

## Tiptree Parish Council case regarding the siting of A12 Junction 24

Ref no: 20032917

For the Summary Document: see Library document RR-144 Tiptree Parish Council

1. Tiptree Parish Council (TPC) welcomes the proposed A12 widening scheme. However TPC is concerned that:
  - a. National Highways (NH) have not adequately considered the impact of the Junction 24 proposals upon traffic flow in Tiptree village.
  - b. This has resulted in flawed methodology that has led to an inappropriate siting of Junction 24
2. I wish to refer you to **The Highways England** (now National Highways) **A12 Chelmsford to A120 widening, Scheme Assessment Report Addendum, 2020** and **Appendix D Junction 24** in particular. This report sets out the alternative schemes considered for the siting and layout of Junction 24.
3. The report settles on the current proposal to site Junction 24 at the bottom of Inworth Road, between Tiptree and Feering.
4. Paragraph 3.3.2 on page 9 of the main report explains the justification for relocating junction 24 in the above position, i.e. further south, to the west of Inworth Road compared to the current location. The paragraph states, *'Following the Non-Statutory Public Consultation events held in 2017, it emerged that there was a preference for a junction on Inworth Road ..... (this) ..... promotes the right traffic on the right roads as it reduces the volume of strategic traffic making journeys on the wider local road network ..... It is also understood that a junction near Inworth Road provides an economic benefit to the scheme .... particularly because the junction becomes more attractive for traffic from Tiptree and reduces journey times.*
5. This justification is further elaborated upon in Appendix D Junction 24. This appendix explores a number of alternative options for Junction 24 before settling on the current proposal (Option F). It cites the following benefits (but I wish to draw your attention to the top three):
  - a. **Promotes the right traffic on the right roads**
  - b. **Tiptree to A12 (SB) traffic joins the A12 at the new junction 24 location, instead of travelling via Rivenhall End.**
  - c. **Significant reduction on cross-country route along Braxted Park Road, and therefore lower traffic at junction 22 compared to Stage 2 location.**
  - d. The reduction in traffic on Braxted Park Road and Rivenhall End should have the effect of reducing casualty rates in those areas.
  - e. Most cost efficient
  - f. Reduced impact on Prested Hall, as the junction moves west.
  - g. Lowest level of traffic on Inworth Road between J24 and Gore Pit.
  - h. Addresses statutory stakeholder request for moving the junction towards Inworth Road.
  - i. Reduced impact on Crown Estate land.
6. It is clear that 'the right traffic on the right roads' means all traffic uses Inworth Road to reach the A12 via the new Junction 24 rather than Braxted Park Road to access the A12 via Rivenhall End. The prospect of a new all-ways Junction in Inworth Road, attractive to both north and south-bound traffic from Tiptree and with shortened journey times would, at first glance, appear preferable to Tiptree residents. However this view is totally lacking any detailed consideration of the impact of such a scheme upon traffic flow through Tiptree village. It is disappointing that

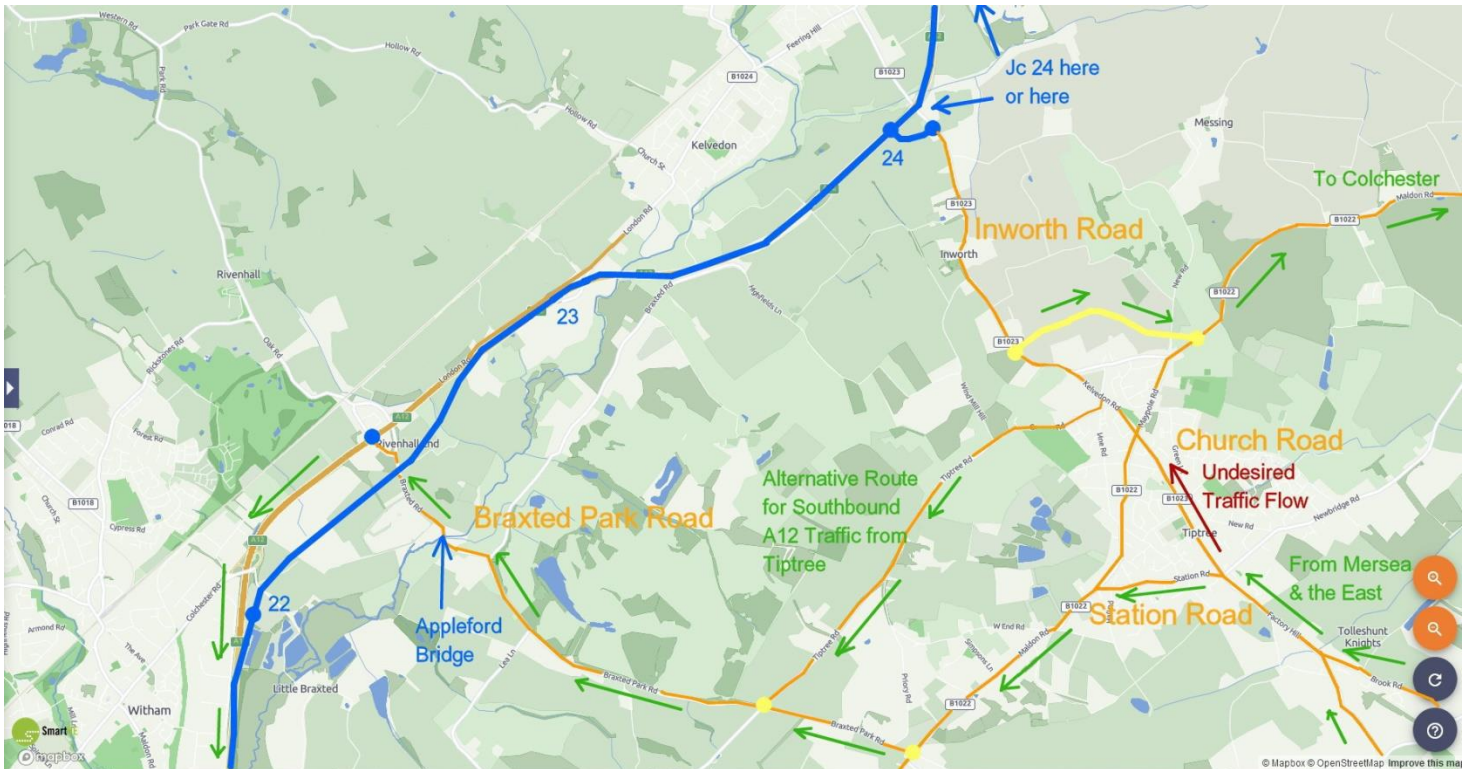
NH regarded any impacts upon Tiptree as ‘a local issue’ and consequently excluded Tiptree village from any detailed analysis in these formative stages.

7. The Traffic predictions published by NH illustrated the supposed benefits of the scheme.
8. **The October 2019 consultation**, at the time of the proposed Marks Tey Garden Village, predicted the following traffic volumes in Inworth Road (Table p33, A12 Chelmsford to A120 widening junctions 23 to 25 Consultation Brochure):

This table shows how traffic volumes would change at various locations as a result of the A12 improvements, for each of the four route options. The forecast traffic volumes shown are during the morning peak period in the first year of opening the improved road.

Road	Traffic volume without A12 improvements (vehicles per hour)	Option A	Option B	Option C	Option D
1 Inworth Road, Inworth B1023	700	+26	+9	+1,032	+1,049

9. Options A and B retained Junction 24 in its present position near Prested Hall. Note the minimal predicted increase in traffic. Options C & D envisaged the Junction being moved to Inworth Road. This represents an increase in morning peak traffic of almost 150%.
10. **The Highways England (now National Highways) A12 Chelmsford to A120 widening, Scheme Assessment Report Addendum, 2020, Appendix D Junction 24 (Option F)** predicted the peak morning traffic in Inworth Road would increase by 1224 PCUs (Passenger Car Units) per hour from 793 to 2017 PCUs per hour by 2042. This represents a 154% increase. It also predicted a decrease in Braxted Park Road. This is in contrast to the DS Stage 2 proposal in which Junction 24 remains in its present location near Prested Hall (but without the spur from Inworth Road). In this scenario the morning peak increase in Inworth Road is only +21 and the increase in Braxted Park Road +116. Nevertheless this option (DS Stage 2) was **rejected because it does not relieve Braxted Park Road traffic in the same way as Options E or F and because it is the least effective option at reducing northbound delays for traffic approaching Gore Pit from Inworth.**
11. Not surprisingly the huge increase in traffic predicted for Inworth Road caused great alarm among the residents of Inworth. It was also quickly realised that much of the extra traffic would be passing along Church Road, through the centre of Tiptree.
12. Tiptree has a population of some 10,000 and is a designated ‘District Centre’ supplying the needs for the surrounding rural communities. As such it includes three supermarkets and a variety of shops and businesses not to mention four primary schools and a large secondary school. Church Road is the shopping and commercial centre of Tiptree and it already suffers from high levels of through traffic making Church Road difficult to cross and contributing to high levels of ground-level pollution.
13. It has long been an aim of Tiptree Neighbourhood Plan to avoid, as far as possible, any significant increase in Church Road traffic. For example, proposed future development in Tiptree is positioned to the north and west where residents can access the A12 and other main routes without passing through Church Road.
14. The ‘through traffic’ in Tiptree originates from settlements to the east such as Tollesbury and West Mersea. For traffic heading for the A12 south bound (SB), Tiptree is on the direct route.
15. An important strategy, developed at an early stage of Neighbourhood Planning following community consultation in 2016, was to encourage traffic heading to the A12 southbound to use



Station Road and the Braxted Park Road route via Rivenhall End, whilst northbound traffic (there is less NB through traffic) would continue to use Church Road and Inworth Road to access Junction 24 north-east of Feering. These routes are shown on the map above.

16. The map above also shows the A12 widening proposals that were subsequently made public in 2020 after our initial Neighbourhood Plan publication. These included a new 4-way Junction 24 at the bottom of Inworth Road. **It was immediately obvious that this proposal would result in far larger volumes of traffic in Inworth Road and Church Road as both north and southbound traffic headed for this new junction.**
17. Tiptree NP considers that the benefits claimed under a, b and c (paragraph 5 above) completely contradict the NP and do not constitute benefits in the light of the predicted increase in traffic in Inworth Road and the likely commensurate increase in Church Road as southbound traffic from Mersea and settlements to the east makes its way to the new junction.
18. This increase in Inworth Road traffic has rightly caused concern to the residents of Inworth and Messing cum Inworth Parish Council. The road is not designed for this volume of traffic and there remain significant 'pinch points' that cannot be addressed.
19. Tiptree PC has also expressed its concerns regarding the failure by NH to adequately consider the potential impact of the Jc 24 proposal on traffic flow in Tiptree and the likely unacceptable levels of traffic in Church Road.
20. The response by NH has been to revise its computer modelling. The revised predictions make interesting reading. The NH sources for the following information are provided in Appendix A.
21. At a TEAMS meeting with Highways England on 23rd November 2020 Tiptree PC was given to understand that, due to revised computer modelling, the predicted peak morning increase in Inworth Road traffic had fallen from 1032 PCU and was now 975 PCU. It was still predicted that traffic in Braxted Park road would decrease.
22. At the June 2021 consultation the peak morning increase was given as 674 PCU taking traffic from 729 PCU to 1403 PCU (a 92% increase). A decrease in Braxted Park Road was predicted.

23. In the supplementary consultation brochure of November 2021 the updated computer prediction is given to be an increase of only 327 PCU, from 784 PCU to 1,111 PCU. This represents an increase of 42%.
24. Finally, at the TEAMS meeting with National Highways on 15th March 2022, Tiptree PC was told that the increase in traffic entering Kelvedon (Inworth) Road at the Factory Shop roundabout was only 110 vehicles per hour (vph). Since this is the major source of traffic entering Inworth Road it is difficult to see how this figure compares to the increase of 327 given in November 2021. NH had no answer to this. Tiptree PC was also informed that NH believed that all southbound traffic entering Tiptree from the east would follow the Station Road – Braxted Park Road route via Rivenhall to access the A12. This is in complete contrast to the conclusions drawn in 2020 and quoted at paragraph 5 point b above. Two further slides presented by NH to Tiptree PC on 15th March 2022 are included in Appendix A. One slide predicts an increase in traffic on Inworth Road towards the new junction 24, accompanied by a decrease on Braxted Park Road. It explains that this is driven by changes in traffic patterns for traffic from Tiptree itself such as traffic from east of Tiptree now travelling to J24 to head south on A12, instead of via Station Road/Braxted Park Road/Rivenhall End. **This is in complete contradiction to the previous slide** that states that no traffic arriving in Tiptree from the east is predicted to use the new junction 24 to travel south on the A12 – rather it will travel via Braxted Park Road.
25. The Table below summarises the figures quoted for morning peak traffic increases in Inworth Road

Year	Present (vph)	Increase	new total (vph)	% increase (Date)
2019	700	+1032 or +1049	=1732 or 1749	150 (opening)
2020 (Appendix D J24)	793	+1224	=2017	154 (2042)
2020 (November)		+975		(c139) (2027)
2021 (June)	729	+674	=1403	92 (2027)
2021 (November)	784	+327	=1111	42
2022 (March)		+110*		(c14) (2027)

\*This is the projected increase in Kelvedon Rd at the Factory Shop double roundabout

26. It is evident that NH now accepts that promoting ‘the right traffic on the right roads’ means, in this case, encouraging southbound traffic from Tiptree to use Braxted Park Road and access the A12 via Rivenhall End and for northbound traffic to use J24.
27. So we are forced to the conclusion that the original justification for adopting Option F (paragraph 5 a, b & c above) is no longer valid. Indeed the assumed benefits (a, b & c) have been shown to be neither factually correct nor desirable.
28. **In summary:** The justification for moving junction 24 to Inworth Road was that it would shorten journey time from Tiptree and that all A12 bound traffic from Tiptree would use this junction thus reducing traffic in Braxted Park Road. The computer modelling supported this view with a 154% increase in traffic in Inworth Road. Subsequently, and in the face of opposition, revised modelling showing smaller and smaller increases in traffic in Inworth Road and a commensurate increase in Braxted Park Road traffic is now used to justify the retention of Junction 24 in this

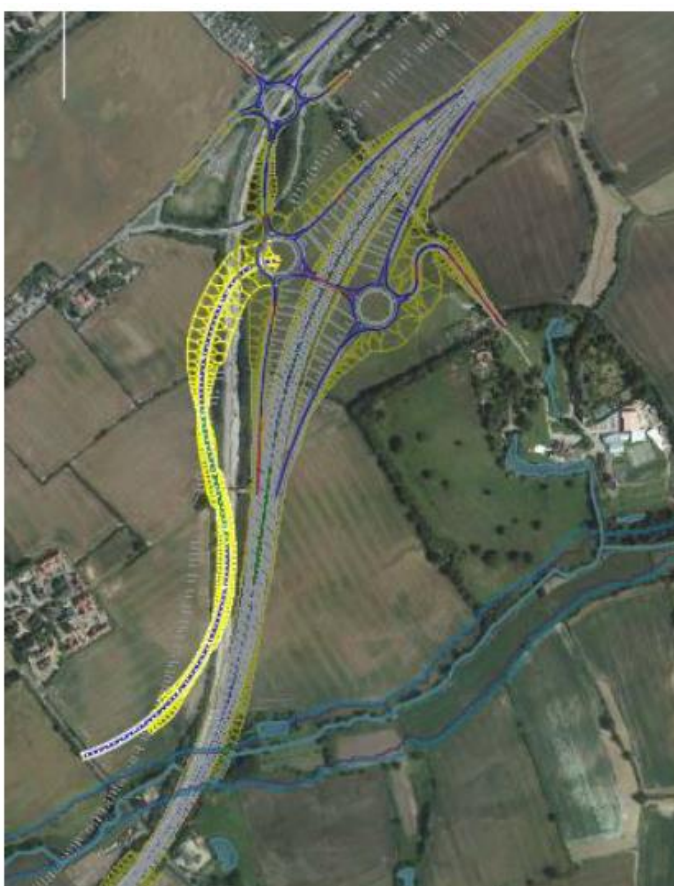
new position. **This is of course absurd and the original justification for moving junction 24 in the first place has been completely undermined.**

29. Such flawed and muddled thinking cannot be allowed to determine the future of our road network. Local communities will be living with the consequences of this decision for decades.
30. There needs to be a reconsideration of the original DS stage 2 option where J24 remains at Prested Hall (paragraph 9 above). **The reasons for rejecting this option are also no longer valid.** The reasons given for the dismissal of this option are, *'it does not relieve Braxted Park Road traffic in the same way as Options E or F and because it is the least effective option at reducing northbound delays for traffic approaching Gore Pit from Inworth Road (at Blue Anchor Pub)'*.
31. However it is now recognised that it is *not* desirable to relieve Braxted Park Road and the problems at Gore Pit are easily solved by a spur from Inworth Road to the Junction as proposed in Option A (detailed in **The Highways England (now National Highways) A12 Chelmsford to A120 widening, Scheme Assessment Report Addendum, 2020, Appendix D Junction 24**).

32. Option A should most certainly be reconsidered in the light of subsequent developments in traffic predictions and theoretical considerations. This is the preferred option for Tiptree PC as **the diversion towards Colchester would be a disincentive to southbound traffic** thus maintaining the 'split' between southbound and northbound traffic. This would keep traffic in Church Road at current levels and only create a very small increase in Inworth Road traffic (see paragraphs 8 & 9).

### 33. In Conclusion.

34. The lack of informed modelling of traffic flow through Tiptree has led to assumed benefits that have been shown subsequently to be of no benefit at all.
35. In particular, the policy that directs all traffic onto a single minor road (Inworth Road) has been shown to be unacceptable.
36. Traffic modelling by NH clearly leaves much to be desired. The latest figures predicting traffic increases in Inworth Road that are only 10% of what they were predicted to be in 2019 does not inspire confidence in predictive computer modelling by NH. TPC is left feeling that NH is telling us what they think we want to hear and it is hard to know what to believe. But NH cannot have it both ways. The predicted increases in 2019 were clearly unacceptable. If these are correct then the huge increase in traffic in Inworth Road and through Tiptree village centre makes it obvious that Junction 24 should not be placed in this location. If the latest figures are correct then the original justification for placing the Junction in Inworth Road is no longer valid. Either way **there is no valid justification for the proposed siting of Junction 24.**



**Junction 24 Option A.**


37. The best solution is to leave Junction 24 at Prested Hall (as per option A). That way traffic levels in Church Road, Inworth Road and Braxted Park Road will remain at levels similar to existing levels. Together with improvements to the Braxted Park Road (see below) this will provide good access to the A12 without resulting in unacceptable levels of traffic through Church Road, Tiptree or Inworth Road.

### **The Braxted Park Route**

Wherever Junction 24 is placed, the Braxted Park Road route via Rivenhall needs to remain a viable and attractive option for southbound traffic. In this respect the doubling of Appleford Bridge is considered essential (see also Appendix B) plus the creation of a roundabout at the Maldon Road/Braxted Park Road junction. If Junction 24 is placed at the bottom of Inworth Road the impacts on Tiptree are likely to be severe and very difficult to mitigate. Nevertheless these upgrades to the Braxted Park Road become even more essential. In addition, serious consideration will need to be given as to how to prevent lorries, heading east from the A12, exiting at J24 and subsequently passing through Church Road. The most obvious way to achieve this is to leave Junction 24 in its current position, further north-east towards Colchester.

TPC invites the Examining Authority to give careful consideration to these serious concerns and it looks forward to further opportunity to discuss this matter.

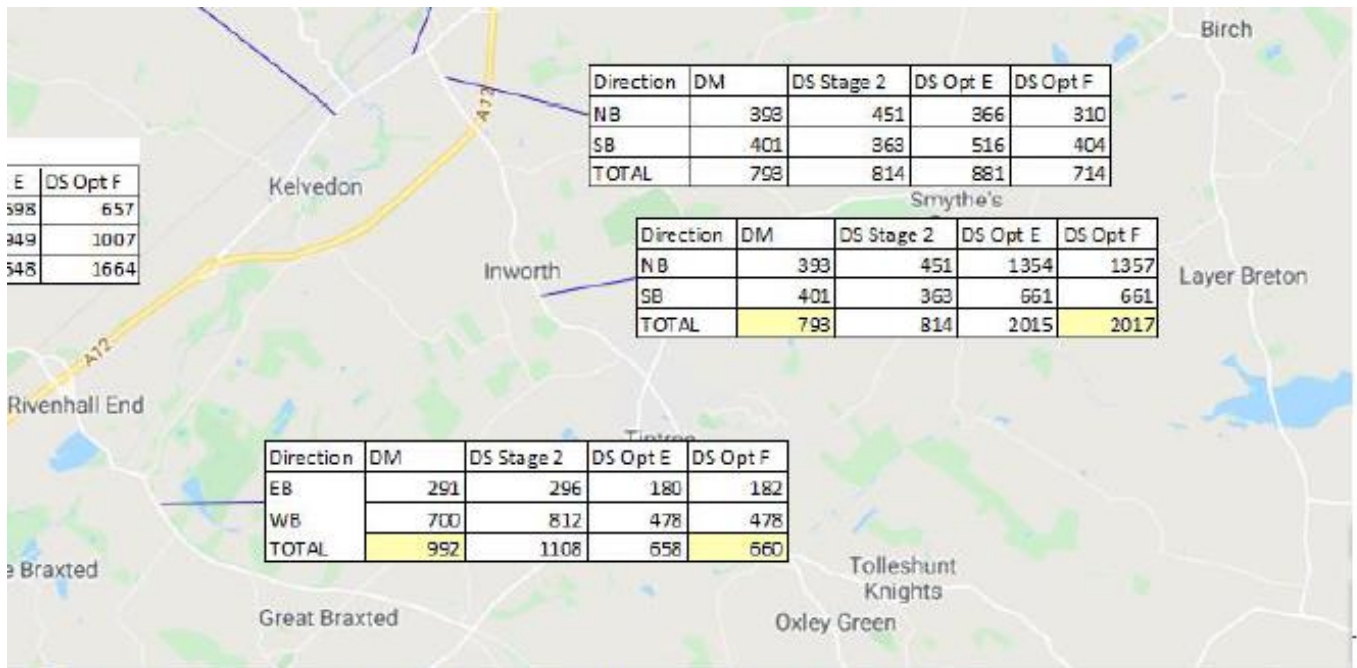
Cllr Jonathan Greenwood  
Chairman of Tiptree Parish Council  
Chairman, Tiptree Neighbourhood Plan Steering Group  
On behalf of Tiptree Parish Council  
January 2022



# Appendix A

Sources for the traffic predictions (key figures highlighted in pale yellow)

## 1 The Highways England (now National Highways) A12 Chelmsford to A120 widening, Scheme Assessment Report Addendum, 2020, Appendix D Junction 24

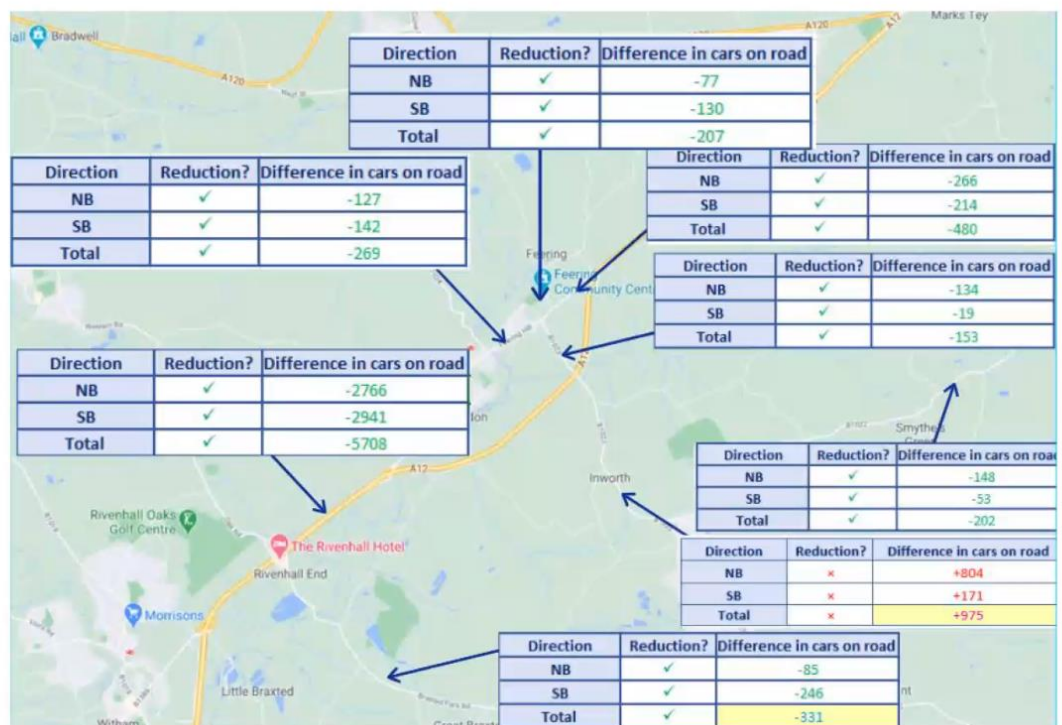


AM peak hour traffic flows (PCUs per hour) (2042).

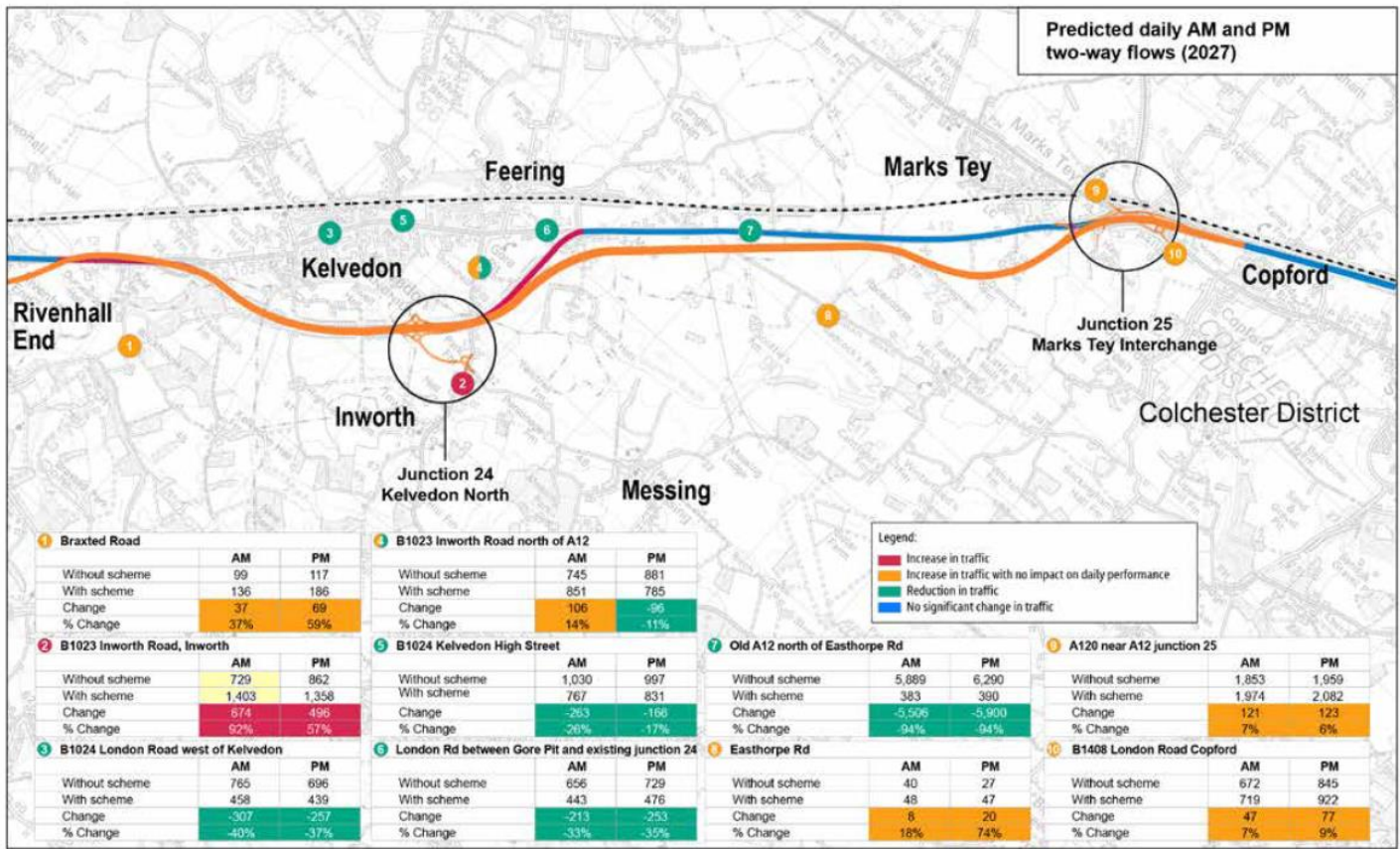
## 2 A TEAMS meeting with Highways England on 23rd November 2020 (PowerPoint slide)

### Traffic AM 2027

The map to the right shows how the traffic reacts to our junction at the AM peak in 2027 (day of opening).



### 3 June 2021 Consultation Brochure



### 4 The supplementary consultation brochure of November 2021

A12 Chelmsford to A120 widening

#### Traffic assessment for Inworth Road

Since holding the statutory consultation, we have updated our traffic model. The updated model shows a correction to the figures we presented at the statutory consultation. This is due to the model more accurately reflecting the condition of the road.

As the table below shows, while traffic is still expected to increase significantly through the village of Inworth, it is not expected to be as significant as what was presented at statutory consultation. As an example, in the morning peak traffic was predicted to rise by 92%, it is now expected to rise by 42%. In the evening peak it was expected to rise by 57%, it is now expected to rise by 34%.

	Statutory consultation		Updated traffic model	
	AM	PM	AM	PM
Without scheme	729	862	784	846
With scheme	1,403	1,358	1,111	1,132
Change as a result of our design update	674	496	327	286
% change	92%	57%	42%	34%

In addition to updating our traffic model, we have tested our proposed pinch point interventions to ensure that the road can manage the additional traffic. We do this by predicting the journey times a driver might experience along the section of Inworth Road from Perrywood Garden Centre to just south of where our proposed junction 24 connects. The table below outlines the results of that work:

Average journey times, in seconds (10 runs)		
	without A12 propose scheme	with our proposed updated design
<b>AM peak</b>	Existing Inworth Road	Existing Inworth Road – with Improvement Proposals
Northbound	92	92
Southbound	91	90
Average journey times, in seconds (10 runs)		
	without A12 propose scheme	with our proposed updated design
<b>PM peak</b>	Existing Inworth Road	Existing Inworth Road – with Improvement Proposals
Northbound	87	88
Southbound	89	91



## Impact on Tiptree including double-mini roundabouts

Change in traffic in Tiptree due to the scheme is shown on the right.

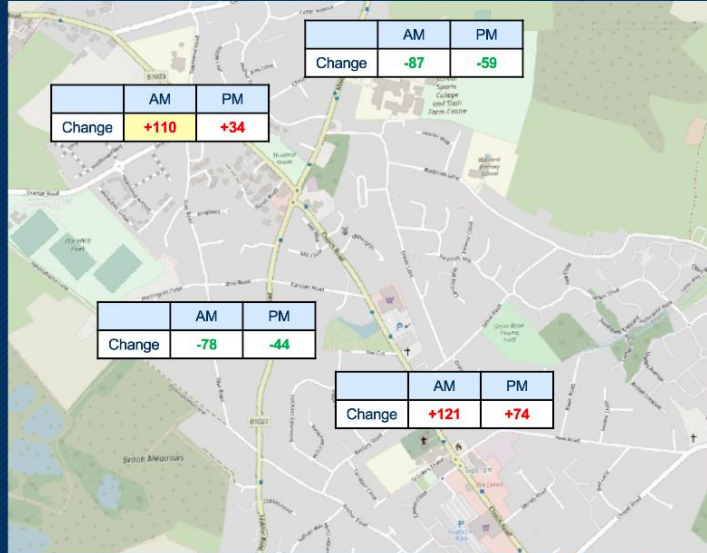
This is the change two-way traffic in vehicles per hour, comparing the 'with scheme' and 'without scheme' models in 2027.

Increase on Church Road (up to two cars per minute) but decrease on Maypole Road / Maldon Road.

Impact on double-mini roundabouts has been modelled. This shows that the junction would be over capacity by 2042, regardless of the A12 scheme.

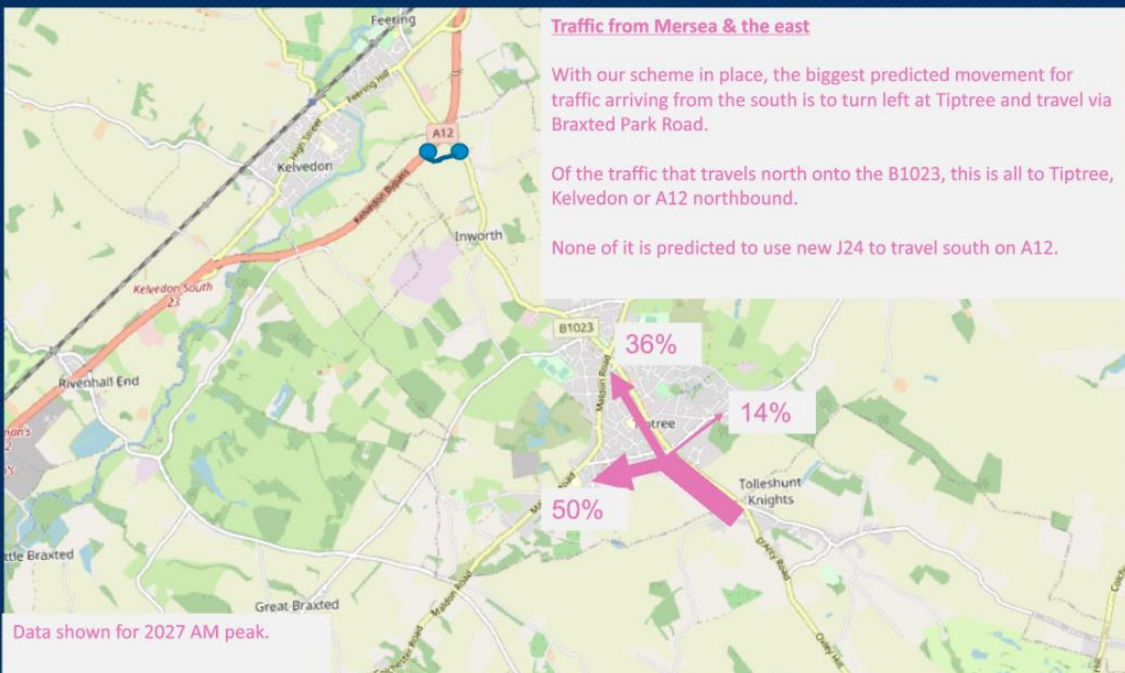
RFC on worst arm			
Without scheme		With scheme	
AM	PM	AM	PM
0.79	1.04	0.68	1.03

RFC = Ratio of Flow to Capacity.  
Values over 1 = operating beyond its theoretical capacity.



Note the contradiction in the slides below.

## Traffic patterns shown in model



### Traffic from Mersea & the east

With our scheme in place, the biggest predicted movement for traffic arriving from the south is to turn left at Tiptree and travel via Braxted Park Road.

Of the traffic that travels north onto the B1023, this is all to Tiptree, Kelvedon or A12 northbound.

None of it is predicted to use new J24 to travel south on A12.

Data shown for 2027 AM peak.



## Traffic patterns shown in model

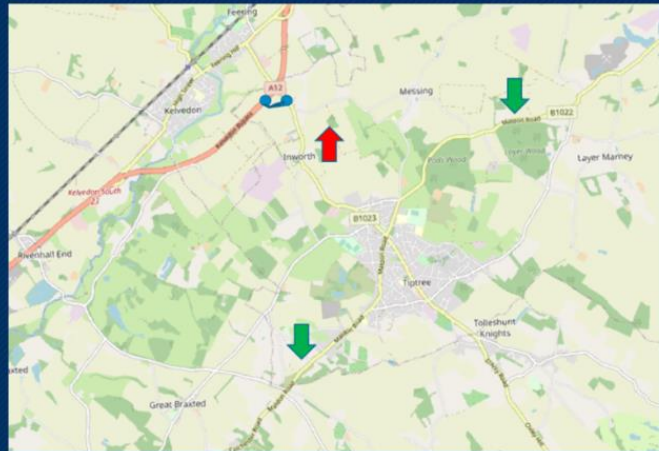
All routes out of Tiptree would remain open with our proposed scheme in place.

However, we predict an increase in traffic on Inworth Road towards our new junction 24, accompanied by a decrease on Braxted Park Road and on the B1022 to Colchester.

This is driven by changes in traffic patterns for traffic from Tiptree itself.

For example:

- Traffic from east of Tiptree travelling to J24 to head south on A12, instead of via Station Road / Braxted Park Road / Rivenhall End.
- Traffic from west of Tiptree travelling to J24 to take A12 to Colchester, instead of B1022.



## Appendix B

### A further note on the Appleford Bridge crossing :

The Maldon District Council Local Development Plan Review 2021+ webpage includes a downloadable Excel file detailing site information and assessments (dated January 2022):

Attention is drawn to item 48 Great Braxted – which refers to a plan to increase the size of the Commodity Centre near Appleford Bridge.

Below is an extract consisting of the relevant details:

#### ***Maldon DC Site information and assessments Jan 2022***

*GB1 (item 48) Great Braxted*

*The Commodity Centre, Braxted Park Road, Great Braxted, Witham, Essex*

*The site is proposed for additional warehousing to an existing business. The site lies within the open countryside surrounded by open countryside with period dwelling houses around it. The site is quite well screened from the roads that surround it and the proposal is to incorporate substantial green planting to ensure that the development which would sit within this planting is screened. The river Blackwater runs along the eastern boundary along with a public footpath. At the northern end of the site is a Grade II Listed building Appleford Cottage. Opposite the site on Braxted Road is Braxted Park with its walled enclosure along the roadway, this is a listed park. The site has some high and medium river and surface water flood risk from the River Blackwater. Colemans Reservoir is to the east of the site. The site has a solar farm within it already.*

***The site is proposing a new junction off Braxted Road which bypasses a dangerous bend in the road and a listed bridge. This would provide an alternative crossing of the Appleford Bridge.***

*On balance it is considered that development of the site would be suitable. The site is quite isolated but it is already an employment site and this would be an expansion to the existing site and use with extensive planting and green space around it, this would mitigate against the impact on the landscape and provide additional biodiversity enhancement. The site is proposing additional employment land which would provide jobs for the wider economy and therefore may be acceptable. The site is also proposing a new safer junction onto Braxted Road which would cut off a dangerous bend in the road.*

*Suitable, Available, Achievable, Phasing time: 0-5 years*

(Source, for reference purposes only: [Local Development Plan Review 2021+ | Maldon District Council](#) )

#### **Tiptree Parish Council Comment**

It is not clear from the text whether or not the proposal improves the Appleford crossing for all users or just for lorries using the Commodity Centre; however it is seen as a priority for Tiptree that the Appleford Bridge crossing is improved to allow two-way traffic so that the Great Braxted route remains a viable alternative for southbound A12 traffic. This issue will become even more pressing if the relocation of Junction 24 proposed by NH is allowed.

It is not clear exactly what Maldon DC is proposing at Appleford Bridge but it makes absolutely no sense to provide a new crossing purely for the use of lorries wanting to access the Commodity Centre. **Tiptree PC would like to see Appleford Bridge crossing improved for all users.** There are various possible options from a total bridge rebuild to the creation of a second single-lane crossing.