

QUALIFICATION HANDBOOK

SVQ in Road Building and Maintenance (Construction) at SCQF Level 5

Qualification reference number: GM3F 45

Contents

Page

1. Introduction	3
2. Qualification objective(s)	3
3. Progression	4
4. Entry requirements	4
5. Qualification structure	5
6. Assessment	13
7. Assessors	16
8. Internal verification	17
9. Internal verifiers	18
10. External verification	18
11. Certification	18
12. Equality and diversity	19
13. Fees	19

Appendices

Appendix 1 – Candidate template documents	20
Appendix 2 – Units	21
Appendix 3 – Assessment template documents	259
Appendix 4 – Assessor template documents	265
Appendix 5 – Internal Verifier template documents	267

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1. Introduction

1.1 This qualification has been developed to seek to ensure that those that wish to seek employment within road building and maintenance at an operative level meet minimum requirements of technical competence and health and safety. It replaces the following qualifications:

- SVQ in Construction Operations and Civil Engineering Services (Construction)

Road Building at SCQF Level 5

- SVQ in Construction Operations and Civil Engineering Services (Construction)

Highways Maintenance at SCQF Level 5

1.2 These requirements have been specified in the National Occupational Standards (NOS) developed by the Sector Skills Council (SSC) Construction Skills in liaison with employers and industry/ sector representatives. This qualification is based upon those NOS and incorporates the Qualification Structure approved by SQA Accreditation.

1.3 Successful completion of this qualification will allow candidates to show they have sufficient knowledge, understanding and skills to demonstrate competence in road building and maintenance in relation to their chosen pathway.

1.4 This Handbook provides the information required to assist approved centres in delivering the qualification and preparing candidates for assessment. This includes some template forms that may be used / adapted by centres. Note that you are able to create your own, or use existing forms for this purpose.

This document should be read in conjunction with QFI's policies and the Centre Handbook.

2. Qualification objective(s)

2.1 The qualification is suitable for apprentices / those already in employment that wish to develop their knowledge and skills in road building and maintenance.

2.2 In order to do this, the qualification covers technical and health and safety standards, and supports roles relating to road building and maintenance.

3. Progression

3.1 This qualification is primarily designed to allow candidates to progress to employment in roles relating to road building and maintenance. Successful completion of this qualification may therefore lead to employment as a road builder and maintenance operative.

3.2 Candidates may complete a number of optional routes from this qualification with regards to a range of techniques or machinery. These fall under three main headings:

- Manual Road Building option routes
- Road Maintenance option routes
- Road Building and Maintenance Plant option routes

3.3 Completion of a number of pathways will enable the candidate to become multi-skilled, which may increase employment/ progression opportunities.

3.4 Candidates achieving this qualification may also wish to progress to higher level qualifications such as those aimed at supervisory/ management roles, e.g.

- SVQ 3 Occupational Work Supervision (Construction) SQCF Level 6
- SVQ 3 Construction Contracting Operations SCQF level 6

3.5 Candidates may also choose to undertake qualifications in more generic subjects such as a health and safety in the workplace, e.g.

- Level 1 Award in Health and Safety in a Construction Environment (QCF)
- Award in Health and Safety in a Construction Environment (SCQF level 4).

4. Entry requirements

4.1 Candidates must be at least 18 years of age to be able to undertake this qualification.

4.2 Those that will be driving construction vehicles as part of their chosen pathway/ additional units must hold a full driving licence.

4.3 There are no other specific entry requirements, though the National Careers Service does recommend physical fitness.

4.4 Candidates taking this qualification must be made fully aware of what this entails. Centres must be satisfied that candidates have the experience and skills and will have sufficient assessment opportunities within their job role to provide evidence of competence for this qualification. Where this may not be the immediate case, candidates should check with their employer whether they are able to go out with departmental or immediate job role boundaries to gain the necessary assessment opportunities.

4.5 A sample induction checklist is included at Appendix 1.

5. Qualification structure

5.1 The structure for this qualification is set by the Sector Skills Council Construction Skills and approved by SQA Accreditation.

5.2 To achieve this qualification candidates must achieve:

- 2 mandatory units
- The mandatory unit(s) within their chosen optional route
- The minimum number of optional units within their chosen optional route (where optional units are available for specific routes)

5.3 Candidates may also take additional optional units

SSC/B Code	Mandatory/ Optional/ Additional Unit	Unit Title	SCQF Level	SCQF Credit
COSVR641 v2	Mandatory	Conform to general workplace health, safety and welfare	6	12
COSVR642 v1	Mandatory	Conform to productive work practices	5	5
Manual Road Building Option Routes:				
Slurry Surfacing (manual) Option Route (Total 3)				
COSVR383 v5	Mandatory	Apply specialist pavement surfacing materials manually	5	32
High Friction Surfacing (manual) Option Route (Total 3)				
COSVR383 v5	Mandatory	Apply specialist pavement surfacing materials manually	5	32
Crack and Joint Repair (manual) Option Route (Total 3)				
COSVR383 v5	Mandatory	Apply specialist pavement surfacing materials manually	5	32
Thermal Repair (manual) Option Route (Total 3)				
COSVR383 v5	Mandatory	Apply specialist pavement surfacing materials manually	5	32
Flexible Pavement Construction (manual) Option Route (Total 5)				

COSVR375 v3	Mandatory	Lay flexible pavement materials	5	14
COSVR401 v2	Mandatory	Set out secondary dimensional control work	5	7
Plus one other from the Manual Road Building option list below				
Modular Pavement Construction Option Route (Total 5)				
COSVR367 v3	Mandatory	Lay modular pavement	5	14
COSVR400 v2	Mandatory	Operate powered units, tools or pedestrian plant, machinery or equipment	5	7
COSVR401 v2	Mandatory	Set out secondary dimensional work control	5	7
Laying Kerbs and Channels Option Route (Total 5)				
COSVR368 v3	Mandatory	Lay preformed kerbs and channels	5	14
COSVR401 v2	Mandatory	Set out secondary dimensional work control	5	7
Plus one other from the Manual Road Building option list below				
Pavement Marking (manual) Option Route (Total 3)				
COSVR377 v4	Mandatory	Apply and remove pavement markings manually	5	35
Excavation and Reinstatement Option Route (Total 5)				
COSVR373 v5	Mandatory	Form and finish excavations manually	5	10
COSVR374 v4	Mandatory	Reinstate trenches in paved surfaces	5	12
Plus one other from the Manual Road Building option list below				
Excavation Option Route (Total 4)				
COSVR373 v5	Mandatory	Form and finish excavations manually	5	10
Plus one other from the Manual Road Building option list below				

Reinstatement Option Route (Total 4)				
COSVR374 v4	Mandatory	Reinstate trenches in paved surfaces	5	12
Plus one other from the Manual Road Building option list below				
Locate and Excavate Utilities Option Route (Total 5)				
COSVR372 v4	Mandatory	Identify and mark the location of utilities apparatus and sub-structures	5	12
COSVR782 v1	Mandatory	Locate and excavate to expose buried utility services	5	13
Plus one other from the Manual Road Building option list below				
Street Ironwork Option Route (Total 4)				
COSVR366 v3	Mandatory	Install street ironwork (metal, plastic, concrete and composite materials)	5	9
Plus one other from the Manual Road Building option list below				
Manual Road Building Option List				
COSVR45 v3	Optional	Place and finish non-specialist concrete	5	12
COSVR360 v4	Optional	Install, maintain and remove work area protection and safety equipment	5	10
COSVR361 v3	Optional	Cut, drill and shape construction related materials	4	12
COSVR363 v3	Optional	Prepare and mix construction related materials	4	14
COSVR365 v4	Optional	Segregate the area for highways works	5	12
COSVR366 v3	Optional	Install street ironwork (metal, plastic, concrete and composite materials)	5	9
COSVR370 v4	Optional	Install, maintain and remove temporary excavation support	5	16
COSVR372 v4	Optional	Identify and mark the location of utilities apparatus and sub-structures	5	12
COSVR374 v4	Optional	Reinstate trenches in paved surfaces	5	12

COSVR391 v2	Optional	Operate plant or machinery to receive and transport loads	5	16
COSVR394 v2	Optional	Operate plant or machinery to compact	5	16
COSVR396 v2	Optional	Direct and guide the movement of vehicles, plant or machinery	5	15
COSVR400 v2	Optional	Operate powered units, tools or pedestrian plant, machinery or equipment	5	7
COSVR401 v2	Optional	Set out secondary dimensional work control	5	7
COSVR402 v2 (A)	Optional	Slings and hand signalling the movement of suspended loads	5	10
COSVR639 v3	Optional	Install drainage	5	19
COSVR643 v1	Optional	Move, handle or store resources	5	5
COSVR760 v1	Optional	Control, direct and guide the operation of plant or machinery	5	18
COSVR782 v1	Optional	Locate and excavate to expose buried utility services	5	13
Road Maintenance Option Routes:				
Maintenance Response Team Operations Option Route (Total 5)				
COSVR536 v5	Mandatory	Prepare maintenance response teams' vehicles	5	6
COSVR537 v3	Mandatory	Respond to and assist with road-related incidents	5	9
COSVR538 v4	Mandatory	Install and remove emergency temporary traffic management	5	8
Vehicle Fencing Option Route (Total 4)				
Fe8	Mandatory	Excavate, prepare and form foundations for vehicle restraint systems	These units have not been credit levelled and weighted	
Fe9	Mandatory	Place and fix vehicle restraint systems		

Pavement Marking (Road Studs) Option Route (Total 3)				
COSVR378 v3	Mandatory	Install and remove permanent road studs	5	29
Road Building and Maintenance Plant Option Routes:				
Flexible Paving (machine) Option Route (Total 3)				
COSVR772 v1	Mandatory	Operate and control operations of road plant, machinery or equipment for laying flexible and semiflexible paving materials	5	49
Rigid Paving (machine) Option Route (Total 3)				
COSVR773 v1	Mandatory	Operate and control operations of road plant, machinery or equipment for laying rigid paving	5	49
Slurry Micro-surfacing (machine) Option Route (Total 3)				
COSVR774 v1	Mandatory	Operate and control operations of road plant, machinery or equipment for laying slurry micro-surfacing	5	49
Surface Dressing (machine) Option Route (Total 3)				
COSVR775 v1	Mandatory	Operate and control operations of road plant, machinery or equipment for laying surface dressing	5	22
High Friction Surfacing (machine) Option Route (Total 3)				
COSVR776 v1	Mandatory	Operate and control operations of road plant, machinery or equipment for laying high friction surfacing	5	49
Planing (machine) Option Route (Total 3)				
COSVR777 v1	Mandatory	Operate and control operations of road plant, machinery or equipment for planing or milling operations	5	49
Road Recycling (machine) Option Route (Total 3)				

COSVR778 v2	Mandatory	Operate and control operations of specialist road plant, machinery or equipment for in-situ structural road recycling operations	5	49
Soil Stabilisation (machine) Option Route (Total 3)				
COSVR779 v2	Mandatory	Operate and control operations of road plant, machinery or equipment for soil stabilisation	5	49
Surface Retexturing (machine) Option Route (Total 3)				
COSVR780 v1	Mandatory	Operate and control operations of road plant, machinery or equipment for surface re-texturing	5	22
Pavement Marking (machine) Option Route (Total 3)				
COSVR781 v2	Mandatory	Operate and control operations of road plant, machinery or equipment for pavement marking	5	49
Road Sweeping Option Route (Total 3)				
COSVR761 v1	Mandatory	Operate plant or machinery to sweep, clean or clear	5	13

Endorsements

Where industry requests qualifications can be endorsed to show an option route and the type of resources and/or activities that relate to the unit. Listed below are the endorsements that can apply for units derived from the following NOS.

Where industry requests QFI to further endorse a unit, QFI must first seek approval from the Standards Setting Body to ensure the endorsement is appropriate to the unit.
Note that no further endorsements can be made without the approval of ConstructionSkills Sector Skills Council.

Contact QFI if there are other endorsements that you feel may be required and we will discuss with ConstructionSkills.

SSC/B Code	Unit title
VR45	Three of the following: Concrete slabs/bases; Form slab edging; Position reinforcement; Form surface finish
VR360	Own area of work (i.e. Manual road building) Plus one of the following: Flexible pavement construction; Modular pavement construction; Laying kerbs and channels; Excavation and reinstatement; Locate and excavate utilities; Street ironwork

VR365	Own area of work (i.e. Manual road building)
VR366	One of the following: New; Reinstatement
VR367	Own area of work (i.e. Manual road building) Plus two of the following: Block paving; Brick paving; Stone and/or concrete setts; Flags; Natural stone rough cut; Natural stone uniformly cut
VR370	Own area of work (i.e. Manual road building) Plus one of the following: Proprietary system; Open and closed support system; Piling systems; Bespoke support system
VR372	Own area of work (i.e. Manual road building)
VR373	Own area of work (i.e. Manual road building)
VR374	Own area of work (i.e. Manual road building) Plus one of the following: Bituminous materials; Sealants and emulsions; Concrete; Modular structures
VR377	Own area of work (i.e. Manual road building) Plus one of the following: Permanent markings; Temporary markings
VR378	Own area of work (i.e. Manual road building) Plus two of the following: Inset milled stud; Inset drilled stud; Fixed surface mounted studs; Stud maintenance
VR383	Own area of work (i.e. Manual road building) One of the following: Slurry surfacing; High friction (cold applied); High friction (hot applied); Resin bonded; Thermal patch repair; Crack and joint repair
VR391	One of the following: Forward tipping dumper wheeled; Forward tipping dumper tracked
VR394	Ride on roller
VR396	Movement guide marshaller Loader/securer
VR400	One of the following: Generators; Pumps; Pedestrian operated plant or machines; Mixers; Compressors; Self-powered tools
VR401	Three of the following: Line; Level; Depth; Area; Height; Angle
VR402	Slinger Signaller 'Occupation specific' only (own area of work: i.e. Manual road building)
VR538	One of the following: High speed roads; Rural and urban roads
VR639	Own area of work (i.e. Manual road building) Plus one of the following: Inspection chamber; Surface water system; Foul water system
VR760	Operations guide banksman Plus: Manual road building
VR761	One of the following: Road sweeper; Pavement sweeper; Self-propelled sweeper; Pedestrian controlled sweeper; Gully cleaner; Gully sucker; Pedestrian controlled cleaner
VR772	Own area of work (i.e. Road building and maintenance plant) Plus one of the following: Paver screwmán; Paver; Roller; Chipping machine; Loader compressor; 180 degree Excavator; Spray tanker; Geosynthetic installation equipment; Spray injection
VR773	Own area of work (i.e. Road building and maintenance plant)

	Plus one of the following: Feed machine; Paver screwman; Paver; Finishing beam or float; Reinforcement placement equipment; Spray; Texturing and/or curing machine; Horizontal travel slip form machine operator
VR774	Own area of work (i.e. Road building and maintenance plant) Plus one of the following: Applicator steersman; Applicator; Slurry supply tanker; Tipper grab; Roller
VR775	Own area of work (i.e. Road building and maintenance Plant) Plus one of the following: Spray tanker; Self-propelled chipping machine; Tailboard chipping machine; Combined spray tanker and chipping machine; Spray bar; Tipper grab; Loading shovel; Roller
VR776	Own area of work (i.e. Road building and maintenance plant) Plus one of the following: Heating pot; Tanker; Spray bar; Chipper machine
VR777	Own area of work (i.e. Road building and maintenance plant) Plus one of the following: Wheeled planing and/or milling machine up to 1 metre; Tracked planing and/or milling machine up to 1.5 metre; Tracked planing and/or milling machine over 1.5 metre
VR778	Own area of work (i.e. Road building and maintenance plant) Plus one of the following: Pulveriser, recycling machine; Combination in-situ recycling machine; Bulk binder spreader machine; Tanker truck; Motor grader; Roller
VR779	Own area of work (i.e. Road building and maintenance plant) Plus one of the following: Combination soil stabilisation machine; Mixer machine; Bulk binder spreader machine; Tilling machine; Self-propelled water bowser; Towed water bowser; Roller
VR780	Own area of work (i.e. Road building and maintenance plant) Plus one of the following: Bush hammering machine; Grooving machine; Flailing machine; High pressure jetting machine; Shot blasting machine; Planning or milling machine; Grinding machine
VR781	Own area of work (i.e. Road building and maintenance plant) Plus one of the following: Applicator steersman; Applicator; Feeder vehicle

Although they may be achieved using alternative plant in other SVQs, Units 391 and 394 have limited endorsements for this SVQ (see above).

Each of the above is credit rated at 16 credits.

6. Assessment

6.1 Roles and responsibilities

There are a number of people involved in the assessment process and the role of each needs to be clearly understood by each.

- Candidates – must familiarise themselves with the content of the units that they are taking and how these are to be assessed. They should co-operate with the assessment process, looking for opportunities to evidence the elements and gathering evidence where this arises. Candidates must take on board feedback from their assessor and work with their assessor to develop realistic plans for assessment. An Assessment Plan and Review template is included at Appendix 3.
- Assessors - must familiarise themselves with the content of the units that they are assessing and how these are to be assessed. They must assist candidates in identifying assessment opportunities, gathering, and presenting evidence. Assessors must assess all elements and record these assessments. Templates for recording elements, and for unit achievement, are at Appendix 4. Assessors must feedback and work with candidates to identify any gaps and develop realistic plans for assessment. They must also work with the Internal Verifier and External Verifier to ensure a common standard of assessment.
- Internal Verifiers – sometimes known as Internal Quality Assurers (IQAs), their role is to ensure that the assessment process is appropriate, consistent, fair and transparent; that assessors receive on-going support and that they are assessing to a common standard; and that awards are valid, reliable and consistent. IVs must develop a strategy that includes standardisation activities such as reviewing samples of evidence from each assessor, and countersigning the decisions of unqualified assessors.
- External Verifiers - sometimes known as External Quality Assurers (EQAs), are appointed by QFI and are independent of the centre. Their role is to check that internal processes are in place to ensure robust, consistent assessment. This includes sampling assessment evidence.

6.2 SCQF level 5 descriptors

This qualification is pitched at SVQ level 2/ SCQF level 5. The following are descriptions of what a candidate should be able to do or demonstrate at SCQF level 5. These are for guidance only – it is not expected that every point will be covered.

Knowledge and understanding

Demonstrate and/or work with: Basic knowledge; A range of simple facts, ideas and theories in, about, and associated with, a subject/discipline/sector; Knowledge and understanding of basic processes, materials and terminology.

Applied knowledge, skills and understanding

Relate knowledge and ideas to personal and/or practical contexts; Use a range of skills associated with the subject/discipline/sector to complete some routine and non-routine tasks; Plan and organise both familiar and unfamiliar tasks; Select appropriate tools and materials and use them safely and effectively; Adjust tools where necessary following safe practices.

Generic cognitive skills

Use a process to deal with a problem, situation or issue that is straightforward; Operate in a familiar context, but where there is a need to take account of or use additional information of different kinds, some of which will be theoretical or hypothetical.

Communication, IT and numeracy skills

Use a range of routine skills, for example: Produce and respond to detailed written and oral communication in familiar contexts; Use standard ICT applications to process, obtain and combine information; Use a range of numerical and graphical data in routine contexts that may have some non-routine elements.

Autonomy, accountability and working with others

Work alone or with others on tasks with minimum directive supervision: Agree goals and responsibilities for self and/or work team; Take lead responsibility for some tasks; Show an awareness of own and/or others' roles, responsibilities and requirements in carrying out work and contribute to the evaluation and improvement of practices and processes.

6.3 The assessment process

Assessment for this qualification, and for individual units that comprise the qualification, must take place in accordance with *Construction Skills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs) (December 2016)*

This document translates the requirements of the assessment strategy and gives guidance to ensure that centres meet these. Centres delivering the qualification must ensure that assessors and Internal Verifiers are aware of the assessment strategy and how to access this. External Verifiers may check this requirement during monitoring visits to centres.

Assessment involves the following key stages: planning; producing evidence; assessing evidence; recording. Each of these is considered in more detail below.

6.3.1. Planning

The assessor must create an Assessment Plan with each candidate that he/ she will be assessing. The Assessment Plan will need to be reviewed as the candidate progresses through the units. A template for assessment planning and review is at Appendix 3 of this document.

A wide range of assessment methods exist that can be used to assess knowledge and skills. Methods of assessment that are commonly used for assessing competence based qualifications such as N/SVQs include the following:

- Product evidence – this relates to the outcome of the candidate's work, and the actual product that is generated as a result of their work.
- Direct observation – where an assessor (or credible witness) will directly observe the candidate undertaking certain tasks/ creating products that occur as part of their role. Observations must be referenced to the elements covered
- Question/ answer – these will often supplement the methods above, for example the assessor may ask the candidate a number of questions whilst they are undertaking a task. Questioning is a useful way to establish knowledge and to generate evidence of this
- Witness testimony – credible witnesses may be identified who can for example testify that the candidate can successfully undertake certain tasks
- Personal statement – declaration made by the candidate that should be referenced to elements

Centres should ensure that their Assessors use the methods above to assess candidates for this qualification.

Template assessment documents including an Assessor Report can be found at Appendix 3.

6.3.2 Producing evidence

The methods of assessment must generate evidence to demonstrate the candidates' competence. Evidence produced in the workplace is central to Construction Skills Consolidated Assessment Strategy. Workplace evidence is vital to ensuring that the candidate is competent to industry standards and a suitable way of recording this must be used.

The following indicates the type of evidence generated by the methods on the section above:

- Product evidence –Photographic or video evidence is often used to record this, or it may also be recorded via the method below. Labelled photographs and/or videos that clearly show the candidate are sources of evidence for this purpose.
- Direct observation –observations must be recorded via an Assessor or other report (e.g. witness statement)
- Question/ answer –both the questions and the candidate's responses to these must be recorded either in writing or via some audio or visual device (e.g. part of a video recording).
- Witness testimony – this may be written, audio or visual recordings
- Personal statement – the declaration made by the candidate must be recorded

All of the above must be referenced to the evidence that they cover

Templates that may be used for recording evidence are at Appendix 3.

Feedback should be given to the candidate on an on-going basis and where there are any gaps or shortfalls in evidence then these should be incorporated into the Assessment Plan.

Assessment must meet the requirements of the performance criteria, knowledge and understanding documented for each unit of assessment. Methods of assessment must ensure coverage of all elements, scope and range, and generate sufficient evidence to demonstrate competence.

A holistic approach towards the collection of evidence is encouraged. The focus should be on assessing activities generated by the whole work experience rather than focusing on specific tasks. This would show how evidence requirements could be met across the qualification to make the most efficient use of evidence.

Direct evidence produced through normal performance in the workplace is the primary source for meeting these requirements. This includes naturally occurring evidence, direct observation of activities and witness testimony as relevant, all of which must be recorded.

Workplace evidence must be supported by the required evidence of knowledge and understanding. This evidence may be identified by:

- questioning the candidate
- recognised industry education and training programme assessment or professional interview assessment that has been matched to NOS requirements
- performance evidence/ completed work

All of which must be recorded and made available for verification purposes.

Workplace evidence of skills cannot be simulated for this qualification.

6.3.3 Assessing evidence

Evidence must be assessed against the units/ elements to establish whether the candidate is competent with regards to their performance and knowledge. In order to achieve the qualification candidates must achieve a 'pass'. The evidence must show that the candidate consistently (i.e. on more than one occasion) meets all of the elements across the scope/range of each unit.

If there is insufficient evidence to make this judgement then plans must be made as to how the candidate can produce further evidence in order to demonstrate competence.

Assessors must check that the evidence produced is sufficient in volume, relevant and current. They must also be confident that the evidence has been generated by the candidate. Assessors and candidates normally sign documentation to declare that the evidence produced is that of the candidate and no other.

6.3.4 Recording evidence

Evidence (or reference to where certain evidence is located) is normally kept in a portfolio. This may be paper-based or electronic. All evidence contained within the portfolio must be clearly referenced to the units and elements. Candidates' progress can therefore be tracked. Note that certain pieces of evidence can be recorded across more than a single element. Tracking is important to show where this is that case.

It is helpful to give each piece of evidence a number so that this can be mapped across elements. See the template forms at Appendix 4. Assessment decisions made against the evidence must also be recorded so that an IV or an EV can see these. All evidence must be kept for internal and external verification.

7. Assessors

7.1 The occupational competence of assessors is defined in '*Construction Skills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs) (December 2016)*

7.2 The roles and responsibilities of assessors is outlined in the section above. Assessors must competent to perform their role and either hold the qualifications needed to carry out assessment – or achieve within 18 months of commencing their role:

- D32 or D33
- A1
- Level 3 Award in Assessing Competence in the Work Environment
- Level 3 Award in Assessing Vocationally Related Achievement
- Level 3 Certificate in Assessing Vocational Achievement
- an appropriate Assessor qualification as identified by SQA Accreditation

Assessors must also:

- have a sound, in-depth knowledge of, and uphold the integrity of, the relevant NOS and Assessment Strategy to enable them to carry out assessment to the standards specified
- have the occupational expertise (craft/ trade specific) before commencing their role so they have up to date experience, knowledge and understanding of the particular aspects of work they are assessing
- only assess in their acknowledged area of occupational competence
- maintain the currency of this for the duration of their role
- know QFI's requirements for recording assessment decisions and maintaining assessment records

7.3 Holders of A1 and D32/33 must assess to the current National Occupational Standards (NOS) for Learning and Development.

7.4 Assessors must be registered with QFI. The **Centre Handbook** provides details.

7.5 The assessment decisions of unqualified assessors must be countersigned by the IV.

8. Internal verification

8.1 Centres' internal assessment processes and practices must be effective and support the integrity and consistency of the qualification. This is achieved through the internal quality assurance that is undertaken by the approved centre, and the external quality assurance that is undertaken by QFI. Centres must operate explicit, written internal quality assurance procedures to ensure:

- the accuracy and consistency of assessment decisions between assessors operating at the centre
- that assessors are consistent in their interpretation and application of the qualifications or unit(s) learning outcomes

8.2 Centres must appoint IVs who will be responsible for:

- regular sampling evidence of assessment decisions made by all assessors across all aspects of assessment for the qualification. Sampling must include direct observation of assessment practice
- maintaining up-to-date records of IV and sampling activity (what was evidence was sampled or assessors / IV observed where there is more than one) and ensuring that these are available for external quality assurance
- establishing procedures to ensure that all assessors interpret the learning outcomes in the same way
- monitoring and supporting the work of assessors
- facilitating appropriate staff development and training for assessors
- providing feedback to the EV on the effectiveness of assessment
- ensuring that any corrective action required by QFI is carried out within agreed timescales.

8.3 Centres must ensure that the decisions of unqualified IVs are checked, authenticated and countersigned by an IV who is appropriately qualified and occupationally expert. QFI will monitor a centre's compliance with these requirements through monitoring visits and certification claims.

8.4 The IV is also responsible and accountable for arranging the checking and countersigning process. IVs may verify only evidence that they did not assess themselves. Further guidance on internal quality assurance/verification is provided in the **Centre Handbook**. Appendix 5 of this document indicates suggested content for an IV strategy, and a template for sampling assessment evidence.

9. Internal verifiers

9.1 The occupational competence of IVs is defined in '*Construction Skills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs) (December 2016)*

9.2 The roles and responsibilities of IVs is outlined above. IVs must be competent to perform their role and either hold the qualifications needed to carry out internal verification – or achieve within 18 months of commencing their role:

- D34
- V1
- Level 4 Award in the Internal Quality Assurance of the Assessment Process and Practice
- Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Process and Practice
- an appropriate Internal Verifier qualification as identified by SQA Accreditation

9.3 It is strongly recommended that IVs also hold assessor qualifications (see section above).

9.4 Holders of V1/D34 must quality assure to the current National Occupational Standards (NOS) for Learning and Development.

9.5 IVs must be registered with QFI. The **Centre Handbook** provides details.

10. External verification

10.1 External verification of this qualification ensures that the requirements are met for the *Construction Skills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs) (December 2016)*

10.2 Centre visits will normally take place on an annual basis, though these could be more frequent if deemed necessary as a result of QFI's risk assessments. The **Centre Handbook** provides further details on external verification including to prepare for centre visits.

QFI's appointed External Verifiers meet the requirements of the assessment strategy.

11. Certification

- 11.1 Note that there is a lapsing period of two years for this qualification. This means that when the qualification expires, is withdrawn or replaced by a revised version, candidates registered have two years from the expiry date in which to complete the qualification. This will allow sufficient time for candidate's to compete and allow for currency of evidence.

12. Equality and diversity

12.1 This qualification must be assessed in English.

12.2 Assessment must be inclusive and where appropriate reasonable adjustments made to ensure equality of access in line with QFI's Equality and Diversity Policy. Full details are included in the QFI Centre Handbook.

12.3 Special consideration is not normally given for competence based qualifications as it is necessary for candidates to demonstrate that they have the necessary skills and knowledge to achieve the qualification and operate safely in the workplace.

12.4 Equality data will be collected at the point of registration. This is for monitoring purposes only and will include age, gender, ethnicity, and disability.

13. Fees

13.1 The current fees for this qualification, and for individual units, are included in the QFI Fees and Invoicing document. This document also details what is/ is not included in fees.

13.2 Fees may be broken down to a reasonable level upon request to QFI.

APPENDIX 1 - CANDIDATE TEMPLATE DOCUMENTS

Sample Form Induction checklist

This document indicates what may be covered as part of a candidate's induction. This list is not exhaustive.

	Tick
Qualification information: <ul style="list-style-type: none"> • Units • Structure • Summary of assessment • Awarding body 	
Roles and responsibilities: <ul style="list-style-type: none"> • Candidate • Assessor • Internal Verifier • External Verifier 	
Training and assessment process: <ul style="list-style-type: none"> • Planning • Collection of evidence (including methods) • Review of evidence • Feedback on evidence • Verification of evidence • Certification 	
Policies: <ul style="list-style-type: none"> • Complaints • Appeals • Malpractice • Data protection • Health and safety • Equality (including reasonable adjustments/ additional support) 	
Forms: <ul style="list-style-type: none"> • Enrolment • Other 	
<p>I confirm that I have received this induction and the associated documents:</p> <p>Candidate name:</p> <p>Candidate signature:</p> <p>Date:</p>	

APPENDIX 2

Units

COSVR641

Conform to general workplace health, safety and welfare

Overview

This standard, in the context of your occupation and work environment, is about awareness of relevant current statutory requirements and official guidance; responsibilities, to self and others, relating to workplace health, safety and welfare; personal behaviour and security in the workplace.

Performance criteria

You must be able to:

- P1 comply with all workplace health, safety and welfare legislation requirements at all times
- P2 recognise hazards, associated with the workplace, that have not been previously controlled, and report them in accordance with organisational procedures
- P3 accept responsibility for, and comply with, organisational policies and procedures in order to contribute to health, safety and welfare
- P4 comply with and support all organisational security arrangements and approved procedures.

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Workplace health, safety and welfare

- K1 what and why health, safety and welfare legislation is relevant to the occupational area
- K2 what health, safety and welfare legislation notices and warning signs are relevant to the occupational area and associated equipment
- K3 how to comply with control measures identified by risk assessments and safe systems of work



K4 why, when and how health and safety control equipment should be used

You need to know and understand:

Performance Criteria 2

Recognition of hazards

K5 the hazards associated with the work environment

K6 how changing circumstances can create hazards

K7 the method of reporting hazards in the workplace

You need to know and understand:

Performance Criteria 3

Organisational policies and procedures

K8 what the organisational policies and procedures are for health, safety and welfare

K9 how to take active responsibility for health, safety and welfare

K10 how individual actions and behaviour may affect others

K11 what the types of fire extinguishers are and how and when they are used

You need to know and understand:

Performance Criteria 4

Security arrangements

K12 how security arrangements are implemented in the workplace

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 avoidance of risk by complying with given information relating to the following

1.1 induction

1.2 briefings

1.3 application of prior training (safe use of health and safety control equipment)

2 adherence to statutory requirements and/or safety notices and warning signs displayed in the workplace or on equipment

Performance Criteria 2

3 hazards created by changing circumstances in the workplace are reported

Performance Criteria 3

4 show personal behaviour which demonstrates active responsibility for general workplace health, safety and welfare

5 comply with organisational policies and procedures relating to the following

5.1 consideration of others

- 5.2 interpretation of given instructions to maintain safe systems of work
- 5.3 contributing to discussions (offer and provide feedback)
- 5.4 maintaining quality working practices
- 5.5 contributing to the maintenance of workplace welfare facilities
- 5.6 storage and use of equipment provided to keep people safe
- 5.7 disposal of waste and/or consumable items

Performance Criteria 4

- 6 comply with organisational procedures for maintaining the security of the workplace
 - 6.1 during the working day
 - 6.2 on completion of the day's work
 - 6.3 from unauthorised personnel (other operatives and/or the general public)
 - 6.4 from theft

Scope/range related to knowledge and understanding

Fire extinguishers

- 1 water, CO₂, foam, powder, vaporising liquid and their uses

Hazards

- 2 associated with the occupational area
 - 2.1 resources, workplace, environment, substances, asbestos, equipment, obstructions, storage, services and work activities
 - 2.2 current common safety risks
 - 2.3 current common health risks

Health and safety control equipment

- 3 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment
 - 3.1 collective protective measures
 - 3.2 local exhaust ventilation (LEV)
 - 3.3 personal protective equipment (PPE)
 - 3.4 respiratory protective equipment (RPE)

Notices and warning signs

- 4 statutory requirements and/or official guidance for the occupation and the work area

Policies and procedures

- 5 in accordance with organisational requirements



- 5.1 dealing with accidents and emergencies associated with the type of work being undertaken and the work environment
- 5.2 methods of receiving or sourcing information
- 5.3 reporting
- 5.4 stopping work
- 5.5 evacuation
- 5.6 fire risks and safe exit procedures
- 5.7 consultation and feedback
 - Reporting
- 6 organisational recording procedures and statutory requirements
 - Responsibility
- 7 behaviour that affects health, safety and welfare
 - 7.1 recognising when to stop work in the face of serious and imminent danger
 - 7.2 contributing to discussions and providing feedback
 - 7.3 reporting changed circumstances and incidents in the workplace
 - 7.4 adhering to the environmental requirements of the workplace
 - Security
- 8 organisational procedures relating to the workplace, general public, site personnel and resources

Developed by: ConstructionSkills

Version number: 2

Date approved: April 2014

Indicative review date: April 2019

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR641

Relevant occupations: Construction and Building Trades nec

Suite

Wood Occupations (Construction); Accessing Operations and Rigging (Construction); Associated Industrial Services Occupations (Construction); Building Maintenance Multi trade Repair and Refurbishment Operations; Carving Occupations (Construction); Chimney Engineering (Construction); Cladding Occupations (Construction); Construction Operations and Civil Engineering Services; Construction Diving Operations; Construction Plant or Machinery Maintenance (Construction); Controlling Lifting Operations (Construction); Decorative Finishing and Industrial Painting Occupations (Construction);



Demolition; Erection of Precast Concrete (Construction); Fitted Interiors (Construction); Floorcovering Occupations (Construction); Formwork (Construction); Heritage Skills (Construction); Innovative/Modern Methods of Construction; Insulation and Building Treatments (Construction); Interior Systems (Construction); Mastic Asphalt (Construction); Piling Operations (Construction); Plant Installations (Construction); Plant Operations (Construction); Plastering (Construction); Post Tensioning Operations (Construction); Refractory Installations (Construction); Removal of Hazardous and Non-hazardous Waste (Construction); Roofing Occupations (Construction); Site Logistics (Construction); Specialist Concrete Occupations (Construction); Specialist Installation Occupations (Construction); Steelfixing (Construction); Stonemasonry (Construction); Sub-structure Work Occupations (Construction); Super-structure Work Occupations (Construction); Temporary Traffic Management (Construction); Thermal Insulation (Construction); Trowel Occupations (Construction); Tunnelling Operations (Construction); Wall and Floor Tiling (Construction); Waterproof Membrane Roofing systems (Construction); Wood Machining (Construction/Sawmilling Extrusion/Furniture); Wood Preserving – Industrial Pre-treatment (Construction)

Key words

Hazards; Safety; Welfare; Regulations; Security; Signs; Control Equipment; PPE; RPE; LEV; Legislation; Risk assessment

COSVR642

Conform to productive work practices

Overview

This standard, in the context of your occupation and work environment, is about

- 1 productive communication with line management, colleagues and customers
- 2 interpreting information
- 3 planning and carrying out productive work practices
- 4 working with others or as an individual

Performance criteria

You must be able to:

- P1 communicate with others
- P2 follow organisational procedures to plan the sequence of work in order to conform to productive work practices and maintain records
- P3 maintain good work relationships

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Communicate with others

K1 how to use methods of communication with other workplace personnel and customers

K2 how to communicate to ensure work is productive

You need to know and understand:

Performance Criteria 2

Follow procedures

K3 how organisational procedures are applied to plan and carry out productive work

K4 how to maintain documentation in accordance with organisational procedures

K5 how to contribute to zero/low carbon outcomes in the built environment

You need to know and understand:

Performance Criteria 3

Work relationships

K6 how to maintain good work relationships

K7 how to apply the principles of equality and diversity

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 communicate with line management, colleagues or customers to ensure work is carried out productively

2 respect the needs of others when communicating

Performance Criteria 2

3 interpret procedures and use resources to plan the sequence of work, so that it is completed productively

4 complete documentation as required by the organisation

Performance Criteria 3

5 work productively with line management, colleagues, customers or other people

6 apply the principles of equality and diversity

Scope/range related to knowledge and understanding

Communication

1 listening, written, oral visual and electronic

Documentation

2 job cards, worksheets, material/resources lists and time sheets

Procedures

3 use of resources for own and other's work requirements

- 4 allocation of appropriate work to employees
 - 5 organisation of work sequence
 - 6 reduction of carbon emissions
- Relationships
- 7 individuals, workplace groups (customer and operative, operative and line management, own occupation and allied occupations)
 - 8 show consideration for the needs of individuals by applying the principles of equality and diversity

Developed by: ConstructionSkills

Version number: 1

Date approved: February 2011

Indicative review date: February 2016

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR642

Relevant occupations: Construction and Building Trades nec

Suite

Wood Occupations (Construction); Accessing Operations and Rigging (Construction); Applied Waterproof Membranes (Construction); Associated Industrial Services Occupations (Construction); Building Maintenance Multi trade Repair and Refurbishment Operations; Chimney Engineering (Construction); Cladding Occupations (Construction); Construction Diving Operations (Construction); Construction Operations and Civil Engineering Services (Construction); Decorative Finishing and Industrial Painting Occupations (Construction); Demolition; Erection of Precast Concrete (Construction); Fitted Interiors (Construction); Floorcovering Occupations (Construction); Formwork (Construction); Innovative/Modern Methods of Construction; Insulation and Building Treatments (Construction); Interior Systems (Construction); Mastic Asphaltting (Construction); Piling Operations (Construction); Plant Operations (Construction); Plastering (Construction); Post Tensioning Operations (Construction); Refractory Installations (Construction); Removal of Hazardous and Non-hazardous Waste (Construction); Roofing Occupations (Construction); Site Logistics (Construction); Specialist Concrete Occupations (Construction); Specialist Installation Occupations (Construction); Steelfixing (Construction); Stonemasonry (Construction); Sub-structure Work Occupations ; Super-structure Work Occupations (Construction); Temporary Traffic Management (Construction); Thermal Insulation (Construction); Trowel Occupations (Construction); Tunnelling Operations (Construction); Wall and Floor Tiling (Construction); Wood Machining (Construction/Sawmilling Extrusion/Furniture); Wood Preserving – Industrial Pre-treatment (Construction); Fencing; Treework

Key words

Communication; Colleagues; Customer; Procedures; Records; Relationships; Zero/low carbons

COSVR383

Apply specialist pavement surfacing materials manually

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing for and manually applying slurry surfacing, high friction, resin bonded, thermal patch repair, crack and joint repair to pavements

This standard is for people working in the occupational area of road building and maintenance and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

- K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
 - 2.1 methods of work
 - 2.2 safe use of health and safety control equipment
 - 2.3 safe use, storage and handling of materials, tools and equipment
 - 2.4 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work
 - 3.1 materials, components and fixings
 - 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage

- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, set out, mark, position, dry, clean, mask, prime, seal, mix, heat and decant, spread, cure, inspect and communicate
- 8 use and maintain hand tools, power tools and ancillary equipment
- 9 prepare for and manually apply specialist pavement surfacing materials using at least one of the following surfacing methods to given working instructions
 - 9.1 slurry surfacing, mixing, squeegee operations and protect for the curing process
 - 9.2 high friction (cold applied) mix materials, apply, spread aggregate and protect for the curing process
 - 9.3 high friction (hot applied) heat and mix materials and monitor temperatures, lay, spread aggregate evenly and protect for the curing process
 - 9.4 resin bonded, mixing multi packs, mix materials, squeegee and levelling operations, floating and protect for the curing process
 - 9.5 thermal patch repair heat, remove, rake, mix, compact, level and finish and protect for the curing process
 - 9.6 crack and joint repair mix, prepare surface and apply, finish and protect for the curing process

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- Disposal of waste
 - 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- Emergencies
 - 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries
 - 2.2 emergencies relating to occupational activities
- Hazards
 - 3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance
- Health and safety control equipment
 - 4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 4.1 collective protective measures
 - 4.2 personal protective equipment (PPE)
 - 4.3 respiratory protective equipment (RPE)
- Information
 - 5 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions and current regulations relating to applying specialist pavement surfacing materials manually
- Legislation and official guidance
 - 6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, at height, with

	tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
	Maintenance
7	operative care of hand tools, power tools and ancillary equipment
	Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
8.1	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
8.2	establish an agreed time frame for treatment
8.3	conform to agreed specification
8.4	prepare substrate, to include measuring, setting out, marking out, drying, cleaning and repairing
8.5	prepare equipment to apply specialist pavement surfacing materials manually
8.6	protect and work around street furniture and ironwork
8.7	prepare materials, to include storing, handling and mixing
8.8	apply materials to prepared surfaces, to include heating, pouring, laying, screeding, spreading and floating
8.9	work with, in close proximity to and around plant and machinery
8.10	remove and dispose of arisings
8.11	communicate and co-ordinate progress on specialist treatment
8.12	return infrastructure to operational status
8.13	recognise and determine when specialist skills and knowledge are required and report accordingly
8.14	use hand tools, power tools, pedestrian operated plant and equipment
8.15	work at height
8.16	use access equipment
9	team work and communication
10	needs of other occupations associated with applying specialist pavement surfacing materials manually
	Problems
11	those arising from information, resources and methods of work
11.1	own authority to rectify
11.2	organisational reporting procedures
	Programme
12	types of productivity targets and time scales
13	how times are estimated
14	organisational procedures for reporting circumstances which will affect the work programme
	Protect work
15	protect work against damage from general workplace activities, other occupations and adverse weather conditions
	Resources
16	materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist
16.1	primers, epoxy or thermoplastic resins, bituminous emulsion, catalyst, doping agents, fibres, rubber, pigment and asphalt rejuvenators
16.2	aggregates
16.3	protection and masking materials
16.4	mixer and mixer pot

- 16.5 pre-heaters and thermal heaters
- 16.6 hand tools, power tools, pedestrian operated plant and equipment
- 17 identify by calculation, quantity, length, area and wastage associated with the method and procedure to apply specialist pavement surfacing materials manually

- 18 Security procedures
site, workplace, company and operative

Developed by: ConstructionSkills

Version number: 5

Date approved: February 2016

Indicative review date: January 2021

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR383

Relevant occupations: Road Construction Operatives

Suite

Road building and Maintenance

Key words

Epoxy resins; Thermoplastic resins; Bituminous emulsion; Catalyst; Doping agents; Fibres; Rubber; Pigment; Aggregates; Slurry surfacing; High friction

COSVR375

Lay flexible pavement materials

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing for and laying sub-base and flexible pavement material. This standard is for people working in the occupational area of road building and maintenance, and can be used by operatives, supervisors and managers.

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
 - 2.1 methods of work
 - 2.2 safe use of health and safety control equipment
 - 2.3 safe use, storage and handling of materials, tools and equipment
 - 2.4 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work
 - 3.1 materials
 - 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, mark out, prepare, lay, spread, level, compact and finish
- 8 use and maintain hand tools, power tools, pedestrian operated plant and ancillary equipment
- 9 lay flexible pavement materials to given working instructions relating to the following
 - 9.1 unbound sub-base construction
 - 9.2 prepare and form joints
 - 9.3 flexible surface material

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- 1 Disposal of waste
environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- 2 Emergencies
operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries
 - 2.2 emergencies relating to occupational activities

Hazards

3	those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance
4	Health and safety control equipment identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
4.1	collective protective measures
4.2	personal protective equipment (PPE)
4.3	respiratory protective equipment (RPE)
5	Information drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, official guidance and current regulations governing the laying of flexible pavement materials
6	Legislation and official guidance this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
7	Maintenance operative care of hand tools, power tools and ancillary equipment
8	Methods of work application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
8.1	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
8.2	prepare the area for laying of flexible pavement materials
8.3	conform to agreed specifications
8.4	determine the suitability of flexible pavement materials
8.5	lay, compact and finish unbound sub-base
8.6	prepare and form joints
8.7	lay, compact and finish flexible pavement materials
8.8	work around street furniture and ironwork
8.9	apply sealers, sealants, tack and bond coats and bitumen
8.10	work with, in close proximity to and around plant and machinery
8.11	return infrastructure to operational status
8.12	recognise and determine when specialist skills and knowledge are required and report accordingly
8.13	use hand tools, power tools, pedestrian operated plant and equipment

- 9 team work and communication
- 10 needs of other occupations associated with laying flexible pavement materials
- Problems
- 11 those arising from information, resources and methods of work
- 11.1 own authority to rectify
- 11.2 organisational reporting procedures
- Programme
- 12 types of productivity targets and time scales
- 13 how time is estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
- 16.1 unbound sub-base materials
- 16.2 jointing materials
- 16.3 flexible pavement materials, asphalt concretes, hot rolled asphalt, stone mastic asphalt, mastic asphalt and resin bound versions
- 16.4 hand tools, power tools, pedestrian operated plant and equipment
- 17 identify by calculation, quantity, length, area and wastage associated with the method and procedure to lay flexible pavement materials
- Security procedures
- 18 site, workplace, company and operative

Developed by: ConstructionSkills

Version number: 3

Date approved: February 2016

Indicative review date: January 2021

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR375

Relevant occupations: Road Construction Operatives

Suite

Road building and Maintenance

Key words

Sub-base; Flexible pavement materials, Asphalt concretes, Hot rolled asphalt, Stone mastic asphalt, Mastic asphalt; Resin bound

COSVR401**Set out secondary dimensional control work****Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting setting out equipment and ancillary resources, preparing and setting out secondary dimensional control of the work

This standard is for people working independently or in a team to set out dimensional controls for work to be completed and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented



- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information and reference points related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to at least four of the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use of access equipment/working platforms

2.4 safe use, storage and handling of materials

2.5 safe use and storage of tools and equipment

2.6 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work

3.1 measuring tools and instruments

3.2 marking materials/components

3.3 tools and equipment

Performance Criteria 4

- 1 protection of the work and its surrounding area from damage

- 2 prevent damage and maintain a clean work area

- 3 disposal of waste in accordance with current legislation

Performance Criteria 5

- 4 demonstration of work skills to transfer, transpose, level, measure, mark, position, fix and secure

- 5 use and maintain hand tools, measuring and marking equipment

6 set out secondary dimensional control for the work to given working instructions for any three of the following

6.1 line

6.2 level

6.3 depth

6.4 area

6.5 height

6.6 angle

Performance Criteria 6

10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

Hazards

3 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

4 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment

4.1 collective protective measures

4.2 local exhaust ventilation (LEV)

4.3 personal protective equipment (PPE)

4.4 respiratory protective equipment (RPE)

Information

5 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, reference points and current regulations governing buildings and construction work

Legislation and official guidance

6	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting Maintenance
7	operative care of hand tools, measuring, marking and ancillary equipment Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to
8.1	measure and set out secondary dimensional control for the work
8.2	measure, align and level to dimensional control requirements
8.3	transfer and set out lines, angles and levels to dimensional control requirements
8.4	recognise and determine when specific skills and knowledge are required and report accordingly
8.5	use hand tools, measuring and marking equipment
8.6	work at height
8.7	use access equipment
9	methods of calculating height, depth, angle, length and area associated with the method/procedure to set out for secondary dimensional work control
10	team work and communication
11	needs of other occupations associated with setting out secondary dimensional control Problems
12	those arising from information, resources and methods of work
12.1	own authority to rectify
12.2	organisational reporting procedures Programme
13	types of progress charts, timetables and estimated times
14	organisational procedures for reporting circumstances which will affect the work programme Protect work
15	protect work against damage from general workplace activities, other occupations and adverse weather conditions Resources
16	materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist

- 16.1 measuring tools and instruments
- 16.2 marking equipment
- 16.3 level and alignment tools
- 17 identify quantity of resources associated with the method/procedure to set out for secondary dimensional work control
Security procedures
- 18 site, workplace, company and operative

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Status: Original

Originating organisation: ConstructionSkills

Original URN: VR401

Relevant occupations: Construction Operatives

Suite

Plant Operations (Construction); Construction Operations and Civil Engineering Services; Specialist Concrete Occupations (Construction); Sub-structure Work Occupations (Construction)

Key words

Setting-out; Line; Level; Depth; Area; Height; Angle

COSVR367

Lay Modular Pavement

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing and laying modular paving manually or by machine

This standard is for people working in the occupational area of pavement construction and maintenance, and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use, storage and handling of materials, tools and equipment

2.4 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials and components

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

7 demonstration of work skills to set out, prepare, measure, mark out, cut, place, lay, level, align, compact and finish

8 use and maintain hand tools, power tools and ancillary equipment

9 place bedding and lay modular paving manually and/or by machine to given working instructions, to produce a bound or unbound pavement using at least two of the following

9.1 block paving

9.2 brick paving

9.3 stone and/or concrete setts

9.4 flags

9.5 natural stone rough cut (riven and/or cropped)

9.6 natural stone uniformly cut (sawn in dimension)

Performance Criteria 6

10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

Hazards

3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

4	identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
4.1	collective protective measures
4.2	personal protective equipment (PPE)
4.3	respiratory protective equipment (RPE)
	Information
5	drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations governing the laying of modular paving
	Legislation and official guidance
6	this relates to the operative's responsibilities regarding potential accidents health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
	Maintenance
7	operative care of hand tools, power tools and ancillary equipment
	Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
8.1	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
8.2	confirm the type of block, brick, sett, flag and natural stone modular paving unit, bedding and jointing materials
8.3	conform to the agreed specifications
8.4	identify the differences between rigid (bound) and flexible (unbound) pavements
8.5	Inspect and confirm substrate as acceptable for laying modular paving to given specification
8.6	set out the area and prepare substrate for modular pavement construction
8.7	install kerbs, channels, edgings and drainage
8.8	mark and cut modular paving
8.9	lay modular block, brick, sett, flag and natural stone paving manually and by machine to the required design and pattern, levels and stability
8.10	work around street furniture and ironwork
8.11	work with, in close proximity to and around plant or machinery
8.12	monitor and check work against specification(s)
8.13	lift modular paving for removal, maintenance and repair

- 8.14 maintain and repair modular paving to match existing design functions
- 8.15 return infrastructure to operational status
- 8.16 recognise and determine when specialist skills and knowledge are required and report accordingly
- 8.17 use hand tools, power tools and equipment
- 9 team work and communication
- 10 needs of other occupations associated with laying modular paving
 - Problems
 - 11 those arising from information, resources and methods of work
 - 11.1 own authority to rectify
 - 11.2 organisational reporting procedures
 - Programme
 - 12 types of productivity targets and time scales
 - 13 how times are estimated
 - 14 organisational procedures for reporting circumstances which will affect the work programme
 - Protect work
 - 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
 - Resources
 - 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
 - 16.1 graded granular material, mortar and concrete
 - 16.2 blocks, stone setts, bricks, flags, natural stone
 - 16.3 kerbs, channels, drainage
 - 16.4 hand tools, power tools and equipment
 - 17 identify by calculation, quantity, length, area, volume and wastage associated with the method and procedure to lay modular paving
 - Security procedures
- 18 site, workplace, company and operative

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Original URN: VR367

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and Maintenance

Key words

Pavement; Blocks; Stone-setts; Flags; Natural stone; Paving

COSVR400

Operate powered units, tools or pedestrian plant, machinery or equipment

Overview

This standard is about Interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and preparing powered tools and ancillary equipment, operating powered units, tools or pedestrian plant, machinery or equipment

This standard is for people working independently or in a team to operate power units, tools, pedestrian plant, machinery or equipment and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the use of plant or machinery and confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 the types of fire extinguishers and how and when they are used
- K6 how emergencies should be responded to and who should respond
- K7 the organisational security procedures for tools, equipment and personal belongings
- K8 what the accident reporting procedures are and who is responsible for making the report
- K9 why, when and how health and safety control equipment should be used
- K10 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K12 how the resources should be used and how any problems associated with the resources are reported
- K13 the organisational procedures to select resources, why they have been developed and how they are used
- K14 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

K15 how to protect work from damage and the purpose of protection

K16 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

K17 how methods of work, to meet the specification, are carried out and problems reported

K18 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K19 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, operating instructions and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to at least four of the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use of access equipment

2.4 safe use, storage and handling of materials

2.5 safe use and storage of tools and equipment

2.6 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 fuel/power source

3.2 lubricants

3.3 consumables

Performance Criteria 4

4 protection of the work and its surrounding area from damage

- 5 prevent damage and maintain a clean work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to start, stop, replenish, control and clean
- 8 use and maintain powered units, tools and ancillary equipment
- 9 operate and monitor powered unit, tools or pedestrian plant, machinery or equipment to given working instructions, relating to
 - 9.1 continual running
 - 9.2 closing down
 - 9.3 cleaning
- 10 return powered units, tools or pedestrian plant, machinery or equipment to a safe operational condition on completion of work
- 11 disassemble and/or clean powered unit, tools or pedestrian plant, machinery or equipment

Performance Criteria 6

- 12 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries
 - 2.2 emergencies relating to occupational activities

Fire extinguishers

- 3 water, CO₂, foam, powder and their uses

Hazards

- 4 those identified by risk/COSHH assessments, method of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

- 5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment
 - 5.1 collective protective measures
 - 5.2 local exhaust ventilation (LEV)

5.3	personal protective equipment (PPE)
5.4	respiratory protective equipment (RPE)
	Information
6	drawings, specifications, schedules, method statements, risk assessments, legislation, Codes of Practice, manufacturers' information and operating instructions
	Legislation and official guidance
7	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting
	Maintenance
8	operative care of hand tools, portable power tools. powered units, pedestrian plant, machinery and ancillary equipment
	Methods of work
9	application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to
9.1	prepare, position and set up for work
9.2	secure accessories and tool attachments
9.3	carry out pre-use and function checks to manufacturers' and suppliers' information and procedures
9.4	complete pre-start and post stop checks
9.5	recognise the characteristics of the plant, machinery and equipment
9.6	identify specific operating and safety requirements for the task and work
9.7	recognise and determine when specific skills and knowledge are required and report accordingly
9.8	operate, use and control
9.9	monitor and maintain
9.10	replenish consumables
9.11	close down and secure
9.12	disassemble and clean
9.13	transport and store
10	team work and communication
11	needs of other occupations associated with operating powered units, tools and equipment
	Problems

- 12 those arising from information, resources and methods of work
 - 12.1 own authority to rectify
 - 12.2 organisational reporting procedures
 - Programme
- 13 types of progress charts, timetables and estimated times
- 14 organisational procedures for reporting circumstances which will affect the work programme
 - Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
 - Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist
 - 16.1 power source/fuels
 - 16.2 consumables, lubricants
- 17 identify quantity, length, area and wastage associated with the method/procedure to operate powered units, tools and equipment
 - Security procedures
- 18 site, workplace, company and operative

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Original URN: VR400

Relevant occupations: Construction Operatives

Suite

Plant Operations (Construction); Construction Operations and Civil Engineering Services; Demolition; Innovative/Modern Methods of Construction; Piling Operations (Construction); Removal of Hazardous and Non-hazardous Waste (Construction); Site Logistics (Construction); Specialist Concrete Occupations (Construction); Specialist



Installation Occupations (Construction); Sub-structure Work Occupations (Construction); Super-structure Work Occupations (Construction); Temporary Traffic Management (Construction); Tunnelling Operations (Construction)

Key words

Specialised-tools; Powered-tools; Powered-units; Pedestrian operated

COSVR368

Lay preformed kerbs and channels

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing for laying and reinstating preformed (precast and prepared natural stone) kerbs, channels and combined drainage and kerb systems

This standard is for people working in the occupational area of road building and maintenance and construction and civil engineering operations and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K4 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use, storage and handling of materials, tools and equipment

2.4 specific risks to health

2.5 others affected by the work

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials and components

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

7 demonstration of work skills to measure, mark out, cut, position, level, align, compact, seal and finish

8 use and maintain hand tools, power tools and ancillary equipment

9 lay kerbs and/or channels and/or combined drainage and kerb systems to given working instructions

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

- 2.1 fires, spillages, injuries

- 2.2 emergencies relating to occupational activities

Hazards

- 3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

- 4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

- 4.1 collective protective measures

- 4.2 personal protective equipment (PPE)

- 4.3 respiratory protective equipment (RPE)

Information

- 5 drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations for laying preformed kerbs and channels

Legislation and official guidance

- 6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting

Maintenance

- 7 operative care of hand tools, power tools and ancillary equipment

Methods of work

- 8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:

- 8.1 confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection

8.2	identify different types of kerbs, channels and combined drainage and kerb systems
8.3	conform to agreed specifications
8.4	set out the area and prepare substrate and foundation for laying kerbs, channels and combined drainage and kerb systems
8.5	lay and align kerbs, channels and combined drainage and kerb systems to the required specifications
8.6	mark and cut kerbs, channels and combined drainage and kerb systems
8.7	work around street furniture and ironwork
8.8	protect completed work for curing process
8.9	deal with others affected by the work
8.10	return infrastructure to operational status
8.11	recognise and determine when specialist skills and knowledge are required and report accordingly
8.12	use hand tools, power tools and equipment
9	team work and communication
10	needs of other occupations associated with laying preformed kerbs, channels and combined drainage and kerb systems
	Problems
11	those arising from information, resources and methods of work
11.1	own authority to rectify
11.2	organisational reporting procedures
	Programme
12	types of productivity targets and time scales
13	how times are estimated
14	organisational procedures for reporting circumstances which will affect the work programme
	Protect work
15	protect work against damage from general workplace activities, other occupations and adverse weather conditions
	Resources
16	materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
16.1	sand, cement, aggregates, additives, sealants and resins
16.2	kerbs, channels and combined drainage and kerb systems
16.3	hand tools, power tools and ancillary equipment



17 identify by calculation, quantity, length, area and wastage associated with the method and procedure to lay preformed kerbs, channels and combined drainage and kerb systems

Security procedures

18 site, workplace, company and operative

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Originating organisation: ConstructionSkills

Original URN: VR368

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and Maintenance

Key words

Kerbs; Channels; Combined drainage and kerb systems

COSVR377

Apply and remove pavement markings manually

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing for, applying and removing pavement markings manually

This standard is for people working in the occupational area of road building and maintenance and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

P1 interpret the given information relating to the work and resources to confirm its relevance

- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

- K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
 - 2.1 methods of work
 - 2.2 safe use of health and safety control equipment
 - 2.3 safe use, storage and handling of materials, tools and equipment
 - 2.4 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work

3.1 materials, components and fixings

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

7 demonstration of work skills to measure, set out, mark, position, prepare, and communicate

8 use and maintain hand tools, power tools and ancillary equipment

9 apply pavement markings manually to given specifications and working instructions for at least one of the following

9.1 permanent markings (thermoplastic applications, preformed and/or paint applications)

9.2 temporary markings (temporary applications and temporary surface mounted studs)

Performance Criteria 6

10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

Hazards

3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

4.1 collective protective measures

4.2 personal protective equipment (PPE)

4.3	respiratory protective equipment (RPE)
	Information
5	drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, official guidance and current regulations governing temporary and permanent markings on pavement surfaces
	Legislation and official guidance
6	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
	Maintenance
7	operative care of hand tools, power tools and ancillary equipment
	Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
8.1	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
8.2	establish agreed time frame for pavement marking work
8.3	conform to agreed specifications
8.4	prepare area, materials and equipment
8.5	apply pavement markings manually
8.6	remove pavement markings
8.7	apply and remove preformed applications
8.8	install and remove temporary surface mounted studs
8.9	work around street furniture and ironwork
8.10	communicate and co-ordinate progress
8.11	work with, in close proximity to and around plant and machinery
8.12	return infrastructure to operational status
8.13	recognise and determine when specialist skills and knowledge are required and report accordingly
8.14	use hand tools, power tools, pedestrian operated plant and equipment
8.15	work at height
8.16	use access equipment
9	team work and communication

- 10 needs of other occupations associated with applying and removing pavement markings manually
Problems
- 11 those arising from information, resources and methods of work
- 11.1 own authority to rectify
- 11.2 organisational reporting procedures
Programme
- 12 types of productivity targets and time scales
- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme
Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist
- 16.1 thermoplastic materials
- 16.2 adhesives
- 16.3 primers and tack coats
- 16.4 paints
- 16.5 temporary materials
- 16.6 temporary surface mounted studs
- 16.7 hand tools, power tools, pedestrian operated plant and equipment
- 17 identify by calculation, quantity, length, area and wastage associated with the method and procedure to apply and remove pavement markings manually
Security procedures
- 18 site, workplace, company and operative

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Originating organisation: ConstructionSkills

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Relevant occupations: Road Construction Operatives

Suite

Road building and Maintenance

Key words

Surface mounted studs; Primers; Tack coats; Thermoplastic materials

COSVR373

Form and finish excavations manually

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment to form and finish excavations manually including excavating around services

This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments and method statements related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to at least four of the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use of access equipment

2.4 safe use, storage and handling of materials, tools and equipment

2.5 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials and components

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

7 demonstration of work skills to check, locate, measure, mark out, excavate and secure

8 use and maintain hand tools, power tools and ancillary equipment

9 form and finish excavations manually to given working instructions

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- Disposal of waste
- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- Emergencies
- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
- 2.1 fires, spillages, injuries
- 2.2 emergencies relating to occupational activities
- Hazards
- 3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance
- Health and safety control equipment
- 4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
- 4.1 collective protective measures
- 4.2 local exhaust ventilation (LEV)
- 4.3 personal protective equipment (PPE)
- 4.4 respiratory protective equipment (RPE)
- Information
- 5 drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, permits, current legislation and official guidance governing excavations and the support of excavations
- Legislation and official guidance
- 6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
- Maintenance
- 7 operative care of hand tools, power tools and ancillary equipment
- Methods of work

- 8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
 - 8.1 locate, position, identify and confirm the type of surface and sub-surface composition including ground water
 - 8.2 conform to agreed specifications
 - 8.3 plan, prepare, set out and mark out excavations
 - 8.4 remove surface courses, street furniture and sub-surface structures
 - 8.5 protect and monitor adjacent structures
 - 8.6 excavate, form and finish ground manually
 - 8.7 recognise changes in ground conditions, ground water conditions, soil types and excavation stability
 - 8.8 recognise the dangers of loads and structures at the edge of excavations
 - 8.9 identify and locate utility services, excavate around services and protect
 - 8.10 monitor and check accuracy during progress and on completion of work
 - 8.11 recognise inspection and test criteria for excavations
 - 8.12 identify and store excavated and reusable materials
 - 8.13 confirm the disposal of unusable materials
 - 8.14 recognise the need for positioning, securing and removing excavation supports
 - 8.15 provide for access and egress
 - 8.16 work with, around and in close proximity to plant and machinery
 - 8.17 recognise and determine when specialist skills and knowledge are required and report accordingly
 - 8.18 use hand tools, power tools and equipment
 - 8.19 use access equipment
 - 8.20 work at height
- 9 team work and communication
- 10 needs of other occupations associated with the formation and finishing of excavations manually
Programme
- 11 types of productivity targets, time scales
- 12 how times are estimated
- 13 organisational procedures for reporting circumstances which will affect the work programme
Protect work
- 14 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

- 15 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
- 15.1 digging equipment
- 15.2 hand tools, power tools and equipment
- 16 how to confirm resources and materials conform with the given specification
- 17 methods of calculating quantity, length, area, volume and wastage associated with the method and procedure to form and finish excavations manually

Security procedures

- 18 site, workplace, company and operative

Behaviours

When performing to this standard you are likely to demonstrate the following behaviours:

- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
- 2 Effective communication: oral, written, electronic, listening, body language, presentation
- 3 Respect: apply equality, diversity and inclusion in dealing with others.
- 4 Team work: work effectively and safely with others with limited supervision.
- 5 Independent working: take responsibility for safe completion of your own work.
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.
- 7 Working effectively: undertake the work in a reliable, safe and productive manner.
- 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 Adaptability: be able to adjust to changes to the work instructions, put safety first

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Originating organisation: ConstructionSkills

Original URN: VR373

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Construction and Civil Engineering Operations

Key words

Sub-surface structures; Digging equipment; Excavations; Excavation supports

COSVR374

Reinstate trenches in paved surfaces

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing for and reinstating excavations in paved surfaces

This standard is for people working in the occupational area of road building and maintenance and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

- K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
 - 2.1 methods of work

- 2.2 safe use of health and safety control equipment
- 2.3 safe use, storage and handling of materials, tools and equipment
- 2.4 specific risks to health
- 2.5 others affected by the work

Performance Criteria 3

- 3 selection of resources associated with own work
- 3.1 materials, components and fixings
- 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to backfill, lay, compact, level, secure and finish
- 8 use and maintain hand tools, power tools and ancillary equipment
- 9 reinstate trenches in paved surfaces to given working instructions for sub-grades, sub-bases and foundations relating to at least one of the following
 - 9.1 bituminous materials
 - 9.2 sealants and emulsions
 - 9.3 concrete
 - 9.4 modular structures

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- 1 Disposal of waste
 - environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- 2 Emergencies
 - operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries
 - 2.2 emergencies relating to occupational activities
- 3 Hazards
 - those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance
- 4 Health and safety control equipment
 - identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 4.1 collective protective measures
 - 4.2 personal protective equipment (PPE)
 - 4.3 respiratory protective equipment (RPE)
- 5 Information
 - drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations governing reinstating trenches in paved surfaces

	Legislation and official guidance
6	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
	Maintenance
7	operative care of hand tools, power tools and ancillary equipment
	Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
8.1	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
8.2	confirm the type of ground structure for reinstatement (bituminous, concrete, modular, natural)
8.3	conform to the agreed specification
8.4	reinstate and compact backfill, sub-grades, sub-bases, foundations and pavement bases for the relevant type of ground structure
8.5	protect service apparatus and sub-structures during reinstatement
8.6	reinstate the relevant type of ground surface, pavement surface, specialist surface treatment, kerbs, edge restraints, street ironwork and pavement markings
8.7	work around street furniture and ironwork
8.8	dispose of surplus materials
8.9	return infrastructure to operational status
8.10	recognise and determine when specialist skills and knowledge are required and report accordingly
8.11	use hand tools, power tools and equipment
9	team work and communication
10	needs of other occupations associated with reinstating trenches in paved surfaces
	Problems
11	those arising from information, resources and methods of work
11.1	own authority to rectify
11.2	organisational reporting procedures
	Programme
12	types of productivity targets and time scales
13	how time is estimated
14	organisational procedures for reporting circumstances which will affect the work programme
	Protect work
15	protect work against damage from general workplace activities, other occupations and adverse weather conditions
	Resources
16	materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
16.1	new and re-usable materials, sub-base, road-base and pavement surface
16.2	cold-lay, warm-lay and hot-lay bituminous materials
16.3	sands, jointing materials
16.4	concrete, blocks and flags
16.5	natural soil based materials



- 16.6 hand tools, power tools and equipment
- 17 identify by calculation, quantity, length, area and wastage associated with the method and procedure to reinstate trenches in paved surfaces

- Security procedures
- 18 site, workplace, company and operative

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Originating organisation: ConstructionSkills

Original URN: VR374

Relevant occupations: Road Construction Operatives

Suite

Road building and Maintenance

Key words

Bituminous materials; Sealants and emulsions; Modular structures; Sub-grades; Sub-bases

COSVR372

Identify and mark the location of utilities apparatus and sub-structures

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, surveying, identifying and placing surface markings for utilities apparatus and sub-structures

This standard is for people working in the occupational area of road building and maintenance and construction and civil engineering operations, and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices

- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 the types of fire extinguishers and how and when they are used
- K6 how emergencies should be responded to and who should respond
- K7 the organisational security procedures for tools, equipment and personal belongings
- K8 what the accident reporting procedures are and who is responsible for making the report
- K9 why, when and how health and safety control equipment should be used
- K10 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K12 how the resources should be used and how any problems associated with the resources are reported
- K13 the organisational procedures to select resources, why they have been developed and how they are used
- K14 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K15 how to protect work from damage and the purpose of protection
- K16 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K17 how methods of work, to meet the specification, are carried out and problems reported
- K18 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

- K19 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements, survey and utility company information and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
 - 2.1 methods of work
 - 2.2 safe use of health and safety control equipment
 - 2.3 safe use, storage and handling of materials, tools and equipment
 - 2.4 specific risks to health
 - 2.5 others affected by the work

Performance Criteria 3

- 3 selection of resources associated with own work
 - 3.1 materials and components
 - 3.2 tools and equipment
 - 3.3 electronic location instruments

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, locate, identify, mark out, position, protect and secure
- 8 use and maintain hand tools, power tools, ancillary equipment and electronic instruments
- 9 survey, identify and mark the location of utilities apparatus and sub-structures to given working instructions

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

1	environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
	Emergencies
2	operative's response to situations in accordance with organisational authorisation and personal skills when involved with
2.1	fires, spillages, injuries, damage to utilities apparatus and sub structures
2.2	emergencies relating to occupational activities
	Fire extinguishers
3	water, CO2, foam, powder and their uses
	Hazards
4	those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance
	Health and safety control equipment
5	identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
5.1	collective protective measures
5.2	personal protective equipment (PPE)
5.3	respiratory protective equipment (RPE)
	Information
6	drawings, specifications, schedules, risk assessments, method statements, organisational and manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing utilities
	Legislation and official guidance
7	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
	Maintenance
8	operative care of hand tools, power tools, ancillary equipment and electronic instruments
	Methods of work
9	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
9.1	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
9.2	ensure electronic equipment is calibrated
9.3	conform to agreed specification and local utility providers requirements
9.4	identify utilities apparatus and sub-structures by electronic locators and visually
9.5	confirm the type of service, including: gas, fuel, electric, communication, water, sewage
9.6	work around street furniture and ironwork
9.7	recognise identification markers for utility types
9.8	confirm structures (foundations, inspection chambers, joint and junction boxes)
9.9	confirm the impact of the natural environment (tree roots, watercourses)
9.10	mark the position of utilities apparatus and sub-structures
9.11	return infrastructure to operational status

- 9.12 recognise and determine when specialist skills and knowledge are required and report accordingly
- 9.13 use hand tools, power tools and equipment
- 9.14 work at height
- 10 team work and communication
- 11 needs of other occupations associated with identifying and marking the location of utilities apparatus and sub-structures
- Problems
- 12 those arising from information, resources and methods of work
- 12.1 own authority to rectify
- 12.2 organisational reporting procedures
- Programme
- 13 types of productivity targets and time scales
- 14 how times are estimated
- 15 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 16 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 17 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
 - 17.1 electronic location instruments
 - 17.2 marking materials and equipment
 - 17.3 hand tools, power tools and equipment
 - 17.4 ancillary equipment
- 18 identify by calculation, quantity, length and area associated with the method and procedure to identify and mark the location of utilities apparatus and sub-structures
- Security procedures
- 19 site, workplace, company and operative

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Relevant occupations: Road Construction Operatives; Construction Operatives

Suite



Road building and Maintenance; Accessing Operations and Rigging (Construction);
Construction and Civil Engineering Operations

Key words

Identification markers; Joint and junction boxes; Inspection chambers

COSVR782

Locate and excavate to expose buried utility services

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, locating, exposing by excavation and protecting buried utility services

This standard is for people working in the occupational area of construction and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 the types of fire extinguishers and how and when they are used
- K6 how emergencies should be responded to and who should respond

- K7 the organisational security procedures for tools, equipment and personal belongings
- K8 what the accident reporting procedures are and who is responsible for making the report
- K9 why, when and how health and safety control equipment should be used
- K10 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K12 how the resources should be used and how any problems associated with the resources are reported
- K13 the organisational procedures to select resources, why they have been developed and how they are used
- K14 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K15 how to protect work from damage and the purpose of protection
- K16 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K17 how methods of work, to meet the specification, are carried out and problems reported
- K18 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

- K19 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements, survey and utility company information and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
 - 2.1 methods of work
 - 2.2 safe use of health and safety control equipment

- 2.3 safe use, storage and handling of materials, tools and equipment
- 2.4 specific risks to health
- 2.5 working with and around utility services including ground penetration
- 2.6 working in excavations
- 2.7 others affected by the work

Performance Criteria 3

- 3 selection of resources associated with own work
- 3.1 materials and components
- 3.2 tools and equipment
- 3.3 electronic location instruments

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, locate, expose, mark out, position, protect and secure
- 8 use and maintain hand tools, power tools, ancillary equipment and electronic instruments
- 9 locate and excavate to expose buried utility services to given working instructions
- 10 apply protection measures to utility services

Performance Criteria 6

- 11 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- 1 Disposal of waste
environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- 2 Emergencies
operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries, damage to utilities apparatus and sub structures
 - 2.2 emergencies relating to occupational activities
- 3 Fire extinguishers
water, CO2, foam, powder and their uses
- 4 Hazards
those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance
- 5 Health and safety control equipment
identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 5.1 collective protective measures
 - 5.2 personal protective equipment (PPE)
 - 5.3 respiratory protective equipment (RPE)
- Information

6	drawings, specifications, schedules, risk assessments, method statements, permits, verbal written and graphical instructions, organisational and manufacturers' information, current regulations and official guidance governing utility services
7	<p>Legislation and official guidance</p> <p>this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting</p>
8	<p>Maintenance</p> <p>operative care of hand tools, portable power tools, ancillary equipment and electronic instruments</p>
9	<p>Methods of work</p> <p>application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:</p>
9.1	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
9.2	ensure electronic equipment is calibrated
9.3	conform to agreed specification and local utility services providers requirements
9.4	identify utility services by electronic locators, trial holes and visually
9.5	recognise criteria for operating location equipment and their limitations
9.6	confirm the type of service including: gas, fuel, electric, communication, water, sewage
9.7	liaise with utility services organisations
9.8	recognise identification markers for utility types
9.9	excavate by hand and with the assistance of plant or machinery
9.10	work with, in close proximity to, and around plant and machinery
9.11	recognise the criteria for directing and guiding the operations and movement of plant and machinery
9.12	work around street furniture and ironwork
9.13	work in excavations, including the need for excavation supports, edge protection and access equipment
9.14	provide for the recognition and protection of the utility services, sub-structure and the natural environment during operational activities
9.15	install supports for exposed utility services
9.16	recognise and determine when specialist skills and knowledge are required and report accordingly
9.17	use hand tools, portable power tools and equipment including specialist equipment
9.18	use access equipment
9.19	work at height
10	team work and communication
11	needs of other occupations associated with locating and excavating to expose buried utility services
12	<p>Problems</p> <p>those arising from information, resources and methods of work</p>
12.1	own authority to rectify
12.2	organisational reporting procedures
13	<p>Programme</p> <p>types of productivity targets and time scales</p>

- 14 how times are estimated
- 15 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 16 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 17 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
 - 17.1 electronic instruments
 - 17.2 marking and protection materials
 - 17.3 excavation plant and machinery
 - 17.4 hand tools, power tools and equipment including specialist tools (insulated and non-sparking tools)
 - 17.5 ancillary equipment
- 18 identify by calculation the quantity, length, volume and area associated with the method and procedure to locate and excavate to expose buried utility services
- Security procedures
- 19 site, workplace, company and operative

Developed by: ConstructionSkills

Version number: 1

Date approved: February 2016

Indicative review date: January 2021

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR782

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and maintenance

Key words

Buried utility services; Insulated tools; Non-sparking tools

COSVR366

Install street ironwork (metal, plastic, concrete and composite materials)

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components,



tools and equipment, preparing for and installing or adjusting street ironwork to new and reinstated pavements

This standard is for people working in the occupational area of road building and maintenance and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used

K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use, storage and handling of materials, tools and equipment

2.4 specific risks to health

2.5 those affected by the work

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials, components and fixings

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, mark out, position, fit, level, align and secure
- 8 use and maintain hand tools, power tools and ancillary equipment
- 9 install street ironwork (metal, plastic, concrete and composite materials) to new and/or reinstated pavements to given working instructions relating to the following
 - 9.1 access covers and frames
 - 9.2 gully grates and frames

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- 1 Disposal of waste
environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- 2 Emergencies
operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries
 - 2.2 emergencies relating to occupational activities
- 3 Hazards
those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance
- 4 Health and safety control equipment
identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 4.1 collective protective measures
 - 4.2 personal protective equipment (PPE)
 - 4.3 respiratory protective equipment (RPE)
- 5 Information
drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations for installing street ironwork fixtures
- 6 Legislation and official guidance
this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
- 7 Maintenance
operative care of hand tools, power tools and ancillary equipment
- 8 Methods of work
application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:

- 8.1 confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
- 8.2 locate the area and position where the street ironwork is to be installed
- 8.3 conform to agreed specifications
- 8.4 remove, take up and set aside street ironworks
- 8.5 confirm the street ironwork, fixing and bedding requirements
- 8.6 work around street furniture
- 8.7 adjust height of existing street ironwork
- 8.8 position, fit, align, level and secure the street ironwork
- 8.9 protect ironwork during curing
- 8.10 return infrastructure to operational status
- 8.11 recognise and determine when specialist skills and knowledge are required and report accordingly
- 8.12 use hand tools, power tools and equipment
- 8.13 use ancillary equipment
- 9 team work and communication
- 10 needs of other occupations associated with the installation of street ironwork
- Problems
- 11 those arising from information, resources and methods of work
- 11.1 own authority to rectify
- 11.2 organisational reporting procedures
- Programme
- 12 types of productivity targets and time scales
- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
 - 16.1 sand, cement, mortar, resin-based materials
 - 16.2 bricks, shims and proprietary products for adjusting
 - 16.3 access covers and frames, gully grates and frames
 - 16.4 hand tools, power tools and equipment
- 17 identify by calculation, quantity and size associated with the method and procedure to install street ironwork (metal, plastic, concrete and composite materials)
- Security procedures
- 18 site, workplace, company and operative

Developed by: ConstructionSkills

Version number: 3

Date approved: February 2016

Indicative review date: January 2021

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR366

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and Maintenance (Construction); Specialist Concrete Occupations (Construction)

Key words

Access-covers; Gully grates; Street ironworks

COSVR45

Place and finish non-specialist concrete

Overview

This standard is about

- 1 interpreting information
- 2 adopting safe and healthy working practices
- 3 selecting materials, components and equipment
- 4 preparing, laying, compacting and finishing concrete slabs, footings or bases

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information



- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used

You need to know and understand:

Performance Criteria 3

Selection of resources

- K9 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K10 how the resources should be used and how any problems associated with the resources are reported
- K11 the organisational procedures to select resources, why they have been developed and how they are used
- K12 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K13 how to protect work from damage and the purpose of protection
- K14 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K15 how methods of work, to meet the specification, are carried out and problems reported

K16 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K17 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following

- 2.1 methods of work

- 2.2 safe use of health and safety control equipment

- 2.3 safe use and storage of materials, tools and equipment

- 2.4 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work

- 3.1 materials, components and fixings

- 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage

- 5 minimise damage and maintain a clean work space

- 6 disposal of waste in accordance with legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, mark out, lay, compact, finish, position and secure

- 8 use and maintain hand tools and ancillary equipment

- 9 lay and finish concrete to given working instructions for at least three of the following

- 9.1 concrete slabs/bases (footing, oversites or paths)

- 9.2 form slab edging

- 9.3 position reinforcement

9.4 form surface finish (tamped, floated, brushed and trowelled)

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

- 2.1 fires, spillages, injuries

- 2.2 emergencies relating to occupational activities

Hazards

- 3 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

- 4 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment

- 4.1 collective protective measures

- 4.2 personal protective equipment (PPE)

- 4.3 respiratory protective equipment (RPE)

- 4.4 local exhaust ventilation (LEV)

Information

- 5 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations associated with placing and finishing non-specialist concrete

Legislation and official guidance

- 6 this relates to the operative's responsibilities regarding potential accidents and health hazards whilst working in the workplace, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting

Maintenance

- 7 operative care of hand tools and ancillary equipment

Methods of work

- 8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to:

- 8.1 handle, transport and test concrete
- 8.2 transport, lay, compact, cure and protect concrete with tamped, floated, brushed and trowelled finishes
- 8.3 cure and protect
- 8.4 place fabric reinforcement
- 8.5 concrete mix ratios (volume and gauge boxes)
- 8.6 place concrete into formwork and shuttering
- 8.7 form slab edging
- 8.8 work with plant and machinery
- 8.9 use hand tools and ancillary equipment
- 9 team work and communication
- 10 needs of other occupations associated with placing and finishing non-specialist concrete
 - Problems
 - 11 those arising from information, resources and methods of work
 - 11.1 own authority to rectify
 - 11.2 organisational reporting procedures
 - Programme
 - 12 types of progress charts, timetables and estimated times
 - 13 organisational procedures for reporting circumstances which will affect the work programme
 - Protect work
 - 14 protect work against damage from general workplace activities, other occupations and adverse weather conditions
 - Resources
 - 15 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
 - 15.1 concrete, fabric reinforcement, timber, plywood, proprietary slab edgings and fixings
 - 15.2 hand tools and equipment
 - 16 methods of calculating quantity, length, area and wastage associated with the method/procedure to place and finish non-specialist concrete
 - Security procedures
 - 17 site, workplace, company and operative

Developed by: ConstructionSkills

Version number: 3

Date approved: October 2012

Indicative review date: October 2017

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR45

Relevant occupations: Bricklayers and Masons

Suite

Trowel Occupations (Construction); Construction Operations and Civil Engineering Services (Construction)

Key words

Compacting; Concrete-slabs; Footings; Reinforcement; Floated; Tamped; Trowelled

COSVR360

Install, maintain and remove work area protection and safety equipment

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment. It is also about determining the protection and safety requirements, preparing, providing for and maintaining the protection and safety of the occupational area of work

This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area

- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, plans, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to at least four of the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use of access equipment

2.4 safe use, storage and handling of materials, tools and equipment

2.5 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials, components and fixings

3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, set out, position, assemble, construct, secure, dismantle and remove
- 8 use and maintain hand tools, power tools and ancillary equipment
- 9 install, maintain and remove temporary protection and safety arrangements for the work area to given working instructions, relating to protection equipment, barriers, fences and at least one of the following
 - 9.1 protection and safety notices
 - 9.2 safety lighting
- 10 report work undertaken

Performance Criteria 6

- 11 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries
 - 2.2 emergencies relating to occupational activities

Hazards

- 3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

- 4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 4.1 collective protective measures
 - 4.2 local exhaust ventilation (LEV)
 - 4.3 personal protective equipment (PPE)
 - 4.4 respiratory protective equipment (RPE)

Information

5	drawings, plans, specifications, schedules, risk assessments, method statements, site inspection reports, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance associated with protecting work areas Legislation and official guidance
6	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting Maintenance
7	operative care of hand tools, power tools and ancillary equipment Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
8.1	plan for the protection and the safety of the work and surrounding environment
8.2	conform to agreed specification
8.3	confirm the location of utility services and ensure they are protected
8.4	prepare and set out area protection equipment to required dimensions
8.5	install, check and maintain the protection and safety equipment
8.6	dismantle and remove protection and safety equipment
8.7	install safety notices
8.8	install lighting systems
8.9	monitor and check accuracy during progress and on completion of work
8.10	install, maintain and remove work area protection equipment in public areas
8.11	transport, load and off load work area protection equipment
8.12	recognise and determine when specialist skills and knowledge are required and report accordingly
8.13	use hand tools, power tools and equipment
8.14	work at height
8.15	use access equipment
9	team work and communication
10	needs of other occupations associated with installation, maintenance and removal of work area protection and safety equipment Problems
11	those arising from information, resources and methods of work
11.1	own authority to rectify

11.2	organisational reporting procedures
	Programme
12	types of productivity targets and time scales
13	how times are estimated
14	organisational procedures for reporting circumstances which will affect the work programme
	Protect work
15	protect work against damage from general workplace activities, other occupations and adverse weather conditions
	Resources
16	materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
16.1	safety and security equipment (cones, tapes, fences, barriers, hoarding, doors, gates)
16.2	protection and safety notices
16.3	signs and lighting
16.4	hand tools, power tools and equipment
17	how to confirm resources and materials conform with the given specification
18	methods of calculating quantity, length and area associated with the method and procedure used to install, maintain and remove work area protection and safety equipment
	Security procedures
19	site, workplace, company and operative
	Behaviours
	When performing to this standard you are likely to demonstrate the following behaviours:
	1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
	2 Effective communication: oral, written, electronic, listening, body language, presentation
	3 Respect: apply equality, diversity and inclusion in dealing with others.
	4 Team work: work effectively and safely with others with limited supervision.
	5 Independent working: take responsibility for safe completion of your own work.
	6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.
	7 Working effectively: undertake the work in a reliable, safe and productive manner.



8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.

9 Adaptability: be able to adjust to changes to the work instructions, put safety first

Developed by: ConstructionSkills

Version number: 4

Date approved: February 2016

Indicative review date: January 2021

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR360

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Construction and Civil Engineering Operations; Accessing Operations and Rigging (Construction); Interior Systems (Construction); Building Maintenance Multi-trade Repair and Refurbishment Operations; Removal of Hazardous and Non-hazardous Waste (Construction); Roofing Occupations (Construction); Site Logistics Operations (Construction); Specialist Installation Occupations (Construction); Specialist Concrete Occupations (Construction); Sub-structure Work Occupations (Construction); Post Tensioning (Construction)

Key words

Barriers; Safety-lighting; Signs; Safety notices; Cones; Tapes; Fences; Hoarding

COSVR361

Cut, drill and shape construction related materials

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment. It is also about cutting, drilling and shaping the following construction related materials: composites, plastic, masonry, vitreous clay, metal, timber and timber based, cementitious, bituminous and geotextiles as an individual or team member

This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to at least four of the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use of access equipment

2.4 safe use, storage and handling of materials, tools and equipment

2.5 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials, components and fixings

3.2 tools and equipment

3.3 consumables

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

7 demonstration of work skills to measure, mark out, position, secure, sever cut, drill and shape

8 use and maintain hand tools, power tools and ancillary equipment

9 select tools to cut, drill and shape at least four of the following materials to line or mark and given work instructions

9.1 composites

9.2 plastic

9.3 masonry

9.4 vitreous clay

9.5 metal

9.6 timber and timber based

9.7 cementitious

9.8 bituminous

9.9 geotextiles

Performance Criteria 6

10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

1	environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance Emergencies
2	operative's response to situations in accordance with organisational authorisation and personal skills when involved with
2.1	fires, spillages, injuries
2.2	emergencies relating to occupational activities Hazards
3	those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance Health and safety control equipment
4	identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
4.1	collective protective measures
4.2	local exhaust ventilation (LEV)
4.3	personal protective equipment (PPE)
4.4	respiratory protective equipment (RPE) Information
5	drawings, specifications, schedules, method statements, risk assessments, permits, manufacturers' information, verbal, written and graphical instructions, official guidance associated with cutting, drilling and shaping construction materials Legislation and official guidance
6	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting Maintenance
7	operative care of hand tools, power tools and ancillary equipment Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
8.1	plan, mark and set out for cutting, severing, drilling and shaping
8.2	conform to agreed specifications
8.3	cut, drill, shape and prepare, composite, plastic, masonry, vitreous clay, metal, timber and timber based materials, concrete, bituminous materials and geotextiles for use

- 8.4 operate specialist cutting, drilling and shaping equipment
- 8.5 change cutting, drilling and shaping blades and bits
- 8.6 suppress and control dust, fumes and debris
- 8.7 monitor and check accuracy during progress and on completion of work
- 8.8 recognise hazards not previously identified while cutting, drilling and shaping
- 8.9 recognise and determine when specialist skills and knowledge are required and report accordingly
- 8.10 use hand tools, power tools and equipment
- 8.11 work at height
- 8.12 use access equipment
- 9 team work and communication
- 10 needs of other occupations associated with cutting, drilling and shaping construction related materials
- Problems
- 11 those arising from information, resources and methods of work
- 11.1 own authority to rectify
- 11.2 organisational reporting procedures
- Programme
- 12 types of productivity targets and time scales
- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
- 16.1 composites, plastic, masonry, vitreous clay, metal, timber, timber based products and cementitious materials
- 16.2 bituminous materials and geotextiles
- 16.3 jigs and clamps
- 16.4 blades and bits
- 16.5 hand tools, power tools and equipment
- 17 how to confirm resources and materials conform with the given specification



18 methods of calculating quantity, length, area and wastage associated with the method and procedure to cut, drill and shape construction related materials

Security procedures

19 site, workplace, company and operative

Behaviours

When performing to this standard you are likely to demonstrate the following behaviours:

1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour

2 Effective communication: oral, written, electronic, listening, body language, presentation

3 Respect: apply equality, diversity and inclusion in dealing with others.

4 Team work: work effectively and safely with others with limited supervision.

5 Independent working: take responsibility for safe completion of your own work.

6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.

7 Working effectively: undertake the work in a reliable, safe and productive manner.

8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.

9 Adaptability: be able to adjust to changes to the work instructions, put safety first

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Relevant occupations: Elementary Construction Occupations

Suite

Construction and Civil Engineering Operations

Key words

Composites; Masonry; Vitreous clay; Cementitious materials; Metal; Bituminous materials; Timber; Geotextiles

COSVR363

Prepare and mix construction related materials

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment. It is also about preparing and mixing the following construction related materials: cementitious, plasters, resins, adhesives, bonding agents, colourings, waterproof coatings, grouts and pre-mixed compounds as an individual or team member

This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied



- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

- K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to at least four of the following
 - 2.1 methods of work
 - 2.2 safe use of health and safety control equipment
 - 2.3 safe use of access equipment
 - 2.4 safe use, storage and handling of materials, tools and equipment
 - 2.5 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work
 - 3.1 materials
 - 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, gauge, stir, mix, agitate and blend
- 8 use and maintain hand tools, power tools and equipment
- 9 prepare at least two of the following materials for use to given working instructions
 - 9.1 cementitious
 - 9.2 plasters
 - 9.3 resins
 - 9.4 adhesives
 - 9.5 bonding agents
 - 9.6 colourings
 - 9.7 waterproof coatings

9.8 grouts

9.9 pre-mixed compounds

Performance Criteria 6

10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

Hazards

3 those identified by risk assessment, Control of Substances Hazardous to Health (COSHH) assessments, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

4.1 collective protective measures

4.2 local exhaust ventilation (LEV)

4.3 personal protective equipment (PPE)

4.4 respiratory protective equipment (RPE)

Information

5 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance associated with preparing and mixing construction related materials

Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting

Maintenance

7 operative care of hand tools, power tools and ancillary equipment

Methods of work

- 8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
 - 8.1 plan, set out and prepare cementitious materials, plasters, resins, adhesives, bonding agents, colourings, water-proof coatings, grouts and pre-mixed compounds for use
 - 8.2 conform to agreed specifications
 - 8.3 set up, prepare, conduct pre-start checks, start, operate, monitor the operation of and close down specialist mixing machinery and equipment
 - 8.4 recognise types of materials and constituents
 - 8.5 work with, around and in close proximity to plant or machinery and lifting equipment
 - 8.6 monitor and check accuracy during progress and on completion of work
 - 8.7 protect constituents and mixed materials
 - 8.8 identify requirements for quality control including tests
 - 8.9 recognise and determine when specialist skills and knowledge are required and report accordingly
 - 8.10 use hand tools, power tools and equipment
 - 8.11 use access equipment
 - 8.12 team work and communication
 - 8.13 needs of other occupations associated with preparing and mixing construction related materials

Problems

- 9 those arising from information, resources and methods of work
 - 9.1 own authority to rectify
 - 9.2 organisational reporting procedures

Programme

- 10 types of productivity targets and time scales
- 11 how times are estimated
- 12 organisational procedures for reporting circumstances which will affect the work programme

Protect work

- 13 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

- 14 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist

- 14.1 cementitious materials, plasters, resins, adhesives, bonding agents, colourings, waterproof coatings, grouts, pre-mixed compounds
- 14.2 hand tools, power tools and equipment
- 15 how to confirm resources and materials conform with the given specification
- 16 methods of calculating quantity, length, area, volume and wastage associated with the method and procedure to prepare and mix construction related materials
- Security procedures
- 17 site, workplace, company and operative

Behaviours

When performing to this standard you are likely to demonstrate the following behaviours:

- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
- 2 Effective communication: oral, written, electronic, listening, body language, presentation
- 3 Respect: apply equality, diversity and inclusion in dealing with others.
- 4 Team work: work effectively and safely with others with limited supervision.
- 5 Independent working: take responsibility for safe completion of your own work.
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.
- 7 Working effectively: undertake the work in a reliable, safe and productive manner.
- 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 Adaptability: be able to adjust to changes to the work instructions, put safety first

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Construction and Civil Engineering Operations

Key words

Cementitious; Plasters; Resins; Colourings; Bonding agents; Waterproofers; Grouting Behaviours

When performing to this standard you are likely to demonstrate the following behaviours:

- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
- 2 Effective communication: oral, written, electronic, listening, body language, presentation
- 3 Respect: apply equality, diversity and inclusion in dealing with others.
- 4 Team work: work effectively and safely with others with limited supervision.
- 5 Independent working: take responsibility for safe completion of your own work.
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.
- 7 Working effectively: undertake the work in a reliable, safe and productive manner.
- 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 Adaptability: be able to adjust to changes to the work instructions, put safety first

COSVR365**Segregate the area for highways works****Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment and preparing for and segregating the area for highways works

This standard is for people working in the occupational area of road building and maintenance, can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work

- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used

K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, method statements, site inspections and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use, storage and handling of materials, tools and equipment

2.4 specific risks to health

2.5 others affected by the work

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials, components and fixings

3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, locate, set out, position, assemble, maintain and remove
- 8 use and maintain tools and ancillary equipment
- 9 segregate the area for live highways works in compliance with recognised current legislation and official guidance and given working instructions relating to the following
 - 9.1 access and egress to site
 - 9.2 work activity and storage of resources
 - 9.3 signs, cones, lighting and guarding, portable traffic signals for temporary traffic management control
- 10 maintain and remove signs, lighting and guarding, portable traffic signals in compliance with recognised current legislation and official guidance

Performance Criteria 6

- 11 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries
 - 2.2 emergencies relating to occupational activities

Hazards

- 3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

- 4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 4.1 collective protective measures
 - 4.2 personal protective equipment (PPE)

4.3	respiratory protective equipment (RPE)
	Information
5	drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, electronic data, current regulations and current legislation, official guidance and Codes of Practice governing traffic management relating to the highways works
	Legislation and official guidance
6	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
	Maintenance
7	operative care of hand tools, power tools, ancillary equipment and traffic control equipment
	Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
8.1	plan and implement the agreed plan for site safety, access and egress, work activities and storage of resources and temporary traffic management control around the highways works
8.2	set out signs, cones, lights, portable traffic signals and guarding for temporary traffic management control
8.3	work around street furniture and ironwork
8.4	deal with others affected by the work
8.5	check and maintain operation of traffic control equipment
8.6	dismantle and remove signs, lights, cones, portable traffic signals and guarding for temporary traffic management control
8.7	return infrastructure to operational status
8.8	recognise and determine when specialist skills and knowledge are required and report accordingly
8.9	use hand tools, power tools and equipment
9	team work and communication
10	needs of other occupations associated with segregating the area for highways works
	Problems
11	those arising from information, resources and methods of work
11.1	own authority to rectify
11.2	organisational reporting procedures

Programme

- 12 types of productivity targets and time scales
- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme

Protect work

- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
 - 16.1 signs, lights, guards and portable traffic signals
 - 16.2 pedestrian and vehicular traffic control systems
 - 16.3 hand tools, power tools and ancillary equipment
- 17 identify by calculation, quantity, length, area and wastage associated with the method and procedure for segregating the area for highways works

Security procedures

- 18 site, workplace, company and operative

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Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and Maintenance; Site Logistics (Construction)

Key words

Traffic signs; Lighting; Guards; Temporary traffic-management; Signals; Traffic signals; Portable traffic signals

COSVR370

Install, maintain and remove temporary excavation support

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, installing, maintaining and removing temporary excavation support

This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond

- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

- K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 avoidance of risk by complying with the given information relating to the following
 - 2.1 methods of work
 - 2.2 safe use of health and safety control equipment
 - 2.3 safe use of access equipment
 - 2.4 safe use, storage and handling of materials, tools and equipment
 - 2.5 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work
 - 3.1 materials, components and fixings
 - 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, mark out, prepare, position, fit, support, fix, secure, dismantle and remove
- 8 use and maintain hand tools, power tools and ancillary equipment
- 9 install, maintain and remove temporary excavation support to given working instructions relating to at least one of the following
 - 9.1 proprietary systems e.g. drag box, trench box, manhole box
 - 9.2 open and closed support systems
 - 9.3 piling systems e.g. diaphragm wall, trench sheets, sheet piles, secant support or contiguous support
 - 9.4 bespoke support systems

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

	Disposal of waste
1	environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
	Emergencies
2	operative's response to situations in accordance with organisational authorisation and personal skills when involved with
2.1	fires, spillages, injuries
2.2	emergencies relating to occupational activities
	Hazards
3	those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance
	Health and safety control equipment
4	identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
4.1	collective protective measures
4.2	local exhaust ventilation (LEV)
4.3	personal protective equipment (PPE)
4.4	respiratory protective equipment (RPE)
	Information
5	drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing construction works and the support of excavations
	Legislation and official guidance
6	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
	Maintenance
7	operative care of hand tools, power tools and ancillary equipment
	Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
8.1	recognise types of temporary support for excavations
8.2	conform to agreed specifications
8.3	plan, prepare and set out for the installation of the excavation support and edge protection

8.4	remove surface courses, ironwork, modular components, street furniture and sub-surface structures
8.5	recognise changes in ground conditions, ground water conditions, soil types and excavation stability
8.6	recognise the dangers of loads and structures at the edge of excavations
8.7	identify and locate utility services, excavate around services and protect
8.8	recognise inspection and test criteria for excavation support systems
8.9	provide for safe access and egress into the excavation and around the temporary excavation support
8.10	protect and monitor adjacent structures
8.11	excavate manually for the installation, maintenance and removal of excavation supports
8.12	construct, erect and install temporary excavation support as excavations progress and on completion
8.13	monitor and check accuracy at start, during progress and on completion of work
8.14	work with, around and in close proximity to plant and machinery including lifting equipment
8.15	inspect and maintain the integrity and safety of the temporary support structures
8.16	dismantle and remove the excavation support structure
8.17	recognise and determine when specialist skills and knowledge are required and report accordingly
8.18	use hand tools, power tools and equipment
8.19	work at height and in confined spaces
8.20	use access equipment
9	team work and communication
10	needs of other occupations associated with installing, maintaining and removing temporary excavation support
	Problems
11	those arising from information, resources and methods of work
11.1	own authority to rectify
11.2	organisational reporting procedures
	Programme
12	types of productivity targets and time scales
13	how times are estimated
14	organisational procedures for reporting circumstances which will affect the work programme

Protect work

- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
- 16.1 proprietary systems
 - 16.2 open and closed support systems
 - 16.3 piling systems
 - 16.4 bespoke equipment
 - 16.5 fixing devices
 - 16.6 hand tools, power tools and ancillary equipment
- 17 how to confirm resources and materials conform with the given specification
- 18 methods of calculating quantity, length, area and wastage associated with the method and procedure to provide excavation support

Security procedures

- 19 site, workplace, company and operative

Behaviours

When performing to this standard you are likely to demonstrate the following behaviours:

- 1 Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
- 2 Effective communication: oral, written, electronic, listening, body language, presentation
- 3 Respect: apply equality, diversity and inclusion in dealing with others.
- 4 Team work: work effectively and safely with others with limited supervision.
- 5 Independent working: take responsibility for safe completion of your own work.
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.
- 7 Working effectively: undertake the work in a reliable, safe and productive manner.
- 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 Adaptability: be able to adjust to changes to the work instructions, put safety first

Developed by: ConstructionSkills

Version number: 4



Date approved: February 2016

Indicative review date: January 2021

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR370

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Construction and Civil Engineering Operations

Key words

Drag-box; Trench-box; Diaphragm wall; Secant support; Open and closed boarding; Sheet piles; Manhole box

COSVR391

Operate plant or machinery to receive and transport loads

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and equipment for plant or machinery operations, setting up, operating and shutting down plant or machinery to receive and transport bulk material loads

This standard is for people working independently to operate plant or machinery that receives and transports bulk material loads and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work

- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 how emergencies should be responded to and who should respond
- K9 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K10 what the accident reporting procedures are and who is responsible for making the report
- K11 why, when and how health and safety control equipment should be used
- K12 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 4

Request resources

K13 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:

Performance Criteria 5

Selection of resources

K14 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified

K15 how the resources should be used and how any problems associated with the resources are reported

K16 the organisational procedures to select resources, why they have been developed and how they are used

K17 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 6

Minimise the risk of damage

K18 how to protect work from damage and the purpose of protection

K19 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 7

Meet the contract specification

K20 how methods of work, to meet the specification, are carried out and problems reported

K21 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:

Performance Criteria 8

Allocated time

K22 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, risk assessments and manufacturers' information related to the plant or machinery operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant or machinery operation and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to at least four of the following
 - 4.1 methods of work
 - 4.2 safe use of health and safety control equipment
 - 4.3 safe use and storage of plant or machinery
 - 4.4 safe use and storage of tools and equipment
 - 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
 - 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 prevent damage and maintain a clean work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, adjust, communicate, manoeuvre, position, receive, transport and deposit
- 11 use and maintain hand tools, ancillary equipment and/or accessories
- 12 operate plant or machinery to receive and transport bulk material loads to given working instructions, relating to one of the following categories
 - 12.1 concrete pumps
 - 12.2 forward tipping dumpers
 - 12.3 tractors complete with towed equipment
 - 12.4 tunnelling plant and equipment
 - 12.5 dump trucks

12.6	browsers
12.7	volumetric truck
13	shut down and secure plant or machinery
Performance Criteria 8	
14	completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client
Scope/range related to knowledge and understanding	
Communication	
1	discussions, sketches, electronic data and briefings
Disposal of waste	
2	environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
Emergencies	
3	operative's response to situations in accordance with organisational authorisation and personal skills when involved with
3.1	fires, spillages, injuries
3.2	emergencies relating to occupational activities
Hazards	
4	those identified by method of work, risk/COSHH assessments, manufacturers' technical information, statutory regulations and official guidance
Health and safety control equipment	
5	identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment
5.1	collective protective measures
5.2	local exhaust ventilation (LEV)
5.3	personal protective equipment (PPE)
5.4	respiratory protective equipment (RPE)
Information	
6	drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of plant and machinery to receive and transport loads
Legislation, Approved Codes of Practice and official guidance	
7	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and

substances, with movement/storage of materials and by manual handling and mechanical lifting

Maintenance

- 8 operative care of plant and machinery, hand tools and ancillary equipment

Methods of work

- 9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to
- 9.1 identify the characteristics of the plant and machinery used for the receipt and transportation operations
- 9.2 carry out function checks to receive and transport loads
- 9.3 identify characteristics, type and volume of loads to receive and transport
- 9.4 carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area
- 9.5 recognise and determine when specific skills and knowledge are required and report accordingly
- 9.6 receive, secure and balance loads for transport
- 9.7 transport and deposit loads
- 9.8 travel on public highways
- 9.9 shut down and secure plant and machinery
- 9.10 use hand tools, ancillary equipment and accessories
- 10 team work and communication
- 11 needs of other occupations associated with operating plant and machinery for receiving and transporting bulk material loads

Problems

- 12 those arising from information, resources and methods of work
- 12.1 own authority to rectify
- 12.2 organisational reporting procedures

Programme

- 13 types of progress charts, timetables and estimated times
- 14 organisational procedures for reporting circumstances which will affect the work programme

Protect work

- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources



- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist
 - 16.1 consumables, lubricants, fuels
 - 16.2 attachments and load coverings
 - 16.3 hand tools, ancillary equipment and accessories
- 17 identify weight, quantity, pressure, length and area associated with the method/procedure to operate plant and machinery for receiving and transporting bulk material loads
 - Security procedures
- 18 site, workplace, company and operative
 - Skills
- 19 own occupation and occupations related to the work

Developed by: ConstructionSkills

Version number: 2

Date approved: January 2014

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Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR391

Relevant occupations: Mobile Machine Drivers and Operatives

Suite

Plant Operations (Construction); Construction Operations and Civil Engineering Services; Demolition; Piling Operations (Construction); Site Logistics Operations (Construction); Sub-structure Work Occupations (Construction); Tunnelling Operations (Construction); Fencing

Key words

Concrete-pumps; Forward tipping dumpers; Tractors; Towed equipment; Tunnelling plant; Dump-trucks; Bowsers; Volumetric truck

COSVR394

Operate plant or machinery to compact

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and equipment for plant or machinery operations, setting up, operating and shutting down plant or machinery for compaction work

This standard is for people working independently or as part of a team to operate plant or machinery to compact and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 how emergencies should be responded to and who should respond
- K9 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K10 what the accident reporting procedures are and who is responsible for making the report
- K11 why, when and how health and safety control equipment should be used
- K12 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 4

Request resources

- K13 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:

Performance Criteria 5

Selection of resources

- K14 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K15 how the resources should be used and how any problems associated with the resources are reported
- K16 the organisational procedures to select resources, why they have been developed and how they are used
- K17 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 6

Minimise the risk of damage

K18 how to protect work from damage and the purpose of protection

K19 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 7

Meet the contract specification

K20 how methods of work, to meet the specification, are carried out and problems reported

K21 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:

Performance Criteria 8

Allocated time

K22 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments and manufacturers' information related to the plant or machinery operations and the work to be carried out

Performance Criteria 2

2 organisation of own work

3 communication with team members and other associated occupations about the plant or machinery operation and the work to be carried out

Performance Criteria 3

4 avoidance of risk by complying with the given safety information relating to at least four of the following

4.1 methods of work

4.2 safe use of health and safety control equipment

4.3 safe use and storage of plant or machinery

4.4 safe use and storage of tools and equipment

4.5 specific risks to health

Performance Criteria 4

5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

6 selection of resources associated with own work

6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

7 protection of the work and its surrounding area from damage

8 prevent damage and maintain a clean work space

9 disposal of waste in accordance with current legislation

Performance Criteria 7

10 demonstration of work skills check, adjust, communicate, manoeuvre, position and compact

11 use and maintain hand tools, ancillary equipment and/or accessories

12 operate plant or machinery for compaction to given working instructions, relating to one of the following categories

12.1 ride on rollers

12.2 compactors

13 shut down and secure plant or machinery

Performance Criteria 8

14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Communication

1 discussions, sketches, electronic data and briefings

Disposal of waste

2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

3.1 fires, spillages, injuries

3.2 emergencies relating to occupational activities

Hazards

4 those identified by method of work, risk/COSHH assessments, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2	local exhaust ventilation (LEV)
5.3	personal protective equipment (PPE)
5.4	respiratory protective equipment (RPE)
	Information
6	drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of plant and machinery for compaction work
	Legislation, Approved Codes of Practice and official guidance
7	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting
	Maintenance
8	operative care of plant and machinery, hand tools and ancillary equipment
	Methods of work
9	application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to
9.1	identify the characteristics of the plant and machinery used for compaction operations
9.2	carry out function checks for compaction operations
9.3	identify with the area for the compaction work
9.4	carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area
9.5	identify geological, environmental and material changes and report
9.6	check to avoid damage to structures and utilities service apparatus
9.7	recognise different compaction methods
9.8	recognise and work compaction patterns
9.9	recognise and determine when specific skills and knowledge are required and report accordingly
9.10	complete compaction work
9.11	travel on public highways
9.12	shut down and secure plant and machinery
9.13	use hand tools, ancillary equipment and accessories
10	team work and communication
11	needs of other occupations associated with operating plant and machinery for compaction work

Problems

12 those arising from information, resources and methods of work

12.1 own authority to rectify

12.2 organisational reporting procedures

Programme

13 types of progress charts, timetables and estimated times

14 organisational procedures for reporting circumstances which will affect the work programme

Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist

16.1 consumables, lubricants, fuels

16.2 attachments, compaction aids

16.3 hand tools, ancillary equipment and accessories

17 identify weight, bearing, pressure, quantity, length and area associated with the method/procedure to operate plant and machinery to carry out compaction work

Security procedures

18 site, workplace, company and operative

Skills

19 own occupation and occupations related to the work

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Status: Original

Originating organisation: ConstructionSkills

Original URN: VR394

Relevant occupations: Mobile Machine Drivers and Operatives

Suite

Plant Operations (Construction); Construction Operations and Civil Engineering Services; Sub-structure Work Occupations (Construction)

Key words

Ride-on rollers; Compactors

COSVR396**Direct and guide the movement of vehicles, plant or machinery****Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting materials, components, tools and ancillary equipment to direct and guide the movement of loaded and unloaded vehicles, plant or machinery, preparing for and directing and guiding the movement of loaded and unloaded vehicles, plant or machinery. This standard is for people working independently or in a team required to direct and guide the movement of loaded and unloaded vehicles, plant or machinery and can be used by operatives, supervisors and managers.

Performance criteria

You must be able to:

P1 interpret the given operating information relating to the work and resources and confirm its relevance

P2 organise with others the sequence in which the work is to be carried out

P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices

P4 select plant or machinery resources for the methods of work and operations to be carried out

P5 comply with organisational procedures to minimise the risk of damage to the work and surrounding area

P6 comply with the given contract information to carry out the work efficiently to the required specification

P7 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

Performance Criteria 1

Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Organise with others K4 communication of ideas between team members

K5 organisation of resources in conjunction with the progress of work

K6 the skills required to carry out the work

Performance Criteria 3

Safe work practices

K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied

K8 how emergencies should be responded to and who should respond

K9 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings

K10 what the accident reporting procedures are and who is responsible for making the report

K11 why, when and how health and safety control equipment should be used

K12 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

Performance Criteria 4

Selection of resources

K13 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified

K14 how the resources should be used and how any problems associated with the resources are reported

K15 the organisational procedures to select resources, why they have been developed and how they are used

K16 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 5

Minimise the risk of damage

K17 how to protect work from damage and the purpose of protection

K18 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 6

Meet the contract specification

K19 how methods of work, to meet the specification, are carried out and problems reported

K20 how maintenance of plant and/or machinery, tools and equipment is carried out

Performance Criteria 7

Allocated time

K21 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, plant and vehicle movement plans and manufacturers' information related to the movement of vehicles, plant or machinery

Performance Criteria 2

2 organisation of own work

3 communication with team members and other associated occupations about the movement of vehicles, plant or machinery and the work to be carried out

Performance Criteria 3

4 avoidance of risk by complying with the given safety information relating to at least four of the following

4.1 methods of work

4.2 safe use of health and safety control equipment

4.3 safe use and storage of tools

4.4 safe use and storage of equipment

4.5 specific risks to health

Performance Criteria 4

5 selection of resources associated with own work

5.1 hand tools and ancillary equipment

5.2 signalling and communication equipment

Performance Criteria 5

6 protection of the work and its surrounding area from damage

7 prevent damage and maintain a clean work space 8 disposal of waste in accordance with current legislation

Performance Criteria 6

9 demonstration of work skills to measure, gauge, estimate, interpret, judge, explain, prepare, command, direct, guide, indicate, inform, instruct, sign, position, move, secure, signal and relay

10 use and maintain hand tools, ancillary equipment and signalling and communication equipment

11 direct and guide the movement of loaded and unloaded vehicles, including articulated vehicles and plant or machinery (wheeled or tracked) to given working instructions, relating to the following

11.1 hand signals

11.2 hand signalling equipment

11.3 verbal and electronic communication equipment

Performance Criteria 7

12 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Communication

1 discussions, sketches, electronic data and briefings, signalling and radio communication

Disposal of waste

2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

3.1 fires, spillages, injuries

3.2 emergencies relating to occupational activities

Hazards

4 those identified by method of work, risk/COSHH assessments, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2 local exhaust ventilation (LEV)

5.3 personal protective equipment (PPE)

5.4 respiratory protective equipment (RPE)

Information

6 drawings, specifications, schedules, method statements, risk assessments, plant and vehicle movement plans, manufacturers' information and Codes of Practice for the direction and guidance of vehicle, plant and machinery Legislation, Approved Codes of Practice and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting

Maintenance

8 operative care of hand tools, ancillary equipment, signalling and communication equipment

Methods of work

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to

9.1 identify the differences between directing and guiding movement, directing and guiding operations and slinging and signalling

9.2 interpret a work management plan and vehicle movement plan

9.3 identify the hierarchy of traffic control measures and pedestrian separation

9.4 organise and ensure the maintenance of holding areas, routes, exclusion zones, markers and signs

9.5 assess and determine the movement of vehicles, plant and machinery, to include own position of safety, visibility, ground conditions and features, proximity hazards and weight limits

9.6 recognise and react to changing conditions, ground, environment, weather, light, numbers and types of vehicles, plant and machinery

9.7 liaise with, convey and collect information from and to, drivers and operators

9.8 recognise and utilise movement aids (camera's, mirrors, audio and visual warnings, etc.)

9.9 recognise blind-spots, potential crush zones and other limitations to driver visibility

9.10 recognise the requirements of directing and guiding the movement of vehicles, plant and machinery onto and from public highways

9.11 recognise the requirements of working on public highways

9.12 direct and guide different vehicle types and size e.g. height, weight length, width, tracked, wheeled and articulated

9.13 assess and determine the movement of loads, including unloading, discharging and loading requirements

9.14 direct and guide vehicles, plant and machinery across rough or uneven terrain

9.15 check the integrity of load securing equipment and stability of loads, prior to commencement of movements and on arrival, prior to release

9.16 signal and communicate following recognised and agreed operational procedures

9.17 recognise and determine when specific skills and knowledge are required and report accordingly

9.18 use hand tools and ancillary equipment

10 team work and communication

11 needs of other occupations associated with directing and guiding the movement of vehicles, plant and machinery

Problems

12 those arising from information, resources and methods of work

12.1 own authority to rectify 12.2 organisational reporting procedures

Programme

13 types of progress charts, timetables and estimated times

14 organisational procedures for reporting circumstances which will affect the work programme

Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist

16.1 signalling and communication equipment

16.2 barriers, cones, signs

16.3 lighting equipment

16.4 hand tools and ancillary equipment

17 identify weight/bearing pressures, quantity, length and area associated with the method/procedure for directing and guiding the movement of vehicles, plant and machinery

Security procedures

18 site, workplace, company and operative Skills

19 own occupation and occupations related to the work

Developed by: ConstructionSkills

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Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR396

Relevant occupations: Mobile Machine Drivers and Operatives

Suite

Plant Operations (Construction); Construction Operations and Civil Engineering Services; Site Logistics Operations (Construction); Temporary Traffic Management (Construction); Tunnelling Operations (Construction); Fencing; Treework

Key words

Hand signalling equipment; Electronic communication equipment; Directing; Guiding; Hand signals

COSVR402 (A)**Slinging and hand signalling the movement of suspended loads****Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices and selecting components and equipment, preparing lifting accessories for slinging, attaching and securing loads and signalling the movement of suspended loads to guide them to an agreed destination and leaving the load in a safe condition. This standard is for people working independently or in a team to prepare and sling loads and signal movement to operators of plant or machinery that lift and transfer suspended loads. This standard can be used by operatives, supervisors and managers.

Performance criteria

You must be able to:

P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance

P2 organise with others the sequence in which the work is to be carried out

P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices

P4 select plant or machinery resources for the methods of work and operations to be carried out

P5 comply with organisational procedures to minimise the risk of damage to the work and surrounding area P6 comply with the given contract information to carry out the work efficiently to the required specification P7 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1 Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented



K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2 Organise with others

K4 communication of ideas between team members

K5 organisation of resources in conjunction with the progress of work K6 the skills required to carry out the work

Performance Criteria 3 Safe work practices

K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied

K8 how emergencies should be responded to and who should respond

K9 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings

K10 what the accident reporting procedures are and who is responsible for making the report

K11 why, when and how health and safety control equipment should be used

K12 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

Performance Criteria 4 Selection of resources

K13 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified

K14 how the resources should be used and how any problems associated with the resources are reported

K15 the organisational procedures to select resources, why they have been developed and how they are used

K16 the hazards associated with the resources and methods of work and how they are overcome Performance Criteria 5 Minimise the risk of damage

K17 how to protect work from damage and the purpose of protection

K18 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 6 Meet the contract specification

K19 how methods of work, to meet the specification, are carried out and problems reported

K20 how maintenance of plant and/or machinery, tools and equipment is carried out

Performance Criteria 7 Allocated time

K21 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, method statements (lift plans), and manufacturers' information related to the plant or machinery operations and the work to be carried out

2 organisation of own work

3 communication with team members and other associated occupations about the plant or machinery operation and the work to be carried out

Performance Criteria 3

4 avoidance of risk by complying with the given safety information relating to at least five of the following

4.1 methods of work

4.2 safe use of health and safety control measures

4.3 safe use and storage of tools and equipment

4.4 safe use, storage and handling of lifting accessories

4.5 safe use of access equipment

4.6 specific risks to health

Performance Criteria 4

5 selection of resources associated with own work

5.1 lifting accessories, lifting aids, hand tools and ancillary equipment

5.2 signalling and communication equipment

Performance Criteria 5

6 protection of the work and its surrounding area from damage

7 prevent damage and maintain a clean work space

8 disposal of waste in accordance with current legislation

Performance Criteria 6

9 demonstration of work skills to measure, gauge, estimate, calculate, fit, fix, test, balance, interpret, inspect, judge, explain, prepare, indicate, inform, instruct, sign, position, adjust, configure, move, secure, signal and relay

10 use and maintain lifting accessories, lifting aids and signalling and communication equipment

11 inspect and prepare lifting accessories prior to slinging

12 sling and signal for the lifting and movement of loads by plant or machinery operations to given working instruction, either by occupation specific slinging and signalling – at least three of the following, or by slinging and signalling as an occupation – all of the following

12.1 balance

12.2 unbalanced

12.3 loose

12.4 bundled

12.5 container

12.6 drum

12.7 a load where the machine operator cannot observe its full movement path

13 guide, move and place suspended loads to agreed destinations to given working instructions using hand signals, plus, for slinging and signalling as an occupation, the following methods

13.1 hand signalling equipment

13.2 electronic communication equipment

Performance Criteria 7

14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Communication

1 discussions, sketches, electronic data and briefings, signalling and radio communication

Disposal of waste

2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

3.1 fires, spillages, injuries

3.2 emergencies relating to occupational activities

Hazards

4 those identified by risk/COSHH assessments, method of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2 local exhaust ventilation (LEV)

5.3 personal protective equipment (PPE)

5.4 respiratory protective equipment (RPE)

Information

6 drawings, specifications, schedules, method statements, risk assessments, lift plans, work instructions, manufacturers' information, approved procedures and Codes of Practice

Legislation, Approved Codes of Practice and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting

Maintenance

8 operative care of lifting accessories, lifting aids and signalling and communication equipment

Methods of work

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to

9.1 identify the differences between: slinging and signalling, directing and guiding movement of vehicles, plant and machinery; and directing and guiding operations of plant and machinery not being used for lifting operations

9.2 confirm the authority, duties and responsibilities allocated

9.3 identify characteristics of lifting equipment and lifting accessories

9.4 identify and interpret valid certification for maintenance, inspection and thorough examination

9.5 lift and transfer people

9.6 sling, balanced, unbalanced, loose, live, bundled, container drum loads and loads that are blind to the equipment operator

9.7 communicate using hand signals, hand signalling equipment (lights, wands, fluorescent gloves, flags) and electronic communication equipment (loud hailers, radios)

9.8 confirm methods of communication

9.9 recognise blind-spots, potential crush zones and other limitations to driver visibility

9.10 consider the load characteristics including centre of gravity and lifting points to determine the method of slinging

9.11 determine and check the route of the load before and during the lift including distances, clearances and landing position

9.12 select, handle, inspect and use (assemble, set up and adjust) lifting accessories and aids

9.13 identify rejection criteria for removing lifting accessories from service

9.14 recognise and determine when specific skills and knowledge are required and report accordingly

9.15 attach lifting accessories and sling loads securely 9.16 ensure balance and stability of loads

9.17 attach and use load guidance equipment (tag lines)

9.18 guide and place suspended loads by recognised methods of communication and agreed operational procedures

9.19 land and position loads safely and securely

9.20 remove, disassemble and store lifting accessories

9.21 use hand tools and ancillary equipment

10 team work and communication

11 needs of other occupations associated with slinging and signalling the movement of suspended loads

Problems

12 those arising from information, resources and methods of work

12.1 own authority to rectify

12.2 organisational reporting procedures

Programme

13 types of progress charts, timetables and estimated times

14 organisational procedures for reporting circumstances which will affect the work programme

Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist

16.1 lifting accessories

16.2 signalling and communication equipment

16.3 hand tools and ancillary equipment

17 identify weight, quantity, length and area associated with the method/procedure for slinging and signalling the movement of suspended loads

Security procedures

18 site, workplace, company and operative

Skills

19 own occupation and occupations related to the work

Key words

Radio communication; Lifting equipment; Lifting aids, Signalling and communication equipment; Hand signalling equipment

COSVR639**Install drainage****Overview**

This standard is about interpreting information, adopting safe and healthy working practices, selecting materials, components and equipment and preparing for and laying pipes, installing and testing new and/or replacement drainage

This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1**Interpretation of information**

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

- K14 how to protect work from damage and the purpose of protection
- K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

- K16 how methods of work, to meet the specification, are carried out and problems reported
- K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to at least four of the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use of access equipment

2.4 safe use and storage and handling of materials, tools and equipment

2.5 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials, components and fixings

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

7 demonstration of work skills to check, measure, mark out, cut, lay, position, fit, join, level, plumb, align, secure and test

8 use and maintain hand tools, power tools and ancillary equipment

9 lay bedding materials, install and test pipework (e.g. clay, concrete, metal or plastic) for new and/or replacement, foul and/or surface water drainage for at least one of the following to given working instructions

9.1 inspection chambers (e.g. brick, concrete, metal or plastic)

9.2 surface water systems (e.g. cells, culverts, high capacity, linear, balancing ponds, interceptors, recycling equipment, soak-a-ways, sustainable urban drainage systems)

9.3 foul water systems (e.g. cess pools, septic tanks, reed beds, treatment plants)

- 9.4 surround pipe with specified materials
- 9.5 place backfill to trench using given work instructions for both compacted and free drainage materials

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

- 2.1 fires, spillages, injuries

- 2.2 emergencies relating to occupational activities

Hazards

- 3 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

- 4 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

- 4.1 collective protective measures

- 4.2 local exhaust ventilation (LEV)

- 4.3 personal protective equipment (PPE)

- 4.4 respiratory protective equipment (RPE)

Information

- 5 drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions, permits, regulations and official guidance governing the installation and construction of drainage systems

Legislation and official guidance

- 6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting

Maintenance

7	operative care of hand tools, power tools and ancillary equipment
	Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to:
8.1	excavate trenches and provide trench support
8.2	confirm ground conditions, site and excavations are suitable for the drainage installation work
8.3	recognise the dangers of loads and structures at the edge of excavations
8.4	deal with groundwater
8.5	work around other utility services
8.6	install geotextile materials
8.7	prepare different types of bedding for pipework e.g. sand, shingle and cementious
8.8	determine levels and gradients
8.9	identify the differences between surface and foul water drainage
8.10	measure, mark and cut drainage materials
8.11	lay, position, level, plumb, align, fit, join, fix and secure new and replacement drainage systems
8.12	lift and transport assembled drainage systems
8.13	construct structures of a drainage system (storm alleviation, culverts, inspection chambers, lateral drains, overflows, sumps, filter drains, sustainable urban drainage systems)
8.14	assemble pre-cast components (metal, concrete, clay and plastic) of a drainage system structure (inspection chambers, street iron work)
8.15	connect and seal new systems to existing systems
8.16	prepare for conducting smoke, water, ball, air and mandrel tests on drainage systems
8.17	work with, around and in close proximity to plant and machinery including lifting plant
8.18	store and dispose of removed drainage components
8.19	follow specified hygiene procedures particularly when dealing with foul water draining systems
8.20	recognise and determine when specialist skills and knowledge are required and report accordingly
8.21	determine specific requirements for structures of special interest, traditional build (pre 1919) and historical significance
8.22	use hand tools, power tools and equipment
8.23	work at height and below ground level

8.24	use access equipment
9	team work and communication
10	needs of other occupations associated with installing drainage
	Problems
11	those arising from information, resources and methods of work
11.1	own authority to rectify
11.2	organisational reporting procedures
	Programme
12	types of progress charts, timetables, productivity targets and time scales
13	how times are estimated
14	organisational procedures for reporting circumstances which will affect the work programme
	Protect work
15	protect work against damage from general workplace activities, other occupations and adverse weather conditions
	Resources
16	materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
16.1	pipes, fittings and ancillary components
16.2	pre-cast (metal, concrete, clay or plastic) components
16.3	bricks, blocks and sandbags
16.4	granular materials, aggregates, cement, concrete, mortars and sand
16.5	sealant materials (adhesives, compounds, solvents)
16.6	hand tools, power tools and ancillary equipment
17	how to confirm resources and materials conform with the given specification
18	methods of calculating quantity, length, volume, area and wastage associated with the method and procedure to install drainage
	Security procedures
19	site, workplace, company and operative
	Behaviours
	When performing to this standard you are likely to demonstrate the following behaviours:
1	Work safely: consider the safety of yourself and those around you, challenge unsafe behaviour
2	Effective communication: oral, written, electronic, listening, body language, presentation



- 3 Respect: apply equality, diversity and inclusion in dealing with others.
- 4 Team work: work effectively and safely with others with limited supervision.
- 5 Independent working: take responsibility for safe completion of your own work.
- 6 Logical thinking: use clear and valid reasoning when making decisions to safely undertake the work instructions.
- 7 Working effectively: undertake the work in a reliable, safe and productive manner.
- 8 Time management: use own time effectively to complete the work instructions to schedule, take the time to be safe.
- 9 Adaptability: be able to adjust to changes to the work instructions, put safety first

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Suite

Construction and Civil Engineering Operations; Building Maintenance Multi-trade Repair and Refurbishment Operations); Trowel Occupations (Construction)

Key words

Pipes; Inspection chambers; Culverts; Soak-a-ways; Cess pools; Septic tanks; Reed beds; Overflows; Treatment plants; Interceptors; Mandrel

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COSVR643

Move, handle or store resources

This standard, in the context of your occupation and work environment, is about 1 interpreting information 2 adopting safe and healthy working practices 3 selecting aids or equipment to move, handle or store occupational resources 4 moving, handling and storing occupational resources to maintain useful condition

Performance criteria

You must be able to:

P1 comply with the given information to move, handle or store resources

P2 comply with the given relevant legislation and official guidance to move, handle or store occupational resources and maintain safe work practices

P3 select the required quantity and quality of resources for the method of moving, handling or storing occupational resources

P4 prevent damage to the occupational resources and surrounding environment

P5 comply with the given occupational resource information to carry out the work efficiently to the required guidance

P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1 Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented

K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

K4 how to obtain information to use and store lifting aids and equipment

Performance Criteria 2 Safe work practices

K5 the level of understanding operatives must have of information for relevant current legislation and official guidance and how it is applied

K6 the types of fire extinguishers and how and when they are used

K7 how emergencies should be responded to and who should respond

K8 the organisational security procedures for tools, equipment and personal belongings

K9 what the accident reporting procedures are and who is responsible for making the report

K10 why, when and how health and safety control equipment should be used

Performance Criteria 3 Selection of resources

K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

K12 how the resources should be handled and how any problems associated with the resources are reported

K13 the organisational procedures to select resources, why they have been developed and how they are used

K14 Performance Criteria 4 Prevent damage

K15 how to protect work from damage and the purpose of protection

K16 why disposal of waste should be carried out safely and how it is achieved the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 5 Comply with occupational resource information

K17 how methods of work, to meet the specification, are carried out and problems reported

Performance Criteria 6 Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional information

Scope/range related to performance criteria

Performance Criteria 1 1 interpret given information to move, handle or store occupational resources, and use and store lifting aids and equipment Performance Criteria 2 2 avoidance of risk by complying with the given information relating to at least two of the following 2.1 methods of work 2.2 safe use of health and safety control equipment 2.3 safe use of lifting aids 2.4 protection of the environment Performance Criteria 3 3 selection of resources associated with moving, handling or storing 3.1 lifting and handling aids 3.2 container(s) 3.3 fixing, holding and securing systems Performance Criteria 4 4 protect the occupational resources and their surrounding area from damage 5 dispose of waste and packaging in accordance with legislation 6 maintain a clean work space

Performance Criteria 5 7 work skills to move, position, store, secure and/or use lifting aids and kinetic lifting techniques 8 move, handle or store occupational resources to meet product information and organisational requirements relating to at least three of the following 8.1 sheet material 8.2 loose material 8.3 bagged or wrapped material 8.4 fragile material 8.5 tools and equipment 8.6 components 8.7 liquids Performance Criteria 6 9 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or customer

Scope/range related to knowledge and understanding

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with: 2.1 fires, spillages, injuries etc 2.2 emergencies relating to occupational activities

Fire extinguishers

3 water, CO₂, foam, powder and their uses

Hazards

4 those identified by method of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment 5.1 collective protective measures 5.2 personal protective equipment (PPE) 5.3 respiratory protective equipment (RPE) 5.4 local exhaust ventilation (LEV)

Information

6 technical, product and regulatory: oral, written, graphical presentation Legislation and official guidance

7 this relates to the operative's responsibilities regarding potential accidents and health hazards whilst working in the workplace, in confined spaces, below ground level, at height, with tools and equipment, with materials and substances, with movements/storage of materials and by manual handling and mechanical lifting

Methods of work

8 application of knowledge for safe work practices, procedures and skills, relating to the method/area of work and materials used for moving, handling and storing occupational resources

9 needs of other occupations associated with the resources

Problems

10 those arising from information, resources and methods of work 10.1 own authority to rectify 10.2 organisational reporting procedures

Programme

11 types of progress charts, timetables and estimated times

12 organisational procedures for reporting circumstances which will affect the work programme
Protect work

13 against damage from general workplace activities, other occupations and adverse weather conditions

Resources

14 types, quantity, quality, sizes and sustainability of standard and/or specialist: 14.1 occupational resources 14.2 lifting and handling aids 14.3 containers 14.4 fixing, holding and securing systems
Security procedures 15 site, workplace, company and operative

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Relevant occupations Construction and Building Trades nec

Suite

Wood Occupations (Construction); Accessing Operations and Rigging (Construction); Applied Waterproof Membranes (Construction); Associated Industrial Services Occupations (Construction); Chimney Engineering (Construction); Cladding Occupations (Construction); Construction Operations and Civil Engineering Services; Construction Diving Operations (Construction); Controlling Lifting Operations (Construction); Decorative Finishing and Industrial Painting Occupations (Construction); Demolition; Erection of Precast Concrete (Construction); Fitted Interiors (Construction); Floorcovering Occupations (Construction); Formwork (Construction); Innovative/Modern Methods of Construction; Insulation and Building Treatments (Construction); Interior Systems (Construction); Maintenance Operations (Construction); Mastic Asphaltting (Construction); Piling Operations (Construction); Plant Installations (Construction); Plant Operations (Construction); Plastering (Construction); Post Tensioning Operations (Construction); Refractory Installations (Construction); Removal of Hazardous and Non-hazardous Waste (Construction); Roofing Occupations (Construction); Site Logistics (Construction); Specialist Concrete Occupations (Construction); Specialist Installation Occupations (Construction); Steelfixing (Construction); Stonemasonry (Construction); Sub-structure Work Occupations (Construction); Super-structure Work Occupations (Construction); Thermal Insulation (Construction); Trowel Occupations (Construction); Tunnelling Operations (Construction); Wall and Floor Tiling (Construction); Wood Machining (Construction/Sawmilling Extrusion/Furniture); Wood Preserving – Industrial Pre-treatment (Construction); Building Maintenance Multi-trade Repair and Refurbishment Operations

Key words

Storage; Handling; Kinetic lifting, Lifting aids

COSVR760

Control, direct and guide the operation of plant or machinery

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting materials, components, tools and ancillary equipment to control direct and guide the operation of plant or machinery not being used for lifting operations but including plant or machinery used as work platforms. This standard is for people required to control, direct and guide the operation of plant or machinery; it is not for directing movement between locations or the slinging



and signalling of plant or machinery for lifting and transferring loads in lifting operations. It does include people directing and guiding the operations of plant or machinery used as work platforms. It can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

P1 interpret the given operating information relating to the work, resources and the use of plant or machinery and confirm its relevance

P2 organise with others the sequence in which the work is to be carried out

P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices

P4 select plant or machinery resources for the methods of work and operations to be carried out

P5 comply with organisational procedures to minimise the risk of damage to the work and surrounding area

P6 comply with the given contract information to carry out the work efficiently to the required specification

P7 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1 Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2 Organise with others

K4 communication of ideas between team members

K5 organisation of resources in conjunction with the progress of work

K6 the skills required to carry out the work

Performance Criteria 3 Safe work practices

K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied

K8 how emergencies should be responded to and who should respond

K9 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings

K10 what the accident reporting procedures are and who is responsible for making the report



K11 why, when and how health and safety control equipment should be used

K12 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

Performance Criteria 4 Selection of resources

K13 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified

K14 how the resources should be used and how any problems associated with the resources are reported

K15 the organisational procedures to select resources, why they have been developed and how they are used

K16 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 5 Minimise the risk of damage

K17 how to protect work from damage and the purpose of protection

K18 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 6 Meet the contract specification

K19 how methods of work, to meet the specification, are carried out and problems reported

K20 how maintenance of plant and/or machinery, tools and equipment is carried out

Performance Criteria 7 Allocated time

K21 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of specifications, schedules, risk assessments and manufacturers' information related to controlling, directing and guiding the operation of plant or machinery not being used for lifting operations but including plant or machinery used as work platforms

Performance Criteria 2

2 organisation of own work

3 communication with team members and other associated occupations about the plant or machinery operation and the work to be carried out

Performance Criteria 3

4 avoidance of risk by complying with the given safety information relating to at least four of the following 4.1 methods of work 4.2 safe use of health and safety control equipment 4.3 safe use and storage of tools 4.4 safe use and storage of equipment 4.5 specific risks to health

Performance Criteria 4

5 selection of resources associated with own work 5.1 hand tools and ancillary equipment 5.2 signalling and communication equipment

Performance Criteria 5

6 protection of the work and its surrounding area from damage

7 prevent damage and maintain a clean work space

8 disposal of waste in accordance with current legislation

Performance Criteria 6

9 demonstration of work skills to measure, gauge, estimate, interpret, judge, explain, prepare, command, direct, guide, indicate, inform, instruct, sign, position, move, secure, signal and relay

10 use and maintain hand tools, ancillary equipment, signalling and communication equipment

11 control, direct and guide the plant or machinery not being used for lifting operations but including plant or machinery used as work platforms to given working instructions, relating to the following 11.1 hand signals 11.2 hand signalling equipment 11.3 verbal and electronic communication equipment

Performance Criteria 7

12 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Communication

1 discussions, sketches, electronic data and briefings, signalling and radio communication

Disposal of waste

2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with 3.1 fires, spillages, injuries 3.2 emergencies relating to occupational activities

Hazards

4 those identified by method of work, risk/COSHH assessments, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment 5.1 collective protective measures 5.2 local exhaust ventilation (LEV) 5.3 personal protective equipment (PPE) 5.4 respiratory protective equipment (RPE)

Information

6 drawings, specifications, schedules, method statements, risk assessments, work instructions, manufacturers' information and official guidance for controlling, directing and guiding the operations of plant and machinery

Legislation and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting

Maintenance

8 operative care of hand tools, ancillary equipment signalling and communication equipment

Methods of work 9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to 9.1 identify the differences between directing and guiding operations, directing and guiding movement and slinging and signalling 9.2 interpret work plans 9.3 assess and determine the operation of plant and machinery not being used for lifting operation but including plant or machinery used as work platforms, to include own position, visibility, ground conditions and features, proximity hazards and weight limits 9.4 identify the operational characteristics and limitations of plant and machinery, width, length, height, radius, reach, capacity 9.5 recognise blind-spots, potential crush zones and other limitations to operator visibility 9.6 control, direct and guide the operation of plant and machinery not being used for lifting operations to extract, excavate, construct, form, receive, transport, access, lay, distribute, compact and process, sweep, clean and clear 9.7 assess and determine the movement of extracted and excavated materials or commodities including the formation and removal of stockpiles, unloading, discharging and loading 9.8 control, direct and guide the operation of plant and machinery not being used in lifting operations on rough, uneven terrain and in areas of restricted movement 9.9 ensure the integrity of equipment, structures, materials and components close to operations while directing and guiding 9.10 recognise and utilise measurement and operation monitoring aids, pegs, tapes, strings, lines and levels, electronic guidance equipment, global positioning systems and laser marking devices Methods of work (Continued) 9.11 check measurements 9.12 signal and communicate following recognised and agreed operational procedures 9.13 recognise requirements for working on public highways 9.14 recognise and determine when specific skills and knowledge are required and report accordingly 9.15 use hand tools and ancillary equipment

10 team work and communication

11 needs of other occupations associated with controlling, directing and guiding the operation of plant and machinery not being used in lifting operations but including plant or machinery used as work platforms

Problems

12 those arising from information, resources and methods of work 12.1 own authority to rectify 12.2 organisational reporting procedures

Programme

13 types of progress charts, timetables and estimated times



14 organisational procedures for reporting circumstances which will affect the work programme

Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist 16.1 signalling and communication equipment 16.2 hand tools and ancillary equipment 16.3 electronic guidance equipment, global positioning systems and laser marking devices 16.4 measuring equipment (pegs, tapes, strings, lines and levels)

17 identify weight and bearing pressures, quantity, length, area and volume associated with the method/procedure for directing and guiding the operation of plant and machinery

Security procedures

18 site, workplace, company and operative

Skills

19 own occupation and occupations related to the work

Developed by: ConstructionSkills

Version number: 1

Date approved: January 2014

Indicative review date: January 2018

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR760

Other Drivers and Transport Operatives NEC **Suite**

Plant Operations (construction)

Key words

Signalling equipment; Communication equipment; Hand signals; Laser marking devices; Electronic guidance equipment; Global positioning systems

COSVR782

Locate and excavate to expose buried utility services

Overview



This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, locating, exposing by excavation and protecting buried utility services

This standard is for people working in the occupational area of construction and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 the types of fire extinguishers and how and when they are used
- K6 how emergencies should be responded to and who should respond
- K7 the organisational security procedures for tools, equipment and personal belongings

K8 what the accident reporting procedures are and who is responsible for making the report

K9 why, when and how health and safety control equipment should be used

K10 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

K12 how the resources should be used and how any problems associated with the resources are reported

K13 the organisational procedures to select resources, why they have been developed and how they are used

K14 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

K15 how to protect work from damage and the purpose of protection

K16 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

K17 how methods of work, to meet the specification, are carried out and problems reported

K18 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K19 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1	interpretation of drawings, specifications, schedules, risk assessments, method statements, survey and utility company information and manufacturers' information related to the work to be carried out
Performance Criteria 2	
2	avoidance of risk by complying with the given information relating to the following
2.1	methods of work
2.2	safe use of health and safety control equipment
2.3	safe use, storage and handling of materials, tools and equipment
2.4	specific risks to health
2.5	working with and around utility services including ground penetration
2.6	working in excavations
2.7	others affected by the work
Performance Criteria 3	
3	selection of resources associated with own work
3.1	materials and components
3.2	tools and equipment
3.3	electronic location instruments
Performance Criteria 4	
4	protection of the work and its surrounding area from damage
5	maintain a clear and tidy work space
6	disposal of waste in accordance with current legislation
Performance Criteria 5	
7	demonstration of work skills to measure, locate, expose, mark out, position, protect and secure
8	use and maintain hand tools, power tools, ancillary equipment and electronic instruments
9	locate and excavate to expose buried utility services to given working instructions
10	apply protection measures to utility services
Performance Criteria 6	
11	completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client
Scope/range related to knowledge and understanding	
Disposal of waste	
1	environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

	Emergencies
2	operative's response to situations in accordance with organisational authorisation and personal skills when involved with
2.1	fires, spillages, injuries, damage to utilities apparatus and sub structures
2.2	emergencies relating to occupational activities
	Fire extinguishers
3	water, CO2, foam, powder and their uses
	Hazards
4	those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance
	Health and safety control equipment
5	identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
5.1	collective protective measures
5.2	personal protective equipment (PPE)
5.3	respiratory protective equipment (RPE)
	Information
6	drawings, specifications, schedules, risk assessments, method statements, permits, verbal written and graphical instructions, organisational and manufacturers' information, current regulations and official guidance governing utility services
	Legislation and official guidance
7	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
	Maintenance
8	operative care of hand tools, portable power tools, ancillary equipment and electronic instruments
	Methods of work
9	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
9.1	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
9.2	ensure electronic equipment is calibrated
9.3	conform to agreed specification and local utility services providers requirements

- 9.4 identify utility services by electronic locators, trial holes and visually
- 9.5 recognise criteria for operating location equipment and their limitations
- 9.6 confirm the type of service including: gas, fuel, electric, communication, water, sewage
- 9.7 liaise with utility services organisations
- 9.8 recognise identification markers for utility types
- 9.9 excavate by hand and with the assistance of plant or machinery
- 9.10 work with, in close proximity to, and around plant and machinery
- 9.11 recognise the criteria for directing and guiding the operations and movement of plant and machinery
- 9.12 work around street furniture and ironwork
- 9.13 work in excavations, including the need for excavation supports, edge protection and access equipment
- 9.14 provide for the recognition and protection of the utility services, sub-structure and the natural environment during operational activities
- 9.15 install supports for exposed utility services
- 9.16 recognise and determine when specialist skills and knowledge are required and report accordingly
- 9.17 use hand tools, portable power tools and equipment including specialist equipment
- 9.18 use access equipment
- 9.19 work at height
- 10 team work and communication
- 11 needs of other occupations associated with locating and excavating to expose buried utility services
- Problems
- 12 those arising from information, resources and methods of work
- 12.1 own authority to rectify
- 12.2 organisational reporting procedures
- Programme
- 13 types of productivity targets and time scales
- 14 how times are estimated
- 15 organisational procedures for reporting circumstances which will affect the work programme
- Protect work



16 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

17 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:

17.1 electronic instruments

17.2 marking and protection materials

17.3 excavation plant and machinery

17.4 hand tools, power tools and equipment including specialist tools (insulated and non-sparking tools)

17.5 ancillary equipment

18 identify by calculation the quantity, length, volume and area associated with the method and procedure to locate and excavate to expose buried utility services

Security procedures

19 site, workplace, company and operative

Developed by: ConstructionSkills

Version number: 1

Date approved: February 2016

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Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR782

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and maintenance

Key words

Buried utility services; Insulated tools; Non-sparking tools

COSVR536

Prepare maintenance response teams' vehicles

Overview



This standard is about interpreting information, adopting safe and healthy work practices, selecting materials, components and equipment for preparing and driving maintenance response teams' vehicles

This standard is for people working in the occupational area of road building and maintenance, particularly those involved in active Highways Maintenance and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 the types of fire extinguishers and how and when they are used
- K6 how emergencies should be responded to and who should respond
- K7 the organisational security procedures for tools, equipment and personal belongings

K8 what the accident reporting procedures are and who is responsible for making the report

K9 why, when and how health and safety control equipment should be used

K10 how to comply with environmentally responsible work practices to meet current legislation and official guidance

Performance Criteria 3

Selection of resources

K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

K12 how the resources should be used and how any problems associated with the resources are reported

K13 the organisational procedures to select resources, why they have been developed and how they are used

K14 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K15 how to protect work from damage and the purpose of protection

K16 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K17 how methods of work, to meet the specification, are carried out and problems reported

K18 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

K19 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of specifications, risk assessments, inventory and/or check sheets, method statements and manufacturers' information related to the vehicle and the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to at least five of the following

- 2.1 methods of work
- 2.2 safe use of health and safety control equipment
- 2.3 safe use, storage and handling of materials, tools and equipment
- 2.4 safe use of fire extinguishers, as appropriate to the fire
- 2.5 maintenance of documentation (personal and vehicle)
- 2.6 specific risks to health

Performance Criteria 3

- 3 selection of resources associated with own work
- 3.1 replenishable items (consumables)
- 3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to inspect, check, wash, clean, replenish, report
- 8 use and maintain hand tools, power tools and ancillary equipment
- 9 prepare maintenance response teams' vehicles to given working instructions relating to the following
 - 9.1 complete pre-use checks e.g. coolant, oil, fuel, tyres, lights, indicators
 - 9.2 complete pre-driving checks, e.g. security (equipment and passengers), vision (mirrors windscreen and windows), driving position
 - 9.3 designated carried equipment checks
 - 9.4 complete motion checks, brakes
 - 9.5 complete after use checks on vehicle and equipment
- 10 report defects and discrepancies

Performance Criteria 6

- 11 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

Fire extinguishers

3 water, CO2, foam, powder and their uses

Hazards

4 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2 personal protective equipment (PPE)

5.3 respiratory protective equipment (RPE)

5.4 local exhaust ventilation (LEV)

Information

6 specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official and statutory guidance governing vehicle use on roads, highways and motorways

Legislation and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, at height, with tools and equipment, with materials and substances, with movement and storage of materials, by manual handling and mechanical lifting and when driving vehicles

Maintenance

8 operative care of hand tools, power tools, ancillary equipment and vehicles

Methods of work

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:

9.1 identify and maintain fit for driving levels

9.2 conform to agreed specification

9.3 maintain the operational status of maintenance response teams' vehicles

9.4 maintain the operational status of the vehicles' equipment (cones, signs, lighting, lamps, disc cutter, chain saw)

9.5 complete pre-use checks

9.6 complete pre-driving checks

- 9.7 complete motion checks
- 9.8 complete after use checks on vehicle and equipment
- 9.9 maintain vehicle records (daily log book, patrol sheets, vehicle and drive sheets)
- 9.10 report defects and discrepancies (vehicle defects sheets, equipment check lists)
- 9.11 complete point of work risk assessments
- 9.12 prepare the vehicle in accordance with prevailing conditions (type of road, daytime, night time, traffic volumes, road surface, visibility, weather conditions)
- 9.13 recognise and determine when specialist skills and knowledge are required and report accordingly
- 9.14 use hand tools, power tools and equipment
- 10 team work and communication
- 11 needs of other occupations associated with preparing maintenance response teams' vehicles
- Problems
 - 12 those arising from information, resources and methods of work
 - 12.1 own authority to rectify
 - 12.2 organisational reporting procedures
- Programme
 - 13 types of productivity targets and time scales
 - 14 how times are estimated
 - 15 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
 - 16 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
 - 17 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
 - 17.1 maintenance response teams' vehicle and consumables
 - 17.2 designated equipment
 - 17.3 hand tools, power tools and equipment
 - 17.4 documentation
 - 18 identify by calculation, quantity and wastage of resources associated with the method and procedure to prepare maintenance response teams' vehicles
- Security procedures
 - 19 site, workplace, company and operative

Developed by: ConstructionSkills

Version number: 4

Date approved: February 2016

Indicative review date: January 2021

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR536

Relevant occupations: Road Construction Operatives

Suite

Road building and Maintenance (Construction)

Key words

Fitness requirements; Vehicle inspections; Vehicle checks; Vehicle pre-use checks; Vehicle pre-driving checks; Vehicle motion checks

COSVR537

Respond to and assist with road-related incidents

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, responding to road traffic incidents and hazards

This standard is for people working in the occupational area of road building and maintenance, particularly those involved in active Highways Maintenance and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P6 interpret the given information relating to the work and resources to confirm its relevance
- P7 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P8 select the required quantity and quality of resources for the methods of work
- P9 comply with organisational procedures to minimise the risk of damage to the work and surrounding area

- P10 comply with the given contract information to carry out the work efficiently to the required specification
- P11 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 the types of fire extinguishers and how and when they are used
- K6 how emergencies should be responded to and who should respond
- K7 the organisational security procedures for tools, equipment and personal belongings
- K8 what the accident reporting procedures are and who is responsible for making the report
- K9 why, when and how health and safety control equipment should be used
- K10 how to comply with environmentally responsible work practices to meet current legislation and official guidance

Performance Criteria 3

Selection of resources

- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K12 how the resources should be used and how any problems associated with the resources are reported
- K13 the organisational procedures to select resources, why they have been developed and how they are used
- K14 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K15 how to protect work from damage and the purpose of protection

K16 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K17 how methods of work, to meet the specification, are carried out and problems reported

K18 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

K19 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of information, method statements, risk assessments related to the nature, extent and location of the incident and use of the information to plan assistance for the incident

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to at least five of the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use of access equipment

2.4 safe use, storage and handling of materials, tools and equipment

2.5 safe use of fire extinguishers, as appropriate to the fire

2.6 flow and movement of traffic

2.7 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials, components and consumables

3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 1 demonstration of work skills to plan, relay, clear, control, guide and communicate
- 2 use and maintain hand tools, power tools and ancillary equipment
- 3 respond to and assist with road-related incidents (routine, major or critical) to given working instructions for at least four of the following
 - 3.1 flooding
 - 3.2 spillage or debris
 - 3.3 infrastructure failure
 - 3.4 adverse weather
 - 3.5 collision without injury
 - 3.6 collision with injury
 - 3.7 collision with fatality
 - 3.8 terrorist activity
- 4 liaise with incident controller and follow instructions ensuring compliance with organisational procedures
- 5 report on the conclusion of the incident in accordance with current legislation and organisational procedures

Performance Criteria 6

- 6 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries
 - 2.2 emergencies relating to occupational activities

Fire extinguishers

- 3 water, CO₂, foam, powder and their uses

Hazards

4 those identified by risk assessment, point of work risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2 personal protective equipment (PPE)

5.3 respiratory protective equipment (RPE)

5.4 local exhaust ventilation (LEV)

Information

6 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations, official and statutory guidance governing work and incidents on motorways, high speed dual carriageways and rural and urban roads

Legislation and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting

Maintenance

8 operative care of hand tools, power tools and ancillary equipment

Methods of work

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:

9.1 assess response and assistance required for specific incidents, flooding, spillage, infrastructure failure, adverse weather, collision without injury, collision with injury, collision with fatality and terrorist activity

9.2 conform to agreed specification

9.3 complete point of work risk assessments (type of incident, incident duration, traffic speeds and volumes, lighting levels, weather and road geometry)

9.4 liaise with incident controllers (emergency services) and follow instructions ensuring compliance with organisational procedures (visual, oral and electronic)

9.5 deal with prevailing conditions, type of road, time of day, traffic volume, road surface, visibility, weather conditions

9.6 prioritise activities

9.7 adhere to response times

9.8 apply the principles of equality and diversity

9.9 report on the conclusion of the incident in accordance with current legislation and organisational procedures

9.10 use hand tools, power tools and equipment

9.11 install and operate lighting equipment

9.12 recognise and determine when specialist skills and knowledge are required and report accordingly

9.13 work at height

9.14 use access equipment

9.15 work with, in close proximity to and around plant and machinery

9.16 record details of the incident and complete organisational documentation (site sketch, photographs, incident report forms, emails, accident and emergency report)

10 team work and communication

11 needs of other occupations associated with responding and assisting with road-related incidents

Problems

12 those arising from information, resources and methods of work

12.1 own authority to rectify

12.2 organisational reporting procedures

Programme

13 types of productivity targets and time scales

14 how times are estimated

15 organisational procedures for reporting circumstances which will affect the work programme

Protect work

16 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

17 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:

17.1 traffic signals

17.2 temporary traffic management teams

17.3 temporary traffic management equipment

17.4 lifting equipment and accessories

17.5 clean up specialists

17.6 highway repair and maintenance teams

17.7 highways maintenance and repair materials



17.8 hand tools, power tools and equipment

18 identify by calculation, quantity, length, area and wastage associated with the method and procedure to respond to and assist with road-related incidents

Security procedures

19 site, workplace, company and operative

Developed by: ConstructionSkills

Version number: 3

Date approved: February 2016

Indicative review date: January 2021

Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR537

Relevant occupations: Road building and Maintenance (Construction)

Suite

Construction Operations and Civil Engineering Services (Construction)

Key words

Point of work risk assessment; Road related incident; Traffic management teams; Incident controllers

COSVR538

Install and remove emergency temporary traffic management

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment setting up, maintaining and removing emergency temporary traffic management on motorways, high speed dual carriageways, rural and urban roads

This standard is for people working in the occupational area of road building and maintenance; particularly those involved in active Highways Maintenance and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

P1 interpret the given information relating to the work and resources to confirm its relevance

P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices

P3 select the required quantity and quality of resources for the methods of work

P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area

P5 comply with the given contract information to carry out the work efficiently to the required specification

P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand

Performance Criteria 1

Interpretation of information

K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented

K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2

Safe work practices

K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied

K5 the types fire extinguishers and how and when they are used

K6 how emergencies should be responded to and who should respond

K7 the organisational security procedures for tools, equipment and personal belongings

K8 what the accident reporting procedures are and who is responsible for making the report

K9 why, when and how health and safety control equipment should be used

K10 how to comply with environmentally responsible work practices to meet current legislation and official guidance

Performance Criteria 3

Selection of resources

K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified

K12 how the resources should be used and how any problems associated with the resources are reported

K13 the organisational procedures to select resources, why they have been developed and how they are used

K14 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K1 how to protect work from damage and the purpose of protection

K2 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K3 how methods of work, to meet the specification, are carried out and problems reported

K4 how maintenance of tools and equipment is carried out

Performance Criteria 6

Allocated time

K5 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of instructions, drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use, storage and handling of materials, tools and equipment

2.4 flow and movement of traffic

2.5 completed point of work risk assessments

2.6 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials and components

3.2 tools and equipment

Performance Criteria 4

- 4 protection of the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to plan, locate, set out, position, install, maintain and remove
- 8 use and maintain hand tools and ancillary equipment
- 9 install and remove emergency temporary traffic management to given working instructions on motorways, high speed dual carriageways or rural and urban roads
 - 9.1 select and prepare materials, components and equipment
 - 9.2 unload and load temporary traffic management equipment
 - 9.3 co-ordinate communications and procedures for setting up and maintaining the emergency temporary traffic management
 - 9.4 maintain the operational integrity of the emergency temporary traffic management components and equipment while in use

Performance Criteria 6

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries
 - 2.2 emergencies relating to occupational activities

Fire extinguishers

- 3 water, CO₂, foam, powder and their uses

Hazards

- 4 those identified by risk assessment, point of work risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2 personal protective equipment (PPE)

5.3 respiratory protective equipment (RPE)

5.4 local exhaust ventilation (LEV)

Information

6 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing work on motorways, high speed dual carriageways, rural and urban roads

Legislation and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting

Maintenance

8 operative care of hand tools, power tools and ancillary equipment

Methods of work

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:

9.1 liaise with incident controllers (police, ambulance, fire, highways agency, local authority)

9.2 conform to the agreed specifications

9.3 apply the principles of incident control including survey, assess, disseminate, casualties, hazards, access, location, emergency services and type (SADCHALET)

9.4 identify a setting down location

9.5 control the flow of traffic

9.6 protect the scene of the incident from contamination, danger or damage by position of the incident support vehicle and controlling traffic flow

9.7 deal with displaced and damaged equipment

9.8 select and prepare materials, components and equipment

9.9 unload and load traffic management equipment

9.10 install and remove emergency temporary traffic management systems

9.11 co-ordinate communications and procedures for setting up and maintaining the emergency temporary traffic management

9.12 maintain the operational integrity of the emergency temporary traffic management components and equipment while in use

- 9.13 apply compliant relief measures, trapped traffic, reverse flow, road closure, diversion, lane restrictions
- 9.14 record and communicate the resolution of the incident and the removal of the emergency temporary traffic management
- 9.15 return infrastructure to operational status
- 9.16 recognise and determine when specialist skills and knowledge are required and report accordingly
- 9.17 use hand tools, power tools and equipment
- 9.18 apply the principles of equality and diversity
- 10 team work and communication
- 11 needs of other occupations associated with installing and removing emergency temporary traffic management

Problems

- 12 those arising from information, resources and methods of work
- 12.1 own authority to rectify
- 12.2 organisational reporting procedures

Programme

- 13 types of productivity charts and time scales
- 14 how times are estimated
- 15 organisational procedures for reporting circumstances which will affect the work programme

Protect work

- 16 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

- 17 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
 - 17.1 traffic control equipment (cones, signs, signals, lamps, guards and barriers)
 - 17.2 communication equipment
 - 17.3 hand tools, power tools and equipment
- 18 identify by calculation, quantity, length, area and wastage associated with the method and procedure to install and remove emergency temporary traffic management

Security procedures

- 19 site, workplace, company and operative

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Original URN: VR538

Relevant occupations: Road Construction Operatives

Suite

Road building and Maintenance (Construction)

Key words

High speed roads; Rural and urban roads; Cones; Signals; Signs; Lamps; Guards; Barriers; Traffic control equipment

LANFE8

Excavate, prepare and form foundations for vehicle restraint systems

Overview This standard describes how to excavate, prepare and form foundations for vehicle restraint systems (VRS). This standard is designed for a VRS installer working on highways. This standard covers: - Excavating - Preparing - Form foundations for vehicle restraint systems.

Performance criteria

You must be able to:

P1 carry out work in accordance with relevant health and safety legislation, risk assessment requirements and company policies

P2 carry out all work in accordance with instructions and specifications

P3 select and prepare tools, equipment and resources ready for use

P4 use recommended working practices to excavate ground to conform with required specifications

P5 place concrete and compact to form for foundation strength, size, profile and finish

P6 establish appropriate provision to support the future installation of posts

P7 carry out work in a manner which causes minimal damage to the surrounding area

P8 set up signs and barriers to protect people and create a safe working environment



P9 monitor and maintain signs and protective barriers in good working order within your level of responsibility

P10 maintain tools, equipment and resources in a clean and serviceable condition throughout work

P11 dispose of waste and excess materials safely to minimise environmental risk according to legal requirements

Knowledge and understanding

You need to know and understand:

K1 the health and safety requirements associated with excavation work

K2 the health and safety requirements associated with sign and barrier installation including permits-to-work schemes

K3 where to obtain instructions on how to carry out your work such as drawings, specifications, schedules, method statements, standard operating procedures (SOPs), manufacturers' guidelines or verbal instructions

K4 the types of equipment used for excavating post holes and strip trenches

K5 the procedures to follow when uncharted services or substructures are located

K6 the procedures to follow if services or substructures are damaged

K7 how and when temporary supports should be used to support excavations

K8 the precautions to take when shafts or hidden substructures are located

K9 the reasons for traffic management when working adjacent to highways and other transport systems

K10 the types of signs and protective barriers used within the fencing industry

K11 the storage requirements of signs and protective barriers

K12 the methods and ratios used for mixing, placing, compacting, finishing and curing concrete

K13 the methods used for forming pockets in concrete for future fixing

K14 the techniques used for casting-in fixing items

K15 the legal requirements controlling the disposal of waste and excess materials

K16 the potential impact of your work on the surrounding area and how to minimise this

Version 1 October 2011 – Lantra

LANFE9

Place and fix vehicle restraint systems

Overview



This standard describes how to excavate, prepare and form foundations for vehicle restraint systems. This standard is designed for a VRS installer working on highways. This standard covers the following in relation to vehicle restraint systems: - Place, position and fix posts - Place and fix components to posts.

Performance criteria

You must be able to:

- P1 carry out work in accordance with relevant health and safety legislation, risk assessment requirements and company policies
- P2 obtain components of specified type, material, quality and grade
- P3 select and prepare tools, equipment and resources into a safe condition ready for use
- P4 use recommended working practices to position and fix permanent supports at specified lines, levels and angles
- P5 use recommended working practices to assemble VRS systems to meet specifications
- P6 use recommended working practices to position, tension and securely fix assembled components at specified lines and levels
- P7 maintain the integrity of protective finishes during fixing
- P8 carry out work in a manner which causes minimal damage to the surrounding area
- P9 monitor signs and protective barriers in good working order within your level of responsibility
- P10 maintain tools, equipment and resources in a clean and serviceable condition throughout work
- P11 dispose of waste and excess materials safely to minimise environmental risk according to legal requirements

Knowledge and understanding

You need to know and understand:

- K1 the health and safety requirements associated with placing, positioning and fixing VRS systems
- K2 the health and safety requirements associated with sign and barrier installation including permit-to-work schemes
- K3 the reasons for traffic management when working adjacent to highways and other transport systems
- K4 the types of signs and protective barriers used within the fencing industry
- K5 the methods used for assembling fencing and fencing components
- K6 the different types and construction of vehicle safety fencing systems
- K7 the components used in association with vehicle safety fencing including their uses
- K8 the methods used for handling and positioning posts
- K9 the methods used for providing temporary supports and aligning and levelling posts set in concrete



K10 the reasons for, and methods of, setting posts to allow for tensioning

K11 the factors that affect the positioning and the method of fixing posts and components

K12 the types of backfill and methods of consolidation

K13 the precautions to take to avoid distortion during the tensioning process

K14 the methods used for fixing fence materials to posts

K15 the different types of protective finishes

K16 the reasons for and methods of maintaining integrity of protective finishes

K17 the precautions to take to avoid distortions to fencing/fencing materials

K18 how to deal with difficulties experienced during work within the relevant levels of responsibility

K19 the reasons for the use of transitions and how they are installed

K20 the reasons for the use of a terminal and how they are installed

K21 the potential impact of your work on the surrounding area and how to minimise this

Version 1 October 2011 – Lantra

COSVR378

Install and remove permanent road studs

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing for, installing and removing permanent road studs

This standard is for people working in the occupational area of road building and maintenance and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification

P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied
- K5 how emergencies should be responded to and who should respond
- K6 the organisational security procedures for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how health and safety control equipment should be used
- K9 how to comply with environmentally responsible work practices to meet current legislation and official guidance

You need to know and understand:

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the resources and how defects should be rectified
- K11 how the resources should be used and how any problems associated with the resources are reported
- K12 the organisational procedures to select resources, why they have been developed and how they are used
- K13 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 4

Minimise the risk of damage

K14 how to protect work from damage and the purpose of protection

K15 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 5

Meet the contract specification

K16 how methods of work, to meet the specification, are carried out and problems reported

K17 how maintenance of tools and equipment is carried out

You need to know and understand:

Performance Criteria 6

Allocated time

K18 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use, storage and handling of materials, tools and equipment

2.4 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials, components and fixings

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

7	demonstration of work skills to measure, set out, mark, position, fit, fix, secure and communicate
8	use and maintain hand tools, power tools and ancillary equipment
9	install, maintain and remove permanent road studs to given working instructions relating to at least two of the following
9.1	inset milled stud
9.2	inset drilled stud
9.3	fixed surface mounted studs
9.4	maintenance of studs by replacing parts
Performance Criteria 6	
10	completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client
Scope/range related to knowledge and understanding	
Disposal of waste	
1	environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
Emergencies	
2	operative's response to situations in accordance with organisational authorisation and personal skills when involved with
2.1	fires, spillages, injuries
2.2	emergencies relating to occupational activities
Hazards	
3	those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance
Health and safety control equipment	
4	identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
4.1	collective protective measures
4.2	personal protective equipment (PPE)
4.3	respiratory protective equipment (RPE)
Information	
5	drawings, specifications, schedules, risk assessments, method statements, manufacturers' information, verbal, written and graphical instructions and current regulations governing installing and removing permanent road studs
Legislation and official guidance	

6	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting
	Maintenance
7	operative care of hand tools, power tools and ancillary equipment
	Methods of work
8	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:
8.1	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
8.2	establish agreed time frame for installing, maintaining and removing permanent road studs
8.3	conform to agreed specification
8.4	prepare area, materials and equipment for installing, maintaining and removing permanent road studs
8.5	set and mark out for the installation of permanent road studs
8.6	install, maintain and remove milled, drilled and surface mounted road studs and permanent road studs
8.7	work around street furniture and ironwork
8.8	work with, in close proximity to and around plant and machinery
8.9	communicate and co-ordinate progress on the installation maintenance and removal of permanent road studs
8.10	return infrastructure to operational status
8.11	recognise and determine when specialist skills and knowledge are required and report accordingly
8.12	use hand tools, power tools and equipment
9	team work and communication
10	needs of other occupations associated with installing, maintaining and removing permanent road studs
	Problems
11	those arising from information, resources and methods of work
11.1	own authority to rectify
11.2	organisational reporting procedures
	Programme
12	types of productivity targets and time scales

- 13 how times are estimated
- 14 organisational procedures for reporting circumstances which will affect the work programme
Protect work
- 15 protect work against damage from general workplace activities, other occupations and adverse weather conditions
Resources
- 16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist:
 - 16.1 setting and marking out equipment
 - 16.2 road studs
 - 16.3 fixing materials
 - 16.4 maintenance materials
 - 16.5 hand tools, power tools and ancillary equipment
- 17 identify by calculation, quantity, length, area and wastage associated with the method and procedure to install and remove permanent road studs
Security procedures
- 18 site, workplace, company and operative

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Status: Original

Originating organisation: ConstructionSkills

Original URN: VR378

Relevant occupations: Road Construction Operatives

Suite

Road building and Maintenance

Key words

Milled-studs; Drilled-studs; Surface mounted studs

COSVR772

Operate and control operations of road plant, machinery or equipment for laying flexible and semiflexible paving materials

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and tools, preparing, setting up, completing pre-use checks and operating plant, machinery or equipment, for preparing, laying and finishing flexible paving materials

This standard is for people working independently or as part of a team in the occupational area of pavement construction and maintenance and can be used by operatives, technicians, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted

K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

K4 communication of ideas between team members

K5 organisation of resources in conjunction with the progress of work

K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied

K8 the types of fire extinguishers and how and when they are used

K9 how emergencies should be responded to and who should respond

K10 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings

K11 what the accident reporting procedures are and who is responsible for making the report

K12 why, when and how health and safety control equipment should be used

K13 how to comply with environmentally responsible working practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 4

Request resources

K14 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:

Performance Criteria 5

Selection of resources

K15 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified

K16 how the resources should be used and how any problems associated with the resources are reported

K17 the organisational procedures to select resources, why they have been developed and how they are used

K18 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 6

Minimise the risk of damage

K19 how to protect work from damage and the purpose of protection

K20 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 7

Meet the contract specification

K21 how methods of work, to meet the specification, are carried out and problems reported

K22 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:

Performance Criteria 8

Allocated time

K23 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 2

2 organisation of own work

3 communication with team members and other associated occupations about the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 3

4 avoidance of risk by complying with the given safety information relating to the following

4.1 methods of work

4.2 safe use of health and safety control equipment

4.3 safe use, storage and handling of plant, machinery, equipment and tools

4.4 safe use, storage and handling of materials

4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work

- 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage

- 8 maintain a clear and tidy work space

- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, set up, adjust, communicate, operate, control, secure, lay, compact, mark, level and finish

- 11 use and maintain hand tools, ancillary equipment and/or accessories

- 12 prepare, operate or control the operations of plant, machinery or equipment for at least one of the following to given working instructions

- 12.1 paver screedman (screed operator) maintaining line and level

- 12.2 paver (tracked or wheeled) operator maintaining consistency of surface materials, line and direction

- 12.3 roller operator ensuring compaction, transverse and longitudinal evenness

- 12.4 chipping machine operator maintaining speed and distribution

- 12.5 loader compressor or 180 degree excavator operator maintaining supply of materials and/or preparing surfaces

- 12.6 spray tanker operator maintaining speed, line, direction and distribution

- 12.7 geosynthetic (membrane or steel mesh) installation equipment operator maintaining uniformity, line, direction, overlap and adhesion

- 12.8 spray injection operator ensuring compaction and finish

- 13 shut down and secure plant, machinery or equipment

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Additional Information

Scope/range related to knowledge and understanding

Communication

- 1 discussions, sketches, electronic information and briefings

Disposal of waste

2	environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance Emergencies
3	operative's response to situations in accordance with organisational authorisation and personal skills when involved with
3.1	fires, spillages, injuries
3.2	emergencies relating to occupational activities Fire extinguishers
4	water, CO2, foam, powder and their uses Hazards
5	those identified by methods of work, risk and Control of Substances Hazardous to Health (COSHH) assessments, manufacturers' technical information, statutory regulations and official guidance Health and safety control equipment
6	identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
6.1	collective protective measures
6.2	personal protective equipment (PPE)
6.3	respiratory protective equipment (RPE) Information
7	drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing the operation of plant, machinery and accessories for laying flexible and semi-flexible paving materials Legislation, Approved Codes of Practice and official guidance
8	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting Maintenance
9	operative care of plant or machinery, hand tools, ancillary equipment and/or accessories Methods of work
10	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
10.1	identify installation requirements
10.2	conform to agreed specifications

- 10.3 confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
- 10.4 identify the characteristics of flexible paving materials e.g. hot rolled asphalt, stone mastic asphalt, mastic asphalt, asphalt concrete mixtures and geosynthetic material
- 10.5 identify the characteristics of semi-flexible paving materials e.g. cement bound granular material (CGBM) and roller compacted concrete (RCC)
- 10.6 prepare and install mesh reinforcement membrane
- 10.7 prepare, set up and carry out pre-start and running checks of the plant, machinery and accessories
- 10.8 confirm and monitor temperature and workability of flexible and semi-flexible paving materials throughout the process
- 10.9 recognise the causes of poor performance and factors that will affect the finished product
- 10.10 carry out and control operations according to your role and the required performance of plant, machinery or equipment
- 10.11 adjust the work in relation to prevailing weather conditions
- 10.12 work around street furniture and ironwork
- 10.13 recognise sampling, testing and quality control processes
- 10.14 recognise, monitor and control processes e.g. treatment and preparation of joints, line, level, thickness, compaction and finishes
- 10.15 recognise the duties of the paver screwmán, paver operator, roller operator, chipping machine operator, loader compressor operator, 180 degree machine operator, spray tanker operator, geosynthetic installation equipment operator and spray injection operator to ensure cohesive operations
- 10.16 return infrastructure to operational status
- 10.17 recognise and determine when specialist skills and knowledge are required and report accordingly
- 10.18 shut down and secure plant, machinery or equipment
- 10.19 use hand tools, ancillary equipment and accessories
- 11 team work and communication
- 12 needs of other occupations associated with operating plant, machinery or equipment for laying flexible and semi-flexible paving materials
- Problems
- 13 those arising from information, resources and methods of work
- 13.1 own authority to rectify
- 13.2 organisational reporting procedures
- Programme

- 14 types of productivity targets and time scales
- 15 how times are estimated
- 16 organisational procedures for reporting circumstances which will affect the work programme
Protect work
- 17 protect work against damage from general workplace activities, other occupations and adverse weather conditions
Resources
- 18 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
 - 18.1 consumables, lubricants and fuels
 - 18.2 attachments
 - 18.3 flexible paving materials
 - 18.4 hand tools, ancillary equipment and accessories
- 19 identify weight, bearing pressure, pressure, quantity, length and area associated with the method and procedure to operate plant, machinery or equipment for laying flexible and semi-flexible paving materials
- 20 how to confirm resources and materials conform with agreed specification
Security procedures
- 21 site, workplace, company and operative
Skills
- 22 own occupation and occupations related to the work

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Status: Original

Originating organisation: ConstructionSkills

Original URN: VR772

Relevant occupations: Road Construction Operatives

Suite

Road Building and Maintenance

Key words

COSVR773

Operate and control operations of road plant, machinery or equipment for laying rigid paving

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and tools to prepare, set up, complete pre-use checks and operate plant, machinery or equipment for preparing, laying and finishing rigid paving

This standard is for people working independently or as part of a team in the occupational area of pavement construction and maintenance, and can be used by operatives, technicians, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work

K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied

K8 the types of fire extinguishers and how and when they are used

K9 how emergencies should be responded to and who should respond

K10 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings

K11 what the accident reporting procedures are and who is responsible for making the report

K12 why, when and how health and safety control equipment should be used

K13 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 4

Request resources

K14 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:

Performance Criteria 5

Selection of resources

K15 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified

K16 how the resources should be used and how any problems associated with the resources are reported

K17 the organisational procedures to select resources, why they have been developed and how they are used

K18 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 6

Minimise the risk of damage

K19 how to protect work from damage and the purpose of protection

K20 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 7

Meet the contract specification

K21 how methods of work, to meet the specification, are carried out and problems reported

K22 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:

Performance Criteria 8

Allocated time

K23 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to the following
 - 4.1 methods of work
 - 4.2 safe use of health and safety control equipment
 - 4.3 safe use, storage and handling of plant, machinery, equipment and tools
 - 4.4 safe use, storage and handling of materials
 - 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
 - 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 maintain a clear and tidy work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, set up, adjust, align, communicate, operate, control, secure, lay, spread, compact, mark, level, smooth, treat and finish
- 11 use and maintain hand tools, ancillary equipment and/or accessories
- 12 prepare, operate or control the operations of plant, machinery or equipment for at least one of the following to given working instructions:
 - 12.1 feed machine operator, (e.g. tipper truck, dump truck, 360 degree excavator, concrete truck mixer) placing and spreading materials evenly
 - 12.2 paver screwmán maintaining line and level
 - 12.3 paver operator maintaining speed and consistency of concrete lay and spread
 - 12.4 finishing beam or float operator maintaining surface finish
 - 12.5 reinforcement placement equipment operator maintaining line, level and overlap
 - 12.6 spray operator maintaining speed and coverage
 - 12.7 texturing and/or curing machine operator maintaining speed
 - 12.8 horizontal travel slip form machine operator maintaining consistent feed to the mould and speed of lay
- 13 shut down and secure plant, machinery or equipment

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- 1 Communication
discussions, sketches, electronic information and briefings
- 2 Disposal of waste
environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- 3 Emergencies
operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 3.1 fires, spillages, injuries
 - 3.2 emergencies relating to occupational activities
- 4 Fire extinguishers
water, CO₂, foam, powder and their uses
- 5 Hazards
those identified by methods of work, risk and Control of Substances Hazardous to Health (COSHH) assessments, manufacturers' technical information, statutory regulations and official guidance
- 6 Health and safety control equipment
identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 6.1 collective protective measures
 - 6.2 personal protective equipment (PPE)
 - 6.3 respiratory protective equipment (RPE)
- 7 Information
drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing the operation of plant, machinery and equipment for laying rigid paving
- 8 Legislation, Approved Codes of Practice and official guidance
this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting
- 9 Maintenance
operative care of plant or machinery, hand tools, ancillary equipment and/or accessories
- 10 Methods of work
application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
 - 10.1 identify installation requirements
 - 10.2 conform to agreed specifications

- 10.3 confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
- 10.4 identify the workability of concrete mixes
- 10.5 prepare and install reinforcement
- 10.6 prepare, set up and carry out pre-start and running checks of the plant, machinery, equipment and accessories
- 10.7 check and monitor ambient conditions and adjust work in relation to prevailing weather conditions
- 10.8 receive, handle and extract samples for testing concrete
- 10.9 level, vibrate and compact concrete
- 10.10 screed concrete to finished level
- 10.11 protect concrete for the curing process
- 10.12 carry out and control operations according to your role and the required performance of plant, machinery or equipment
- 10.13 identify the duties of other operatives in the surfacing crew, feed machine operator, paver screwman, paver operator or finishing crew finishing beam or float operator, spray operator, texturing machine operator, curing machine operator and horizontal travel slipform machine operative
- 10.14 recognise, monitor and control processes e.g. treatment and preparation of joints, line, level, thickness, compaction and finishes
- 10.15 return infrastructure to operational status
- 10.16 recognise and determine when specialist skills and knowledge are required and report accordingly
- 10.17 record and report, machine operation factors, work progress and completions
- 10.18 shut down and secure plant, machinery and equipment
- 10.19 use hand tools, ancillary equipment and accessories
- 11 team work and communication
- 12 needs of other occupations associated with operating plant, machinery and equipment for laying rigid paving
- Problems
- 13 those arising from information, resources and methods of work
- 13.1 own authority to rectify
- 13.2 organisational reporting procedures
- Programme
- 14 types of productivity targets and time scales
- 15 how times are estimated
- 16 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 17 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 18 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
- 18.1 consumables, lubricants and fuels
- 18.2 attachments
- 18.3 rigid paving materials
- 18.4 hand tools, ancillary equipment and accessories
- 19 identify weight, bearing pressure, pressure, quantity, length and area associated with the method and procedure to operate plant, machinery or equipment for laying rigid paving
- 20 how to confirm resources and materials conform with agreed specification
- Security procedures



- 21 site, workplace, company and operative Skills
- 22 own occupation and occupations related to the work

Developed by: ConstructionSkills

Version number: 1

Date approved: February 2016

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Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR773

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and Maintenance

Key words

Feed machine operator; Paver screwman; Paver operator; Spray operator

COSVR774

Operate and control operations of road plant, machinery or equipment for laying slurry micro-surfacing

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and tools, preparing, setting up and completing pre-use checks and operating plant, machinery or equipment for preparing, laying and finishing slurry micro-surfacing

This standard is for people working independently or as part of a team in the occupational area of pavement construction and maintenance and can be used by operatives, technicians, supervisors, managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out

- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 the types of fire extinguishers and how and when they are used
- K9 how emergencies should be responded to and who should respond
- K10 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K11 what the accident reporting procedures are and who is responsible for making the report
- K12 why, when and how health and safety control equipment should be used
- K13 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 4

Request resources

- K14 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:

Performance Criteria 5
Selection of resources

- K15 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K16 how the resources should be used and how any problems associated with the resources are reported
- K17 the organisational procedures to select resources, why they have been developed and how they are used
- K18 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 6

Minimise the risk of damage

- K19 how to protect work from damage and the purpose of protection
- K20 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 7

Meet the contract specification

- K21 how methods of work, to meet the specification, are carried out and problems reported
- K22 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:

Performance Criteria 8

Allocated time

- K23 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant, machinery or equipment operation and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to the following
 - 4.1 methods of work
 - 4.2 safe use of health and safety control equipment
 - 4.3 safe use, storage and handling of plant, machinery, equipment and tools
 - 4.4 safe use, storage and handling of materials
 - 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
- 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 maintain a clear and tidy work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, set up, adjust, align, communicate, operate and control
- 11 use and maintain hand tools, ancillary equipment and accessories
- 12 prepare, operate or control the operations of at least one of the following items of plant, machinery or equipment to given working instructions
 - 12.1 applicator steersman reacting to signals to maintain speed, direction and line
 - 12.2 applicator operator maintaining feed, spread of materials and communicating with steersman
 - 12.3 slurry supply tanker operator collecting and delivering materials to the applicator
 - 12.4 tipper grab operator collecting and delivering materials to the applicator
 - 12.5 roller operator ensuring embedment of mix and continuity of joints
- 13 shut down and secure plant, machinery or equipment

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- 1 Communication
 - discussions, sketches, electronic information and briefings
- 2 Disposal of waste
 - environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- 3 Emergencies
 - operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 3.1 fires, spillages, injuries
 - 3.2 emergencies relating to occupational activities
- 4 Fire extinguishers
 - water, CO₂, foam, powder and their uses
- 5 Hazards
 - those identified by methods of work, risk and Control of Substances Hazardous to Health (COSHH) assessments, manufacturers' technical information, statutory regulations and official guidance
- 6 Health and safety control equipment
 - identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

6.1	collective protective measures
6.2	personal protective equipment (PPE)
6.3	respiratory protective equipment (RPE)
	Information
7	drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing the operation of plant, machinery, equipment and accessories for slurry micro-surfacing
	Legislation, Approved Codes of Practice and official guidance
8	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting
	Maintenance
9	operative care of plant or machinery, hand tools, ancillary equipment and/or accessories
	Methods of work
10	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
10.1	identify installation requirements
10.2	conform to agreed specifications
10.3	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
10.4	identify the workability of slurry micro-surfacing materials
10.5	prepare, set up and carry out pre-start and running checks of the plant, machinery and equipment
10.6	check and monitor ambient conditions and adjust work in relation to prevailing weather conditions
10.7	recognise the test criteria for slurry micro-surfacing materials
10.8	screed slurry micro-surfacing materials to finished level
10.9	protect and work around street furniture and ironwork
10.10	carry out and control operations according to your role and the required performance of plant, machinery and equipment
10.11	recognise the duties of the operatives, applicator steersman, applicator operator, slurry supply tanker operator, tipper grab operator and roller operator to ensure cohesive operations
10.12	recognise, monitor and control processes e.g. treatment and preparation of joints, line, level, thickness, embedment and finishes
10.13	return infrastructure to operational status
10.14	recognise and determine when specialist skills and knowledge are required and report accordingly
10.15	record and report, machine operation factors, work progress and completions
10.16	shut down and secure plant, machinery and equipment
10.17	use hand tools, ancillary equipment and accessories
11	team work and communication
12	needs of other occupations associated with operating plant, machinery and equipment for laying slurry micro-surfacing
	Problems
13	those arising from information, resources and methods of work
13.1	own authority to rectify

13.2 organisational reporting procedures

Programme

14 types of productivity targets and time scales

15 how times are estimated

16 organisational procedures for reporting circumstances which will affect the work programme

Protect work

17 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

18 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist

18.1 consumables, lubricants and fuels

18.2 attachments

18.3 slurry micro-surfacing materials

18.4 hand tools, ancillary equipment and accessories

19 identify weight, pressure, quantity, length and area associated with the method and procedure to operate plant, machinery or equipment for laying slurry micro-surfacing

20 how to confirm resources and materials conform with agreed specification

Security procedures

21 site, workplace, company and operative

Skills

22 own occupation and occupations related to the work

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Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR774

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road Building and Maintenance

Key words

Applicator steersman; Applicator operator; Slurry supply tanker operator; Tipper grab operator; Roller operator

COSVR775

Operate and control operations of road plant, machinery or equipment for laying surface dressing

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and tools, preparing, setting up and completing pre-use checks and operating plant, machinery or equipment for laying surface dressing

This standard is for people working independently or as part of a team in the occupational area of pavement construction and maintenance and can be used by operatives, technicians, supervisors, managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 the types of fire extinguishers and how and when they are used
- K9 how emergencies should be responded to and who should respond
- K10 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K11 what the accident reporting procedures are and who is responsible for making the report
- K12 why, when and how health and safety control equipment should be used
- K13 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:
Performance Criteria 4
Request resources

- K14 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:
Performance Criteria 5
Selection of resources

- K15 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K16 how the resources should be used and how any problems associated with the resources are reported
- K17 the organisational procedures to select resources, why they have been developed and how they are used
- K18 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:
Performance Criteria 6
Minimise the risk of damage

- K19 how to protect work from damage and the purpose of protection
- K20 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:
Performance Criteria 7
Meet the contract specification

- K21 how methods of work, to meet the specification, are carried out and problems reported
- K22 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:
Performance Criteria 8
Allocated time

- K23 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to the following
 - 4.1 methods of work
 - 4.2 safe use of health and safety control equipment
 - 4.3 safe use, storage and handling of plant, machinery, equipment and tools
 - 4.4 safe use, storage and handling of materials
 - 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
 - 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 maintain a clear and tidy work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, set up, adjust, align, communicate, operate, control, secure, lay, spread, embed, mark, level, treat and finish
- 11 use and maintain hand tools, ancillary equipment and accessories
- 12 prepare, operate or control the operations of at least one of the following items of plant, machinery or equipment to given working instructions
 - 12.1 spray tanker operator maintaining speed, coverage and communicating with spray bar operator
 - 12.2 self-propelled chipping machine operator maintaining speed and distribution
 - 12.3 tailboard chipping machine operator maintaining speed and distribution
 - 12.4 combined spray tanker and chipping machine operator maintaining speed, distribution and communicating with spray bar operator
 - 12.5 spray bar operator maintaining level, distribution and communicating with spray tanker operator or combined spray tanker and chipping machine operator
 - 12.6 tipper grab operator delivering materials to chipping machine
 - 12.7 loading shovel operator supplying materials to the tipper
 - 12.8 roller operator ensuring embedment and continuity of joints
- 13 shut down and secure plant, machinery and equipment

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- | | |
|------|--|
| | Communication |
| 1 | discussions, sketches, electronic information and briefings |
| | Disposal of waste |
| 2 | environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance |
| | Emergencies |
| 3 | operative's response to situations in accordance with organisational authorisation and personal skills when involved with |
| 3.1 | fires, spillages, injuries |
| 3.2 | emergencies relating to occupational activities |
| | Fire extinguishers |
| 4 | water, CO ₂ , foam, powder and their uses |
| | Hazards |
| 5 | those identified by methods of work, risk and Control of Substances Hazardous to Health (COSHH) assessments, manufacturers' technical information, statutory regulations and official guidance |
| | Health and safety control equipment |
| 6 | identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment |
| 6.1 | collective protective measures |
| 6.2 | personal protective equipment (PPE) |
| 6.3 | respiratory protective equipment (RPE) |
| | Information |
| 7 | drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing the operation of plant, machinery and equipment for laying surface dressing |
| | Legislation, Approved Codes of Practice and official guidance |
| 8 | this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting |
| | Maintenance |
| 9 | operative care of plant, machinery and equipment, hand tools, ancillary equipment and/or accessories |
| | Methods of work |
| 10 | application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to |
| 10.1 | identify installation requirements |
| 10.2 | conform to agreed specifications |
| 10.3 | confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection |
| 10.4 | identify the components of surface dressing |

- 10.5 prepare and mask street furniture
- 10.6 prepare, set up and carry out pre-start and running checks of the plant, machinery and equipment
- 10.7 check and monitor ambient conditions and adjust work in relation to prevailing weather conditions
- 10.8 recognise the test criteria for surface dressing materials
- 10.9 carry out and control operations according to your role and the required performance of plant, machinery and equipment
- 10.10 recognise, monitor and control processes e.g. treatment and preparation of joints, line, level, rate of spread and finishes
- 10.11 work around street furniture and ironwork
- 10.12 identify the duties of other operatives, spray tanker operator, self-propelled and tailboard chipper operator, combined spray tanker operators, spray bar operator and roller operator to ensure cohesive operations
- 10.13 return infrastructure to operational status
- 10.14 recognise and determine when specialist skills and knowledge are required and report accordingly
- 10.15 record and report, machine operation factors, work progress and completions
- 10.16 shut down and secure plant, machinery and equipment
- 10.17 use hand tools, ancillary equipment and accessories
- 11 team work and communication
- 12 needs of other occupations associated with operating plant, machinery and equipment for laying surface dressing

- Problems
- 13 those arising from information, resources and methods of work
- 13.1 own authority to rectify
- 13.2 organisational reporting procedures
- Programme
- 14 types of productivity targets and time scales
- 15 how times are estimated
- 16 organisational procedures for reporting circumstances which will affect the work programme

- Protect work
- 17 protect work against damage from general workplace activities, other occupations and adverse weather conditions

- Resources
- 18 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
- 18.1 consumables, lubricants and fuels
- 18.2 attachments
- 18.3 surface dressing materials
- 18.4 hand tools, ancillary equipment and accessories
- 19 identify weight, pressure, quantity, length and area associated with the method and procedure to operate plant, machinery or equipment for laying surface dressing
- 20 how to confirm resources and materials conform with agreed specification

- Security procedures
- 21 site, workplace, company and operative

- Skills
- 22 own occupation and occupations related to the work

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Date approved: February 2016

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Validity: Current

Status: Original

Originating organisation: ConstructionSkills

Original URN: VR775

Relevant occupations: Road Construction Operatives

Suite

Road building and Maintenance

Key words

Spray tanker operator; Spray bar operator; Self-propelled chipping machine operator; Tailboard chipping machine operator; Combined spray tanker; Tipper grab; Loading shovel operator; Tipper roller operator

COSVR776

Operate and control operations of road plant, machinery or equipment for laying high friction surfacing

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and tools, preparing, setting up and completing pre-use checks and operating plant, machinery or equipment for laying high friction surfacing

This standard is for people working independently or as part of a team in the occupational area of pavement construction and maintenance and can be used by operatives, technicians, supervisors, managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work

- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 the types of fire extinguishers and how and when they are used
- K9 how emergencies should be responded to and who should respond
- K10 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K11 what the accident reporting procedures are and who is responsible for making the report
- K12 why, when and how health and safety control equipment should be used
- K13 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 4

Request resources

- K14 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:

Performance Criteria 5

Selection of resources

- K15 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified

- K16 how the resources should be used and how any problems associated with the resources are reported
- K17 the organisational procedures to select resources, why they have been developed and how they are used
- K18 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 6

Minimise the risk of damage

- K19 how to protect work from damage and the purpose of protection

- K20 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 7

Meet the contract specification

- K21 how methods of work, to meet the specification, are carried out and problems reported

- K22 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:

Performance Criteria 8

Allocated time

- K23 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant, machinery or equipment operation and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to the following
 - 4.1 methods of work
 - 4.2 safe use of health and safety control equipment
 - 4.3 safe use, storage and handling of plant, machinery, equipment and tools
 - 4.4 safe use, storage and handling of materials
 - 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
- 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 maintain a clear and tidy work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, set up, adjust, align, communicate, operate, control, secure, lay, spread, mark, level and finish
- 11 use and maintain hand tools, ancillary equipment and/or accessories
- 12 prepare, operate, or control the operations of at least one of the following items of plant, machinery or equipment to given working instructions
 - 12.1 heating pot operator heating materials to specified temperature, avoiding overheating and delivering heated materials to shoe
 - 12.2 tanker operator maintaining speed and distribution
 - 12.3 spray bar operator maintaining level and distribution
 - 12.4 chipper machine operator maintaining speed and distribution
- 13 shut down and secure plant, machinery or equipment

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- Communication
 - 1 discussions, sketches electronic information and briefings
- Disposal of waste
 - 2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- Emergencies
 - 3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 3.1 fires, spillages, injuries
 - 3.2 emergencies relating to occupational activities
- Fire extinguishers
 - 4 water, CO₂, foam, powder and their uses
- Hazards
 - 5 those identified by methods of work, risk and Control of Substances Hazardous to Health (COSHH) assessments, manufacturers' technical information, statutory regulations and official guidance
- Health and safety control equipment
 - 6 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 6.1 collective protective measures
 - 6.2 personal protective equipment (PPE)
 - 6.3 respiratory protective equipment (RPE)
- Information

7	drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing the operation of plant, machinery and accessories for high friction surfacing
8	Legislation, Approved Codes of Practice and official guidance this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting
9	Maintenance operative care of plant or machinery, hand tools, ancillary equipment and/or accessories
10	Methods of work application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
10.1	identify installation requirements
10.2	conform to agreed specifications
10.3	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
10.4	identify the constituents of high friction surfacing materials
10.5	prepare and mask features
10.6	prepare, set up and carry out pre-start and running checks of the plant, machinery and equipment
10.7	check and monitor ambient conditions and adjust work in relation to prevailing weather conditions
10.8	recognise the test criteria for high friction surfacing materials
10.9	carry out and control operations according to your role and the required performance of plant, machinery and equipment
10.10	recognise the duties of the operatives; tanker operator, spray bar operator and chipper machine operator to ensure cohesive operations
10.11	recognise, monitor and control processes e.g. treatment and preparation of joints, line, level, spread, thickness, and finishes
10.12	work around street furniture and ironwork
10.13	return infrastructure to operational status
10.14	recognise and determine when specialist skills and knowledge are required and report accordingly
10.15	record and report, machine operation factors, work progress and completions
10.16	shut down and secure plant, machinery and equipment
10.17	use hand tools, ancillary equipment and accessories
11	team work and communication
12	needs of other occupations associated with operating plant, machinery and equipment for laying high friction surfacing
13	Problems those arising from information, resources and methods of work
13.1	own authority to rectify
13.2	organisational reporting procedures
14	Programme types of productivity targets and time scales
15	how times are estimated
16	organisational procedures for reporting circumstances which will affect the work programme

- 17 Protect work
protect work against damage from general workplace activities, other occupations and adverse weather conditions
- 18 Resources
materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
- 18.1 consumables, lubricants and fuels
- 18.2 attachments
- 18.3 high friction surfacing materials
- 18.4 hand tools, ancillary equipment and accessories
- 19 identify weight, pressure, quantity, length and area associated with the method and procedure to operate plant, machinery and equipment for laying high friction surfacing
- 20 how to confirm resources and materials conform with agreed specification
- 21 Security procedures
site, workplace, company and operative
- 22 Skills
own occupation and occupations related to the work

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Original URN: VR776

Relevant occupations: Road Construction Operatives

Suite

Road building and Maintenance

Key words

Heating pot operator; Tanker operator; Spray bar operator; Chipper machine operator; High friction surfacing

COSVR777

Operate and control operations of road plant, machinery or equipment for planing or milling operations

Overview



This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and tools, preparing, setting up and completing pre-use checks and operating plant, machinery or equipment for planing or milling operations

This standard is for people working independently or as part of a team in the occupational area of pavement construction and maintenance and can be used by operatives, technicians, supervisors, managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 the types of fire extinguishers and how and when they are used

- K9 how emergencies should be responded to and who should respond
- K10 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K11 what the accident reporting procedures are and who is responsible for making the report
- K12 why, when and how health and safety control equipment should be used
- K13 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:
Performance Criteria 4
Request resources

- K14 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:
Performance Criteria 5
Selection of resources

- K15 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K16 how the resources should be used and how any problems associated with the resources are reported
- K17 the organisational procedures to select resources, why they have been developed and how they are used
- K18 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:
Performance Criteria 6
Minimise the risk of damage

- K19 how to protect work from damage and the purpose of protection
- K20 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:
Performance Criteria 7
Meet the contract specification

- K21 how methods of work, to meet the specification, are carried out and problems reported
- K22 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:
Performance Criteria 8
Allocated time

- K23 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to the following
 - 4.1 methods of work
 - 4.2 safe use of health and safety control equipment
 - 4.3 safe use, storage and handling of plant, machinery, equipment and tools
 - 4.4 safe use, storage and handling of materials
 - 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
 - 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 maintain a clear and tidy work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, set up, adjust, align, communicate, operate, control, cut, abrade, level, finish and secure
- 11 use and maintain hand tools, ancillary equipment and/or accessories
- 12 prepare, operate, or control the operations of at least one of the following items of plant, machinery or equipment to given working instructions
 - 12.1 wheeled planing and/or milling machine operator up to 1 metre maintaining speed, line, depth, level and communication with arisings collection vehicle
 - 12.2 tracked planing and/or milling machine up to 1.5 metre operator maintaining speed, line, depth, level and communication with arisings collection vehicle
 - 12.3 tracked planing and/or milling machine over 1.5 metre operator maintaining speed, line, depth, level and communication with arisings collection vehicle
- 13 shut down and secure plant, machinery or equipment

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- Communication
 - 1 discussions, sketches, electronic information and briefings
- Disposal of waste
 - 2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

	Emergencies
3	operative's response to situations in accordance with organisational authorisation and personal skills when involved with
3.1	fires, spillages, injuries
3.2	emergencies relating to occupational activities
	Fire extinguishers
4	water, CO2, foam, powder and their uses
	Hazards
5	those identified by methods of work, risk and Control of Substances Hazardous to Health (COSHH) assessments, manufacturers' technical information, statutory regulations and official guidance
	Health and safety control equipment
6	identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
6.1	collective protective measures
6.2	personal protective equipment (PPE)
6.3	respiratory protective equipment (RPE)
	Information
7	drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing the operation of plant, machinery, equipment for operating and controlling operations for planing and milling operations
	Legislation, Approved Codes of Practice and official guidance
8	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting
	Maintenance
9	operative care of plant, machinery, equipment, hand tools, ancillary equipment and/or accessories
	Methods of work
10	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
10.1	identify planing and milling requirements
10.2	conform to agreed specifications
10.3	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
10.4	prepare, set up and carry out pre-start and running checks of the plant, machinery, equipment and accessories
10.5	carry out and control operations according to your role and the required performance of plant, machinery and equipment
10.6	work around street furniture and ironwork
10.7	identify location marking of utility services
10.8	recognise the duties of other operatives, planing machine operator, milling machine operator and arisings collection vehicle operator to ensure cohesive operations

- 10.9 recognise, monitor and control processes, rate of removal, depth and finishes
- 10.10 recognise and determine when specialist skills and knowledge are required and report accordingly
- 10.11 record and report, machine operation factors, work progress and completions
- 10.12 shut down and secure plant, machinery and equipment
- 10.13 use hand tools, ancillary equipment and accessories
- 11 team work and communication
- 12 needs of other occupations associated with operating plant, machinery and equipment for planing and milling operations
- Problems
- 13 those arising from information, resources and methods of work
- 13.1 own authority to rectify
- 13.2 organisational reporting procedures
- Programme
- 14 types of productivity targets and time scales
- 15 how times are estimated
- 16 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 17 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 18 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
- 18.1 consumables, lubricants and fuels
- 18.2 attachments
- 18.3 hand tools, ancillary equipment and accessories
- 19 identify weight, bearing pressure, pressure, quantity, length and area associated with the method and procedure to operate plant, machinery and equipment for planing and milling operations
- 20 how to confirm resources and materials conform with agreed specification
- Security procedures
- 21 site, workplace, company and operative
- Skills
- 22 own occupation and occupations related to the work

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Originating organisation: ConstructionSkills

Original URN: VR777

Relevant occupations: Road Construction Operatives

Suite

Road building and Maintenance

Key words

Planing machine operator; Milling machine operator; Arisings collection vehicle operator

COSVR778

Operate and control operations of specialist road plant, machinery or equipment for in-situ structural road recycling operations

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and tools, preparing, setting up and completing pre-use checks and operating plant, machinery or equipment for in-situ structural road recycling operations

This standard is for people working independently or as part of a team in the occupational area of pavement construction and maintenance and can be used by operatives, technicians, supervisors, managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 the types of fire extinguishers and how and when they are used
- K9 how emergencies should be responded to and who should respond
- K10 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K11 what the accident reporting procedures are and who is responsible for making the report
- K12 why, when and how health and safety control equipment should be used
- K13 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 4

Request resources

- K14 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:

Performance Criteria 5

Selection of resources

- K15 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K16 how the resources should be used and how any problems associated with the resources are reported
- K17 the organisational procedures to select resources, why they have been developed and how they are used
- K18 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 6

Minimise the risk of damage

- K19 how to protect work from damage and the purpose of protection
- K20 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 7

Meet the contract specification

- K21 how methods of work, to meet the specification, are carried out and problems reported
- K22 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:

Performance Criteria 8

Allocated time

- K23 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant, machinery or equipment operation and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to the following
- 4.1 methods of work
- 4.2 safe use of health and safety control equipment
- 4.3 safe use, storage and handling of plant, machinery, equipment and tools
- 4.4 safe use, storage and handling of materials
- 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
- 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 maintain a clear and tidy work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, set up, adjust, align, communicate, operate, control, remove, lay, spread, compact, mark, level, smooth, treat and finish
- 11 use and maintain hand tools, ancillary equipment and/or accessories
- 12 prepare, operate, or control the operations of at least one of the following items of plant, machinery or equipment to given working instructions
- 12.1 pulveriser (milling or planing), recycling and mixing machine operator maintaining speed, line and level
- 12.2 combination in-situ recycling machine operator maintaining speed, line and level

- 12.3 bulk binder spreader machine operator ensuring even spread and distribution of recycled materials and binder
- 12.4 tanker truck (water, emulsion or bitumen) operator maintaining speed, coverage and communication with pulveriser or recycling machine operator
- 12.5 motor grader operator grading and shaping to profile
- 12.6 roller operator (single drum, tandem and pneumatic-tyred) ensuring compaction
- 13 shut down and secure plant, machinery or equipment

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- 1 Communication
discussions, sketches, electronic information and briefings
- 2 Disposal of waste
environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- 3 Emergencies
operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 3.1 fires, spillages, injuries
 - 3.2 emergencies relating to occupational activities
- 4 Fire extinguishers
water, CO₂, foam, powder and their uses
- 5 Hazards
those identified by methods of work, risk and Control of Substances Hazardous to Health (COSHH) assessments, manufacturers' technical information, statutory regulations and official guidance
- 6 Health and safety control equipment
identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 6.1 collective protective measures
 - 6.2 personal protective equipment (PPE)
 - 6.3 respiratory protective equipment (RPE)
- 7 Information
drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing the operation of plant, machinery and equipment for in-situ structural road recycling operations
- 8 Legislation, Approved Codes of Practice and official guidance
this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting
- Maintenance

9	operative care of plant or machinery, hand tools, ancillary equipment and/or accessories
	Methods of work
10	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
10.1	identify installation requirements
10.2	conform to agreed specifications
10.3	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
10.4	identify markings for ironwork and utilities
10.5	prepare, set up and carry out pre-start and running checks of the plant, machinery and equipment
10.6	check and monitor ambient conditions and adjust work in relation to prevailing weather conditions
10.7	carry out and control operations according to your role and the required performance of plant, machinery and equipment
10.8	recognise the duties of other operators pulverising operator, recycling and mixing machine operator, bulk binder spreader machine operator, motor grader operator, roller operator, self-propelled water bowser operator, spray tanker truck operator, spray bar operator and heated bitumen tanker operator different to final NOS
10.9	recognise, monitor and control processes e.g. removal, mixing, compacting, laying, treatment and preparation of joints, line, level, spread, thickness and finishes
10.10	work around street furniture and ironwork
10.11	identify trafficable times and protect site for curing
10.12	clear gullies, relocate ironwork and reinstate verges
10.13	return infrastructure to operational status
10.14	recognise and determine when specialist skills and knowledge are required and report accordingly
10.15	record and report, machine operation factors, work progress and completions
10.16	shut down and secure plant, machinery and equipment
10.17	use hand tools, ancillary equipment and accessories
11	team work and communication
12	needs of other occupations associated with operating plant, machinery and equipment for in-situ structural road recycling operations
	Problems
13	those arising from information, resources and methods of work
13.1	own authority to rectify
13.2	organisational reporting procedures
	Programme
14	types of productivity targets and time scales
15	how times are estimated
16	organisational procedures for reporting circumstances which will affect the work programme
	Protect work
17	protect work against damage from general workplace activities, other occupations and adverse weather conditions
	Resources
18	materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist

- 18.1 consumables, lubricants and fuels
- 18.2 attachments
- 18.3 in-situ structural road recycling additions
- 18.4 hand tools, ancillary equipment and accessories
- 19 identify weight, bearing pressure, pressure, quantity, length and area associated with the method and procedure to operate plant, machinery or equipment for in-situ structural road recycling operations
- 20 confirm resources and materials conform with agreed specification
- 21 Security procedures
site, workplace, company and operative
- 22 Skills
own occupation and occupations related to the work

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Originating organisation: ConstructionSkills

Original URN: VR778

Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and Maintenance

Key words

Motor grader operator; Roller operator; Self-propelled water bowser operator; Spray tanker operator; Spray bar operator; Heated bitumen tanker operator; Bulk binder spreader machine

COSVR779

Operate and control operations of road plant, machinery or equipment for soil stabilisation

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and tools, preparing, setting up and completing pre-use checks and operating plant, machinery or equipment for preparing, laying and finishing soil stabilisation operations. This standard is for people working independently or as part of a team in the occupational area of pavement construction and maintenance and can be used by operatives, technicians, supervisors and managers.

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 the types of fire extinguishers and how and when they are used
- K9 how emergencies should be responded to and who should respond
- K10 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K11 what the accident reporting procedures are and who is responsible for making the report
- K12 why, when and how health and safety control equipment should be used
- K13 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 4
Request resources

K14 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:

Performance Criteria 5

Selection of resources

K15 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified

K16 how the resources should be used and how any problems associated with the resources are reported

K17 the organisational procedures to select resources, why they have been developed and how they are used

K18 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 6

Minimise the risk of damage

K19 how to protect work from damage and the purpose of protection

K20 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 7

Meet the contract specification

K21 how methods of work, to meet the specification, are carried out and problems reported

K22 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:

Performance Criteria 8

Allocated time

K23 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 2

2 organisation of own work

3 communication with team members and other associated occupations about the plant, machinery or equipment operation and the work to be carried out

Performance Criteria 3

4 avoidance of risk by complying with the given safety information relating to the following

4.1	methods of work
4.2	safe use of health and safety control equipment
4.3	safe use, storage and handling of plant, machinery, equipment and tools
4.4	safe use, storage and handling of materials
4.5	specific risks to health
Performance Criteria 4	
5	follow organisational procedures for the requisition of consumables, materials and other resources
Performance Criteria 5	
6	selection of resources associated with own work
6.1	tools and ancillary equipment and/or accessories
Performance Criteria 6	
7	protection of the work and its surrounding area from damage
8	maintain a clear and tidy work space
9	disposal of waste in accordance with current legislation
Performance Criteria 7	
10	demonstration of work skills to check, set up, adjust, align, communicate, operate, control, lay, spread, compact, level, smooth, and finish
11	use and maintain hand tools, ancillary equipment and/or accessories
12	prepare, operate, or control the operations of at least one of the following items of plant, machinery or equipment to given working instructions
12.1	combination soil stabilisation machine operator maintaining depth, speed, line, level and consistent integration of binding materials
12.2	mixer machine operator mixing binding materials and supplying the spreader machine
12.3	bulk binder spreader machine operator ensuring even spread and distribution of binding materials missing from final NOS
12.4	tilling machine operator maintaining depth, speed, line and level
12.5	self-propelled or towed water bowser machine operator maintaining speed and distribution
12.6	roller operator ensuring light compaction for sealing
13	shut down and secure plant, machinery or equipment
Performance Criteria 8	
14	completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client
Scope/range related to knowledge and understanding	
Communication	
1	discussions, sketches, electronic information and briefings
Disposal of waste	
2	environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
Emergencies	
3	operative's response to situations in accordance with organisational authorisation and personal skills when involved with
3.1	fires, spillages, injuries
3.2	emergencies relating to occupational activities
Fire extinguishers	
4	water, CO ₂ , foam, powder and their uses

	Hazards
5	those identified by methods of work, risk and Control of Substances Hazardous to Health (COSHH) assessments, manufacturers' technical information, statutory regulations and official guidance
	Health and safety control equipment
6	identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
6.1	collective protective measures
6.2	personal protective equipment (PPE)
6.3	respiratory protective equipment (RPE)
	Information
7	drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing the operation of plant, machinery and equipment for soil stabilisation
	Legislation, Approved Codes of Practice and official guidance
8	this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting
	Maintenance
9	operative care of plant, machinery or equipment, hand tools, ancillary equipment and/or accessories
	Methods of work
10	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
10.1	identify installation requirements
10.2	conform to agreed specifications
10.3	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
10.4	identify markings for utilities
10.5	prepare, set up and carry out pre-start and running checks of the plant, machinery and equipment
10.6	check and monitor ambient conditions and adjust work in relation to prevailing weather conditions
10.7	carry out and control operations according to your role and the required performance of plant, machinery and equipment
10.8	recognise the duties of other operators, combination soil stabilisation machine operator, mixing machine operator, bulk binder spreader operator, tilling machine operator, self-propelled and towed water bowser and roller operator to ensure cohesive operations
10.9	recognise, monitor and control processes including removal, mixing, spreading, tilling, compacting, maintaining line, level, spread, depth, and finishes
10.10	recognise and determine when specialist skills and knowledge are required and report accordingly
10.11	record and report, machine operation factors, work progress and completions
10.12	shut down and secure plant, machinery and equipment
10.13	use hand tools, ancillary equipment and accessories
11	team work and communication

- 12 needs of other occupations associated with operating plant, machinery and equipment for soil stabilisation
- Problems
- 13 those arising from information, resources and methods of work
- 13.1 own authority to rectify
- 13.2 organisational reporting procedures
- Programme
- 14 types of productivity targets and time scales
- 15 how times are estimated
- 16 organisational procedures for reporting circumstances which will affect the work programme
- Protect work
- 17 protect work against damage from general workplace activities, other occupations and adverse weather conditions
- Resources
- 18 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
- 18.1 consumables, lubricants and fuels
- 18.2 attachments
- 18.3 binding materials
- 18.4 sealing agents
- 18.5 hand tools, ancillary equipment and accessories
- 19 identify weight, bearing pressure, pressure, quantity, length and area associated with the method and procedure to operate plant, machinery or equipment for soil stabilisation
- 20 confirm resources and materials conform with agreed specification
- Security procedures
- 21 site, workplace, company and operative
- Skills
- 22 own occupation and occupations related to the work

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Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and Maintenance

Key words

Mixer machine; Tilling machine; Water bowser; Roller operator; Soil stabilisation

COSVR780**Operate and control operations of road plant, machinery or equipment for surface re-texturing****Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and tools, preparing, setting up, completing pre-use checks and operating plant, machinery or equipment for the preparation and treatment of existing surfaces by retexturing

This standard is for people working independently or as part of a team in the occupational area of pavement construction and maintenance and can be used by operatives, technicians, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 the types of fire extinguishers and how and when they are used
- K9 how emergencies should be responded to and who should respond
- K10 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K11 what the accident reporting procedures are and who is responsible for making the report
- K12 why, when and how health and safety control equipment should be used
- K13 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 4

Request resources

- K14 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:

Performance Criteria 5

Selection of resources

- K15 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K16 how the resources should be used and how any problems associated with the resources are reported
- K17 the organisational procedures to select resources, why they have been developed and how they are used
- K18 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 6

Minimise the risk of damage

- K19 how to protect work from damage and the purpose of protection
- K20 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 7

Meet the contract specification

- K21 how methods of work, to meet the specification, are carried out and problems reported
- K22 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:

Performance Criteria 8

Allocated time

K23 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant, machinery or equipment operation and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to the following
 - 4.1 methods of work
 - 4.2 safe use of health and safety control equipment
 - 4.3 safe use, storage and handling of plant, machinery, equipment and tools
 - 4.4 safe use, storage and handling of materials
 - 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
 - 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 maintain a clear and tidy work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, set up, adjust, align, communicate, operate, control, secure, treat and finish
- 11 use and maintain hand tools, ancillary equipment and/or accessories
- 12 prepare, operate, or control the operations of at least one of the following items of plant, machinery or equipment to given working instructions monitoring speed, time and surface quality
 - 12.1 bush hammering machine operator
 - 12.2 grooving machine operator
 - 12.3 flailing machine operator
 - 12.4 high pressure jetting machine operator
 - 12.5 shot blasting machine operator
 - 12.6 planing or milling machine operator
 - 12.7 grinding machine operator
- 13 shut down and secure plant, machinery or equipment

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- 1 Communication
discussions, sketches, electronic information and briefings
- 2 Disposal of waste
environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- 3 Emergencies
operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 3.1 fires, spillages, injuries
 - 3.2 emergencies relating to occupational activities
- 4 Fire extinguishers
water, CO₂, foam, powder and their uses
- 5 Hazards
those identified by methods of work, risk and Control of Substances Hazardous to Health (COSHH) assessments, manufacturers' technical information, statutory regulations and official guidance
- 6 Health and safety control equipment
identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 6.1 collective protective measures
 - 6.2 personal protective equipment (PPE)
 - 6.3 respiratory protective equipment (RPE)
- 7 Information
drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing the operation of plant, machinery and equipment and accessories for surface retexturing
- 8 Legislation, Approved Codes of Practice and official guidance
this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials and by manual handling and mechanical lifting
- 9 Maintenance
operative care of plant or machinery, hand tools, ancillary equipment and/or accessories
- 10 Methods of work
application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
 - 10.1 identify treatment requirements
 - 10.2 conform to agreed specifications

- 10.3 confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
- 10.4 prepare, mask and work around street furniture and ironworks
- 10.5 check and monitor ambient conditions and adjust work in relation to prevailing weather conditions
- 10.6 carry out and control operations according to your role and the required performance of plant, machinery and equipment
- 10.7 recognise, monitor and control processes e.g. uniformity of finish and texture depth
- 10.8 return infrastructure to operational status
- 10.9 recognise and determine when specialist skills and knowledge are required and report accordingly
- 10.10 record and report, machine operation factors, work progress and completions
- 10.11 shut down and secure plant, machinery and equipment
- 10.12 use hand tools, ancillary equipment and accessories
- 11 team work and communication
- 12 needs of other occupations associated with operating plant, machinery and equipment for surface retexturing

- Problems
- 13 those arising from information, resources and methods of work
 - 13.1 own authority to rectify
 - 13.2 organisational reporting procedures

- Programme
- 14 types of productivity targets and time scales
- 15 how times are estimated
- 16 organisational procedures for reporting circumstances which will affect the work programme

- Protect work
- 17 protect work against damage from general workplace activities, other occupations and adverse weather conditions

- Resources
- 18 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
 - 18.1 consumables, lubricants and fuels
 - 18.2 attachments
 - 18.3 hand tools, ancillary equipment and accessories
- 19 identify weight, pressure, quantity, length and area associated with the method and procedure to operate plant, machinery or equipment for surface retexturing
- 20 confirm resources and materials conform with agreed specification

- Security procedures
- 21 site, workplace, company and operative

- Skills
- 22 own occupation and occupations related to the work

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Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and Maintenance

Key words

Bush hammering machine; Grooving machine; Flailing machine; High pressure jetting machine; Shot blasting machine; Grinding machine

COSVR781

Operate and control operations of road plant, machinery or equipment for pavement marking

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and tools, preparing, setting up, completing pre-use checks and operating plant, machinery or equipment for pavement marking

This standard is for people working independently or as part of a team in the occupational area of pavement construction and maintenance and can be used by operatives, technicians, supervisors and managers

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

You need to know and understand:

Performance Criteria 2

Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

You need to know and understand:

Performance Criteria 3

Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 the types of fire extinguishers and how and when they are used
- K9 how emergencies should be responded to and who should respond
- K10 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K11 what the accident reporting procedures are and who is responsible for making the report
- K12 why, when and how health and safety control equipment should be used
- K13 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

You need to know and understand:

Performance Criteria 4

Request resources

- K14 the organisational procedures for requisitioning consumables and other resources

You need to know and understand:

Performance Criteria 5

Selection of resources

- K15 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K16 how the resources should be used and how any problems associated with the resources are reported
- K17 the organisational procedures to select resources, why they have been developed and how they are used
- K18 the hazards associated with the resources and methods of work and how they are overcome

You need to know and understand:

Performance Criteria 6
Minimise the risk of damage

- K19 how to protect work from damage and the purpose of protection
- K20 why disposal of waste should be carried out safely and how it is achieved

You need to know and understand:

Performance Criteria 7

Meet the contract specification

- K21 how methods of work, to meet the specification, are carried out and problems reported
- K22 how maintenance of plant and/or machinery, tools and equipment is carried out

You need to know and understand:

Performance Criteria 8

Allocated time

- K23 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant, machinery or equipment operations and the work to be carried out

Performance Criteria 2

- 2 organisation of own work
- 3 communication with team members and other associated occupations about the plant, machinery or equipment operation and the work to be carried out

Performance Criteria 3

- 4 avoidance of risk by complying with the given safety information relating to the following
 - 4.1 methods of work
 - 4.2 safe use of health and safety control equipment
 - 4.3 safe use, storage and handling of plant, machinery, equipment and tools
 - 4.4 safe use, storage and handling of materials
 - 4.5 specific risks to health

Performance Criteria 4

- 5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

- 6 selection of resources associated with own work
 - 6.1 tools and ancillary equipment and/or accessories

Performance Criteria 6

- 7 protection of the work and its surrounding area from damage
- 8 maintain a clear and tidy work space
- 9 disposal of waste in accordance with current legislation

Performance Criteria 7

- 10 demonstration of work skills to check, set up, adjust, align, communicate, operate, control, secure and lay
- 11 use and maintain hand tools, ancillary equipment and/or accessories
- 12 prepare, operate, or control the operations of at least one of the following items of plant, machinery or equipment for at least one of the following to given working instructions
 - 12.1 applicator steersman reacting to signals to maintain speed direction and line
 - 12.2 applicator operator maintaining feed, flow, coverage, quantity and thickness of materials and communicating with steersman
 - 12.3 feeder vehicle operator supplying materials to the applicator
- 13 shut down and secure plant, machinery or equipment

Performance Criteria 8

- 14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

- 1 Communication
 - discussions, sketches, electronic information and briefings
- 2 Disposal of waste
 - environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance
- 3 Emergencies
 - operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 3.1 fires, spillages, injuries
 - 3.2 emergencies relating to occupational activities
- 4 Fire extinguishers
 - water, CO₂, foam, powder and their uses
- 5 Hazards
 - those identified by methods of work, risk and Control of Substances Hazardous to Health (COSHH) assessments, manufacturers' technical information, statutory regulations and official guidance
- 6 Health and safety control equipment
 - identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
 - 6.1 collective protective measures
 - 6.2 personal protective equipment (PPE)
 - 6.3 respiratory protective equipment (RPE)
- 7 Information
 - drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal, written and graphical instructions, current regulations and official guidance governing the operation of plant, machinery and equipment for pavement marking
- 8 Legislation, Approved Codes of Practice and official guidance
 - this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and

	substances, with movement and storage of materials and by manual handling and mechanical lifting
	Maintenance
9	operative care of plant, machinery or equipment, hand tools, ancillary equipment and/or accessories
	Methods of work
10	application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
10.1	identify installation requirements
10.2	conform to agreed specifications
10.3	confirm the area and location of work, the operations, safety and security requirements including temporary traffic management and immediate area protection
10.4	ensure clean and dry surfaces for pavement marking application
10.5	identify types of pavement marking materials; spray, rib, extrusion, cold applied systems and wet visibility
10.6	prepare, set up and carry out pre-start and running checks of the plant, machinery and equipment
10.7	check and monitor ambient conditions and adjust work in relation to prevailing conditions
10.8	recognise the test criteria for pavement marking materials
10.9	carry out and control operations according to your role and the required performance of plant, machinery and equipment
10.10	work around street furniture and ironwork
10.11	recognise the duties of other operatives, applicator steersman, applicator operator and feeder vehicle operator to ensure cohesive operations
10.12	recognise, monitor and control processes e.g. preparation, line, thickness and finishes
10.13	return infrastructure to operational status missing from final NOS
10.14	recognise and determine when specialist skills and knowledge are required and report accordingly
10.15	record and report, machine operation factors, work progress and completions
10.16	shut down and secure plant, machinery and equipment
10.17	use hand tools, ancillary equipment and accessories
11	team work and communication
12	needs of other occupations associated with operating plant, machinery and equipment for pavement marking
	Problems
13	those arising from information, resources and methods of work
13.1	own authority to rectify
13.2	organisational reporting procedures
	Programme
14	types of productivity targets and time scales
15	how times are estimated
16	organisational procedures for reporting circumstances which will affect the work programme
	Protect work
17	protect work against damage from general workplace activities, other occupations and adverse weather conditions
	Resources



- 18 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
- 18.1 consumables, lubricants and fuels
- 18.2 attachments
- 18.3 pavement marking materials
- 18.4 hand tools, ancillary equipment and accessories
- 19 identify weight, pressure, quantity, length and area associated with the method and procedure to operate plant, machinery or equipment for pavement marking
- 20 confirm resources and materials conform with agreed specification

21 Security procedures
site, workplace, company and operative

22 Skills
own occupation and occupations related to the work

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Relevant occupations: Road Construction Operatives; Construction Operatives

Suite

Road building and Maintenance

Key words

Applicator steersman; Applicator operator; Feeder vehicle operator

COSVR761

Operate plant or machinery to sweep, clean or clear

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing, setting up, operating and shutting down plant or machinery for sweeping, cleaning and clearing. This standard is for people working independently or as part of a team to operate plant or machinery that sweeps, cleans and clears and can be used by operatives, supervisors and managers.

Performance criteria

You must be able to:

- P1 interpret the given operating information relating to the use of plant or machinery and confirm its relevance
- P2 organise with others the sequence in which the work is to be carried out
- P3 comply with the relevant, current legislation, special legal status documents, official guidance and organisational procedures to maintain safe and healthy work practices
- P4 request resources to sustain plant or machinery operations to complete the programme of work
- P5 select plant or machinery resources for the methods of work and operations to be carried out
- P6 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P7 comply with the given contract information to carry out the work efficiently to the required specification
- P8 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand

Performance Criteria 1 Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented
- K2 the types of information, their source and how they are interpreted
- K3 the organisational procedures to solve problems with the information and why it is important they are followed

Performance Criteria 2 Organise with others

- K4 communication of ideas between team members
- K5 organisation of resources in conjunction with the progress of work
- K6 the skills required to carry out the work

Performance Criteria 3 Safe work practices

- K7 the level of understanding operatives must have of information for relevant, current legislation, Approved Codes of Practice and official guidance and how it is applied
- K8 how emergencies should be responded to and who should respond
- K9 the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings
- K10 what the accident reporting procedures are and who is responsible for making the report
- K11 why, when and how health and safety control equipment should be used
- K12 how to comply with environmentally responsible work practices to meet the requirements of current legislation and official guidance

Performance Criteria 4 Request resources

- K13 the organisational procedures for requisitioning consumables and other resources

Performance Criteria 5 Selection of resources

- K14 the characteristics, quality, uses, sustainability, limitations and defects associated with plant resources and how defects should be rectified
- K15 how the resources should be used and how any problems associated with the resources are reported
- K16 the organisational procedures to select resources, why they have been developed and how they are used

K17 the hazards associated with the resources and methods of work and how they are overcome

Performance Criteria 6 Minimise the risk of damage

K18 how to protect work from damage and the purpose of protection

K19 why disposal of waste should be carried out safely and how it is achieved

Performance Criteria 7 Meet the contract specification

K20 how methods of work, to meet the specification, are carried out and problems reported

K21 how maintenance of plant and/or machinery, tools and equipment is carried out

Performance Criteria 8 Allocated time

K22 what the programme is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Additional information

Scope/range related to performance criteria

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the plant or machinery operations and the work to be carried out

Performance Criteria 2

2 organisation of own work

3 communication with team members and other associated occupations about the plant or machinery operation and the work to be carried out

Performance Criteria 3

4 avoidance of risk by complying with the given safety information relating to at least five of the following 4.1 methods of work 4.2 safe use of health and safety control equipment 4.3 safe use and storage of plant or machinery 4.4 safe use and storage of tools and equipment 4.5 safe use of access equipment 4.6 specific risks to health

Performance Criteria 4

5 follow organisational procedures for the requisition of consumables, materials and other resources

Performance Criteria 5

6 selection of resources associated with own work 6.1 tools, ancillary equipment and accessories

Performance Criteria 6

7 protection of the work and its surrounding area from damage

8 prevent damage and maintain a clean work space

9 disposal of waste in accordance with current legislation

Performance Criteria 7

10 demonstration of work skills to check, prepare, refill, replenish, set up, align, engage, adjust, manoeuvre, empty, wash out, clear and clean

11 use and maintain hand tools, ancillary equipment

12 operate plant or machinery to given working instructions to sweep and to carry out at least two of the following 12.1 tipping of lifted materials; 12.2 scrub clean 12.3 hose clean, wet sweep 12.4 pressure wash clean 12.5 suck empty or clear 12.6 blow clear

13 shut down and secure plant or machinery

Performance Criteria 8

14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Scope/range related to knowledge and understanding

Communication

1 discussions, sketches, electronic data and briefings

Disposal of waste

2 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

3 operative's response to situations in accordance with organisational authorisation and personal skills when involved with 3.1 fires, spillages, injuries 3.2 emergencies relating to occupational activities

Hazards

4 those identified by method of work, risk/COSHH assessments, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment 5.1 collective protective measures 5.2 local exhaust ventilation (LEV) 5.3 personal protective equipment (PPE) 5.4 respiratory protective equipment (RPE)

Information

6 drawings, specifications, schedules, method statements, risk assessments, work instructions, manufacturers' information, waste carriers register and current regulations governing the operation of plant or machinery

Legislation, Approved Codes of Practice and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting

Maintenance

8 operative care of plant or machinery, hand tools, ancillary equipment and accessories

Methods of work

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to 9.1 identify the characteristics of the plant, machinery and equipment used to sweep, clean and clear 9.2 liaise with site representative 9.3 complete pre-use and post stop checks for sweeper, cleaner, clearer and ancillary equipment 9.4 carry out functional checks 9.5 identify the area to be swept, cleaned and cleared 9.6 check to avoid damage to structures, utilities service apparatus, vehicles, people and animals 9.7 prepare, set up and adjust for operational requirements, safety and security 9.8 operate plant, machinery and equipment; gears, clutch, brake, steering, reversing aids, speed and position for sweeping, cleaning and clearing patterns, sequences and operations 9.9 monitor operations making use of audio and visual aids 9.10 identify and deal with waste streams 9.11 empty and discharge hopper and dispose of lifted materials 9.12 recognise and avoid fly tipping 9.13 form stockpiles 9.14 replenish, refill water from remote hydrants 9.15 monitor brush wear 9.16 recognise and determine when specialist skills and knowledge are required and report accordingly 9.17 travel on public highways 9.18 deal with spills of oil, diesel, petrol and chemicals 9.19 washout hopper 9.20 operate in various conditions, day, night, low light, restricted visibility changing weather conditions 9.21 shut down and secure plant or machinery 9.22 use hand tools, ancillary equipment and accessories

10 team work and communication

11 needs of other occupations associated with operating plant and machinery for sweeping, cleaning and clearing

Problems

12 those arising from information, resources and methods of work 12.1 own authority to rectify 12.2 organisational reporting procedures

Programme

13 types of progress charts, timetables and estimated times

14 organisational procedures for reporting circumstances which will affect the work programme

Protect work

15 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist 16.1 consumables 16.2 brushes, hoses and nozzles 16.3 hand tools, ancillary equipment and accessories

17 identify weight, bearing, pressure, quantity, length and area associated with the method/procedure to operate plant or machinery for sweeping, cleaning and clearing

Security procedures

18 site, workplace, company and operative Skills 19 own occupation and occupations related to the work



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Suite Plant Operations (Construction)

Key words Sweep; Scrub clean; Hose clean; Pressure wash clean; Suck empty or clear; Blow clear; Wet sweep



APPENDIX 3 - ASSESSMENT TEMPLATE DOCUMENTS

3A: Sample Form

Assessment plan and review

Candidate name:

Employer/location:

Date:

Qualification:

Unit(s):

Elements:

Assessor:

Period of Review:

(should not normally exceed 12 weeks)

Proposed Date for next review:

Part 1 – Activities / Tasks / Learning / Training undertaken since last review:

Part 2a – ‘Progress to date’ specifying units/elements/modules achieved to date (the progress recorded **must** tie in with the associated ‘**Summary of Achievement Record**’):

Part 2b – Identified **barriers** to progress (please detail here any issues relating to the programme delivery, which have impacted negatively on progress e.g. attendance times, learning difficulties, suitability of training/learning materials, physical barriers to participation, health issues, attitude etc):

*

Part 2c – Solutions proposed to address the above barriers:

Part 3 – Agreed '**assessment planning**' & action required for the next review (proposed methods of evidence collection must be recorded & proposed assessment methods must be selected):

N.B. Methods of evidence collection may include: either hard copy records or electronic records such as audio recordings, scanned documents, photographs etc.

Element:

Proposed Assessment Methods/Sources of Evidence:

	CrossRef	RPL	OBS	Questioning	PS	WR	D	WT
Key: Assessment Methods/Sources of Evidence CrossRef = Cross Referencing RPL = Recognition of Prior Learning OBS = Observation PS = Personal Statement WR = Work Record D = Discussion WT = Witness Testimony								

Part 4 – Additional comments / issues (e.g. health & safety issues):

Part 5 – Candidate comments/feedback/evaluation:

Part 6 – Employer comments on progression and achievement noted in **Part 2a**:

Part 7 – Assessor Feedback/Assessment Judgements/Decisions/Outcome

Candidate Signature: Date:

Assessor Signature: Date:

Employer Signature (where present): Date:

Employer Name and position:

3B: Sample Form

Assessor report

Qualification:	
Candidate:	
Assessor:	
Date:	
Unit/ element:	
Location/ circumstance:	
Details of observation/ question/ answers/ discussion	Ref
Details of observation/ question/ answers/ discussion	Ref
Details of observation/ question/ answers/ discussion	Ref
Assessors comments (state whether candidate is competent)	
Assessor signature	
Candidate signature	

3C: Sample Form

Witness testimony

Qualification:

Unit:

Element(s):

Candidate Name:

Witness Name:

Witness Contact Details:

.....

Describe your construction and any assessment qualifications/ experience:

.....

.....

.....

Describe your relationship with the candidate:

.....

.....

Date of evidence:

Testimony and comment on candidate's performance

.....

.....

.....

.....

.....

.....

.....

Witness Signature & Date:

Candidate Signature & Date:

Assessor Signature & Date:



3D: Sample Form

Candidate personal statement

Qualification:

Candidate name:

Element(s)	Date	Statement / evidence

Candidate's signature:

Assessor's signature:

Date:



APPENDIX 4 - ASSESSOR TEMPLATE DOCUMENTS

4A: Sample Form

Element achievement record

[illegible]

***Key: Assessment Methods/Sources of Evidence**

CrossRef = Cross Referencing **RPL**= Recognition of Prior Learning **OBS**= Observation
Q&A= Questioning **PS**= Personal Statement **WR** = Work Record **D**= Discussion
WT= Witness Testimony

***Should refer to whether the evidence can be found in the portfolio ('PF') or elsewhere, if so state location of evidence*

4B: Sample Form

Unit progress record

Qualification:

Unit title:

I confirm that the candidate has been assessed as competent for this unit

Assessor name	Assessor signature	Date

I confirm that I have been assessed as competent and that the evidence produced is from work that is all mine

Candidate name	Candidate signature	Date

I confirm that I have internally verified this unit and confirm that the candidate is competent (this section must be completed where the assessor is unqualified)

IV name	IV signature	Date



APPENDIX 5 - INTERNAL VERIFIER TEMPLATE DOCUMENTS

5A: Sample Internal Verification Strategy

This document indicates what may be covered as part of an internal verifier's strategy. An effective internal verification strategy ensures:

- A forum for discussion of borderline cases
- Assessor networking and sharing of good practice
- Valid, reliable and consistent training and/or assessment
- Recorded assessment decisions which are appropriate, consistent, fair, transparent and equitable
- Clarity for candidates about assessment requirements
- Effective preparation and presentation for external verification
- Reduction in level of direct external verification scrutiny

To underpin the IV/ verification process a plan of internal activity should be developed indicating

- what will happen
- when it will happen
- who will be involved

New instructors/assessors must:

- a) be supplied with assessment and materials
- b) clearly understand assessment requirements and procedures

All assessors must:

- a) know the name of the person who will manage the IV process and the name of the IV
- b) know how IV/ verification will happen, when it will happen and who will be involved
- c) be informed about issues raised through previous internal and external quality assurance

On Course Monitoring

The IV should:

- a) Sample assessments to ensure that:
 - feedback to candidates is clear and constructive
 - teaching and assessment activities are standard and appropriate
 - assessment decisions are fair and consistent
 - teaching and assessment records are clear
- b) Undertake standardisation activities
- c) Ensure candidates understand assessment requirements
- d) Provide advice and support for Assessors and share good practice
- e) Identify good assessment practice
- f) Record internal verification activities and findings, list action points and report to instructors/assessors and the EV
- g) Liaise with the EV as necessary

End of Course Checking

The IV should:

- a) monitor progress against previous action points
- b) ensure assessment records are complete and accurate
- c) ensure evidence of achievement is appropriate and standardised
- d) record internal verification activities and findings, list action points, and report these to assessors and the EV

Guidance on Sampling and Record Keeping

What do IVs/IVs sample and why?

IVs are responsible for monitoring the quality of assessment, hence the need for them to sample assessment practices and decisions. It is not usually possible or necessary to verify every aspect of assessment at each internal verification. A properly selected representative sample should identify any issues with assessment practices and decisions.

Selecting a sample

To select a representative sample, IVs must take account of factors which may impact on the quality of assessment. These factors are used to define a sampling strategy that determines the size of the sample and enables judgements to be made.

Key factors to consider are:

- Sites of delivery
- Number and experience of Assessors
- Number of courses/assessments
- Previous IV actions/recommendations
- Assessment methods
- Special arrangements
- EV recommendations
- Borderline cases
- Anything else that you think might impact on assessment decisions

The sample should include an element of random selection by the IV. It is not necessary to sample across every aspect of the programme at each event but the plan should seek to cover everything over a period of time, e.g. 3 years.

Which records should be kept?

Records of internal quality assurance/ verification must be kept and made available to the EV during monitoring visits. These should demonstrate that the internal verification procedures have been carried out. IVs should record two sets of information:

1. The sample taken by the IV
2. The comments and feedback to the Assessor following the sampling exercise, showing any recommendations or action required and how this was resolved.

There is a sample form shown below that you may use or adapt to suit your own requirement.

5B: Sample Form

Internal verification - sampling assessment decisions

Unit/qualification:

Location:

Assessor name:

Candidate Name	Sampling element ¹	Was the assessment method appropriate?	Is there sufficient evidence that outcomes have been met?	Is the evidence appropriate for the level?	Comments
Comments					

Signed: (IV)

Date:

Signed: (Assessor)

Date:

¹ Was this a learning outcome across candidates, or a whole unit or one method of assessment?

5C: Sample Form

Internal verification – observation of assessors

Internal Verifier's Name:

Assessor's Name:

Candidate's Name:

Qualification Title:

Unit Assessed:

Element Assessed:

Date of Observation:

Location of Assessment:

Prior to the assessment had the Assessor:	Yes	No	Comments:
Developed a written Assessment Plan for the candidate			
Checked that the facilities, resources and information required for the assessment were available and ready for use			
Briefed the candidate on how the assessment would take place and what would be assessed			
During the assessment did the Assessor:	Yes	No	Comments:

Conduct the assessment unobtrusively without interfering with the candidate's performance			
Encourage the candidate to satisfy the specified Assessment Criteria			
Ask questions clearly in an encouraging tone and manner without leading the candidate			
Ensure that sufficient questions were asked and that they were justifiable and relevant to the Unit assessed			

During the assessment did the Assessor (continued):	Yes	No	Comments:
Ensure that the atmosphere created during the assessment was pleasant and conducive			
Clarify and resolve any concerns that the candidate had during the assessment			
Clearly inform the candidate of the assessment decision i.e. 'achieved' or 'requires further practice'			
After the assessment did the Assessor:	Yes	No	Comments:
Provide feedback that was clear, constructive, met the candidate's needs and was			

appropriate to his/her level of confidence			
Encourage the candidate to comment on the assessment decision and how he/she was assessed			
Complete the Unit assessment documentation and ensure it was fully signed and dated			

Overall feedback to Assessor:

Assessor's comments on the IV's feedback:

Assessor's Signature:

Date:.....

Internal Verifier's Signature:

Date:.....