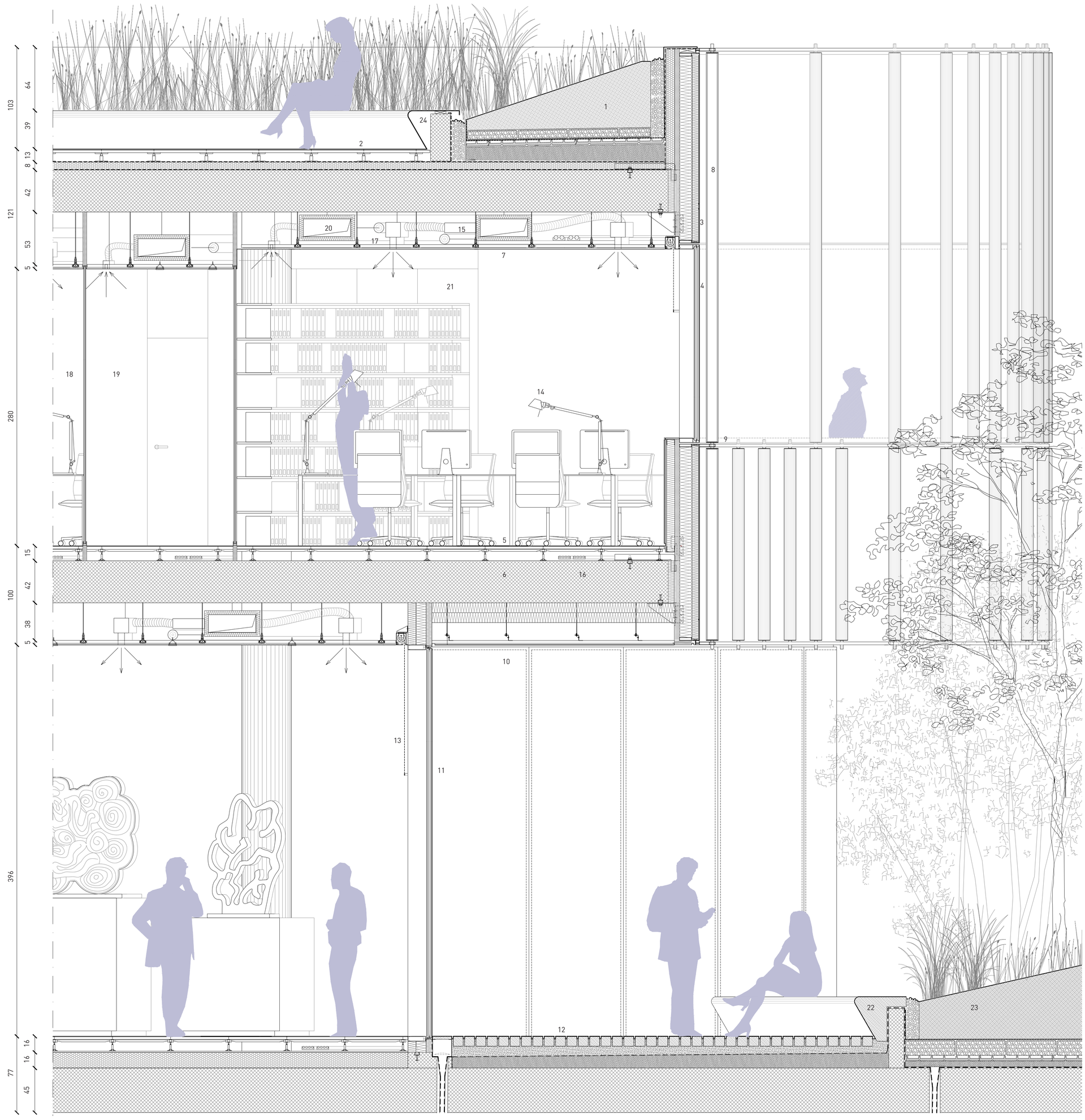
Building envelopes as climate-responsive membranes

If a traditional **loden** overcoat acted out all the required tasks with a **single thick fabric,** today's **building skins** rather **resemble technical sport jackets**, where each **different layer** responds to a **specific function**: waterproofing, thermal insulation, shading from solar radiation, visual privacy. The simple and economical use of **borosilicate glass tubes** - transparent, sanded or containing opaque shading elements - arranged in **different rhythms** perform many of these, while **providing an adequate surface texture** to the different buildings of the complex.

1. green rooftop, drip-wing irrigation
2. wooden deck, high reflectance color to limit the heat island effect
3. curtain wall, cellular facade - spandrel band, screen-printed laminated glass fixed on the insulating panel
4. curtain wall, cellular facade - vision band, selective camera glass
5. elevated floor in calcium silicate
6. reinforced concrete slab
7. micro-perforated metal false ceiling with mineral wool acoustic panel and integrated radiant panels
8. brise – soleil, borosilicate tubes with metal screen
9. string course in anodized aluminum
10. exterior false ceiling in aquapanel
11. ground floor transparent window
12. external paving in porphyry cubes
13. filter curtain for glare control, regulated by sensor
14. low-power LED lighting
15. monitoring of different systems via BMS
16. power distribution and data
17. air flow control via BMS based on air quality
18. fan-coil for meeting rooms
19. resumption of exhaust air in the most internal areas, isolated channel connected to the AHU
20. air supply, isolated channel
21. internal finishes in materials with low emission of volatile compounds
22. stone bench
23. green open spaces, drip-wing irrigation
24. metal bench



Section BB' scale 1:20

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