East West Rail Bridge Crossing & Local Transport Study: Draft Brief

Background:

Between the bridged highway crossings of the Marston Vale Line at the A5 in the west and Bedford Road in the east there are 4 level crossings; Bow Brickhill, Wooburn Sands, Salford Road/Aspley Guise and Berry Lane. There is also an additional level crossing west of the A5 in Bletchley on Simpson Road. With the full east west rail service following completion of the central section there is a risk these may need to close or the level of downtime will cause significant traffic and accessibility impacts.

The area parallel to the Marston Vale Line is within the preferred route corridor of the proposed East West Expressway. Highways England are due to consult on specific route options in the autumn. The expressway could affect potential future rail line crossing options and traffic demand in the area.

Plan MK allocates a number of development sites in south MK, namely; South East Milton Keynes Strategic Urban Extension, Eaton Leys Strategic Urban Extension and South Caldecotte Strategic Employment Allocation. This is in addition to previous local plan commitments still being built out at the Strategic Land Allocationⁱ area within the Parish of Wavendon.

Traffic modelling of the South East MK Strategic Urban Extension indicates a bridge is not required in response to impacts from this development, but this doesn't factor in the full east west rail service pattern. However for place making reasons a bridge crossing (via a V11 extension or at Woodleys Crossing) is desirable and is a feature of the emerging development framework. The development framework would also seek to provide a bypass of Bow Brickhill, to reduce the impact of development on this village.

The Plan:MK site specific policy for South Caldecotte requires Brickhill Street south of the railway to be upgraded to grid road standard.

As a consequence of Milton Keynes growth and expansion into rural areas, there are issues for established towns and rural communities beyond the city boundary. Traffic levels, vehicle speeds, perceived rat running, road safety, quality of place, road safety are evident local community concerns.

A number of local roads provide attractive route options between areas in south MK and Cranfield in Central Bedfordshire. Growth at Cranfield generating traffic demand on these routes is contributing to some of the community concerns above.

Milton Keynes Council will be consulting on a 2050 strategy later in 2019 which will include more details on the requirements for a mass transit system to support growth aspirations over the next 30 years. Urban

Extensions within Plan:MK are already required to safeguard provision for these future mass transit links. The Local Transport Plan (MK Mobility Strategy) includes proposals for future mass transit corridors and park and rides which would link with these. A Park and Ride to the south of MK will be needed as part of the strategy in the future to intercept traffic on the A5 and A4146. At least one mass transit route will therefore need to cross the Marston Vale Line in the future.

Study Aims:

Because of the mix of local and strategic issues and their interrelationships, a two phase study is proposed.

Phase 1 Bridge Study

- -Consider the current and future traffic levels on the routes affected by the level crossings, assess the likely impacts on traffic of the increased barrier downtime with the full East West Rail service, and assess whether the level crossing could continue to operate safely.
- Assess if the impact on traffic and accessibility from increased barrier downtime or closure would be unacceptable, and conclude whether an alternative bridge crossing/routing of traffic is recommended.
- If recommended consider the location options for possible new bridge crossings combined with associated highway network routes, aligning with current and future Public Transport/Mass Transit routes, and walking and cycling networks.
- Of these bridge options assess which are required in isolation or combination.
- Undertake engineering feasibility of the options and provide initial costings

Local Issues less sensitive to bridge study conclusion

- Evidence gathering of issues caused by through traffic in Aspley Guise
- Walton Road assessment of need for traffic calming or closure to through traffic.
- Bow Brickhill Road entry to Woburn Sands speed surveys and option identification.
- Consider options at Church road to reduce through traffic.

Phase 2: Local issues where solutions dependent on outcome of bridge study, more clarity of Expressway Routes and/or SE MK Development Framework

 A local transport study focussed on Woburn Sands focussed on improved traffic management, road safety, walking & cycling accessibility.

- Review of traffic growth impacts on Bow Brickhill and mitigation plan.
- Aspley Guise review of options to address through traffic issues.

Phase 3 (cannot commence until Cranfield Road reopened)

- Assessment of highway links between Cranfield (Cranfield, Cranfield University and Wharley End) and Southern MK.

Method/ Evidence

Railway Crossings Study

- Traffic model data on 2031 traffic levels on routes at Bow Brickhill,
 Wooburn Sands, Apsley Guise and Simpson Road level crossings.
- Identify barrier downtime of full East West Rail service pattern
- Undertake local traffic modelling (see if can use East West Rail Co's local models) to understand impact on traffic.
- Consider safety considerations at the 5 crossings with increased down time.

[Assumed Berry Lane is more a matter of local safety rather than traffic impact, as to whether this could remain open or not]

- Determine if the crossings are likely to require closure.
- If not determine whether the impact on traffic (congestion and delay) and accessibility by bus, walk and cycle is likely to be manageable or unacceptable.
- If concluding crossings will require closure or the highway network impact will be unacceptable proceed to consider bridge options.
 [if bridges not deemed required, brief will need reconsidering at this point]
- Identify bridge options informed by deliverable crossing options, traffic movement patterns and road network hierarchy, walking and cycling networks, bus networks and future mass transit networks.
- With any bridge option determine wider highway network improvements required to ensure effective routing of local and non-local traffic. Also improvements required to walking and cycling networks to utilise bridge.
- Conclude which bridge options should be progressed in isolation or combination, and what each bridge would need to accommodate in terms of footway, redway, traffic lanes and transit lanes.
- Conduct a 2031 model run to test bridge effectiveness and changes to traffic movement patterns.
- Deliver an engineering feasibility study of the bridge options and any other supporting highway network schemes. This includes a consideration of any land take required for the bridge (s) or highway improvements.
- When details are known of East West Expressway routes consider the implications of this for crossing options, and/or potential for some form of joint crossing with the Expressway scheme.
- Provide an outline cost for the bridge and highway schemes.

Local Issues less sensitive to bridge study conclusion

- <u>Aspley Guise</u> Local resident surveys/interviews to gather issues connected to through traffic.
- Walton Road traffic counts and speed surveys to assess the need for traffic calming/closure to through traffic. Recommend any interventions.
- Bow Brickhill Road Speed surveys at entry to Woburn Sands followed by a solution to encourage reduced speeds at town gateway.
- <u>Church road</u> Classified traffic count surveys. Consider and recommend options to reduce through traffic (this may just entail signage at entry points).

Phase 2

Scope and hence method for the phase 2 studies are dependent on outcome of phase 1 work, clarification of Expressway Routes and/or SE MK Development Framework.

Phase 3

 <u>Cranfield links</u> - Classified traffic counts of routes (Cranfield Road, Lower End rd, Crabtree Lane). Review of speed limits, weight restrictions, signage and collision data. Assessment of suitability of highway for traffic volumes and mix. Recommend changes to junction priority, speed limits, weight restrictions and signage (also the information used by sat nav companies to guide drivers).

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Timetable	Late July 2019	Agree brief and invite tenders		
	Mid Sept	Appoint Consultant		
	End Oct	Evidence and modelling complete to determine		
		bridge requirements. Evidence gathering for local		
	Mid Nov	issues studies.		
		Bridge options and highway works recommendation		
	Mid Dec	Modelling or option and engineering feasibility		
		complete. Local issues studies complete.		
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	Early Jan	Phase 1 Study Complete		
	February 2020	Phase 2 scoping		
	May 2020	Phase 2 completion		
	June 2020	Phase 3 commence		
	August 2020	Phase 3 complete		
Stakeholders	Central Bedfordshire Council			
	Local Parish Councils			
	East West Rail Company			
	Network Rail			

Appendix: Summary of local issues from Cllr Hopkins and alignment with study brief

"There are planning permissions for 4500 dwellings in the Parish of Wavendon plus more in neighbouring Walton Parish (to the west) plus nearly 600 dwellings built in Woburn Sands (a 60% in the housing stock of that town), plus proposals for a major employment site in Bow Brickhill Parish. The road system in these parishes is made up on existing A, B, C class and unclassified roads and is expected to cater for current planned housing growth (Core Strategy) and potential additional housing growth and employment growth via proposals contained in the Plan:MK.

No published impacts of this level of growth in local traffic and overall traffic movements has been undertaken that sets out the actual and potential levels of increase in congestion, the impacts on the road systems of the planned additional vehicle movements and what remedial measures or plans for highways infrastructure developments and traffic management measures will be undertaken to mitigate these levels of growth.

In effect an impact analysis of decisions already made and those likely to be made over the coming months and years on the Parishes of Wavendon, Woburn Sands and Bow Brickhill. " (Cllr Hopkins)

Area and	Impact assessment(s) and possible actions	Coverage in
location		the Brief
Wavendon	Major impact of the development of 4500 new homes in the Parish in	Backround/
	the so called SLA (Core Strategy) and additional areas given	context
	permissions under the 5 Year Land Supply ruling. Particular concern	
	over any possible route of an Expressway and any plans for the	
	development of SEMK area (not due to come forward before 2023)	
Walton	Country lane prone to 'rat running' link between Newport Road and	Phase 1
Road	Wavendon Gate and hence south Milton Keynes. 20 MPH limit in	
	place. Possible solution – additional calming measures or ultimately,	
	road closure	
Lower End	Rat running link to and from Salford, Cranfield and to and from	Phase 3
Road	Bedford avoiding the A421. Link not viable at the moment due to road	(Cranfield
	closure on Cranfield Road for bridge replacement – closure to May	Links)
	2020. Link to expanding Cranfield Campus and business park especially	
	important so requires work with CBC to produce an integrated	
	solution. Short term solutions – speed limit reduction and SID's in pace	
	before May 2020	
Cross End	Scheme about to be implemented to create cul de sac	Backround/
		context
Newport	Major link into MK from A5 (Hockliffe) via Woburn and Woburn Sands.	Phase 2
Road	Barrier at Woburn Sands railway station so impacts of East West Rail	
	need to be assessed on closure times. Pedestrian crossing points and	
	calming solutions	
	As WOOBURN SAND LINE, links Kingston Roundabout to Woburn,	
	Leighton Buzzard, Hockliffe (A5) and is a major link into Milton Keynes	
	from these points and the surrounding villages. Hold ups increasing at	
	railway crossing point as part of East West Rail scheme. Pinch point at	
Cumpfield	Kingston Roundabout at peak times. HGV weight limit in place.	
Cranfield	Important link to Cranfield from its junction with Newport Road (in	Dhasa 3
Road	Woburn Sands) passing through Wavendon at Lower End. Urgent need	Phase 3
	for speed reduction and moving the weight limit boundary into CBC	(Cranfield

	area.	Links)			
Crabtree	Narrow country lane link to Aspley Guise used by some as a rat run.	Phase 3			
Lane	Only first 300 yds of the lane is in Wavendon Parish	(Cranfield			
(Lower		Links)			
End)					
Woburn	Major Concern – should proposed SEMK grid road extensions link	Phase 2			
Sands	into Newport Road and Bow Brickhill Road how will the town cope				
	with the considerable additional traffic load?				
Station	As above. Congestion at peak times on Woburn Sands High Street.	Phase 2			
Road /	Cross Rods link at High Street with connection to Bow Brickhill (West)				
High Street	and Aspley Guise (east)				
Weatherco	Residences shared with CBC on east side and MKC on west side. Major	Phase 2			
ck Lane	traffic calming scheme implemented outside Fulbrook Middle School				
	(CBC area school). Rat run to M1 (J13) and east to Ampthill and the A1				
Russell	Rat run to Bow Brickhill Road and hence to south Milton Keynes.	Phase 2			
Street					
Hardwick	Narrow roads linking west towards MK South. Concern what impact	Phase 2			
Road / The	the SEMK developments might place if any proposed link road/grid				
Leys	road extensions connect into these old town streets and lanes.				
Bow	On the western edge of the town - Speeding is a particular issue at this				
Brickhill	point.	Phase 1			
Road					
Bow	Direct impacts of SEMK surrounding the village. Proposals for	Phase 2			
Brickhill	Caldecotte South employment zone in the Parish. Preservation of the				
	Greensand Ridge (AAL and amenity value to the whole of MK)				
Station	Major link into and out of Milton Keynes South.	Phase 2			
Road					
Church	Link to amenity facilities of the Greensands Ridge and woodlands plus	Phase 1			
Road	Woburn Golf Course. Rat running traffic from Woburn to MK South.	-1 .			
Brickhill	Need for a bridge, or land reserved for a bridge on land designated as	Phase 1			
Street	Caldecotte C (north side of railway) and South Caldecotte (south side				
	of railway). Congestion at A5 roundabout. Congestion at level crossing				
	(Bow Brickhill railway station)				
0 1	Neighbouring Communities	Dhara 4 and			
Aspley	Traffic accessing to and from south Milton Keynes as well as seeking	Phase 1 and			
Guise	route to M1 (J13) and route to Ampthill, Shefford (A1) and Bedford	Phase 2			
Hockliffe	Bottle neck on A5 but put forward as a suitable route for HGV traffic	OUT OF			
	heading south from proposed Caldecotte South Employment site	SCOPE			
	(warehousing) and accessing the employment site from junction 11A				
Mohimo	of the M1	OUT OF			
Woburn	On route of link from Kingston Roundabout (in MK) to Hockliffe as well	OUT OF			
C.If.	as site of major tourist visitor attraction	SCOPE			
Salford	Village in CBC area that is greatly impacted by Milton Keynes via link	Phase 3			
	to Wavendon (Cranfield Road) and Brooklands (East MK) Suffers from	(Cranfield			
	considerable levels of rat running and joint approach required with	Links)			
	CBC to address these issues.				

 $[\]frac{i}{https://www.milton-keynes.gov.uk/planning-and-building/planning-policy/strategic-land-allocation-development-framework-supplementary-planning-document-spd-adopted-november-2013}$