## Bridge or Bypass? Give us your view.

Scotia Homes have been asked to consult the public in relation to traffic routes in and around the proposed development Masterplan at Cromleybank.

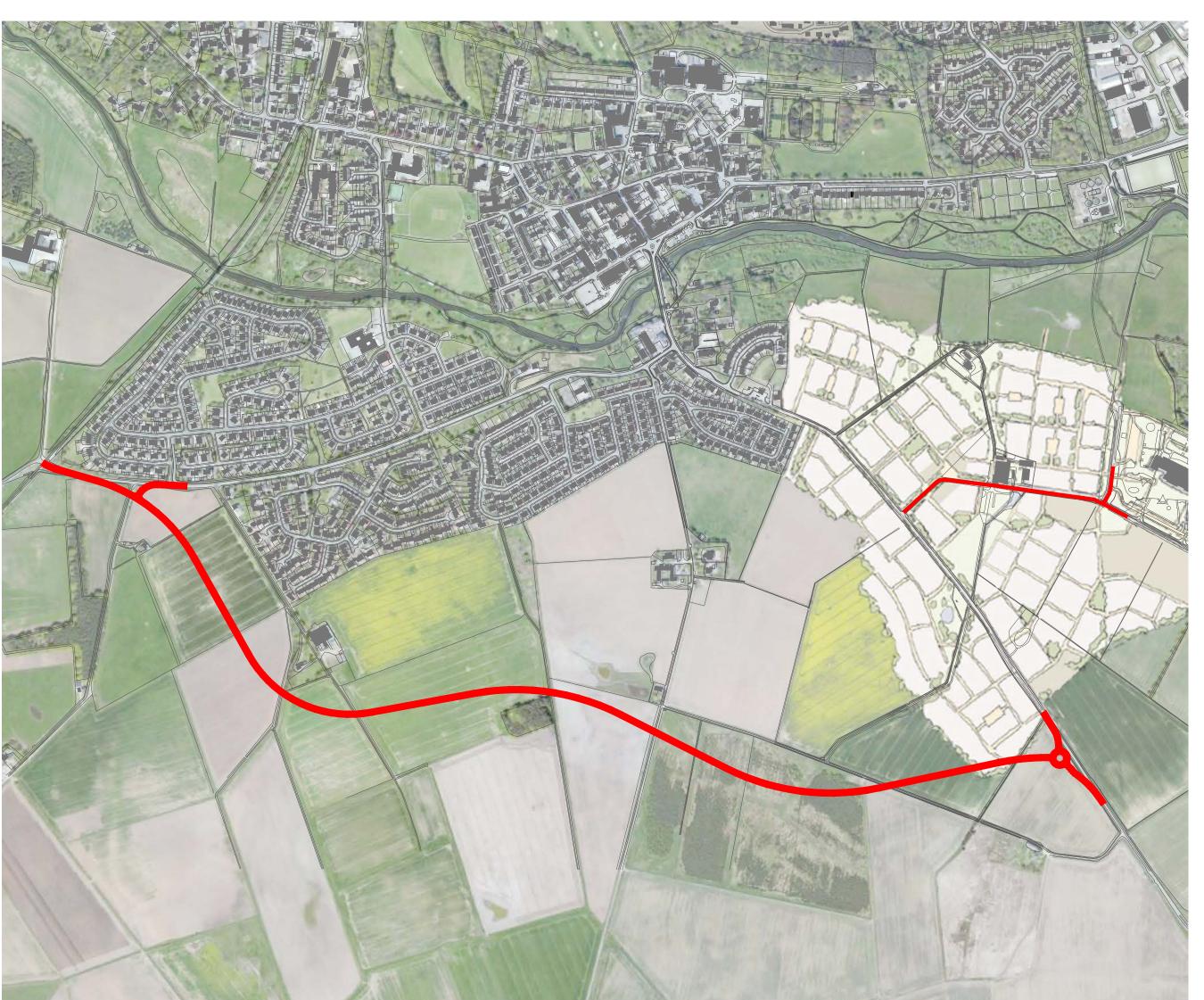
You are invited to view the presentation and provide your comments and feedback on this issue.

Bridge

or

Bypass





#### Bridge or Bypass

The boards to the right show options for possible vehicular routes relating to the Cromleybank Masterplan.



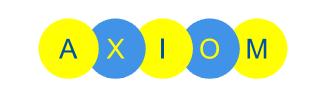
#### Cromleybank Masterplan

The boards to the left are being displayed in order to provide context for the question. These boards were previously presented to the public in October 2014.













### Traffic Assessment

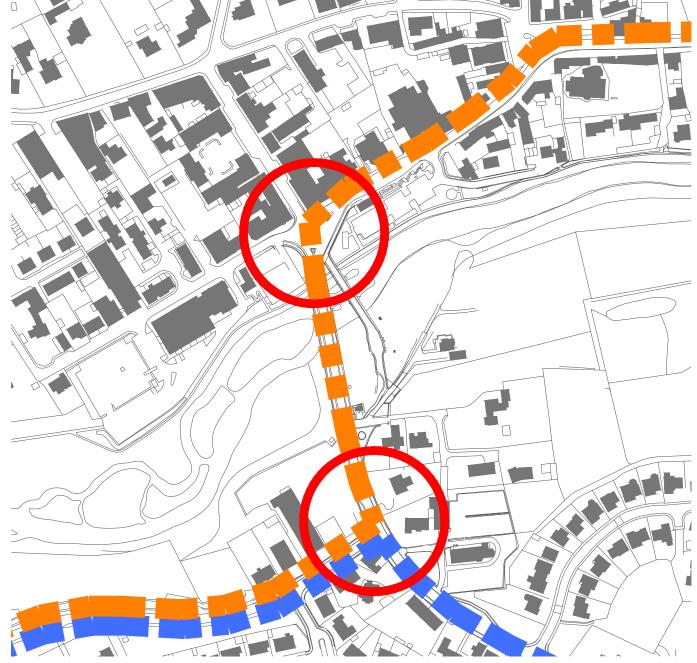
A Traffic Assessment (TA) has been carried out to assess the current traffic flows around Ellon and to model what will happen as Cromleybank grows in size. The TA identified that the main movement of traffic was primarily non-local vehicles moving from Inverurie/Oldmeldrum to A90 trunk road and vice versa.

The TA identified that the bulk of traffic moved through two key junctions as identified in the pictures below. The TA shows that these key junctions will start to come under pressure once 400 houses have been built at Cromleybank.

Traffic modelling was carried out firstly to assess the current situation as a reference case to which all other traffic modelling could be compared. Traffic modelling exercises were then undertaken to assess the impact of development at Cromleybank with the inclusion of two alternatives; a bridge or a bypass.

The scope of the traffic modelling was agreed with Aberdeenshire Council and the modelling exercises was then undertaken independently by SIAS, the Traffic Consultant used by Aberdeeshire Council across the road network.

Results of the traffic modelling are summarised on the adjacent boards showing options 1 & 2. The results are also presented as diagrammatic animations on display.



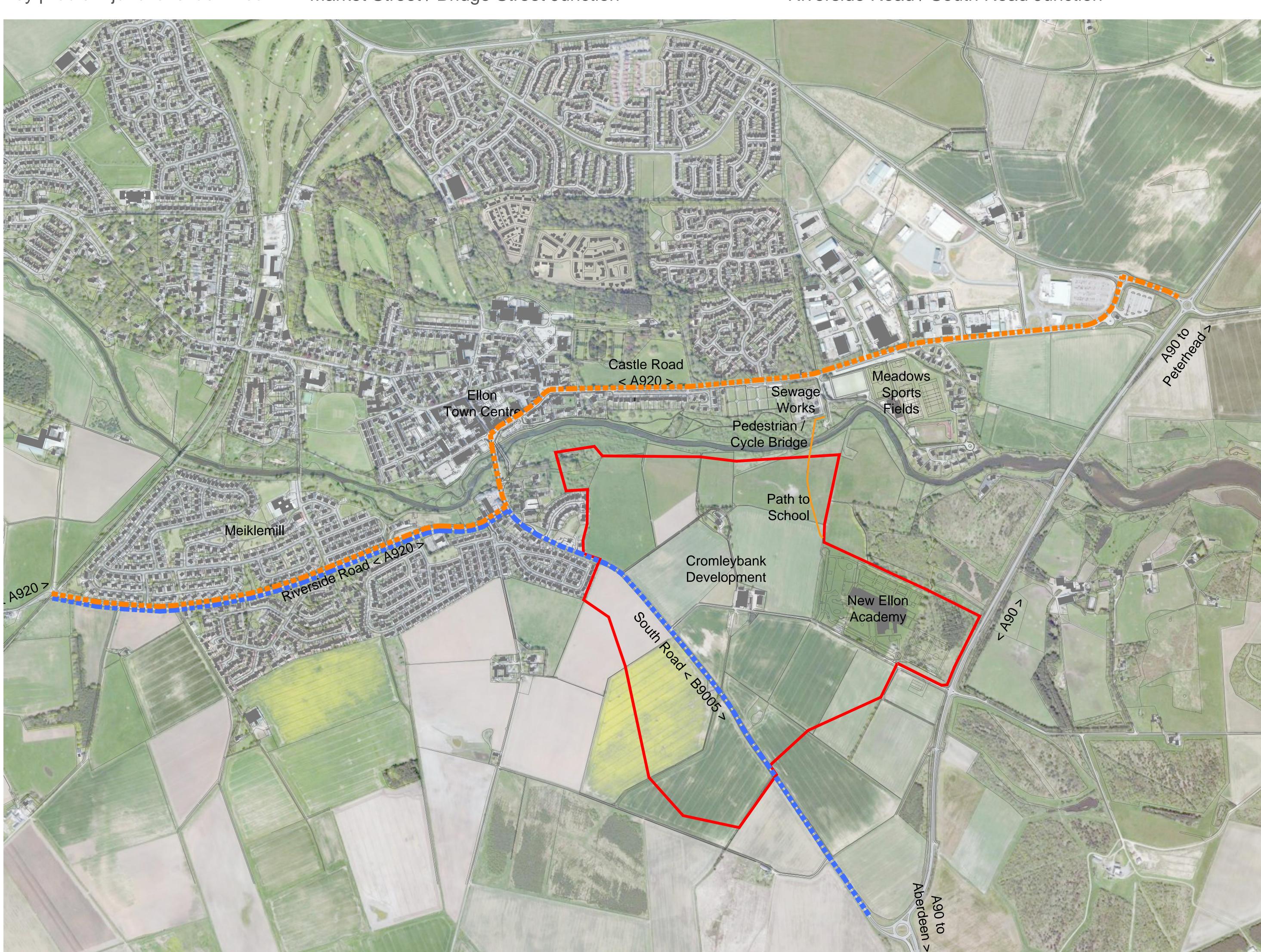




Key problem junctions identified

Market Street / Bridge Street Junction

Riverside Road / South Road Junction



Route of travelling traffic from Inverurie/Oldmeldrum to Peterhead and vice versa





## Option 1 - Vehicular Bridge

The River Ythan vehicular crossing would connect Cromleybank to Castle Road (A920) via a new traffic signal controlled junction to the north of the site at the Meadows Playing Fields (A). This is approximately 700m east of the existing Ythan Bridge (B) and would be adjacent and parallel to the new pedestrian & cycle bridge (C) currently under construction.

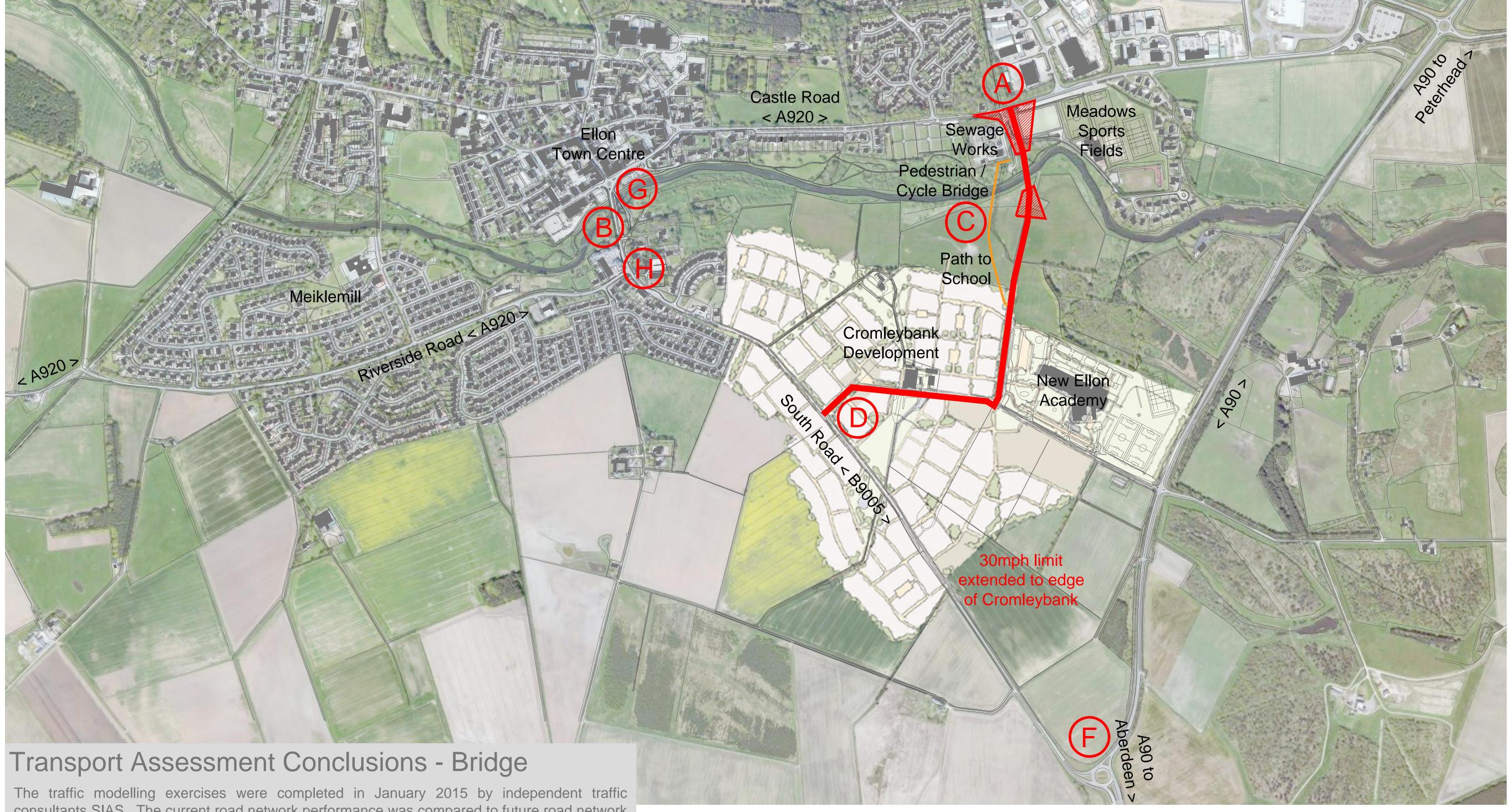
The vehicular bridge would create a link to South Road (B9005) through the Cromleybank site with a further signal controlled junction being formed at the existing Ellon Academy Access Road/B9005 junction (D). This will improve the capacity of this junction as well as better reflect the character of the area.

The aim of the vehicular bridge link is to connect the Cromleybank development with the north of Ellon without having to pass through the centre of Ellon. It would also provide an alternative route to the south from the north of Ellon avoiding the existing town centre by routing the traffic through and past the new Community Education Campus and proposed Cromleybank neighbourhood centre.

Additional lanes on the northern and western approaches to the A90/B9005 roundabout would be provided to unlock additional capacity at this junction (F).



Visualisation of the vehicular bridge over the floodplain and the river



consultants SIAS. The current road network performance was compared to future road network performance including Cromleybank related traffic. The modelling looked at both the bridge & bypass options.

#### Findings

The bridge option does not fully mitigate the impact of the Cromleybank development and results in eastbound and westbound delays on the A920 being worse than the current situation, particularly at the key town centre junctions (E, G & H). The bridge would be seen as a viable route for local traffic to and from the development, but rarely used by other traffic passing through Ellon.

Improvements to the B9005/A90 (F) roundabout greatly reduces the delay on the B9005 southbound compared to the existing situation.

## (E) Key town centre junctions (G) Market Street / Bridge Street Junction



(H) Riverside Road / South Road Junction

#### Facts for a Bridge

- Provides direct vehicle link between Cromleybank and north east of town e.g. Supermarket
- Improved access to trunk road network at A90 (N) roundabout from Cromleybank
- Improves connectivity by providing an alternative route around Ellon town centre
- Improved connectivity will support both established and new businesses within the town
- Potential for wider bus service loop within town
- Potential reduction to vehicle miles travelled to local services

- Pavements would be included on the new bridge and would support sustainable travel to both established and new businesses within the town

- Potential to deconstruct current footbridge and deploy elsewhere

- Mixed use nature of the development will mean that new business is easily accessible from its local catchments

- Site able to be accessed by bus services

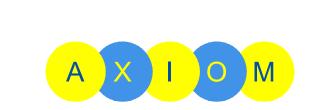
- Improved access to trunk road network at A90 (S) roundabout

#### Facts against a Bridge

- Traffic modelling shows that the bridge does not mitigate the impact of the development on the road network at town centre junctions as delays will increase
- Land ownership required for delivery of bridge is out-with developer & council control on the north side of the river. Therefore compulsory purchase would be required by the council
- Land ownership at town centre junctions is out-with developer & council control, which means off-site mitigation would require compulsory purchase by the council
- Potential removal of relocation of the all-weather pitch at Meadows Sports Centre required to provide bridge link
- Potential visual / landscape impact of bridge structure on River Ythan and Cromleybank as bridge requires to be kept clear of floodplain
- Long bridge structure required to span floodplain. Complex level issues to north of Ythan to retain local access will impact on Meadows Way residents
- Impacts on bio-diversity and habitats along riverbank in area around bridge
- Potential for increased traffic past Academy site and 'through' traffic within Cromleybank site
- Increased Noise and vibration associated with increased traffic through Cromleybank site
- Vehicle link bridge may encourage 'short' trips by car that could be made by more sustainable modes











## Option 2 - Bypass Relief Road

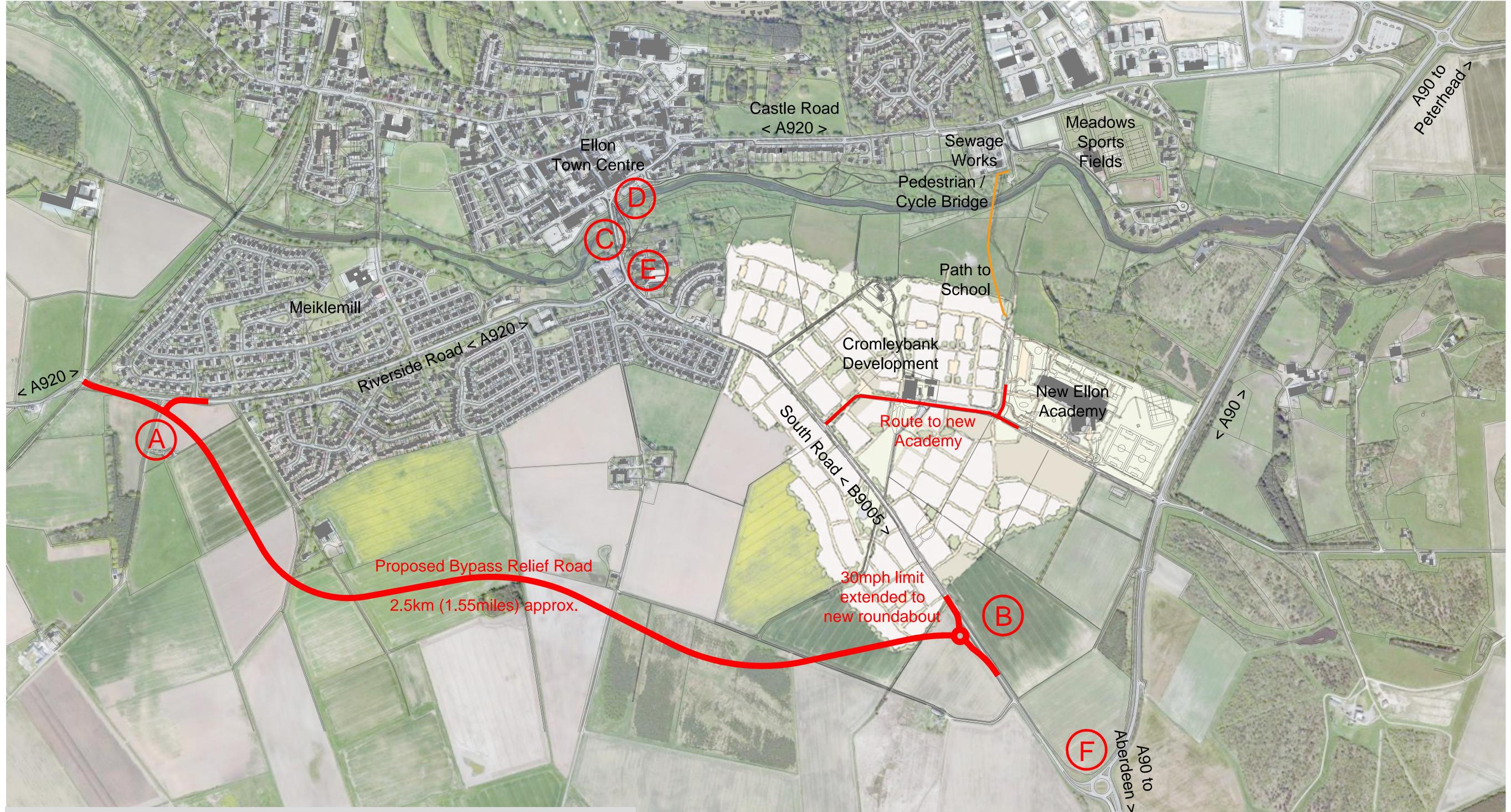
The southern bypass for Ellon would be constructed between (A) Riverside Road (A920) and (B) South Road (B9005). Its purpose is to significantly reduce the level of traffic passing through Ellon, thus alleviating the pressure on the currently constrained key junctions in Ellon town centre and the existing Ythan Bridge (C, D & E).

The southern bypass would connect to the B9005 via a new roundabout (B), which would act as a 'gateway' junction to Ellon. The B9005 would remain the primary route from the A90 to Ellon town centre. However, as the Cromleybank development will effectively extend the urban area of Ellon, the 30mph speed limit on the B9005 would be extended to the new roundabout. In addition, the existing Ellon Academy Access Road/B9005 junction is to be upgraded to a traffic signals junction. This will improve the capacity of the junction as well as better reflect the character of the area.

Additional lanes on the northern and western approaches to the A90/B9005 roundabout would be provided to unlock additional capacity at this junction (F).



Streetview image of a similar bypass relief road to the north of Ellon



#### Transport Assessment Conclusions - Bypass

The traffic modelling exercises were completed in January 2015 by independent traffic consultants SIAS. The current road network performance was compared to future road network performance including Cromleybank related traffic. The modelling looked at both the bridge & bypass options.

#### Findings

The bypass option reduces delay heading both eastbound and westbound on the A920 and fully mitigates the impact of the Cromleybank development on the town centre.

Improvements to the B9005/A90 roundabout greatly reduces the delay on the B9005 southbound (joining the A90) compared to the existing situation.

# C Key Problem Junctions





#### Facts for a Bypass

- Traffic modelling shows it fully mitigates development impact & town centre key junctions do not require to be dealt with

- Provides true 'bypass' route for east to west traffic with associated relief to town centre congestion
- Non-essential HGV traffic offered viable alterative route around Ellon town centre & residential areas
- Provides long term strategic benefit that will ensure Ellon has suitable infrastructure to adequately deal with projected local, regional and through traffic movements
- Developer has secured land to facilitate bypass construction
- Improved journey times for strategic traffic through Ellon
- Potential to reduce vehicle speeds, traffic flows and congestion on Riverside Road
- Mixed use nature of the development will mean that new business is easily accessible from its local catchments
- No vehicular through route within Cromleybank or directly past the new Academy
- Site able to be accessed by bus services
- Improved access to trunk road network at A90 (S) roundabout
- Majority of construction 'off line' and construction traffic routes via South Road and A90 minimal impact on town
- Relatively straightforward road design and identified corridor
- Potential removal of rat-running traffic from Hillhead Road
- Increases potential for future development to the south of Ellon
- Pedestrian/Cycle linkages to north will support sustainable travel both established and new businesses within the town

#### Facts against a Bypass

- No direct vehicle link over river Ythan from Cromleybank to employment/retail to north east of town resulting in longer travel times compared to the bridge option
- Earthworks and re-grading of farmland to form road profile
- Impacts on bio-diversity and habitats in area around bypass
- Increases potential for future development to the south of Ellon
- Ellon will remain a town serviced by only 1 vehicular bridge over the Ythan



