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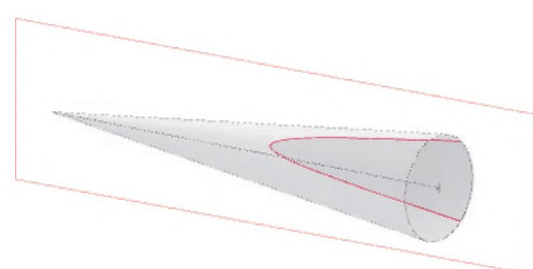
The dynamic inflections and curvatures of Zaha Hadid Architects' projects are not easily describable. The undulations of complex surfaces and space curves may normally define a gossamer whole, often to be architecturally subdivided later. The facade of the condominiums at 520 West 28th Street, however, clearly exhibits multiple center points and axes of constant curvature of circles

and cylinders. These centers are located at the middle of each level, emphatically declaring the autonomy of each floor as part of a stable and predictable aggregate massing.

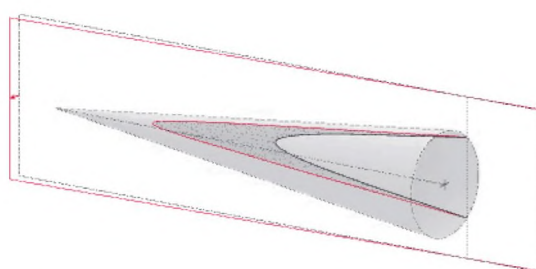
The robust semicircular moldings that laterally terminate the expanses of floor-to-ceiling glass help to convey the discrete containment of every level with clarity. This is especially true

at the southwest section of the building, where large corner sections of glass are completely wrapped to frame interiors stacked in a vertical array. Immediately adjacent to this stack, another set of thick, circular moldings, these with an opposing concavity, begins the framing of a new set of stacked spaces. Here the glass is recessed, indicating a deeper and more sculptural arrangement as

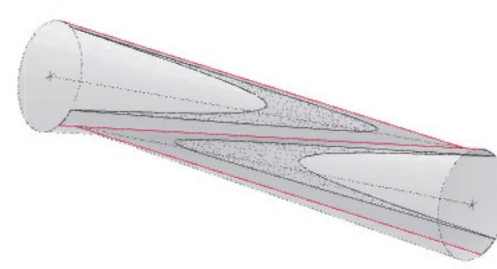




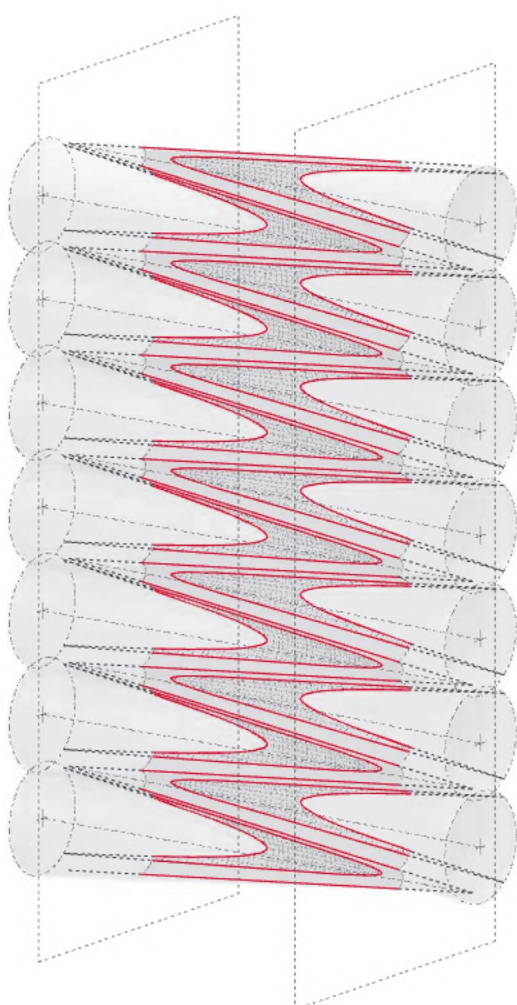
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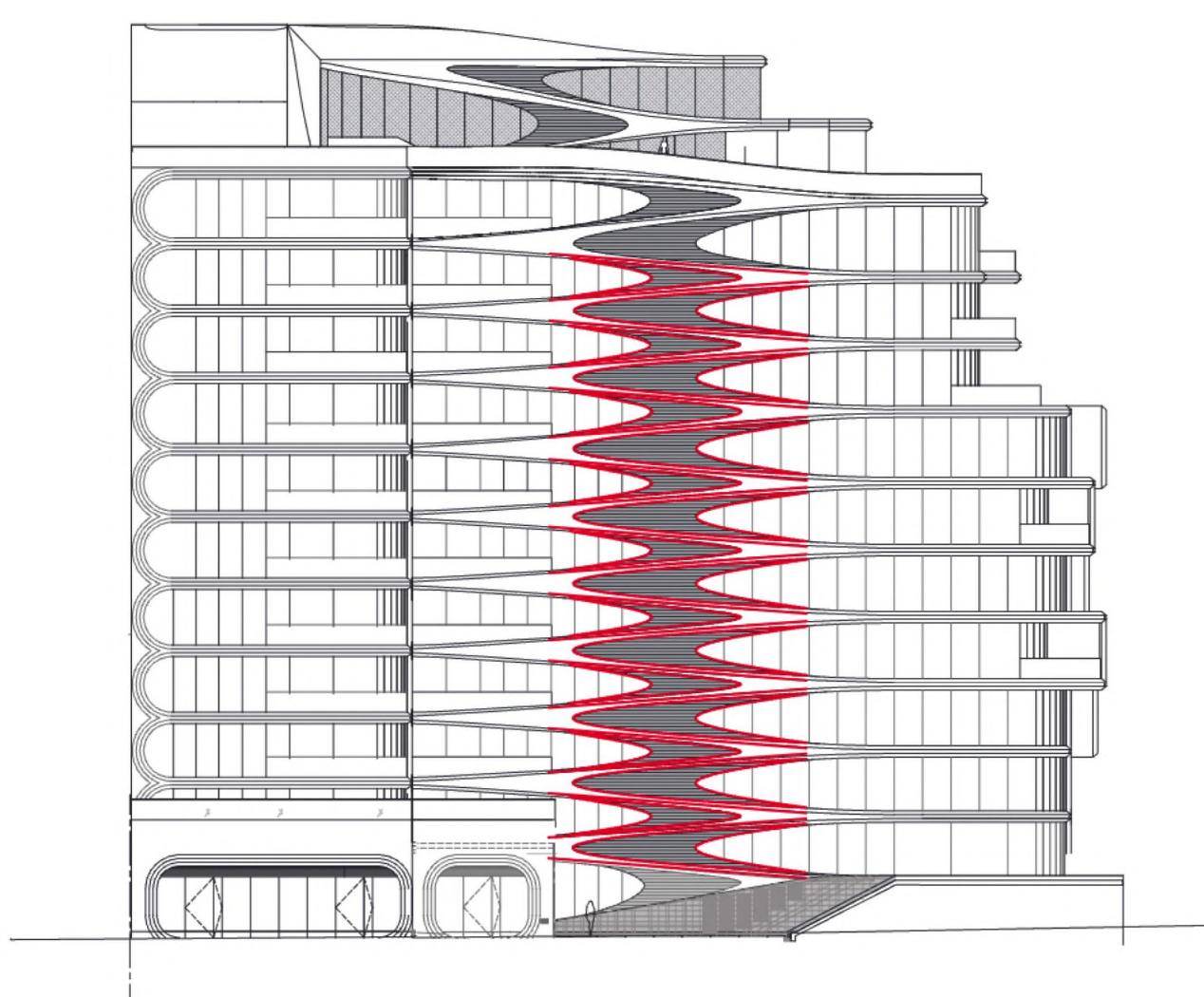
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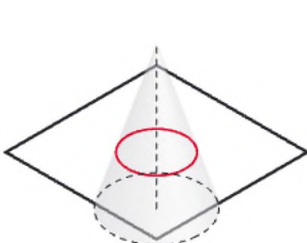
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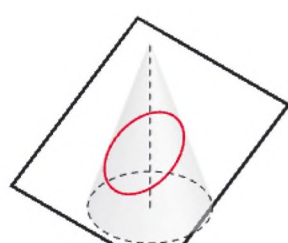
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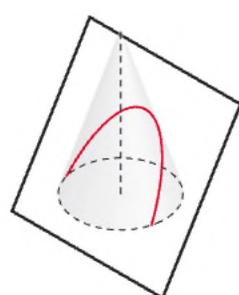
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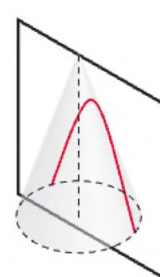
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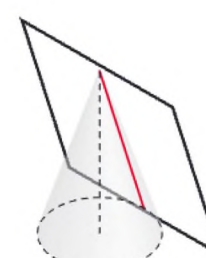
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the exterior balconies navigate a 90-degree concave turn to the west. Greater difference ensues when the entire stack is shifted in section by a half level along the south and north facades. This operation disrupts the regularity of the serial stack and the autonomy of the individual levels. We observe a geometric sinew on the facade in the area of this sectional displacement and understand

this webbing to be under tension (akin to a spanning minimal surface).

Even though the tensile sectional interlacing appears qualitatively similar to the plastic doubly curved surfaces of many other ZHA projects, closer inspection reveals an attitude toward geometry, congruence, and repetition that is visually and geometrically more dynamic than the stable stack. It appears as if

1 Zaha Hadid Architects, 520 W 28th Street, New York City, 2018. View from the High Line. Photo © Hufton+Crow. Courtesy the architect. 2–4 Conic webbing construction: Conic section – Hyperbola, Conic section – Parabola, Cones alternating along generators. 5 Apex truncation of stacked cones. 6 Facade overlay. 7–11 Conic sections: Circle, Ellipse, Parabola, Hyperbola, Line. Diagrams: John Wang.





12 Zaha Hadid Architects, 520 W 28th Street, New York City, 2018. Conical webbing. Photo: author. 13 Balcony extrusions. Photo © Hufton+Crow. Courtesy the architect.

this tensile webbing is a combinatory trimmed surface composed of elongated cones stacked vertically and with an alternating orientation of apexes. This head-to-toe alternation allows their axes to remain horizontal while the cones are nested contiguously, each intersecting with adjacent surfaces above and below along straight ruling lines. Profiles of hyperbolas, a type of conic section, are evident in the bas-relief depth of the facade.

Conic sections are plane figures ranging from a circle to a line. While the circle and the line represent figural, compositional, and

architectural opposites, here they are the limit conditions of related geometric operations. One hyperbola defines the modulated shape of the curtain wall, and the other defines the boundary of material transition between the lighter surface of the web and the edges, which are materially fused with the moldings separating the floors. Complex forms necessitate the use of developable patches to postrationalize surfaces of double curvature for economy and constructability. Here, the developable conic forms serve as the a priori building blocks of the tectonic facade language,

representing a sophisticated and strategic attitude in which geometric expertise is leveraged to great stylistic effect. It looks more complex and dynamic than it actually is, but perhaps that makes it even more exciting intellectually. – *CW*