Thurrock - An ambitious and collaborative community which is proud of its heritage and excited by its diverse opportunities and future

Planning, Transport, Regeneration Overview and Scrutiny Committee

The meeting will be held at **7.00 pm** on **28 February 2023**

Committee Room 2, Civic Offices 3, New Road, Grays, Essex, RM17 6SL.

Membership:

Councillors Alex Anderson (Chair), John Allen (Vice-Chair), Robert Gledhill, Tom Kelly, Kairen Raper and Lee Watson

Substitutes:

Councillors Adam Carter, Shane Hebb, John Kent, Martin Kerin and James Thandi

Agenda

Open to Public and Press

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1. Apologies for Absence

2. Minutes **5 - 12**

To approve as a correct record the minutes of the Planning, Transport, Regeneration Overview and Scrutiny Committee meeting held on 26th January 2023.

3. Items of Urgent Business

To receive additional items that the Chair is of the opinion should be considered as a matter of urgency, in accordance with Section 100B (4) (b) of the Local Government Act 1972. To agree any relevant briefing notes submitted to the Committee.

4. Declaration of Interests

5. Regeneration Programme Update **13 - 20**

Queries regarding this Agenda or notification of apologies:

Please contact Kenna-Victoria Healey, Senior Democratic Services Officer by sending an email to Direct.Democracy@thurrock.gov.uk

Agenda published on: **20 February 2023**

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DECLARING INTERESTS FLOWCHART – QUESTIONS TO ASK YOURSELF

Breaching those parts identified as a pecuniary interest is potentially a criminal offence

Helpful Reminders for Members

- *Is your register of interests up to date?*
- *In particular have you declared to the Monitoring Officer all disclosable pecuniary interests?*
- *Have you checked the register to ensure that they have been recorded correctly?*

When should you declare an interest *at a meeting?*

- **What matters are being discussed at the meeting?** (including Council, Cabinet, Committees, Subs, Joint Committees and Joint Subs); or
- If you are a Cabinet Member making decisions other than in Cabinet **what matter is before you for single member decision?**

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Does the business to be transacted at the meeting

- **relate to; or**
- **likely to affect**

any of your registered interests and in particular any of your Disclosable Pecuniary Interests?

Disclosable Pecuniary Interests shall include your interests or those of:

- your spouse or civil partner's
- a person you are living with as husband/ wife
- a person you are living with as if you were civil partners

where you are aware that this other person has the interest.

A detailed description of a disclosable pecuniary interest is included in the Members Code of Conduct at Chapter 7 of the Constitution. **Please seek advice from the Monitoring Officer about disclosable pecuniary interests.**

What is a Non-Pecuniary interest? – this is an interest which is not pecuniary (as defined) but is nonetheless so significant that a member of the public with knowledge of the relevant facts, would reasonably regard to be so significant that it would materially impact upon your judgement of the public interest.

Pecuniary

If the interest is not already in the register you must (unless the interest has been agreed by the Monitoring Officer to be sensitive) disclose the existence and nature of the interest to the meeting

If the Interest is not entered in the register and is not the subject of a pending notification you must within 28 days notify the Monitoring Officer of the interest for inclusion in the register

Unless you have received dispensation upon previous application from the Monitoring Officer, you must:

- **Not participate or participate further in any discussion of the matter at a meeting;**
- **Not participate in any vote or further vote taken at the meeting; and**
- **leave the room while the item is being considered/voted upon**

If you are a Cabinet Member you may make arrangements for the matter to be dealt with by a third person but take no further steps

Non- pecuniary

Declare the nature and extent of your interest including enough detail to allow a member of the public to understand its nature

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You may participate and vote in the usual way but you should seek advice on Predetermination and Bias from the Monitoring Officer.

Our Vision and Priorities for Thurrock

An ambitious and collaborative community which is proud of its heritage and excited by its diverse opportunities and future.

1. **People** – a borough where people of all ages are proud to work and play, live and stay

    - High quality, consistent and accessible public services which are right first time
    - Build on our partnerships with statutory, community, voluntary and faith groups to work together to improve health and wellbeing
    - Communities are empowered to make choices and be safer and stronger together

2. **Place** – a heritage-rich borough which is ambitious for its future

    - Roads, houses and public spaces that connect people and places
    - Clean environments that everyone has reason to take pride in
    - Fewer public buildings with better services

3. **Prosperity** – a borough which enables everyone to achieve their aspirations

    - Attractive opportunities for businesses and investors to enhance the local economy
    - Vocational and academic education, skills and job opportunities for all
    - Commercial, entrepreneurial and connected public services

Minutes of the Meeting of the Planning, Transport, Regeneration Overview and Scrutiny Committee held on 26 January 2023 at 7.00 pm

Present:	Councillors Alex Anderson (Chair), John Allen (Vice-Chair), Robert Gledhill, Tom Kelly, Kairen Raper and Lee Watson
In attendance:	Michael Dineen, Assistant Director Counter Fraud, Enforcement and Community Safety Matthew Ford, Chief Engineer Jonathan Keen, Principal Planner Mat Kiely, Transportation Services Strategic Lead Leigh Nicholson, Assistant Director of Planning, Transport and Public Protection Peter Wright, Strategic Lead of Highways and Infrastructure Rhiannon Whiteley, Senior Democratic Services Officer

Before the start of the Meeting, all present were advised that the meeting may be filmed and was being recorded, with the audio recording to be made available on the Council's website.

27. Minutes

The Minutes of the Planning, Transport, Regeneration Overview and Scrutiny Committee meeting held on 23 November 2022 were approved as a correct record.

The Minutes of the Planning, Transport, Regeneration Overview and Scrutiny Committee meeting held on 6 December 2022 were approved as a correct record save that on page 12 where it refers to members seeking a consultation with ward members regarding parking permit fees this should have also said a consultation with residents was sought.

28. Items of Urgent Business

There were no items of urgent business.

29. Declaration of Interests

Councillor Gledhill confirmed that with regard to the potential change for parking permits, he declared that he does live within one of the zones.

30. Portfolio Holder Annual Report for Transport and Public Safety

Councillor Maney presented the report to the Committee. He confirmed that whilst his portfolio covers highways, transport and community safety, the community safety part of the report is not relevant to this Committee and that the appropriate Committee to discuss those parts of the portfolio would be at the Cleaner, Greener and Safer Overview and Scrutiny Committee.

Councillor Maney summarised that Thurrock has an extensive road network with 545km of carriage way that require year-round maintenance. He confirmed that 5087 inspections have been completed as a result of people reporting issues on the highways on the Council's website. He stated that every school in Thurrock has been offered some sort of road safety training. He highlighted that there is a bus shelter replacement programme underway to replace 71 bus shelters.

Councillor Maney confirmed that car cruises around Lakeside remains an ongoing problem and a task force has been set up to try and find a solution to this.

Councillor Maney stated that the parking enforcement officers team is growing and they are close to doubling the size of the team and they are working towards a 24/7 operation. 6434 PCN's have been issued for HGV parking infringements.

The Chair thanked Councillor Maney for attending the Committee.

Councillor Kelly noted that there will be increased freight trains to Tilbury docks and questioned whether there will be infrastructure put in place in East Tilbury to reduce pressure on the network.

Councillor Maney agreed that the crossings are at capacity now and with the freeport coming and more homes being built, investment in the rail infrastructure is essential.

Councillor Raper noted that there were a lot of abbreviations and acronyms in the report and she requested that the names are given in full in the future. She queried how projected projects will be affected by the Council's financial situation.

Councillor Maney responded that he could not answer the question at this time.

Councillor Allen raised concerns regarding increased transport around the Thurrock ports in particular the ASDA roundabout and queried the future for that roundabout.

Councillor Maney stated that there were incidents on that roundabout with trailers overturning, it is taking too much traffic and something needs to be done. It is a major entrance and exit into Tilbury. He referred the question to officers.
The Chief Engineer responded that the junction is a National Highways asset and not a Thurrock Council asset. He confirmed that they will be lobbying for enhancement of that injunction and tying it into the local plan.

Councillor Allen noted that he had raised concerns to National Highways about debris around the ASDA roundabout but nothing has been done.

The Strategic Lead for Transport Services responded that he will pass the comments on to National Highways and Connect Plus as they are the contractor for National Highways who completes this work.

Councillor Gledhill noted that it was positive the Tilbury cycle path opening times were extended but questioned the lack of quantitative measurement of its success.

Councillor Maney stated that the information he has received from officers is that it is a success and as it is open for longer it is reaching more people. Councillor Gledhill queried why not one electrical vehicle charging point was installed at the new Beaconsfield development.

Councillor Maney responded that electrical vehicle charging points are something being looked at in the planning process and the local plan. The current focus is on providing charging points at central locations such as town centres and other strategic locations rather than individual streets.

Councillor Gledhill highlighted that in his view it had been better dealing with portfolio holder reports at Overview and Scrutiny Committee meeting rather than at Cabinet meetings as a lot more questions can be asked.

Councillor Watson queried what it would require to get more electric charging points installed as quite a few residents have asked about this.

Councillor Maney stated that he had also been approached by residents requesting electric charging points outside their homes and whilst he agreed they need to make them as accessible as possible in the Borough they are focussing now on putting them in strategic places.

The Chief Engineer confirmed his team is responsible for electrical vehicle planning and it is being included in the local plan as a policy. The focus is on main town centres such as Grays, Corringham and South Ockendon. They will also be looking at provision for those who don't have off street parking. The Council has commissioned 4 charging points in two locations. A bid has also been completed for 13 locations with a total of 70 charging points.

Councillor Watson complimented the work completed regarding road safety.

The Chair passed on his thanks to the Highways Infrastructure Team for their support in filling in the tunnels produced by the Just Stop Oil protestors and for acting swiftly.

31. Fees and Charges Pricing Strategy 2023/24

The Assistant Director of Planning and Growth confirmed that this item has come back to the Committee due to two areas only concerning building

control fees and parking permits and paragraphs 5.4 and 6.3 of the report have been updated.

The Chair queried if there has been any consultation with residents about the parking permit charges since the last meeting.

The Assistant Director for Counter Fraud, Enforcement and Community Safety responded that they have not engaged with the entire community regarding the permits.

The Chair stated that he did not like the charges for home owners to park outside their property and he was not comfortable with this without sufficient consultation with residents.

The Assistant Director for Counter Fraud, Enforcement and Community Safety responded that it is not a charge for parking outside your own home. It allows priority parking for residents over commuters and visitors so they can park outside their home or close to it. The Assistant Director for Counter Fraud, Enforcement and Community Safety stated that the proposed parking charges are extremely low and a lot of research has been completed with neighbouring boroughs regarding their charges and the charges being proposed are a lot cheaper. The closest charge is 50% more and the most expensive was 400% more.

Councillor Allen commented that he saw it as a fee to park outside your own home. For many years residents have been able to park outside their home for free. It is commuter parking that is forcing this and in his opinion it is a stealth tax put on residents due to the Council's financial situation.

The Assistant Director for Counter Fraud, Enforcement and Community Safety responded that these discussions have been ongoing for a long time and are not linked to the Council's financial situation. It is a realistic policy and one that has been thoroughly thought out.

Councillor Allen stated that he supports a full consultation with residents that live in the parking zones on this.

Councillor Watson queried if the Commissioners had agreed to it.

Councillor Maney confirmed that they have seen it and they are not opposed to it.

Councillor Watson confirmed that she is also against the charges and queried why the third permit is so much more expensive and what the situation is with HMO's.

The Assistant Director for Counter Fraud, Enforcement and Community Safety responded that the purpose of the charge is to promote non-vehicular use and the knock-on effect is people will hopefully not own that many

vehicles. He was unable to answer the question regarding HMO's and confirmed he would provide an answer to members tomorrow on this.

Councillor Watson raised concerns that those who don't want to pay this will park their cars in areas where the charges and permits don't apply and she is aware of estates where this is happening. She stressed that she could not agree to this right now as it is not affordable with the energy crisis.

Councillor Gledhill stated that he lives in a parking zone but he is not a driver. He took the view that the charge was about the ability to exclude others from parking where you live. He did not agree that the £80 fee will put someone off owning a third car. He confirmed that the charge should reflect what it costs and other residents should not be paying for this through council tax. There should also be an option to opt out.

The Assistant Director for Counter Fraud, Enforcement and Community Safety confirmed he would take that away. He responded that it is difficult to cost the service of enforcement for the parking permit service. Their case management software to issue the permits is £40,000 per annum although it is used for other types of work too, the cost of the employee to consider and issue the applications would cost £17,000 per annum and having someone out on the street to enforce this will cost £50,000 per annum. The money generated by the permits wont cover the full costs but it is a contribution towards it.

Councillor Raper queried if there was a way to apply for a permit through the post or another way not online.

The Assistant Director for Counter Fraud, Enforcement and Community Safety clarified that if residents contact the contact centre they will complete the application for them online and post it to them.

Councillor Gledhill proposed a further recommendation is added at 1.3 that *the Planning, Transport and Regeneration Overview and Scrutiny Committee disagreed with the recommendation to charge for parking permits in controlled parking areas for the reasons discussed above and requested that these are given to Cabinet.*

This was seconded by the Chair.

RESOLVED:

1.1 That Planning, Transport and Regeneration Overview and Scrutiny Committee note the revised fees, within the Parking Permits and building control sections 5.4 and 6.3 and comment on the proposals currently being considered within the remit of this committee.
(All other charges remain as seen at the previous O&S committee)

1.2 That Planning, Transport and Regeneration Overview and Scrutiny Committee note that Director delegated authority will be sought via Cabinet to allow Fees & Charges to be varied within a financial year in response to Legal or Regulatory requirements only.

1.3 The Planning, Transport and Regeneration Overview and Scrutiny Committee disagreed with the recommendation to charge for parking permits in controlled parking zones for the reasons discussed above and have requested that these are given to Cabinet.

32. Integrated Transport Block (ITB) Capital Programme 2023/24 & Highways Maintenance Allocation and Programme 2023/24 - TO FOLLOW

The Strategic Lead for Transport Services presented the report. He explained that the report sets out how the Transportation Services team will prioritise funding from the Department for Transport (DfT) Integrated Transport Block Capital Programme (ITB) to enhance transport infrastructure and service provision within the Borough in 2023/24. He explained that paragraph 2.4 sets out the key areas of policy direction for delivering the programme**.**

The report also sets out the Highways Maintenance Block Allocation for 2023/24 for the Highways Maintenance Service within the Public Realm Directorate is to be prioritised in alignment with Thurrock Council Highways Assets Management Strategy and Highways Maintenance Efficiency Programme.

The Strategic Lead for Highways Infrastructure confirms they receive funding which is ring fenced for maintenance. They look at the condition of the network and usage and come up with schemes that are in accordance with the asset management policy.

Councillor Allen queried why drainage was going into ditches and not into the water system. Thurrock parkway near ASDA has seen constant flooding and also Lansdowne road which is outside a school and complaints have been received from parents. He noted that the Council is not always responsible for these roads but it seems that these issues are not been addressed.

The Strategic Lead for Highways Infrastructure responded that in relation to Thurrock Parkway they are working with their colleagues in the Flood Management Team regarding enforcement. They do try and engage with partners to resolve these issues. There are lots of challenges with drainage, they are often antiquated systems and our systems feed into Anglian Waters systems and their systems are at capacity too. We cannot connect to Anglian Water systems without their permission and they need to upgrade their systems. He agreed Thurrock Parkway cannot remain as it is and assured members they are pushing for it to be sorted and it is a priority.

The Chair queried how each figure is allocated and why £150,000 has been allocated to electric vehicles.

The Strategic Lead for Transportation Services confirmed that they use a data led approach to identifying areas of intervention which need to be prioritised across the programme. They have data which looks at incidents and accidents regarding road safety. They also look at safe routes around Thurrock's schools. In relation to electrical vehicle charging there is an opportunity to take advantage of the OSEF funding and by putting money into EV charging they can gain more from the grant.

The Chief Engineer explained that the main routes attract more accidents, and they receive data on accidents from the police. If a fatality occurs if gets the highest rating and becomes a priority as the more serious the accident the more it costs society.
Councillor Gledhill commented that he had struggled to comprehend the report and why certain amounts of funding are allocated to certain schemes. He stated that elected members need more detail.

Councillor Allen was very pleased to note the Marsh Foot injunction will be re-designed and requested whether a roundabout or traffic lights were being considered.

The Chief Engineer confirmed that they are working on the design of it now and it is likely to be a proper roundabout which HGV vehicles can navigate. Implementation is likely to be next year.

The Chair proposed that a Sub-Committee is put together to go through in more detail the ITB and AIP with a view to coming up with recommendations for Cabinet. This was seconded by Councillor Gledhill.

RESOLVED:

1.1 Note and provide comment on the 2023/24 ITB capital programme allocations, policy and prioritisation direction for the DfT ITB Block funding under the key Policy areas of Road Safety Engineering, Safer Routes to School, Area Intervention Programme and EV Charging programme (as detailed in Appendix 1).

1.2 Note and provide comment on the 2023/24 Highways Maintenance Block Allocation Programme (as detailed in Appendix 2).

1.3 Note that delegate authority to the interim Director of Place and the Director of Public Realm, will be sought in consultation with the Cabinet Member for Transport and Public Safety to make any required changes to the ITB programme and the Maintenance programme, for 2023/24, within the overall programme budget, as well as other government funding

allocations that may arise within the year to ensure delivery of the programme and to ensure spend of the grant allocations.

1.4 A Sub-Committee is put together to go through in more detail the ITB Capital programme and Area Intervention Programme,

33. Work Programme

Councillor Watson raised the issue of the Stanford-Le-Hope interchange task and finish group and requested an update. The Chair responded that he did not have an update and will contact Kevin Munnelly about this tomorrow.

Councillor Gledhill requested a briefing note on electric vehicle charging points and the logic of where they are going.

The meeting finished at 8.58 pm

Approved as a true and correct record

CHAIR

DATE

Any queries regarding these Minutes, please contact Democratic Services at Direct.Democracy@thurrock.gov.uk

28 February 2023	ITEM: 5
Planning, Transport, Regeneration Overview and Scrutiny Committee	
Regeneration Programme Update	
Wards and communities affected: All	**Key Decision:** N/A
Report of: Kevin Munnelly, Assistant Director, Regeneration and Place Delivery	
Accountable Assistant Director: Kevin Munnelly, Assistant Director, Regeneration and Place Delivery	
Accountable Director: Mark Bradbury, Director of Place.	
This report is Public	

Executive Summary

A key part of Thurrock Council's Improvement and Recovery Plan is a requirement to review regeneration projects that are included in the Council's Capital Programme.

As has been highlighted by the Interim report of Best Value Inspection (BVI) the Council's recent track record of managing major regeneration and infrastructure projects is poor and this is exacerbated by a broader issue around project and programme governance. As has been discussed at a previous Planning, Transport, Regeneration Overview and Scrutiny Committee the quality and detail of reporting to members has also been poor.

We have therefore commenced detailed reviews of major projects and have brought in Inner Circle Consulting (ICC) to support us in challenging current project costings, programmes, funding, procurement, resourcing and delivery approaches and project management to establish whether they are on track to achieve the expected outcomes whilst delivering best value.

The challenges facing the Council are well publicised and this report should be read in that context. Future service activity will need to reflect the intervention the Council finds itself in. Particularly difficult decisions will need to be made on levels of service, methods of service delivery and capital investment in the short term. Future investment will rely on the successful delivery of the Council's Improvement & Recovery Plan and/or external funding.

The purpose of this report is to inform and update members of the detail project review process that is underway. Further reports will follow as the work is completed and options emerge.

1. Recommendation(s)

1.1 That the Planning, Transport and Regeneration Overview and Scrutiny Committee notes and comments on the information provided for consideration as part of the full Regeneration programme review.

2. Introduction and Background

2.1 The Council's current financial position is complex but by working alongside the Thurrock Commissioners (Essex County Council), we have been able to determine the scale of our financial challenges. This means that the Council faces a significant budget gap in 2022/23 and cannot set a balanced budget in 2023/24, without seeking support from the Government. To help unlock this, the Council have issued what is known as a Section 114 Notice. This is a procedural process that gives formal notice of our need to, and now ability to, enter into informed and detailed discussions with Government about a bespoke package of exceptional financial support, as we seek to balance our budget and to make progress towards a more sustainable financial future. However, the issuing of a Section 114 notice requires the Council to implement close monitoring in place to manage our expenditure and limits the Council to only acting on spend deemed essential to the delivery of its prioritized services and delivery of agreed projects.

2.2 This role gives the Commissioners full control of the financial functions of Thurrock Council. The Council has already worked with the Commissioners to create an 'Improvement and Recovery Plan', which was submitted to the government on 3 December 2022. As part of the Improvement and Recovery Plan the Council is required to review all of the major capital delivery projects, including those that make up the Regeneration programme. This is with a view to ensuring delivery capacity and financial control and ensure that robust governance arrangements are in place. This will enable the Council to clarify what aspects of the revised strategic growth plan it is going to enable or facilitate and which major projects the Council will continue to deliver directly, recognising the financial constraints it is operating under and the need to facilitate more and directly deliver less.

3. Programme Updates

Grays Underpass

3.1 Notwithstanding that the Grays Underpass scheme was reviewed as representing good value for money as part of a Southeast Local Enterprise Partnership (SELEP) Accountability Board assessment in May 2022, subsequent project reviews have identified concerns around budget, cost, programme and the affordability of the current scheme.

3.2 Inner Circle Consulting (ICC) have started the strategic review of regeneration priorities in Grays Town centre, undertaking a technical review of the background documentation. Interviews are current taking place with

number of strategic stakeholders, who's input is being sought on defining the strategic priorities. These Stakeholders include Network Rail; c2c; New River Retail; Morrisons; South Essex College, TACC; ASELA; Grays Business Partnership; and key community leaders.

3.3 Fundamental to the ICC review will be a consideration of both the scale and programming of major capital projects in the town centre programme. The major projects were conceived in a different economic climate and assessed against a different appetite for risk. In the light of the IRP it will be important to ask whether these capital projects are still the right ones to pursue or could they be either scaled back or delivered in a different form to achieve similar outcomes, whilst reducing further financial exposure to the Council.

3.4 In addition to challenging the strategic need for the scheme, the review will need to assess if there are opportunities for coordination of retained projects with other significant developments-primarily New River, including options for:

i. Shared project management.
ii. Design changes and land assembly to coordinate scheme design/delivery.
iii. Programming/phasing a range of schemes where construction phases overlap or clash.
iv. Options for shared cost of works (excavations, utilities, highways, reuse of materials locally etc).

3.5 In addition, a GRIP4 (Outline Design) scheme design and costings for the current Underpass design is due to be made available by Network Rail by the end of February. Using this data, an internal Gateway Readiness project review of the scheme is also taking place. This readiness review will focus on : Method of construction; Impact of cost price inflation; Utility diversions costs; and the current imbalance in stakeholder funding contributions.

3.6 As a forward looking review ICC will also be examining the current organisational structures delivering the Grays regeneration priorities across the Council, assessing this against best practice. The final report will make recommendations on how this could be improved by the adoption of new operating models and structures. Importantly is will offer recommendations on how best to take advantage of future external funding opportunities such as the third Levelling Up funding round.

3.7 A draft report of the finding from the ICC review will be prepared by 10th March 2023 and this will be considered with the findings from the internal Gateway Readiness Review to provide a combined update report, the results of which will be shared with Directors Board and the PTROS Committee.

Stanford Le Hope

3.8 The delivery of the new Stanford Le Hope station has faced many challenges, the most recent being the need to withdraw from the procurement for a main

contractor, due to post tender budget and programme issues which could not be resolved.

3.9 This has led the Council to review the programme in the light of the above financial challenges. The Council has prioritised the completion of the design and planning phase for the interchange element and the provision of a new business case. Whilst, a considerable amount of design work, on a number of options, has already been undertaken on the interchange, until a final design is completed and costed any shortfall in funding cannot be identified.

3.10 The Regeneration team have taken over the direct management of the design stage of the interchange works and have appointed Engineering Consultants, Aecom to compete this work. It is proposed to utilise the current design work as a base for the interchange design review work.

3.11 The initial stage (6 Weeks) of the design work will provide a preferred design option and a high-level costings by the end of March 23, which will be used to inform a new Business Case, needed to secure the £7.5m SELEP grant. It is proposed that the existing Phase 2 Stakeholder Group and the PTR OS Steering Group will both be used to provide oversight of this design work.

3.12 In addition the decision has been made to pause any further design work on Phase 1 - Station Building, until we are in receipt of the final full scheme design and costing information for the interchange. There will be then be an opportunity for all stakeholders involved in the project to review future delivery options with the full financial information and costed risk analysis available.

Purfleet Regeneration

3.13 In order for Purfleet Centre Regeneration Limited (PCRL) to fulfil its role as lead developer and deliver the planned programme set out in the Development Agreement (DA) they need access to sufficient levels of funding (equity, debt and grant) to bring the project forward and a well-resourced team able to effectively manage all workstreams. To date progress to deliver the scheme through the current DA arrangement has been disappointing and only a small percentage of the homes have even been started on site.

3.14 PCRL has struggled to obtain funding (debt and additional equity) for the project and this has been its main obstacle to unlocking delivery. In 2020 the Council restructured the delivery route for Phase 1 by entering into the Phase 1 Agreement for Leases to accommodate the Housing Infrastructure Fund funding and make it easier for PCRL to secure the funding it needed but it has still not managed to obtain funding. It is important to note that a major shareholder in PCRL, Swan Housing, has faced significant financial challenges in recent years which have impacted on their ability to continue to engage effectively.

3.15 PCRL appointed Knight Frank Capital Advisory in August 2021 to source an equity investment partner for the Purfleet regeneration project. The search for equity funding is ongoing. The current DA is not delivering the required outcomes and PCRL have failed to provide the equity needed to take the development programme forward in reasonable timescale. Therefore we are examining a full range alternative delivery options. PTROC Committee Members will be updated when options have been considered.

Grays and Tilbury Town Fund Programmes

3.16 Details of the each of the Town Fund project programmes have been subject the of Cabinet approval and reports to the PTR OS Committee.

3.17 Business case summaries were submitted to the Department for Levelling Up, Housing and Communities (DLUHC) in August 2022 (Tilbury) and October 2022 (Grays). The Council has been awaiting the formal confirmation that the business cases have been accepted and that the full funding allocation (£22.8m) for Tilbury and (£19.8m) Grays is confirmed. This confirmation has been delayed due for the need for further reassurance and assessment work 0n governance by the DLUHC and the Commissioners. We are still awaiting this confirmation.

3.18 DLUHC have released 5% of the respective funding allocations to allow Town Fund Boards to instruct on the commencement of design work needed to bring forward the projects in both the Grays and Tilbury Town Fund Programmes. For a majority of the individual projects design work has been developed up to RIBA Workstage 2 – (Outline Design) and further design work is dependent upon the DLUHC confirming the full funding allocation.

3.19 As indicated in this report it is proposed to reassess the proposal for cultural and leisure facilities within the current Grays Town Programme. This is to ensure that emerging proposals do not expose the Council to any ongoing unmitigated financial liabilities and to consider potential opportunities afforded by a refocussed Creative Estuary offer. The full scheme costs will be contained within the Grant allocation or through agreed match funding agreements. Projects will be subject to internal approval by the Council's Capital Programme Board to ensure that there are no cost overruns that could result in any future financial liabilities to the Council.

4. Reasons for Recommendation

4.1 To respond to the Committee request for an update on the Regeneration Programme.

5. Conclusion

5.1 The Council has already worked with the Commissioners to create an 'Improvement and Recovery Plan', which was submitted to the government on 3 December 2022. As part of the Improvement and Recovery Plan the Council

is required to review all of the major capital delivery projects, including those that make up the Regeneration programme. This is with a view to ensuring delivery capacity and financial control and ensure that robust governance arrangements are in place. This will enable the Council to clarify what aspects of the revised strategic growth plan it is going to enable or facilitate and which major projects the Council will continue to deliver directly, recognising the financial constraints it is operating under and the need to facilitate more and directly deliver less.

5.2 In addition to the IRP the Minister has also directed that a Best Value Inspection be undertaken, which would specifically examine the delivery and management of projects in the Capital Programme. The Best Value Inspection report is due to be send to Minister on 17th February 23 and it is anticipated that that there may be further directions applied to the Council following the Ministerial considerations of the BVI Report. The current project review has been programmed so as to ensure the results of all the internal reviews will be available for consideration alongside any Ministerial direction.

6. Consultation (including Overview and Scrutiny, if applicable)

6.1 It is proposed that major stakeholders will be consulted as part of the individual project reviews. The results of the reviews will be presented to this Committee, the respective Town Boards, Directors Board and the Commissioners.

7. Impact on corporate policies, priorities, performance and community impact

7.1 The adopted Thurrock Local Plan identifies Grays as a Growth Hub where economic regeneration and housing growth are to be focussed. The Grays Town Centre Framework Refresh was approved by Cabinet in November 2017 and out a vision for Grays town centre along with objectives aimed at regenerating the town centre economy. The new local plan will be one of the Council's key strategy documents and the new town centre strategy will be an integral part of this strategy sitting alongside a new Economic Growth Strategy.

8. Implications

8.1 Financial

Implications verified by: **Mark Terry**

Senior Financial Accountant

As part of the Thurrock Council's Improvement and Recovery Plan 2022, projects that make up the Council Capital Programme will be subject to a Gateway review as part of the objective to achieve long term financial sustainability. These reviews will provide the Council will an accurate position on the current debt borrowing requirements and provide an updated costed

risk register, which will consider future inflationary uncertainty and the current stakeholder funding balance. It is noted that due to the current economic situation the ability of the Council to undertake additional capital borrowing will be severely restricted and this will need to be considered as part of the Gateway review.

The issuing of a Section 114 notice puts further monitoring action in place to manage project expenditure and limits the Council to only acting on spend deemed essential to the delivery of its services and delivery of key projects. Expenditure above £500 will be subject to the additional expenditure controls including the submission of justifying business case.

A number of the projects within the Regeneration Programme have attracted external grant funding, which is tied to the provision of specific outputs. Failure to achieve these outputs could result in the claw back of some or all of these grants. SELEP has allocated £18m of Local Growth Funds to Thurrock projects that have already been applied to the projects.

Grays South and Rail Station Regeneration
The estimated cost of the project is £37.9m.

The Scheme budget is made up as follows

Funder	**Amount (£'000)**
Network Rail	700
SELEP LGF Grant	10,840
Thurrock Capital Programme	*26,320
Total	**37,900**

*Capital Programme currently only allocates £21,320k to this scheme.

The £10.8m SELEP LGF funding has already been drawn down by Thurrock Council for the project, this amount has not yet been spent in full. Failure to deliver scheme outputs as set out in the funding agreement will result in all or partial clawback of the SELEP Funds. Up to 31 December 2022, £4.083m has been spent on the project.

Stanford Le Hope

The current cost estimate of £29.09m. The funding sources are set out below.

Funder	**Amount (£'000)**
Network Rail	700
SELEP LGF Grant	3,050
S106	1,533
c2c	737
DP World Ports	550
Thurrock Capital Programme	15,720
Total	**29,090**

Total costs and liabilities up to the end of December 2023 are £13,459,181 of which £9,170,845 related to design and associated costs which have been capitalised. The SELEP LGF funding of £7.5m as per the CIPFRA rules has already been applied to the scheme budget and there is a clawback provision in the grant agreement that if the scheme does not deliver the outputs and outcomes set out in the funding agreement the Grant monies would need to be repaid.

8.2 **Legal**

Implications verified by: **Kevin Molloy**

Principal Lawyer / Manager- Contracts & Procurement Team

There are no new legal implications arising in this report.

8.3 **Diversity and Equality**

Implications verified by: **Becky Lee**

Team Manager, Community Development & Equalities

There are no direct implications arising specifically from this update report.

8.4 **Other implications** (where significant) – i.e. Staff, Health Inequalities, Sustainability, Crime and Disorder, and Impact on Looked After Children

- Not applicable.

9. Background papers used in preparing the report (including their location on the Council's website or identification whether any are exempt or protected by copyright):

- None

10. Appendices to the report

- None

Report Author:
Kevin Munnelly
Assistant Director, Regeneration and Place Delivery

28 February 2023	ITEM: 6
Planning, Transport and Regeneration Overview & Scrutiny Committee	
Transport Vision and Issues and Opportunities Update	
Wards and communities affected: All	**Key Decision:** Key
Report of: Mat Kiely, Transportation Services Strategic Lead	
Accountable Assistant Director: Leigh Nicholson, Assistant Director of Planning, Transport and Public Protection	
Accountable Director: Mark Bradbury, Director, Place	
This report is: Public	

Executive Summary

Following the previous submission of the Thurrock interim Transport Strategy to the Planning, Transport & Regeneration committee and Local Plan Taskforce, this briefing paper updates members on further progress with the development of the Local Transport Plan.

The Local Transport Plan is in four parts:

- Issues and Opportunities
- Vision
- Strategy
- Action and Implementation

The briefing paper provides an update on the first two of these:

- Issues and Opportunities draft reports:
    - Borough-wide Issues and Opportunities report and appendices.
    - Thurrock Urban Area Issues and Opportunities- the first of five reports for different parts of the Borough.
- A consultation draft of the ‘Vision 2050’ report.

Several work-streams associated with the Transport Plan will be the reported separately in the coming months including:

- Transport model.

- Issues and Opportunities reports for four sub-areas (following the pattern of the Thurrock Urban Area report above).

Together these documents provide an important insight into the existing situation within our transport network and identify the innovative ideas and measures that need to be considered and developed as Thurrock looks to accommodate significant housing and job growth through the Local Plan period and beyond and the impact this will have upon the transport network.

Accompanying appendices and plans provide members with detail of the work that has been progressed to date and provides an important and valuable role in aligning the wider transport work, infrastructure considerations and network improvements for the Local Plan period and beyond.

The report also identifies the next steps and broad timescales associated with stakeholder and member engagement. We will ensure that local communities, business and other key stakeholders are allowed to engage and shape the transport network.

1.0 Recommendation(s)

1.1 That Planning, Transport and Regeneration Overview & Scrutiny Committee note progress on the Transport Issues and Opportunities and Transport Vision documents and accompanying appendices and provide comment that will help to shape this work.

1.2 That Committee note that these documents will used to inform stakeholder and member engagement before advancing to wider community engagement.

1.3 That Committee note the opportunity to discuss this work in greater detail as the draft documents are developed and engagement feedback is received.

1.4 That members note the requirement to further the develop the Transport Plan in response to member and stakeholder feedback.

2.0 Introduction and Background

2.1 The current adopted Transport Strategy sets out the Council's transport policies and priorities from 2013 to 2026.

2.2 This Strategy was developed in a very different context from the position today and it is clear that a revised strategy needs to be developed in response to significant new challenges and opportunities. These include national housing delivery targets and the Council's growth aspirations, planning reforms, new bodies such as 'Transport East' and new planned transport schemes such as the Lower Thames Crossing.

2.3 The Council has taken the decision to develop a long-term Transport Plan/Strategy that will set out the approach to ensure our transport network evolves in line with the Council's Local Plan growth aspirations.

2.4 The challenges facing the Council are well publicised and this report should be read in that context. Future service activity will need to reflect the intervention the Council finds itself in. Particularly difficult decisions will need to be made on levels of service and methods of service delivery during 2023 and beyond.

2.5 Background studies have been commissioned to support the development of the new Local Plan and update the Thurrock Transport Strategy 2013- 2026. Several studies have already been submitted and discussed with PTR O&S and Local Plan Task force including:

- Draft Vision (Latcham/Doyle) - reported to the Local Development Plan Task Force in 29 November 2021.
- Interim Transport Strategy (Mott Macdonald) -reported to Local Plan Taskforce June 2022.
- Transport Baseline (Stantec) Reported to PTR O&S and Taskforce 2021.
- Thurrock Local Plan Infrastructure Baseline Report (Arup) - reported to the Local Development Task Force in July 2020.

2.6 This work is now being drawn together into a new 'Thurrock Local Transport Plan' to be produced in four parts.

- Issues and Opportunities
- Vision.
- Strategy
- Action/Implementation plan.

2.7 This report focuses on the first two sections of the new Local Transport Plan: Issues and Opportunities and Vision.

The Issues and Opportunities work comprises a borough-wide description of issues and opportunities with five separate detailed reports focusing on issues and opportunities in sub areas of the Borough:

- Thurrock Urban Area
- Aveley and Ockendon
- The Fens

- Stanford-le-Hope Corringham, London Gateway/TEP
- Chadwell St Mary, Tilbury, Tilbury East and Linford

2.8 The borough-wide and five sub-area studies form the basis of the transport planning evidence for the emerging Local Plan.

2.9 At this stage only the Thurrock Urban Area sub area report has been produced, which is offered as a template for the four further sub areas.

2.10 Parts three and four of the Transport Plan- Transport Strategy and Action/ Implementation Plans - will be developed in more detail and shared with members and stakeholders at a later date.

3.0 Borough-wide transport issues and opportunities

3.1 The Transport Issues and Opportunities Report condenses the findings of a Transport Baseline Evidence Study undertaken by consultants Stantec in 2020.

3.2 The Baseline Evidence Study is structured around the guidance within the Planning Policy Guidance (PPG) "Transport Evidence Bases in Plan Making and Decision Taking". PPG tells us that a transport evidence base should establish evidence for a range of key themes including, improving the sustainability of transport provision, enhancing accessibility, creating modal choices, improving health and wellbeing, supporting economic vitality, enabling other highway authorities and service providers to support and deliver the transport infrastructure and supporting local shops and the high street'. The Report is structured around the themes of Accessibility, Congestion, Mobility, Safety, Pollution and Affordability.

3.3 The Issues and Opportunities Report covers the whole borough and looks at the various issues and opportunities that must be considered and addressed as we develop a long-term Transport Plan for Thurrock. The Report provides a foundation for the exploration and justification for transport measures, modal change and infrastructure improvements set out in Vision.

Issues And Opportunities work are summarised below:

• Accessibility is the extent to which individuals and households can access day-to-day services, such as employment, education, healthcare, food stores and town centres.

The I&O work identifies that travel patterns in Thurrock are heavily focused on the private car. However, interestingly where opportunities to use other modes are convenient and available, people are willing to use them. The network of transport routes has severance issues caused by the busiest roads within Thurrock, particularly the M25 and A13. This notably causes difficulty in east-west travel and impedes residents' travel options and opportunities. The rail network is in the process of being improved, and capacity increased. This process is essential, as the recent pattern of decreased rail patronage is expected to revert to growth in the longer term. To support non-car travel, the

rail sector believes stations must link with new residential developments and employment growth areas.

• Congestion is the degree to which travel demand is greater than the capacity of the network to accommodate within a given period.

The average congestion level in Thurrock is higher than the average for England on key routes (the M25 and A13). Overall, the average network delay appears stable under current conditions. Rail passenger capacity would have soon been reached had the COVID-19 pandemic not occurred. The rail operator and Network Rail should revisit the shorter-term plan to increase rail network capacity post-pandemic. However, additional capacity is still expected to be needed over the long term. The severance of east-west travel and the limited available routes increases network sensitivity. Modelling future traffic behaviour is needed to fully understand network sensitivity, especially if the Lower Thames Crossing is progressed. A Thurrock Strategic Transport Model is under development. (more info on this in section xxx)

• Mobility is the ability of people and goods to move efficiently and freely around an area and is a crucial factor in economic growth and wellbeing for the population. It primarily concerns the opportunity to travel and the network connections available.

Thurrock's transport network supports high levels of mobility in some areas with high-quality public transport connections, private and commercial vehicle road networks, and walking and cycling routes. However, in sharp contrast, there are limited public transport links across the river, to rural areas and to the north of the Borough. The Road Network is congested and often disrupted. Connections to London by all modes are essential for Thurrock residents. Bus and ferry services are essential for more local journeys. Maintaining connections and service levels will continue to be necessary. The most common travel mode in Thurrock is driving a private car, followed by a private car passenger, then walking, followed by a bus. These modes account for 96.5% of all journeys in Thurrock. Improving walking routes and more and better bus services are essential in encouraging non-car travel.

• Safety considers the injuries and causal - ities that occur due to interactions be - tween users of the transport network.

Thurrock performs better for pedestrian and cyclist safety and has fewer fatalities than national and regional averages. It is vital to maintain existing trends of improving safety. The expansion of pedestrian and cycle routes and improved legibility of routes can support continual improvements in pedestrian and cycle safety. Creating safe environments in new development and new infrastructure in which vulnerable road users can safely mix with motor vehicles is essential to improve the trends towards safer travel networks.

• Pollution, carbon reduction and health examine the trends and impacts of the transport network in terms of the pollution impact, the trends in carbon production and how this interacts with public health.

Air Quality Management Areas (AQMAs) should be reviewed regularly, and consideration should be given to whether all the existing AQMAs are appropriate. Future reviews will be assisted by the new Air Quality Assessment Model. To provide information about the emissions associated with transport, Thurrock Council could introduce fleet monitoring for transport providers, such as taxis and bus operators, to understand progress towards less polluting drive systems. Information on fuel uses would allow consideration of incentives to promote transfer away from fossil fuel use. Coordinating disparate modernisation schedules would be easier if the information was held in one location. Monitoring transport's impact on pollution will require data collection from various operators.

• Affordability looks at the demographic factors which shape travel behaviour by changing the needs and costs of travel.

Thurrock performs well in terms of employment levels with fewer workless households. Port expansion is likely to drive strong employment growth in Thurrock. It is vital to ensure skills match employers' needs and it is equally important to ensure future infrastructure and developments serve and provide opportunities for all residents, including those with a range of health conditions and who are remote from good public transport connections. Educational attainment is a weakness at present. Opportunities to improve transport affordability for Thurrock residents seeking education and training need to be exploited.

The above points are summarised and presented below in Figure X.

	Key Statistics	Key Opportunities	Key Challenges
Accessibility	Inbound traffic – 80% car Outbound – 29% Rail Internal – 21% Pedestrian	Connections to London Stations via Rail Cycle network expanding NMU access Riverfront interchange opportunities, economic activity Enabling growth in locations with higher connectivity Planned increases in rail capacity	Connection of new development into existing networks and hubs Access to essential services by active travel, e.g. GPs/health, education, employment, food retail Deriving a comprehensive public transport strategy Coordination with rail and network operators
Congestion	A1089 congestion tracks national trends A13 congestion downward trend 2017-19 M25 congestion upward trend 2017-19 Higher than the national average shopping journeys Travel out of Thurrock into London make up 40% of AM peak journeys	Programme of improvement on A13, key junctions Modal shift/ home working Encourage active travel Data collection enables informed decision making Lower Thames Crossing increasing network capacity - if correctly configured. Increasing rail capacity	Severance of east-west travel in Thurrock by M25 and A1089 - and the prospect of the Lower Thames Crossing Bottlenecks on critical routes for freight Extremely tidal movements in and out of Thurrock
Mobility	Higher car ownership than the national average, 22% fewer households have no car Residents slightly (1%) less likely to drive than the national average Frequent rail services into London stations, 35-40 minute journey time	Frequent rail services to London stations Extensive bus network Interchange opportunities due to key destination location near multiple modes River traffic expansion Balancing car ownership with sustainable mode use	Severance of east-west travel in Thurrock by M25, A1089 and Lower Thames Crossing Developing a robust active travel network and prioritise public transport over the private car Improve cross-river and London-bound marine travel
Safety	A decline in accident rates between 2011 and 2019: 403 to 267, a 34% decrease Cycle and pedestrian injuries also declined by 59% and 13%, respectively	Improve on existing positive trends Expand non-car pedestrian and cycle routes, and legibility of routes	Encourage and provide for active travel in new developments and infrastructure to allow a safer mix between vulnerable road users and vehicles.
Pollution	Average year on year drop of NOx emissions in Thurrock of 2% Total NOx emission drop of 21% over the period 2008 to 2018	Introduce fleet monitoring for all modes Incentivise or promote transfer away from fossil fuel use Capitalise on initiatives to provide alternative fuel infrastructure.	Coordination of disparate fleet modernisation schedules Data collection from a range of operators Focus on congestion relief to reduce harmful emissions
Affordability	11.3% of Households are workless, in comparison to the 13.9% national average 15.6% of Thurrock residents have some limitations in their day-to-day activities due to poor health	Improve upon relatively high employment levels Ensure opportunities for a mix of skill sets and educational levels are available Encourage positive effects of port expansions	Ensuring future infrastructure and development

4.0 Issues and Opportunities for the Thurrock Urban Area.

As noted above, in addition to the borough-wide issues and opportunities work, the first of five sub-area Issues and Options Reports for the Thurrock Urban Area has also been prepared. This will act as a template for four further sub-area reports to be produced in early 2023:

5.0 Transport Vision

Connecting Thurrock Vision statement:

The Vision 2050

The Connecting Thurrock Vision 2050 sets the long-term vision and direction for the Thurrock Transport Strategy over nearly three decades.

The Vision

We have called this transport vision' 'Connecting Thurrock' to highlight that Thurrock's strategic location does not currently translate into well-connected places at the local/district level. Local connections mean everything. Poor connectivity is a barrier to employment for existing communities that rely on public transport. It means economically disadvantaged groups cannot access a full range of local services.

The Vision is set out in three parts:

- **Vision statement and goals** - A concise statement of Thurrock's hopes and expectations and ten interconnected goals that apply to remodeling existing roads, bridges and other assets and providing new infrastructure to support growth and regeneration.

- **Strategic focus areas**- Eight strategic priorities – are foundations for developing the Transport Strategy. Each strategic focus has a background story and is a visioning exercise in its' own right.

- **Vision 2050 Diagrams** – Abstract diagrams illustrating potential transport connections, interchanges, development, and regeneration by 2050.

Vision statement and goals

"The Transport Vision is to create a transport system for Thurrock that improves quality of life for all people. Over the next 30 years we want to transform transport connections to help deliver zero-carbon economic growth."

The Vision document imagines a future for Thurrock where people find it easier to get about using a transport network that is better connected, more integrated, and less congested. Our aim is to develop a transport system for Thurrock that:

• Is fully inclusive, meeting the needs of residents.

• Is integrated to provide seamless multi-modal journeys.

• Is accessible for everyone, safe and attractive to use.

• Delivers sustainable community regeneration and growth; and

• Responds to the exceptional circumstances of Thurrock as an international centre for logistics and commercial development.

It is important to note that the Vision is founded on a collaborative approach to coordinating future transport projects across south Essex, north Kent and outer east London.

Goals - Strategic focus areas

Goal 6: Modal shift to public transport- a significant shift from private car use to public transportation.

Goal 7: Safer roads – no deaths, fewer accidents, and a feeling of safety and security for all transport network users.

Goal 8: Facilitating development, growth, and regeneration – Transport infrastructure investment to facilitate growth and renewal.

Goal 9: Sustainable Development – coordinating land use and transport planning to avoid, minimise and mitigate negative social, environmental and climate change impacts.

Goal 10: Managing and maintaining – a better-managed and well-maintained network.

Strategic Priorities

From the work identified through the Issues and Opportunities baseline work, eight strategic priorities are identified to be at the heart of the transport vision:

Bus network –High-quality bus services offering faster, more reliable, accessible, comfortable, and affordable travel and closely integrated with rail, bus rapid transit, riverbus and ferry services.

Mass Rapid Transit – A fully integrated sub-regional Mass Rapid Transit System (MRT) will offer direct, high capacity and fast connections across the

Borough and serve outer East London, North Kent and South Essex. Thurrock's MRT will likely be developed as a high-speed Bus Rapid Transit (BRT).

Active Travel – reducing dependency on cars whilst increasing the number of people who choose to walk or ride bicycles for most of their journey and helping to improve physical fitness and health.

Strategic Roads – An upgraded and extended Strategic Road Network fit for the 21st-century offering increased reliability for local journeys, reduced journey times, and improved local connectivity to drive economic growth and provide opportunities for people and businesses. The priority is securing benefits and opportunities from new strategic road proposals such as the Lower Thames Crossing.

Rail – Rail connectivity encompasses new and improved rail connections between Essex, Kent, the City and West End, north, south, and west London and Thurrock's existing and new communities, employment areas and urban centres.

River – Cross-river connections across all transport modes and strengthening the river as a major transport artery to break down the barrier of the river.

Streets – Local roads will continue to play an essential role in our future transport network to accommodate many modes, including private cars, public transport, commercial vehicles, cyclists and pedestrians and new mico-mobility transports.

New Technologies and Modes – The vision is based on a rapid transition towards low-emission vehicles whilst establishing Thurrock as a testbed for urban transport innovation. Potential new mobility innovations include increased shared use, micro-mobility, automated driving, connected transport systems and networks, significant shifts to electric and hydrogen vehicles, and new fuel supply/charging infrastructure.

The above priorities have been further explored and presented in terms of transport measures, modal change and infrastructure enhancements that need to be considered and explored in greater detail to understand what needs to be delivered to improve Thurrock's transport network and growth aspirations.

Vision 2050 Framework Diagrams

The Vision includes a series of 'Framework Diagrams' visualising a future transport network and how the different transport modes can be fully integrated with one another and serve and existing and future residents and businesses.

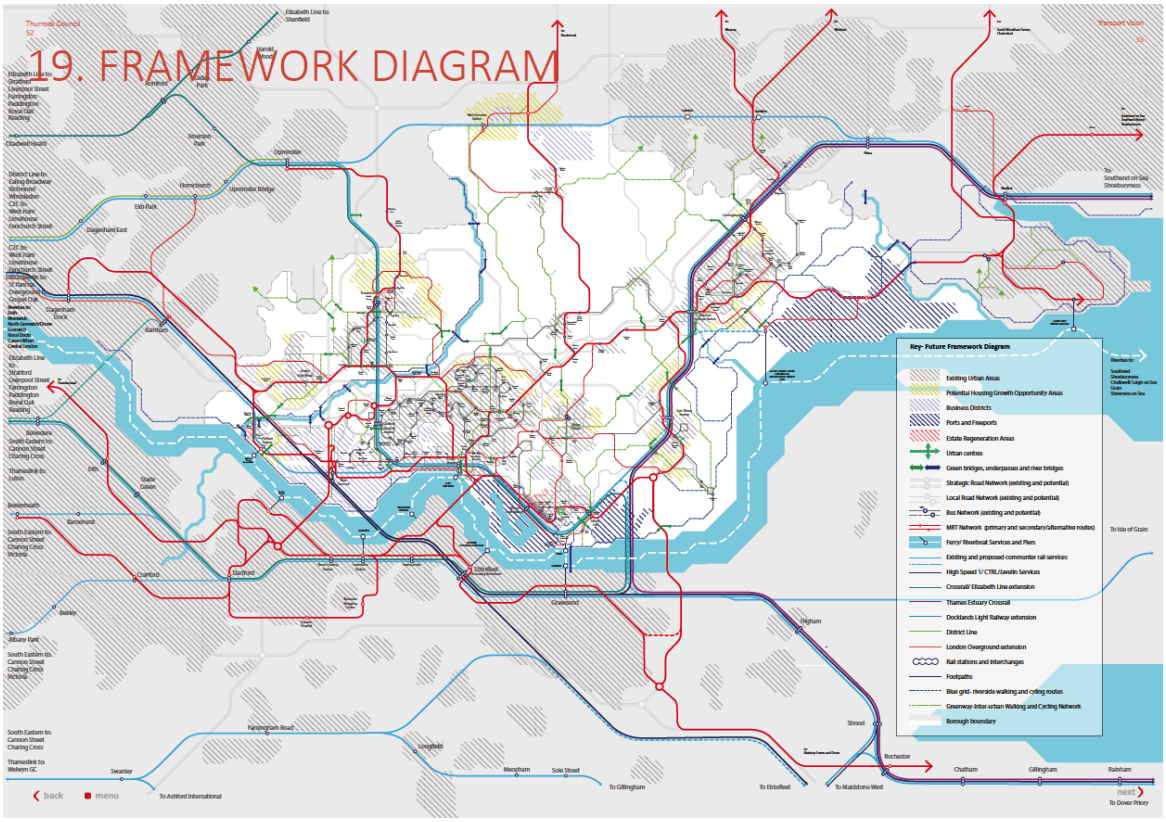


Figure 2 – Framework Plan provides a high-level view of the wider network issues and enhancements that need to be considered

It should be noted that this diagram is to be used to inform the Transport Plan and to facilitate future engagement with stakeholders and communities.

A diagram entitled ‘projects’ describes a possible range of future projects. This will act as a ‘pool’ from which individual projects can be selected and further developed through the action and implementation plan whilst fully understanding how individual project influence and are influenced by others.

The identified projects are not intended to be a set of measures that the council ‘must’ deliver. Instead, they are to be used to inform future discussion and planning for network improvements as the council’s emerging growth aspirations take shape.

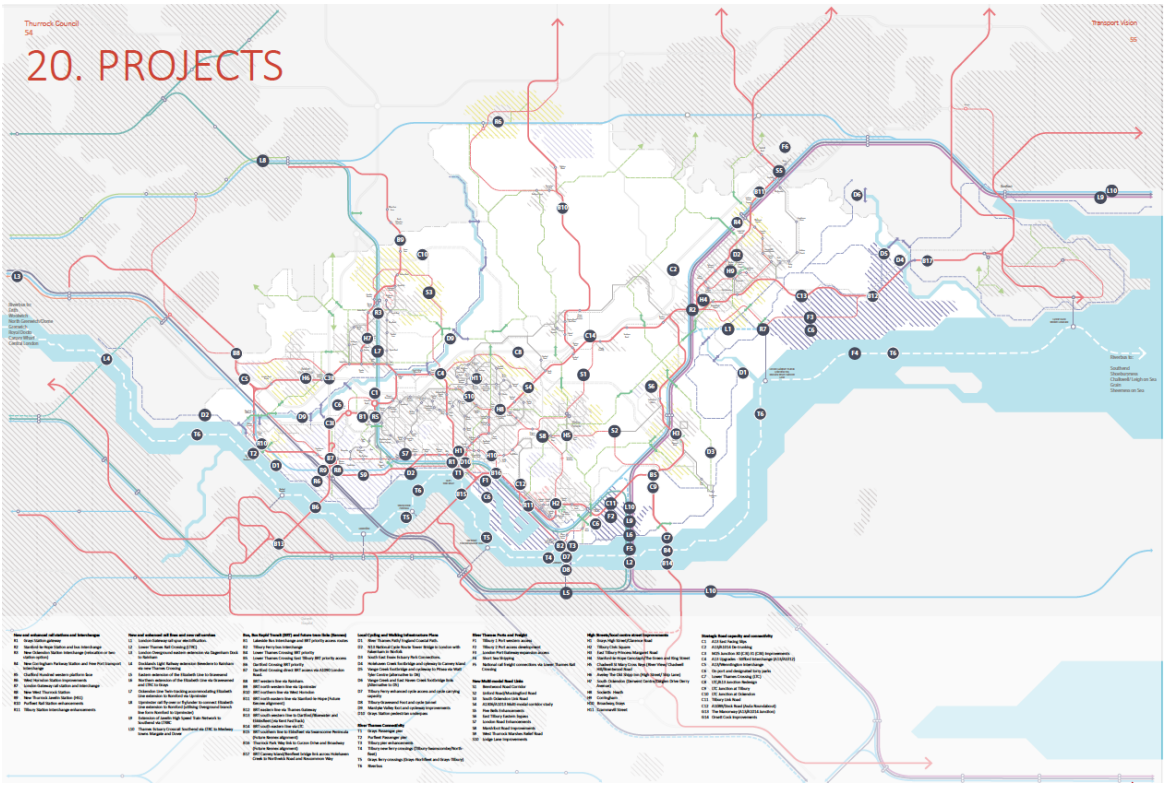


Figure 1 Project Plan provides a helpful view of the projects and measures that need to be considered as we develop the Transport Plan and Vision.

6.0 Next steps and timescale

6.1 The following timescales set out a broad process and dates for engagement review and re-submission of the documents covered in this report.

PTR submission – Feb 2023

Stakeholder engagement – Spring 2023

Public engagement – Spring / Summer 2023

Action and Implementation Plans developed – Spring / Summer 2023

PTR O&S submission and Cabinet approval - end of Summer 23

7.0 Reasons for Recommendation

7.1 It is important that Members are updated on the progress that has been made in developing the Transport Vision and Issues and Opportunities baseline work which supports and underpins the emerging Transport Plan and Local Plan growth ambitions.

7.2 The information and updates provide a useful high-level summary of the work undertaken to date. Input from this Committee will help to ensure there is

ongoing momentum and support for the Vision, Issues and Opportunities and emerging Transport Plan.

8.0 Consultation (including Overview and Scrutiny, if applicable)

8.1 The next step will be to develop an engagement plan to ensure we discuss this work and gain insight and input from stakeholders and communities. Engagement will allow local residents, business and other interested parties to comment. Engagement will also be promoted to local residents and key stakeholders through established meetings, forums and interest groups.

9.0 Impact on corporate policies, priorities, performance and community impact

9.1 This work will have an impact upon all communities within Thurrock. Developing a long term Vision and Transport Plan which aligns with the Council's emerging Local Plan is vital to making Thurrock a place where people of all ages can work, play, live and stay in a clean environment that everyone has reason to take pride in.

10.0 Implications

10.1 Financial

Implications verified by: **Laura Last**

Senior Management Accountant

Local Plan Funding has been used (£71,000) to fund an operational and staffing budget in order to deliver the revised Vision and Transport Plan. In addition, there is a Section 31 grant funding award of £178,571.43 primarily for the preparation for the launch of the new Local Transport Plan (LTP) guidance (not yet circulated by DfT) and to encourage your LTA to update their LTPs.

If any further funding is needed then either further Local Plan funding or the Transportation Services team budget will be used. The Council continues to experience significant revenue budget pressures and exceptional wider financial risks, and as a result, spending will be kept to a minimum.

10.2 Legal

Implications verified by: **Caroline Robins**

Locum Principal Solicitor

Since this report is essentially an update to Members on progress to date and likely next steps, rather than one recommending any decision, there are no direct legal implications as such. By way of background to the key statutory provisions, the Council, as local transport authority, is required, under the Transport Act 2000, to develop policies, for the promotion and encouragement of safe, integrated, efficient and economic transport to, from and within its area and carry out its functions so as to implement those policies. These

policies and proposals for their implementation must be set out in a Local Transport Plan, in one or more documents, to be prepared by the authority. The authority is required to keep this Plan under review and they may alter or replace it if they consider it appropriate to do so. There are detailed consultation requirements when preparing and reviewing a Plan. The Plan or any alterations to it must take into account relevant Government policy and have regard to Government guidance on climate change mitigation or adaption and on protection of or improvement to the environment. In due course, as soon as practicable after a new Plan has been prepared or the Plan has been altered, the authority will, amongst other things, need to publish it and send a copy of it to the Secretary of State for Transport.

10.3 **Diversity and Equality**

Implications verified by: **Rebecca Lee**

Team Manager Community Development and Equalities -

Many people across Thurrock use the local transport infrastructure daily to access employment, education and a range of essential services and leisure activities. The network is open to all; however, individuals and groups have their own specific transport requirements. The vision for transport incorporates five core aims that champion inclusivity, integration, accessibility, sustainability and the exceptional circumstances of Thurrock. The plan recognises the importance of connectivity and that poor connections can present barriers to employment with an impact for economically disadvantaged groups and communities. An engagement plan will be developed to inform a Community Equality Impact Assessment is completed involving a wide range of residents, stakeholders and interest groups.

10.4 **Other implications** (where significant) – i.e. Staff, Health Inequalities, Sustainability, Crime and Disorder, and Impact on Looked After Children

- None.

11. Background papers used in preparing the report (including their location on the Council's website or identification whether any are exempt or protected by copyright):

- Local Plan transport background studies

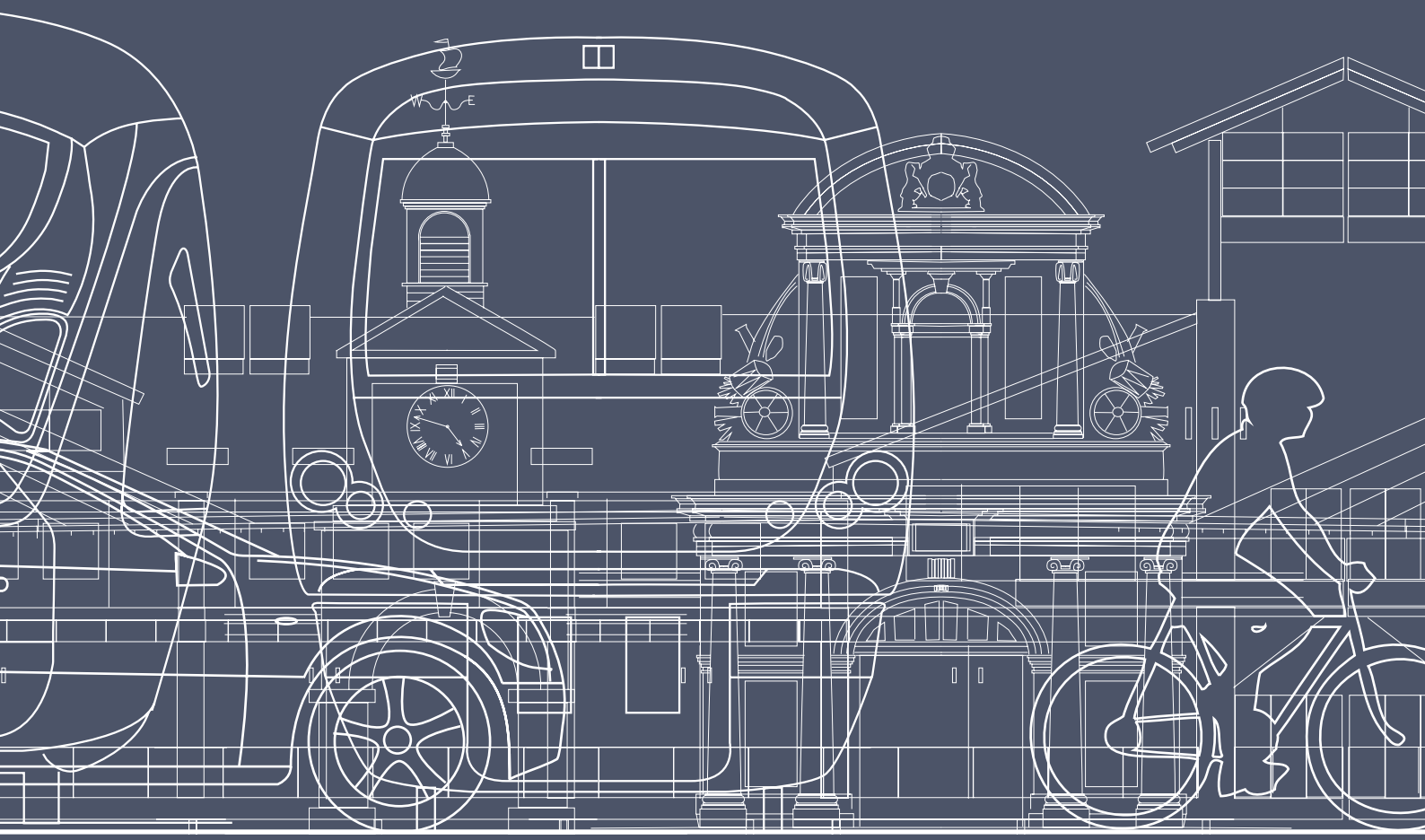
12. Appendices to the report

- Appendix 1 – Borough Wide Issues and Opportunities and appendices
- Appendix 2 – Vision 2050
- Appendix 3 - Thurrock Urban Area Issues and Opportunities

Report Author:

Mat Kiely, Transportation Services Strategic Lead

DRAFT



Thurrock Local Transport Plan

ISSUES & Opportunities

Appendix A - LTP Baseline Borough-wide figures

FEBRUARY 2023

THURROCK COUNCIL

Contents

This document presents the findings of a Transport Baseline Study undertaken by Stantec Limited. Maps and diagrams are reproduced from that report with their kind permission.

Stantec

www.stantec.com

This document produced with the asssitance of Latcham Limited and Doyle Design LLP

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www.richardlatcham.com

DOYLE DESIGN LLP
www.michael-doyle.com

Figures

1. INTRODUCTION

1.1 Introduction

1.1.1 The Thurrock Local Transport Plan Issues and Options Report documents the borough's existing transport and travel situation.

1.1.2 This Report Appendices sets out data, diagrams, and maps from the Local Plan Transport Baseline review by consultants Stantec.

1.1.3 Data is drawn from several sources, including:

- Census 2011
- Department for Transport
- National Travel Survey (NTS)
- TEMPro 7.2
- Ordnance Survey
- Office of Rail and Road
- Royal Mail postcode
- Police injury accident records
- Thurrock Council

2. ACCESSIBILITY

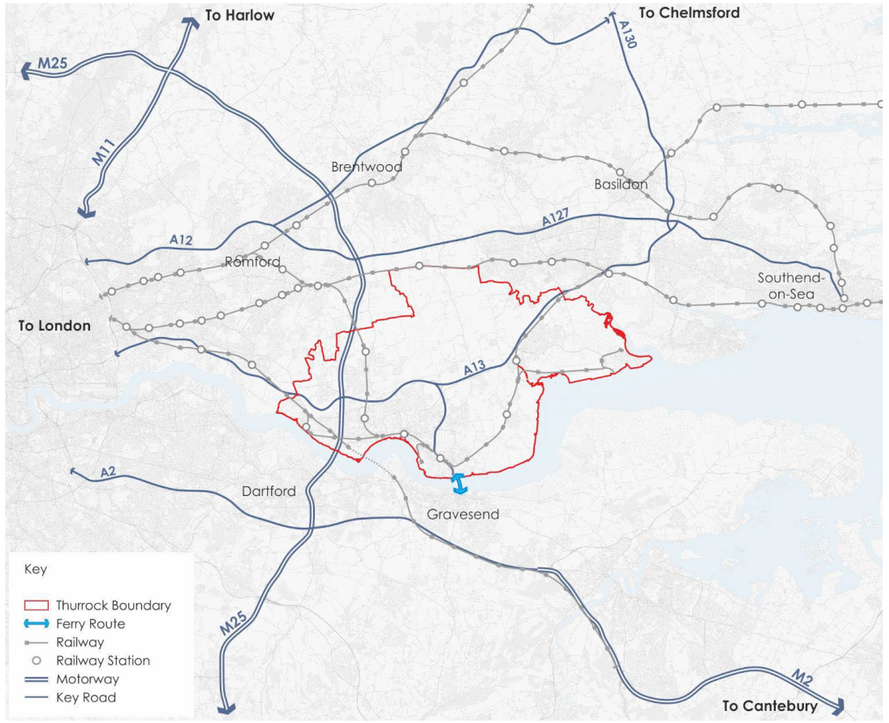


Figure 1. Key transport links (Stantec)

2.1 Urban Density

2.1.1 Figure 2 indicates the current clustering of residential development within Thurrock. It identifies nine key locations: Purfleet, Aveley, Ockendon, Gray and Chafford Hundred, Tilbury, Chadwell St Mary, East Tilbury, Stanford-le-Hope and Corringham.

2.1.2 The retail and business zone of Purfleet and Lakeside and the M25/A282 corridor create a separation between Purfleet and Aveley residential areas and Grays and Chafford Hundred.

2.1.3 Whilst the corridor of A1089 and the retail and industrial environment around it create a western boundary to Chadwell St Mary and Tilbury, the areas to the east are lightly populated with East Tilbury, Stanford-le-Hope and Corringham being surrounded by open land."Employment Accessibility.

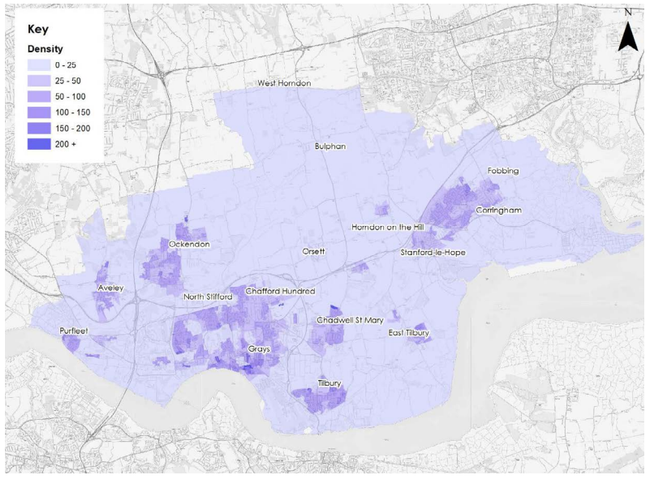


Figure 2. Current clustering of residential development within Thurrock (Stantec)

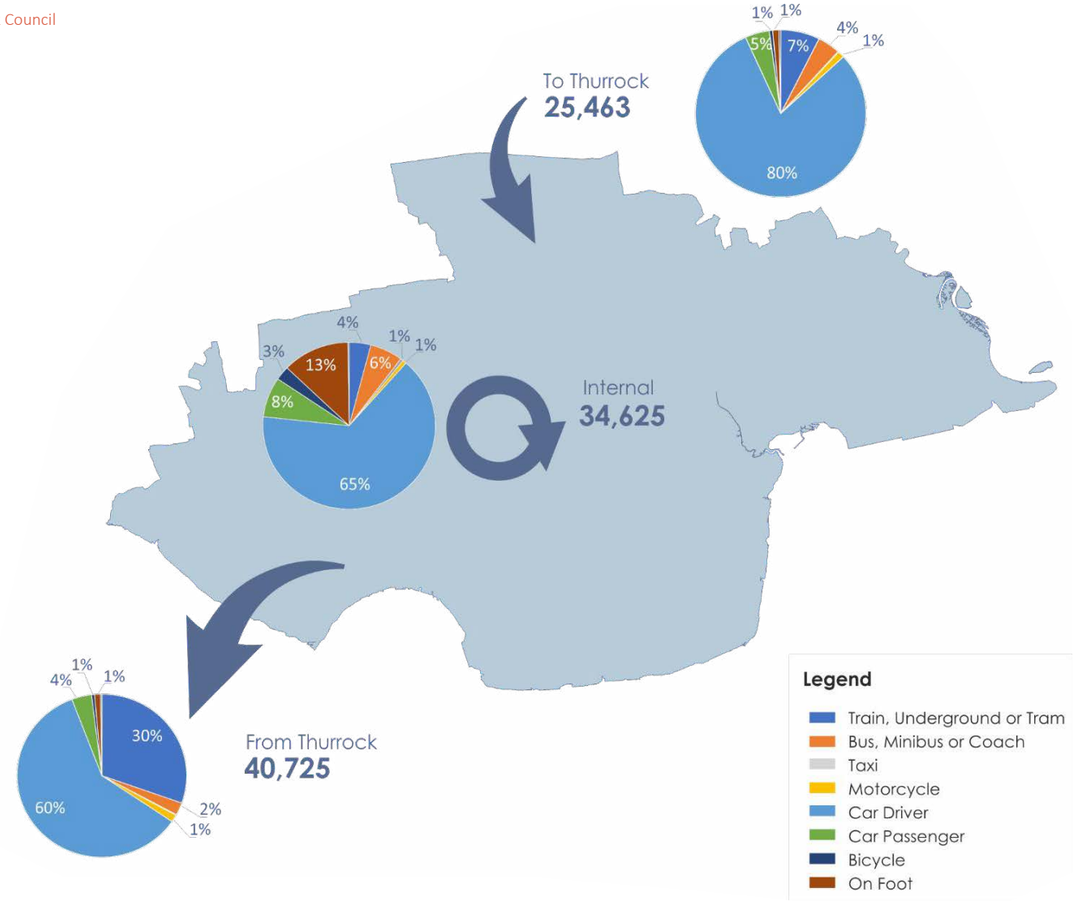


Figure 3. Number of employment trips and mode share

2.2 Employment Accessibility

2.2.1 The Figure 3 illustrates the number of employment trips and breaks this down by transport mode. The data is taken from Office of National Statistics Journey to work data gathered from the 2011 census and represents all daily work journeys made within, to and from Thurrock.

2.2.2 Around 75% work related journeys to, from and internally in Thurrock are made by private car.

2.2.3 Rail makes up a significant proportion of employment journeys from Thurrock, around 25%.

2.2.4 Figure 4 illustrates the key employment districts, industrial zones and retail centres within the borough.

2.2.5 Primary industrial and commercial land uses are scattered across urban areas in the Borough. Shopping areas are concentrated in town centres and urban areas, the large shopping area to the west is the Lakeside Shopping Centre.

2.2.6 Figure 5 data is taken from Office of National Statistics Journey to work data gathered from the 2011 census and projected up to a 2019 estimation using the Tempro growth data set which predicts increases in movement between two comparator years.

2.2.7 The height of each stack represents inbound daily work journeys made to destinations within Thurrock, both from within the authority and from outside Thurrock.

2.2.8 Analysis shows employment trips are concentrated on several key areas in Thurrock, mainly the terminal and port areas: Purfleet, Tilbury and London Gateway. The employment and retail centre of the Lakeside basin is a clear attractor to workforce journeys.

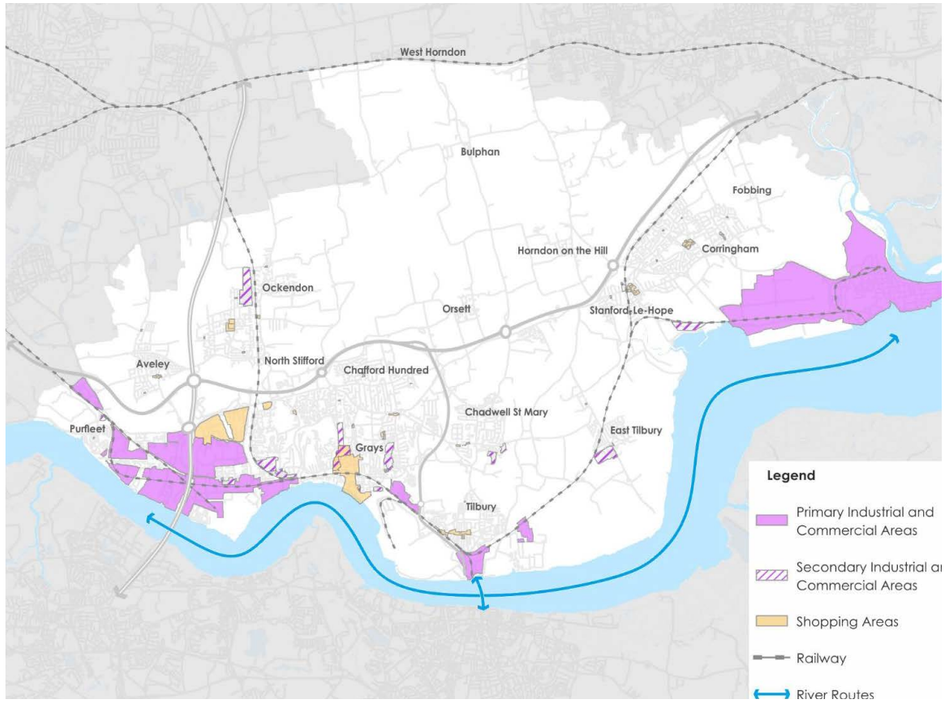


Figure 4. Key Employment Districts, Industrial Zones and Retail Centres within the borough. (Stantec)

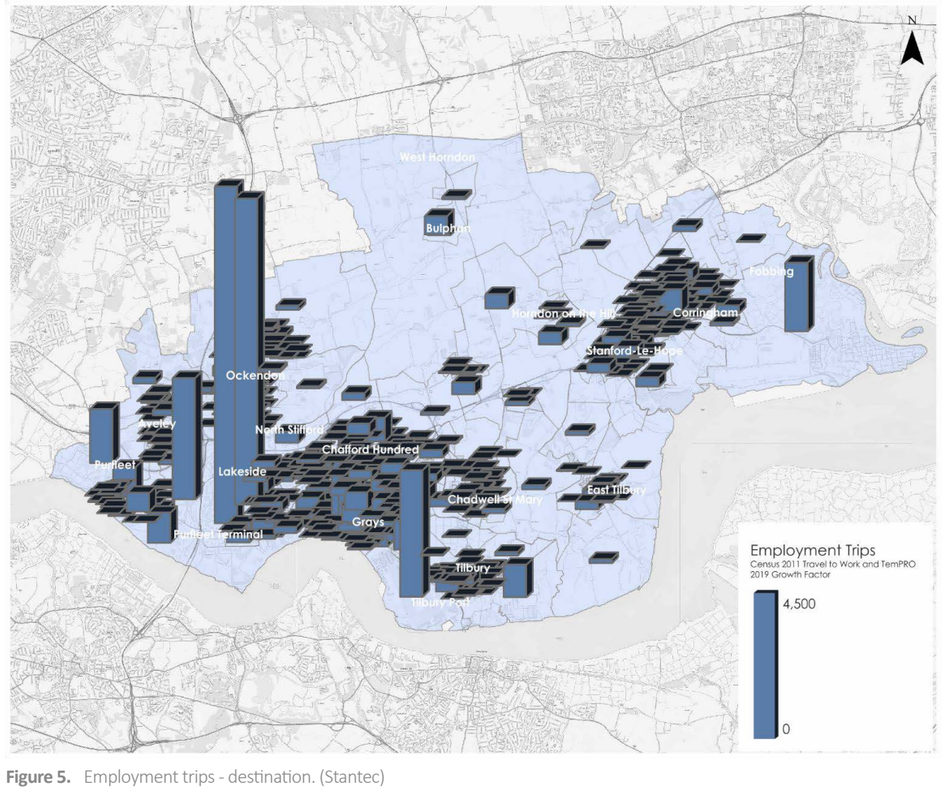


Figure 5. Employment trips - destination. (Stantec)

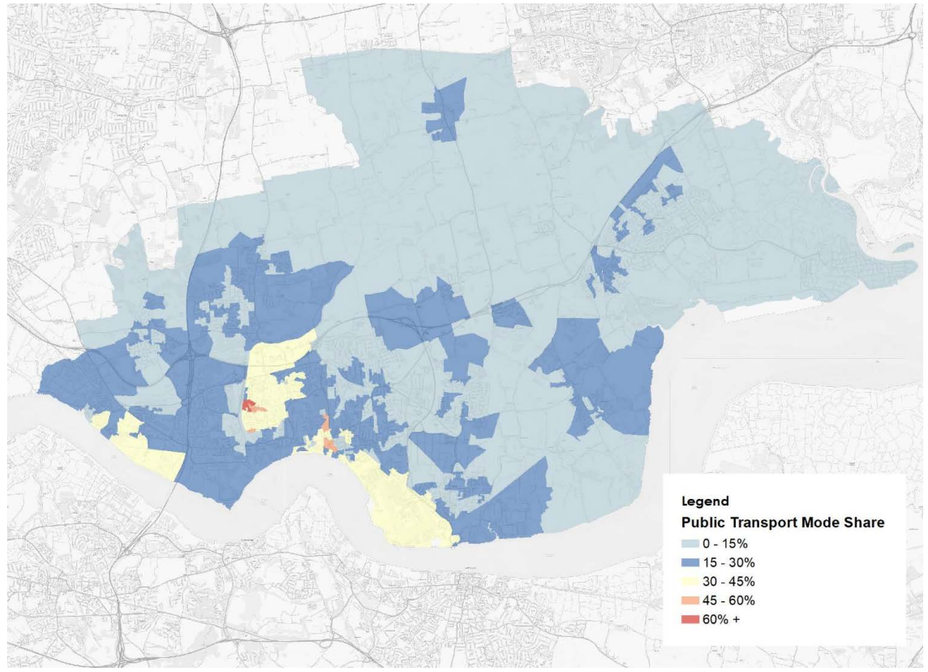


Figure 6. Public transport mode share- bus and rail combined (Stantec)

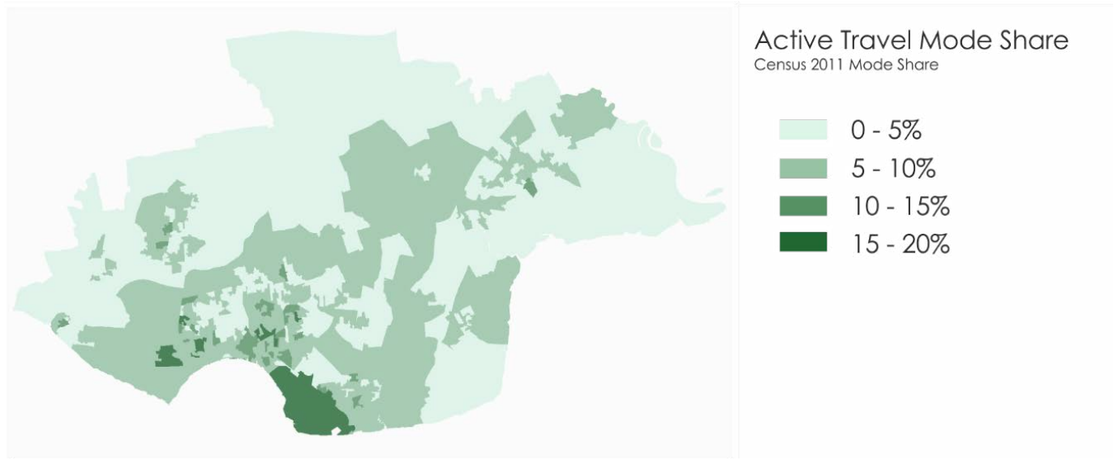


Figure 7. Active travel mode share (Stantec)

2.3 Public Transport mode share - bus and rail combined

2.3.1 Figure 6 illustrates the proportion of daily trips originating each output area in Thurrock that use public transport (bus, ferry and/or rail) as the main mode to travel to work on an average weekday. This data is taken from Office of National Statistics Journey to work data gathered from the 2011 census.

2.3.2 For all journeys from Thurrock data taken from the NTS indicates that 8% of journeys within, into or out of Thurrock use public transport. This compares with 9.1% share of journeys across England.

2.4 Travel by active modes and Public Transport

2.4.1 Figures 7 and 8 presents data taken from Office of National Statistics Journey to work data gathered from the 2011 census and represents all daily work journeys made from Thurrock. This dataset was chosen as it provides the most detailed analysis available of modal choice by location, and demonstrates the dependency of active modes and public transport on location.

2.4.2 Analysis of mode share trip data for both work and other journey purposes shows that active travel (walking and cycling) and public transport makes up a significant proportion of trips in Thurrock urban areas. Across the Borough as a whole the average is 31%, which compares with 37% nationally for England.

2.4.3 Both datasets show similar geographic trends with active travel and public transport use most prevalent around the more urban areas. Less predicted is the greater than 5% active travel in the more rural areas along the north to south central band of the borough."

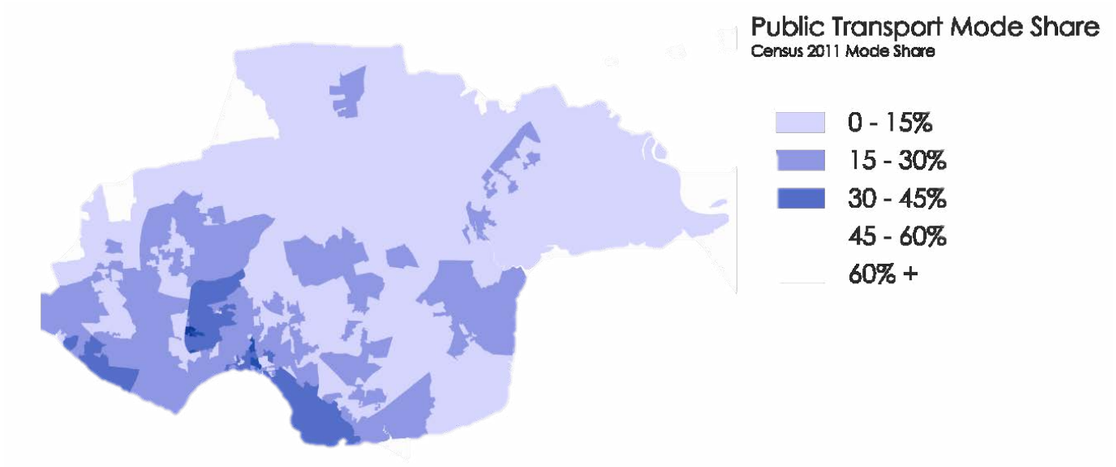


Figure 8. Public transport mode share (Stantec)

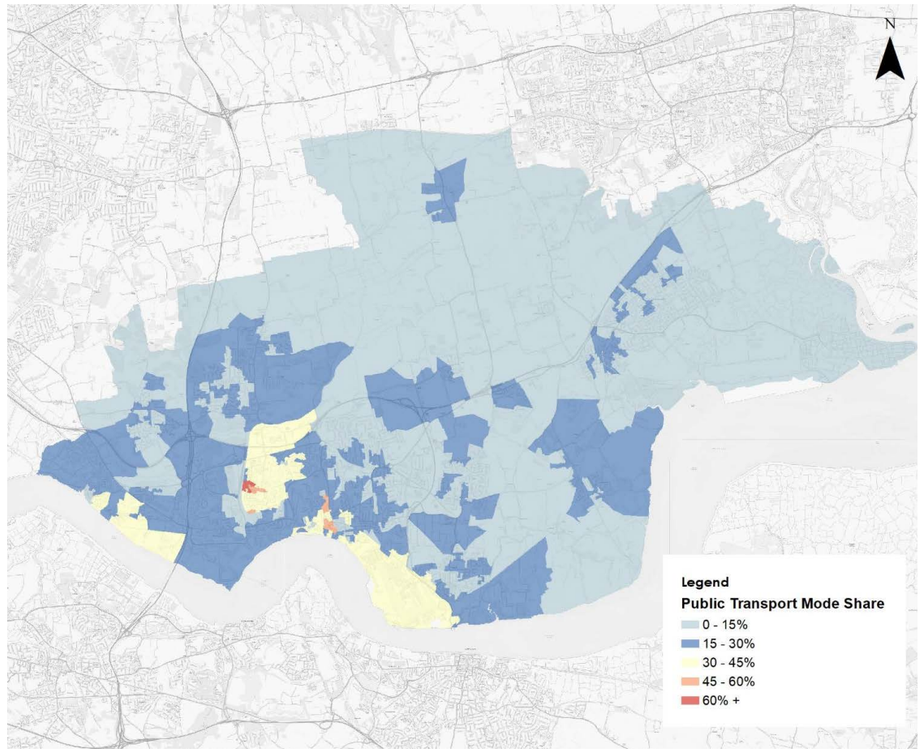


Figure 9. Proportion of daily trips originating in Thurrock that use rail as the main mode on an average weekday (Stantec).

2.5 Rail Usage in Thurrock

2.5.1 Figure 9 illustrates the proportion of daily trips originating in Thurrock that use rail as the main mode on an average weekday. This data is taken from Office of National Statistics Journey to work data gathered from the 2011 census.

2.5.2 This corresponds with information gathered by the rail operator C2C through online surveys which indicated the main mode of travel to the stations within Thurrock was on foot. The percentage of journeys on foot to stations (from surveys undertaken in 2015) was around 60-70%.

2.5.3 Rail usage for journeys to work from homes within Thurrock varies with proximity to higher frequency service and station facilities correlating closely with rail modal share. In areas where people are able to easily walk to the station the highest mode shares are over 60% for journeys to work.

2.5.4 The average rail mode share for employment trips from Thurrock to areas outside of Thurrock is 29%. Rail usage for journeys to work from areas outside of Thurrock is a lot lower, at 6% modal share.

2.5.5 For all journeys from Thurrock data taken from the NTS indicates the modal share for rail is 1.8%, which compares with a national average for England of 2.2%.

2.5.6 Rail travel in Thurrock has grown consistently over the past 15 years, with a growth of 79% in patronage over that period. This compares with a average across Great Britain of 95% growth in patronage."

Railway Station	2019 Demand	2019 (Daily AM Peak estimate)	2031 Demand	2031 (Daily AM Peak estimate)	AM Peak % Increase
Chafford Hundred	2900000	3200	4400000	4900	53%
East Tilbury	450000	500	600000	700	40%
Ockendon	1150000	1300	2400000	2700	108%
Purfleet	700000	800	1500000	1600	100%
Stanford-le-Hope	1150000	1300	1350000	1500	15%
Tilbury Town	1250000	1400	2050000	2300	64%
Grays	4150000	4600	6250000	7000	52%

Figure 10. Railway station demand (Source: Office of Rail and Road, formerly Office of Rail Regulation)

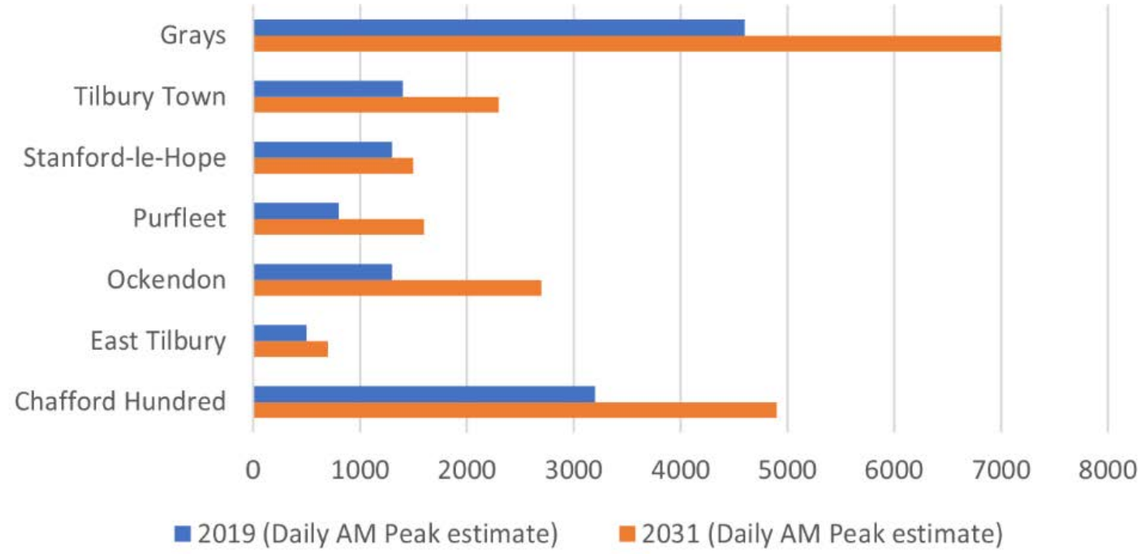


Figure 11. Rail demand projection (Source: Office of Rail and Road, formerly Office of Rail Regulation)

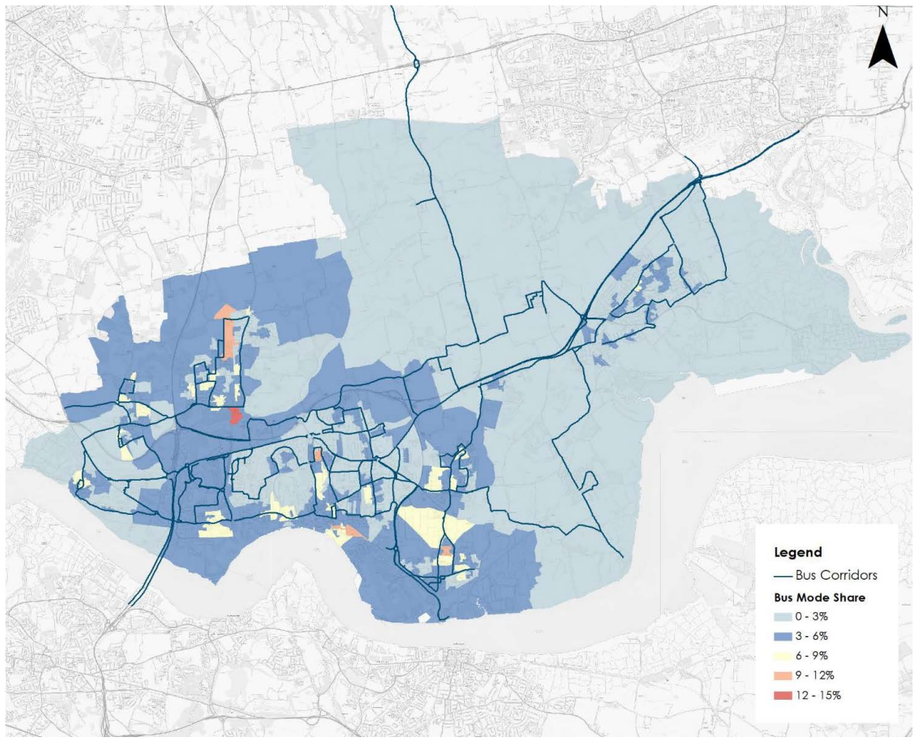


Figure 12. Proportion of daily journeys originating in Thurrock that use a bus as the main mode on an average weekday (Stantec)

2.6 Bus Usage in Thurrock

2.6.1 Figure 12 illustrates the proportion of daily journeys originating in Thurrock that use a bus as the main mode on an average weekday. This data is taken from Office of National Statistics Journey to work data gathered from the 2011 census.

2.6.2 Data giving origin and destinations of journeys by bus for non-work travel is not currently available.

2.6.3 For all journeys from Thurrock data taken from the NTS shows 6.2% of journeys within Thurrock use a bus. This compares with 6.9% share of journeys across England, (although these are disproportionately raised by London), and 5.9% of journeys in Essex as a whole."

2.7 Walking, Cycling and Riding network

2.7.1 Figure 13 illustrates the cycle and bridleway and Public Rights of Way facilities across Thurrock taken from data provide by Thurrock Council.

2.8 Travel by active modes

2.8.1 Figure 14 illustrates the proportion of daily trips originating in Thurrock that are made by active travel modes (walking and cycling) as the main mode on an average weekday. This data is taken from Office of National Statistics Journey to work data gathered from the 2011 census.

2.8.2 For all journeys from Thurrock data taken from the NTS shows 22.6% of journeys within Thurrock are undertaken on foot, cycle or horseback. This compares with 34.7% as the average modal share for England.

2.8.3 No data is currently available of equestrian activity within the borough.

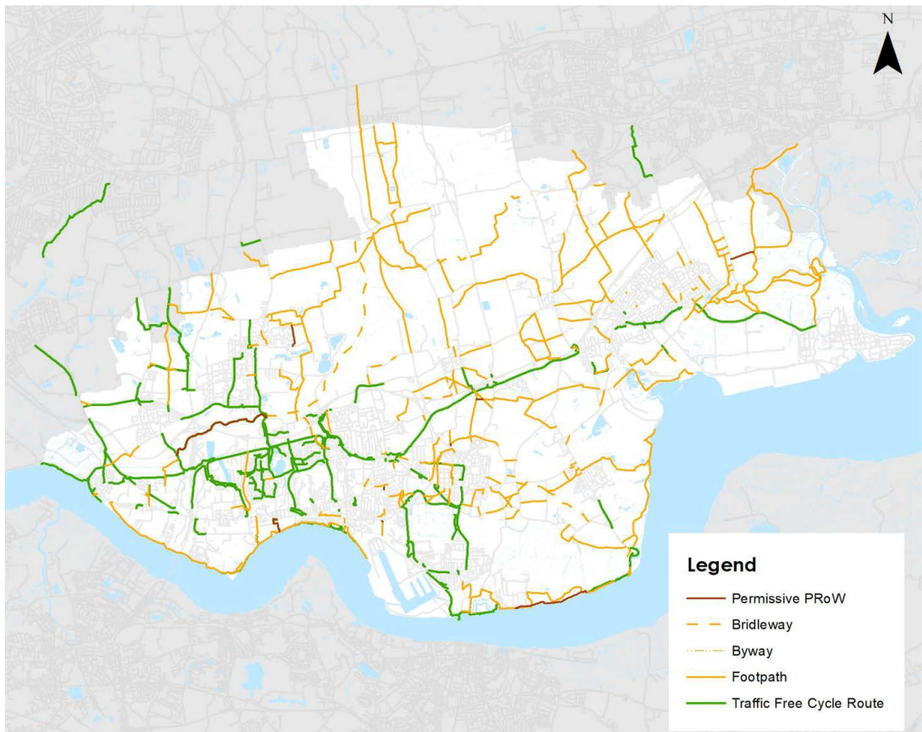


Figure 13. Cycle, bridleway and Public Rights of Way

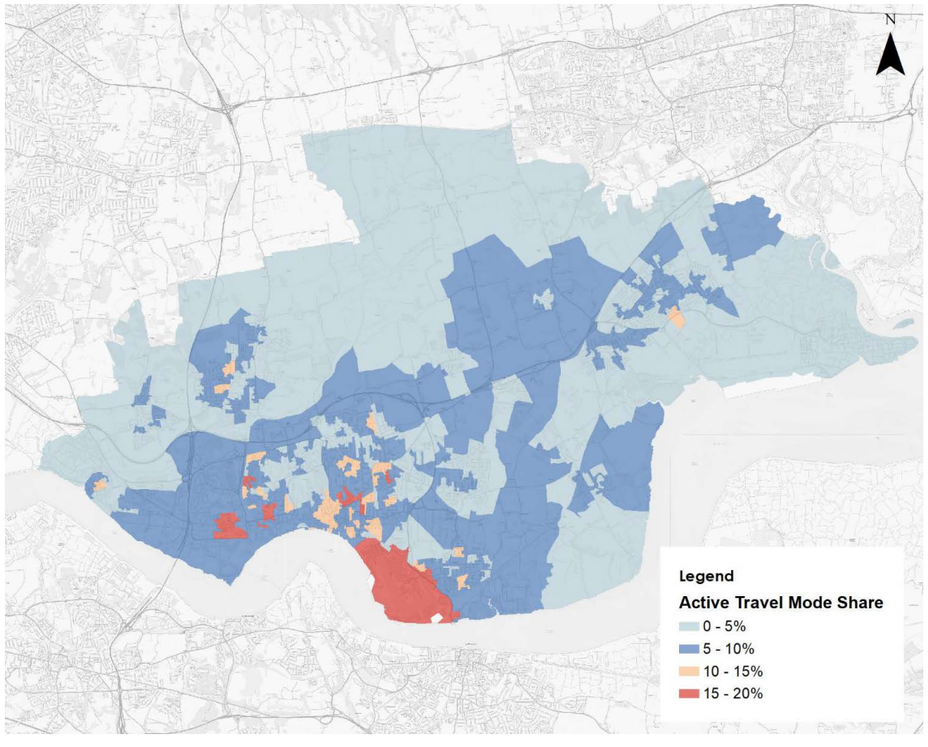


Figure 14. Proportion of daily trips originating in Thurrock that are made by active travel modes (walking and cycling) as the main mode on an average weekday.

2.9 Walking Mode Share

2.9.1 Figure 15 illustrates the proportion of daily trips originating in Thurrock that are made by walking on an average weekday. This data is taken from Office of National Statistics Journey to work data gathered from the 2011 census.

2.9.2 For all journeys from Thurrock data taken from the NTS shows 20.9% of journeys within Thurrock are undertaken on foot. This compares with 26.2% as the average modal share for England."

2.10 Cycling Mode Share

2.10.1 Figure 17 illustrates the proportion of daily trips originating in Thurrock that are made by cycle on an average weekday. This data is taken from Office of National Statistics Journey to work data gathered from the 2011 census.

2.10.2 For all journeys from Thurrock data taken from the NTS shows 1.8% of journeys within Thurrock are undertaken on foot. This compares with 1.7% as the average modal share for England."

2.11 Accessibility to Local Facilities

2.11.1 Accessibility to local facilities within Thurrock has been considered using the CIHT Guidelines for Providing for Journeys by Foot. This document provides suggested acceptable walking distances to different local facilities.

2.11.2 Thurrock has good walking accessibility to local bus stops, and reasonable accessibility to both primary and secondary schools.

2.11.3 Food stores however are not as accessible, with only 31% of residents within the suggested 400m of a local food store.

2.11.4 Figure 16 shows the proportion of the population able to access local facilities in the recommended distances.

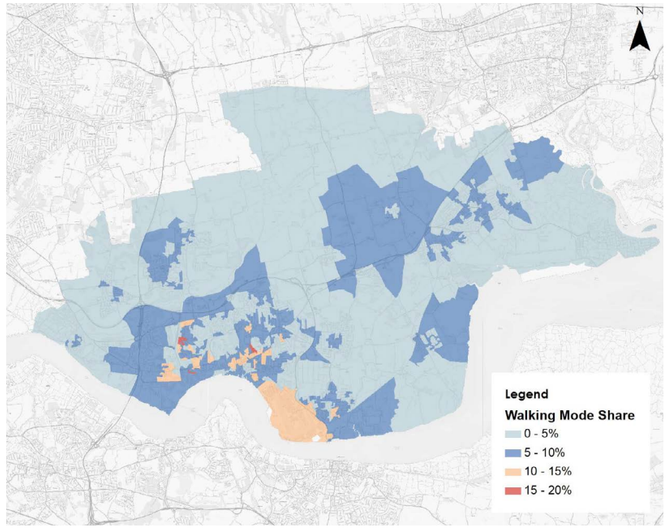


Figure 15. Proportion of daily trips originating in Thurrock that are made by walking on an average weekday.

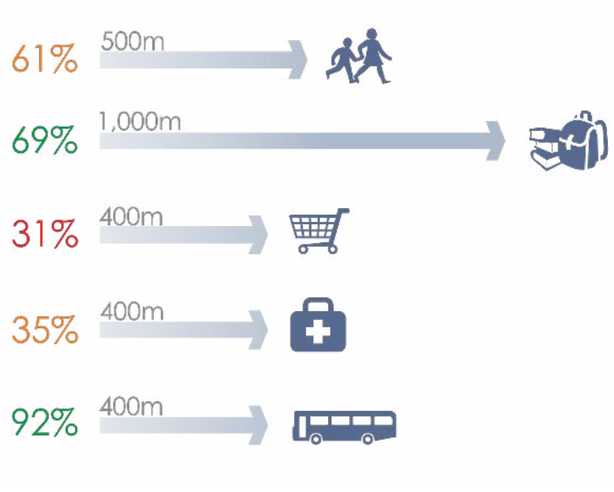


Figure 16. Accessibility to local facilities

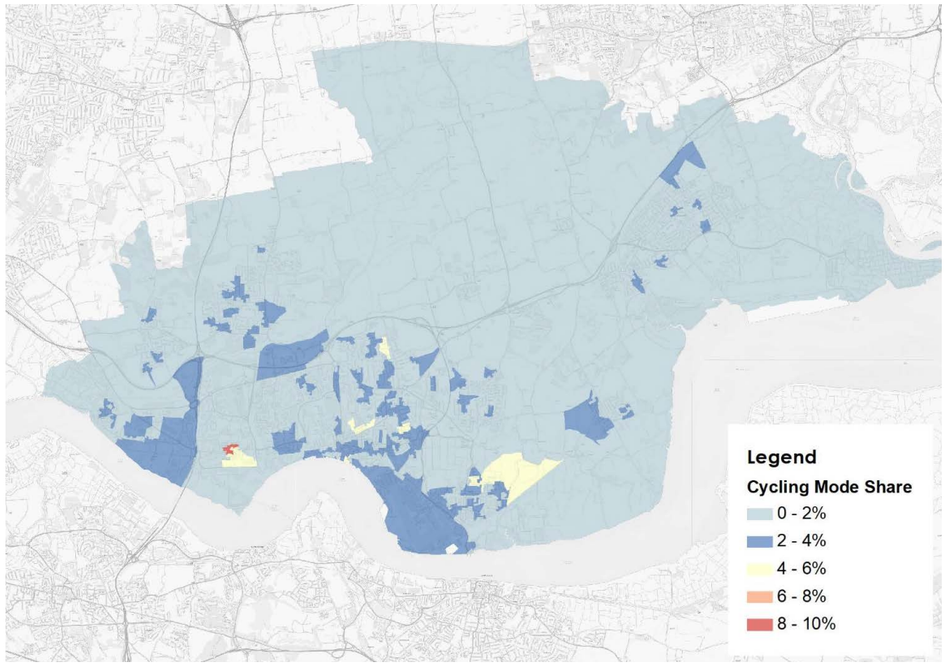


Figure 17. Proportion of daily trips originating in Thurrock that are made by cycle on an average weekday.

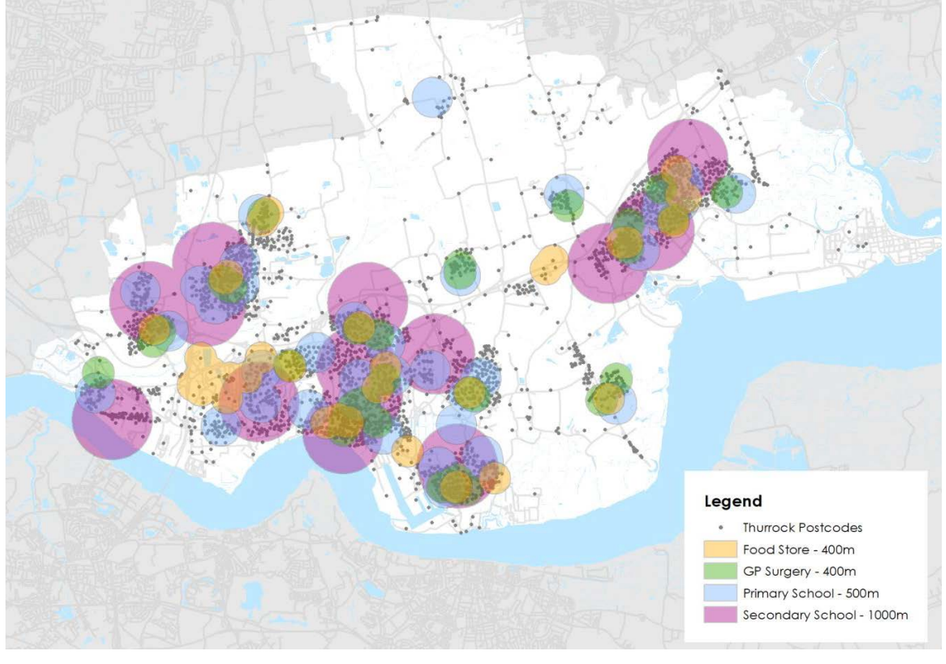


Figure 18. Accessibility to local facilities within Thurrock - CIHT Guidelines for Providing for Journeys by Foot) (Stantec)

3. CONGESTION

3.1 Morning Peak Hour Traffic into Thurrock

3.1.1 Figure 19 illustrates the morning peak hour traffic flows that are destined for Thurrock and proportion of traffic that are Heavy Goods Vehicles (HGVs). This data is taken from a local cordon of the Lower Thames Area Model, developed by National Highways and used to assess the effects of the proposed Lower Thames Crossing.

3.1.2 A considerable proportion of traffic come to Thurrock via the M25 motorway, particularly for HGVs with east-west A-roads and more local roads from the north also carrying much traffic.

3.2 Daily Traffic into Thurrock

3.2.1 Figure 20 illustrates the daily traffic flows that are destined for Thurrock and proportion of traffic that are Heavy Goods Vehicles (HGVs), on an average weekday. This data is taken from a local cordon of the Lower Thames Area Model, developed by National Highways and used to assess the effects of the proposed Lower Thames Crossing.

3.2.2 As with the morning peak demand, considerable amounts of traffic comes to Thurrock via the M25 motorway, particularly for HGVs with east-west A-roads and more local roads from the north also carrying much traffic.

3.3 Morning Peak Hour Traffic out of Thurrock

3.3.1 Figure 21 illustrates morning peak hour traffic flows that originate in and departs Thurrock, and proportion of traffic that are Heavy Goods Vehicles (HGVs). This data is taken from a local cordon of the Lower Thames Area Model, developed by National Highways and used to assess the effects of the proposed Lower Thames Crossing.

3.3.2 Considerable amounts of traffic leaves Thurrock via the M25 motorway, particularly for HGVs. East-west A-roads and more local roads from the north also carry much traffic.

3.4 Daily Traffic out of Thurrock

3.4.1 Figure 22 illustrates daily traffic flows that originate in and departs Thurrock, and proportion of traffic that are Heavy Goods Vehicles (HGVs). This data is taken from a local cordon of the Lower Thames Area Model, developed by National Highways and used to assess the effects of the proposed Lower Thames Crossing.

3.4.2 Considerable amounts of traffic leaves Thurrock via the M25 motorway, particularly for HGVs. East-west A-roads and more local roads from the north also carry much traffic.

3.5 Morning Peak hour traffic within Thurrock

3.5.1 Figure 23 illustrates morning peak hour traffic flows within Thurrock and the proportion of traffic that are Heavy Goods Vehicles (HGVs). This data is provided by Thurrock Council and assimilated from a series of empirical traffic counts across a range of years from 2016 to 2019.

3.5.2 Considerable amounts of traffic use the east-west A-roads but some more minor roads in urban areas are also used. Routes leading to ports have high proportions of HGV traffic.

3.6 Daily traffic within Thurrock

3.6.1 Figure 24 map illustrates daily traffic flows within Thurrock and the proportion of traffic that are Heavy Goods Vehicles (HGVs), average weekday. This data is provided by Thurrock Council and assimilated from a series of empirical traffic counts across a range of years from 2016 to 2019.

3.6.2 Considerable amounts of traffic use the east-west A-roads but some more minor roads in urban areas are also used. Routes leading to ports have high proportions of HGV traffic.

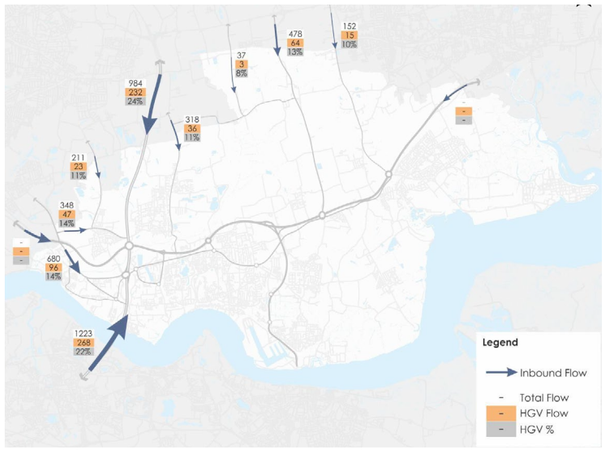


Figure 19. Morning peak hour traffic flows that are destined for Thurrock and proportion of traffic that are Heavy Goods Vehicles (Stantec)

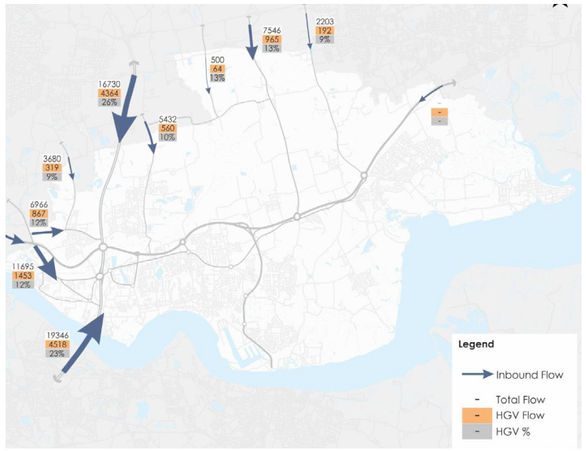


Figure 20. Daily traffic flows that are destined for Thurrock and proportion of traffic that are Heavy Goods Vehicles (HGVs), on an

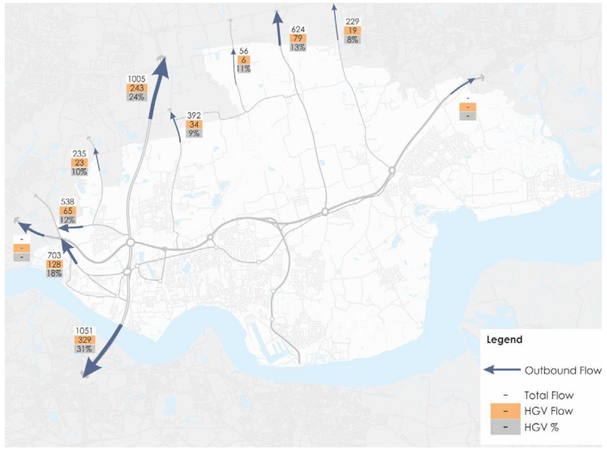


Figure 21. Daily traffic flows that are destined for Thurrock and proportion of traffic that are Heavy Goods Vehicles (HGVs), on an average weekday

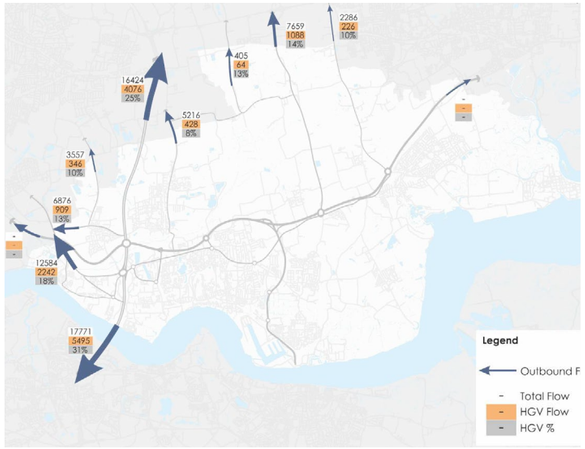


Figure 22. Daily traffic flows that are destined for Thurrock and proportion of traffic that are Heavy Goods Vehicles (HGVs), on an average weekday

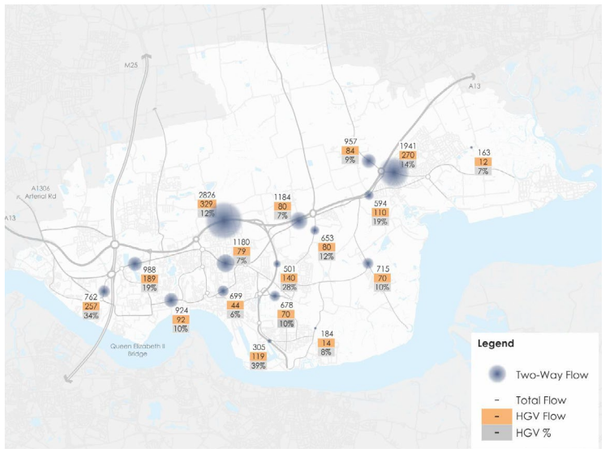


Figure 23. morning peak hour traffic flows within Thurrock and the proportion of traffic that are Heavy Goods Vehicles (HGVs)

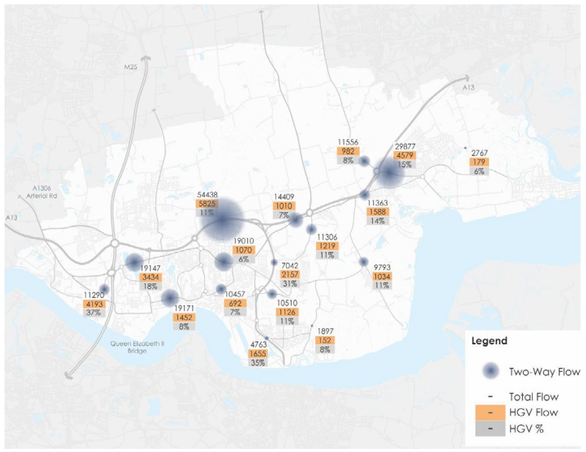


Figure 24. daily traffic flows within Thurrock and the proportion of traffic that are Heavy Goods Vehicles (HGVs) (Stantec)

3.7 AM Highway Speeds

3.7.1 Figure 25 illustrates highway average speeds in Thurrock in the morning peak hour (0800-0900) taken from the TrafficMaster database.

3.7.2 The map shows that large sections of the strategic road network in Thurrock, the M25 motorway and A roads have high average speeds (50+mph) but also shows that speeds are low on sections of the strategic network and local roads indicating possible areas of congestion.

3.8 Off-peak Highway Speeds

3.8.1 Figure 26 illustrates highway average speeds in Thurrock in the off-peak hours (1000-1600) taken from the TrafficMaster database.

3.8.2 The map shows that large sections of the strategic road network in Thurrock, the M25 motorway and A roads continue to have high average speeds (50+mph) during the off-peak period but that sections of both the strategic and local road network have areas of lower speed indicating possible areas of congestion – not eased from the AM peak period.

3.9 PM Highway Speeds and Congestion

3.9.1 Figure 27 illustrates highway average speeds in Thurrock in the evening peak hour (1700-1800) taken from the TrafficMaster database.

3.9.2 The map shows that many key roads of the strategic rod network maintain have high average speeds (50+mph) but with sections of lower average speed unchanged from the AM peak period.

3.9.3 The London Road corridor and North Stifford junction indicate very low average speeds indicating areas of congestion.

3.10 AM Highway Speed Reductions

3.10.1 Figure 28 illustrates the comparative reduction from off-peak highway average speeds in Thurrock in the morning peak hour (0800-0900) taken from the TrafficMaster database.

3.10.2 The map indicates that across much of the network there are only minor variances between the AM peak period traffic speed and the inter-peak period.

3.10.3 The variance in average speed around M25 junction 3 and to the west of The Manorway junction are most notable.

3.11 PM Highway Speed Reductions

3.11.1 Figure 29 illustrates the reduction from off-peak highway average speeds in Thurrock in the evening peak hour (1700-1800) taken from the TrafficMaster database.

3.11.2 The map shows that average vehicle speeds reduce around M25 junction 30, along London Road and at the Orsett Cock roundabout. This indicates the impact of PM peak traffic on speeds in comparison to the off- peak period.

3.11.3 The indication from this data is that journey time reliability is lower in the evening peak hour than the morning peak hour.

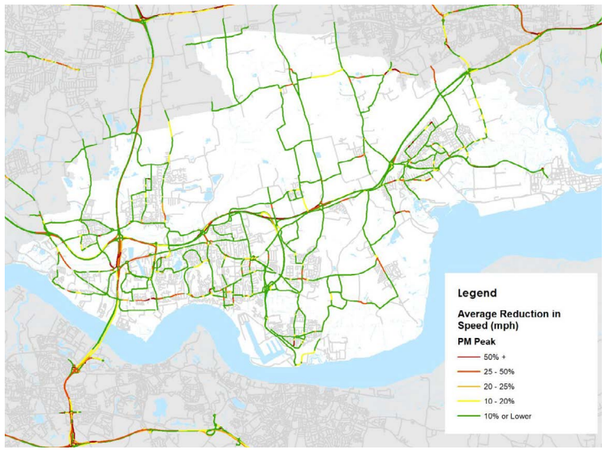


Figure 25. highway average speeds in Thurrock in the morning peak hour (0800-0900) (Stantec)

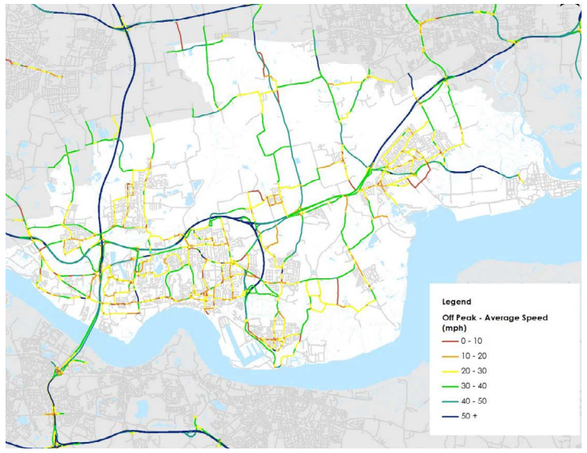


Figure 26. Highway average speeds in Thurrock in the off-peak hours (1000-1600)

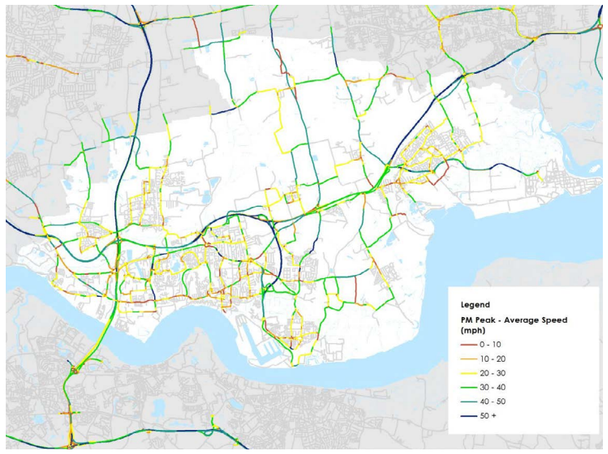


Figure 27. Highway average speeds in Thurrock in the evening peak hour (1700-1800)

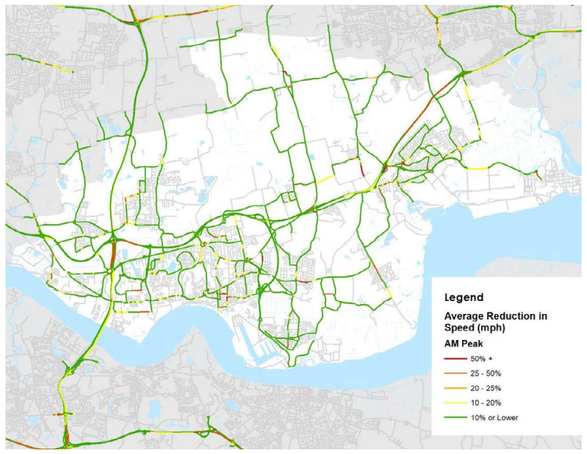


Figure 28. Comparative reduction from off-peak highway average speeds in Thurrock in the morning peak hour (0800-0900)

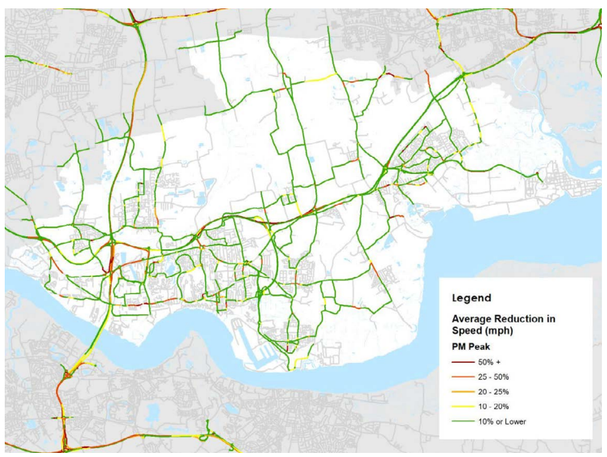


Figure 29. Reduction from off-peak highway average speeds in Thurrock in the evening peak hour (1700-1800)

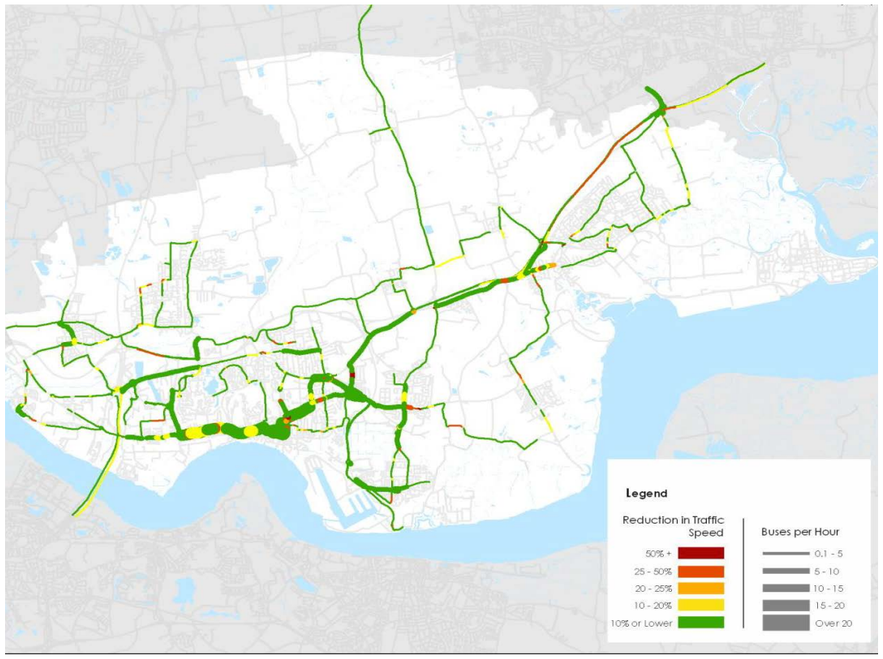


Figure 30. Combination of reduction of highway speeds and number of buses on each route, in Thurrock, in the AM peak hour (0800 0900). (Stantec)

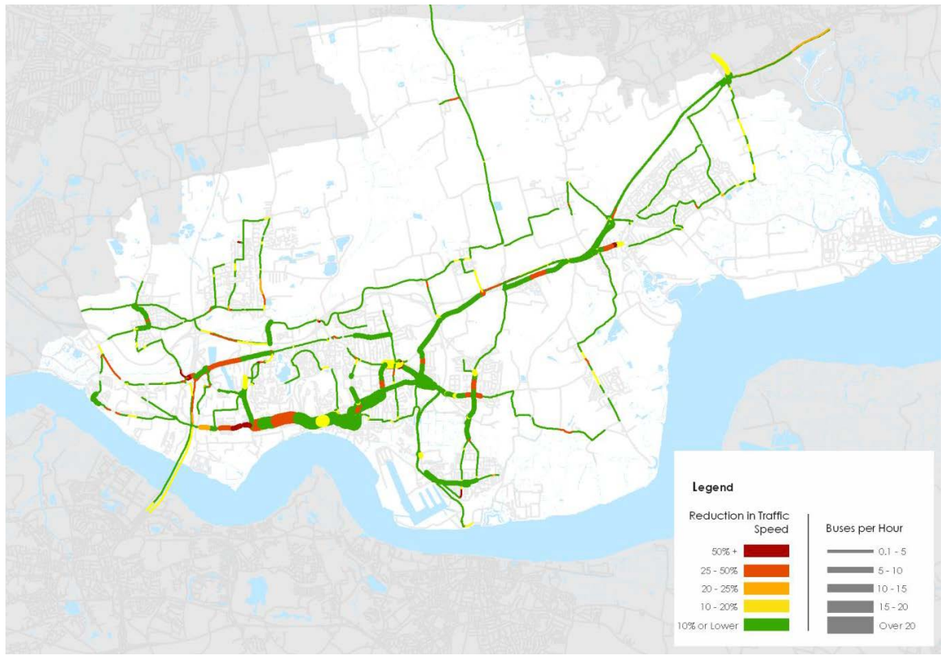


Figure 31. Combination of reduction of highway speeds and number of buses on each route, in Thurrock, in the PM peak hour (1700-1800).(Stantec)

3.12 AM Public transport and traffic delay

3.12.1 Figure 30 illustrates a combination of reduction of highway speeds and number of buses on each route, in Thurrock, in the AM peak hour (0800-0900).

3.12.2 The map shows that many key bus routes experience highway congestion with yellow, orange and red hotspots on main bus routes, in particular along the London Road corridor.

3.13 PM Public transport and traffic delay

3.13.1 Figure 31 illustrates a combination of reduction of highway speeds and number of buses on each route, in Thurrock, in the PM peak hour (1700- 1800).

3.13.2 The map shows that many key bus routes experience highway congestion with yellow, orange and red hotspots on main bus routes.

3.13.3 The impact on the London Road and Arterial Road West corridors within Grays is marked.

3.14 Travel Demand Journey Purpose

3.14.1 Figure 32 illustrates travel demand and journey purpose to, from and in Thurrock, on an average weekday in 2019 (factored from 2011 census data).

3.14.2 The strong proportion of shopping related movements is noticeable for inbound and internal trips. This is perhaps due to the age of the data and the Lakeside retail centre.

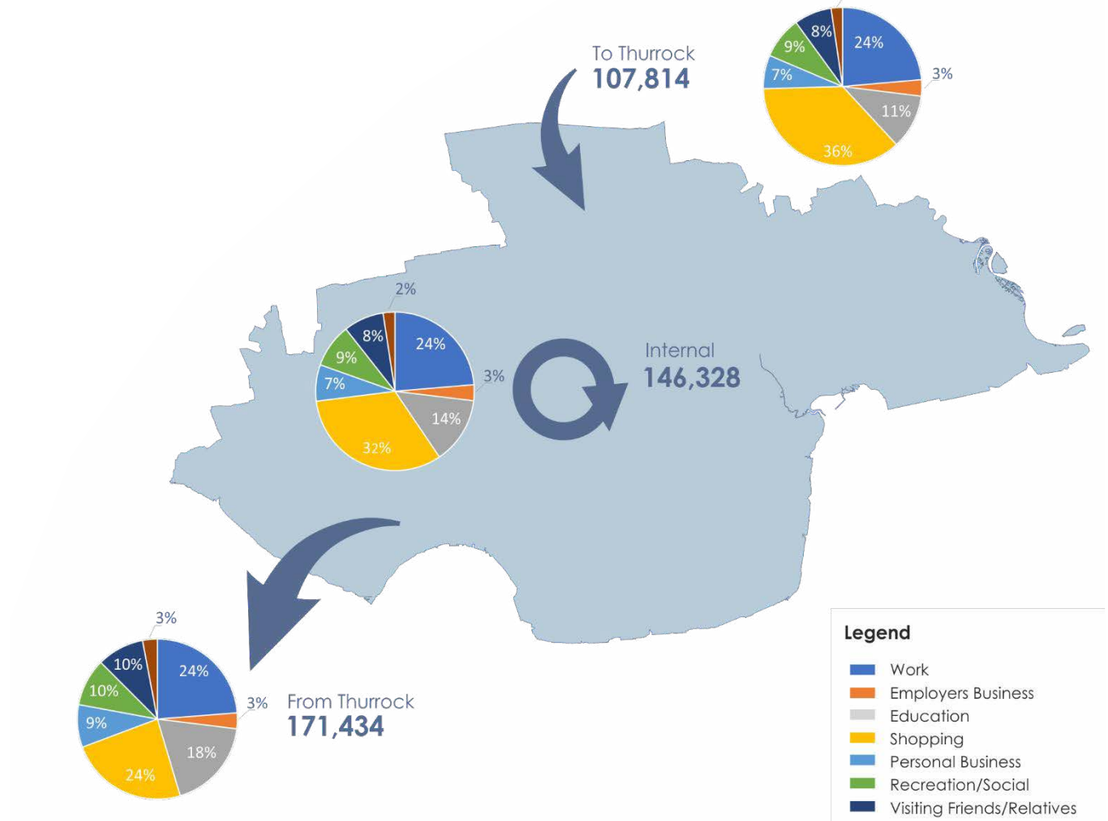


Figure 32. Total number of trips and journeys- travel demand and journey purpose to, from and in Thurrock, on an average weekday in 2019 (factored from 2011 census data).

4. MOBILITY

4.1 Road Network in Thurrock Committed changes

4.1.1 Figure 33 shows schemes which have been identified by Thurrock Council and National Highways as committed schemes which will be coming forward to change and improve the road transport network within Thurrock.

4.1.2 This data does not include the Lower Thames Crossing which is due to be examined in late 2021 through the Development Consent Order process.

4.2 Lower Thames Crossing

4.2.1 The proposal of an additional river crossing and new strategic link crossing Thurrock presents opportunities for improving the transport network within Thurrock if the linkages with other levels of the transport network are made.

4.2.2 At present the details of the proposals are being considered and submission of a revised application is expected in late 2021.

4.2.3 Critical functions for the trunk road within Thurrock is the effective transit of freight from the existing and expected expansions of the ports. This would support economic development both within Thurrock itself and the wider region including the movement of freight into London.

4.2.4 Thurrock Council is working with National Highways to minimise the impact of the Lower Thames Crossing on Thurrock and the travel network and enhance connectivity across and along that corridor.

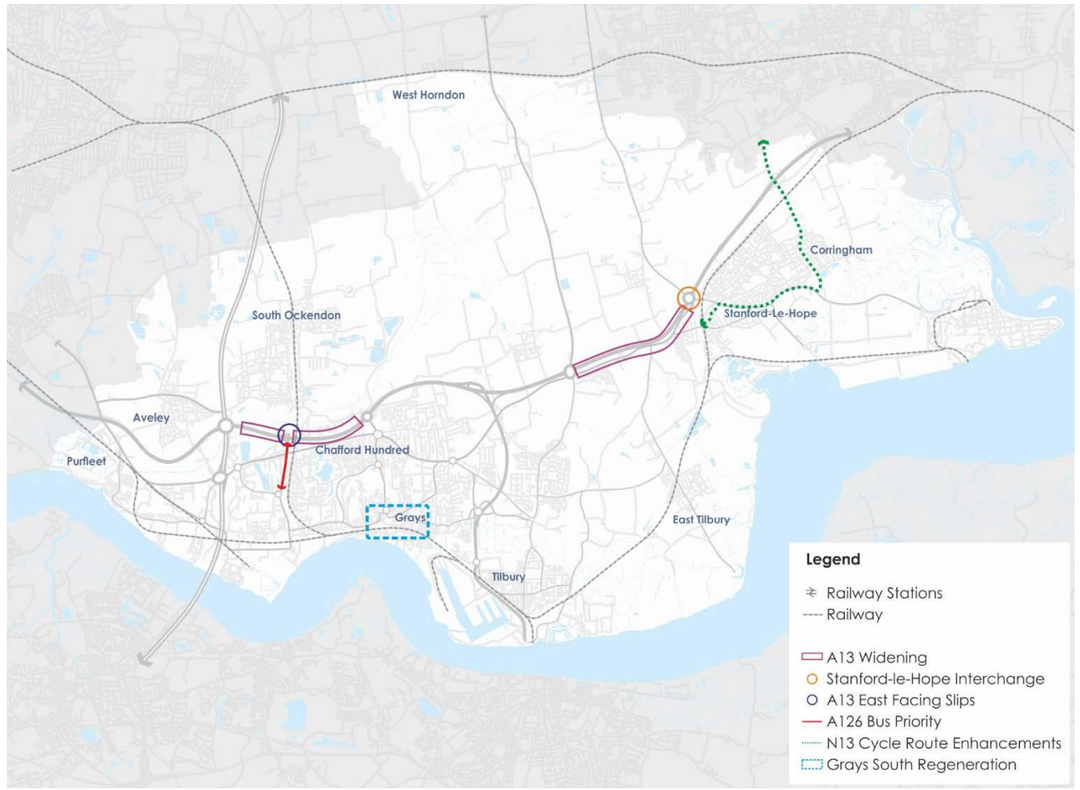


Figure 33. Transport schemes identified by Thurrock Council and National Highways.

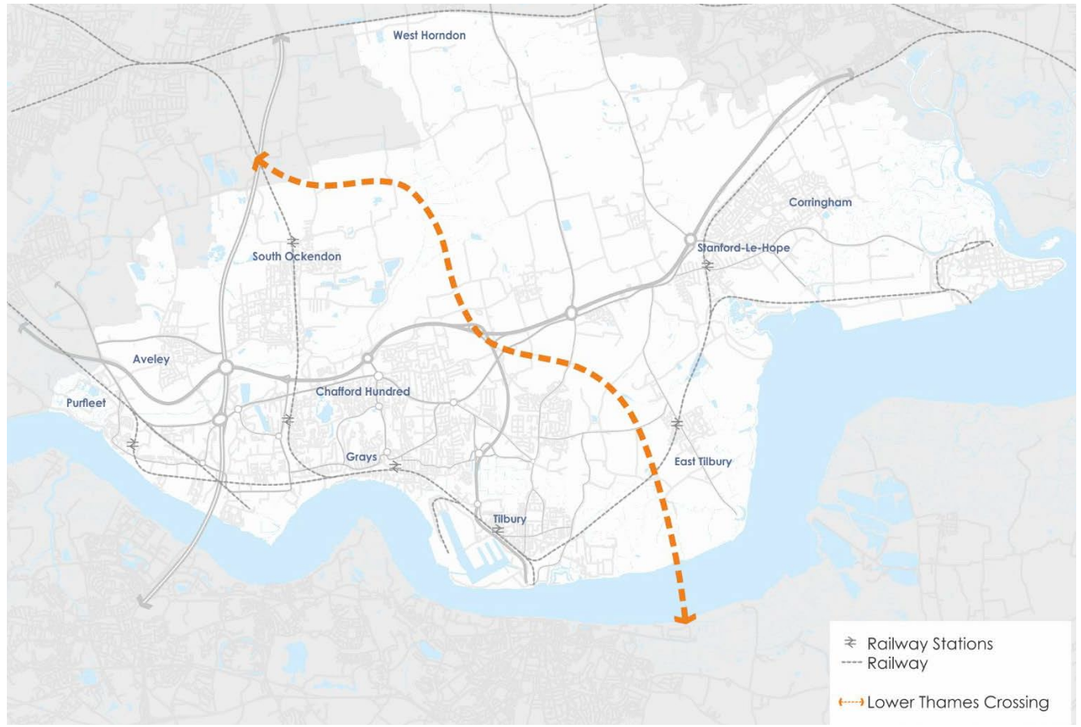


Figure 34. Approximate alignment of the proposed Lower Thames Crossing.

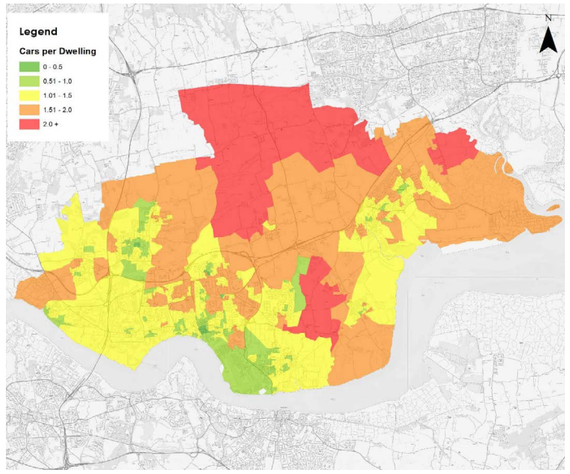


Figure 35. Car ownership across Thurrock in average cars per dwelling

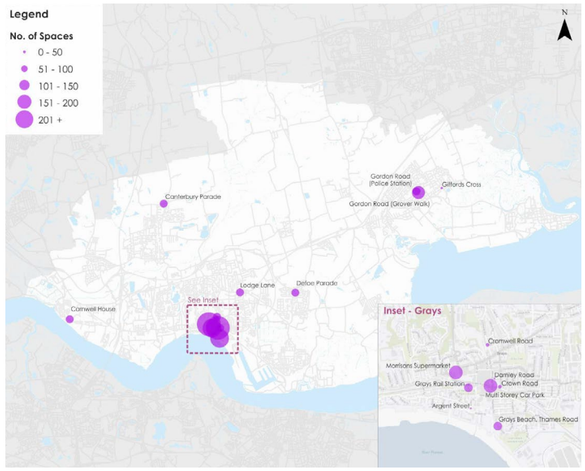


Figure 36. Key public car parking areas in Thurrock

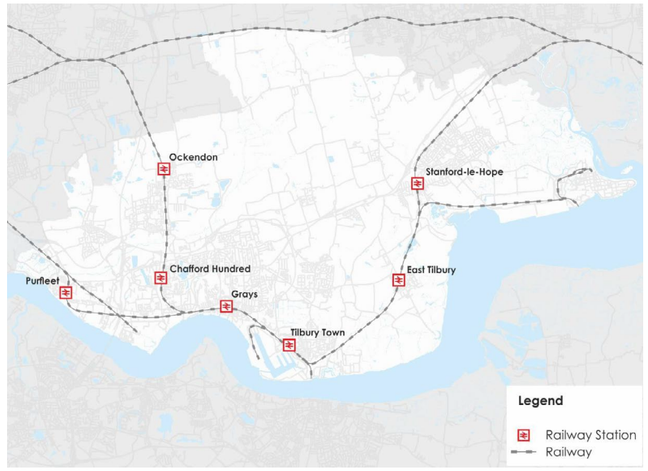


Figure 37. Rail network in Thurrock

4.3 Car Ownership Cars per Dwelling

4.3.1 Figure 35 illustrates car ownership across Thurrock in average cars per dwelling.

4.3.2 There is a clear pattern that residents living in the more rural areas of Thurrock own more cars, two or more per dwelling. This makes sense as rural areas have less public transport services, residents are more car dependent.

4.3.3 Residents living in urban areas own less cars. In particular, residents in Tilbury and Ockendon areas are the most likely not to own a car.

4.4 Car Parking in Thurrock

4.4.1 Figure 36 illustrates key public car parking areas in Thurrock. It shows there are few large parking areas and that parking is concentrated around Grays in the southwest.

4.4.2 Thurrock Council has commissioned a Parking Strategy for the borough which informs the location for parking places, the form of those parking places and how that provision should be co-ordinated with emerging development.

4.5 Rail Network in Thurrock

4.5.1 There are seven rail stations within Thurrock, with up to nine trains per hour (Grays) serving destinations including London Fenchurch Street, Southend and Basildon. Both London Fenchurch Street and Southend are 35-40 minutes journey from Grays.

4.5.2 This map shows that Thurrock's rail connections are generally east- west, serving demand to/from London. There are no direct rail connections to the north or south across the river. The high-speed 1 (HS1) line runs through Thurrock in the southwest but does not have an interchange.

4.5.3 The rail network also serves the large distribution and port locations within Thurrock, providing a strategic alternative to HGV transport of goods. These journeys share rail network sections with the passenger rail network.

4.6 Bus frequency

4.6.1 There is an extensive bus network operating in Thurrock which has some connections externally, including services into Greater London, Essex and Kent.

4.6.2 The highest frequency areas run through the centre of Grays, which is also close to Grays Rail Station, providing interchange opportunities.

4.7 Ferry services within Thurrock

4.7.1 Figure 39 shows the ferry link across the river Thames, linking Tilbury in Thurrock to Gravesend in Kent.

4.7.2 Demand for the service in higher in summer months but still significant through the winter.

4.7.3 The service is for passengers only and crossings take between 5 and 10 minutes, depending on river traffic. Services run around every 30 mins. during the day, 5:30am – 7pm, Mon-Saturday.

4.7.4 In the future there are plans to expand ferry services, and for additional ferry terminals which could serve both passengers and light freight. This is understood to be through the extension of the Thames Clipper services out of London and to provide additional crossing opportunities as well as journey into and out from London.

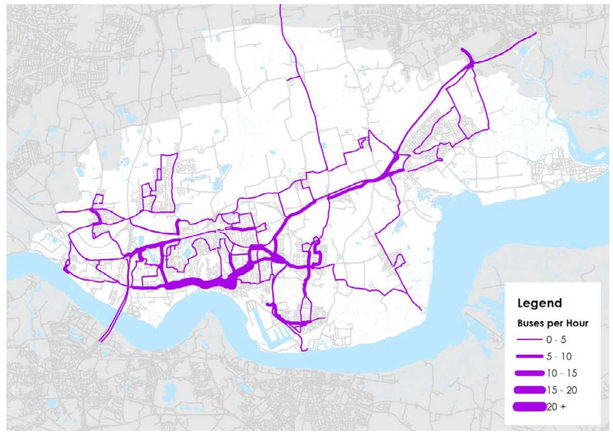


Figure 38. Bus frequency

Month (2019)	Passenger Journeys
January	7149
February	5362
March	8507
April	11909
May	15233
June	12857
July	4008
August	11250
September	13086

Figure 39. Ferry services and passenger numbers

5. SAFETY

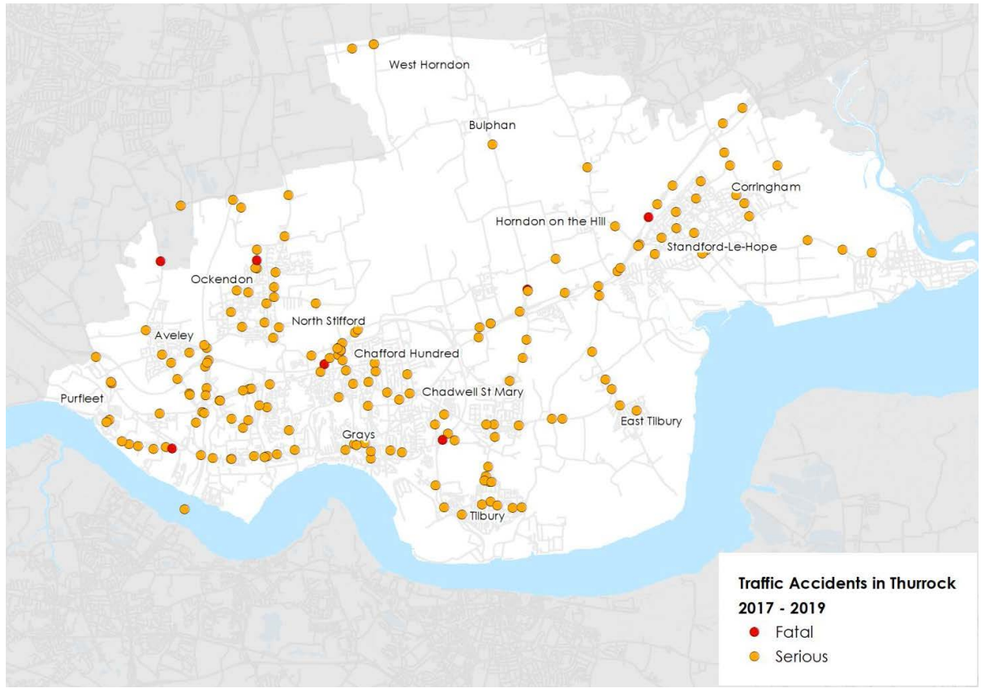


Figure 40. Serious and fatal accidents recorded over a three year period

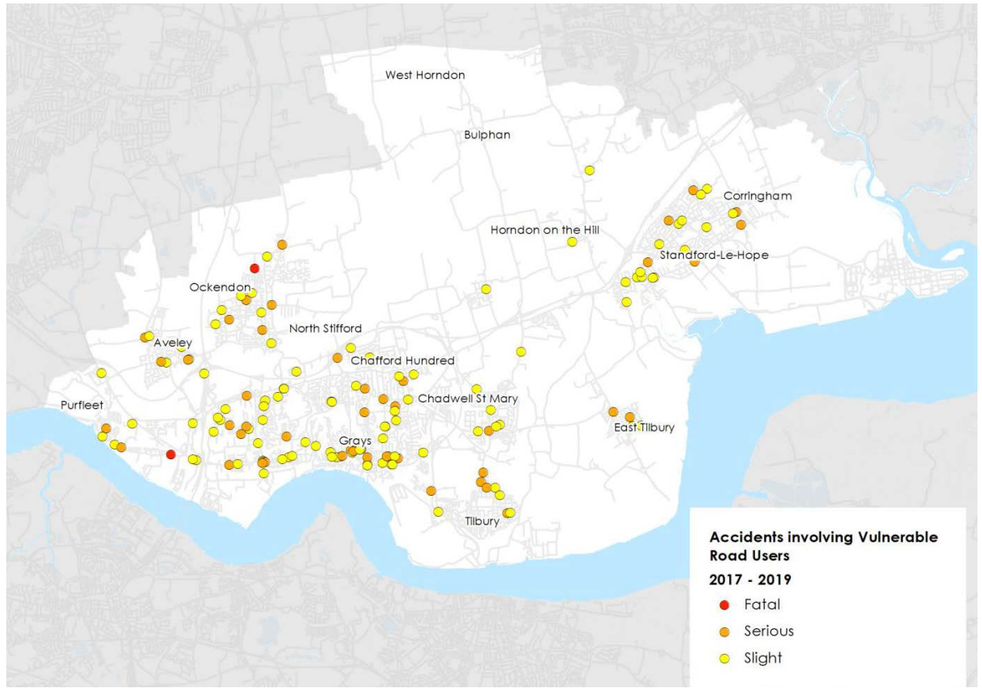


Figure 41. Accidents involving vulnerable road users

5.1 Accident data

5.1.1 Figure 40 shows serious and fatal accidents recorded over a three year period. Slight accidents have not been plotted for clarity.

5.1.2 This data set has been provided by Thurrock Council, and includes information only on those accidents recorded by the police.

5.1.3 Between 2017 and 2019, there were 853 road traffic accidents across Thurrock, with 7 of these fatal accidents (1%), 177 serious accidents (21%) and 669 slight accidents (78%).

5.1.4 Of the seven fatal accidents, two involved vulnerable road users.

5.2 Vulnerable road user safety

5.2.1 Between 2017 and 2019, there were 152 road traffic accidents across Thurrock that involved pedestrians or cyclists.

5.2.2 Accident clusters for vulnerable road users are apparent in predominantly urban areas, including around Grays, Ockendon and Stanford-Le-Hope, with less prevalence in The Fens.

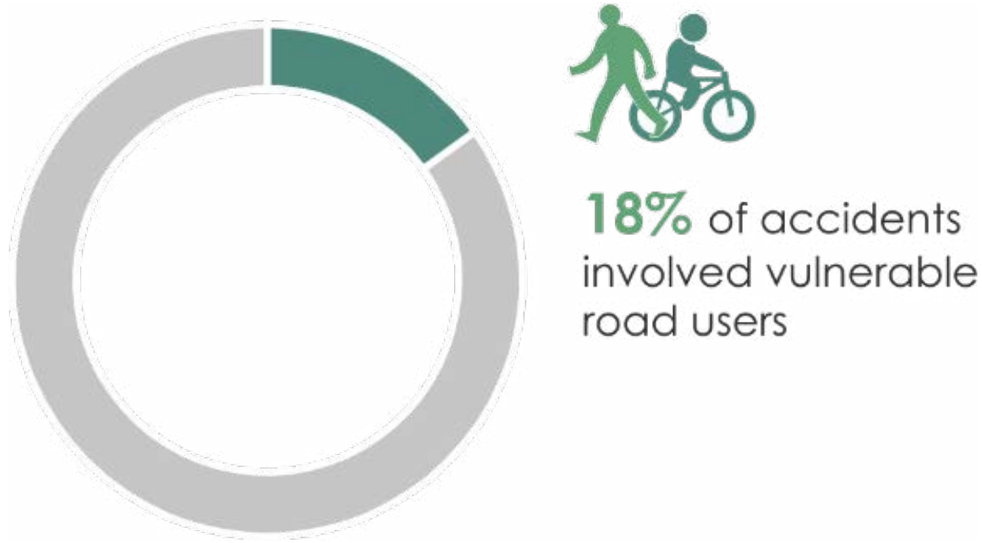


Figure 42. Percentage of accidents involving vulnerable road users

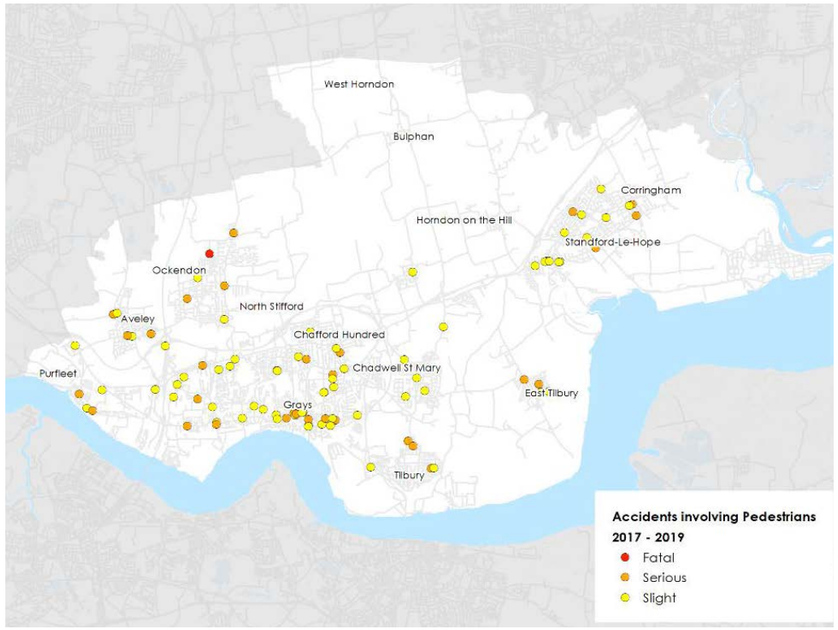


Figure 43. Accidents involving pedestrians 2017-2019

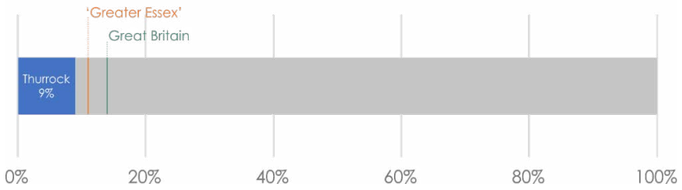


Figure 44. Pedestrian casualties in 2019

5.3 Pedestrian safety

5.3.1 National and regional data has been obtained to provide a benchmark for Thurrock accidents. The Department for Transport provides road traffic accident data for Great Britain, and the Safer Essex Roads Partnership (SERP) provides a road safety service across 'Greater Essex' (including Essex County Council, Southend-on-Sea Borough Council and Thurrock Council).

5.3.2 Between the years of 2017 and 2019, there have been 104 pedestrian casualties as a result of road traffic accidents in Thurrock, which is 9% of the total number of casualties.

5.3.3 One pedestrian fatality was recorded in this time period, located in South Ockendon.

5.3.4 From data obtained from the Department for Transport Reported Road Casualties in Great Britain: 2019 Annual Report, pedestrians represented 14% of all casualties in 2019 in the UK. Whereas in Thurrock, pedestrians represented only 9% of all casualties in 2019.

5.3.5 SERP data obtained for 2019 shows that pedestrians represented 11% of all casualties in 2019, higher than Thurrock.

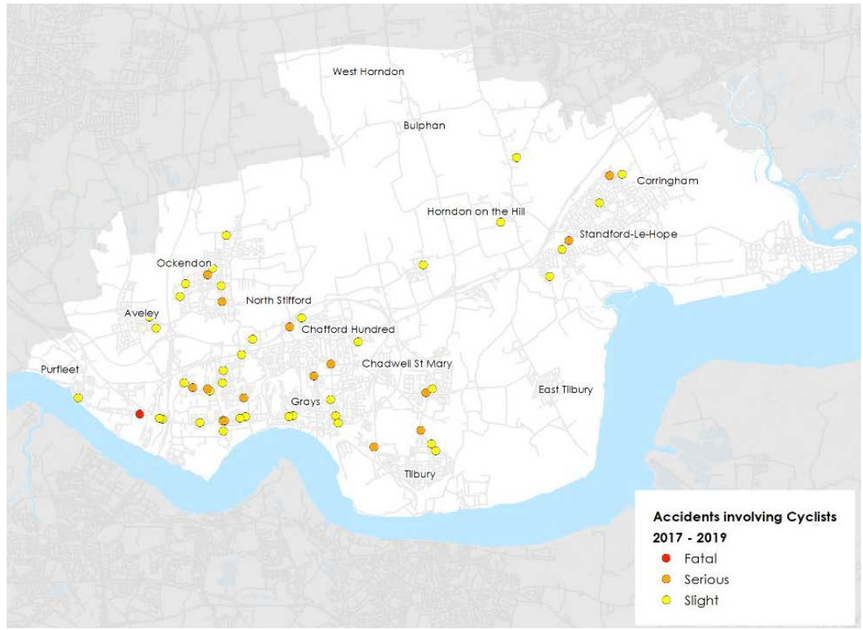


Figure 45. Accidents involving cylists 2017-2019

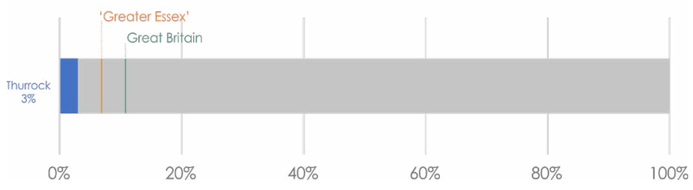


Figure 46. Cyclist casualties in 2019

5.4 Cyclist safety

5.4.1 Between the years of 2017 and 2019, there have been 54 cyclist casualties as a result of road traffic accidents in Thurrock, which is 5% of the total number of casualties over the three year period.

5.4.2 In this time period, one recorded accident was fatal, occurring on London Road in Purfleet.

5.4.3 From data obtained from the Department for Transport Reported Road Casualties in Great Britain: 2019 Annual Report, cyclists represented 11% of all casualties in 2019 in the UK. Whereas in Thurrock, pedestrians represented only 3% of all casualties in 2019.

5.4.4 SERP data obtained for 2019 shows that cyclists represented 7% of all casualties in 2019, again greater than Thurrock.

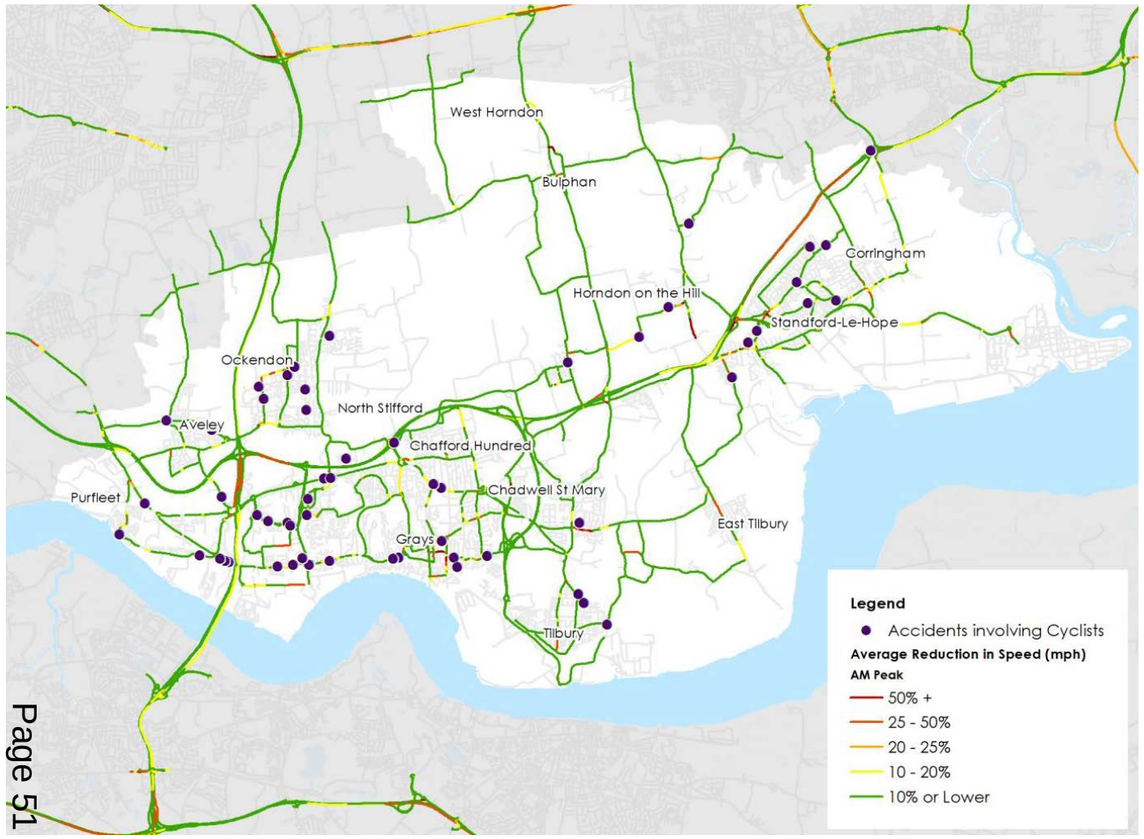


Figure 47. Road traffic accidents involving cyclists over the past three years

5.5 Cyclist safety and congestion

5.5.1 Figure 47 highlights road traffic accidents involving cyclists over the past three years. The information is overlaid on the AM peak period (08:00-09:00)average speed to indicate any correlation between congestion and poor cycle safety.

5.5.2 The London Road Oliver Road corridor and B186 indicate routes with poor cycle safety records.

5.6 Accidents involving HGVs

5.6.1 Between 2017 and 2019, there were 77 accidents involving HGVs (9%)

5.6.2 One of the recorded accidents was fatal, occurring on the A13 near Stanford-Le-Hope.

5.6.3 The accidents involving HGVs are located primarily on the trunk roads and motorway sections that run through Thurrock (A13 and M25).

5.6.4 Some accidents are also located towards Tilbury and Purfleet.

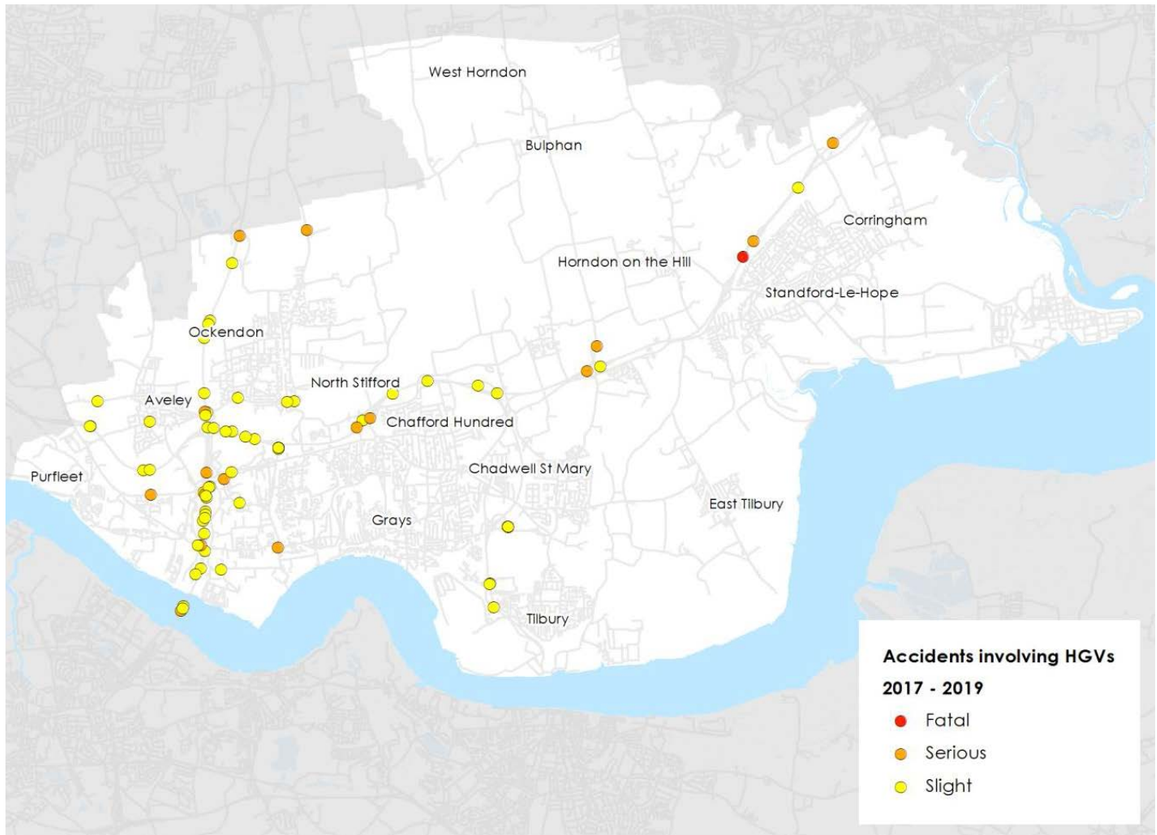


Figure 48. Accidents involving HGVs 2017-2019

Figure 49. Percentage of accidents involving HGVs

6. POLLUTION, CARBON REDUCTION AND HEALTH

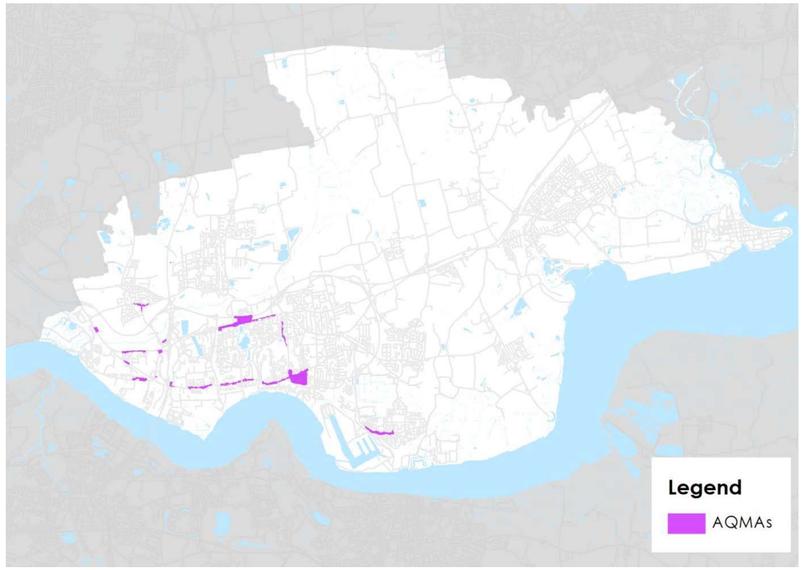


Figure 50. Thurrock's current Air quality Management Areas (AQMAs)

6.1 Air Quality Management Areas (AQMAs)

6.1.1 Figure 50 illustrates Thurrock's current Air quality Management Areas (AQMAs). Areas designated as AQMAs are areas that local authorities assess to be areas of possible poor air quality. The objective is to monitor the potential exposure of residents to poor air quality and ensure the national air quality objectives are reached.

6.1.2 Thurrock's AQMAs are concentrated around the Grays urban area and key arterial urban roads.

6.2 Morning Peak Hour Congestion and Air Quality

6.2.1 Figure 52 illustrates AM peak hour congestion levels and location of Air Quality Management Areas (AQMAs).

6.2.2 In particular, the London Road, running west from Grays experiences significant congestion in peak periods and is an AQMA.

6.2.3 Arterial Road North Stifford experience a lower change in average vehicle speeds but is classified as an AQMA.

6.2.4 The road network in the AQMA around Grays has delays and congestion during the peak period.

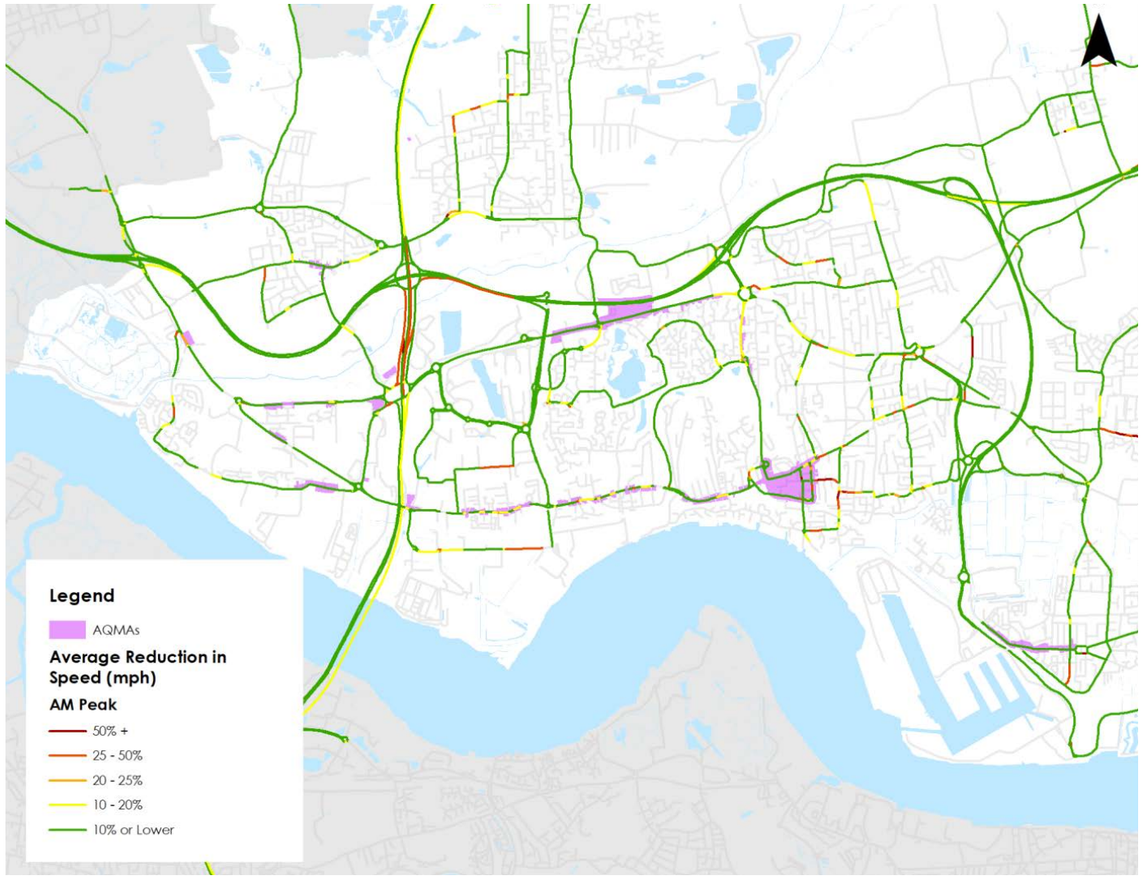


Figure 51. AM peak hour congestion levels and location of Air Quality Management Areas (AQMAs)

6.3 Evening Peak Hour Congestion and Air Quality

6.3.1 Figure 53 illustrates PM peak hour congestion levels and location of Air Quality Management Areas (AQMAs).

6.3.2 This includes the Arterial Road North Stifford road that runs east-west parallel to London Road from the M25 motorway. It also includes London Road, running west from Grays which experiences significant congestion in the PM peak and is an AQMA.

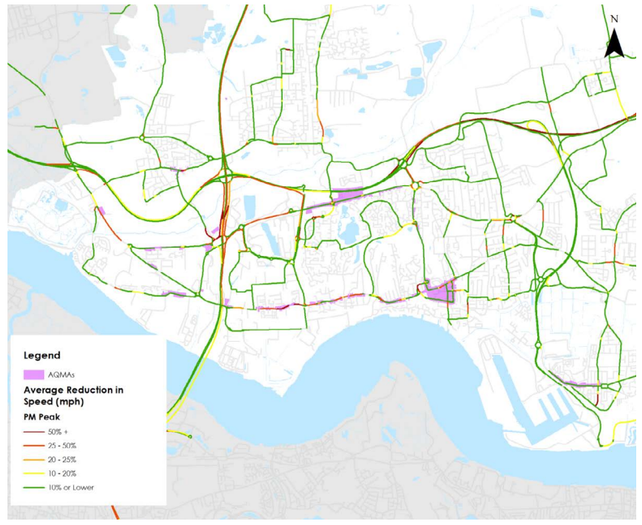


Figure 52. PM peak hour congestion levels and location of Air Quality Management Areas (AQMAs)

7. AFFORDABILITY

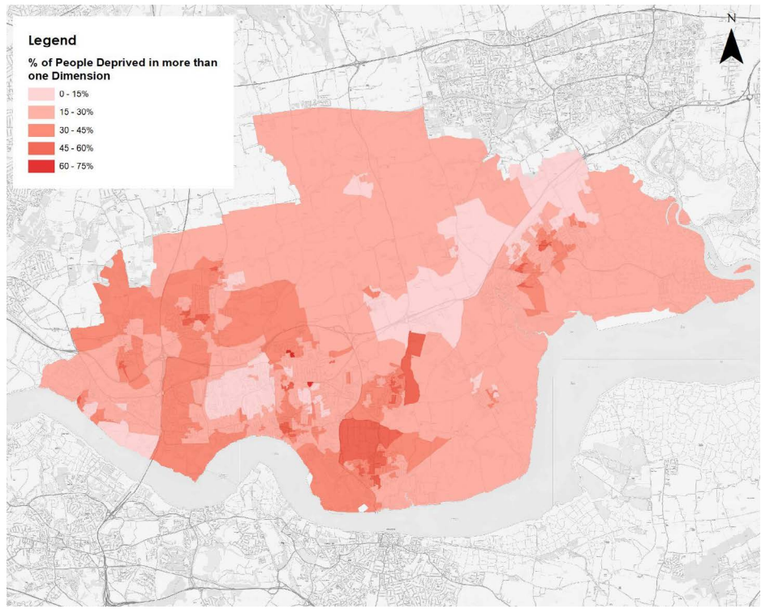


Figure 53. Percentage of people deprived in more than one dimension

7.1 Dimensions of Deprivation

7.1.1 Figure 54 uses data from the Census 2011 and illustrates areas where residents are classed as deprived in more that one dimension (including deprived, bad health and low education).

7.1.2 Map shows that the most deprived areas of Thurrock are concentrated around urban areas, in particular, Tilbury and Ockendon.

7.2 Health

7.2.1 Figure 55 uses data from the Census 2011 and illustrates areas where residents are classed as in bad or very bad health and low.

7.2.2 The map shows that the most deprived areas of Thurrock are concentrated around urban areas, in particular, Tilbury, Chadwell St Mary, Corringham and South Ockendon.

7.3 Population aged 66 and over

7.3.1 Figure 56 uses data from the Census 2011 and illustrates spread of Thurrock residents who are 66 years old and over. It shows a general trend that more rural and suburban areas have higher concentrations of older residents. This indicates younger residents live in urban areas, perhaps to be closer to employment areas.

7.3.2 However, there are pockets of areas with high concentrations, 40%+ of older residents in Tilbury.

7.4 People with Level 1 or fewer Qualifications

7.4.1 Figure 57 uses data from the Census 2011 and illustrates areas where residents have limited qualifications. This is equivalent to fewer than 5 GCSE passes between grades 4 to 9.

7.4.2 The map shows that the most qualification deprived areas of Thurrock are concentrated around urban areas, in particular, Tilbury and Ockendon.

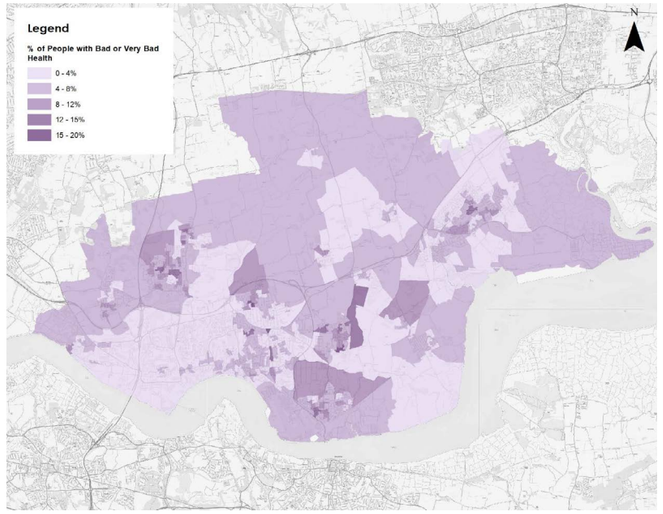


Figure 54. Percentage of people with bad or very bad health

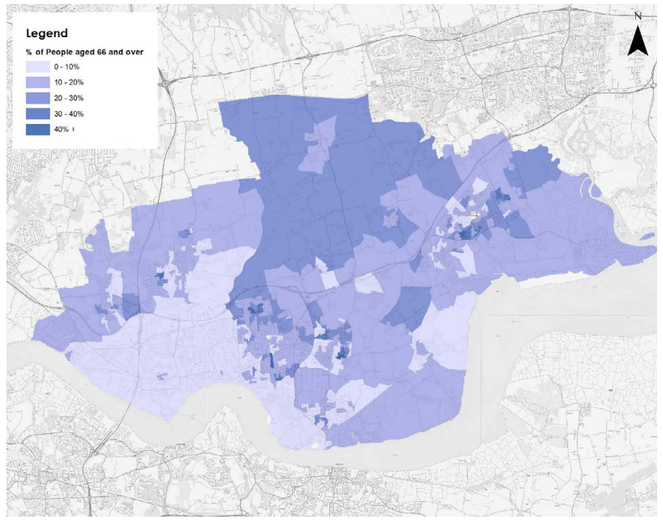


Figure 55. Percentage of people age 66 and over

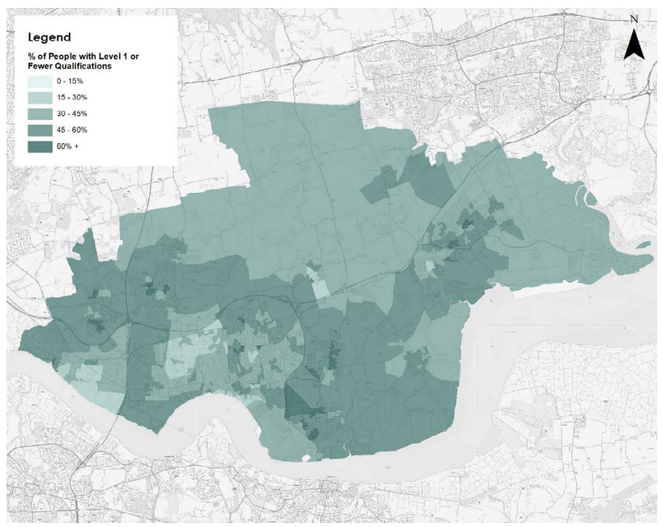


Figure 56. Percentage of people with Level 1 or fewer qualifications

GLOSSARY

ASELA THE ASSOCIATION OF SOUTH ESSEX LOCAL AUTHORITIES **-** a partnership of neighbouring councils that have come together to promote growth and prosperity in the region (https://www.southessex.org.uk)

AQMA AIR QUALITY MANAGEMENT AREA

BLUE GRID - A multi-functional network of greenspace and links along and across Thurrock's rivers, waterways, and water bodies.

BRT BUS RAPID TRANSIT **-** A high-quality bus-based transit system that delivers fast and efficient service that may include dedicated lanes, busways, traffic signal priority, off-board fare collection, elevated platforms, and enhanced stations.

C2C A train operating company operating the Essex Thameside railway contract.

CCTV CLOSED CIRCUIT TELEVISION

CIHT CHARTERED INSTITUTION OF HIGHWAYS AND TRANSPORTATION**-** Guidelines for Providing Journeys by Foot (https://www.ciht.org.uk).

CO_2 CARBON DIOXIDE - Carbon dioxide gas emissions stem from burning fossil fuels such as petrol car engines and cause pollution and leading to climate change.

DROIDS – Small, semi and fully autonomous vehicles acting as couriers that may reduce the need for cars or lorry deliveries in built-up areas.

DRONES - A driverless aerial vehicle typically used to distribute packages to consumers during the 'last mile' delivery process. These drones generally have 4-8 propellers, rechargeable batteries, and the ability to carry lightweight containers.

ENGLAND COASTAL PATH – A long-distance National Trail proposed by Natural England following the coast of England.

FASTRACK - A Bus Rapid Transit system serving Dartford, Bluewater, Ebbsfleet and Gravesend connecting major existing and new developments with planned core express routes on which only Fastrack services will run.

FREEPORTS special areas within the UK's borders where different economic regulations apply. (https://www.gov.uk/guidance/freeports)

GREEN GRID - A sustainable network of multi-functional green space and links within Thurrock's towns and countryside.

HEALTHY STREETS – A framework for prioritising people and their health in transport, the public realm and planning policies and strategies (https://www.healthystreets.com/what-is-healthy-streets).

HGV HEAVY GOODS VEHICLE

HS1 HIGH SPEED 1 – A 109km high-speed railway rail line between St Pancras International in London and the Channel Tunnel with intermediate stations at Stratford International and Ebbsfleet International. The line with international high-speed rail links to Paris, Brussels and Amsterdam. The route is also used by the 'Javelin' domestic route from London to Kent.

HS2 HIGH SPEED 2 - A new railway from London to Birmingham and further north. The railway's London terminus will be at Euston, with a west London interchange at Old Oak Common.

JAVELIN – A high-speed train service operated by Southeastern trains between London St Pancras and Kent using the HS1 line (https://www.southeasternrailway.co.uk).

KENNEX - A proposed tram link. The planned network connects Ebbsfleet International, Grays & Gravesend to Northfleet, Swanscombe Peninsular, Chafford Hundred & Purfleet-on-Thames (https://kenextransit.co.uk).

LGV LIGHT GOODS VEHICLE

LTC LOWER THAMES CROSSING **-** A road crossing of the Thames estuary downstream of the Dartford Crossing linking Kent and Essex proposed by National Highways (https://nationalhighways.co.uk/our-roads/lower-thames-crossing)

MICRO-MOBILITY - A range of small, lightweight vehicles operating at speeds typically below 25 km/h (15 mph) and driven by users personally. Micro-mobility devices include bicycles, e-bikes, electric pedal-assisted bikes, electric scooters, electric skateboards and shared bicycle fleets.

MODAL SHIFT - Changes in travel behaviour and habits. For example, travelling by public transport instead of a private car.

MODE - The different ways passengers and/or goods can be transported. Transport. Modes for passengers and goods may include rail; maritime (sea); road; bus, and rivers.

MRT MASS RAPID TRANSIT - High-capacity, higher-speed road or rail-based public transport systems generally found in urban areas and travelling along dedicated paths.

MULTI-MODAL ROADS - Streets designed to serve different modes and provide multiple mobility options for their users. (https://globaldesigningcities.org/publication/global-street-design-guide/defining-streets/multimodal-streets-serve-people)

NPPF NATIONAL PLANNING POLICY FRAMEWORK- revised on 20 July 2021. (https://www.gov.uk/government/publications/national-planning-policy-framework)

NET ZERO - Policies and proposals for decarbonising the UK economy to reduce net global greenhouse gas emissions to near zero by 2050.

NO_X NITROUS OXIDE

NTS OFFICE FOR NATIONAL STATISTICS

PARK AND GLIDE – A combined remote parking and commuter boat transfer service. 'Thames Clipper' currently operates a service from the O2 in Greenwich into central London.

PPG PLANNING POLICY GUIDANCE.

RIVERBUS – Boat services and access piers along the Thames, including the 'Thames Clipper' commuter service (https://www.thamesclippers.com).

RTI REAL-TIME TRAVEL INFORMATION.

SERP SAFER ESSEX ROADS PARTNERSHIP

SERT SOUTH ESSEX RAPID TRANSIT. Proposal for a fast, reliable and high quality bus- based public transport system in south Essex including ' Route 1a' serving Lakeside, Grays, A13, and Basildon Hospital.

SHORT SEA SHIPPING - Maritime transport of goods over relatively short distances, as opposed to the intercontinental cross-ocean deep sea shipping.

SRN STRATEGIC ROAD NETWORK - The major road transport network comprising secondary arterial roads, primary arterial roads, expressways and motorways managed by National Highways.

STB SUB-NATIONAL TRANSPORT BODY.

TFL TRANSPORT FOR LONDON - the organization responsible for managing the public transport services in London, including bus and underground train services, taxi services and the road (https://tfl.gov.uk/corporate/about-tfl).

THAMES ESTUARY – The lower reaches of the Thames including outer east and south east London, North Kent, and South Essex.

THAMES ESTUARY GROWTH BOARD - A private sector organisation covering North Kent, South Essex, East London, the City of London and the River Thames that has developed an action plan, 'The Green Blue' (http://thamesestuary.org.uk).

THAMES PATH - National Trail following the River Thames from its source to the Woolwich in south east London. The Trail connects with the England Coastal Path to form a 'Source to Sea' route.

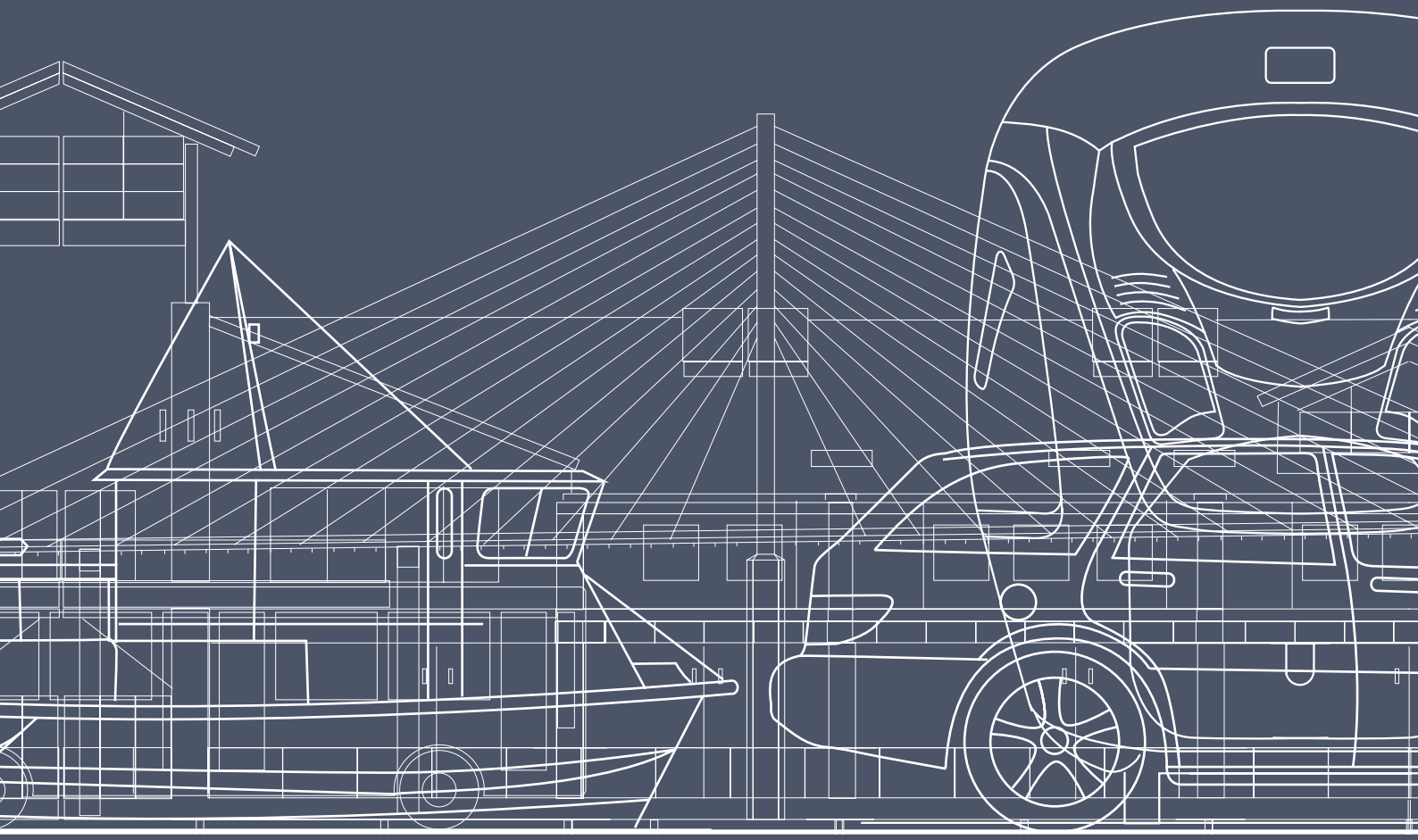
THURROCK LOCAL PLAN - A long-term planning policy framework setting out the amount of development for Thurrock and its distribution across the borough that, by law, must be used when deciding all future planning applications (https://www.thurrock.gov.uk/new-local-plan-for-thurrock/thurrock-local-plan).

THURROCK LOCAL TRANSPORT PLAN – A plan describing future outcomes and priorities for transport and travel across Thurrock, including the action needed to implement the strategy. The plans consist of four parts- 'Issues and Opportunities', 'Vision 2050', 'Strategy', and 'Action and Implementation Plan(s)'.

TRANSPORT EAST – A sub-National transport body to deliver a collective vision for the future of transport in Essex, Norfolk, Suffolk, Southend-on-Sea and Thurrock.

TRANSPORT SOUTH EAST - A sub-national transport body for the South East of England

TOC TRAIN OPERATING COMPANY **-** A business operating passenger trains under the collective National Rail brand, typically as a franchise, such as C2C.



THURROCK COUNCIL

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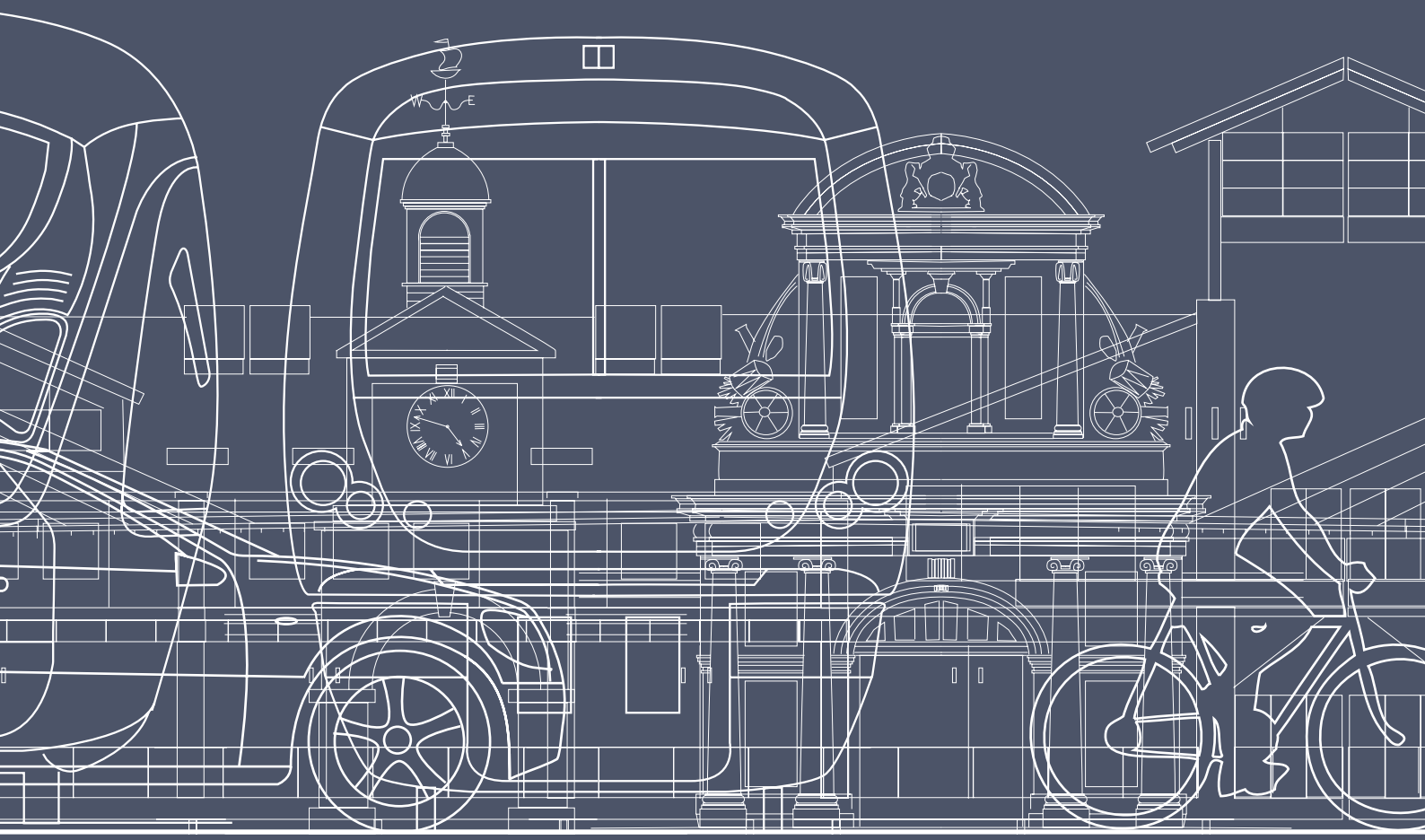
DRAFT



Thurrock Local Transport Plan

ISSUES & Opportunities

Non-technical Summary of the LTP Baseline Review

FEBRUARY 2023

THURROCK COUNCIL

This document summarises the findings of a Transport Baseline Study undertaken by Stantec Limited. Maps and diagrams are reproduced from that report with their kind permission.

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Foreword

Transport is crucial in supporting Thurrock's ambitious plans for regeneration and growth, including those to be set out shortly in our new Local Plan.

We must review and renew our transport plans to respond to changing trends and new opportunities.

The new Thurrock Transport Plan will point the way to a modern, integrated, and reliable transport system to help the local economy flourish and prosper and help our residents contribute to and benefit from that prosperity.

The new Plan will show how to connect people to opportunities and information, entrepreneurs with ideas and capital, and employers with talent and skills.

This 'Issues and Options' Report is a crucial first step in developing the new Transport Plan for Thurrock.

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1. Background

Baseline Study

1.1 Chapters 1 to 9 of this Issues and Options Report summarises the findings of a Thurrock Transport Baseline Study undertaken by Stantec Limited. The Baseline Study documents the existing transport and travel situation in the borough and forms the basis of the transport planning evidence for the emerging Local Plan.

1.2 The Transport Baseline Study uses data from several sources:

- Census 2011
- Department for Transport
- National Travel Survey (NTS)
- TEMPro 7.2
- Ordnance Survey
- Office of Rail and Road
- Royal Mail postcode
- Police injury accident records
- Thurrock Council

1.3 Appendix A- LTP Baseline Borough-wide Figures (a separate document) contains baseline outputs from the data sets used to inform the baseline analysis summarised in this report.

1.4 The Baseline Study incorporates key stakeholder feedback on the primary challenges, aspirations and opportunities they face and supplemented the data.

1.5 Consultation opportunities were offered to a range of stakeholders. The following stakeholders actively engaged with the Study:

- C2C Trains
- Network Rail
- DPWorld/London Gateway
- Essex County Council
- National Highways
- Kenex Thames Gateway Tramlink Ltd
- Port of London Authority
- Port of Tilbury
- Stephenson of Essex
- Segro
- Thames Clippers
- Transport East STB

Local Plan

1.6 The Local Plan will provide the policy base and guidance, help coordinate strategies, and identify the necessary infrastructure requirements for delivering potentially over 30,000 new homes and around 25,000[1] new jobs across the borough. Strategic growth locations are being identified, which will be informed by the borough's current interconnectivity and access characteristics, which are explored within this study.

1.7 Thurrock Council has prepared and consulted on two Issues and Options reports and has carried out a Call for Sites to develop the base for the new Local Plan for the borough. These documents and this study will become part of the broader suite of evidence to help shape a robust and progressive Local Plan for Thurrock to 2037/38.

1.8 The Local Plan will reflect on the implications of the Lower Thames Crossing proposals on the borough and how that will affect the Land Use planning processes and the provisions for access and movement within and through the borough.

1.9 The Structure of the Local Plan is made up of several phases, which will progress through the following:

- Strategic Policies, Proposals and Infrastructure.
- The 5 Strategic Character Areas: Development Frameworks & Infrastructure Delivery Plans.
- Strategic Growth Locations: Inset Plans, Master Plans, Transport Access Strategies, and Infrastructure Delivery Plans.
- Strategic Urban Extensions/New Settlements.
- Strategic Employment Allocations.
- Town Centres- Design Coding.

1 Provisional growth figures - subject to review as part of the Local Plan drafting process.

2. Structure

2.1 The Baseline Study is structured around the guidance within the Planning Policy Guidance (PPG) "Transport Evidence Bases in Plan Making and Decision Taking". PPG tells us that transport evidence bases in plan making and decision taking should establish evidence that may be useful in:

- 'improving the sustainability of transport provision
- enhancing accessibility
- creating choices among different modes of transport
- improving health and wellbeing
- supporting economic vitality
- improving public understanding of the transport implications of development
- enabling other highway and transport authorities/service providers to support and deliver the transport infrastructure that conforms to the Local Plan
- supporting local shops and the high street'

2.2 PPG also advises on the key issues that should be considered in developing a transport evidence base, which are to:

- assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, social and environmental terms
- assess the opportunities to support a pattern of development that, where reasonable to do so, facilitates the use of sustainable modes of transport
- highlight and promote opportunities to reduce the need for travel where appropriate
- identify opportunities to prioritise the use of alternative modes in both existing and new development locations if appropriate
- consider the cumulative impacts of existing and proposed development on transport networks
- assess the quality and capacity of transport infrastructure and its ability to meet forecast demands
- identify the short, medium and long-term transport proposals across all modes.'

2.3 To form an understanding of the baseline, in accordance with PPG, the Study addresses *'all current transport issues as they affect all modes and freight covering, for example, accessibility, congestion, mobility, safety, pollution, affordability, carbon reduction across the whole Plan area and, within relevant areas of the Plan, including existing settlements and proposed land allocations.'*

2.4 The Study is based on consultation and includes inputs from relevant transport and planning authorities, transport providers and key stakeholders - as the PPG advocates.

2.5 The Study is structured around the following:

- **Accessibility** is the extent to which individuals and households can access day-to-day services, such as employment, education, healthcare, food stores and town centres.
- **Congestion** is the degree to which travel demand is greater than the capacity of the network to accommodate within a given period.
- **Mobility** is the ability of people and goods to move efficiently and freely around an area and is a crucial factor in economic growth and wellbeing for the population. It primarily concerns the opportunity to travel and the network connections available.
- **Safety** considers the injuries and casualities that occur due to interactions between users of the transport network.
- **Pollution,** carbon reduction and health examine the trends and impacts of the transport network in terms of the pollution impact, the trends in carbon production and how this interacts with public health.
- **Affordability** looks at the demographic factors which shape travel behaviour by changing the needs and costs of travel.

2.6 These topics are covered in the body of this report, with detailed data provided in appendices.

Opportunities

2.7 Chapters 10 sets out borough-wide transport opportunities.

2.8 Chapter 11 describes the main development and regeneration opportunities that provide the main opportunities for the further development of Thurrock's transport networks and services.

Focus on specific areas of Thurrock

2.9 More detailed issues and opportunities in five spatial sub areas are set out in separate reports:

- Aveley and Ockendon
- Thurrock Urban area
- The Fens
- Stanford Le Hope, Corringham, London Gateway/TEP
- Chadwell St Mary, Tilbury, East Tilbury and Linford

3. COVID-19

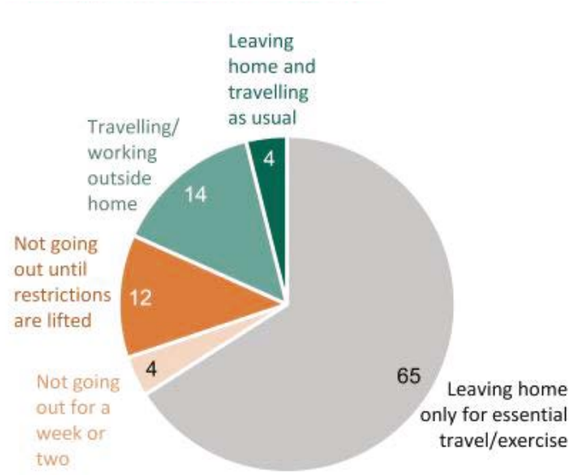


Figure 1. NTAS Chart 1: 'Which of the following best reflects your current experience of the outbreak'. Source: National Travel Attitudes Study: Wave 4 (Provisional)

3.1 This study considers data from 2019 or before, as the behaviour of travellers during 2020/21 will not be typical of continuing trends and is not considered to provide a sound basis for forecasting or planning.

3.2 Discussion with the train operator C2C indicated that passenger numbers compared to 2019 are significantly suppressed, with travel only rising to around 46% of February 2019 patronage during the non-lockdown periods in 2020.

3.3 Figure 1 extracted from National Travel Attitudes Study (NTAS): Wave 4 (Provisional) shows the suppression of travel reported during the pandemic.

3.4 The impact of the pandemic on travel behaviour has included shifts in behaviour and suppression of travel and activity. Figure 2 from the NTAS, illustrates the perception of safety has been a key driver of these changes:

3.5 It is worth considering the long- term impact that such a seismic change in behaviour may cause. Many workers who were accustomed to commuting have seen the possibility of remote working, and other workers may have changed modes on the basis of personal safety or in accordance with government guidance.

3.6 NTAS notes:

"The coronavirus (COVID-19) pandemic had a substantial and potentially sustainable impact on active travel. When interviewed between May and July 2020, 39% reported to walk more and 38% reported to cycle more than before the outbreak of the corona virus."

Source: National Travel Attitudes Study: Wave 4 (Provisional)

3.7 It is a recognised Transport Planning principle that enduring changes in modal choice are most likely to occur in response to significant life events.

3.8 Changes in behaviour, such as increases in walking and cycling, may endure, with ongoing benefits to public health and a reduction in motor vehicle use.

"Of those that reported to walk or cycle more, 94% thought it [is] likely that they would continue to cycle and walk more once travel restrictions were removed."

Source: National Travel Attitudes Study: Wave 4 (Provisional)

3.9 Figure 3, taken from NTAS Chart 7, illustrates that risk awareness engendered by the pandemic may have a lasting effect on behaviour.

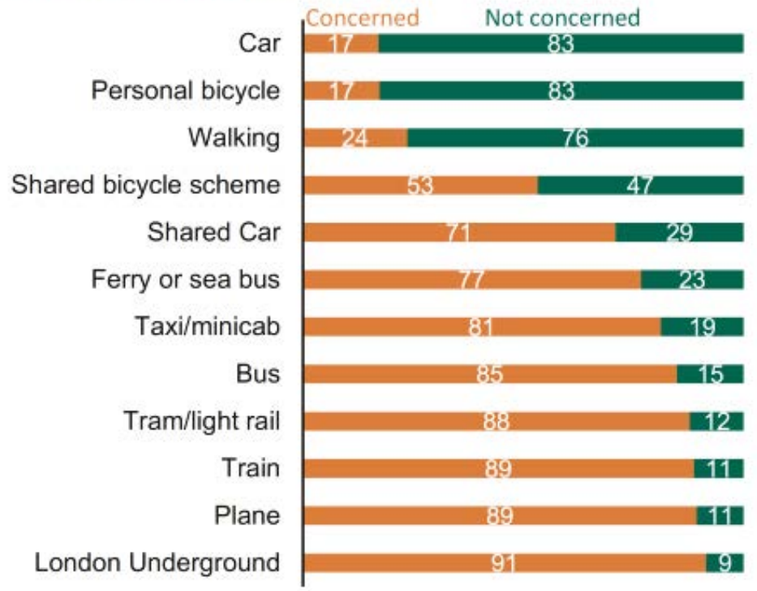


Figure 2. NTAS Chart 7: 'How concerned for your health, if at all, would you be currently if you were to use the following transport modes? Source: National Travel Attitudes Study: Wave 4 (Provisional)

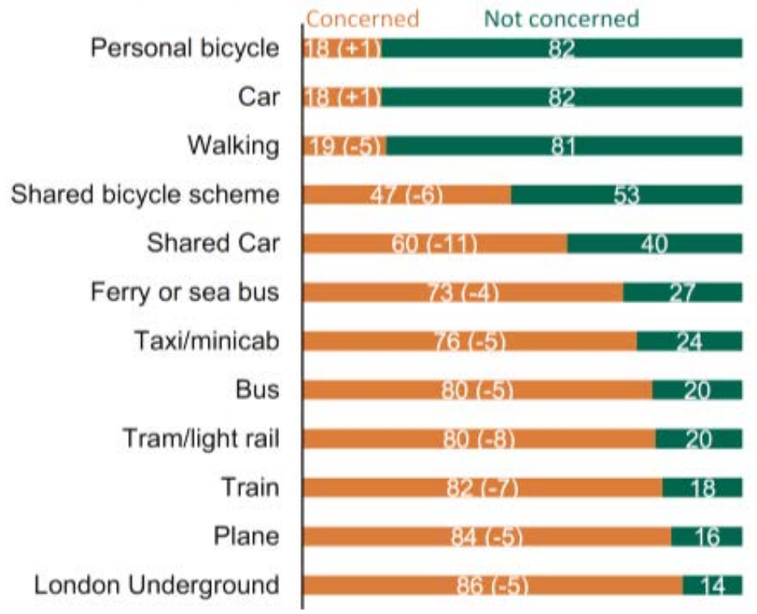


Figure 3. NTAS Chart 7: 'When the current travel restrictions and social distancing are removed, how concerned, if at all, for your health would you be when using the following modes? . Source: National Travel Attitudes Study: Wave 4 (Provisional)

4. Accessibility

4.1 Accessibility is the extent to which individuals, households and goods can move to the destinations they want by whichever mode they choose. This travel includes employment, shopping, commerce, medical and leisure purposes.

4.2 Thurrock's strategic transport connections provide strong local links by road to outer east London. To a lesser extent, there are also strong local links by road to and from Basildon, Kent and central Essex.

4.3 The Dartford Crossing better connects Thurrock with the south of the river compared with other areas of South Essex.

4.4 Thurrock possesses strong rail links to central and outer east London, with interconnection with the London Underground, Overground, DLR and the Elizabeth Line.

4.5 Freight connections are an essential element of the Thurrock rail network, with the ports using rail connections alongside HGV road transport of goods.

4.6 The ports in Thurrock are both a significant employer and driver of economic activity locally and of national importance for the movement of goods into the UK-including short sea shipping. 'Freeport' status offers an opportunity to continue to develop this area of employment in the Borough.

4.7 A ferry service connects Thurrock to Kent in the south, across the river Thames, as does the Dartford Road crossing. The Thames Clipper is also planned to extend into Thurrock to transport passenger and light goods along the route into London. A 'park and glide' ferry is proposed connecting the proposed London Resort with remote car parking areas.

4.8 Although well served by transport links, as analysis in this report will show, the network around Thurrock can become congested during peak times, notably the M25 motorway and A-roads linking Thurrock to London.

4.9 The question remains as to whether Thurrock has enough highway and public transport capacity available to accommodate future growth.

4.10 The Department for Transport's National Travel Survey (NTS) records travel behaviour statistics and is the primary source of data on individual travel patterns by residents of England within Great Britain. The NTS is a household survey designed to monitor long-term personal travel trends and inform policy development. It provides information on what travel demand and modal choice currently characterise households in Thurrock.

4.11 The NTS provides an overview of demand, allowing for a general prediction of transport choice. However, transport choice is affected by proximity to facilities and interchange. Modes with fixed points of access, like rail, bus and ferry, will typically have much higher usage close to those points, and therefore, those modes are often more dominant or important for those areas.

4.12 The M25 Motorway connects Thurrock to the wider motorway network. A-roads in the borough connect to London and the east. The A13, A1090, A1089 and A1014 are vital connections between the three ports and the national network.

4.13 The A1089 corridor and the retail and industrial environment along it create a western boundary to Chadwell St Mary and Tilbury. The areas to the east are more lightly populated than Grays, with East Tilbury, Stanford-le-Hope and Corringham surrounded by open land.

4.14 At 75%, the most significant proportion of work-related journeys to, from and within Thurrock are made by car. As a result of peak hour car reliance, the Thurrock road network, the M25 motorway and the A-roads linking Thurrock to London can become congested at peak times.

4.15 Further study will be undertaken to consider whether Thurrock has sufficient highway and public transport capacity to accommodate future growth.

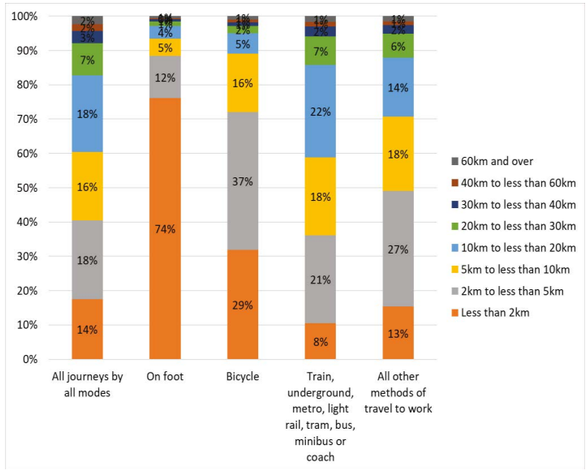


Figure 4. Distance travelled percentage by mode (for Thurrock)

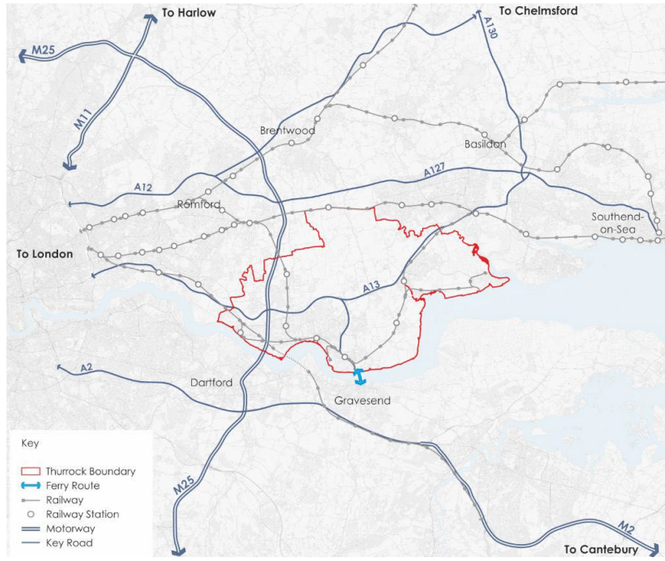


Figure 5. Thurrock's strategic transport connections (Image: Stantec)

4.16 The NTS indicates that 8% of journeys within, into or out of Thurrock for any journey purpose use public transport. This compares with a 9.1% share of journeys across England.

4.17 Public transport demand is concentrated in Thurrock's urban areas, particularly the Grays area, around the rail stations. Passengers' access to public transport infrastructure by a quick walking journey seems to be the primary determinant of public transport utilisation. Residents are willing to use public transport opportunities where services and infrastructure are present.

4.18 Notably, at approximately 25%, rail makes up a significant proportion of employment journeys outbound from Thurrock. The majority are commuters to London. The available rail connections link Thurrock to London in the west and Essex to the east and north.

4.19 A bus service connects Thurrock to Kent across the Thames via the Dartford Crossing. The Tilbury passenger ferry service connects the pier at Tilbury with Gravesend. 'Clipper' river bus services along the Thames are planned.

4.20 The general focus of commercial marine movements is on international trade.

4.21 Purfleet is speperated from Aveley by the A13. Aveley is seperated from South Ockendon by the M25/A282 corridor, Purfleet is seperated from Grays and Chafford Hundred by the Lakeside's retail and business zones.

4.22 Primary commercial land uses are scattered across urban areas in the borough with shopping areas concentrated in town centres and urban areas. The Lakeside Shopping Centre lies in the west of the Borough primarily focused around motor vehicle access but also served by rail and bus services .

4.23 Primary industrial land uses are concentrated around port areas, West Thurrock, and the Lakeside basin. There is a strong focus on marine operations with access to the Thames, the estuary and onwards to the Channel and international waters.

4.24 Port operators strongly value the rail network for freight movement to and from the ports and desire improved rail freight connectivity to complement their marine operations. They also recognise the importance of rail connectivity for their workforce.

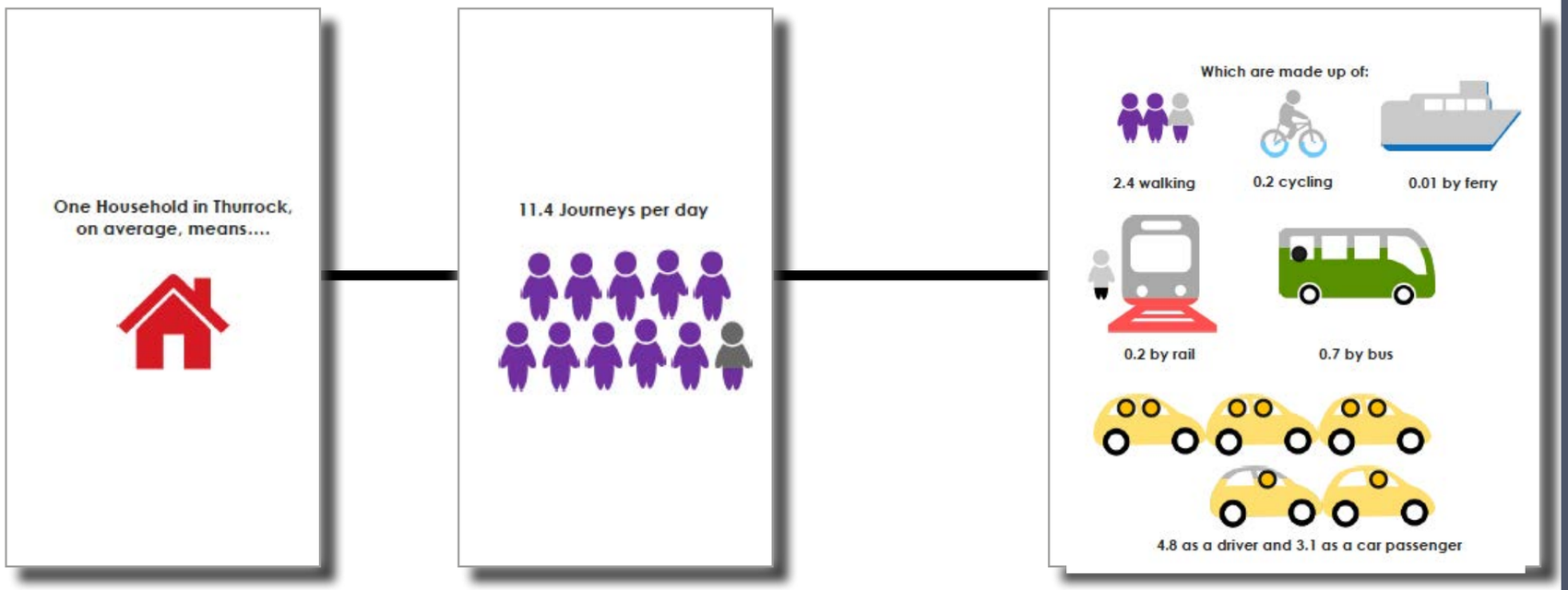


Figure 6. Journeys associated with an average household in Thurrock (Credit: Stantec)

4.25 For journeys within Thurrock, NTS data indicates the proportion of journeys to work on foot, by bicycle, by ferry and by bus is greater than the national average. For journeys to work of less than 2km, 34% of journeys are made on foot. This accounts for 7% of all daily journeys to work. For journeys to work of fewer than 30km, 30% of journeys are made using non-private car modes.

4.26 Walking journeys are mostly (74%) under 2km, cycle journeys are mostly (82%) under 10km, and most of them (67%) are under 5km.

4.27 Walking routes within urban areas typically travel along vehicle corridors with some separate footpath connections through more modern housing areas. The quality and interconnectivity of routes vary. Some rural links along Public Rights of Way have evolved rather than being strategically led.

4.28 The same is true for cycle provision, where facilities are provided but are not comprehensively connected.

4.29 Rail passenger growth levels at Stanford-Le-Hope and East Tilbury are lower than adjacent stations, although still strong by national standards. Further studies could establish whether this trend is due to insufficient train and platform capacity suppressing demand, attractive factors of other stations, or different reasons.

4.30 In 2019 (pre-COVID), the train operator's view was that capacity upgrades would be required soon. As a result, new trains were to be brought into service in 2022 to deliver increased capacity, initially on the Fenchurch Street Shoeburyness line.

4.31 The train operator (C2C) believes links to other transport modes and connections to employment destinations are adequate for current demand. However, transport links between rail stations and additional employment destinations may need to be developed to strengthen access and stimulate public transport patronage.

4.32 Higher frequency train services require signalling infrastructure improvements with onboard GPS and constant service monitoring. The train operator has suggested that working with the DfT, service improvements in the area could deliver 24 trains per hour[2].

4.33 In 2020, passenger numbers fell to around 26% of February 2019 patronage levels with the imposition of COVID restrictions and concerns over safety. Numbers rebounded to approximately 40-50% of 2019 patronage in the summer of 2020. However, passenger numbers fell again in late 2020 and early 2021 with the reintroduction of restrictions.

4.34 The train operator expects significant changes to working practices. However, London will remain a focus of economic activity and patronage will climb over the long term.

Conclusion

4.35 Travel patterns in Thurrock are heavily focused on the private car. However, where opportunities to use other modes are convenient and available, people are willing to use them.

4.36 The network of transport routes has severance issues caused by the busiest roads within Thurrock, particularly the M25 and A13. This notably causes difficulty in east-west travel and impedes residents' travel options and opportunities.

4.37 The rail network is in the process of being improved, and capacity increased. This process is essential, as the recent pattern of decreased rail patronage is expected to revert to growth in the longer term.

4.38 To support non-car travel, the rail sector believes stations must link with new residential developments and employment growth areas.

2 Stantec Baseline Study Appendix B C, Workshop 4, C2C (page 8)

Headlines- Accessibility

4.38.1 Inbound traffic in the morning peak hour is private car dominated – 80% car.

4.38.2 Outbound journeys are considerably more sustainable and focussed on London – 29% of journeys use rail, and 84% of all rail journeys are to London Boroughs.

4.38.3 Journeys internal to Thurrock are a broader mix of modes, and sustainable travel makes up a significant proportion of journeys – 21% of journeys are on foot.

4.38.4 Rail connections to London stations are a great attractor for Thurrock and provide sustainable travel opportunities. Planned network and operational enhancements will accommodate a forecast increase in passenger demand.

4.38.5 Cycle facilities provide access across Thurrock. However, there are gaps in the network, mixed levels of provision, and severance by major highway routes, particularly the M25 and A13.

4.38.6 The River Thames frontage provides inter-change opportunities with ferry services that are expected to expand with the introduction of Thames Clipper services.

4.38.7 Consultees prefer that planned developments connect to existing networks and hubs to max-imise the benefits of planned improvements.

4.38.8 A concern for future development is access to amenities such as supermarkets, healthcare, and schools by non-car modes. As develop-ment plans come forward, non-car access to such facilities should form part of the integrat-ed planning for those developments.

4.38.9 For strategic development, a key challenge is access to GPs, pharmacies, and other front-line healthcare services by non-car modes. Intro-ducing Integrated Medical Centres provides an opportunity to ensure development proposals have access to high-quality medical services.

5. Congestion

5.1 The national policy identifies congestion as a consequence but also a burden on economic success:

"For many, traffic is an inconvenience, though some might also describe it as a consequence of economic success. Indeed, it's a sign that a lot of people have jobs to go to. However, if left unchecked it can have a significant impact on our towns, cities and communities, and act as a drag on local growth.

The Department for Transport (DfT) predicts up to 55 per cent growth in traffic levels by 2040. However, levels of congestion are predicted to rise – up to 85 per cent worse in the same period"[3]

5.2 This section examines factors contributing to transport network congestion and constricted travel demand in Thurrock.

5.3 The full effects of the COVID-19 pandemic on congestion and travel demand will not be known for some time. New ways of living and working may result in longer but lesser peaks in congestion - or a general downturn in commuting.

5.4 The average delay on the M25 and A13 in Thurrock is significantly higher than the average for England. The delay is concentrated on sections of the network. The worst performing sections are the A13 westbound between A126 and M25/A282 and the A282 Dartford Crossing section on the M25 route.

5.5 The trend in congestion does not indicate a definite upwards or downward direction. On average, congestion levels track the general national trend of slight increases in congestion over time.

5.6 Of the 25,500 inbound and 40,700 outbound movements to Thurrock daily, the most significant proportion come via the M25 motorway and A13, particularly for HGVs to the ports and industrial zones. East-west A- roads and more local roads from the north also carry large traffic volumes. This is particularly pronounced in the evening peak hour.[4]

5.7 Around 34,000 vehicles per day leave Thurrock via the M25 motorway, 9,500 of which are HGVs (28% of traffic leaving Thurrock). East-west A-roads and more local roads from the north carry much outbound traffic to the trunk road network, with over 50,000 vehicles using the busiest non-trunk routes on an average day.

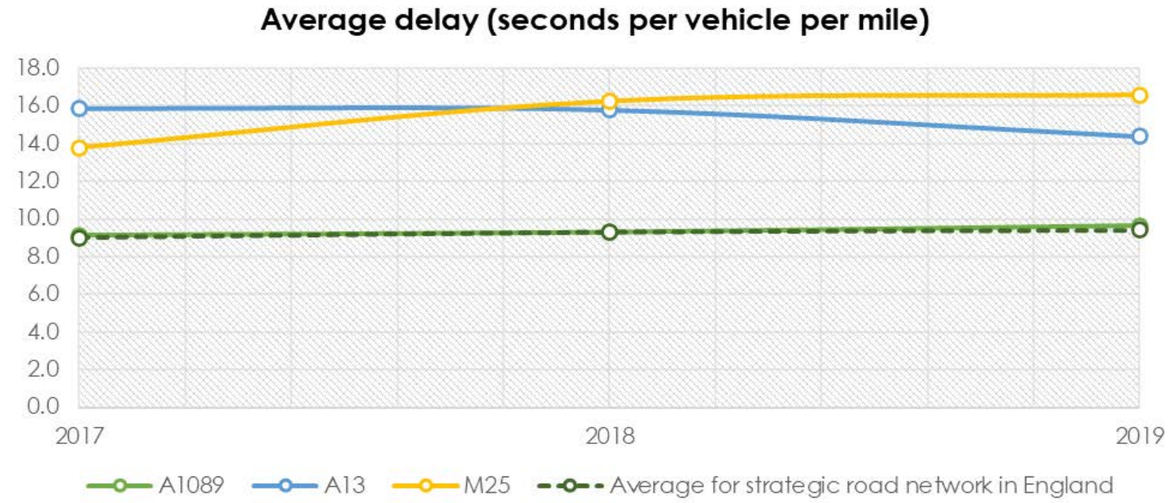


Figure 7. Average delay (seconds per vehicle per mile) (Credit: Stantec)

5.8 For journeys internal to Thurrock, the 50,000 daily vehicles on the busiest routes used are on east-west A-roads. Some more minor roads in urban areas also carry significant traffic, with several routes carrying around 20,000 vehicles daily. Routes leading to ports have high proportions of HGV traffic.

5.9 Many of the key roads in Thurrock, the M25 motorway and A roads, have high average speeds (50+mph). Differences between average peak and off-peak speeds highlight sections with reduced speeds- indicating areas of congestion.

5.10 Network resilience cannot be wholly understood through average speed and traffic volumes. However, it is reasonable to conclude that the absence of an increasing congestion trend in Thurrock indicates that the current transport situation is not degrading - except when adverse conditions, such as road closures or traffic incidents, occur.

5.11 Modelling traffic behaviour would provide a greater understanding of the network, points of potential capacity problems and overall network sensitivity to congestion.

5.12 Data indicates that the speed reductions are more significant in the evening than in the morning. [5]

5.13 Journey time reliability is lower in the evening than in the morning peak. Network performance is worse in the evening than the morning peak by both measures. This is not typical for urban areas, where a more diffused evening peak tends to occur due to workplaces and schools' different leaving times. In Thurrock the situation is not entirely typical, but this may be a symptom of the large logistics and industrial sector within the borough.

5.14 Hot spots of congestion within Thurrock coincide with key bus and cycle corridors, indicating that congestion will have an effect on non-car modes. This can be observed from the data held in Appendix A, with a number of hotspots on main bus routes.

5.15 The co-location of congestion for private car and major bus services and cycle routes is likely and difficult to avoid in urban areas. Key corridors which provide the best journey time attract private vehicles as well as providing direct access for other modes. However, the balance between modes can be adversely tipped towards the apparent safety and ease of use of the private car in congested areas, as public transport impacted by congestion is less attractive as reliability is impacted, and walking and cycling experience more intimidation and safety concerns.

3 A country in a jam: tackling congestion in our towns and cities, Local Government Association

4 As shown in the data displayed in Appendix A

5 In Appendix A

5.16 The majority of journeys to, from and internally in Thurrock are made by private car. Around 80% of journeys to work are made by car, either as a driver or passenger. For journeys of less than 2km to work, 50% use a private vehicle, but for journeys over 2km, this increases to 76%.

5.17 Internally, many journeys to work in Thurrock are made on foot, by bicycle and by bus. For journeys to work of less than 2km, 34% of journeys are made on foot, which accounts for 7% of all daily journeys to work.

5.18 Notably, rail makes up a significant proportion of employment journeys from Thurrock, around 25%. This will be mainly commuters to London.

5.19 This reliance on rail commuting into London has resulted in crowded peak-hour trains. However, as noted above, the impacts of the pandemic have resulted in a significant downturn in rail use—a trend that will take time to reverse.

5.20 Bus companies have not reported any major capacity issues with their services at present but have noted the impacts on the reliability of services. Local plan growth will likely drive demand for additional capacity and services.

Conclusion- Congestion

5.21 The average congestion level in Thurrock is higher than the average for England on key routes (the M25 and A13).

5.22 The congestion trend is upwards on the M25 and downwards on the A13. Overall, the average network delay appears stable under current conditions.

5.23 Rail passenger capacity would have soon been reached had not the COVID-19 pandemic occurred. The rail operator and Network Rail should revisit the shorter-term plan to increase rail network capacity post-pandemic. However, additional capacity is still expected to be needed over the long term.

5.24 The severance of east-west travel and the limited available routes increases network sensitivity.

5.25 Modelling future traffic behaviour is needed to fully understand network sensitivity, especially if the Lower Thames Crossing is completed. A Thurrock Strategic Transport Model is under development.

Headlines- Congestion

5.26 The trend across major roads monitored by the Department for Transport indicates key routes in Thurrock are experiencing different trends in congestion:

- A1089 congestion tracks national trends
- A13 congestion has a downward trend for 2017-19
- M25 congestion has an upward trend for 2017-19

5.27 Thurrock's journey purposes data taken from the national travel survey shows broadly typical purpose split, but notably higher than the national average proportion of shopping journeys

5.28 Travel out of Thurrock into London makes up 40% of AM peak journeys.

5.29 The programme of route improvement on the A13 and key junctions in Thurrock correlates with the points of highest average delay.

5.30 Commuting travel is a substantial proportion of peak-hour journeys. Modal shifts and home working can therefore reduce congestion.

5.31 Data collection and transport modelling will enable informed decision-making regarding the sensitivity of congestion on key routes.

5.32 The proposed Lower Thames Crossing will increase strategic network capacity. It will also likely cause significant traffic re-routeing. The impact cannot be reliably predicted without robust local traffic modelling of the network changes.

5.33 The rail operator and Network Rail are working to increase rail capacity.

5.34 Additional station stops will affect the operational efficiency of the rail network. Cooperation between rail operators and developers is needed to determine the appropriate strategy to provide effective rail links, including enhancing connections to existing stations and integrated rail-bus ticketing.

5.35 The severance of east-west travel in Thurrock by the M25 limits route options, increasing congestion and network sensitivity.

5.36 There are bottlenecks on key routes for freight, and large increases in freight movement volumes are forecast over the lifetime of the Local Plan.

5.37 The movements in and out of Thurrock are extremely tidal, with large volumes outbound in the morning and inbound in the evening.

6. Mobility

6.1 Mobility is the ability of people and goods to move efficiently and freely around an area. It is a crucial factor in economic growth and the population's wellbeing.

6.2 Thurrock's transport network comprises various modes of transport and routes between different locations. Quality of life and social and economic inclusion is improved when residents can freely choose the most efficient way to travel across the transport network.

6.3 Widening travel choices and removing barriers to efficient and free movement for people with varying physical ability and wealth levels can strongly influence social and economic opportunities and behaviours.

6.4 This section examines factors that support mobility by multiple modes of transport.

Roads

6.5 Analysis of journey purposes data for Thurrock [6] indicates 30% more shopping-related journeys than the national average. All other journey purposes match the pattern across Great Britain. The next most dominant journey purpose is access to employment.

6.6 Car ownership in Thurrock is above the average for England, with 20% of households having no car or van compared to the national average of 26%.

6.7 Residents of Thurrock are slightly less likely to choose to drive than the average across Great Britain, with 19% more car passenger journeys than the average for Great Britain. [7]

6.8 The M25 Motorway connects Thurrock to the national motorway network. The Dartford Crossing provides the motorway to Kent and is a focus of demand, as is the M25 more generally.

6.9 A-roads connect east to west across the Borough, linking Outer East London with South East Essex, Basildon and Southend.

6.10 The A13 links the M25 with South Essex. There is restricted local access to this vital route when approaching from some directions—with traffic channelled along the remaining available trunk roads towards alternative junction accesses.

6.11 The following committed and commenced schemes will change and improve mobility across the road transport network within Thurrock:

6.12 Projects underway and implemented.

- A13 widening, 2021.
- Integrated Transport Block Capital Programme 2022/23.
- Public transport infrastructure.
- Walking & Cycling (PRoW).
- Parking Management.
- Minor Works.
- Freight Management.
- Road Safety Engineering.
- Safer Routes to School.
- DfT Block Maintenance Capital Programme 2020/21.
- A126 Safer Roads Programme, 2020/21 (3-year programme).
- Emergency Active Travel Tranche 1 measures (various).

6.13 Committed and commenced projects

- Stanford-le-Hope Interchange.
- Grays South Regeneration: Underpass and Public Realm, 2023.
- GTC bus station enhancements (accelerated scheme)
- A13 East Facing Slips, 2025.
- A126 bus priority (MSA to Cycgnet View).
- EAT Tranche 2 measures (various measures following consultation).
- A1013 Treetops school access scheme.
- N13 cycle route enhancements.

6 journey purpose data analysed from 'TEMPro'.
7 Source: National Travel Survey via TEMPro version 7.2.

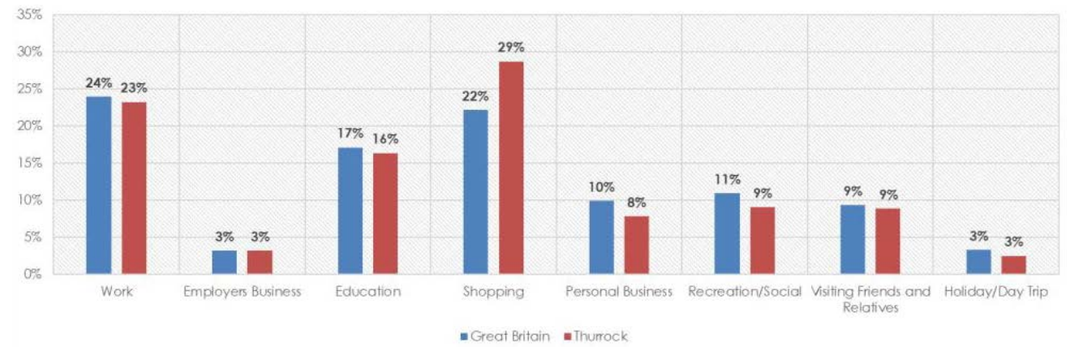


Figure 8. Great Britain and Thurrock split between journey purposes (Credit: Stantec)

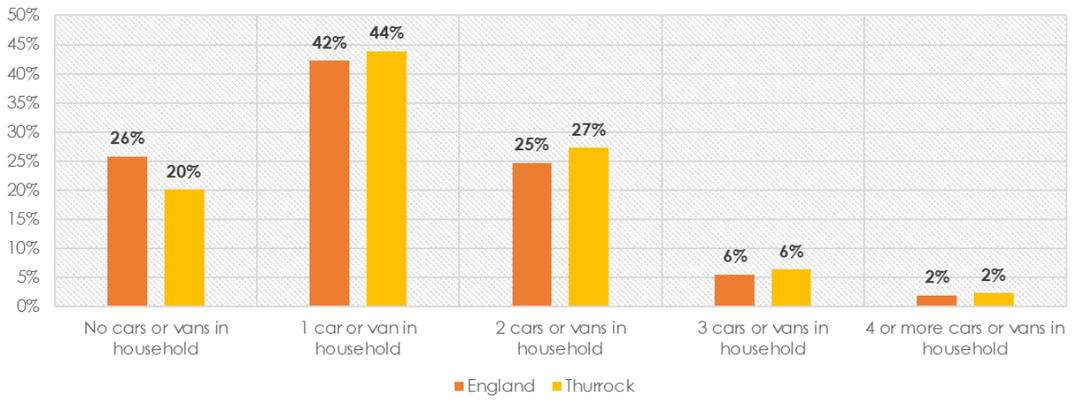


Figure 9. Car ownership in England and Thurrock (Credit: Stantec)

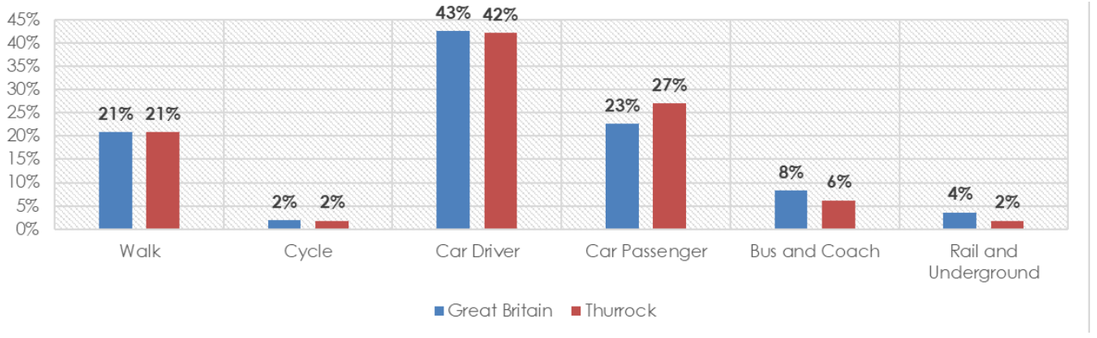


Figure 10. Car ownership in Great Britain and Thurrock (Credit: Stantec)

6.14 The proposed Lower Thames Crossing will provide an additional river Thames crossing and new strategic road link from the A2/A20 via Tilbury to the M25 north of South Ockendon. This can potentially enhance the transport network within Thurrock- provided it is connected and integrated with Thurrock's existing transport network and other modes- rather than simply bypassing the Borough.

6.15 Effective transit of freight from existing and planned port areas is a critical function of Thurrock's trunk road network. This supports economic development within Thurrock and enables freight movements to and from London and the wider region.

6.16 Residents of more rural areas of Thurrock own more cars- typically two or more vehicles per dwelling. Rural residents depend more on private cars because public transport services are fewer.

6.17 Car ownership is typically lower in urban areas, with Tilbury and Ockendon area residents least likely to own a car.

6.18 There are few large car parks in Thurrock, concentrated around Grays in the southwest of the Borough.

6.19 The Transport Strategy will identify appropriate areas for additional car parking capacity, including rail interchanges and parking for employment and leisure developments.

Rail

6.20 There are seven rail stations in Thurrock. Grays station offers up to nine trains per hour to London Fenchurch Street (about 35 minutes) and Southend (about 47 minutes).

6.21 Thurrock's rail connections are generally east-west, serving demand to/from London. There are no direct rail connections across the river to the north or south, limiting access to employment opportunities.

6.22 There is no station stop on the High-Speed 1 (HS1) rail line as it travels across southwest Thurrock. The nearest passenger interchanges are at Ebbsfleet and Stratford- which also serve 'Javelin' high-speed commuter services to Kent.

6.23 The rail network serves large distribution, industrial and port areas in Thurrock, providing a strategic freight alternative to HGV transport of goods. Freight trains share sections of the rail network with passenger services and compete for a limited number of train 'paths'.

Buses

6.24 Thurrock has an extensive bus network with connecting services to Greater London, Essex, and Kent.

6.25 The bus network connects all settlements within Thurrock and provides links to key employment areas and into London.

6.26 The highest frequency services run through central Grays to connect with the rail station interchange and between Grays and Stanford-le-hope.

6.27 Infrequent bus services extend to the more rural settlements.

back menu

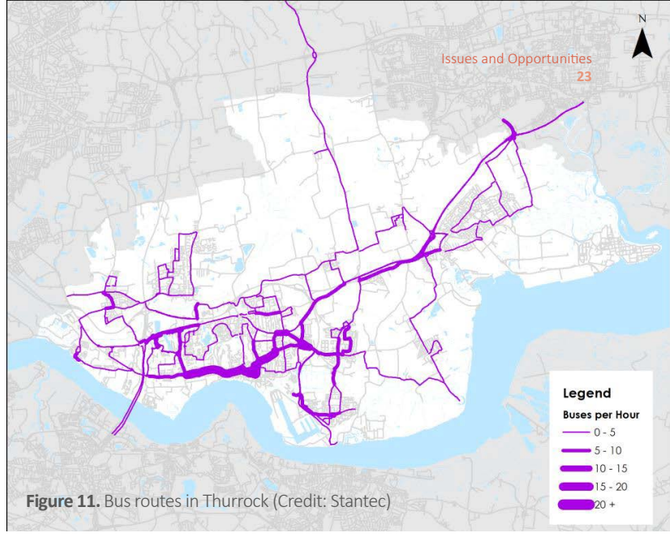


Figure 11. Bus routes in Thurrock (Credit: Stantec)

River

6.28 A passenger ferry service across the Thames links Tilbury in Thurrock with Gravesend in Kent. The river is less than 600m wide, and the ferry is vital in breaking down the severance and connecting residents on each side to employment opportunities and services on the opposite side. The crossing takes between 5 and 10 minutes, depending on river traffic, with a 30mins service frequency from 5:30 am–7 pm, Monday to Saturday.

6.29 Demand for the service is higher in summer but still significant through the winter, with thousands using the service each month.

6.30 There are plans to expand marine services by extending the 'Thames Clippers' river bus service with additional jetties serving passengers and light freight.

Conclusion- Mobility

6.31 Thurrock's transport network supports high levels of mobility in some areas with high-quality public transport connections, private and commercial vehicle road networks, and walking and cycling routes. In sharp contrast, there are limited public transport links across the river, to rural areas and to the north of the Borough. The Road Network is congested and often disrupted.

6.32 Connections to London by all modes are essential for Thurrock residents.

6.33 Bus and ferry services are essential for more local journeys. Maintaining connections and service levels will continue to be necessary.

6.34 The most common travel mode in Thurrock is driving a private car, followed by a private car passenger, then walking, followed by a bus. These modes account for 96.5% of all journeys in Thurrock. Improving walking routes and more and better bus services are essential in encouraging non-car travel.

Headlines- Mobility

6.34.1 Higher car ownership than the national average, 28% more households have access to a car than the average for England.

6.34.2 Despite higher car ownership, Thurrock residents are slightly (1%) less likely to drive than the national average.

6.34.3 Thurrock has frequent rail services into London stations, with a 35–40-minute journey time to Fenchurch Street.

6.34.4 Thurrock has an extensive bus network connecting settlements, key employment locations, and Greater London.

6.34.5 Thurrock has good interchange connectivity between travel modes with more important interchanges at critical destinations such as Grays.

6.34.6 Expanding river passenger services offer opportunities to increase non-car travel into London and across the river with new river piers connected to nearby transport interchanges.

6.34.7 The M25 constrains east-west travel and limits mobility and choice of travel mode between Purfleet, neighbouring areas, and Grays.

6.34.8 Accommodating cycles and private cars within the same street network result in conflicting priorities. The development of cycle facilities and expansion of the route network has not followed a strategic approach. There are opportunities to remove barriers to use by inexperienced or less confident cyclists.

6.34.9 Prioritising public transport access vs. the private car can increase bus service reliability, encourage a shift to public transport and reduce peak hour congestion at critical locations in the transport network.

next

7. Safety

7.1 Personal Injury Accident data over the last eight years (2011 – 2019) indicates the location of accidents and road traffic accidents trends across Thurrock.[8]

7.2 The overall number of accidents has been steadily falling, with 403 accidents in 2011 and 267 in 2019. Fatal and slight accidents have decreased overall. However, serious accidents have increased slightly.

7.3 The number of pedestrian and cyclist casualties has also been falling, with accidents for cyclists decreasing faster.

7.4 Between the start of 2017 and the end of 2019, there were 853 road traffic accidents across Thurrock, resulting in:

- Seven fatalities (1%),
- 177 serious injuries (21%)
- 669 slight injuries (78%)
- 152 pedestrian or cyclist accidents - predominantly in urban areas around Grays, Ockendon and Stanford-Le-Hope, with less prevalence in The Fens
- One cyclist fatality (in Purfleet)
- One pedestrian fatality (in South Ockendon)
- One fatality involving an HGV (A13 Stanford-le-Hope)
- 104 pedestrian casualties (9%), which is a lower percentage than the equivalent figure for Essex and Great Britain
- 54 cyclist casualties (5%), which is lower than the comparable figure for Essex and Great Britain
- 77 involving HGVs (9%) - located primarily on the trunk roads and motorway. Some were close to Tilbury and Purfleet.

8 The reporting of road traffic accidents changed in 2015/2016, which has meant that the number of casualties recorded as serious has increased in Great Britain. As such, trends should be viewed as a whole over the 8-year period, not by a year-to-year basis.

7.5 Accident types and rates within Thurrock can be benchmarked against National and regional data. The Department for Transport provides road traffic accident data for Great Britain, and the Safer Essex Roads Partnership (SERP) provides a road safety service across 'Greater Essex' (including Essex County Council, Southend-on-Sea Borough Council and Thurrock Council).

7.6 The 2019 data shows that of all casualties:

- Pedestrians represented 14% in the UK, 11% across Essex, and 9% In Thurrock.
- Cyclists represented 11% in the UK, 7% across Essex and 3% in Thurrock.

7.7 The Safer Essex Roads Partnership (SERP) has adopted a 'Vision Zero' strategy with a ambitious target to achieve zero deaths and serious injuries by 2040.

Conclusions

7.8 Thurrock performs better for pedestrian and cyclist safety and has fewer fatalities than national and regional averages.

7.9 It is vital to maintain existing trends of improving safety.

7.10 The expansion of pedestrian and cycle routes and improved legibility of routes can support continual improvements in pedestrian and cycle safety.

7.11 Creating safe environments in new development and new infrastructure in which vulnerable road users can safely mix with motor vehicles is essential to improve the trends towards safer travel networks.

Headlines

7.12 There has been a consistent reduction in accident rates between 2011 and 2019: 403 to 267, a 34% decrease.

7.13 Cycle and pedestrian injuries declined by 59% and 13%, respectively.

7.14 There is a very low level of serious injuries and fatalities, which remained consistent over the assessed period Accidents involving HGVs were most common on the trunk roads.

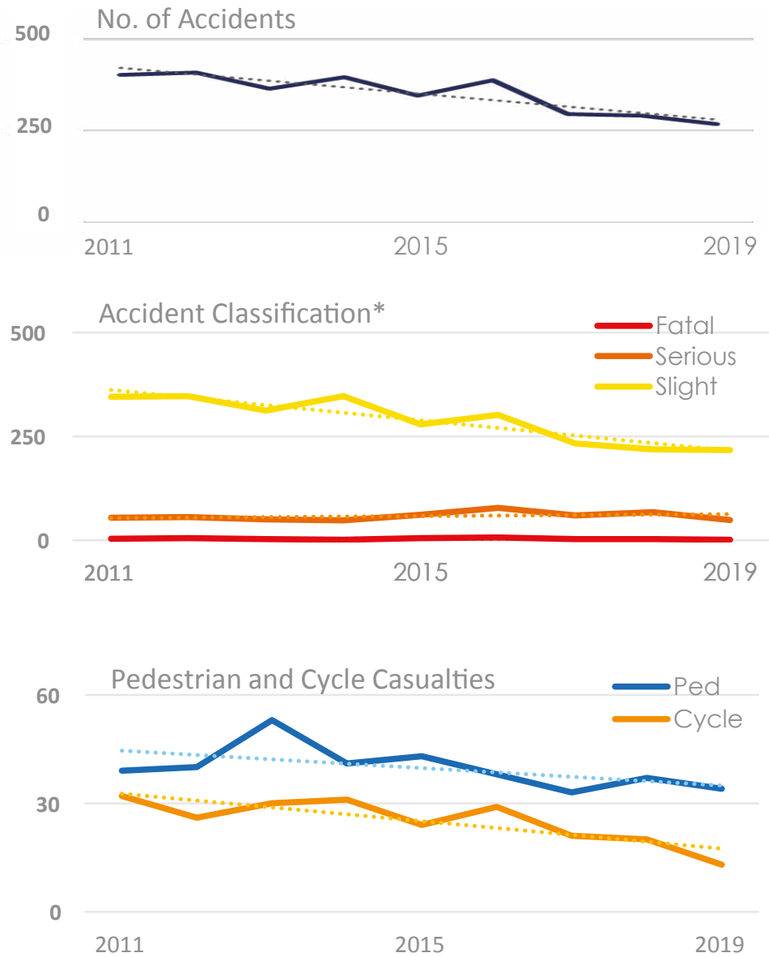


Figure 12. Analysis of personal Injury accident data for Thurrock over the last 8 years (2011-2019) (Credit: Stantec)

8. Pollution, carbon reduction and health

8.1 The Department for Transport's "Future of Mobility: Urban Strategy - Moving Britain Ahead -2019"[9] highlights the impacts of transport on pollution and the importance of the reduction of pollution in the UK in changing this picture:

8.2 "Greenhouse gas emissions: Today, transport is the largest greenhouse gas emitting sector in the UK, accounting for 27% of greenhouse gas emissions. Road transport accounts for 91% of these." [Paragraph 2.9 & Figure 3]

8.3 Consequently, the Government's priority is to change the mix of vehicles using UK Roads, with a ban on the sale of new petrol or diesel-powered cars from 2030.

8.4 Overall Nitrous Oxide (NOx) monitoring shows a general downward trend of emissions within Thurrock, with a 21% drop between 2008 and 2018, with an average year-on-year decrease in total values of 2%.

8.5 Local authorities designate Air Quality Management Areas (AQMAs) in areas assessed to have poor air quality. The objective is to monitor residents' potential exposure to poor air quality and ensure that national air quality objectives are reached.

8.6 Figure 14 (over) illustrates Thurrock's current Air Quality Management Areas (AQMAs).

8.7 Thurrock is developing an Air Quality Assessment Model to inform future AQMA designations. The Model will confirm which currently designated areas should remain as AQMAs.

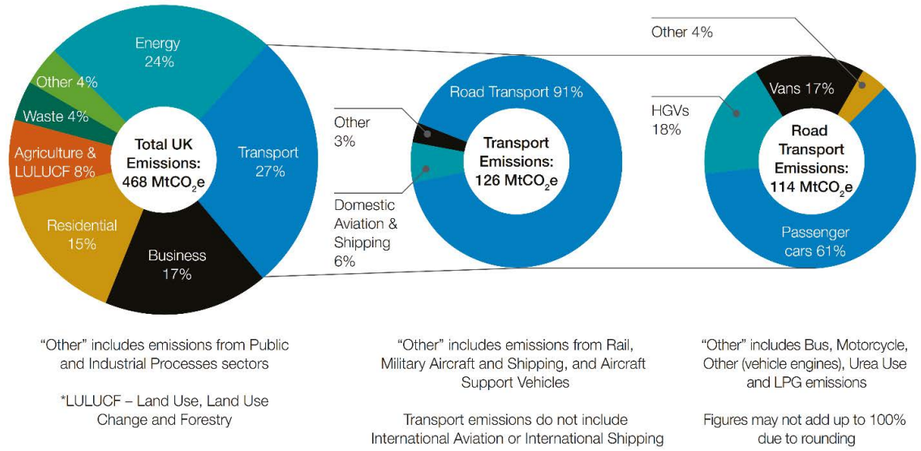
8.8 It is no coincidence that current designated AQMAs are generally in areas where roads are congested. The map opposite shows speed reductions in the PM peak as a proxy measure of congestion, which confirms many AQMAs are along congested routes. However, some AQMAs are along less congested routes, and there are congested routes which are not within AQMAs.

8.9 Thurrock's AQMAs are concentrated around the Grays urban area and key arterial urban roads. The southern arterial road, London Road, running west from Grays, experiences significant congestion in peak times and is an AQMA. Similarly, Arterial Road is classified as a AQMA.

8.10 From discussions with key transport operators, HGV fleets continue to modernise, with the efficiency of vehicles being a priority for operators. Efficient routeing and avoidance of congestion being supported by in-vehicle technology continue to progress.

8.11 Transport for London has a programme of electrification and equipping bus depots with charging infrastructure, enabling electric buses to come in from Greater London to Lakeside Shopping Centre.

9 Source:https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/846593/future-of- mobility-strategy.pdf



Source: BEIS (2018). Final UK greenhouse gas emissions national statistics: 1990-2016

Figure 13. Road transport emissions as a share of UK greenhouse gas emissions for transport.

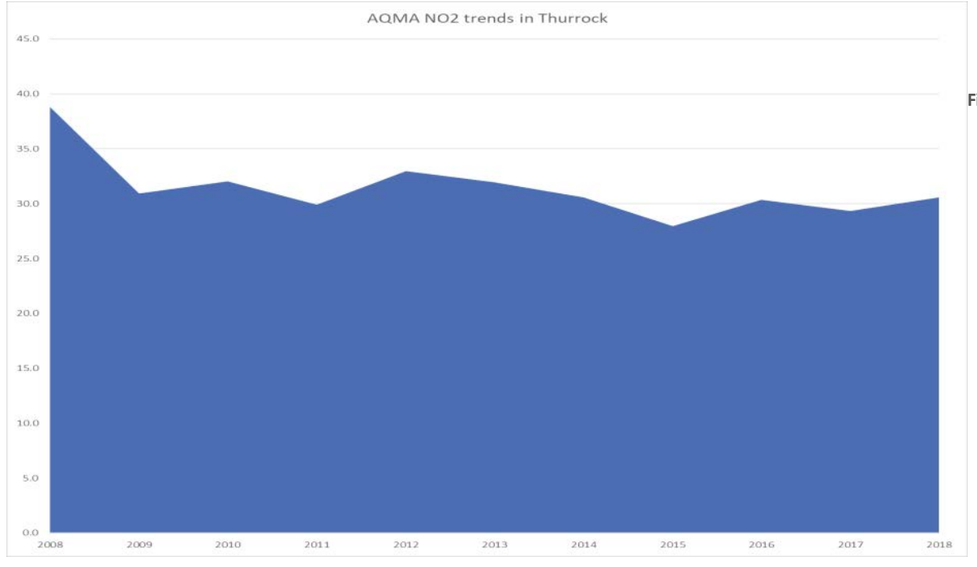


Figure 14. Air Quality Management Area NO2 trends in Thurrock (Credit: Stantec)

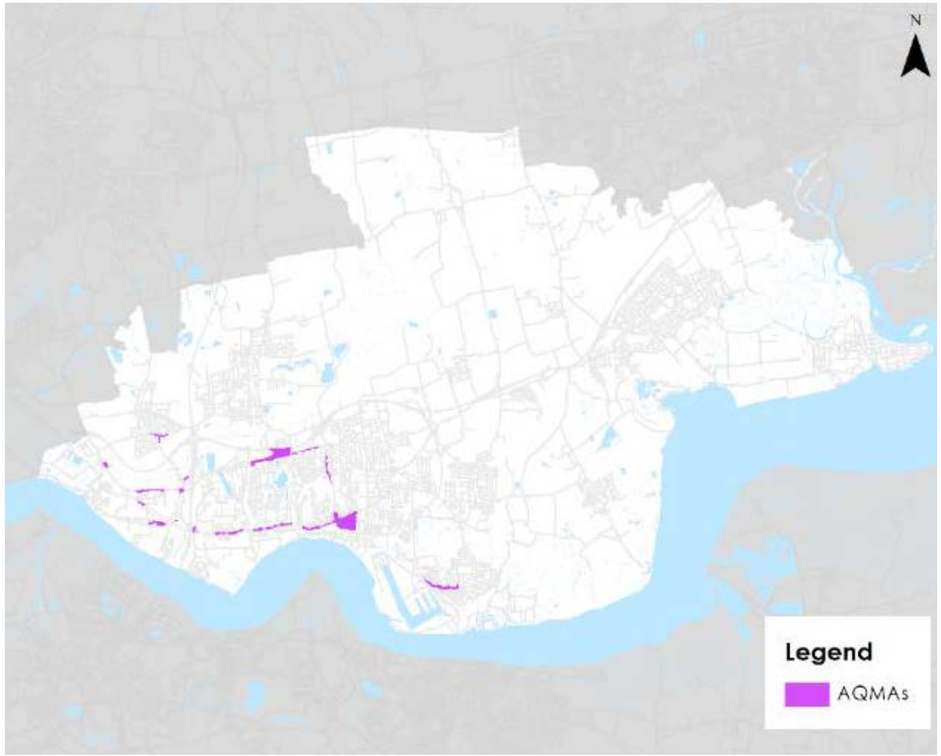


Figure 15. Air Quality Management Areas in Thurrock (Credit: Stantec)

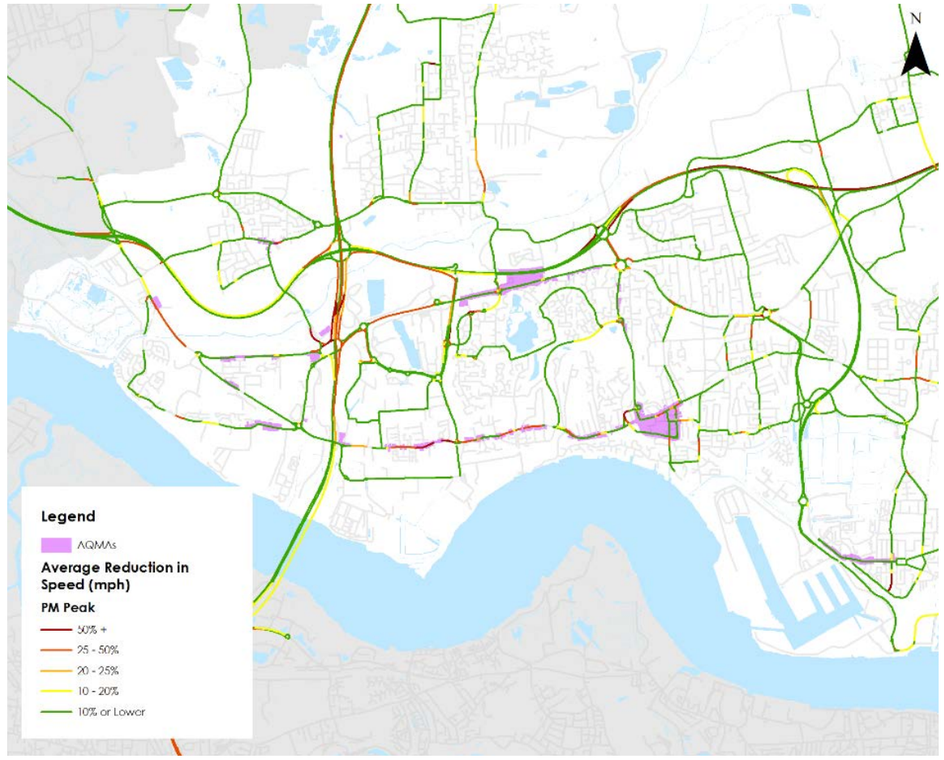


Figure 16. Air Quality Management Areas in Thurrock mapped with speed reductions in the PM peak (Credit: Stantec)

8.12 At present local routes do not have a specific time-line for electrification, but this is expected to progress during vehicle upgrades and as charging infrastructure is installed once this is compatible with operations and commercially viable.

8.13 Thurrock does not currently monitor taxi fleet fuel types, and no plans are in place to incentivise fleet changes to electric vehicles.

8.14 Modernisation of the Thames Clipper fuel systems is planned with initial conversion to hydrogen fuel planned as new vessels are built, with additional piers and the carriage of light cargo to utilise vehicles along the clipper routes.

8.15 In 2021 the Council resolved to arrange a sole provider of on-and off-street electric vehicle charging infrastructure, including maintenance, back office and customer service. The contract to run for ten years with the option to extend for a further five. The council envisages a minimum of 20 installations a year.

Conclusion

8.16 AQMA zones should be reviewed regularly, and consideration should be given to whether all the existing AQMAs are appropriate. Future reviews will be assisted by the new Assessment Model.

8.17 To provide information about the emissions associated with transport, Thurrock Council could introduce fleet monitoring for transport providers, such as taxis and bus operators, to understand progress towards less polluting drive systems.

8.18 Information on fuel uses would allow consideration of incentives to promote transfer away from fossil fuel use. Coordinating disparate modernisation schedules would be easier if the information was held in one location. Monitoring transport's impact on pollution will require data collection from various operators.

Headlines

8.19 The Average year-on-year drop of NOx emissions in Thurrock is 2%.

8.20 There has been a total NOx emission drop of 21% over the period from 2008 to 2018.

8.21 There is limited information about the current emission status or power source for taxis and buses within Thurrock.

8.22 Plans for improvement to emissions on buses operated by Transport for London and the Thames Clipper services are in process.

8.23 AQMA zones do not necessarily match areas of most significant congestion.

Figure 17. EV charging 'Super Hub' at Moto Thurrock (credit: Gridserve)

9. Affordability

9.1 This section provides an overview of deprivation, health, age and education levels in Thurrock to understand possible barriers to transport affordability.

9.2 From the data assimilated through the 2011 Census[10], the most deprived areas of Thurrock are concentrated around urban areas, particularly Tilbury, Chadwell St Mary, Corringham and South Ockendon.

9.3 There is a general correlation in Thurrock between areas of high deprivation and poor health. Chadwell St Mary and Tilbury have very high levels of both.

9.4 There is a correlation between high deprivation, poor health, and low education in some areas and a correlation between all three measures in urban areas in Grays, Tilbury and Ockendon. Low education levels and high deprivation closely correlate across most urban areas in Thurrock.

9.5 There is no clear correlation between older age, deprivation, bad health, and low education - but there are areas or pockets in Thurrock where such a correlation exists.

9.6 The Census data for residents who are 66 years old and over generally shows higher concentrations of older residents in suburban and more rural areas. This suggests younger residents may live in urban areas closer to employment opportunities, with older residents in remote locations further from public transport connections.

9.7 There are high concentrations of older residents in pockets within Tilbury (i.e., over 40%). Many residents have limited qualifications in the same area, equivalent to fewer than 5 GCSE passes between grades 4 to 9.

9.8 Notably, the measure in which Thurrock falls below the national average is in qualifications obtained. Across most measures, the level of education obtained is lower than the average for Great Britain.

9.9 The Census data shows that the most qualification-deprived areas of Thurrock are concentrated around urban areas, particularly Tilbury and Ockendon.

9.10 Despite the apparent low level of qualifications compared to the average performance across Great Britain, Thurrock performs relatively well across various employment-related measures.

9.11 The level of employment exceeds the average for Great Britain, and the level of economic activity is higher than the average. Thurrock has more working households and significantly fewer workless households than the average.

10 Finding to be updated following an analysis of the 2021 Census data.

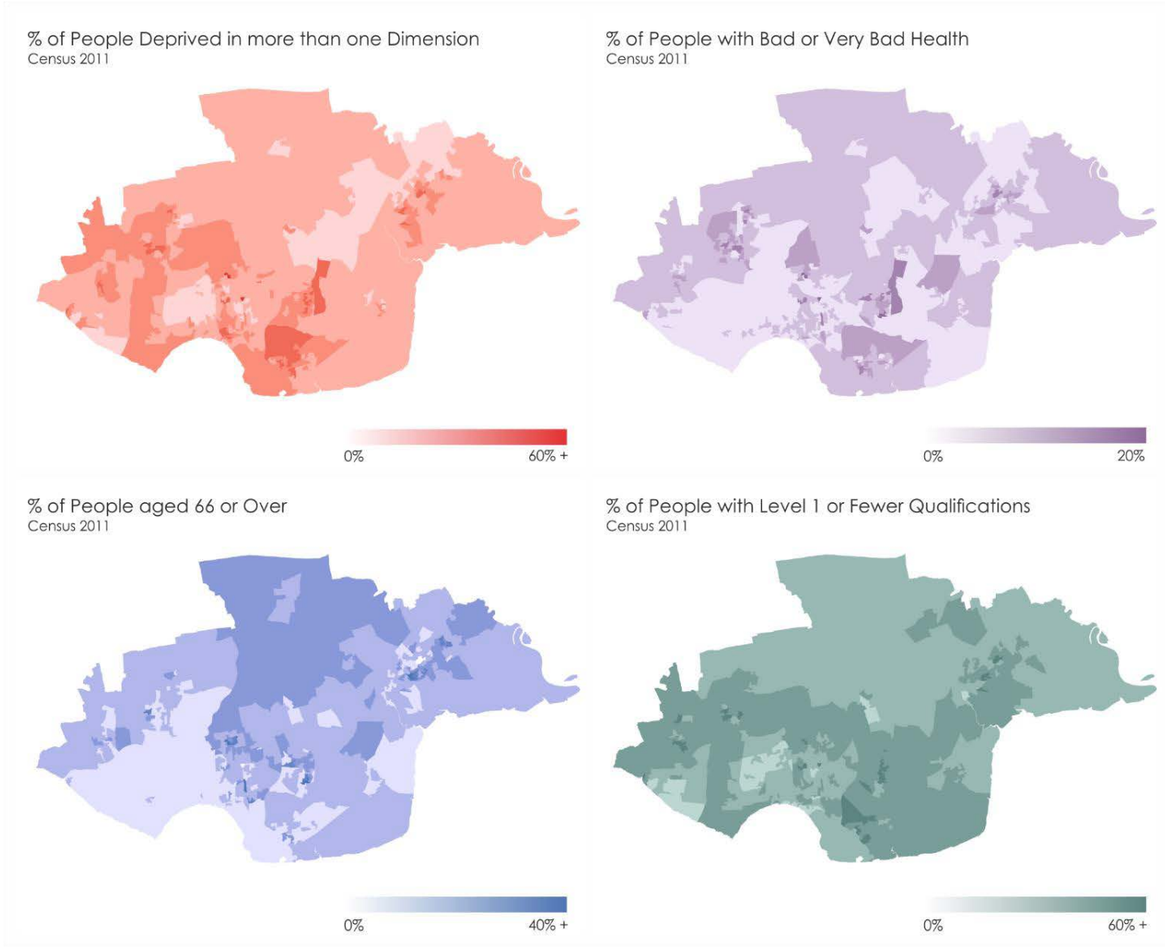


Figure 18. Age,deprivation, education and health levels in Thurrock . (Credit: Stantec)

Measure of economic performance	Thurrock (%)	Great Britain (%)	Comparison
Economic activity rate - aged 16-64	81.5	78.9	2.6
Employment rate - aged 16-64	77.1	75.8	1.3
% aged 16-64 who are employees	66.6	64.6	2
% aged 16-64 who are self employed	10.5	10.9	-0.4
Unemployment rate - aged 16-64	5.5	4	1.5
% who are economically inactive - aged 16-64	18.5	21.1	-2.6
% of economically inactive who want a job	13.9	20.8	-6.9
Working households	60.1	58.9	1.2
Mixed households	28.6	27.2	1.4
Workless households	11.3	13.9	-2.6
% with NVQ4+ - aged 16-64	28.6	40.3	-11.7
% with NVQ3+ - aged 16-64	47.8	58.5	-10.7
% with NVQ2+ - aged 16-64	66.8	75.6	-8.8
% with NVQ1+ - aged 16-64	80.5	85.6	-5.1
% with other qualifications (NVQ) - aged 16-64	10.1	6.7	3.4
% with no qualifications (NVQ) - aged 16-64	9.4	7.7	1.7

Figure 19. Comparative measures of Economic Performance for Great Britain and Thurrock. (Source: NOMIS- Data to December 2019)

Headlines

9.12 11.3% of Households are workless compared to the 13.9% national average.

9.13 15.6% of Thurrock residents have some limitations in their day-to-day activities due to poor health.

9.14 Thurrock has relatively high employment levels compared with national averages for most employment-related measures.

9.15 Data shows employment opportunities are available for a range of skill sets and different educational levels.

9.16 Thurrock shows lower levels of qualification attainment than national averages.

Conclusion

9.17 Thurrock performs well in terms of employment levels with fewer workless households.

9.18 Port expansion is likely to drive strong employment growth in Thurrock. It is vital to ensure skills match employers' needs.

9.19 It is essential to ensure future infrastructure and developments serve and provide opportunities for all residents, including those with a range of health conditions and who are remote from good public transport connections.

9.20 Educational attainment is a weakness at present. Opportunities to improve transport affordability for Thurrock residents seeking education and training need to be exploited.

10. Transport opportunities


1


2

Borough-wide Opportunities

10.1 Thurrock's multi-faceted development and regeneration challenges include transport issues to be overcome and opportunities to be seized.

Improving strategic connectivity

10.2 Thurrock has the potential to deliver significant growth in housing and employment, particularly on the periphery and outside existing settlement boundaries, where poor public transport connectivity has historically acted as a constraint.

10.3 Investment in new strategic public transport connections serving housing and employment growth areas is required to act as a catalyst for development and regeneration, particularly in the historically more isolated areas.

Better highways

10.4 While the scale of planned growth is a great opportunity, the size and locations of the areas with most significant development potential are such that some increase in traffic demand is likely. It is essential, therefore, to manage the performance of the existing and planned future highway network.

10.5 This needs to happen in order to protect essential journeys, improve safety and lower pollution impacts. Managing demand sits alongside encouraging a mode shift to active and public transport modes of transport. Only in this way can Thurrock accommodate growth whilst minimising congestion and ensuring traffic, in particular buses and freight, is not subject to excessive delays.

10.6 New growth will need to go hand in hand with measures to improve the highway network's operation and safety for active and public transport modes. Competing pressures on road space will need to be managed to provide safe routes for people walking and cycling.

Increasing connectivity and reducing severance

10.7 Thurrock's urban fabric is divided and fragmented by main roads, railway lines, rivers and marshes. Local connectivity is fragmented due to these physical barriers to travel, meaning that many short-distance trips that could be easily made on foot or by cycle are being made by car.

10.8 Short-distance car journeys involve routes along and across the strategic network, adding to the congesting on the strategic road network and making local trips longer and less reliable. This is why a key aim of new development and regeneration is to improve local connectivity and reduce severance.

10.9 For new development, there is the opportunity for local needs to be met locally to minimise travel. Most people will walk or cycle to a nearby local centre for day-to-day needs and access quick and reliable public transport links to further away town centres. Compact new communities will be clustered around existing and new local and district centres with excellent public transport connections and easy access on foor and by bicycle.

10.10 Compact development patterns can help local centres thrive and reduce the burden on the strategic network, particularly roads, as people choose to travel less. Investment is needed in local parades, high streets, and district centres with a community transport plan to incorporate active travel measures and public realm investment projects.

1. New pedestrian,cycle and bridleway connections helping to break down road severance
2. Pedestrian connection from Chafford Hundred Station to Lakeside

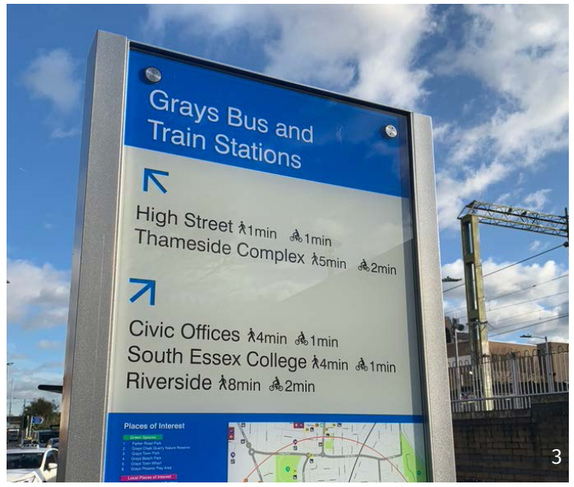
Facilitating travel by sustainable modes

10.11 Overall, car use in Thurrock remains high. Based on journey length, many more existing trips could be walked or cycled. Against a backdrop of planned population and employment growth, high levels of obesity, and low physical activity levels, current travel patterns in Thurrock are unsustainable.

10.12 Putting human health and the quality of the environment at the heart of planning and transport in Thurrock will be key to encouraging behaviour change for existing residents and active and healthy travel choices for new residents. The aim is to encourage more people to walk and cycle as their first travel choice for most trips and to walk or cycle for at least part of a longer journey.

Sustainable land use and transport planning

10.13 Investment in public transport and active travel is key to unlocking sustainable new development that minimises the negative impacts of extra transport demand. Therefore, it is critical that planning for new homes and jobs is fully integrated with transport network strategy planning.



1. Dense and compact new housing development at East Tilbury
2. Cycling offers a healthier way to travel
3. Strengthening links to transport hubs
4. Planning for freight growth including short sea shipping

Dense and compact

10.14 Achieving higher densities across all land-use groups in all development and regeneration clusters will generate higher public transport patronage levels, make routes and services more viable, and encourage higher frequency and more off-peak and weekend public transport services. Compact communities and walkable neighbourhoods are essential to the Vision and delivery of both the Transport Strategy and Local Plan.

10.15 Higher density development patterns can support better quality, higher capacity, faster and more frequent public transport services that will deliver benefits for existing and future residents alike.

Partnership working

10.16 Working with partners to deliver major and cross-boundary schemes and positively influencing proposals and major scheme undertaken by third parties- maximizing the benefits and minimizing harmful impacts for Thurrock.

Creating and strengthening links to new and existing transport hubs

10.17 Developing and strengthening links to new and existing transport hubs will support new development and positively influence Thurrock's existing communities' transport choices. The key is building new developments in places that are, or can be, well served by public transport and offer good quality walking and cycling routes—connecting to existing and new local off-road trails.

10.18 Improvements to cycling and walking access to the Thames Path, river valleys, open countryside and the marshes can encourage more use of these vital local assets.

Inclusive access

10.19 Development and regeneration projects and major and minor transport schemes can break down barriers and provide access for all.

Emerging technologies

10.20 New technologies can help drive modal shift to promote non-car journeys for local journeys, de-carbonizing transport at a local level and promoting the use of low-emission cars, trains, buses and lorries for all other journeys. This can address poor air quality, tackle congestion, and improve health.

Health and well being

10.21 Building physical activity into everyday activities like travelling to work, school or the shops to improve health and wellbeing and tackle obesity. Providing multi-modal access to key facilities and supporting wellbeing measures that address unequal access to health, education, and local services to foster community participation and cohesion.

Safety

10.22 Improving road safety particularly for vulnerable road users such as people on foot and on bikes to encourage safer local journeys. Managing safety risks of development and major construction activity for vulnerable road users. Working to keep railway level crossings safe and replace them with bridges and underpasses where practicable.

Freight

10.23 Planning for freight growth and modal shift to river freight and rail. this includes short sea shipping. Planning for additional river, rail and road freight movements associated with planned Freeports.

Management and maintenance

10.24 Increased demand, particularly on an expanded strategic and local road network, will impact upon maintenance requirements. Planning for low-cost maintenance to lighten the financial burden the Council.

11. New public transport modes

11.1 Thurrock's public transport modes comprise bus and rail services along with cross-river ferry services.

11.2 In addition to riverbus services, there several types of land-based transport system that lie between conventional buses and commuter/national railways:

- Light railway (such as Docklands Light Railway and the London Tube).
- Tram (such as Croydon Tram Link) travelling on rails through city streets and on dedicated rail lines and between urban areas.
- High-speed buses travelling on city streets and dedicated bus lanes that can switch to dedicated tracks/guided rails between urban areas.

11.3 The diagram opposite analyses and compares each system/mode.

BUS

Examples
Arriva, Ensign Bus, London Buses.
Typical speed
9 to 27mph
Vehicle Capacity
80 - 87
Track and wheel
Rubber-tyred, wheel-steered vehicles on tarmac surface.
Typically operates in mixed traffic, on bus-only lanes with some bus-only streets.
Power/fuel
Usually combustion engines. Increasing use of hybrid/electric and electric vehicles with some hydrogen-powered vehicles.
Signalling
Common highway signalling with some bus priority.
Stops
On-street stops at 300m intervals. Some bus stations.
Automation
Limited opportunities for autonomous operation.
Depot
On-street bus stands, bus stations and and depots.
Crossing segregation
Few constrains on pedestrains or other vehicles crossing the route.
Accessibility
Raised kerb/extending ramp

BUS RAPID TRANSIT

Examples
Cambridgeshire Guided Busway, Crawley Fastway, Leigh-Salford-Manchester BRT, East London Transit, Thames Gateway Fastrack.
Typical Speed
17-30 mph
Vehicle Capacity
80 - 87 (150 for articulated vehicles).
Track and wheel
Rubber-tyred, wheel-steered vehicles on tarmac surface with sections of guided concrete trackway.
Power
Usually combustion engines. Increasing use of hybrid/electric and electric vehicles with some hydRogen powered vehicles.
Signalling
Common highway signalling with some bus priority.
Stops
900 -2700m (Cambridge).
Automation
Some opportunities for semi- autonomous control.
Depot
On-street bus stands, bus stations and and depots.
Crossing segregation
Fenced on-street sections. Trackways usually fully-fenced except for stations.
Accessibility
Raised kerb/extending ramp or raised platform with ramped access.

TRAM

Examples
Blackpool Tramway, Manchester Metrolink, Sheffield Supertram, Croydon Tramlink, Nottingham Express Tramlink, West Midlands Metro.
Typical Speed
20-50mph.
Vehicle Capacity
208.
Track and wheel
Permanent way (rails and sleepers or rails set in pavement). Some 'tram without rails' systems have been developed.
Power
Vehicle pantographs with overhead electric wires (catenary).
Signalling
Dedicated signalling system.
Stops
600-1200m (Croydon).
Automation
Semi-autonomous control.
Depot
Marshalling yards & stabling.
Crossing segregation
Some open on-street sections but typically fenced. Off road sections fully-segregated to achieve higher line speeds. Overbridges/ underpasses typically needed on off-road sections.
Accessibility
Raised station platform with ramped access. .from street level.

LIGHT RAIL

Examples
Docklands Light Railway, London Underground, Tyne and Wear Metro.
Typical Speeds
30-50 mph
20mph (Typical Underground- 50mph max.).
Vehicle Capacity
284.
Track and wheel
Permanent way (typically rails and concrete bed).
Power
Third rail or catenary.
Signalling
Dedicated signalling system.
Stops
600m (Royal Docks).
Automation
Fully autonomous but train always staffed.
Depot
Marshalling yards & stabling.
Crossing segregation
Overbridges and underpasses. Long sections of the DLR are raised on a viaduct with some tunnel sections (Bank, Woolwich).
Accessibility
Flush station platform with lift/ramped access from street level.

TRAIN

Examples
Crossrail, Overground, C2C.
Typical Speed
75mph (C2C maximum line speed).
Vehicle Capacity
1128.
Track and wheel
Permanent way (rails and sleepers).
Power
Third rail or catenary.
Signalling
Dedicated signalling system.
Stops
1400m (District Line Outer-urban).
Automation
Semi and fully autonomous but train always staffed.
Depot
Marshalling yards & stabling.
Crossing
Bridges, underpasses and level crossings.
Accessibility
Some flush station platform access but typically a step up from platform level with lift/ ramped access from street level.

12. Development and regeneration

12.1 Strategic and local-scale transport investment is needed to support the Borough's ambitious growth and development plans.

12.2 Employment areas, ports, new housing developments and urban centres offer opportunities to improve and extend transport networks and services. This development needs to be closely coordinated with increased transport capacity and improved connectivity including high quality public transport, walking and cycling routes.

Housing

12.3 New housing development increases the local population raising the demand for and viability of existing public transport services and generating patronage for potential new services. It can also increase congestion in towns and villages as traffic movements exceed the capacity of the local highway network.

12.4 Different scales and locations have other transport implications.

12.5 Redevelopment of urban sites and the broader regeneration of urban areas, mainly existing centres and larger housing estates, provides a sustainable pattern of development which makes efficient use of historic transport infrastructure investment.

12.6 New settlements and larger-scale urban extensions are of sufficient scale to provide crucial new transport investment. The effect of such large-scale development on already congested roads needs careful consideration, and new infrastructures must usually be delivered early.

12.7 Employment and mixed-use development as part of large scale urban extensions significantly reduces the need to travel and helps act as a catalyst for regeneration as part of growth.

12.8 Unlike new settlements, urban extensions make better use of historic investment in infrastructure, particularly roads and public transport, and boost investment and patronage for existing local centres and services.

12.9 Smaller-scale urban and village extensions also benefit from existing infrastructure investment with less complex infrastructure requirements. They help make local centres more self-sufficient and reduce the need to travel to larger centres to meet daily needs. They are unlikely to fully fund new and renewed infrastructures relying instead on existing transport network capacity alongside contributions to 'top-up' capacity and enhance existing facilities rather than making further provisions.

12.10 Small, isolated sites and dispersed development patterns generally lack the critical mass to fund and deliver transport investment. Distant from existing centres, employment locations, main transport corridors and interchange hubs, they are more likely to lead to an increase in car use.

12.11 The diagram opposite identifies some potential locations being considered through the Local Plan process for new housing and transport investment over the next 25-30 years.

Aveley – Potential for new homes supported by improvements to the A13 corridor. This is the only large-scale extension not directly associated with a new or existing rail station.

South Ockendon – Potential for new homes with a new rail station/interchange hub and associated train capacity and frequency improvements.

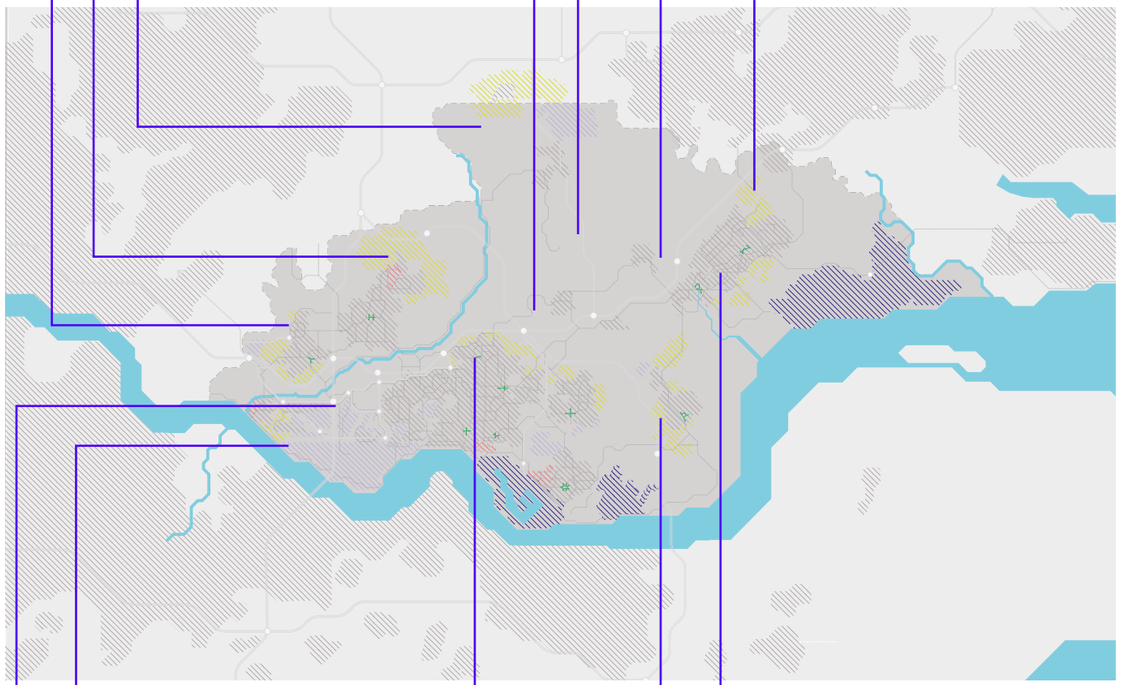
West Horndon – Potential for new homes with excellent connections into Thurrock and neighbouring towns with a sustainable rail, bus and MRT with walkable and cycle friendly new

Chadwell St Mary – Potential for new homes with associated facilities connecting to surrounding communities with enhancements to the existing streets and centres. Quality bus provision with new multi-modal streets planned and designed for future MRT systems.

Potential new homes with associated community facilities at Horndon on the Hill, Orsett, Bulphan, Tilbury and Southfields.

Stanford-le-Hope – Potential for new homes connecting to an upgraded rail station, enhanced interchange and associated train capacity and frequency improvements.

An area North of Corringham has been identified in the call for sites for potential new homes.



Purfleet – Potential new homes maximising the walkable catchment population of rapid transit stops/stations and mixed-use centres.

Lakeside Basin – Potential for new homes in the basin - associated with a transformation and regeneration of Lakeside Basin.

Corringham – Potential for new homes, a new railway station and associated interchange zone and associated train capacity and frequency improvements.

East Tilbury – Potential for new homes focused on a new transport interchange hub and associated train capacity and frequency improvements, walking, cycling, bus and future MRT.

North of Grays – Potential for new homes with associated transport and public realm enhancements alongside traffic, active travel and bus capacity/frequency improvements.

Figure 20. Broad location of potential new housing development areas in Thurrock (in-complete list - areas and boundaries are provi-sional and subject to review and amendment as part of the development of the Local Plan).

1

2

1. Thames Industrial Park (former Bata Factory) East Tilbury
2. Thames Industrial Park, East Tilbury
3. Strengthening links to transport hubs

Main Employment Clusters

12.12 Thurrock's seven main employment clusters are the focus for new employment development and associated transport infrastructure investment.

Purfleet and West Thurrock contains the most concentrated cluster of employment sites, taking advantage of its strategic road network connections and proximity to London markets and the Lakeside retail clusters. Good accessibility for public transport and well connected to the strategic road network (A13 & M25).

Ockendon - small cluster at South Ockendon, bounded by the M25 to the west, and encapsulating the South Ockendon cluster, with a small number of employment sites. Good rail connections. Close to the M25 but does not have good direct access to this road and the strategic road network. It is served by local amenities and adequate public transport provision. There is evidence of loss of employment activity for new residential development in this cluster.

Grays - small urban cluster incorporating Grays town centre, which borders the River Thames to the south. Accommodates minor and finer-grained employment activities than other clusters. There is good public transport accessibility via Grays train station. Access to the strate-gic road network is more limited for this cluster.

Rural North - scattered rural sites towards the Borough's northern edge and stretching across Brentwood's southern border, with minimal existing employment activity. Poor public transport connectivity, but good access to the strategic road network (A127 connecting to M25). Poor accessibility to local amenities and services.

Stanford-le-Hope & Linford - cluster with a semi-rural context bounded by the Tilbury cluster to the south and the Coryton cluster to the east, incorporating the A13 corridor. This cluster has a minimal employment offer. Fairly good connections to the strategic road network, despite the rural context. Significant aggregates business within the cluster (Tarmac Building Products), which has several other sites across the authority in other Thames Gateway locations. Poor accessibility to local amenities and services.

Coryton/East Thurrock -the eastern area of the Borough dominated by London Gateway port-related activity. Contains the largest scale of industrial sites within the Authority area. It is well connected to the river (London Gateway Port) and the strategic road network (A13 linking to M25). New development is coming forward on the largest scale sites for large scale logistics and storage activity related to London Gateway port.

Tilbury - cluster with employment activity focused on the Port of Tilbury. This cluster will accommodate the confirmed Lower Thames Crossing route, which is expected to impact employment activity within the cluster positively. The cluster has essentially good connections to the strategic road network and public transport accessibility with the Purfleet Town and East Tilbury train stations located within it and with some sites reasonably close to Grays town centre and station. Important port-related occupiers found within this cluster – related to the Port of Tilbury. Some accessibility to local services and amenities, but not for all parts of the cluster (particularly sites in the more ru-ral context in the north of the cluster).

Office Clusters

12.13 The four key clusters of current office activity in Thurrock offer the best connected locations and focus for the delivery of new office floor space that plugs into the existing infrastructure, which is crucial for drawing new businesses to an area.

Grays – This location is well served by Grays railway station. Road connectivity to the north via the A1012 is good, whilst east-west connections via the A125 is congested.

Tilbury - This location is well served by Tilbury Town railway station. Good road connectivity via A1089 to the A13.

Purfleet - This location is not served by any nearby rail station but has relatively good connectivity to the M25 and A13.

Stanford- le-Hope/Corringham – This location has good access to Stanford-le-hope rail station and good road access to the A13.


1


2


3


4

1. Tilbury 2, Port of Tilbury
2. Port of Tilbury
3. Port of Tilbury
4. Derwent Centre, Sock Ockendon
5. Corringham Local Centre.
6. Lakeside
7. Grays Town Centre


5


6


7

Ports and Freeports

Port of Purfleet - The Purfleet Thames Terminal is an intermodal terminal which "handles approximately 250,000 trailers, containers and tanks per year including the import and export of 400,000 vehicles". This port activity has attracted and supported a significant transport and logistics activity cluster in this part of Purfleet, with other potential employment sites in the area, which could help grow and expand these activities.

Port of Tilbury - The Port of Tilbury is London's major port, providing distribution services for the benefit of the south east of England and beyond. It covers around 1,100 acres with excellent transport links to and from the capital and across the South East. The Port is well-positioned to access the M25 orbital motorway. There are direct rail connections within the Port, with access to the UK and dedicated barge facilities. Planned and committed developments include Tilbury Power Station/ Tilbury 2 proposals (a Nationally Significant Infrastructure Project for a new port terminal and associated facilities) and London Distribution Park.

DP World London Gateway Port - provides a logistics activity hub (in the form of the London Gateway Logistics Park) and a core distribution sector cluster. Connectivity with the strategic road network (namely the A1014 linking the A13 and subsequently the M25) is excellent.

Urban Centres

12.14 The Vision is to improve access to urban centres. To provide high-quality public transport connections and safe and attractive walking and cycling routes that will enable people to choose active and healthy ways to travel while supporting higher-density development. Growth and regeneration should support existing urban centres, like the following:

- Aveley Local Centre.
- South Ockendon Local Centre.
- Lakeside Regional Centre and Retail Park.
- Stifford Clays Local Neighbourhood Parade.
- Grays Town Centre.
- Socketts Heath Local Centre.
- Tilbury Local Centre.
- Stanford-le-Hope Local Centre.
- Corringham Local Centre.

13. Conclusions

Accessibility

13.1 Thurrock has a varied geography and demographic, which makes accessing essential services challenging for some. In urban areas, the predominantly younger population have good access to environmentally sensitive active travel means to access a range of essential services and work opportunities. In rural areas, the older population is more remote from services and relies more on car travel.

Congestion

13.2 The more highly populated urban areas attract large movements of people and goods on the constrained travel network sharing with public transport, cycling, walking, cars and goods vehicles. This network experiences delays throughout the day along key movement corridors, affecting public transport service reliability.

Mobility

13.3 Thurrock's varied demographic and deprivation levels challenge people's mobility. There are good opportunities for local employment and access to businesses in London and Essex by rail or car. The M25 and the river Thames bring significant opportunities for the movement of people and goods in and out of Thurrock. However, they also act as a barrier with relatively few crossing points.

13.4 If delivered correctly, the proposed Lower Thames Crossing can relieve congestion around the M25/A282 and improve cross-river connectivity and mobility. However, the current design is poorly connected to and integrated with Thurrock's transport network, significantly reducing potential mobility benefits.

Safety

13.5 Whilst there are pockets of road safety concerns, the crash injury trends in Thurrock are improving and below the national average, representing a solid base from which to build. Neighbourhoods are understood to be safe to allow growth in active travel and public transport use, which could be

Pollution, carbon reduction, and health

13.6 Air pollution is improving across Thurrock, but the more urban environments are still significantly above the national average. Initiatives to encourage moves to less polluting means of travel need to be extended, which should complement emerging development growth in the commercial and residential markets across Thurrock.

Affordability

13.7 The residents and businesses of Thurrock have good access to active and sustainable travel options and employment. Still, pockets of deprivation can make these unaffordable and inaccessible to some. Future commercial growth within Thurrock and a change in how people live and work following the pandemic could help increase the affordability of movement within Thurrock with more and improved local employment opportunities.

Development and regeneration

13.8 The main development and regeneration opportunities offer opportunities to improve and extend Thurrock's transport networks and services, particularly the main employment areas, ports, new housing developments and urban centres.

Housing

13.9 New settlements and large scale urban extensions delivered in a planned and coordinated way can help fund and deliver new transport infrastructure.

13.10 Medium size and smaller size urban extensions, village extensions and isolated sites are unlikely to facilitate provision of key transport infrastructure.

13.11 Dispersed and Isolated developments distant from local centres, employment locations and transport corridors and hubs are likely to increase in journeys and car use.

	Key Statistics	Key Opportunities	Key Challenges
Accessibility	Inbound traffic – 80% car Outbound – 29% Rail Internal – 21% Pedestrian	Connections to London Stations via Rail Cycle network expanding NMU access Riverfront interchange opportunities, economic activity Enabling growth in locations with higher connectivity Planned increases in rail capacity	Connection of new development into existing networks and hubs Access to essential services by active travel, e.g. GPs/health, education, employment, food retail Deriving a comprehensive public transport strategy Coordination with rail and network operators
Congestion	A1089 congestion tracks national trends A13 congestion downward trend 2017-19 M25 congestion upward trend 2017-19 Higher than the national average shopping journeys Travel out of Thurrock into London make up 40% of AM peak journeys	Programme of improvement on A13, key junctions Modal shift/ home working Encourage active travel Data collection enables informed decision making Lower Thames Crossing increasing network capacity - if correctly configured. Increasing rail capacity	Severance of east-west travel in Thurrock by M25 and A1089 - and the prospect of the Lower Thames Crossing Bottlenecks on critical routes for freight Extremely tidal movements in and out of Thurrock
Mobility	Higher car ownership than the national average, 22% fewer households have no car Residents slightly (1%) less likely to drive than the national average Frequent rail services into London stations, 35-40 minute journey time	Frequent rail services to London stations Extensive bus network Interchange opportunities due to key destination location near multiple modes River traffic expansion Balancing car ownership with sustainable mode use	Severance of east-west travel in Thurrock by M25, A1089 and Lower Thames Crossing Developing a robust active travel network and prioritise public transport over the private car Improve cross-river and London-bound marine travel
Safety	A decline in accident rates between 2011 and 2019: 403 to 267, a 34% decrease Cycle and pedestrian injuries also declined by 59% and 13%, respectively	Improve on existing positive trends Expand non-car pedestrian and cycle routes, and legibility of routes	Encourage and provide for active travel in new developments and infrastructure to allow a safer mix between vulnerable road users and vehicles.
Pollution	Average year on year drop of NOx emissions in Thurrock of 2% Total NOx emission drop of 21% over the period 2008 to 2018	Introduce fleet monitoring for all modes Incentivise or promote transfer away from fossil fuel use Capitalise on initiatives to provide alternative fuel infrastructure.	Coordination of disparate fleet modernisation schedules Data collection from a range of operators Focus on congestion relief to reduce harmful emissions
Affordability	11.3% of Households are workless, in comparison to the 13.9% national average 15.6% of Thurrock residents have some limitations in their day-to-day activities due to poor health	Improve upon relatively high employment levels Ensure opportunities for a mix of skill sets and educational levels are available Encourage positive effects of port expansions	Ensuring future infrastructure and development

Figure 21. Summary Table (Source: Stantec)

Ports and freeports

Ports at Purfleet, Tilbury, Tilbury 2 and DP World London Gateway Port attract significant transport and logistics activity and support further potential employment developments in the area. Connectivity with the strategic road network (A1014, A13, M25, A2 M2)

Urban centres

13.12 High-quality public transport connections and safe and attractive walking and cycling routes can improve access and help revitalize Thurrock's local centres.

Office clusters

13.13 Thurrock existing offce clusters at Grays, Tilbury, Purfleet, and Stanford-le-Hope/Corringham provide the best locations for new office floor space in the future providing the opportunity to plug into the existing transport infrastructure, which is crucial for drawing new businesses to an area.

GLOSSARY

ASELA THE ASSOCIATION OF SOUTH ESSEX LOCAL AUTHORITIES **-** a partnership of neighbouring councils that have come together to promote growth and prosperity in the region (https://www.southessex.org.uk)

AQMA AIR QUALITY MANAGEMENT AREA

BLUE GRID - A multi-functional network of greenspace and links along and across Thurrock's rivers, waterways, and water bodies.

BRT BUS RAPID TRANSIT **-** A high-quality bus-based transit system that delivers fast and efficient service that may include dedicated lanes, busways, traffic signal priority, off-board fare collection, elevated platforms, and enhanced stations.

C2C A train operating company operating the Essex Thameside railway contract.

CCTV CLOSED CIRCUIT TELEVISION

CO_2 CARBON DIOXIDE - Carbon dioxide gas emissions stem from burning fossil fuels such as petrol car engines and cause pollution and leading to climate change.

DROIDS – Small, semi and fully autonomous vehicles acting as couriers that may reduce the need for cars or lorry deliveries in built-up areas.

DRONES - A driverless aerial vehicle typically used to distribute packages to consumers during the 'last mile' delivery process. These drones generally have 4-8 propellers, rechargeable batteries, and the ability to carry lightweight containers.

ENGLAND COASTAL PATH – A long-distance National Trail proposed by Natural England following the coast of England.

FASTRACK - A Bus Rapid Transit system serving Dartford, Bluewater, Ebbsfleet and Gravesend connecting major existing and new developments with planned core express routes on which only Fastrack services will run.

FREEPORTS special areas within the UK's borders where different economic regulations apply. (https://www.gov.uk/guidance/freeports)

GREEN GRID - A sustainable network of multi-functional green space and links within Thurrock's towns and countryside.

HEALTHY STREETS – A framework for prioritising people and their health in transport, the public realm and planning policies and strategies (https://www.healthystreets.com/what-is-healthy-streets).

HGV HEAVY GOODS VEHICLE

HS1 HIGH SPEED 1 – A 109km high-speed railway rail line between St Pancras International in London and the Channel Tunnel with intermediate stations at Stratford International and Ebbsfleet International. The line with international high-speed rail links to Paris, Brussels and Amsterdam. The route is also used by the 'Javelin' domestic route from London to Kent.

HS2 HIGH SPEED 2 - A new railway from London to Birmingham and further north. The railway's London terminus will be at Euston, with a west London interchange at Old Oak Common.

JAVELIN – A high-speed train service operated by Southeastern trains between London St Pancras and Kent using the HS1 line (https://www.southeasternrailway.co.uk).

KENNEX - A proposed tram link. The planned network connects Ebbsfleet International, Grays & Gravesend to Northfleet, Swanscombe Peninsular, Chafford Hundred & Purfleet-on-Thames (https://kenextransit.co.uk).

LGV LIGHT GOODS VEHICLE

LTC LOWER THAMES CROSSING - A road crossing of the Thames estuary downstream of the Dartford Crossing linking Kent and Essex proposed by National Highways (https://nationalhighways.co.uk/our-roads/lower-thames-crossing)

MICRO-MOBILITY - A range of small, lightweight vehicles operating at speeds typically below 25 km/h (15 mph) and driven by users personally. Micro-mobility devices include bicycles, e-bikes, electric pedal-assisted bikes, electric scooters, electric skateboards and shared bicycle fleets.

MODAL SHIFT - Changes in travel behaviour and habits. For example, travelling by public transport instead of a private car.

MODE - The different ways passengers and/or goods can be transported. Transport. Modes for passengers and goods may include rail; maritime (sea); road; bus, and rivers.

MRT MASS RAPID TRANSIT - High-capacity, higher-speed road or rail-based public transport systems generally found in urban areas and travelling along dedicated paths.

MULTI-MODAL ROADS - Streets designed to serve different modes and provide multiple mobility options for their users. (https://globaldesigningcities.org/publication/global-street-design-guide/defining-streets/multimodal-streets-serve-people)

NPPF NATIONAL PLANNING POLICY FRAMEWORK-revised on 20 July 2021. (https://www.gov.uk/government/publications/national-planning-policy-framework)

NET ZERO - Policies and proposals for decarbonising the UK economy to reduce net global greenhouse gas emissions to near zero by 2050.

NO_X NITROUS OXIDE

PARK AND GLIDE – A combined remote parking and commuter boat transfer service. 'Thames Clipper' currently operates a service from the O2 in Greenwich into central London.

PPG PLANNING POLICY GUIDANCE.

RIVERBUS – Boat services and access piers along the Thames, including the 'Thames Clipper' commuter service (https://www.thamesclippers.com).

RTI REAL-TIME TRAVEL INFORMATION.

SERT SOUTH ESSEX RAPID TRANSIT. Proposal for a fast, reliable and high quality bus- based public transport system in south Essex including ' Route 1a' serving Lakeside, Grays, A13, and Basildon Hospital.

SHORT SEA SHIPPING - Maritime transport of goods over relatively short distances, as opposed to the intercontinental cross-ocean deep sea shipping.

SRN STRATEGIC ROAD NETWORK - The major road transport network comprising secondary arterial roads, primary arterial roads, expressways and motorways managed by National Highways.

STB SUB-NATIONAL TRANSPORT BODY.

TFL TRANSPORT FOR LONDON - the organization responsible for managing the public transport services in London, including bus and underground train services, taxi services and the road (https://tfl.gov.uk/corporate/about-tfl).

THAMES ESTUARY – The lower reaches of the Thames including outer east and south east London, North Kent, and South Essex.

THAMES ESTUARY GROWTH BOARD - A private sector organisation covering North Kent, South Essex, East London, the City of London and the River Thames that has developed an action plan, 'The Green Blue' (http://thamesestuary.org.uk).

THAMES PATH - National Trail following the River Thames from its source to the Woolwich in south east London. The Trail connects with the England Coastal Path to form a 'Source to Sea' route.

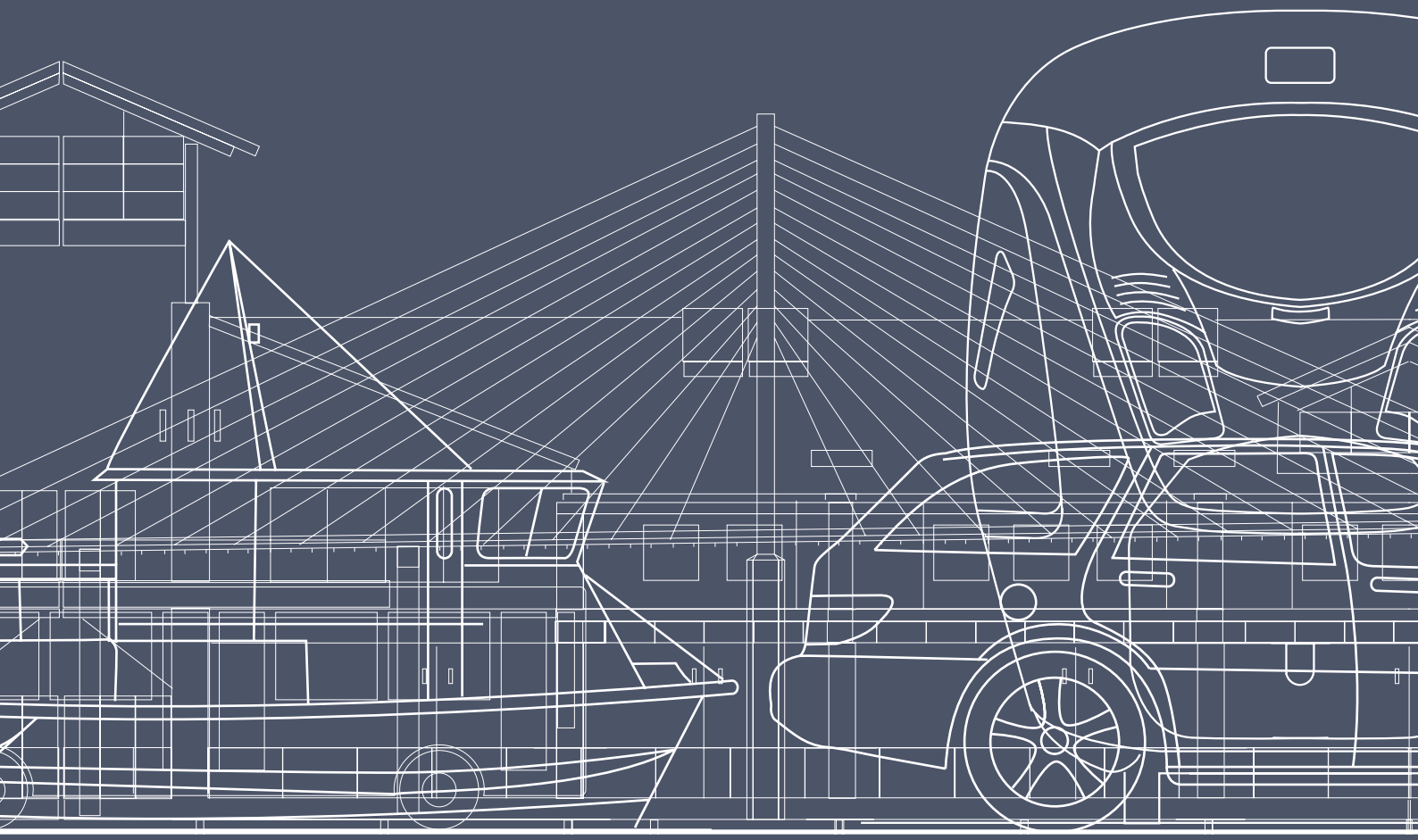
THURROCK LOCAL PLAN - A long-term planning policy framework setting out the amount of development for Thurrock and its distribution across the borough that, by law, must be used when deciding all future planning applications (https://www.thurrock.gov.uk/new-local-plan-for-thurrock/thurrock-local-plan).

THURROCK LOCAL TRANSPORT PLAN – A plan describing future outcomes and priorities for transport and travel across Thurrock, including the action needed to implement the strategy. The plans consist of four parts- 'Issues and Opportunities', 'Vision 2050', 'Strategy', and 'Action and Implementation Plan(s)'.

TRANSPORT EAST – A sub-National transport body to deliver a collective vision for the future of transport in Essex, Norfolk, Suffolk, Southend-on-Sea and Thurrock.

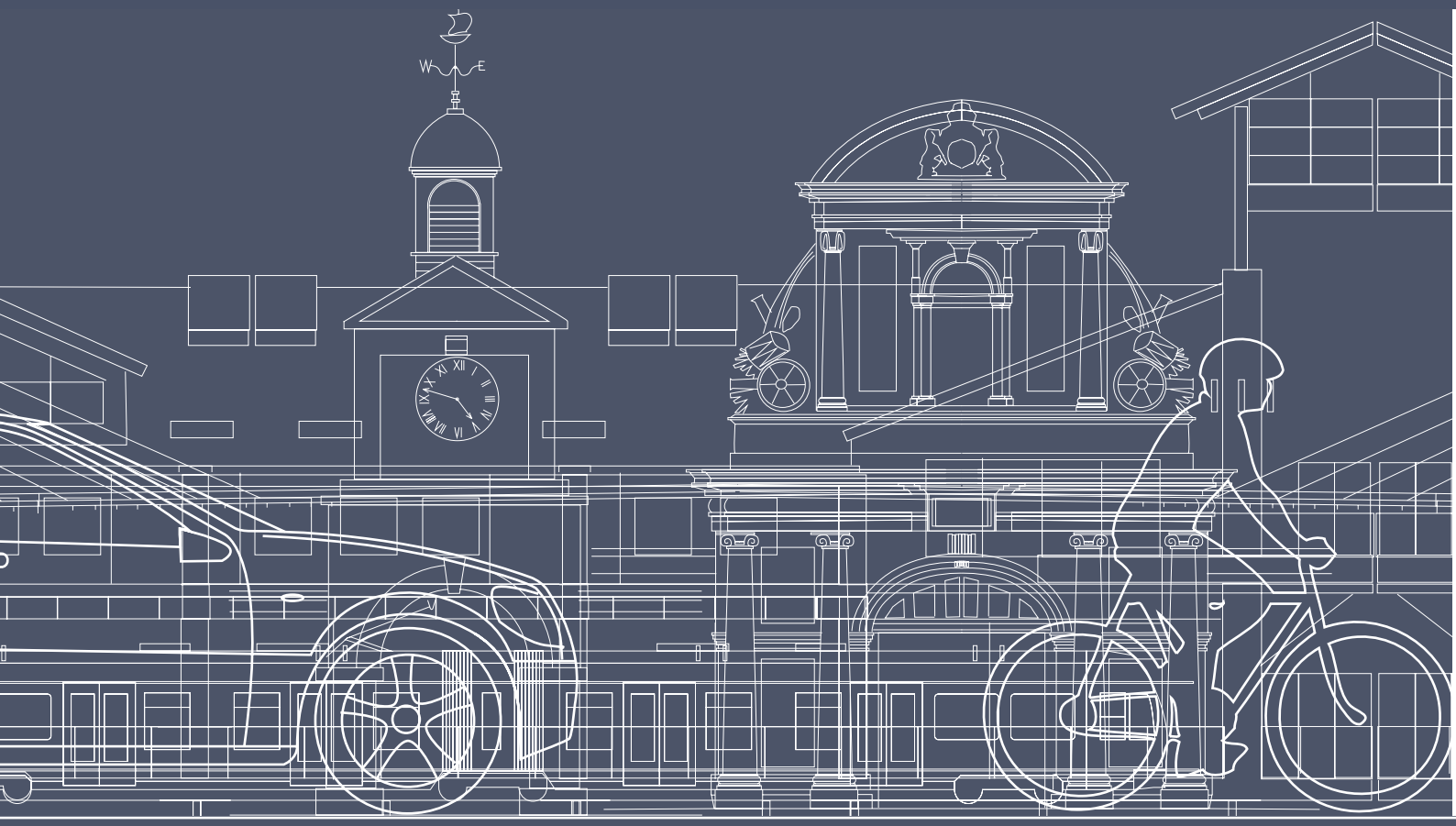
TRANSPORT SOUTH EAST - A sub-national transport body for the South East of England

TOC TRAIN OPERATING COMPANY - A business operating passenger trains under the collective National Rail brand, typically as a franchise, such as C2C.



THURROCK COUNCIL

DRAFT



Thurrock Local Transport Plan

VISION 2050

FEBRUARY 2023

THURROCK COUNCIL

DRAFT

Foreword

We are at a critical point where change is needed, and today's actions can help shape Thurrock.

There is enormous pressure for growth in Thurrock, but we must ensure that it is sustainable.

Investment in the transport network is key to good growth.

Our Transport Vision is a crucial step in enabling continued economic development and sustainable regeneration in Thurrock, helping to prevent unacceptable traffic congestion in and around major traffic interchanges.

The goal is a significant shift away from private car use to public transport, walking and cycling through a programme of measures targeted on planned new residential neighbourhoods.

Thurrock Council is working with stakeholders and all our communities - it is only through these strong partnerships that we can achieve the bold ambitions that we have set for ourselves.

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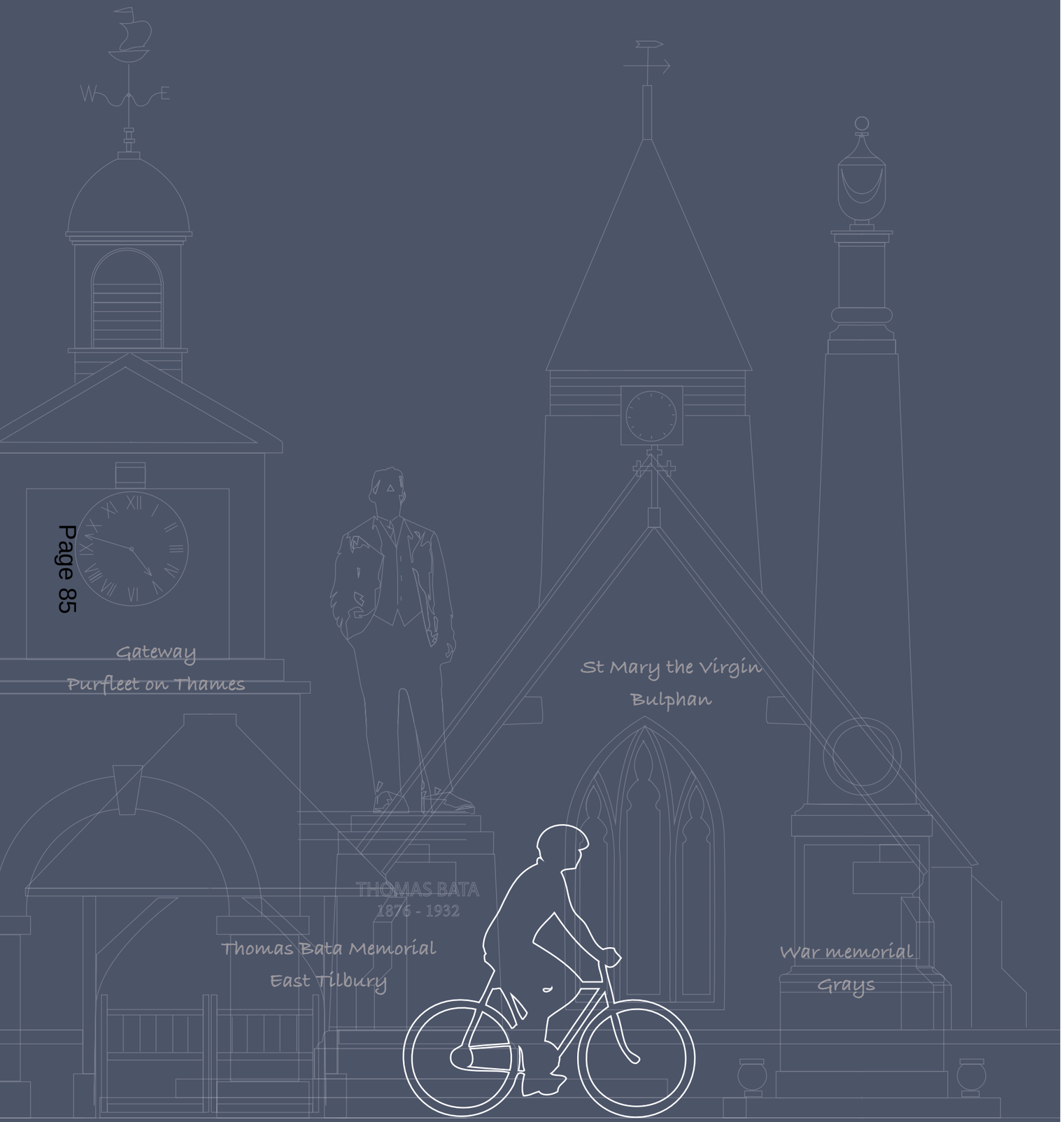

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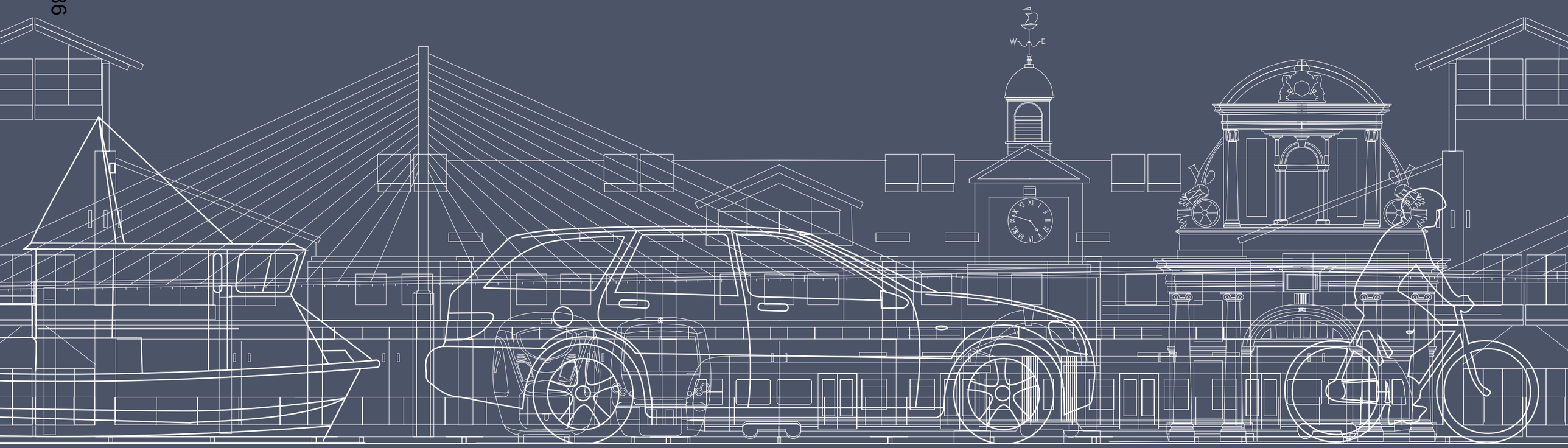


1. INTRODUCTION

The challenge

1.1 Over the next fifteen years, Thurrock will change on a scale not seen for several generations. The Local Plan identifies big plans for new homes and business areas alongside strategies to regenerate existing communities and transform town centres. This is a chance to rethink our approach to transport and how people travel in and through the Borough. Our driving purpose is to ensure future transport investment and planned growth benefit Thurrock's communities.

Transport Vision

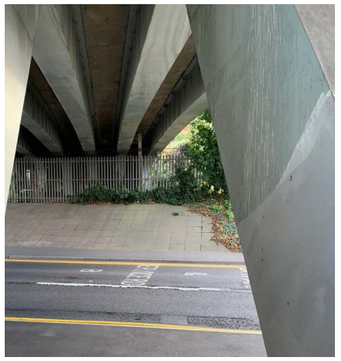
1.2 This Vision document imagines a future for Thurrock where people find it easier to get about using a transport network that is better connected, more integrated, and less congested. Our aim is to develop a transport system for Thurrock that:

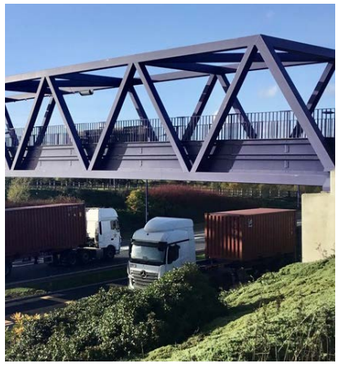
- Is fully inclusive, meeting the needs of residents.
- Is integrated to provide seamless multi-modal journeys.
- Is accessible for everyone, safe and attractive to use.
- Delivers sustainable community regeneration and growth; and
- Responds to the exceptional circumstances of Thurrock as an international centre for logistics and commercial development.

1.3 We have called this transport vision' 'Connecting Thurrock' to highlight that Thurrock's strategic location does not currently translate into well-connected places at the local/district level. Local connections mean everything. Poor connectivity is a barrier to employment for existing communities that rely on public transport. It means economically disadvantaged groups cannot access a full range of local services.

1.4 We will work with our partners to ensure Thurrock has a transport network that ranks alongside the country's most sustainable and 'liveable' places.

back menu





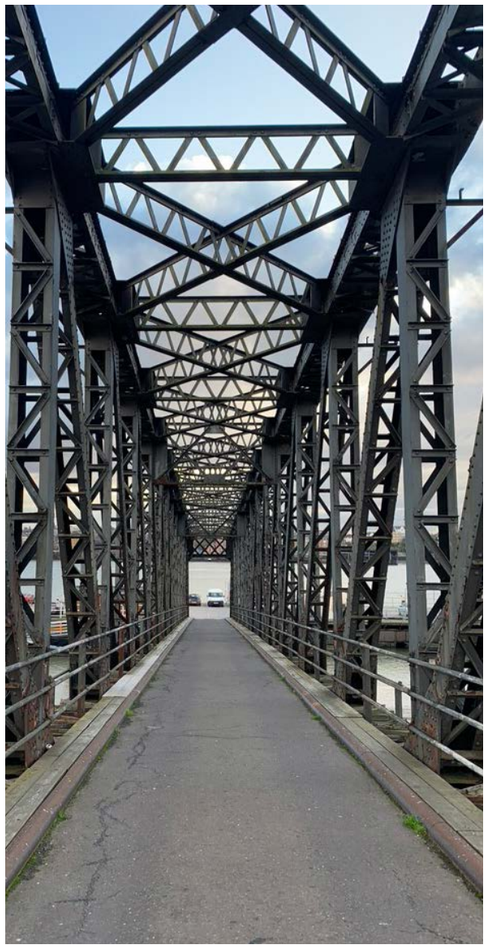
Context

1.5 Thurrock lies on the north side of the River Thames, only 20 miles east of central London. It is home to one of the largest shopping complexes in Europe at Lakeside and several ports of national significance - importing and exporting goods and services for the whole UK.

1.6 It is a Borough of contrasts. Large tracts along the 18-mile frontage to the River Thames are developed. In sharp contrast, around 60% of the Borough is Greenbelt, with historic villages surrounded by valuable agricultural and grazing land.

1.7 Our Vision for transport ranges across a wide range of scales, from local neighbourhoods to global connectivity. This reflects the strategic nature of Thurrock's international gateways and plans for multi-centred growth on either side of the Thames and along the Thames Estuary, alongside the need to better manage local change, for example, in small villages.

1.8 The vision focuses first on the people, communities, urban centres, and businesses in the Borough today.



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2. INTEGRATED

Linking the Vision with the new Transport Plan, and the Local Plan and Corporate Vision

Vision at the heart of a new Local Transport Plan for Thurrock

2.1 The current Transport Strategy sets out the Council's transport policies and priorities from 2013 to 2026. The Strategy was developed in a very different context from the position today. We need to refresh the Strategy in response to significant new challenges and opportunities such as national housing delivery targets, planning reforms, new bodies such as 'Transport East' and new planned transport schemes such as the Lower Thames Crossing.

2.2 This Vision forms a part of a broader new long-term plan for transport in Thurrock. This has four parts:

- Issues and Opportunities
- Transport Vision.
- Interim Transport Strategy
- Transport Action/Implementation plans.

2.3 The Transport Plan will outline how, over the next 25 years, the use and management of the Borough's transport networks - local and national roads, railways, stations, interchanges, footpaths, and cycleways - will change and how connections to and through the borough will be improved.

2.4 The Thurrock Local Transport Plan will establish a new strategic approach, policies and guidelines and detail how we will make it happen. The Transport Plan will be influential in delivering the Council's overall vision and the priorities in the new Local Plan.

Building on Thurrock's corporate vision

2.5 The Connecting Thurrock Vision and the broader Transport Plan are based upon and will help fulfil Thurrock's corporate vision and priorities.

2.6 An ambitious and collaborative community that is proud of its heritage and excited by its diverse opportunities and future.

2.7 Three priorities define the vision:

People – a Borough where people of all ages are proud to work, play, live, and stay

2.8 This means ensuring better access to public services, a partnership approach, improving health and wellbeing and safer communities.

Place – a heritage-rich Borough that is ambitious for its future.

2.9 This means better connections between people's homes and the places, services and public spaces they need to get to – with a clean environment.

Prosperity – a Borough that enables everyone to achieve their aspirations

2.10 This means finding opportunities for businesses and investors to enhance the local economy, better connecting public services, and improving access to vocational and academic education, skills, and job opportunities- epically for businesses and entrepreneurs.

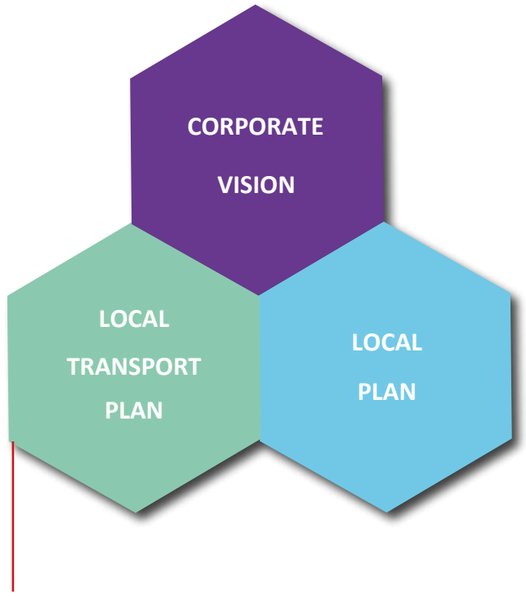


Figure 1. Thurrock's Corporate Vision, Local Plan and Local Transport Plan

Figure 2. Thurrock's Corporate Vision

Aligning our transport vision with the emerging Thurrock Local Plan

2.11 The Vision builds upon the current Development Plan and aligns with the spatial strategy in the emerging Local Plan.

2.12 The Vision is informed by and designed to help to shape emerging plans for regeneration and growth across the Borough.

2.13 We need to consider how new developments will affect our transport system - and how our transport system should develop to match the changing growth patterns in Thurrock.

2.14 The Vision is the first step in outlining the strategic and local infrastructure improvements required to support planned growth and regeneration, including:

- Regenerating existing estates and neighbourhoods.
- Growing neighbourhoods and new communities.
- New employment uses, particularly port and freight/logistics.
- The national infrastructure needed to deliver sustainable economic growth, maximising the local benefits and mitigating other impacts.
- Town and local centres and public realm improvements.
- Improved strategic green-blue infrastructure across Thurrock
- Prepare for the impacts of climate change.
- Improving access to local services, facilities, employment opportunities, and supporting quality of life and wellbeing.
- Relieving traffic congestion and delays.
- Improving air quality and significantly reducing emissions.
- Protect and enhance the role of the river Thames as an economic asset.

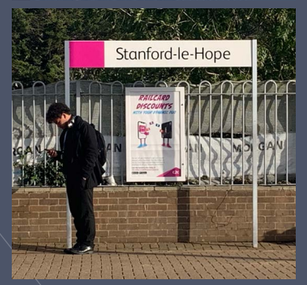
Local plan studies

2.15 The Vision has been prepared with regard to the current Development Plan and Issues and Options Stage 2 Report prepared as the first stage of the revised plan and the adopted Local Plan.

2.16 The Vision builds upon recent Design Charrettes coordinated by the Prince's Foundation and preliminary findings from a series of planning and master planning studies commissioned to help shape and inform the Local Plan's development.

3. THURROCK TODAY



3.1 Thurrock has a diverse range of places and land uses and associated social, economic, transport and environmental challenges.

Economic disadvantage and 'levelling up'

3.2 There are high levels of deprivation in parts of the Borough.

A growing population

3.3 The population is projected to increase by around 10% every decade, with predictions estimating an even more significant increase during the most recent ten years, from 143,000 in 2011 to about 178,000 at the time of the next census in 2021. Future population estimates from the Office for National Statistics predict that Thurrock's population will have risen to over 209,000 by 2038.[1]

Employment and skills

3.4 Low skill levels could continue to hinder greater aspirations and generate good job opportunities. Though it has reasonable employment rates, there are insufficient workers in professional or knowledge-based jobs.

Health and wellbeing

3.5 There are high levels of obesity in key communities, which will adversely impact on long- term health. Multiple-deprivation is high compared to the region, especially in some urban areas, which may harm social wellbeing and create community tensions.

3.6 High numbers of HGVs and high traffic flows on strategic roads negatively impact local air quality, CO2 emissions, and congestion. Growth could well make this worse. The worsening air quality will increase respiratory problems whilst increasing congestion could harm job creation and economic performance, particularly concerning international gateways, such as London Gateway.

3.7 Very low levels of walking and cycling could fuel increasing obesity, so it will be necessary to learn from other places' success in improving walking and cycling.

3.8 It will be essential to build back better after COVID-19 and increase the use of public transport and walking and cycling to limit traffic growth, especially given forecast increases in congestion and CO2 emissions.

Based on 2011 Census data - to be updated in line with 2021 census date when available.

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Transport accessibility

3.9 Whilst access to many local services by public transport and on foot is generally good, crucial gaps exist and use is limited. For example, poor access to further education and hospitals is likely to exacerbate low skills and health issues- of particular concern with an ageing population.

3.10 Many new jobs are in areas that are practically inaccessible by non-car means. A range of measures can be applied to make these areas more accessible and break down barrier to employment for many social groups.

Ageing infrastructure

3.11 New and better transport infrastructures and systems can support the needs of a growing and changing population and new and expanding businesses.

3.12 There is a pressing need to look further in time and address the impacts of ageing transportation infrastructure, tackle the effects of climate change and develop a resilient transport system.

3.13 The scale of growth anticipated cannot be delivered without significant investment to solve current and future transport infrastructure deficiencies. These transport improvements must also offer local benefits and meet the needs of existing Thurrock residents.

Transport capacity and congestion

3.14 Finding better solutions to share highway space as more people and goods travel to, from, and within Thurrock – business as usual is unsustainable and highly likely to worsen traffic congestion, negatively impact street safety, transport service reliability, and the free movement of goods.

3.15 The regeneration and growth agenda means that the future transport network must be more multi-functional and multi-modal.

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4. SPATIAL CONTEXT

Local Plan

4.1 Thurrock aims to create better places by integrating planning and transport strategies and taking a more sustainable approach. We are therefore developing the Local Transport Plan alongside the Local Plan to support and enable sustainable growth in housing and jobs and integrate sustainable transport into planned new developments.

4.2 Thurrock needs to accommodate significant housing and employment growth. We are working towards a future where employment opportunities are available to every adult resident, with 24,500 new jobs planned for the next 20 years and a total housing requirement of up to 32,000 new homes by 2038. [2]

4.3 Thurrock lies at the heart of the Lower Thames Estuary - Europe's most extensive regeneration programme- where there is a more significant growth vision for a million homes and 1.3 million jobs linked with London, Kent, and Essex.

4.4 Significant development and expansion plans are in the pipeline for the global ports in Thurrock, including London Gateway deep-sea container port development, Tilbury Docks and Tilbury 2 and Thames Freeport. Highly significant development is planned for Lakeside with a potential leisure-based scheme on the south side of the Thames.

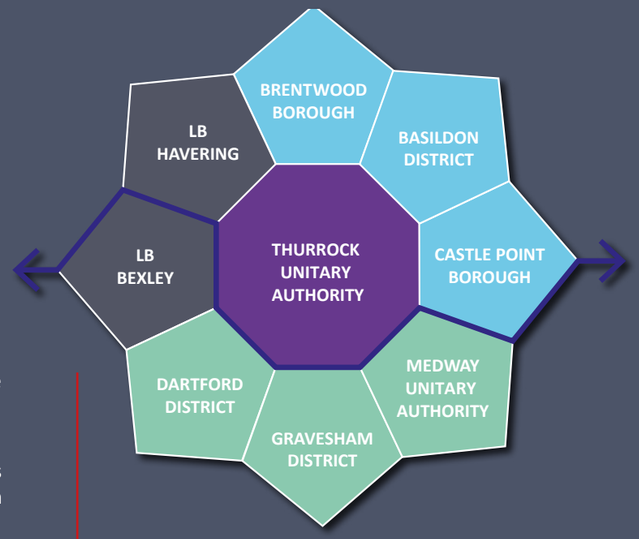

Figure 3. Thurrock's neighbouring authorities and potential transport project development partners

Sub-regional network

4.5 Thurrock's transport network sits within a broader sub-regional transport system encompassing south east Essex, north Kent, outer east London, and the wider Thames Estuary.

4.6 Thurrock's future transport network needs to link into this fast-developing sub-regional transport system, which requires cross-boundary working and an integrated approach to planning, funding, and infrastructure delivery. This approach will support growth locally within Thurrock and in the broader sub-region.

4.7 Figures 3 and 4 visualise some of these relationships.

4.8 Thurrock's Transport Vision should be further developed in partnership with neighbouring boroughs and transport bodies.

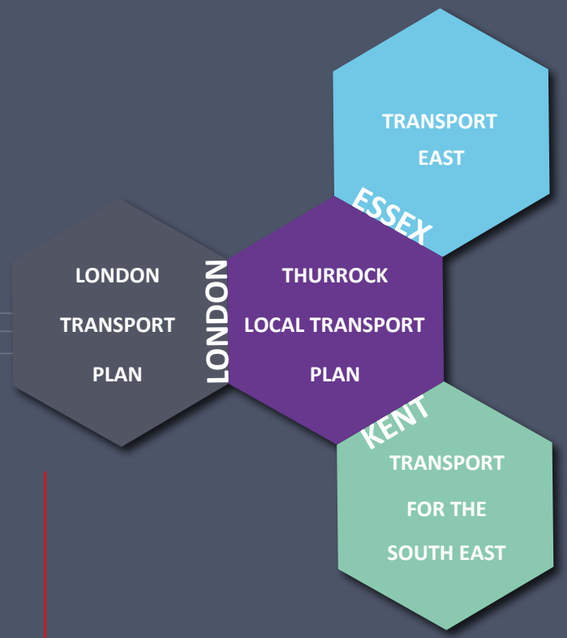

Figure 4. Relationship between the Thurrock Local Transport Plan and neighbouring transport bodies' plans

2 Provisional growth figures- subject to review as part of the Local Plan drafting process.

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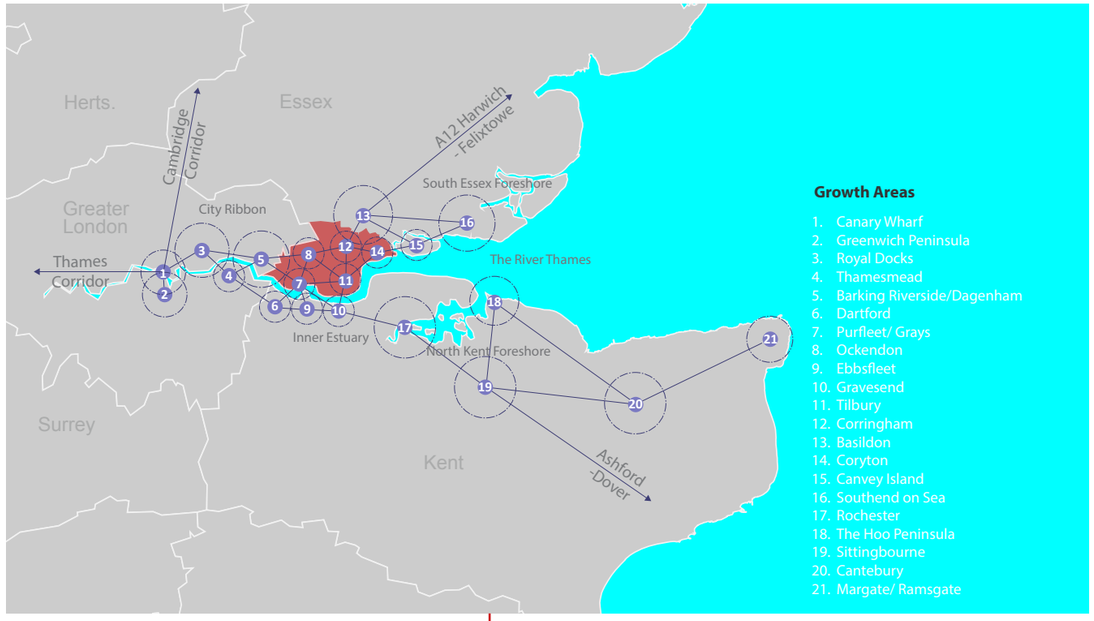

Figure 5. Thurrock lies at the heart of the Lower Thames Estuary - Europe's most extensive regeneration programme connectivity

Thurrock at the heart of the Thames Estuary

4.9 Thurrock, our close neighbours and associated towns, lie at the heart of the Thames Estuary sub-region and the focus for regeneration and growth to 2050. Figure 5 shows these relationships and growth areas.

4.10 The Vision is for a cluster of highly connected town and local centres with new housing and jobs delivered through an area-wide approach to transport investment and funding for significant regeneration and growth projects.

Core

4.11 Figure 6 shows how Grays and Tilbury form part of a city-scale sub-regional centre on either side of the river, including Gravesend, Ebbsfleet and Dartford.

4.12 The existing towns, urban areas and economic hubs need to be joined up with sustainable connections. The focus is on better connecting Grays, Tilbury, Gravesend, Purfleet on the Thames, Dartford, Ebbsfleet, Bluewater and Lakeside, where major regeneration plans are underway or in the pipeline.

4.13 This sub-regional urban core can be further strengthened by developing stronger connections with regeneration and growth plans across Essex and Kent, Central London, Heathrow and the Thames Valley and Cambridge and Gatwick growth corridors.

Figure 6. Concept of a A city-scale sub-region centred on Grays, Tilbury, Gravesend, Ebbsfleet and Dartford with national transport investment planned alongside local regeneration and growth

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5. MODAL SHIFT

"The goal is a significant shift away from private car use to public transport, walking and cycling through a targeted programme of measures to encourage a shift to more sustainable transport modes - especially in planned new residential

Sustainable travel choices

5.1 Thurrock's transport vision is not a simple mode-by-mode strategy - railways, bus, walking, cycling etc. The Vision focuses instead on developing an integrated, sustainable, well-coordinated and inter-connected transport system or network that supports various travel needs. It enables people to make sustainable travel choices.

5.2 A vision for movement in Thurrock requires building up the three inter-related movement systems or networks:

- the walking and cycling network (active travel)
- the road network (includes micro-mobility);
- the public transport system.

5.3 Our Vision is founded upon linked concepts of 'Multi-modal' and 'Modal Shift' that combine with the idea of an 'Integrated network'.

Modal shift– enabling people to choose sustainable travel modes.

5.4 The vision is for a sustainable and well-connected transport system that supports reduced car dependency in favour of walking, cycling, and public transport.

5.5 The modal shift involves more people using active travel and public transport modes with increases in capacity and quality across all modes. This includes new highways and increased highway capacity alongside adding more multi-modal functions to the road network to support a shift to walking, cycling and public transport.

5.6 The active travel network will comprise a comprehensive, connected, safe and healthy network of on and off-road walking and cycling routes linking homes to vital local destinations and the blue and green networks.

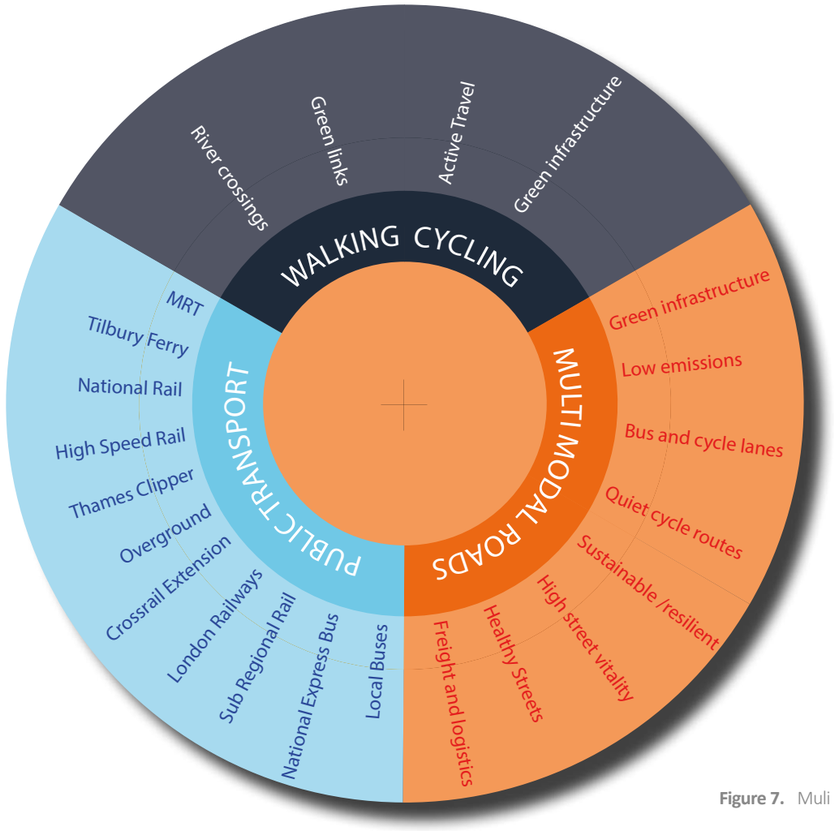


Figure 7. Muli modal diagram

'Multi-modal' – widening the choice of ways to move around Thurrock.

5.7 The goal is a more multi-modal network with increased capacity and quality for walkers, cyclist, and using public transport users and a modal shift to help support growing places.

5.8 The vision for movement in Thurrock requires building more multi-modal systems, with better connectivity between these systems and places - inside and outside the Borough. This multi-modal approach applies to i) the walking and cycling network, ii) the road network, iii) the public transport network, and iv) the River Thames corridor.

5.9 The goal is a significant shift away from private car use to public transport, walking and cycling through a targeted programme of measures to encourage a shift to more sustainable transport modes - especially in planned new residential neighbourhoods.

5.10 Potential benefits include increased physical activity and better health outcomes, reduced congestion and improved speed, safety, and reliability of journeys for other road users, decreasing emissions, cleaner air and helping to tackle climate change. This aligns with the emerging Air Quality and Health Strategy and on-going air quality modelling work.

Integrated network

5.11 The vision is for an integrated, sustainable, and well-connected transport system that supports various travel needs. The integrated network combines each travel mode into a single integrated whole with several choices of mode and route for most journeys.

5.12 The vision for a fully integrated high-capacity public transport network combines bus, rail, MRT and riverboat with quality, seamless interchange hubs and integrated wayfinding that all deliver an attractive travel choice to support a rapidly growing Borough.

5.13 The integrated network includes local roads that are reliable, connected, and resilient, supporting the efficient movement of people and goods to, from and across Thurrock and a high-quality roadside urban environment.

5.14 The integrated network includes high-quality public transport systems linking Thurrock with other regional transport nodes and the urban areas within Thurrock.

5.15 The vision is for public transport network integration projects that include new high-quality public transport links between growth areas, critical strategic economic hubs and other regional transport nodes in outer East London, South Essex, and North Kent.

6. TIMESCALES

Figure 8. Artist's impression of Lower Thames Crossing Mardyke Valley Viaduct (Credit: National Highways)

6.1 The Connecting Thurrock Vision 2050 sets the long-term vision and direction for the Thurrock Transport Strategy over nearly three decades

6.2 Recent national and international changes and challenges (including Brexit and COVID-19) point to significant, sometimes rapid, and unpredictable changes in the coming years. This creates a pressing need to prepare and deliver plans for transport at pace and to continue addressing new and emerging challenges and opportunities.

6.3 The Vision for 2050 is complemented by a more detailed fifteen-year Transport Strategy outlining policies, programmes, projects, and schemes over three, five-years periods:

- 2022-2027.
- 2028-2032.
- 2033-2037.

6.4 The Strategy will be reviewed and renewed as needed within the 2050 Vision period.

6.5 The 2050 Vision and fifteen-year Strategy sit within a broader context of regional and national transport planning events set out in Figure 10 opposite.

6.6 The diagram shows the Thurrock Transport Strategy's delivery in the context of planned/committed regional, sub-regional and national infrastructure.

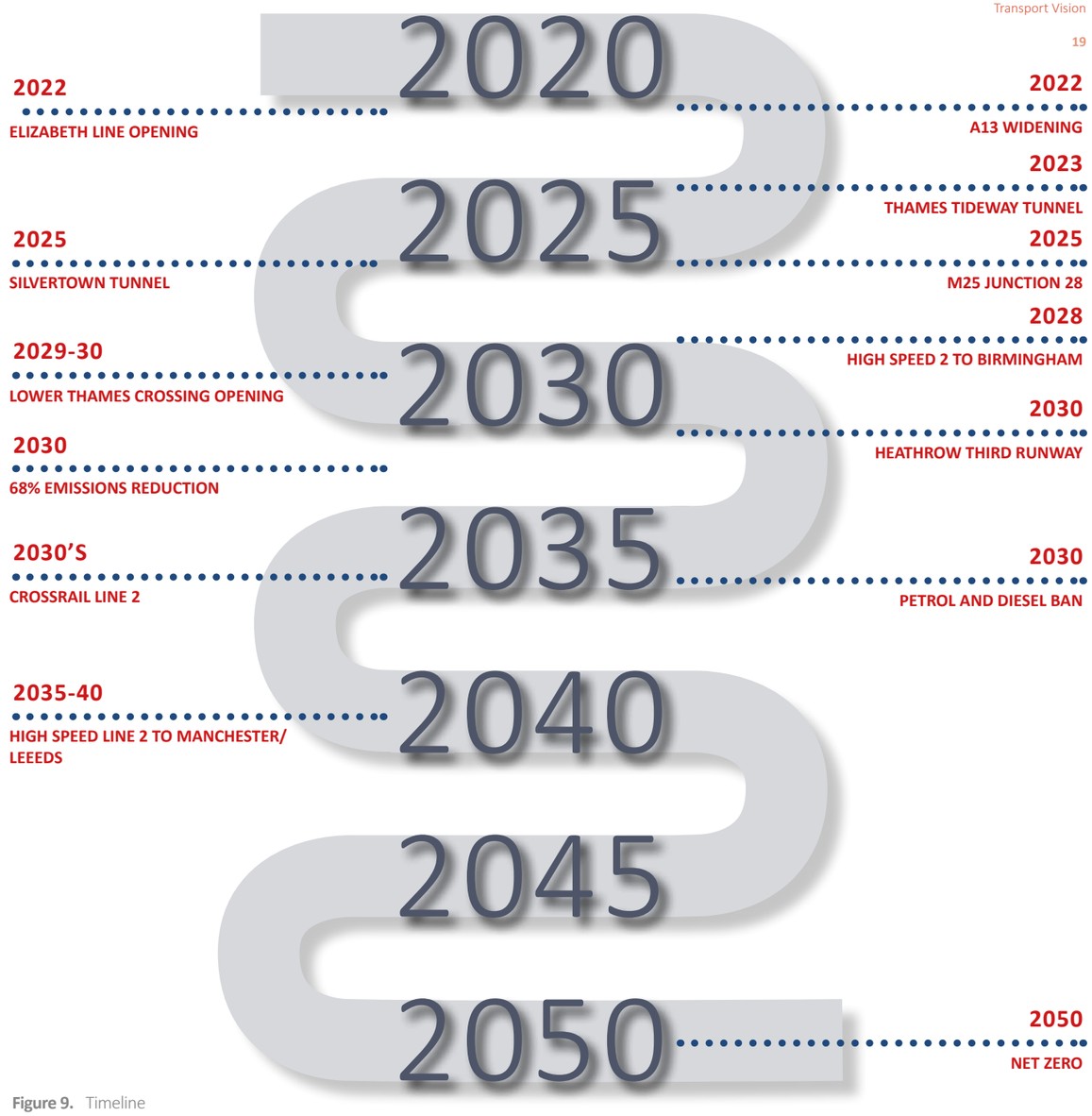


Figure 9. Timeline

Figure 10. Artist's impression of HS2 train (Credit: Hitachi Rail)

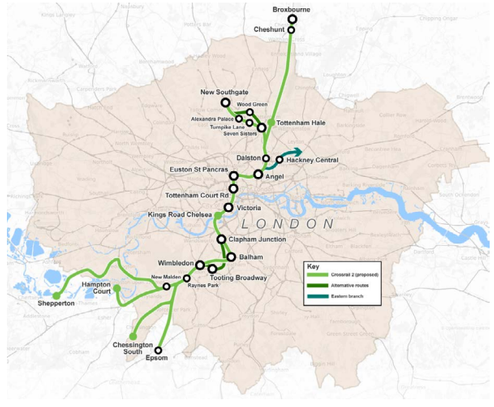


Figure 11. Crossrail Line 2 (Credit: Cnbrb)

7. DEVELOPMENT & REGENERATION

Vision

7.1 Thurrock has the potential to deliver significant growth in housing and employment, particularly on the periphery and outside existing settlement boundaries, where poor public transport connectivity has historically acted as a constraint.

7.2 Investment in new strategic public transport connections will act as a catalyst for housing and employment development and regeneration, particularly in more isolated areas.

7.3 The Vision is of highly connected and integrated housing, employment, freight and logistics and urban centre development intrinsically linked with new and better transport capacity.

Thurrock's existing communities

7.4 Transport infrastructure investment will be designed to deliver better access to services, jobs and homes for existing residents of Thurrock.

7.5 Sustainable interventions are needed to manage increasing traffic levels, ensure planned growth, protect essential journeys, improve safety, and lower pollution impacts.

7.6 The performance of the existing and planned future highway network needs to be managed to minimise congestion and delay, balance competing pressures and encourage a shift towards active travel and public transport modes.

7.7 Short-distance car journeys involve routes along and across the congested strategic road network, making short local trips longer and less reliable. Therefore, a key aim of new development and regeneration is to improve local connectivity and reduce severance.

7.8 Underlying planned estate and community regeneration is the need to deliver better access to services, jobs, and homes. Improving public transport connectivity and street environment improvements in housing regeneration areas will be a key element of the strategy.

Connecting new communities

7.9

7.10 Thurrock's potential for housing growth will be realised through new residential development sites forward through the Local Plan. The growth level that could be accommodated is estimated to be approximately 1173 dwellings per year and around 30,000 new homes by 2040[3]. The areas identified include town centres, sustainable urban extensions at the edge of existing urban areas, and Garden Villages detached from existing urban areas. Delivering this scale of growth depends on improvements in transport connections and capacity and a reduction in barriers to movement across the area.

7.11 Good quality road connectivity and accessibility are essential in creating sustainable, well-functioning and liveable communities. The Vision advocates rebalancing and reallocating road space to deliver positive local benefits.

7.12 The challenge of integrating land use and transport plans is to ensure that high-quality public transport and active travel networks serve all sites identified for housing development and regeneration. This ensures all new communities are well-connected, exceptionally walkable, and 'cycle-able'.

3 Standard method calculation (using 2014 based household projections and the 2017 affordability ratio) Thurrock Local Plan Issues & Options (Stage 2) December 2018.

Connecting town centres, village cores, district and local centres, shopping parades, and large-scale retail centres

7.13 Good public transport connectivity including a package of efficient servicing and parking measures is key to the economic competitiveness of all Thurrock's centres – from local parades and village high streets to town centres and large-scale retail centres.

7.14 The foundations for the revitalisation of Thurrock's urban centres will be creating better-connected places that are walkable and cycle-friendly, easy to access by public transport, and not traffic dominated.

7.15 Our Vision is for local needs to be met locally to minimise travel and make places that are not traffic dominated. The Vision is to develop a network where most people will walk or cycle to a nearby local centre for day-to-day needs and access quick and reliable public transport links to further away town centres. Compact new communities will be clustered around existing local and district centres with excellent public transport connections and easily accessible by walking and cycling.

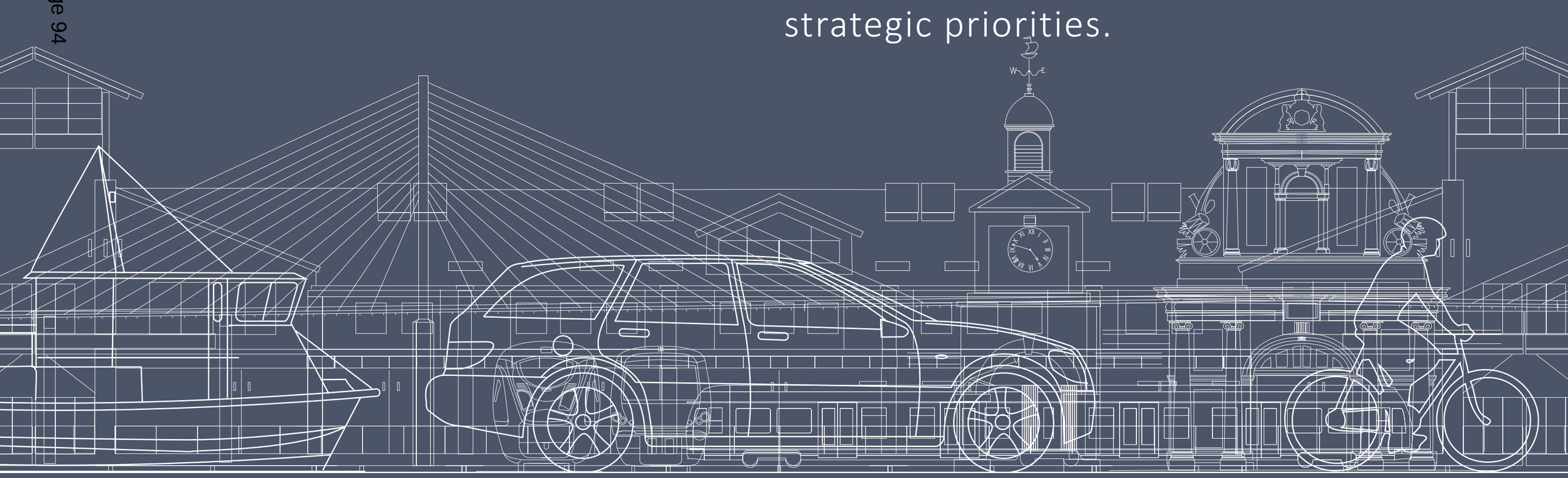
Connecting business and employment, freight, and logistics

7.16 High-quality transport connectivity underlies Thurrock's current and future reputation as a dynamic and competitive borough. Future transport infrastructure investment needs to meet community and business expectations to support and encourage growth and development.

7.17 This means improving local public transport, walking, and cycling access to main employment clusters, including evenings and weekends. Direct connections between ports and Freeports and the strategic road and the national rail networks need to be developed with new highway links to employment growth areas.

VISION STATEMENT

Our future transport vision, goals and strategic priorities.



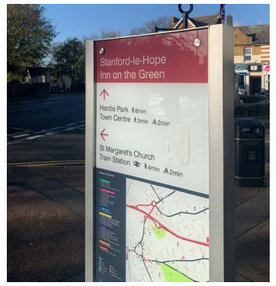
8. VISION STATEMENT

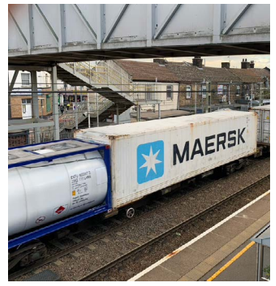
" The vision is to create a transport system for Thurrock that improves quality of life for all people. Over the next 30 years we want to transform transport connections to help deliver zero-carbon economic growth.

The Connecting Thurrock Vision is to create a transport system that:

- *Is fully inclusive, meeting the social needs of residents;*
- *Is integrated to provide seamless multi-modal journeys;*
- *Is accessible for everyone, safe and attractive to use;*
- *Delivers sustainable community regeneration and growth; and*
- *Reflects the exceptional circumstances of Thurrock as an international centre for logistics and commercial development.*

The long-term goal is greater connectivity, innovation, sustainable economic growth and access to opportunity for all. "





The Vision statement structure:

8.1 The Vision is set out in three parts:

- Vision statement and goals - A concise statement of Thurrock's hopes and expectations and ten interconnected goals that apply to remodelling existing roads, bridges and other assets and providing new infrastructure to support growth and regeneration.
- Strategic focus areas- Eight strategic focus areas – that are the foundations for developing the Transport Strategy. Each strategic focus has a background story and is a visioning exercise in its' own right.
- Vision 2050 Diagrams – Abstract diagrams illustrating potential transport connections, interchanges, development, and regeneration by 2050.

Vision Statement

8.2 The vision is to create a transport system for Thurrock that improves the quality of life for all people, transforms transport connections and helps deliver zero-carbon economic growth. The Connecting Thurrock Vision is to create a fully inclusive, integrated, multi-modal and accessible transport network that drives sustainable regeneration and growth.

9. VISION GOALS

9.1 The Vision is based on ten goals.

Goal 1: An accessible and inclusive network that supports all of Thurrock's communities.

An accessible and inclusive network will offer better access to employment and educational opportunities and other vital services, particularly those in disadvantaged groups or areas. The thrust of the accessibility strategy will be to improve accessibility by walking, cycling, and public transport to vital services and facilities, especially further education, employment, and hospitals, with interventions that prioritise inclusive design at all stages. The priority will be to improve accessibility where deprivation is most apparent and where significant growth can be delivered sustainably.

Goal 2: Reducing all transport emissions and improving air quality, including CO2, nitrous oxide, noise, and particulates.

Improving air quality and reducing emissions will be achieved by minimising traffic growth, promoting low-carbon/ carbon-free vehicles, and supporting a modal shift towards public transport, walking and cycling.

Future physical and behaviour changes are needed to reduce emissions from transport with measures that reduce greenhouse gas and air pollution emissions prioritised. Air Quality Action Plans will be developed and implemented for all Air Quality Management Areas to ensure that road safety and congestion schemes, particularly in Air Quality Management Areas, do not increase vehicle emissions.

Efforts will focus on reducing the adverse impacts of freight operations by lowering emissions from Heavy Goods Vehicles in Thurrock and encouraging rail and water freight where feasible. A targeted programme to improve air quality, reduce emissions from transport overall and address climate change focused on reducing the need to travel; encouraging a modal shift to more sustainable modes of transportation, such as public transport, walking and cycling; lowering emissions from residual sources.

Goal 3: Climate change resilience and responsibility

To contribute towards mitigating climate change and reducing the vulnerability of the transport network to climate change impacts whilst protecting human health from the adverse effects of air pollution. A resilient transport network will be better able to withstand unexpected events, exceptional demand, and severe weather conditions and adapt to climate change effects.

Environmentally sustainable development and travel patterns that will help reduce climate change impacts. Thurrock should help to lead the transport de-carbonisation agenda through better quality streets and connections to green and blue networks and technology, like connected, autonomous and low emissions vehicles. When undertaking transport improvements, including maintenance schemes, the Council will integrate climate change adaptation measures into the design to ensure that the transport network's vulnerability is minimised.

Goal 4: Health and wellbeing

Transport can deliver positive health, inclusion and environmental outcomes if integrated with broader plans and policies - the health and wellbeing strategy is critical in this area.

Thurrock's future transport network will be designed to promote good physical and mental health and community wellbeing. The key method will be to enable walking and cycling for all local journeys. Encouraging active travel choices will increase walking and cycling levels, minimise noise and air pollution, and open access to open spaces and the 'Greengrid' and 'Bluegrid'. This will be combined with improving access to health and welfare services - including mental health services.

Goal 5: Active travel choices- enable more people to walk and cycle

Thurrock's future transport system's success and the key to reducing congestion is reducing dependency on cars in favour of increased walking, cycling, and public transport use. It will limit the Borough's contribution to climate change and help develop attractive local high streets and vibrant neighbourhoods where people are prioritised over cars.

The goal is to encourage walking and cycling for all local journeys that will deliver health benefits. The vision recognises the significant severance across the Borough and that tackling these barriers for walking and cycling is key.

Goal 6: Modal shift to public transport- a significant shift from private car use to public transportation.

A shift from car use combined with encouraging more people to use public transport for most or all of their journey, cleaning up the air and reducing road danger. The demand for travel in Thurrock will be managed by encouraging sustainable development patterns, public transport use, walking and cycling. Integrated public transport networks, widening travel choices, offering seamless transfer between modes and services with integrated fares, ticketing, and information and integrating public transport with sufficient secure cycle parking and interchange with a bike.

The strategy will be to deliver a targeted programme of measures to reduce the need to travel. The purpose is to encourage a modal shift to more sustainable modes of transport, such as walking and cycling, particularly in urban areas, and improve the effectiveness of the transport network, significantly increasing the capacity of routes providing access to key destinations for communities. Improving accessibility by public transport, walking and cycling, and improving the actual and perception of the safety of these modes provides a solid basis for delivering measures that will encourage a modal shift. Increasing public transport patronage depends on improved bus satisfaction and new travel choices, such as BRT and better quality interchange with rail services and stations.

Goal 7: Safer roads - no deaths, fewer accidents, and a feeling of safety and security for all transport network users.

Reducing road accidents and eliminating deaths are vital in creating a sense of safety and security for all street users. The Safer Roads strategy will aim to reduce casualties, especially the more severe casualties. Road safety measures cover four main areas child pedestrians, cycle safety, driver improvement and safe journeys to school.

Measures within School Travel Plans that will improve road safety and/or school children's health will be prioritised. The Council will improve pedestrians' and cyclists' road safety and aim to mitigate safety concerns that currently act as barriers to using these modes. This will support accessibility through modal shift to walking and cycling. Priority will be given to improving the overall safety of roads in disadvantaged communities and areas around schools, colleges, major employment sites and town/ local centres. Road safety measures will be fully integrated into other transport improvements, and widespread 20mph zones will be implemented in those residential areas where the local community supports the measure.

A high priority will be given to implementing accident remedial schemes at locations and along specific stretches of road where there are clusters of accidents resulting in deaths or serious injuries, especially pedestrians and cyclists. The number of killed or seriously injured casualties recorded in recent years, likely to be prevented in future years, will help further prioritise these road safety interventions as part of urban design-led retrofitting projects. Retrofitting existing places alongside education, training, and publicity measures will improve road safety, improving the road safety of vulnerable road users, especially pedestrians and cyclists, and reducing dangerous and traffic speeds.

Goal 8: Facilitating development, growth, and regeneration - Transport infrastructure investment to facilitate growth and renewal.

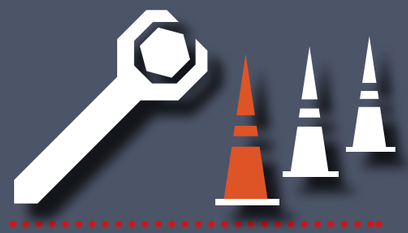
Transport infrastructure investment is essential to deliver better opportunities for Thurrock's residents and employees from regeneration and new homes and business opportunities for all. The transport strategy will be developed to help support the physical, social and economic regeneration of existing and recent developments.

The focus will be on the regeneration strategies emerging for Purfleet, Grays and Tilbury and Estate Regeneration and Housing plans that will come forward over the short, medium and longer term. The emphasis of the approach to social regeneration will be on access to services and opportunities and access to employment, education, and health care. Access to further education is especially critical given low skills and qualifications and the need to provide the knowledge sector skills. The priority will be to enable those residents and communities facing disadvantage.

Goal 9: Sustainable Development - coordinating land use and transport planning to avoid, minimise and mitigate negative social, environmental and climate change impacts.

Transport has a vital role to play in facilitating sustainable development, particularly for new homes and jobs. Investment should be guided towards locations that can support the development of a sustainable transport network. Improving connectivity and accessibility for isolated communities is key to promoting the social regeneration of Thurrock's communities. The transport system needs to be balanced in favour of sustainable modes by giving people a natural choice of travel.

Reducing congestion and delay is key to promoting sustainable economic regeneration and growth. Therefore, encouragement will be given to transport solutions that reduce carbon emissions and congestion.



Goal 10: Managing and maintaining - a better-managed and well-maintained network.

A better-maintained network will be a safer system with fewer accidents, less disruption, fewer delays, and less need for unplanned work.

A coordinated and costed asset management and maintenance programme will result in a systematic approach to repairs and maintenance that anticipates problems arising from degradation. A more reliable transport network will give people confidence in journey times and the quality of streets and public transport systems.

10. STRATEGIC PRIORITIES

Eight priorities

10.1 There are eight strategic priorities at the heart of Thurrock's transport vision.

10.2 Each priority is summarised below and described in more detail in Chapters 12 to 20.

New Technologies and Modes

10.3 New technologies are changing the nature of transport. In line with national transport policy and guidance, Thurrock's future transport vision is based on a transition towards low-emission vehicles. We want Thurrock to be known for urban transport innovation. Potential new mobility innovations include increased shared use, micro-mobility, automated driving, connected transport systems and networks, significant shifts to electric and hydrogen vehicles, and new fuel supply/charging infrastructure. The imperative to reduce carbon dioxide and other greenhouse gases in response to climate change is likely to drive increasingly efficient, low-emission vehicles.

Rail

10.4 We plan to transform Thurrock's railways to support the delivery of new homes and jobs, improve public transport accessibility and realise the Borough's full potential as an important economic hub at the heart of the Thames Estuary. Our vision for rail connectivity encompasses new and improved rail connections between Essex, Kent, the City and West End, north, south, and west London and Thurrock's existing and new communities, employment areas and urban centres. New and improved local, national, and international rail connections will benefit residents, businesses, workers, students, and visitors.

Bus Rapid Transit

10.5 A fully integrated sub-regional Mass Rapid Transit System (MRT) will offer direct, high capacity and fast connections across the Borough and serve outer East London, North Kent and South Essex. The new network will connect through and around areas where buses are affected by congestion and across high-pressure traffic areas, such as the Dartford Crossing approaches. Thurrock's MRT is likely to be developed as a high-speed Bus Rapid Transit (BRT) system with offline high-speed bus corridors offering high levels of priority, segregation, fluidity of movement, and higher average speeds. High-quality, high-capacity, and low-emission electric vehicles will run on the BRT network.

River

10.6 Cross-river connections across all transport modes must be made much stronger if Thurrock is to attract a significant slice of planned economic growth and realise the borough's full potential as an important economic hub. Thurrock's potential can be achieved by breaking down the barriers to cross-river movement and strengthening the river as a major commuter and freight artery with better connections to the broader Thurrock transport network. This will open new, direct multi-modal links to important places in central London, inner and outer east London, Essex and Kent riverside, and poistion Thurrock at the heart of the Thames Estuary.

Walking and cycling

10.7 We aim to reduce dependency on cars in favour of increased walking and cycling – known as 'active travel' - increasing the number of people who choose to walk or ride bicycles for most of their journey and helping to improve physical fitness and health. The Vision for Thurrock is that walking and bicycle riding are always safe and convenient and the top choice for everyday trips to shops, school or college, work, exercise, and recreation. All new housing developments will have high-quality and attractive walking and cycling routes that new residents can use safely and confidently to travel to the nearest rail station or local shops.

Figure 12. Strategic priorities diagram

Local Bus network

10.8 Most public transport journeys within Thurrock are by bus. The future transport developments will not change the importance of the bus network in keeping Thurrock moving - helping people to get to work, the local shops, or to healthcare. The Vision is for high-quality bus services offering faster, more reliable, accessible, comfortable, and affordable travel. The bus network will be closely integrated with rail, bus rapid transit, riverbus and ferry services.

Streets

10.9 We plan to transform the environmental quality of local streets to meet the needs of the neighbourhoods they pass through, accommodate active travel, and improve public transport services. Multi-modal streets offer more options for safe, attractive, and convenient travel, including private cars, commercial vehicles and new micro-mobility transports- keeping people connected and the economy flowing.

Strategic Roads

10.10 Thurrock's Strategic Road Network (or SRN) comprises motorways and trunk roads, including the M25 Motorway, the Dartford Crossings, A13 and A1089. Non-primary A Roads and B Roads, such as the A126, A1013, and B149, connect to the strategic network. Our Vision is for an upgraded and extended Strategic Road Network fit for the 21st century offering increased reliability for local journeys, reduced journey times, and improved local connectivity to drive economic growth and provide opportunities for people and businesses. Our priority is securing benefits and opportunities from new strategic road proposals.

11. NEW TECHNOLOGY

"We want Thurrock to be known for urban transport innovation."

Vision

11.1 New technologies are changing the nature of transport in terms of how we travel and why we travel. Technology provides an incredible opportunity. We want Thurrock to to be known for urban transport innovation, improving people's personal mobility and livelihoods through new technologies.

11.2 Our future vision is to embrace new technological developments that promise to change how Thurrock's streets function and how we travel around the Borough. Potential new mobility innovations include increased shared use, micro-mobility, automated driving, connected transport systems and networks, significant shifts to electric and hydrogen vehicles, and new fuel supply/charging infrastructure.

11.3 Future-proofing for new infrastructure and the reconfiguring of existing systems will be required to seamlessly integrate emerging technologies into our transport network and improve the experience of travelling.

11.4 The challenge is to ensure that new technology (connected networks/ systems, electric vehicles, automated driving, and shared use) is fully integrated into our transport system and does not undermine our multi-modal and modal-shift objectives. Electric vehicles are a major national issue, and Thurrock is no different in needing to plan infrastructure in the short and medium term.

11.5 The imperative to reduce carbon dioxide and other greenhouse gases in response to climate change is likely to drive increasingly efficient, low-emission vehicles. Thurrock's future transport vision is based on a rapid transition towards low-emission vehicles. Conventional cars and vans will need to be fully phased out by the mid- 2030s in favour of electric or hybrid vehicles.

New mobility systems

11.6 New mobility systems for the transport of people are seeing radical change, including

11.7 **On-demand accessible shuttles and shared transport services -** Shared mobility services are transport services that share the use of a vehicle for personal travel- examples include ride-sharing and pooled rides.

11.8 **New ownership models and shared use -** such as car clubs and lift sharing, may affect the demand for car travel and parking spaces.

11.9 **Self-driving cars -** Autonomous vehicles, also known as driverless cars or AVs, are vehicles equipped with sensors and on-board computers that allow them to drive themselves effectively. Self-driving cars allow vehicles to "see" the surrounding environment and provide advice about, or take control of, decisions on navigating it. Experts predict self-driving cars will run on our streets in less than four years[4]. There are many levels of automation, from partial automation, including self-parking cars and adaptive cruise control, to full automation and a hands-off driving experience.

11.10 **Connectivity -** where vehicles communicate in real-time with other vehicles and the infrastructure, opening new services for drivers and allowing traffic to behave cooperatively so the whole system flows better with technology to reduce the likelihood and severity of collisions.

4 Connected and automated mobility 2025: realising the benefits of self-driving vehicles. The government's plans for connected and automated mobility technologies.

Figure 13. New fuels and charging points.

11.11 **Micro-mobility -** Fast-developing battery technology is leading the development of new hybrid vehicle types, such as electric bicycles, skateboards, powered wheelchairs, mobility scooters etc. These powered vehicles are increasingly seen on roads (where many are not fully authorised and regulated. They are also seen on pavements, in parks and public rights of way, where they are not usually permitted except for wheelchairs and mobility scooters used by those with physical disabilities or limited mobility because of an injury or medical condition.

11.12 **Drones-** Use of drones to support emergency services and make urgent deliveries to hospitals. Drones, also known as unmanned aerial vehicles or UAVs, are small flying vehicles which rely on remote-controlled piloting or fly using on-board sensors and GPS. Drones could improve delivery times of sensitive or high-value goods such as donor organs and medical supplies and may aid asset inspection, construction site monitoring, and emergency services activities.

11.13 **Droids-** Droids are small, wheeled vehicles controlled by remote-controlled piloting or on-board sensors and GPS. The use of droids in the Thurrock could include couriering and deliveries.

11.14 **Ubiquitous data -** which could result in more advanced information about the wider transport network and the world around us, optimising how we use personal transport and the transport network.

11.15 **Pedestrians-** App-assisted pedestrian crossing technologies for the partially sighted and people who require more time to cross.

11.16 **Parking and charging technology –** New technology to help manage parking and tolls, including geofencing and permitting, App-based parking and un/loading permitting and enforcement and technology-assisted kerbside space reallocation.

11.17 **New fuels -** The imperative to reduce carbon dioxide and other greenhouse gases in response to climate change is likely to drive increasingly efficient, low-emission vehicles. New low-emission vehicle types, including hybrids, plug-in hybrids, and pure electric vehicles - powered by batteries at first and potentially hydrogen fuel cells in the medium to long term.

11.18 **Supply and charging infrastructure:** New vehicle fuels need to be supported by developing an electric vehicle charging infrastructure network for private cars, buses/MRT taxis and electric bikes/scooters.

- On-street and private home charging with smart charging allows EVs to be charged when it is most efficient for the balance of supply and demand across the electricity system.
- Rapid or high-powered devices along the strategic road network, bus/BRT routes and taxi ranks.
- On-site hydrogen production and storage at bus/MRT and distribution depots.

11.19 The aim is to provide greater confidence to residents and businesses to invest in electric vehicles.

12. RAIL NETWORK

" A transformation of Thurrock's railways to support the delivery of new homes and jobs, improve public transport accessibility and realise the Borough's full potential as an important economic hub at the heart of the Thames Estuary. "

12.1 Enhanced public transport connections are needed to release the substantial housing and employment growth potential in Outer East London and the Thames Estuary.

12.2 Improvements to rail transport connectivity and capacity are the key to sustainable economic growth, reducing the barriers to movement in the area, including those presented by the River Thames and local waterways.

12.3 Current planning is focused mainly on increasing capacity. However, Thurrock's future growth potential cannot be fully realised without new and better connections and interchanges involving new railway connections, new types of rail corridor transport systems and all of this coordinated with the continuation of a vital freight function.

12.4 Thurrock's railways need to be transformed to support the delivery of new homes and jobs, improve public transport accessibility realise the Borough's full potential as an important economic hub.

12.5 The Vision for rail is five-fold –

- connectivity
- capacity
- stations and interchanges
- multi-modality
- freight

Connectivity

12.6 Outer East London and the Thames Estuary have long been identified as having substantial housing and employment growth potential, but poor public transport connections have limited progress.

12.7 Thurrock's main connectivity strengths include being at the mid-point of the C2C rail network with good east-west connectivity. Its perceived weaknesses include its reliance on a suburban commuter rail with limited north-south connectivity and no rail connection across the Thames. The shortcomings in that network must be overcome to deliver sustainable growth.

12.8 Sustainable growth in Thurrock requires widening the rail network's benefits, making it a popular, fast, direct, high quality, high capacity, safe and clean alternative to the car for more journeys.

12.9 The Vision for rail connectivity encompasses new and improved rail connections between Essex, Kent, the City and West End, north, south, and west London and Thurrock's existing and new communities, employment areas and urban centres. New and improved local, national, and international rail connections will benefit residents, businesses, workers, students, and visitors.

12.10 The full potential of rail connections into Central London will be realised through strengthening those arteries. Capacity, journey times and reliability will all be significantly improved with a 21st Century gateway at Fenchurch Street and high-capacity, high-quality interchanges at West Ham, Barking.

12.11 The new sub-regional rail network and stations will integrate into a borough-wide public transport network to provide seamless multi-modal journeys with a better interchange with other transport modes.

12.12 Thurrock will work with Network Rail and Train Operating Companies to renew and enhance the existing network and develop new rail connections and service opportunities.

Capacity

12.13 Increased capacity is essential to support the delivery of new homes, improve public transport accessibility to and through Thurrock, and support significant increases in rail patronage expected over the next 25 years.

12.14 Our vision is to realise the full potential of the existing lines in the short and medium-term through double-tracking, new and improved stations, longer trains, new junctions, and signalling - and to add capacity through new rail lines in the long term.

- Liverpool Street and Fenchurch Street rail connections (capacity, frequency, quality, speedy), including 12-car platform lengthening at stations.
- Double-tracking on the Grays-Upminster Railway line and future extension to Romford.
- New trains, new services, and creating room for thousands more passengers.
- Increasing/releasing capacity on commuter routes through a southern Crossrail extension via Gravesend-Tilbury, a northern Crossrail/London Overground extension via Upminster/Romford and an Overground extension via Dagenham Dock.

Multi-modal rail

12.15 Thurrock's current rail network serves only two primary purposes - an east-west commuter rail network terminating at London Fenchurch Street and rail freight connections from the Thames Ports via North London to the national rail freight system.

12.16 The most successful and sustainable urban areas combine multiple rail-based transport modes operated as a single, integrated transport system.

12.17 Thurrock's future rail vision is for a multi-modal rail network approach extending across Outer East London and the Thames corridor. This includes access and provision for a broader range of services, including Crossrail extensions via Gravesend-Tilbury and Upminster/Romford, London Overground extension via Romford, Overground extension via Dagenham Dock, and possible 'Javelin' train services via Ebbsfleet, Gravesend to Southend.

Figure 14. Crossrail (Elizabeth Line) train (Credit:Crossrail)

Stations and interchanges

12.18 New and enhanced station stops are needed to serve growing communities, existing and new employment areas, and existing urban centres.

12.19 Our rail Vision encompasses new stations and major rail interchange 'hub' stations, with improved quality of all existing stations and connections to local areas. The new/enhanced stations and interchanges will act as a catalyst to regenerate existing places and enable residential intensification, new uses, and other new development.

12.20 New multi-modal rail interchange hub stations (including Grays, Purfleet, South Ockendon, Stanford- le-Hope, Chafford Hundred, and Tilbury Stations) will connect the rail network to the local bus, MRT and cycling networks.

Freight

12.21 Thurrock's ports, storage and distribution districts need excellent connections to the national and international rail freight network with sufficient train 'paths' to meet growth plans. To enable efficient freight movement by rail, the North London routing needs to grow capacity in line with London Gateway port growth.

12.22 Freight capacity for London Gateway, cross-London rail (via the North London line) to the East and West Coast mainlines, is vital for the movement of containers to Midlands distribution centres and other destinations in the North West. .

12.23 Our rail freight vision includes full line electrification in the short and medium term with a long-term vision for a new Thames rail tunnel to connect Kent and the Medway ports with freight lines around north and south to connect with routes to the south west, midlands and the north.

13. BUS RAPID TRANSIT

Figure 15. Kent Fastrack bus (Credit: Kent CC)

> "The vision is for a new, direct, high capacity and fast transport system to connect across the Borough and serve outer East London, North Kent and South Essex."

Vision

13.1 Thurrock's future position at the economic heart of the Inner Estuary depends, in large part, on a fast, reliable network that connects Outer East London, Kent and Essex. Thurrock's potential can be achieved through new, direct connections to important places in outer east London, Essex and Kent riverside, and the Thames Estuary.

13.2 More and better public transport options need to be developed if planned growth and development in Thurrock and neighbouring areas are to be sustainable and not car-based. The need for capacity, frequency, speed, and connectivity is unlikely to be met solely by incremental improvements to bus services running on existing roads.

13.3 The vision is for a new, direct, high capacity and fast public transport system to connect across the Borough and serve outer East London, North Kent, South Essex.

13.4 The mass rapid transit system will bring about a step change in the way people travel within and through the Borough.

Mode

13.5 There several types of transport system that lie between conventional buses and commuter/national railways:

- Light railway (such as Docklands Light Railway and the London Tube).
- Tram (such as Croydon Tram Link) travelling on rails through city streets and on dedicated rail lines and between urban areas.
- High-speed buses travelling on city streets and dedicated bus lanes that can switch to dedicated tracks/guided rails between urban areas.

13.6 Thurrock's BRT is likely to be developed as a high-speed bus system with offline high-speed bus corridors. A BRT system has been chosen for several reasons.

- This system sits somewhere between a conventional bus and rail.
- implementation costs are lower and more cost-effective than rail-based MRT
- Capable of accommodating equivalent passenger flows.
- BRT is a nimbler deployment option than rail or tram in terms of expansion and rerouting.
- It can be integrated with MRT in adjacent areas such as Kent's 'Fast Bus', the planned 'SERT' network in south east Essex.

Route design

13.7 Maximum levels of priority and segregation, fluidity of movement and higher average speeds are fundamental elements of making travel by BRT a significantly quicker and more convenient option for local journeys and onwards connectivity- versus the private car.

13.8 The BRT routes will be a combination of segregated and shared lanes:

- High-speed, dedicated bus corridors that cannot be accessed by other vehicles of any sort.
- Segregated bus-only lanes, shared bus lanes and bus priority measures at junctions.
- Combined with mixed traffic.

13.9 The long-term ambition is for 80% segregated routes in new development areas and 60% elsewhere.

13.10 Routes will be designed for higher line speeds than conventional buses with fewer stops and shorter/fixed dwell times at stops.

13.11 Routes will be designed as landscape and wildflower corridors.

Frequency

13.12 Turn up and go, high-frequency services, running longer into the evening and regularly throughout the day and night to serve port areas and distribution warehouses.

Vehicles

13.13 High-quality, high-capacity, and low-emission electric vehicles will run on the BRT network.

13.14 In the short term, these are likely to be hybrid low-emission vehicles that minimise impacts on current bus routes, schedules, and operators.

13.15 In the medium-term electric buses will operate, improving air quality, energy efficiency, noise, and passenger comfort, as well as providing financial benefits. This is particularly important on routes through low air quality zones and residential areas. Exclusive BRT infrastructure offers the ideal environment for electric bus operation: less stop/start due to the fluid movement within the dedicated busways.

13.16 The electric vehicles may be powered through overnight battery charge in depots or on-stand charging via on-vehicle or drop-down pantograph.

13.17 In the long term, vehicles may run on locally generated hydrogen using sustainable energy such as wind turbines.

13.18 The network will be designed to accommodate future new technologies, such as autonomous shuttles. In the long term, the highest capacity routes may be converted to a rail/tram system, such as 'Kenex'.

Figure 16. A London bus is charged using a pantograph. (Credit: TfL)

Phased approach

13.19 The future BRT system will grow in phases to integrate new lines and new vehicle types with the network developed through and around areas where buses are most affected by congestion, regeneration and growth areas.

Breaking down road barriers

13.20 The BRT network will connect through and around areas where buses are affected by congestion and across high-pressure traffic areas such as the Dartford Crossing approaches with phased reallocation of road space on existing and proposed river crossings (Dartford Tunnel, Queen Elizabeth Bridge, proposed Lower Thames Crossing).

13.21 It will link to and across major roads with purpose-built slip roads, flyovers, and under-passes. The BRT network will extend across the River Thames, Mardyke Valley and possibly also Holehaven Creek, with several potential crossing points under consideration.

Stops and interchange

13.22 The BRT will stop more frequently than conventional railways but with fewer stops and faster journey times compared with the bus network. The BRT network stops will be ‘super stops’ with quality passenger facilities with further enhancements at proposed multi-modal interchange hubs such as Grays and Tilbury and major centres such as Lakeside.

13.23 High-quality stop facilities will include next-generation Real Time Information (RTI) screens, , seating, “living roof” green bus shelters powered by photovoltaic panels provision of telephones, Wifi.

13.24 Stops and vehicles will be fully accessible with level boarding/raised kerbs and tactile paving

13.25 Stops will offer enhanced personal security with good lighting, good vista, CCTV, and materials such as Perspex rather than glass.

13.26 Stops will be integrated with broader area plans and connectivity, including cycle parking and cycle hire, wayfinding, quality public realm, and upgraded safe and convenient walking and cycling routes from interchanges to the surrounding residential and employment areas.

Figure 17. Dedicated line and bus stop, East Jakarta. (Credit: Gunawan Kartapranata)

Sub-regional Network

13.27 The BRT will connect related BRT networks developing in the wider Thames Gateway:

- South Essex growth areas and Southend.
- North and east Kent, including Dartford, Gravesham/Gravesend, Ebbsfleet and Dover.
- Outer East London Opportunity Areas including Thamesmead, Rainham Dagenham, and Basildon.

Identity

13.28 The BRT will be promoted as a high-quality network with Premium branding, promotion and marketing.

Development and regeneration

13.29 The BRT network will connect existing and new communities and growth areas.

13.30 The BRT public transport corridors will create the spines along which higher densities of both housing, employment and local facilities will be concentrated

- Connecting to – through main urban centres, including Lakeside.
- Travelling to-through work and port areas.
- Relieving congested bus spines such as London Road.
- Travelling to-through housing growth areas- where the opportunity to encourage a shift to public transport is most significant, with new residents forming new habits as new homeowners.
- Connecting to adjacent growth areas in Kent, Essex and outer east London.

14. RIVER THAMES

"The vision is to strengthen the River as a transport artery with enhanced connections to the broader transport network."

Figure 18. Tilbury Ferry

Figure 19. Riverside heritage tourist destinations- Tilbury Fort

14.1 Cross-river connections across all transport modes need to be made much stronger if Thurrock is to attract a significant slice of planned economic growth and realise the borough's full potential as an important economic hub.

14.2 Thurrock's potential can be achieved by strengthening the river as a movement artery with better connections to the broader Thurrock transport network. This will allow new, direct links to important places in central London, inner and outer east London, Essex and Kent riverside, and the Thames Estuary.

14.3 Current planning is focused mainly on increasing road capacity through new crossings. But Thurrock's future growth potential will not be fully realised without new and better sustainable connections - including new boat, bus, rail, and walking-cycling connections.

14.4 To the west of Thurrock, the Thames has experienced a renaissance as a transport spine and a focus of riverside regeneration. In sharp contrast, the River Thames in Thurrock remains a significant barrier to access and connectivity. This is exacerbated by the fact that the links across the Thames in Thurrock comprise national rail and roads links (the M25 the High Speed 1) which offer very little connectivity into Thurrock's local transport network.

14.5 The successful future development and regeneration of Thurrock at the heart of Outer East London and the Thames Estuary is highly dependent upon river connectivity. The medium- and long-term plan for Thurrock is to repeat the models of some of the more successful new connections implemented to the west along the Thames.

14.6 The Vision for the River Thames is as a major transport artery for commuter passengers and freight services, including 'short-sea' and international shipping.

Riverbus

14.7 A fast riverboat network with new direct commuter riverboat links to central London, East London, Essex, and Kent.

River piers

14.8 New and improved riverboat piers serving communities, employment areas, and mixed-urban centres along the banks of the River and connecting to nearby rail, BRT and bus interchanges.

Ferries

14.9 Improvements to Gravesend- Tilbury Ferry and possibly a further link from Grays to serve tourism and local trips and future large-scale riverside proposals. This may include 'Park and glide' ferry services combining remote parking with ferry links to town centres and other attractions and 'Criss-crossing' services between piers on either bank.

Public Transport

14.10 New/improved crossings with riverside stations and stops fully integrated into local transport networks that act as a regeneration catalyst for riverside neighbourhoods and employment areas. Making better use of existing links such as new bus lanes and access slips to the Queen Elizabeth Bridge/Dartford Tunnel. Encouraging all future road crossings to incorporate public transport modes.

Walking and cycling

14.11 Strengthening walking and cycling connections to and along the riverbank with potential cross-river links utilising existing and proposed crossings. Join up the Thames Path from source to sea' along the tidal Thames' entire length.

Road crossings

14.12 Potential new cross-river road tunnels and bridges serving the strategic and local road network such as new routes linking the A13 and A2. Reallocated road space on existing and proposed tunnels and bridges.

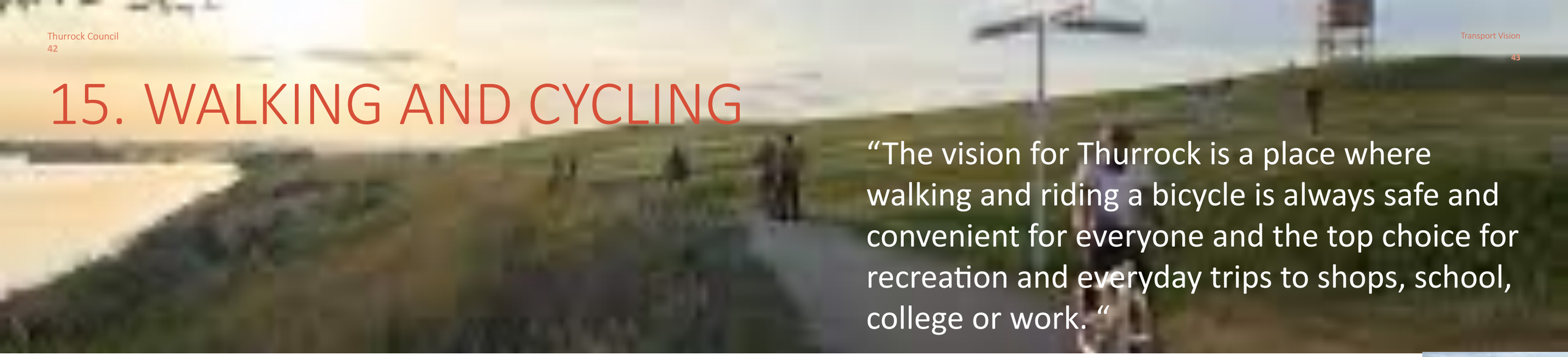
Freight

14.13 Safeguarding the river as a freight network including riverside wharfage, ports and riverside railheads, a potential rail-freight river crossing and riverside logistics parks at London Gateway and the Port of Tilbury – all helping reduce lorry traffic.

Heritage, leisure and tourism

14.14 Development and promotion of the river as a heritage, tourism and recreation spine connecting Tilbury and Coalhouse Forts, Gravesend, St Clements Church West Thurrock, Queen Elizabeth Bridge, Purfleet heritage and Military Centre, Marshes Nature Reserve and Thameside Nature Discovery Park, and England Coastal Path, Grays Beach Riverside Park, Tilbury Ocean Terminal.

15. WALKING AND CYCLING



"The vision for Thurrock is a place where walking and riding a bicycle is always safe and convenient for everyone and the top choice for recreation and everyday trips to shops, school, college or work. "

Vision

15.1 The Vision for Thurrock is that walking and bicycle riding are always safe and convenient and the top choice for everyday trips to shops, school or college, work, exercise, and recreation.

15.2 We aim to reduce dependency on cars in favour of increased walking and cycling – known as 'active travel' - increasing the number of people who choose to walk or ride bicycles for most of their journey.

15.3 All new housing developments will have high-quality and attractive walking and cycling routes that new residents can use safely and confidently to travel to the nearest rail station or local shops.

15.4 Choosing active travel will help improve physical fitness and health. When more people walk or cycle and fewer journeys involve the car, community vibrancy, sociability, and cohesion are improved.

Sharing and reallocating road space

15.5 Our Vision is for existing and new streets to be more friendly and safer for pedestrians and cyclists.

15.6 Existing streets can be retrofitted to be more friendly and safer for walkers and cyclists. New streets can be designed as 'multi-modal' roads and adopt the 'healthy streets' model.

15.7 For 20mph zones, cyclists can share the road space and easily integrate into the general traffic flow. For faster roads, there is an opportunity to reallocate road space to create wider pavements, regular crossings for pedestrians, and separate lanes for cyclists.

New facilities

15.8 Our vision is for new walking and cycling connections and enhancement of existing routes - deliverable projects that will get more people walking and cycling safely and confidently. An array of facilities can serve walkers and cyclists on their journey:

- Great wayfinding systems - digital, map-based and signage
- Secure cycle parking, covered cycle storage, cycle hire and bike-share schemes, and electric bicycle and wheelchair charging points.
- Places to rest along the way with shade/ shelter, new street furniture such as benches, picnic areas, water fountains, etc.
- Picnic areas for recreational walkers and cyclists.

'Green Grid'

15.9 We will develop a network of walking and cycle paths into and across the grid of green spaces that weave through Thurrock - the 'Green Grid' and Thurrock's 'Green Lung.'

15.10 The success of the Green Grid relies upon good connections from where people live and work. We will develop new rights of way, bridleways, and non-motorised routes from existing and proposed communities into and along the Green Grid to open access to green space and promote children's wellbeing and natural play opportunities.

15.11 Some existing urban areas turn their back and are poorly connected to adjacent green spaces. We will open gaps around the edges of urban areas to access green spaces and water courses.

15.12 Protecting and enhancing the Green Grid is critical for the environmental regeneration of the Borough. Well-designed walking and cycling routes will open access without damaging the Green Belt or infilling critical green gaps between urban areas. New routes will preserve and enhance the natural landscape, habitats, and biodiversity.

Blue Grid

15.13 The rivers, creeks, mudflats, streams, water meadows, lakes, ponds and old flooded pits form a network through and around Thurrock called the 'Blue Grid'.

15.14 We will provide enhanced and new connections along the banks of rivers and streams, around lakes and ponds and across rivers, streams and creeks.

15.15 Like the Green Grid, well-designed walking and cycling routes can open up the Blue Grid without diminishing the Green Belt or infilling critical gaps between urban areas with routes designed to protect and enhance habitats and biodiversity, ensure water quality integrity, and preserve and enhance the natural landscape.

15.16 Examples include:

- Connecting up the England Coastal Path.
- Connecting up the Thames side path – north and south banks.
- New walking and cycle bridges across Holehaven Creek and the Mardyke.

Fixing missing links in the network

15.17 Thurrock's future walking and cycle networks rely on direct routes from where people live to where they need to go. Long diversions make the whole network poorer and deter active travel.

15.18 There are several 'missing links' or long diversions along the Thames riverside strip, the M25 and A13, and Holehaven Creek and main rail lines. There is no walking or cycling route across the Thames in Thurrock.

15.19 Our Vision is to break down the river, road and railway barriers and fix the 'missing links' with new/enhanced bridges and underpasses with improved bicycle provision on all new river transport and ferries.

Accessibility, equity, and wellbeing

15.20 We want to widen access to biking and walking options, especially in disadvantaged areas that have been under served in the past, where good access to education, employment, healthcare, and open spaces are vital concerns. Measures to encourage walking and cycling will reach beyond physical changes to include public health measures and behavioural change initiatives.

15.21 Walking and cycling in all new developments will be designed for everyone, including those with disabilities. We will incorporate the needs of people with mobility impairments or disabilities when designing, and delivering pedestrian access routes in the built-up areas with positive measures for older people and people with physical and mental disabilities.

16. BUS NETWORK

"Thurrock's Vision is for high-quality, fast, reliable, accessible, comfortable, and affordable bus travel fully integrated with rail, bus rapid transit, riverbus and ferry services."

Vision

16.1 Thurrock's Vision is for high-quality bus services that offer faster, more reliable, accessible, comfortable, and affordable travel integrated with rail, bus rapid transit, riverbus and ferry services

16.2 Most public transport journeys in Thurrock are by bus.[5] The future development of the rail and MRT networks and the promotion of cycling and walking will not change the importance of the bus network in keeping Thurrock moving - helping people to get to work, healthcare, the local shops, or the library

Planned growth will place significant capacity pressures on local bus services. Increasing bus patronage will create commercially viable services and routes with fewer supported services. Thurrock needs an enhanced bus network with increased bus priority along the key bus routes, new links, improved rail station interchanges and network capacity to serve growing places.

5 For all journeys from Thurrock, data taken from the NTS shows 6.2% of journeys within Thurrock use a bus.

A transformation in the overall quality of services and infrastructure

16.4 Buses are vital in supporting regeneration and social integration, especially in relatively isolated areas that cannot justify investment in more expensive public transport modes such as MRT and Rail. Significant investment and enhancements to bus services will make the bus more appealing to existing and future customers and a more attractive option than the car. The upgrades will include the following:

- Improved bus frequencies and journey times, and reliability.
- Improving and revising bus routes with Quality Bus corridors increasing bus priority in critical locations to avoid service interruptions due to traffic congestion at peak times.
- Turn-up and go service levels on critical routes with journey times and reliability comparable to car journey times.
- Good quality bus stations, bus stops and other facilities such as wayfinding, real-time information, raised kerbs at boarding points and better passenger waiting facilities.
- Providing the greenest and cleanest zero-emission buses (hybrid, electric or hydrogen).
- Simple fares, integrated ticketing with mobile and contactless payments.
- Making the bus network more appealing and easier to understand through communication and branding.

Figure 20. Artist's impression of the Lakeside Bus Interchange (Image Credit)

Interchange and integration

16.5 New 'bus-hub' interchanges will allow seamless transfer from one bus to another, encouraging multi-bus journeys across a single, integrated future bus network.

16.6 The investment will focus on interchanges that connect multiple public transport modes. Multi-modal interchanges will provide improved capacity and connections at crucial transport interchanges, such as rail and interurban bus rapid transit stations, riverbus and ferry piers and connect with walking and cycling routes.

16.7 For proposed 'super stops' and main multi-modal interchanges, interventions will include:

- Street lighting, good surveillance, CCTV.
- Shelters and quality seating.
- Wayfinding systems and real-time passenger information.
- Accessible interchanges with raised Krebs/ level boarding at boarding, tactile paving, and handrails.
- Cycle hire, cycle storage and lockers for those wishing to cycle to interchanges.
- Safe and convenient walking and cycling routes from interchanges to the surrounding residential and employment areas.

New routes and connections to match planned development and regeneration

16.8 New bus routes and services will connect existing communities, urban centres, and employment areas and support housing and job growth. Extending Thurrock's bus network is far more affordable, practical, and flexible than building new roads and rail-based public transport networks. Bus routes are relatively easy to add and remove and more responsive to demand changes than other forms of public transport.

16.9 New, diverted, and extended bus services with higher frequencies and increased capacity will serve all new housing and employment opportunity areas and expanded urban centres.

16.10 Opportunities for new routes and connections:

- Bus priority and access/slip lanes on existing and proposed Thames bridges and tunnels.
- Connecting to proposed new railway stations.
- Connecting to and through main urban centres - including Lakeside and local centres/parades.
- Travelling to and through housing growth areas.
- Travelling to and through employment and port areas, including the riverside strip.

17. STREETS

"Making our streets easier to get around, healthier and pleasant to be in or near, reducing car use and ensuring more journeys in Thurrock are made by walking, cycling and public transport."

Keeping the population connected and the economy flowing

17.1 High-quality roads for people to travel for work and leisure and for businesses to move goods and materials are fundamental to Thurrock's future success - keeping the population connected and the economy flowing.

17.2 Local road journeys by private cars and commercial vehicles will play an essential role in our future transport network.

17.3 The term 'roads' tends to emphasise the road surface from kerb to kerb and travel by private cars and commercial vehicles. We alternately refer to 'streets' to include all travel modes and the broader environment- streets at the heart of local communities, walking and cycling, and the qualities of the public realm.

Transformation

17.4 We plan to transform the road network, the experience of driving in Thurrock and the environmental quality of the neighbourhoods through which roads pass.

17.5 This transformation will facilitate economic regeneration and growth, sustainably serve new development, and address the strategic imperative of climate change.

Accessible and equitable

17.6 Our future streets will be equitable and inclusive, serving diverse users' needs and functions with particular attention to people with physical and mental disabilities, older people, and children.

17.7 The aim is to design streets to be equitable and inclusive, serving the needs and functions of diverse users with particular attention to people with physical and mental disabilities, older people, and children. This is regardless of income, gender, culture, or language.

New technologies

17.8 New streets will be adaptable to technological changes. This means new mobility - automated driving, connected transport systems and networks, electric vehicles, and shared-use infrastructure.

Multi-modal roads

17.9 The concept of 'Multi-Modal Roads' will provide an overarching framework for all streets and roads in Thurrock.

17.10 For existing roads, this is about making our streets easier to get around - and healthier and pleasant to be in or near, whilst realising our aim to reduce car use and ensure more journeys in Thurrock are made by walking, cycling and public transport.

17.11 New roads will provide the capacity to enable new housing and business developments, encourage trade, and attract inward investment into Thurrock. They can embody multi-modal design principles from the outset.

17.12 The strategy for multi-modal roads will define road qualities for street types and become part of an efficient, well-managed and well-maintained network with low levels of disruption from new road building, maintenance, and repair.

Sustainable, healthy, climate change-responsive streets

17.13 Thurrock's vision is a sustainable road network resilient to climate change and flooding. Future extreme weather events will expose any vulnerabilities in Thurrock's road network, testing its resilience.

17.14 The goal is also for sustainability, green infrastructure, and resilience – roads that connect green infrastructure and include sustainable drainage measures. Thurrock's future multi-modal streets will be more resilient and climate responsive.

Journey reliability, quality and safety

17.15 Thurrock suffers from journey reliability issues regularly created by strategic network problems, especially on the M25 and A13. The high freight volumes and lorry parking issues also result in sub-optimal street quality and safety issues in local streets. Focusing on journey reliability and safety will lead to fewer accidents, with the number of people killed or seriously injured approaching zero.

Street types

17.16 Except for the Strategic Road Network, Thurrock's streets function in two ways - as a means for moving people and goods and as places where the borough's social, economic, and cultural life plays out.

17.17 Thurrock's **small and large high streets** and parades have lots of people and goods moving on foot, by bike and in vehicles.

17.18 Thurrock's network of **minor B roads** form a dense grid in defined urban areas with relatively few connections across the open countryside between settlement boundaries.

17.19 **Local distributor roads and residential streets** pass through neighbourhoods and need to be pleasant places to live, where it is easy to access local facilities on foot or by bicycle.

17.20 **Destination places** are where people come together. They have low levels of slow-moving traffic - or no vehicular traffic at all.

Roads as better neighbours'- Healthy streets

17.21 Healthy Streets' - roads that are 'better neighbours' to the places they pass will be adopted as a guiding vision principle for Thurrock's roads.

17.22 Thurrock's streets will support healthy environments and better lifestyle choices. The street design will help active travel, integrate green infrastructure strategies, improve air and water quality, reduce stress levels, and improve mental health.

Street Goals - Summary

Multi-modal- Multi-modal roads that provide for modal shift and meet the needs of all road users appropriate to the type of road.

Connectivity- Emphasis on modal connectivity and interchange. Provide access to railway stations, ports, and airports.

Capacity- Providing capacity to enable new housing and business developments, encouraging trade, and attracting inward investment into Thurrock.

Journey reliability, quality and safety- Tackling congestion and gridlock will lead to a better-quality street environment and help reduce the number of people killed or seriously injured.

Respecting heritage and landscape – Streets that respect their context and setting, especially when passing through local heritage assets or areas of landscape sensitivity.

Road qualities for street type – Making places people value and want to use. Streets and spaces that are safe, lively, and welcoming to walkers, cyclists, public transport users, and the disabled.

Management - An efficient, well-managed and well-maintained network with low levels of disruption from new road building, maintenance, and repair.

Better neighbours - Healthy Streets - roads that are 'better neighbours' to the places they pass: For example, by creating more space for people, healthy streets, landscape enhancements, net gains in biodiversity, responsive locally sensitive areas such as conservation areas, listed buildings, river margins, marshes and nature areas.

Sustainability, green infrastructure, resilience – Roads that respond to their environment, connect green infrastructure, and include sustainable drainage measures. Resilience is about climate-responsive infrastructure and how the Thurrock transport network responds to incidents on the strategic or local road network.

18. STRATEGIC ROADS

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Figure 21. Artist's impression of the proposed Lower Thames Crossing (National Highways)

"Our Vision is for an upgraded and extended Strategic Road Network offering increased reliability for local journeys, reduced journey times, and improved local connectivity."

The Strategic Road Network and Connector Roads

18.1 The Strategic Road Network (or SRN) comprises motorways and trunk roads administered by National Highways, a government-owned agency. Thurrock's' SRN includes the M25 Motorway, the Dartford Crossings, A13 and A1089. The SRN enables people and goods to move quickly over long distances whilst minimising the impact of motorised traffic on local streets.

18.2 The non-primary A Roads and B Roads in Thurrock are called Connector Roads, allowing people and goods to move between key centres and access the Strategic Road Network. They comprise the A126, A1013, A1012, A1090 Purfleet by-pass, A1306 and B149.

18.3 Our Vision is for an upgraded and extended Strategic Road Network fit for the 21st century offering increased reliability for local journeys, reduced journey times, and improved local connectivity to drive economic growth and provide opportunities for people and businesses across Thurrock.

Council's position on LTC

18.4 The Council has produced the report 'LTC – Mitigating the negative impacts and maximising the benefits to create a positive legacy for Thurrock report in February 2021', summarising the findings of the Lower Thames Crossing mitigation benefits study (November 2020). The Council report identifies 57 individual schemes and interventions that could help reduce the negative impacts of the LTC construction, enhance the scheme's operation, support residents and businesses through the transition, and provide a series of lasting legacy provisions across Thurrock.

18.5 The Council is committed to working with National Highways to ensure a complete mitigation package comes forward in parallel with the LTC scheme designed to limit harm to the Borough's interests.

New Strategic Roads

18.6 Thurrock's vision is for an enhanced and extended strategic network with construction and longer-term impacts reduced and fully mitigated and substantial local benefits (when compared to the current LTC proposals).

Growth - New and improved roads will facilitate and not constrain Thurrock's economic growth and development ambitions - avoiding development land sterilisation.

Local access - Local access to the to the SRN will be secured with safeguarding for future junctions and new Connector Roads.

Public Transport- New or enhanced Thames crossings will include dedicated public transport lanes or tracks, with priority at junctions and dedicated slip roads.

Cycling - Improve existing cycleways and bridge crossings over the Thames to support active travel and enable growth. An extension to the National Cycle Network Route 13 to connect to the Tilbury and Dartford Crossings.

Walking -Public Rights of Way (PRoW) will be maintained and enhanced with minimal diversions to form a comprehensive and high-quality PRoW network providing a new, complete network of active travel routes for walking/cycling/horse riding.

Green space - We will prioritise the improvement of low-quality green space close to the proposed new strategic roads, which require investment. Examples include Koala Park and King George's Playing Field in Tilbury, Blackshots Nature Area and green spaces included in the masterplan for the Two Forts Way Projects.

Environment -Health and environmental impacts like air and noise pollution will be minimised and mitigated.

Land and marine restoration - Enabling the restoration of the historic landfill sites and cleaning the marine habitat such as Goshams Farm.

Greenhouse gas and carbon emissions - Ensure that electric and/or low-emission vehicles are incentivised to use new SRN links with discounted or free use of the new crossing.

Enhancing the existing Strategic Road Network in Thurrock

A13 Vision - Junction and capacity improvements new slips.

Dartford Crossing- Dedicated public transport lanes with priority at junctions and dedicated slip roads. Incentivising electric and/or low-emission vehicles.

Figure 22. Dartford Crossing

Strategic Road Connectors

18.7 Local access to the SRN will be secured with safeguarding for future junctions and new Connector Roads, increasing local access and significantly reducing disruption to business and community connectivity.

Orsett Cock roundabout mitigation- Additional mitigation to negate the negative impact of the LTC scheme upon the A128 approach to the junction.

Tilbury Link Road - Enabling works and safeguarding the future provision of junctions onto the LTC and Asda Roundabout enhancements.

East Tilbury Link - Safeguarding for the future provision of junctions onto the LTC

Universal Road, South Ockendon - Safeguarding for the future provision of junctions onto the LTC

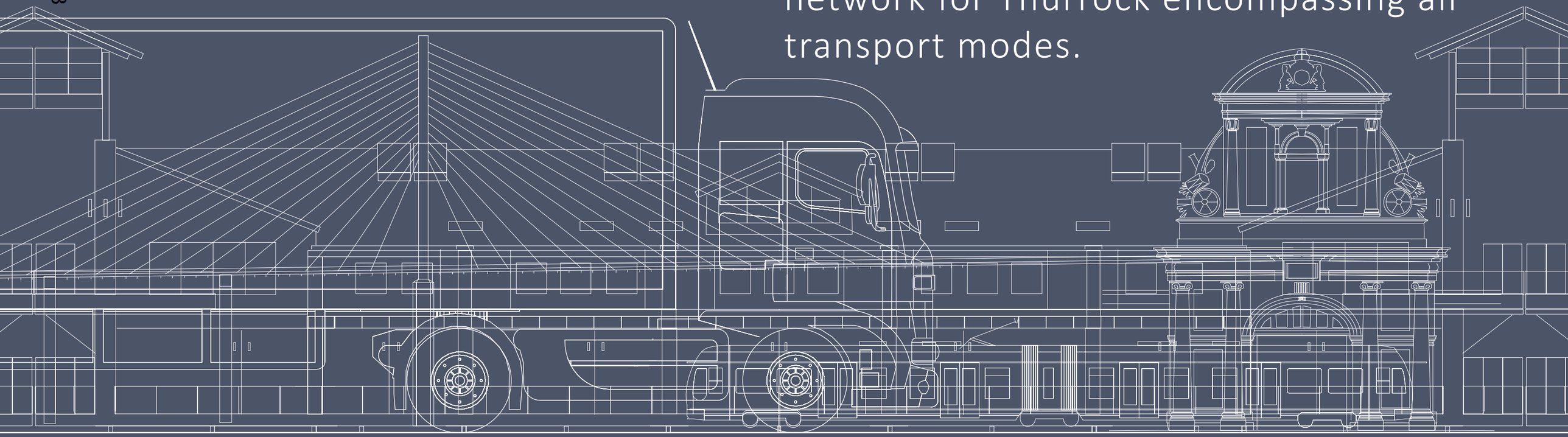
Daneholes Roundabout -A1013/ B149 Daneholes Roundabout enhancements.

Manorway roundabout - Additional Lane capacity on the A1014 and A1013 approaches to ensure port and local traffic movements are not impaired by the LTC.

A1012 Junction and Medebridge Road Improvement- Construction haul road along the current Medebridge Road alignment from the A13 to Grangewater to a sufficient width and standard to be adopted by the Council.

FRAMEWORK DIAGRAMS

The following Transport Framework Diagrams describe a future vision for an extended and inter-connected transport network for Thurrock encompassing all transport modes.



19. FRAMEWORK DIAGRAM

Elizabeth Line to:
Shenfield

Harold Wood

Elizabeth Line to:
Stratford
Liverpool Street
Farringdon
Paddington
Royal Oak
Reading

Romford

Gidea Park

Chadwell Heath

Emerson Park

Upminster

District Line to:
Ealing Broadway
Richmond
Wimbledon
C2C to:
West Ham
Limehouse
Fenchurch Street

Hornchurch

Upminster Bridge

Elm Park

Dagenham East

C2C to:
West Ham
Limehouse
Fenchurch Street
HS2/Javelin to:
St Pancras
Overground to:
Gospel Oak

Riverbus to:
Erith
Woolwich
North Greenwich/Dome
Greenwich
Royal Docks
Canary Wharf
Central London

Dagenham Dock

Rainham

Elizabeth Line to:
Stratford
Liverpool Street
Farringdon
Paddington
Royal Oak
Reading

to:
Thamesmead

Belvedere

South Eastern to:
Cannon Street
Charing Cross

Thameslink to:
Luton

Eith

Slade Green

Bexleyheath

Barnehurst

South Eastern to:
Cannon Street
Charing Cross
Victoria

Crayford

Dartford

Bexley

Albany Park

South Eastern to:
Cannon Street
Charing Cross
Victoria

South Eastern to:
Cannon Street
Charing Cross

Thameslink to:
Welwyn GC

Swanley

Farningham Road

Longfield

Meopham

Sole Street

To Ashford International

To Gillingham

to:
Brentwood

West Horndon Station

Laindon

Basildon

to:
Billericay

to:
Wickford

to:
South Woodham Ferrers
Chelmsford

Pitsea

to:
Southend on Sea
Southend Airport
Shoeburyness

To:
Southend on Sea
Shoeburyness

Benfleet

Canvey Island
Western Esplanade

Riverbus to:
Southend
Shoeburyness
Chalkwell/ Leigh on Sea
Grain
Sheerness on Sea

Corringham

Stanford-le-Hope Station

London Gateway/ Thames Enterprise Park (Mucking Wharf/ Rainbow Lane)

East Tilbury Station

Chafford Hundred Station

Purfleet Station

West Thurrock

Grays Town Wharf

Tilbury Town Station

Tilbury Fort

Tilbury

Gravesend

Ebbsfleet (including Northfleet)

Northfleet (Tile Shoire/Gandy Road)

Swanscombe Peninsula

Greenhithe

Stone Crossing Station

Greenhithe Station

Swanscombe

Bluewater Shopping Centre

Darenth Hospital

Gravesend

Higham

Strood

to:
Medway Towns and Dover

Rochester

Chatham

Gillingham

Rainham

To Ebbsfleet

To Maidstone West

To Dover Priory

To Isle of Grain

Key- Future Framework Diagram

- Existing Urban Areas
- Potential Housing Growth Opportunity Areas
- Business Districts
- Ports and Freeports
- Estate Regeneration Areas
- Urban centres
- Green bridges, underpasses and river bridges
- Strategic Road Network (existing and potential)
- Local Road Network (existing and potential)
- Bus Network (existing and potential)
- MRT Network (primary and secondary/alternative routes)
- Ferry/ Riverboat Services and Piers
- Existing and proposed communter rail services
- High Speed 1/ CTRL/Javelin Services
- Crossrail/ Elizabeth Line extension
- Thames Estuary Crossrail
- Docklands Light Railway extension
- District Line
- London Overground extension
- Rail stations and interchanges
- Footpaths
- Blue grid- riverside walking and cyling routes
- Greenway-Inter-urban Walking and Cycling Network
- Borough boundary

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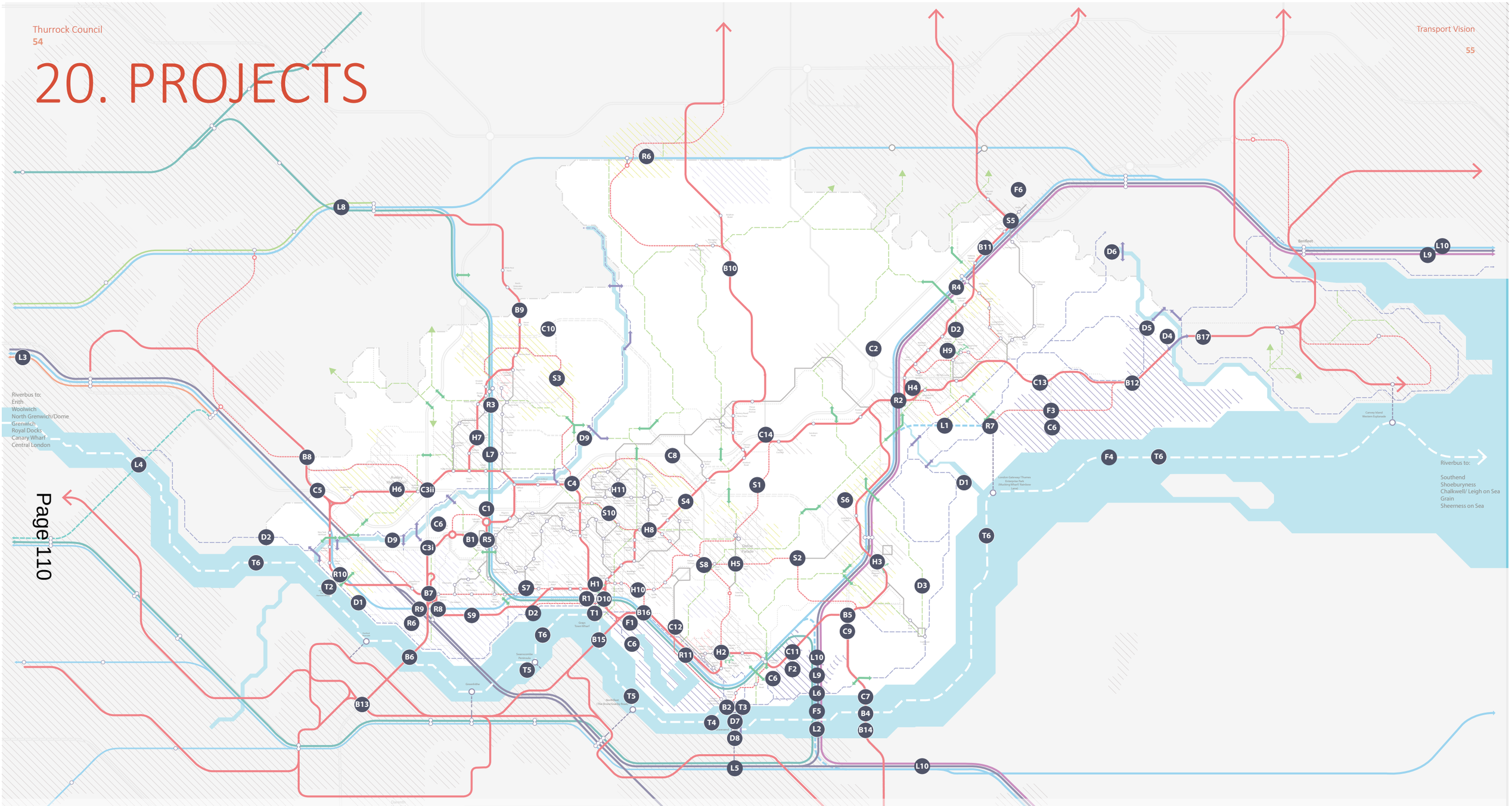
20. PROJECTS



New and enhanced rail stations and interchanges

- R1 Grays Station gateway
- R2 Stanford-le-Hope Station and bus interchange
- R3 New Ockendon Station interchange (relocation or two station option)
- R4 New Corringham Parkway Station and Free Port transport interchange
- R5 Chafford Hundred western platform face
- R6 West Horndon Station improvements
- R7 London Gateway rail station and interchange
- R8 New West Thurrock Station
- R9 New Thurrock Javelin Station (HS1)
- R10 Purfleet Rail Station enhancements
- R11 Tilbury Station interchange enhancements

New and enhanced rail lines and new rail services

- L1 London Gateway rail spur electrification.
- L2 Lower Thames Rail Crossing (LTRC)
- L3 London Overground eastern extension via Dagenham Dock to Rainham
- L4 Docklands Light Railway extension Bevedere to Rainham via new Thames Crossing
- L5 Eastern extension of the Elizabeth Line to Gravesend
- L6 Northern extension of the Elizabeth Line via Gravesened and LTRC to Grays
- L7 Ockendon Line Twin-tracking accommodating Elizabeth Line extension to Romford via Upminster
- L8 Upminster rail fly-over or fly/under to connect Elizabeth Line extension to Romford (utilising Overground branch line form Romford to Upminster)
- L9 Extension of Javelin High Speed Train Network to Southend via LTRRC
- L10 Thames Estuary Crossrail Southend via LTRC to Medway towns Margate and Dover

Bus, Bus Rapid Transit (BRT) and future tram links (Kennex)

- B1 Lakeside Bus Interchange and BRT priority access routes
- B2 Tilbury Ferry bus interchange
- B4 Lower Thames Crossing BRT priority
- B5 Lower Thames Crossing East Tilbury BRT priority access
- B6 Dartford Crossing BRT priority
- B7 Dartford Crossing direct BRT access via A1090 London Road.
- B8 BRT western line via Rainham.
- B9 BRT north western line via Upminster
- B10 BRT northern line via West Horndon
- B11 BRT north eastern line via Stanford-le-Hope (Future Kennex alignment)
- B12 BRT eastern line via Thames Gateway
- B13 BRT south western line to Dartford/Bluewater and Ebbsfleet (via Kent FastTrack)
- B14 BRT south eastern line via LTC
- B15 BRT southern line to Ebbsfleet via Swanscome Peninsula (Future Kennex alignment)
- B16 Thurrock Park Way link to Curzon Drive and Broadway (Future Kennex alignment)
- B17 BRT Canvey Island/Benfleet bridge link across Holehaven Creek to Northwick Road and Roscommon Way

Local Cycling and Walking Infrastructure Plans

- D1 River Thames Path/ England Coastal Path.
- D2 N13 National Cycle Route Tower Bridge in London with Fakenham in Norfolk
- D3 South East Essex Estuary Park Connections.
- D4 Holehaven Creek footbridge and cyleway to Canvey Island
- D5 Vange Creek footbridge and cycleway to Pitsea via Watt Tyler Centre (alternative to D6)
- D6 Vange Creek and East Haven Creek footbridge links (Alternative to D5)
- D7 Tilbury Ferry enhanced cycle access and cycle carrying capacity
- D8 Tilbury-Gravesend Foot and cycle tunnel
- D9 Mardyke Valley foot and cycleway improvements
- D10 Grays Station pedestrian underpass

River Thames Connectivity

- T1 Grays Passenger pier
- T2 Purfleet Passenger pier
- T3 Tilbury pier enhancements
- T4 Tilbury new ferry crossings (Tilbury-Swanscombe/North-fleet)
- T5 Grays ferry crossings (Grays-Norhfleet and Grays-Tilbury)
- T6 Riverbus

River Thames Ports and Freight

- F1 Tilbury 1 Port western access
- F2 Tilbury 2 Port access development
- F3 London Port Gateway expansion access
- F4 Short Sea Shipping
- F5 National rail freight connections via Lower Thames Rail Crossing

New Multi-modal Road Links

- S1 Brentwood Road Corridor
- S2 Linford Road/Muckingford Road
- S3 South Ockendon Link Road
- S4 A1306/A1013 Multi-modal corridor study
- S5 Five Bells Enhancements
- S6 East Tilbury Eastern bypass
- S7 London Road Enhancements
- S8 Marshfoot Road Improvements
- S9 West Thurrock Marshes Relief Road
- S10 Lodge Lane Improvements

High Streets/local centre street improvements

- H1 Grays High Street/Clarence Road
- H2 Tilbury Civic Square
- H3 East Tilbury Princess Margaret Road
- H4 Stanford-le-Hope Cenotaph/The Green and King Street
- H5 Chadwell St Mary Cross Keys (River View/ Chadwell Hill/Brentwood Road
- H6 Aveley The Old Shipp Inn (High Street/ Ship Lane)
- H7 South Ockendon (Derwent Centre/Daiglen Drive Derry Avenue)
- H8 Socketts Heath
- H9 Corringham
- H10 Broadway, Grays
- H11 Crammavill Street

Strategic Road capacity and connectivity

- C1 A13 East Facing Slips
- C2 A13/A1014 De-trunking
- C3 M25 Junction 30 (C3i) 31 (C3ii) Improvements
- C4 A13 Upgrades - Stifford Interchange (A13/A1012)
- C5 A13/Wennington Interchange
- C6 On port and designated lorry parks
- C7 Lower Thames Crossing (LTC)
- C8 LTC/A13 Junction Redesign
- C9 LTC Junction at Tilbury
- C10 LTC Junction at Ockendon
- C11 Tilbury Link Road
- C12 A1089/Dock Road (Asda Roundabout)
- G13 The Manorway (A13/A1014 Junction)
- G14 Orsett Cock Improvements

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21. RAIL

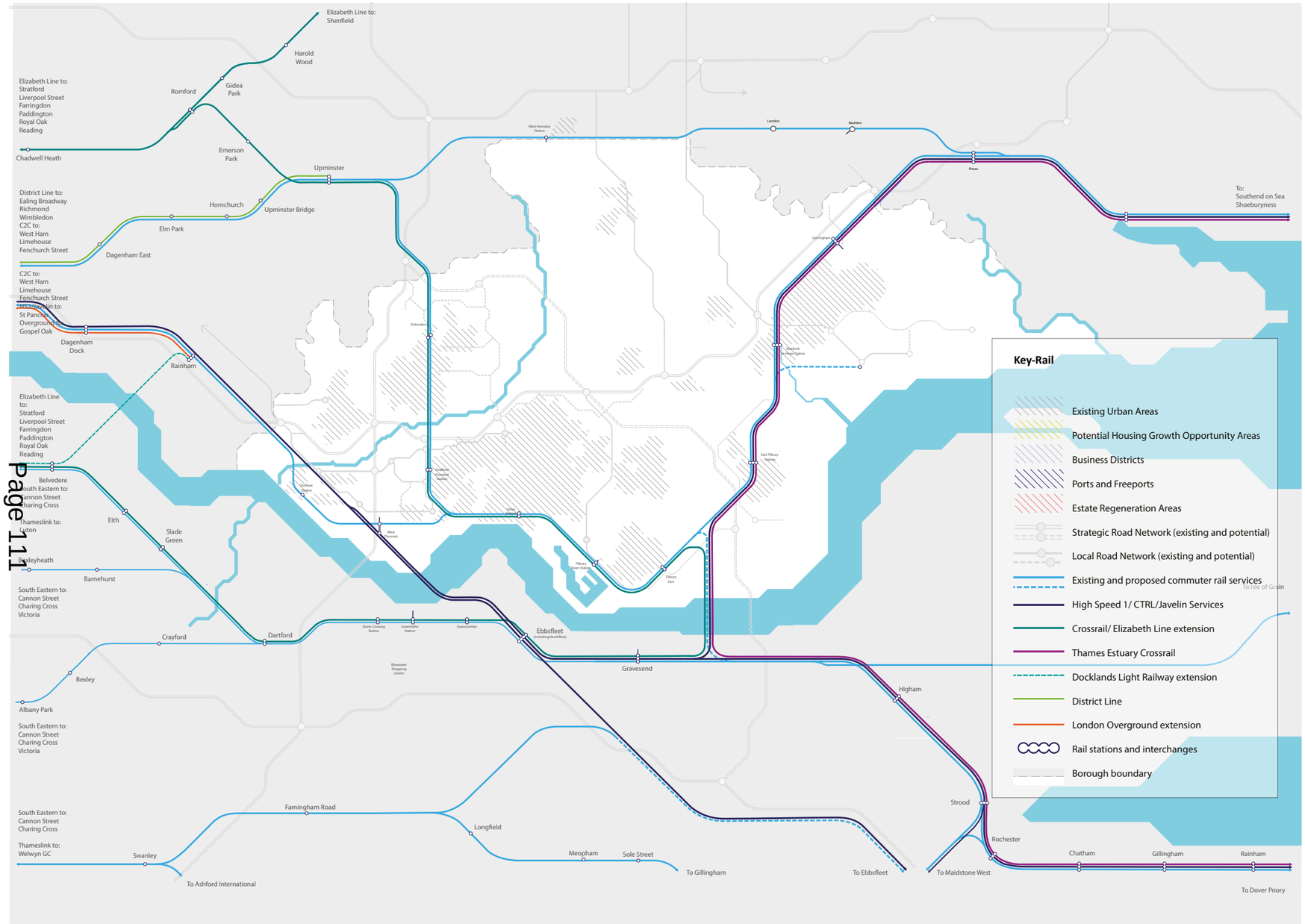
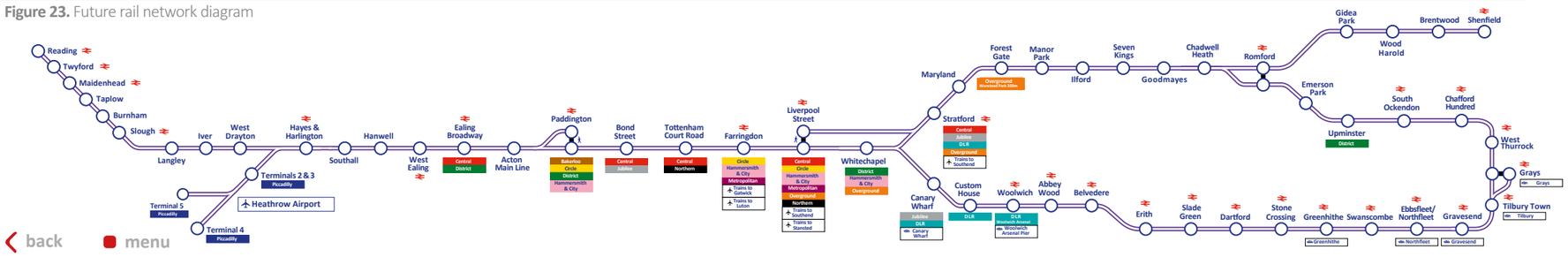


Figure 23. Future rail network diagram



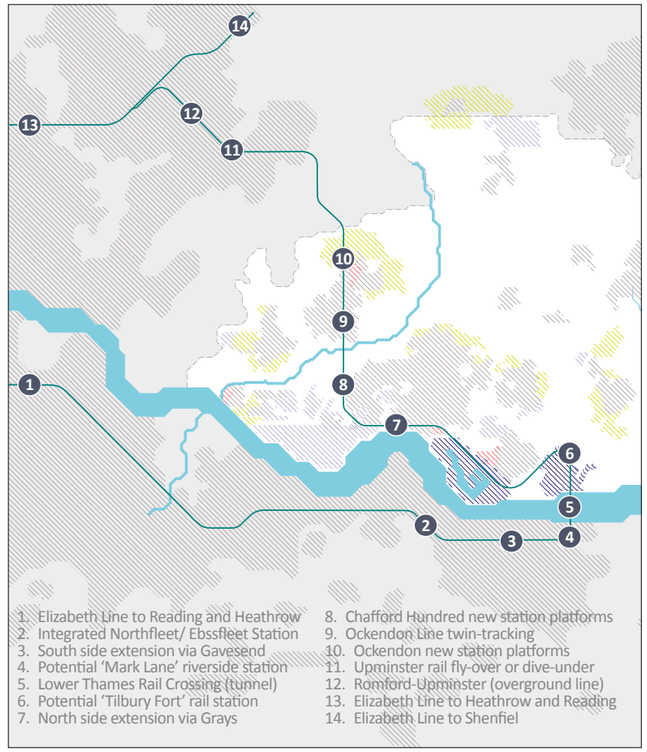


Figure 24. Elizabeth Line extension

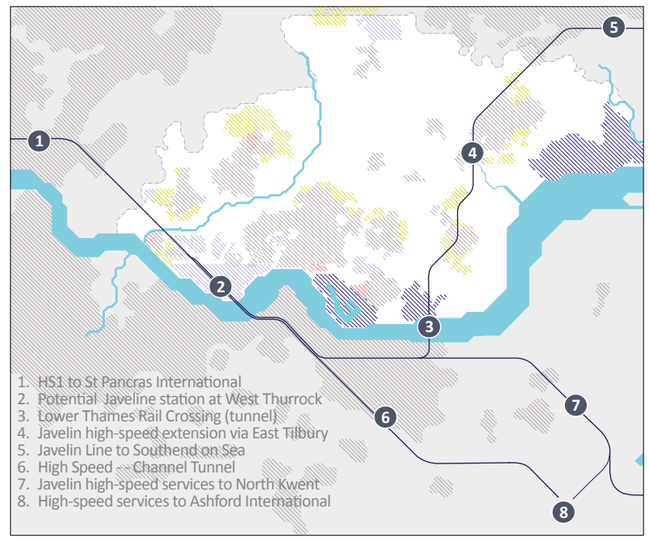


Figure 25. Javelin High Speed Line extension

Figure 26. (left) Future Elizabeth Line Network map

22. BRT AND BUS

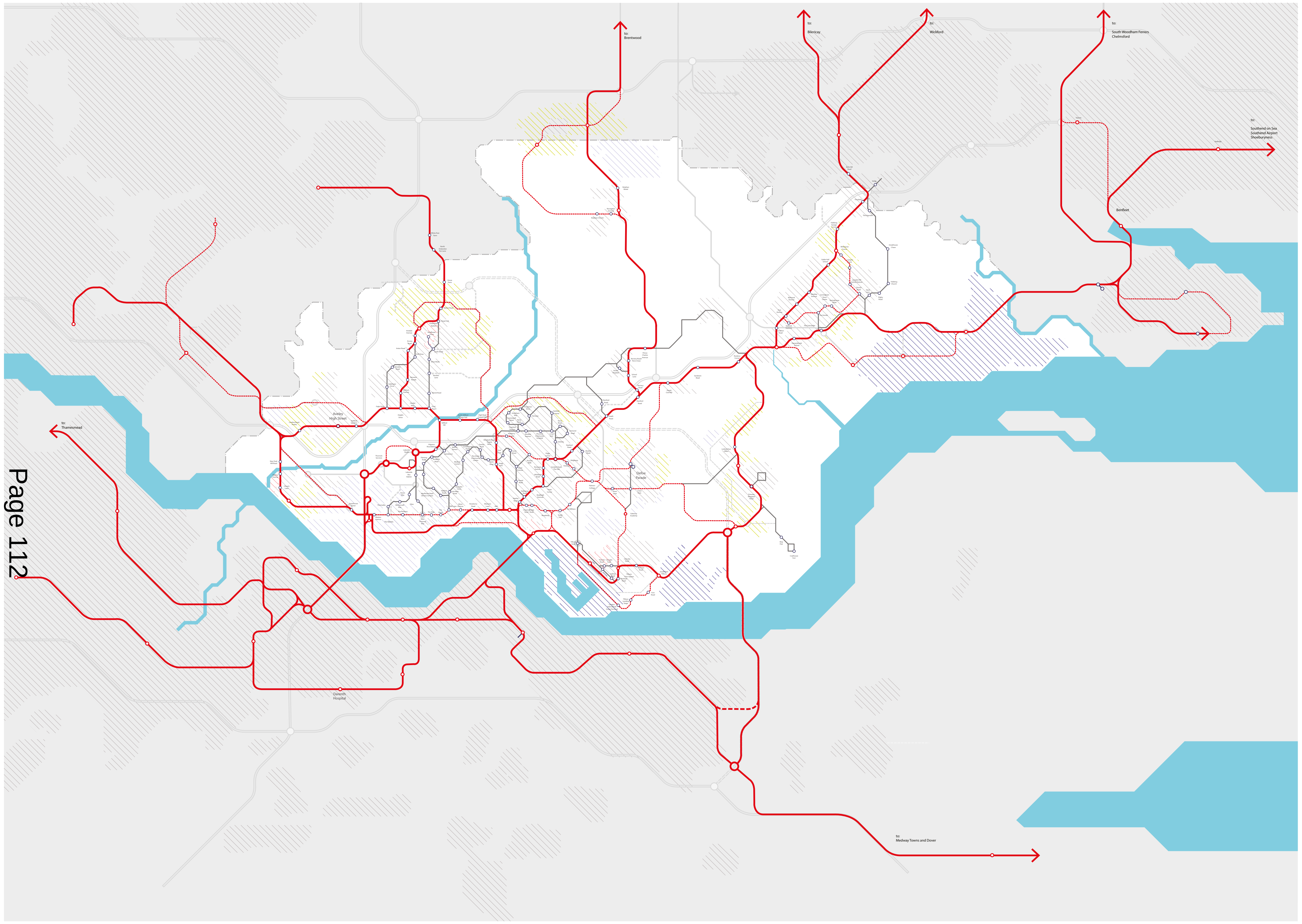


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Figure 27. Future Bus Rapid Transit Network

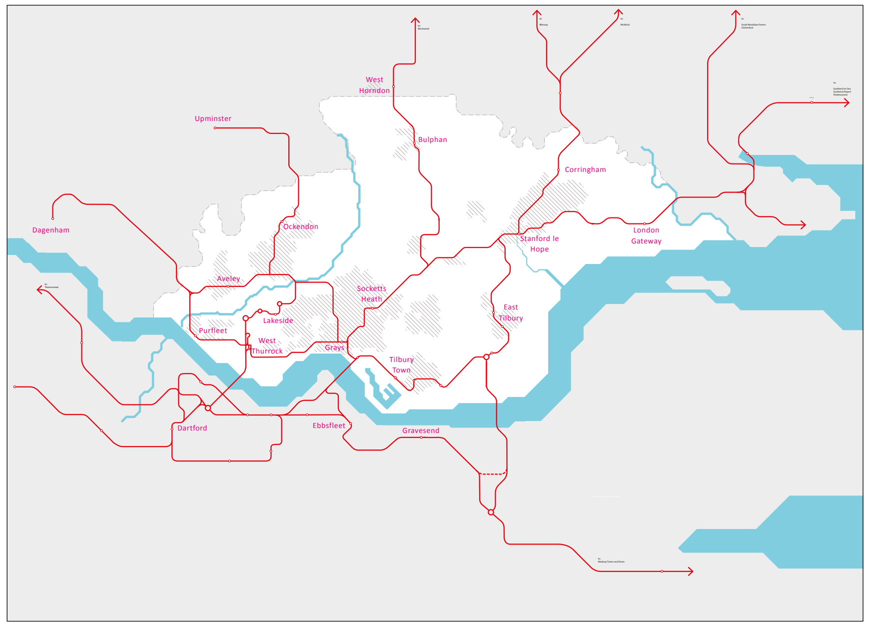


Figure 28. Bus Rapid Transit primary network

Key-Bus and BRT

- Existing Urban Areas
- Potential Housing Growth Opportunity Areas
- Business Districts
- Ports and Freeports
- Estate Regeneration Areas
- Strategic Road Network (existing and potentia
- Local Road Network (existing and potential)
- Bus Network (existing and potential)
- MRT Network (primary and secondary/alterna
- Borough boundary

GLOSSARY

ASELA THE ASSOCIATION OF SOUTH ESSEX LOCAL AUTHORITIES **-** a partnership of neighbouring councils that have come together to promote growth and prosperity in the region (https://www.southessex.org.uk)

AQMA AIR QUALITY MANAGEMENT AREA

BLUE GRID - A multi-functional network of greenspace and links along and across Thurrock's rivers, waterways, and water bodies.

BRT BUS RAPID TRANSIT **-** A high-quality bus-based transit system that delivers fast and efficient service that may include dedicated lanes, busways, traffic signal priority, off-board fare collection, elevated platforms, and enhanced stations.

C2C A train operating company operating the Essex Thameside railway contract.

CCTV CLOSED CIRCUIT TELEVISION

CO_2 CARBON DIOXIDE - Carbon dioxide gas emissions stem from burning fossil fuels such as petrol car engines and cause pollution and leading to climate change.

DROIDS – Small, semi and fully autonomous vehicles acting as couriers that may reduce the need for cars or lorry deliveries in built-up areas.

DRONES - A driverless aerial vehicle typically used to distribute packages to consumers during the 'last mile' delivery process. These drones generally have 4-8 propellers, rechargeable batteries, and the ability to carry lightweight containers.

ENGLAND COASTAL PATH – A long-distance National Trail proposed by Natural England following the coast of England.

FASTRACK - A Bus Rapid Transit system serving Dartford, Bluewater, Ebbsfleet and Gravesend connecting major existing and new developments with planned core express routes on which only Fastrack services will run.

FREEPORTS special areas within the UK's borders where different economic regulations apply. (https://www.gov.uk/guidance/freeports)

GREEN GRID - A sustainable network of multi-functional green space and links within Thurrock's towns and countryside.

HEALTHY STREETS – A framework for prioritising people and their health in transport, the public realm and planning policies and strategies (https://www.healthystreets.com/what-is-healthy-streets).

HGV HEAVY GOODS VEHICLE

HS1 HIGH SPEED 1 – A 109km high-speed railway rail line between St Pancras International in London and the Channel Tunnel with intermediate stations at Stratford International and Ebbsfleet International. The line with international high-speed rail links to Paris, Brussels and Amsterdam. The route is also used by the 'Javelin' domestic route from London to Kent.

HS2 HIGH SPEED 2 - A new railway from London to Birmingham currently under construction with proposed further extensions to the north. The railway's London terminus will be at Euston, with a west London interchange at Old Oak Common.

JAVELIN – A high-speed train service operated by Southeastern trains between London St Pancras and Kent using the HS1 line (https://www.southeasternrailway.co.uk).

KENNEX - A proposed tram link. The planned network connects Ebbsfleet International, Grays & Gravesend to Northfleet, Swanscombe Peninsular, Chafford Hundred & Purfleet-on-Thames (https://kenextransit.co.uk).

LGV LIGHT GOODS VEHICLE

LTC LOWER THAMES CROSSING - A road crossing of the Thames estuary downstream of the Dartford Crossing linking Kent and Essex proposed by National Highways (https://nationalhighways.co.uk/our-roads/lower-thames-crossing)

MICRO-MOBILITY - A range of small, lightweight vehicles operating at speeds typically below 25 km/h (15 mph) and driven by users personally. Micro-mobility devices include bicycles, e-bikes, electric pedal-assisted bikes, electric scooters, electric skateboards and shared bicycle fleets.

MODAL SHIFT - Changes in travel behaviour and habits. For example, travelling by public transport instead of a private car.

MODE - The different ways passengers and/or goods can be transported. Transport. Modes for passengers and goods may include rail; maritime (sea); road; bus, and rivers.

MRT MASS RAPID TRANSIT - High-capacity, higher-speed road or rail-based public transport systems generally found in urban areas and travelling along dedicated paths.

MULTI-MODAL ROADS - Streets designed to serve different modes and provide multiple mobility options for their users. (https://globaldesigningcities.org/publication/global-street-design-guide/defining-streets/multimodal-streets-serve-people)

NET ZERO - Policies and proposals for decarbonising the UK economy to reduce net global greenhouse gas emissions to near zero by 2050.

NO_X NITROUS OXIDE

NPPF NATIONAL PLANNING POLICY FRAMEWORK- revised on 20 July 2021. (https://www.gov.uk/government/publications/national-planning-policy-framework)

NTS OFFICE FOR NATIONAL STATISTICS

PARK AND GLIDE – A combined remote parking and commuter boat transfer service. 'Thames Clipper' currently operates a service from the O2 in Greenwich into central London.

PPG PLANNING POLICY GUIDANCE.

RIVERBUS – Boat services and access piers along the Thames, including the 'Thames Clipper' commuter service (https://www.thamesclippers.com).

RTI REAL-TIME TRAVEL INFORMATION.

SERT SOUTH ESSEX RAPID TRANSIT. Proposal for a fast, reliable and high quality bus- based public transport system in south Essex including ' Route 1a' serving Lakeside, Grays, A13, and Basildon Hospital.

SHORT SEA SHIPPING - Maritime transport of goods over relatively short distances, as opposed to the intercontinental cross-ocean deep sea shipping.

SRN STRATEGIC ROAD NETWORK - The major road transport network comprising secondary arterial roads, primary arterial roads, expressways and motorways managed by National Highways.

STB SUB-NATIONAL TRANSPORT BODY.

TFL TRANSPORT FOR LONDON - the organization responsible for managing the public transport services in London, including bus and underground train services, taxi services and the road (https://tfl.gov.uk/corporate/about-tfl).

THAMES ESTUARY – The lower reaches of the Thames including outer east and south east London, North Kent, and South Essex.

THAMES ESTUARY GROWTH BOARD - A private sector organisation covering North Kent, South Essex, East London, the City of London and the River Thames that has developed an action plan, 'The Green Blue' (http://thamesestuary.org.uk).

THAMES PATH - National Trail following the River Thames from its source to the Woolwich in south east London. The Trail connects with the England Coastal Path to form a 'Source to Sea' route.

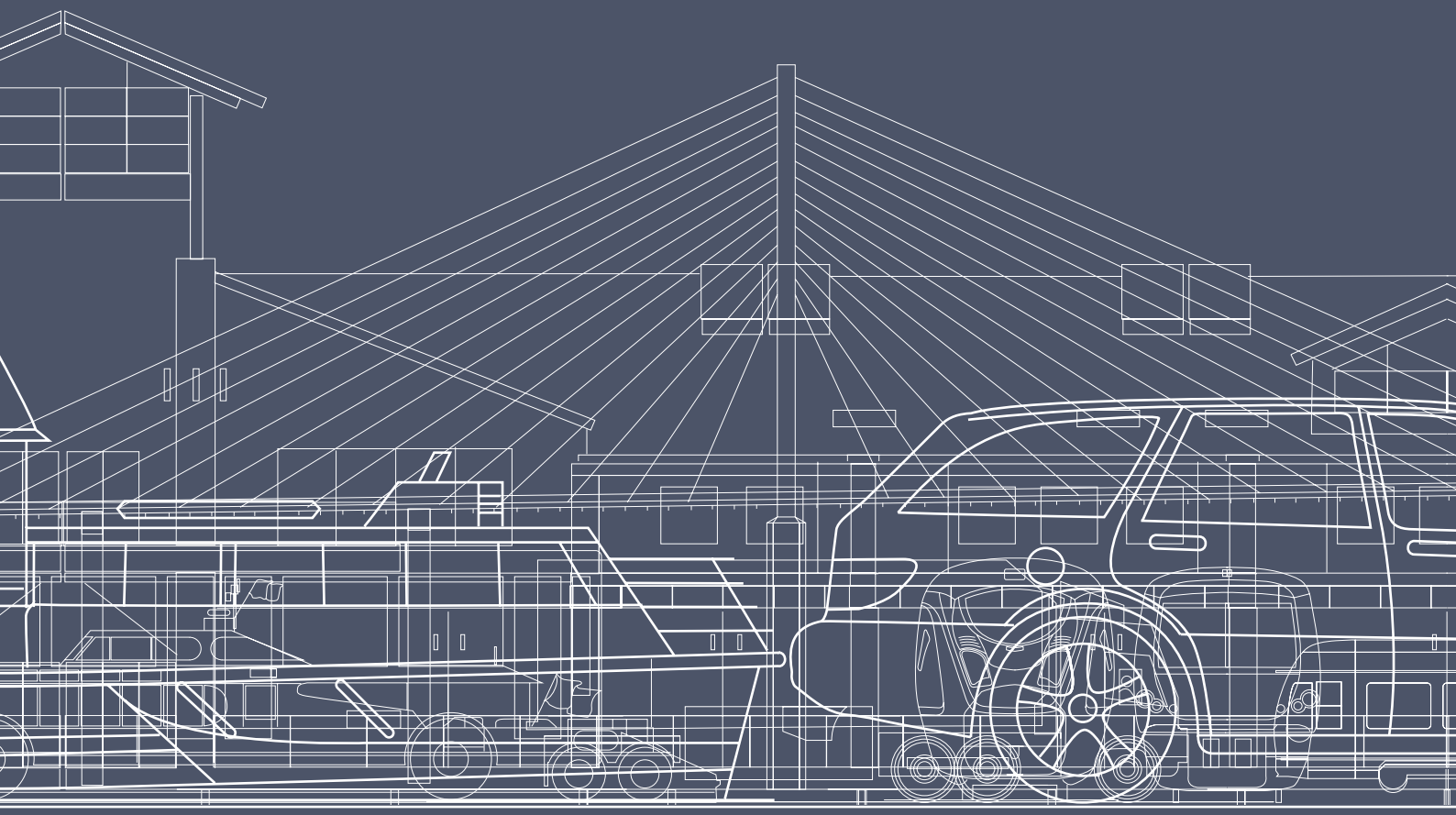
THURROCK LOCAL PLAN - A long-term planning policy framework setting out the amount of development for Thurrock and its distribution across the borough that, by law, must be used when deciding all future planning applications (https://www.thurrock.gov.uk/new-local-plan-for-thurrock/thurrock-local-plan).

THURROCK LOCAL TRANSPORT PLAN – A plan describing future outcomes and priorities for transport and travel across Thurrock, including the action needed to implement the strategy. The plans consist of four parts- 'Issues and Opportunities', 'Vision 2050', 'Strategy', and 'Action and Implementation Plan(s)'.

TRANSPORT EAST – A sub-National transport body to deliver a collective vision for the future of transport in Essex, Norfolk, Suffolk, Southend-on-Sea and Thurrock.

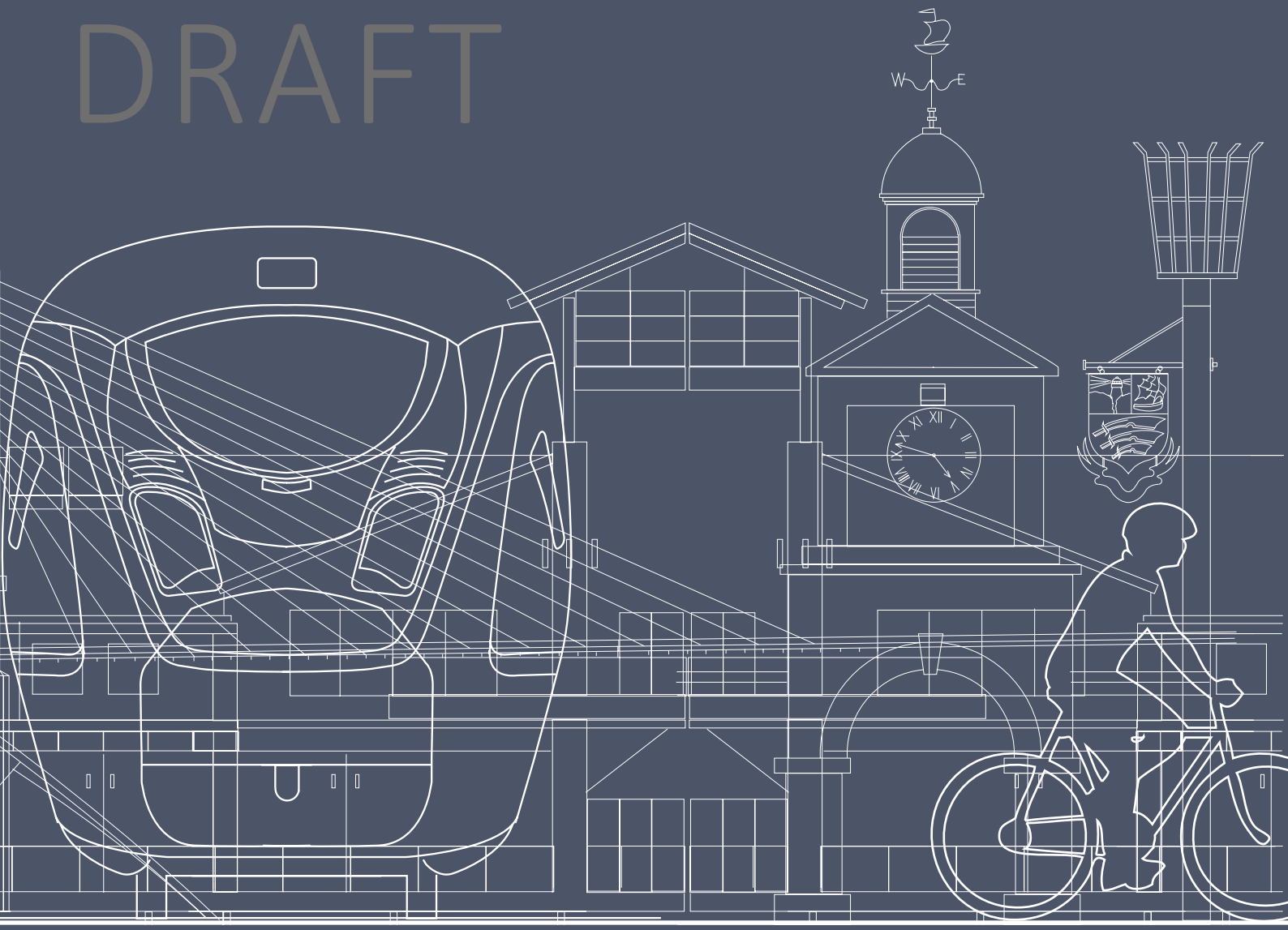
TRANSPORT SOUTH EAST - A sub-national transport body for the South East of England

TOC TRAIN OPERATING COMPANY - A business operating passenger trains under the collective National Rail brand, typically as a franchise, such as C2C.



THURROCK COUNCIL

DRAFT



Thurrock Local Transport Plan

ISSUES & Opportunities

Thurrock Urban Area

FEBRUARY 2023

THURROCK COUNCIL

This document summarises the findings of a Transport Baseline Study undertaken by Stantec Limited. Maps and diagrams are reproduced from that report with their kind permission.

Stantec

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1. INTRODUCTION

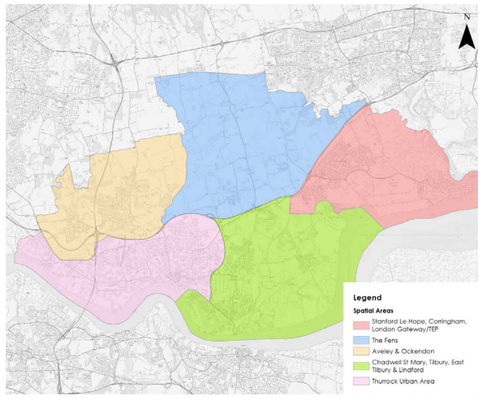


Figure 1. The five sub-areas studied (Stantec)

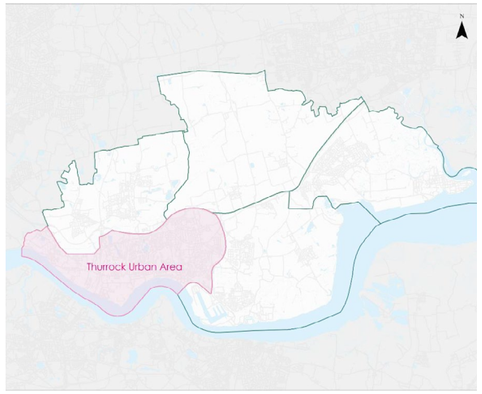


Figure 2. Thurrock urban area (Stantec)

Introduction

1.0 A Study documenting the existing transport and travel situation has been undertaken for the Council by consultants Stantec Limited.

1.0 Transport issues have been assessed on a borough-wide basis and also in five sub-areas defined on the basis of shared characteristics.

- Stanford-le-Hope, Corringham, London Gateway/Thames Enterprise Park.
- The Fens.
- Aveley and Ockendon.
- Chadwell St Mary, Tilbury, East Tilbury and Linford.
- Thurrock Urban Area.

1.0 Development and transport network opportunities for each area that might benefit residents and employers have been identified.

1.0 The borough-wide and five sub-area studies form the basis of the transport planning evidence for the emerging Local Plan.

1.0 This document includes the findings of one of the five sub-areas- Thurrock Urban Area Transport Baseline Study.

Data sources

1.0 The Transport Baseline Study uses data from several sources:

- Census 2011
- Department for Transport
- National Travel Survey (NTS)
- TEMPro 7.2
- Ordnance Survey
- Office of Rail and Road
- Royal Mail postcode
- Police injury accident records
- Thurrock Council

1.0 Supplemental data and feedback from key stakeholders on the primary challenges, aspirations, and opportunities they face have also been incorporated.

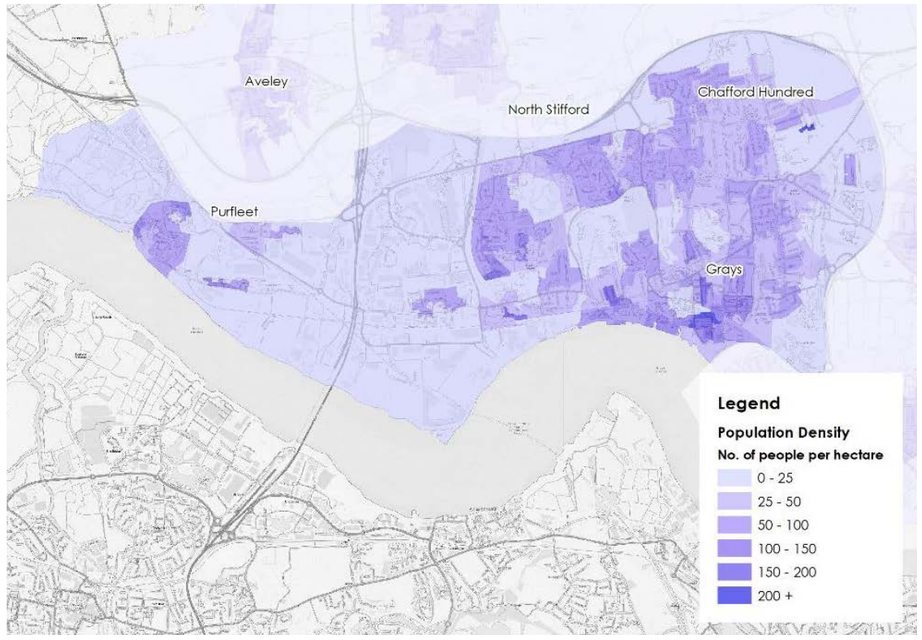


Figure 3. Thurrock urban area population density (Stantec)

Structure

1.0 The report is structured around six themes:

1.0 **Accessibility -** the extent to which individuals and households can access day-to-day services, such as employment, education, healthcare, food stores and town centres.

1.0 **Congestion** - the degree to which travel demand is greater than the capacity of the network to accommodate within a given period.

1.0 **Mobility -** the ability of people and goods to move efficiently and freely around an area- is a crucial factor in economic growth and the population's wellbeing. It primarily concerns the opportunity to travel and the network connections available.

1.0 **Safety -** the injuries and causalities that occur due to interactions between users of the transport network.

1.0 **Pollution** - carbon reduction and health examine the trends and impacts of the transport network in terms of the pollution impact, the trends in carbon production and how this interacts with public health.

1.0 **Affordability -** demographic factors which shape travel behaviour by changing the needs and costs of travel. Stakeholder feedback on the primary challenges, aspirations, and opportunities they face and supplemented the data

Thurrock Urban area

1.0 Thurrock urban area lies in the south western area of the borough, bound by the A13 to the north, the A1089 to the east and the River Thames to the south. The area comprises the towns of Grays, Chafford Hundred and Purfleet to the west. The M25 bisects the area running north-south with Lakeside to the east and Purfleet to the west.

1.0 The Thurrock Urban Area has an average population density of 67 people per hectare. Population density is higher in the eastern parts of the area around Grays and Chafford Hundred and lower west of the A126, with higher density pockets in Purfleet.

2. ACCESSIBILITY

Movement within Thurrock Urban Area

2.0 Figure 4 illustrates employment travel demand and mode share of trips to the Thurrock Urban Area. The figures represent average weekday daily demand and estimate 2019 demand from 2011 Travel to Work data.[1]

2.0 This shows that many employment trips come from outside Thurrock, with 77% of these made by private car. Internal trips also make up a significant portion of employment travel to the area. These trips are primarily made from personal car journeys, with 18% completed on foot and 7% made by bus.

2.0 Further travel is made to the area from the south and north western parts of Thurrock. Again, these trips are made mainly by car drivers (between 65 and 70%).

2.0 Figure 5 illustrates employment travel demand and mode share of trips from the Thurrock Urban Area, with the figures showing estimated demand based on the same data.

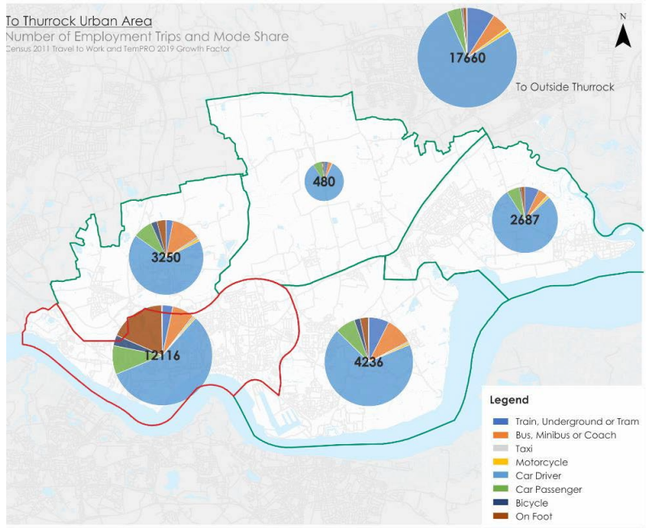


Figure 4. Employment travel demand and mode share of trips to the Thurrock Urban Area. (Stantec)

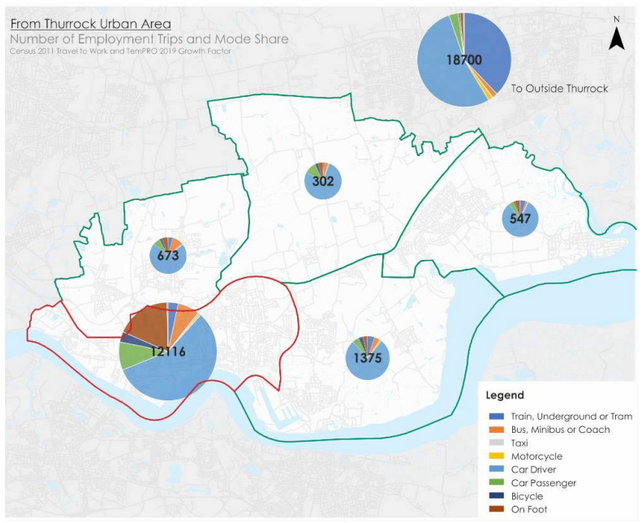


Figure 5. Employment travel demand and mode share of trips from the Thurrock Urban Area (Stantec)

1 *Figure will be updated following analysis of recently published 2021 Census data.*

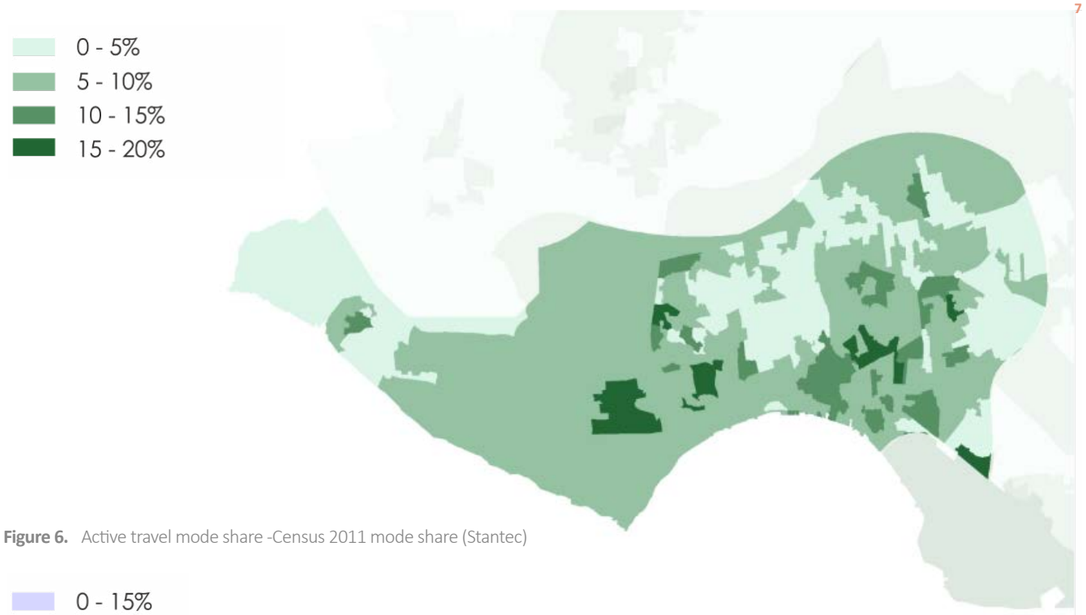


Figure 6. Active travel mode share -Census 2011 mode share (Stantec)

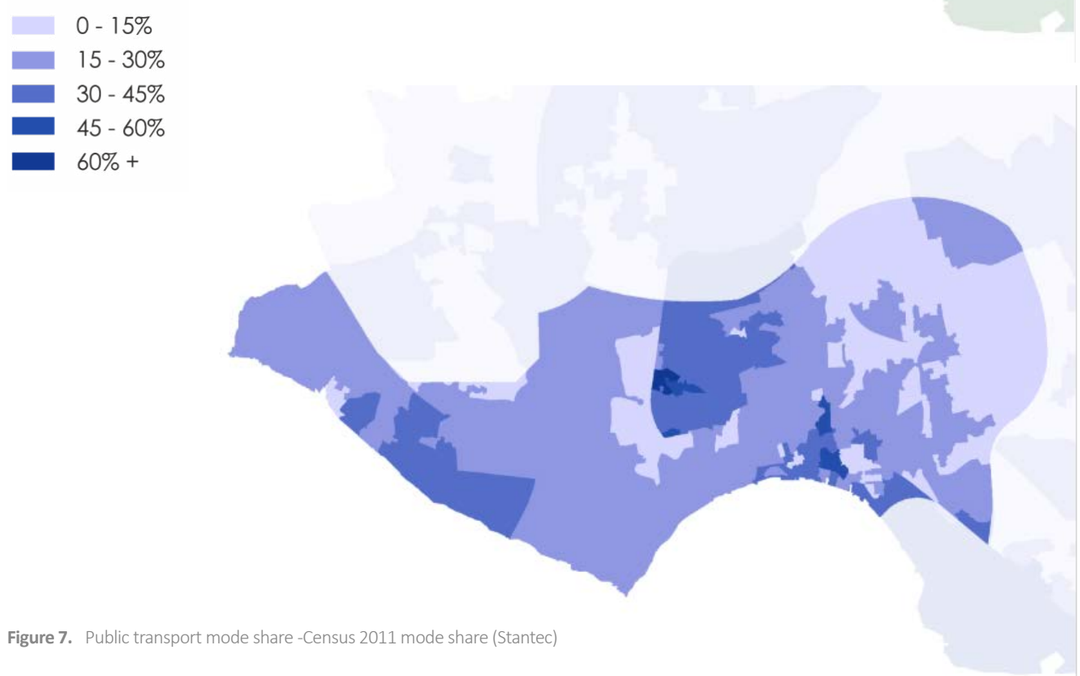


Figure 7. Public transport mode share -Census 2011 mode share (Stantec)

2.0 This shows much of the employment demand from the Thurrock Urban Area travels to areas outside of Thurrock, with 53% of people travelling to employment destinations outside of Thurrock by private car. Notably, a significant proportion of these employment trips travel by rail to the outside of Thurrock (38%).

Travel by Active Modes and Public Transport

2.0 An analysis of 'mode share employment trip data' (Census 2011) shows that, on average, 7% of the population in this area use active travel modes (walking and cycling) when travelling to work.

2.0 Active travel is mixed throughout the area, with areas of higher active travel use in areas nearby railway stations.

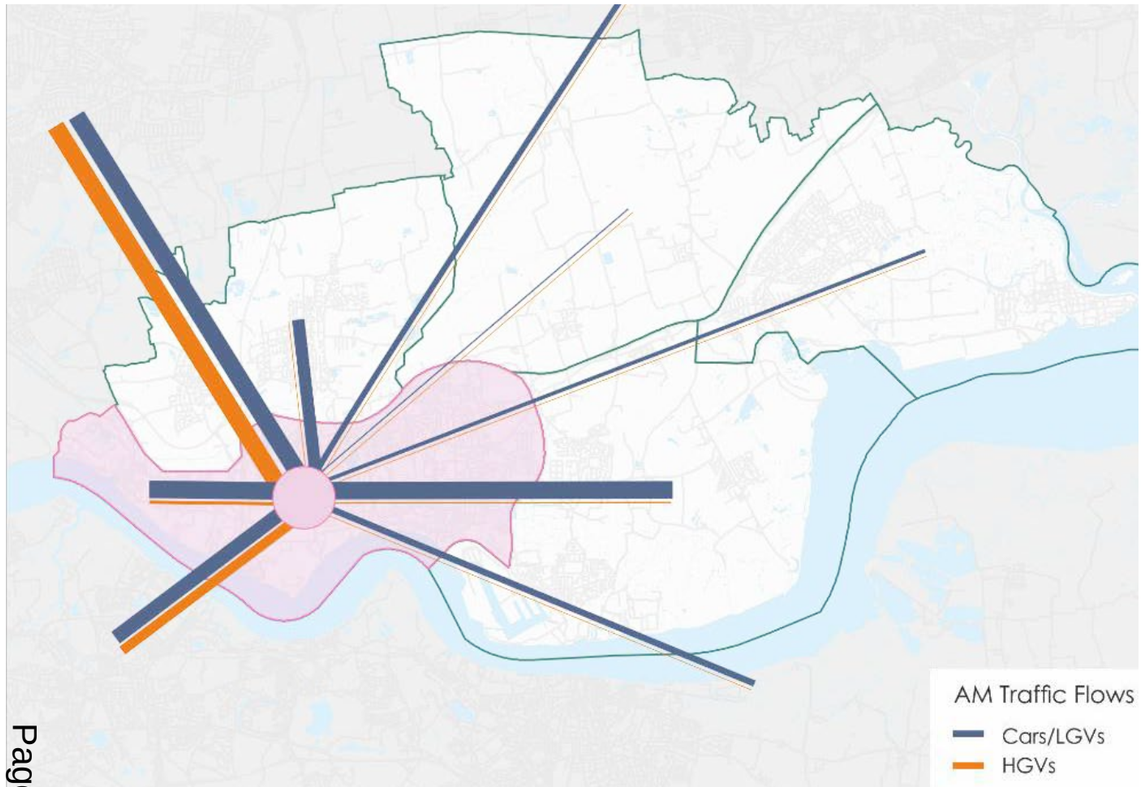


Figure 8. Car/LGV travel and HGV travel to the Thurrock Urban Area- LTAM model. (Stantec)

2.0 Public transport use for employment trips is also mixed throughout the area, with an average of 21% of the Thurrock Urban Area using public transport for employment trips. There is increased use in Purfleet, Lakeside and Grays. There is less public transport use in more residential areas of Chafford Hundred and Stifford Clays.

HGV Movement

2.0 The Lower Thames Area Model cordon model has been used to analyse trips to and from the spatial areas within Thurrock and movement to and from outside of Thurrock in the north west, north east, south west and south east. The map shows the zones modelled and has been used to analyse Heavy Good vehicle (HGV) movement.

2.0 Figure 8 illustrates car/Light Goods vehicle (LGV) travel and HGV travel to The Thurrock Urban Area. Travel to this area comes mostly from internal trips, the southern area, and outside Thurrock from the north and south western areas.

2.0 There is high HGV movement to the area, with 1467 HGVs travelling to the area in the AM peak hours (20% of all traffic travelling to the area). Approximately 85% of HGV trips come from outside of Thurrock.

Accessibility to Local Facilities

2.0 The Thurrock Urban Area has good accessibility to bus stops and secondary schools located throughout the area.

2.0 There is reasonable access to primary schools, particularly surrounding Grays and Chafford Hundred, with fewer primary schools located further west towards Purfleet and South Stifford.

2.0 Similarly, there is average accessibility to GP surgeries, primarily located in the east of the area, and reduced accessibility in the central parts.

2.0 Accessibility to local food stores is low, with only 30% of the population able to walk to a food store within 400m. There is limited accessibility to food stores in Purfleet and South Stifford.

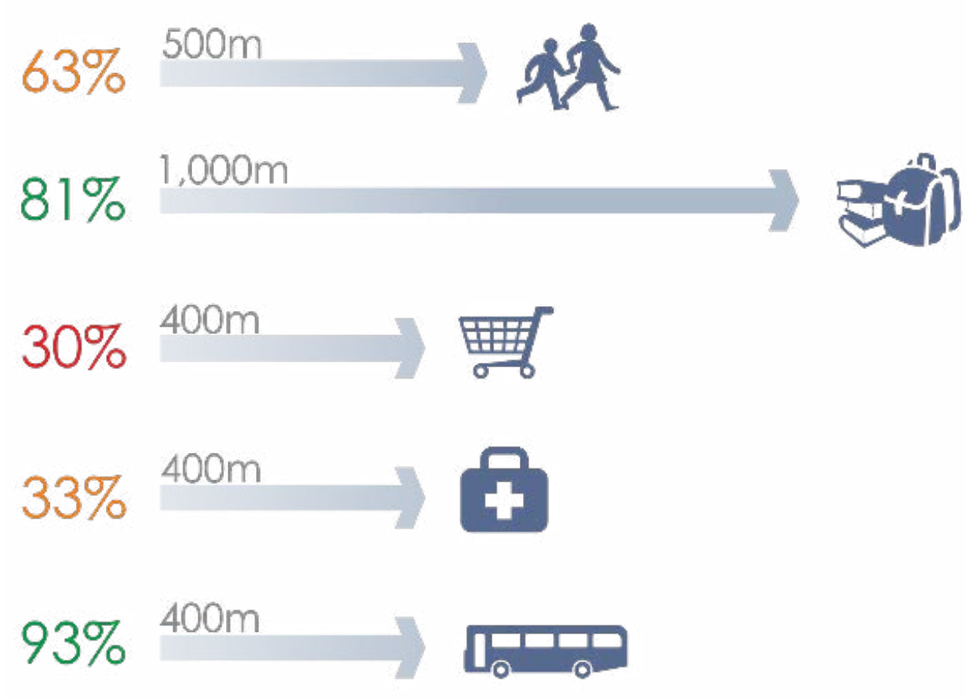


Figure 9. Accessibility to local facilities in Thurrock urban area. (Stantec)

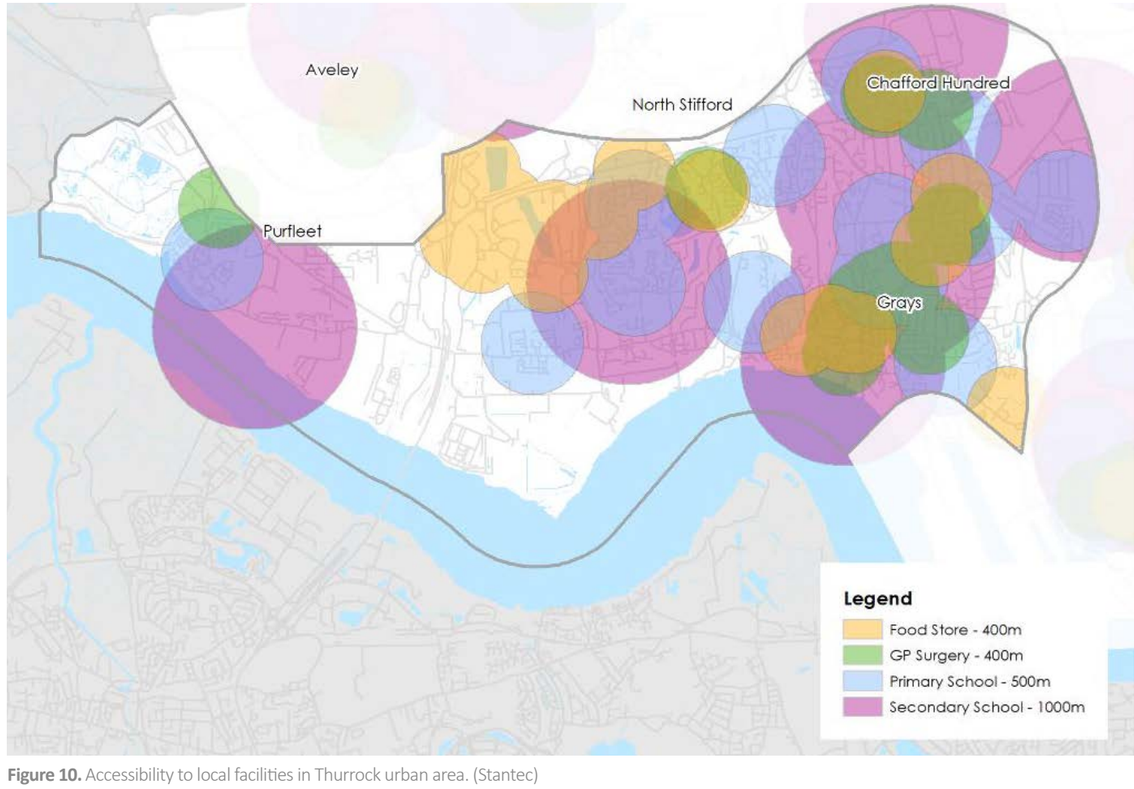


Figure 10. Accessibility to local facilities in Thurrock urban area. (Stantec)

3. CONGESTION

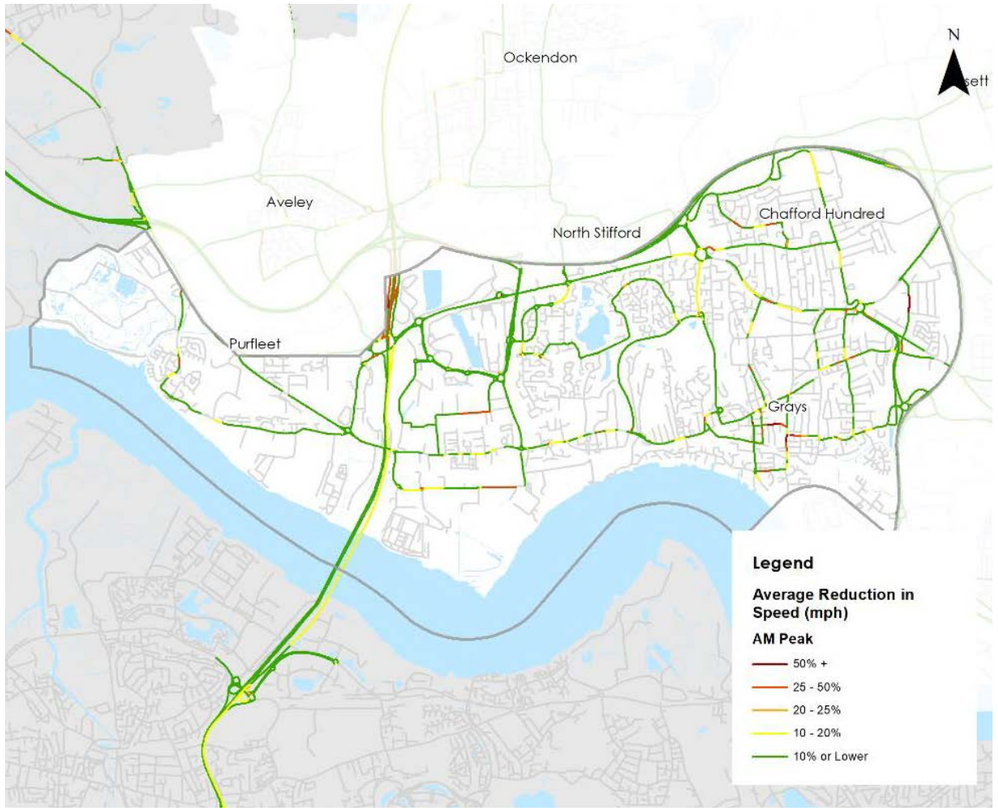


Figure 11. Average reductions in speed in the AM peak

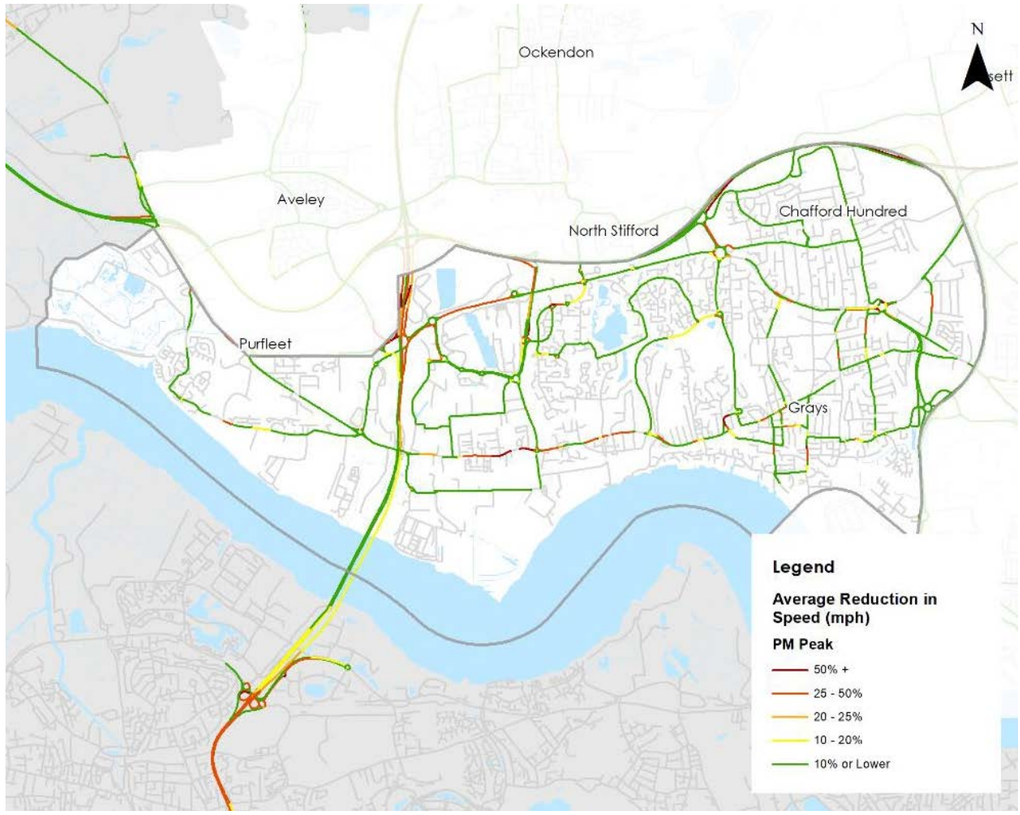


Figure 12. Average reductions in speed in the PM peak

Average Delay –AM and PM Peak

3.0 'Trafficmaster' speed data has been sourced to analyse the difference in speeds between inter-peak hours and the AM and PM peak hours. A reduction in speeds in peak hours would indicate a delay on the road network, either due to the volume of traffic or issues at junctions.

3.0 There is some speed reduction across the area in the AM peak hour, with more significant delays in some parts of Grays. Most notably, there is delay on the M25 and A282 leading to Queen Elizabeth II Bridge. National Highways predicts that the creation of the Lower Thames Crossing would reduce delays and congestion on A282 and around the Dartford Crossing.

3.0 There is considerably more delay in the PM peak hour, particularly on the M25 between junction 30 of the M25 and Queen Elizabeth II Bridge. There is a further reduction in speeds on London Road travelling between Grays and the M25, as well as along the Arterial Road West Thurrock north of Lakeside.

4. MOBILITY

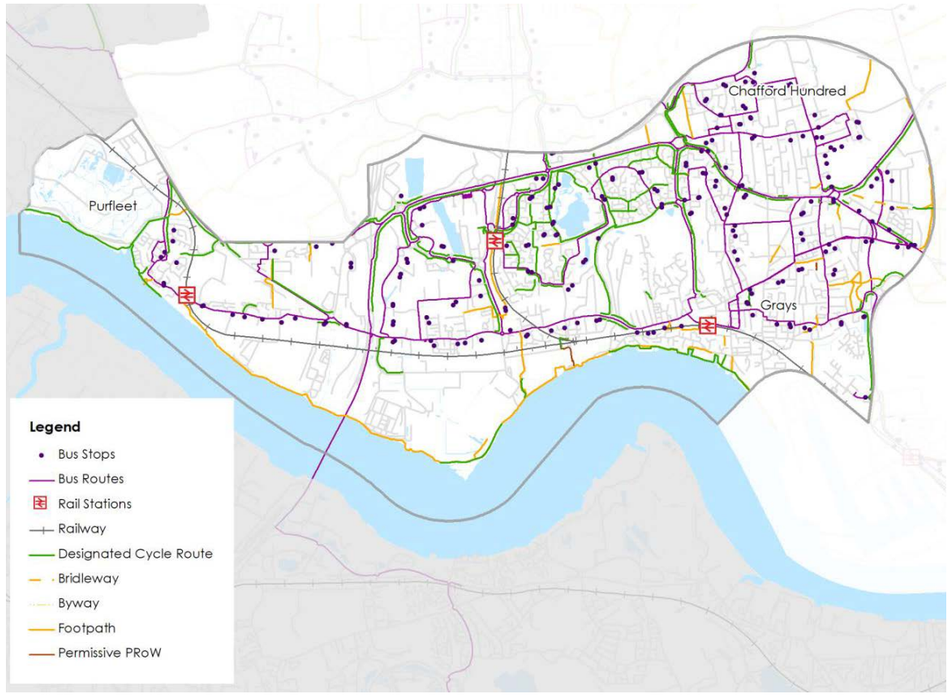


Figure 13. Key transport links in the Thurrock urban area (Stantec)

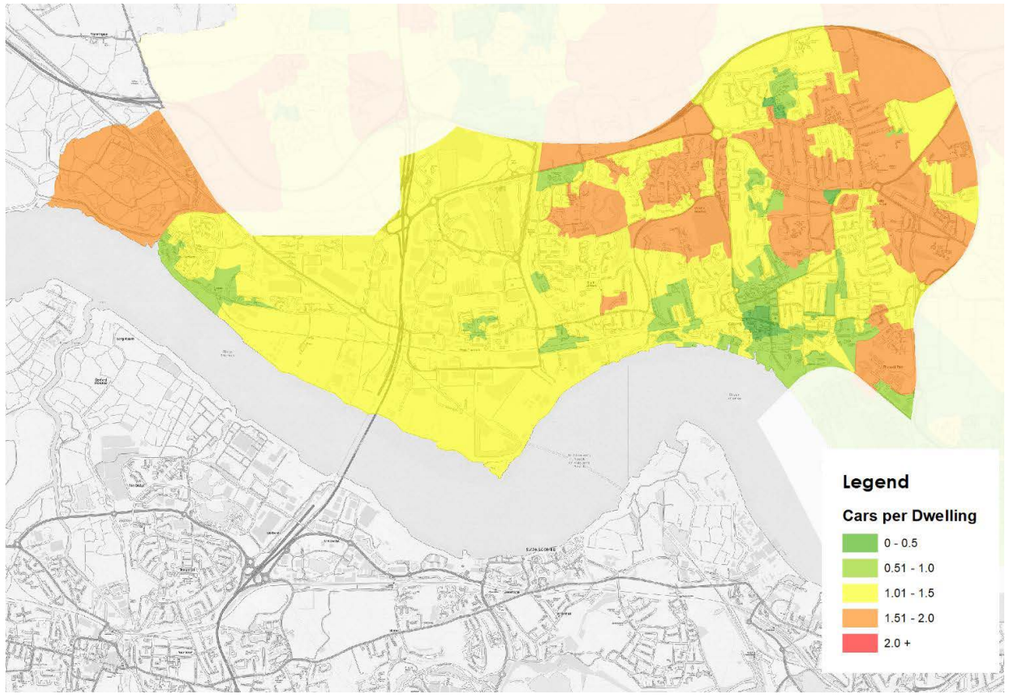


Figure 14. Car ownership in the Thurrock urban area (Stantec)

Road Network and Bus Services

4.0 The A13 bounds the Thurrock Urban Area to the north, connecting to the M25 at junction 30. Other junctions along the A13 include the A126 towards Lakeside and at the A1012 to Chafford Hundred. The absence of east-facing slips at the A13/A126 junction is proposed to be resolved through changes to the junction of A13 with B186.

4.0 The area is well served by several frequent bus services, including the 33 running every 15 minutes, the 66 and 88 running every half an hour, and the 5/5A/5B services running every half an hour[2].

4.0 Five bus routes also serve Purfleet, including the 22 and 44 running every 20 minutes.

Rail Services

4.0 The area has three rail stations: Grays, Chafford Hundred and Purfleet. These provide direct connections across Thurrock as well as to Rainham and Dagenham to the west and Upminster to the north

Walking and Cycling Infrastructure

4.0 Designated cycle routes are located around Chafford Hundred, including Chafford Gorges Nature Park. Other cycle infrastructure is provided around Purfleet.

4.0 There are fewer Public Rights of Way in this area, with notable walking routes adjacent to the River Thames in the south and a north-south link adjacent to Lakeside.

Car Ownership

4.0 Car ownership is lower in this area than in other parts of Thurrock, most notably in areas of Grays with 0 –0.5 cars per dwelling.

4.0 There is higher car ownership in Purfleet and areas around Little Thurrock and Chafford Hundred.

2 *Pattern of services in 2019 when the original assessment was undertaken. Some bus services have since been withdrawn.*

5. SAFETY

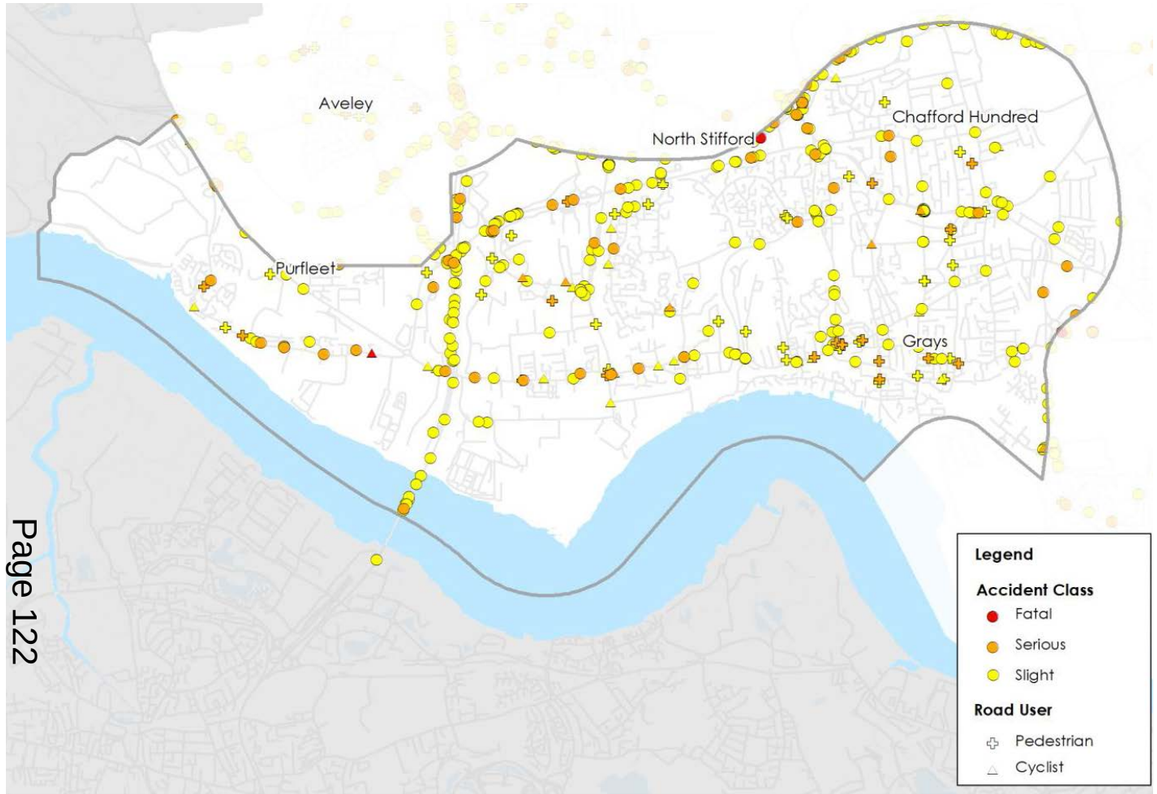


Figure 15. This map shows slight, serious and fatal accidents recorded over a three-year period in the Thurrock Urban Area using Thurrock Council data (Stantec)

Accident Data Overview

5.0 Figure 15 shows slight, serious and fatal accidents recorded over three years in the Thurrock Urban Area using data from Thurrock Council.

5.0 There was a total of 350 road traffic accidents across the area between 2017 and 2019, with two fatal accidents (1%), 66 serious (19%) and 282 slight accidents (81%).

5.0 Several accidents in the area involved vulnerable road users, with 30 involving cyclists (9%) and 53 involving pedestrians (53%). Many of these accidents are in and around Grays.

5.0 Two fatal accidents were recorded across the three years; one on the A13 in 2017 involved a private car near the junction with the A1012. The second fatal accident occurred in 2018 and involved a cyclist fatality on London Road in Purfleet at the junction with Vellacott Close.

6. POLLUTION, CARBON REDUCTION AND HEALTH

Air Quality Trends

6.0 Several Air Quality Management Areas are in the Thurrock Urban Area:

- Surrounding Crown Road and Orsett Road in Grays;
- Sections of London Road between Grays and the M25;
- Sections of London Road and Arterial Road in Purfleet.
- Significant parts of Arterial Road West Thurrock between the A126 and the A1012; and
- A section of A1012 Elizabeth Road.

6.0 Air quality data for this area has been provided by Thurrock Council and taken from 'NO.diffusion tube' sites across Thurrock. Data has been analysed between 2008 and 2018 to understand air quality trends over the ten years .

6.0 The data shows that the annual mean concentration of NO. has steadily decreased over the ten years, with an average of 38.4 µg/m. across all years. This is almost 50% higher than the national average mean concentration of NO.(19.6 µg/m., according to Ricardo Energy & Environment statistics provided by gov.uk).

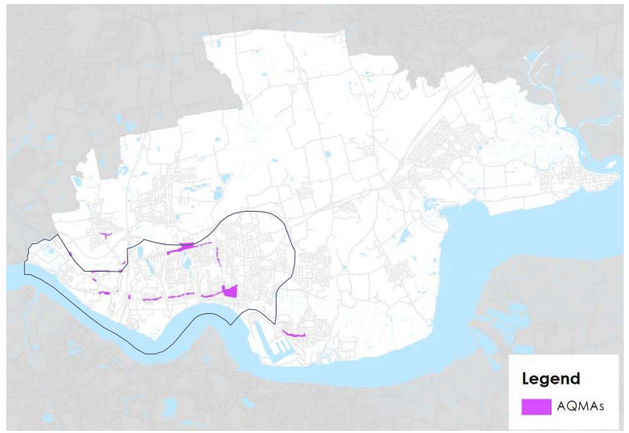


Figure 16. Several air quality management areas are located in the Thurrock Urban Area: (Stantec)

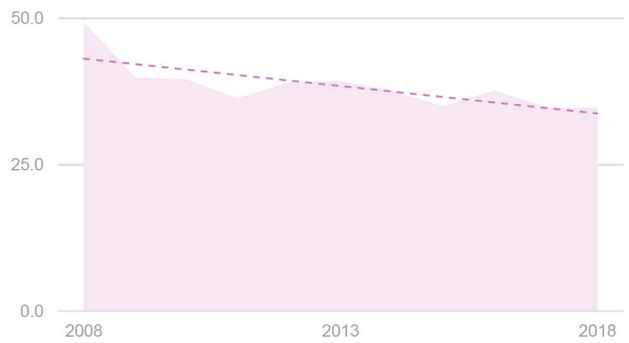


Figure 17. Annual mean concentration Of NO_2 ($\mu g/m^3$) (Stantec)

7. AFFORDABILITY

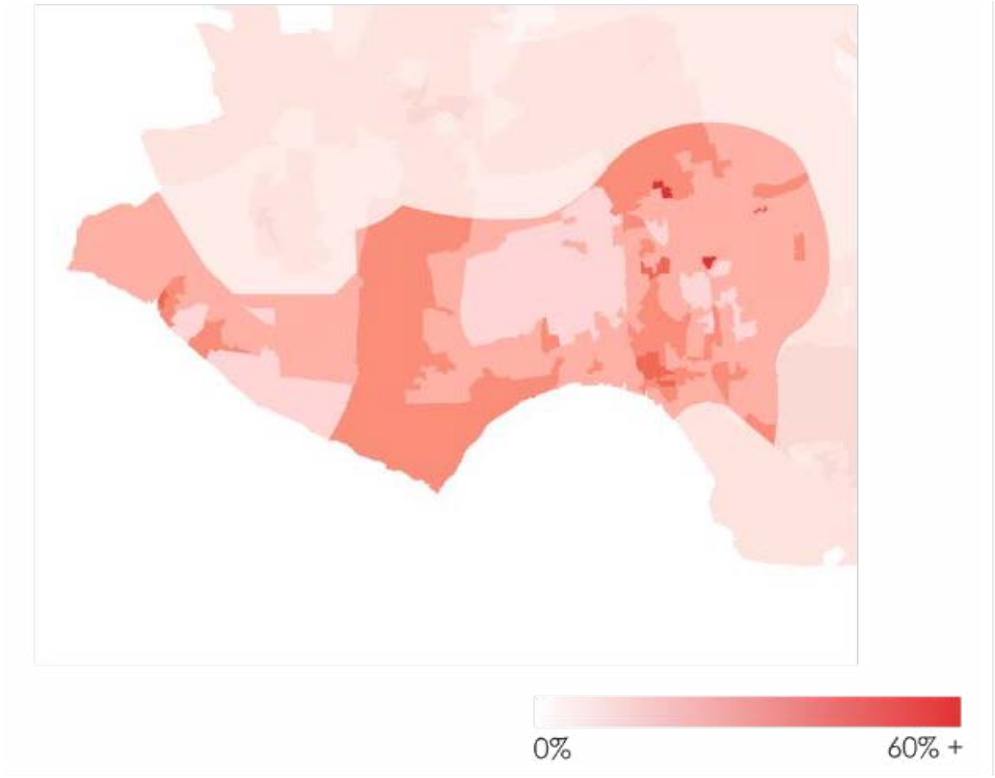


Figure 18. Percentage of people deprived in more than one dimension (Census 2011)

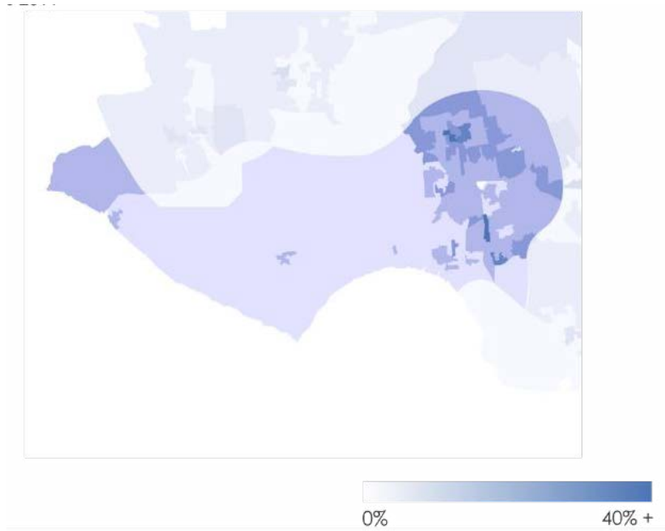


Figure 19. Percentage of people age 66 or over (Census 2011)

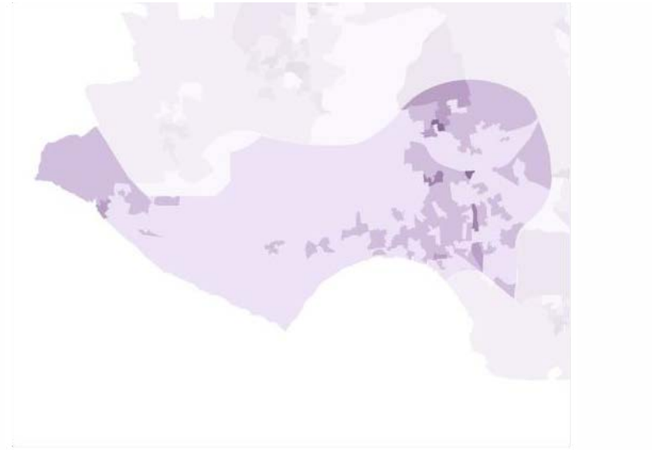


Figure 20. Percentage of people with bad or very bad health (Census 2011)

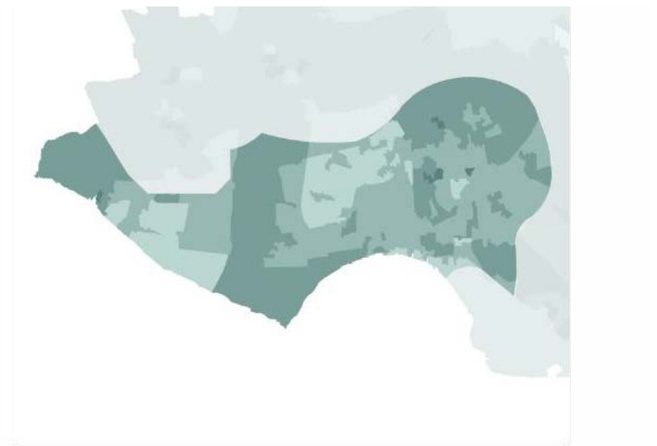


Figure 21. Percentage of people with Level 1 of fewer qualifications (Census 2011)

Overview of deprivation, health, age & education

7.0 Figure 18 show an overview of deprivation, health, age and education levels in the Thurrock urban area.

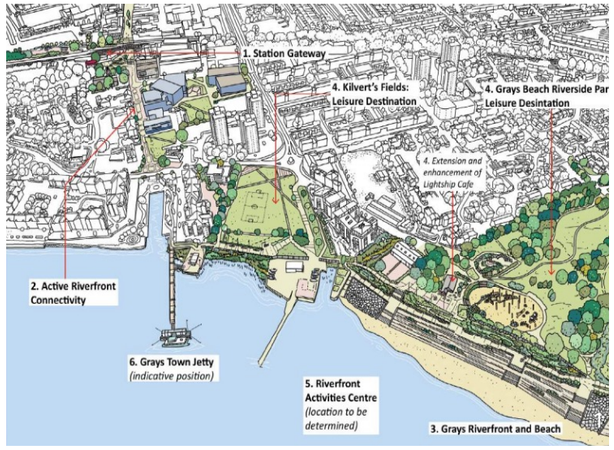
7.0 **Deprivation –**24% of people are noted as deprived in more than one dimension, with small areas of increased deprivation in Grays and Chafford Hundred.

7.0 **Health –**health measures are primarily good across the area, with a mean of 4% of the population in the area with bad or very bad health. Similarly to deprivation, some areas in Grays and Chafford Hundred have increased health issues.

7.0 **Age -**An average of 10% of the population in the area is over 66. This is higher in the eastern parts of the area.

7.0 **Education –**39% of the population in the area has level 1 or no qualifications,

8. OPPORTUNITIES



1. Grays Town Centre Regeneration
2. Thurrock urban area local plan consultation materials
3. Thurrock Yacht Club

Thurrock Urban Area Opportunities

8.0 The Council has undertaken local community consultation as part of the development of the new Local Plan. These exercises identified a range of local transport issues and opportunities as well as potential to accommodate new development.

8.0 This section is not intended to be a comprehensive list of all opportunities but serves to illustrate a range of potential opportunities in the Thurrock Urban Area.

Grays Transport Opportunities

8.0 **Improving Air quality-** Thurrock urban area has several Air Quality Management Areas (AQMA) - areas that exceed the national air quality objective for a specific pollutant. These are all related to transport and are concentrated to the south of the sub area along London Road corridor.

8.0 **Grays Station micro mobility-** Micro-mobility modes can potentially be integrated into routes leading to public transport hubs at Grays Station with provision for charging and storage at the hubs themselves. This will help facilitate sustainable access to stations and potentially expand the station catchment areas.

8.0 **Grays Town Centre Micro mobility freight** – Microbiology could offer a low carbon solution for last mile freight deliveries in Grays Town Centre and reduce large service vehicle sparking and operating within the centre.

8.0 **Grays Rail Station enhancement-** Opportunities to enhance the station environment to support access to rail and encourage sustainable travel for users of all abilities.

8.0 **Grays Station enhanced multi-modal interchange-** Potential to enhance the interchange hub around station with enhanced facilities for bus users, demand responsive travel, cyclists, pedestrians, and micro-mobility, enabling enhanced interchange between modes of travel for trips to access rail or for onwards journeys from rail stations.

8.0 **Grays station level crossing-** Opportunity for new pedestrian crossing to replace the unsafe level crossing. Provision for micro mobility charging and storage.

8.0 **Grays Town Centre Masterplan** -Opportunities to build upon the current projects to improve economic growth and enhance the public realm. Grays is the largest 'traditional' town centre in Thurrock and contains 66,300 sqm gross floorspace in total. Whilst the town centre's role as the dominant retail centre in the area has been superseded by Intu Lakeside Shopping Centre, it is still the main administrative centre in the Borough and a focus for several services and cultural activities.

8.0 **Estate Regeneration -** Opportunities to connect Seabrooke estate regeneration with wider growth and transport infrastructure development plans.

8.0 **Growth Hub** – Grays is one of Thurrock's six growth hubs and one of seven main employment clusters.

8.0 **Key Strategic Economic Hub** - Grays Town Centre is one of five Key Strategic Economic Hubs across the Borough. This may be amalgamated into one of three larger composite economic hubs –Thurrock Central (including Grays Town Centre, Tilbury and the London Port of Tilbury).

8.0 **Grays Employment cluster -** Grays Town Centre is a small urban cluster accommodating minor and finer-grained employment activities than other clusters. The cluster benefits from is good public transport accessibility via Grays train station but access to the strategic road network is more limited.

8.0 **Grays Office cluster –** Grays is one of four clusters of current office activity in Thurrock and one of the best locations to focus the delivery of new office floor space in the future, supporting the co-location of activities, which is attractive for small businesses and beneficial for their growth and development - as well as providing the opportunity to plug into the existing infrastructure, which is crucial for drawing new businesses to an area.

8.0 **Grays road access -** Road connectivity to the north via the A1012 is good. East-west connections via the A126 is congested.

3

8.0 **Major Scheme (MS7): M25 Junction 30/31-**The M25 J30/31 junction connects the M25 with the A13 trunk road and provides local connections to Lakeside Basin and Port of Tilbury Thurrock is working with partner agencies to explore opportunities to provide capacity and highway enhancements at the M25 J30/31 to provide improved capacity for local trips, particularly by active travel.

8.0 **Grays mass rapid transit interchange-** Major interchange at Grays at the convergence of connecting t transit (East London Transit, Ken FastTrack, South East Essex Rapid Transit (SERT) and potential future upgrade to a tram system (Kennex).

8.0 **Cross-river Public Transport Link -** Potential MRT link from Grays Beach area to Swanscombe Peninsula and Dartford/ Ebbsfleet.

8.0 **Thurrock Park Way link bridge** – Potential public transport, walking an cycling and green bridge link from Thurrock Park Way to Curzon Drive and Manor Road and Broadway.

8.0 **Grays Passenger pier-** Thurrock is working with partner agencies and developers to create a new pier at Grays offering fast Riverbus services to central London and cross-river connections to Gravesend and the Swanscombe Peninsula.

1. Gateway and clock tower to the former Ordnance Yards at Purfleet.
2. Purfleet riverside.
3. Hollow Cottages, Purfleet.
4. The Purfleet Centre regeneration project aims to transform Purfleet-on-Thames into a riverside destination.

Purfleet

8.0 **The Purfleet Centre regeneration project** - aims to transform Purfleet-on-Thames into a riverside destination. Part-funded by £70m from Homes England, this major regeneration of the the surrounding brownfield site to deliver the 'Purfleet-on-Thames' mixed-use development on the waterfront will include around 2,600 new homes and generate around 2,300 new jobs. The site will be supported by new infrastructure including a new primary school, healthcare centre and upgrades to the railway station and level crossing.

8.0 **Purfleet Town centre –** development of new town centre associated with planned new housing and estate regeneration.

8.0 **Dartford Crossing capacity-** High traffic demand over the Dartford Crossing, with congestion, poor journey time reliability and pollution

8.0 **Dartford Crossing Public Transport -** Links across Dartford Crossing with direct access from London Road.

8.0 **Purfleet Port –** the protected wharves at Purfleet Port help maintain freight access to the River Thames maximising the opportunities for transferring road freight to the river and east-west movement of goods, local river freight and short sea shipping, particularly between the ports and central and east London.

Purfleet Port is an intermodal terminal handling approximately 250,000 trailers, containers and tanks per year including the import and export of 400,000 vehicles.

8.0 **Purfleet Industrial wharves -**The industrial wharves are safeguarded t to increase opportunities for the movement of goods, waste, and construction material by water between London and Thurrock. This port activity has attracted and supported a significant transport and logistics activity cluster in this part of Purfleet, with other potential employment sites in the area, which could help grow and expand these activities.

8.0 **High House Production Park -** an international centre of excellence for creative industries in Thurrock working in partnership with the Royal Opera House, Creative & Cultural Skills, Acme Studios and Thurrock Council. The first phase of development of the fourteen-acre site, its heritage buildings and public park, was completed in 2010 w followed in 2013 by the launch of Creative & Cultural Skills' Backstage Centre, a world class production, rehearsal and training venue for performance, broadcast, and live events. Further phases are planned.

8.0 **Purfleet level crossing –** A schemes to remove level crossings are already under way, or under consideration at Purfleet.

8.0 **Growth hub-** Purfleet is one of Thurrock's six growth hubs.

8.0 **Garrison Estate regeneration -** Opportunities to connect estate regeneration with wider growth and transport infrastructure plans.

8.0 **Small/medium scale urban extension –** A part of the new Local Plan a development of up to 2,850 homes is under consideration maximising the walkable catchment population of rapid transit stops/stations and mixed-use centres.

8.0 **Purfleet passenger ferry pier** -Thurrock is working with partner agencies to provide a passenger jetty at Purfleet Ports to serve Riverbus services to central London and cross-river ferries to Gravesend and the Swanscombe Peninsula.

8.0 **Key Strategic Economic Hub -** Purfleet is a Key Strategic Economic Hub in the Borough. In future this may be amalgamated a larger composite economic hubs of Thurrock West including Purfleet, Port of Purfleet and Lakeside.

8.0 **Purfleet and West Thurrock employment cluster -** contains the most concentrated cluster of employment sites in Thurrock with good public transport accessibility, connections to the strategic road network (A13 & M25) and proximity to London markets and the Lakeside.

8.0 **Purfleet office cluster -** Purfleet is one of four clusters of current office activity in Thurrock providing the best location for new office floor space, supporting the co-location of activities and plugging into the existing transport network.

Lakeside and West Thurrock

8.0 **Major Scheme (MS3): East-Facing Access** - Thurrock will continue to promote the East Facing Access (EFA) programme to ensure improved access to the Lakeside Basin, reducing traffic on local roads in neighbouring Chafford Hundred.

8.0 **Chafford Hundred Station -** Opportunities to enhance interchange provision to support access to rail and encourage sustainable travel for users of all abilities. Potential for a future platform to service a two-track rail line. Provision for micro mobility charging and storage.

8.0 **Micromobility-** Micro-mobility modes can potentially be integrated into routes leading to public transport hubs at Chafford Hundred rail station and Lakeside bus station with provision for charging and storage at the hubs themselves. This will help facilitate sustainable access to stations and potentially expand the station catchment areas.

8.0 **Lakeside Regional Centre and Retail Park** - a major retail and leisure destination and set to expand to become a regional town centre. Intu Lakeside shopping centre is the primary comparison retail destination within the South Essex area and exerts a significant influence over trading patterns across the wider study area.

8.0 **Lakeside Growth Hub –** Lakeside one of Thurrock's six growth hubs - one of three in the Thurrock sub area. The principle of transforming the northern part of the Lakeside Basin into a sustainable, mixed-use regional town centre is established in policy through Policy CSTP7: Network of Centres, of the adopted Thurrock Core Strategy (December 2011).

8.0 **Lakeside- large-scale urban extension** -. An urban extension on land at Arena Essex to the north of Lakeside has the potential to accommodate new homes and additional community, educational and/or health facilities to support residential development across the wider area, alongside more mixed-use development including new homes adjacent to the Intu Lakeside Shopping Centre and retail parks. Potentially up to 2,500 new homes in the basin and a further 2,500 north at Arena Essex.

8.0 **Key Strategic Economic Hub** - Lakeside/West Thurrock is one of five Key Strategic Economic Hubs across the Borough. West Thurrock hosting the largest single concentration of employment activity in the Borough. The hub may be amalgamated to form a larger composite economic hub –Thurrock West (including Purfleet, Port of Purfleet and Lakeside).

8.0 **West Thurrock Employment cluster -** West Thurrock (extending across to Purfleet) contains the most concentrated cluster of employment sites with good strategic road network connections (A13 & M25). and proximity to London markets and the Lakeside retail clusters and good accessibility for public transport.

North Grays

8.0 **North Grays Small/medium scale urban extension** - An urban extension to the north of Grays has the potential to accommodate a new neighbourhood with associated amenities, local centre enhancements and a linear park offering leisure and recreational opportunities for existing and future residents. Consultants to the Council (David Lock Associates) assessed a modest northern expansion delivering c1000 homes but heavily constrained by LTC/A13 interchange.

8.0 **North Grays Small- scale urban extension** - Potential for up to 500 homes with associated transport and public realm enhancements alongside traffic, active travel and bus capacity/frequency improvements.

Local Parades

8.0 The Thurrock Urban Area includes three existing smaller urban centres with opportunities to improve public transport accessibility and street enhancements (Stifford Clays Local Neighbourhood Parade, Socketts Heath Local Centre and Little Thurrock Local Parade).

GLOSSARY

ASELA THE ASSOCIATION OF SOUTH ESSEX LOCAL AUTHORITIES **-** a partnership of neighbouring councils that have come together to promote growth and prosperity in the region (https://www.southessex.org.uk)

AQMA AIR QUALITY MANAGEMENT AREA

BLUE GRID - A multi-functional network of greenspace and links along and across Thurrock's rivers, waterways, and water bodies.

BRT BUS RAPID TRANSIT **-** A high-quality bus-based transit system that delivers fast and efficient service that may include dedicated lanes, busways, traffic signal priority, off-board fare collection, elevated platforms, and enhanced stations.

C2C A train operating company operating the Essex Thameside railway contract.

CCTV CLOSED CIRCUIT TELEVISION

CO_2 CARBON DIOXIDE - Carbon dioxide gas emissions stem from burning fossil fuels such as petrol car engines and cause pollution and leading to climate change.

DROIDS – Small, semi and fully autonomous vehicles acting as couriers that may reduce the need for cars or lorry deliveries in built-up areas.

DRONES - A driverless aerial vehicle typically used to distribute packages to consumers during the 'last mile' delivery process. These drones generally have 4-8 propellers, rechargeable batteries, and the ability to carry lightweight containers.

ENGLAND COASTAL PATH – A long-distance National Trail proposed by Natural England following the coast of England.

FASTRACK - A Bus Rapid Transit system serving Dartford, Bluewater, Ebbsfleet and Gravesend connecting major existing and new developments with planned core express routes on which only Fastrack services will run.

FREEPORTS special areas within the UK's borders where different economic regulations apply. (https://www.gov.uk/guidance/freeports)

GREEN GRID - A sustainable network of multi-functional green space and links within Thurrock's towns and countryside.

HEALTHY STREETS – A framework for prioritising people and their health in transport, the public realm and planning policies and strategies (https://www.healthystreets.com/what-is-healthy-streets).

HGV HEAVY GOODS VEHICLE

HS1 HIGH SPEED 1 – A 109km high-speed railway rail line between St Pancras International in London and the Channel Tunnel with intermediate stations at Stratford International and Ebbsfleet International. The line with international high-speed rail links to Paris, Brussels and Amsterdam. The route is also used by the 'Javelin' domestic route from London to Kent.

HS2 HIGH SPEED 2 - A new railway from London to Birmingham and further north. The railway's London terminus will be at Euston, with a west London interchange at Old Oak Common.

JAVELIN – A high-speed train service operated by Southeastern trains between London St Pancras and Kent using the HS1 line (https://www.southeasternrailway.co.uk).

KENNEX - A proposed tram link. The planned network connects Ebbsfleet International, Grays & Gravesend to Northfleet, Swanscombe Peninsular, Chafford Hundred & Purfleet-on-Thames (https://kenextransit.co.uk).

LGV LIGHT GOODS VEHICLE

LTC LOWER THAMES CROSSING - A road crossing of the Thames estuary downstream of the Dartford Crossing linking Kent and Essex proposed by National Highways (https://nationalhighways.co.uk/our-roads/lower-thames-crossing)

MICRO-MOBILITY - A range of small, lightweight vehicles operating at speeds typically below 25 km/h (15 mph) and driven by users personally. Micro-mobility devices include bicycles, e-bikes, electric pedal-assisted bikes, electric scooters, electric skateboards and shared bicycle fleets.

MODAL SHIFT - Changes in travel behaviour and habits. For example, travelling by public transport instead of a private car.

MODE - The different ways passengers and/or goods can be transported. Transport. Modes for passengers and goods may include rail; maritime (sea); road; bus, and rivers.

MRT MASS RAPID TRANSIT - High-capacity, higher-speed road or rail-based public transport systems generally found in urban areas and travelling along dedicated paths.

MULTI-MODAL ROADS - Streets designed to serve different modes and provide multiple mobility options for their users. (https://globaldesigningcities.org/publication/global-street-design-guide/defining-streets/multimodal-streets-serve-people)

NPPF NATIONAL PLANNING POLICY FRAMEWORK- revised on 20 July 2021. (https://www.gov.uk/government/publications/national-planning-policy-framework)

NET ZERO - Policies and proposals for decarbonising the UK economy to reduce net global greenhouse gas emissions to near zero by 2050.

NO_X NITROUS OXIDE

PARK AND GLIDE – A combined remote parking and commuter boat transfer service. 'Thames Clipper' currently operates a service from the O2 in Greenwich into central London.

PPG PLANNING POLICY GUIDANCE.

RIVERBUS – Boat services and access piers along the Thames, including the 'Thames Clipper' commuter service (https://www.thamesclippers.com).

RTI REAL-TIME TRAVEL INFORMATION.

SERT SOUTH ESSEX RAPID TRANSIT. Proposal for a fast, reliable and high quality bus- based public transport system in south Essex including ' Route 1a' serving Lakeside, Grays, A13, and Basildon Hospital.

SHORT SEA SHIPPING - Maritime transport of goods over relatively short distances, as opposed to the intercontinental cross-ocean deep sea shipping.

SRN STRATEGIC ROAD NETWORK - The major road transport network comprising secondary arterial roads, primary arterial roads, expressways and motorways managed by National Highways.

STB SUB-NATIONAL TRANSPORT BODY.

TFL TRANSPORT FOR LONDON - the organization responsible for managing the public transport services in London, including bus and underground train services, taxi services and the road (https://tfl.gov.uk/corporate/about-tfl).

THAMES ESTUARY – The lower reaches of the Thames including outer east and south east London, North Kent, and South Essex.

THAMES ESTUARY GROWTH BOARD - A private sector organisation covering North Kent, South Essex, East London, the City of London and the River Thames that has developed an action plan, 'The Green Blue' (http://thamesestuary.org.uk).

THAMES PATH - National Trail following the River Thames from its source to the Woolwich in south east London. The Trail connects with the England Coastal Path to form a 'Source to Sea' route.

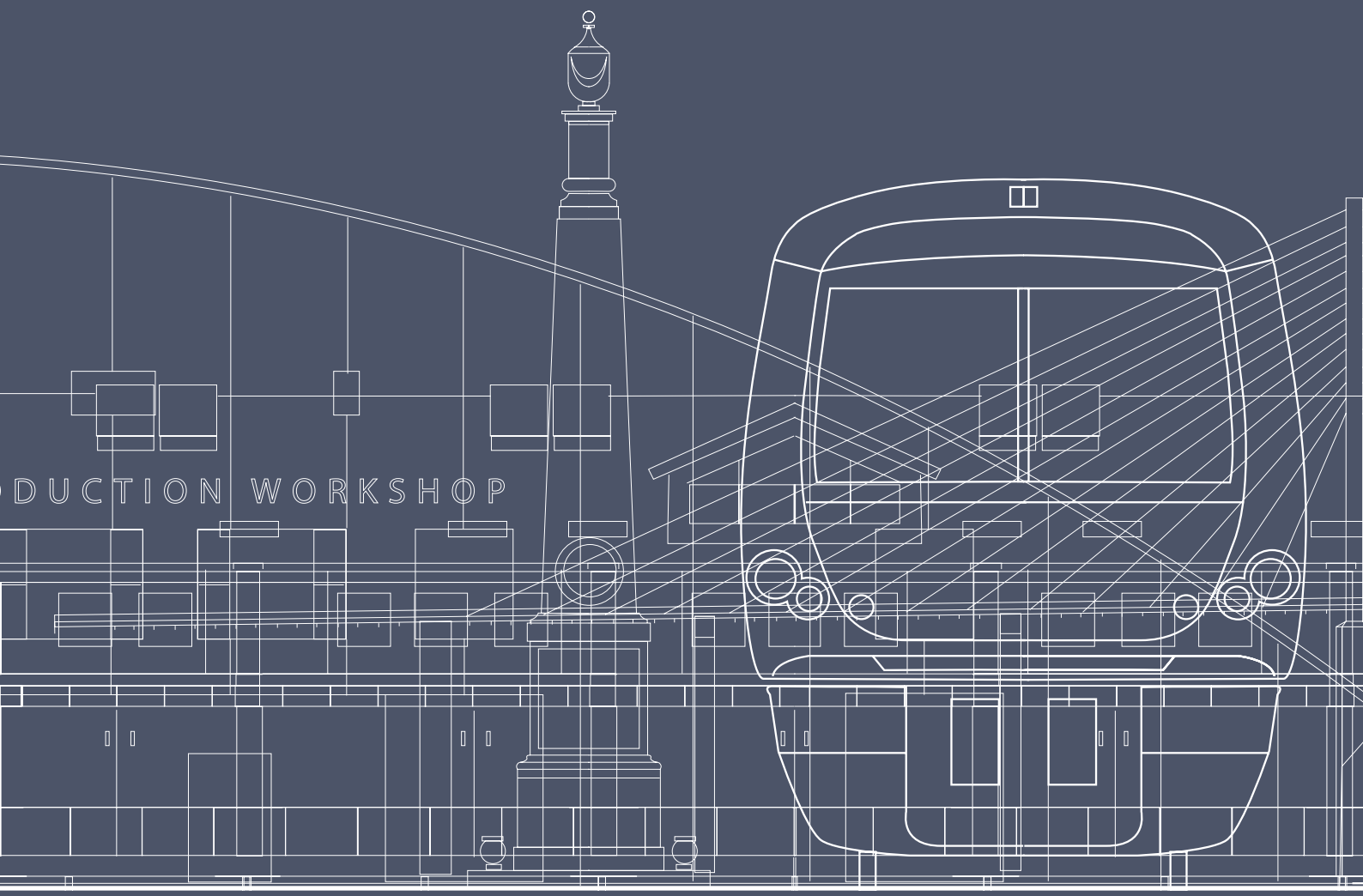
THURROCK LOCAL PLAN - A long-term planning policy framework setting out the amount of development for Thurrock and its distribution across the borough that, by law, must be used when deciding all future planning applications (https://www.thurrock.gov.uk/new-local-plan-for-thurrock/thurrock-local-plan).

THURROCK LOCAL TRANSPORT PLAN – A plan describing future outcomes and priorities for transport and travel across Thurrock, including the action needed to implement the strategy. The plans consist of four parts- 'Issues and Opportunities', 'Vision 2050', 'Strategy', and 'Action and Implementation Plan(s)'.

TRANSPORT EAST – A sub-National transport body to deliver a collective vision for the future of transport in Essex, Norfolk, Suffolk, Southend-on-Sea and Thurrock.

TRANSPORT SOUTH EAST - A sub-national transport body for the South East of England

TOC TRAIN OPERATING COMPANY - A business operating passenger trains under the collective National Rail brand, typically as a franchise, such as C2C.



THURROCK COUNCIL

Work Programme

Committee: Planning, Transport, Regeneration Overview and Scrutiny Committee **Year:** 2022/2023

Dates of Meetings: 05 July 2022, 18 October 2022, 06 December 2022 and 28 February 2023

Topic		Lead Officer	Requested by Officer/Member
05 July 2022			
1	Stanford-le-Hope Interchange Report	Keith Rumsey	Members
2	Thurrock Supported Bus Services	Mat Kiely & Julie Rogers	Officers
3	Tilbury Town Fund Programme	Kevin Munnelly & Henry Kennedy-Skipton	Officers
4	Work Programme	Democratic Services	Standing item
18 October 2022			
1	A13 Widening Project	Keith Rumsey	Members
2	Stanford-le-Hope Interchange project	Keith Rumsey	Members
3	Work Programme	Democratic Services	Standing item
23 November 2022 – Extraordinary			
1	Grays Regeneration Masterplan to inc: Grays Underpass	Kevin Munnelly & Henry Kennedy-Skipton	Members
2	Purfleet Regeneration	Kevin Munnelly & Henry Kennedy-Skipton	Members
3	Supported Bus Services Report	Mat Kiely	Officers

Work Programme

4	Work Programme	Democratic Services	Standing item
06 December 2022			
1	Fees and Charges	Julie Rogers and Jonathan Wilson/Kelly McMillan	Officers
2	Stanford-le-Hope Interchange project	Kevin Munnelly & Henry Kennedy-Skipton	Members
3	Work Programme	Democratic Services	Standing item
26 January 2023 – Extraordinary			
1	Portfolio Holder Report	Councillor Ben Maney	Chair
2	Integrated Transport Block (ITB) Capital Programme 2023/24 & Highways Maintenance Allocation and Programme 2023/24	Mat Kiely	Officers
4	Work Programme	Democratic Services	Standing item
28 February 2023			
1	Transport Vision and Issues and Opportunities Update	Mat Kiely	Officers
2	Regeneration Programme Update	Kevin Munnelly	Officers
3	Work Programme	Democratic Services	Standing item

Work Programme

Briefing Notes		
A13 East Facing Access Update	Mat Kiely	Sent: 9 January 2023
Transport Strategy update	Mat Kiely	Sent: 12 October 2022
Local Plan Update	Leigh Nicholson	Sent: 7 October 2022

Clerk: Kenna-Victoria Healey Last updated: February 2023

PTR Overview & Scrutiny Committee 2023/2024		
Portfolio Holder Report	Councillor Mark Coxshall	Chair

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