



A428 Black Cat to Caxton Gibbet Improvements

Eastern and Central Area Community Forum

5 August 2021



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Agenda

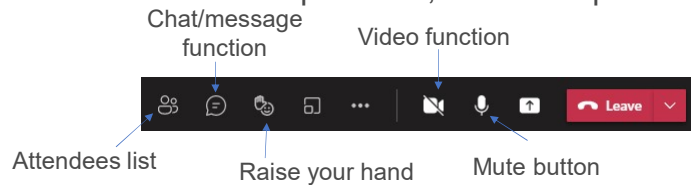
1. Welcome and introductions
2. Safety moment
3. Scheme plan
4. Outline Construction Traffic Management Plan
5. Strategic model assessment
6. Local junction models operational assessments
7. Q&A



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Online meeting protocols

- Microphones on mute and cameras off - unless asking a question.
- Ask a question - use the message facility (start your point with QUESTION) or raise a hand.
- Use the chat function to make a comment, starting your message with COMMENT.
- The chair will define when a subject is finished and identify when we will move on.
- If we are unable to answer all questions, we will respond with a written update.



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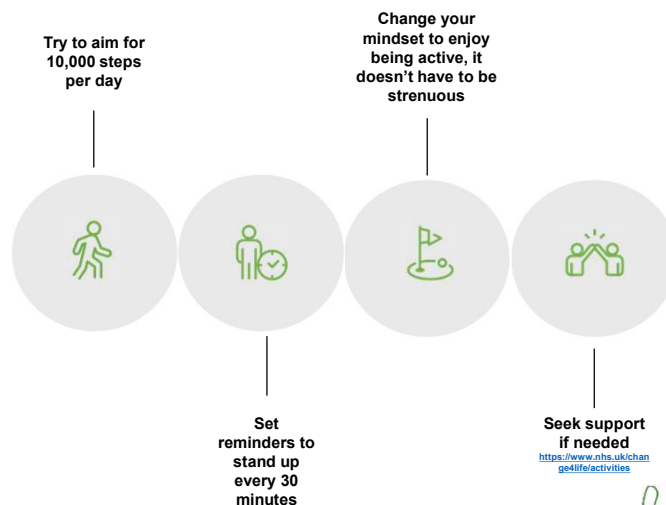
Being active

Are you moving enough during the day even when working?

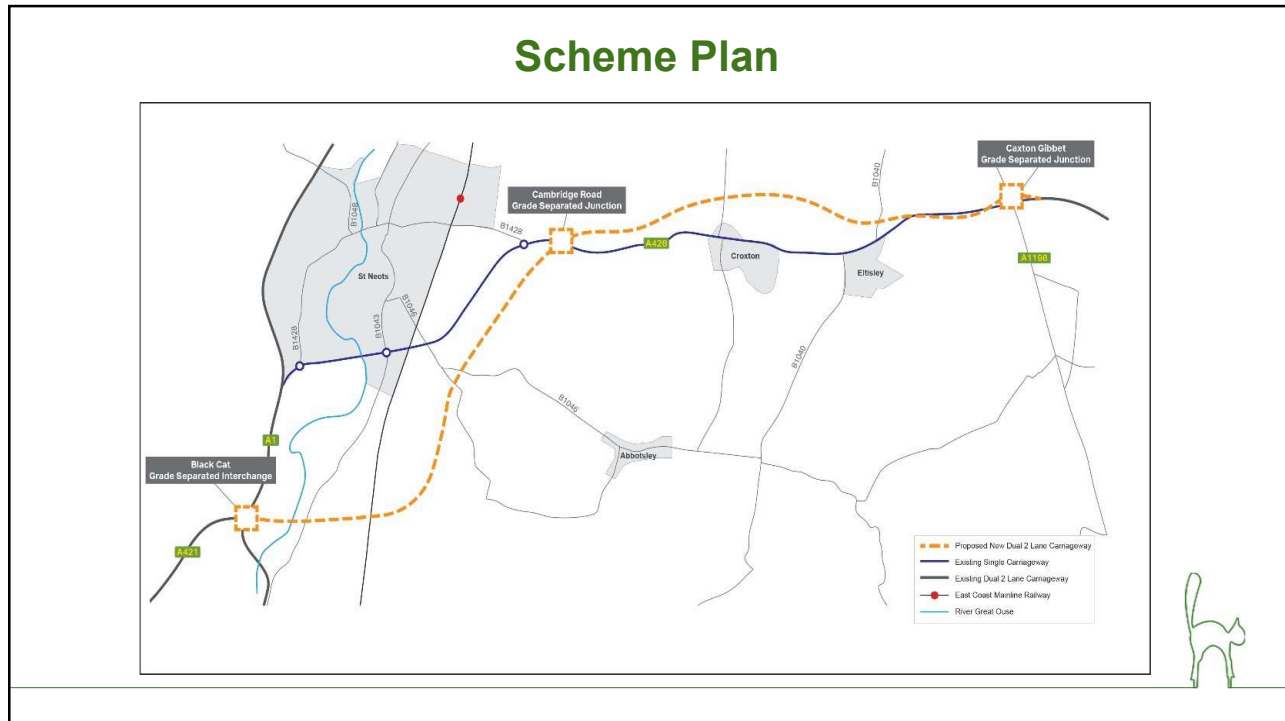
Sedentary lifestyles are increasingly linked to being the root cause or a significant contributing factor to a number of severe health conditions.

The minimum physical guidelines suggest that adults be active in some form every day and aim to do no less than 150 minutes of moderate intensity activity per week.

You can make a number of small changes which you can incorporate into your working routine to increase your movement.



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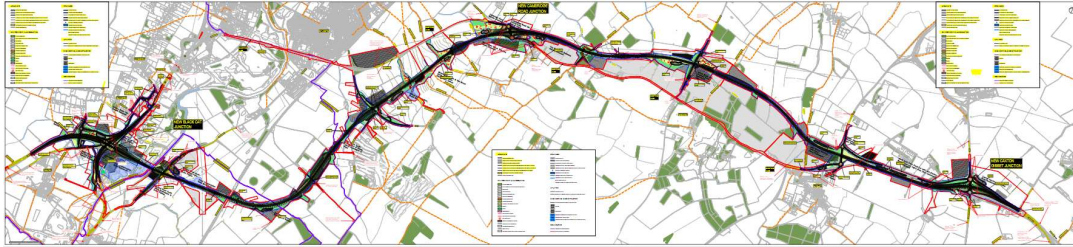


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4. Outline Construction Traffic Management Plan (OCTMP)

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Outline Construction Traffic Management Plan (OCTMP)



The OCTMP outlines traffic management requirements on the strategic and local road network.

Objective - safety of road workers and road users - minimise disruption to road users

Key elements :

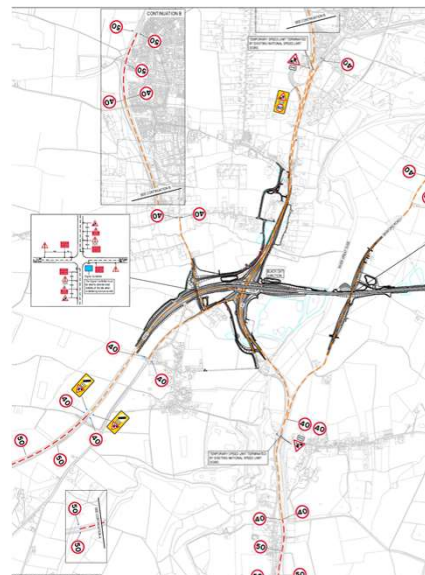
- Traffic management phasing and temporary speed restrictions
- Non-permitted / restricted access routes
- Road closures and strategic diversion routes
- Communication



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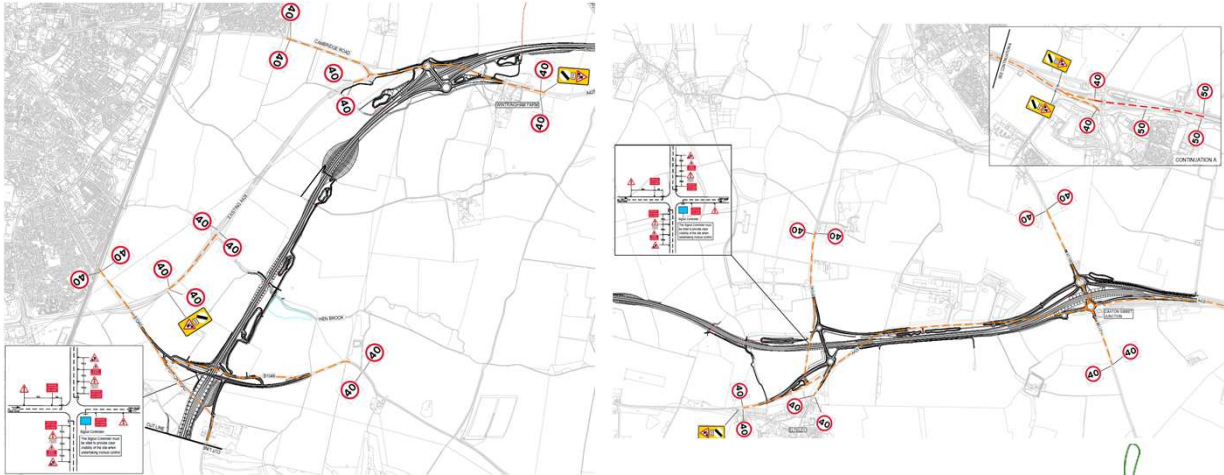
Traffic management speed limits

- Trunk Roads - A1 , A421 and A428 east of Caxton Gibbet. 40mph with a stepped down approach
- Local roads - 40mph through works



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Traffic management speed limits



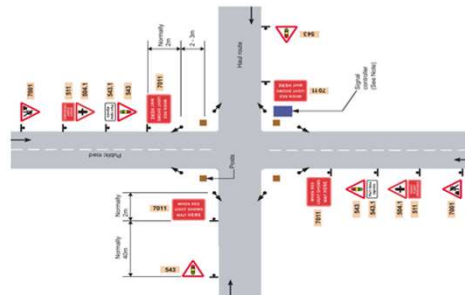
- Existing A428 restricted to 40mph at Cambridge Road, Eltisley and Caxton Gibbet Junctions



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Traffic management plant crossings

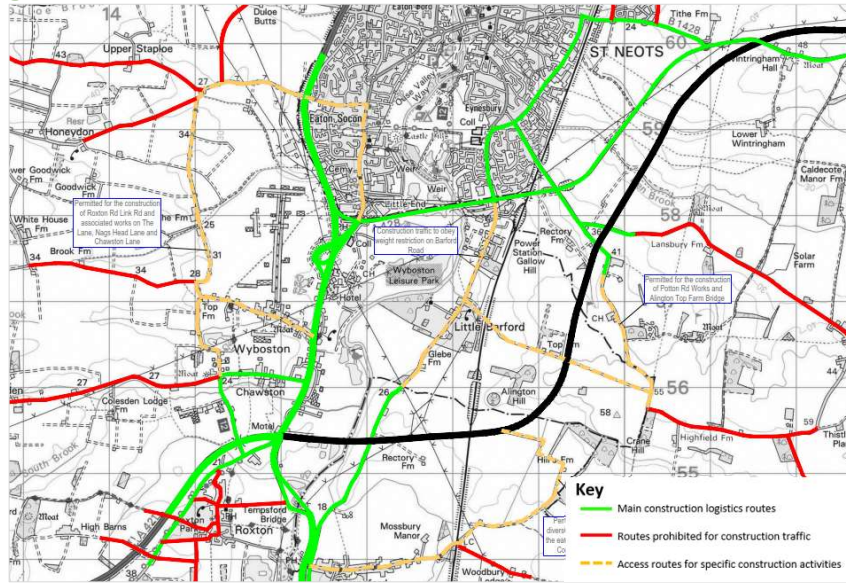
- Plant crossings required for haul routes to cross local roads:
- Locations
 - Roxton Road, north of the Bedford Road junction.
 - Barford Road.
 - B1046, near the B1046/Potton Road junction.
 - Toseland Road, north of the A428.
 - B1040, north of the A428.
- No plant crossings on the A421, A1, A428 or A1198



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Traffic management restricted routes

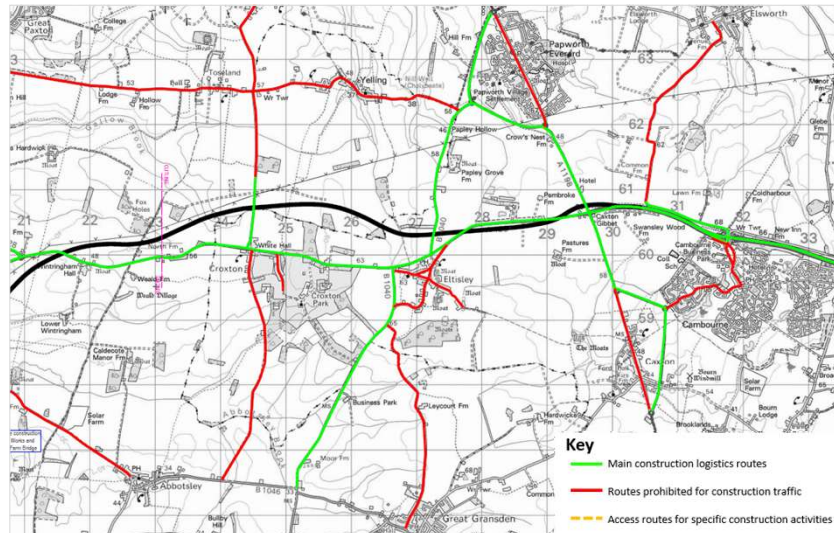
- Most local roads restricted for all construction traffic
- Some local routes used for specific construction activities where access is essential
- An offline haul route constructed through the site



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Traffic management restricted routes

- It is not intended to block access to all villages and local facilities or local suppliers.
- Restricted routes to be published and explained to construction workers during inductions and daily briefings.
- All restricted routes for construction workers clearly signed.



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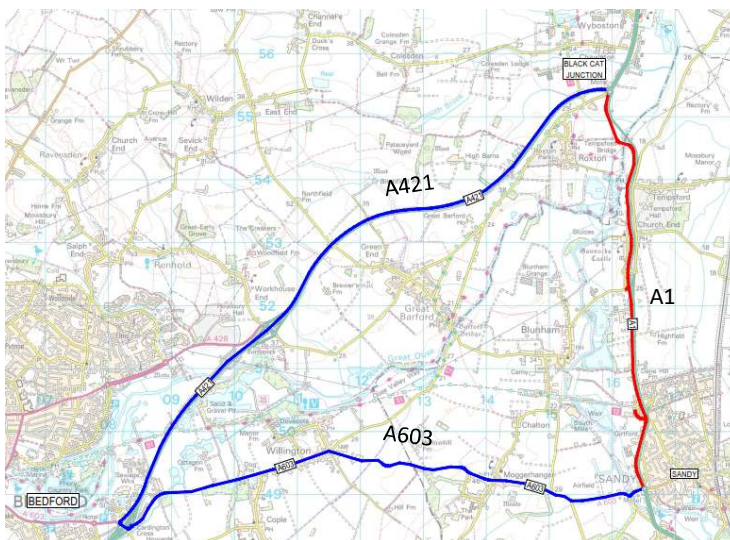
Traffic management lane and carriageway closures

- Design / construction works planned to minimise closures.
- Lane closures implemented where safe as these reduce the impact on road users.
- Full road closures are unavoidable for certain works - carriageway tie-ins, beam lifting operations and utilities diversions. Most closures overnight, typically 9pm to 6am.
- Closures will be advertised and communicated to all affected.
- Works coordinated to make full use of the closures and so minimise the number required.



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Traffic management diversion routes



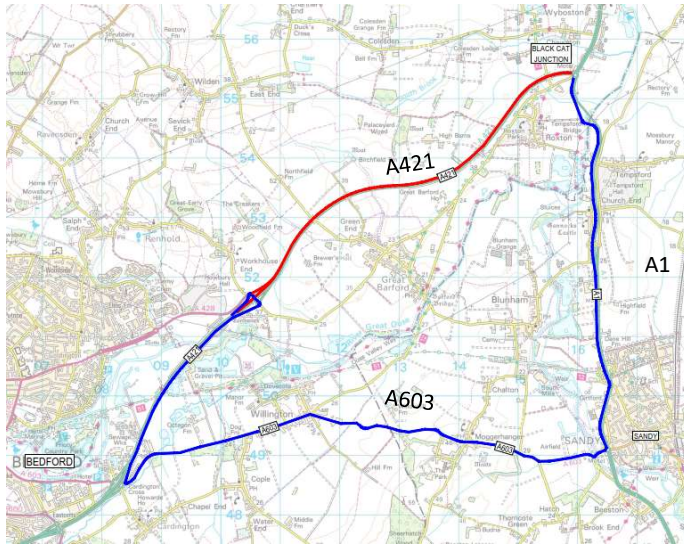
A1 closed between Sandy and Black Cat:

- Use A603 and re-join A421 at the junction with Cardington Road, travel eastbound to Black Cat junction
- Villages along the diversion route; Moggerhanger, Willington and Cople



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Traffic management diversion routes



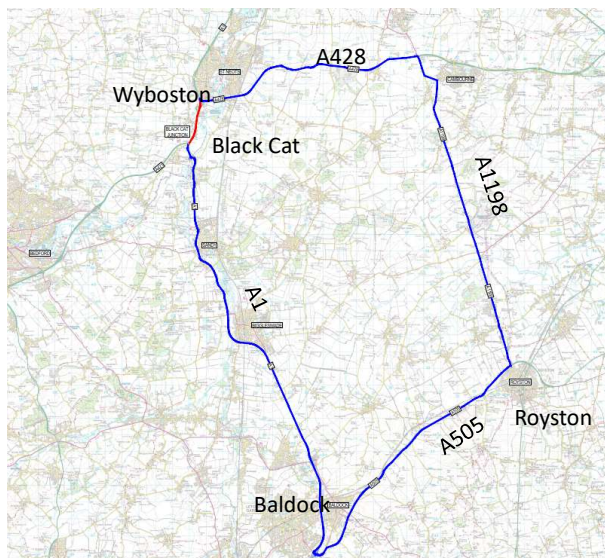
A421 closed west of Black Cat:

- At Renhold make a u-turn and use the Cardington junction for the A603 to Sandy, then A1 to Black Cat
- Villages along the diversion route; Cople, Willington and Moggerhanger



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Traffic management diversion routes



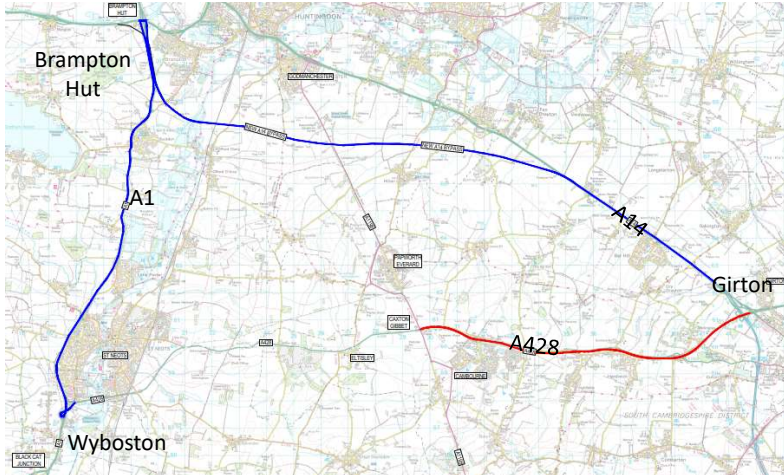
A1 closed between Wyboston and Black Cat:

- Exit at Wyboston and use A428 to Caxton Gibbet.
- Then A1198 to Royston, A505 to Baldock and then the A1 north.



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Traffic management diversion routes



A428 Caxton Gibbet Junction closed between Cambourne and Caxton Gibbet:

- Divert at Girton and use new A14 westbound, followed by A1 southbound.
- No villages affected as traffic remains on the strategic road network.



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Traffic management diversion routes



A428 closed between Caxton Gibbet & Cambridge Road :

- Use A1198 northbound, then A14 westbound to J21 (or J20 as an alternative as shown here), then A1 southbound
- No villages affected as traffic remains on major routes



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5. Strategic model assessment



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Strategic model overview

- Predictive tool used to forecast changes in traffic conditions
- Covers a wide geographical area
- Provides inputs into local models
- Required inputs to model include network and traffic/trips
- A modelled 'point in time'



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Construction phases

- For the purpose of modelling traffic impacts, the construction programme consists of:
 - Phase 1 – (six months enabling works)
 - Phase 2 – (16 months)
 - Phase 3 – (12 months)
 - Phase 4 – (11 months)
- Each phase relates to a different road layout combinations at each of the key junctions along the Scheme



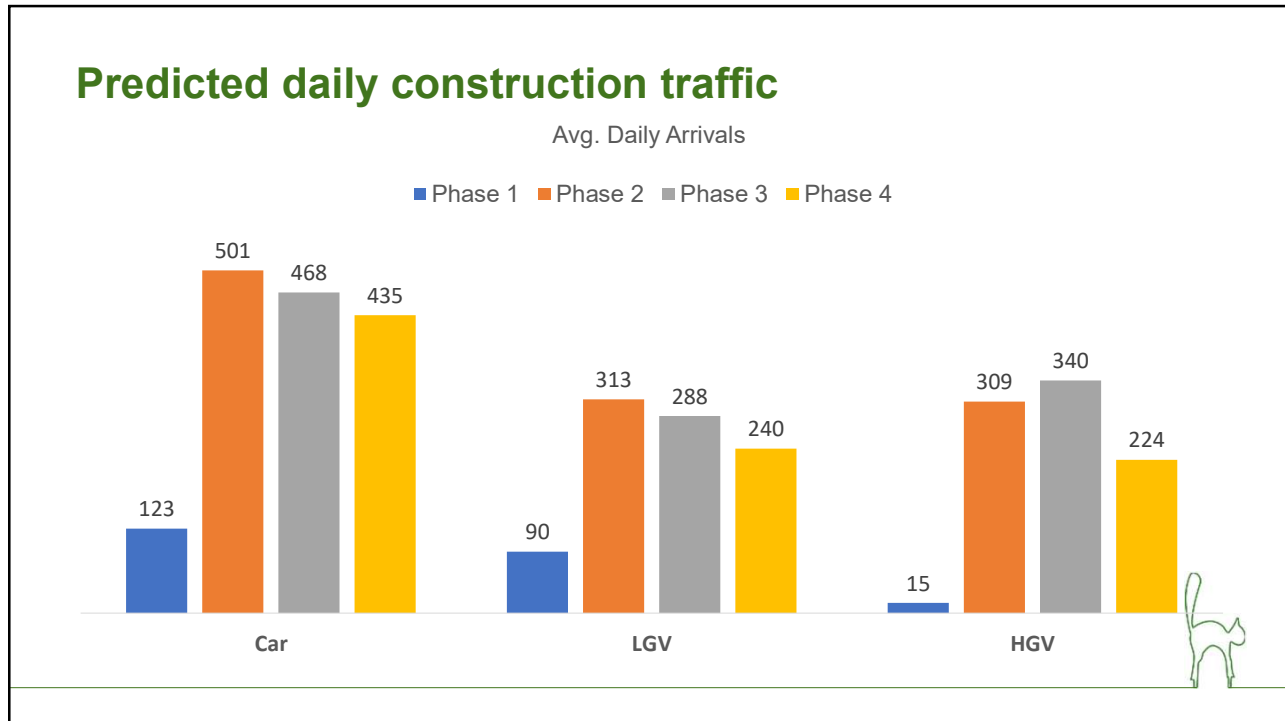
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Network assumptions for construction

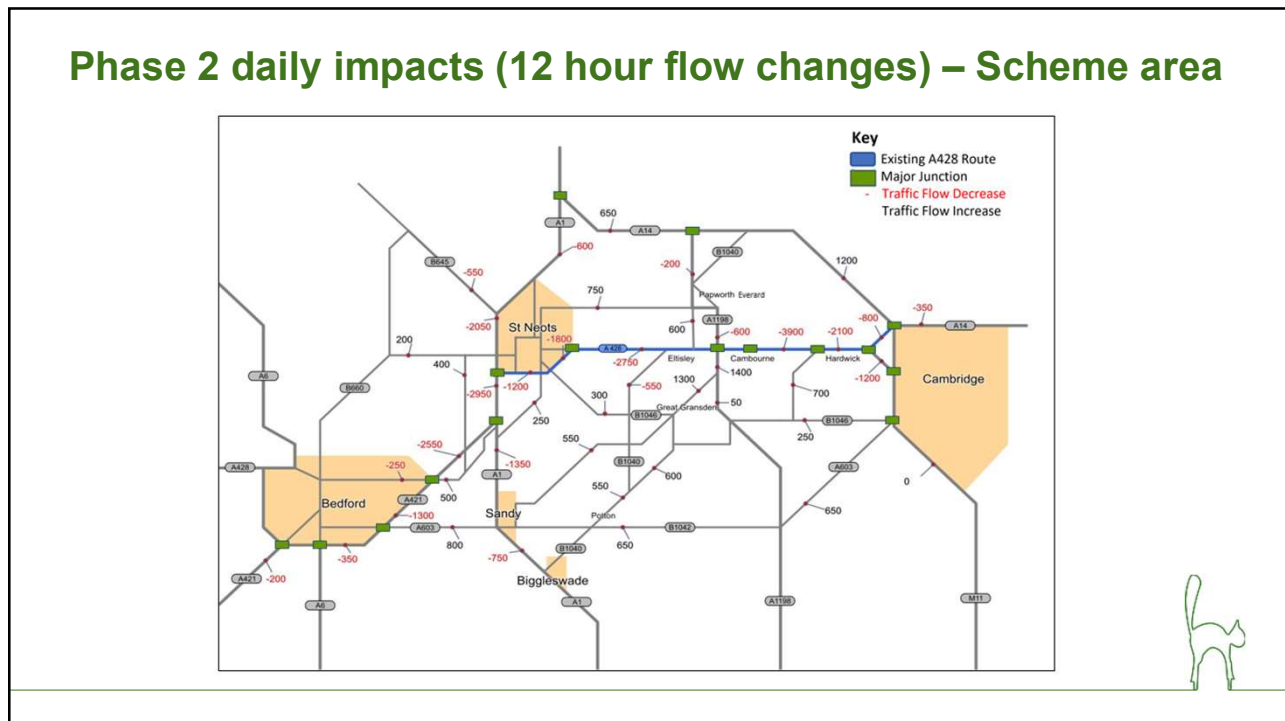
- Traffic models were adapted to incorporate the following construction data:
 - Construction traffic data;
 - Main worksites and compounds and their respective accesses;
 - Temporary speed restrictions;
 - Proposed temporary junction layouts;
 - ‘Haul road’ crossings;
 - Construction traffic route restrictions.



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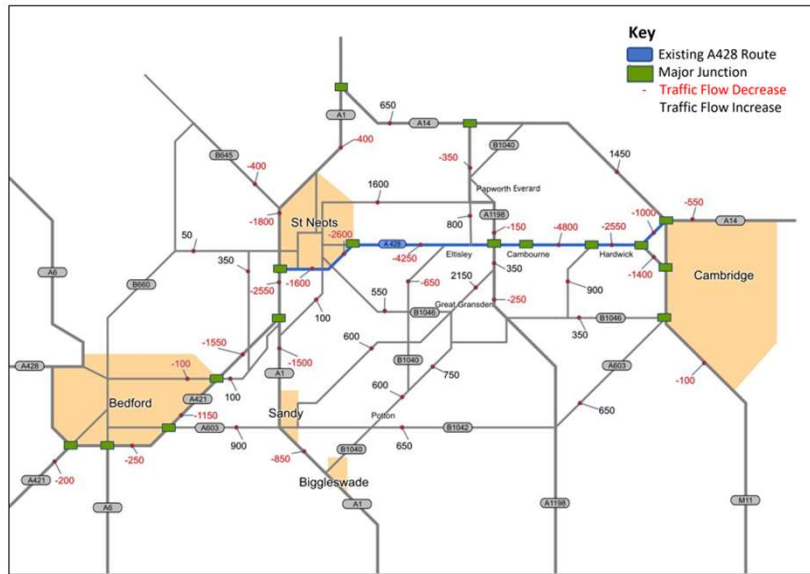


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Phase 3 impacts (12 hour flow changes) – Scheme area



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Phase impacts on key roads (12 hour)

Road	'Without Scheme' Vehicles	Absolute Change Phase less 'Without Scheme'			Proportional Change Phase less 'Without Scheme'		
		Phase 2	Phase 3	Phase 4	Phase 2	Phase 3	Phase 4
B1043	4,549	150	200	150	3%	4%	3%
A14	65,290	650	650	650	1%	1%	1%
Papworth Rd	2,444	150	300	300	6%	12%	12%
High St (Yelling)	4,458	500	1,400	1,350	11%	32%	31%
A428 (East of Croxton)	22,043	-2,750	-4,450	-4,550	-12%	-20%	-21%
B1040	4,556	-450	-100	-150	-10%	-2%	-3%
Caxton Road	3,011	1,300	2,150	2,200	43%	71%	73%
B1046	2,296	700	850	850	30%	37%	37%
B1042	7,683	750	800	800	10%	10%	10%

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Conclusions – strategic modelling

- During construction, traffic management interventions (mainly speed restrictions) and additional construction traffic will make the A421/A428 and A1 routes less attractive.
- Some traffic is predicted to divert to alternative routes.
- Journey times are predicted to increase by up to 4 minutes or 15% on the A421/A428 route, and around 2 minutes on the A1.



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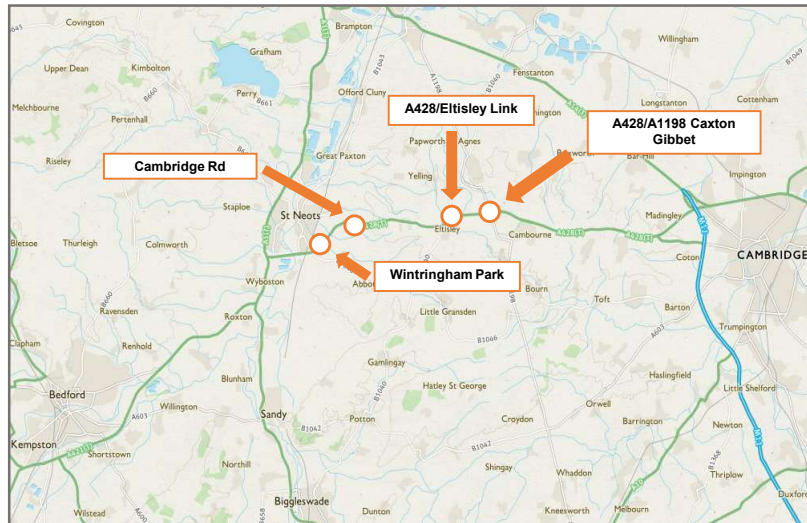


6. Local junction models operational assessments



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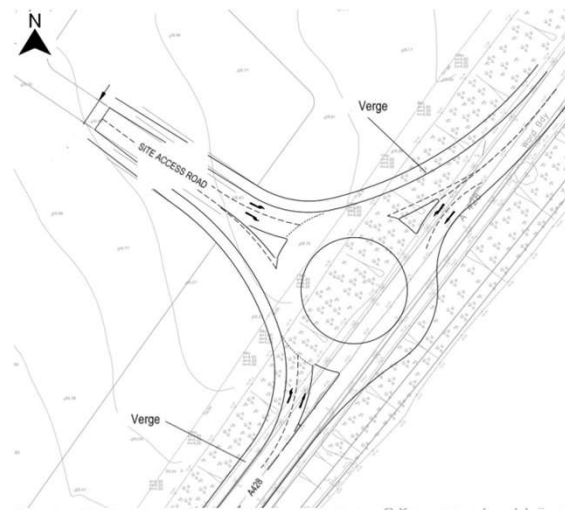
Eastern and Central area - junctions assessed



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Wintringham Park – Phases 1-4

- Phase 1 will consist of a temporary T-junction layout and is expected to operate with a 40mph speed limit.
- Phases 2 to 4 will have a 3-arm roundabout. Each with a 2-lane entry (as illustrated in the sketch).

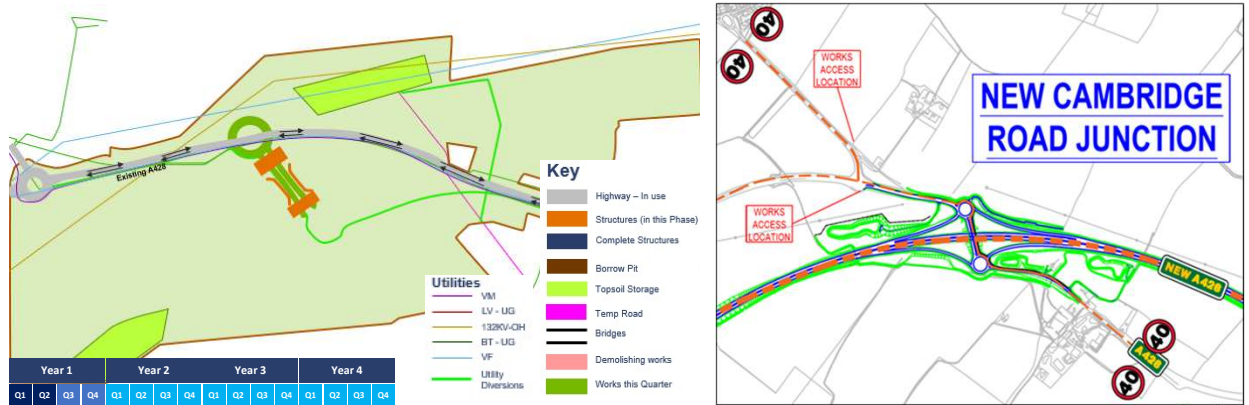


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Cambridge Road – Phase 1

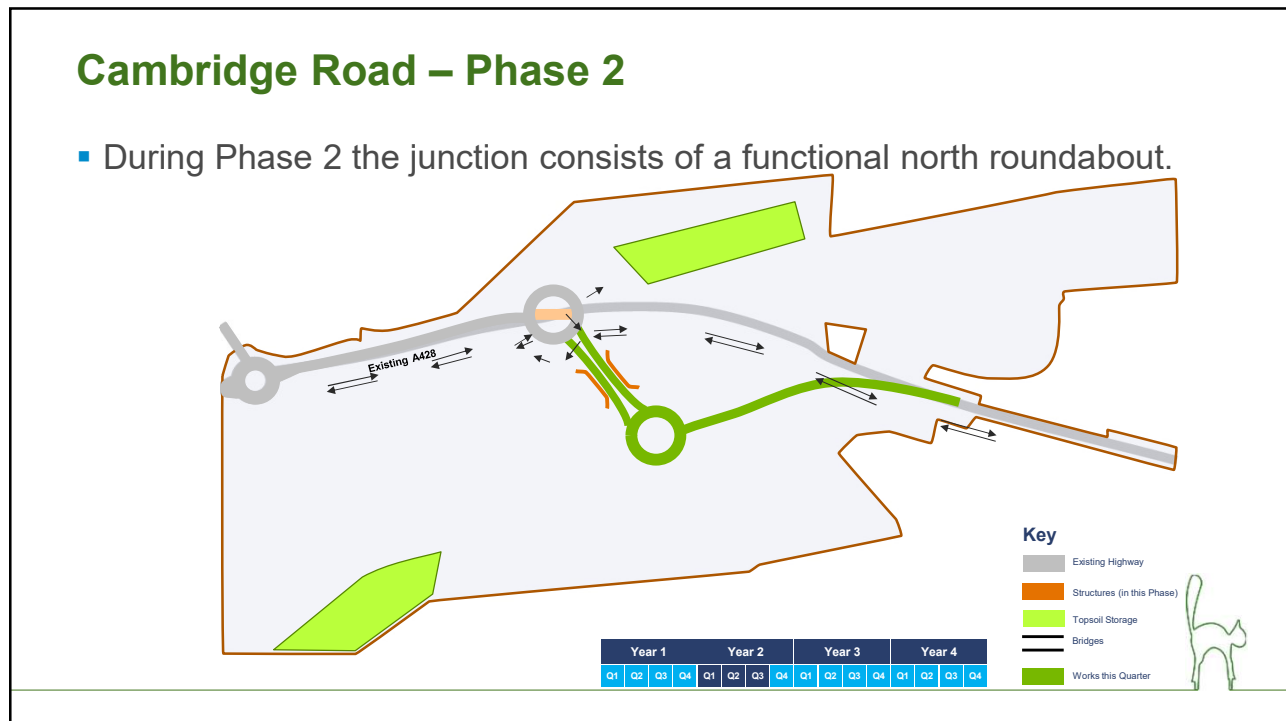
- Phase 1: includes the construction of the north roundabout and the existing layout would remain in operation with a reduced speed limit. The road network has the same layout as without the Scheme, consists of only offline works therefore the junction has not been modelled.



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Cambridge Road – Phase 2

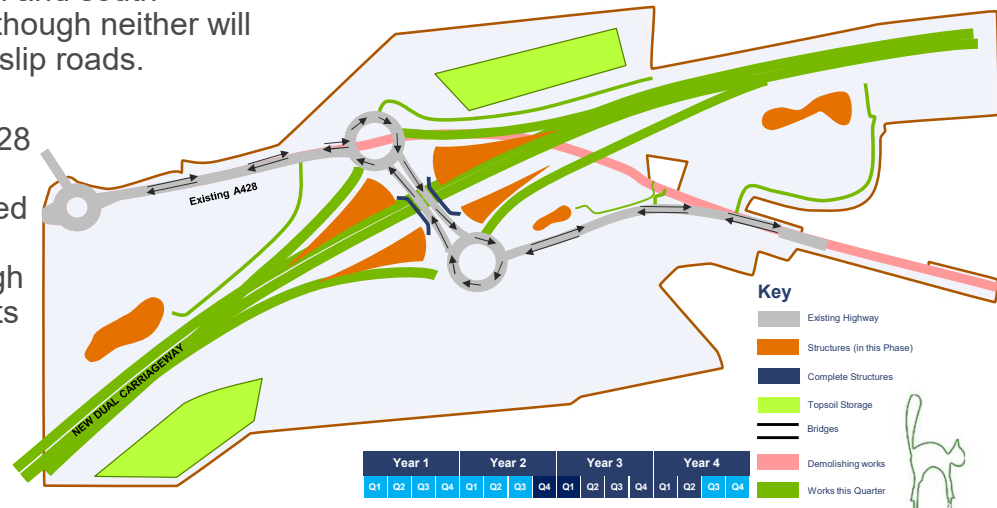
- During Phase 2 the junction consists of a functional north roundabout.



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Cambridge Road – Phases 3 & 4

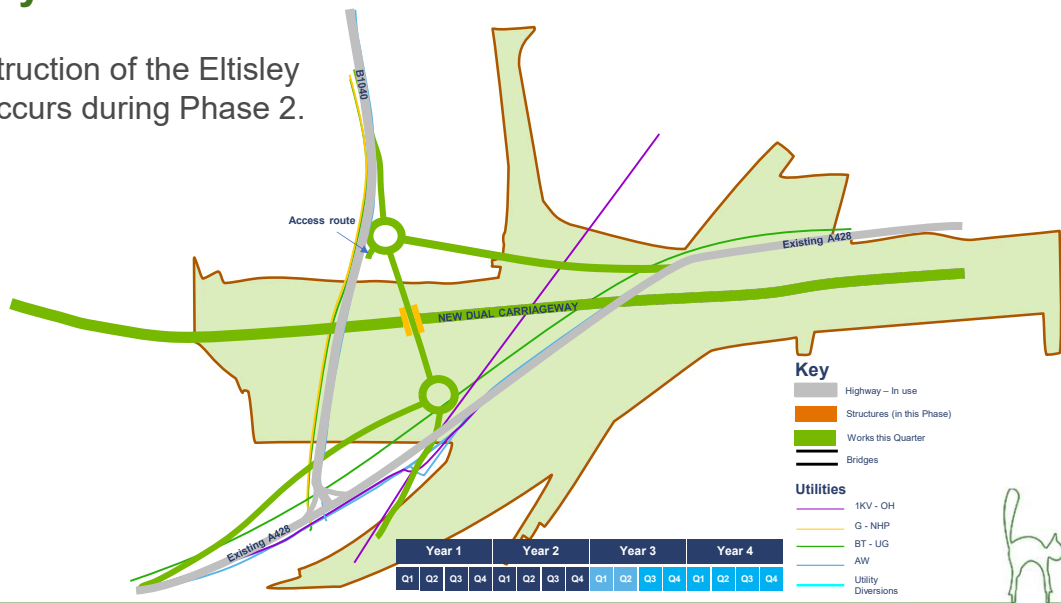
- The junction will consist of a functional north and south roundabout, although neither will connect to the slip roads.
- A section of the existing A428 will be decommissioned and traffic rerouted through the roundabouts and new overbridge.



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Eltisley Link – Phase 2

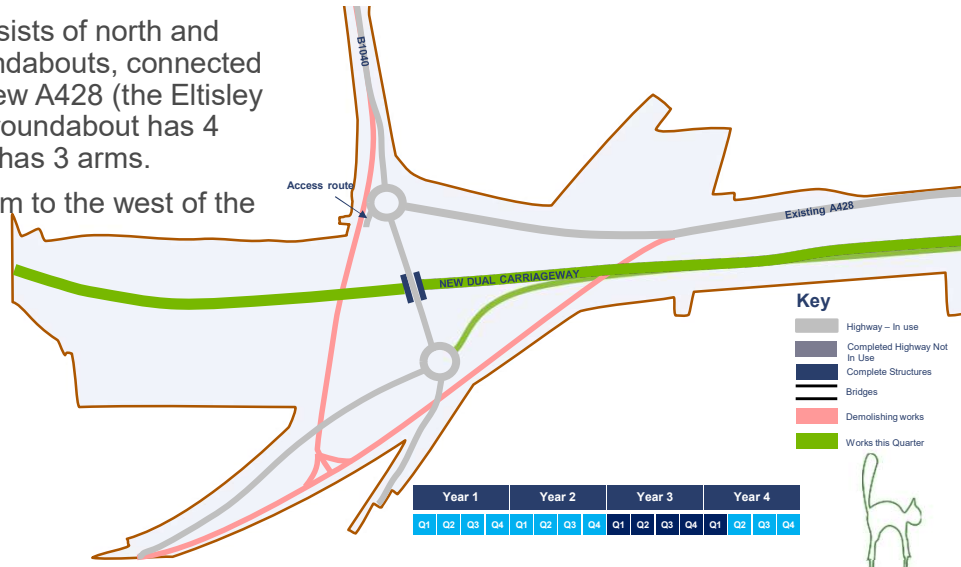
- Construction of the Eltisley link occurs during Phase 2.



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Eltisley Link Phases 3 & 4

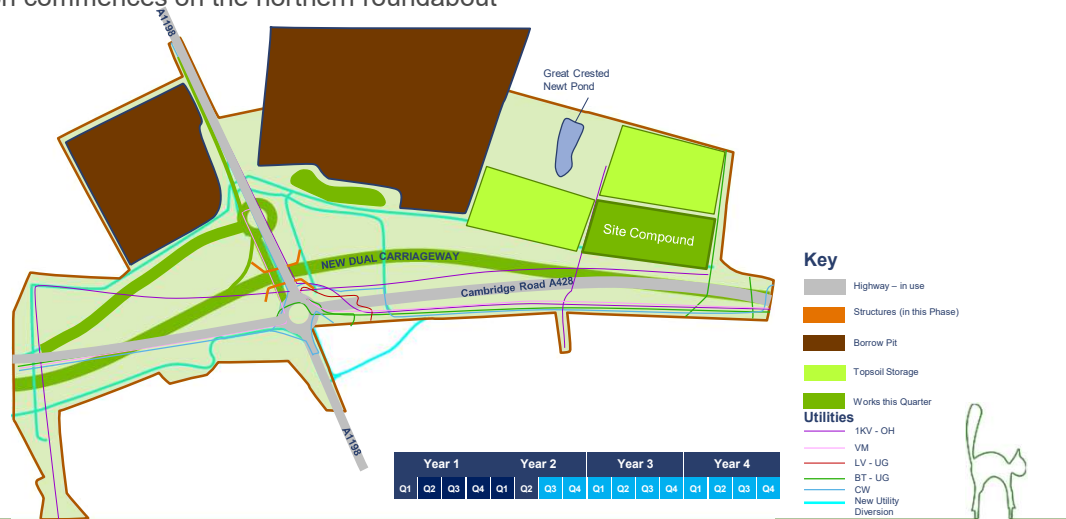
- Junction layout consists of north and south standard roundabouts, connected by a link over the new A428 (the Eltisley link). The northern roundabout has 4 arms and southern has 3 arms.
- Site access is an arm to the west of the Eltisley north.



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Caxton Gibbet – Phase 2

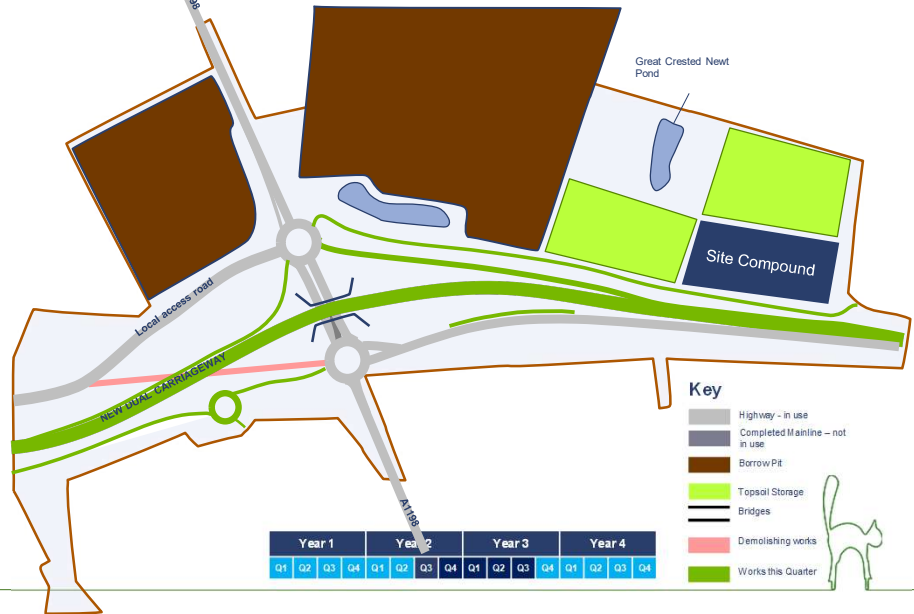
- During Phase 2 the existing Caxton Gibbet roundabout is expected to remain operational while construction commences on the northern roundabout



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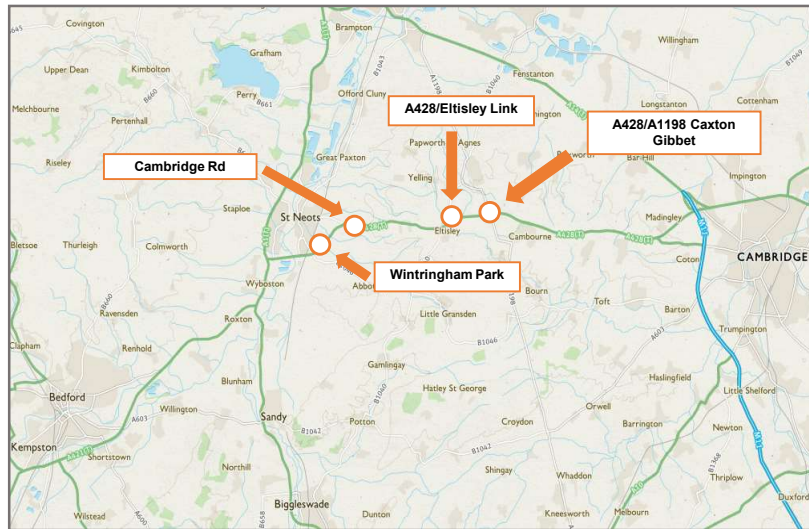
Caxton Gibbet – Phases 3 & 4

- Phases 3 and 4 include the construction of a temporary realignment of the existing A428.
- A section of the existing A428 will be decommissioned and traffic re-routed through the new underbridge and through new northern and southern roundabouts.



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Conclusions – localised modelling



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7. Q&A

