## Cive 201 – Eng'g Drawing Tools

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## **Modifying Tools**

- > Align:
  - Options bar:
    - 1. Multiple Alignment
  - Steps:
    - 1. Select the reference line to align to
    - 2. Select the element
- ➤ Offset:
  - Options bar:
    - 1. Graphical: to determine the offset distance graphically
    - 2. Numerical: Set the offset distance in the adjacent box
    - 3. Copy: check this option if you want to keep the original element and have an offsetted copy of it
  - Steps:
    - Move the cursor to the side of which the offsetted element will be placed at
    - 2. Click on the element
- ➤ Mirror Pick Axis:
  - Steps:
    - 1. Select all elements
    - 2. Press Enter or Space key
    - 3. Select mirroring axis

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- ➤ Mirror Draw Axis:
  - Steps:
    - 1. Select all elements
    - 2. Press Enter or Space key
    - 3. Draw mirroring axis

#### ➤ Move:

- Option 1: Select the element and drag it
- Option 2: use move tool with the following steps:
  - 1. Select elements
  - 2. Press Enter or Space key
  - 3. Choose moving start point
  - 4. Choose moving end point
- Options bar:
  - 1. Constrain: restrict move in the x or in the y direction

# ➤ Copy:

- Options bar
  - 1. Constrain: restrict move in the x or in the y direction
  - 2. Multiple: to copy elements to more than one location
- Steps
  - 1. Select elements
  - 2. Press Enter or Space key
  - 3. Choose moving start point
  - 4. Choose moving end point

#### > Rotate:

- Options bar:
  - 1. Copy: check this option if you want to keep the original element and have a rotated copy of it.
  - 2. Angle: set the angle of rotation numerically

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- 3. Center of rotation:
  - ❖ Place: to place the center of rotation
  - ❖ Default: to use the default center of rotation
- Steps:
  - 1. Select elements
  - 2. Press Enter or Space key
  - 3. Click to enter rotate start ray
  - 4. Click to enter rotate end ray
- > Trim/Extend to Corner:
  - Steps:
    - 1. Select the first element (wall or beam)
    - 2. Select the second element (wall or beam)
  - Note: Select the part of the wall needed to stay in position and not to the part to be trimmed
- > Split:
  - Options bar:
    - 1. Delete inner segment: Trim two part of the wall and delete the inner part automatically.
  - Steps:
    - 1. Select element to split
- > Split with Gap:
  - Options bar:
    - 1. Joint Gap: set the joint gap
  - Steps:
    - 1. Select element to split with gap

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### > Array:

- Options bar:
  - 1. Activate dimensions: to activate dimension around the element to be arrayed
  - 2. Linear: the array linearly with a fixed distance
  - 3. Radial: to array radially with a fixed angle
  - 4. Group and associate: check this option if you need to group the arrayed elements
  - 5. Number: Set the number of arrayed elements
  - 6. Move to:
    - ❖ 2nd: if the distance to be determined is that between the first and the 2nd arrayed elements
    - ❖ End: if the distance to be determined is that between the first and the last arrayed elements
  - 7. Constrain: restrict the movement in the x or in the y direction
- Steps:
  - 1. Select elements
  - 2. Press Enter or Space key
  - 3. Set distance
  - 4. Set number of elements to be arrayed (including the original one)
- ➤ Pin:
  - Steps
    - 1. Select elements
    - 2. Press Enter or Space key
- ➤ Unpin:
  - Steps
    - 1. Select elements
    - 2. Press Enter or Space key