

**T Level Technical
Qualification in Agriculture,
Land Management and
Production**

**Ornamental and
environmental horticulture
and landscaping**

**Guide standard exemplification material
Threshold competence – Sample 2023**

Version and date	Change detail	Section
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Introduction

The sample evidence within this document refer to the Ornamental and Environmental Horticulture and Landscaping Occupational Specialism assignment. The aim of these materials is to provide centres with examples of knowledge, skills and understanding that attest to threshold competence. The evidence presented here has been developed to reflect threshold competence within each task but is not necessarily intended to reflect the work of a single candidate. It is important to note that in live assessments a candidate's performance is very likely to exhibit a spikey profile and the standard of performance will vary across tasks. The Guide Standard Exemplification Material (GSEM) illustrates linear performance across all pieces of evidence at the grade. Threshold competence will be based on a synoptic mark across all tasks.

The evidence in this GSEM is separated into the sections as described below. Evidence is presented against tasks from the assignment. Assessors using the GSEM may find it helpful to review this document along with the sample assessment materials.

Task

This section details the evidence to be submitted for marking and any additional evidence required including any photographic/video evidence. Also referenced in this section are the performance outcomes and assessment themes the evidence will be marked against when completing the tasks within it. In addition, evidence that has been included or not been included in this GSEM has been identified within this section.

In this GSEM there is evidence from:

- Task 1
- Task 2
- Task 3
- Task 4
- Task 5
- Task 6

Evidence

This section includes exemplars of evidence, photos/video recordings of the evidence in production (or completed) and assessor observation records of the assessment completed by centre assessors. This will be exemplar evidence that was captured as part of the assessment and then internally marked by the centre assessor.

The items of evidence included in the GSEMs are designed to illustrate the grade at evidence level. They are not intended to reflect the performance of a single candidate across the assignment. Not all items of evidence are included in the GSEM, however a representative sample of evidence from across the assignment has been included to sufficiently illustrate the standard of performance expected for each type of evidence.

Commentary

This section includes detailed comments to demonstrate how the evidence attests to the standard of threshold competence.

It is important to note that the commentary section is not part of the evidence or assessment but are evaluative statements on how and why that piece of evidence meets a particular standard.

Grade descriptors

To achieve a pass (threshold competence), a candidate will be able to:

Demonstrate an acceptable performance that meets the requirement of the brief, applying sound technical skills and techniques for planning preparing, and carrying out the work to adequate standards including safety, establishment and aftercare of seed/plants/trees/turf, quality of finish of horticultural and landscape features.

Interpret technical information, applying sound technical knowledge and skill to plan, assess risk and follow safe working methods appropriately when applying practical skills to an adequate standard to satisfy the requirements of the brief.

Prepare working areas to allow safe working, acknowledging potential risks and applying adequate control measures during tasks.

Work safely and make adequate decisions on the selection and appropriate use of tools, materials and equipment within the working environments for establishment, maintenance and hard landscaping activities.

Carry out practical tasks to an adequate standard, producing work that meets relevant regulations and standards, with an adequate aesthetic appearance and finish that meets the brief.

Identify characteristics and features of horticultural areas and existing designed landscapes, applying sound knowledge and skills in how to record, present and analyse the information to satisfy the requirements of the brief.

Mostly use technical terminology accurately.

Task 1 – Planning proposal

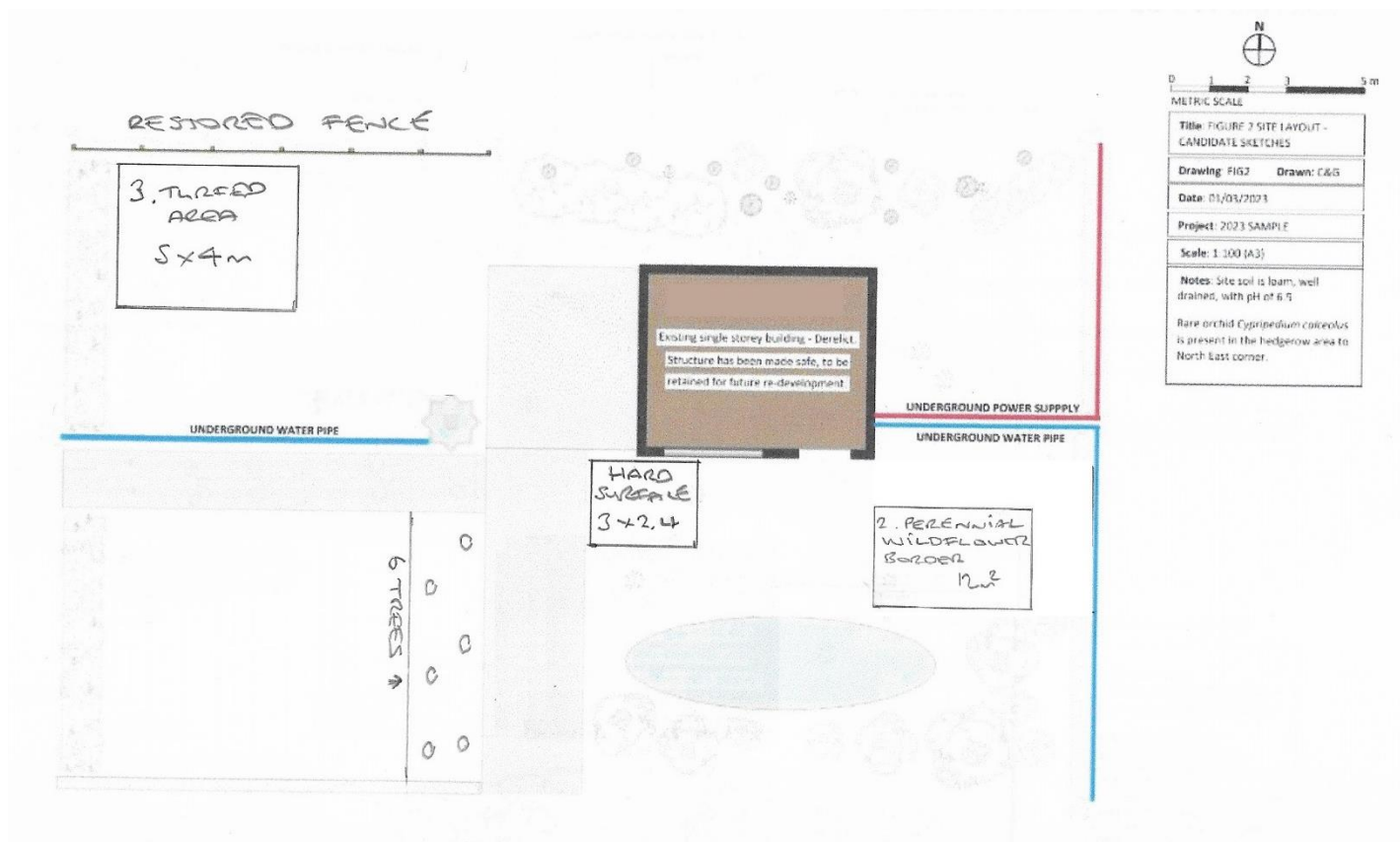
Evidence contributes to the following:

Performance outcome	Assessment themes
PO2 Establish ornamental and environmental horticultural areas	Environment Plan for establishment
PO4 Install landscape features	Environment Plan for installation

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
planning proposal including sketches	PO2: Environment PO2: Plan for establishment PO4: Environment PO4: Plan for installation	√		√

Candidate evidence - Planning proposal including sketches

Figure 1 – site layout drawing (with candidate's sketches)



Report

1. A small new planted area to include at least six trees

Written justification

Trees are important for humans and the natural environment. Trees provide us with oxygen, clean air, shade, habitat for wildlife and also help fight climate change by absorbing carbon dioxide and releasing oxygen. This area will have its biodiversity increased by the addition of trees. It would benefit from the addition of more vertical plant growth from the trees as they develop to give an improved overall environmental structure to the whole area. Plant growth from the trees will provide a feature along the driveway notably at flowering and fruiting time. They will also provide shelter and shade, when in leaf, for the pond area. The trees will also benefit wildlife in the garden providing food, shelter and potential nesting sites. There will be some temporary negative aspects at planting due to limited areas of soil compaction and at pruning time but these can be offset by good practices and the use of prunings for insect shelters.

Tasks

Survey area for any underground services such as electric, gas and water using a CAT and Genny. Carry out tests to confirm soil pH using conventional colorimetric tests and texture using hand texturing and the ADAS soil triangle for reference. Identify and source suitable trees for the site using appropriate reference sources. Suggest *Malus x zumi* 'Golden hornet' as one of the best trees to grow in clay soils as it offers interest throughout the year – apples in the autumn which remain over the winter. *Sorbus aria* 'Lutescens'

for ornamental interest – silver-grey leaves turning russet gold in autumn, white spring flowers, and red berries.

Prepare ground by identifying and clearing perennial weeds using handtools. Plant the trees in the dormant season as bare root plants in a staggered pattern with 6 trees 1.5 metres apart. Stake, mulch using organic matter (no additional fertiliser) and add environmentally sustainable tree guards.

Responsibilities

1 staff member to source trees. 2 staff to dig holes, plant and stake.

Resource Allocation (equipment, machinery, materials and staff)

- a) Equipment – spades, forks, hammers for stakes, string line
- b) Machinery – possible use of mini-digger, wheelbarrow for soils
- c) Materials - plants (six standard trees), 150 cm wooden stakes, treeguards, 150 litres of mulch, tree ties, rootgrow (Mycorrhizha)
- d) Staff (see above)

Timescales

Plant in autumn depending on soil and weather conditions, do not plant in frost or waterlogged conditions, check weekly for damage and water if needed. Check stakes and ties every month

Evaluation of the potential environmental impacts of the work

Planting trees is very positive for the environment in terms of carbon capture, and acting as a source of biodiversity. Pollination from Crab apples will benefit organisms, fruit and seeds from species act as food for wildlife. Careful pruning of the trees will provide some shelter for birds and other wildlife

Some soil disruption will occur due to planting, but most of area to remain undisturbed.

2. A perennial wildflower border of at least 10 square metres in area

Written justification

The plan is to develop the area around the pond into a more wildlife-friendly area, using the pond as a focal point, and also put in a hard-surface for wheelchairs and other accessibility factors. Ponds are excellent sources for diverse wildlife and the addition of a perennial wildflower border would make it more nature friendly attracting more pollinators. It would also add interest to the area for families and children and act as focal point from the driveway. Using a perennial system would also not disturb the soil and release carbon.

Tasks

Survey area for any underground services using a CAT. Clear perennial weeds and dig up existing rough grass. Soil tests. Remove top layer of topsoil. Dig and turn over subsoil.

Accurately measure area – on plan it is 4m x 3m therefore 12 square metres. Source seeds ordering 10% extra.

Plant, water and maintain by weeding, cutting back and checking for pests and diseases, to ensure adequate establishment and growth.

Responsibilities

One member of team to lead on this project to source appropriate seeds based on soil and site analysis. Team to undertake clearing and digging. One member of team to sow and maintain.

Resource Allocation (equipment, machinery, materials and staff

- a) Utilities – generator, water supply/bowser, welfare facilities
- b) Equipment – spades, string lines, forks, soil testing kits, rakes
- c) Machinery – rotavator, wheelbarrow for excess soil
- d) Materials - seed (4g/m² = 50g including extra)
- e) Staff (see above)

Timescales – (work to be undertaken mid- late spring)

Team to spend three days removing weeds and rough grass.

One day to rotovate

One day final preparation, sowing and raking

One day per month maintenance in order to remove dead, diseased and damaged material to prevent spread of disease. Also, prune back plants at appropriate season for shape and access. Weed, mulch, check stakes and monitor for pests and disease.

Dependent on weather and soil conditions, planting could be delayed to late-spring if necessary.

Evaluation of the potential environmental impacts of the work

The impact would be positive, as the area would generate biodiversity due to the greater number of species and flower types present, and would not need the application of any environmentally unfriendly pesticides or fertilisers. This growing system enables the soil to regenerate naturally and has positive effects on soil micro-organisms. There would little input of any machinery, so cutting emissions,

There will be Disturbance of the soil and potential compaction during ground preparation from using the rotavator.

3. A turfed area of at least 20 square metres

Written justification

The planned area is at the top of the site in front of the new fence, to the west and overlooking the rest of the site. The aspect is open, but with some shelter from hedges. The area would also be adaptable for a children's play area, picnic area or even possible sports. It could also be extended further in the future if funds become available. It also acts to keep people away from the North East corner to avoid disturbance of the protected species.

Tasks

- Survey area for any underground services.
- Check soil
- Clear existing area, remove perennial weeds. Level site.
- Measure and mark out site. Order turf, including 10% extra.
- Rake area and add pre-turf fertiliser
- When turf arrives deal with it immediately. Lay turf
- Lay first row along a straight edge. Butt each piece up closely to the last and ensure good contact with the soil by tamping down firmly with the back of the rake.
- Lay the next row, making sure the pieces of turf are pushed right up to the first row. Stagger this and subsequent rows in a brickwork pattern until the area has been covered.
- Lay turf so it runs beyond the area of your new lawn and trim edges.
- Water.

Responsibilities

Team to work on clearing and preparing site (3 days). One member to order turf and check quality on arrival. Two team members to lay turf. One member to maintain on a daily basis for first three weeks.

Resource Allocation

- a) Equipment – spades, string lines, forks, rakes (including landscape rakes), planks, irrigation equipment
- b) Machinery – rotavator, wheelbarrow, fertiliser applicator
- c) Materials - 22x 1 metre rolls of amenity turf (10% extra), base dressing fertiliser, top soil.
- d) Staff (see above)

Timescales

Three days to prepare site in spring. One day to lay turf and one day per week to maintain over the summer. Some flexibility re timing.

Evaluation of the potential environmental impacts of the work

Lawns can have a negative impact on the environment due to their lack of biodiversity and their need for fertilisers and pesticides. However, the siting of this lawn in the garden would provide an area for recreation

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and leisure. Also by taking part in initiatives such as “no mow May”, minimising inputs and composting the clippings the environmental footprint can be reduced. Negative aspects include risks of soil compaction and loss of biodiversity during the preparation period. Steps will be taken to minimise these.

4. A new 3x 2.4 m hard surface area

Written justification

A hard, level (with a gradient for drainage of 1:80, falling away from the building) surface area will be a valuable addition to the overall plan and will be required in the redevelopment of the garden to enable wheelchair users a site to enjoy the proposed new wildlife section. It would also enable a surface for photography and social activities. The hard surface would be adjacent to the driveway for accessibility

Tasks

- Survey area and check for any underground services.
- Mark out site and plan resources required
- Source materials
- Dig out area for foundations (200mm depth)
- Lay the sub-base (compacted & 150mm depth)
- Lay a concrete mix mortar bed (50mm depth)
- Lay the paving slabs on to the mortar bed and tamp down. Leave the correct joint spacing between the slabs and the slabs are level.
- Fill the joints between the paving with pointing.

Responsibilities

One person to oversee. Team to work on clearing and preparing site (3 days). One person to order materials and check quality on arrival. Two team members to lay slabs.

Resource Allocation (equipment, machinery, materials and staff)

- a) Equipment – spades, string lines, spirit levels, wheelbarrows, shovels, mallets, mixing boards, trowels.
- b) Machinery – mini-digger, wheelbarrow, mixer, abrasive wheel
- c) Materials - 500 kg sand and 190 kg cement, 2.3 tonnes sub-based materials, 20 600x600 slabs, plus 2 extra for contingency.
- d) Staff (see above)

Timescales

Install in spring, when weather is dry. Three days preparation (all team) one day to lay slabs (2 staff)

Evaluation of the potential environmental impacts of the work

During the installation of the surface methods used will minimise waste, and take care of the safe disposal of materials. Cutting times will be kept to a minimum to reduce emissions. Materials will be kept on site for the minimum time to reduce pollution and damage to existing plant surfaces. Ensure safe access minimising soil compaction minimise environmental damage by clearing up every day.

5. Restoration of a wooden fence

Written justification – For safety, security and visual reasons the post and rail fence (10.5 metres long) at the north west corner needs to be removed and replaced with a new fence which is made using sustainable materials and designed to be in keeping with the style of the site. It will be designed and built using locally sourced material, and designed to be safely installed and long-lasting with minimal maintenance.

Tasks – assess area, measure up for new fence, source materials, remove broken posts and rails, clear and level site. Mark out, dig holes for posts, mix up concrete mix, place posts and level. Add rails, slot in, check levels. Finish with coating of sealant and preservatives.

Responsibilities - all three staff required

Resource Allocation (equipment, machinery, materials and staff)

- a) Equipment – spit, spades, string lines, spirit levels, hammers, hand saw, tape measure.
- b) Machinery – auger, wheelbarrow
- c) Materials - nails, post holders, 8 x 1.8m posts, 6 x 1.8m rails, concrete mix.
- d) Staff (see above)

Timescales – 3 people, 1 day (any time of year unless soil or weather conditions do not allow this)

Evaluation of the potential environmental impacts of the work

A new fence will act as a long term resource for securing the site, providing a focal point and protecting biodiversity. There are implications on the soil (compaction) due to the removal and construction of the fence. All material removed needs to be safely disposed of correctly or recycled where possible. Materials will be responsibly and locally sourced using sustainably sourced wood and only the amount required ordered to eliminate waste. Paints and preservative need to be non toxic and all waste disposed of correctly. Access to site to be considered to minimise disruption. A maintenance plan will be developed to minimise environmental damage.

Commentary

The candidate has demonstrated an acceptable performance that meets the requirements of the brief, applying adequate knowledge and understanding to **plan for establishment**, and **plan for installation** of the horticultural and landscaping features required by the brief and task.

The candidate has interpreted the brief and original site layout drawing to **plan for establishment** and **installation** and describe a restoration of the site including all the requirements stated to an adequate standard.

All required features of the restoration of the community garden (taking into account characteristics, features and factors identified from the brief and layout plan) have been incorporated into the proposal, and brief justifications are given with the features specified in the task.

All features are in appropriate locations/orientations/shapes, considering factors such as wind, soils, access but there is limited evidence of an overall plan or concept other than the wildlife area.

The sketch adapted from the original site plan shows an adequate proposed layout/locations/shapes of features on the site, and the text gives written justifications for them. The sketched features reflect the specifications of the features given in the task in terms of location and size.

The resource allocation, to include equipment, machinery, materials and staff, minimising waste have been described in brief with some useful details.

Tasks and allocation of responsibilities required to complete the restoration within the 6-month timescale have been identified and described briefly. A six-month timeline or plan would be a useful addition.

The candidate has made a selection of suitable resources in their **plans for establishment** and **installation** tasks with basic justifications and reasoning to support methods, resources, and quantities/sizes given. There is a lack of detail e.g. tree species, wildflower mixes and type of paving material.

There is some reference to contingency planning (e.g. 10% extra seed, 10% extra turf).

A number of positive and negative impacts of establishing ornamental and environmental horticultural areas and the installation of landscape features on the **environment** have been considered with some gaps in detail e.g. regarding the wildflower area where the candidate states that the impacts would be "Almost entirely positive, as the area would generate biodiversity" without specifying how this would be achieved.

Some reference to **environmental** factors that can be applied to the manipulation of outdoor plant establishment environments e.g. in the tree planting area "Pollination from crab apples

will benefit organisms, fruit and seeds from species [that] act as food for wildlife". The positive and negative impacts of establishing horticultural areas, and installing landscape features on protected plant species has been briefly alluded to.

The candidate has used some technical terminology accurately in the report e.g. soil stability and references to biodiversity but missed opportunities throughout to expand this.

Task 2 – Management report

Evidence contributes to the following:

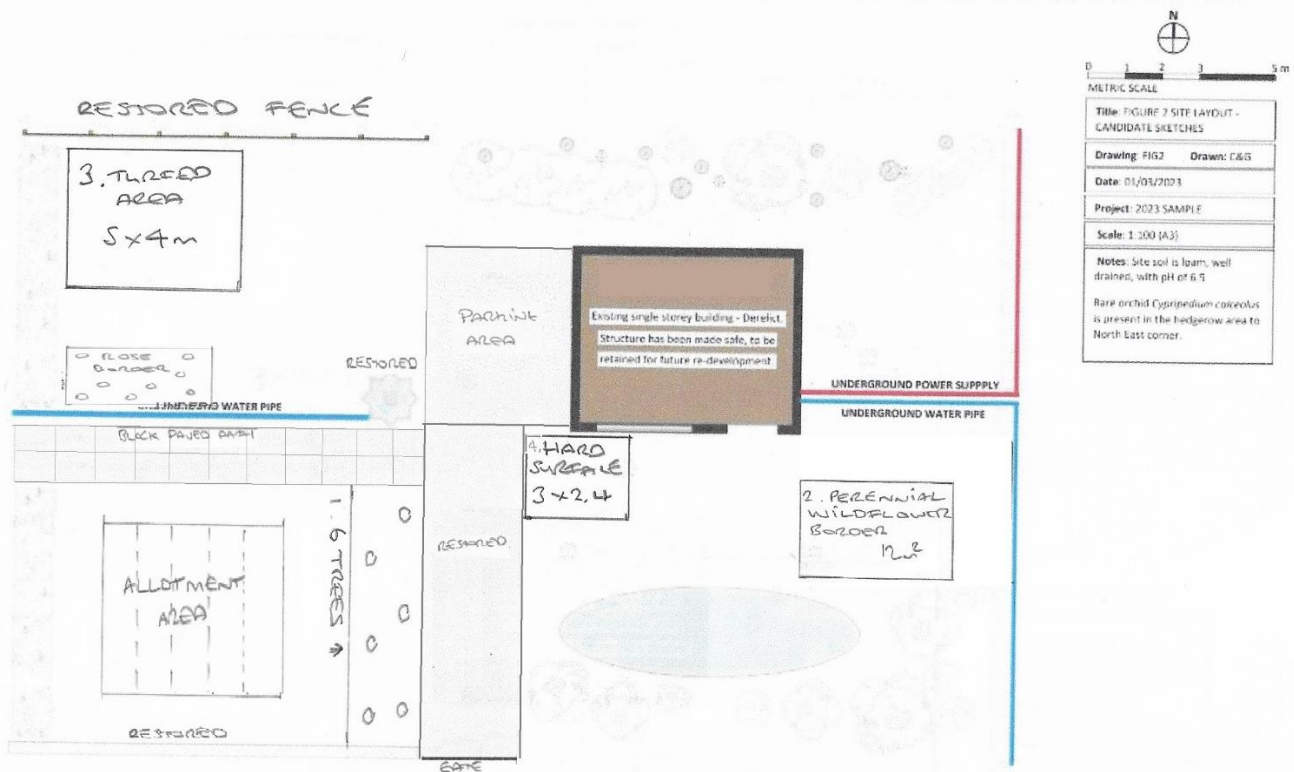
Performance outcome	Assessment themes
PO3 Maintain ornamental and environmental horticultural areas	Environment Identify requirements and plan maintenance
PO5 Manage existing designed landscapes	Environment Identify designed landscape features and characteristics Landscape management planning

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
	part a) management report			
management report	PO3: Environment PO3: Identify requirements and plan maintenance PO5: Environment PO5: Identify designed landscape features and characteristics PO5: Landscape management planning	√		√
	part b) presentation			
presentation	PO5: Landscape management planning	√		

assessor observation	PO5: Landscape management planning		√	
video recording of the presentation	PO5: Landscape management planning		√	

Candidate evidence - Management Report

Candidate sketch showing additional proposed features:



Report

STAGE ONE

The site has great potential as a community resource and area of horticultural interest but a lot of issues need addressing:

1. First task will be to check for health and safety issues around the site by completing a full site survey and report
2. It is important for current and new developments that access routes within the site need to be identified and checked. The surfaces need to be level and safe for all users and vehicles.
3. Due to the location of the site it may be necessary to secure the boundaries to manage and control access to the site
4. A Plant survey is needed to establish if there are any other endangered plants on the site, check for any invasive species and to develop a site flora
5. The pond is valuable for biodiversity and to provide a feature of interest but will need a full safety and maintenance plan
6. The derelict building needs to be secured prior to a survey and plans for its future use
7. Restoration of the water feature, or possible removal needs to be considered

STAGE TWO

Check for health and safety issues around the site

Site survey, check for any hidden underground services, check soil. Itemise potential hazards.

Access routes

The first step is to ensure that all paths and horizontal surfaces are safe for use by the public. It is planned to replace the path with an existing poor surface in the middle of the site (West side) with a new block paving surface and the driveway which is the main access route. Block paving chosen as it is hard wearing, long-lasting and relatively easy to install and maintain.

Costs:

Paving, £100 per m² materials

15m² = £1500 for paving, plus other costs £250 (e.g. sub-base, cement)

Driveway restoration (repairing cracks, restoring surface) £5000

Access area at top of drive needs to be paved cost £3000 for paving and materials.

Security

The second step is to ensure the security of the perimeter by replacing the coping of the brick wall at the south of the plan and put lockable gates onto all entrances, at the west and south of the site to prevent unauthorised access during the renovation stage. Also to put a fence to mark the border all round the site to identify the new project to the public.

- Rebuilding of brick wall £1000 (coping bricks, local bricks, mortar)
- Gates £1000 (1x pedestrian gate and 1x vehicular access gate, gate posts, locks)
- Fencing perimeter 100 metres - £4000 (posts, rails, postcrete, wood preservative, screws/nails)

All the hedging needs to be surveyed and a plan for what will be kept, what will be cut back and what will be replaced will be required. Initial cost of cutting back shrubs £600 (outsourced)

Plant survey

Initial check of all plant species to assess potential and opportunities. Also check for invasive species on site.

For the wild species area this needs to be fenced off

Pond safety and maintenance

This area will need attention due to potential hazards. Fence off area prior to surveying. Check slopes, depth, water quality and biodiversity

Restoration of water feature

This will include checking piping and structure. Safety features need to be checked and an assessment of whether to move or replace needs to be made

Costs – removal and safe disposal £1000, replacement including installation and testing £4500

STAGE TWO

Potential future developments:

Call a meeting with local community group and residents to find out what they would like to see in the garden.

Potential ideas include:

Planting areas (North-west)

Develop a 4 x 2 m Rose border next to the newly turfed area.

Plan and timescales.

- Dig
- Prepare
- Improve soil
- Source Plants
- Plant in spring
- Mulch
- Prune
- Irrigate
- Check for pests and diseases

Timescale: prepare beds Autumn year one of project, plant in spring Year 2

Materials

- Compost, mulch £500
- Rose plants £250

Planting areas (South-west)

Initial perennial weed clearance and grass cutting

Allotment area 5 x 5 m to the left of the newly planted area. Area will be sheltered and good aspect with slight south slope helping drainage.

- Dig
- Add organic matter
- Fence off area to keep rabbits out
- Build raised beds
- Install compost bins
- Build paths for access of wheelbarrows and wood chip paths between the plots
- Install a water pipe

Timescale: prepare beds spring Year 1, Install fencing, Irrigation, raised beds and compost bins summer Year 1

Material costs: bins, pipes, fencing £2000

Check hedging and plan twice yearly cutting back programme – to be done in house

Southern perimeter wall in need of either temporary maintenance and repair or replacement with new wall using local stone

Rough grass area (South East)

This will have the paving and wildflower area installed in the initial proposal so should be ready for use in Year 1. The area can be developed further through a number of improvements.

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The pond will be maintained and possibly upgraded for safety and increasing biodiversity.

Wooden benches will be installed on the paved area and on the grass between the pond and the wildflower area to provide areas for visitors to sit, 4 at £250 each, £1000

Overgrown shrubs to be cut back for aesthetic reasons and to ensure healthy growth.

Overgrown Hedgerow area (North East)

A possible problem with this area is the protected plants as any future plan has to consider these and ensure no disruption. It would be better to try to enhance the area making the protected species a priority as it is illegal to disturb them. The plants form an important feature of the garden and one that needs protecting sympathetically. Any procedures must avoid disturbance of their natural habitat. This sensitivity causes problems with dealing with the overgrown Hedgerow. This will restrict the timing of operations such as cutting back.

PROJECT COSTS

Resources and Justification

Staff

One part time staff, working three days per week all year £16380

Two part time staff, one day a week all year £10920

Running costs

Maintenance and materials, insurance, water costs

Plants

Replacement programme and new planting as outlined above

Hiring in machinery

Used for specific tasks e.g. soil augur, mini-digger, ground works

Capital costs

Renovation of walls and paths

Seasonal costs

Leaf clearing, de-icing paths, irrigation

New machinery required and justifications

- Mower – adaptable heavy duty rotary, battery powered for use on grass areas
- Store – lockable container for storing tools and equipment
- Strimmer – battery powered for general maintenance
- Hedge trimmers – battery powered for twice a year hedge trimming programme

Indicative three year budget

	Year 1	Year 2	Year 3	total
Staff	27300	30300	33300	90900
Running costs (consumables, overheads)	3000	4000	5000	12000
Plants	4000	2000	1000	7000
Hiring in machinery	3000	4000	1000	8000
Capital costs	21850 (paving, access, security, water feature costs)			21850
Rose garden	500	500		1000
Benches	500	500		1000
Seasonal costs (including mowing and pruning)	4000	4500	5000	13500
New machinery and store	10000			10000
	74510	45800	45300	165250

Reference to environmental management and sustainability.

Use of sustainable, recycled and local material wherever possible. Composting of waste materials, water use minimised, use of battery powered machinery to reduce noise and emissions. Wildflower meadows, pond biodiversity, allotments. Protection of existing plant species and encouraging natural species. Ensuring survival of wild species.

Opportunities for development of additional horticultural/landscaping features

- Children’s play area including green equipment
- Fitness trail
- Propagation area to raise plants for the grounds and for sale to raise funds
- Landscape features such as sculptures

Maintenance schedule for the grounds planted areas and structures

	Jan-mar	Apr-Jun	July- Sep	Oct-Dec
Turf				
Aeration				
Scarifying				
Overseeding				
Mowing				

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Irrigation				
Leaf blowing				
Pond				
Clean				
Cut back plants				
Wildflower beds				
Weed				
Cut down				
Fences and timber structures				
Check for repairs				
Paint/treat				
Paved areas				
Check for damage				
clean				
New tree area				
Check stakes and ties				
Weed				
Formative pruning				
Coppicing				
Mulching				
General				
Pest and disease monitoring				
Mulching				
Cutting back				
Staking				
Deadheading				

Commentary

The candidate has demonstrated an acceptable performance that meets the requirement of the brief, applying adequate knowledge and understanding to complete the task.

The candidate has interpreted the brief, their plans from Task 1 and original site layout drawing to **identify designed landscape features and characteristics** and **identify requirements and plan maintenance** to compile a management report for the grounds, planted areas and structures to an adequate standard.

The candidate used adequate knowledge and understanding to **identify requirements and plan maintenance**. The maintenance schedule covers the main areas but would benefit from a greater level of detail. Impacts of maintaining ornamental and environmental horticultural areas, including on the **environment**, have been briefly considered such as reference to pond area and consideration of the timing of hedge cutting to avoid disturbance. The impacts on protected plant species have also been alluded to but not in great detail.

All required areas for the report stated in the brief (resources, budget, maintenance schedule, reference to environment and opportunities for future development) have been incorporated and brief justifications given with the proposed new features, however there could have been further discussion on environmental management and further opportunities.

The candidate used adequate knowledge and understanding of **landscape management planning** to produce the report. All the proposed new features are in appropriate locations/orientations/shapes, considering factors such as shade, wind, soils, access but there is limited evidence of a coherent linked strategy.

The sketch adapted from the original site plan and from the candidate's plan from task 1 shows a basic proposed layout/locations/shapes of features on the site, and the text gives written justifications for them.

The candidate described suitable resources with basic justifications and reasoning to support methods, resources, and quantities/sizes given. There is a lack of detail regarding specifications and sourcing of materials. Staffing resources are described clearly.

The indicative budget, to include equipment, machinery, materials and staff has been described in a table which gives clear, but limited information, which is generally realistic.

Reference to **environmental** management and sustainability is brief but has some interesting ideas such as the use of battery powered machinery, but this section lacks detail and could have been expanded upon.

Similarly, opportunities for future development are realistic but brief and could be developed further.

The candidate has mostly used technical terminology accurately in the report.

Task 3 – Establishment of new planting

Evidence contributes to the following:

Performance outcome	Assessment themes
PO2 Establish ornamental and environmental horticultural areas.	Health and safety Establish planted areas (Prepare establishment area) Establish planted areas (Establish plants)

Evidence	Assessment theme	Candidate producing	Assessor producing	Included in this version of GSEM
	part a) risk assessment			
risk assessment	PO2: Health and safety	√		√
	part; b) ground preparation; and d) aftercare			
assessor observation	PO2: Health and safety PO2: Establish planted areas (Prepare establishment area)		√	√
photographs	PO2: Establish planted areas (Prepare establishment area)		√	√
video	PO2: Health and safety PO2: Establish planted areas (Prepare establishment area)		√	placeholder
	part c) planting, sowing, turfing; and d) aftercare			
assessor observation	PO2: Health and safety PO2: Establish planted areas (Establish plants)		√	√
photographs	PO2: Establish planted areas (Establish plants)		√	placeholder

Candidate evidence - Risk Assessment

Candidate's name	Sample candidate	Enrolment number	CG12345
Task / Activity	Establishment of New Plantings (including tree planting, rotavating and laying turf).	Location	Sample site
Assessor's name	Sample assessor	Date	23/03/2023

Item no.	What are the hazards?	Who might be harmed and how?	What precautions are already in place?	Risk rating (High / Medium / Low)	What further action is necessary?	Action by who and when?	Residual risk rating (High / Medium / Low / Trivial)
1	Slips, trips and falls	Person doing the work, anyone else around	PPE – Safety boots, gloves	Low	Keep site tidy and don't leave tools lying around	Everyone	Low
2	Tools	Person doing the work, cuts and bruises	PPE – Safety boots, gloves	Low	Check they are safe and clean before you use them and don't leave lying around	Everyone	Low
3.	Tree planting	Person doing the work, anyone else around	PPE – Safety boots, gloves	Low	Ensure correct manual handling techniques	Everyone	Low
4	Rotavator	Person rotavating and anyone else around could get cut or bruised.	PPE. – Safety Boots, Gloves, Ear defenders, visor Pre-start checks Precautions for refuelling	Low	Use safely and economically Ensure operator is competent in using the rotavator before starting. Check all settings	Everyone	low
5.	Laying turf	Persons doing the work could be injured cutting turf and lifting rolls	PPE - Safety boots, gloves	Low	Safe manual handling training. Ensure site is free of trip hazards	Everyone	low

6	Cleaning up	Person doing the cleaning could get wet with cleaning fluids	PPE - Safety boots, gloves	Low	Gloves.	Everyone	Low
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Date: 23/03/2023	Risk assessment carried out by: Sample candidate
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Commentary

The candidate has provided an adequate Risk Assessment identifying the major hazards associated with the task and applying adequate knowledge and understanding of **health and safety**.

The candidate has interpreted the requirements of this aspect of the task to an acceptable standard and has paid attention to some of the tasks fairly well and others to a minimal standard. The candidate has not fully considered the tree planting and the context of the task. The ground preparation aspect has been considered including tools and equipment. There is reference to the rotavator, but no specific risks identified.

The candidate has used basic technical terminology in the report but has not provided the specific detail required for a more informative assessment such as specific tools, who else might be affected and how to control hazards in detail.

There is a lack of any considered references to environmental factors such as the minimisation of fumes and noise.

The candidate described in brief detail suitable precautions which would be sufficiently effective in maintaining **health and safety**.

Assessor Observation Form (Task 3b/d – ground preparation)

Task	Assessment component number
Task 3 (b) (d)	8717-404
Candidate name	Candidate number
Sample Candidate	CG12345
Centre name	Assessment themes
Sample Centre	PO2: Health and safety PO2: Establish planted areas (Prepare establishment area)

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	Notes – detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.
<ul style="list-style-type: none"> • Pre-use checks on tools and mechanical rotavator • Setup/adjustment of mechanical rotavator • Safe, efficient and effective use of hand tools, power tools and machinery • Ground preparation: rotavating, removal of large stones and vegetation, consolidation, levelling, preparation of suitable tilth for sowing. 	<p>Correct, clean and functional PPE worn by candidate.</p> <p>Candidate correctly selected and checked all hand tools (spades, forks, rakes) for damage and cleanliness.</p> <p>Candidate checked the rotavator over: Spark plug removed prior to checking. Checked fuel and oil levels, on/off switch, filters, tension of starting cord and condition of safety guards. Blades examined for signs of damage. The candidate had to adjust the blades 3 times before achieving an appropriate height. Rotavator started after several attempts and used generally effectively, but with some inconsistent coverage and depth of cultivation.</p> <p>All tools and equipment used safely. Raking undertaken using a slightly ineffective action, which did not give full consideration to obtaining an even final tilth. Large stones picked out and removed, placed into wheelbarrow for repurposing elsewhere on site. Vegetation removed and tap roots dug out, placed in wheelbarrow for disposal. A reasonable attempt but in places uneven tilth was produced, and area consolidated using standard methods across area but finish uneven. Final raking carried out and a mainly level surface achieved.</p> <p>All tools and equipment cleaned and returned to safe area. Rotavator was briefly checked over and left in a safe condition.</p>

Assessor signature	Date
Sample assessor	23/03/23

Photographic/video evidence

Photo evidence: prepared area before ground preparation (close up showing tilth).



Photo evidence: prepared area after ground preparation (close up showing tilth).



Video evidence placeholder

Video: showing PPE used, starting, effective control and safe use of the machine (1-2 minutes maximum).

[hyperlink placeholder]

- Recording starts showing the candidate in frame visibly wearing safety boots, gloves, ear protection and eye/face protection, preparing to start rotavator.
- Candidate takes multiple attempts to start the machine but does so safely.
- Candidate begins operating the rotavator moving across the site, with some variability in speed and direction, but operation is safe and coverage is adequate.

Commentary

The candidate showed an acceptable grasp of **health and safety** procedures and of safe working practice with an adequate pre-start check of the rotavator before use to ensure that it was set up correctly, although visual checks could have been more thorough (e.g. guards/handles/levers).

The candidate demonstrated the use of tools and equipment to a reasonable standard in all tasks, though a lack of detail and inconsistent finish was evident (e.g. some inconsistent coverage and depth of cultivation), see photos and video.

The candidate undertook adequate **preparation of the establishment area**, with a largely correct application of tools and techniques but a limited attention to detail (see video).

The candidate interpreted the requirements of the task and generally applied the correct techniques and equipment required to complete the task to an adequate standard.

The candidate demonstrated an acceptable level of aftercare of the tools and machinery.

Assessor Observation Form (Task 3c/d - establishment)

Task	Assessment component number
Task 3 (c) (d)	8717-404
Candidate name	Candidate number
Sample Candidate	CG12345
Centre name	Assessment themes
Sample Centre	PO2: Health and safety PO2: Establish planted areas (Establish plants)

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	<i>Notes – detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.</i>
<p>(i) Tree planting:</p> <ul style="list-style-type: none"> • Check all appropriate tools and equipment. • Assess the quality of a tree for planting - check tree condition for damage, disease etc. • Mark out planting location on the site. • Dig a hole for tree planting, loosen the sides of the planting pit. • Appropriately loosen and spread out the roots of the tree • Position the tree in the planting pit to the correct depth/nursery mark. • Add ameliorants appropriate to the conditions. • Backfill the hole with soil and firm the tree into the hole. • Stake the tree. • Apply tree ties and pest guards to the tree. • Irrigate the tree. 	<p>Candidate checked all hand tools (spades, forks, rakes) for damage and selected the necessary tools, but had to return to the store for a different sized spade.</p> <p>The candidate handled the tree correctly and made a preliminary inspection of the tree condition including a brief examination of the roots. Damaged branches on the tree were identified and removed.</p> <p>The planting hole was marked out with a cane at an appropriate distance from the other tree.</p> <p>The hole was dug, but the separation of the top soil and subsoil was indistinct. The sides and bottom of the hole were loosened using a fork alevel.to half a tine depth</p> <p>The tree was removed from its pot quickly and roots inspected. The roots were briefly teased out and spread out in the planting hole. One adjustment was made and one check of the depth.</p> <p>The tree was positioned by eye and depth adjusted by adding more soil.</p> <p>Mycorrhiza was added by applying the correct quantity and technique although more care could have been taken to ensure good root contact.</p> <p>The hole was backfilled in using the soil dug out, firming in with their boot.</p> <p>The stake was handled correctly and placed at the recommended distance and angled from the tree, driven in using a hammer (candidate wearing hard hat and gloves) to a height slightly lower than recommended in standard practice.</p>

Assessor observation	Notes – detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.
<p>(ii) Marking out:</p> <ul style="list-style-type: none"> • Use rules and formulae (e.g. 345 triangle) to precisely set out shapes and measurements. • Accurately set out shapes on the ground. • Assessor checks accuracy of the marked-out area by measuring and recording diagonal measurements. <p>(iii) Sowing:</p> <ul style="list-style-type: none"> • Determine appropriate sowing/planting density according to product information • Calculate sowing requirements according to product information • Check all appropriate tools and equipment <p>Broadcast seed for determined rate, consistently and economically.</p> <p>(iv) Turf laying</p> <ul style="list-style-type: none"> • Check turf health. 	<p>Tree tie used applying a correct figure of eight configuration and tightened correctly, but not checked. A tree guard was selected, checked and placed on the tree according to standard practice.</p> <p>The tree was irrigated, though the candidate was rushing through the process and splashing water away from the tree at first before adequately applying water to the base of the tree.</p> <p>The candidate quickly checked the tapes before use and placed the initial datum point cane (with rubber tops) into place without cross-checking. The candidate laid out a base line ensuring tapes were tight then applied the 3,4,5 principles measured out from this, and after three attempts placed canes at the apices of the triangle correctly before measuring off the points to complete the 10 square metre plot.</p> <p>Assessor check for accuracy: checked the accuracy of the area by taking diagonal measurements. These were 10mm out than the required distance.</p> <p>The candidate looked once at the instructions provided for the seed sowing. The candidate worked out that in this instance the recommended sowing rate was between 4 and 6 grams per square metre.</p> <p>The candidate elected to use the lower amount, 4g per square metre for this task</p> <p>The candidate calculated the required amount to be $10 \times 4 = 40\text{g}$ correctly and weighed out the amount using the 2 place balance but had to repeat the process having failed to zero the balance. The candidate selected a clean weighing container and weighed 40.3 g into this.</p> <p>The candidate used a two way sowing method, making a horizontal traverse followed by a vertical broadcast to ensure accurate and even coverage, this was facilitated by eye. The candidate avoided walking and compacting on the area by using a board to work from. The seed was distributed generally evenly, but with some slight patchiness.</p> <p>The candidate individually checked the turf by unrolling a sample and visually checking it.</p> <p>The candidate individually selected and checked all tools - fork, spade, landscape rake, wheelbarrow, before use by assessing their condition. The candidate had to return to collect more tools later in the assessment.</p>

Assessor observation	Notes – <i>detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.</i>
<ul style="list-style-type: none"> • Check all appropriate tools and equipment. • Safely transport and store materials. • Lay turf onto soil and butt joints together. • Stagger joints in subsequent rows while using boards to walk on. • Cut turf to correct size and shape using hand tools. • Firm the turves. • Top dress as required. • Apply suitable protection. 	<p>The tools were loaded safely into the barrow. The load was balanced and safely assembled and moved to the site, The rolls of turf were lifted by two candidates and safely moved to the site. All tools and materials were safely stored between tasks ensuring that there was no risk of trips</p> <p>The individual candidate placed the rolls of turf into position starting at the first corner and unrolled carefully. The candidate then butted up the next roll ensuring a good connection by ensuring a brickwork style was used, checking the straightness of the connection and gently firming in, all while working off a board. The candidate made several attempts at getting the first roll straight. For the second row the individual candidate staggered the joints by cutting a roll of turf using a knife and board for ensuring a straight line into two halves. This was completed using at first a spade, then a knife. The cuts were not clean and at angle away from true. The joints were butted in, and boards used to walk on during all the laying.</p> <p>All turves were firmed in using the back of a rake and levels checked. Top dressing was used to infill several gaps which were visible. The third row was out of line and had to be taken up, the ground re-levelled and turf re-laid.</p> <p>The turf was watered in by the individual candidate, and the area roped off using widely spaced canes and cord loosely tied in.</p> <p>All tools were cleaned, transported and stored correctly and excess materials removed from the site and placed onto the standing out area</p>

Assessor signature	Date
Sample assessor	23/03/23

Photographic/video evidence

Photo evidence placeholder (i) Tree planting)

- Photo of roots after loosening and spreading: Roots teased out with no damage.

Photo evidence placeholder (i) Tree planting)

- Photo of planted tree after stake, ties and guard are installed: Whole tree in frame, upright, supported by stake at correct angle but driven in slightly too far. Attached with tree tie in figure of eight configuration. Guard installed flush to the ground.

Photo evidence placeholder (iv) Turf laying

- Photo of joints after butting up (showing quality of joins/any gaps): Joints butted up in staggered pattern, cuts not entirely clean, top dressing used to infill some gaps.

Commentary

The candidate interpreted the requirements of the task adequately, and undertook the techniques of tree planting, marking out, sowing seed and laying turf to an acceptable standard to successfully **establish planted areas** and **plants** with an adequate level of finish.

The candidate planted the tree to an adequate standard, with some regard to the sequence of procedures and for the health of the tree, e.g. the candidate adjusted the depth of planting and firmed in adequately.

The candidate undertook the marking out using the 345 process to an acceptable standard of accuracy. The measurements could have been made more accurate by checking all the tapes beforehand, ensuring the tapes were straight and to the same side of the cane.

The candidate undertook the seed sowing exercise in a logical manner and adequately interpreted the seeding rate instructions, although did leave some gaps.

The turfing exercise was carried out by the candidate to an adequate standard of finish but could have been improved upon (e.g. cuts not always clean). All tools were cleaned and store safely and excess materials removed from the site to a holding area.

Application of **health and safety** knowledge was evident with the candidate wearing appropriate PPE throughout and demonstrating safe manual handling techniques e.g. lifting rolls of turf with a partner.

Task 4 – Maintenance and propagation

Evidence contributes to the following:

Performance outcome	Assessment themes
PO2 Establish ornamental and environmental horticultural areas.	Health and safety Establish planted areas (Establish plants)
PO3 Maintain ornamental and environmental horticultural areas	Perform maintenance

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
	part a) hedge maintenance			
assessor observation	PO3: Perform maintenance		√	√
photographs	PO3: Perform maintenance		√	√
video	PO3: Perform maintenance		√	placeholder
	part b) propagation			
assessor observation	PO2: Health and safety PO2: Establish planted areas (Establish plants)		√	√
photographs	PO2: Establish planted areas (Establish plants)		√	√

Assessor Observation Form (Task 4a – hedge maintenance)

Task	Assessment component number
Task 4a	8717-404
Candidate name	Candidate number
Sample Candidate	CG12345
Centre name	Assessment themes
Sample Centre	PO3: Perform maintenance

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	Notes – <i>detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.</i>
<ul style="list-style-type: none"> • Selection of appropriate personal protective equipment (PPE), equipment and materials • Checking the hedge, identify pruning requirements and check for wildlife, debris and hazards • Candidate's verbal risk assessment for the task – hazards, risks and controls identified. • Operator checks on the hedge trimmer, in accordance with the manufacturer's instructions • Use of equipment in a safe and effective manner throughout the operation. • Carry out the work in a manner that minimises environmental damage 	<p>The candidate selected PPE: Visor, ear defenders, safety boots and gloves. Materials and equipment: fuel, funnel, hedge trimmer, rake, wheelbarrow, leafblower, warning sign.</p> <p>The candidate made a quick inspection of the Yew hedge area looking for any hazards and potential obstructions. The candidate checked inside the hedge to ensure that no birds were nesting. The candidate identified that the hedge needed maintenance pruning.</p> <p>The candidate's verbal risk assessment correctly identified most potential hazards (flying debris, cuts from blades, slips/trips/falls, noise) and applied a risk rating to each. Suitable basic controls were suggested (use of PPE, clearing the site of debris before starting, following training and instruction). The candidate placed a warning sign at one end of the site.</p> <p>A petrol-powered hedge trimmer was provided. The candidate quickly looked at the operating manual for the hedge trimmer and then conducted a pre-start check including fuel level, pull cord condition, off/on controls and condition of the blades.</p> <p>The equipment was started appropriately but with poor technique, excessive force used pulling the cord, and some over-revving. The trimmer was used with an irregular sweeping action. The candidate was aware of their surroundings and the process was conducted safely. The hedge cutting was completed to a reasonable standard, with an acceptable angle on the sides, but with some variation in the closeness of cut on the top.</p>

Assessor observation	Notes – detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.
<ul style="list-style-type: none"> • Dispose of any waste safely and correctly • Maintain and store equipment in a safe and effective manner after use. • Ensure the site is left in a safe and tidy condition 	<p>The candidate checked the site for nesting birds before commencement. The trimmer could have been used more economically to reduce noise and emissions.</p> <p>The arisings were quickly raked up and collected into piles for shredding and conversion into mulch. The candidate checked the area but did not rake out under the hedge and missed some of the smaller arisings.</p> <p>The candidate cleaned and replaced all hand tools in their correct location safely. The hedge trimmer was cleaned, blades checked and the blade protector replaced before storing the machine in an appropriate secure place.</p> <p>The site was raked and cleared to an acceptable standard by the candidate, all tools and equipment picked up and stored. The warning sign was removed and stored.</p>

Assessor signature	Date
Sample assessor	23/03/2023

Photographic/video evidence

Photo evidence: hedge before maintenance



Video evidence placeholder

Video recording showing starting up and use of the hedge trimmer. (1-2 minutes maximum)

[hyperlink placeholder]

- Recording starts showing the candidate in frame visibly wearing eye/face protection, ear defenders, safety boots and gloves, preparing to start hedge trimmer.
- Candidate starts the machine safely but with excessive force used pulling the cord.
- Candidate begins operating the hedge trimmer safely but with some over-revving and an irregular sweeping action, achieving a mostly even cut.

Photo evidence: hedge after maintenance



Commentary

The candidate used adequate knowledge and understanding of how to **perform maintenance**, to interpret the requirements of the task and supply a brief verbal risk assessment, and safely used the equipment and tools required to complete the task to an adequate standard.

The candidate showed an adequate grasp of safety procedures and of safe working practices. Pre-start checks were acceptable but not comprehensive and the inspection of the area cursory.

The candidate demonstrated the use of tools to **perform maintenance** to a reasonable standard but was heavy-handed and rushed through the task. The hedge cutting was completed to a reasonable standard (e.g. acceptable angle on the sides, some variation in the closeness of cut on the top).

The candidate undertook limited preparation of the site and conducted the task requirements to an acceptable level. All tools were used safely but with little regard to economy and efficiency.

The candidate had some awareness of environmental issues and ensured no nesting birds were present.

The candidate conducted the work in a somewhat hurried manner and to an acceptable standard.

Assessor Observation Form (Task 4b – propagation)

Task	Assessment component number
Task 4b	8717-404
Candidate name	Candidate number
Sample Candidate	CG12345
Centre name	Assessment themes
Sample Centre	PO2: Health and safety PO2: Establish planted areas (Establish plants)

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	<i>Notes – detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.</i>
<ul style="list-style-type: none"> • Candidate’s verbal risk assessment for the task – hazards, risks and controls identified. • Selection of personal protective equipment (PPE), equipment and materials • Selection, collection and storage of vegetative propagation materials to ensure viability is maintained. • Preparation of workstation for effective operation • Preparation of growing media and filling of pots • Preparation of cuttings, tools and techniques used 	<p>The candidates verbal risk assessment correctly identified potential hazards (use of knives/secateurs, use of composts, slips/trips/falls). Suitable controls were suggested (using relevant PPE, removal of trip hazards from the work area, using secateurs instead of knife), however the explanations lacked depth.</p> <p>The candidate wore correct PPE (safety boots, safety glasses), and the blades of the secateurs and knife were cleaned using anti-bacterial wipes. Correct compost components were selected after some hesitation, and clean pots were used.</p> <p>Plant material was selected from a range of over-wintered <i>Fuchsia</i> plants in variable condition by the candidate, though only minimal attention to the condition of the plant and quality of material was demonstrated. Several softwood cuttings of uneven lengths were collected. The shoots were collected and then placed into a clear polythene bag and labelled. The bags of material were taken to the propagation area and left on the bench.</p> <p>The candidate cleared a section of the work area before laying out the tools, compost, pots and labels in a safe configuration but with minimal regard to the efficient sequencing of the process.</p> <p>The candidate mixed the peat free seed compost with horticultural sharp sand in an approximately 50:50 proportion without checking the volumes beforehand. The pots (of appropriate size) were correctly filled with the mix and over firmed.</p>

Assessor observation	Notes – <i>detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.</i>
<ul style="list-style-type: none"> • Insertion of cuttings at appropriate depth into growing media • Labelling the plant material with the date, plant name and any other requirements • Immediate aftercare e.g. watering and transferring to propagation unit. • Disposal of waste in a manner that reduces environmental impact • Work area left in a safe and tidy condition 	<p>The cuttings were removed from the polythene bag by the candidate prior to trimming them using secateurs to 5-10cm in size just below a node. At first none of the lower leaves were removed, which resulted in problems with inserting the cuttings into the pot, but on reflection the candidate removed some of the lower leaves to enable correct insertion of the cuttings.</p> <p>The candidate inserted the cuttings at random spacings around the pot to approximately the required depth but with some variation between the pots.</p> <p>The candidate labelled each pot with the date, common name and their own name in a legible manner using pencil. The label was inserted randomly in the pot and in some cases the writing was not clearly visible.</p> <p>The pots were placed in a carrying tray and taken to the propagation area by the candidate without protecting the cuttings from environmental conditions. The pots were watered in using a watering can and rose, without ensuring the flow was correct resulting in some overwatering due to the force of the flow.</p> <p>Plant trimmings and a substantial amount of left over compost were placed into a bin for composting. The polythene bag was placed in a bin for recycling.</p> <p>The area was cleaned to a basic standard by the candidate, all tools cleaned and stored safely, area left adequately tidy.</p>

Assessor signature	Date
Sample assessor	23/03/2023

Photographic/video evidence

Photo evidence: cuttings after preparation



Photo evidence: cuttings after insertion



Commentary

The candidate showed an adequate grasp of **health and safety** procedures involved in propagation and of safe working practice.

The candidate interpreted the requirements of the task and completed a verbal risk assessment covering most of the relevant hazards, while safely using the equipment and tools required to complete the task to an adequate standard.

The candidate demonstrated adequate knowledge and skills of how to **establish plants**. The use of tools and techniques was to a reasonable standard but lacked precision and dexterity. The cuttings were variable (but acceptable) and were created using the correct methods.

The candidate prepared the area and conducted the task requirements to an adequate level. All tools were used safely.

The candidate had some awareness of environmental issues but missed opportunities to demonstrate deeper understanding of the environmental issues and what action would be appropriate.

The candidate successfully prepared and provided immediate aftercare for the pots of cuttings to an acceptable standard, with some practices lacking attention to detail.

Task 5 – Installation of hard landscaping features

Evidence contributes to the following:

Performance outcome	Assessment themes
PO4 Install landscape features	Health and safety Plan for installation Install hard landscaping features (Prepare installation sites) Install hard landscaping features (Install features)
PO3 Maintain ornamental and environmental horticultural areas	Identify requirements and plan maintenance Perform maintenance

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
	part a) preparation of bedding and patio installation			
risk assessment	PO4: Health and safety	√		√
method statement	PO4: Plan for installation	√		√
bill of quantities	PO4: Plan for installation	√		√
assessor observation	PO4: Health and safety PO4: Install hard landscaping features (Prepare installation sites) PO4: Install hard landscaping features (Install features)		√	√

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photographs	PO4: Install hard landscaping features (Install features)		√	placeholder
video	PO4: Health and safety PO4: Install hard landscaping features (Install features)		√	placeholder
part b) fence renovation				
risk assessment	PO4: Health and safety	√		
method statement	PO3: Identify requirements and plan maintenance PO4: Plan for installation	√		
bill of quantities	PO3: Identify requirements and plan maintenance PO4: Plan for installation	√		
assessor observation	PO4: Install hard landscaping features (Prepare installation sites) PO4: Install hard landscaping features (Install features)		√	√

	PO3: Perform maintenance			
photographs	PO4: Install hard landscaping features (Install features) PO3: Perform maintenance		√	placeholder

Candidate evidence - Risk assessment

This template may be modified by adding items/rows only.

Candidate's name	Sample Candidate	Enrolment number	CG12345
Task / Activity	Installing a patio	Location	Centre hard landscaping area
Assessor's name	Sample Assessor	Date	23/03/2023

Item no.	What are the hazards?	Who might be harmed and how?	What precautions are already in place?	Risk rating (High / Medium / Low)	What further action is necessary?	Action by who and when?	Residual risk rating (High / Medium / Low / Trivial)
1	Slips, trips and falls	Person doing the work, anyone else around	PPE – safety boots	Low	Keep site tidy and don't leave tools lying around	Everyone, all the time	Low
2	Tools	Person doing the work, cuts and bruises	PPE – safety boots, gloves, eye protection	Low	Check they are safe before you use them and don't leave lying around	Everyone all the time	Low
3.	Mixing up	Person doing the work, anyone else around	PPE – dust mask, eye protection, safety boots, gloves	Low	PPE, avoid dust and spills	Everyone all the time	Low
4	Use of abrasive wheel / cutting slabs	Person cutting and anyone else around could get affected by dust and noise	PPE - dust mask, eye protection, safety boots, gloves. Pre-start checks including condition of disc and function of dust suppression kit.	Medium	Use safely and according to instructions and wear the PPE listed.	Everyone	Medium
5.	Lifting and positioning slabs and heavy items (trees, turf)	Person doing the work, anyone else around who might	PPE – safety boots, gloves Manual handling training	Low	Work in pairs or use lifting equipment	Everyone	Low

		have slab dropped on them					
6	Cleaning up	Person doing the cleaning could get wet with cleaning fluids.	PPE – safety boots, gloves, dust mask	Low	n/a	Everyone	Low

Date: 23/03/2023	Risk assessment carried out by: Sample Candidate
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Commentary

The candidate has provided a basic Risk Assessment identifying the major **health and safety** issues and hazards associated with the task.

The candidate has interpreted the requirements of this aspect of the task to an adequate standard and has considered some aspects fairly well (e.g. use of abrasive wheel), however this could be expanded by individually detailing specific hazards associated with the abrasive wheel.

The candidate has mostly used technical terminology accurately but has not provided the specific detail required for a more informative assessment such as specific tools, who else might be affected and how to control the hazards in more detail.

There is a lack of more considered references to environmental hazards such as the minimisation of fumes and noise.

The candidate has briefly described suitable precautions with some reasoning to support their use.

Candidate evidence - Method statement

Method Statement

Job title: Laying a Patio

Date: 4th July 2023

Staff (including site supervisor)

A.Student, B.Student, Tutor

Description of Works

- Location
Centre Hard Landscaping Area
- Task (s)
Laying a 3 x 2.4 metre patio
- Start time
09.30
- Duration
7 hours
- Sequence of tasks

1. Check area is safe and clear of obstructions

2. Check that all tools, materials and equipment needed are present and in safe working condition

3. Write risk assessment and put on appropriate PPE according to the Risk Assessment (tasks 1-3 should take 1.5 hours)

4. Measure out and mix up 5:1 sand: lime (0.3 m³ of sand, and 0.06 m³ lime with appropriate amount of water) using shovels, measuring equipment and trowels (task 4 should take 0.5 hours)

5. Check abrasive wheel according to Risk Assessment and ensure supervisor is happy for work to commence

6. Calculate number of slabs required and measure out any that need to be cut using a scribe and tape measure

7. Using abrasive wheel according to Risk Assessment cut slabs to required size (tasks 6 and 7 should take 1 hour). Check, start, use, stop and clean down.

8. Apply bedding material on a slab-by-slab basis, to the correct depth (50mm) using shovels and ensure a level surface using trowels and spirit level (task 8 should take 2.5 hours)

9. Lay slabs, handling with gloves and laying flat starting at top end and making sure, using string line and spirit level, that first slab is plumb.

10. Set up string line. Level and position first slab carefully, double check the plan. Set first paver to string line, checking with a spirit level in case the string peg has been kicked.
11. Continue laying rest of slabs according to the plan, checking levels and straightness
12. Check gaps are equal and apply grout to gaps using pointing trowel (Steps 9-11 should take 1 hour)
13. Clear and tidy site (0.5 hours)

Commentary

The candidate has provided an adequate method statement including the main aspects required to **plan for installation**, considering an appropriate range of factors (e.g. health and safety, timescales, sequence and methods of working).

The sequence of operations is adequate to safely complete the task although some details / steps have been missed (e.g. mixing a sufficient quantity of dry grout before step 12).

Overall, the method statement is of an adequate standard for use.

Candidate evidence - Bill of quantities (Task 5a – patio installation)

TOOLS/EQUIPMENT					
Item	Description	Quantity			
1.	Landscape Rakes	2			
2.	Shovels	2			
3.	Bucket (and water source)	1			
4.	Spirit Level	2			
5.	Trowel	2			
6.	Rubber mallet	2			
7.	Cutting scribe	1			
8.	Abrasive Wheel	1			
9.	String line	2			
10.	PPE (boots, gloves goggles, ear defenders, knee pads)	2 sets			
MATERIALS					
Sand:Lime mix ratio:				5:1	
Item	Description	Quantity	Unit	Cost/unit	Cost
1.	Slabs 3m x 2.4m x 0.05m = 0.36m ³	20	60x60cm slab	12	240
2.	Sand	20	25kg	3	60
3.	Lime	6	25kg	17.5	105
					Total: £405

Commentary

The candidate used adequate knowledge and understanding of how to **plan for installation** of the landscaping feature. They selected the main resources correctly although the list of tools and equipment could be more complete (e.g. dust mask missing from listed PPE).

The main necessary materials have been listed and the required quantities calculated are sufficient for completion of the task, although they have not allowed for any contingency/breakage) Calculations have been carried out accurately.

Assessor Observation Form (Task 5a – patio installation)

Task	Assessment component number
Task 5a	8717-404
Candidate name	Candidate number
Sample Candidate	CG12345
Centre name	Assessment themes
Sample Centre	PO4: Health and safety PO4: Install hard landscaping features (Prepare installation sites) PO4: Install hard landscaping features (Install features)

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	<i>Notes – detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.</i>
<ul style="list-style-type: none"> • Candidate is wearing all necessary PPE. • Mixing of bedding material, correct proportions and quantity of sand/lime • transport, application and levelling of bedding material • laying slabs and minor adjustments as required • operators checks on the abrasive wheel, in 	<p>All necessary correct, clean, PPE worn by candidate</p> <p>Candidate handled all materials safely and efficiently. Roughly correct proportions (of roughly 5:1, sand:lime) measured out by eye and quantities not accurately checked. Water applied to mix from a bucket in two steps followed by vigorous mixing to obtain final mix.</p> <p>The candidate transported the bedding mix from the mixing area to patio site in a bucket but did not check route beforehand and had to step over some items. The mix was applied using the correct tools but not evenly or consistently leading to some remedial steps needing to be taken. The candidate levelled each slab to their string line and made one check with the spirit level before continuing to the next stage. Some slight dips were observed (see photo).</p> <p>The candidate handled all the slabs safely using correct manual handling techniques. The slabs were laid in place and adjusted using a rubber mallet, however two needed to be lifted up and replaced due to poor setting out. Minor adjustments were made in an unsubtle manner using a rubber mallet, and had to be altered several times. This resulted in some inconsistent spacing.</p>

Assessor observation	Notes – detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.
<p>accordance with the manufacturer's instructions</p> <p>Note: Assessor must be satisfied that the abrasive wheel is in a safe condition for use before the candidate begins cutting</p> <ul style="list-style-type: none"> • marking and cutting of slabs: Use equipment in a safe and effective manner • point gaps with dry grouting using sand/lime mixture. • Carry out the work in a manner that minimises environmental damage • Maintain and store equipment in a safe and effective manner after use. • Ensure the site is left in a safe and tidy condition. 	<p>The candidate wore the correct PPE (dust mask, eye protection, hearing protection, safety boots, gloves) checked the abrasive wheel components and covered the key points (Fuel/oil level, condition of blade/wheel, pull cord, visual check for damage, presence, condition and security of safety guards, function of water kit/dust suppression kit if present, function of power on/off switch).</p> <p>The candidate measured the slab and marked up appropriately using a scribe. The slab was correctly positioned and held in place and all equipment was used safely, though the equipment was run for a relatively long time which did not minimize waste or noise pollution. Cut was accurate enough to be used.</p> <p>The candidate formulated the dry grouting mix by eye rather than careful measurement but used appropriate PPE and tools. The candidate did not check to ensure that all slabs were completely dry before applying the mix by dry brushing, which was not carefully done and led to some unnecessary waste being generated. The blade of the trowel was used to press down the mix and to add in additional material where required.</p> <p>The candidate took adequate care in planning and completing all tasks efficiently to minimize any waste. Measurements were largely accurate, but some waste was generated including a broken slab. Materials could have been used more efficiently, and the use of abrasive wheel could have been reduced to minimize exhaust and noise pollution.</p> <p>The candidate cleaned all equipment including PPE before replacing it at the designated locations. Washing down was done in a cursory manner with some excessive water use and run-off. All tools cleaned to a basic standard and stored correctly. Abrasive wheel cleaned, dismantled and stored safely.</p> <p>The candidate removed all tools and equipment, and all unused material from the site. The site was swept and sweepings were disposed of into the nearest bin. The candidate undertook a quick final check of the site before completion.</p>

Assessor signature	Date
Sample assessor	23/03/2023

Photographic/video evidence

Photo evidence placeholder

- Photo of prepared bedding surface showing slight dips.

Video evidence placeholder

Video recording of candidate using the abrasive wheel to cut one of the slabs. (1-2 minutes maximum)

[hyperlink placeholder]

- Recording starts showing the candidate in frame visibly wearing all PPE (dust mask, eye protection, hearing protection, safety boots, gloves) with abrasive wheel ready to make cut.
- Slab has a scribe mark and is correctly positioned and held in place safely.
- Candidate operates the abrasive wheel safely but takes a relatively long time to complete an adequately accurate and straight cut.

Photo evidence placeholder

- Photo showing correct manual handling techniques: Candidate picking up or putting down slab with correct posture (bending at knees, straight back).

Video evidence placeholder

Video showing completed patio and condition of site. (1 minute maximum)

[hyperlink placeholder]

- Recording starts showing full completed patio in frame.
- Site area is tidy, no tools/materials left on patio.
- Camera pans/zooms in to show detail of pointing gaps and finish: Minor unevenness of gap between cut edge and adjacent slab. Some areas where small amounts of dry grout mix have not been fully swept/washed off the slabs.

Commentary

The candidate interpreted the requirements of the task and applied the correct techniques and equipment required to complete the task to an adequate standard.

The candidate showed an acceptable grasp of **health and safety** procedures and of safe working practice with an adequate pre-start check of the abrasive wheel before use.

The candidate demonstrated the use of tools and equipment to a reasonable standard in all tasks, though a lack of detail and finish was evident.

The candidate did not stop to review their practice throughout, measuring largely by eye rather than taking the time to check quantities and measurements throughout.

The candidate **prepared the installation site** and **installed the feature** in a rather inefficient manner, though with largely correct application of tools and techniques. Attention to detail was only minimally evidenced and the levels and spacings and overall finish of the slabs at the end of the process was only of an adequate standard.

The candidate was only minimally aware of environmental issues but did dispose of waste material in a generally appropriate manner.

The candidate undertook only cursory checks throughout the process and the final check and site clearance were to an acceptable standard.

Assessor Observation Form (Task 5b – fence restoration)

Task	Assessment component number
Task 5b	8717-404
Candidate name	Candidate number
Sample Candidate	CG12345
Centre name	Assessment themes
Sample Centre	PO3: Perform maintenance PO4: Health & Safety PO4: Install hard landscaping features (Prepare installation sites) PO4: Install hard landscaping features (Install features)

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	Notes – <i>detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.</i>
<ul style="list-style-type: none"> • Candidate is wearing all necessary PPE. • Removal of damaged rail • removal of damaged fence post • marking and cutting of fence post and rail to size • installation of post • fixing of rail 	<p>Correct, clean PPE selected and worn by candidate.</p> <p>Candidate quickly identified and safely removed damaged rail using appropriate techniques, but did not assess any other part of the fence. Sawed off the rail, and pried remaining part from the post using hammer. Removed fixings without damaging other parts of the fence.</p> <p>Candidate identified and safely removed loose post using digging tools and correct manual handling techniques. Tools and equipment were used safely but more care/attention was required as the post was removed in an abrupt and forceful manner.</p> <p>The candidate measured up the post and rail to an acceptable standard and scribed cuts with the saw. Cutting was carried out using the first saw that the candidate found without checking others for sharpness beforehand. Cutting techniques were carried out safely, although not undertaken on a level surface and with minimal care (health and safety was not compromised).</p> <p>Candidate placed post on the ground in the proper locations but only did a cursory "test fit" and considered that no adjustments were necessary to ensure the correct spacing of the posts and rails. The post was installed correctly in a</p>

Assessor observation	Notes – <i>detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.</i>
<ul style="list-style-type: none"> • painting/application of protective coating • Carry out the work in a manner that minimises environmental damage • Maintain and store equipment in a safe and effective manner after use. • Ensure the site is left in a safe and tidy condition. 	<p>hole dug using post hole digger and spade to roughly the correct depth by eye, backfilled and adjusted to visually ensure the post was upright.</p> <p>The candidate tested the rail, but spacing was out by 10mm requiring a second cut. Candidate inserted rail in correct positions, and after several attempts checked the levels and adjusted by physical force. Rail secured in place using correct fixings.</p> <p>The new post and rail were painted quickly by the candidate using the correct liquid and tools, although with some patchy coverage and some waste/ spillage.</p> <p>The candidate took only minimal care in completing all tasks efficiently to minimise any waste. Materials could have been used more economically and protective coatings applied more efficiently. Waste disposed of in an appropriate manner.</p> <p>The candidate cleaned all equipment including PPE before replacing it at the designated locations, but not in a tidy manner.</p> <p>The candidate removed all tools and equipment, and all unused material from the site but did not complete a final check as some soil was left in a pile near the post hole.</p>

Assessor signature	Date
Sample assessor	23/03/2023

Photographic/video evidence

Photo evidence placeholder

- Photo showing post installed (spirit level against post)

Photo evidence placeholder

- Photo showing fixing of rail: spirit level against rail, secured with 2x nails hammered in flush.

Photo evidence placeholder

- Photo showing finished fence: full installation is in frame. Post and rail installed, finish of protective coating has some areas of uneven coverage. Tools and materials have been tidied away from the site but some excess soil has been left in a pile near the post.

Commentary

The candidate interpreted the requirements of the task and applied the correct techniques and equipment required to **perform maintenance** and **install features** to an acceptable standard.

The candidate showed an acceptable grasp of **health and safety** procedures and of safe working practice, e.g. selecting and using the correct PPE, correct use of tools and appropriate care and attention when applying the coatings.

The candidate demonstrated the selection and use of tools and equipment to a reasonable standard to **install the feature** and **perform maintenance**, though attention to detail and quality of finish could be improved upon.

The candidate undertook appropriate **preparation of the installation site** and materials, with the largely correct application of techniques but missing some attention to detail and tendency to initially estimate rather than to check and measure. For example, the post hole depth could have been measured first rather than estimating by eye.

The candidate was slightly rushed in some stages, e.g. applying the protective layer, and could have made more frequent reviews of their practice throughout.

While adequate attention to environmental aspects was made throughout, the candidate could have made more attempts to minimise waste.

The site was left in an acceptable condition but greater attention to detail would have produced a higher quality standard of finish.

Task 6 – Site survey and report

Evidence contributes to the following:

Performance outcome	Assessment themes
PO2 Establish ornamental and environmental horticultural areas	Identify features and characteristics Plan for establishment
PO4 Install landscape features	Health and safety

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this version of GSEM
	part a) site survey			
survey recording form	PO2: Identify features and characteristics	√		√
	part a) site survey; and b) locate utilities			
assessor observation	PO2: Identify features and characteristics PO4: Health and safety		√	√
photographs	PO2: Identify features and characteristics		√	√
	part c) report			
report on site survey	PO2: Identify features and characteristics PO4: Plan for establishment	√		√

Candidate evidence - Survey recording form

Site Location

South of main A28 Road, down unmarked track

Address 101 South Lane, Hilltown

Existing landscaping features

Notes:

A level site of 10 x 10 metres

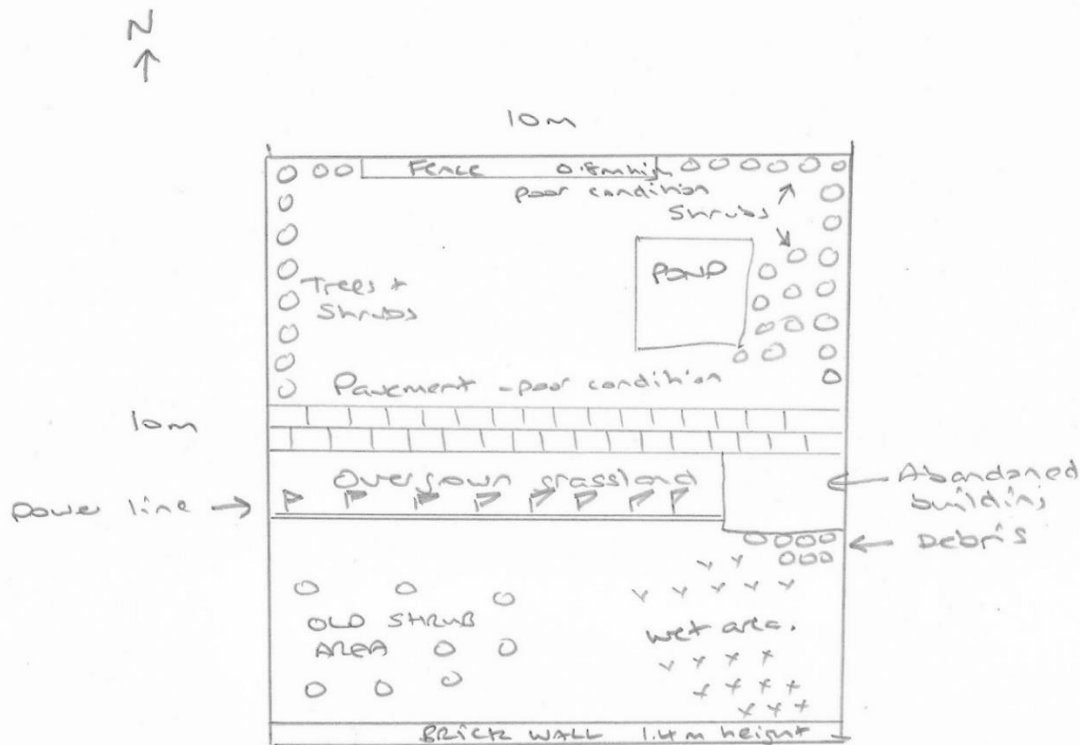
A brick wall along the southern edge 1.4 metres high

A dilapidated fence at the northern boundary 5 x 0.8 metres high

A pavement of standard slabs with pointing in poor condition

An overgrown pond 2 x 2 metres in size

Border hedges and shrubs overgrown



(Mark location/s on map)

Site Characteristics

Aspect:

Using a compass it was determined that the site was South westerly facing

Topography:

Visual observations showed that the site is generally flat, and in a river valley, with low hills (up to 50m above sea level) surrounding the area.

Exposure and situation:

The site is exposed to prevailing winds from the south west and at risk of frost pockets due to being in the valley surrounded by hills

Microclimate factors:

Frost pocket

Wind

Other (specify):

Risk of frost pocket near the brick wall due to slope

Potential wind tunnel effect from being in a valley

Sunlight levels:

Full sun (6 hrs or more)

Partial sun or filtered light

Shade

Services and Structures:

Overhead power/communications lines – location and estimated height:

No overhead lines were visible

Estimated proximity to buildings/structures:

Abandoned brick building of unknown age and history on site, and a minor road passes border

Underground utilities identified, location marked and noted on sketch:

CAT analysis detected one power line (no longer live) marked on ma.
The location of underground water pipes as marked on the map were confirmed using CAT analysis.

Soil Characteristics

Approximate rooting depth for site:

This was found to vary across the site but an average (of five samples) was that the top soil was 15cm deep and the subsoil 30cm

Texture (particle size distribution)

Clay

Loam

Sand

Other (specify):

The soil texture was confirmed to be a clay loam from the hand texture test carried out.

Comments on structure:

Swells when wet, shrinks when dry. Subject to clodding due to clay content. Evidence of compaction.
Topsoil was mainly granular but single prismatic aggregates were observed in the subsoil.

pH:

7.00

Drainage Characteristics and water holding capacity:

- Presence of groundwater
- Low-lying topography

Water holding capacity:

high medium low

Notes (including testing method and results):

Tested using simple water infiltration method. Soil found to be relatively poorly drained, with a slow infiltration rate

Indicator plants suggest site drainage as:

wet well-drained dry

Compaction Levels

- Severely compacted
- Compacted
- Uncompacted

Notes:

Some compaction evident by surface water around the paths

Soil profile pit found no evidence of a soil pan

(Mark any areas with particular problems of compaction on map.)

Other Soil Considerations:

- Indications of soil layer disturbance
- Evidence of recent construction

T Level Technical Qualification in Agriculture Land Management and Production – Ornamental and Environmental Horticulture and Landscaping GSEM Threshold Competence

x Presence of construction debris likely

Noxious weeds present

Notes:

Construction debris found near old building.

No noxious weeds found.

Plants present on site

	Genus	Species	Common name	Protected species?
1	<i>Ranunculus</i>	<i>repens</i>	Creeping Buttercup	No
2	<i>Taraxacum</i>	<i>officinale</i>	Dandelion	No
3	<i>Corylus</i>		Hazel	No
4	<i>Betula</i>	<i>pendula</i>	Silver Birch	No
5	<i>Cornus</i>	<i>alba</i>	Dogwood	No
6	<i>Sambucus</i>	<i>nigra</i>	Elder	No
7	<i>Rosa</i>	<i>canina</i>	Dog rose	No
8	<i>Euonymus</i>		Spindle	No
9	<i>Lolium</i>	<i>perenne</i>	Perennial ryegrass	No
10	<i>Juncus</i>		Common rush	No
11	<i>Caltha</i>		Marsh marigold	No
12	<i>Mentha</i>	<i>pulegium</i>	Pennyroyal	Yes
13	<i>Trifolium</i>	<i>repens</i>	Clover	No
14	<i>Bellis</i>	<i>perennis</i>	Daisy	No
15	<i>Crataegus</i>	<i>monogyna</i>	Hawthorn	No

Habitats present on site

(E.g. hedgerow/woodland/aquatic/grassland/rocks etc.)

1	Hedges
2	Grassland
3	Pond

Commentary

The candidate's survey has **identified** the key **features and characteristics** and all sections of the form have been considered, but not in great detail with only brief interpretation recorded.

Identification of the required site characteristics has been completed to an adequate level. For example, aspect and topography have only been considered to a basic level.

Soil characteristics and conditions have been tested and results/notes recorded, though more tests would have enabled a more thorough interpretation of these results which would be more useful to base subsequent decisions upon when planning for establishment.

The candidate correctly identified the common and genus name of 18 plant species including weeds and the protected species. Three broad examples of habitats were also identified correctly.

The candidate identified the main existing landscaping features and marked their approximate locations on the plan. Some detail about the features was recorded on the form.

Assessor Observation Form (Task 6 a/b – site survey)

Task	Assessment component number
Task 6 (a) (b)	8717-404
Candidate name	Candidate number
Sample candidate	CG12345
Centre name	Assessment themes
Sample centre	PO2: Identify features and characteristics PO4: Health and safety

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	Notes – detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.
<p>a) site survey.</p> <ul style="list-style-type: none"> • correct use of plant identification tools • accuracy of plant identification and if/when images were used in place of live specimens on site (copies of any images used must be submitted with the observation form) • Tests carried out to determine soil characteristics and conditions including: <ul style="list-style-type: none"> ○ texture and structure. ○ soil pH. ○ Water holding capacity. <p>b) underground cable location.</p> <ul style="list-style-type: none"> • set up and use of CAT and Genny • interpretation of results • storage of equipment 	<p>Plants were identified by use of simple keys and a plant identification app, with some incorrect identification at first attempt</p> <p>Plants present were identified correctly by common and genus name, but not all to species level. Candidate took first answer and did not cross-check or confirm using flora.</p> <p>No images were used, all identification was from plants on site.</p> <p>Basic soil tests were undertaken. 3 soil samples were collected across the site at a uniform depth. A structure assessment was made visually by digging two profile pits one at each end of the site and conclusions made. Soil texture was assessed by the hand texture method, using a printed flowchart for interpretation. The class of soil was identified correctly, but no further analysis was made.</p> <p>pH test completed using an industry standard pH testing kit, candidate wore gloves when using the kit and sieved the soil sample beforehand. Water holding capacity test completed to an adequate standard, using a tube and measuring cylinder. The candidate forgot to use the timer at first attempt and had to repeat the test.</p> <p>Equipment was checked (including battery) before use and instructions were read, candidate had some difficulty setting correct mode at first and</p>

Assessor observation	Notes – detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.
marking on the ground of detected pipe/cable location	searched in an undisciplined grid pattern, turning before getting to the end of the area on two occasions. The ground was marked to show the layout of the cable using canes. Results were generally interpreted correctly. Equipment was switched off and stored in carrying case after use.

Assessor signature	Date
Sample assessor	23/03/2023

Photographic/Video evidence:

Photo evidence: Soil texture test

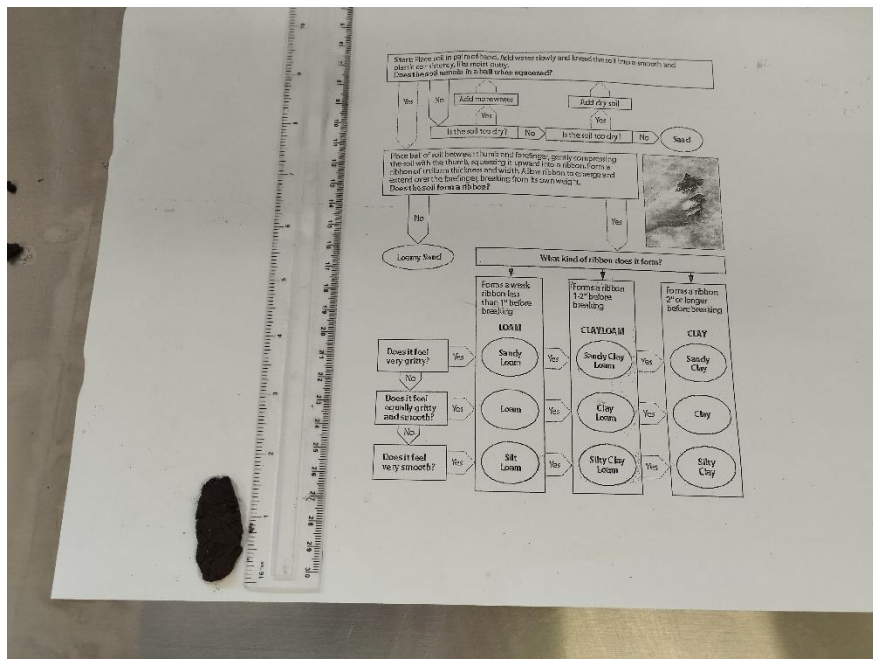


Photo evidence: Soil pH test



Commentary

The candidate has demonstrated acceptable application of knowledge and skill to **identify features and characteristics** to meet the requirements of the brief.

The plant identification exercise was carried out and results obtained eventually giving the plants common name and genus for all and species for some. The candidate correctly identified the common name of the protected species.

The use of aids to identification was limited and there was tendency to go for the first answer rather than cross-checking.

The soil tests were undertaken with sufficient skill. Sample collection and testing methodology was adequate, but no more, and there was opportunity to take further samples (e.g. in a W-shaped matrix covering the site).

The pH and texture test were completed with adequate regard to preventing contamination. More samples, replication of tests and a more careful analysis of the results would have produced a much more informative set of results. The water holding capacity investigation was of an adequate standard.

The CAT/Genny equipment was used correctly, but not completely efficiently and the candidate struggled at first to correctly set up the equipment. They were eventually able to locate the underground services adequately to ensure **health and safety**.

A more comprehensive survey would have provided clearer results and made interpretation more informative. Equipment was used safely and stored correctly.

Overall, the candidate completed the required tasks and captured adequate information but could have undertaken further confirmatory checks.

Candidate evidence – Report on site survey

Report on survey of site at 101 South Lane, Hilltown, BX20 4UU

The site was measured in the site survey and found to be a level site of 10 x 10 metres (100m² in total).

There were a number of hard landscape features. There is an old brick wall along the southern edge 1.4 metres high and 10m long, and a dilapidated fence at the northern boundary 5m long x 0.8 metres high and a pavement of standard size slabs with pointing in poor condition and six slabs missing running across the site.

There is an overgrown pond 2 x 2 metres in size in the top right of the site surrounded by deciduous shrubs.

At the end of the path and on the edge of the site to the east there is an old, abandoned building of unknown history with debris that has fallen off around the area.

As well as the pond area there is another wet area near the bottom of the site from the old building to the wall.

The site faces southwest so will catch the prevailing wind (which is from the southwest in this country) and the flat site in a valley with low hills around this make this area exposed, prone to frost and will cause problems in any future plan and make it difficult to develop.

There are no live utilities on site that were found in the survey so no problems from these. But also if we need any utilities they are not there so will have to bring in generators for any construction work.

The soil is not very deep, only 15cm of top soil and 30cm of subsoil which enables many common native plants to grow but would stop many new or exotic plants from thriving. The pH was tested and found to be 7 which is neutral and ok for most types of plants and it was also found to be a clay loam so will hold water and nutrients and could be cultivated to make a good fertile soil. The soil was found to be wet in places though and doesn't drain well in the bottom corner which could cause problems, and there were compacted areas around the site which would need to be worked on.

The plant survey found a number of common weeds which could cause problems and would need removal before any new features were developed. The tree and shrubs were generally common ones, birch, hawthorn, elder and hazel which grow easily and can be cut back and controlled. Pond species such as juncus and marsh marigold were also found on site.

The survey also found a Protected Species *Mentha pulegium* which means it needs to be notified and protected by fencing off and you can't sell any seeds from it.

Recommendation for an appropriate horticultural development for the area.

After looking at the existing conditions and situations It is recommended to turn the area over for coppicing hazel and willow which the community group could then use for crafts and fencing. The pond would be filled in, the wet area drained or used for willow, the fences repaired and the weeds removed by spraying with glyphosate. The whole area could then be roughly rotavated and planted with bare root willow and hazel which are quick growing and could easily be coppiced.

The community group would have an asset in that a kind of natural system for producing pea sticks, wood for crafts such as baskets and wreaths could be obtained on a regular basis. Also, apart from the planting, some weed control and the actual coppicing the labour needed wouldn't be much and could be done by volunteers. The protected species would have to be fenced off which is a problem but could possibly be relocated elsewhere.

Commentary

The candidate has demonstrated acceptable knowledge and understanding of how to **identify features and characteristics** and **plan for establishment** that meets the requirement of the brief, applying their interpretation of the findings, and knowledge to the tasks required.

The candidate has interpreted the brief and their site survey to an acceptable standard and summarised the key points, with some evaluation but lacking detail in places (e.g. implication of the Protected Species, hard landscaping materials) but has repeated text from the site survey form in many places, not consistently linking the data to how to **plan for establishment** of new features on the site.

The candidate has mostly used technical terminology accurately in the report e.g. native plants and Protected Species, but has failed to use Latin names.

All required areas for the report stated in the brief (a written report on the findings of the survey and a recommendation for an appropriate horticultural development) have been briefly presented although the candidate could have included more detail.

Some justifications are given for the proposed new horticultural features, however there is limited discussion on the environmental management and further opportunities. The concept has validity but is incompletely described – there is some reference to environmental management and sustainability e.g. cutting back and controlling the trees and shrubs, but this could be further developed.

Similarly, the opportunities for future development are brief and the justification is broad and would benefit from more specific detail.

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