



HANDS-ON PERFORMANCE EXAM ASSIGNMENT for CLAY and CONCRETE TILE SYSTEM INSTALLERS



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CCT-A1: CLAY and CONCRETE TILE SYSTEMS

Installer Performance Assignment and Instructions

Here are the instructions for your performance exam assignment. It is important you pay close attention to these instructions. Some tasks in this assignment are ranked high in importance for scoring purposes. These tasks are marked **HIGH!**

Be aware you also are scored on your ability to follow instructions. You will lose points if you do not follow these instructions exactly as they are given. Your ability to follow instructions is also ranked **HIGH!** You will not be given any more information about this assignment. You may keep this copy to review the instructions at any time during your exam.

There are two parts to this assignment. In Part One, you will answer four questions about how to safely cut tile. You will not actually cut any tiles during this exam. After answering the four questions, you will then demonstrate and explain how to set up and use a personal fall-arrest system. Part One of your assignment is not timed.

In Part Two, you must install underlayment, metal edge flashing and concrete tile over the entire mockup following specific instructions. This part of your assignment is timed. Remember, you must follow all instructions exactly as they are given. Your Qualified Assessor will review the details with you before starting each part of this assignment.

EXAM PART ONE: SETUP, TILE CUTTING ORAL EXAM AND PFAS DEMONSTRATION

1	This is Part One of your assignment. This part is not timed.
2	You may NOT ask your assessor or anyone else questions about: <ul style="list-style-type: none">- How to set up or use any tools, equipment or materials- How to wear or use a PFAS- Correct or incorrect procedures, steps or techniques to help you do any task
3	There are two tasks you must complete in Part One. The first task is to answer four questions your assessor will ask you about how to safely cut clay or concrete tiles. Then, you will begin the second task, demonstrating how to use a PFAS. Your assessor will now ask you the four questions about cutting tiles.
4 HIGH!	For your second task, you must demonstrate and explain to your assessor how to use a PFAS, including: <ul style="list-style-type: none">- How to inspect and use each PFAS component and how they work- How to put on your harness- How to connect the lanyard to the harness and to the lifeline- How to use the rope grab device and lifeline so that if you fall, you will not hit the ground or swing sideways and strike something- How and where to attach an anchor device on a roof- How to connect the lifeline to the anchor (Your Qualified Assessor will show you the demo anchor device to use.)
5	When you finish Part One, your assessor will read the instructions for Part Two.
6	Your assessor will show you the demo anchor device you will use to connect the lifeline.

EXAM PART TWO: INSTALLATION TASKS INSTRUCTIONS

7	This is Part Two of your assignment. This part of your exam is timed. Once the timer starts, you will have three hours to complete this part of the exam.
8 HIGH!	You must use the correct PPE when doing the work. Your assessor will stop your work if you do something unsafely. You must correct the safety error before proceeding. You do not get extra time when you are stopped for a safety issue.
9	Take whatever time you need to set up all tools, equipment and materials any way you want. You cannot ask for help from your assessor or anybody else. You must tell your assessor when you are ready to start. Only then will your assessor start the timer.
10	Your assessor will tell you when you have 10 minutes left on the timer.
11	Your assessor will tell you when the time ends, and you must stop. If you finish your task before the timer ends, tell your assessor you are finished.
12	Your assessor will read your assigned tasks. These tasks are not provided in any particular order. You can perform them in any order you think is best within the allotted time. He or she can repeat any instruction for you at any time during the exam if you ask, but you cannot ask questions about how to do any part of the work or ask for help in any way to get the assignment done.
13 HIGH!	Install L-style metal edge flashing at eave edges with section ends lapped 2 inches, corners folded a minimum of 2 inches and attached with roofing nails spaced a maximum of 12 inches on-center. See Diagram 1.
14 HIGH!	Install a single layer of self-adhering underlayment over the entire mockup. Install a continuous sheet in the valley. Set underlayment with a 3½-inch side lap and 6-inch end laps. Explain to your assessor how you would seal a 6-inch end lap. Turn underlayment up vertical surfaces a minimum of 4 inches. See Diagram 1.
15 HIGH!	Install metal bird stop eave closures to meet the assignment requirements, attached using roofing nails spaced a maximum of 12 inches on-center. See Diagram 1.
16 HIGH!	Install a deck-level pre-manufactured flashing at the pipe penetration nailed a maximum of 4 inches on center. Strip in the flashing flange with an additional layer of self-adhering underlayment extending a minimum of 4 inches beyond flange edges. Explain to your assessor how you would seal this underlayment to the previous layer at the upslope edge.
17 HIGH!	Install a deck-level J-pan flashing at the sidewall. Form a kickout at the downslope end of the J-pan. Attach the J-pan flashing to deck using field-fabricated 2-inch-wide metal clips fastened with roofing nails and spaced a maximum of 18 inches on-center. Attach to the sidewall using 1¼ -inch self-piercing pancake head screw fasteners spaced a maximum of 12 inches on-center. Explain to your assessor how you would seal the joint of the kickout flashing metal. See Diagram 2.
18 HIGH!	Install a metal valley lining in two pieces with an 8-inch overlap. Explain where sealant would be applied at the overlap. Attach the valley using 2-inch-wide field-fabricated clips fastened with roofing nails and spaced a maximum of 18 inches on-center. See Diagram 3.
19	Install a 2- by 4-inch wood ridge nailer at the ridge. Secure the ridge nailer using 2½-inch screws spaced a maximum of 18 inches on center and toe-fastened into the deck.
20 HIGH!	Install 1- by 2-inch wood battens over the entire mockup to accommodate the tile size and configuration. Space the battens so the tile maintains a 1-inch overhang at the eave edge and a consistent 3-inch overlap at each course. Attach the batten strips using 2 ½-inch screws spaced a maximum of 24 inches on-center.
21 HIGH!	Install medium profile concrete tile over the entire mockup. Attach all tiles using 2½-inch screws to meet the tile profile's attachment requirements. At the pipe penetration, attach one tile below and against the pipe, allowing it to extend below the adjoining tiles.

22 <u>HIGH!</u>	Demonstrate to your assessor how to measure and mark each tile where it intersects the valley to prepare for cutting. Show your marked tile to your assessor. Then set them aside. Do not install these tiles. Do not cut any tile.
23 <u>HIGH!</u>	Explain to your assessor how you would attach smaller cut pieces of tile where they intersect the valley. Describe the attachment method you would use and details for fastener placement.
24	Install an above-tile soft metal pipe flashing over the pipe penetration.
25 <u>HIGH!</u>	Install rake edge trim tile with a minimum 2-inch overlap. Nest all rake trim tiles into each field tile course. Explain to your assessor where the first rake trim tile needs to be cut, but do not cut it. Attach each rake edge trim tile using 2½-inch screws.
26	Install 4 lineal feet of ridge trim tiles with a minimum 2-inch overlap and attached using 2½-inch screws.
27 <u>HIGH!</u>	Install a flexible metal apron flashing at the headwall. Attach this flashing with 1¼-inch self-piercing screw fasteners spaced a maximum of 12 inches on-center and within 1 inch of top edge of the metal. See Diagram 4.
28 <u>HIGH!</u>	Indicate and explain all areas where weather-blocking materials should be applied at rake edge and ridge. Describe the type of material you would use, how you would apply it and the tools you would use.
29	Remember, you must show and explain to your assessor all areas where sealants and weather blocking materials need to be applied, but do not actually apply them.
30	Take as much time as you need to set up. When you are ready, tell your assessor and he or she will start the timer.

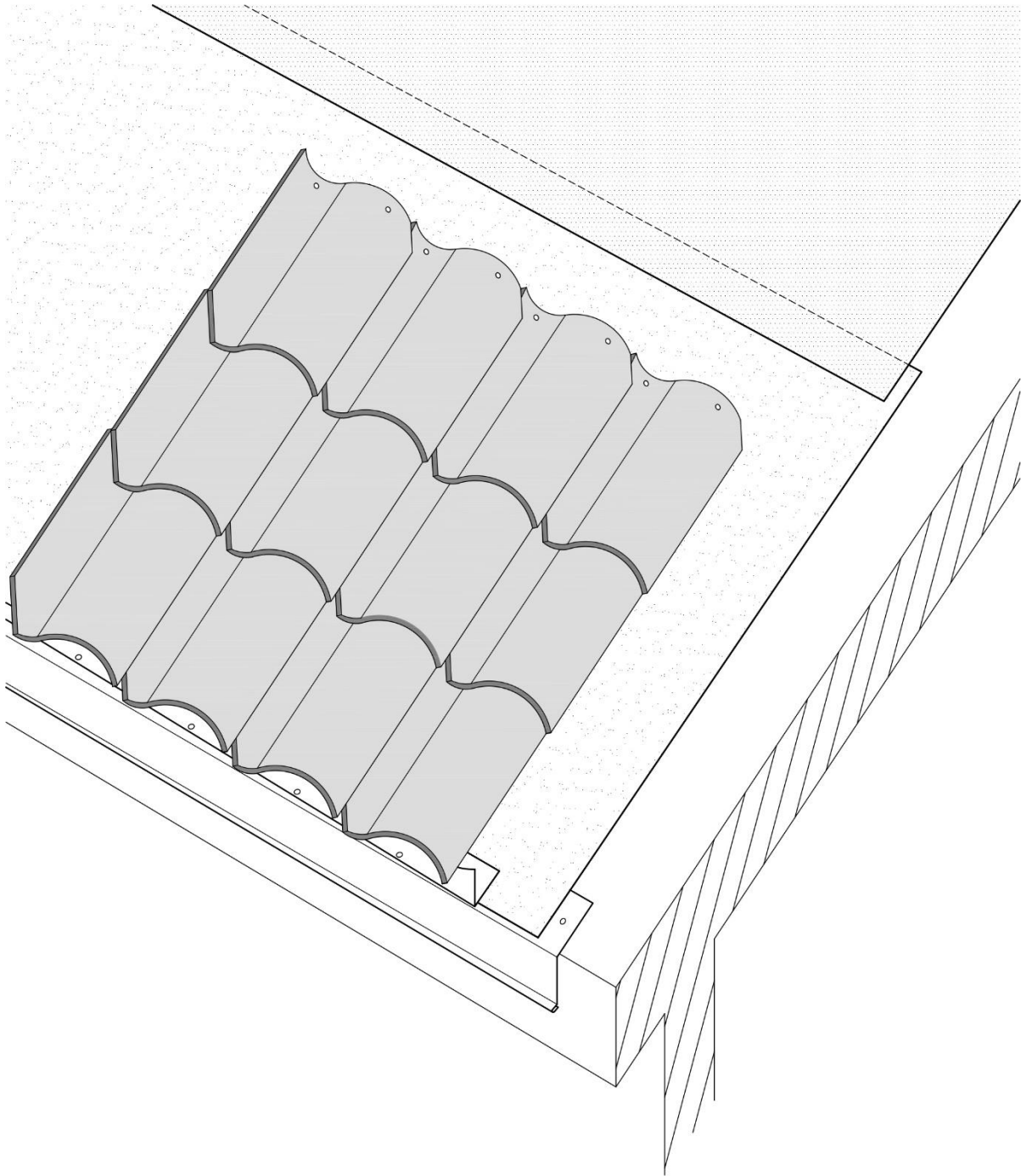


DIAGRAM 1: UNDERLAYMENT, METAL EDGE FLASHING, BIRD STOP EAVE



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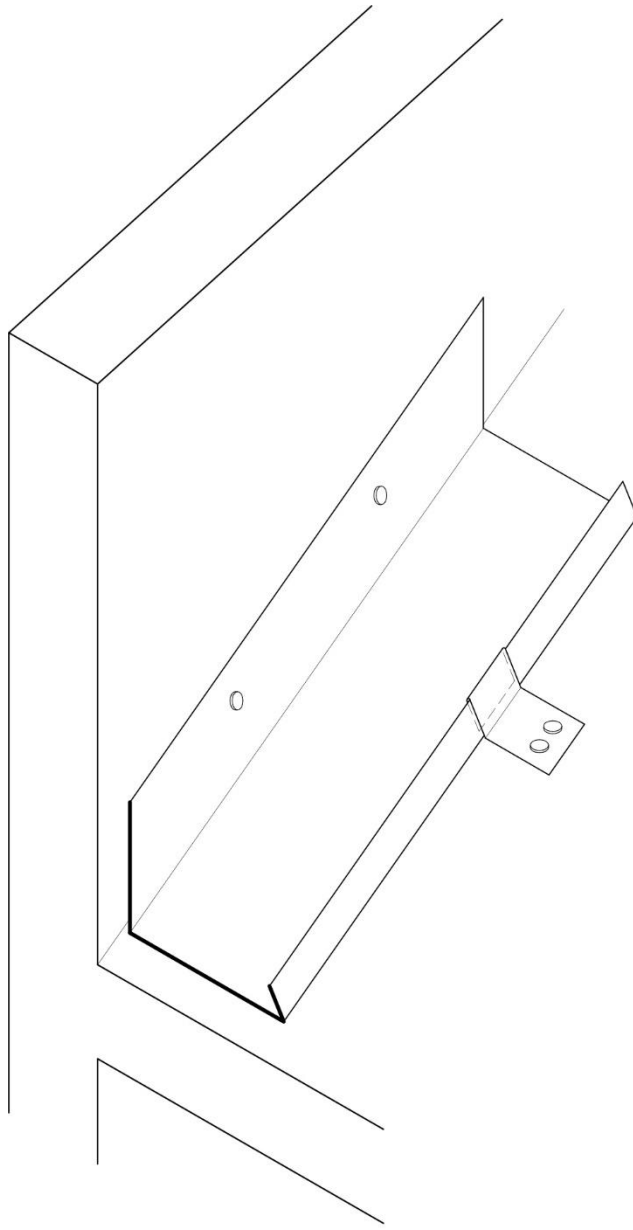


DIAGRAM 2: J-PAN SIDEWALL FLASHING



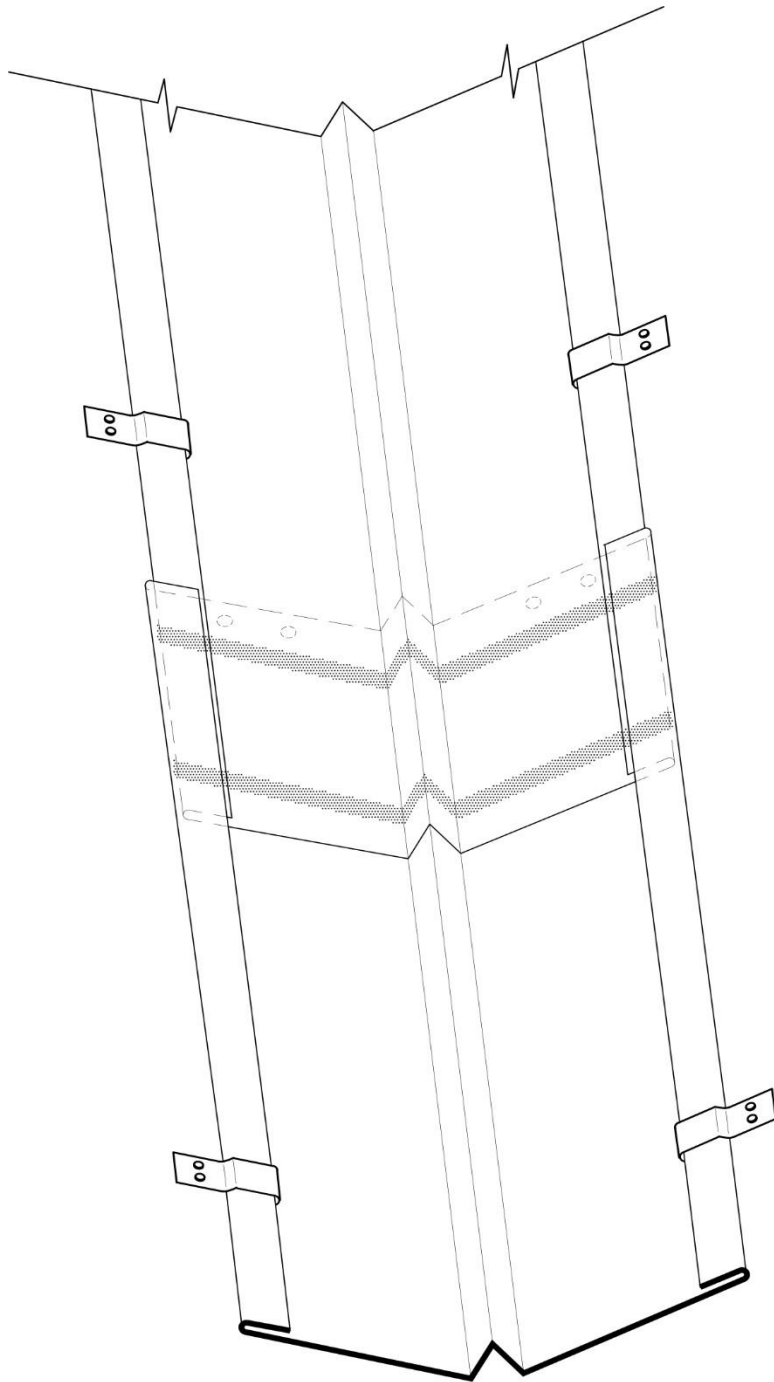


DIAGRAM 3: TWO-PIECE METAL VALLEY LINING



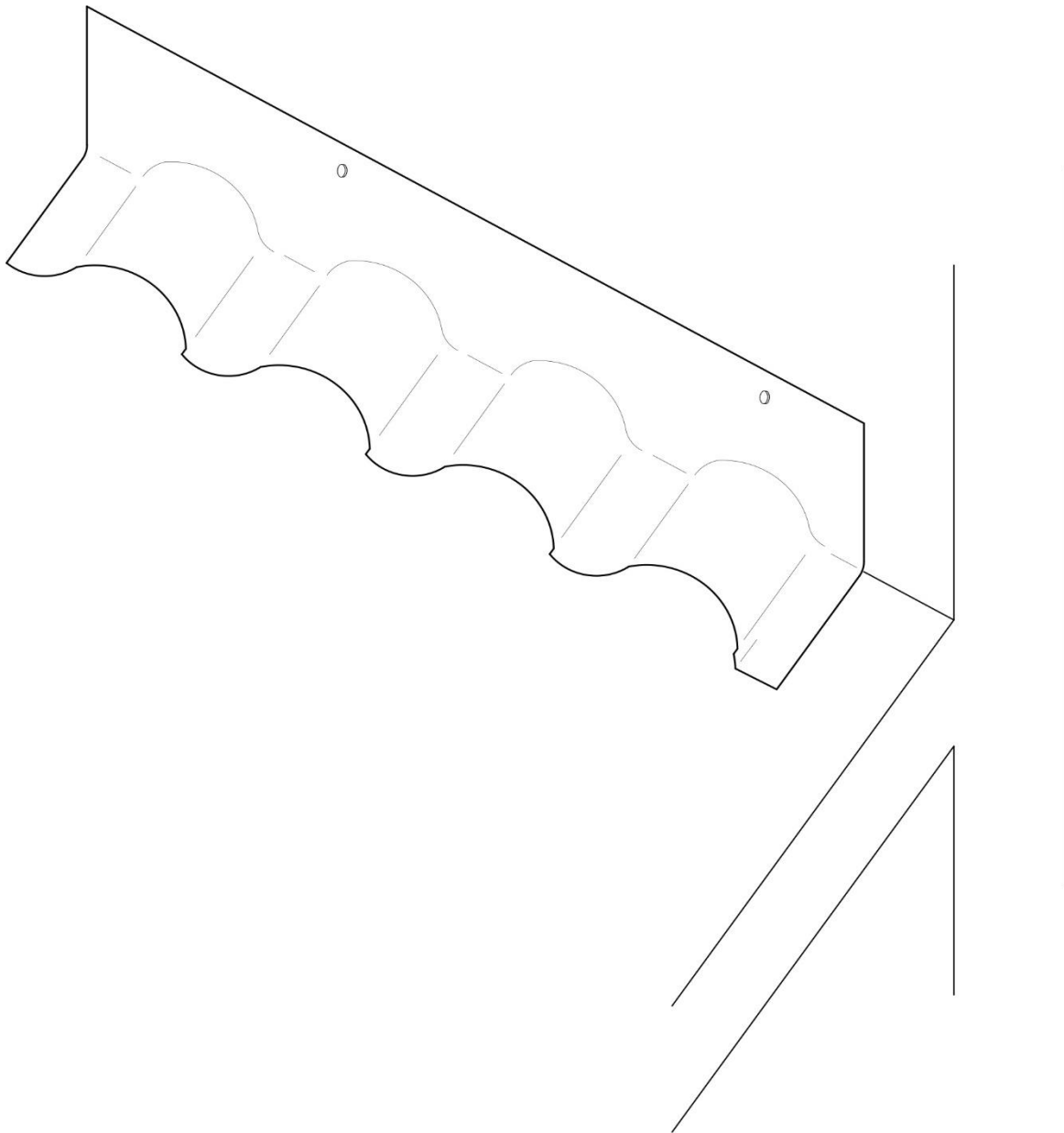


DIAGRAM 4: FLEXIBLE METAL HEADWALL FLASHING

