



Homes
England

The Housing and Regeneration Agency

Date: 23 June 2025

Our Ref: RFI4085

Tel: 0300 1234 500

Email: infogov@homesengland.gov.uk

[REDACTED]
By Email Only

Dear [REDACTED]

RE: Request for Information – RFI4085

Thank you for your request for information which was processed in accordance with the Environmental Information Regulations 2004 (EIR).

You requested the following information:

(1) please confirm and summarise evidenced based Traffic Modelling information and statistics submitted by Medway Council to Homes England to support the HIF business case and include Medway Council detailed important traffic modelling figures projected to 2035 for the Hoo Peninsula network roads submitted for independent review by Homes England to justify the proposed HIF spending £86 million on the Hoo Peninsula roads.

(2) Please confirm if evidenced based information submitted by Medway Council for HIF proposals to Homes England sets out traffic modelling projections and statistics showing actual 2019 Department for Transport figures 33,910 vehicle trips per day using the A228 Four Elms Hill generated by the current 6,000 Hoo Peninsula car reliant homes and 332 Peninsula businesses.

(3) please confirm if Medway Council evidenced based businesses case submitted to Homes England shows projected traffic modelling figures and information to 2035 including vehicle movements generated by the additional Local Plan 10,600/12,000 car reliant homes (that must treble 2019 vehicle day trips from car reliant Hoo homes) and shows DfT projections of 60, 000 additional daily vehicle trips and total 94,082 vehicle trips per day generated under Local Plan scenarios and expansion of businesses 2035. (see table below).

DfT's 2019 average daily trip figures using A228 (Full laptop screen needed)

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Pedal Cycles	Two Wheeled Cars/taxis	Bus/Coaches	Light Goods	Heavy Goods	Total	
7	269	26,649	143	5148	1,701	33,910 - 2019 Total DfT's
daily traffic trip count - 6,000 Hoo Homes						
14	269	53,000	155	7000	2500	62,938 2027 Total DfT
projected daily traffic trip count plus 6,000 new houses - total 12,000 Hoo Homes						
30	269	79,947	150	10,296	3,400	94,082 - 2035 Total DfT
projected daily traffic count - plus 10,600/12,000 new Local Plan homes - Total 18,000 Hoo Homes						

(4) Please confirm information submitted by Medway Council for Homes England and independent HIF review of traffic modelling information showing 94,082 or other figure vehicle trips per day using the A228 and Hoo Peninsula Network Roads will not cause permanent snakes of traffic jammed roads and will not exceed Peninsula A228 and village roads network's capacity even with the planned highway upgrades (HIF relief road and improvements).

(5) Please summarise Medway Council HIF information that supports the evidenced based business case where building a new minor bypass road that cannot be used by HGVs, actioning minor alterations of existing roundabouts and erecting traffic light controls on the extremely busy Four Elms roundabout will substantial increased road capacity of the Peninsula A228 and village roads to allow the free flowing movements of 60,000 additional vehicle trip movements per day - trebling existing vehicle trip movements to 94,082

(6) Please confirm if the business case submission made by Medway Council to Homes England shows important evidenced based information that Medway Council has contacted 332 important Peninsula businesses generating £27 million business rate income on HIF proposals asking for information on likely additional vehicle trip figures per day from business expansion plans including employee and HGV/Light Goods Vehicles needs to 2027, and 2035. Delays in traffic will raise business concerns over continued viability of businesses.

Response

We would firstly like to apologise for the long delay in providing this response to you. Our handling of your request has fallen outside the time for compliance as set out in the EIR and below the standards we strive to provide. We also recognise that we have not kept you sufficiently informed as to the progress of your request, we are really sorry about this.

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We recognise now that the information you have requested may no longer be relevant to you, however we have endeavoured to provide you with a response which follows below.

We can confirm that we do hold some of the requested information. We will address each question in turn.

(1) please confirm and summarise evidenced based Traffic Modelling information and statistics submitted by Medway Council to Homes England to support the HIF business case and include Medway Council detailed important traffic modelling figures projected to 2035 for the Hoo Peninsula network roads submitted for independent review by Homes England to justify the proposed HIF spending £86 million on the Hoo Peninsula roads.

We can confirm that we do hold the requested information. Please see attached Annex A, the traffic modelling figures provided by Medway Council to Homes England to support the Housing Infrastructure Fund (HIF) business case. Please note that some information has been redacted as it is out of scope of your request.

We have also redacted information contained within Annex A from disclosure under the following exception:

Regulation 12(5)(e) – Confidentiality of commercial or industrial information

Under regulation 12(5)(e) of the EIR, Homes England may refuse to disclose information to the extent that its disclosure would adversely affect the confidentiality of commercial or industrial information where such confidentiality is provided by law to protect a legitimate economic interest.

Four elements are required for Regulation 12(5)(e) to be engaged:

- 1) The information is commercial or industrial in nature;
The information contains economic appraisals relating to the viability of the proposed works relate to potential development and procurement activities. Therefore, it is commercial in nature as it relates to commercial activity.
- 2) Confidentiality is provided by law;
The withheld information is subject to confidentiality provided by law under a common law duty of confidence. The information has a common law duty of confidence because it is not trivial and not in the public domain. The information was created by two parties who have entered into contractually binding confidentially terms. These show that

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the parties had the intention that a duty of confidentiality would be created between them. Homes England therefore recognises that this information was intended to be held in confidence between the parties.

- 3) The confidentiality is providing a legitimate economic interest;
There is a legitimate economic interest in protecting the ability of Homes England and third parties to negotiate current and future commercial agreements.
- 4) The confidentiality would be adversely affected by disclosure;
Disclosure would result in third parties gaining access to commercially valuable information. Disclosure of the confidential information would damage the reputation of Homes England as a partner.

Public Interest Test

Regulation 12(5)(e) is subject to the public interest test. Once the exception has been engaged it is then necessary to consider the balance of the public interest in maintaining the exception or disclosing the information.

Under regulation 12(2) the public authority must apply a presumption in favour of disclosure, in both engaging the exception and carrying out the public interest test. In relation to engaging the exception, this means that there must be clear evidence that disclosure would have the adverse effect listed in 12(5).

Factors in favour of disclosure

- Homes England acknowledge that there is a presumption in disclosure regarding environmental information as well as a public interest in promoting transparency in how we undertake our work and allocate public money; and
- Homes England acknowledge that there is a public interest in large scale development processes and the robustness of the applications for funding submitted to the HIF.
- Homes England recognises the passage of time elapsed between the submission of this request and our response has resulted in a material change in circumstance, that the funding given by Homes England to Medway Council under the HIF programme has been withdrawn.

Factors in favour of withholding

- The withheld information relates to modelling adjustments and underlying land value assumptions used when assessing viability of land. This would reveal financial strategies and analysis disclosed to Homes England that were not meant for release into the public domain. If released, third party





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interests would be adversely affected as it could be used against them in negotiations for similar matters as other parties would have this prior knowledge of their business' operating models, forecasts and financial information. To release this information would undermine future bids for similar works as it would reveal what has been agreed in this instance which could be used as a basis for obtaining an unfair advantage by other third parties. This would put them at a commercial disadvantage which would not be in the public interest as it would hinder their ability to conduct business in a competitive market if their bidding and pricing strategies were revealed in this way. This could put potential homes in jeopardy and would undermine Homes England's position and ability to deliver against its objectives and targets in our Strategic Plan;

- The information relates to a site where a third party (the Local Authority) may procure or undertake works in the future. If this information were released it would be likely to disadvantage the third party's commercial position and have a negative impact on the third party's ability to procure any future works. The Local Authority would not be able to negotiate effectively as this information could be used by third parties to distort or otherwise prejudice the ability of the Local Authority to secure works for market value, resulting in damage to the public purse; and
- Homes England has been unable to identify a wider public interest in disclosing the information requested.

Having considered the arguments for and against disclosure of the information, and considered the passage of time that has elapsed between your request and our response, we have concluded that at this time, the balance of the public interest favours non-disclosure.

The full text of Regulation 12(5)(e) in the legislation can be found via the following link:

<https://www.legislation.gov.uk/ukxi/2004/3391/regulation/12/made>

(2) Please confirm if evidenced based information submitted by Medway Council for HIF proposals to Homes England sets out traffic modelling projections and statistics showing actual 2019 Department for Transport figures 33,910 vehicle trips per day using the A228 Four Elms Hill generated by the current 6,000 Hoo Peninsula car reliant homes and 332 Peninsula businesses.

Regulation 12(4)(a) – Information not Held

We can confirm that Homes England does not hold the requested information. Under regulation 12(4)(a) of the EIR, Homes England may refuse to disclose information if the requested information is not held by that public authority.

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Regulation 9(1) provides that an authority must provide advice and assistance to applicants and in accordance with this we can confirm that Homes England did receive traffic modelling projections and statistics from Medway Council as part of the HIF business case. This information was based on “bespoke traffic modelling commissioned as evidence to support the Council’s position”, as outlined on page 10 of Annex A.

(3) please confirm if Medway Council evidenced based businesses case submitted to Homes England shows projected traffic modelling figures and information to 2035 including vehicle movements generated by the additional Local Plan 10,600/12,000 car reliant homes (that must treble 2019 vehicle day trips from car reliant Hoo homes) and shows DfT projections of 60, 000 additional daily vehicle trips and total 94,082 vehicle trips per day generated under Local Plan scenarios and expansion of businesses 2035.

We can confirm that Homes England did receive projected traffic modelling figures, projected to 2035, as part of the HIF business case. However, these figures were not based on Department for Transport projections as outlined in your request. As outlined above, Medway Council commissioned their own traffic modelling projections.

(4) Please confirm information submitted by Medway Council for Homes England and independent HIF review of traffic modelling information showing 94,082 or other figure vehicle trips per day using the A228 and Hoo Peninsula Network Roads will not cause permanent snakes of traffic jammed roads and will not exceed Peninsula A228 and village roads network's capacity even with the planned highway upgrades (HIF relief road and improvements).

We are able to provide a partial answer to this question. Homes England is not able to comment in this response on whether or not there will be “permanent snakes of traffic jammed roads” as this does not constitute a request for recorded information, and therefore falls outside of the EIR and the scope of this response.

We can confirm that the information provided by Medway Council as part of the HIF business case demonstrates that once proposed road network development has been completed, network capacity will not be exceeded.

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(5) Please summarise Medway Council HIF information that supports the evidenced based business case where building a new minor bypass road that cannot be used by HGVs, actioning minor alterations of existing roundabouts and erecting traffic light controls on the extremely busy Four Elms roundabout will substantial increased road capacity of the Peninsula A228 and village roads to allow the free flowing movements of 60,000 additional vehicle trip movements per day - trebling existing vehicle trip movements to 94,082

We are able to provide a partial answer to this question. Homes England does not hold a summary of information provided by Medway Council about the development of a minor bypass road as described in your question. Under regulation 12(4)(a) of the EIR, Homes England may refuse to disclose information if the requested information is not held by that public authority.

Regulation 9(1) provides that an authority must provide advice and assistance to applicants and in accordance with this we can advise that Homes England does hold some information about the changes to and development of road transport infrastructure to affect traffic on the A228. Please find enclosed Annex B, a series of extracts from the HIF application and supporting evidence providing information about the current road capacity and projected road capacity with the proposed changes. Please note that some information has been redacted as it is out of scope of your request.

We have also redacted information contained within from disclosure under the following exceptions:

Regulation 12(5)(e) – Confidentiality of commercial or industrial information

Under regulation 12(5)(e) of the EIR, Homes England may refuse to disclose information to the extent that its disclosure would adversely affect the confidentiality of commercial or industrial information where such confidentiality is provided by law to protect a legitimate economic interest.

Four elements are required for Regulation 12(5)(e) to be engaged:

1. The information is commercial or industrial in nature;

The information contains economic appraisals that relate to the future development of housing and value of land. Therefore, it is commercial in nature as it relates to commercial activity.

2. Confidentiality is provided by law;

The withheld information is subject to confidentiality provided by law under a common law duty of confidence. The information has a common law duty of confidence because it is not trivial and not in the public domain. The information was created by two parties who have entered

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into contractually binding confidentially terms. These show that the parties had the intention that a duty of confidentiality would be created between them. Homes England therefore recognises that this information was intended to be held in confidence between the parties.

3. The confidentiality is providing a legitimate economic interest;

There is a legitimate economic interest in protecting the ability of Homes England and third parties to negotiate current and future commercial agreements.

4. The confidentiality would be adversely affected by disclosure;

Disclosure would result in third parties gaining access to commercially valuable information. Disclosure of the confidential information would damage the reputation of Homes England as a partner.

Public Interest Test

Regulation 12(5)(e) is subject to the public interest test. Once the exception has been engaged it is then necessary to consider the balance of the public interest in maintaining the exception or disclosing the information.

Under regulation 12(2) the public authority must apply a presumption in favour of disclosure, in both engaging the exception and carrying out the public interest test. In relation to engaging the exception, this means that there must be clear evidence that disclosure would have the adverse effect listed in 12(5).

Factors in favour of disclosure

- Homes England acknowledge that there is a presumption in disclosure regarding environmental information as well as a public interest in promoting transparency in how we undertake our work and allocate public money; and
- Homes England acknowledge that there is a public interest in large scale development processes and the robustness of the applications for funding submitted to the HIF.
- Homes England recognises the passage of time elapsed between the submission of this request and our response has resulted in a material change in circumstance, that the funding given by Homes England to Medway Council under the HIF programme has been withdrawn.

Factors in favour of withholding

- The withheld information relates to projected housing delivery figures. Disclosing such information could misrepresent the viability of land which could hinder the third party's ability to conduct business





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in a competitive market. This could put potential homes in jeopardy and would undermine Homes England's position and ability to deliver against its objectives and targets in our Strategic Plan;

- Releasing the housing delivery figures could damage working relationships. If third parties felt that Homes England would reveal confidential commercial information in relation to projects where we are collaborating it would be likely that future partners would be unwilling to work with us or be wary of being open and transparent. This would cause significant risk in Homes England being able to invest public money and resources in the widest possible net of partners in order to achieve best value for money. It is imperative that Homes England are able to attract competitive partners and are respected in the market as a positive force; and
- Homes England has been unable to identify a wider public interest in disclosing the information requested.

Having considered the arguments for and against disclosure of the information, we have concluded that at this time, the balance of the public interest favours non-disclosure.

The full text of Regulation 12(5)(e) in the legislation can be found via the following link:

<https://www.legislation.gov.uk/ukxi/2004/3391/regulation/12/made>

Regulation 13 – Personal Data

We have also redacted some information on the grounds that it constitutes third party personal data and therefore engages Regulation 13 of the EIR.

To disclose personal data, such as names, contact details, addresses, email addresses and personal opinions could lead to the identification of third parties and would breach one or more of the data protection principles.

Regulation 13 is an absolute exception which means that we do not need to consider the public interest in disclosure. Once it is established that the information is personal data of a third party and release would breach one or more of the data protection principles, then the exception is engaged.

The full text in the legislation can be found on the following link:

<http://www.legislation.gov.uk/ukxi/2004/3391/regulation/13/made>





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(6) Please confirm if the business case submission made by Medway Council to Homes England shows important evidenced based information that Medway Council has contacted 332 important Peninsula businesses generating £27 million business rate income on HIF proposals asking for information on likely additional vehicle trip figures per day from business expansion plans including employee and HGV/Light Goods Vehicles needs to 2027, and 2035. Delays in traffic will raise business concerns over continued viability of businesses.

We can confirm that we hold some information related to your request. Please find enclosed Annex C, an extract from the HIF Business Case that outlines the consultation process Medway Council had already undertaken at the time of submission, and further consultation Medway Council planned to undertake.

Right to make Representations

If you are not happy with the information that has been provided or the way in which your request has been handled, you may request a reconsideration of our response (Internal Review). You can make this representation by writing to Homes England via the details below, quoting the reference number at the top of this letter.

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Your request for reconsideration must be made in writing, explain why you wish to appeal, and be received within 40 working days of the date of this response (Reg 11(2)). Failure to meet this criteria may lead to your request being refused.

Upon receipt, your request for reconsideration will be passed to an independent party not involved in your original request. We aim to issue a response within 20 working days.

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You may also complain to the Information Commissioner's Office (ICO) however, the Information Commissioner does usually expect the internal review procedure to be exhausted in the first instance.

The Information Commissioner's details can be found via the following link <https://ico.org.uk/>

Please note that the contents of your request and this response are also subject to the Freedom of Information Act 2000. Homes England may be required to disclose your request and our response accordingly.

Yours sincerely,

The Information Governance Team
For Homes England

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Table 3-2 2021 LGF Four Elms Roundabout Model results – LGF original Reference Case demand

2021	2021 DM Macro for Micro	
Four Elms Roundabout	V/C	Flow
Wulfere Way NB (left)	69	182
Wulfere Way NB (straight/right)	69	1,265
Hoo Road EB (left)	29	141
Hoo Road EB (straight/right)	27	282
Hasted Road SB (straight/right)	66	811
Four Elms Hill WB (straight/right)	98	1,356
Total flow		4,036

The table data shows the flow onto the junction as well as the turning % V/C for 2021 AM Peak. The AM Peak has a flow of 4,036 vehicles, an increase on 2016 base. This reflects the background growth anticipated for the area.

It has been identified from the modelling that the link from Four Elms Hill leading on to the roundabout and linking to the Hoo Road and Hasted Road arms is close to capacity in the AM Peak. This is also the primary flow on to the roundabout, at 1,354 trips in the AM Peak hour.

Additional future year modelling was undertaken using the same model network against a reference case demand (base + high level background growth) for 2028 and 2035. Below the results for 2035 are presented.

Table 3-3 2035 LGF Four Elms Roundabout Model results – LGF original Reference Case demand

2035		
Four Elms Roundabout	V/C	Flow
Wulfere Way NB (straight)	72.08	1,318
Wulfere Way NB (left)	72.08	199
Hoo Road EB (left)	29.92	145
Hoo Road EB (straight)	27.86	295
Hasted Road SB (straight)	95.65	1,169
Four Elms Hill WB (straight)	96.94	1,344
		4,469

The outputs show that the flow from Four Elms Hill has not changed, apart from a reduction of 10 trips. The main increase in demand can be seen for Hasted Road approach onto the roundabout, with an additional 353 highway trips (+43% from 2021). This brings the capacity on this arm close to full capacity with a % V/C of 96%. The Four Elms Hill approach arm remains at % V/C of 97%.

The model outputs suggest that the increase in matrix demand is spread over a wide area in the LGF model and is not focussed on specific site developments on or around the Hoo Peninsula. This modelling analysis shows that with wider background growth and no site specific demand added around the Hoo Peninsula, Four Elms Junction will be within capacity up to 2035 with the LGF scheme added to the existing highway network.

3.3 Local Plan development and Strategic Transport Assessment

The latest Local Plan has identified +37,000 homes to be constructed in Medway by 2035. This data allows for site specific highway trips to be modelled, with the subsequent effects on highway capacity and delay identifiable. The Hoo peninsula has sites identified for over 13,000 new homes, as well as well as over 500,000 square metres of space, to be constructed by 2035. This development is to be primarily centred around Hoo St Werburgh, Chattenden, and Kingsnorth. This level of development is significantly above that which is modelled in the original LGF model.

As a result of the Local Plan, a Strategic Transport Assessment (STA) has been required to test the effects of the new proposed development on the transport infrastructure in the area. As part of this work, the Base highway Aimsun model has been updated to test proposed Local Plan development levels for 2023, 2028, and 2035. The latest assumptions on the magnitude of housing developments and their phasing is shown here. Given its strategic location in relation to the A228 and A289, we have split out the Hoo Peninsula proposals to highlight the magnitude of the localised effect of this on the highway network.

The Hybrid scenario has been developed as this provides the maximum trip demand based on hitting the maximum target of local housing need, as well as including the Lodge Hill SSSI site for redevelopment.

Table 3-4 Local Plan development, magnitude and phasing

	2023	2028	2035
Committed development (Reference Case)	5,864	7,323	7,536
Local Plan development	4,503	11,713	23,955
Total (Hybrid Scenario) – Ref Case + Local Plan	10,367	19,036	31,491
<i>of which, Total Hoo Peninsula development</i>	1,027	5,432	13,095

Wider Development Impacts

Please provide a summary of what impact the scheme will have on the Transport Network

A strategic model has been developed to establish transport impacts including the potential impact of trip generation from the Hoo Peninsula. It demonstrates limited capacity at Four Elms roundabout, and that the A289 south towards Medway tunnel would struggle with predicted growth.

Presently, the A289 and A228 approaches to Four Elms experience high peak time queuing. A289 improvements alone would not be sufficient to accommodate forecast growth on the Peninsula.

Local junctions, notably the Main Road junction, would see significant growth from side road arms, which new housing would be accessed from. This would conflict with an increased flow on the A228 corridor. Delays would increase at the existing Main Road roundabout, with a conflict between higher side road traffic and increased main road flows.

The Relief Road will reduce flow to and from the Peninsula through an alternate route for traffic accessing the A2/M20 via the A289. It removes trips from the congested Four Elms roundabout, dividing them between two access routes. It will also afford network resilience: when the A228 has problems, the Peninsula is presently isolated without route options.

The proposed capacity improvements include expansion of roundabouts at Ropers Lane and Bells Lane, and conversion of the Main Road roundabout to a signalised junction. This will accommodate conflicting flows from new housing zones and the A228. A289 corridor improvements will add capacity for trips from Hoo to and from the Medway Tunnel. New and improved roundabout slip roads will be developed, with junction widening to increase capacity. Links between the roundabouts will be upgraded to accommodate these changes and provide facilities for vulnerable users.

The proposed highway package relies on all elements being in place to accommodate the growth needed i.e. A289 improvements of themselves would be insufficient without the capacity afforded by the Relief Road, the A228 improvements and Main Road roundabout signalisation. Highway improvements, therefore, deliver an integrated package of improvements to release up to 8,000 homes. These will be complemented by passenger rail which will reduce trip generation, enabling 2,600 further homes.

reg. 12(5)(e) Traffic generated disperses onto the wider network and adds to congestion at network hotspots, most of which are a significant distance away. As this will occur under any growth scenario, even were the Peninsula not identified as a local growth area, Medway will work closely with Highways England and neighbouring authorities to address such problem areas. Highways England has plans in place to improve the A2 corridor and deliver a new Lower Thames Crossing. **reg. 12(5)(e)** but could deliver significant benefits.

Importantly, the HIF scheme achieves its core objective i.e. to enable predicted trips from up to 10,600 homes to move to and from the Peninsula without creating traffic gridlock on local roads.

The new station is critical to further development on the Hoo Peninsula. Development to the north of the railway will place the station at the heart of the new rural community with sustainable transport links to Kent and South East London. It meets key Government priorities for modal change. Reintroduction of passenger services has been popular across the UK, often exceeding patronage expectations. A hub station on the Hoo Peninsula with Park & Ride-style facilities and local bus links will reduce traffic on the A228 to the Medway Towns or via the A2 to Ebbsfleet International. Existing residents will benefit from the new station before many of the new homes are built – the first trains will be running in the next five years.

The new Medway Chord and commercial development east of the rural town will also encourage rail freight across wider Kent, with operators targeting parcel post and feed distribution centres, such as Amazon, Kingsnorth.

The new station and passenger access will undoubtedly draw the attention of Londoners attracted by lower housing costs, lower living costs and a high-quality environment. Reduced journey times to London and the Medway Towns through direct trains or interchanges will further build the area's appeal. With Shamal St station close to Abbey Wood, an extension of Crossrail/Elizabeth Line services could provide direct services to Central London, Heathrow and Reading.

Service, industry and commercial developments will also benefit from easier commuting to and from the Peninsula.

Network Rail and the DfT are considering the impact of freight growth on the passenger service, finding that, via the Rail Network Enhancements Pipeline, doubling the line between Hoo Junction and the new station may be needed sooner than originally envisaged. This will have benefits for this scheme as it could be developed in parallel, reducing costs and the need for future disruption.

Dependency Testing

Dependency testing has been completed to determine the maximum capacity of the road network. Relevant parts of the **Appendix 1** are summarised here.

The Do-Nothing transport model was coded with incremental traffic trip rate growth and outputs concentrated on the impact of each growth scenario on local junctions in terms of the growth in average vehicle delay experienced across four critical junctions on the network:

1. A228 Main Road, Hoo;
2. A289 Four Elms roundabout;
3. A289 Sans Pareil roundabout; and,
4. A289 Anthony's Way roundabout.

An acceptable Level of Service (LOS) assumption of an average delay per vehicle of 65 seconds was applied. This is as an average of the minimum LOS for signalised (80 seconds) and non-signalised junctions (50 seconds). An average was applied across the network to simplify the network analysis process.

Table 4.4 below provides the results per junction in the AM and PM scenarios. It illustrates where individual junctions exceed the threshold of acceptable performance (shown in red). Each junction was modelled at housing growth (trip rate) levels that were within the overall threshold, with further trips being applied until the point at which they exceeded the threshold. Once the network exceeded the threshold, no further modelling was undertaken.

Table 4.4: Junction Delay Comparison

Homes Delivered	Combined Flow (pcu)	Weighted Average Delay (s/pcu)				
		Four Elms	Sans Pareil	Anthony's Way	Main Road	Combined
AM Peak						
0	18,798	87	29	70	25	54
1,000	19,251	81	27	71	39	56
2,000	19,667	76	38	72	63	64
3,000	20,026	82	32	75	89	72
PM Peak						
0	8,100	32	43	13	12	26
1,000	8,303	45	52	16	21	35
2,000	8,467	60	63	19	63	52
3,000	8,532	70	68	23	141	78

Source: (Project Centre, 2019. p.55)

The AM peak hour is clearly shown to be the critical peak. AM results have therefore driven conclusions and decision making regarding deadweight and housing growth potential.

It should be noted that the modelling indicated that junctions that exceed the thresholds show an exponential increase in delay as further trip growth is predicted, which indicates that the threshold applied is appropriate as an indicator of “network exhaustion”.

The AM peak scenario exceeds the threshold at 2,000 vehicles in the do-nothing scenario, with problems experienced at all but the Sans Pareil roundabout. Based on the AM and PM peak results, a deadweight of 2,000 homes has been assumed.

Site-by-Site Deadweight

The transport infrastructure constraints on the A228 and the Four Elms roundabout impact all sites. The road is the only access route to the Hoo Peninsula. As such, delivery on all sites is dependent on the relief road and highway improvements. This is illustrated by the AM peak results of the dependency testing in the Do-Something and Do-Less models prepared (see Table 4.5).

Table 4.5: AM Peak Hour Junction Delay Comparison: Do-Something and Do-Less

Homes Delivered	Combined Flow (pcu)	Weighted Average Delay (s/pcu)				
		Four Elms	Sans Pareil	Anthony's Way	Main Road	Combined
Do-Something (Option 1: Road and Rail)						
0	15,704	13	5	64	12	24
8,000	18,669	30	6	61	34	34
9,000	19,167	48	6	62	56	47
10,000	19,669	55	6	61	84	60
11,000	19,843	60	6	64	126	79
Do-Less (Option 2: Road Only)						
0	16,254	32	5	68	12	31
8,000	19,431	100	6	67	65	64
9,000	20,022	159	6	68	92	89
10,000	20,301	191	6	70	129	112

Source: (Project Centre, 2019. p.55)

The models used represent the following 2028 scenarios, corresponding respectively to Options 1 and 2:

- Do-Something: includes all housing growth with the new relief road in place and highway improvements on the A289 and at junctions on the Peninsula and the passenger rail service in place; and,
- Do-Less: includes incremental housing growth, with all planned highway improvements but without the passenger rail service in place.

Table 4.5 shows that the highway improvements are capable of expanding the capacity of the network to 8,000 homes. Rail improvements increase this further to 10,600 homes.

This limitation suggests that, in theory, any of the 34 sites enabled through Forward Funding could be brought forward until the 2,000 homes limit has been reached and planning permission would no longer be granted. Instead, sites with extant planning permissions granted by Medway Council are assumed to be brought forward and hence represent deadweight. This accounts for 940 homes across 9 sites (see Table 4.6).

Table 4.6: Sites with Extant Planning Permission

A recent planning application for 530 new homes (MC/17/2324) was turned down in July 2017 by the planning authority on environmental and traffic impact grounds:

"The proposed development will result in a significant rise in traffic movements on the wider local road network, resulting in an unacceptable increase in journey travel times and queueing times. The residual cumulative impacts of the proposed development on the road network are considered to be 'severe' and are contrary to Policy T1 of the Medway Local Plan 2003 and the principles set out in Paragraph 109 of the National Planning Policy Framework 2018."

Without the transport and environmental and social infrastructure funded through the HIF, it is unlikely that planning permission will be granted to any further schemes to the 940 homes. The 9 sites listed in Table 4.5 are considered to represent a *transport with environment deadweight* i.e. what is likely to be brought forward in the absence of intervention under current policy constraints. This would increase the additionality of the scheme to 75%. This deadweight scenario has been assessed as a sensitivity and a comparison of results is attached at Appendix 36a. The 2,000 homes deadweight resulting from the WebTAG appraisal has been used throughout the bid.

Total Additionality

reg. 12(5)(e)

. This suggests that 37% of the benefits of the scheme would happen in the absence of intervention. In other words, the housing benefits of the scheme are 63% additional.

Out of Scope

Out of Scope

[REDACTED]

Transport (Planning Policy)

The transport element of this response will make brief reference to national planning policy before outlining the existing local context and the emerging evidence base, including bespoke traffic modelling commissioned as evidence to support the Council's position. The implications for this proposal are set out in relation to the emerging approach to the integration of transport and land use planning.

Out of Scope

Out of Scope

[REDACTED]

subnetworks have been subject to detailed modelling, including the Four Elms Roundabout to Medway Tunnel. This will allow for the identification of mitigation requirements in the next phase of work.

2016 Base Year (Current Situation)

To provide an indication of the performance of different parts of the network and to identify potential traffic bottlenecks, the ratio of volume to capacity (V/C) for each turning movement in the model has been calculated and this is presented in Appendix X. The V/C plots are shown in yellow, orange and red plots, as below:

- yellow indicates turns that have a V/C between 80% and 90%, i.e. are operating below, but close to, practical capacity;
- orange indicates turns that have a V/C between 90% and 100%, i.e. are operating over practical capacity but below absolute capacity; and
- red indicates turns that have a V/C of greater than 100%, i.e. are operating over absolute capacity.

The V/C plots show that several turns across Medway already operate over capacity in the 2016 base scenarios. Specifically, the Four Elms Roundabout (A228/A289) is highlighted yellow and orange in the AM and PM peaks respectively. This key junction is therefore operating close to practical capacity during the AM peak and over practical capacity during the PM peak.

It is important to note that the AM and PM peaks for this part of the road network are likely to be prolonged due to commuters travelling longer distances and therefore the results are considered to be conservative. Moreover, this part of the network provides a key route for commuting to/from areas to the east of Medway and it is therefore more susceptible to external growth (e.g. Ebbsfleet Garden City and London Resort) if travel patterns continue, while the impact of dispersed traffic as a result of the proposed Lower Thames Crossing is unknown.

Committed development

The current performance and very limited capacity of the Four Elms Roundabout should be considered in relation to the total quantum of development on the Hoo Peninsula benefitting from extant planning permission. To date, this amounts to 705 new homes and 243,700 sqm of commercial B-class class floorspace. The Council has commissioned bespoke traffic modelling which will establish the impact of committed development on this part of the road network and this has been summarised later within this report.

Out of Scope



Out of Scope



Impacts on the road network

In relation to the impact on wider traffic matters, including the cumulative impact on local traffic/highway networks there are matters that need to be assessed.

A full traffic model has been calibrated and validated at both macroscopic and microscopic levels to enable both the wide-area strategic and local detailed effects of the Plan to be assessed. The modelling used has been reviewed by both Medway Council and Highways England and the model is considered to be fit for purpose for assessing the Medway Local Plan.

The transport work prepared by the applicant assumes a 2027 assessment year. It is therefore proposed that the impact of the development is assessed against the 2028 Reference Case scenario prepared for the Local Plan, since this is the closest modelled year to the applicant's assessment year. This takes account of both '2028 Reference Case' and '2028 Do Something' scenarios.

The full report is available on the Councils web pages however in summary, network wide statistics from the modelling indicate that in the 2028 assessment year, the addition of the development would result in increases in key congestion statistics, with significant increases in network-wide queuing in both the AM and PM peak periods.

Report to Accountability Board	Forward Plan reference number: FP/AB/130
Date of Accountability Board Meeting:	23rd February 2018
Date of report:	20th January 2018
Title of report:	A289 Four Elms Roundabout
Report by:	Reg 13
Enquiries to:	Reg 13

1. Purpose of report

- 1.1 The purpose of this report is to make the Accountability Board (the Board) aware of the value for money assessment for the amended A289 Four Elms Roundabout to Medway Tunnel Journey Time and Network Improvements Project (the Project).
- 1.2 The Project has previously been approved by the Board but a revised Business Case has been prepared for the Project owing to the substantial change to the Projects scope from a road bypass scheme to junction improvements.
- 1.3 The revised Project has been through the Independent Technical Evaluator (ITE) review process. The ITE report sets out the detailed analysis of the Project. This report is included in Appendix 1, of Agenda Item 5.

2. Recommendations

- 2.1 The Board is asked to:
 - 2.1.1 **Approve** the change of Project of scope from a road bypass scheme to junction improvements. The revised Project has been assessed as presenting high value for money with high certainty of value for money being achieved.

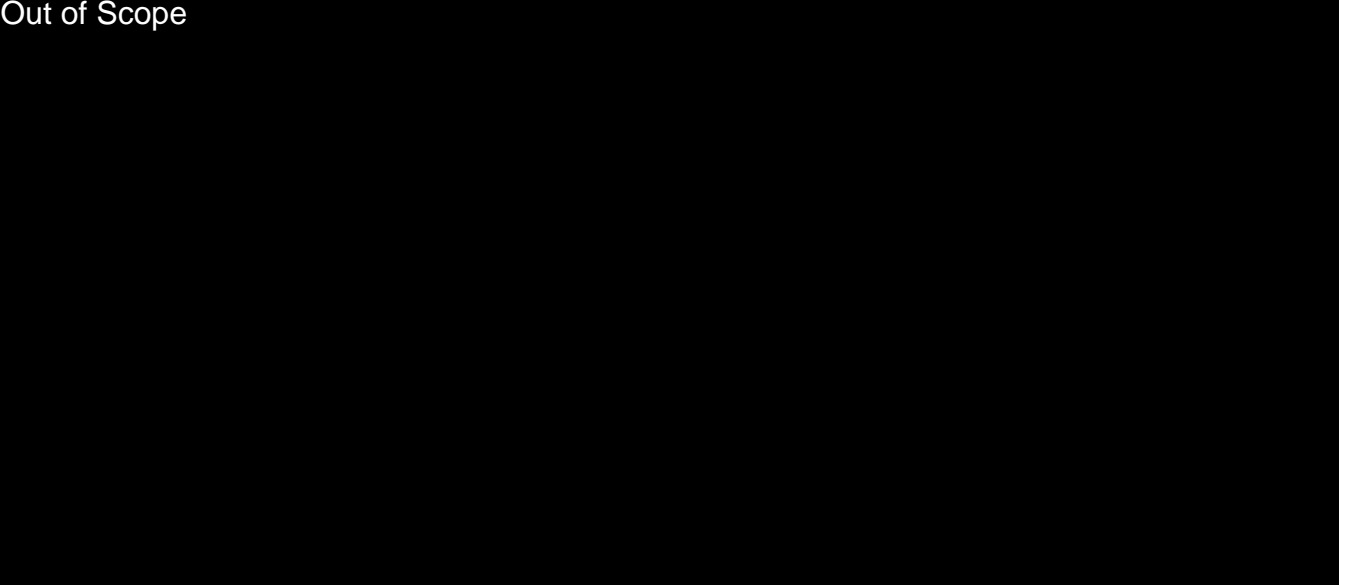
Out of Scope

3. A289 Four Elms Roundabout to Medway Tunnel Journey Time and Network Improvements Project

- 3.1 The Project focuses on a section of the A289 corridor which links the M2 Junction 1 with the Medway Tunnel. The A228 is the sole route linking the Hoo Peninsula with Strood. The A289 connects with the A228 at the Four Elms roundabout, which is a key traffic interchange in Medway.
- 3.2 The Hoo Peninsula has been identified as an area of growth in the emerging Medway Local Plan. Due to the limited transport infrastructure available to the residents of the Hoo Peninsula, any growth in the area will have an immediate and direct impact on traffic flows on the A289.
- 3.3 Currently the route is used by approximately 5,000 vehicles per hour in the peak periods. There are two key points along the corridor which cause significant delays for traffic using the route – the Four Elms roundabout and the Sans Pareil roundabout.
- 3.4 The aim of the Project is to provide a highway network between the M2 Junction 1 and the Medway Tunnel which can cater for the likely housing growth on the Hoo Peninsula that has been identified in the emerging Local Plan. In doing so, the Project will support the delivery of 5,284 new homes and 9,628 new jobs.
- 3.5 The Project will offer improved journey time reliability, reduced journey times (through reducing delays) and improved journey quality for all modes of travel including pedestrians and cyclists. The reduction in delays will also contribute to an improvement in air quality, which is particularly important given that Four Elms Hill, which leads to Four Elms roundabout, falls within an Air Quality Management Area.
- 3.6 The specific interventions to be delivered through LGF investment in the Project include:
 - 3.6.1 Increased capacity and full signalisation (including pedestrian crossing facilities) at Four Elms roundabout;
 - 3.6.2 Free flow slip road from Wainscott Bypass to Four Elms Hill;
 - 3.6.3 Additional lanes on Wulfere Way between Sans Pareil and Four Elms roundabout;
 - 3.6.4 Free flow slip road from Frindsbury Hill to Wulfere Way;
 - 3.6.5 Realignment of Wainscott Road junction (from Sans Pareil roundabout to Frindsbury Hill);
 - 3.6.6 Additional exit lane onto Berwick Way for right turning traffic; and
 - 3.6.7 Enforced reduced speed limit along the entire route.

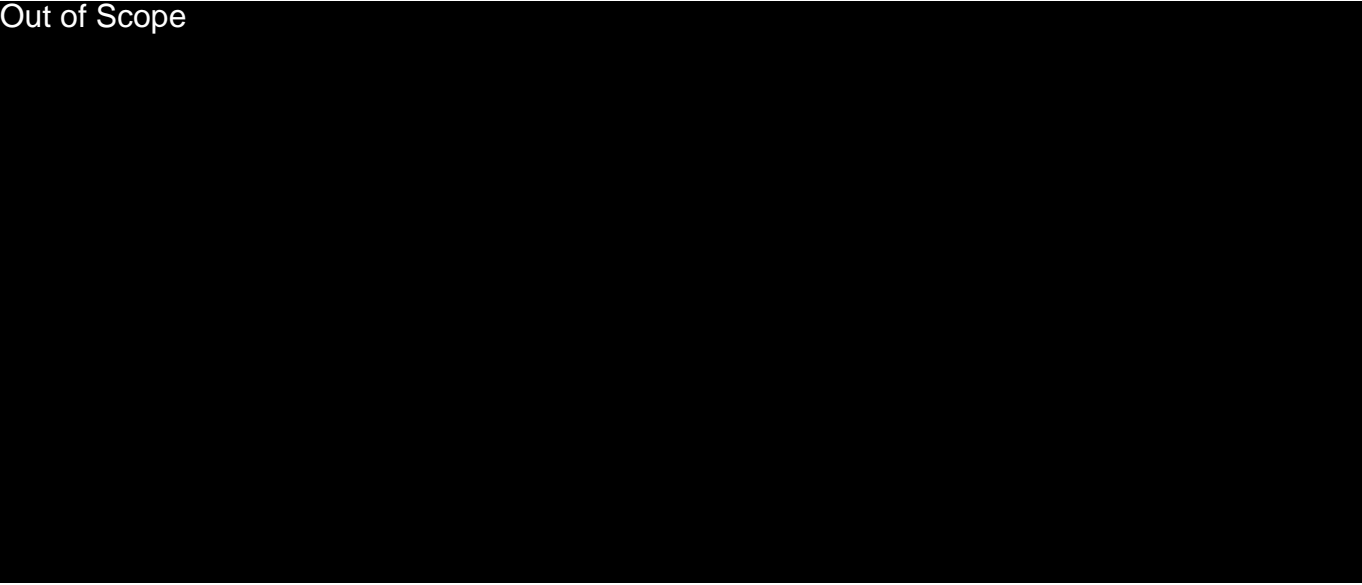
Out of Scope

Out of Scope



- 4.4 It is proposed that the bypass road scheme is replaced within the new proposal to increase highway capacity through the delivery of the interventions set out in paragraph 3.6 above.
- 4.5 The revised Project still seeks to achieve the Project benefits in tackling congestion to unlock development on the Hoo Peninsular and part of Medway City.
- 4.6 Whilst the delivery of 5,000 homes at the Lodge Hill site is no longer forthcoming, alternative sites are being considered within Medway Council's Local Plan. The delivery of the Project is required to support the delivery of residential and employment at the alternative sites within Medway.

Out of Scope



4 Mitigations – Bypass and BRT

Our analysis shows that the LGF proposal alone will not have the capacity to cope with the additional Hoo Development as proposed within the STA. As a result, proposed designs have been developed that build upon the LGF design to mitigate against the further highway demand anticipated from the Local Plan.

4.1 Four Elms Bypass

Medway Council has asked us to investigate the feasibility of a bypass link road that passes to the north of Four Elms Roundabout. We developed 3 variations on this scheme to test and review against wider policy.

Figure 4-1 Bypass Scenario 1



Figure 4-2 Bypass Scenario 2



Figure 4-3 Bypass Scenario 3



4.1.1 Four Elms Bypass - Costs and Constraints Overview

At the eastern end, the tie in at Peninsula Way / Main Road Hoo roundabout appears feasible. There is probably scope to provide dedicated lanes from the roundabout to serve the new link road and Peninsula Way, though there needs to be a review of how any new link road would interact with new development access roads already identified for the junction.

For all bypass options, key comments are:

- No obvious general issue with alignment - Land is fairly flat so minimal impact with earthworks etc.
- Land take / Public Rights / Impact on properties / farms etc. pose a problem.
- Derelict land may be contaminated which will generate additional costs if so
- Proximity to SSSI and associated constraints on land availability and costs associated with mitigations
- Potential upgrade required to existing overbridge and wider junction at B200/A289 for options 1 and 2
- Junction and overbridge upgrade likely to be required at Higham Road / A289 in Option 3
- Option 1 and 2 require longer link roads which will impact on construction and cost (depending any upgrades at main junctions).

The costs presented below are in addition to the LGF scheme costs.

4.1.2 Bypass Scenario 1 details

The total link length is projected to be 2.9km. The tie ins are the A228 Peninsula Way/Main Road Hoo roundabout in the east, and the A289 / B200 Lower Rochester Road flyover in the west.

From the A228 roundabout, the road alignment follows existing track towards and across Chattenden Lane onto derelict land to join proposed new roundabout as part of the development around Chattenden and Lodge Hill. There will be land issues here and possible CPO required to get the identified preferred alignment. For the link road to proceed, there may also be a need to change the layout of proposed development in the area.

The proposed route is to cut through the Construction Engineering school onto Butlers Hill road using the Woodfield Way alignment. This will lead to land access issues with regards to need to relocate the school and purchase the land.

New link required from Butlers Hill Road to B200 Lower Rochester Road. Again, this entails obvious land issues. It is likely that joining the B200 at this location (i.e. opposite slip road from A289) will cause congestion so we tested an upgrade as dumbbell roundabouts to try to accommodate increased traffic flows.

The overall route will include land take, including crossing identified development sites around Lodge Hill and the existing land of the Construction Engineering school. It has been identified that it will cross Butlers Hill Road, Haven Street, Upchat Road, and Chattenden Lane where roundabouts will be provided for local access.

The initial high level projected cost for Bypass Scenario 1 is £39million (at 2018 prices), this includes a 66% optimism bias. This includes construction costs, estimated land take costs, preparation and supervision, and optimism bias.

4.1.3 Bypass Scenario 2 details

The total link length is projected to be 3.4km. The tie ins remain the A228 Peninsula Way/Main Road Hoo roundabout in the east, and the A289 / B200 Lower Rochester Road flyover in the west. However, the link road uses a different alignment at the A228 tie in.

From the A228 roundabout, the road alignment looks to follow the alignment of proposed development roads in the area which takes it more northerly than Bypass 1. This option skirts around the properties along Chattenden Lane and the derelict land and so minimises disruption to existing properties causing less conflict. It is proposed to have a roundabout on Chattenden Lane and then link to same new roundabout as part of the development around Chattenden as Bypass Option 1. There will be land issues here and possible CPO required to get the identified preferred alignment. For the link road to proceed, there may also be a need to change the layout of proposed development in the area.

The proposed route is to run to the north of the Construction Engineering school onto Butlers Hill road. New link is required from Butlers Hill Road to B200 Lower Rochester

Road. Again, this entails obvious land issues. It is likely that joining the B200 at this location (i.e. opposite slip road from A289) will cause congestion so we tested an upgrade as dumbbell roundabouts to try to accommodate increased traffic flows.

The overall route will include land take, including crossing identified development sites around Lodge Hill. It has been identified that it will cross Butlers Hill Road, Haven Street, Upchat Road, and Chattenden Lane where roundabouts will be provided for local access.

The initial high level projected cost for Bypass Scenario 1 is £42million (at 2018 prices), this includes a 66% optimism bias. This includes construction costs, estimated land take costs, preparation and supervision, and optimism bias. The higher cost compared to Option 1 is associated with the longer alignment.

4.1.4 Bypass Scenario 3 details

The total link length is projected to be 2.1km. The tie in remains the A228 Peninsula Way/Main Road Hoo roundabout in the east, but would require a new slip road in the West to link to Hasted Road A289 at overbridge for Higham Road. Otherwise to the east, the Bypass option 3 follows the same alignment as Bypass 1.

From the A228 roundabout, the road alignment follows existing track towards and across Chattenden Lane onto derelict land to join proposed new roundabout as part of the development around Chattenden and Lodge Hill. There will be land issues here and possible CPO required to get the identified preferred alignment. For the link road to proceed, there may also be a need to change the layout of proposed development in the area.

The proposed route uses Islingham Farm Road to the south of the Construction Engineering school. This link would require a significant upgrade but may mean only taking a small section of land from the Engineering School instead of passing through the middle of it.

New slip road link would be required from Higham Road to the A289 Hasted Road. We have tested this link upgrade as dumbbell roundabouts on either side of overbridge to try to accommodate increased traffic flows.

The overall route will include land take, including crossing identified development sites around Lodge Hill and around the existing land of the Construction Engineering school. It has been identified that it will cross Higham Road, Upchat Road, and Chattenden Lane where roundabouts will be provided for local access.

The initial high level projected cost for Bypass Scenario 1 is £39million (at 2018 prices), this includes a 66% optimism bias. This includes construction costs, estimated land take costs, preparation and supervision, and optimism bias. The lower cost of shorter link road is offset by the need to construct a brand new slip road and junction at Higham Road / A289.

4.2 Alternative BRT and Hamburger highway scheme

This option focuses on building upon the proposed LGF scheme to offer further mitigations along the established highway alignment from Hoo to the Medway tunnel. The option has looked to add highway capacity at key junctions and offer a clear dedicated sustainable transport corridor on the core A228 Four Elms Hill and A289 link.

The scheme has designed up to 2035 requirements. However, there is scope by 2023 to have the scheme built but using the proposed bus lanes initially as general traffic lanes.

The indicative routing for two BRT routes are presented in the following figures.

Figure 4-4 BRT indicative routing (Chatham)

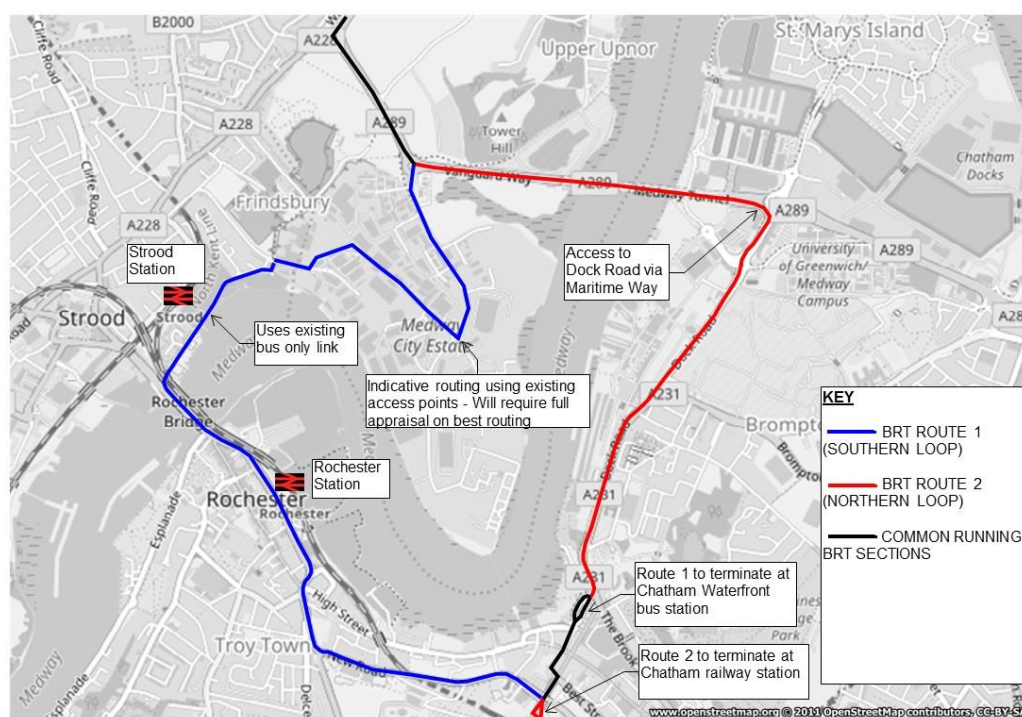


Figure 4-5 BRT indicative routing (Four Elms)

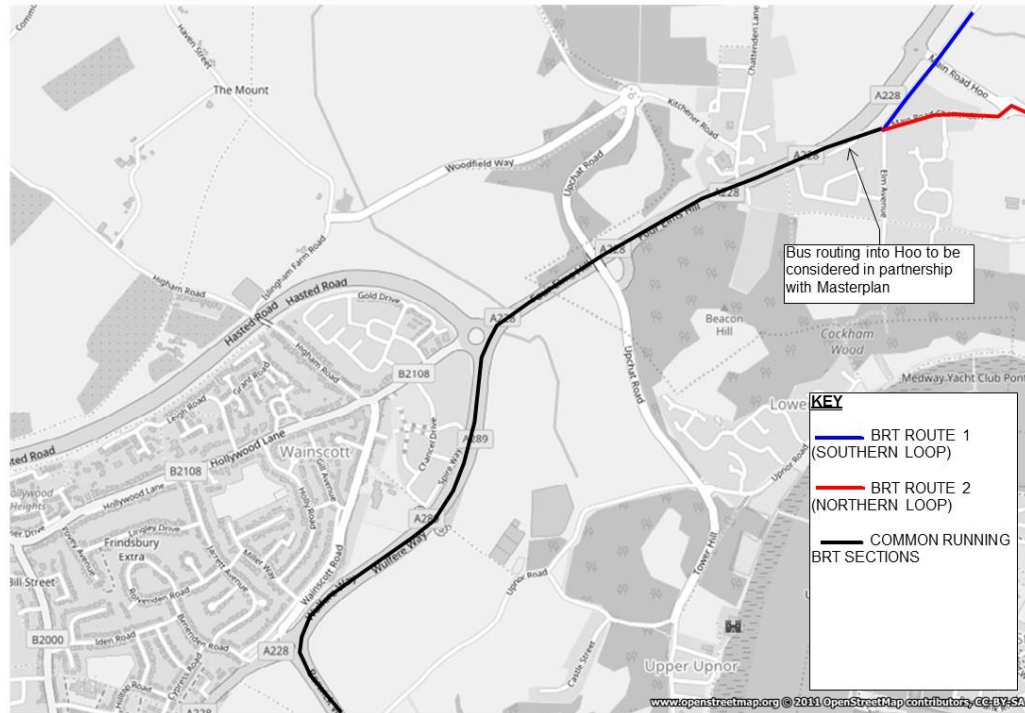
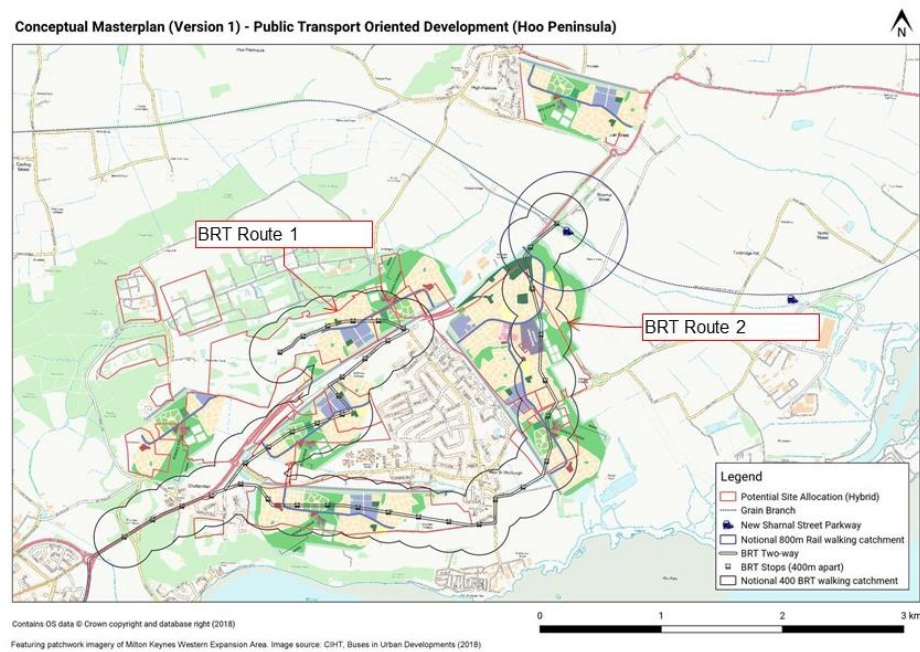


Figure 4-6 BRT indicative routing (Hoo)

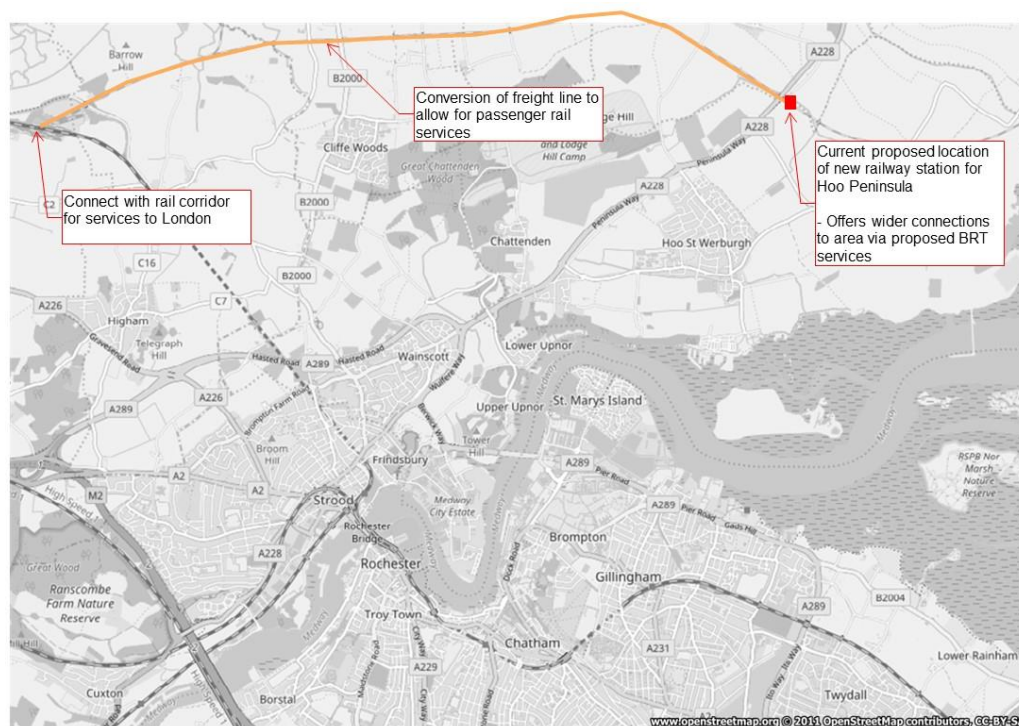


The routes shown are indicative. More detailed analysis will be required to identify preferred routing. Key initial assumptions are:

- Both routes 10-minute headway (combined sections 5 minutes)
- Both routes the same length – approximately 12 km
- Assumed end to end journey time – 30 minutes
- Assumed end to end average speed – 24 kmph

In addition, the scenario tested includes quantifying the modal shift effects of the proposed passenger rail service between Hoo and London that will use the existing freight line to the Isle of Grain as far as Hoo (Sharnal Street).

Figure 4-7 proposed new rail service link to Hoo Peninsula



4.2.1 Mode shift identified for BRT

We have undertaken further work to understand the potential mode share for bus and rail on the Hoo Peninsula. This will influence the level of highway demand in the model. It is anticipated that these schemes will induce more trips by sustainable modes and reduce trips by car. This in turn would be expected to relieve congestion and delay on the key links and junctions in the area.

An additional multi modal demand model using CUBE has been developed to gain a high level insight on potential mode shift from implementing the new BRT and rail schemes. The model uses the highway demand from the Aimsun model. The model then adjusts

the demand using elasticities as a result of reduced journey times by alternative modes to car. The revised CUBE model demand for highway trips, adjusted for mode shift for BRT and rail, is then imported into the Aimsun model to run with the revised highway designs for the BRT scheme.

Table 4-1 Highway trip matrix totals by modelled year (base, reference case, Hybrid, and Hybrid BRT) from STA and original 2016 LGF work

	2016	2023	2028	2035
Base & Reference Case STA (% change with base)	106,031	115,964 (+9%)	119,937 (+12%)	125,365 (+15%)
Diff RC to Base	-	+ 9,933	+13,906	+19,334
Base & Reference Case Original LGF testing (% change with base)	106,031	116,309 (+9%)	123,141 (+14%)	133,086 (+20%)
Diff RC to Base	-	+ 10,278	+17,110	+27,055
Base & Hybrid Demand (% change with base)	106,031	117,946 (+10%)	125,414 (+15%)	134,953 (+21%)
Diff Hybrid to Base	-	+11,915	+19,3836	+28,922
Base & Hybrid BRT Demand (% change with base)	106,031	117,946 (+10%)	125,414 (+15%)	133,599 (+15%)
Diff Hybrid BRT to Base (Diff BRT to Hybrid)	-	+11,915	+19,3836	+27,568 (-1,354)

The reduction in highway trips of 1,354 between the Hybrid STA demand and the BRT Hybrid demand is mainly related to trips to and from Hoo. It is approximately split 55% to new rail services to London from Hoo and 45% using new BRT bus services. This mode

shift to bus/rail is in addition to the assumed bus and rail trip mode share of census, which was originally used to distribute trips and demand from all new developments.

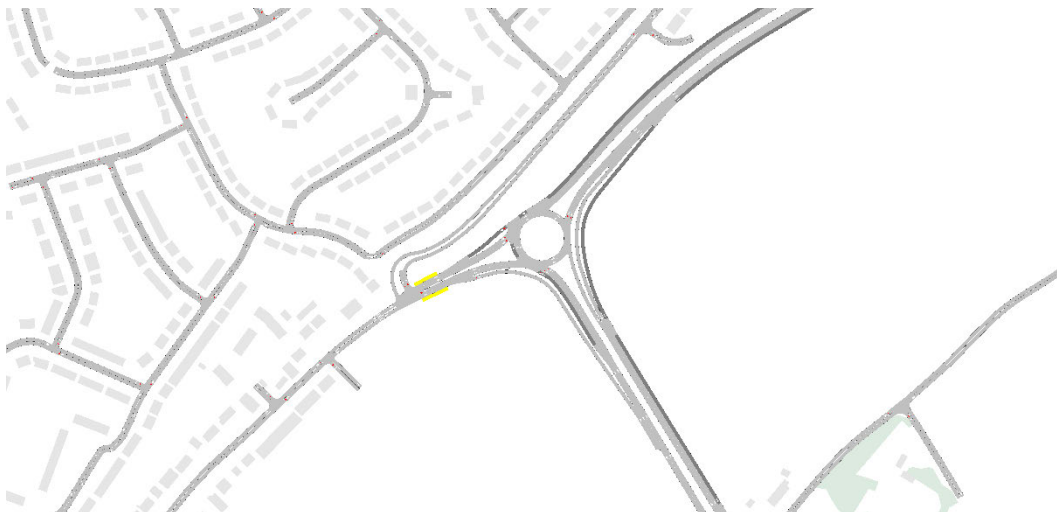
4.2.2 Overview in additional changes to design

Figure 4-8 BRT Four Elms Roundabout layout



There are number of key changes that build upon the LGF design. The changes primarily affect the Wulfere Way link. The link northbound leading onto the roundabout from Sans Pareil Roundabout sees the biggest changes. This link is proposed to be expanded to 5 lanes, with 3 lanes (2 general traffic + 1 dedicated bus lane) towards Four Elms Hill and 2 lanes that feed the roundabout for Hoo Road B2108 and Hasted Road A289. For Wulfere Way from Four Elms Hill past the Upchat Road overbridge southbound to Sans Pareil, an additional lane has been added that is to be a dedicated bus lane.

Figure 4-9 BRT Sans Pareil Roundabout layout



There is to be a dedicated bus lane added from Anthony's Way Roundabout up to the bus lane on Wulfere Way with provision around the roundabout. Also, a new bus lane has been added to connect with the addition lane for buses on Wulfere Way southbound. This uses the roundabout bypass and connects to Berwick Way.

Figure 4-10 Anthony's Way Roundabout layout



This layout has been set up without signals. However, there is passive provision for it to be signalised to improve flow. Bus lanes have been added from Berwick Way southbound to bypass the roundabout and feed into the 2 lane Medway tunnel approach. This is in addition to retaining the existing general traffic bypass lane southbound.

It is proposed that there would be a bus lane on Anthony's Way that would feed into a bus lane bypass of the roundabout, and then a bus lane on Berwick Way.

4.2.3 Anticipated LGF+BRT Costs and constraints

The scheme is expected to cost in the region of £16million-£22million. It is expected to be possible to implement by 2023, but with a phased roll out there after for bus services until final development schemes are completed. The scheme has been sized to 2035 requirements. The core part of the scheme can be built primarily within the existing highway boundaries, and so does not need extensive land purchase from third parties to proceed

The plot flow differences show an overall reduction in trips using the A289 at Four Elms Roundabout and Hasted Road in 2023. The flows on the Four Elms Hill link approaching Four Elms Roundabout rises from 2,625 in the 2023 LGF Hybrid model to 2,721. This is an increase of 96 (+4%). This reflects the additional capacity of the roundabout as a result of adding additional approach lanes from Wulfere Way and the hamburger arm.

The flow differences show an overall increase in trips using the A289 at Four Elms Roundabout and Hasted Road in 2035. The flows on the Four Elms Hill link approaching Four Elms Roundabout rise from 4,050 in the 2035 LGF Hybrid model to 4,454. This is an increase in 353 (+10%). There is also a reduction of flow on Upchat Road / Upnor Road by 400.

There is a difference of only +1% flow in highway demand on wider egress from Hoo to wider Medway area and beyond when comparing Hybrid BRT to Hybrid LGF layout. However, these figures do not consider the effect of mode shift from car. Taking account of the total projection in mode shift, it is anticipated to increase all mode flow for same trip demand by +29%.

6.4 BRT junction analysis

The following sections outline the scheme effects on the three key A289 corridor junctions.

6.4.1 Four Elms Roundabout

Table 6-7 2023 Four Elms Roundabout with Bypass Option

2023	2023 AM Hybrid LGF		2023 AM BRT		
Four Elms Roundabout	V/C	Flow	V/C	Flow	Flow Diff to LGF
Wulfere Way NB (left)	83	131	38	108	23
Wulfere Way NB (straight/right)	83	1,607	42	1,129	477
Hoo Road EB (left)	28	135	30	146	11
Hoo Road EB (straight/right)	57	606	36	381	225
Hasted Road SB left turn		773		1,120	348
Hasted Road SB (straight/right)	101	1,234	93	971	264
Four Elms Hill WB (straight/right)	100	1,397	65	1,513	116
Four Elms (left turn)		1,229		1,208	21
Total		7,111		6,577	534

1.1 New Road Options

1.1.1 Options for road alignments have been developed to enable traffic to by-pass the A228 and Four Elms Roundabout.

1.1.2 Three options were assessed, as shown in the following diagrams.

1.2 Option 1

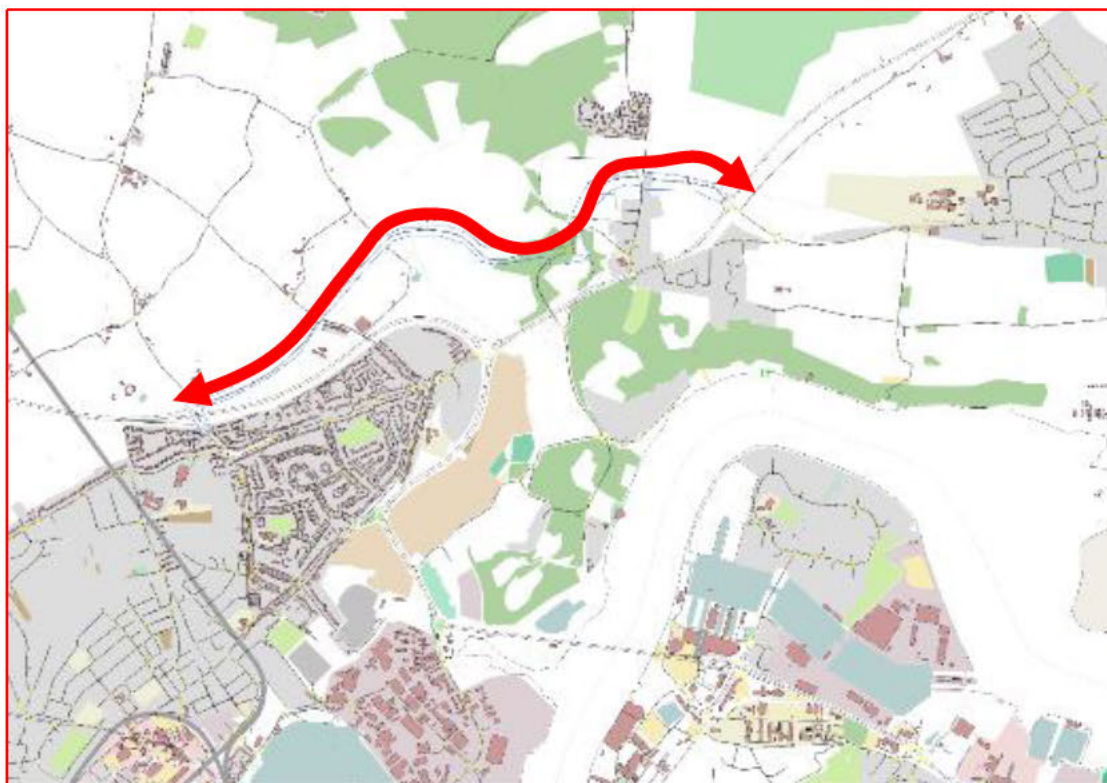


1.2.1 This proposed route would pass to the north of the MoD Construction Engineering school and pass through parts of the school via Butlers Hill road, using the Woodfield Way alignment. This could lead to land access issues with regards to the need to relocate part of the school and purchase land.

1.2.2 The MoD own parts of the road network, and significant tracts of the surrounding land. There will clearly be significant constraints to the required land acquisition, particularly given the need to construct on arable "green-field" land. The route also passes through areas of Special Scientific Interest (SSSI), with consequent issues relating to environmental damage and acceptability.

1.3 Option 2

1.3.1 As with option 1, this proposed alignment would pass to the north of the MoD Construction Engineering school onto Butlers Hill road. The overall route will include land take, including crossing identified development sites.



1.3.2 Like Option 1, this option will require partial relocation of the school and use of MoD land, as well as direct impact on a SSSI.

1.4 Option 3



- 1.4.1 This proposed alignment utilises an existing semi-rural road network to link Main Road roundabout to the A289. It requires upgrades to existing roads to a standard suitable for higher capacity usage. It would link to the A289 via new on and off slips immediately west of the MoD Engineering school. The route is not proposed to be for HGVS or a bus route.
- 1.4.2 The increased traffic flow will need to be controlled to mitigate any impact on the engineering school's operation, whilst also potentially offering some betterment through provision of improved crossings and better footways. Traffic signals/control could also be provided to give priority to engineering school vehicle movements to and from a nearby construction training area.
- 1.4.3 The route takes a defined path in the SSSI and therefore reduces the potential impact.
- 1.4.4 Although this road would require a significant upgrade, it would benefit from requiring accommodation and betterment of the engineering school's current accesses and assets, instead of passing through arable land.
- 1.4.5 The route also improves access and safety along the Islingham Farm Road from Higham Road,
- 1.5 Summary**



- 1.5.1 Modelling has indicated that all the relief road options would have a significant beneficial impact and go a long way towards releasing housing development on the Peninsula.
- 1.5.2 Of the three potential alignments that were investigated, all but one utilised large sections of unmade arable land. Following review of national and local planning policy and local planning applications Options 1 and 2 were discounted as having too great an impact on the SSSI areas and as offering too great a risk in terms of impact on the MoD engineering school.
- 1.5.3 Option 3 was taken forward as preferred route for further consideration.

- 4.11 The road improvements that are to be included within the bid will be to the main A289 Road; these will be from the Four Elms Roundabout, through the Sans Pareil Roundabout and completing at Anthony's Way Roundabout. The improvements will include additional lanes to widen the roads in this area, as well as improvements to the roundabouts including new slip roads off the roundabouts to improve traffic flow and reduce traffic queueing at the roundabouts.
- 4.12 Improvements are also proposed for Four Elms Hill. The current slip roads that lead onto and off Four Elms Hill are to be extended to improve access to and from the Hoo Peninsula, and improve traffic flows in this area, which should also reduce the impact on the current Air Quality Management Area (AQMA).
- 4.13 A new road is proposed to link the A228 from the Main Road roundabout to the A289. This will mean that traffic wishing to access the M2 from the Hoo Peninsula, or traffic returning from the M2/A2 will not have to travel via Four Elms Hill or the Four Elms Roundabout, reducing traffic in this area. This new road will require various improvements and widening to local roads and roundabouts as well as a new slip road/bridge to access the A289.
- 4.14 Various local road and roundabout improvements have also been identified for Main Road Roundabout, Bells Lane Roundabout and Ropers Lane Roundabout as well as the new signalised access road from the Ratcliffe Highway for the new train station at Sharnal Street.
- 4.15 The team are currently working on the option appraisals required for the Business Case. This includes reviewing the benefit versus cost ratio for the project as well as the build programme for the road works to establish if these local improvements can be included within the HIF Bid.

Out of Scope



- SELEP have agreed that the 5,284 homes attributed to the A289 LGF scheme cannot be directly delivered by the A289 scheme, so this figure for housing will instead be delivered across Medway and attributed to the wider LGF Programme. Housing output is not the main focus of the A289 LGF scheme; the focus is journey time and road network improvements.
- The A289 scheme currently proposed for the LGF, was the best of the options assessed for inclusion in the HIF bid evidenced through the Sweco high level modelling carried out, and therefore has been included in the HIF bid in its entirety. Other options such as the Bus Rapid Transit and Bypass/relief roads have been assessed as less effective and were therefore not carried forward.
- The HIF overall scheme will deliver 10,600 homes, which has been calculated through extensive modelling and as outlined within the HIF Business Case.

HIF/LGF Comparison Table:

	LGF A289 Scheme	HIF Highways Proposal (including A289 scheme)
Infrastructure Delivered	A289 improvements.	A suite of interventions including A289 improvements, additional improvements to Four Elms Roundabout, a relief road and wider improvements on the Hoo Peninsula.
Cost of Infrastructure	£11.1m	£85.6m
Homes Output	1,000	8,000
Funding Approval Stage	Outline Business Case submitted, initial funding allocation approved and part award to develop and submit full business case at risk. Full business case will be submitted reviewed by an ITE, followed by a SELEP Accountability Board decision on whether to award the full funding Autumn 2020.	Full Green Book Appraisal submitted, decision to fund the proposal to be decided by Central Government Summer/Autumn 2019.
Project Delivery Funding Options	HIF granted; LGF funding allocation released back into SELEP wider LGF programme fund. Project delivered via HIF. HIF not granted; LGF full business case submitted September 2020 for award of funding and delivery of project.	

Project Summary

What is the name of the scheme

New Routes to Good Growth

Please provide an Executive Summary for your proposal

This bid seeks £170 million in Housing Infrastructure Fund (HIF) Forward Funding to unlock development of 10,600 homes on 283.5 hectares in a new rural town at Hoo St Werburgh and in a wider network of villages.

Medway's housing needs assessment indicates a requirement for 28,033 homes between 2018 and 2035. The ability to house this growth in established urban and suburban areas without excessive strain on existing infrastructure is heavily restricted. Medway Council's preferred approach, identified in the emerging Local Plan process, focusses growth in a new rural town in the Hoo Peninsula, alongside urban regeneration and sustainable settlement expansion.

With HIF infrastructure, 10,600 houses will be complete by 2035, meeting 38% of Medway's housing need. **reg. 12(5)(e)**

Out of Scope

Out of Scope

£85.70m in road infrastructure including: improvements to the A228, a new Woodfield Way A228 Relief Road; a wider package of highway improvements providing capacity and to enable development resilience at Four Elms junction, presently the main access for the Hoo Peninsula; and £14.35m on a Strategic Environmental Management Scheme including 150ha of wetlands and other measures to manage the effects of development in a high value environment. £6.01m is needed to resource project delivery.

Out of Scope

Out of Scope

Please summarise how you will work with the other key stakeholders to ensure project success (i.e. local residents / businesses)

As explained in Section 7.2, the NRGG Board will be the main mechanism for ensuring that key stakeholders including landowners and infrastructure providers and operators will have an opportunity to inform and influence future iterations of the Hoo Masterplan and the design and delivery of the Strategic Environmental Management scheme.

Engagement has already taken place with many key stakeholders and this has assisted in providing the Council with a well-developed understanding of the profile of land interests across the Hoo Peninsula.

The emerging Local Plan process forms the main mechanism for engaging local residents and businesses. The draft Local Plan has already been subject to three rounds of statutory public consultation in 2016, 2017 and 2018. Details are set out at: https://www.medway.gov.uk/info/200149/planning_policy/519/future_medway_local_plan/3. This represents the latest stage of engagement with stakeholders as to the suitability of the Hoo Peninsula to accommodate significant housing growth. Over 300 responses were received to this consultation and further consultation is programmed for summer 2019 (Regulation 19). Depending on the outcome of the HIF bid, this Regulation 19 consultation draft will include additional detail in relation to growth on the Hoo Peninsula. This will be key mechanism for engagement with local residents and businesses.

Furthermore, a Neighbourhood Plan (NP) area has been designated at Hoo St Werburgh and High Halstow is also progressing its Neighbourhood Plan. It is possible that Neighbourhood Plans will be brought forward during the course of the HIF project. A representative from the NP area will be invited to the NRGG Board to ensure they are engaged throughout the project and ensure that Neighbourhood Plans are produced in compliance with the Local Plan. As set out in the governance structure shown at 7.2.3, a specific Community Participation Group is proposed which would provide the key forum of engagement with the Parish Councils etc.

The draft indicative masterplan has been subject to consultation during workshops held at the Chattenden Social Club and also at the main Council offices in Chatham. Stakeholders invited included local charities, parish councillors, representatives from local health and education services and council officers representing environmental health, public health and leisure

Out of Scope