- Create descriptions of the project when we upload drawings, measurements of areas, floors (width, length, and height), rooms (width, length, and height),

provide the scale of the architectural drawings, identify the information regarding the materials pack (examples of flooring, timber, thickness, product information et cetera),

steps and descriptions/information of the layers and the products needed for each area covered.

- Ensure that all of the captions are read and understood to the proper scale.

- The agent needs to find whatever materials are needed for each area and to calculate how many quantities are needed (linear, square, or cubic meters and units).

Example 1: if there is a brick wall with insulation, and block on the inside, how many bricks are needed, mortars, how much insulation is needed, and how many blocks, how many plaster boards, plastering, and paint.

Example 2: if there is ground floor concrete, there will be numerous layers specified on the drawings, the layers are:

150m type one hard

50mm sandbinding

Damp roof membrane

150mm concrete slab layer

Ventilation ducts

100mil thick insulation, underfloor heating

Floor underlay, wood flooring

65mil sand and cement screed

Loft conversion dormer

Matching brick wall

Ensure memorization of appropriate labels to floors, materials, and walls for future reference.

Map the labels to the task within our CSV file, enabling the materials to be chosen for the designated task.

The area for each task needs to be understood as well as the quantity of the materials required to cover the range specified. The amount of materials may vary depending on what is being sold from each supplier. Each supplier sells their products in quantities per piece or bags based on their inventory - however, the

calculations must be done

Example 20 square meters of insulation are equal to 7-8 sheets of insulation. Insulation sheets are equal to 2.4m x 1.2m = 2.88m^2. 20 divided by 2.88 is 6.944 sheets. If one sheet costs 50 pounds, it would mean that 347 pounds would be the cost required from the supplier.

The symbols on the drawings need to also be identified

Labels

Symbols

Scale

Steel Calculation

Windows

Doors

Plumbing

Bathroom Tiles

Interior Partition Walls

Kitchen Units

Kitchen Appliances

Bathroom Sanity Ware and Tiles

The first task is found for the shell (exterior) - we find the tasks and do the estimation in two stages (shell, which is the external walls, flooring) and the internal finishes which is partition, joyces, and insulation design. The shell is different from loft conversion and extension. The shell is a different material for extensions and loft conversions.

The joyces, timber, are sold from the supplier in a 2.4 meter length, 3.6 meter length, and 4.2 meters, and are different sizes (150, 75 x 200, etc) we need to calculate how many joyces can cover a floor area, internal and/or extended partition.

An example: for steel beams, you might not have measurements or types of steel beams but the agent will know exactly the length of the steel beam and structural drawings as specified. However, on some drawings there might not be any details for steel beams or structural materials. AI should know what materials are needed based on steel beams based on previous

On the task ID, each task will be connected to the material ID. Example: if tasks are concrete, or loft conversion or partition

walls, the materials needed are joyces, insulation, 18 mm plywood, roof buttons, and slates. The tasks ID are partitioned walls, but the materials are as follows:

All the materials are related to the same task ID. When we create a scope of work, direction of the stages as provided

Multi-Prompt Agents:

Stage Agent

Task Agent

Materials Agent

Quantity Agent

Project Management Agent (includes suggestions and popup messages via chat and voice interface)

All templates within the database need to be filled out as defaults. Standard measurements should be provided.

If in some cases, AI cannot find the stages and materials from our database, it should be able to come up with suggestions based on the user location. Attempt to find the closet supplier.

Understand building regulations, in the case legal requirements in accordance to UK standards.