Appendix 4

Examples of Highway Maintenance Treatments

Carriageway recycling on peat soil affected road – before and after photographs

B1382, Queen Adelaide/Littleport in 2022/23– see detailed case study attached at the end of this appendix.

Before

After

A1101 Mildenhall Road, Littleport – 2022/23 to 23/24

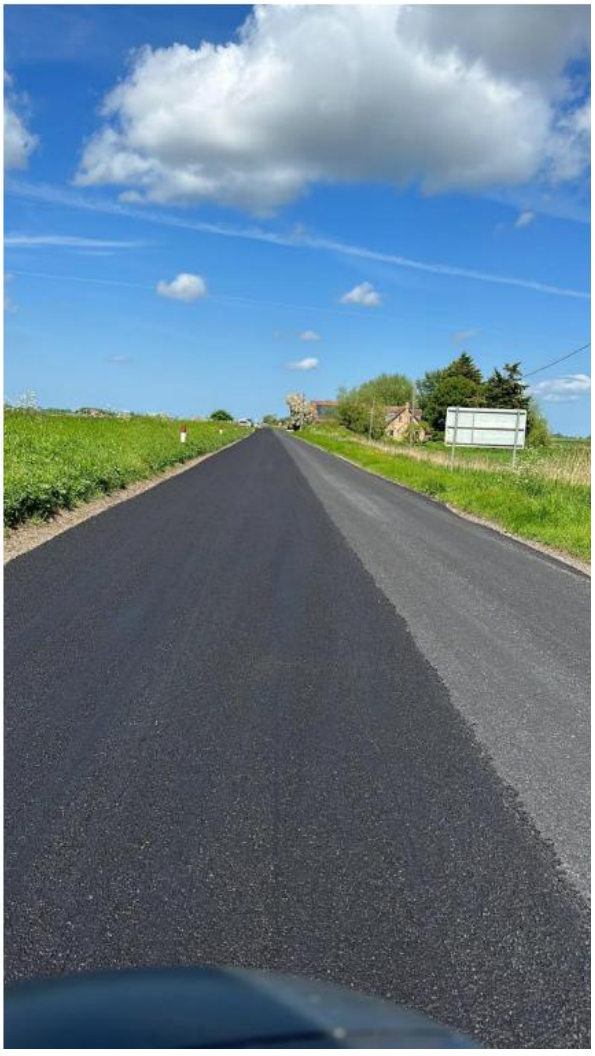
Before

During

After

Surface treatments – surface dressing and micro asphalt surfacing

The photographs below are of work carried out in Cambridgeshire, showing the two treatments being undertaken, and the results following completion of works.



Completed Surface Dressing – B645 Hail Weston Road, Great Staunton – summer 2023

Completed Micro Surfacing – High Street, Landbeach – 2023/24

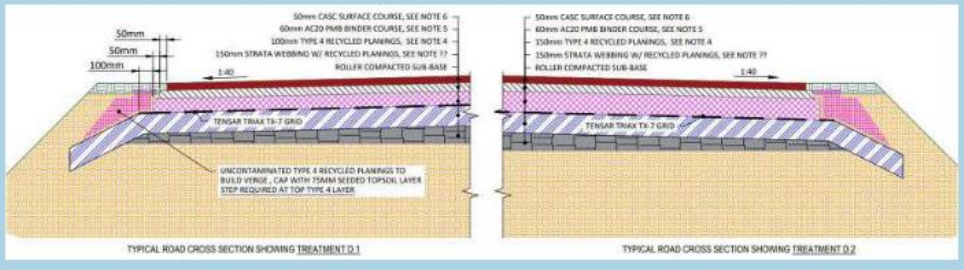
Footway improvements 2023-24

Queens Walk, Ramsey – 2023/24 - Resurfacing of a bituminous footway and replacement of an uneven concrete overlaid footway – see detailed case study attached at the end of this appendix.

Footway slurry sealing works – 2023/24 – Gresley Way and Norwood Road, March

Capitalised Road Patching 2023/24 – locations include: Station Road, Whittlesford / Lode Way, Haddenham / Cromwell Road, Cambridge / Russell Avenue, March

Road reconstruction – B1382 Mile End

Project Type:	**Major Maintenance – Fenland soils**
Parish / District:	**Queen Adelaide / Littleport, East Cambridgeshire**
Location:	**B1382 - Google Maps**
Total cost:	**£1,410,000**
Duration:	**3 months**
Area:	**13608 m2 using 4450m3 of recycled road planings**
Specification:	

TYPICAL ROAD CROSS SECTION SHOWING TREATMENT D.1

TYPICAL ROAD CROSS SECTION SHOWING TREATMENT D.2

Key deliverables:

- Asphalt surfacing.
- Road markings & signs.
- Reprofiling.
- Reinforcement / stabilisation grids.
- Ex-situ recycling.

Background:

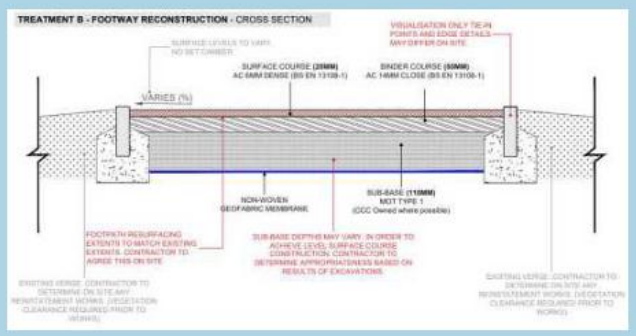
- The existing construction consisted of conventional asphalt to a depth of approximately 450mm.
- The road is constructed over fen soil (peat) which is unstable and prone to shrink / swell regularly.
- The profile of the route was poor, with edge failure and longitudinal undulations.
- This resulted in significant level changes which needed to be addressed urgently due to the risks the existing profile posed to road users.
- The area in question is rural / agricultural, with ditches either side of the road causing edge slippage.

Solution:

- The existing road was used as a linear quarry with all the planed off material being recycled into two lower 150mm thick layers as an unbound type 4 material.
- This equated to 4450m3 of material being recycled instead of imported, meaning considerable cost and carbon savings.
- Between the 150mm layers *TriAx* stabilisation grids were used to limit movement and reduce deformation.
- The lower layer of type 4 material was installed in 150mm deep geocells, (*Strataweb*), which extended under the verge on either side of the road to provide greater edge support and reinforcement.
- Premium grade asphalt binder and surface course laid before leaving site.
- All work was delivered under a 24/7 road closure in normal working hours.

Cambridgeshire County Council

Footpath improvements - Queens Walk

Project Type:	Major Maintenance
Parish / District:	Ramsey, Huntingdonshire
Location:	///oval.worth.syndicate
Total cost:	£102,600
Delivery dates:	10/11/2023 – 07/12/2023
Area:	530m2
Specification:	

Key deliverables:

- **Surface / binder course.**
- **Concrete edging.**
- **Subbase levelling.**
- **Footway widening.**
- **Reprofiling.**

Background:

- The existing construction consisted of a concrete slabbed base, with various asphalt surfaces added in recent years.
- The underlying construction consisted of concrete slabs; previous efforts had been made to patch the impacts of the slabs which had been lifted by buried the tree roots.
- This resulted in significant level changes which needed to be addressed urgently due to the risks the existing profile posed to walkers.
- The area in question has a large elderly population who were unable to use the footpath in its current condition.

Cambridgeshire County Council