The thermal stress levels in Glasgow range across 5 UTCI comfort zones. 80% BC and FAR 10 is the Best-case scenario for NS orientation whereas it is 60% BC and FAR 10 for EW orientation. The worst-case scenario is 80% BC and FAR 1 for NS and 80% and 60% BC combined with FAR 1 for EW orientation. Desired comfort levels could be achieved using different density combinations, allowing for greater design flexibility without sacrificing the development potential in Glasgow.

Key Findings

- The thermal stress levels in Glasgow range across 5 UTCI comfort zones.
- 80% BC and FAR 10 is the Best-case scenario for NS orientation whereas it is 60% BC and FAR 10 for EW orientation. The worst-case scenario is 80% BC and FAR 1 for NS and 80% and 60% BC combined with FAR 1 for EW orientation.
- Desired comfort levels could be achieved using different density combinations, allowing for greater design flexibility without sacrificing the development potential in Glasgow.

Planners use density parameters to control vertical and horizontal growth. Density parameters also influence wind paths and the urban thermal environment making them crucial for thermal comfort. Density based graphical tools for thermal comfort analysis.

Form based recommendations for pedestrian level thermal comfort in compact neighbourhoods – A case study in Glasgow

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