



TECHNICAL NOTE

DATE:	10 December 2024	CONFIDENTIALITY:	Internal
SUBJECT:	Greater Exeter Model Update - Exeter Local Plan Development Impact		
PROJECT:	70105008	AUTHOR:	Edward Dawn/Vishal Sheelavantar
CHECKED:	Kerry Hellewell	APPROVED:	Tom Metcalfe

INTRODUCTION

WSP has been commissioned by Devon County Council (DCC) to prepare 2040 forecasts for the Greater Exeter model which include all developments from the forthcoming Exeter, East Devon, Mid Devon and Teignbridge Local Plans. The preparation of these forecasts has been covered in the following reports:

- *Greater Exeter Traffic Model Forecasting Report*, DCC (October 2021)
- *Greater Exeter Model Update*, WSP (October 2023)
- *Greater Exeter Further Modelling*, WSP (November 2024)

This technical note presents the impact of the forthcoming Exeter Local Plan developments and background SRN growth on the highway network around Exeter.

METHODOLOGY

Demand Matrices

The 2030-2040 Exeter development sites represented in the 2040 forecast models comprise 5,799 new dwellings and 16 hectares of employment land. The development list is still emerging and the modelling will be an iterative process that is updated as the Exeter Plan continues to progress through publication and submission.

RESULTS

Traffic Flows

The 2030-2040 Exeter developments add traffic to some major routes. Plots showing the Exeter 2040 development flows in the AM and PM peak hours are included at the end of this note. On the Strategic Road Network (SRN) the developments add 100 to 200 vehicles per hour on the A30 between the A30 Ide Roundabout and M5 J31 and up to 300 vehicles per hour on the M5 between J29 and J31. Other routes like the A377 Alphington Road to A30 Ide Roundabout, Exe Bridges and A30 Honiton Road also see 100 to 200 vehicles per hour from the developments.

Despite the additional development traffic, much of the network within central Exeter shows a reduction in flow (5-20%) between 2017 and 2040. This is due to the local background traffic adjustments¹ applied as part of the 2040 forecasting process. There are net increases in flow (20-50%) on the roads on and adjacent to the SRN junctions (M5 J29, M5 J30, A30 Ide roundabout).

¹ See Table 3-1 of *Greater Exeter Model Update*, WSP (October 2023)

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Volume/Capacity Ratios

The volume/capacity ratio plots included in the *Greater Exeter Further Modelling* report indicate that there are a number of junctions within Exeter which would be operating close to or over capacity by the 2040 future year. Of these junctions, Table 1 and Figure 1 show the junctions that have either the largest V/Cs or the largest V/C increases between the 2030 and 2040 forecasts. It is recommended that these junctions are investigated further to understand the cause of the high V/Cs. It should be noted that these V/Cs are based on all allocated development traffic from all four Greater Exeter districts, including the full allocation of 8,000 dwellings at the East Devon New Community (of which only 3,300 will be built by 2042).

Table 1 - 2040 highest V/C nodes within Exeter

Junction	Model Node	Description
Station Road/Causey Lane junction	9564	AM V/C is over 100% in both 2030 & 2040 (100% in 2017)
Pinn Lane/Poltimore Drive junction	7307	AM V/C is over 100% in both 2030 & 2040 (128% in 2017)
Tithebarn Way/Pinn Lane junction	4520	AM V/C is over 100% in both 2030 & 2040 (119% in 2017)
M5 J29 SB offslip signals	1215	PM V/C increases to over 100% in 2040 (90% in 2017)
Pinhoe Road/Venny Bridge junction	9508	PM V/C is over 100% in both 2030 & 2040 (100% in 2017)

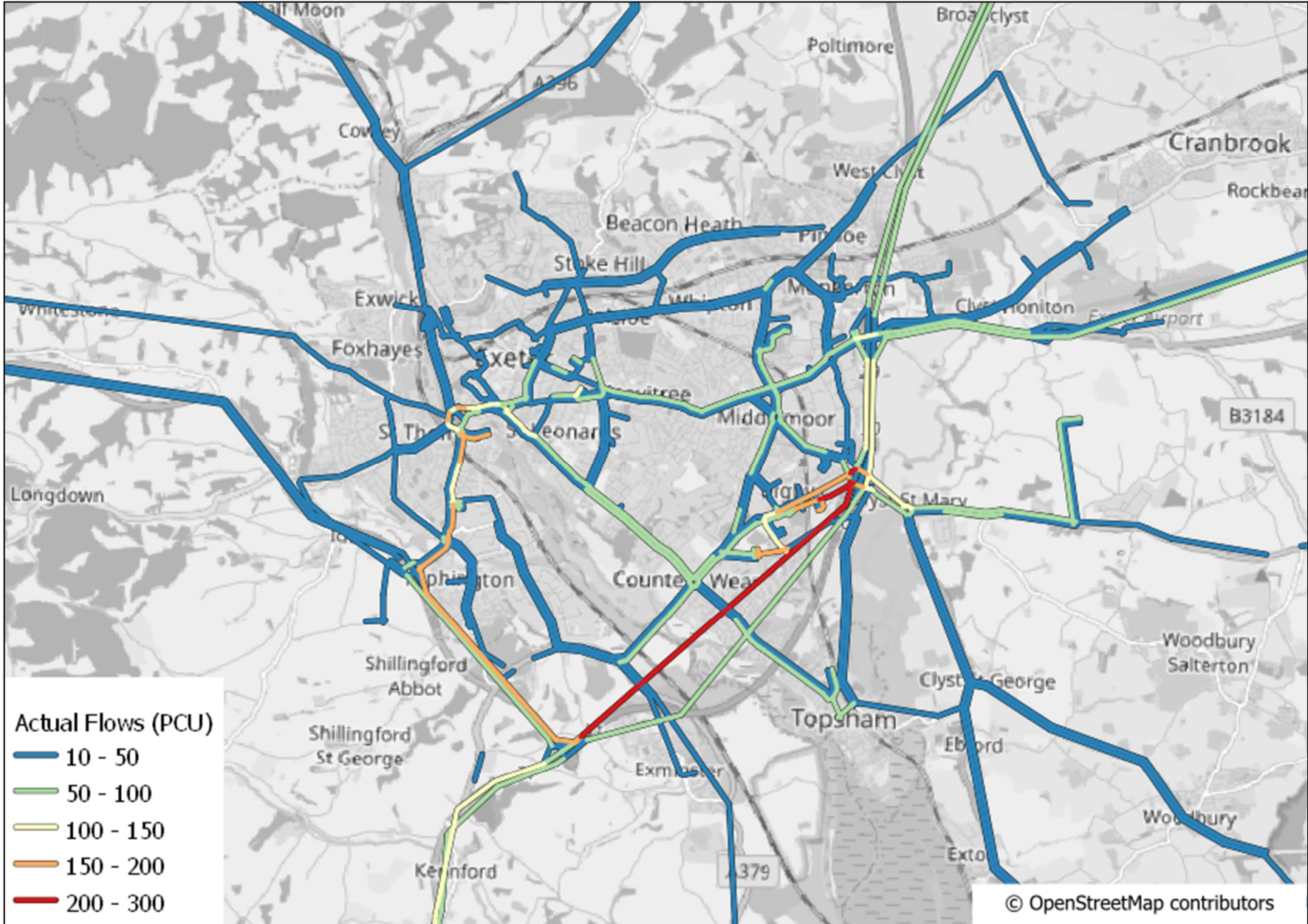
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Figure 1 - 2040 highest V/C nodes within Exeter



Exeter 2040 AM development flows



Exeter 2040 PM development flows

