Cambridge rail mass transit network and a 2-station option for Waterbeach

I have lived in Waterbeach for 32 years. I am fully in favour of major new development north of the existing village. The regional economy will depend on providing all types of new housing, especially for workers in the growing Cambridge technology and business clusters.

Urban & Civic’s proposal is for 6,500 new homes in the next 30 years and RLW’s is for 4,500 new homes, 11,000 new homes in total.

It is apparent that the proposals of U&C and RLW are on the right lines but are in the early stages of design. The proposals appear vague, optimistic and even naïve, especially in the area of transport. Their assumptions and projections seem unrealistic.

New homes, new residents and new commuters

Assume that 75% of the 11,000 new homes each accommodate 2 working adults. Assume that in each of these 8,250 homes one of the adults commutes to work away from home; the other adult works online at home or walks to work locally. This means an additional 8,250 commuters will be travelling for work morning and evening.
I have not seen anything in the planning process documents or the Cambridge regional strategy documents that faces up to the **challenges of transporting new people on this scale.**

Vastly increased public transport capacity, especially train capacity, will be required.

**Waterbeach 2-Station proposal**

A 2-station option is being actively discussed here in Waterbeach. A sensible plan would be to have two railway stations: **Waterbeach New Town** (new station) one mile north of an improved, enlarged existing **Waterbeach** station.

During construction of the new homes, it would be possible to link the two station sites with a cycleway / walkway / even a shuttle-busway (alongside the main rail line) from the existing station to the new station site.

**Cambridge Area Mass Transport**

We would ultimately aim for two stations and a logical long-term strategic integration with the **Cambridge Metro / Cambridge Connect / Isaac Newton / CaMKOx east-west** corridor:

![Diagram of Cambridge Area Mass Transport]

This proposal would cater for many of the 8,250 new commuters. It would require a new dedicated commuter rail track in order not to interfere with express non-stop train services on the main line.
Here we would have a similar scheme to London Underground’s (overground) services that serve high density populations with a station every mile or so.

**Train capacity**

Trains from Waterbeach to Cambridge are full and overcrowded in 2018, around 130% occupancy at peak times with the existing 4-car trains. There is a proposal to lengthen the existing station to accommodate 8-car trains, which should improve life for us short term.

Great Northern ThamesLink will probably implement newish Class 387/1 rolling stock, 448 seats in 8 coaches, 56 seats / coach. With 35% standing, this is 606 passengers per train.

In 30 years time, with 8,250 extra commuters, this equates to 14 commuter trains just to cater for the new commuters at peak times.

**Station car parking**

Currently, our station car park is typically 60% full, the new Cambridge North station and its car park seem to have relieved some pressure on us. So about 40 cars park in the existing station car park and a further 40-50 cars are parked along Station Road, around the village green and along the High Street. These cars would migrate towards the new station if that were to be the single station for the village. People who now walk to the existing station are starting to say that they would drive to the new station and park free-of-charge in side streets. The developers do not seem to have understood this. The new station will have its own 200-space multi-storey car park that aims to satisfy existing demand but may well attract much extra traffic from neighbouring villages, increasing traffic volumes.

100-120 cars displaced from the existing station and car park would drive along through the village via Cody Road to the new car park and some will overspill to park in Cody Road and
Bannold Road, to avoid car-parking charges. The developers’ proposals are very weak in this area.

Car travel to the existing station from Horningssea and south is easy now. In future this car traffic will be displaced through the village in order to access the new station.

**Alternatives to car travel**

Walking and cycling are sustainable modes of travel. 22% of personal trips are walked, compared to 64% made by car, and 2% are cycled (in 2000’s nationally, various sources).

The developers’ outlines indicate that they will provide walking and cycling routes, especially along Mere Way into the Science Park, this is great. A key assumption is that we will change our behaviour and habits and use our cars less often, and transfer to walking, cycling and bus travel. This is a big assumption. There is noticeably more car traffic on rainy days when many cyclists go back to their cars.

**Demographic realities**

One key consideration that the developers have overlooked is in demographics – we are an ageing population and also we will be working longer before we retire. We retire now at 66, but in 30 years time it could be that we work until we are 70-plus. An assumption is that many residents will walk or cycle – possibly not if they are older, less physically mobile residents.

In the artistic glossies of the New Town at the developers’ open days and presentations, there are never any motor vehicles shown, just young, able-bodied and purposeful citizens enjoying their brave new world and using “**active transport**” (cycling and walking). This is a great dream but the hard reality is that we will no longer be able to walk or cycle to work. We will need to park our cars outside or close to our homes, not park our cars in remote multistory
car parks or abandon car travel altogether. Residents who are less-abled or disabled seem to have been left out of the picture entirely.

**Car traffic generated by the New Town**

The reality is that most of the new residents will have cars, possibly small electric cars, but they will still drive them. Both U&C and RLW at their presentations have played this down: “we will change our behaviour”! I have reminded them that we are human beings, not lab rats.

Statistics show that approximately 60% of personal trips are by car. Currently each home produces on average 2 car movements per day.

Long term, assume 75% of the new homes have a car, 8,250 homes with cars. Also assume that car use per household falls by 30% to 1.4 car movements per home. This makes 11,550 extra car movements daily, not including delivery vehicles (online shopping and mail deliveries).

The implications for us all are horrendous. We must plan seriously to cater for extra journeys by formulating a serious, realistic transport strategy.

The "Ely to Cambridge Transport Study - Strand 2 New Town North of Waterbeach Transport Report" (Mott MacDonald, 2018) is well presented but does not appear to address the challenges of a) transporting 1000s of new commuters and b) potentially over 11,000 new vehicle movements.

Vastly increased public transport capacity, especially train capacity, will be required – in addition to very radical improvements on the A10 and A14 and other highways.

**School runs**

There will be 3 new primary schools, one secondary school and a special needs school in the New Town. Each of these will employ dozens, even hundreds, of teachers and other staff.
Many of these will commute in from elsewhere. Parents will inevitably want to drop their children at school on their car journeys to work. We observe this every day, living here in the High Street, next door to Waterbeach Primary School.

We must think how school runs will be catered for. A fair proportion of parents will send their children to private schools, why not? It is very noticeable in 2018 how busy the A10 is during term time and how much quieter it is during school holidays of the local independent schools. School runs represent a very significant traffic load.

The developers have suggested that a Park&Ride node could be built on the old airfield site, a nice idea. They also suggest that there will be additional bus services. But neither of these will come anywhere close to catering for 8,250 additional commuters. A double-decker bus carries 100 passengers sitting and standing. 83 additional bus journeys one-way at peak time on the already congested A10, or a dedicated guided bus track, is not an encouraging prospect.

**Benefits**

The New Town has a key advantage in its very close proximity to the rail system. We must adopt a more imaginative approach in order to take full advantage of rail transport.

This 2-station mass transit proposal provides benefits to the old village and the New Town and the surrounding area. It provides:-

a) transport for 1000s of new commuters to the Science Park, SJIC, Cambridge city and Cambridge Biomed Campus and beyond;

b) transport interchanges to guided bus and Cambridge Metro routes;

c) easy access for all Waterbeach and catchment area residents to Addenbrookes Hospital;

d) access to the new Rowing Lake on event days.
Increased provision for bicycles on trains, and also provision for luggage (for connection with Stansted Airport train at Cambridge) would add to the scheme’s utility.

In conclusion

We need to ensure that developers, planners and the community are on the right track. Think seriously about the challenges of our New Town over the next 30 years. We must cater for the new residents and their journeys.

A Waterbeach 2-station scheme, as part of an integrated Cambridge Mass Transit system, is not a pipe dream, it is a simple necessity.

We must enable the New Town and Cambridge region to grow successfully.

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