

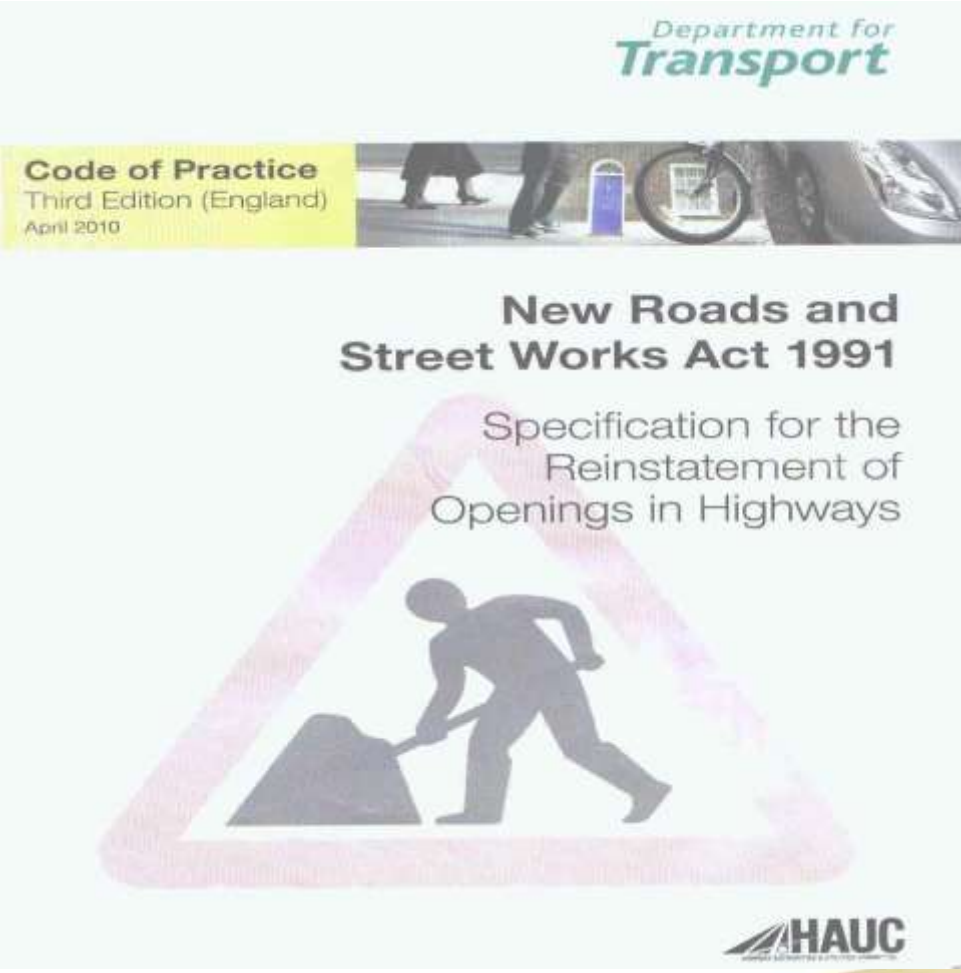


# SHW Type 1 Sub base in Utility Reinstatement Works

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# Utility Specification for Type 1 Sub Base



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# WRAP – Waste Resource Action Programme

- Waste to Product Quality Protocol
- Product Specification
- Test Frequencies
- WRAP Guidance Checklists
  - ***The quality control procedure shall be in accordance with the ‘Quality Protocol for the production of aggregates from inert waste’ and the ‘Producers’ compliance checklist’ published by Waste and Resources Action Programme (WRAP). The results of all quality control checks carried out by the Contractor shall be compiled in accordance with the procedure set down in the above document and with those in this Clause (803). These shall be delivered promptly to the Overseeing Organisation on request.***

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# WRAP checklists

Checklist for Specifiers asks for confirmation of details of:

- Waste Management Licensing Permits or Exemptions
- Acceptance criteria for incoming waste
- Records of incoming loads
- Established Procedures for dealing with non-compliant incoming waste
- Method Statement for production and product specification details
- Inspection and testing details/records
- Appropriate documentation and records

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# Sub Base QA (Factory Production Control)

- Supplier Declared Information
  - Grading – Particle size
  - Optimum Moisture Content
  - Los Angeles Abrasion Value – aggregate strength
  - Micro Duval – aggregate durability
  - Frost Heave
  - Soundness – resistance to freeze and thaw action
  - Plasticity – presence of clay/silt

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# Sub base test frequencies

Test Details	Test Method	Test Frequency
Grading and fines content	EN933 - 1	1 / week or 1 / 5000t
Plasticity	BS 1377 - 2	1 / week or 1 / 5000t
Other Materials Content (for recycled aggregates)	SHW: Table 8/3 & Cl 710	1 / week or 1 / 5000t
Resistance to fragmentation – Los Angeles Coefficient	EN 1097 - 2	2 / year
Resistance to wear – Micro-Duval	EN1097 - 1	2 / year
Water Absorption	EN 1097 – 6: 2000	1 / year
Water soluble sulphate	EN 1744 - 1	1 / year
Frost heave	SHW & BS 812 - 124	1 / year
Freeze thaw resistance – Magnesium sulphate	EN 1367 – 2	1 / 2 years

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# Type 1 Sub Base SHW clause 803

Sieve size, mm	Percentage by mass passing		
	Overall grading range	Supplier declared value grading range	Tolerance on the supplier declared value
63	100		
31.5	75 – 99		
16	43 – 81	54 – 72	± 15
8	23 – 66	33 – 52	± 15
4	12 – 53	21 – 38	± 15
2	6 – 42	14 – 27	± 13
1	3 – 32	9 – 20	± 10
0.063	0 – 9		

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# Frost Heave



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**Staffordshire**  
County Council