NOS review	Grid version control	Edit date	Edits by
Generic content	V1.~~2~~3	~~26/11/21~~14/12/21	PC

Performance criteria ... you must be able to:

Performance criteria Interpretation of information
P1 EDIT
interpret the information relating to the work and resources as relevant to geographical location to confirm its relevance for the following: • drawings • specifications • schedules • method statements • risk assessments • manufacturers' and suppliers' information • oral or written or electronic instructions • current regulations, legislation, guidance, and permits

Performance criteria Safe working practices
P2 EDIT
comply with the relevant, current legislation and official guidance to carry out the work and maintain safe and healthy work practices relating to the following: • methods of work • safe use of appropriate personal protective equipment (PPE) • safe use of access equipment or lifting equipment • safe use, storage and handling of materials, tools and equipment • safe use of health and safety control equipment • specific risks to occupational health and safety including mental health awareness • specific risks associated with hazardous or asbestos containing materials

Performance criteria Selection of resources
P3 EDIT
select the required quantity and quality of resources for the methods of work for: • materials and components • tools and equipment

Performance criteria Minimise the risk of damage
P4 EDIT
comply with organisational procedures to minimise the risk of accidental (TBC) damage to the work and surrounding area by: • taking relevant steps to protect the work and its surrounding area from damage • maintaining a safe, clear and tidy work area • disposing of waste in accordance with current legislation

Performance criteria Allocated time
P6 EDIT
complete the work within the estimated, allocated time, in accordance with organisational procedures, the programme of work and to meet the needs of other occupations and/or client

Knowledge and understanding … you need to know and understand:

P1 Interpretation of information

Knowledge and understanding Interpretation of information
K1 EDIT
why organisational procedures have been developed and how they are implemented

Knowledge and understanding P1 Interpretation of information
K2 EDIT
types of information, their source and how they are interpreted in relation to: • drawings • specifications • schedules • method statements • risk assessments • manufacturers' and suppliers' information • contractual information • current legislation, regulations, guidance and permits including but not limited to listed buildings and scheduled monuments • conservation reports and plans • oral or written or electronic instructions

Knowledge and understanding P1 Interpretation of information
K3 EDIT
the importance of organisational procedures to solve problems with the information, and why it is important to follow them

P2 Safe work practices

Knowledge and understanding P2 Safe work practices
K4 EDIT
~~the level of understanding operatives must have of~~ information for relevant, current legislation, ~~and~~ official guidance and site specific requirements and how it is applied

Knowledge and understanding P2 Safe work practices
K5 EDIT
~~the types of fire extinguishers and how and when they are used in relation to water, CO_2, foam, powder~~

Knowledge and understanding P2 Safe work practices
K6 EDIT
how emergencies should be responded to ~~and who should respond~~ in accordance with organisational authorisation and personal skills ~~when involved with~~ in relation to: • fires, the types of fire extinguishers and how and when then they are used in relation to water, CO2, foam and powder • ~~,~~ spillages~~,~~ and injuries • emergencies relating to occupational activities • identification of and reporting of hazardous substances including but not limited to asbestos containing materials and lead carbonate

Knowledge and understanding P2 Safe work practices
K7 EDIT
the organisational and site specific security procedures for tools, plant and equipment ~~and personal belongings~~ in relation to: • site • workplace • vehicles • company • operative ~~customer~~ client • the general public

Knowledge and understanding P2 Safe work practices
K8 EDIT
how to report risks and hazards identified by the following: • methods of work • risk assessments • ~~personal assessment~~ TBC • manufacturers' technical information • statutory regulations • official guidance • Control of Substances Hazardous to Health (COSHH)

Knowledge and understanding P2 Safe work practices
K9 EDIT
~~what~~ the accident reporting procedures ~~are~~and who is responsible for making the report

Knowledge and understanding P2 Safe work practices
K10 EDIT
why, when and how health and safety control equipment identified by the principles of prevention should be used in relation to: • collective protective measures • personal protective equipment (PPE) • respiratory protective equipment (RPE) • local exhaust ventilation (LEV)

Knowledge and understanding P2 Safe work practices
K11 EDIT
how to comply with environmentally responsible work practices to meet current legislation and official guidance when dealing with potential accidents, health hazards and the environment whilst working in the workplace in relation to: • below ground level • ~~in~~ confined spaces • at height • ~~with~~ tools, plant and equipment • ~~with~~ materials and substances • ~~with movement/storage of~~ moving and storing materials ~~and~~ by manual handling and mechanical lifting

P3 Selection of resources

Knowledge and understanding P3 Selection of resources
K12 EDIT
why the characteristics, quality, uses, sustainability, suitability, limitations and defects associated with the resources are important and how defects should be ~~rectified~~ reported

Knowledge and understanding P3 Selection of resources
K13 EDIT
the organisational procedures to select resources, why they have been developed and how they are used

Knowledge and understanding P3 Selection of resources
K14 EDIT
how to confirm the resources and materials conform with the specification

Knowledge and understanding P3 Selection of resources
K16 EDIT
how to identify the hazards associated with the resources and methods of work and how they are overcome

Knowledge and understanding P3 Selection of resources
K17 EDIT
methods of calculating the quantity, length, area and wastage associated with the method/ and procedure to ~~conserve and restore~~work on conservation and restoration projects

P4 Minimise the risk of damage

Knowledge and understanding P4 Minimise the risk of damage
K18 EDIT
how to protect work and its surrounding area from damage and the purpose of protection from general workplace activities, other occupations and adverse weather conditions and how to minimise the damage to existing building fabric

Knowledge and understanding P4 Minimise the risk of damage
K19 EDIT
why and how to carry out the safe disposal of waste ~~should be carried out safely and how it is achieved~~ in accordance with the following: • environmental responsibilities • organisational procedures • manufacturers' information • suppliers' information • statutory regulations • official guidance

Knowledge and understanding P4 Minimise the risk of damage
K20 EDIT
why it is important to ~~minimise damage and~~ maintain a safe, ~~clean~~ clear and tidy work ~~space~~ area

P5 Meet the contract specification

Knowledge and understanding P5 Meet the contract specification
K22 EDIT
the importance of team work and communication, organisational procedures with respect to site behaviours, and how to challenge inappropriate site behaviours

Knowledge and understanding P5 Meet the contract specification
K23 EDIT
the needs of other occupations associated with working on conservation and restoration projects

P6 Allocated time

Knowledge and understanding P6 Allocated time
K24 EDIT
~~what~~ the programme ~~is for the~~ of work to be carried out ~~in~~ including the estimated~~,~~ and allocated time and why deadlines should be kept

Knowledge and understanding P6 Allocated time
K25 EDIT
the types of progress charts, timetables and estimated times and the organisational procedures for reporting circumstances which will affect the work programme

NOS Title	NOS Reference	Grid version control	Edit date	Edits by
Blacksmith processes in the conservation of forged heritage metalwork	COSVR621 V2	V1.~~1~~2 ~~CLEAN~~	~~29/11/21~~02/12/2021	~~PC~~SP

Performance criteria Meet the contract specification	Knowledge and understanding P5 Meet the contract specification	Knowledge and understanding P3 Selection of resources
P5 EDIT	**K22 EDIT**	**K16 EDIT**
comply with the contract and specification information to carry out the work efficiently ~~to the required specification~~ by: • demonstrating work skills to: - measure and record - disassemble at workshop - preparation of workshop drawings or templates - clean - cut - shape - join - fit and assemble • using and maintaining blacksmiths tools: - hand tools - portable power tools - ancillary equipment • using blacksmith processes in the conservation of forged heritage metalwork to specification by applying the following techniques: - hot forge: drawdown, spread, upset, swage, fuller, set	how the methods of work to meet the specification are carried out, and how problems are identified and reported, by the application of knowledge for safe, healthy and environmental work practices, procedures and skills, relating to: • the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance • why it is necessary to assess requirements for conservation of forged heritage metalwork • why it is necessary to survey, label and record components • why is it important to identify damage and deterioration and the causes • why it is important to identify the effects of ~~reduced~~ loads, changed stress regimes, strengthening and reinforcement techniques to forged heritage metalwork	how the resources should be used and how any problems associated with the resources are reported in relation to: • materials • components, fixings, consumables • blacksmiths tools~~,~~ : - hand tools - ~~and~~ portable power tools - ~~and~~ ancillary equipment • digital equipment

- hot or cold form: bend, twist, dish, raise - hot or cold cut: punch, chisel - join: forge weld, fasten mechanically (fixed and moveable)	• why it is important to validate appropriate ways in which the work should be carried out • why it is important to recognise the hazards and risks of blacksmith processes to others, existing fabric and environment, to include fire control methods • why it is important to maintain historical integrity • why it is important to maintain the principles of minimum intervention and reversible alterations • why it is necessary to stop work at the point when conjecture begins and report findings • how to relate iron carbon equilibrium diagrams to the properties of irons and steels • how to identify metal properties including but not limited to: - wrought iron - pure iron - cast iron - plain carbon steel - alloy steels - brass - copper - bronze - lead - aluminium • how to heat treat metals • how to recognise and make blacksmiths tools • how to fit and assemble components	

	• how to hot forge: drawdown, spread, upset, swage, set and fuller • how to hot and cold form: bend, twist, dish, raise • how to hot and cold cut: punch and chisel • how to join: forge weld, fasten mechanically (fixed and moveable) • how to clean and prepare metal safely with specific reference to: - particulates - fume - lead • why it is important to record the work carried out (written, photographic or digital) • why it is important to recognise and report endangered and protected flora and fauna • how to describe and ~~list the function of~~use ~~all~~ blacksmiths tools: - hand tools - portable power tools - ancillary equipment • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to identify and follow the installation quality requirements	

	• how and why operative care and maintenance of blacksmiths tools is carried out: - hand tools - portable power tools - ancillary equipment ~~is carried out~~	

NOS Title	NOS Reference	Grid version control	Edit date	Edits by
Clean, prepare and protect heritage metalwork	COSVR622 V2	V1.3	16/12/2021	SP

Performance criteria Meet the contract specification	Knowledge and understanding P5 Meet the contract specification	Knowledge and understanding P3 Selection of resources
P5 EDIT	**K22 EDIT**	**K16 EDIT**
comply with the contract and specification information to carry out the work efficiently by: • demonstrating work skills to: - clean - fill - protect - disassemble - assemble - finish - protect and secure for transport • using and maintaining hand tools, portable power tools, cleaning and finishing equipment • clean and prepare heritage metalwork to work instructions using three of the following: - flame clean - wire brush by hand or machine - abrade by hand or machine - blast system - chemical cleaning system - fettling - degreasing	how the methods of work to meet the specification are carried out, and how problems are identified and reported, by the application of knowledge for safe, healthy and environmental work practices, procedures and skills, relating to: • the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance • why it is necessary to assess requirements for conservation of metalwork finishes and coatings • why it is necessary to survey, label and record components • why it is important to assess the metalwork condition to identify suitable cleaning and protection processes • why it is necessary to protect heritage metalwork for transport	how the resources should be used and how any problems associated with the resources are reported in relation to: • contemporary protective coatings • historic coatings - cleaning and finishing equipment: - hand tools - portable power tools - ancillary equipment • finishing consumables to include: - cleaning agents - fillers - abrasives - work area protection materials ~~• working at height equipment~~ • digital equipment

• protect heritage metalwork to work instructions using l three of the following: - filling - coatings by hand - coatings by machine - polishing - gilding	• how to pack and transport heritage metalwork • why it is important to validate appropriate ways in which the work should be carried out • why it is important to recognise the hazards and risks of cleaning and preparing finishing processes to others, existing fabric and environment, to include fire control methods • why it is important to maintain historical integrity • why it is important to maintain the principles of minimum intervention and reversible alterations • why it is necessary to stop work at the point when conjecture begins and report findings • why it is important to identify damage and deterioration of protective coatings and the causes • how to identify different coatings, properties and uses • why it is necessary to apply the principles and methods of corrosion control in ferrous and non-ferrous metals including: - sacrificial protection - electrolytic corrosion - direct chemical corrosion	

	• why it is important to identify effects of atmospheric conditions on coatings and work • how to clean and prepare metal: - flame clean - abrade: wire brush, sandpapers, blasting and scraping - fettling - chemical cleaning • how to identify specified fillers, properties and uses • how to use specified fillers • why it is important to control contamination (the work and environment) • how to recognise and describe different historical finishes including but not limited to: - gilding - painting - electroplating • why it is necessary to evaluate appropriate finishing techniques and materials • how to apply protective coatings: - by hand - machine - polish - gilding	

	• why it is important to recognise the effects of dissimilar materials and substances • why it is important to recognise and report endangered and protected flora and fauna • why it is necessary to record the work carried out (written, photographic or digital) • how to describe and use cleaning and preparation tools: - hand tools - portable power tools - ancillary equipment • how to work at height using access equipment • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to identify and follow the installation quality requirements • how and why operative care and maintenance of blacksmiths tools is carried out:	

	- hand tools - portable power tools - ancillary equipment	

NOS Title	NOS Reference	Grid version control	Edit date	Edits by
Heat, weld, braze or solder heritage metalwork	COSVR623 V2	V1.01	08/09/202102/12/2021	SP

Performance criteria Meet the contract specification	Knowledge and understanding P5 Meet the contract specification	Knowledge and understanding P3 Selection of resources
P5 EDIT	**K22 EDIT**	**K16 EDIT**
comply with the contract and specified information to carry out the work efficiently to the required specification by: • demonstration of demonstrating work skills to: - measure - mark out - fit - prepare - position - secure - heat - weld - braze - solder - prepare - position - secure - finish - inspect • use and maintain using and maintaining welding, brazing and soldering tools: - hand tools, - portable power tools	how the methods of work to meet the specification are carried out, and how problems are identified and reported, by the application of knowledge for safe, healthy and environmental work practices, procedures and skills, relating to: • the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance • why it is necessary to assess requirements for for repair, restoration or the maintenance conservation of metalwork by joining and heating • why it is necessary to survey, label and record components • why it is important to identify damage and deterioration and the causes	how the resources should be used and how any problems associated with the resources are reported in relation to: • metalsmaterials • components and consumables, to includeing but not limited to: - (gases, - filling rods - /wires) • wWelding, brazing and soldering machines and equipment: and ancillaries - hand tools - and/or and portable powered tools - and heatingancillary/associated equipment • working at height equipment • digital equipment

- , welding and heating equipment - and ancillary/associated equipment • heat metalwork to given working instructions to achieve at least two of the following: - free components (thermal shock) - heat treat - reduce or remove rust - adjust (localised/spot) • measure, mark out, prepare, position and secure metal prior to welding, brazing or soldering • prepare joint types to include: - butt - lap - fillet - corner • join, weld, braze or solder the following metals: - wrought iron - cast iron - other ferrous metals - and non-ferrous metals to given working instructions using at least two of the following welding and/or brazing and/or soldering techniques	• why it is important to identify the effects of loads, change stress regimes, strengthening and reinforcement techniques, to heat and join heritage metalwork • why it is important to validate appropriate ways in which the work should be carried out • why it is important to recognise sensitive areas the hazards and risks of heating and welding processes to others, existing fabric and environment, to include fire control methods • why it is important to maintain heritage and archaeological historical integrity • why it is important to maintain the principles of minimum intervention and reversible alterations • survey, label and record components • why it is necessary to stop work at the point when conjecture begins and report findings • relate equilibrium diagrams to metal types/properties • how to identify metal properties including but not limited to: - wrought iron - pure iron - cast iron - plain carbon steel	

• use at least two of the following heating and welding systems: - oxygen and fuel gas - manual metal arc - metal inert gas shielded or metal active gas shielded - tungsten inert gas shielded • ~~carry out~~ complete welded or brazed joints~~above work~~ in at least three of the following positions: - flat - ~~vertical/~~horizontal vertical - vertical - overhead • finish joints to specification • recognise and control the effects of applying heat to metals: - distortion - heat affected zone • inspect joints using at least two of the following: - visual - dye penetrant - macro etch • inspect weld repairs and constructions using at least one of the following: - measuring - pressure testing	- alloy steels - brass - copper - bronze - lead - aluminium - zinc • how to heat treat metals: - annealing - normalising - hardening - tempering • how to apply the principles and methods of joining and heating ferrous and non-ferrous metal~~s~~ • the advantages and disadvantages of welding, brazing and soldering systems: - oxygen and fuel gas - manual metal arc - metal inert gas shielded or metal active gas shielded - tungsten inert gas shielded • how to join metals by welding, soldering and brazing in all positions (flat, ~~vertical/~~horizontal vertical, vertical and overhead) • how to recognise and control the effects of applying heat to metals (distortion, heat affected zone)	

	• how to recognise and prepare joint types (butt, lap, fillet, corner) • how to finish and dress joints • how to inspect joints by: - non-destructive testing (visual, x-ray and dye penetrates) and - destructive testing (bend test, tensile, nick break and weld macro etch) • how to inspect weld repairs and constructions by: - measuring - pressure testing • finish and dress joints • recognise the effects of applying heat to metals (distortion, heat affected zone) • why it is important to record the work carried out (written, photographic or digital) • why it is important to recognise and/or report endangered/ and protected flora and fauna • how to describe, use and store fuel welding, brazing and soldering gases • how to describe and use welding, brazing and soldering tools: - use all hand tools tools, and - portable power tools and - ancillary equipment	

	• how to work at height using access equipment • ~~use access equipment~~ ~~the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance~~ • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to identify and follow the installation quality requirements • how and why operative care and maintenance of ~~all~~ welding, brazing and soldering tools is carried out: - hand tools - ~~and~~ portable power tools ~~-~~ ancillary~~/associated~~ equipment ~~is carried out~~	

NOS Title	NOS Reference	Grid version control	Edit date	Edits by
Thermal cutting metal for heritage work	COSVR624 V2	V1.~~0~~1	~~08/09/2021~~02/12/2021	SP

Performance criteria Meet the contract specification	Knowledge and understanding P5 Meet the contract specification	Knowledge and understanding P3 Selection of resources
P5 EDIT	**K22 EDIT**	**K16 EDIT**
comply with the contract and specified information to carry out the work efficiently ~~to the required specification~~ by: • ~~demonstration of~~ demonstrating work skills to: - measure - mark out - prepare - position - secure~~cut~~ - cut~~secure~~ - finish - inspect • ~~use and maintain~~ using and maintaining thermal cutting tools: - ~~-~~hand tools~~,~~ - portable power tools - ~~, thermal cutting and~~ ancillary/~~associated~~ equipment ~~and ancillaries~~ • measure, mark out, prepare, position, secure metal prior to cutting • cut metals ~~by~~ using hand held thermal systems ~~means~~ to ~~given~~ work~~ing~~	how the methods of work to meet the specification are carried out, and how problems are identified and reported, by the application of knowledge for safe, healthy and environmental work practices, procedures and skills, relating to: • the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance • why it is necessary to assess requirements for conservation of thermal cutting metal for heritage work • why it is necessary to survey, label and record components • why it important to identify damage and deterioration and the causes • why it important to identify the effects of loads, change stress regimes, strengthening and reinforcement	how the resources should be used and how any problems associated with the resources are reported in relation to: • materials • components and consumables including but not limited to: - gases - tips and nozzles • ~~thermal cutting equipment~~ • ~~thermal cutting consumables~~ • thermal cutting equipment: - oxygen and fuel gases - plasma arc • ~~welding machines and equipment **and ancillaries**~~ • hand tools, ~~and/or~~ ~~and~~ portable power~~ed~~ tools and ancillary~~/associated~~ equipment • working at height equipment • digital equipment

instructions using one of the following ~~techniques~~: - oxygen and fuel gas - plasma arc • finish cuts using hand tools and portable power tools • inspect cuts to specification using the following: - visual - measurement	techniques to thermal cut heritage metal work • why it is important to validate appropriate ways in which the work should be carried out • why it is important to recognise the hazards and risks of thermal cutting processes to others, existing fabric and environment, include fire control methods~~sensitive areas~~ • why it is important to maintain ~~heritage and archaeological~~ historical integrity • why it is important to maintain the principles of minimum intervention and reversible alterations ~~• survey, label and record components~~ • why it is necessary to stop work at the point when conjecture begins and report findings ~~• relate equilibrium diagrams to metal types and properties~~ • why it is necessary to identify metal properties including but not limited to: - wrought iron - pure iron - cast iron - plain carbon steel - alloy steels - brass - copper	

	- bronze - aluminium • how to measure, mark out, prepare, position, secure prior to cutting • • how to pre-heat in order to cut metals using oxygen and fuel gas • how to recognise and control the effects of applying heat to metals (distortion, heat effected zone) • the advantages and disadvantages of thermal cutting systems • how to use thermal cutting systems: - oxygen and fuel gas - plasma arc • how to ~~clean and~~ prepare and finish cut metal using hand tools and portable power tools to: - remove contaminants - ~~(~~remove dross~~)~~ - clean back cut surface • how to inspect thermal cuts to specification by: - visual - measurement • why it is necessary to record the work carried out (written, photographic or digital)	

	• why it is important to recognise and/or report endangered/ and protected flora and fauna • how to describe use and store gases and thermal cutting gases • how to describe and use thermal cutting equipment to cut metals using: - (oxygen and fuel gases - and plasma arc methods) • how to describe use thermal cutting tools: - all hand tools - tools, and portable power tools - and ancillary equipment • how to work at height using access equipment • use access equipment the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to identify and follow the installation quality requirements	

	• how and why operative care and maintenance of ~~all~~ thermal cutting tools is carried out: • hand tools • ~~and~~ portable power tools • ~~and~~ ancillary~~/associated~~ equipment ~~is carried out~~	

NOS Title	NOS Reference	Grid version control	Edit date	Edits by
Dismantle and fix heritage metalwork	COSVR625 V2	V1.~~0~~1	~~08/09/2021~~16/12/2021	SP

Performance criteria Meet the contract specification	Knowledge and understanding P5 Meet the contract specification	Knowledge and understanding P3 Selection of resources
P5 EDIT	**K22 EDIT**	**K16 EDIT**
comply with the ~~given~~ contract information to carry out the work efficiently to the required specification by: • ~~demonstration of~~ demonstrating work skills to dismantle and remove heritage metalwork from site: - survey and map - label - ~~measure~~ - ~~mark out~~ - report - dismantle - protect and secure for transport - make site safe and secure • demonstrating work skills to fix heritage metalwork on site: - prepare site for fixing - assemble metalwork on site - ~~fit~~ - fix metalwork - ~~fasten~~ - finish metalwork - leave site clean and secure	how the methods of work to meet the specification are carried out, and how problems are identified and reported, by the application of knowledge for safe, healthy and environmental work practices, procedures and skills, relating to ~~the method/ and area of work and materials used to~~: • the relevance of an assessment of significance and how to recognise specific requirements for: - structures of special interest - traditional construction - hard-to-treat buildings - recognising historical significance • why it is important to recognise and report endangered and protected flora and fauna • • why it is important to maintain the principles of minimum intervention and reversible alterations • • why it is necessary to survey: - the metalwork	how the ~~materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist~~ resources should be used and how any problems associated with the resources are reported in relation to: • metals and materials • fixings • ~~chemical mixes (mortars)~~ • consumables ~~(adhesives)~~ • dismantling and fixing equipment: - hand tools, - ~~and/or and~~ portable power~~ed~~ tools - ~~and~~ ancillary~~/associated~~ equipment • record keeping materials and equipment • ~~digital equipment~~

- ~~secure~~ • using and maintaining hand tools, ~~and~~ portable power tools and ancillary~~/associated~~ equipment • label and dismantle ~~-~~existing heritage metalwork to work instructions by:~~(~~ - ~~by~~ drilling~~,~~ - heating - chemically treating - cutting~~,~~(hot or cold) - removing fixings - ~~undoing~~ taking apart components - amending condition report as required - ~~or heating)~~ - protecting and securing for transport - cleaning and securing site - ~~and fix existing heritage metalwork to given working instructions by at least three of the following means~~ • fix existing heritage metalwork to work instructions by: - **preparing site** - **positioning metalwork** - using mechanical fixings~~(fixed and moveable)~~ - chemically fixing (mortars, concrete, adhesives) - ~~stitched~~ - lead~~ed~~ing in - ~~caulked~~finishing metalwork - cleaning and securing site	- map the site - label and record • why it is necessary to record and report on the work carried out (written, photographic or digital) • why it is important to validate appropriate ways in which the work should be carried out • why it is important to recognise sensitive areas • why it is important to maintain historical integrity • why it is necessary to stop work at the point when conjecture begins and report findings • • how to apply the principles and methods of dismantling and fixing heritage metalwork • ~~validate appropriate ways in which the work should be carried out~~ • ~~recognise sensitive areas~~ • ~~maintain heritage and archaeological integrity~~ • ~~maintain the principles of minimum intervention and reversible alterations~~ • ~~survey, label and record components~~	

	• ~~stop work at the point when conjecture begins and report findings~~ • why it is important to recognise the advantages and disadvantages of different dismantling methodologies • • how to dismantle by: - drilling - heating~~,~~ - chemically treating - cutting (hot and cold) - removing fixings - taking apart components - make site safe and secure • ~~undoing and heating~~ • ~~dismantle work that is fixed by mechanical fastenings, chemicals, stitch, lead and caulk~~ • why it is necessary to protect heritage metalwork for transport • how to pack and transport heritage metalwork • why it is important to identify metal and material properties in fixing heritage metalwork • why it is important to recognise the effects of dissimilar materials in conservation practice	

	• why it is important to recognise the advantages and disadvantages between different fixing methodologies • how to identify and follow the installation quality requirements • • why it is necessary to recognise the requirements for site preparation prior to fixing heritage metalwork • how to fix work by: - positioning metalwork - using mechanical fixings - welding and brazing - chemically fixing (mortars, concrete, adhesives) - leading in - finishing metalwork - cleaning and securing site • ~~mechanical fastening (fixed and moveable), chemical mixes, stitch, lead and caulk~~ • ~~mix and apply mortar and concrete~~ • ~~mix and apply adhesives (pre-mixed and two pack)~~ • ~~recognise the effects of dissimilar materials in restoration practice~~ • ~~identify metal properties~~ • ~~record the work carried out (written, photographic or digital)~~	

	• ~~recognise and/or report endangered/protected flora and fauna~~ • ~~pack and transport heritage metalwork~~ • how to use all hand tools~~, and~~ portable power tools and ancillary equipment • how to work at height using access equipment • ~~use access equipment~~ ~~the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance~~ • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • ~~how to identify and follow the installation quality requirements~~ • how and why operative care and maintenance of dismantling and fixing tools is carried out: - hand tools - portable power tools - ancillary equipment	

	• how and why operative care and maintenance of all hand and power tools and ancillary/associated equipment is carried out	

NOS Title	NOS Reference	Version control	Edit date	Edits by
Conserve, restore and install, ~~or repair~~ fibrous plasterwork on conservation or restoration projects	COSVR558 V3	V1.~~0~~1	~~08/09/2021~~07/12/2021	SP

Performance criteria Meet the contract specification	Knowledge and understanding P5 Meet the contract specification	Knowledge and understanding P3 Selection of resources
P5 EDIT	**K22 EDIT**	**K16 EDIT**
comply with the contract information to carry out the work efficiently to the required specification by: • ~~demonstration of~~ demonstrating work skills to: - measure - mark out - mix - remove - ~~apply~~ - ~~match~~ - position - secure - install - finish • ~~use and maintain~~ using and maintaining hand ~~tools, portable~~ and power tools and ancillary/associated equipment • match existing for heritage fibrous plasterwork using the following: - templating - squeeze impressions • conserve, restore ~~or~~ and ~~repair~~ install ~~existing~~ fibrous plaster components to	how the methods of work to meet the specification are carried out, and how problems are identified and reported, by the application of knowledge for safe, healthy and environmental work practices, procedures and skills, relating to ~~the method/ and area of work and materials used to~~: • why it is necessary to remove and stabilise defective fibrous plasterwork • how to prepare background surfaces • how to prepare benches • how to construct~~/~~and prepare moulds and produce plainface, panel, cornice, curved~~/~~ and circular, turned, cast, cast enriched mouldings • how to construct and produce moulds for curved surfaces (dome, barrel, vault, lunette) • how to turn mouldings (columns) • how to geometrically develop moulding profiles • why is it important to validate appropriate ways in which the work should be carried out	how the ~~materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist~~ resources should be used and how any problems associated with the resources are reported in relation to: • plasters, clays, reinforcement, timber, zinc, how and cold pour, release agents, retarders, accelerators, flexible moulding material, fixings, associated ancillary items • hand ~~and/or~~ and power~~ed~~ tools and ancillary/associated equipment • digital equipment

~~given~~ working instructions, ~~relating to~~for the following: - plain run mouldings - decorative mouldings: cornice - decorative mouldings: panel - curved surface mouldings: dome, barrel, vault, lunette or column ~~- plainface~~ ~~- panel mouldings~~ ~~- cornice mouldings~~ ~~- curved/and circular mouldings~~ ~~- cast mouldings~~ ~~- curved surface mouldings (dome, barrel, vault, lunette)~~ • tie back using wire and wad for heritage fibrous plasterwork	• why is it necessary to recognise sensitive areas • why is it important to maintain heritage and archaeological integrity • why is it important to maintain the principles of minimum intervention and reversible alterations • why is it necessary to stop work at the point when conjecture begins and report findings • how to record work carried out (written, photographic or digital) • why is it necessary to recognise and~~/or~~ report endangered~~/~~ and protected flora and fauna • why is it necessary to remove deteriorated and/or inappropriate materials • why is it important to maintain the existing structure • why is it important to integrate existing and new constructional components • how to store salvageable fabric, materials and structural components • how to use all hand ~~tools,~~ and power tools and ancillary/associated equipment • how to work at height using access equipment ~~• use access equipment~~ • the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction,	

	hard-to-treat buildings and historical significance • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to identify and follow the installation quality requirements • how and why operative care and maintenance of all hand and power tools and ancillary/associated equipment is carried out	

NOS Title	NOS Reference	Grid version control	Edit date	Edits by
Prepare and mix lime mortars	COSVR548v2	1.~~0~~1	~~08/09/2021~~15/12/21	PC

Performance criteria Meet the contract specification	Knowledge and understanding P5 Meet the contract specification	Knowledge and understanding P3 Selection of resources
P5 EDIT	**K22 EDIT**	**K16 EDIT**
comply with the ~~given~~ contract information to carry out the work efficiently to the required specification by: ~~demonstration of~~ demonstrating work skills to: - grade aggregates - m~~M~~easure raw materials using gauging buckets - batch - mix - sample - store - knock up ~~- sample~~ ~~- measure~~ ~~- grade~~ ~~- batch~~ ~~- mix~~ - ~~add~~ - ~~knock up~~ ~~- store~~ • using and maintaining hand and power tools, ~~plant and~~ mixing machinery and associated equipment	how the methods of work to meet the specification are carried out, and how problems are identified and reported, by the application of knowledge for safe, healthy and environmental work practices, procedures and skills, relating to: • how to source and select materials, lime, aggregates, pozzolans, pigments, additives, fibres • ~~apply~~ the lime cycle~~s~~ • why it is necessary to mix materials in ratios ~~• batch materials~~ • how to mix lime mortars – non-hydraulic (lime putty), ~~non-~~hydraulic, ~~putty, render~~ (with additives and fibres) • how to identify natural and synthetic fibres to be used in lime mortars • what the advantages and disadvantages of natural and synthetic fibres in lime mortar mixes • why it is important to work safely and cleanly in protected, well ventilated areas • where and when to use coarse and fine stuff	how the ~~materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist~~ resources should be used and how any problems associated with the resources are reported in relation to: • aggregates, non-hydraulic lime, hydraulic lime, putty limes, pozzolans, fibres, additives ~~• ancillary items~~ • hand ~~and/or~~ and power~~ed~~ tools, plant, machinery and ancillary/associated equipment • digital equipment

prepare the mixing of non-hydraulic (lime putty) and hydraulic lime mortars (coarse and fine stuff) to include lime mortars without additives or fibres, mechanically and/~~or~~ by hand to ~~given~~ work~~ing~~ instructions for at least one~~two~~ of the following: - ~~hydraulic limes and non-hydraulic limes~~ - lime mortars and additives - lime mortars with fibres (natural or synthetic) work safely and cleanly in protected well ventilated areas when preparing and mixing lime mortars	• how natural fibres degrade and the consequences • how to use all hand ~~tools, and~~ power tools and associated equipment • how to ~~use plant~~ mixing ~~and~~ machinery • how to work at height using access equipment ~~• use access equipment~~ • the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to identify and follow the installation quality requirements • how and why operative care and maintenance of all hand and power tools and ancillary/associated equipment is carried out	

NOS Title	NOS Reference	Grid version control	Edit date	Edits by
Re-lay heritage roof coverings	COSVR500v3	~~1.1 Clean~~ 1.2	~~19/11/2021~~06/12/2021	~~PC~~SP

Performance criteria Meet the contract specification	Knowledge and understanding P5 Meet the contract specification	Knowledge and understanding P3 Selection of resources
P5 EDIT	**K22 EDIT**	**K16 EDIT**
comply with the contract information to carry out the work efficiently to the required specification by: • demonstrating work skills to: - remove - clean - stack - store - prepare - measure - mark out - position - fix - finish • using and maintaining hand tools and ancillary equipment • stripping existing heritage roof coverings and re-laying either to full or partial re-roofing to working instructions, for flashings, mortars and related fittings and components for at least two of the following: - ~~single lap~~fixed gauge clay tiles	how the methods of work to meet the specification are carried out, and how problems are identified and reported, by the application of knowledge for safe, healthy and environmental work practices, procedures and skills, relating to: • how to remove, clean, stack, store and salvage reusable existing roof coverings • how to determine, gauge and fix battens and underlays (where required) appropriate to the roof covering • how to fix direct to boarded surfaces (sarking) • why it is important to restore full or partial natural slates and stone slates and tiled roofs in keeping with the existing roof covering • how to restore and measure, mark out, position, fix and finish existing heritage roof coverings using: - ~~single lap~~ fixed gauge clay tiles	how the resources should be used and how any problems associated with the resources are reported in relation to: • battens, sarking boards, sand, cement, lime, underlay, tiles, natural slates and stone slates, fittings, flashings, insulation, fixings, ~~ventilators~~ and associated ancillary items • hand tools and ancillary equipment • digital equipment

- clay plain tiles or peg tiles or regular sized natural slates - stone slates or random length and width natural slates • applying re-laid heritage materials to ~~the following areas to~~ working instructions to general areas and to ~~for nine~~ at least seven of the following: - verges - double or triple eave - ridge: vernacular ridge details, stone-ridge, clay-ridge~~,~~ or lead~~tbc needs differentiation~~ - hips: vernacular hip details, stone-ridge, clay-ridge~~,~~ or lead ~~tbc needs differentiation~~ - single cut valley or chevron valley or collar and tie valley or similar - laced valley or swept valley - open valley or close mitred valley - openings - top edge and side abutments with and without lead~~tbc needs differentiation~~ ~~- general areas~~	- clay plain tiles or peg tiles or regular sized natural slates - stone slates or random length and width natural slates • how to lay ridge to: vernacular ridge details, stone-ridge, clay-ridge, lead~~,~~ • how to lay hips to: vernacular hip details, stone-ridge, clay-ridge, lead~~,~~ • how to lay top edge and side abutments with and without lead • the impacts of using new insulation materials within heritage roof coverings • the benefits of using natural materials for insulation • ~~digital skills~~ • how to identify the characteristics of traditional valleys and explain the reasons for their use • why it is necessary to mix and apply mortar to meet the requirements of the contract • how to identify the difference and performances between an air lime and hydraulic lime and explain the reasons for their use • how to remove deteriorated and inappropriate materials • how to maintain the existing structure	

	• how to integrate existing and new constructional components • how to recognise salvageable materials and dispose of damaged materials safely • how to prepare and store salvageable materials and components • how to safely strip and salvage existing roof coverings and fittings • why it is important to validate appropriate ways in which the work should be carried out between traditional and new methods or products • why it is important to recognise sensitive areas • why it is necessary to maintain heritage and archaeological integrity • why it is necessary to maintain the principles of minimum intervention and reversible alterations • why it is important to stop work at the point when conjecture begins and report findings • why it is important to record work carried out (written, photographic or digital) • why it is necessary to recognise and report endangered and protected flora and fauna • how to use all hand tools and ancillary equipment • how to work at height using access equipment	

	• the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to identify and follow the installation quality requirements • how and why operative care and maintenance of all hand and power tools and ancillary equipment is carried out	

NOS Title	NOS Reference	Grid version control	Edit date	Edits by
Replace heritage roof coverings	COSVR501v3	1.0	08/09/2021	PC

Performance criteria Meet the contract specification	Knowledge and understanding P5 Meet the contract specification	Knowledge and understanding P3 Selection of resources
P5 EDIT	**K22 EDIT**	**K16 EDIT**
comply with the ~~given~~ contract information to carry out the work efficiently to the required specification by: • ~~demonstration of~~ demonstrating work skills to: - remove - clean - stack - store - prepare - measure - mark out - fix - fit - finish - position and secure • ~~use and maintain~~ using and maintaining hand ~~tools,~~ and ~~portable~~ power tools and ancillary/associated equipment • ~~strip~~stripping existing roof coverings and ~~replace~~ replacing full roofs or elevations to ~~given~~ working instructions ~~relating to~~ for at least two of the following: - vernacular and roofing styles specific to geographical areas (for example, Kent pegs, Yorkshire stone slates)	how the methods of work to meet the specification are carried out, and how problems are identified and reported, by the application of knowledge for safe, healthy and environmental work practices, procedures and skills, relating to ~~the method/ and area of work and materials used, to~~: • how to remove and salvage reusable existing roof coverings • why it is necessary to determine, gauge and fix battens and underlays (where required) appropriate to the roof covering • how to fix direct to boarded surfaces (sarking) • why it is important to replace full or partial natural slates~~/~~ and stone slates and~~/or~~ tiled roofs in keeping with the existing roof covering or an earlier style where required • why it is necessary to mix and apply mortar to meet the requirements of the contract • how to validate appropriate ways in which the work should be carried out • how to recognise sensitive areas • how to maintain heritage and archaeological integrity	how the ~~materials, components and equipment relating to types, quantity, quality, sizes and sustainability of standard and/or specialist~~ resources should be used and how any problems associated with the resources are reported in relation to: • battens, sarking boards, sand, cement, lime, underlay, tiles, natural slates~~/~~ and stone slates, fittings, flashings, insulation, fixings, ventilators and associated ancillary items • hand ~~and/or~~ and power~~ed~~ tools and ancillary/associated equipment • digital equipment

- places of religious worship - stately homes - public buildings - historic buildings - castles and/or fortified buildings - conservation areas - listed buildings • ~~replace~~replacing roof coverings in the following areas to ~~given~~ working instructions for the following: - verges - eaves - ridge - hips - valleys - openings - top and side abutments - general areas	• how to maintain the principles of minimum intervention and reversible alterations • why it is necessary to stop work at the point where conjecture begins and report findings • how to record work carried out (written, photographic or digital) • how to recognise and~~/or~~ report endangered~~/~~ and protected flora and fauna • why it is necessary to remove deteriorated and~~/or~~ inappropriate materials • why it is necessary to maintain the existing structure • how to integrate existing and new constructional components or finishes • how to store salvageable fabric, materials and structural components • how to use hand ~~tools,~~and power tools and ancillary/associated equipment • ~~use of ancillary equipment~~ • how to work at height ~~use~~using access equipment • the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance • how to work with, around and in close proximity to plant and machinery	

	• how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to identify and follow the installation quality requirements • how and why operative care and maintenance of all work hand and/or portable power tools and ancillary/associated equipment is carried out	

NOS Title	NOS Reference	Grid version control	Edit date	Edits by
Conserve or restore timber-based products	COSVR553v2	~~1.0~~1.1	~~08/09/2021~~10/12/2021	~~PC~~SP

Performance criteria Meet the contract specification	Knowledge and understanding P5 Meet the contract specification	Knowledge and understanding P3 Selection of resources
P5 EDIT	**K22 EDIT**	**K16 EDIT**
comply with the ~~given~~ contract information to carry out the work efficiently to the required specification by: • ~~demonstration of~~ demonstrating work skills to: - measure - mark out - cut - shape - fit - ~~finish~~ - position - secure - finish • ~~use and maintain~~ using and maintaining hand ~~tools, fixed and/or portable~~ and power tools and ~~ancillary~~/associated equipment • ~~prepare, install, repair or refurbish~~ conserve or restore structural timber-based products to ~~given~~ working instructions for ~~at least eight of~~ the following: - load bearing components	how the methods of work to meet the specification are carried out, and how problems are identified and reported by the application of knowledge for safe, healthy and environmental work practices, procedures and skills, relating to ~~the method/ and area of work and materials used to~~: • why it is important to conserve and restore timber-based products and their associated products; after removal and in situ • how to conserve and restore, ~~prepare, repair and refurbish~~ timber-based products and their associated components; after removal and in situ • how to identify the appropriate species of timber, their properties and uses, to match existing • the advantages and disadvantages of using hard woods and soft woods in different conservation and restoration projects	how the ~~materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist~~ resources should be used and how any problems associated with the resources are reported in relation to: • timber • fixings and associated ancillary items • hand ~~and/or~~ and power~~ed~~ tools and ancillary/associated equipment • digital equipment

- non-load bearing components - walls - ~~floors~~ - roofs: pitched, flat or traditional cut - joist ~~coverings~~ - ~~frames (including windows)~~ - ~~panelling/ or cladding~~ - ~~units and fitments~~ - ~~doors~~ - ~~mouldings~~ - ~~staircases~~ • conserve or restore non-structural timber-based products to working instructions for at least six of the following: - wall coverings: panelling or cladding - floors: joist coverings - frames (including windows) - units and fitments - doors - mouldings - staircases	• how to ~~install~~ replace timber-based products to match existing in terms of profile and composition • how to determine bevels while maintaining a linear line using appropriate hand and power tools~~for rake to rake and rake to level mouldings~~ • why it is important to form joints appropriate to the original method of construction • how to form joints appropriate to the original method of construction • why it is important to determine load bearing (structural) and non-load bearing components to enable associated work to be carried out in line with scope and specification • how to identify what constitutes load bearing (structural) and non-load bearing components • why it is important to identify the structure of walls to determine the approach to conservation and restoration of panelling and cladding • how to identify existing methods of construction and materials used for the conservation and restoration of non-structural timber-based products	

	• how to develop the approach for replacing components to fit to existing panelling and cladding • • why is it important to validate appropriate ways in which work should be carried out • why is ~~is~~ necessary to recognise sensitive areas maintain heritage and archaeological integrity • why is it important to maintain the principles of minimum intervention and reversible alterations • why is it necessary to stop work at the point when conjecture begins and report findings • how to record work carried out (written, photographic or digital) • why is is necessary to recognise and~~/or~~ report endangered~~/~~ and protected flora and fauna • why is it important to remove deteriorated and~~/or~~ inappropriate materials • why is is necessary to maintain existing structure • why is it important to integrate existing and new constructional components or finishes • how to store salvageable materials and components	

	• how to use all hand ~~tools,~~ and power tools and ancillary/associated equipment • how to work at height using access equipment ~~• use access equipment~~ • the relevance of an assessment of significance and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and historical significance • how to work with, around and in close proximity to plant and machinery • how to direct and guide the operations and movement of plant and machinery to ensure protection of a safe working environment • how to identify and follow the installation quality requirements • how and why operative care and maintenance of all hand and power tools and ancillary/associated equipment is carried out	