

Appendix 2

Several sections of the current subway network is currently temporarily closed and the remaining subways are not now, nor recently have been, well used. Detailed preliminary investigations have been undertaken and this report sets out the feasible options for the way forward.

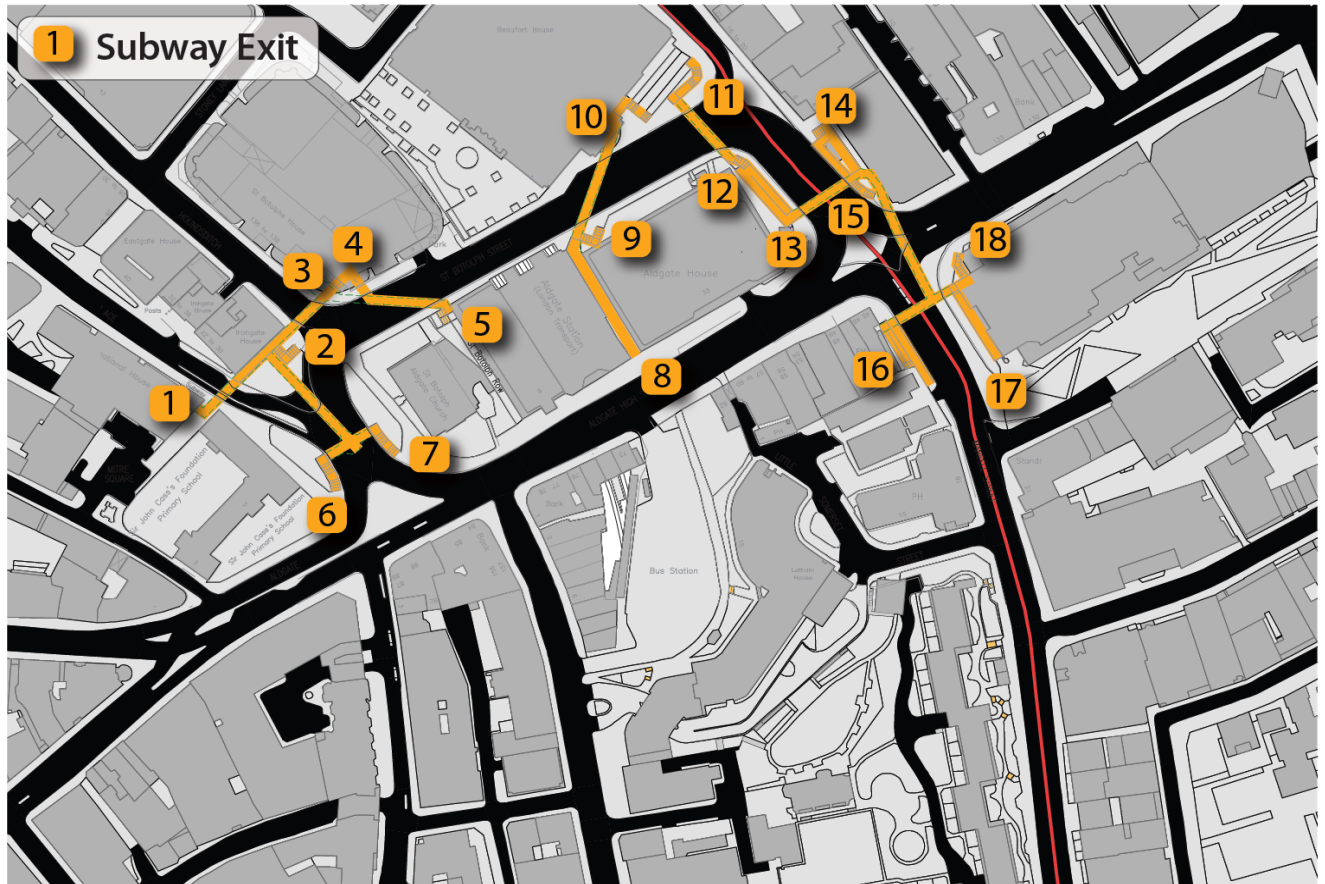


Figure 1: Map of Subways at Aldgate Gyratory (labelled)

Some of the subways around the Aldgate Gyratory are already closed temporarily due to frequent vandalism, anti-social behaviour and frequent rough sleeping. Photographs of the subway system are appended for information in Appendix 1.

The subways are owned and maintained by three Highway Authorities following the GLA boundary: the City of London; London Borough of Tower Hamlets; and Transport for London. Maintenance and service level agreements blur the ownership boundary lines in a practical sense between the authorities.

Often subways are viewed as a liability for a Highway Authority, hence demolition is usually considered to be beneficial as it removes the liability. However, if the subways are seen as assets, their reuse could bring benefits to the area.

The subway network at Aldgate provides the opportunity for a combination of reuses with different sections being suitable for different potential uses. The reuse options that have been investigated for the subways include:

Table 1: Types of Re-Use Considered

Type	Description
Sustainable Urban Drainage System (SUDS)	<p>SUDS could:</p> <ul style="list-style-type: none"> ○ Mitigate runoff impacts on the combined sewer system (which is prone to flooding, particularly at high tide on the Thames, along Farringdon Street up to Ludgate Circus, Paul's Walk and Riverside Walk, Walbrook Wharf and Bell Wharf Lane); and ○ Promote re-use of rainwater.
Fill	Filling the subway structure (for example with foam concrete) does not remove the City's liability to continue to maintain the structure.
Utility routes or localised pipe subways (option now discounted)	The subways could be converted to provide a route for utilities. If, under the City of London (Various Powers) Act 1900, the converted subway is deemed a Pipe Subway then utility companies are required to utilise the facility through that space. If the surface level remains designated as Highway and a Pipe Subway not made, utilities are within their rights to lay equipment anywhere within the Highway boundary. It is not the only way to protect the surface space (or new Square), it could also be designated as a 'Street of Special Engineering Difficulty' – this would require certain procedures are undertaken by utility companies and their work would be heavily supervised by the City. The pipe subway option has now been discounted.
Demolition	Removes the City's liability for the maintenance of the structure. It would likely include breaking the top half of the subway and using this rubble as in fill, in addition to graded granular fill material to reinstate the void removed. The bottom half of the structure would be perforated to allow for drainage through the demolished structure.
Storage	<p>Subways could be reused for storage by CoL Cleansing, or TfL.</p> <p>Points of access will be necessary, dependent on what is to be stored, in order to make this a viable proposition (e.g. ramp access, manhole, lift, steps).</p>
Retail	Supporting retail on the surface level with storage or 'back of house' requirements. Stand alone retail would require ventilation and emergency exit provision etc which could take the form of maintaining obstructions on surface that the public realm improvements are hoping to remove.
Arts / Play	The existing subways offer opportunities for temporary art shows and installations or play facilities.
Retain	Officers do not consider this appropriate as access points form obstructions on surface. Retaining them restricts urban and landscape improvements that could otherwise be introduced.

Trees	Planting trees in the access ramps and stairwells require demolition of the structure prior to in fill for planting to ensure adequate drainage. These locations offer relatively large areas without utilities, which is a rare opportunity within the City for planting.
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Officers have undertaken a desk top evaluation of the suggested reuse options for each section of the subway and present a table of ranked preferences based on professional opinion for consideration. Some of the design drivers being considered include, but are not limited to:

- the concept for the new square;
- minimising maintenance and disruption to the network in the future;
- aiding the function and drive to enliven the new square and public realm;
- reducing (even if in a small way) the pressure that rainfall events put on the combined sewer that the City utilises;
- keeping the area green, improving biodiversity; and
- reducing maintenance costs.

In developing detailed options it should be noted that public toilet provision is currently available for men and women in the subway between exits 11 and 12. These toilets are opened on Sundays only to support London Borough Tower Hamlet's (LBTH's) Petticoat Lane Markets, which utilise Middlesex Street on a Sunday. It should be noted that these toilets are accessed by steps only therefore provision of an accessible toilet elsewhere, if viable, would be beneficial. Use of the toilets on a Sunday in September 2012 is in Figure 2 below.



Figure 2: Number of WC users between 8:00 & 16:30 on a Sunday in September 2012

The graph in figure 3 shows the use of the toilets opened on Sundays at the northern end of Middlesex Street, on Bishopsgate. It identifies a downward trend of use. The toilets at the southern end have historically been used less than those in the north.

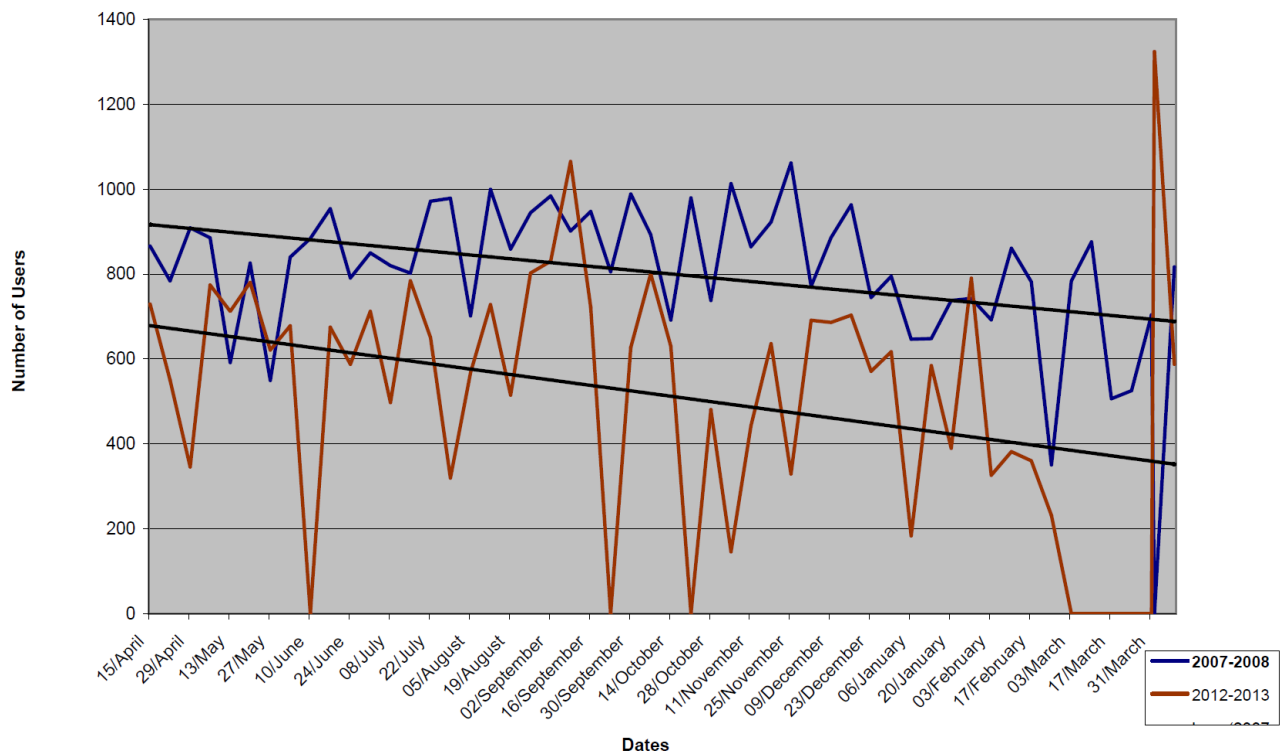


Figure 3: Bishopsgate Toilets Sunday Usage Comparison 2007-08 and 2012-13 showing trends

In considering the cost per user of the toilets in the subway a downward trend approximate number of 250 users per day for 52 weeks is 13,000. This was compared to costs of £70,000, where £40,000 is an average cost for the subway maintenance per year and £30,000 to run the toilets. If the subway were able to be left open just because of the toilets then an approximate user cost is thus placed at £5 to £6 per user.

Officers are investigating a combined alternative solution, including discussions with LBTH officers regarding reopening Leyden Street toilets for Sunday market users. The consideration of an alternative solution to the current toilet provision will be mindful of the current levels of use, the likely increase of users in the area, the accessibility of alternative provision and location. Alternative or replacement provision will be covered in an update of the Public Convenience Strategy to be submitted to Port Health Committee for decision later this year.

The costs of the various options are within the current estimates for the project except for interfaces with private land owners where the requirements have not been investigated, either in a legal sense or in a practical sense. This includes the interface with:

- International House where it could be that the re-use option will not require an access within the building. The building has development approval, and perhaps the cost to remove the access and block off the subway would be subsumed by the new development;
- Beaufort House where it appears that air vents open out onto the access to the subways;

- The London Underground tunnel where the subway between exit 9 and 10 is cradled or sits within the tunnel structure; and
- The RBS building on the corner of Mansell Street and Whitechapel High Street within London Borough of Tower Hamlets (LBTH).

The re-use preferences in Table 2 above indicate the potential for a combination of uses within a single length of subway or within the access ramps and steps.

As the governance structure of this project illustrates, there are many work streams operating concurrently. On the one hand this is to ensure the project is running at a high pace, as well though that the output from various groups is interdependent with work being completed by others. The subway re-use is a dynamic design process that links intrinsically to the design of the public realm.