

The Suffolk Surface Dressing Manual

*A Good Practice Guide for Surface Dressing
in Enhancement Work*



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in Enhancement Work*

The Suffolk Local Authorities

- Suffolk County Council
- Babergh District Council
- Forest Heath District Council
- Ipswich Borough Council
- Mid Suffolk District Council
- St. Edmundsbury Borough Council
- Suffolk Coastal District Council
- Waveney District Council

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Contents

Introduction

I.1 Suffolk's conservation areas are a great environmental asset to the County, but are under increasing pressure from change. Of the 150 conservation areas only about twenty are located in towns, the rest being in villages. In both villages and small towns alike, the character has evolved over a long period with a variety of buildings, some hundreds of years old, in differing styles and materials. As well as these buildings, the private and public spaces between contribute greatly to this character.

I.2 In the past, the public spaces within towns often had a formal character where hard materials, such as paving and setts, were used. However, in the more informal village conservation areas, costly hard paving would have only been used around prestigious buildings such as churches and war memorials. Much of the rest of the village would comprise unmade roads and footways, a situation clearly unacceptable today.

I.3 Throughout the twentieth century, villages have been transformed by provision for the motor vehicle: metalled roads, formally constructed footways and car parks. This work has changed the character of villages irrevocably and in some cases inappropriately.

I.4 The Planning (Listed Buildings and Conservation Areas) Act 1990 places a duty on local planning authorities to designate conservation areas and then pay special attention to "the desirability of preserving or enhancing the character or appearance" of such areas.

In addition, paragraph 4.10 of Planning Policy Guidance PPG 15 "Planning and the Historic Environment" states:

"The character and appearance of many conservation areas is heavily dependent on the treatment of roads, pavements and other public spaces. It is important that conservation policies are fully integrated with other policies for the area".

I.5 In undertaking works to the highway there are several options:

- replace with the cheapest possible material which would normally be some form of bituminous surface (black top);

- replace like with like, i.e. an area of concrete footway would be replaced with a new concrete footway;
- enhance the space by using a material more appropriate to the conservation area.

In Suffolk's village conservation areas, the most appropriate material is often some form of surface dressing. Its simple granular texture and range of colour complement and set off the buildings around the space without competing for attention. Surface dressing can also be used for parking areas in more formal schemes in towns and can be used alongside other materials : Yorkstone paving, floor bricks, granite setts, tumbled concrete setts; granite or conservation grade kerbs, which can be used to demarcate spaces, and provide contrast.

I.6 The County and District Councils of Suffolk have used surface dressing in a number of enhancement schemes. This guide draws on experience gained and seeks to establish best practice - both in terms of design, procedure and technical specifications. A number of case studies are critically analysed. There is no one correct method of surface dressing; each location has its own specific characteristics, use and problems. Surface dressing in conservation areas is a specialist operation requiring skilled and methodical workmanship to achieve a good finish. It is hoped that this guide will help clarify some of the issues relating to surface dressing and enable some of the pitfalls to be avoided.

I.7 The Suffolk Local Authorities have jointly published a good practice guide for work in conservation areas which covers all aspects of work to public spaces in conservation areas and the detailed aspects of the design of schemes and use of materials is covered fully in the document.



(Ixworth)



(Eye)



(Coddanbam)



(Bury)



(Orford)



(Woolpit)

Aesthetics

2.1 Design Factors to be considered in using surface dressing

- 2.11 Let the character of the area dictate the design of the space; do not impose a design. Keep the scheme simple and ensure that users will understand the spaces and their purpose.
- 2.12 Choose colour of aggregate with care. It will invariably tone down with time and it may be necessary to accept a brighter colour initially to obtain the required long term effect.
- 2.13 Ensure that the specifications are appropriate for the use. If not, then wear and tear will detract from the quality of the scheme. Damage from turning vehicles, oil spills and tyre marks are design, as well as technical, issues. There may be circumstances when surface dressing is considered inappropriate.
- 2.14 Contain areas of surface dressing with hard materials to avoid spread and ragged edges. These could include bricks, kerbs, setts or paving and can have the functional role of assisting drainage or separating different uses.
- 2.15 If introducing hard materials such as paving bricks or setts ensure these are chosen carefully to complement the surface dressed areas.
- 2.16 Consideration should be given to the life expectancy when choosing the various options. The range falls between 4 years for low specification dressing in areas of some vehicle overrun, to 12-15 years for a high specification dressing.

(left) examples of successful surface dressing schemes in the County, along with examples of different types of aggregates.



*(Above and below)
Different binders were used in this scheme at Eye for car parking areas and footways. The modified bituminous binder on the car park has not worn as well as the high quality resin footway binder.*



3.1 Table of Available Binder Types

TYPE OF BINDER	USE/CATEGORY +	COST
#Proprietary . - Resin Based	Road 2/3/4 & Footway	£££££
#Proprietary . - Reinforced Bituminous	Road 2/3/4 & Footway	£££
High Grade Polymer Modified Bituminous	Road 2/3/4	£££
Medium Grade Polymer Modified Bituminous	Road 3/4	££
Low Grade Polymer Modified Bituminous	Road 3/4	££
Unmodified Bituminous	Road 4	£

Key



Road categories are defined by vehicle use such that a Category 2 road is a high capacity road and Category 4 is a low use road with fewer than 10 HGVs per day. (Environment & Transport Network Management 1999/2000). Road use will determine the binder type to be used. Aggregate types are listed in Table 4.1.



Proprietary systems are generally high performance epoxy or polyurethane resin, or modified bituminous based products marketed under trade names such as Shellgrip, Fibredec, Addagrip, etc.



Cost ranges from 80p/sq m for £ to in excess of £14/sq m for £££££.

3.2 General Principles

3.2.1 The choice of binder is dependent on the following:

- (a) **Traffic Conditions** - The degree to which the dressing will be "stressed" by traffic should determine the need for higher grade binders. For extreme conditions only the highest grade of binder should be used to reduce the risk of failure. Polymer modified binders, in varying degrees, offer protection to the stressing effects of traffic. The higher grades of binder at a higher cost, offer the greatest benefit. Unmodified binders should be restricted to those sites where the dressing will not be stressed and where the potential risk of failure is tolerable.

- (b) **Carriageway or Footway** - Within the carriageway the success of a dressing is generally dependent upon the continuing "bedding in" of chippings by passing traffic. This does not occur on footways where comparatively light foot traffic does not perform the same function. For this reason, a higher grade of binder may be necessary on footways and care must be taken to compact the dressing uniformly as it is laid.

- (c) **Proprietary Systems** - The application of many of the higher grade binders is often undertaken by specialist contractors and consequently the process is relatively expensive. This type of treatment is usually extremely successful and failures are rare. The use of reinforcement such as glass fibre or rubber strands in the binder is appropriate to sites where the substrata is cracked or crazed. Reinforcement can be used with unmodified or modified binders and will tolerate minor defects in the substrata avoiding expensive preparatory patching work.



Contrasting aggregates were used for safety reasons for the footways and carriageway calming features at Rickingham - Botesdale.



At Framlingham three different coloured aggregates were blended to get the desired effect.

4.1 Table of Available Aggregate Types & Qualities

AGGREGATE	PSV ^	COLOUR	USE/CATEGORY +	COST
Bauxite	V.High	cream/buff	Highly stressed sites	£££££
Granite	High	red/pink/green/grey	Road 2/3/4	£££££
Granite	Med	pink/grey	Road 4	£££
Mica	Med	white	Road 4 & F/way	££££
Slag Aggregate	Med	light grey	Road 3/4	£
Gravels*:				
Crushed gravel/flints*	Low	brown/orange/yellow	Footway	££
Graded gravel/pea shingle*	Low	brown/orange/yellow	Footway	£
Granite/Gravel mix #	Med	buff/pink	Footway Road 4	££

Key

- ^ Psv or polished stone value affects skid resistance on carriageways. The higher the psv the better the skid resistance.
- + Road categories are defined by vehicle use so that category 2 is high capacity whereas category 4 is a low use road with fewer than 10 HGVs a day. (Environment & Transport Network Management 1999/2000). Road use will help determine the grade of binder (see table 3.1) and the qualities of the stone.
- £ Costs range from approximately 30p for £ to £4.00/per square metre for £££££ exclusive of binder depending on spread rate and whether there is a mixture of aggregates.
- # Crushed gravel is suitable for use on low speed category carriageways when mixed with at least 50% granite.
- * Gravels are a result of the erosion and deposition of sedimentary rocks. Because of this process, the product varies depending on source. Crushing increases angularity thereby improving adhesion to binder. Individual suppliers may attach different non technical names to their products.

4.2 General Principles

4.2.1 The choice of aggregate is dependent on the following:

- (a) Aesthetics - By careful selection of aggregate it may be possible to achieve the colour and texture desired. There may however be justification in blending different combinations of stone to achieve appropriate colour or texture. Mixing can more than double the aggregate costs and may require a higher grade of binder especially when one of the materials is gravel.
- (b) Technical - Aggregate sizes will vary from 2 or 3mm for flint on footways to as much as 14mm for granite on high category carriageways. The softness (penetration value) of the prepared surface will dictate the size of aggregate and consequently the type and spread rate of binder. On footways, especially where there are minimal or extreme falls, it is necessary to ensure that the texture of the aggregate is appropriate.

Skid resistance may be the deciding factor in determining the aggregate for a particular use. When gravel is specified for aesthetic reasons it may be necessary to mix this with a higher psv material to improve skid resistance along vehicle routes. It is essential that the mixing is thorough and that no segregation of materials can occur during transit or laying. This may affect the choice of storage site depending on where the mixing is to be carried out.

Site Works



(Above and below)

In order for any surface dressing to be successful good preparation is essential.



Site Works

5.1 Preparation Procedures

- 5.1.1 Where budgets allow, better results can be achieved if the areas to be surface dressed can be fully reconstructed to give a surface of uniform quality. Alternatively, all extreme areas of soft, hard or ageing surface may be patched with a suitable asphalt or dense bituminous macadam. It is important to ensure that the porosity of the different surfaces is similar and the surface is as level as possible. The complete area should be swept before dressing.
- 5.1.2 Dressing has a finite thickness which may affect drainage in areas of poor gradient and it is important to remove any potential causes of puddles such as old white lines or ironwork set at incorrect levels. In some cases it may be appropriate to leave the prepared surface low enough to take the thickness of the dressing.
- 5.1.3 Areas should be weedkilled with an appropriate soluble weedkiller on the surface or an approved granular type in the formation when reconstructing. Allow time for these to be effective before the next stage of the scheme is started, usually they should be left for at least two weeks to ensure good results.
- 5.1.4 Ensure that all ironworks, street furniture, kerbs, channels and adjacent properties are protected during the dressing process by masking or using mobile screens.
- 5.1.5 All aggregates must be prewashed and kept clean, dry and uncontaminated prior to laying, especially those to be used with polymer and epoxy resin binders. Storage areas must therefore be carefully chosen.

5.2 Contractual Procedures

- 5.2.1 Agree a suitable specification with the Highway Authority if necessary and the contractor.
- 5.2.2 Always programme works to allow surface dressing in the appropriate season, for bituminous based binders this is usually May to October. High performance resins can be used at most times of year but will not tolerate extreme wet or cold.

- 5.2.3 Prior to commencement of work establish a realistic programme to include adequate traffic management and safety measures until such time as the dressing has stabilised. The contractor should supply a method statement for approval prior to carrying out this work.
- 5.2.4 Ensure that full consultation has been carried out and that the process and programming have been fully explained to local residents. This should include measures to deal with loose dressing, sweeping programmes and the effect of weathering on the colour of the dressing.
- 5.2.5 In order to reduce the level of complaint and insurance claims, measures can be put into place to prevent damage to private property. These can include use of protective boards outside properties or the provision of rectangles of 'sacrificial' carpet.

5.3 Contracts

- 5.3.1 An approved list of suitable contractors can be obtained from the Highway Authority. Alternatively, obtain references and inspect recent schemes if you propose to use any other contractor.
- 5.3.2 The County Council's Surface Dressing Tender Document and Transport Research Laboratory Road Note 39 "Design Guide for Road Surface Dressing" give guidance on technical specification and good practice.

5.4 After Care Procedures

- 5.4.1 Delay sweeping of loose chippings until the binder has stabilised. This will be dependent on weather conditions and the supplier's recommendations. If there are small areas of bitumen bleeding through, these can be dusted or sanded but this treatment may show later, so a compatible colour should be chosen.
- 5.4.2 Routine sweeping using a mechanical sweeper can cause damage.
- 5.4.3 Inspect the site regularly to determine any remedial requirements and the quality of new materials or processes.

- 5.4.4 Public Utilities have a duty under New Roads and Street Works Act to match materials. However, vigilance is necessary to ensure that this happens as the Highway Authority normally only inspects six per cent of such openings. A list of high amenity sites in Suffolk has been registered.
- 5.4.5 Public Utilities may find the reinstating of small areas difficult (such as around stopcocks) because some materials are not available in small quantities. One option is to allow the accumulation of several small areas before requiring the work to be carried out to enable the use of larger quantities.
- 5.4.6 It has proved helpful in the short to medium term to store specialised aggregates from a particular scheme to ensure matching of reinstatements.

Useful Addresses

Road Surface Dressing Association
PO Box 23
Matlock DE4 2DW

Tel : 01629 732259

Transport Research Laboratory
Materials and Construction Division
Highways Group
Crowthorne
Berkshire RG11 6AU

Tel : 01344 770784
Fax : 01344 770193

Appendices

- A:** SELECTION OF TYPE OF SURFACE DRESSING

- B:** LIST OF CONTACTS (TECHNICAL AND DESIGN)

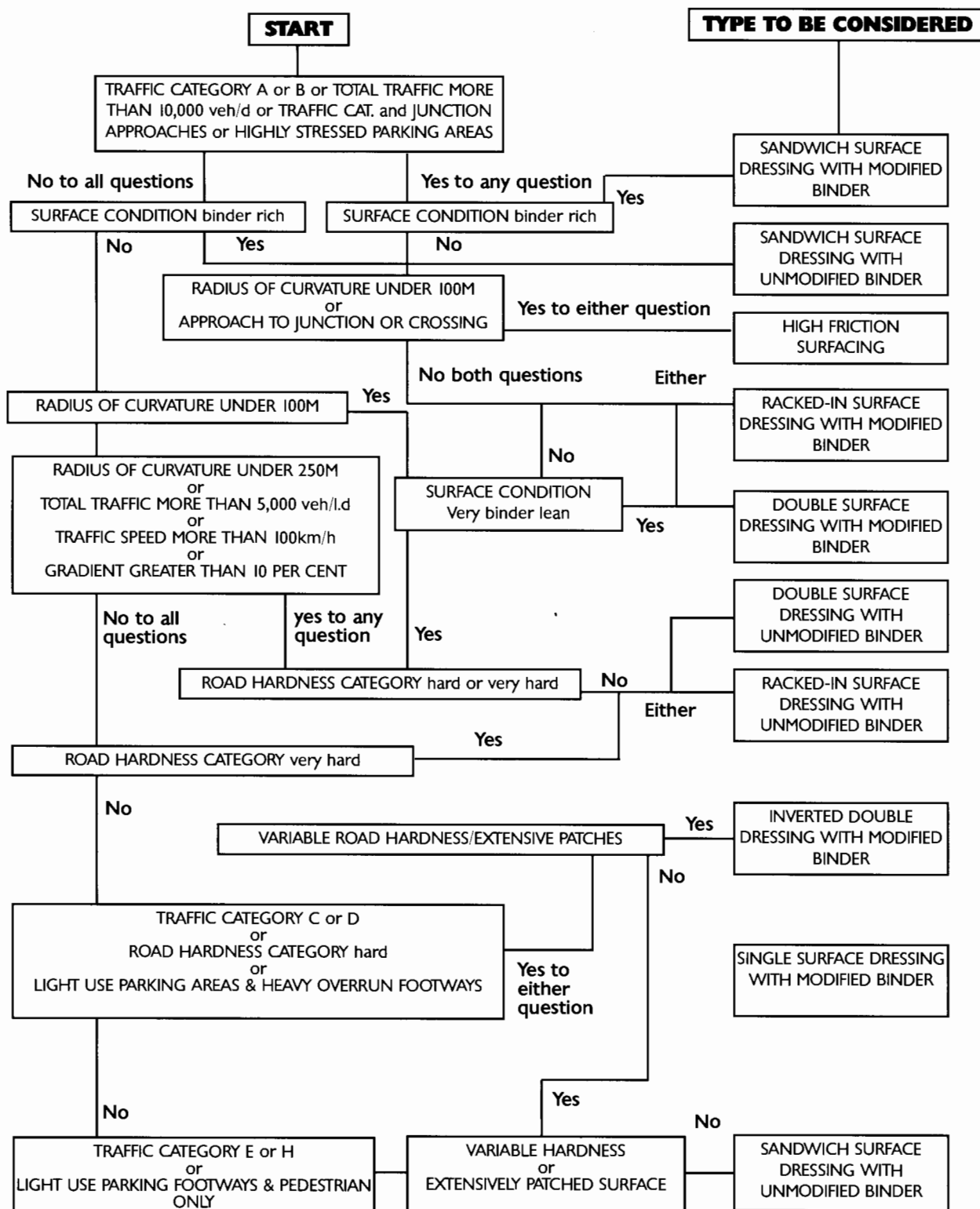
- C:** EXAMPLES OF COMPLETED SCHEMES

Appendix A

SELECTION OF TYPE OF SURFACE DRESSING

The order of surface dressing systems is selected to ease the logic of the flow chart and is not intended to indicate any "league table" of quality.

Where there are boxes with several alternative criteria, the "No" branches should be used if none of them are met while the "Yes" branches should be followed if one or more of those criteria is met. The sets of criteria are arranged so that the harshest conditions dictate the type to be used, thereby minimising the risk of failure.



veh/l/d - total vehicles per lane per day

This chart is adapted from TRL Road Note 39 and traffic categories are defined in that document.

Appendix B

CONTACTS

Technical

East Area:

North (EAN)

Mr D Oldham

South (EAS)

Mr S Willis

East Area Highways Management
County Building, Street Farm Road
SAXMUNDHAM IP17 1AL
(01728) 403075

Central Area:

North (CAN)

Mr R Daniels

South (CAS)

Mr R Davis

Central Area Highways Management
Lodge Lane, Great Blakenham
IPSWICH IP6 0JE
(01473) 830010

West Area:

West (WAW)

Mr G Smith

West (WAE)

Mr J Boutcher

West Area Highways Management
The Coach House, Shire Hall
BURY ST EDMUNDS IP33 1RS
(01284) 352420

Waveney District Council (WDCT)

Mr T Beldon

Community Services Department
Waveney District Council,
Mariners Street,
LOWESTOFT, Suffolk, NR32 1JT
(01502) 562111

St Edmundsbury Council (SEBC)

Mr S Boor

St Edmundsbury Borough Council
St Edmundsbury House, Western Way,
BURY ST EDMUNDS IP33 3YS
(01284) 757350

Ipswich (IBC)

Mr M Tee

Ipswich Borough Council
The Civic Centre, Civic Drive
IPSWICH IP1 2EE
(01473) 432803

Design

Suffolk County Council (SCC)

Mrs R Harris

Suffolk County Council
Environment and Transport Department
St Edmund House, County Hall, IPSWICH IP4 1LZ
(01473) 583351

Babergh (BDC)

Mr R Ward

Babergh District Council
Corks Lane, Hadleigh, IPSWICH IP7 6SJ
(01473) 825784

Forest Heath (FHDC)

Mrs A Callaby

Forest Heath District Council
District Offices, College Heath Road
Mildenhall, BURY ST EDMUNDS IP28 7EY
(01638) 719000

Ipswich (IBC)

Mr R Kindred

Ipswich Borough Council
The Civic Centre, Civic Drive IPSWICH IP1 2EE
(01473) 432934

Mid Suffolk (MSDC)

Mr M Munt

Mid Suffolk District Council
131 High Street, Needham Market
IPSWICH IP6 8DL
(01449) 727298

St Edmundsbury (SEBC)

Mrs C Burgess

St Edmundsbury Borough Council,
St Edmundsbury House, Western Way,
BURY ST EDMUNDS IP33 3YS
(01284) 757356

Suffolk Coastal (SCDC)

Mr D Whittaker

Suffolk Coastal District Council,
Council Offices, Melton Hill
WOODBRIDGE IP12 1AU
(01394) 444616

Waveney (WDC)

Mr J Rowley

Waveney District Council,
Rectory Road, LOWESTOFT NR33 0BX
(01502) 523025

Market Place, Lavenham (1987)

Award winning enhancement of important historic space in heart of prime conservation area. Demarcation of areas for car parking, carriageway and pedestrian use by use of granite sets. Some curtilage treatments using sets, bricks and cobbles with remaining area surface dressed. Removal of all lines and signs.

DRESSING: Type: pea shingle
Size: 6mm
Colour: golden brown

BINDER: unmodified bituminous binder

Cost per metre² (excluding preparation): £1.25

USE: Car parking, carriageway and pedestrian area.

WEAR: Some wear commensurate with age of scheme and heavy use but where this occurs the sublayer of similar aggregate shows through, maintaining the overall colour and texture. Oil stains not in evidence, possibly due to random nature of parking.

COMMENTS: Winner of the Street Design Competition 1989. Despite being ten years old, the scheme still looks good and has worn well. However, drainage problems were not fully resolved at the time of the scheme.

CONTACT: TECHNICAL: WAE DESIGN: BDC

Ballingdon Street, Sudbury (1993)

Award winning enhancement scheme comprising undergrounding of wires and provision of new streetlighting. Some curtilage treatments using floorbricks and surface dressing of footways.

DRESSING: Type: 50% pea shingle, 50% crushed pink granite
Size: 6mm
Colour: Pink brown originally now grey brown

BINDER: Unmodified bituminous binder

Cost per metre² (excluding preparation): £1.70

USE: Pedestrian footways

WEAR: A few small worn patches evident especially where footways are narrow or overrun by vehicles.

COMMENTS: Highly commended in the Street Design Competition 1993. Surface dressing was used as the area was seen very much as a village attached to the town of Sudbury. The dressing was initially a very attractive colour but is now duller and tends to lack textural quality. This is due to the proximity of heavy traffic and in hindsight a brighter colour should have been used.

CONTACT: TECHNICAL: WAE DESIGN: BDC

Note: see appendix B for key to contacts

The Street, Kersey (1993-5)

Enhancement scheme resulting from need for footway maintenance. Surface dressing of roads and footways with floorbrick detailing to curtilages and granite sets to base of The Splash.

DRESSING: Footways: Crushed 6mm Pea shingle.
Carriageway: 50% Pink Granite 10mm, 50% Crushed Shingle 10mm

BINDER: Footways: Unmodified bituminous binder.
Carriageway: Modified bituminous binder.

Cost per metre² (excluding preparation):

Footways: £2.05
Carriageway: £3.00

USE: Footways and carriageway

WEAR: Very little - some minor carriageway patches have "bled" through the dressing. Public Utility reinstatements were dressed in batches.

COMMENTS: Attractive and appropriate scheme, enhanced by specialised curtilage strips and granite sets to the ford. The road skid resistance has been achieved despite the steep slopes and high tourism traffic levels.

CONTACT: TECHNICAL: WAE DESIGN: BDC

Rickingham Botesdale Post Bypass speed reductions and enhancements (1996)

Following the construction of the Rickingham-Botesdale Bypass, funding was made available for improvements to the villages comprising speed reduction measures, provision of parking areas, undergrounding of wires and surface dressing footways, crossover points and parking areas.

DRESSING: Type: 50% pea shingle 50% red granite
Size: 5mm pea shingle 8mm red granite
Colour: gold-red

BINDER: Unmodified bituminous binder

Cost per metre² (excluding preparation): £2.24

USE: Footways, crossover points and parking areas.

WEAR: Some localised patching from new but generally good except at vehicle accesses where wear has been poor.

COMMENTS: The overall scheme is attractive however different aggregate sizes cause it to be rough textured and the red granite tends to visually predominate giving quite a bright colour. This will tone down over time.

CONTACT: TECHNICAL: CAN DESIGN: MSDC



(Latenham)



(Kersey)



(Sudbury)



(Botesdale)

Appendices

Nethergate Street, Clare (1996)

Enhancement of access road/parking area off Nethergate Street including provision of white floor brick forecourt to public house, demarcation of footway with granite setts with remaining area surface dressed.

AGGREGATE: Type: pea shingle
Size: 6mm
Colour: golden brown

BINDER: Unmodified bituminous binder.

Cost per metre² (excluding preparation): £2.40

USE: Shared car parking, carriageway and pedestrian area.

WEAR: A few worn patches but some loose material helps mask this.
Little sign of oil stains, possibly due to informal nature of parking.

COMMENTS: Very attractive; enhances the character of the street.

CONTACT: TECHNICAL: WAW DESIGN: SEBC

Hall Street and St Mary's Street, Long Meiford (1996)

One kilometre long enhancement scheme demarcating footways, parking areas and access ways. Curtilage treatments in floorbricks and cobbles with surface dressing of footways and parking area. Removal of all lines.

DRESSING: Type: Footways: 50% pea shingle 50% pink granite. Parking: Pink granite
Size: Footways: 6mm Parking: 6mm
Colour: Footways: Pink-brown Parking: Pink-grey

BINDER: Unmodified bituminous binder.

Cost per metre² (excluding preparation): £2.30

USE: Car parking and pedestrian areas.

WEAR: Significant number of worn patches with subbase showing through. Wear greater in areas of greatest use.

COMMENTS: Overall an attractive scheme but it is not wearing well. The materials lack texture and the colour has become dull and there is not enough colour contrast between the different surfaces. The heavy vehicular use warranted a higher quality binder and the footways would have benefited from full reconstruction - unachievable on the scheme budget.

CONTACT: TECHNICAL: WAE DESIGN: BDC

The Street, Woolpit (1997)

Enhancement of centre of village following essential footway repairs. Forecourts of shops in white floor bricks with remaining area surface dressed.

DRESSING: Type: gravel
Size: 6mm
Colour: golden-orange

BINDER: Fibredec with polymer modified bituminous binder.

Cost per metre² (excluding preparation): £3.05

USE: Footways with some vehicle parking.

WEAR: First dressing failed due to dirty aggregate but redressed and is adhering well

COMMENTS: A good example of use in a village conservation area.

CONTACT: TECHNICAL: WAE DESIGN: MSDC

St James Street and Beach Road, Dunwich (1998)

Provision of new surface dressed footway to Beach car park, improvement to area around toilet block and resurfacing of footway in St James Street with retention of grass verges.

DRESSING: Type: gravel
Size: 6mm
Colour: golden-orange

BINDER: Fibredec with polymer modified bituminous binder.

Cost per metre² (excluding preparation): £1.80
(Price low as other work done in area. Normally £4 per metre²)

USE: Footway

WEAR: Adhering well.

COMMENTS: Good example of treatment for a new footway in a rural conservation area giving an informal look. Fibredec is not essential on a footway of this type.

CONTACT: TECHNICAL: EAN DESIGN: SCDC



(Clare)



(Woolpit)



(Long Melford)



(Dimrich)

Appendices

Eye Town Centre Improvements (1998)

Award winning major improvements to Eye town centre including new signing, weight restrictions, resurfacing of B1077, creation of pedestrian areas and surface dressing footways and parking areas.

DRESSING: Footways: Amber flintstone gravel 3mm
Parking Areas: 0% Amber flintstone gravel 6-8mm,
50% Criggan Green Granite 6-8mm

BINDER: Footways: resin adhesive binder
Parking Areas: high grade polymer modified bituminous binder

Cost per metre² (excluding preparation): Footways: £15.29 Parking Areas: £5.16

WEAR: Footways: Some areas showed signs of aggregate loss, possibly due to lack of binder, porosity of existing surface or over zealous sweeping. These defects have now been remedied.

Parking Areas: Not wearing well due to turning traffic and small scale of areas treated.

COMMENTS: Commended in Street Design Competition 1999. The scheme and choice of materials has been particularly successful in improving the Town Centre. The Yorkstone blocks used to delineate car parking spaces do not contrast sufficiently with the dressing.

CONTACT: TECHNICAL: CAN DESIGN: MSDC

Market Hill, Clare (1999)

Enhancement of Market Hill in centre of village including improved setting to war memorial and marking car parking spaces using tumbled yorkstone setts.

DRESSING: Type: pea shingle

SIZE: 5mm

COLOUR: buff/brown

BINDER: Resin adhesive binder

Cost per metre² (excluding preparation): £14

USE: Car parking and weekly market

WEAR: The dressing has not worn well and is the subject of discussions with the contractor to redress.

COMMENTS: The light colour of the dressing is very attractive but has been marred by oil staining. In view of its heavy use, a darker dressing or mixed materials may have been preferable.

CONTACT: TECHNICAL: WAW DESIGN: SEBC

Esplanade, Lowestoft (2000)

Surfacing of forecourt to pier and Esplanade as part of overall improvements to south Lowestoft seafront.

DRESSING: Type: Chinese Bauxite

SIZE: 1mm

COLOUR: Natural buff/cream with artwork on Esplanade in coloured red, orange, yellow bauxite

BINDER: Resin adhesive binder

Cost per metre² (excluding preparation): £40

WEAR: Work recently carried out and has yet to be sealed with clear resin to prevent stains relating to seaside use.

COMMENTS: Novel floorscape feature in keeping with other seafront improvements but some difficulty has been met in achieving clean lines between different coloured dressing. Some of the natural/dressing was patchy and needed remedial work.

CONTACT: TECHNICAL: WDCT DESIGN: WDC

The Square, Dennington (2000)

Surface dressing central village square

DRESSING: Type: Lyng gravel

SIZE: 10mm and 6mm

COLOUR: golden brown

BINDER: Double dressing using fibredec with modified bituminous binder

Cost per metre² (excluding preparation): £5.36

WEAR: The surface was double dressed firstly with 10mm gravel and then an additional layer of binder followed by a 6mm gravel. Work was recently carried out but it is used by buses and as a car park for pub and initially appears to be wearing well.

COMMENTS: This has much improved an important open space in the village centre and complements the informal dressing of the adjacent pub car park.

CONTACT: TECHNICAL: EAN DESIGN: SCDC

Note: see appendix B for key to contacts



(Eye)



(Lowestoft)



(Market Hill - Clare)



(Dennington)

Appendices