



Illus. 139: Mopane Poles, informal market, Ximelene, Maputo (author)

Chapter 8: Design Sketches & Conclusion

“Like the customized Levis you can order on the internet, customized architecture is naked until the client moves in to give it meaning.”

Richard Woditsch (Archispeak: 10)

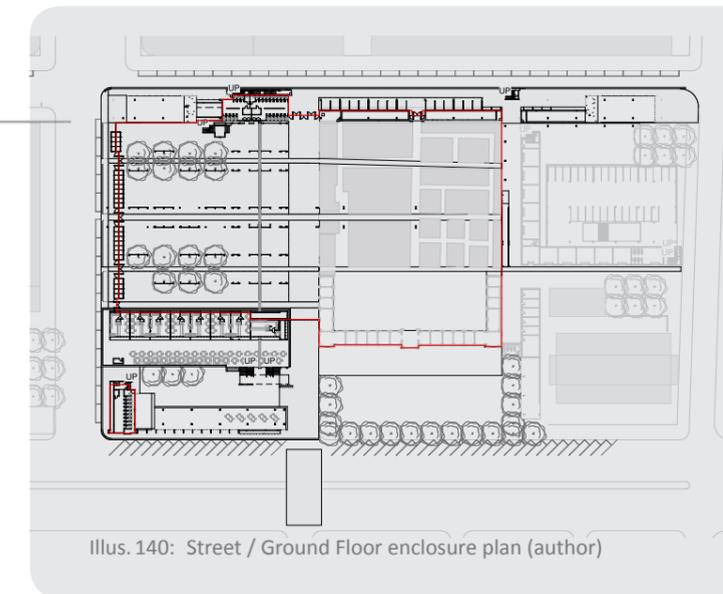
This chapter aims to communicate graphically the essential elements of the design in terms of sketch plans, sections, elevations, and details. In contrast to the previous chapter, this section deals with the design and technical aspects of the design from a physical perspective rather than a theoretical perspective. It deals specifically with the completed proposal.

Levels

Street / Ground Floor

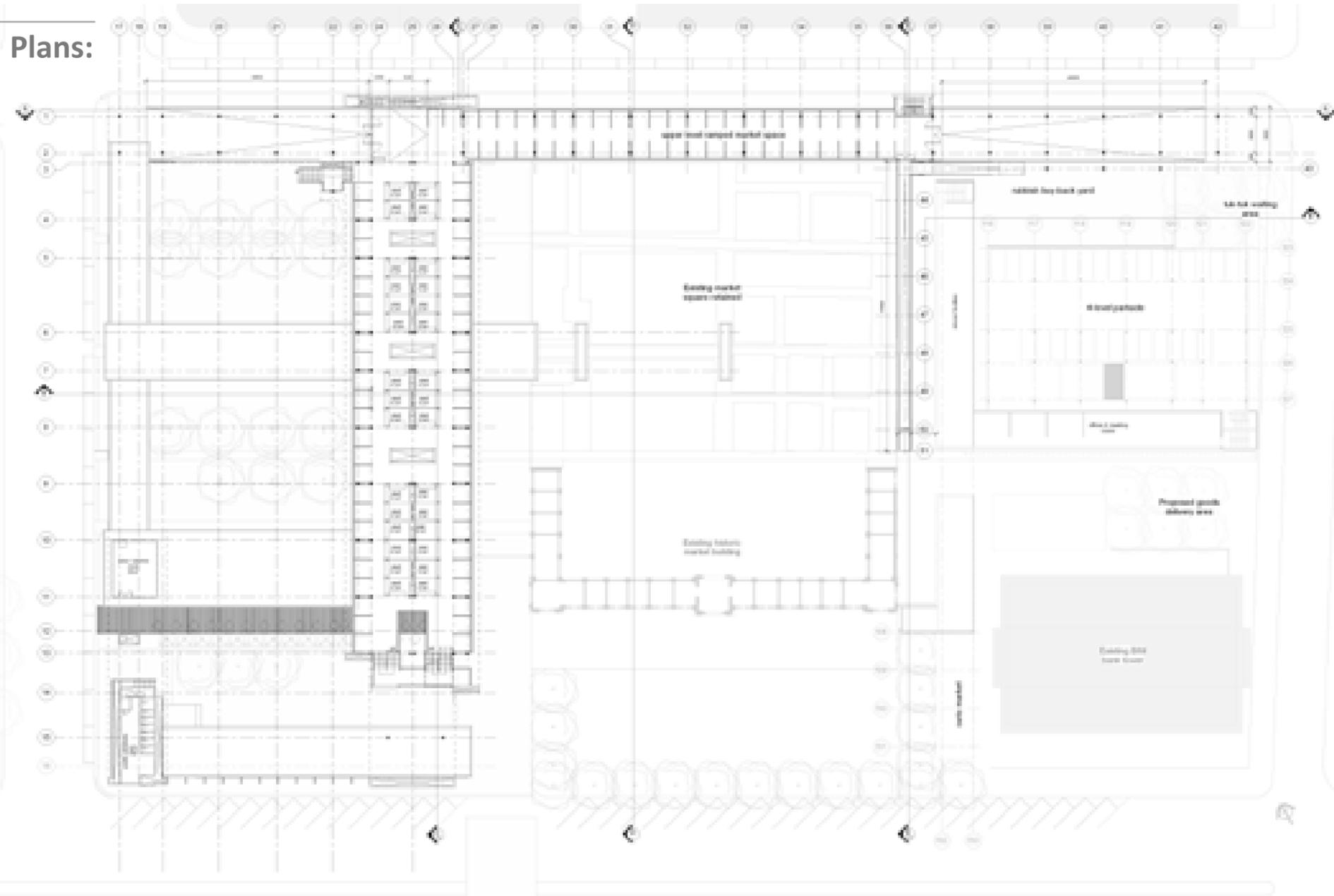
The ground floor is deliberately open, allowing easy access and integration with the street. The new market square links into the existing square, picking up the grain of the existing successful stall fabric.

The Market can be secured through the use of pivoting or sliding gates, as shown in the adjacent plan.

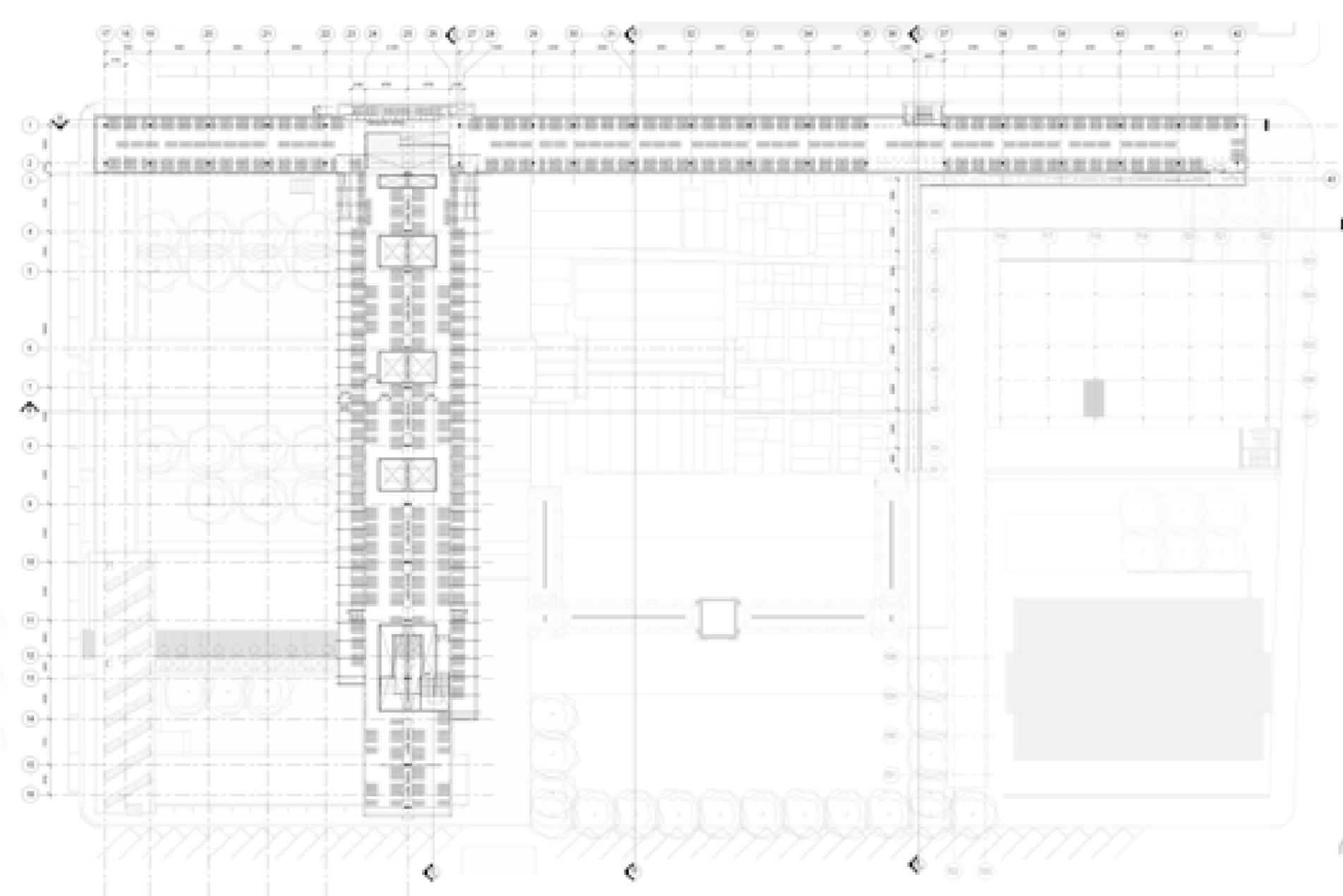


Illus. 140: Street / Ground Floor enclosure plan (author)

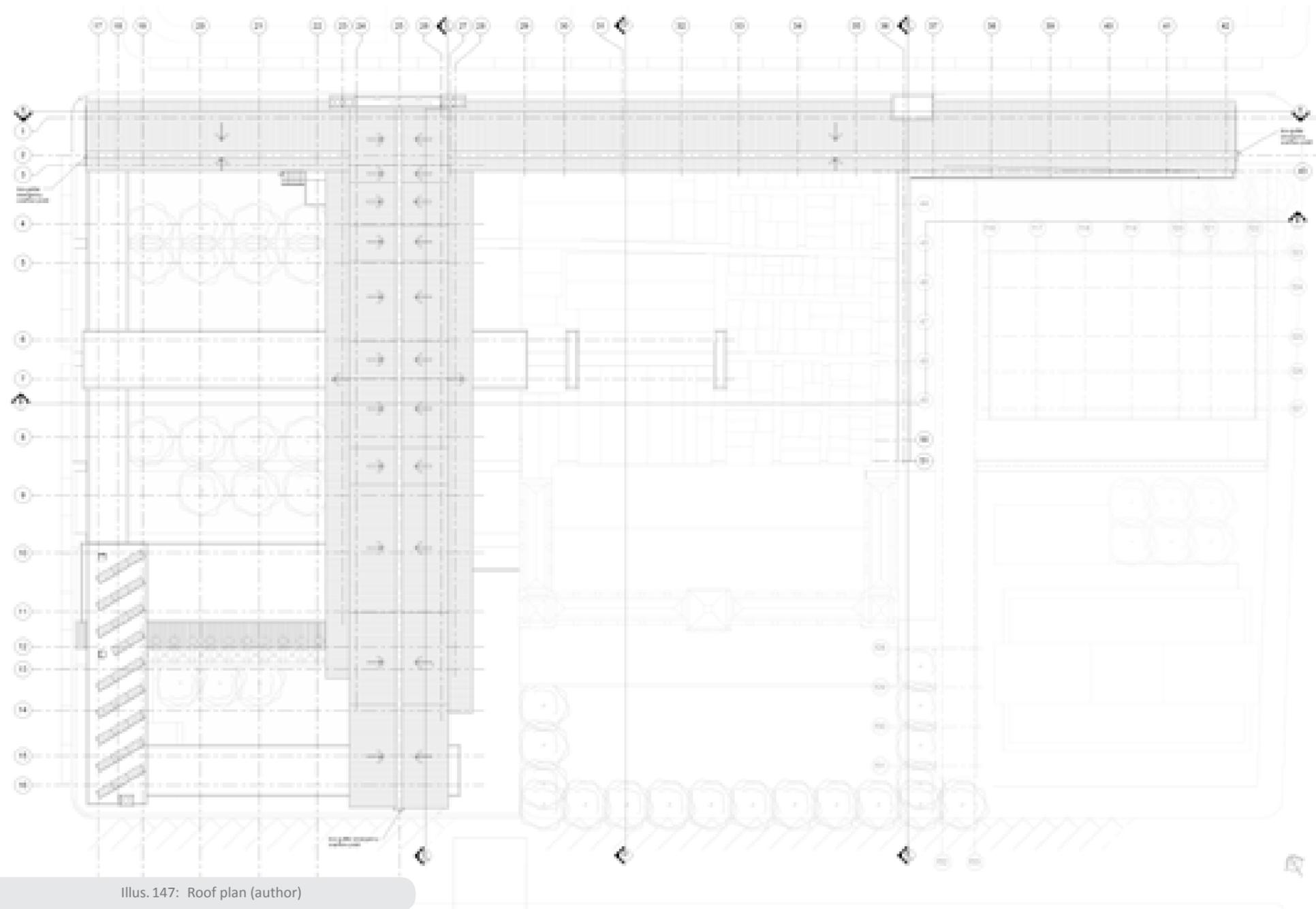
Plans:



Illus. 145: Upper Level plan (author)



Illus. 146: Roof Plan (author)



Illus. 147: Roof plan (author)

Character of Different Levels

Precedent has shown that all levels are not equal, and each level is treated differently in terms of visual and physical accessibility. This is as shown in the following table:

Level	Character	Response
Ground Floor	Open, accessible, lower market levels operating at a lower level of formality, subject to the highest rates of flux.	Open spaces that allow for a high level of vendor flux. Shortest rental periods.
Upper Level	Linear spaces, higher market levels, more established vendors with a higher customer draw. These will often include a measure of production (eg. tailors, seamstresses, dressmakers, cobblers, etc). A good link with the Ground Floor is required.	More lockable permanent stalls. Longer rental periods. Strong physical and visual link to lower levels. Transparent balustrade.
Production Level	Open, semi-public, secure space, accessed for short periods of time during the day. Low level of flux. A weak link with the lower levels orientates the user. Perhaps quite a dirty and messy level.	Visual connection to all levels at stairs. Low level of connection to ground floor. Measures to prevent water flow to lower levels.

Table 4: Level Character

Visual Penetration

Visual penetration between all levels has been allowed at the crossing of the ground floor axes, and the upper levels. This orientates the user and breaks up the length of the upper level spaces. These atria, being spatially higher than three floors will be fitted with dedicated fire sprinklers.

Structural

The following table deals with an overview of the general structural considerations undertaken in the design:

Foundation Conditions

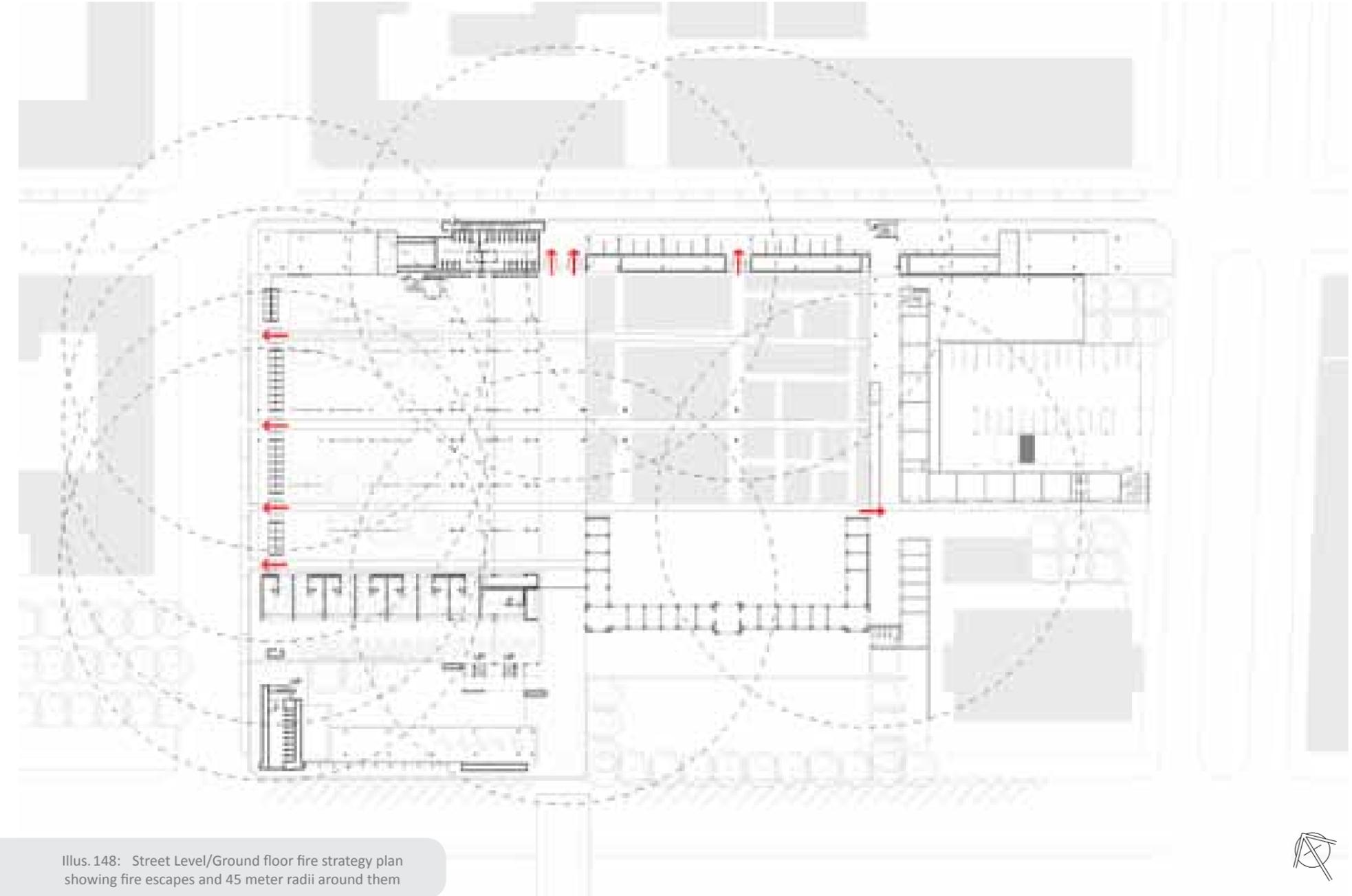
The site is located on reclaimed land, which was previously costal swamp land. It is assumed that the layer of reclamation fill is not suitable as a bearing layer for a building of this size. It is also assumed that the costal swamp layer is unsuitable as a bearing layer. Friction piles are proposed as a founding support to the building structure.

	<i>Material</i>	<i>Maximum Span / Height Required</i>	<i>Minimum Dimension</i>	<i>Other</i>
Spanning	Concrete	<12 meters	750mm	
	Concrete Suspended Slab	<6.2 meters	340mm	340mm shuttered in-situ concrete
	Timber	3 to 6 meters	300mm	Achieved through the use of a 150mm deep timber beam with a triangulated tension cable on the underside.
Cantilevering	Timber	<3 meters	150mm	
	Concrete	500mm -1500mm	100mm end	Edge tapers from 340mm to 100mm over length of cantilever. All cantilevered of slab >3 meters.
	Concrete	1850mm	-	No taper. 340mm thickness with 1000 upstand at end. Cantilevered off 2600mm slab with rigid joints to concrete columns at ends.
	Timber	<1 meter	-	Ends taper from 150mm to 75mm
	Timber	2300mm	-	Supported by timber haunch to reduce cantilever to <1 meter
Columns	Concrete	11 meters	two 300x300mm	Top and bottom fixed
	Concrete	<3.5 meters	300x450mm	Top and bottom fixed
	Timber	<3 meters	100mm	Two 100x38mm sandwich column with 50mm spacer
Market Stall (Horizontal element)	Timber	3 meters	150mm	
Market Stall (Vertical element)	Timber	2.4 meters	100mm	150mm depth to match horizontal

Table 5: Structural Considerations

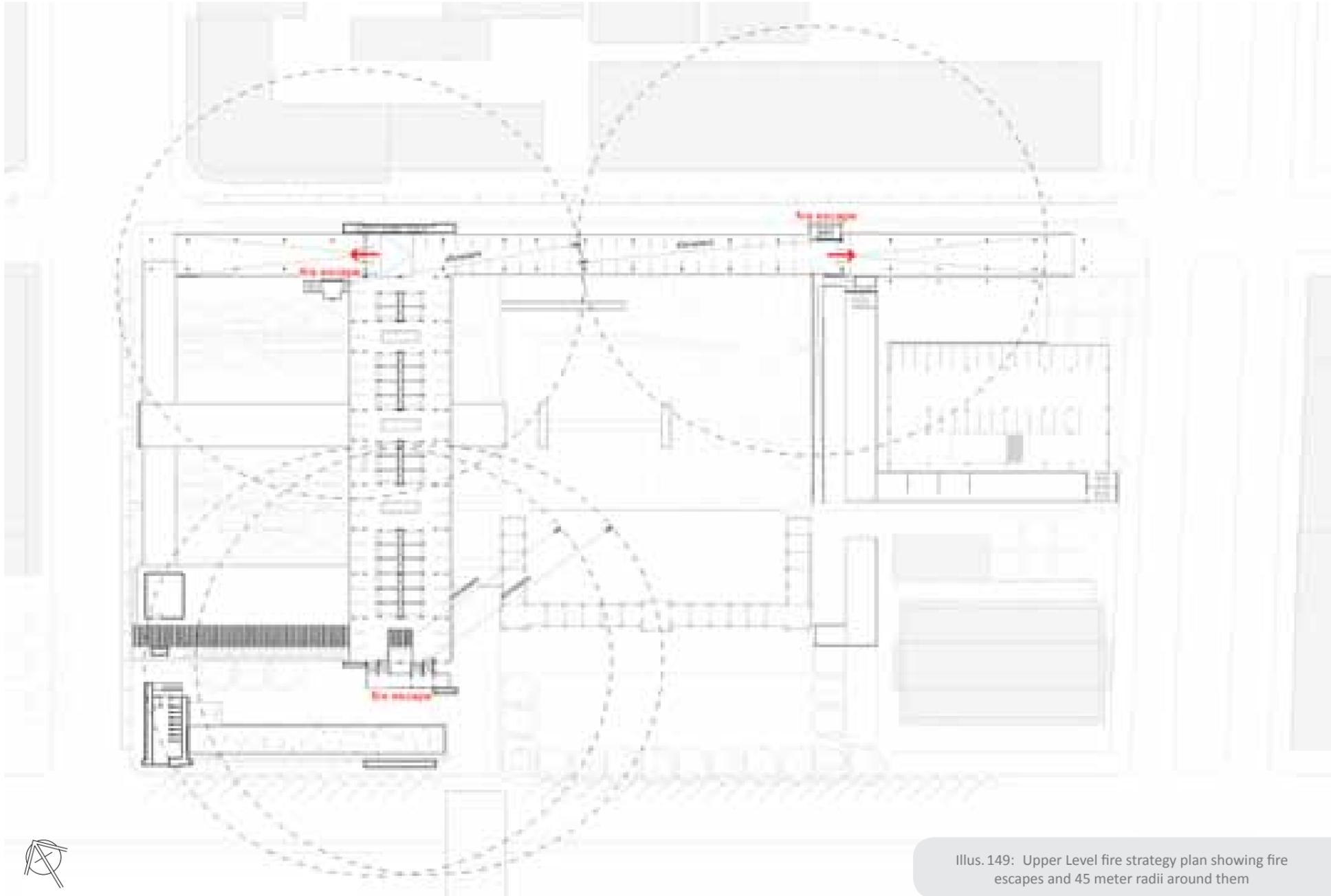
Fire Plans

The following plans show the positioning of fire escapes.

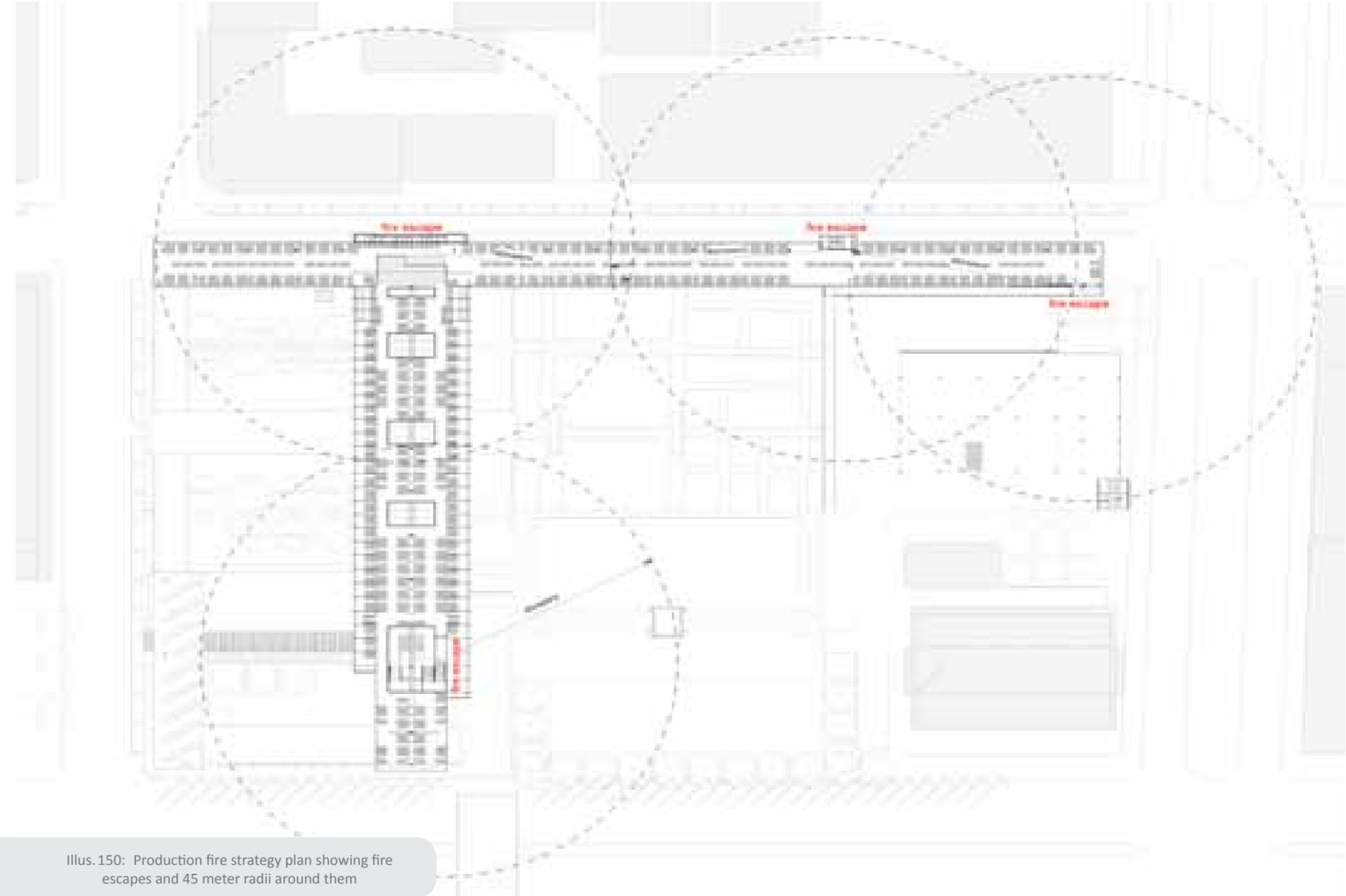


Illus. 148: Street Level/Ground floor fire strategy plan showing fire escapes and 45 meter radii around them





Illus. 149: Upper Level fire strategy plan showing fire escapes and 45 meter radii around them

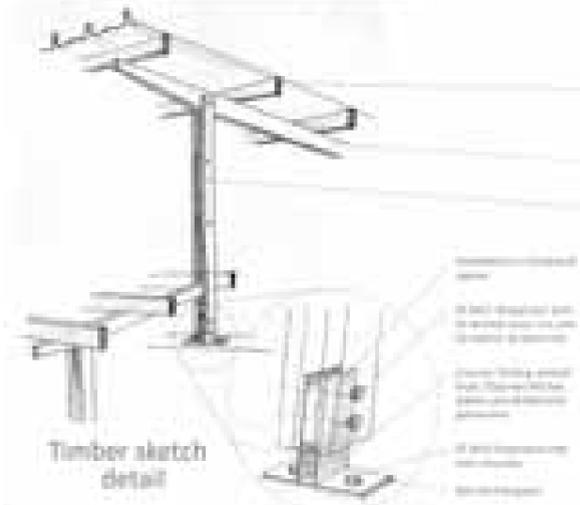


Illus. 150: Production fire strategy plan showing fire escapes and 45 meter radii around them

Technical Section & Details

- Crucial detail information:**
- Material of the job of metal, materials used.
 - Where steel is used it is galvanized and not cut or welded on site.

- Environmental**
- Use of Best Materials
 - Evidence of UK compliance systems
 - Minimizing fresh water and carbon dioxide



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Table showing Structural Constitutions

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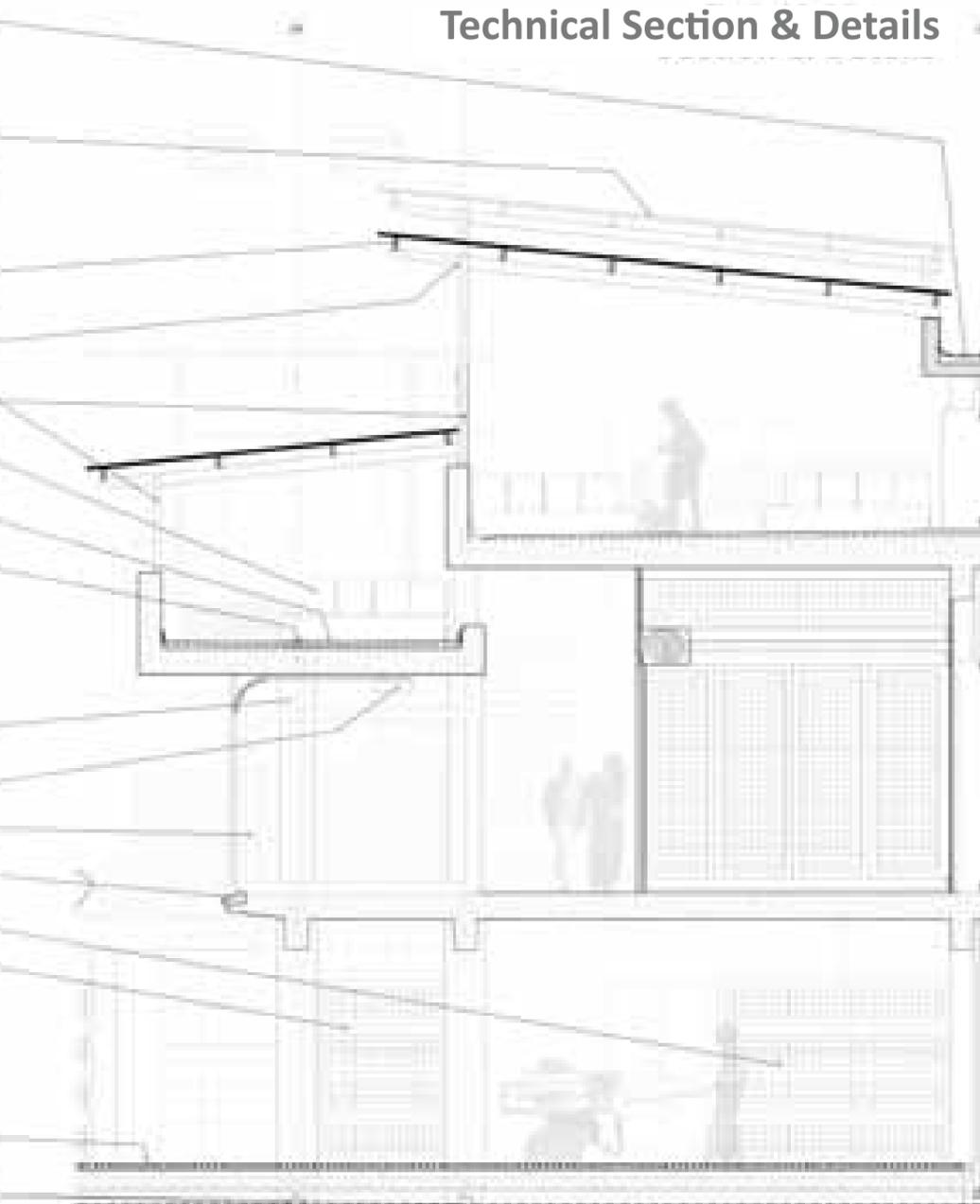
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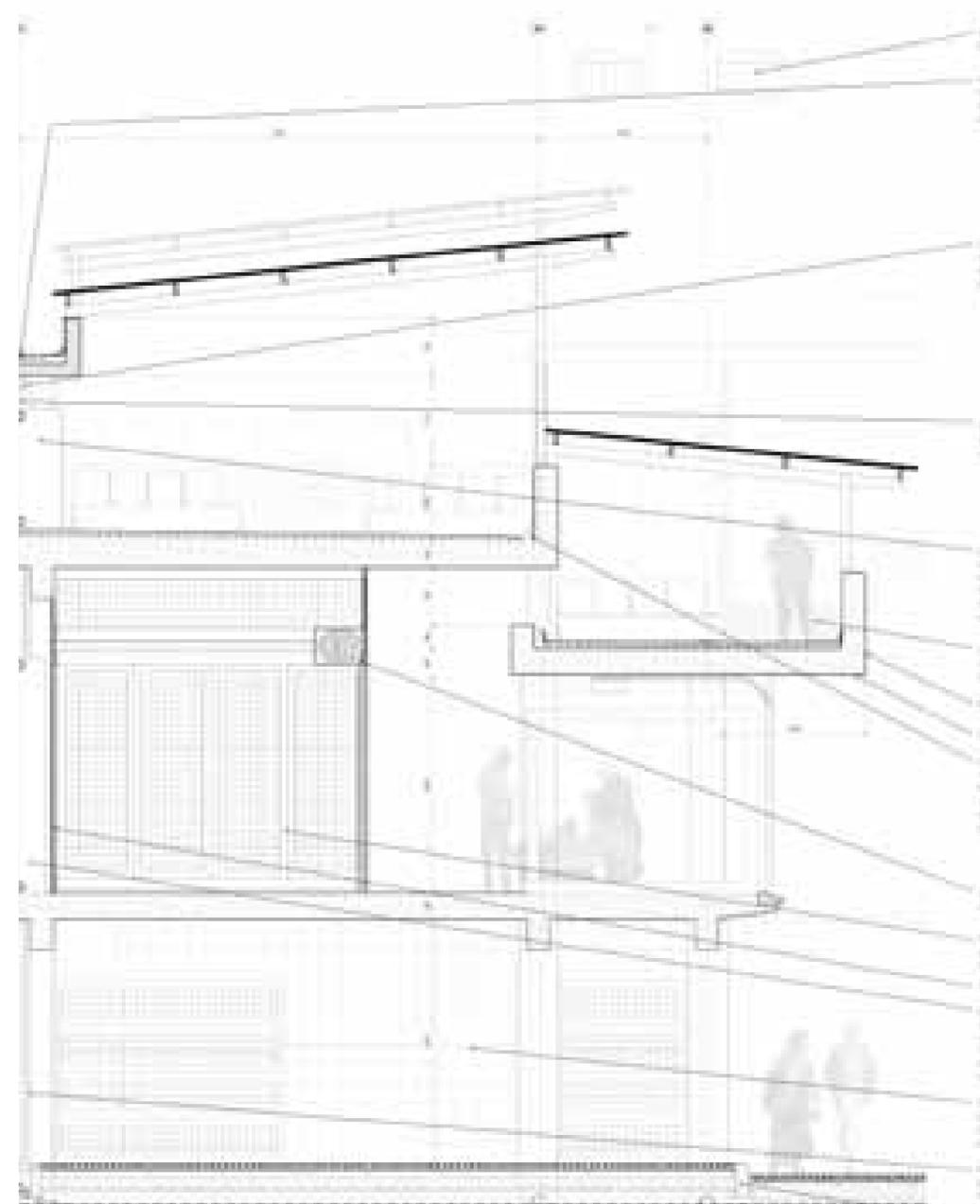
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Illus. 151: Detailed Section



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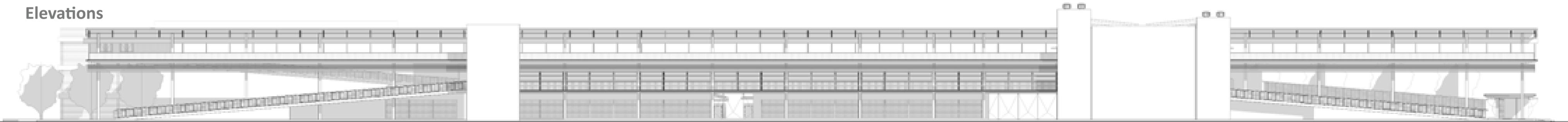
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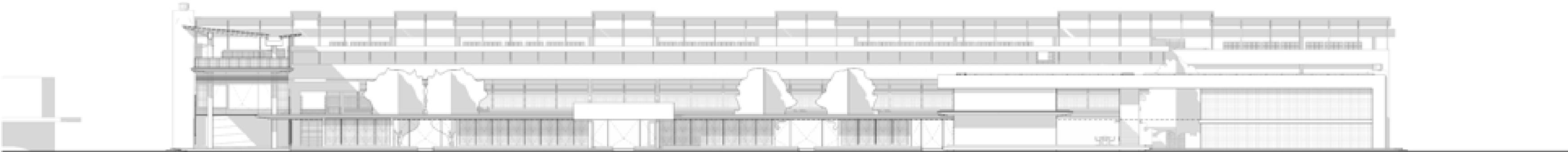
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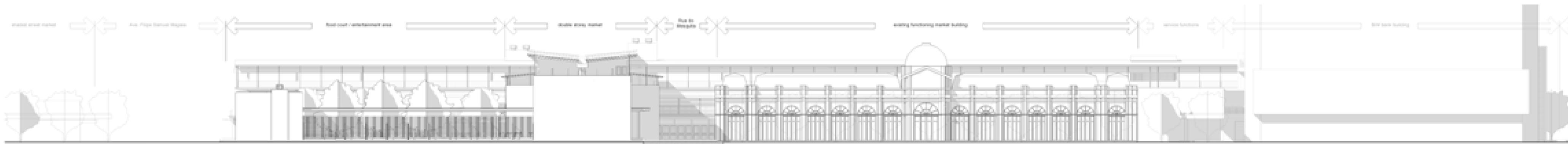
Elevations



Illus. 152: North East Elevation

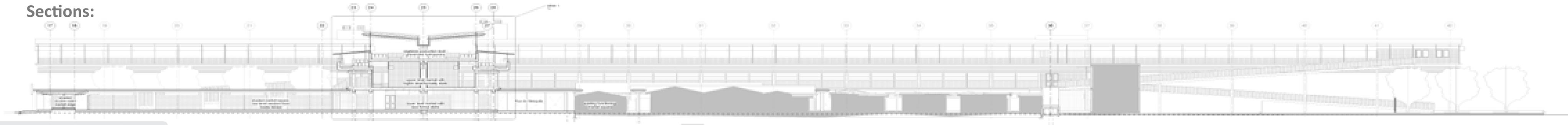


Illus. 153: South West Elevation

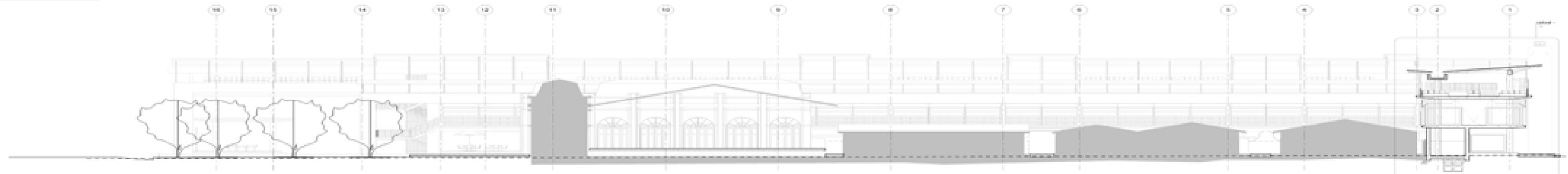


Illus. 154: South East Elevation

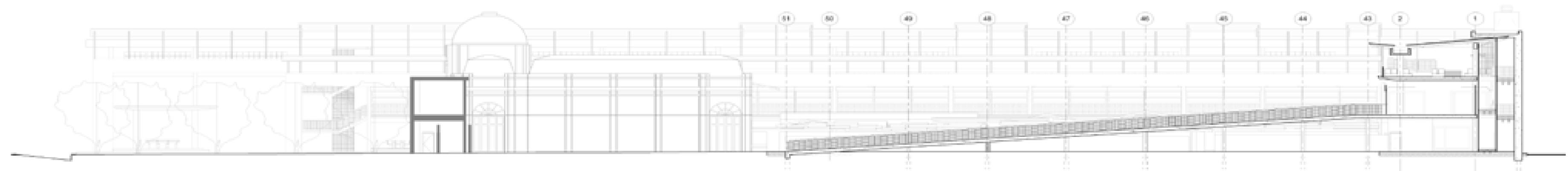
Sections:



Illus. 155: Section B-B



Illus. 156: Section C-C



Illus. 157: Section E-E

Views:



Illus. 158: View from cnr. Zedequias Manganhela & Samuel Filipe Magaia



Illus. 159: Heritage view of Existing Market building facade

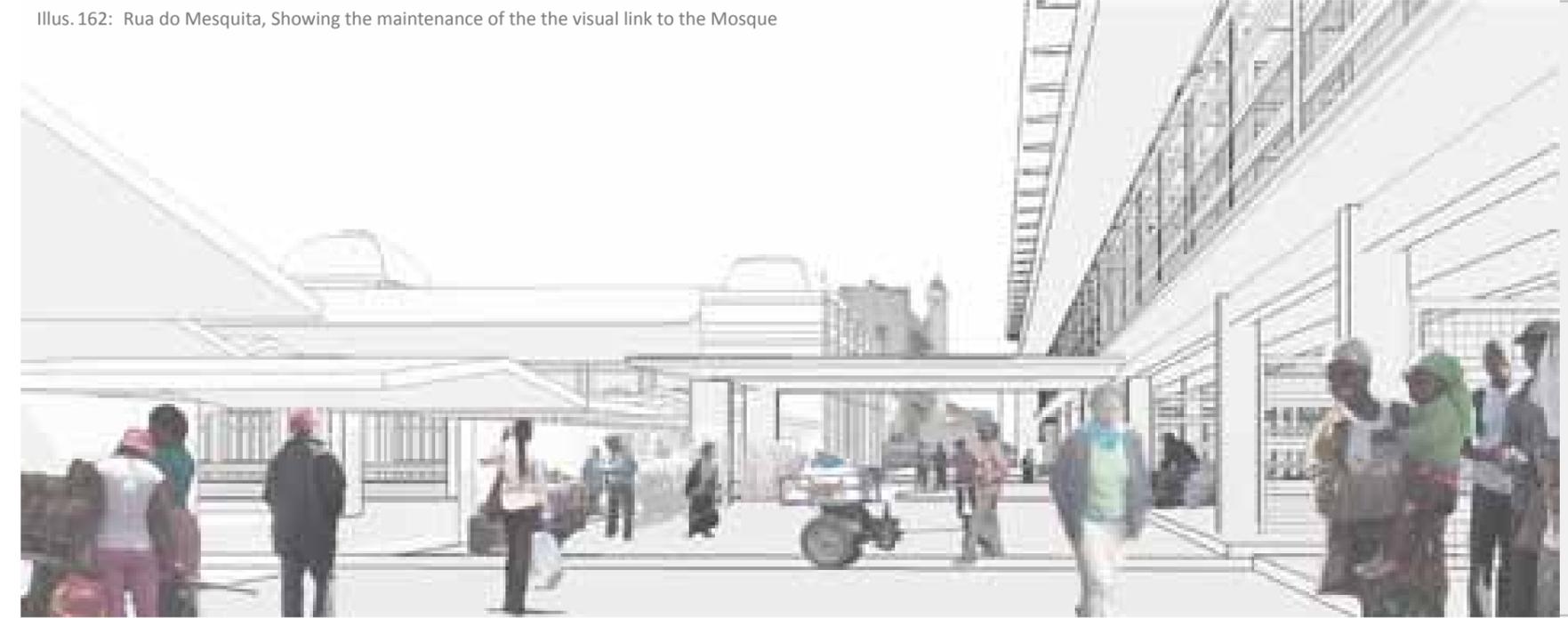


Illus. 160: Ave 25 Setembro view



Illus. 161: Ave Samuel Filipe Magaia view

Illus. 162: Rua do Mesquita, Showing the maintenance of the the visual link to the Mosque



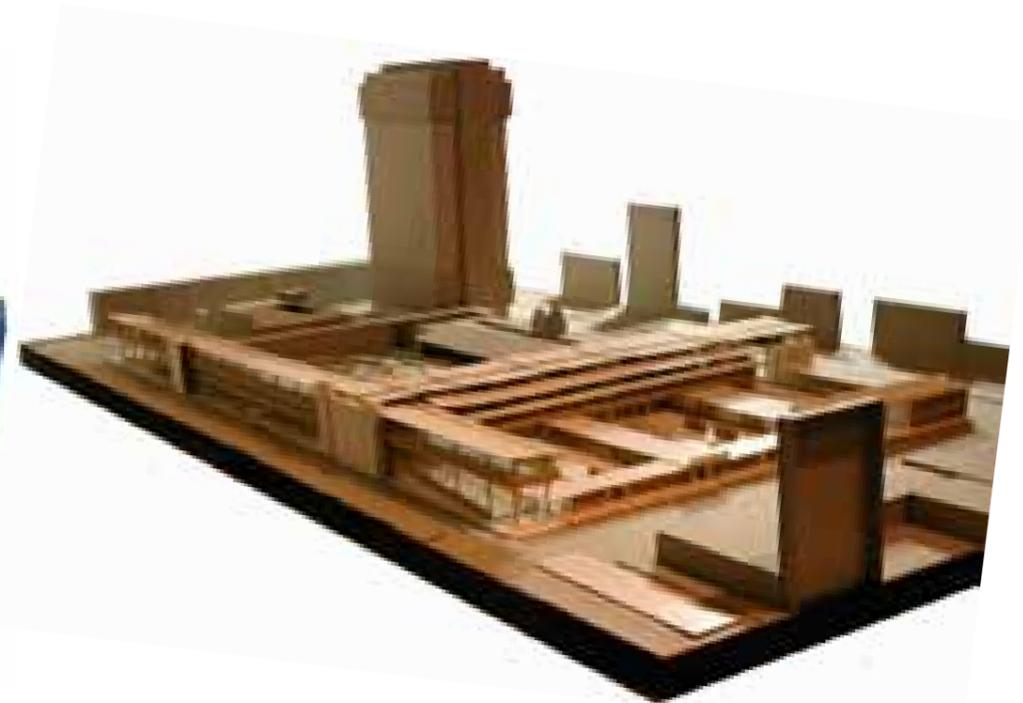
Illus. 163: View of the proposed Market Square



Model:



Illus. 164: Model: Ave Zedequas Manganhela view



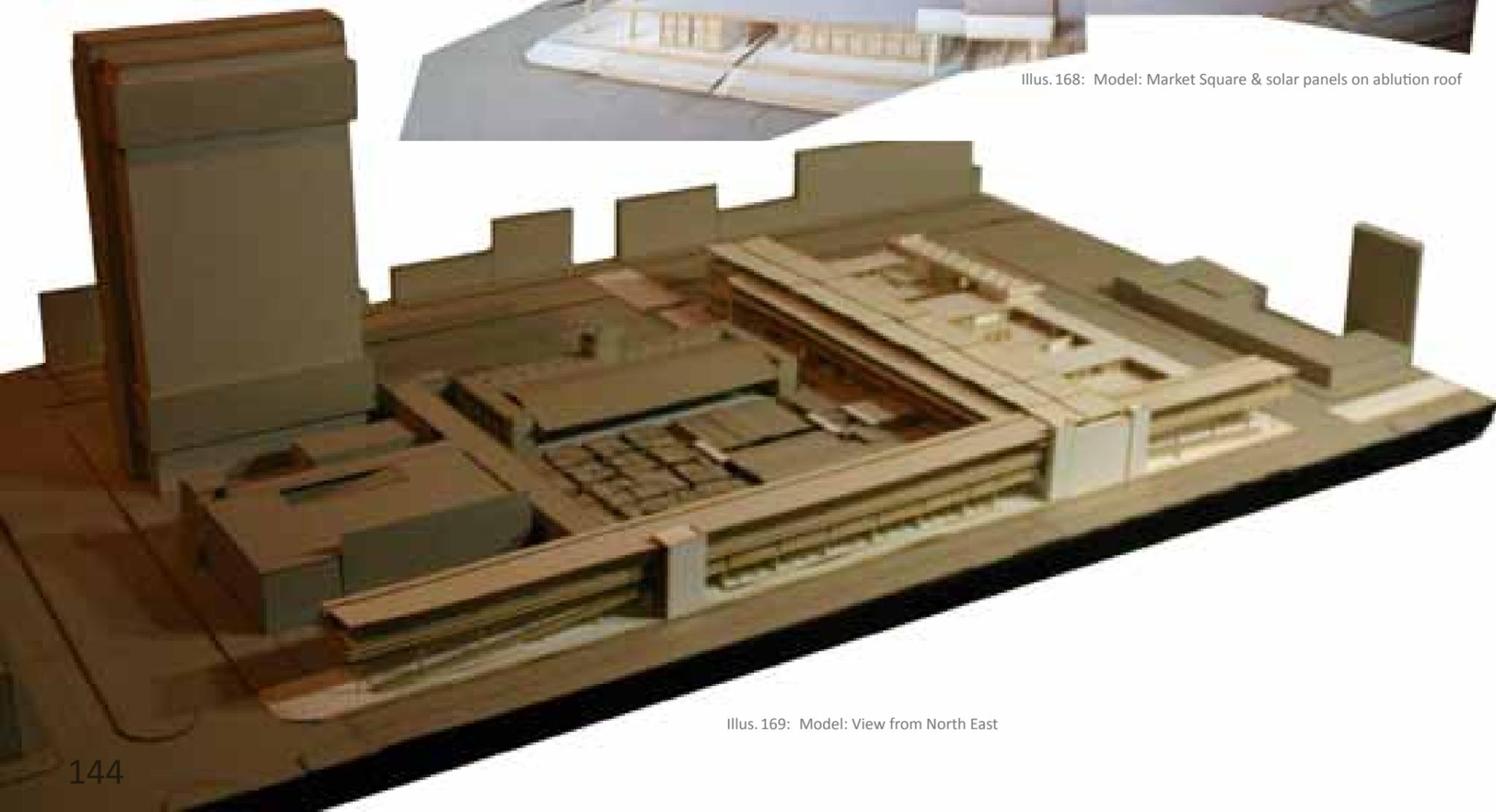
Illus. 165: Model: View from North



Illus. 166: Model: View of food court entry (east)



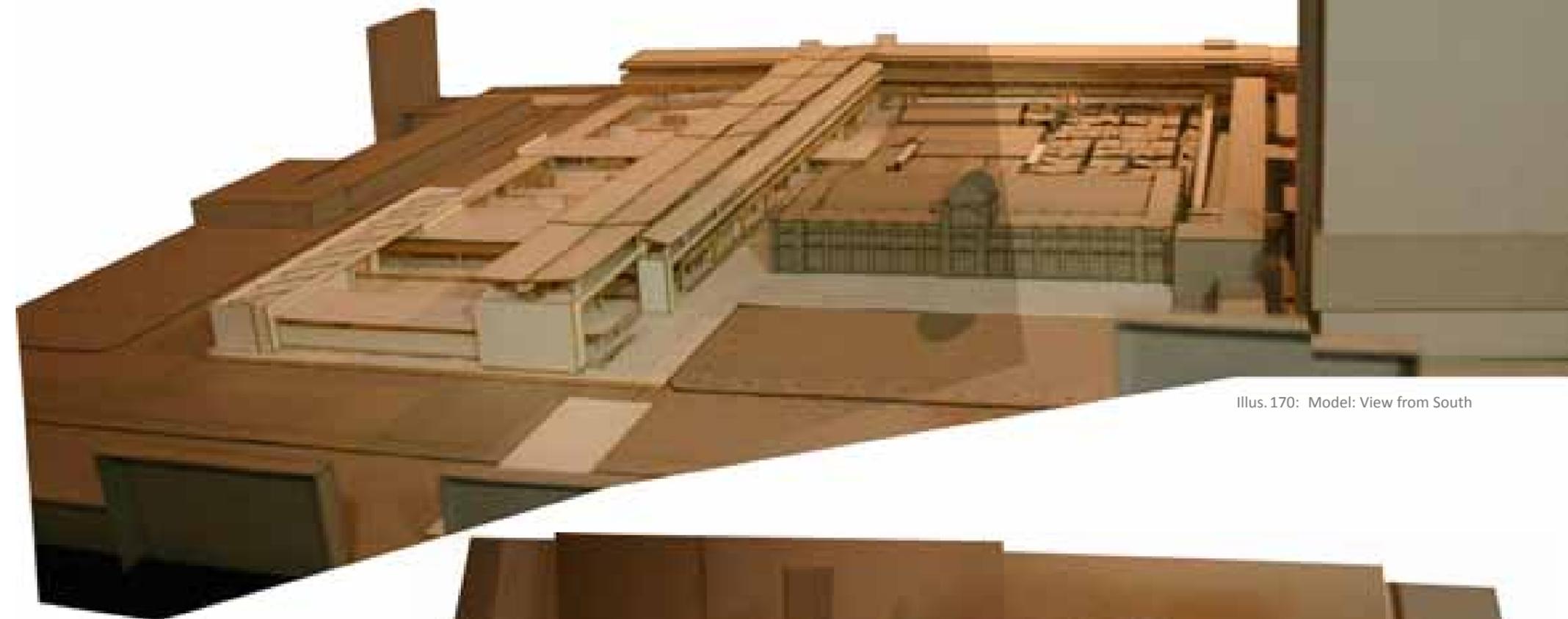
Illus. 167: Model: View of cnr. Ave Samuel Filipe Magaia & Ave 25 de Setembro



Illus. 169: Model: View from North East



Illus. 168: Model: Market Square & solar panels on ablution roof



Illus. 170: Model: View from South



Illus. 171: Model: View from South East

Conclusion

Maputo is a significant economic centre of south eastern Africa, and particularly southern Mozambique. The Baixa area of Maputo is an important business centre of Maputo, both historically and currently. It serves as a key area in the economic health of this region. The market intervention is intended to become a destination within its own right, particularly through its increase in physical size, improvement in spatial appropriateness, recognition and inclusion of the vendor, improved shopping comfort, and consequent increase in drawing power on potential customers. In this way the intervention seeks to act as a catalyst project in the urban regeneration of the Baixa, offering a solution to the current inadequate micro-enterprise and trader infrastructure, promoting grass-roots based economic growth.

In Maputo, and in the Baixa, a significant portion of the public services such as transport and retail operate informally, providing for customers needs on-demand. This creates an environment in which service providers and retailers adapt very quickly to small changes within the economic system or customer demand. This in turn creates a flux of spatial usage, and the loose-fit user-customisable vending stall aims to provide an adaptable market-level appropriate response to this fluxing use.

The enterprising culture present in Maputo and the Baixa, is physically and culturally embodied by the *Mercado Central* building, which constitutes a tangible representation of the longevity and tenacity of the local enterprising spirit. The restoration of this building, as well as the protection and advancement of its function is intended to further entrench this contextual characteristic into the area.

The market proposal is intended as a contextually sensitive response, low in maintenance needs, and facilitating the healthy functioning of the existing informal market system in an environmentally responsible manner. This infrastructure should facilitate clean, hygienic, appropriate, and comfortable trade.