



NATIONAL HIGHWAY SECTOR SCHEMES FOR QUALITY MANAGEMENT IN HIGHWAY WORKS

SCHEME 16

PARTICULAR REQUIREMENTS FOR THE APPLICATION OF ISO 9001:2015 FOR ASPHALT LAYING

**PUBLISHED BY THE SECTOR SCHEME
ADVISORY COMMITTEE FOR NHSS 16**

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PUBLISHING INFORMATION

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This document supersedes NHSS 16 Issue 2.1 which is withdrawn.

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DOCUMENT CONTROL

Issue Statement

Current Issue	Amendments
Issue 3 December 2021	Editorial and typographical corrections. Amendments and general update to requirements / guidance / references and urls. Changes are highlighted in margins and text using 'mm/yy' format.

For the issue statement referring to issues prior to this current document, refer to Appendix Z

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COMPOSITION of the SECTOR SCHEME ADVISORY COMMITTEE, EXCLUSION of LIABILITY, COPYRIGHT and SELECTION of CERTIFICATION BODY

^{12/21}Composition of Sector Scheme Advisory Committee (at date of publication)

a) Full Members

Association of Directors of Engineering, Economics, Planning and Transport (ADEPT),
Association of Public Service Excellence (APSE),
British Aggregates Association (BAA),
Civil Engineering Contractors Association (CECA),
National Highways (formerly Highways England),
Mineral Products Association (MPA),
Lead Certification Body for this Scheme – Alcumus / ISOQAR,
United Kingdom Accreditation Service (UKAS).

b) Co-opted and Corresponding Members also involved in development of the Scheme Document

Certification Bodies accredited against the Scheme
Construction Industry Training Board (CITB)
Construction Skills Certification Scheme (CSCS)
Institute of Clerk of Works and Construction Inspectorate (ICoW)
Institute of Asphalt Technology (IAT)
Institute of Highway Engineers (IHE)
Mineral Products Qualifications Council (MPQC)
Society of Chief Officers of Transportation in Scotland (SCOTS)
Department for Infrastructure (Northern Ireland)
Transport Scotland
Welsh Government

Exclusion of Liability

The Sector Scheme Advisory Committee

- 1 have and accept no liability whatsoever for any failure of any system or systems assessed under this Sector Scheme Document or for the quality, fitness for purpose, or safety of any product or service which is the subject of such assessment,
- 2 do not provide any representation or warranty as to any aspect of any such system, product, or service, and
- 3 hereby expressly exclude all and any liability or responsibility (however alleged to arise) for or in connection with the provision of any service or product or any use of any product, all and any such liability or responsibility attaching exclusively to the producer (or user as the case may be) thereof.

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Selection of Certification Body

It is important to note that due to the specific requirements for assessor competence required by this Sector Scheme a technical expert may be appointed by the Sector Scheme Advisory Committee to assist UKAS in the assessment of Certification Bodies (CB) as described in Appendix G (clause 3.1).

Prospective companies seeking registration under this scheme should ensure that they engage a Certification Body specifically accredited to assess against the requirements of this SSD. Specifiers, consultants, engineers etc. that require confirmation of compliance with the Contract Specification in respect of a supplier or the supply of products/materials should confirm the current status of the quality management system certificate issuer and that specific reference is made to this Sector Scheme on the Certificate of Registration (See Appendix K).

Implementation

Issue 3 [9001:2015] dated 12_ 2021

This issue of the SSD is to be implemented immediately from the date of publication on the Schedule of Suppliers website (<https://www.scheduleofsuppliers.co.uk/node/64>) for assessments. Issue 2 will continue to have validity for currently Registered organizations until January 2023, or the subsequent assessment visit for re-Registration, whichever is later.

Note 1: Following publication of the document the organization should implement the changes in time for their next assessment visit by the Certification Body.

Note 2: The Certification Body should assess the organization against the latest edition of the existing scheme within fourteen months of date of implementation.

Note 3: The NHSS document is date specific; however, the organization shall have procedures in place to ensure that the latest version is always available. Organizations should be aware that utilization of internet search engines may result in out-of-date references being identified/called up.

^{12/21}INTRODUCTION (INCLUDING SCHEME CONTACTS)

1 This Sector Scheme Document (SSD) relates to the quality management system requirements for the Quality Management of Asphalt Laying. It sets out to identify common particular requirements of ISO 9001:2015 for Organizations and Certification Bodies engaged in the sector, and the minimum qualifications that an assessor/auditor requires. The document shall be read in conjunction with ISO 9001:2015.

2 This Sector Scheme is one of the series of National Highway Sector Schemes (NHSSs), which have been developed as bespoke integrated management schemes within an ISO 9001 framework to provide particular requirements for ISO 9001:2015 as applicable to a particular infrastructure related activity/industry within the United Kingdom.

3 Separate Sector Scheme Advisory Committees (SSACs) for each activity within the sector provide advice to UKAS as defined in Section 3 and expert representation is drawn from all sides of industry. Each SSAC determines the particular requirements for ISO 9001 in relation to the requirements of their particular activity and comes to a consensus on the minimum levels of workmanship, services, products, testing, and the training and competency of personnel, as appropriate, required to meet specification requirements as well as identified requirements in respect of environmental and health & safety and other aspects. The details are contained in the individual Sector Scheme Documents (SSDs). Following the publication of a revised ISO 9001, the committees will review their documents to ensure alignment with the revised ISO 9001 to ensure that the SSD does not conflict with the international standard prior to withdrawal of the previous edition of the standard.

4 The individual NHSS advisory committees are overseen by the National Highway Sector Scheme Liaison Committee (NHSSLC). This Committee provides a forum for discussion on the effectiveness of the Sector Schemes and co-ordinates developments so that they can be uniformly taken forward by each of the NHSS advisory committees. It is also the venue where dialogue with UKAS and the Certification Bodies on the application of the Sector Schemes takes place.

5 NHSSs together with ISO 9001 are designed to:

- Provide an industry benchmark
- Identify risks and opportunities
- Ensure that all processes are planned
- Provide a basis for continuous improvement
- Focus on quality as an objective
- Reduce costs for Client and Organization
- Provide and maintain a properly trained and competent workforce
- Involve all sides of industry in scheme ownership within a partnership framework
- Provide the basis for the technical knowledge and experience that Certification Body auditors will use in the sector concerned
- Promote confidence in quality management systems through provision of a robust transparent system

6 This Sector Scheme shall apply where specified by the Client in their Contract Documents

7 In using this Sector Scheme users shall specify any other relevant NHSSs as appropriate to the nature of the work being undertaken e.g. NHSS 12 for temporary traffic management.

^{12/21}8 It should also be noted that NHSSs are mandatory for National Highways contracts and suppliers within the supply chain shall demonstrate compliance with the requirements of ISO 9001 and this SSD as part of their continual improvement within their ISO 9001 registration. The use of the Specification for Highway Works as the basic document for procuring highway works by other highway authorities would normally automatically call up compliance with ISO 9001 and the SSDs. Other owners of infrastructure for example Defence Infrastructure Organisation may also require their suppliers to comply with Sector Schemes, as may other authorities.

9 Where traffic management is required for work carried out on high speed dual carriageways and motorways the organization installing Temporary Traffic Management measures should always be registered to NHSS 12A/B and/or 12C. For other roads, the organization should either employ a National Highway Sector Scheme 12D approved organization or where applicable have skilled registered traffic management operatives qualified to meet the competency requirements of NHSS 12D relevant to contract requirements and risk assessments - noting that there may be specific arrangements for organizations registered to another NHSS.

10 This SSD is a live document with the SSAC16 meeting at least once a year to review it as appropriate. Those using the document shall ensure that they have the current version of the document. This SSD may currently be obtained by visiting the Schedule of Suppliers website (<https://www.scheduleofsuppliers.co.uk/node/64>) from where the document can be freely downloaded.

Note: Information on relevant Certification Bodies may be obtained from the UKAS website – see Appendix F.

This SSD is date specific; organizations should have processes in place to ensure that the latest version is always available. Organizations should be aware that utilisation of internet search engines may result in out-of-date references being identified/called up.

11 Lantra hosts the register of organizations on their website (<http://www.scheduleofsuppliers.co.uk/>). This is a self-registration list, and it is a requirement of this scheme that organizations register their details on this website and keep them up to date; Certification Bodies will check that the organization is registered on the website together with all relevant information, including a pdf copy of the current certificate of registration that the Certification Body issues and any other specific documentation to be uploaded specified by this SSD, prior to annual and surveillance visits.

12 Scheme Feedback. Any observations, complaints or feedback relating to the operation of this document and the scheme should be addressed using the procedures given In Appendices J1, J2 or J3 as appropriate. Appendix J1 is to be used for observations and general queries concerning the document and general feedback. Appendix J2 relates to the assessment process carried out by Certification Bodies. Appendix J3 relates to policing of the scheme.

Completed J1 forms should be sent to the committee Chairperson/ Secretary.

Completed J2 forms should be sent directly to the relevant Certification Body.

Completed J3 forms should be sent to the relevant Highway Authority, client or HSE as appropriate and indicated on the form.

^{12/21}13. Scheme Contact

The Chairman

Sector Scheme Advisory Committee for NHSS 16

c/o National Highways

Bridge House, 1 Walnut Tree Close

Guildford

Surrey

GU1 4LZ

Email: Lance.Williams@highwaysengland.co.uk

The Secretary

Sector Scheme Advisory Committee for NHSS 16

c/o Mineral Products Association

Fourth Floor, Gillingham House

38-44 Gillingham Street

London

SW1V 1HU

Email: mpaasphalt@mineralproducts.org

PARTICULAR REQUIREMENTS for the APPLICATION of ISO 9001:2015

1. SCOPE

This SSD together with ISO 9001 describes the quality management system (QMS) requirements to be established by organizations laying asphalt mixtures.

The document provides particular requirements for the application of this scheme additional to the requirements of ISO 9001:2015 for this activity and shall be read and implemented in compliance with that standard. The SSD is applicable to the part of the organization within the scope of the defined QMS carrying out laying of asphalt mixtures.

This scheme is not intended to replace other management system requirements or other contractual requirements.

The SSD shall be referenced on the Certificate of Registration issued by the Certification Body.

“The International Standard specifies requirements for a quality management system when an organization:

- a) needs to demonstrate its ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, and
- b) aims to enhance customer satisfaction through the effective application of the system, including processes for improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

All the requirements of the International Standard are generic and are intended to be applicable to any organization, regardless of its type or size, or the products and services it provides.

Note 1 In the International Standard, the terms “product” or “service” only apply to products and services intended for, or required by, a customer

Note 2 Statutory and regulatory requirements can be expressed as legal requirements.”

2. NORMATIVE REFERENCES

The following normative references are relevant to application of this SSD.

- BS EN ISO 9000:2015 Quality Management Systems – Fundamentals and Vocabulary
- BS EN ISO 9001:2015 Quality Management Systems – Requirements and normative references within it
- BS EN ISO 9004:2018 Quality Management Systems – Managing for the sustained success of an organization. A quality management approach.
- NHSS 0 – Guide to the identification, Development Management and Certification of National Highway Sector Schemes
- BS 594987 – Asphalt for roads and other paved areas – Specification for transport, laying and compaction and type testing protocols

3. TERMS, DEFINITIONS AND ABBREVIATIONS

3.1 For the purpose of this SSD the terms and definitions given in ISO 9000:2015 and NHSS 0 shall apply except where listed in the table below.

The following additional terms and definition shall apply:

Asphalt	A mixture of mineral aggregate and normally a bitumen or modified-bitumen binder, although in some cases the binder may be non-bituminous, e.g. a clear resin binder as used in coloured/pigmented asphalt. To accord with accepted European terminology, the term ‘asphalt’ is used in this document, unless accompanied by a descriptor such as ‘hot rolled’ or ‘stone mastic’, in its generic sense to refer to the range of asphalt and coated macadam mixes traditionally used in the UK.
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Asphalt Pavement Layer	The result of the asphalt laying process; often known as the “asphalt mat”. This definition applies to the pavement layer in either its compacted or uncompacted state, whether laid by hand or by machine. An asphalt pavement course can be made up from a number of layers.
Certificate of Registration	<p>A certificate issued by a UKAS accredited Certification Body certifying that the holder operates a Quality Management System complying with BS EN ISO 9001:2015 and this SSD. The Certificate will state the category (ies) of work that the holder is competent to supply.</p> <p>Note The Certificate of Registration must identify the NHSS(s) by number as well as by category and sub-category</p>
Client	The body for which the work is being carried out e.g. highway authority.
Contract Specification:	<p>The technical requirements of the contract agreement, for example the following may apply:</p> <ul style="list-style-type: none"> i) Manual of Contract Documents for Highway Works: Volume 1: The Specification for Highway Works (Department for Transport) or as specifically required in the contract documents. ii) Contract Specific Appendices iii) The Contract Drawings
Customer	The body engaging the Organization for the purpose of the work described in this SSD.
^{12/21} Pavement	<p>An engineering structure whose primary function is to carry vehicular traffic and transmit loads to the sub-base and underlying soil.</p> <p>The term “footway” is used in this document for paved areas which carry primarily pedestrian traffic, but which are colloquially known as ‘the pavement’.</p>
Provider	This term is the preferred term used in ISO 9001:2015 in place of “supplier”, which was used in ISO 9001:2008. The terms are synonymous, “Supplier” has generally been used throughout this document.
^{12/21} Records	<p>Extract from ISO 9001:2015, Annex A.1-</p> <p>“Organizations can choose to use terms which suit their operations (e.g. using “records”, “documentation” or “protocols” rather than “documented information”...”.</p> <p>In the context of the SSD, ‘records’ relates to documented information retained for the purposes of evidencing compliance, performance etc.</p>
Skills Card	<p>A card issued by a recognised authority, which demonstrates the level of competency, the date, achieved by the holder and the validity of the card.</p> <p>In some instances it is also used as a registration card and as an identity card.</p>
Technical Specifications	The Technical Specifications for asphalt laying are the specifications to which the organization has contracted to work. These specifications may be British Standard specifications, customer-supplied specifications (normally based on British Standards) or, in the case of proprietary mixtures, product-specific or organization-supplied specifications. A list of reference documents from which the Technical Specification is likely to be formed (using some or all of the documents) is given in Appendix B.

UKAS	The United Kingdom National Accreditation Body or any recognised European National Accreditation Body or any equivalent International Accreditation Forum (IAF) Multi-Lateral Agreement (MLA) signatory
“shall”	The term “shall” is used in this document to indicate a requirement strictly to be followed in order to conform to the standard and from which no deviation is permitted. (See ISO Directives Part 3:1997, Annex E)” (reference “guidance on terminology used in ISO 9001 and ISO 9004”.)
“should”	The term “should” is used in this document to indicate recognised means of meeting the requirements of the standard (ISO 9001). An organization can meet these in an equivalent way provided this can be demonstrated to a Certification Body (CB).

^{12/21}**3.2** For the purpose of this SSD the abbreviations in NHSS 0 shall apply except where listed in the table below:

CB	Certification Body
CITB	Construction Industry Training Board
CSCS	Construction Skills Certification Scheme
CPCS	Construction Plant Certification Scheme
NHSS	National Highways Sector Scheme
SSAC	Sector Scheme Advisory Committee
SSD	Sector Scheme Document

Note: The terms and definitions given in ISO 9000:2015 remain applicable.

4 to 10 QUALITY MANAGEMENT SYSTEM REQUIREMENTS

Particular Requirements for ISO 9001:2015

Introduction

^{12/21}This document shall be read and implemented in conjunction with the requirements of ISO 9001:2015.

Clause/Paragraph numbers in this section reference appropriate paragraphs of ISO 9001:2015. The requirements of ISO 9001:2015 are deemed to apply unless specific additions are required. Where ‘no particular requirements’ are recorded under an ISO 9001 clause heading this means that it is not considered necessary to provide a particular requirement for that clause.

The particular requirements given below are to assist in the clarification of the ISO 9001 text for the relevant activity, no inference should be made that ISO 9001 requirements are diluted or deleted because of this particular requirement.

4 CONTEXT of the ORGANIZATION

4.1 Understanding the organization and its context

No specific particular requirement

4.2 Understanding the needs and expectations of interested parties

Interested parties shall include the Customer, Client, other suppliers, and contractors, and those that interact with or use the Client’s infrastructure e.g. the general public including travelling public, emergency services and other relevant stakeholders, as defined in ISO 9000.

Note: It would be expected that the organization would maintain details of the relevant Customer or Chain of Customers identified as interested parties.

4.3 Determining the scope of the quality management system

- The scope of the quality management system shall cover the range of specific service for which the organization is seeking registration.
- Consideration shall be given to outsourced services and how those outsourced services are controlled.
- The scope applies to site operations where asphalt laying by hand or machine is the main intended activity (during construction and/or maintenance) and not where it forms a supplementary or complementary activity e.g. reinstatement after installation of other services.
- The organization shall determine and select its scope under this Sector Scheme, see Appendix K.

Note: The scheme is not intended to specifically cater for the placement of asphalt in small areas, for example patching of potholes or other surface defects to make a road safe (see NHSS23 for such activities).

4.4 Quality management system and its processes

4.4.1 The organization shall operate a quality management system to ISO 9001:2015 and this SSD (see Appendix A.1)

4.4.2 The organization shall have a process in place to record/update their registration to this Sector Scheme on the Schedule of Suppliers website <http://www.scheduleofsuppliers.co.uk/> immediately following confirmation of their certification to the Sector Scheme from the Certification Body and thereafter check its suitability annually. (See Appendix O for information).

The organization shall notify Lantra's NHSS Schedule of Suppliers if Certification is suspended or withdrawn. (Email - scheduleofsuppliers@lantra.co.uk).

5 LEADERSHIP

5.1 Leadership and commitment

5.1.1 General

The organization's policy document shall include top management support for this NHSS.

Note – the term "top management" is defined in ISO 9000:2015 (3.1.1) and organizations should identify the terminology used in their own organization.

5.1.2 Customer focus

Processes for determining customer requirements shall consider the interaction with other works, the interests of the Client and interested parties (as defined in clause 4.2) and shall be mindful of the Client's interaction with the end users. This will include processes to minimise disruption and inconveniences.

(ii) Working methods shall be documented and any deviation from these methods shall be notified to the Client/customer/interested parties as required.

(iii) A copy of all relevant working methods and risk assessments for undertaking the works shall be available on site.

5.2 Policy

5.2.1 Establishing the quality policy

The organization's quality policy statement shall include a statement of commitment to this National Highway Sector Scheme.

5.2.2 Communicating the quality policy

No specific particular requirement.

5.3 Organizational roles, responsibilities, and authorities

Where required in the contract agreement, such information as necessary shall be included in a contract specific quality plan, (see Clause 7.5.1 and Appendix A).

The organization shall define and identify in the quality plan those persons with specific responsibility and authority for the management and implementation of contract requirements.

^{12/21}Note: Responsibilities should be identified in a task-based manner, with typical areas of responsibility such that the quality of the asphalt laying process is not compromised likely to include:

- overall managerial responsibility for implementation of the asphalt laying operations and all contractual requirements,
- technical interpretation of the requirements of the contract specification,
- establishment and control of a laying operation to meet the requirements of the contract documentation,
- safe and correct operation of all mobile plant and equipment used in the laying process,
- control of the laying operation that will meet the requirements of the contract specification with particular reference to laying to line and level and to compaction of the pavement layer,
- health, safety, and environmental aspects of the laying operation,
- traffic management responsibilities.

For smaller schemes and organizations, one individual may have responsibility for a number of these tasks, and for a number of sites, although this may not necessarily be practicable or desirable.

6 PLANNING

6.1 Actions to address risks and opportunities

6.1.1 The organization shall take into account the risks and opportunities relating to activities of this NHSS.

6.1.2 No specific particular requirement

6.2 Quality objectives and planning to achieve them

6.2.1 No specific particular requirement

6.2.2 No specific particular requirement

6.3 Planning of changes

At least annually, management shall review the quality management system in order to determine and ensure its continuing suitability and effectiveness.

7 SUPPORT

7.1 Resources

7.1.1 General

No specific particular requirement.

^{12/21} 7.1.2 People

The organization shall determine requirements (including ongoing competence, see Appendix C) for, and provide, sufficient personnel necessary to deliver asphalt layer(s) in the pavement.

7.1.3 Infrastructure

The organization shall determine, provide, and maintain sufficient facilities, plant and equipment and supporting services e.g. Information Technology systems necessary (see Appendix A) to deliver asphalt layer(s) in the pavement.

7.1.4 Environment for the operation of processes

No specific particular requirement.

7.1.5 Monitoring and measuring resources

7.1.5.1 General

No specific particular requirement.

7.1.5.2 Measurement traceability

Manufacturer's guidance for the maintenance, servicing and calibration of plant and equipment sensors and control systems shall be taken into account within the quality management system.

7.1.6 Organizational knowledge

No specific particular requirement

Note – Some of the main reference and legal documents relevant to this scheme are listed in Appendix B. The organization is responsible to ensure that the latest issues of these and other documents are being used.

12/21

7.2 Competence

General

The training and assessment of competency of personnel required by this scheme is aimed primarily at technical competence for this scheme's personnel. It is intended to enable and support employees to carry out work in a safe manner however it remains the responsibility of the organization to determine and implement safe systems of work.

Note: The term "training" applies to both Accredited courses leading to a qualification or end point assessment and equally to more informal, attendance-only, and experience-related learning.

Requirements

- (i & ii) Guidance on determining relevant training and assessment of ongoing competence is provided in Appendix C.
- (iii & iv) The organization shall create and maintain a register of employees as part of the organization's competency management documented information, to include records of training, practical experience, and assessment of competence. (See Appendix D)
- (v) Employees shall carry a registration card that provides details, or access to details, of their training and assessment for competency at all times whilst working at highway construction sites. This card will include an identification photograph and where appropriate the name of the organization.

Note: The Construction Leadership Council has determined that construction industry competency / identity cards must include a recognised "mark". It has been decided that this will be the CSCS "mark".

- (vi) The organization shall determine, identify, and provide the requisite number of qualified employees to be engaged in Sector Scheme activities, and also the ratios of supervisors and qualified personnel to non-qualified personnel, including trainees.

Note: Highways England created a Supervisor Ratio Decision Tool which can assist in determining ratios of supervisors to operatives. Guidance is also available on supervisor role profiles.

<https://www.gov.uk/government/publications/highways-england-raising-the-bar-health-and-safety-guidance>.

- (vii) Requirements for evidence of competency of organizations' personnel are given in Appendix C. A list of task specific considerations that should be able to be addressed by personnel

in a paving crew or in the form of work instructions detailing the action required or route of delegation / reference, should be included in the Quality Plan and be considered as indicative of total competence for an organization rather than any individual.

The above requirements apply equally to staff directly employed by the organization or to staff employed under sub-contract to the organization

Note: Mandatory and Optional NOS Units are used to make up the full credit value to achieve a Qualification in connection with existing Rules of Combination.

NOS Units may also be chosen to demonstrate additional competency to those of a specific Qualification or Pathway, as determined by the Organization to deliver the scope and relevancy for competency to NHSS16 activities.

7.3 Awareness

No specific particular requirement.

7.4 Communication

Specific requirements in addition to ISO 9001:2015 are that:

- The relevant quality plan and standard operating procedures shall be communicated to all relevant employees.
- The organization shall consider the need for external communications to communities affected by their activities under the Scheme.

7.5 Documented information

7.5.1 General

- (i) A quality plan (documented planned arrangements) shall be required. When specified in the contract documents or requested, the organization shall submit a quality plan or alternative document as defined in the Contract Specification for acceptance or approval by the Client, as appropriate, prior to commencement of work (See section 8 and Appendix A).
- (ii) The organization shall have in place auditable processes to identify publication of relevant new documents/standards and implementation requirements (See Appendix B, note 2)
- (iii) The general requirements of this clause shall be translated into more detailed process and/or site-specific documented requirements.

7.5.2 Creating and updating

No specific particular requirement

7.5.3 Control of documented information

7.5.3.1 No specific particular requirement

7.5.3.2 Control of Documented information of external origin

The organization shall have processes in place to ensure that the latest versions of relevant Standards and Documents are available (See Appendix B)

In addition to ISO 9001:2015 requirements the following documented information is typically required to be controlled:

Contract specific documents e.g. drawings, schedules, as listed in the quality plan for a particular scheme, See Appendix A.

Control of Records

Records are a special category of document and as such shall be established and maintained to provide evidence of conformity to this Scheme. In addition to the organization's own quality and conformance records, the following records shall typically be kept:

- Contract specific records, e.g. risk assessments, as listed in the quality plan (see Appendix A).

All contract specific records shall remain confidential to the parties to the contract.

Records relating to Management Review, Internal Audit, 3rd Party Assessment and Inspection and Testing of incoming materials and the finished asphalt layers shall be kept for a minimum of 6 years. All other quality records shall be kept, for a minimum period of 6 months beyond the end of the maintenance and/or guarantee period, whichever is the greater.

8 OPERATION

8.1 Operational planning and control

- (i) The Quality Plan shall address the topics listed in Appendix A of this SSD and where applicable the requirements contained in the Specification for Highway Works (SHW) and associated contract documents e.g. Appendices 1/24 and 7/1.

Note: The topics for the content of a Quality Plan are given in ISO 10005 and this document; in particular, reference should be made to Appendix A of this document and Appendix H of the SHW.

- (ii) The Quality Plan may be a largely standard document as indicated in Appendix A of this schedule supplemented by contract specific information.
- (iii) The Quality Plan describes the management strategy that sets clear and sustainable performance objectives, delegates responsibility and establishes lines of communication. An integrated management system approach may be taken which embodies the Quality Plan and other relevant plans within an overall management scheme for an organization.
- (iv) The organization shall, in order to reduce the need for waste disposal, minimise the generation and environmental impacts of wastes arising during the contracted works and shall maximise opportunities for the re-use and recovery of wastes. The organization shall document its arrangements for the identification, segregation, handling, storage, and disposal of the different types of wastes arising from the contracted works.

8.2 Requirements for products and services

8.2.1 Customer communication

The quality plan shall align with contractual requirements and identify the relevant information to be passed on to the Customer and Client. (Refer to Appendix A and relevant parts of Appendix A.1)

Note: Where required by the contract/ legislation the Customer needs to be informed about the products, i.e., they require detailed information as appropriate regarding materials, components, manufacturing details etc. for the purposes of:

- (a) health and safety requirements
- (b) as-built records for maintenance
- (c) their own monitoring of the effectiveness/performance of the product.

8.2.2 Determining the requirements for products and services

No specific particular requirement:

12/21

Note: Where required in the contract agreement the organization shall undertake relevant risk assessments in accordance with the client's standards and processes (for example National Highways' Standard GG104 provides a method for undertaking risk assessment on their network).

8.2.3 Review of the requirements for products and services

- 8.2.3.1 When irregularities or inconsistencies with the specification, health and safety requirements or other concerns (including concern over the anticipated performance of the asphalt pavement course) are encountered, then these shall be brought to the attention of the customer and/or client for resolution.

8.2.3.2 No specific particular requirement

8.2.4 Changes to requirement for products and services

No specific particular requirement

8.3 Design and development of products and services

8.3.1 General

Limited exclusion in relation to product design from the Scope of this SSD.

Note1: This exclusion arises because asphalt mixtures are generally laid to customer-supplied requirements.

This exclusion does not affect the organization's ability, or responsibility, to provide a service or product that meets customer and applicable regulatory requirements, nor to carry out design and development as part of its commitment to service delivery and continual improvement. Development of service should include consideration of ongoing advancements in technology including e.g. remote operation of plant and equipment, semi or full automation, artificial intelligence and/or machine learning.

Note 2: Consideration should be given as to how design may be applicable to installation works. If appropriate, then GG102 may be applicable for pavement design work.

8.3.2 Design and development planning

No specific particular requirement, subject to the relevancy of Clause 8.3.1.

8.3.3 Design and development Inputs

No specific particular requirement subject to the relevancy of Clause 8.3.1.

8.3.4 Design and development controls

No specific particular requirement subject to the relevancy of Clause 8.3.1.

8.3.5 Design and development outputs

No specific particular requirement subject to the relevancy of Clause 8.3.1.

8.3.6 Design and development changes

No specific particular requirement subject to the relevancy of Clause 8.3.1.

8.4 Control of externally provided processes, products, and services

8.4.1 General

No specific particular requirement subject to practicality and contractual obligations.

Note: Materials/products shall be selected in accordance with the contract (specification) documents including compliance with Regulatory requirements. (See Clause 104 of the SHW).

8.4.2 Type and extent of control

No specific particular requirement subject to practicality and contractual obligations.

8.4.3 Information for external providers

No specific particular requirement subject to practicality and contractual obligations.

8.5 Production and service provision

8.5.1 Control of production and service provision

No specific particular requirement subject to requirements of the Quality Plan (see 8.1 and Appendix A1).

Works orders, risk assessment and quality plans shall be signed by the relevant designated personnel and retained as defined in 7.5.3.2. They will also be submitted to the Client if requested.

The organization shall have a system in place which provides documented information to demonstrate the manner and frequency of the calibration of the measuring and test equipment (See Appendix E for guidance).

8.5.2 Identification and traceability

No specific particular requirement.

^{12/21} 8.5.3 Property belonging to customers or external providers

The quality management system shall include a procedure to be applied where property or products are supplied by the Customer or the Client. This is particularly important where they are not installed by the organization itself.

8.5.4 Preservation

No specific particular requirement, see also Appendix A1.

8.5.5 Post-delivery activities

No specific particular requirement.

8.5.6 Control of changes

No specific particular requirement.

8.6 Release of products and service

Prior to release of the finished asphalt pavement layer to the customer (or at appropriate stages during the laying process), inspection shall take place and any potential non-conformity recorded. Appropriate action to either correct or monitor these shall be planned and recorded. When appropriate, the final inspection and/or corrective measures (including monitoring) may be carried out/agreed with the customer.

8.7 Control of nonconforming outputs

8.7.1 No specific particular requirement.

8.7.2 The quality management system documentation shall identify the control and recording procedures to be taken when non-conformity in materials, preparation or laying and/or in the finished asphalt pavement layer is identified. These may include measures such as: not permitting trafficking of the asphalt pavement, permit trafficking with speed or vehicle weight restrictions, monitoring the pavement etc.

Some inconsistencies and/or irregularities may not initially be reasonably evident or within the control of the organization and can arise during or after the laying process. The organization may seek concessions from the customer with regard to acceptance or repair as a result of such factors.

Resolution of non-conforming product

Non-conformity of the asphalt pavement layer(s) shall be reviewed and procedures for taking corrective action shall be followed. Corrective actions may include -

- (i) acceptance (by concession) of the non-conforming asphalt pavement layer (after laying);
- (ii) rejection and removal of the asphalt pavement layer (during or after laying);
- (iii) reworking of the asphalt until it does meet the required specification/tolerances (during or after laying);
- (iv) any other appropriate corrective actions described in the quality management system documentation.

The organization shall also take action to eliminate the cause of nonconformities in order to prevent recurrence.

9 PERFORMANCE EVALUATION

9.1 Monitoring, measurement, analysis, and evaluation

9.1.1 General

This may include monitoring the impact of asphalt laying activity on other works, including congestion and traffic flows.

Inspection and site testing shall be carried out at least as frequently as required in the contract specification and additionally in accordance with the organization's quality plan which shall address process control procedures to ensure adequate monitoring of all types of work.

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The results of all inspections and tests carried out shall be recorded and retained as defined in 7.5.3.2. All sampling and testing required shall be carried out by suitably trained personnel in accordance with the relevant procedures and risk assessments.

9.1.2 Customer satisfaction

No specific particular requirement.

9.1.3 Analysis and evaluation

No specific particular requirement.

9.2 Internal audit

9.2.1 No specific particular requirement

9.2.2 Internal audits shall be scheduled such that the whole of the quality management system is audited at least annually. Activities on site are to be included in the scheduled audits. Each gang shall be subject to at least a full annual audit. This shall always include assessing the actual laying of asphalt and also the relevant associated site activities. Relevant activities might include the preparation of substrate, treatment of joints and ironwork and the application of bond/tack coat etc. Audits shall be carried out by suitably trained and qualified personnel (see Appendix G and G.1).

9.3 Management review

9.3.1 General

The organization shall review the quality management system at least once a year to ensure its continuing suitability and effectiveness.

9.3.2 Management review inputs

No specific particular requirement.

9.3.3 Management review outputs

No specific particular requirement.

10 IMPROVEMENT

10.1 General

No specific particular requirement.

10.2 Nonconformity and corrective action

10.2.1 The organization shall take action to eliminate the root cause of system nonconformities in order to prevent recurrence.

10.2.2 Nonconformity(ies) relating to the quality management system shall be reviewed and procedures for taking corrective action shall be followed.

10.3 Continual improvement

No specific particular requirement.

Note: The corrective actions and risk assessment processes shall include analysis of all elements of the quality management system and its scope of control, including health and safety.

APPENDIX A (NORMATIVE): REQUIREMENTS for QUALITY PLANS

The quality plan shall include the following items as a minimum.

1.0 General requirements

- 1.1 Definition of the product and / or service(s) to be provided.
- 1.2 The structure of the organization describing the line of command and stating the names of the organization's Manager(s) responsible for the contracted work.
- 1.3 Identification of the relevant parts of the organization's documented quality management system relevant to the product and / or service(s) being provided.
- 1.4 The control of personnel including special requirements for skilled personnel e.g. competence and training of staff.
- 1.5 The control of materials, plant, and equipment.
- 1.6 Any health, safety and environmental conditions impacting upon quality of the specified works, including, for example weather and other workspace considerations.
- 1.7 Location of site for the contract and means of access.
- 1.8 Specification and/or Contract Documents.
- 1.9 Extent and details of the works and the target commencement and completion dates of the contract.
- 1.10 Details of the organization's work.
- 1.11 Details of workspace including, for example, substrate conditions (as applicable).
- 1.12 Management of documented information.
- 1.13 Relationship with activities of others e.g. Temporary Traffic Management and other suppliers engaged on the works.

2.0 Contract specific information

- 2.1 The Customer's nominated representative(s) through whom communication is to be made throughout the contract.
- 2.2 Names of the personnel involved with execution of the works. Contact details for these staff (as appropriate).
- 2.3 Details of the contract specific materials, plant, and equipment to be used and any certification required to be issued to the Customer/Client.
- 2.4 Name and contact details of Customer/Client representative(s).
- 2.5 Details of the communications required between the organization's staff and the Customer/Client or any other party (as appropriate).
- 2.6 Work programme and details of deliverables.
- 2.7 Liaison with the Police and the Highway Authority or other relevant competent authority.
- 2.8 Details of materials storage and location
- 2.9 Method statements for application/installation of asphalt and any detailed drawing(s) to be referenced.
- 2.10 How performance requirements are to be achieved.
- 2.11 Inspection and testing regime to be adopted covering frequency, methods of test, responsibility for testing and acceptance criteria, including any customer or client-specified requirements.
- 2.12 Control of non-conforming product, both as received and / or as installed.
- 2.13 All relevant contract specific information in respect to workspace conditions, including speed restrictions, health & safety requirements, environmental requirements, and site conditions.

2.14 Risk Assessments.

Notes:

1. Where certain requirements are not appropriate, or are addressed elsewhere, this fact shall be noted in the quality plan with justification against the appropriate section.
2. The organization should also be aware that there may be further general requirements for quality plans within a contract, for instance Appendix 1/24 of the Manual of Contract Documents for Highway Works, which may also need to be addressed.
3. See ISO 10005 (Quality management systems – Guidelines for quality plans) for further information.

(12/21) Appendix A1 – Model Quality Plan

Note: Many of the “Generic” elements below (and supporting documentation for these) are likely to be drawn from the contract documents, or exist in a “skeleton” management system, into which the “Specific” elements will be drawn for each new site or contract and may require unique supporting documentation. This ‘checklist’ is not exhaustive but may assist an organization to prepare and develop its quality system and procedures.

	Element	Generic (with examples)	Site / Project / Product Specific
General	External auditing <ul style="list-style-type: none"> procedures qualifications of auditors 	<p style="text-align: center;">✓</p> ISO 9001:2015 See Appendix G & G1	
	Internal Auditing <ul style="list-style-type: none"> procedures qualifications of auditors 	<p style="text-align: center;">✓</p> ISO 9001:2015 See Appendix G & G1	

12/21	Element	Generic (with examples)	Site / Project / Product Specific
Prior to works commencing	Relevant Regulation	Construction Products Regulation, CDM, Public Procurement Directive, Green Public Procurement, HS&E	
	Contract specification	BS / EN / SHW / Highway Authorities and Utilities Committee (HAUC) / Defence Infrastructure Organisation (DIO) Functional Specifications	✓
	Quality Plan	✓	✓
	Contract Review		✓
	Work Instructions	BS / SHW / HAUC	✓
	Programme of works		✓
	Health & Safety <ul style="list-style-type: none"> risk assessments product safety data traffic management 	Sector Schemes /" Chapter 8" / New Roads and Street Works Act (NRSWA) / Fatigue Risk Management Plan / Public Health Authority Guidance	✓
	Personnel & structure <ul style="list-style-type: none"> responsible staff training records 	✓	✓
	Materials <ul style="list-style-type: none"> supplier approval customer approval 	BS / EN / SHW / 3 rd Party Approvals	✓
	Plant & Equipment <ul style="list-style-type: none"> Requirements* Calibration & maintenance 	BS / EN / SHW / HAUC	✓

*** PLANT AND EQUIPMENT RECOMMENDATIONS**

- Plant and equipment should be allocated to contracts so as to allow for provision of reserve equipment in the case of breakdown, where necessary.

Organization-owned Equipment

- Maintenance schedules, including ‘Planned Preventative Maintenance’, and provision for updating equipment to include new mechanical and control innovations, should be in place.
- Maintenance records should be kept and made available for inspection when necessary.

Hired-in Equipment

For many contracts it may be both logistically and financially more viable to employ hired equipment rather than organization-owned equipment. In such circumstances, the organization should assure itself of the satisfactory suitability, operation, calibration, and maintenance of the equipment.

Ideally, suppliers of equipment should be certificated to the latest edition of **BS EN ISO 9001**.

12/21	Element	Generic (with examples)	Site/Project/ Product Specific
Pre-installation	Preparatory and enabling Works [†]	BS / SHW e.g. planing, substrate (structural and receiving) condition, sweeping, bond coat application	✓

12/21 During installation	Detailed programme of works		✓
	Quality Plan	✓	✓
	Work Instructions <ul style="list-style-type: none"> • machine lay • hand lay • (tack and) bond coats 	BS / SHW / HAUC	
	Health & Safety <ul style="list-style-type: none"> • traffic management • product safety data • risk assessments 	Chapter 8/ “Red book” / Sector Schemes 12 / Control of Substances Hazardous to Health (COSHH) / Fatigue Risk Management Plan / Public Health Authority Guidance	✓
Continues	Laying records [†] <ul style="list-style-type: none"> • location, chainage, lane, time etc. • layer thickness • condition of substrate • unique delivery reference e.g. ticket nos, QR Code. • material type 	✓	✓ Frequency in Technical Specification

	Element	Generic (with examples)	Site/Project/ Product Specific
During installation (continued)	Laying records [†] <ul style="list-style-type: none"> • material temperature (received/ compacted – bulk, layer, or surface temperature) • material visual inspection incl. stockpiles • weather • location of joints and stoppages 	✓	✓ Frequency in Technical Specification
	Supplier performance assessment	✓	✓
	Complaints <ul style="list-style-type: none"> • customer • public 	✓	✓
	Approved products <ul style="list-style-type: none"> • approved supplier • approved installer 	✓ Accredited 3 rd party assessment	✓
	Testing <ul style="list-style-type: none"> • procedures • frequencies • material compliance • end product testing • tolerances (e.g. level, cross-fall, profile) • equipment calibration status • equipment condition checks • non-conformance and repair procedures 	BS / SHW / HAUC	✓
<small>12/21</small> † Certain elements may be considered as “pre-installation” but are essentially contiguous ahead of the laying process and may (or may not) be under the management and control of the NHSS Organization.			

Continues (Aftercare)

12/21	Element	Generic (with examples)	Site/Project/ Product Specific
Aftercare	Opening to traffic	BS / SHW	✓
	Warranties and maintenance requirements		✓
	Complaints procedure	✓	✓
	As-built manual		✓
	Building Information Modelling requirements	✓	✓

Note: The Road Death Investigation Manual requires highway authorities and operators to maintain, and provide for investigation, records of highway construction and maintenance activities, particularly if the road surface is suspected to be a contributory factor in an incident. Clients should give careful consideration to the records which they will need to specify within contracts for retention for this purpose. (See Appendix L)

APPENDIX B (NORMATIVE): REFERENCE and ASSOCIATED DOCUMENTS

(BIBLIOGRAPHY)

Organizations shall ensure that they have a working knowledge of, and access to, all the relevant documents including current, amended, or previous versions required by the contract and specification.

Organizations shall ensure they are working to current reference or associated documents appropriate to asphalt laying.

The list of standards and documents below may be date specific, however, the organization shall have processes in place to ensure that the appropriate version is available. Organizations should be aware that utilisation of internet search engines may result in out of date references being identified/called up.

Note 1: The listing is not comprehensive; other documents may be required to fulfil the requirements of the contract.

^{12/21}Note 2: National Highways may issue Interim Advice Notes (IANs) as a prelude to inclusion in the MCHW (Vol 1 and 2), the DMRB and/or Chapter 8. Organizations must have auditable processes in place to identify when these documents are issued and their implementation date(s). An index of Interim Advice Notes (IANS) is available:
(<http://www.standardsforhighways.co.uk/ians/index.htm>).

Note 3: Every effort has been made to update links to web sites, but the committee cannot provide any guarantees that the sites will continue to exist or if they do, that they will maintain access to the documents identified below.

^{12/21}Reference Documents

1. Manual of Contract Documents for Highway Works: Volume 1 Specification for Highway Works (SHW), and amendments

Series 000	Introduction
Series 100	Preliminaries
Series 900	Road pavements – bituminous bound materials
Series 1100	Kerbs, Footways, Cycleways and Paved Areas
Appendices	A, C, (F) and H

<http://www.standardsforhighways.co.uk/ha/standards/mchw/vol1/index.htm> (See note 2)

2. Manual of Contract Documents for Highway Works: Volume 2 Notes for Guidance on the Specification for Highway Works (NGSHW), and amendments.

Series NG000	Introduction
Series NG100	Preliminaries
Series NG 900	Road pavements – bituminous bound materials
Series NG 1100	Kerbs, Footways, Cycleways and Paved Areas
Appendices	(Annex 1)

<http://www.standardsforhighways.co.uk/ha/standards/mchw/vol2/index.htm> (See note 2)

^{12/21}Associated Documents & Links – Bibliography

1 GG 102 - Design Manual for Roads and Bridges – Quality Management Systems for Highway Design Activities

<https://www.standardsforhighways.co.uk/dmr/search/745cf41e-48c1-4096-972a-5a65cc48981c>

- 2 GG 104 - Design Manual for Roads and Bridges – Requirements for safety risk assessment
<https://www.standardsforhighways.co.uk/dmrb/search/0338b395-7959-4e5b-9537-5d2bdd75f3b9>
- 3 Manual of Contract Documents for Highway Works: Volume 3 – Highway Construction Details
<http://www.standardsforhighways.co.uk/ha/standards/mchw/vol3/index.htm>
- 4 Design Manual for Roads and Bridges: <https://www.standardsforhighways.co.uk/dmrb/>
- 5 New Roads and Street Works Act 1991:
<http://www.legislation.gov.uk/ukpga/1991/22/contents>
- 6 Traffic Signs Manual Chapter 8. Traffic Safety Measures and Signs for Road Works and Temporary Situations. <https://www.gov.uk/government/publications/traffic-signs-manual>
- 7 National Highway Sector Scheme Documents
<https://www.scheduleofsuppliers.co.uk/node/64>
- Scheme 7 - Application of Road Marking Materials and Road Studs to Road Surfaces
 - Scheme 12 – Temporary Traffic Management
- 8 British/European/ISO Standards
- BS EN 13108 series – Bituminous mixtures – Material specifications
 - PD 6691 Guidance on the use of BS EN 13108 Bituminous mixtures. Material specifications.
 - BS EN 12697 series. Bituminous Mixtures. Test methods for hot mix asphalt.
 - PD 6692 Guidance on the use of BS EN 12697 Bituminous mixtures. Test methods for hot mix asphalt.
 - BS 598 Parts, as remain extant - Sampling and examination of bituminous mixtures for roads and other paved areas
 - BS EN 13036 – 1. Road and airfield surface characteristics. Test methods. Measurement of pavement surface macrotexture depth using a volumetric patch technique.
- 9 Accredited 3rd Party Assessment Schemes
- 10 Other product and application Specifications and Regulations issued by Government Departments, Statutory and Local Authorities, or any other specifications as appropriate, and agreed between the suppliers, the organization, sub-contractors, and the customer.
- 11 ACPO Road Death Investigation Manual (decommissioned October 2013)
<http://bit.ly/2n26mQb>
- See <https://www.app.college.police.uk/app-content/road-policing-2/investigating-road-deaths/>
- 12 Road Traffic Collisions Standard Operating Procedure (Scotland)
<https://www.scotland.police.uk/spa-media/4hclieto/road-traffic-collisions-sop.pdf>
- 13 GG 128 - Requirements for reporting incidents, events and undesirable circumstances: health, safety, wellbeing, structural and environmental
<https://www.standardsforhighways.co.uk/dmrb/search/2995a4fe-8faf-4e65-8ce8-b6b8bf416e74>
- 14 AirsWeb Guidance
<http://www.highwayssafetyhub.com/airs.html>
- 15 Construction Leadership Council Guidance
<https://www.constructionleadershipcouncil.co.uk/content/>

12/21 **APPENDIX C: TRAINING and ASSESSMENT of COMPETENCE**

1. Training and competency qualifications

National Highways requires suppliers accredited to this Scheme to employ fully qualified and registered operatives, whose registration/skills cards show the status and categories of work that the holder is competent to do. Minimum training and competency requirements set out in this Appendix include agreed equivalences. The organization shall ensure that their employees shall have undergone suitable training and competency assessment that will cover activities under this SSD.

Guidance on Minimum Competency Levels by Nominal Job Role

JOB ROLE	CONTRACTING / SURFACING MANAGER	CONTRACTING SUPERVISOR	SURFACING FOREMAN / SUPERVISOR	(SURFACING) OPERATIVE	APPRENTICE / TRAINEE
NB A wide range of job titles exists to cover this, more limited, range of job roles					
Range of responsibility	Business and multiple site management	Multiple site management & operations	Single site, multiple operations	Own work area	Own work area, under supervision
CSCS Card Types (See CSCS Card Finder)	AS RELEVANT TO JOB RESPONSIBILITY & EXPERIENCE LEVEL, BUT MUST INCLUDE HIGHWAYS HEALTH, SAFETY & ENVIRONMENT TRAINING				
	WHITE – ACADEMICALLY OR PROFESSIONALLY QUALIFIED PERSON				
SPECIFIC PLANT (TYPE) OPERATIONS: CSCS / Partner Plant Card Schemes	N/A	DESIRABLE FOR SUPERVISION	DESIRABLE FOR SUPERVISION, ESSENTIAL FOR EXECUTION	ESSENTIAL (BLUE COMPETENT CARD)	ESSENTIAL (TRAINED) WORKING TOWARD BLUE CARD
DRIVER CPC CARD (e.g. MP Connect)	N/A	N/A	N/A	ESSENTIAL FOR DRIVERS COLLECTING ASPHALT	N/A
HE PASSPORT	Smartcard to record all an individuals' qualifications and training, including the HE Common Induction. (Formerly) Highways England Supervisor Ratio Decision Tool (B29) https://www.gov.uk/government/publications/highways-england-raising-the-bar-health-and-safety-guidance				
National Highways "Supervisor Role Profile"	<i>Senior Construction Supervisor</i>				
	<i>Construction Supervisor</i>			<i>Trainee Construction Supervisor</i>	
HE EXPECTATION (NVQ LEVEL)	LEVEL 6	LEVEL 3/4, WORKING TOWARD LEVEL 6	ESSENTIAL LEVEL 2 WORKING TOWARD LEVEL 3/4	ESSENTIAL LEVEL 2	APPRENTICESHIP SCHEME*/ WORKING TOWARDS NVQ LEVEL 2

* Apprenticeships combine practical training in a job with study. Apprenticeships take 1 to 5 years to complete depending on their level. Apprenticeships have equivalent educational levels. Some apprenticeships may also provide additional, or routes to, qualifications, such as an (N)VQ if their content aligns with National Occupational Standards. (N)VQ and Apprenticeships Levels may not always be equivalent. A searchable database of available Apprenticeships, and those under development, which may be relevant to NHSS16 activities can be found at <https://www.instituteforapprenticeships.org/apprenticeship-standards>

Apprenticeship Standards Search Result Example –

Route: “Construction”, Keywords “Road” and “Plant”.

APPRENTICESHIP STANDARDS		Reference	Typical duration to gateway
Level 2 Approved for Delivery	ROAD SURFACING OPERATIVE Version 1.0	ST0693	15 Months
	CONSTRUCTION PLANT OPERATIVE Version 1.0	ST0736	15 Months

Qualifications:

RQF/ SQA/ (N)VQ Diplomas or Certificate qualifications are made up from a broad range of National Occupational Standards (units), both generic to construction activities, and specific to asphalt laying activities.

NOTE: Qualifications are a means of measurement and demonstrating competency at a specific moment in time. Defined training that leads to, updates and / or support qualifications are equally important in demonstrating continuing competence.

Those qualifications considered relevant to competency for NHSS16 include:

This list is not exhaustive.

Craft & Operatives		
Level 2	(CCEO) Diploma or Certificate in Construction and Civil Engineering Operations	
	(RBM) Diploma or Certificate in Road Building and Maintenance (Construction)	
	(PO) Plant Operations	
Attainment of these qualifications may provide eligibility for a BLUE (SKILLED WORKER) CSCS CARD		
Technical, Supervisory and Management		
		Pathway and NOS options
Level 3	NVQ Diploma in Occupational Work Supervision (Construction)	No NHSS16-specific option routes.
	NVQ Diploma in Construction Contracting Operations	
	NVQ Diploma in Highway Works Supervision	Highway Works
Level 4	NVQ Diploma in Construction Site Supervision	Building and Civil Engineering
Level 6	NVQ Diploma in Construction Site Management	OR Highways Maintenance and Repair
Attainment of these qualifications may <u>also</u> provide eligibility for a WHITE CSCS CARD – ACADEMICALLY OR PROFESSIONALLY QUALIFIED PERSON		

Qualifications greater than Level 2 may be achieved through academic (semi or non-occupational) routes e.g. A-Level, HNC, HND, BTEC, Degree etc. The level, relevancy, and applicability of qualifications in order to demonstrate competency for NHSS16 activities shall be assessed by the organization. The Register of Regulated Qualifications can be found at: <https://register.ofqual.gov.uk/>.

NOTE: the individual titles; content of NOS; Suites of NOS for craft, operative, technical, supervisory and management occupations; their Rules of Combination and Recommended Qualification Structures are subject to periodic review and should be checked against current [published listings](#) as extant.

NB Alternative Qualification Structures may be operated in Scotland and Northern Ireland. Other vocational qualification systems operate in the Devolved Administrations. All must be derived from NOS.

NOS can be searched at: <https://www.ukstandards.org.uk/Pages/Search.aspx>

Examples of Qualifications for associated and ancillary activities (technical, supervisory and management) relating to NHSS16 quality management.

Individuals with responsibility for e.g. product and outcome compliance should have specific knowledge in relation to asphalt materials including product inspection, sampling, and testing, as well as measurement and control of pavement construction and maintenance processes e.g. maintaining laying records. Such activities may be within the scope of the NHSS16 laying organisation and/or third-party organisations:

Qualification, Reference & Title			Pathway and NOS options
Level 2 Certificate MPQC	603/2004/7	Laboratory and Associated Technical Activities for Mineral Products Operations	Already sector specific – confirm applicability to NHSS16 asphalt laying operations
Level 3 Diploma MPQC	603/2005/9		
Level 4 Diploma MPQC	603/2405/3		
Level 3 Diploma Pearson Edexcel	600/1731/4	Laboratory and Associated Technical Activities	Industrial science pathway
Attainment of these qualifications may <u>also</u> provide eligibility for a WHITE CSCS CARD – ACADEMICALLY OR PROFESSIONALLY QUALIFIED PERSON			

2. Health and safety

Organizations are reminded of the legal requirements to provide health and safety training for all personnel as appropriate in accordance with the Health and Safety at Work Etc. Act 1974.

The training and assessment of competency of personnel required by this scheme is aimed primarily at technical competence in their field of work. It is intended to provide awareness to carry out work in a safe manner; however, it remains the responsibility of the organization to determine and implement safe systems of work.

It is a requirement that personnel pass the specialist test questions for Highway Works included in the CSCS touch screen test.

3. Temporary traffic management

Highways organizations are reminded of the requirements for temporary traffic management on all highways including high speed dual carriageways and motorways.

For work on high-speed dual carriageways and motorways, other than short duration works on hard shoulders or verges, such works shall be carried out by an organization registered to NHSS 12A/B as appropriate.

For works on mobile lane closures NHSS 12C applies.

For works on other roads NHSS 12D applies and organizations need to ensure that they have appropriately skilled and registered operatives to set out the necessary temporary traffic management measures. Guidance is given in Appendix M of NHSS 12D.

4. Fraudulent certificates/cards

Action in the Case of Suspect Certificates / Cards – the following advice is given:

Suggested Action by the Organization

On being presented with a suspect certificate/card (check logo, print quality, colour, layout, spelling, likeness of photograph):

- Take possession of certificate/card.
- Call a member of the body that issued the certificate/card. A member of the team will help you confirm your suspicions or otherwise.

If the certificate/card appears to be fraudulent:

- Retain the certificate/card if possible
- Make photocopies of front and back
- Record certificate/cardholder's name and address
- Ask certificate/cardholder where the certificate/card was obtained from
- Call the local police and report the matter
- Refuse access to site (subject to company rules).
- Forward copies of all evidence to the body who issued the certificate/card marked "SUSPECTED FRAUDULENT CERTIFICATE/CARD" with any crime number given by local police.

Note: The body should in most cases fully support any prosecution with technical and factual evidence.

This should help to maintain the integrity of the Highway Sector Schemes.

Where applicants hold other cards or qualification (e.g. from a state other than England, Scotland, Wales and N. Ireland), it will be necessary to establish the competency equivalence of such qualifications and advice should be sought from the appropriate Sector Skills Council or issuing/awarding body of recognised qualifications.

The administrator of an embedded skills scheme shall be able to identify the equivalence of the qualification to meet the described competency and knowledge described in the sector scheme document.

^{12/21}See also: <https://ecctis.com/Qualifications/ISS/Default.aspx> for Industry Skills Statements applicable for Overseas applicants for CSCS Cards.

APPENDIX D (INFORMATIVE): EXAMPLE REGISTER of PERSONNEL ATTAINMENTS

NAME OF COMPANY:

Full Name of Employee	Registration Renewal Date	Types of activity for which Employee is Registered

^{12/21}HE PASSPORT

'Smartcard' to record all an individuals' qualifications and training, including the HE Common Induction.

APPENDIX E (INFORMATIVE): GUIDANCE for the CONTROL of MONITORING and MEASURING EQUIPMENT

^{12/21} Example of a typical requirement for NHSS

Item No	Equipment	Purchase Specification	Calibration Control	Calibration Frequency	Check frequency
1	Thermometers and temperature control equipment, including sensors	Equipment must operate within the range of the materials' working temperature	Calibration traceable to National Standards	6 monthly (may be extended to 12 months upon demonstration of continued calibration accuracy)	Daily, or in case of doubt
2	Pressure measuring equipment	Appropriate British or International standard	Calibration traceable to National Standards	Annually	
3	Thickness/height measuring equipment, including sensors	Maximum allowable error at any point in working range value $\pm 5\%$	Calibration traceable to National Standards	Annually	
4	Measuring wheels, tapes, and rules	Maximum allowable error $\pm 1\%$ of the measurement range undertaken (upon purchase only)	Verification check when signs of wear or damage appear	Checks as required	

Notes

- The table does not represent an exhaustive list of monitoring and measuring devices and therefore equipment not included but employed by the organization should be calibrated to an acceptable standard and be documented.
- Visual daily checks of items 1 and 2 shall be carried out on site to confirm that the equipment is working correctly and is not damaged. Records of the daily checks shall be kept.
- If in-house calibration equipment is used for the calibration of items 1 and 2 it shall not be used for any other purpose and shall itself be calibrated traceable to national standards at intervals not exceeding two years.
- If in-house calibration equipment is used for the calibration of item 3 it shall not be used for any other purpose and it shall itself be calibrated traceable to national standards at intervals not exceeding five years.
- Records of all equipment in use, their calibration status and calibration or verification checks undertaken shall be implemented and maintained.

APPENDIX F (INFORMATIVE): CERTIFICATION BODIES ACCREDITED for THIS SECTOR SCHEME

Information on certification bodies accredited against this scheme can be found on the UKAS website <https://www.ukas.com/find-an-organisation/browse-by-category/?cat=2620>.

APPENDIX G (NORMATIVE): The ROLE of CERTIFICATION BODIES and AUDITOR QUALIFICATIONS

1. Role of certification bodies

- 1.1 The independent assessment of conformity of organizations to the requirements of ISO 9001:2015 and this SSD rely upon the assessment expertise, competence, and capability of accredited certification bodies.
- 1.2 The certification body role is to ensure, through assessment, that organizations have management systems in place which address the enhanced ISO 9001:2015 requirements detailed in this SSD.
- 1.3 Certification bodies shall ensure they are all represented by at least one nominated individual lead certification body (or deputy) who will represent all certification bodies at meetings of this Sector Scheme Advisory Committee. This does not preclude other certification bodies from attending, as appropriate.
- 1.4 Certification bodies shall be represented at the National Highway Sector Scheme Liaison Committee.

2. Certification body accreditation

To ensure consistency and to demonstrate independent capability certification bodies are required to be accredited against the requirements of ISO 17021 by the United Kingdom Accreditation Service (UKAS) or by an equivalent International Accreditation Forum (IAF) member for assessment and registration of ISO 9001:2015 quality management systems in accordance with the particular requirements of this NHSS or other equivalent international management scheme.

NOTE - See Clause 3.1 of this SSD document for definitions – as such, where “UKAS” is stated in text, it also refers to equivalent IAF Members.

3. Assessor and assessment team competence.

^{12/21}3.1 The certification body shall be able to demonstrate to UKAS that it possesses and maintains the necessary assessor experience and technical understanding of asphalt laying activities covered in the scope of this Sector Scheme. These assessment areas shall include, but not be limited to the following:

- i) knowledge, understanding and application of this SSD (See Appendix G1).
- ii) knowledge of the manufacture and supply in the asphalt industry, including the methods and techniques sufficient to understand the processes employed and the controls necessary to ensure delivery of conforming product and services. Typically, this would include knowledge of the product and processes. (Conveyance of this knowledge to auditing teams will be determined by the certification body and will be audited by UKAS).
- iii) maintenance of demonstrable technical highway engineering background, capable of reading and understanding specifications and drawings, including knowledge of the Specification for Highway Works and related design standards requirements for asphalt laying.
- iv) ability to demonstrate that they have ongoing suitable health and safety training which shall include appreciation of the risks involved in the installation in the specific aspects of the scheme as appropriate.
- v) preferably knowledge of asphalt materials and their properties.

3.2. The certification body must also ensure that assessors have sufficient knowledge of health & safety requirements related to working on live highways where appropriate, knowledge of temporary traffic management, working in confined spaces and working at height for assessment of guidance provided on this aspect.

3.3. Guidance to Certification Bodies on assessor competence related to this Sector Scheme is given in the certification body guidance document – National Highway Sector Scheme Accreditation, Registration and Assessment Guidance for Certification Bodies – NHSS 0.

3.4 The certification body is responsible for ensuring that the assessment teams possess demonstrable expertise in the assessment areas detailed above as they relate to the scope of client activities under assessment.

3.5 Minimum assessor qualifications and competence for assessment of this NHSS, which may reside in a single individual, or in an assessment team are as follows:

(i) International Register of Certificated Auditors (IRCA) Registered ISO 9001:2015 Lead Auditor qualification or certification body equivalent and demonstrable expertise in leading assessment teams.

(ii) ISO 9001:2015 assessment experience

(iii) knowledge, understanding and application of this SSD.

(iv) knowledge of the manufacture and supply in the asphalt industry, including the methods and techniques sufficient to understand the processes employed and the controls necessary to ensure delivery of conforming product. Typically, this would include knowledge of asphalt materials and processes. (Conveyance of this knowledge to auditing teams will be determined by the certification body and will be audited by UKAS).

(v) demonstrable technical highway engineering background, capable of reading and understanding specifications and drawings, including knowledge of the Specification for Highway Works and design standards requirements for asphalt pavements.

(vi) ability to demonstrate that they have ongoing suitable health and safety training which includes appreciation of the risks involved in the activities of this sector.

4. Conduct of Assessments.

4.1 Certification Bodies shall ensure that at least 30 percent of the initial and continuing assessment duration is devoted to assessing operational activities at locations where asphalt laying covered by the scope of this Sector Scheme are being undertaken.

4.2 Certification Bodies shall make every endeavour to ensure that during a three-year certification cycle there is evidence of assessment of all execution activities covered by the organization's scope of registration. Certification bodies shall undertake surveillance visits at intervals no greater than one year.

5. Format and Content of Registration Certificates.

5.1 Certificates of registration issued by Certification Bodies, which include within the scope of registration reference to compliance with this Sector Scheme, shall be in a format and contain the content detailed in Appendix K of this SSD.

5.2 The National Highway Sector Scheme Logo shall be included in any Certificate of Registration which has this Sector Scheme detailed in the Scope of Registration. The logo shall only be used and applied in the manner detailed in any conditions of use which may be published in NHSS 0

6. National Highway Sector Schemes Schedule of Suppliers.

6.1 Certification Bodies shall monitor the National Highway Sector Schemes Schedule of Suppliers posted at <http://www.scheduleofsuppliers.co.uk/> to ensure equivalence between their clients registered to this Sector Scheme and the listed organizations.

6.2 Certification Bodies shall provide to the National Highway Sector Schemes Schedule of Suppliers administrator at Lantra details of registered organizations whose scope of registration against this Sector Scheme has ceased to be applicable within 10 working days of that situation occurring.

6.3 Certification Bodies shall audit the organization to ensure that the organization has recorded their NHSS registration on the Lantra Schedule of Suppliers web-based register (See 4.4 of this NHSS). This check shall include verification of the certificate of registration currency.

7. Reporting on Sector Scheme Performance.

7.1 Each Lead certification body shall report to the Chairperson of the SSAC including, as appropriate:

a) observations and comments on the implementation and assessment findings related to the Sector Scheme including any omissions or deficiencies in its scope.

b) recommendations for improving/clarifying the SSD

c) feedback on deficiencies against contract documentation

d) the number of organizations whose scope of registration includes this Sector Scheme for comparison against the Schedule of Suppliers

Note 1: This is to be issued to the Chairperson of this Sector Scheme Advisory Committee.

Note 2: Additionally, the lead CB shall provide a similar report to the Chairperson of the National Highway Sector Scheme Liaison Committee, which shall be available at least a week before each National Highway Sector Scheme Liaison Committee meeting, so that it may be considered during the Liaison meeting.

Note 3: It is recommended that the report should be a combined report prepared by the nominated certification body (Lead CB) to provide assurance that confidentiality is maintained.

Appendix G1 (Informative): Guidance to Assessors' and Other Auditors' Competencies Requirements

Section 1 - General Information

The information contained in this appendix has been collated by the NHSS committee to provide CB assessors with the background information that is considered appropriate for carrying out an assessment against ISO 9001:2015 and these NHSS documents. During the development of the Appendices, it was realised that this information would also provide useful guidance for first- and second-party auditors of the system.

Section 2 - Requirements

Note 1: This section of the guidance is divided in three parts namely 2A, 2B & 2C.

Note 2: Section part 2C will need to be developed by the relevant sector scheme committee to identify all relevant knowledge of their industry that is pertinent to carrying out an audit. It is intended that the content of this part will be used to develop a training awareness course for auditors.

2A General background to this NHSS.

- i) The reasons for development of the National Highway Sector Schemes (NHSS) and this scheme in particular, and for CB assessors, examples of where its absence has caused concern/problems.

This is normally contained in the introduction to the scheme, in this instance the scheme (NHSS 16) was initially developed with QPA, HA and CSS following the development of NHSS14, now withdrawn.

- ii) To whom the scheme applies. See Scope in this NHSS document.
- iii) Contact details of those that can offer scheme specific assistance. (This should be contained in the organization's quality documentation/NHSS documents.)
- iv) An overview of the highway infrastructure that the scheme applies to.
- v) The range of contracts that the scheme can apply to. (See Scope in relevant NHSS document i.e. NHSS 16 (section 1.)
- vi) Specific types of works that the scheme applies to. (See Scope [section 1] in this NHSS document and Appendix L in this NHSS.

- vii) Definitions and terminology which are particular to the scheme. (See section 3 of this NHSS.)
- viii) Diagram of routes to competency of personnel (including management, supervisors, and other employees etc) delivering the scheme services.

Information/guidance is contained in Appendix C of the document, however the organization's training administrator should have this information available (assessors should also be aware of training and competency assessment requirements available from Awarding Bodies such as ConstructionSkills, MP Awards, who should be able to assist).

- ix) Overview of important reference documentation applicable to the scheme

^{12/21}Section 2 and Appendix B of the document provides some information.

- x) Knowledge of relevant international, European, and British standards for asphalt materials and installation. In particular, those relating to product conformity, type testing and their requirements. Familiarity with SHW especially Series 900, Notes for Guidance for the SHW, (including when these are updated), the Design Manual for Roads and Bridges and Interim Advice Notes issued by the National Highways.
- xi) Relationship with other NHSS and its applicability to this scheme, see Appendix B.

2B Summary of where the scheme interprets sections 4 to 10 of ISO 9001:2015

The summary provides a list of those clauses where particular requirements have been provided.

^{12/21} Section/Clause	Particular requirement Yes/No	Comment/Requirement
4. Context of the organization		
4.1 Understanding the organization and its context	No	
4.2 Understanding the needs and expectations of interested parties	Yes	Check annually and seek evidence that the organization has determined interested parties including the customer chain, their requirements and is monitoring and reviewing the data.
4.3 Determining the scope of the quality management system	Yes	Check that the organization has reviewed the scope of the relative elements of the latest applicable issue of the NHSS that the organization considers appropriate. Exclusion of NHSS23 activities.
4.4 Quality management system and its processes. (4.4.1 & 4.4.2)	Yes	Check annually by the CB Auditors and other Auditors of the Schedule of Suppliers website to ensure registration and uploaded information is current and valid.
5. Leadership		
5.1 Leadership and commitment	-	
5.1.1 General	Yes	Check policy documented information includes this NHSS. Seek evidence that policy is being correctly implemented, communicated, and understood.

5.1.2 Customer focus	Yes	<p>Ensure that the organization has determined all necessary applicable statutory and regulatory requirements for contract compliance.</p> <p>This may include supplementary services such as recycling, final disposal, equipment inspection, licensing requirements for driving (HGV), animal including wildlife handling etc.</p> <p>Seek evidence that organization is meeting and maintaining customer requirements, including documented working methods, risk assessments and processes to avoid disruption, and site records.</p>
5.2 Policy		
5.2.1 Establishing the quality policy	Yes	Specific commitment to this NHSS.
5.2.2 Communicating the quality policy	No	
5.3. Organization roles, responsibilities, and authorities	Yes	<p>Ensure and seek evidence that there is an organization plan which covers responsibility/authority in accordance with the requirements of the SSD. Ensure that personnel with contract specific responsibilities and authorities have been identified and are recorded.</p>
6. Planning		
6.1 Actions to address risks and opportunities. (6.1.1 & 6.1.2)	Yes	Check that documented information is in place and operational to address risk and opportunities specific to this NHSS.
6.2 Quality objectives and planning to achieve them (6.2.1 & 6.2.2)	No	
6.3 Planning of changes	Yes	Check that at least annually, management has reviewed the quality management system to determine and ensure its continuing suitability and effectiveness.
7. Support		
7.1 Resources	Yes	
7.1.1 General	No	
7.1.2 People	Yes	See Appendix C
7.1.3 Infrastructure	Yes	Review facilities, processes, and equipment to confirm they are suitable for the scope of registration, see Appendix A1.
7.1.4 Environment for the operation of processes	No	
7.1.5 Monitoring and measuring resources	No	

7.1.5.1 General	No	
7.1.5.2 Measurement Traceability	No	But take note of manufacturers' recommendations
7.1.6 Organizational knowledge	No	But see Appendix B
7.2 Competence	Yes	See Appendix C & D. Seek evidence and review copies of training certificates, qualifications and identity cards and forward-looking training plans. Ensure that these are in accordance with the requirements of the sector scheme documents Check sample of identity cards.
7.3 Awareness	No	
7.4 Communication	Yes	Check that internal and external communication processes have been established and carried out as defined.
7.5 Documented information		
7.5.1 General	Yes	Requirement for quality plan, generic and site-specific procedures. Check processes are in place to ensure that organization maintain up to date information on documented information. See Appendices A & B
7.5.2 Creating and updating	No	
7.5.3 Control of documented information. (7.5.3.1 & 7.5.3.2)	Yes	Ensure and seek evidence that all required contract specific documents are in place. Check appropriate processes are in place for the retention and disposition of documented quality information for the required period.
8. Operation		
8.1 Operational planning and control	Yes	Specific requirements for quality plan and contractual requirements. Check appropriate processes are in place for the retention and disposition of documented information
8.2 Requirements for products and services		
8.2.1 Customer communication	Yes	Specific requirements for quality plan for contractual compliance and communicating of records. Check effectiveness of communication arrangements
8.2.2 Determining the requirements for products and services	No	But note guidance on risk assessments.
8.2.3 Review of the requirements for products and services. (8.2.3.1 & 8.2.3.2)	Yes	Ensure contract tender review is in place with an appropriate timescale and assessment of suitability of requirements and availability of resources.

8.2.4 Changes to requirements for products and services	No	
^{12/21} 8.3 Design and development of products and services	LIMITED EXCLUSION FROM SCOPE	But does not affect the organization's ability, or responsibility, to provide a service or product that meets customer and applicable regulatory requirements, nor to carry out design and development as part of its commitment to service delivery and continual improvement.
8.3.1 General		
8.3.2 Design and development planning		
8.3.3 Design and development inputs		
8.3.4 design and development controls		
8.3.5 Design and development outputs		
8.3.6 Design and development changes		
8.4 Control of externally provided processes, products, and services	NO	^{12/21} Subject to practicality and contractual obligations e.g. Conformity Assessment Marking of products.
8.4.1 General		
8.4.2 Type and extent of control		
8.4.3 Information for external providers		
8.5 Production and service provision	SPECIAL NOTE	
8.5.1 Control of production and service provision	No	But subject to requirements of the Quality Plan particularly for retention of records.
8.5.2 Identification and traceability	No	
8.5.3 Property belonging to customers or external providers	Yes	Relevance to property installed by others.
8.5.4 Preservation	No	
8.5.5 Post-delivery activities	No	
8.5.6 Control of changes	No	
8.6 Release of products and service	Yes	Check that processes have been implemented in line with the current contract specification in relation to Client inspection.
8.7 Control of nonconforming process outputs, products, and services.	Yes	Ensure processes are in place and have been implemented in line with contract specification. Check documented information.

(8.7.1 & 8.7.2)		Specific options are highlighted in the Clause as relevant to NHS16 activities.
9 Performance evaluation		
9.1 Monitoring, measurement, analysis, and evaluation	Yes	
9.1.1 General	Yes	Check that monitoring and measuring process documentation has been implemented in line with the current contract specification. Ensure consideration of other works, traffic flow and H&S requirements.
9.1.2 Customer satisfaction	No	
9.1.3 Analysis and evaluation	No	
9.2 Internal audit (9.2.1 & 9.2.2)	Yes	Check internal audits are being carried out at the stated frequency and ensure corrective actions have been made.
9.3 Management review		
9.3.1 General	Yes	Minimum annual frequency of management review to ensure this contains reference to the relevant sector scheme.
9.3.2 Management review inputs	No	
9.3.3 Management review outputs	No	
10. Improvement		
10.1 General	No	
10.2 Nonconformity and corrective action (10.2.1 & 10.2.2)	Yes	Check that documented information is in place and operational as relevant to systemic non-conformities.
10.3 Continual improvement	No	But includes analysis of all elements of the quality management system and its scope of control, including health and safety.

2C – Overview of this NHSS in terms of industry requirements and working practices. In addition to an assessor/auditor having a general appreciation of the requirements and processes required by ISO 9001:2015 (latest issue), a CB assessor or internal auditor should be aware of the following when completing an audit:

2C1 - Safe Working Practices

2C2 - Training, qualifications, and assessment of competence

2C3 - Maintenance of equipment

2C4 - Public protection

2C5 - Environment

2C6 - Testing/inspection/workmanship

2C7 - Health and Safety

2C8 – Equal Opportunities

2C1 – Safe Working Practices

- Correct Personal Protective Equipment Worn
- Equipment approved and suitable for use
- Personnel to be fully aware of their H&S obligations
- Must be able to read and understand their job sheet, risk assessment and other relevant documents; understand English.
- Method Statements/work procedures.
- Risk Assessment.
- Induction card/skills card.
- Vehicles/loads are inspected, and drivers are qualified
- Site visit including assessment of installation (if possible) and techniques verified.
- Awareness of relevant H&S requirements as applicable to asphalt laying.
- Awareness of current best practice including temporary traffic management measures (including site arrangements).

2C2 Training, Qualifications and Assessment of Competence

- Have achieved appropriate training evidenced by appropriate certification
- Have been assessed as competent within their scope of works (e.g. scheme specific assessment/ N/SVQ)
- Been inducted on specific equipment (by employer) or if appropriate (i.e. under training) is supervised by a qualified person.
- Aware of and understand the relevant requirements of this NHSS.
- Aware of and understand the provisions for implementation of training in this NHSS.
- Been inducted on site specific H&S issues.
- Hold the relevant skills card.

2C3 Maintenance of Equipment

- Relevant personnel are aware of LOLER and PUWER requirements
- Maintenance checklists are available and have been completed as required

2C4 Public Protection

- Personnel are aware of the need to protect public during installation operations
- Relevant personnel have been trained to carry out a visual site risk assessment to ensure that the public will not be put at risk during installation/maintenance operations
- Where appropriate relevant personnel are aware of the Traffic Officer role
- Personnel have identification

Note: Public in this instance includes personnel employed by the customer/client.

2C5 Environment

Auditors should be sufficiently competent to make general observations on the effectiveness of the organization's provisions in respect of the environment and in particular management of waste and its reduction.

2C6 Inspection/ Testing/Workmanship

Auditors should be aware of the importance of inspection and testing of the product and have knowledge of the relevant tests and the information provided by the tests.

2C7 Health and Safety

Auditors should be aware of the Health and Safety at Work Etc Act 1974 and associated Health and Safety Legislation, as it applies to this sector scheme.

2C8 Equal Opportunities

Assessors/auditors should be aware of and understand the need for effective implementation of equal opportunities as it applies during the provision of services. Assessors/auditors should understand what is involved and how it can be encapsulated in company procedures.

APPENDIX H (INFORMATIVE): ORGANIZATION ACCEPTANCE and GUIDELINES for NEW ENTRANTS

1.0 Organization Acceptance

^{12/21}1.1 For work carried out on roads managed by National Highways, and their equivalent Overseeing Organisations in Wales, Scotland, and Northern Ireland, only those organizations holding a valid Certificate of Registration for work within the scope of this SSD will be accepted as complying with Clause 104 and Appendix A of the Specification for Highway Works.

1.2 For work carried out on roads managed by other highway authorities or clients, acceptance of the organization will depend on the requirements of the contract.

1.3 In the absence of assessment including a site visit within a 3-year period then evidence must be provided of site activity (e.g. site records, video recording) to ensure that registration can be maintained.

2.0 Guidelines for New Entrants - Requirements

2.1 Organizations must have the required experienced and qualified personnel and management who meet the requirements of this Sector Scheme. Organizations will need to demonstrate that their equipment and systems meet the requirements of this Sector Scheme.

2.2 Organizations must have applied for registration with a Certification Body that is accredited by UKAS to audit against this Sector Scheme. Organizations will have to demonstrate that they have been audited for office based and site-based activities.

2.3 As detailed in paragraph 4.4 of section 4 of this SSD, the organization shall record their registration to this sector scheme on the Schedule of Suppliers website <http://www.scheduleofsuppliers.co.uk> upon receipt of the certificate issued by their certification body to confirm their registration and thereafter keep their organization's information up to date.

3. Trade Associations

3.1 Membership of a trade association or other similar body is not a requirement of this Sector Scheme, however, the following organisations support this Scheme along with the training and competency routes discussed in Appendix C through membership of the Advisory Committee. Their details are included here for information.

MPA – Mineral Products Association www.mineralproducts.org

CECA – Civil engineering Contractors Association www.ceca.co.uk

BAA – British Aggregates Association www.british-aggregates.co.uk .

APPENDIX J: FEEDBACK

Appendix J1: Feedback to Advisory Committee

Any observations or feedback *relating to the content of this document*, or the process described herein should be addressed (using the form below) to:

Committee Chairperson

NHSS16 Sector Scheme Advisory Committee – See Scheme Contact in Introduction (13)

Contact details:

Name

Address

email address, telephone etc.

Issue Identified:

Suggested Action:

Date:

Signed:

Note: J1 forms should be acknowledged within one month. If no acknowledgement is received, the originator is advised to contact the Secretary of the NHSS Liaison Committee. Feedback can be responded to without the need for consideration by the NHSS committee, those requiring a more detailed response will be dealt with at the next meeting of the committee as part of the review of the document. If the J1 form contains information that is critical, then exceptionally action can be taken prior to the meeting by the chairperson, for instance by arranging an extraordinary meeting of the NHSS advisory committee. The secretary will normally advise the originator of receipt of the J1 document and when the next meeting is expected to be held.

Appendix J2: Feedback to Certification Bodies

Feedback relating to certification matters including alleged deficiencies in the product provided under this scheme should in the first instance be taken up with the organization. If the matter cannot be satisfactorily resolved written complaints should be made to the organization's certification body detailing the problem identified.

^{12/21}(Where a Conformity Assessment marked product is deficient the organization will need to a) advise the client and b) formally advise the local trading standards officer who should take appropriate action.)

(a) Organization's Details:

Name:

Address:

email address, telephone etc.

Feedback

(b) Issue Identified:

(c) Organization raising feedback / issue

Contact details:

Name

Address

email address, telephone etc.

Date:

Signed:

Appendix J3: Feedback to Client Bodies on Policing of National Highway Sector Scheme Registration

Feedback relating to policing of National Highway Sector Schemes registration matters in respect of alleged contractual mismanagement/oversights or alleged omissions in contract requirements by client organisations, their management agents or principle contractors where contracts can be or may have been awarded to organisations not registered to this National Highway Sector Scheme, or where contracts are alleged to have omitted requirements for compliance with this National Highway Sector Scheme should be referred back to the client body through an independent third party e.g. a trade association. Details of the alleged mismanagement or omission should as a minimum include the following details:

- a) Contract identified

- b)
 - i) Details of omission in contract or
 - ii) organization Identified as being awarded the contract or
 - iii) Both i) and ii) above

- c) Organization raising feedback / issue

Contact details:

Name

Address

email address, telephone etc.

- d) Date: _____ Signed: _____

^{12/21}National Highways Roads/Contracts – Route for Feedback

Feedback should be sent by email to Standards_Enquiries@highwaysengland.co.uk

Other Highway Authorities and Clients

Feedback should be sent back to the relevant project manager or head of division responsible for the contract works. Such information or relevant contact details may be available on that highway authority's or client's website.

Health and Safety Executive

Advice about reporting a concern about the application of the health and safety recommendations related to a specific incident is available at <http://www.hse.gov.uk/contact/concerns.htm>.

APPENDIX K (INFORMATIVE): THE INTERPRETATION of CERTIFICATES ISSUED by CERTIFICATION / INSPECTION BODIES

Certification Bodies (CB) issue Certificates of Registration (CoR) in a variety of styles as suits their particular house style. They may consist of a single CoR containing all the requisite information or the CoR may be a standard certificate with appendices or addendum attached providing the full scope of certification (services) and the location(s) where these services are offered by an organization. In the latter case, the CoR refers to the relevant appendices or addenda, which form an integral part of the certificate.

A valid National Highway Sector Scheme (NHSS) CoR is only issued by a CB accredited by UKAS against the relevant NHSS (See Appendix F of this document) or by another recognised equivalent accreditation body.

^{12/21}As a minimum a valid CoR will contain the following information in accordance with ISO 17021:

- The scope of registration including specific registration to ISO 9001:2015 and this NHSS including the scheme title e.g. National Highway Sector Scheme 16 – Quality Management of Asphalt Laying
- The identification of every operational unit to which the CoR is applicable.
- The services/product offered by the organization, including outsourced services, at the units identified on the CoR for NHSS 16 for asphalt laying and any applicable sub-categories.
- Logos for the NHSS, UKAS (or equivalent) and the CB.
- The name and address(es) of the organization
- The validity of the certificate (3 years for ISO 9001*)
- A unique reference number/code
- The signature of a relevant CB official with their name and title

*Note where an organization has an extension to scope to include for this NHSS, the expiry date of the certificate remains as 3 years after their initial assessment/or triennial assessment and not 3 years after obtaining the extension to their certificate i.e. the validity of the certificate will not be reset following their NHSS assessment.

^{12/21}Categories currently in NHSS 0 Suite of Scopes are:

NHSS	Activity	Primary Category (select)	Secondary Category (select)
16	Asphalt Laying	Machine Lay	Hand Lay

(Note: These lists are not exhaustive, and the description of the categories and sub-categories may vary from time to time.)

Appendix K1: NOT USED

APPENDIX L (INFORMATIVE): GUIDANCE for CLIENTS

1. General

It is recommended that Clients acknowledge the requirements of this sector scheme as a contract requirement.

This guidance is primarily of relevance to Clients and their supervisory staff.

2. Specific Guidance

2.1. The NHSS for asphalt laying was originally conceived as a document for use by Clients to specify the minimum standards for quality, training and competence of organizations used by them.

2.2. The implementation of the NHSS and development of training and competency requirements is intended to provide:

a) A competent workforce

b) Requirements to evaluate risks and develop associated processes to produce a comprehensive quality plan for each contract.

2.3. It is necessary for the organization to ensure that all those involved in asphalt laying are appropriately trained, skilled and competent, whether or not they are directly employed. The training and assessment of competency schemes described in this SSD are designed to cater for the range of skills within the overall process.

2.4. Clients and Customers that require confirmation in respect of the supply of services or products to NHSS 16 should confirm that the quality management system certificate issuer is accredited by UKAS or equivalent and that specific reference is made to the NHSS on certificates. (See Appendices F and K)

2.5. It is recommended that Clients, either directly or via the agents and individuals they employ, seek to ensure that the requirements of this document are checked. This includes checking that sub-contractors meet the requirements of NHSS16. Supervisory staff may carry out spot checks of identification/skills cards.

2.6. It is a requirement of the Scheme for Registered organizations to register to the National Highway Sector Schemes Schedule of Suppliers. Free access to the schedule is obtained by logging on to the Lantra website <http://www.scheduleofsuppliers.co.uk/> . Clients should contact Lantra Awards using the "Contact Us" page of the website to ascertain/check the status of an organization if it is not listed on the schedule.

2.7 Client check list

The following example checklist can be used to help assess the validity of contracting organization:

Pre-contract award

- 1 Is the organization listed on the Schedule of Suppliers website <http://www.scheduleofsuppliers.co.uk>
- 2 Is there an ISO 9001 certificate present?
- 3 Does the ISO 9001 certificate cover NHSS 16?
- 4 Is the Certification Body that issued the certificate accredited by UKAS for ISO9001:2015? <https://www.ukas.com/find-an-organisation/>
- 5 Is the Certification Body that issued the certificate accredited by UKAS for assessments to NHSS 16? <https://www.ukas.com/find-an-organisation/browse-by-category/?cat=2620>
- 6 If the answer to 4 or 5 is No – is the accrediting body equivalent to UKAS?
- 7 Does the scope of works of the ISO 9001 certificate (including NHSS 16) cover the actual works intended to be carried out under the contract?

Post-contract award

1. Confirm validity of skills / registration cards (skills and in date) of personnel
2. Assess ongoing performance of the organization (including sub-contractors) in relation to the scope of the works

12/213 Road Death Investigation

Attention is drawn to the 'Road Death Investigation Manual' (available from College of Policing), which indicates that in the advent of a collision or other road incident particularly one where there has been a fatality or serious injury, the police may ask the relevant highway authority to provide information on the state of the road.

In respect of this National Highway Sector Scheme information that is likely to be sought includes the following:

- a) High level general policy statements
- b) Specific local maintenance policies and standards
- c) Authority procedures
- d) Works records including the results of any test carried out
- e) The quality of systems for traffic management
- f) Skidding resistance testing

An Authority may be required to present data to the Police at short notice in case of a fatality on the network. It should ensure that it has, or can obtain, the relevant information. Reference may be made to (Formerly) Highways Agency IAN166 (Archived at: https://www.standardsforhighways.co.uk/ha/standards/ians/pdfs/ian166_14.pdf) and Chief Highway Engineer's Memo 464/20 for further guidance.

4 Corporate Manslaughter and Corporate Homicide Act 2007

Advice from HSE regarding corporate manslaughter and corporate homicide is available on the HSE website, the following extract has been copied from the HSE website. <http://www.hse.gov.uk/corpmanslaughter/about.htm>

"The Corporate Manslaughter and Corporate Homicide Act 2007 is a landmark in law. For the first time, companies and organisations can be found guilty of corporate manslaughter as a result of serious management failures resulting in a gross breach of a duty of care.

The Act, which came into force on 6 April 2008, clarifies the criminal liabilities of companies including large organisations where serious failures in the management of health and safety result in a fatality.

- The Ministry of Justice leads on the Act and more information is available on its Corporate Manslaughter and Corporate Homicide Act 2007 webpage.

HSE welcomes and supports the Act. Although the new offence is not part of health and safety law, it will introduce an important new element in the corporate management of health and safety.

Prosecutions will be of the corporate body and not individuals, but the liability of directors, board members or other individuals under health and safety law or general criminal law, will be unaffected and the corporate body itself and individuals can still be prosecuted for separate health and safety offences.

The Act also largely removes the Crown immunity that applied to the previous common law corporate manslaughter offence. This is welcome, and consistent with Government and HSE policy to secure the eventual removal of Crown immunity for health and safety offences. The Act provides a number of specific exemptions that cover public policy decisions and the exercise of core public functions.

Companies and organisations should keep their health and safety management systems under review, in particular, the way in which their activities are managed and organised by senior management. The Institute of Directors and HSE have published guidance for directors on their responsibilities for health and safety. 'Leading health and safety at work: leadership actions for directors and board members' (INDG417).

For specific questions about the act and guidance:

- Ministry of Justice

For health and safety information and answers to specific health and safety questions contact HSE <https://www.hse.gov.uk/contact/contact.htm>

APPENDIX M: GUIDANCE for ORGANIZATIONS

NOT USED

APPENDIX N (INFORMATIVE): GUIDANCE on the RELATIONSHIP BETWEEN THIS NHSS and OTHER NHSS'S

As Temporary Traffic Management is likely to be a consideration in asphalt laying operations, the training and competency of personnel carrying out such work needs to be considered.

Guidance for organizations certificated to this Scheme, but not for any of the Sector 12 Schemes for Temporary Traffic Management, can be found in Appendix M of the Sector 12 Scheme Documents (available to download from : <https://www.scheduleofsuppliers.co.uk/node/64>).

APPENDIX O (INFORMATIVE) - HOW to REGISTER on the SCHEDULE of SUPPLIERS

The process for registering on the Schedule of Suppliers is outlined in the Supplier User Guide found on the Schedule of Suppliers website: <https://www.scheduleofsuppliers.co.uk/node/61>

APPENDIX Z: DOCUMENT CONTROL (PREVIOUS ISSUES)

Previous SSD (non-current) Issue Statement

<p>Issue 1 [9001:2015] May 2017</p>	<p>First Issue</p> <p>This Sector Scheme is one of the series of NHSSs, which are bespoke integrated management schemes within an ISO 9001:2015 framework that have been developed to define particular requirements within BS EN ISO 9001:2015 as it applies to an activity/industry within the United Kingdom.</p> <p>Note: This document has been produced to supersede the UKAS Issue 6 version (which relates to BS EN ISO 9001:2008), however the UKAS Issue 6 version (or an updated version of this) will continue to have validity until September 2018 when the 2008 version of BS EN ISO 9001 will become obsolete.</p>
<p>Issue 2 & 2.1 [9001:2015] May 2019</p>	<p>Revision / deletion of guidance previously provided on National Occupational Standards connected to Qualifications due to potential confusion and conflicts e.g. under Rules of Combination.</p> <p>Some editorial amendment (highlighted by sidebar).</p>

Issue history for revisions of the SSD to versions of ISO 9001 prior to ISO 9001: 2015

1	March 2004	1 st Issue
2	February 2006	Amendments to identification of organisation representatives, update of list of accredited Certification Bodies, note on notification of Certification (App H), guidance on use of Appendix J, new Appendix K.
3	January 2007	No amendments to technical content - mainly editorial and formatting amendments. Update on list of accredited Certification Bodies.
4	August 2007	Various editorial and technical amendments and addition of new Appendix L
5	Jan 2011	New Appendix C1, G1, J3. Other editorial amendments to ensure extant references.
6	July 2013	Additional guidance on competence requirements.