

BLE Tunnelling Worksites – Comparative Summary of Site Options

Consideration	New Cross Gate	Hither Green	Catford
Site Size	Circa 45,000 sqm	Circa 65,000 sqm But irregular shape with sub-optimal rail siding lengths	Circa 50,000 sqm
Site Acquisition Cost			
Rail served	✓	✓	✓
Uni or bi-directional TBM launch? Bi-directional = greater flexibility and advantage to programme	Bi-directional	Uni-directional	Uni-directional
Synergies (Stn, stabling etc)	New Cross Gate Tube Station Potential synergy with Network Rail Platform 6 concept	Stabling for extension fleet	None
Access - TLRN, local roads	Direct from TLRN	Via local residential roads with risks of height restrictions on abnormal loads (e.g. TBM parts) due to rail viaduct	Direct from TLRN
Land use	Retail and grocery, Network Rail lands comprising road access to site compound hosting portakabins and access to rail siding.	Network Rail lands hosting rail sidings and maintenance plant. Local nature reserve.	Retail park, Network Rail substation. River Ravensbourne in culvert runs through site. St Dunstan's College playing fields and pavilion.
Planning policy designations	Retail Park – no specific designations other than part of District town centre Rail lands partly fall within Green Corridor designation, Site Importance Nature Conservation, and Strategic Industrial Land. Green corridor and SINC designation common across rail corridors in Borough – no identified sensitive assets in the operational rail lands at this site.	Waterlink Way designated through site along route of Ravensbourne River. St Dunstan's Playing Fields designated Metropolitan Open Land. Also within Conservation Area. North end of St Dunstan's site designated for Road Improvements. South end of Retail Park within Site of Importance for	Green corridor and Site of Importance Nature Conservation. Unlike New Cross Gate, there is a recognised Local Nature Reserve in the site option, managed by the local community by permission of Network Rail.

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		Nature Conservation.	
Greatest potential cost difference c.t. Baseline strategy (using Point estimate). Exc. Site Acquisition Cost (see above)	-£140m	Equal to baseline strategy which assumes Hither Green	+£420m
Greatest potential programme duration difference c.t. Baseline strategy	-11 months	Equal to baseline strategy which assumes Hither Green.	+3 months
Programme Risk	Low – enables route to be partitioned into discrete tunnel drives south of NCG, north of NCG and drive from OKR 1 station site to Lambeth North. As a result most station and shaft works fall off critical path, with sections of extension capable of moving to tunnel fit out prior to all tunnel drive works completing.	High – requires continuous bored tunnel drive to Lambeth North placing all stations and shaft works on critical path.	High – requires continuous bored tunnel drive to Lambeth North placing all stations and shaft works on critical path.
Environmental impact	Low – Rail logistics at site should enable muck-away on rail and truncated HGV trips from station excavations on route to site rather than out of London on road.	High – site's access and lower siding capacity than alternatives means whilst tunnel muck-away possible on rail network, station excavations likely muck-away entirely by road out of London. Local environmental impacts due to land uses on site also high.	High – site's access and lower siding capacity than alternatives means whilst tunnel muck-away possible on rail network, station excavations likely muck-away entirely by road out of London. Local environmental impacts due to land uses on site also high.
Socio-economic impact	Medium – Part of retail park to be extinguished by Sainsbury's as part of their own development proposals. Grocery store provides services to local community. TfL analysis concluded the range and number of alternative grocers to the east and	Low – lower employment on site compared to alternatives. No direct impact of Network Rail operations extinguishment on local community. Is essential activity so would have to be relocated mitigating employment impacts.	High – Retail Park provides services to local community. St Dunstan's Playing Fields provides amenity and recreational uses. Some of latter activity could be retained during construction at southern end of site, but capacity

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	west on the A2 that serves the site mitigate impacts on customers.	Local nature Reserve not open access so amenity impacts on local community lower.	of site reduced.
Fit with beyond Lewisham preferred option Hayes	Very good – enables Underground tunnels to be limited to Wearside Road depot, between Ladywell and Lewisham stations. Site provides stabling for extension to Lewisham and designs allow for at-surface junction onto Hayes line, enabling all stations on Hayes line to be served at surface at existing station locations.	Poor – potentially redundant bored tunnels to Hither Green if line eventually routes to Hayes where train stabling and maintenance facilities would be better located.	Very poor – risk of Ladywell station no longer served. Underground station at Catford Bridge needs to be constructed but cannot be achieved due to tunnel portal in current location – results in worse access to station from town centre and longer bus and Thameslink interchange.