

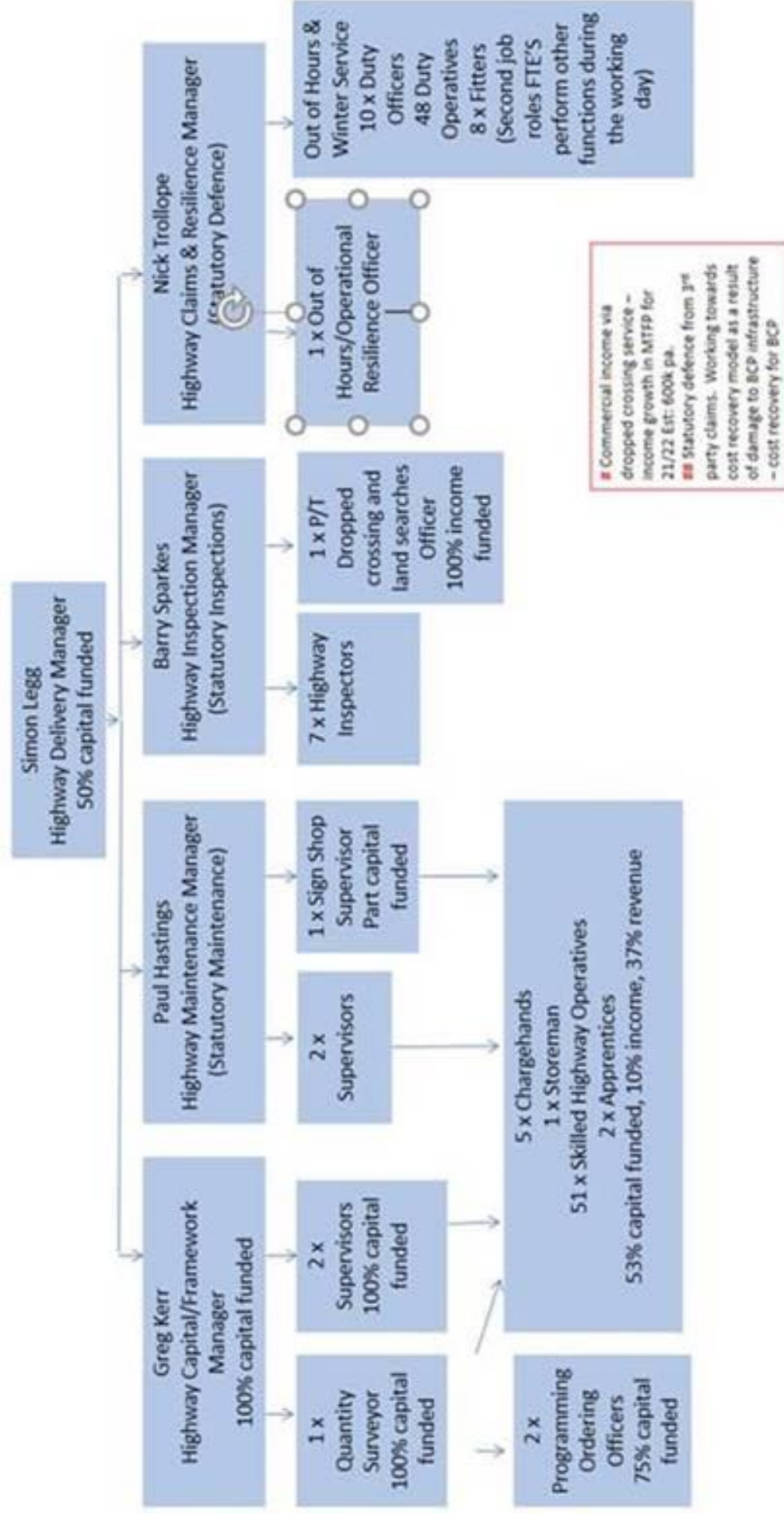
**Overview and Scrutiny Board – July 2021 (republished – first publication 1 February 2021)**

**Questions Previously Submitted Regarding Highways Maintenance in response to request for item to be covered by O&S Board**

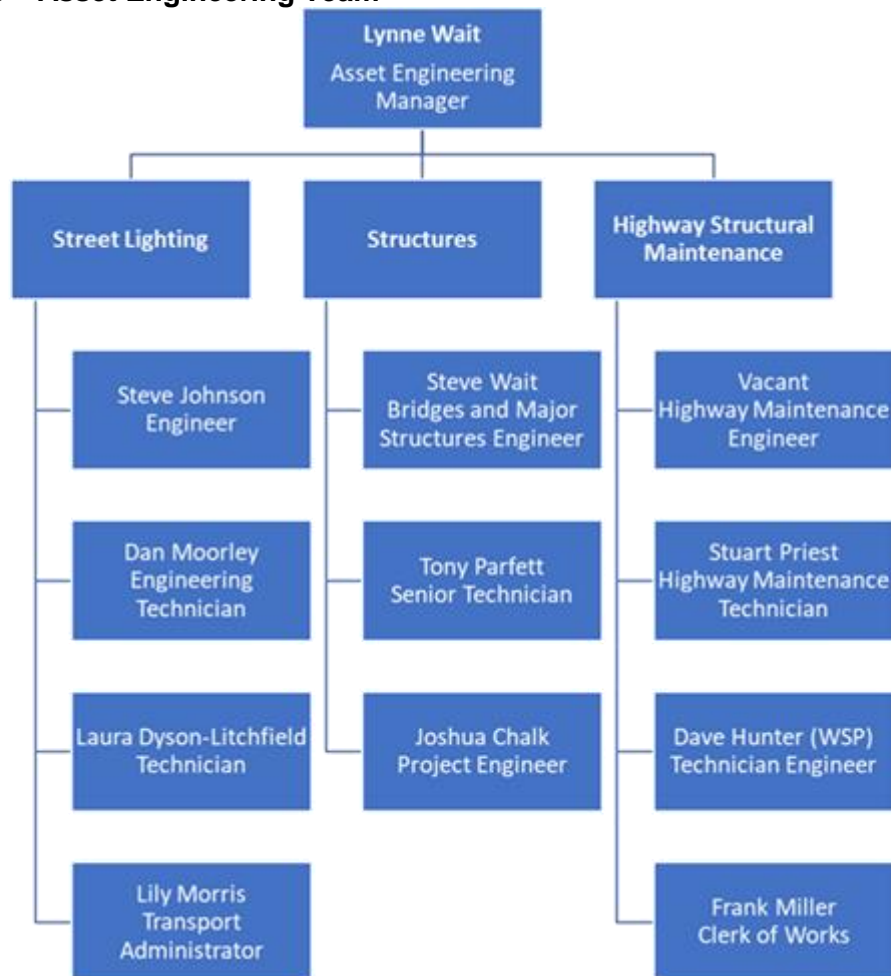
- What is the current BCP organisational structure for Highways and how many staff are employed in this work?

**Highway Delivery/Maintenance Team**

**See Next Page**



## Engineering Services – Asset Engineering Team



- What is the scope and magnitude of Highway work undertaken by the Council?

### Highway Delivery/Maintenance Core Service Functions

- Well Maintained Highway Infrastructure Inspections involving 658 miles of Highway
- Delivery of Routine Maintenance Programmes
- Delivery of Transport Capital Improvement Schemes
- Vehicle Access Service (dropped crossings)
- Winter Service Provision
- Out of Hours Service Provision
- Drainage & Gully Emptying
- Traffic Management
- Street Furniture provision and maintenance
- Sign Shop

### Stats and Facts

22 miles (35+ km) of safety barriers	13,000 scheduled highway inspection per annum across highway network
70,000+ road gullies	c.8000 ad hoc repairs completed pa.
Rolling log of c.1,500 defects to repair	Road lining – often a night-time activity and weather dependent
Respond to 500+ out of hours calls	Average 30 Winter Service deployments per annum
c.360 pa. vehicle access (funded by property owner)	Direct deliver £6m + Capital Local Transport Plan Improvement Schemes

### Asset Engineering Team

- Highway Structural Maintenance (Delivery of highway maintenance other than routine maintenance)

- Street Lighting
- Highway Structures and Bridges

- What policies are currently used to manage the maintenance of the BCP road network? Are these legacy Council Policies or have these been consolidated into a single BCP policy?

As part of LGR process legacy Borough of Poole Inspection Policy which had already been brought up to date and in line with the latest Well Maintained Highway Infrastructure Code of Practice has been adopted as the single policy for BCP Council. It is in the process of being made available on the Council website.

Each legacy authority had its own Highway Asset Management Policy and Strategy. A new BCP Policy and Strategy for Highway Asset Management has been drafted and will be presented to Cabinet in April 2021 for adoption. In producing a new BCP Policy and Strategy, we have reviewed these legacy documents against current best practice and produced a set of documents that can be adopted and will shape the way we deliver our highway maintenance programmes for the next 5 years.

- How is the condition of highways (roads and pavements) assessed and how are the priorities for repairs determined?

**From a Highway Delivery/Maintenance function**, as stated in the National Code of Practice “Well Managed Infrastructure” Safety Inspections are designed to identify all defects likely to create danger or serious inconvenience to users of the network or the wider community. Such defects should include those that are considered to require urgent attention as well as those where the location and sizes are such that longer periods of response would be acceptable.

Inspections are focused on safety related defects (identifying condition, defects and signs of deterioration). Any knowledge and data gathered will also be used to inform decisions on network reliability and integrity.

### **Condition Assessment for Structural Maintenance Programme**

Condition information collected in an annual programme of surveys is used as a basis for assessing the condition of individual roads in order to determine a priority listing in for the Council’s Structural Maintenance Programme.

The conditions surveys comprise:

SCANNER – this is a survey carried out using a special vehicle that measures the condition of the highway surface recording the texture, profile and cracking. This survey is undertaken on the classified network (A, B and C roads).

SCRIM – this is a machine based survey which measures the skid resistance of the road surface. All A and B roads are surveyed.

MRM – this survey records the same details as a Scanner survey with the exception of cracking defects. It is mounted on a smaller vehicle so is more suitable for unclassified roads. 25% of all unclassified roads are surveyed each year.

The surveys give a condition index (RCI) for all roads surveyed which provides an initial list of roads for treatment.

A prioritised programme can be produced using software available through our Pavement Management System based on input of specific scheme criteria for levels of cracking, loss of profile and surface texture and minimum lengths of roads to be treated. The RCI is supplemented by data from safety inspections on where reactive repairs are being carried out and from officers local knowledge of particular sites as there can be occasions where the machine survey records are not totally reliable for example some trench reinstatements can be picked up as cracking by the survey

The programme is drawn up in consideration of trying to satisfy all of the criteria listed above.

A lot of information is contained on our website- <https://www.poole.gov.uk/streets-and-travel/roads-highways-and-pavements/highway-maintenance/>

- What methods are used for road and pavement resurfacing and what is the life expectancy of each method?

Type of Surface	Material	Service Life	
		From	To
Surface Treatments	Surface Dressing	10	15
	Micro Asphalt	10	15
	Slurry Surfacing - Carriageway Footway	6 10	
	Asphalt Preservation	5	8
Asphalt	Hot Rolled or High stone Content Asphalt	20	25
	Stone Mastic Asphalt	10	20

### Surface Dressing

Surface Dressing involves the even spray application of an emulsion bituminous binder through a purpose built spray tanker onto the existing road surface followed immediately by the even application of aggregate chippings to 'dress' the binder. Surface dressing offers many advantages;

- Seals the road surface against ingress of water which is known to be one of the major causes of asphalt pavement deterioration.
- Arrests the deterioration of the road surface and underlying road pavement structure.
- Restores the necessary level of skid resistance to the road surface with the resultant benefits of reduction in skid related traffic accidents.
- Timely intervention will enable worn out road surfaces to last longer thereby increasing the time to when structural maintenance is required.
- Can help to reduce spray caused by vehicles travelling on wet road surfaces.
- Maximises the cost effectiveness of limited highway maintenance funds.
- Can be used on all classes of roads from unclassified to national speed limit motorways

### Micro Asphalt and Slurry Surfacing

These materials are cold-applied, thin bituminous surface courses incorporating bitumen emulsion and fine graded aggregate with fillers.

These materials can be used to restore the surface condition on roads, footways, cycleways, car parks, playgrounds, central reservations, traffic islands, amenity areas.

Slurry Surfacing is a single coat up to 6mm thick

Micro Asphalt incorporates a polymer modified binder and is a two coat application laid mechanically or manually to a maximum thickness of 15mm

Micro Asphalt offers many advantages

- Rapid curing characteristics – Able to receive traffic within twenty minutes.
- High daily output means less traffic disruption.
- Restores surface texture and improves skid resistance.
- Impervious membrane prevents ingress of water into the pavement structure.
- Seals and preserves existing surfaces.
- Suitable for overlay on wide range of existing surfaces.
- Micro-surfacing has the ability to reshape and re-profile existing surfaces.

### Asphalt Preservation

A protective emulsion applied to surfaces to seal them and help prevent potholes.

It is used on roads showing early signs of deterioration as a cost effective early intervention as they cannot improve a road surface or reshape the profile

### **Resurfacing/Reconstruction**

Surface Dressing and Micro Asphalt cannot be applied to roads that have a high degree of deterioration in the surfacing or underlying layers.

Survey data and visual inspection is used to determine which sites are unsuitable for surface dressing or micro asphalt.

This information is also used to determine the depth of any reconstruction. For example, if the survey data indicates a high degree of cracking but no loss of profile, then it is likely that replacing the top surface layer (typically 40mm deep) would be sufficient.

Prior to confirmed the depth of resurfacing cores will be taken to confirm the depths of existing bituminous layers and the test for the presence of tar.

- Are road repairs carried out by BCP staff or are they subcontracted? If the latter, how is the quality of subcontracted work assured?

Works are carried out both in house and by contractors. Where works are contracted, the works are supervised to ensure compliance with the specification.

All contracts include a maintenance period during which the contractor must return to repair any defects that are due to poor workmanship or defective materials at their own expense. The maintenance period is a minimum of 12 months but for some projects is 2 years. In addition a retention is held that is only released at the end of the maintenance period if all notified defects have been repaired. The retention is usually 2.5% of the works value.

- Is the quality of highway work carried out by Service companies (Internet, gas, electric water etc) checked by the Council?

**Yes** - Under section 71 of the New Roads and Street Works Act 1991 (NRSWA) an Undertaker executing street works must when reinstating the street comply with whatever specification may be prescribed for materials to be used and standards of workmanship to be observed as per the Specification for the Reinstatement of Openings in Highways Code of Practice. The Undertaker must ensure that the reinstatement conforms to prescribed performance standards – in the case of an interim reinstatement, until a permanent reinstatement is effected, and, in the case of a permanent reinstatement, for the prescribed period of either 2 or 3 yrs after completion of the reinstatement depending on road type. The Council can charge the Undertaker for inspecting a sample of their reinstatements and if found to be defective can issue a defect notice and carry out, issue and charge for further defect inspections and notices until such time as the defect is corrected. The Council has established a properly resourced and managed street works inspection team that routinely carries out sample inspections and takes appropriate corrective actions. Since April 2020, to date, there have been a total of 1737 inspections carried out by BCP Council.

- How is the condition of road markings assessed and at what periodicity? Does the Council manage this work or is it a subcontracted service?

Line markings – now based on Risk Assessment as per all other highway safety defects. >50% wear on Resilience Network and >70% on other parts. Legacy arrangements where split across service units but have now been consolidated. Backlog of work as previously reactive demand led, rather than risk lead. Delivered by third party supplier – tenders closed yesterday for new arrangements.