimum A**, **Do-something Hybrid Options B** and **C** were taken forward into the Feasibility stage, with a view to securing a single preferred option at the end of that stage.

4.2.4.2 Hybrid Option B was the emerging favoured option, for reasons of alignment with scheme objectives, strategic fit with TfL and LB Lewisham objectives and deliverability, including land-take considerations.

4.2.4.3 To support continued development of the scheme as part of the MRN funding application, these three options have been assessed against the MRN objectives, to confirm the selection of a suitable low-cost Do-minimum option, as well as the preferred option for assessment at the OBC stage.

4.2.4.4 LB Lewisham's position on the options has a significant influence on deliverability. LB Lewisham have continuously emphasised the primacy of scheme objectives 4 and 6, due to the importance of realigning the A205 to the south of Laurence House within their Catford Town Centre Framework, in order to maximise future town centre development value. LB Lewisham's assessment is that without the realignment of the A205, for viability reasons the amount of housing, and in particular affordable

housing and commercial space, could not be optimised. This further aligns with both Lewisham's objectives around housing delivery, and the MRN objective of supporting housing delivery.

4.2.4.5 The deliverability assessment also reflects the significant complexity in achieving the land-take required for Hybrid Option C, which requires negotiation with multiple private leaseholders in order to re-route the A205 through Plassy Island.

4.2.4.6 The full assessment is summarised by Table 4-6, overleaf.

MRN Objectives		Do-nothing	Do-min Option A	Hybrid Option B	Hybrid Option C
MRN objective 1: Reducing congestion	Alleviate congestion	Base comparator	Neutral	Significant positive	Significant positive
	Congestion impacts on air quality, biodiversity, noise, flood risk, water quality, landscape and cultural heritage sites		Minor positive, improvements to public and green space	Significant positive	Significant positive
MRN objective 2: Supporting economic growth & rebalancing	Supports regional strategic goals to boost economic growth		Minor positive	Minor positive	Minor positive
	Economic impact: improve ability to access new or existing employment sites		Neutral	Minor positive	Minor positive
	Trade and gateways impact		Neutral	Neutral	Neutral
MRN objective 3: Supporting housing delivery	Support the creation of new housing developments (based on information supplied by LB Lewisham in 2017)		Significant positive (c. 1k new units)	Significant positive (c. 1.6k new units)	Significant positive (c. 1.4k new units)
MRN objective 4: Supporting all road users - improvements for:	Public transport users		Neutral	Significant positive	Minor positive
	Pedestrians		Minor positive	Transformational positive	Significant positive
	Cyclists		Neutral	Transformational positive	Significant positive
	Disabled users		Neutral	Neutral	Neutral
	Safety benefits: Ability to reduce the risk of deaths/serious injuries for all users of the MRN		Neutral	Transformational positive	Significant positive
MRN objective 5: Supporting the MRN	Improved end to end journey times across both networks		Neutral	Minor positive	Minor positive
	Improved journey time reliability		Neutral	Minor positive	Minor positive
	Improved SRN resilience		Neutral	Minor positive	Minor positive
Deliverability	Complexity		Minor	Significant	Unusually high complexity
Capital cost (2017 prices)		**N/A**	**c. £6-12m**	**c. £40m**	**c. £40m**
Comments		N/A	Road layout remains fundamentally the same. Some potential minor benefit / disbenefit to existing traffic / buses due to changes to pedestrian crossings. Delivery could be phased / staged	Reduced dominance of general traffic, improved conditions for pedestrians and cyclists, with new crossings. Road safety improvements expected. On-road segregation for vulnerable road users achievable. Unlocks delivery of land for housing. Delivery as single project required.	Reduced dominance of general traffic, improved conditions for pedestrians and cyclists, with new crossings. Some conflict reduction expected. On-road segregation for vulnerable road users achievable. Delivery could be phased / staged. Significant complexity with land acquisition and does not meet LB Lewisham aspirations set out in Catford framework
Recommended to progress to OBC stage?		As comparator	As comparator	Yes	No

Key (Performance compared to the Do-nothing):
Transformational positive
Significant positive
Minor positive
Neutral
Minor negative / complexity
Significant negative / complexity
Unacceptable negative / unusally high complex

Table 4-6: Outcome of assessment against MRN objectives, described under Section 1.6.4.

4.2.4.7 Following this re-assessment of options against scheme and MRN objectives, it was decided not to progress Hybrid Option C to the shortlist for development at the OBC stage. This is due to the comparable cost and level of intervention to Hybrid Option B, viewed against the wider level of benefits associated with the scheme and MRN objectives and closer alignment with regional and local objectives offered by Hybrid Option B:

- **Benefits against scheme objectives:** While Hybrid Option C provides similar levels of benefit to Hybrid Option B against scheme objectives 1, 2, 3 and 5 (see paragraph 3.5.2.1), it does not achieve scheme objectives 4 or 6. This is because it does not realign the A205 behind Laurence House, which is needed to release sufficient land for housing delivery and to create sufficient space in the town centre for a new public space. Given the significance of these elements for the viability of the regenerative elements of LB Lewisham's Framework, Hybrid Option C could not be progressed;

- **Benefits against MRN objectives:** While Hybrid Options B and C deliver comparable, positive benefits against MRN objectives 1, 2, 3 and 5, Option B delivers a transformational level of benefits for MRN objective 4, at a level significantly above that which Option C will deliver;

- **Alignment with regional and local objectives:** Hybrid Option B best aligns with LB Lewisham's aspiration for a scheme which maximises housing delivery and creates new public space in Catford town centre, which will deliver significant social, economic and regeneration benefits at a local scale. In particular, as Hybrid Option C is not compliant with LB Lewisham's Catford Town Centre Framework (the area's Supplementary Planning Document until otherwise advised by LB Lewisham), it could not be progressed;

- **Deliverability:** While Hybrid Option B and C both require land-take (see Section 1.6.3), Hybrid Option C requires negotiations with multiple private leaseholders in order to re-route the A205 through Plassy Island, which adds significant complexity and potential risk, compared to Hybrid Option B.

4.2.5 Shortlist and emerging preferred option

4.2.5.1 Following the shortlisting process, the three shortlisted options **Do-minimum A**, **Do-something Hybrid Options B** and **C** were taken forward into the Feasibility stage, with a view to securing a single preferred option at the end of that stage.

- **Do-minimum Option A**: This option focusses on pedestrian safety across Catford town centre. The highway arrangement is unchanged with a small amount of land purchase outside of the highway boundary, enabling a number of pedestrian and cycling improvements to be proposed.

- **Do-something Hybrid Option B**: This option realigns the A205 behind Laurence House, removing the town centre gyratory. It proposes full streetscape renewal and new and improved pedestrian crossings, cycle facilities and bus priority across the town centre area.

4.2.5.2 At this point of scheme development, TfL has only undertaken detailed economic appraisal for Hybrid Option B (see Economic Case) as the clear emerging preferred option against the Do-nothing baseline. This is because the traffic impacts arising from other options with gyratory removal are expected to be similar, while the Do-Minimum Option A is expected to perform close to the Do-nothing baseline, due to the gyratory being unchanged in both options. Economic appraisal of the Do-minimum Option A will be undertaken at Outline Business Case stage.

5 Expected OAR next steps

5.1 Further analysis at the next stage (OBC)

5.1.1 OBC quantitative analyses

5.1.1.1 TfL intends to review and update the analysis and modelling work to increase confidence in the understanding of the proposal's impacts. The appraisal specification would be agreed with DfT prior to commencing the relevant work.

5.1.1.2 TfL's *Mode of Travel in London* (MoTiON)[50] demand modelling suite has recently superseded the last model of London Transportation Studies (LTS), covering all major modes of transport within the capital. This suite has been refined, such that there are now improved linkages between each of the modal models, and it is possible to identify the quantum of mode switch arising due to any induced demand changes. Hence, MoTiON is now also referred to as *Modular* MoTiON. In the next phase, this could be used to update the analyses and derivation of benefit forecasts, although this would have significant implications for both the resource cost and time to reach OBC.

5.1.1.3 Micro-simulation models will also be re-examined to re-confirm junction performance, forecast queue lengths, plus journey times. The TfL Bus Financial Impact Assessment tool (or a different tool, if agreed with DfT post-programme entry) can then be used to monetise the impacts for the bus network.

5.1.1.4 Micro-simulation of pedestrian movements in and around Catford town centre will also be considered with a view to providing an enhanced assessment of the wider pedestrian impacts.

5.1.1.5 At the OBC stage, TfL will further investigate the scheme impacts on bus journey reliability. However, journey times are, in many cases, expected to be maintained, especially for bus passengers using the A21, where existing bus lanes within the scheme extents are proposed for retention.

5.1.1.6 The environmental aspects will be further scoped during the concept design stage and are likely to be formally assessed as part of an Environmental Impact Assessment. In parallel, TAG Unit A3 on Environmental Impact Appraisal, and

[50] https://content.tfl.gov.uk/londons-strategic-transport-models.pdf, pp 5 – 7.

specific internal TfL Pathway guidance on environment evaluation, sustainability and ecology will be adhered to, to ensure proportionate coverage of the relevant aspects.

5.1.1.7 The scheme's capital and operating carbon emissions will be estimated to a better level of detail, with emphasis in the design process on reducing such emissions (see the Carbon Management Plan in the Management Case).

5.1.1.8 During the next stage, TfL will seek further understanding of the likely impact on land values and other wider economic benefits which are not yet quantified. In addition, temporary impacts, such as those from construction activities will be considered once the construction programme is better understood.

5.1.2 Outputs from public consultation and further analysis of Do-min option A

5.1.2.1 TfL and LB Lewisham are scheduled to hold a joint public consultation event for the Catford Town Centre scheme in April 2023, just after its SOBC submission. Should the scheme secure MRN programme entry, all views gathered from the public and wider stakeholders will be analysed, responded to where appropriate and findings summarised in the next iteration of the OAR that will accompany the OBC as a complete optioneering exercise. In addition, further analysis for the do-min options as comparators will feature in the OAR as a means to illustrate the overall relative performance gap between the options, per para 1.6.5.2 of the Economic Case.

5.1.2.2 In light of the above, this iteration of the OAR should be considered as work in progress. When examined against DfT's current Transport Appraisal Process (TAP) and its process map shown on page 7, the scope of Stage 1 of *Option Development* can be considered as largely complete minus the public consultation part; OBC, in effect is the Stage 2 of the said appraisal process, where further appraisal is carried out.

5.1.2.3 For the future iteration of the OAR, TfL will ensure it is compliant with the TAP. If and where the required criteria are not met, TfL will seek DfT's views prior to finalising the OAR.