

In the middle of the Museum of London, confidently taking centre stage, stands the Lord Mayor's Coach. Built in 1757 at a cost of £860 the vehicle is now priceless. However, should it ever become necessary to reproduce it, the cost would be in the the order of £2 million.



However, no original design drawings or subsequent working drawings exist for the Coach; mainly due to the incredibly elaborate and ornate nature of Coach that makes traditional measurement and survey almost impossible. Therefore the search has been on for a number of years for a suitable methodology to record the current form of the Coach and ultimately to legislate for any future proactive or reactive repairs that become necessary. We at PlowmanCraven, with our wide-ranging heritage and survey expertise and state-of-the-art technology, were approached by the Corporation of London to provide the answer to this survey conundrum.

The Lord Mayor's Coach is made up of a whole series of irregular components without obvious edges and flat surfaces. Traditional survey techniques, rely upon the identification and representation of edges. Because the Lord Mayor's Coach is made up of a number of irregular surfaces, a surface survey technique had to be employed to fully record the structure. For this laser scanning is the optimum recording system. LIDAR or terrestrial laser scanners have a resolution of +/-5mm and whilst this was adequate to record the bulk geometry of the coach, it was too coarse in resolution to enable the full intricacies to be detailed. Therefore we chose to use our sub-millimetrically accurate close range scanning system, utilizing a laser triangulation system that is accurate to between 20 and 30 microns, to provide the high accuracy data.

### PROJECT

#### Lord Mayor's State Coach

PlowmanCraven were approached by the Corporation of London to provide a sub-millimetrically accurate close range scan of the Lord Mayor's Coach, utilizing a laser triangulation system that is accurate to between 20 and 30 microns, to provide the high accuracy data.



### CLIENT

Corporation of London  
Museum of London

### SERVICE

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Sub Millimetre Scanning

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