

### 4.3 Tottenham Street lightwell modification

It is proposed to reduce the level of the existing lightwell slab along Tottenham Street elevation to improve the provision of daylight in the basement.

In order to facilitate these works it is proposed that temporary props will be fixed to the existing Ground Floor slab which will provide temporary lateral restraint to the retaining wall at the boundary with Tottenham Street. It is assumed that the existing retaining wall is cantilevering from the slab at the base of the lightwell. The Ground Floor slab will transfer the horizontal retained loads to the building's stability elements to prevent horizontal movements during construction. The existing retaining wall will span horizontally between the props.

To enable excavation within the lightwell, the existing retaining wall will be underpinned using a traditional sequenced construction. It will be necessary to provide dowels between the tops of the underpins and the underside of the existing wall prior to casting in order to connect the pins to the wall for top restraint. Once the underpinning has been cast, dry packing between the wall and the pin will be required to ensure full vertical bearing for load transfer.

The permanent structure will be formed by providing a new reinforced concrete liner wall in front of the existing retaining wall. The liner wall will be restrained at the top by steel props to the Ground Floor slab and at the base by the Basement 1 slab. Sketches of the above construction sequence can be found in the appendices.

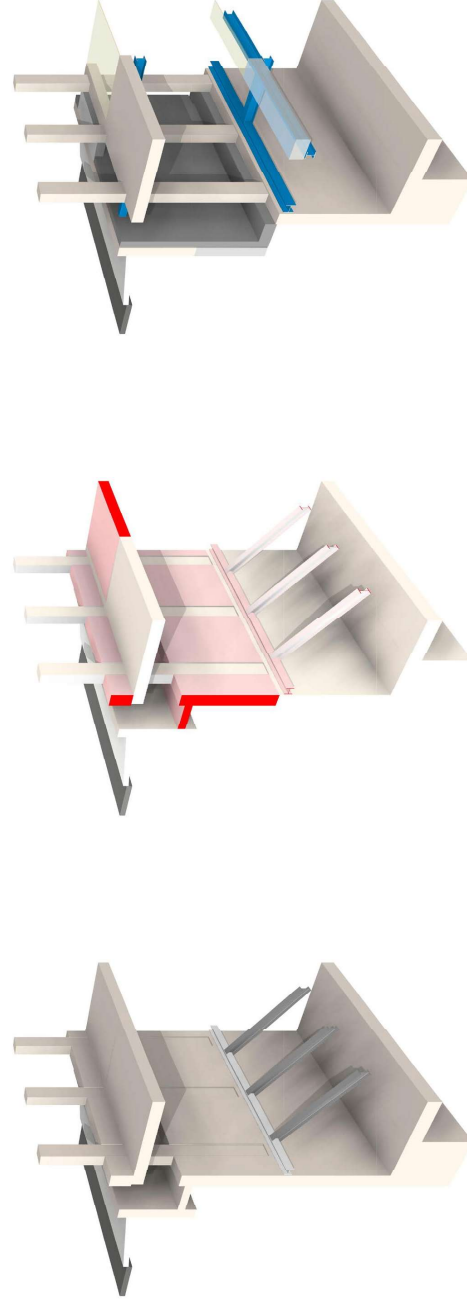
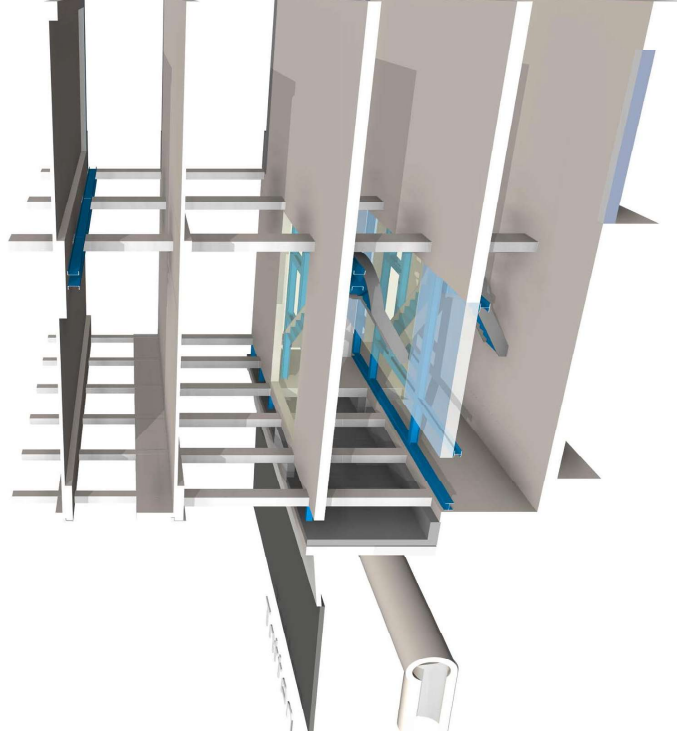


Image 13 - Existing, Demolition and Proposed Details of Lightwell Modification