

# **T Level Technical Qualification in Building Services Engineering for Construction**

**8710-356 Plumbing Engineering**

**Grade Standard Exemplification Material**

**Pass - Summer 2023**

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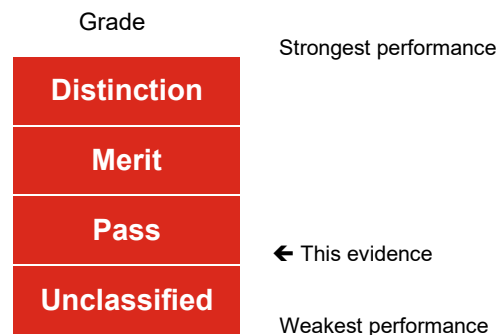
# Introduction

## Summer 2023 Results

This document is aimed at providers and learners to help understand the standard that was required in the summer 2023 assessment series to achieve a pass grade for the 8710-356 Plumbing Engineering Occupational Specialism (OS).

The aim of these materials is to provide examples of knowledge, skills and understanding that attested to **one mark above** the pass standard (threshold competence) in summer 2023. It is important to note that in live assessments a candidate's performance is very likely to exhibit a spikey profile and standard of performance will vary across tasks.

The Occupational Specialism is graded Distinction, Merit, Pass or Unclassified.



The pass grade boundary is based on a synoptic mark across all tasks. The materials in this Grade SEM are separated into two sections as described below. Materials are presented against a number of tasks from the assignment.

## Task

This section details the tasks that the candidate has been asked to carry out. What needs to be submitted for marking and any additional evidence required including any photograph/video evidence. Candidate evidence that was or was not included in this Grade SEM has also been identified within this section.

In this Grade SEM there is candidate evidence from:

- Task 1 - Planning the installation
- Task 2 - Installation, Commission and Decommission
- Task 3 - Carry out maintenance

## Candidate evidence

This section includes exemplars of candidate work, photographs of the work in production (or completed) and practical observation records of the assessment completed by provider assessors. This was evidence that was captured as part of the assessment and then internally marked by the provider assessor.

The Occupation Specialism brief and tasks can be downloaded from [here](#).

## Important things to note:

- We discussed the approach to standard setting/maintaining with Ofqual and the other awarding organisations before awarding this year. We have agreed to take account of the newness of qualifications in how we award this year to recognise that students and teachers are less familiar with the assessments (Vocational and technical qualifications grading in 2023 – Ofqual blog), whilst also recognising the standards required for these qualifications.
- The evidence presented, as a whole, achieved **one mark above** the pass grade boundary. However, performance across the tasks may vary (i.e. some tasks completed to a higher/lower standard than pass grade).

## Grade descriptor

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

Demonstrate an acceptable performance that meets the requirement of the brief and that is required to enter the industry to begin to work in the occupational area.

Demonstrate the adequate technical skills in cutting, bending, fixing pipework and installing components that is in line with industry standards.

Interpret information, demonstrate planning, assess risk and follow safe working methods when applying practical skills to an acceptable standard as recognised by industry.

Demonstrate basic knowledge and understanding of the principles and processes required for plumbing engineering.

Work safely showing an understanding in the selection and use of tools and equipment and demonstrate a basic awareness of straightforward preparation and application processes.

Attempt some complex tasks and the level of performance mostly meets an acceptable level.

Identify causes of plumbing faults and have some knowledge and skills in how to rectify them.

Mostly use industry terminology accurately in both written and verbal contexts.

## Task 1 - Planning the installation

<b>Assessment number (eg 1234-033)</b>	8710-356
<b>Assessment title</b>	Plumbing Engineering Occupational Specialism

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds provider No.</b>	999999a

<b>Task(s)</b>	1
<b>Evidence title / description</b>	Materials list Method statement Risk assessment Installation diagrams
<b>Date submitted by candidate</b>	DD/MM/YY

# Task

## Task 1 – Planning the installation

### Assessment themes:

- Health and safety
- Design and planning
  - Documents
  - Drawings and diagrams
- Systems and components
  - Installation of systems and components
  - Decommissioning systems and components

The purpose of this task is for you to demonstrate that you can correctly plan the installation, produce a detailed material list, complete a detailed method statement, assess the risks involved in the installation activity and produce an accurate installation diagram showing the pipework layout, pipe clips and components.

### **a) Plan the installation of the toilet facilities and the macerator following the client brief.**

You should produce the following:

- Materials list.
- Method statement planning your works to include justifications.
- Risk assessment.
- Installation diagram with pipework layout, pipe clips and associated components.

Templates for the method statement, materials list and risk assessment are provided.

Your installation diagram should be applicable to the location you are being assessed in and completed to a commercially acceptable standard. The diagram should include all fixed services and the proposed installation layout.

The installation diagram should be used to carry out the installation and will also be used by your tutor/assessor for checking the dimensional tolerances of the installed system and pipework.

## **b) Measure and mark out proposed working area.**

You will be provided with a specific working area that has been set up according to **Figure 1**. You must measure and mark out your work area as detailed in your diagram. You must complete this activity prior to carrying out the installation.

If your plan is not fit for purpose your tutor/assessor will intervene and provide necessary feedback and corrections to the plans prior to you carrying out the installation. However, this will be commented on in the marking documentation and reflected in marks awarded.

### **Conditions of assessment:**

- The time allocated for this task is **5 hours**.
- You must carry out the task on your own, under controlled conditions.

### **What must be produced for marking:**

- Risk assessment.
- Method statement with justifications.
- Installation diagram with pipework layout, pipe clips and associated components.
- Materials list.

### **Additional evidence of your performance that must be captured for marking:**

- Tutor/assessor observation of measurements and marking out of space allocation/ work area checked against scale drawing.
- Practical Observation form completed by your tutor/assessor, to include how well you were able to accurately measure out the work area to ensure installation was accurate to plan using a datum line (soil stack) and how accurately the recording of dimensions was completed.
- Photographs taken by your tutor/assessor at various stages of the task.



## Candidate evidence

### Completed materials list

Equipment/Materials	Quantity
Copper pipe 15mm 11.00 per minute	5500mm
Waste pipe of 32mm 6 pounds per metre	1300mm
Waste pipe 40mm 7 pounds	2000mm
Tmv 60.00	1
isolation valves 9.44	8
Tap connectors 22.50 each	4
End feed tees 15mm 10 pound for 10 pack	4
Wash hand basin 60 pounds each	2
Taps 16.99 for 2	4
Pencil 1 pound	1
Steel toe cap boots 45 pounds	1
High visibility jacket 3 pounds	1
Safety gloves 2 pounds	1
Work trousers 35 pounds	1
Dust sheets 6 pounds	1
Scissor bender 50 pounds	1
Pipe cutter 15 pounds	1
Clips pack 10 pounds	1
Spirit level 8 pounds	1
Dust mask 2 pounds	1

## **Completed method statement**

First, before any work is started, we would need to make a visual observation making sure that there is a safe environment to work in

To make sure this is a safe place to work in we need to make sure that there are control measures are in place, so it doesn't harm me or anyone nearby.

After that I would need to carry out my own risk assessment ensuring I don't put anyone in danger

I need to wear appropriate personal protective equipment which would be high visibility jacket, steel toe cap boots, work trousers, heat resistant gloves.

The importance of wearing a high visibility jacket is making sure I can be seen when I could be possibly working on something dangerous.

Having heat resistant gloves will ensure that you are protected from burning and scolding your hands whilst soldering.

Steel toe cap boots are there just in case you drop something heavy onto your foot which will either prevent the pain or possibly reducing the pain depending on the severity.

Wearing work trousers will prevent highly chemical equipment getting onto our daily life clothes which could create contamination which could poison us or others around us.

BS EN 806 has 5 parts to it

Part 1: General

Part 2: Design

Part 3: pipe sizing

Part 4: installation

Part 5: operation and maintenance

Which all needs to be taken into consideration whilst carrying out this Assignment.

Before I get involved with installing, I need to prepare my workspace by complying to my risk Assessment. I need to lay my dust sheets on the floor, so it stops any dirt, or any damages get onto the floor which would also prevent possible injuries.

Since we are changing a basin we would also need to let the school know when isolating the system because it could affect there general routine during the day

The same would also apply for isolating the electrical system

After I have done all these steps I can move to the installation itself

First of all I would cut out my pipe pre hand so I don't use an excess and and waste pipe that could be used for something else.

After I have done this and put my pipe work which doesn't need to be bent into place I would put my basin so I have an even clearer understanding of where my mechanical bend pipe work is going to be.

Then I would use steel wool to clean the inside and outside of my pipes

After this I would attach my elbows, Tmv's and my fittings of where they should be placed and placing a heat map behind them so I do not burn the walls and don't make a hazard or damage any walls or decorations although I will still aim the blow torch correctly which should not affect the wall or walls

After I have done installing my cold and hot pipe work I shall move onto installing the drainage pipe work and first of all the bottle traps by turning them in correctly.

The drainage pipe from the basins shall go from 32mm to 40mm to ensure that it does not cause blockages because if it does it will create foul smells because a vacuum shall be formed.

The waste pipe will be cut with a junior hacksaw because it allows more precision and should be put together with Solvent weld

The pipes clipping should be done with alliance to BS EN 12056

Next I will have to install electrics to the macerator which requires safe isolation methods so it can be don't in a controlled manners. I will also have to make sure I'm using a electric shock proof screwdriver

After this I will need to commission the systems first of all I will start with the hot and cold water system and I would connect it to it and put 1.5x the working pressure.

The pressure will be left at 1.5 if there is any loss in the pressure within the fist half an hour then pump it back to 1.5 working pressure and then left for around an hour if the orsssure drops than we shall check for any leaks in the system.

If there is a leak in the system it should be drained properly otherwise this can cause other hazards to us or people near the area.

Then moving onto drainage to any open end you will need to attach a pressure test plug and a nipple then whilst air is pumped for 3 mins no change in pressure is allowed and if there is we should use leak detection fluid which would make our job a lot easier.

After all my procedures are done and I need to hand over the systems to the client which in this case is Possibly a school keeper

Whilst handing over the system I would need to make sure the person I am explaining to fully understand what I am telling as this could lead to serious hazards if no knowledge is taken in.

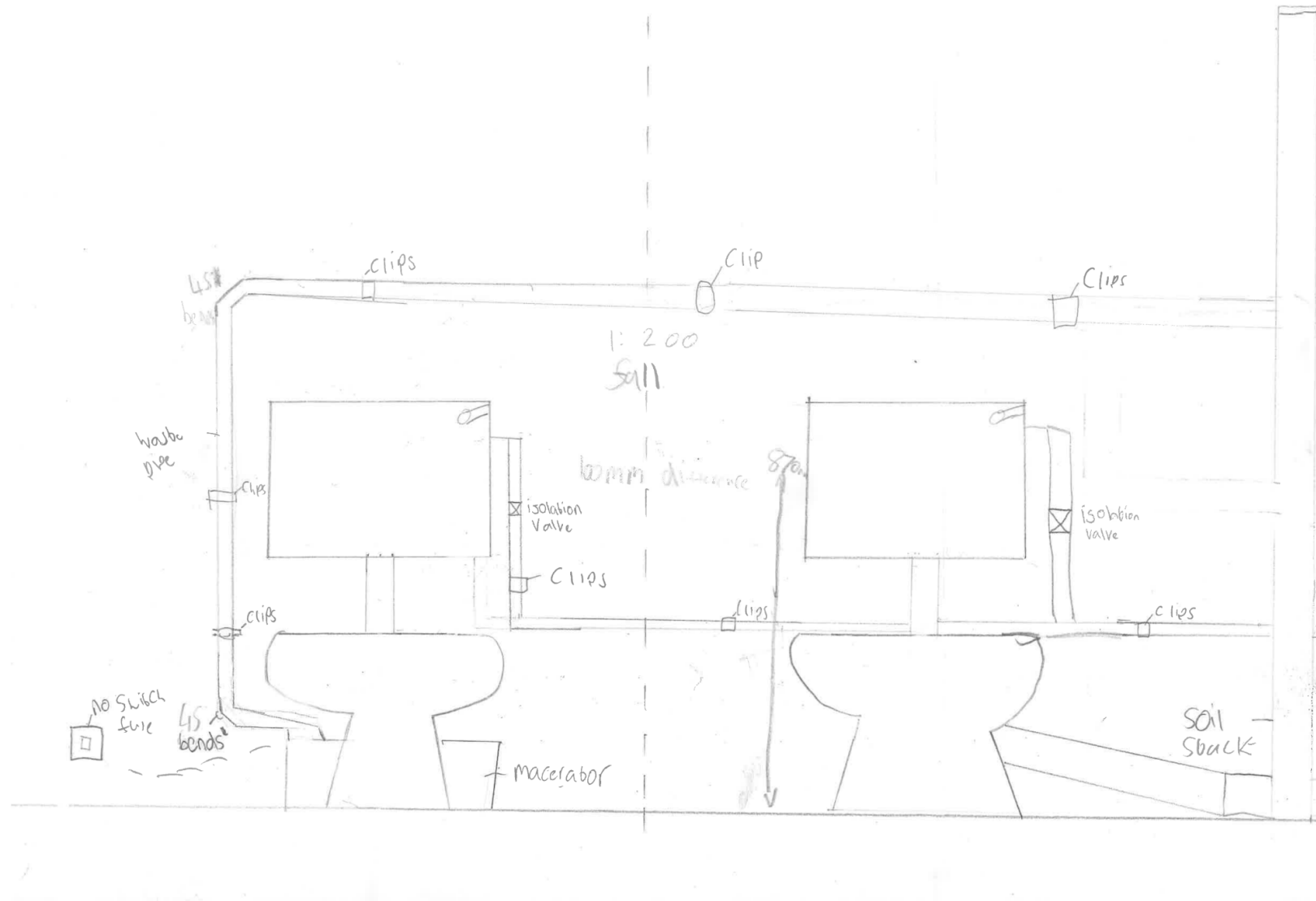
After all the procedures are done I would need to chronologically de-assemble all my pipe work separating them into 3 different bits one reusable pipe and then the other 2 being soldered pipe work and fittings and then a pile of reusable possible fittings and clips.

## Completed risk assessment

<b>Activity:</b>		<b>Date: DD/MM/YY</b>					
<b>Location:</b>		<b>Position: engineer</b>					
<b>SEVERITY (S): Degree of harm which may be caused (including numbers affected)</b> <b>1 Minor Injury   2 Major Injury   3 Fatality</b>						<b>RISK RATING (RR): Severity x Likelihood</b>	
<b>LIKELIHOOD (L): Probability that event will occur</b> <b>1 Remote      2 Possible      3 Likely</b>						<b>1-2 Low</b> <b>3-5 Medium</b> <b>6-9 High</b>	
Item No:	Activity	Hazard	Persons at Risk	Existing Controls (Mitigation)	S 1-3	L 1-3	RR
1	Equipment on floor	You could trip up	Anyone on site	Putting equipment to side	2	3	6
2	soldering	You could possibly burn yourself	Person soldering	Heat resistant gloves	1	3	3
3	Manual handling	If you handle without appropriate ppe or method, you could hurt yourself badly	Carry out in a safe way	Manual handling safely	2	2	4
	Asbestos	In the long term it could lead to potential death	Anyone nearby	Must keep far away and ring specialists contractors	1	2	2

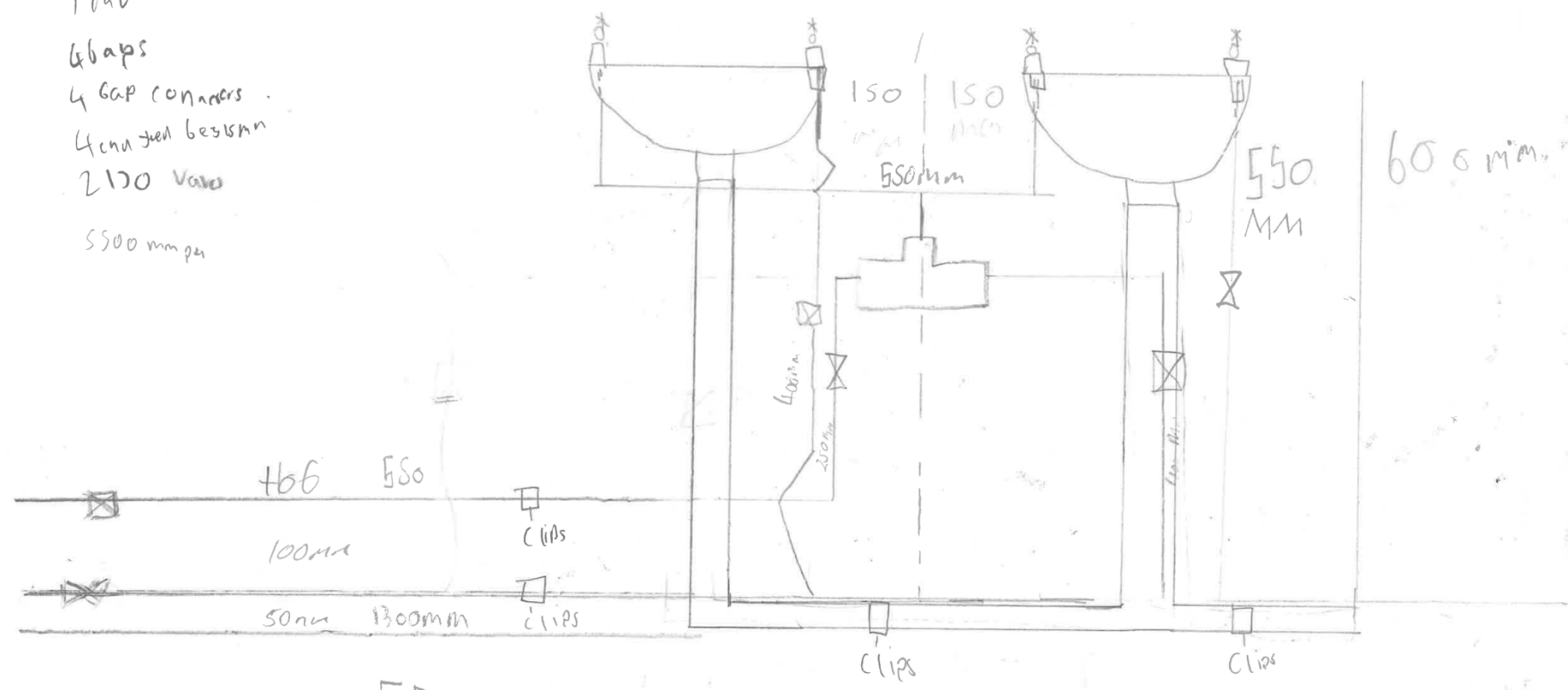
4		threatening health issues					
5	Loose clothing	Could lead to fire and trip hazard	Person with loose clothing	No loose clothing	3	1	3
6	electrics	If system not isolated correctly could lead to getting electrocuted	Anyone nearby	Make sure self-isolation is done correctly	2	3	6
7	noise	You could possibly have long term ear damage if noise is not controlled	Anyone nearby	Possibly wear ear defenders depending on your situation	1	2	2

## Completed installation diagrams





4 ISO valves  
 3 end feed  
 Tank  
 4 gaps  
 4 gap connectors  
 4 end feed bases  
 2 ISO valves  
 5500 mm per



# Practical Observation (PO) Form (Task 1)

8710-36 T Level Technical Qualification in Building Services Engineering for Construction

8710-356 Plumbing Engineering (Summer 2023)

<b>Candidate name</b>	<first name><surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234
<b>Date</b>	DD/MM/YY

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds Provider No.</b>	999999a

## Task 1 assessment themes:

- Health and safety
- Design and planning
  - Documents
  - Drawings and diagrams
- Systems and components
  - Installation of systems and components
  - Decommissioning systems and components

Record observation notes below to inform internal marking and external moderation. Notes must be detailed, accurate and differentiating which use terminology from the mark grid along with specific examples observed. Notes must identify areas of strength and weakness, distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.

<b>Assessment Themes</b>	<b>Assessor observation notes</b>
<b>Health and safety</b> <ul style="list-style-type: none"><li>• Risk assessment</li><li>• Risk mitigation</li><li>• Harm and probability factors</li><li>• Adherence to health and safety</li></ul>	Adhered to health and safety mostly. Missed some minor hazards. Risk assessment lacks depth and range of potential risks.
<b>Design and planning (documents)</b> <ul style="list-style-type: none"><li>• Quality of documentation</li><li>• Adherence to brief</li></ul>	Method statement is okay – half logical approach. Minor inaccuracies. Links to brief – very little. Satisfactory materials list produced.

<p><b>Design and planning (drawings and diagrams)</b></p> <ul style="list-style-type: none"> <li>• Accuracy</li> <li>• Positioning</li> </ul>	<p>Decent effort at the drawings. Main information is on there. Included some measurements. Could have taken more care and attention to detail – using a ruler.</p>
<p><b>Systems and components (installation)</b></p> <ul style="list-style-type: none"> <li>• Marking out</li> <li>• Measurements</li> <li>• Sequencing</li> <li>• Tolerances</li> <li>• Tools</li> <li>• Skills</li> </ul>	<p>Please see PO2</p>
<p><b>Systems and components (decommissioning)</b></p> <ul style="list-style-type: none"> <li>• Sequencing</li> <li>• Disposal</li> <li>• Waste removal</li> <li>• Techniques and finish</li> </ul>	<p>Please see PO2</p>

**Any other aspects**

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Internal assessor signature	Date
<p>X</p> <hr/>	<p>DD/MM/YY</p>

If completing electronically, double click next to the 'X' to add an electronic signature once the record is **finalised**.

## Task 2 - Installation, Commission and Decommission

<b>Assessment number (eg 1234-033)</b>	8710-356
<b>Assessment title</b>	Plumbing Engineering Occupational Specialism

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds provider No.</b>	999999a

<b>Task(s)</b>	2
<b>Evidence title / description</b>	Commissioning record
<b>Date submitted by candidate</b>	DD/MM/YY

# Task

## Task 2 – Installation, Commission and Decommission

### Assessment themes:

- Health and safety
- Systems and components
  - Installation
  - Decommissioning
- Reports and information
- Inspecting and testing of systems and components
- Handover and communication

You will have access to your drawings and plans from Task 1.

Systems must be fully decommissioned, and walls prepared, prior to you beginning installation.

### **a) Install the sanitary appliances and macerator in accordance with your drawing and as agreed by your tutor/assessor.**

Hot and cold pipework should be 100 mm centre unless otherwise stated.

All pipework is to be clipped directly to the wall surface with the pipe brackets to be adequately spaced to manufacturer's instructions.

All pipe bends must be carried out with the correct size pipe bending tool.

Marking out and final measuring of installed components and pipework is to be within +/- 2mm.

The macerator to be installed as per manufacturer's instructions.

Waste pipes installed to the correct fall.

Hot and cold supplies to be installed level and plumb.

WC to be installed as per manufacturer's instructions.

WHB to be installed to recommended height for the setting (600mm) and as per manufacturer's instructions. Hot water must be supplied via a thermostatic mixing valve appropriately set for the location.

No burn, scorch or excessive marking to walls/property.

Finished product should be aesthetically pleasing.

Good housekeeping to be maintained throughout assessment.

**b) Connect the electrical supply to the macerator from a suitably supplied unswitched fused spur connection following the safe isolation procedure.**

You must connect the electrical supply to the macerator from a suitably supplied isolator.

The safe isolation procedure should be followed and directly observed.

All power, interconnecting and control wiring must be in accordance with manufacturer's requirements and meet current UK regulations.

**c) Commission the system and handover to customer**

Once the installation has been completed, you must commission the system and handover to customer.

The system must then be commissioned as per the commissioning document provided, with all the data recorded in full.

Your tutor/assessor must observe you carrying out the commissioning checks detailed in the commissioning document.

You must record all data in full on the commissioning document provided.

Following commissioning and testing you will handover to the customer. The handover should include:

- Demonstration of systems.
- Macerator service requirements.
- Maintenance requirements.

Your tutor/assessor should act as the customer during the handover and will provide feedback on your performance.

#### **d) Decommission the system**

Once your tutor/assessor has checked and verified the system and handover is complete, you must decommission the system.

Decommissioning of the system must include:

- Isolation of the fuel/electricity supply to the system as appropriate.
- Isolate water supply.
- Apply warning notices and signs.
- Drain system to a suitable location.
- Capping of pipework sections as required.
- Make good to building fabric.

#### **Conditions of assessment:**

- The time allocated for this task is **13 hours**.
- You must carry out the task on your own, under controlled conditions.

#### **What must be produced for marking:**

- Commissioning checklist

#### **Additional evidence of your performance that must be captured for marking:**

- Tutor/assessor observations:
  - Use of tools.
  - Installation of components.
  - Measurements of pipework are to within a tolerance of +/- 2mm.
  - Safe isolation process.
  - Commissioning.
  - Handover to client.
  - Decommissioning.
- Photographs taken by your tutor/assessor at various stages of the task.

# Candidate evidence

## Completed commissioning record

Sanitation Commissioning Sheet		
Address	Primary School (college)	
Engineer's Name	[REDACTED]	
Date	[REDACTED]	
Soundness Test Record pressure and duration	You have to put on a bar for half an hour then another	
Air Test: AGDS Record pressure and duration	berging equipment on installation for 3 mins and no drop	
Appliance 1: wash and basin cold	Flow Rate: <del>17</del> 22 litres per min	Outlet Temperature: 16°C
Appliance 2: wash and basin hot	Flow Rate: 17 litres per min	Outlet Temperature: 40°C
Appliance 3: wash and basin cold	Flow Rate: 22 litres per min	Outlet Temperature: 16°C
Appliance 4: wash and basin hot	Flow Rate: 17 litres per min	Outlet Temperature: 40°C
Appliance 5:	Flow Rate:	Outlet Temperature:
Check appliances for self-siphonage <input checked="" type="checkbox"/> Y/N	All ok	
Check appliances for induced siphonage <input checked="" type="checkbox"/> Y/N	All ok	
Performance test Satisfactory <input checked="" type="checkbox"/> Y/N	great no trap seal loss	
Notes:	paper etc handed over	



## Practical Observation (PO) Form (Task 2)

8710-36 T Level Technical Qualification in Building Services Engineering for Construction

8710-356 Plumbing Engineering (Summer 2023)

<b>Candidate name</b>	<first name><surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234
<b>Date</b>	DD/MM/YY

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds Provider No.</b>	999999a

### Task 2 assessment themes:

- Health and safety
- Systems and components
  - Installation
  - Decommissioning
- Reports and information
- Inspecting and testing of systems and components
- Handover and communication

Record observation notes below to inform internal marking and external moderation. Notes must be detailed, accurate and differentiating which use terminology from the mark grid along with specific examples observed. Notes must identify areas of strength and weakness, distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.

<b>Assessment theme</b>	<b>Assessor observation notes</b>
<b>Health and safety</b> <ul style="list-style-type: none"><li>• Risk assessment</li><li>• Risk mitigation</li><li>• Harm and probability factors</li><li>• Adherence to health and safety</li></ul>	Worked with health and safety in mind.  Visual inspection of the bay.

<p><b>Systems and components (installation)</b></p> <ul style="list-style-type: none"> <li>• Marking out</li> <li>• Measurements</li> <li>• Sequencing</li> <li>• Tolerances</li> <li>• Tools</li> <li>• Skills</li> </ul>	<p>Measuring and marking out was to a satisfactory level.</p> <p>Good use of clips to support pipework (positions). Hot and cold pipes.</p> <p>Lacked clips on waste pipes.</p> <p>Not all pipe work was level.</p> <p>Some good use of tools.</p> <p>Satisfactory level of workmanship.</p>
<p><b>Systems and components (decommissioning)</b></p> <ul style="list-style-type: none"> <li>• Sequencing</li> <li>• Disposal</li> <li>• Waste removal</li> <li>• Techniques and finish</li> </ul>	<p>Confident approach to task.</p> <p>Followed good, logical approach. Protected property, too.</p> <p>Good efforts made to fill and paint bay.</p>
<p><b>Reports and information</b></p> <ul style="list-style-type: none"> <li>• Quality of documentation</li> <li>• Justifications / reasoning</li> </ul>	<p>Good effort but lacks real depth and justifications on questioning. Required prompts.</p>
<p><b>Inspecting and testing of systems and components</b></p> <ul style="list-style-type: none"> <li>• Commissioning tests</li> <li>• Commissioning checks</li> <li>• Reference to / follows manufacturer's instructions</li> </ul>	<p>Guidance required to complete the task. Some knowledge of checks required and made reference to Mis.</p>

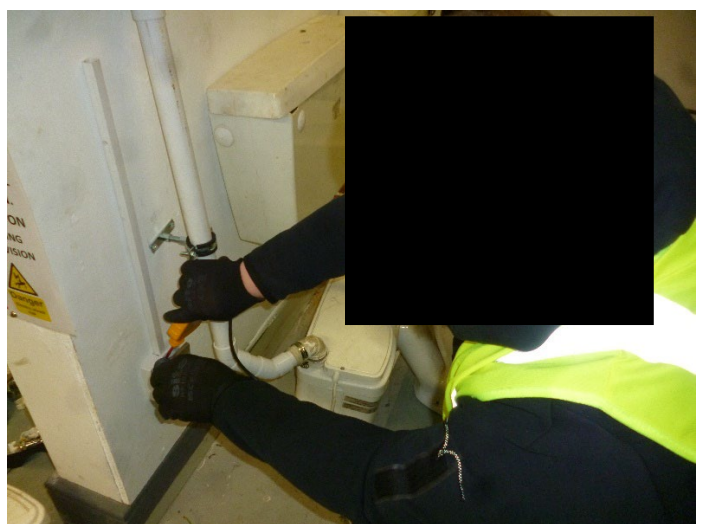
<p><b>Handover and communication</b></p> <ul style="list-style-type: none"> <li>• Customer Care</li> <li>• Demonstration of system</li> <li>• Communication</li> </ul>	<p>Lacked confidence. Basic handover of systems. Brief discussion.</p>
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**Any other aspects**

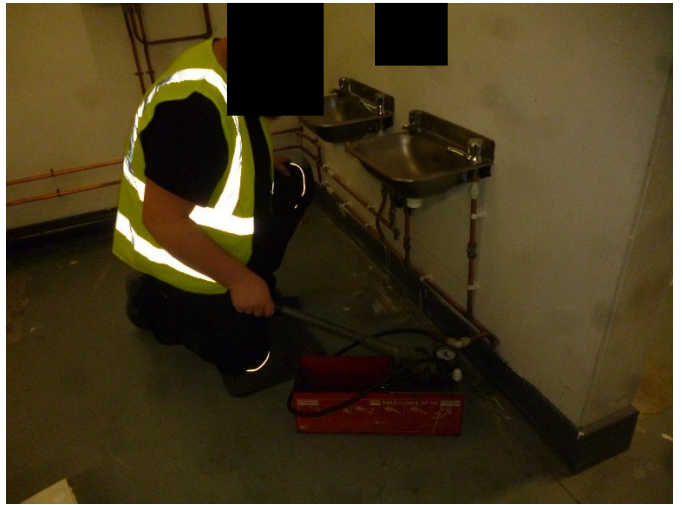
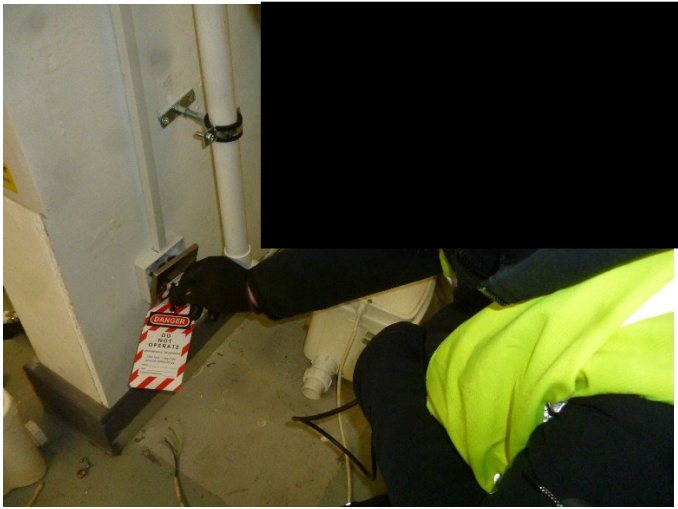
Internal assessor signature	Date
<p>X _____</p>	<p>DD/MM/YY</p>

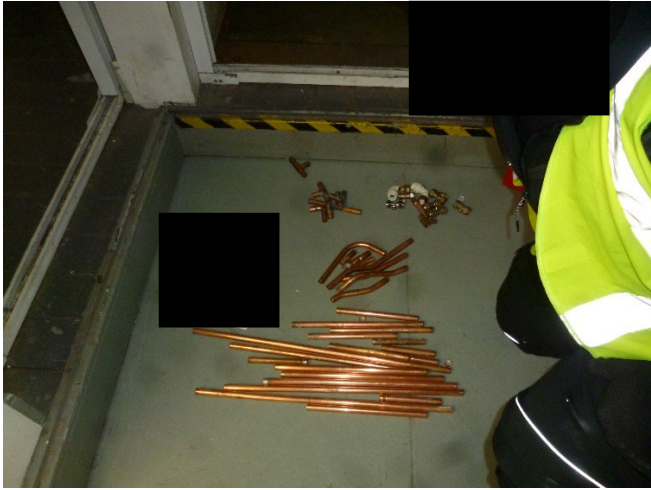
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## Photographic evidence









## Task 3 - Carry out maintenance

<b>Assessment number (eg 1234-033)</b>	8710-356
<b>Assessment title</b>	Plumbing Engineering Occupational specialism

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds provider No.</b>	999999a

<b>Task(s)</b>	3
<b>Evidence title / description</b>	Written report of the maintenance activity
<b>Date submitted by candidate</b>	DD/MM/YY

# Task

## Task 3 – Carry out maintenance

### Assessment themes:

- Health and safety
- Reports and information
- Handover and communication
- Working with faults

### a) Discuss fault with customer, investigate and diagnose fault

You must discuss the macerator fault with your tutor/assessor to determine the cause of the fault and suggest appropriate methods for repair. You will be assessed on your ability to ask relevant questions to determine fault and to select a suitable solution.

Your tutor/assessor should act as the customer during the maintenance discussion and record any feedback on the tutor/assessor feedback form.

You should inspect a macerator with faults placed within the installation for you to diagnose and locate.

You should carry out testing to identify **one** fault as given by your tutor/assessor and replace the faulty component. If you do not initially identify the fault component, you are allowed to be prompted by your tutor/assessor but this must be reflected in the marking.

Once you have diagnosed the fault, you should check with your tutor/assessor to ensure this has been done correctly. Should you require additional feedback and guidance this should be reflected in the marking.

Once fault diagnosis is confirmed, you must produce a written report detailing the maintenance activity.

### b) Produce a written report of the maintenance activity to include:

- Details of the fault.
- Method chosen for repair.
- Detailed process of how you will repair the system.

### c) Repair and rectify fault

This task requires you to:

- Isolate and/or drain down the system safely.
- Apply temporary continuity bonding as required.
- Install replacement component as required.
- Refill system and commission.
- Re-commission system in line with manufacturer's instructions.



**Conditions of assessment:**

- The time allocated for this task is **3 hours**.
- You must carry out the task on your own, under controlled conditions.

**What must be produced for marking:**

- A written report of the maintenance activity.

**Additional evidence of your performance that must be captured for marking:**

- Tutor/assessor observations:
  - Discussion with customer.
  - Use of tools.
  - Fault diagnosis.
  - Rectification of fault.
- Photographs taken by your tutor/assessor at various stages of the task.

# Candidate evidence

## Completed written report of the maintenance activity

### Method statement

Before I arrive at the property I need to ask the customer over the phone or other forms of communication what they have been having trouble with and the benefit of doing this is even before you get to the property you will have a better understanding of what you will need and it will save you a lot of time and the customer as well.

After I have spoken with my customer and roughly identified the problem over the phone, I shall enter the customers property with the right tools and PPE for the job.

I have assessed the system and what the customer has said to me and I have found the problem it is a blockage in the system right after the bend off the jubilee clip.

First, I am going to safely isolate the system with the right kit to ensure that I do not put myself or anyone else at danger.

After I have done this I am going to take out the bit of pipe which is blocked and put in a rubbish bag so it does not contaminate anyone or anything.

After this I will measure the amount of pipe I need and put it in and solvent weld it with a coupler and ensuring it is all ready for the customer.

Then I will switch the electrics back on and afterwards hand over it to the customer ensuring they understand and then I will leave the property

# Practical Observation (PO) Form (Task 3)

8710-36 T Level Technical Qualification in Building Services Engineering for Construction

8710-356 Plumbing Engineering (Summer 2023)

<b>Candidate name</b>	<first name><surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234
<b>Date</b>	DD/MM/YY

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds Provider No.</b>	999999a

## Task 3 assessment themes:

- Health and safety
- Reports and information
- Handover and communication
- Working with faults

Record observation notes below to inform internal marking and external moderation. Notes must be detailed, accurate and differentiating which use terminology from the mark grid along with specific examples observed. Notes must identify areas of strength and weakness, distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.

<b>Assessment theme</b>	<b>Assessor observation notes</b>
<b>Health and safety</b> <ul style="list-style-type: none"><li>• Risk assessment</li><li>• Risk mitigation</li><li>• Harm and probability factors</li><li>• Adherence to health and safety</li></ul>	Carried out task safely, good awareness of health and safety. Correct PPE. Safe isolation procedure – prompt.
<b>Reports and information</b> <ul style="list-style-type: none"><li>• Quality of documentation</li><li>• Justifications / reasoning</li></ul>	Decent effort, has some errors but flows. Lack of justifications/reasoning.

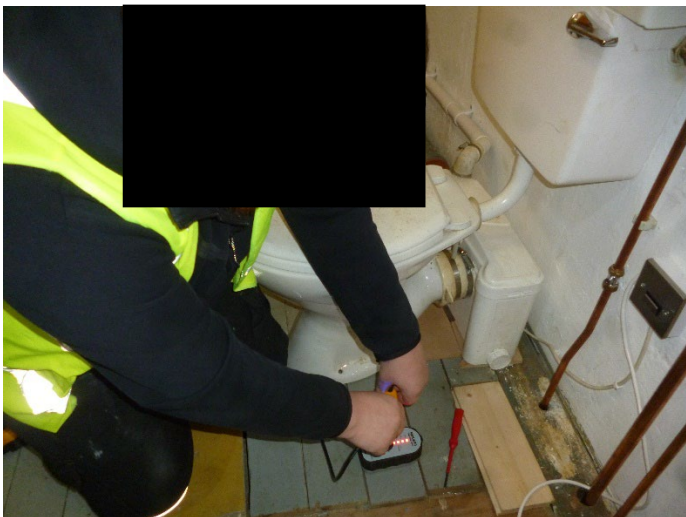
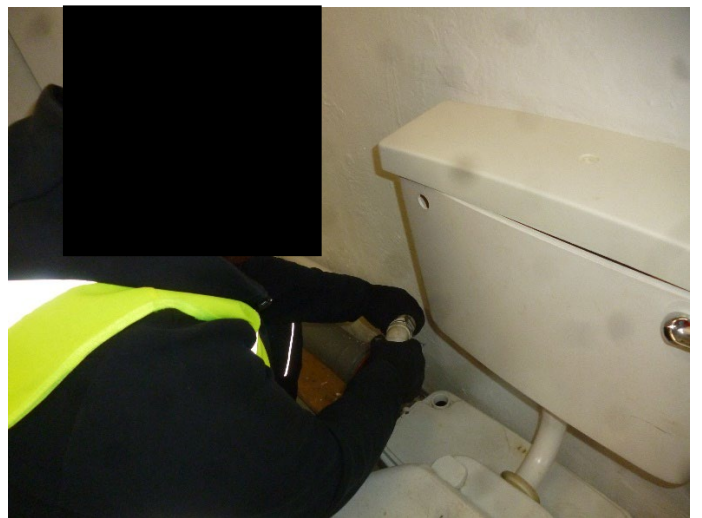
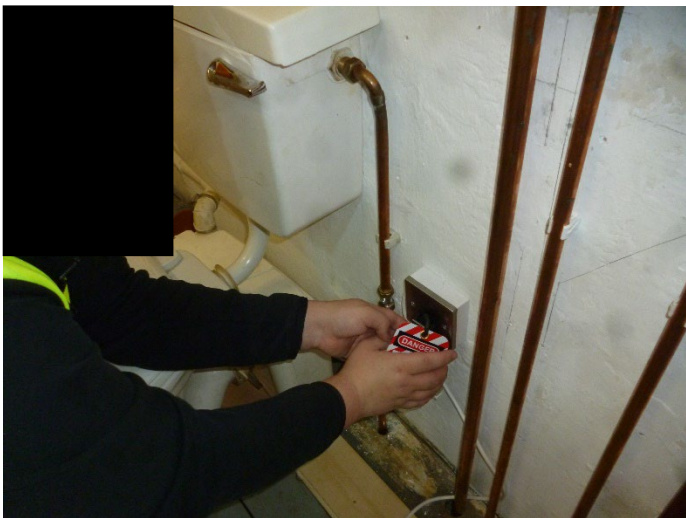
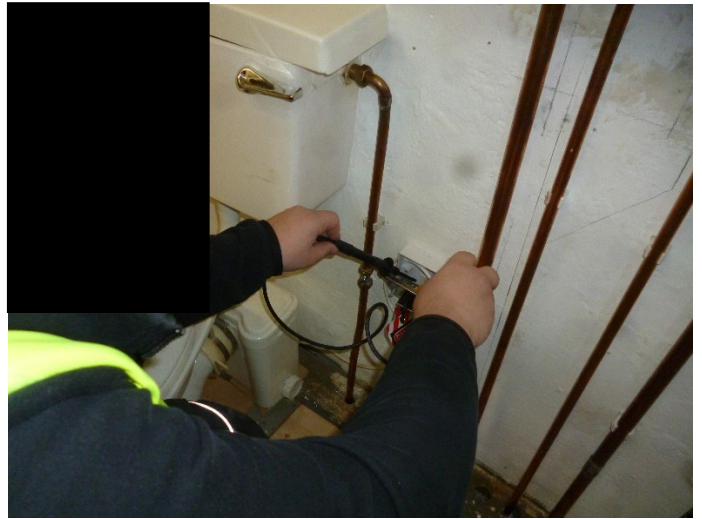
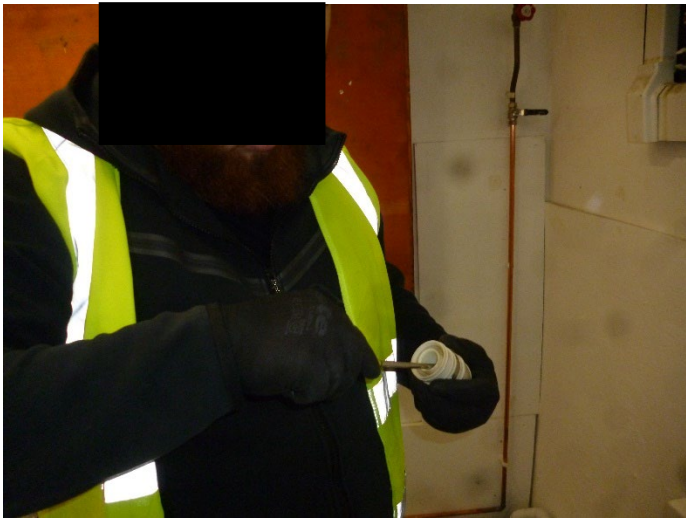
<p><b>Handover and communication</b></p> <ul style="list-style-type: none"> <li>• Customer Care</li> <li>• Demonstration of system</li> <li>• Communication</li> </ul>	<p>Tried to take care with task to protect properly.</p> <p>Good communication – asked a few questions to help with diagnosis.</p>
<p><b>Working with faults</b></p> <ul style="list-style-type: none"> <li>• Systematically / logically</li> <li>• Knowledge of fault-finding techniques</li> <li>• Reference to / follows manufacturer's instructions</li> <li>• Fault rectification</li> <li>• Efficiency / accuracy</li> <li>• Use of tools</li> </ul>	<p>Hesitant start to task, limited knowledge of system.</p> <p>Had prompts to assist.</p> <p>Referenced MIs to support.</p> <p>Decent use of tools to complete task.</p>

**Any other aspects**

Internal assessor signature	Date
<p>X</p> <hr/>	<p>DD/MM/YY</p>

If completing electronically, double click next to the 'X' to add an electronic signature once the record is **finalised**.

## Photographic evidence



## Get in touch

The City & Guilds Quality team are here to answer any queries you may have regarding your T Level Technical Qualification delivery.

Should you require assistance, please contact us using the details below:

Monday - Friday | 08:30 - 17:00 GMT

T: 0300 303 53 52

E: [technicals.quality@cityandguilds.com](mailto:technicals.quality@cityandguilds.com)

W: <http://www.cityandguilds.com/tlevels>

Web chat available [here](#).

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