**VIRTUAL Scavenger Hunt**

**MENTOR INSTRUCTIONS**

Break into small groups of 3 or 4 students for the scavenger hunt.

1. The intent is that the students are looking through the Matterport on their own computers and then (if virtually) using the link share button in their browser to paste into the breakout chat or (if in person) sharing what they are finding with the group.
2. The mentors’ job is to help them understand what they are looking for (in words or using a generic image from Google images), and to drive conversations after an item is found on what the function of the item is. Below are discussion prompts (not to be shared with the students). If planning about an hour for the activity, each item could be discussed for about 3 minutes. Use your best judgment on which ones to talk about more in depth; the plumbing ones can get redundant. The intent is NOT for students to keep looking for additional items when these discussions are happening. If it is obvious that a student is still exploring the Matterport while discussing another item, please redirect them to the discussion.
3. One mentor should track which items the students have found, while not setting up the activity as a competition or a race. No need to go in order of the list and no reason for all the students to search for one item at a time (maybe some start working from the bottom up and others from the top down, or just let them pick what they want to find in order to maximize chance of more students participating).

Using an internet browser, navigate through the virtual site using the link below and find the items in the list below. When you have found an example of the item, use a screen capturing tool such as the Windows Snipping Tool or Snip and Sketch or on Macs SHIFT + COMMAND + 4, and paste the image into the document in the line below the associated item.

Virtual Job Site: <https://my.matterport.com/show/?m=hyTzV7SU6sC>

**DISCUSSION PROMPTS:**

1. Find the basement

*Discussion: Why do you think the walls construction is different in the basement? (structural concerns, moisture)*

Image:

1. Find the elevator shaft

*Discussion: Why are elevators needed in buildings? (accessibility/freight)*

Image:

1. Find a toilet rough-in

*Discussion: What is the purpose of the two pipes? (cold water supply, waste)*

Image:

1. Find a shower rough-in (without a bathtub)

*Discussion: What is the purpose of the different pipes? (hot water supply, cold water supply, waste)*

Image:

1. Find a bathtub

*Discussion: How is this piping different from the shower stall? (lower faucet for filling tub)*

Image:

1. Find a sink rough-in

*Discussion: What is the purpose of the different pipes? (hot water supply, cold water supply, waste)*

Image:

1. Find an insulated pipe

*Discussion: Why do we insulate pipes? What do you think the insulation is made out off?*

Image:

1. Find a flexible duct

*Discussion: Why do you think flexible ducts are used? (Easy to route, but can be pinched/restrict air – waste fan energy or increase noise)*

Image:

1. Find a sheetmetal, round duct

*Discussion: What is the function of a duct? (Move air, can be heated air, cooled air, fresh outside air, or exhaust)*

Image:

1. Find a sheetmetal, rectangular duct

*Discussion: Why would rectangular ducts be used instead of round ducts? (generally maximizes area available in the ceiling, higher ceilings)*

Image:

1. Find a duct outlet

*Discussion: What are some other names for these? (Diffusers, grilles, registers) What is the function of the duct outlet? (to evenly distribute air, recall if they’ve even been in a space and felt warm and cold spots within a room or even wind from the duct outlets. These are spaces that didn’t prioritize even distribution.)*

Image:

1. Find a thermostat

*Discussion: What is the function of a thermostat? (Sense temperature and tell heating and cooling equipment to turn on/off) What would be a bad spot to locate a thermostat? (near fireplace, in direct sunlight, in bathroom or other areas where they can falsely read warm temperatures)*

Image:

1. Find a furnace

*Discussion: What does a furnace do? (heat air, move air)*

Image

1. Find an electrical branch circuit panel

*Discussion: What is its function? (Supply power to equipment throughout the house) Why would these be located in the center of the house? (reduce lengths of wiring going to them)*

Image:

1. Find a light switch rough-in

*Discussion: Where are light switches typically located? (at the entrance to the room, so the occupant doesn’t have to cross a dark room to turn on the lights, maybe see if the students have ever been in a room with poorly located or not enough light switch locations)*

Image:

1. Find a receptacle (aka outlet) rough-in

*Discussion: What might drive the locations of receptacles (if they don’t bring it up, no need to bring up residential code requirements for spacing every 12’. Intent is to serve equipment and appliances as the User might furnish. In a residential project, we would anticipate providing receptacles at the kitchen for appliance, at the TV, at bedside tables to support phone chargers and table lamps, as well as located throughout to allow for furniture reconfigurations and accessibility for vacuums)*

Image:

1. Find a recessed downlight (aka “lighting can”) rough-in

*Discussion: What kind of light does a recessed downlight provide? (direct light or spot light, versus indirect lighting that bounce off the ceiling, as would be provided by many pendant [chandelier] or many floor lamps)*

Image:

1. Find temporary lighting

*Discussion: What is the function of temporary lighting? (to provide adequate light while the project is under construction)*

Image:

1. Find construction materials delivery and staging area

*Discussion: Why do you think they chose that location? (the garage is easy to load/unload from vehicles; it’s out of the way)*

Image:

1. Find the construction site office

*Discussion: What is the purpose of the construction site office? (lots of answers but the simplest: for the General Contractor to have meetings to review the drawings with the subcontractors as they progress through construction)*

Image:

1. Find two types of temporary climate control for use during construction

*Discussion: What is the purpose of this? (Fan: ventilation; dehumidifier: keep materials from being damaged)*

Image:

1. Estimate required square feet of flooring is required in the southeast most room of floor 3

*Use area tool. Discussion: Why might a tool like this be useful? (ordering correct amount of materials such as carpet, confirming furniture or equipment will fit through doorways)*

Area of Room:

1. Find spray foam insulation

*Discussion: Which walls are insulated? (exterior) Why are these walls insulated (prevent conditioned [heated or cooled] air from being affected by the outside air)*

Image:

1. Find a steel beam

*Discussion: What is the function of this beam? (to support the floor above – alternative option would be to add more walls)*

Image:

1. Find structural reinforcement that uses wood (more than a typical stud)

*Answer: wherever there are multiple pieces of dimensional lumber layered, most notably at the stairs. Discussion: Why would they use wood instead of steel? (cheaper, easier to construct/cut in the field)*

Image:

*activity credit: David Roper, Hargis Engineers* **(ACE Mentor Program of Washington)**