



Wick Lane - Payne Road

Utility Diversion

Sewer diversions in advance of Crossrail works

The alignment of the proposed Crossrail tunnels crosses two Thames Water sewer tunnels located in Wick Lane: the Hackney to Abbey Mills Sewer (HAM) and the Wick Lane Sewer (WL). It is necessary to divert these two sewer tunnels in advance of construction of the Crossrail tunnels.

Original scheme

Powers for a diversion were requested in the Crossrail Bill submitted in February 2005. The route for that diversion was from a site at Wick Lane beneath the River Lea towards the Abbey Mills pumping station.

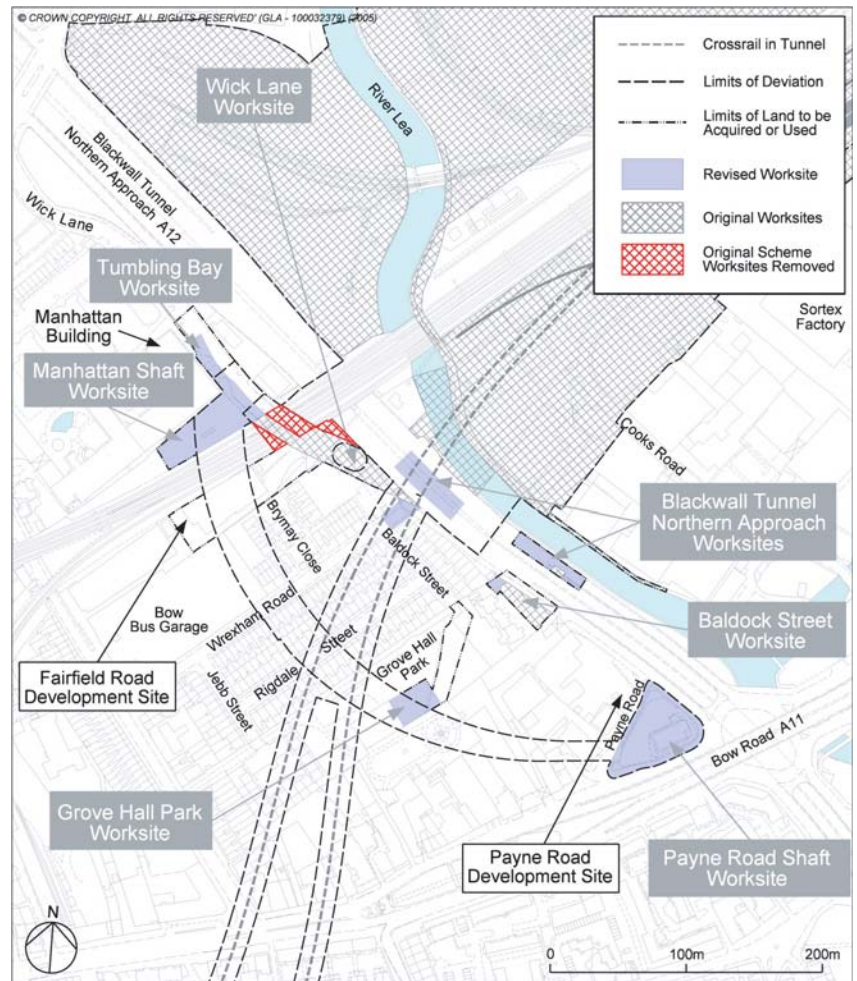
Since the Bill was submitted it has been found that large piled foundations are likely to be present on the original diversion route (at the location of the Sortex factory), which would make it difficult to construct the new sewer tunnel.

The original scheme also required a new large pumping station to pump flows up to the level of the old sewer, so that it could be pumped to the treatment works. The pumping station would have needed to be large enough to cope with an extreme flood situation and would have involved considerable ongoing energy use and costs.

Amended scheme

Following discussions with Thames Water a revised scheme is being considered which proposes a gravity sewer running from a shaft sunk on vacant Network Rail land to the south-west of Wick Lane, to a shaft at Payne Road on the site of an existing McDonalds Restaurant.

The tunnel would be 2.7 metres in diameter and at a depth of between 8 and 12 metres below ground. As the sewer flow would be gravity assisted a pumping station is not required, thus reducing ongoing energy use. The amended scheme is shorter, which would reduce the use of materials and produce less excavated material to be disposed of. There are environmental benefits from reducing the use of energy and materials.



The sewer would require three permanent access shafts for maintenance by Thames Water; one to the south-west of Wick Lane, one in a corner of Grove Hall Park and the third south of Payne Road. Once constructed, these shafts would not require any above ground structures.

Construction of the Manhattan shaft on the Network Rail site would require a new retaining wall to be built on three sides of the site. Construction of the Payne Road shaft would require the demolition of the restaurant building. In addition, there would be new linking tunnels connecting the existing sewers to the Manhattan shaft and the Payne Road shaft.

As with the original scheme, it would be necessary to access existing manholes to decommission and fill the redundant sewer tunnels. The manholes are located within the carriageway of the Blackwall Tunnel Northern Approach and in open space adjacent to Baldock Street. A new access manhole would also be constructed in Wick Lane.