



**Asset Management Review
&
Kent Design Guide Review**

**A STANDARD PALETTE OF MATERIALS
FOR USE IN PUBLIC REALM SCHEMES**

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A STANDARD PALETTE OF MATERIALS FOR USE IN PUBLIC REALM SCHEMES

INTRODUCTION

The materials used in new streets, roads and public places, areas which are collectively known as public realm, must be fit-for-purpose and deliver viable, good quality, safe and readily maintainable schemes that respect local context if they are to be accepted for maintenance at the public expense. While it is possible for the local highway authority to receive additional funding for ongoing maintenance by way of “commuted sum payments”, or to consider alternative approaches to maintenance that do not rely upon public finance, it is preferable to have a “standard palette” of materials for which no additional payments are required but which is wide enough to offer designers opportunities to be creative.

Interim Guidance Note 1: Quality Audits (IGN1) (see <https://shareweb.kent.gov.uk/Documents/community-and-living/Regeneration/interim-guidance-notes-quality-audit.pdf>) includes the following:

COMMUTED PAYMENTS

The long term costs of the maintenance at the public expense (and sometimes replacing at the end of the design life) of non-standard materials, special street furniture, traffic signals, non-standard drainage solutions and structures are usually passed on to the developer in the form of “commuted payments”. In the case of materials and street furniture, there is a strong argument against requiring such payments if the items in question can be shown to be as durable as ‘standard’ materials (or even have a longer design life), and if there is no doubt about their ongoing availability. This is based on the premise that higher quality materials will normally cost more, and because they are required rather than being optional it is unreasonable to ‘charge’ for their maintenance if they are installed properly. The best way of offering certainty to developers over whether commuted payments will be required is to agree a ‘standard (locally appropriate) palette’ of high quality materials which are expected to be available for many years and which will be checked for proper installation during the construction phase. Such items will not normally be subject to extra payments.

Similarly, Section 2.3.5 of the Kent Design Guide (see page 146 in <https://shareweb.kent.gov.uk/Documents/community-and-living/Regeneration/05section2step3.pdf>) describes the kind of surfacing materials that should be regarded as ‘standard’, subject to identification of types that meet the test of IGN1. “A short, simple palette of materials” is encouraged.

Austerity measures require “more for less”. Maintenance costs need to be reduced without degrading the overall quality of the public realm, recognising the value of the “Total Place” approach. Developers, scheme promoters and maintenance engineers need to know what they can use to create good quality paths, streets, roads and public places without incurring additional costs to support maintenance. This document establishes the standard palette of materials for use in Kent (but not Medway). It recognises that there are local materials that may be used in context, and it allows for the enlarging of the palette when other suitable options are identified.

SUITABILITY

Materials in the standard palette must be:

- Sustainable
- Affordable
- Attractive
- Durable
- Safe
- Available
- Maintainable
- Appropriate

Special order materials, and those sourced from distant countries, are unlikely to satisfy these requirements. Furthermore, suitable materials will not require specialist installation, cleaning and/or maintenance. Local context materials may rely on reclamation from other locations. Alternatively, it may be possible to replicate the texture and appearance using modern materials.

Good design and good workmanship during construction will combine to offer good quality streets and places that can be maintained to that quality throughout the design life. As such, Quality Audit working that unites designers, assessors, contractors and inspectors at all relevant stages is essential. The outcomes from engagement with end users should be compared with professional assessments in order to gain a full picture of how successful each scheme has been. Similarly, experience with maintenance is needed to inform the ongoing review of the palette. Table 1 shows the standard palette for use anywhere in Kent.

Some street materials, such as street lighting and soft landscaping, cannot reasonably be included in the standard palette. These are covered separately, in Table 2, with details of contacts and, where relevant, policy documents.

**Table 1 - STREET MATERIALS
STANDARD OPTIONS FOR WHICH NO COMMUTED SUM PAYMENTS WILL BE REQUIRED**

MATERIAL (GENERIC NAME)	“STANDARD” OPTIONS	LIMITATIONS ON USE
“Blacktop” surfacing – carriageways, footways and footpaths	Dense Concrete Asphalt Hot Rolled Asphalt Thin surfacing Systems	“Blacktop” surfacing is not usually suitable for shared surface environments. Thin surfacing is primarily used for maintenance situations.
Block Paving – carriageways, footways and footpaths	A considerable range of readily available types, including: Marley Block Paving Keyblok Setts Tegula Bradstone Courtyard <i>Equivalent materials may be submitted to KHS for approval</i>	Inappropriate for heavily trafficked situations and for substantial lengths of streets with separate footways. “Special order” materials are not acceptable.
Anti-skid surfacing	Resin Bonded	Not suitable for pedestrian routes and shared surfaces. Usually used only at approaches to junctions, gateway features and (coloured) bus lanes and cycle routes.
Setts	Granite Stone	Normally limited to use for demarcation between public & private domain, overrun areas and traffic calming features.
Kerbs & Edgings	Precast Concrete Charnwood Saxon Lightweight Titan High Containment <i>Equivalent materials may be submitted to KHS for approval</i> Conservation Kerbs*	A range of profiles in precast concrete are available. Conservation Kerbs (*) will only be accepted as “standard” where there is an overriding reason for using them instead of other options.

**Table 2 - ITEMS FOR WHICH SEPARATE POLICIES HAVE BEEN ADOPTED
AND/OR WHICH NEED TO BE THE SUBJECT OF EARLY DISCUSSION WITH THE RELEVANT ENGINEER**

MATERIAL (GENERIC NAME)	“STANDARD” OPTIONS	POLICY LINK/CONTACT
Bollards and other Street Furniture	Bollards should be avoided where possible. Only plastic ones will normally be regarded as “standard”. Alternative maintenance regimes should be devised for additional street furniture.	<i>(to be added when KHS Phase 1 restructuring is completed)</i>
Highway Structures (Bridges, Retaining Walls, Subways, Culverts, Chambers etc.)	Highway structures always attract significant additional payments, hence every effort should be made to ‘design out’ the need for structures before committing to a particular structural solution.	Structures Management Reference Book (SMRB), Highways Agency's standard, BD2, 'Technical Approval of Highway Structures'. <i>(to be added when KHS Phase 1 restructuring is completed)</i>
Signs & Lines	Unless there is an overriding safety reason, only mandatory signs and lines, in the least intrusive acceptable form, should be used.	<i>(to be added when KHS Phase 1 restructuring is completed)</i>
Soft Landscaping	Landscaping schemes should be designed holistically and the overall maintenance regime should involve licensing of the work in highway areas. Without this, planting options for maintenance at the public expense will be limited.	<i>(to be added when KHS Phase 1 restructuring is completed)</i>
Street Lighting	Early discussions about appropriate column or bracket types will clarify the options available.	<i>(to be added when KHS Phase 1 restructuring is completed)</i>
Tree Pits, Gully Gratings, etc.	Street Trees should be located away from manoeuvring areas for larger vehicles.	<i>(to be added when KHS Phase 1 restructuring is completed)</i>

Local context materials, and limitations on their use, are shown in Table 3. It is important to recognise that the case for their inclusion to satisfy local design requirements has been accepted as outweighing the case for commuted sum payments. This may include reclamation and sourcing, and strict control of where the materials are appropriate for use. As such, they are not accepted for ‘standard’ use anywhere else in Kent. See, in particular, the agreed Protocol for Highway Work in Conservation Sensitive Areas.

**Table 3 – LOCAL CONTEXT STREET MATERIALS
STANDARD OPTIONS FOR WHICH NO COMMUTED SUM PAYMENTS WILL BE REQUIRED**

MATERIAL (GENERIC NAME)	“STANDARD” OPTIONS	RELEVANT DISTRICT(S) AND LIMITATIONS ON USE (INCLUDING TOWN/VILLAGE/AREA)
“Blacktop” surfacing – carriageways, footways and footpaths		
Block Paving – carriageways, footways and footpaths		
Anti-skid surfacing		
Setts		
Kerbs & Edgings		
Bollards and other Street Furniture		
Tree Pits, Gully Gratings, etc.		
Soft Landscaping		
Street Lighting		
Signs & Lines		

This table will be populated following consultation with district partners

HOW TO USE THE STANDARD PALETTE

1. DEVELOPMENT SCHEMES

Developers and Designers should work to Interim Guidance Note 1: Quality Audits (IGN1) when considering sites for development. IGN1 commits the local planning authority and Kent Highway Services (KHS) to early 'development team' negotiations with scheme promoters. It also commits KHS to involving adoption specialists as well as planning engineers in order that consented schemes will constitute a sound basis for detailed design. Pre-application discussions are likely to attract charges for the advice that is given, but it is anticipated that such advice will make the formal planning process more timely and efficient.

Early discussions will maximise the opportunities for design creativity within the context of schemes that can be costed with some certainty. If the local planning authority feels that there is an overwhelming case for using non-standard materials, assistance can be given concerning the level of commuted payments that the developer will have to pay. This will allow the developer to decide whether such additional costs are reasonable. Early discussions will also enable designers to submit details of alternative materials for assessment.

2. LOCAL AUTHORITY SCHEMES

Publicly funded public realm schemes often involve substantial contributions from district councils, and other sources. As with Developer-funded schemes, these need to be designed to the standard palette and/or local context materials if the scheme costs are not to include additional funding for maintenance. Where high quality schemes are justifiable, such that fit-for-purpose yet more costly materials are to be used, alternative maintenance regimes may be considered in place of financial support for higher levels of maintenance and replacement costs.

Designers should establish early contact with relevant KHS engineers in order that there should be no conflict as the schemes are progressed.

ONGOING REVIEW

The standard palette is not 'once and for all'. Its use will be monitored against residents' satisfaction, professional assessments, maintenance activity, statutory undertakers' excavations and submissions for the inclusion of other materials. Some materials may be removed and others are likely to be added. As such, printed versions of this document should not be relied upon. The web

version will be dated such that it can be distinguished from superseded ones. Photographs of successful schemes, and case studies, will be added as resources permit.

CALCULATION OF COMMUTED SUM PAYMENTS FOR NON-STANDARD MATERIALS

The calculation of commuted sum payments needs to be clear and reasonable. The payments must be ring-fenced to provide additional maintenance for the schemes to which they relate. Although such payments are taken to cover maintenance over many years, it is reasonable for developers and scheme promoters to expect that measures will be put in place to ensure that the agreed standards of maintenance are being achieved and that the costs are subject to ongoing review based on actual experience.

Web-based guidance in respect of commuted payments will be developed and maintained in liaison with development partners in order to achieve such clarity and demonstrate reasonableness.

DRAINAGE AND TRAFFIC SIGNALS

This paper does not include drainage, other than in relation to visible ironwork (gratings and covers) and structures. Commuted sum payments for soakaways are well-established and will be included in the web-based guidance. Additional items arising from the emphasis on Sustainable Drainage Systems in the Flood and Water Management Act 2010 will be added as new guidance emerges. This is likely to include systems with aesthetic implications, such as permeable paving. Swales, ponds and other such drainage systems are already covered by “soft landscaping”.

Traffic Signals must meet specific design requirements. Development schemes which involve signals will always attract commuted sum payments. The aesthetic impact of traffic signals is likely to be a material consideration in respect of sensitive locations. Early discussions concerning such proposals are therefore essential.

FURTHER READING

In 2009, the County Surveyors' Society (now ADEPT) published a Guidance Document entitled “Commuted Sums for Maintaining Infrastructure Assets” (see http://www.cssnet.org.uk/documents/Commutedsumsreport_000.pdf). This document goes into more detail about commuted sums, their legal basis, and what should be considered as standard. Section 5.3 is particularly useful for establishing how design elements can move schemes into additional costs.

Manual for Streets (see <http://www.dft.gov.uk/pgr/sustainable/manforstreets/pdfmanforstreets.pdf>) encourages local authorities to adopt “a wide palette of local and natural materials, bearing in mind whole-life costs” while recommending that all materials should be “easy to maintain; safe for purpose; durable; sustainable (including the manufacturing process and energy use); and appropriate to the local character” (Sections 11.2.1 & 2). It advocates the use of a “limited palette of special materials and street furniture” to achieve local distinctiveness (Section 11.8.3).

CONCLUSIONS

A standard palette of materials for use in development and publicly funded public realm schemes is needed to enable designers to prepare accurately costed proposals that can go forward to construction in the expectation that the streets and spaces will look good, function properly, and be easy to maintain. Higher quality materials may be used if they are fit-for-purpose and if additional funds are made available for the higher cost of maintenance. Alternative maintenance regimes may be considered for such schemes.

The palette will be subject to ongoing review, such that materials can be removed and added if the need arises. It is broad enough to satisfy the requirement that new streets and public spaces should be attractive as well as functional, but it also encourages simplicity. The overall approach to design should seek that the public realm remains subservient to the buildings and spaces it is there to serve, while complementing those features and providing residents, businesses and other users with something that they can be proud of.

**Table 3 – LOCAL CONTEXT STREET MATERIALS
STANDARD OPTIONS FOR WHICH NO COMMUTED SUM PAYMENTS WILL BE REQUIRED**

PROPOSED BY *** BOROUGH/CITY/DISTRICT**

MATERIAL (GENERIC NAME)	“STANDARD” OPTIONS	LIMITATIONS ON USE (INCLUDING TOWN/VILLAGE/AREA)
“Blacktop” surfacing – carriageways, footways and footpaths		
Block Paving – carriageways, footways and footpaths		
Anti-skid surfacing		
Setts		
Kerbs & Edgings		
Bollards and other Street Furniture		
Tree Pits, Gully Gratings, etc.		
Soft Landscaping		
Street Lighting		
Signs & Lines		

District Councils are invited to recommend local context materials that meet the suitability requirements. Specific locations and/or circumstances for their use must be given. If additional maintenance support and/or assistance with sourcing of these materials can be offered it may help towards their inclusion in the final version of Table 3. Please return to bob.white@kent.gov.uk (or to Bob White, Kent Highway Services, 1st Floor, Invicta House, County Hall, MAIDSTONE, ME14 1XX) by no later than Friday 4th March 2011.

A STANDARD PALETTE OF MATERIALS FOR USE IN PUBLIC REALM SCHEMES

CONSULTATION QUESTIONS

	QUESTION	YES	NO	NOT SURE	COMMENTS
1	Do you agree with the principle of “a standard palette of materials” for which no additional payments for ongoing maintenance need to be made if the materials are installed properly?				
2	Does Table 1 adequately cover the material types that need to be included in the agreed palette?				
3	The materials in Table 2 are covered by separate guidance and policies. Do you accept that early contact between designers and the relevant KHS engineers will maximise the scope for good design without excessive costs?				
4	Have you recommended local context materials for inclusion in Table 3, having regard for the suitability criteria? It is important that the limitations on the use of these materials should be clearly defined.				
5	Do you accept that where materials that will attract commuted payments are required to satisfy planning requirements alone, a clear case for their use must be made to justify additional developer funding and/or higher scheme costs?				
6	Do you agree that a virtuous combination of good design, good workmanship and good maintenance will achieve the highest possible quality from “a short, simple palette of materials”, as recommended by the Kent Design Guide?				

7	Do you accept that residents'/occupiers'/end users' opinions concerning the quality of public realm schemes are as important to post-construction evaluation as professional assessments?				
8	Are you satisfied with the commitment by KHS to clarity and reasonableness concerning the calculation of commuted sum payments and their use for enhanced maintenance?				
9	Do you wish to add any further comments?				

Please answer the questions and return the form to bob.white@kent.gov.uk (or to Bob White, Kent Highway Services, 1st Floor, Invicta House, County Hall, MAIDSTONE, ME14 1XX) by no later than Friday 18th March 2011