

Responses to questions raised:

**ACTION: Executive Director: Place, Planning and Regeneration to update the Commission on whether new materials containing recycled plastic were being used within the programme**

This description covers a variety of emerging products but in the UK the predominant option is for the inclusion of recycled plastic within the mixed road material. This reduces the amount of bitumen used and is claimed to provide some structural strength benefits. There are some opposing views on whether the use of plastics is wise considering the full life-cycle of the road surface as ultimate removal will generate a contaminated product which may be difficult to dispose of in an environmentally safe way, unless further recycled. Additional concerns relate to plastic particles wearing away at the surface and contaminating the environment. We're not excluding the use of these products in BFC, but there are many new road resurfacing products emerging which claim to make a contribution to the environment and many of these are at the trial phase. BFC will be trialling some new materials within the 2022/23 work programme. Ultimately, the stakes run high if long lengths of carriageway material fail shortly into their lifespan, which needs to be up to 30 years in many cases, and so proof of longevity is key in any new material along with any cost differential.

**ACTION: In response to a query regarding new pothole filling technology the Executive Director: Place, Planning and Regeneration would clarify the current method for filling potholes used by the contractors**

There are numerous machines that have emerged over the years as manufacturers seek to develop and market the most efficient repair to potholes (often seen as the quickest, but also lower carbon). The useability/benefit of this equipment will vary between authorities with some vehicles/machines suited to mostly strategic road networks where accessibility and long and continuous stretches of repair bring the claimed efficiencies. For borough's with generally mixed road types, including rural roads, pursuing a 'one size fits all' approach to repairs is not practical. As such, within BFC we use various equipment for different settings, including jet-patching plant (where potholes are filled with pressured hot material which is affectively sprayed into the defect – via a mobile vehicle and workforce) which works well on the rural network and during cyclical works where otherwise complex and expensive traffic management can be reduced; we're also about to trial infrared patching repairs (where existing, compromised asphalt is heated and replenished before being mixed with new asphalt and compacted into the defect – again, the vehicle is mobile) and this has good recycling and CO2 reduction benefits. Specialist vehicles are very expensive, for example, the latest JCB pothole repair machine costs £165,000 and so purchase is an unlikely prospect for smaller authorities and instead equipment is hired in for specific batches of work. This approach provides useful flexibility and the opportunity to trial or use multiple methods. Conventional patching methods are still some of the best solutions to avoid reoccurrence of failures and they provide assurance on the quality of the end surface. Temporary pothole plugs will continue to be a necessity to initially make-safe inspected/reported defects until a lasting repair can be programmed.