

8 | DESIGN DEVELOPMENT

DESIGN DEVELOPMENT INFORMANTS

- [A] ORIENTATION
- [B] EXISTING STRUCTURES
- [C] PUBLIC SPACE
- [D] SITE SLOPE
- [E] PEDESTRIAN MOVEMENT
- [F] PUBLIC VS. PRIVATE
- [G] SCALE
- [H] FORM
- [I] STEREOTOMIC & TECTONIC
- [J] FINE GRAIN, LARGE GRAIN
- [K] FORMAL & INFORMAL
- [L] REVEAL & CONCEAL

EXPLORATION 1

1.1_ SCALE MEDIATION

The models explores how architecture can mediate between the varying scales of Marabastad's fine urban fabric, the city's large urban fabric and the large scale of Belle Ombre Metro station and the sub-station.

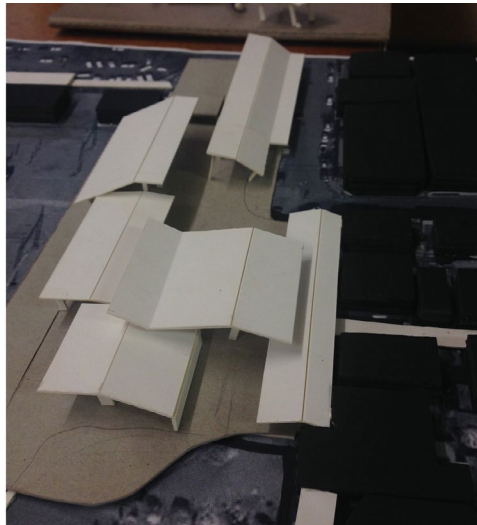


Figure 8.2. Roof exploration responding to varying building scales



Figure 8.4. Scale response to Belle Ombre by roof

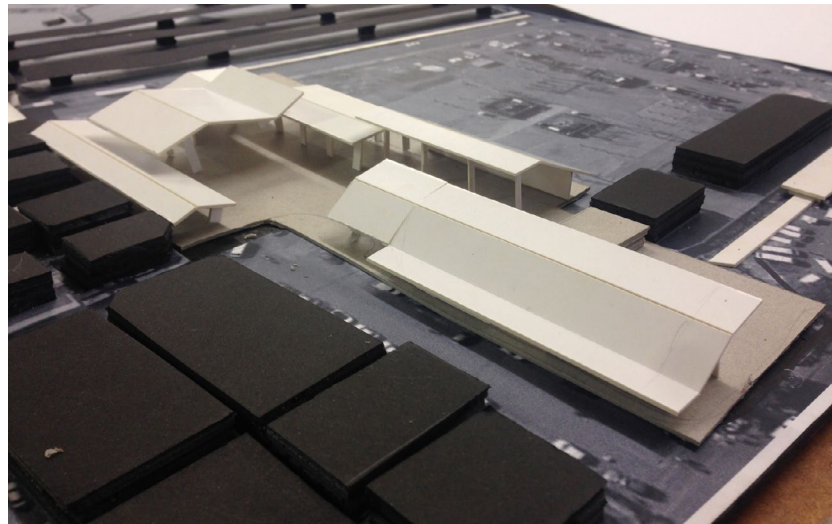
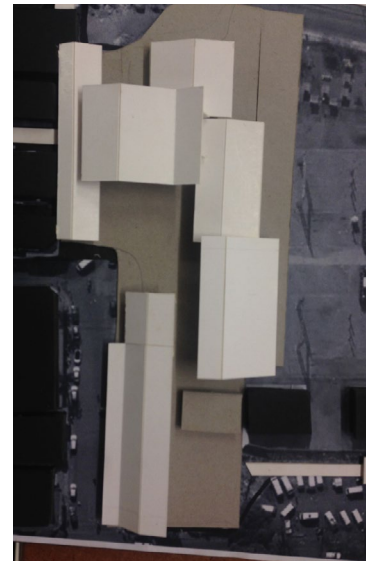


Figure 8.3. Buildings define central public space



1.2_ PUBLIC SPACE

The placement of buildings creates 'negative' spaces which become public space. The activities which surround the public space provide energy ensuring activity within public spaces.

Figure 8.1. Aerial illustrating how negative space becomes public space.

EXPLORATION 2

2.1_NORTH ORIENTATION

The site's long N-S axis required careful consideration of building placement & orientation to optimise on natural sunlight.

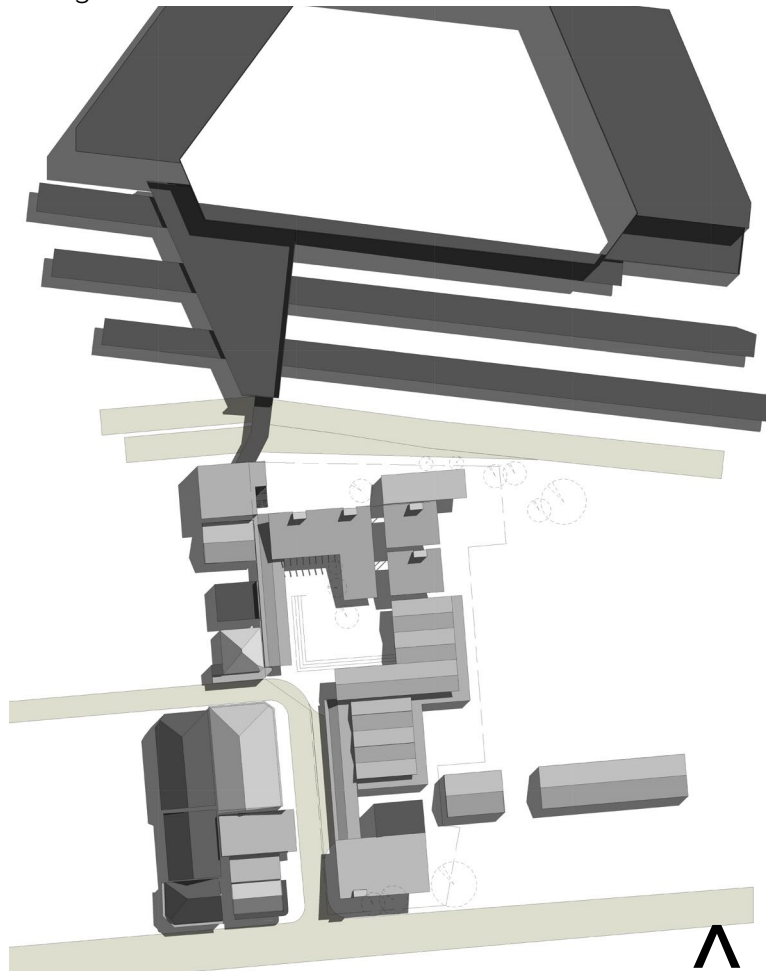


Figure 8.6. Roof plan of first design iteration

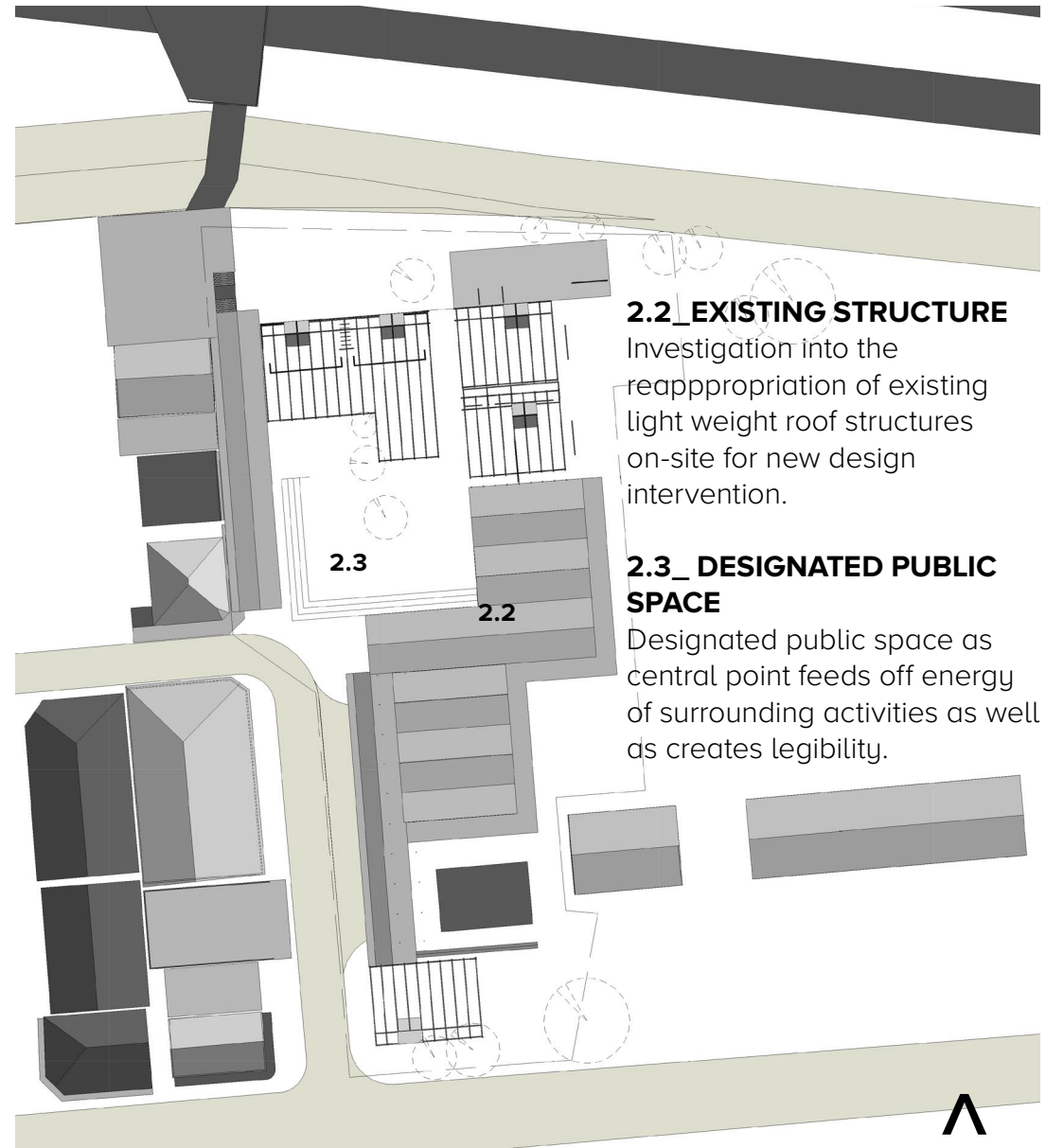


Figure 8.5. Plan of first design iteration

2.2_EXISTING STRUCTURE

Investigation into the reappropriation of existing light weight roof structures on-site for new design intervention.

2.3_DESIGNATED PUBLIC SPACE

Designated public space as central point feeds off energy of surrounding activities as well as creates legibility.

2.4_SITE SLOPE

The site has a 4m slope towards the North. Exploration of how various levels can differentiate between private & public spaces as well as faster & slower routes was explored.

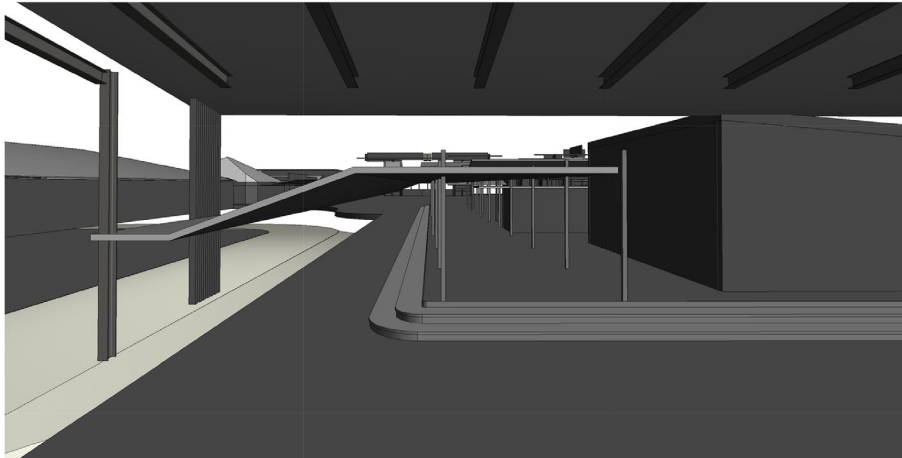


Figure 8.8. Level difference

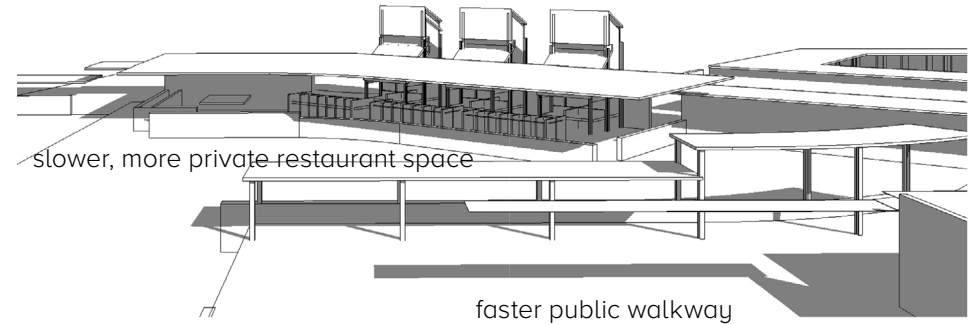


Figure 8.9. Change in levels differentiate types of space

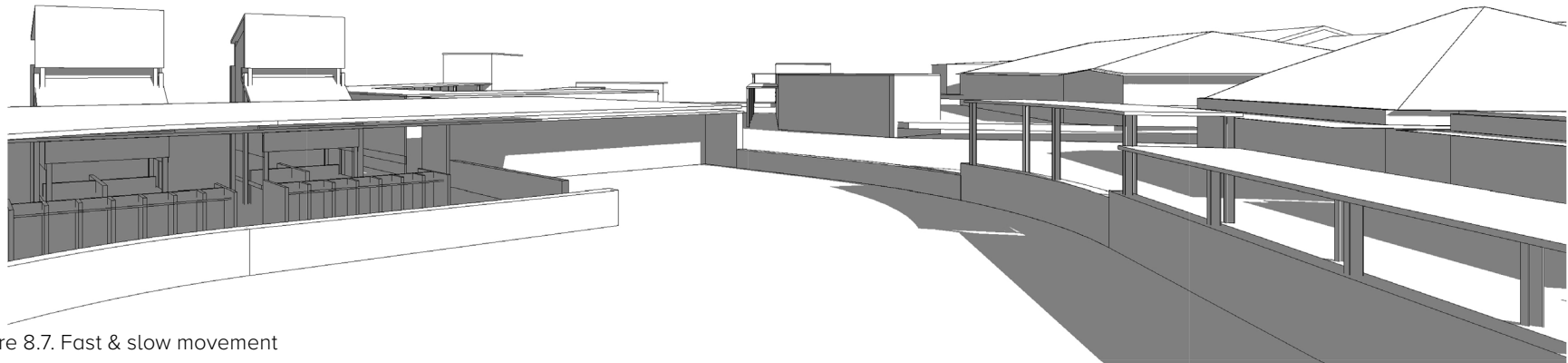


Figure 8.7. Fast & slow movement

2.5_SLOW & FAST MOVING SPACES

Change in level differentiates between fast pedestrian movement to and from the Belle Ombre metro station and slower pedestrian space on the lower level. Programmes such as informal vendors are located on faster routes while slower spaces such as the restaurant are located along slower movement routes. The site slope and level changes assist in defining these different spaces.

2.6_PEDESTRAIN MOVEMENT

Situating appropriate programmes and buildings along the pedestrian movement path.

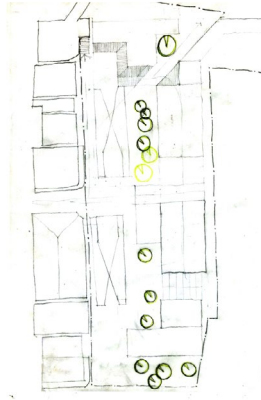


Figure 8.10. Creating designated public space

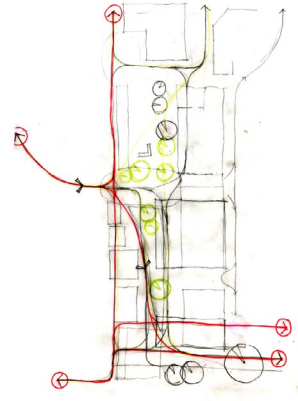


Figure 8.11. Pedestrian movement through the site

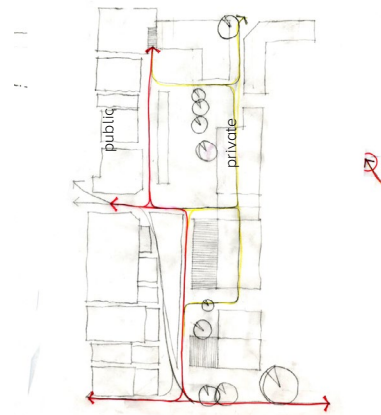


Figure 8.12. Paths of accessibility.

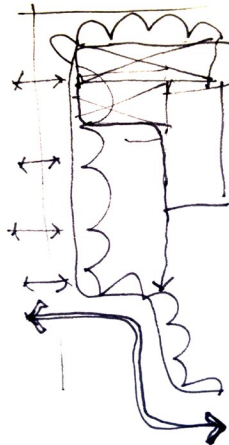
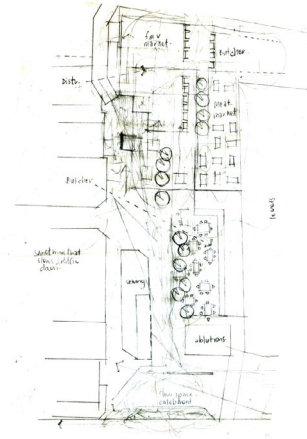
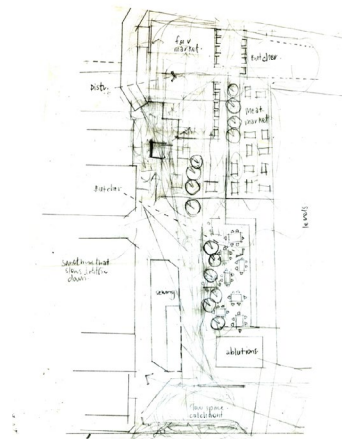


Figure 8.13. Degrees of accessibility



Degrees of accessibility for public & private programmes: public programmes situated along pedestrian path for easy accessibility, while private programmes set back.

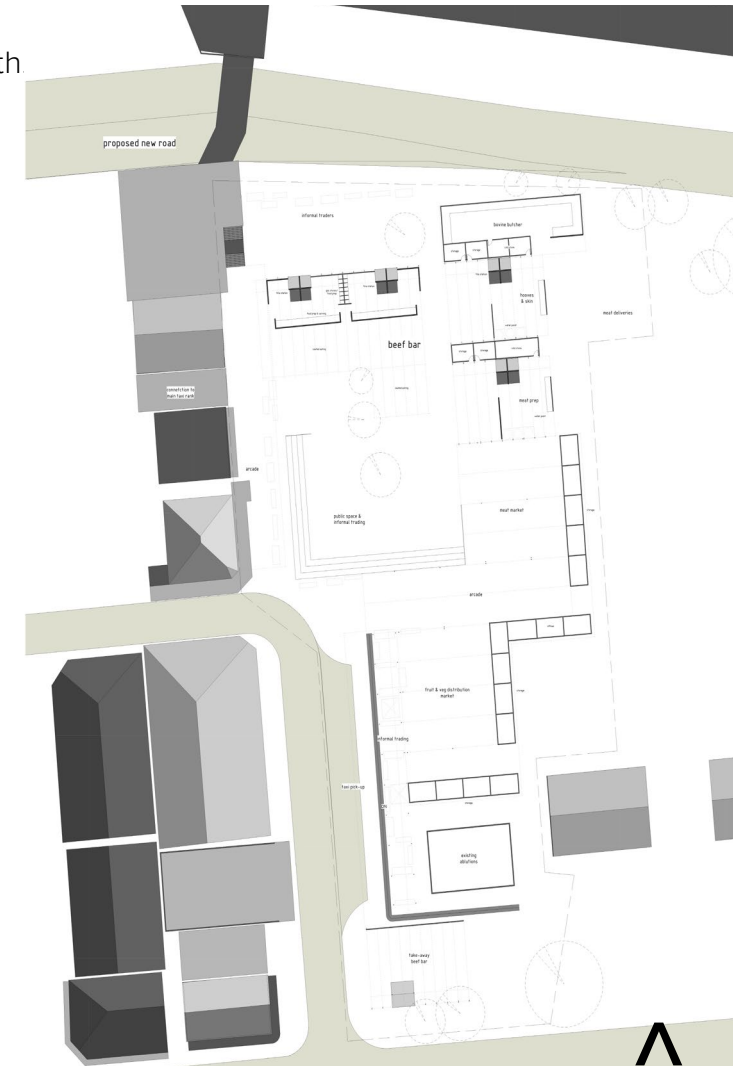


Figure 8.15. Ground floor plan of first design iteration

2.7_PRIVATE VS PUBLIC

Public programmes located along busy pedestrian paths, while private programmes situated further from the main pedestrian movement

2.8 DESIGNATED PUBLIC SPACE

Adjacent public activities create new programmatic opportunity. The communal braai areas create opportunity for a restaurant space which generates energy for designated public spaces within Marabastad.

2.9 THRESHOLDS

Public edges (i.e to restaurant) are easily accessible

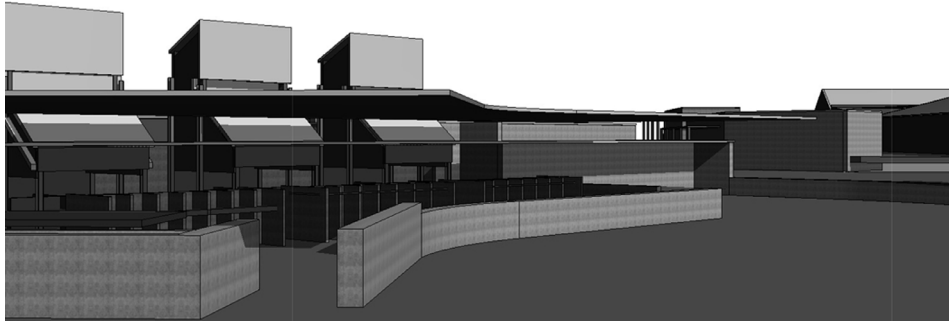


Figure 8.16. Designated public space

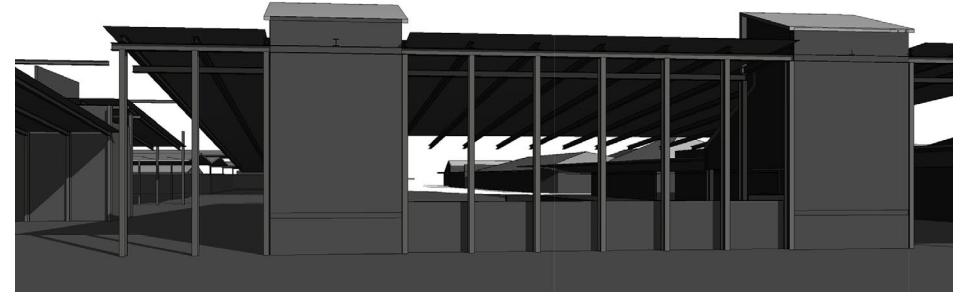


Figure 8.17. Edges & thresholds

2.10 FINE GRAIN, LARGE GRAIN

Frame structure allowing for adaptability, change and self-organisation.

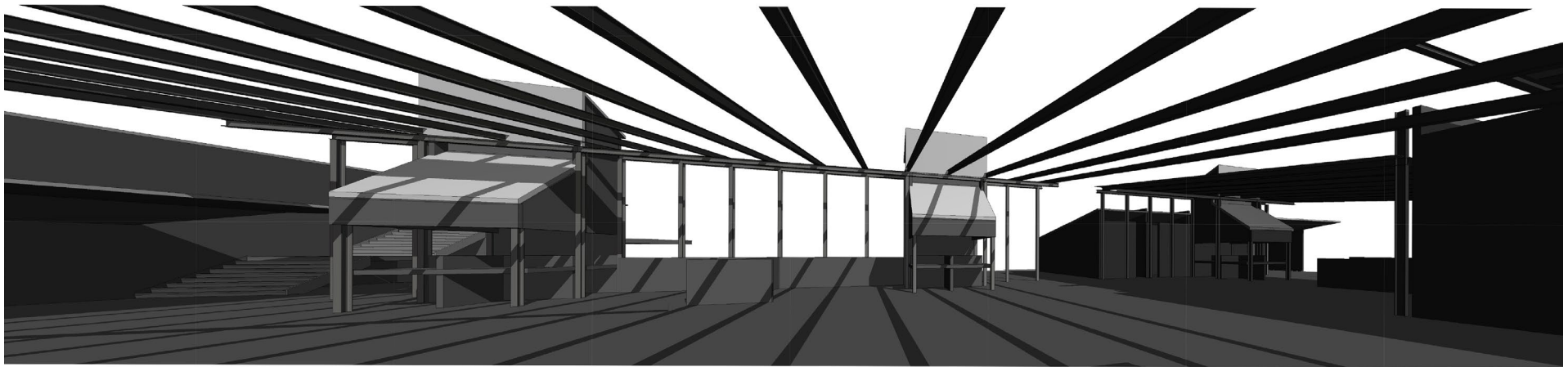


Figure 8.18. Fine grain, large grain

2.11_SMALL SCALE TO LARGE SCALE

Descending roof heights allow for a transition from large to small scale. They also create clerestoreys which allow light into deep spaces.

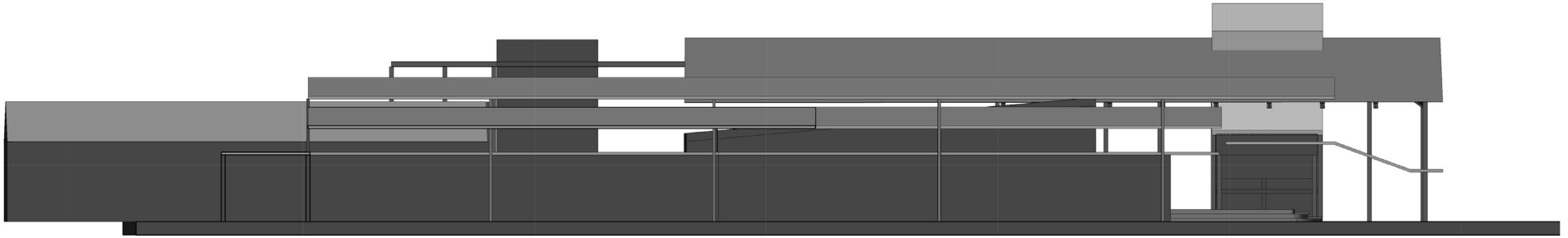


Figure 8.19. Scale transition through varying roof levels transition

2.12_ STEREOTOMIC & TECTONIC

The building needs to respond to both the stereotomic language of the Belle Ombre Metro station as well as the tectonic language of the sub-station. Exploration of an architectural condition that facilitates the transition between the two is important.

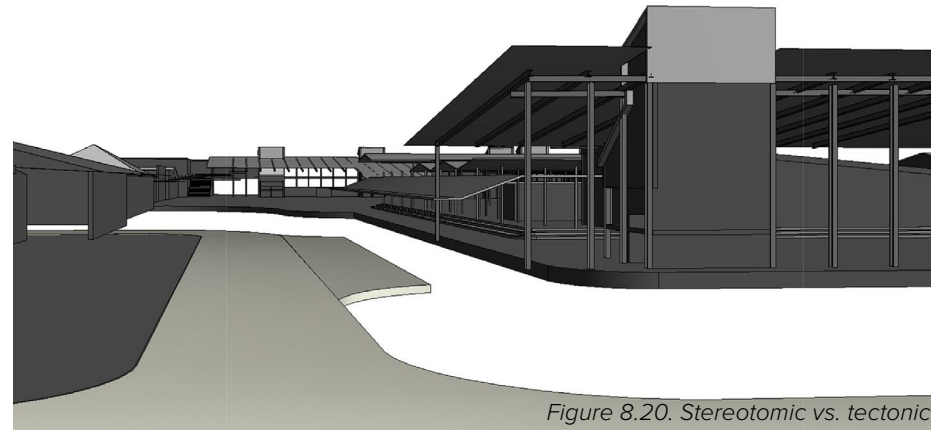
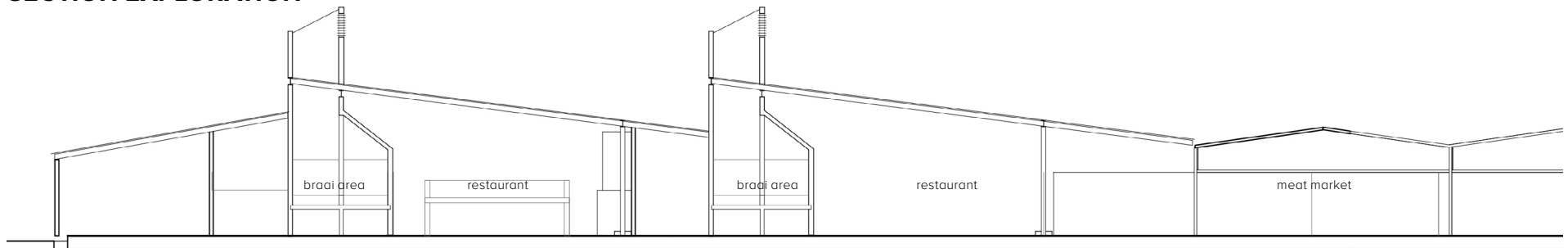


Figure 8.20. Stereotomic vs. tectonic

SECTION EXPLORATION



2.13 LANDMARKS

Creating new landmarks within the landscape announces public space & creates legibility within the urban environment.

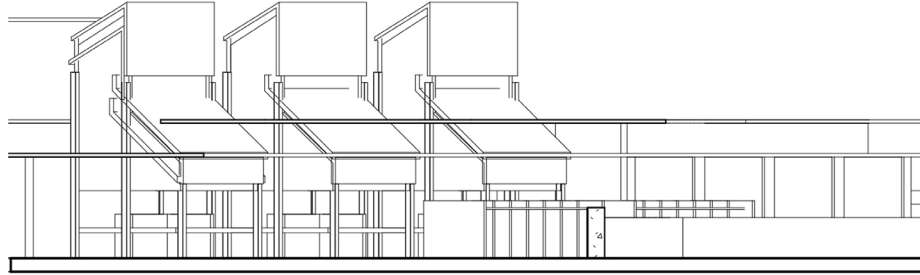


Figure 8.23. Landmarks

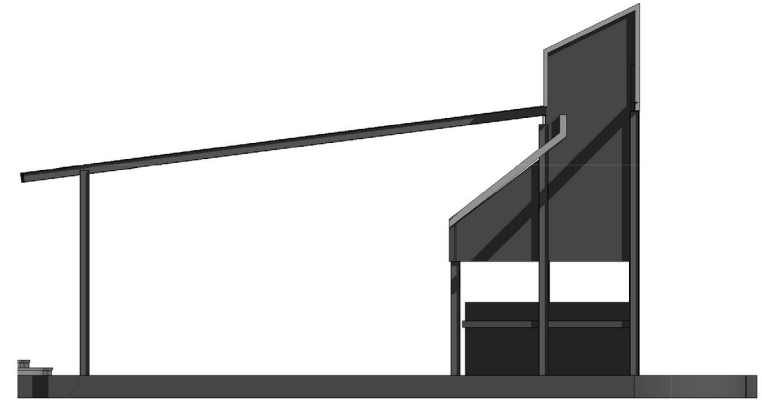


Figure 8.21. Furnace chimney

2.14 FORMAL & INFORMAL

Providing infrastructural needs for existing activities that also allow for adaptation in the future.

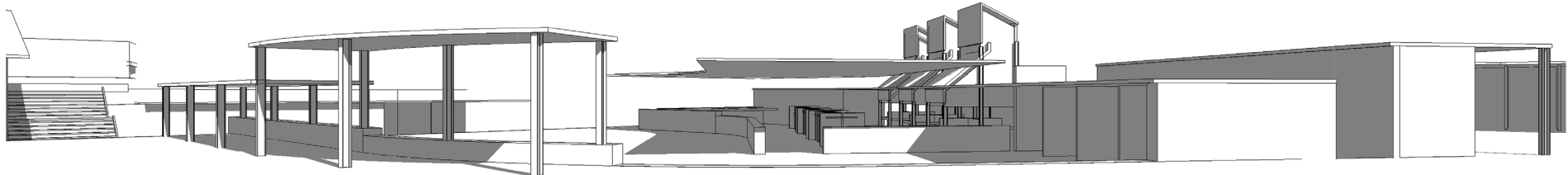


Figure 8.24. Formal & informal

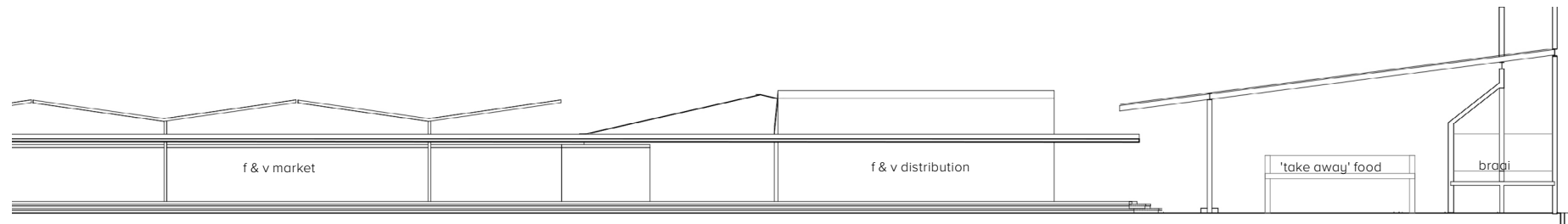


Figure 8.22. Section exploration

EXPLORATION 3

3.1_ REVEAL & CONCEAL

The design intervention needs to promote programmes that require faster moving pedestrian traffic from north to south in the mornings & slower moving traffic from south to north in the afternoons.

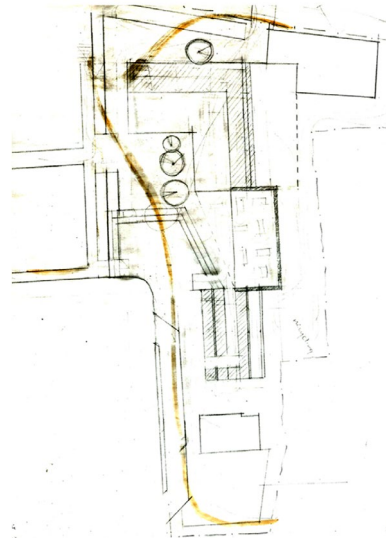


Figure 8.25. Pedestrian movement

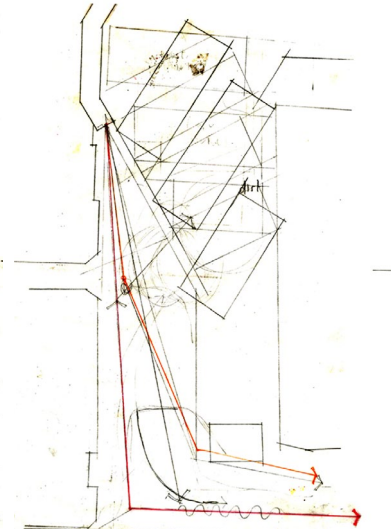


Figure 8.26. Orientation to north

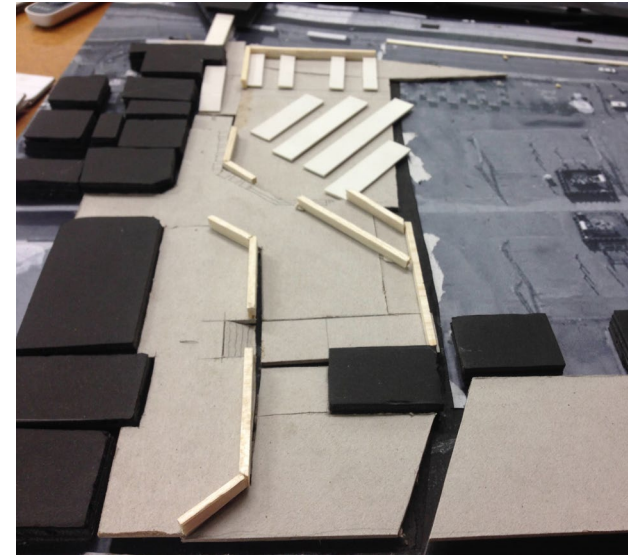


Figure 8.29. Pedestrian movement informs form

3.2_ORIENTATION

The building's placement & orientation needs to take sun direction, pedestrian accessibility and programmatic needs into account.

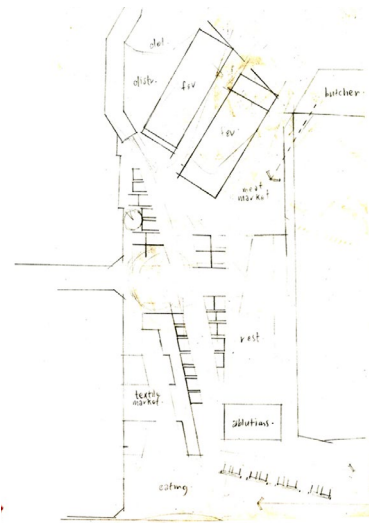


Figure 8.27. Aligned along pedestrian

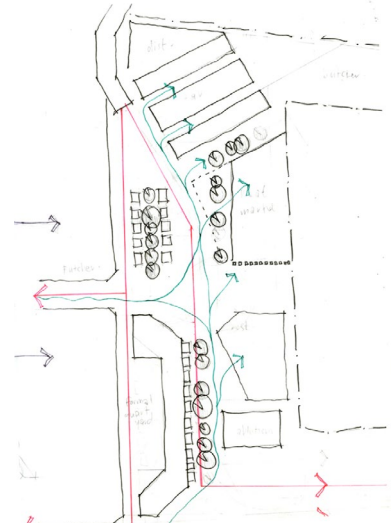


Figure 8.28. Formal & informal routes

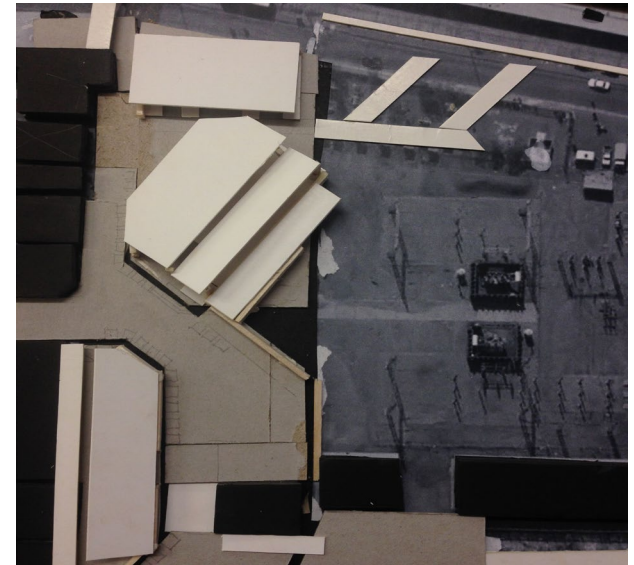


Figure 8.30. Building's orientation

EXPLORATION 4

4.1_EXPLORATION OF PLAN

Exploration of the plan informed by:

- a) the movement of pedestrians through the site
- b) providing service cores which support surrounding activities

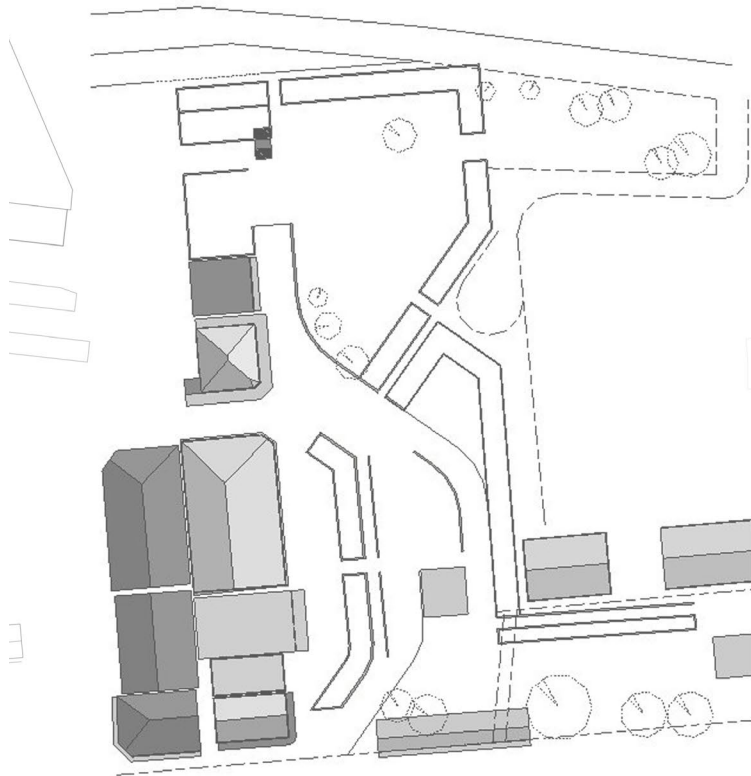


Figure 8.31. Form exploration 1

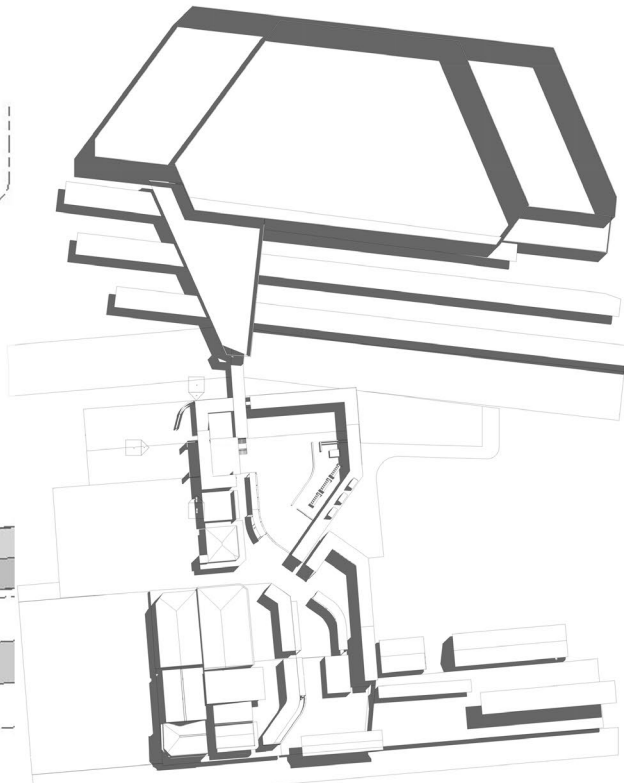


Figure 8.32. Form exploration 2

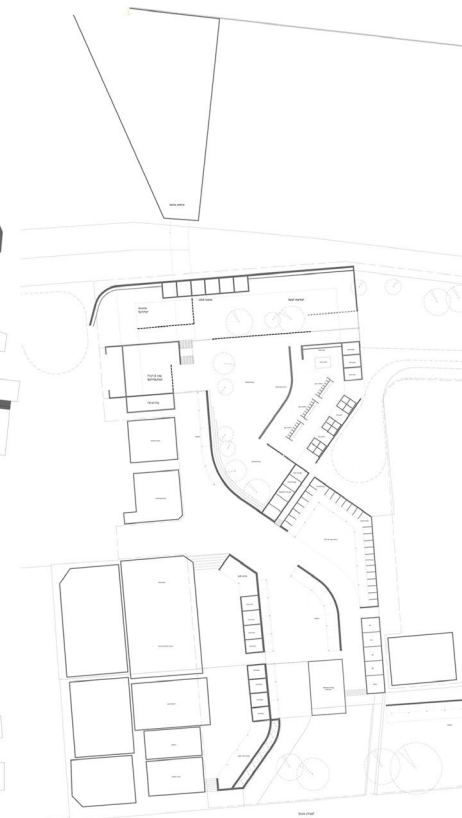


Figure 8.33. Form exploration 3



4.2_CONCEPT SKETCHES: Form exploration

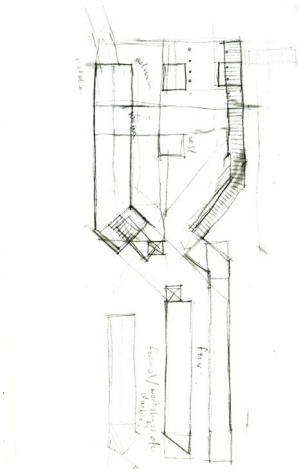


Figure 8.34.

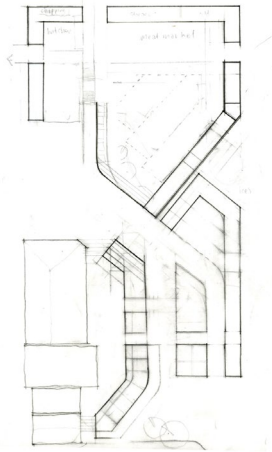


Figure 8.35.

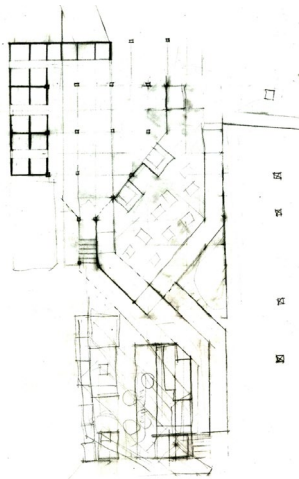


Figure 8.36.

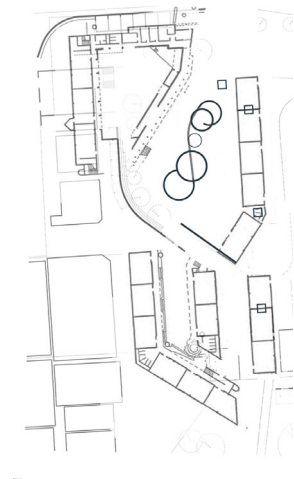


Figure 8.37.

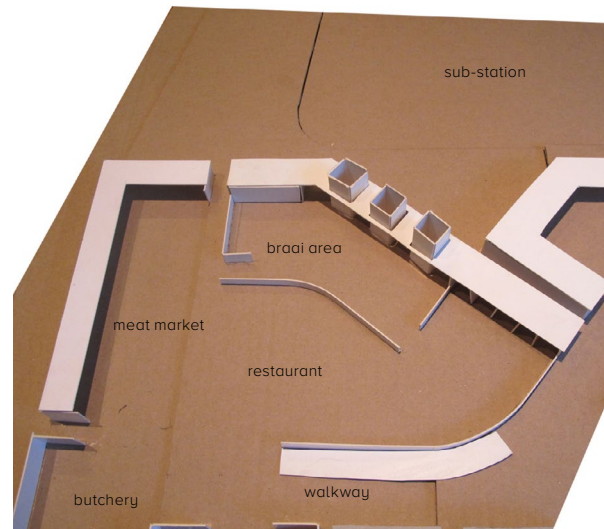


Figure 8.38. Braai chimneys & restaurant

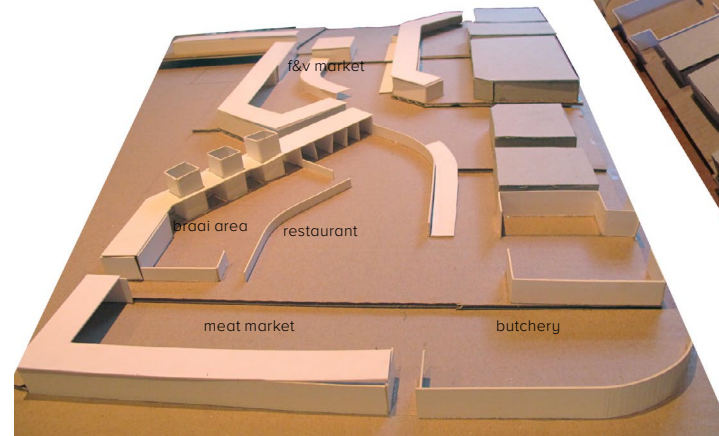


Figure 8.39. View from Belle Ombre towards Boom Street

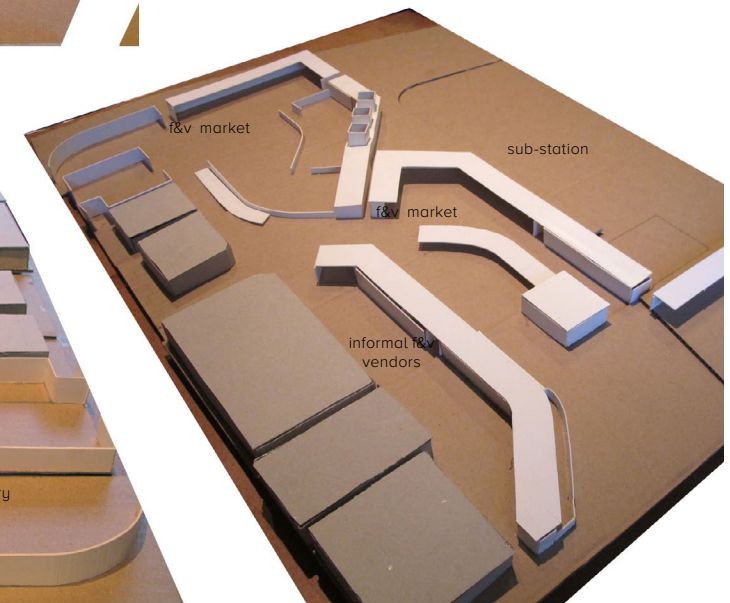


Figure 8.40. Aerial view from Boom Street

4.3_THE MODEL

The model explores:

- a) how the form of the buildings is informed by the existing pedestrian movement.
- b) as well as the provision of core formal structures which facilitate informal activity and allow for its self-organisation and adaptability.

SECTION EXPLORATION

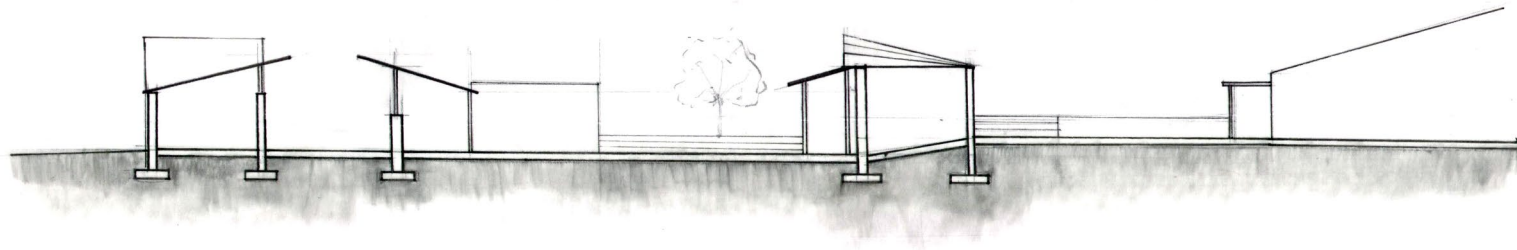


Figure 8.41. Section through fruit & vegetable market

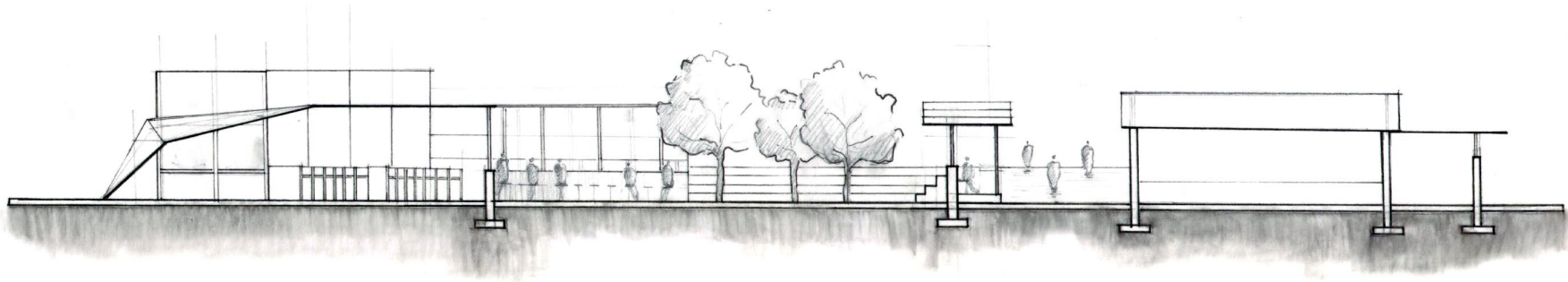


Figure 8.42. Section through offices and bitchenery

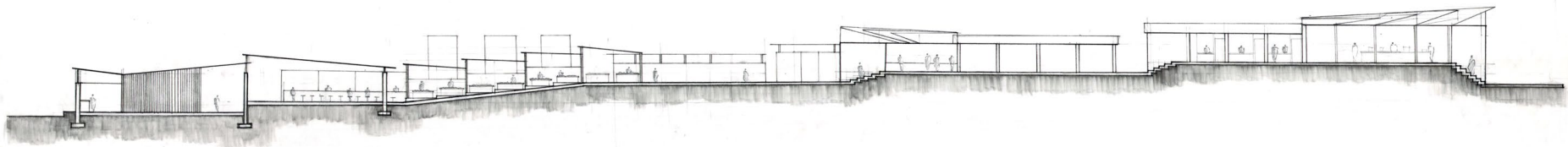


Figure 8.43. Section illustrating site slope

EXPLORATION 5

5.1_THE BRAAI

The communal braai areas are repositioned in the centre of the site and becomes an economic and social landmark.

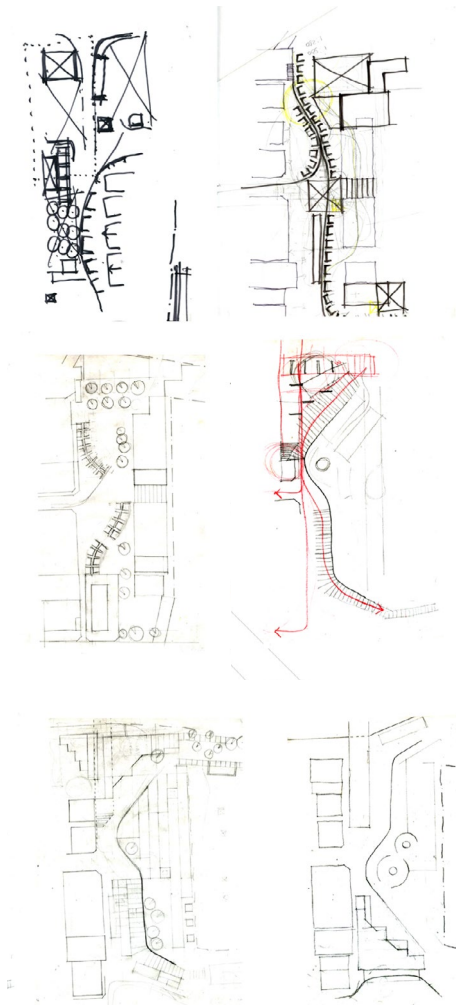


Figure 8.46. Concept sketches

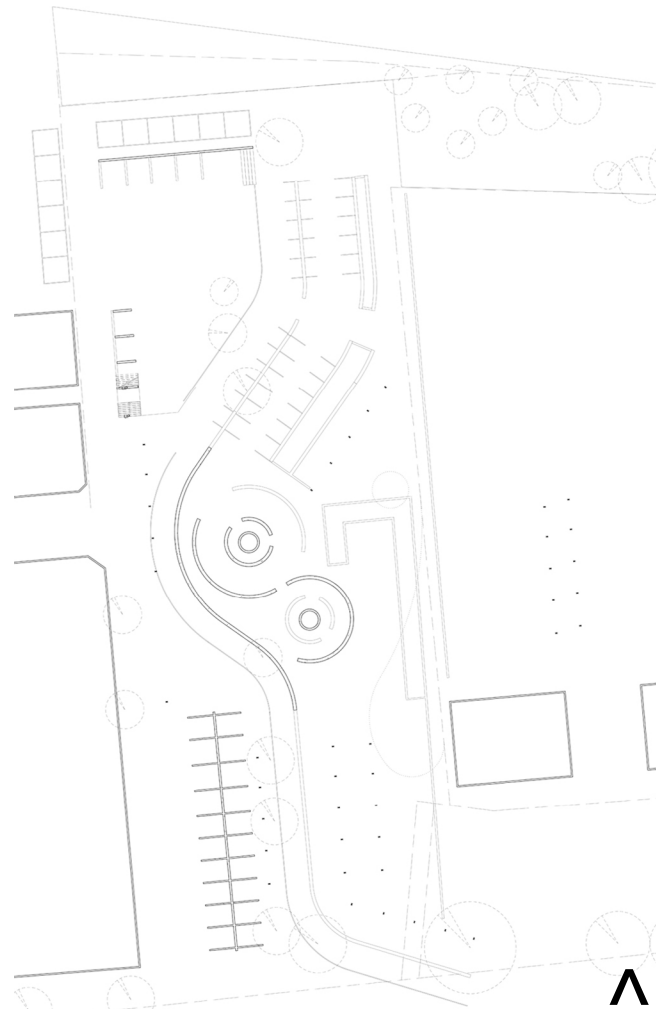


Figure 8.44. Braai place as central public space

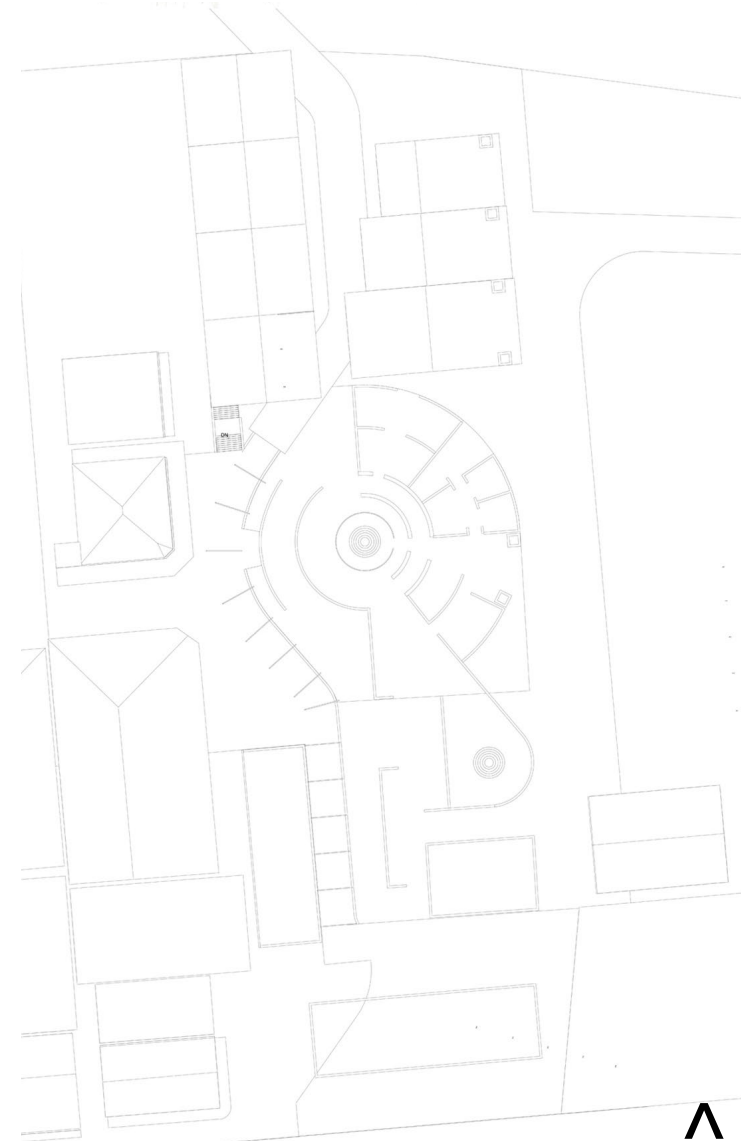


Figure 8.45. Cylindrical braai informs surrounding public area

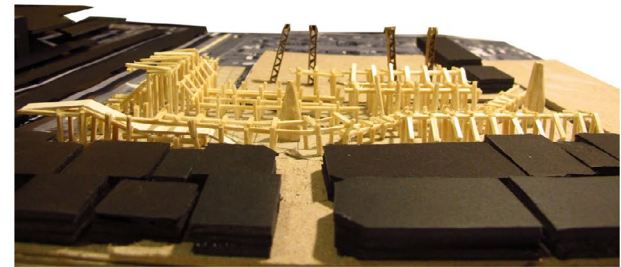
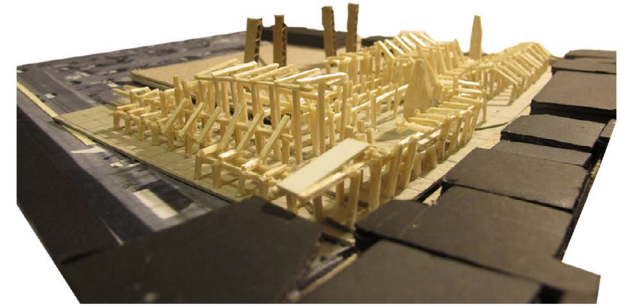
EXPLORATION 6

MODEL EXPLORATION

6.1_ LANDMARK

Stereotomic language of braai chimneys contrast the tectonic architectural language of the structure and become a landmark within the context creating a sense of place

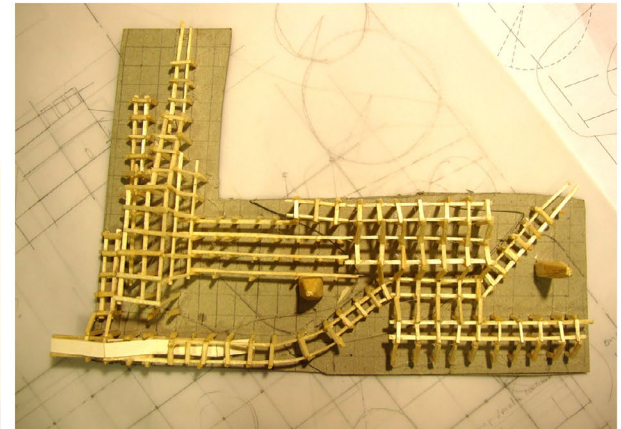
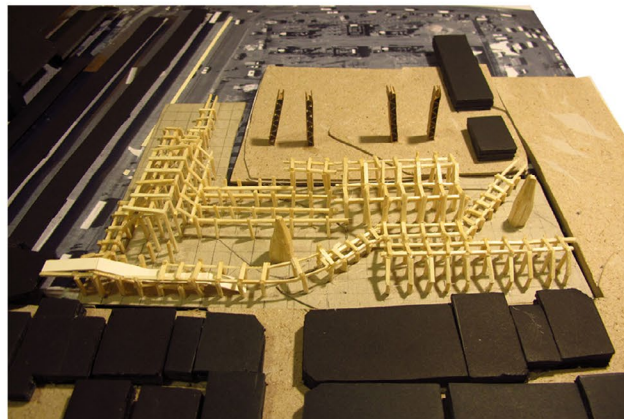
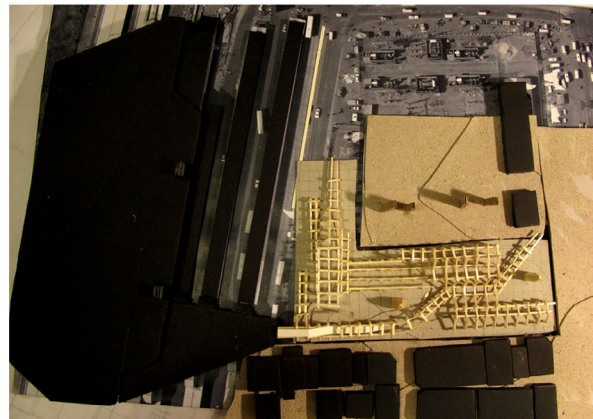
Tectonic response to sub-station on the east of the site



6.2_ STEREOTOMIC & TECTONIC

Exploration of tectonic architecture used to define space, both large and small scale.

Figure 8.47. Tectonic structural exploration



6.3_ SMALL SCALE TO LARGE SCALE

Response to both large scale of Belle Ombre and small scale of existing hertigae fabric.

Placement of braai defines public space and creates increased legibility.

Ground plane is informed by the movement of pedestrians through the site.

EXPLORATION 7

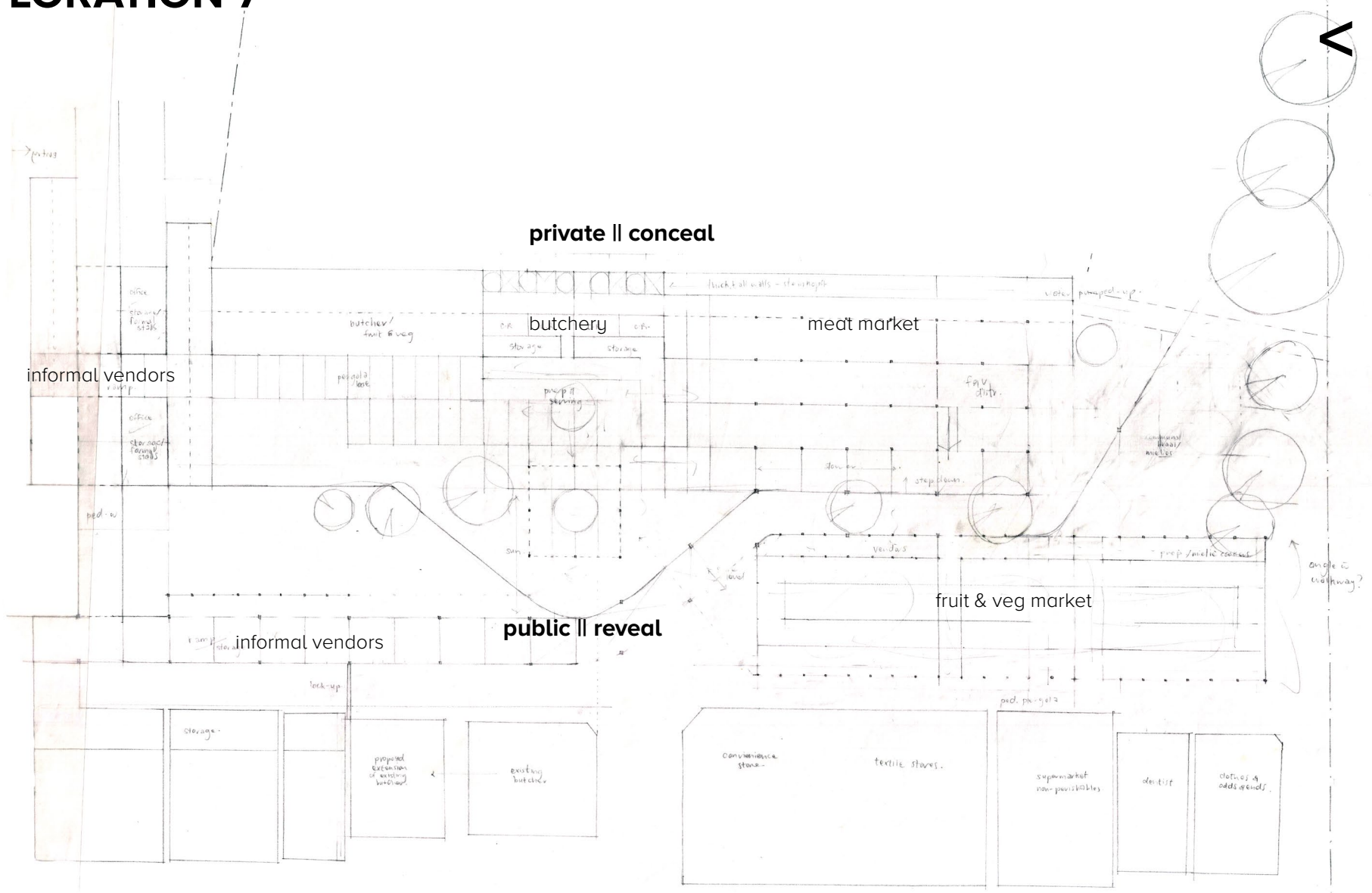


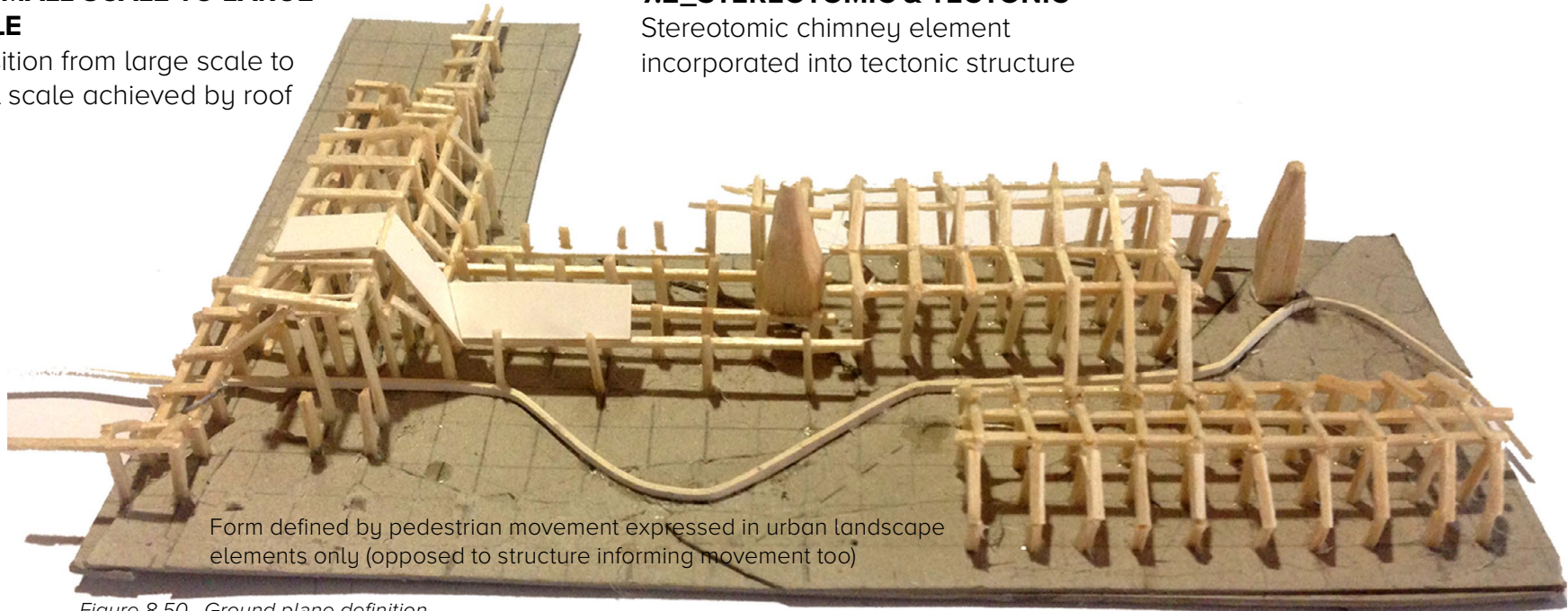
Figure 8.49. Exploration plan

7.1_SMALL SCALE TO LARGE SCALE

Transition from large scale to small scale achieved by roof

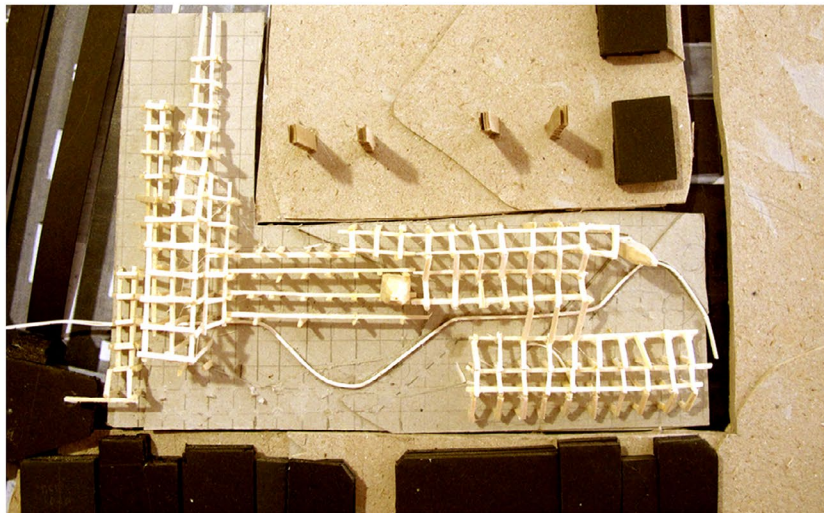
7.2_STEREOTOMIC & TECTONIC

Stereotomic chimney element incorporated into tectonic structure



Form defined by pedestrian movement expressed in urban landscape elements only (opposed to structure informing movement too)

Figure 8.50. Ground plane definition



7.3_PEDESTRAIN MOVEMENT

Fast and slow movement defined by urban landscape

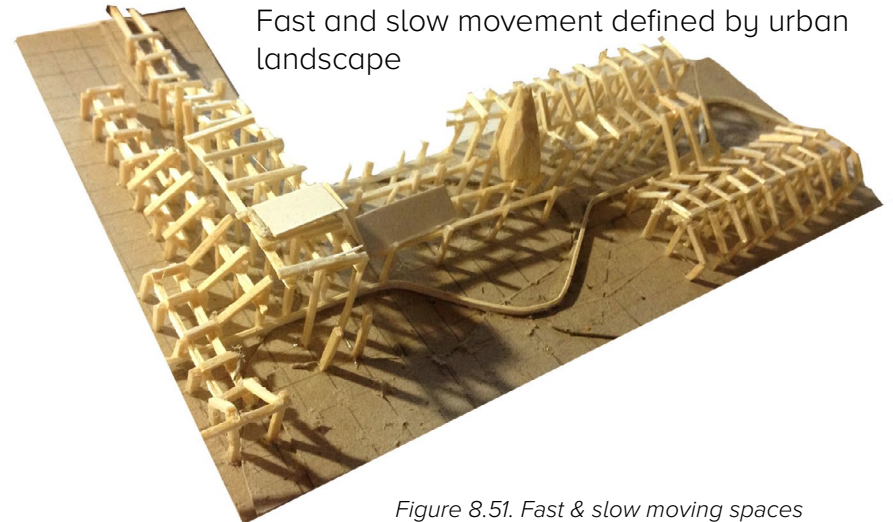


Figure 8.51. Fast & slow moving spaces

7.4_FLOOR PLAN

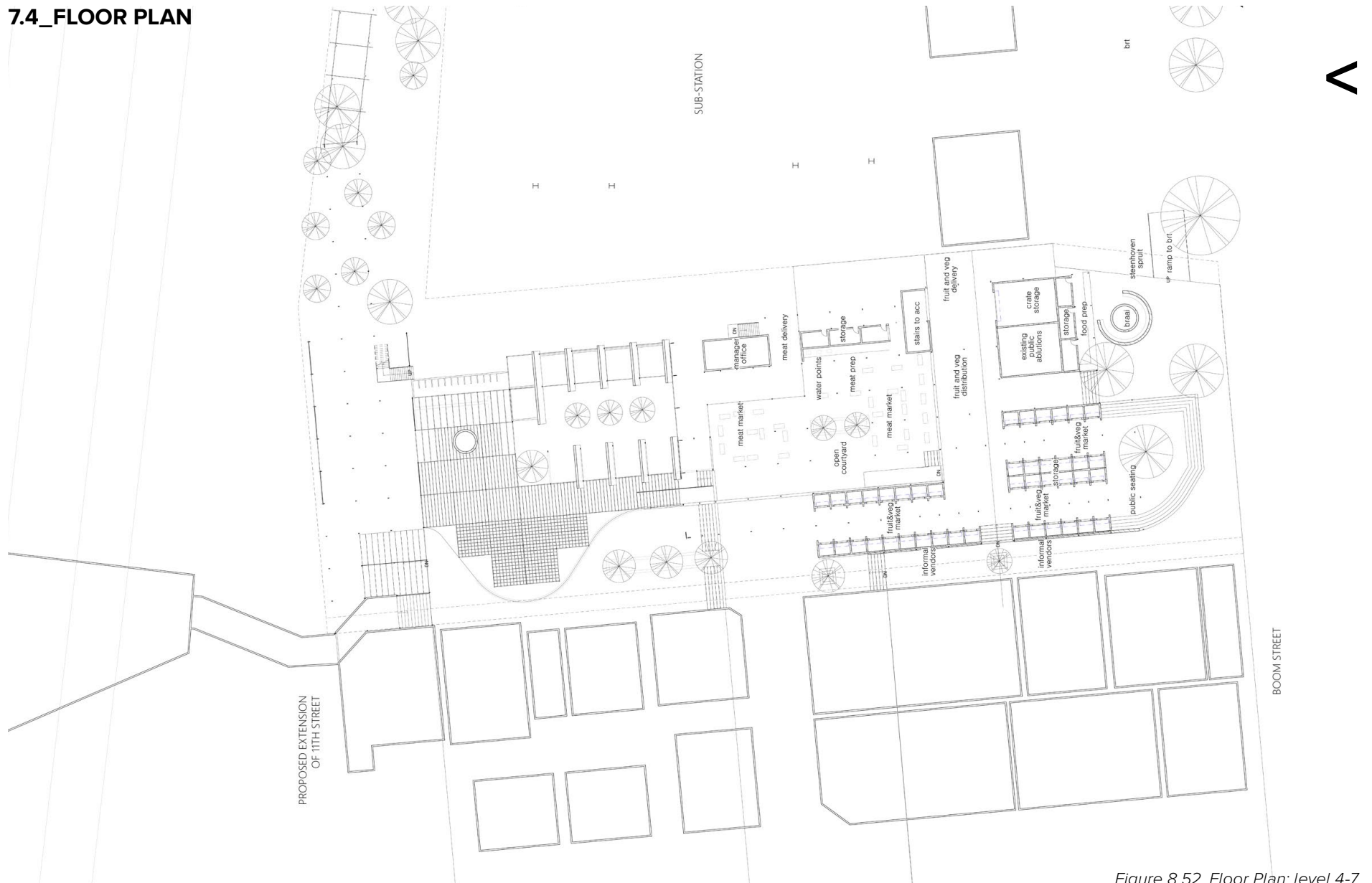


Figure 8.52. Floor Plan: level 4-7

7.5_PERGOLA ROOF PLAN



Figure 8.53. Pergola plan

7.6_SITE PLAN



Figure 8.54. Site Plan

7.7_MODEL EXPLORATION

Exploration of heavy stereotomic structure vs. lighter tectonic pergola structure

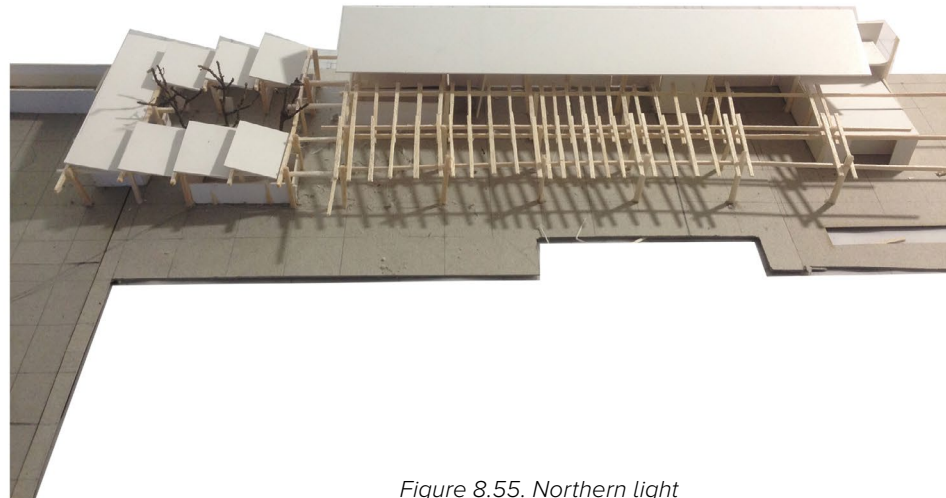
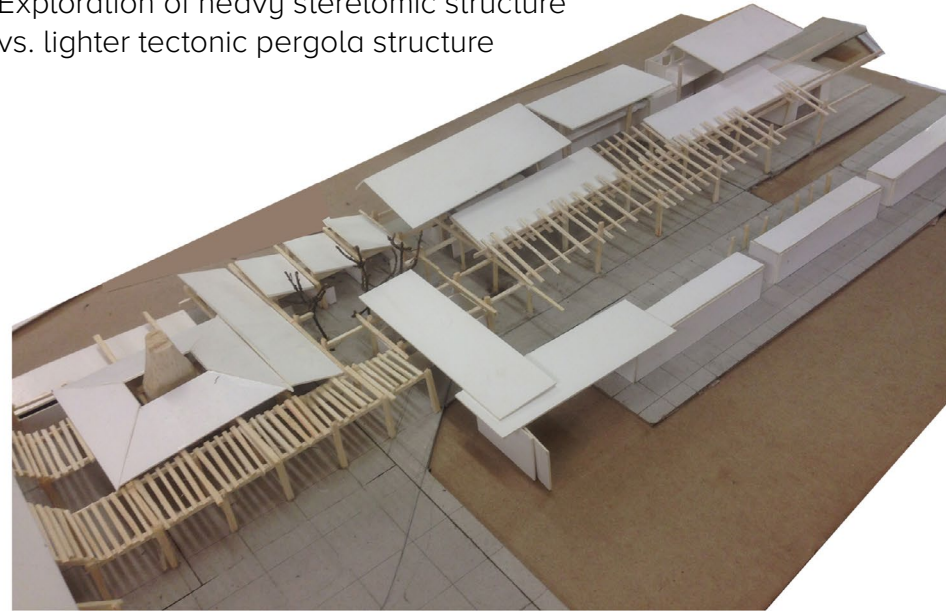
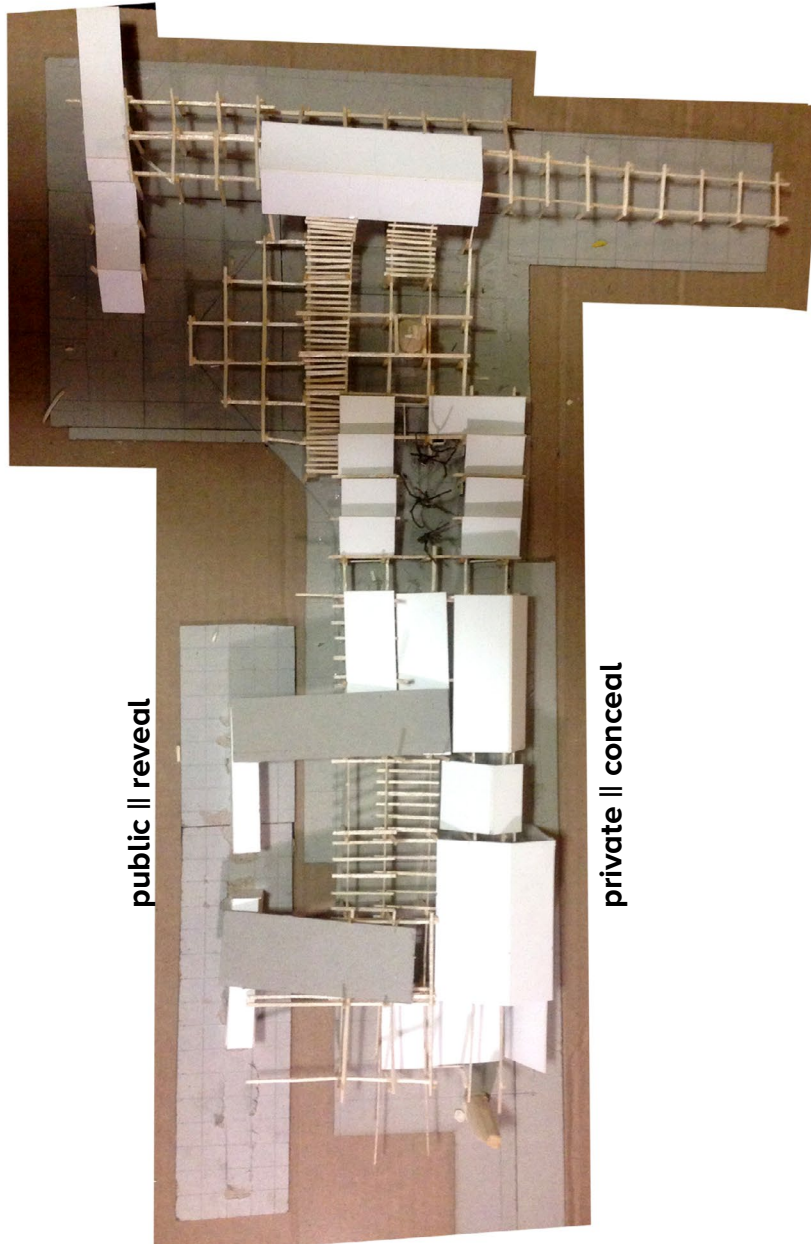


Figure 8.55. Northern light

EXPLORATION 8

8.1_PLAN EXPLORATION OF STAIRS

Exploration of incorporating public seating and steps where level changes occur. Urban defining elements become public space.

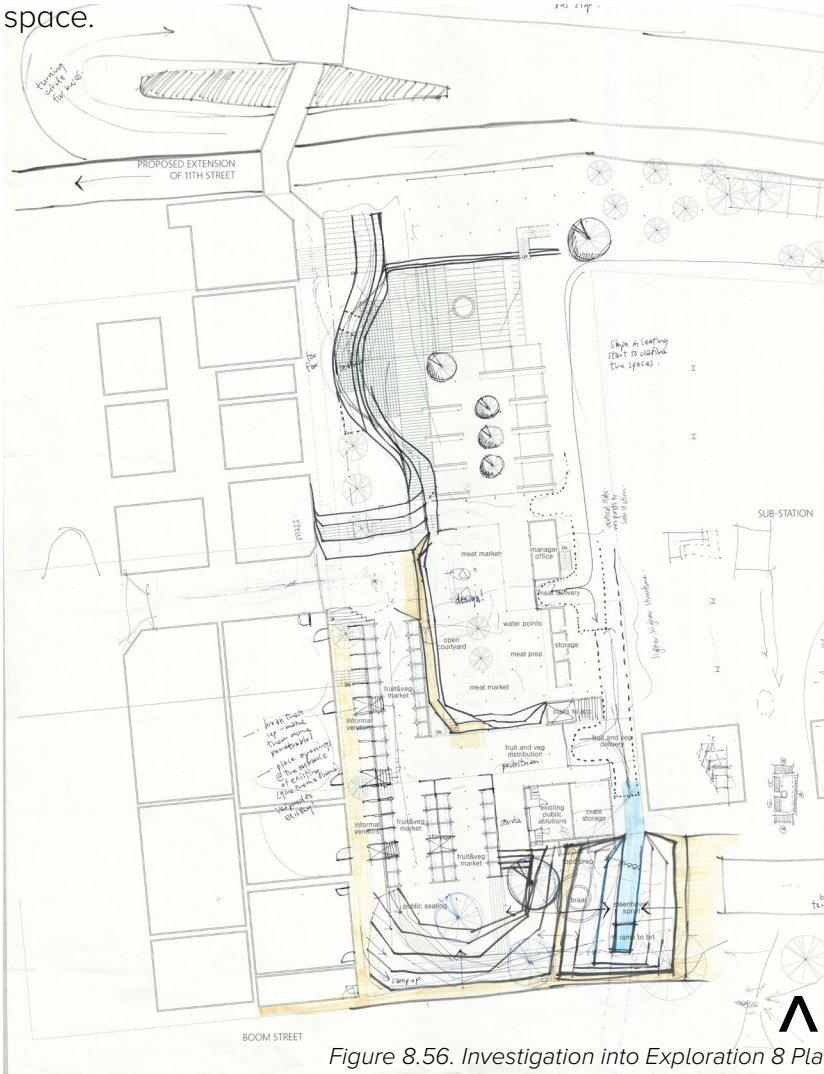


Figure 8.56. Investigation into Exploration 8 Plan_1

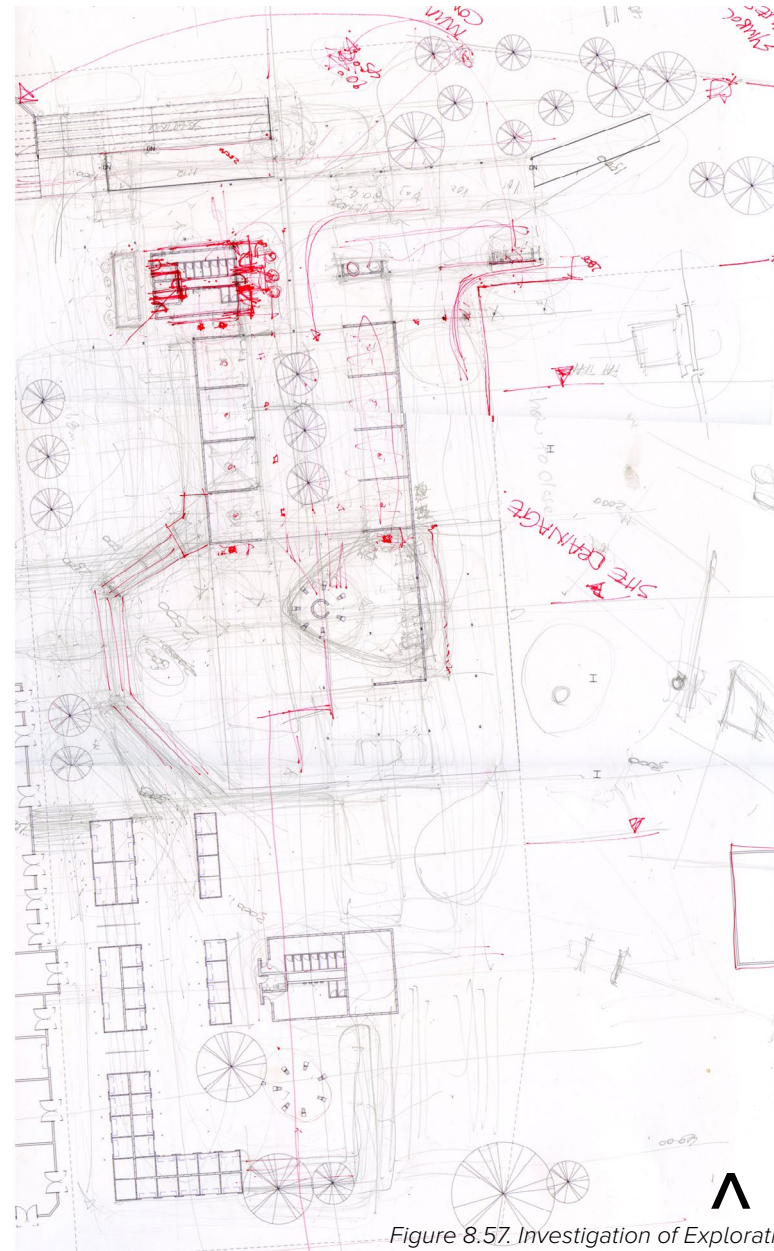


Figure 8.57. Investigation of Exploration 8 Plan_2

8.2_URBAN DEFINING ELEMENTS

Stairs define urban landscape and emphasise braai areas as significant public space

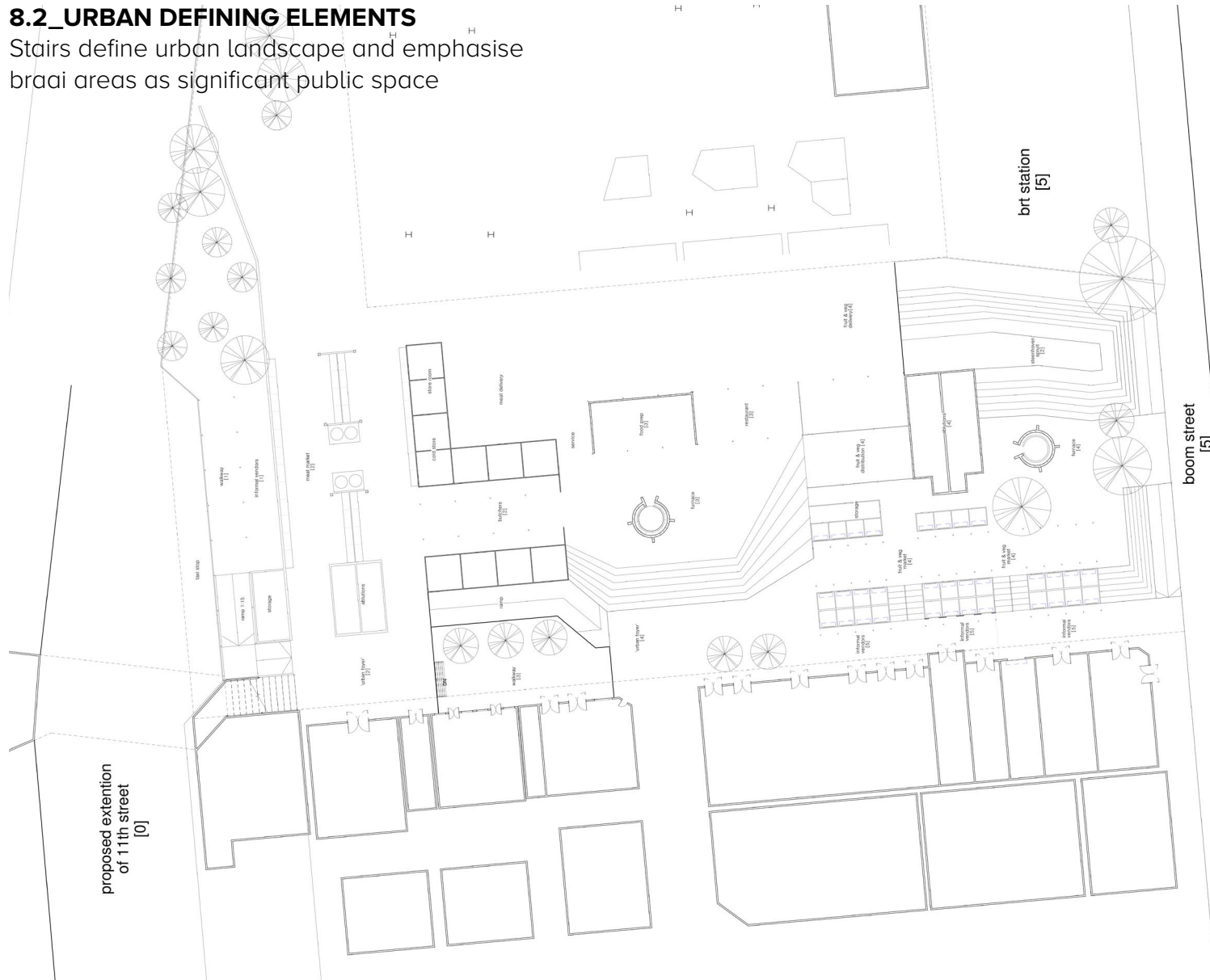


Figure 8.58. Exploration 8 Plan_3

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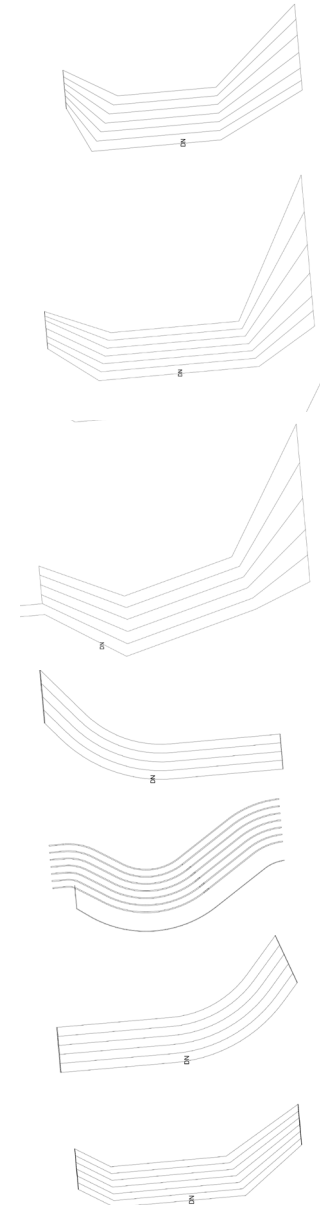


Figure 8.59. Stair iterations

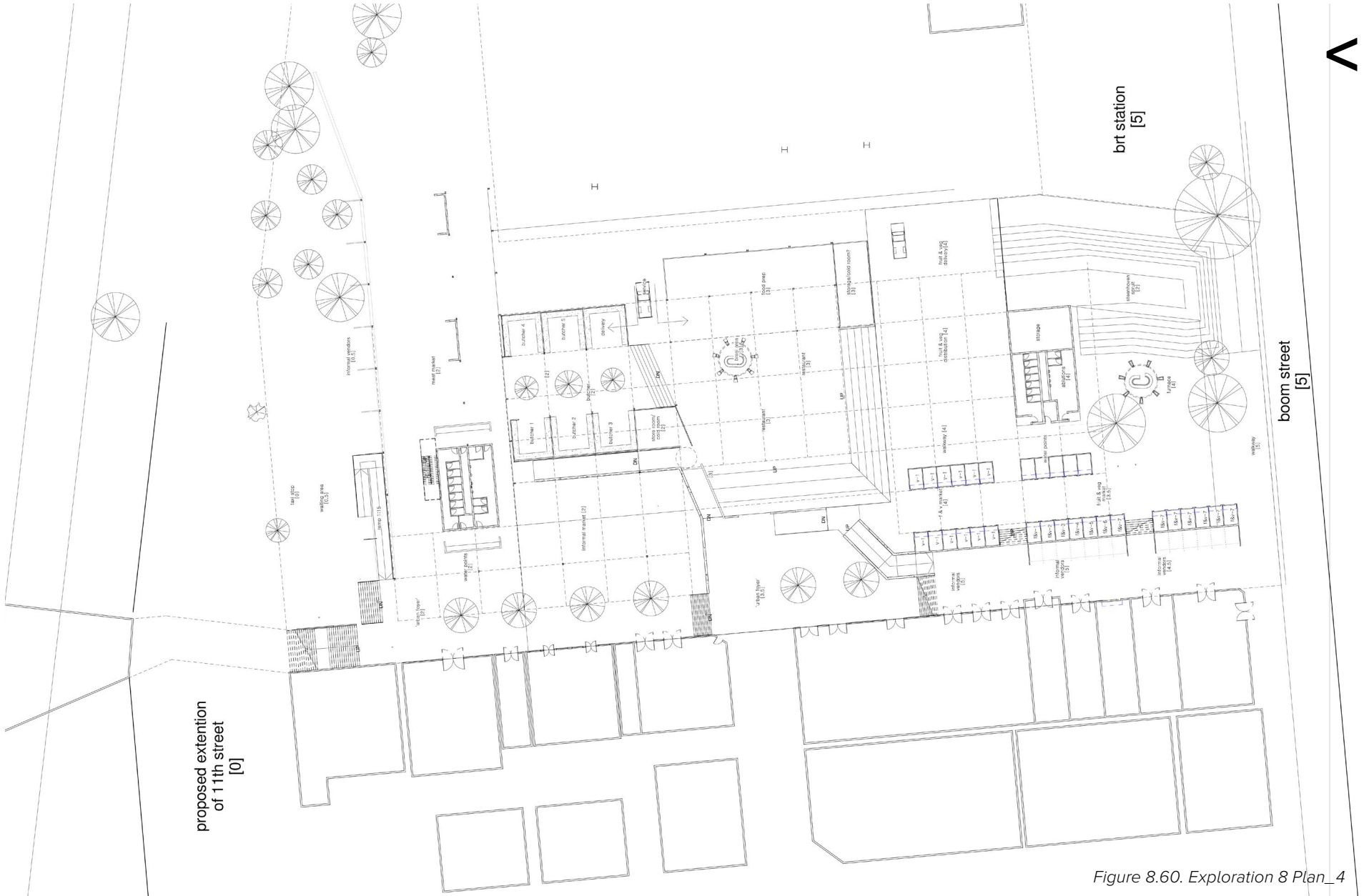


Figure 8.60. Exploration 8 Plan_4



MODEL EXPLORATION

Structural element exploration

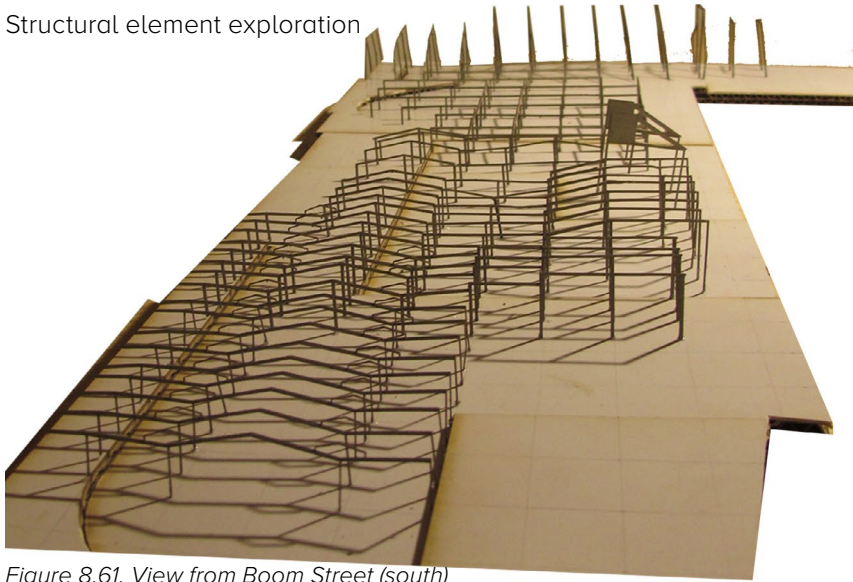


Figure 8.61. View from Boom Street (south)

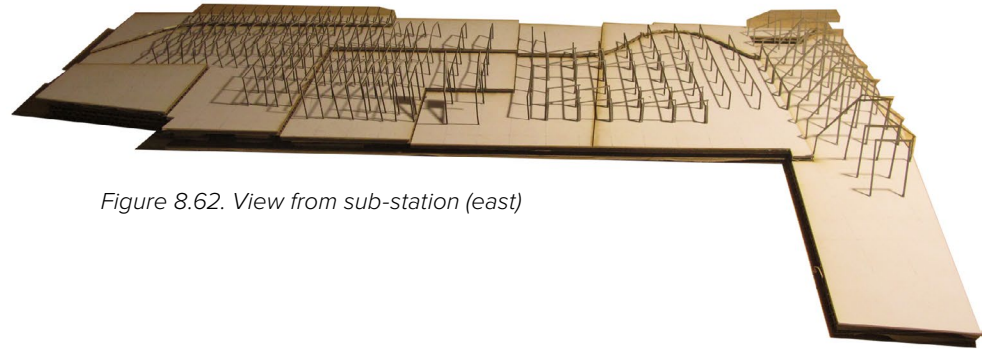


Figure 8.62. View from sub-station (east)



Figure 8.63. Walkway through fruit & veg market



Figure 8.64. Accommodation

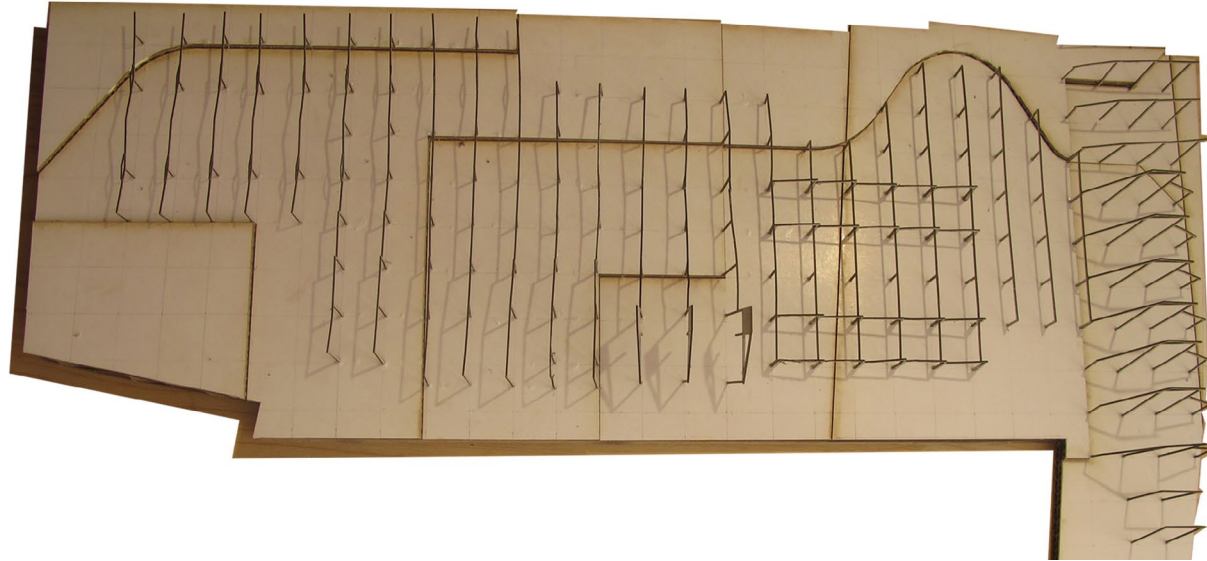


Figure 8.65. Aerial view of model

Figure 8.66. Food preparation & restaurant

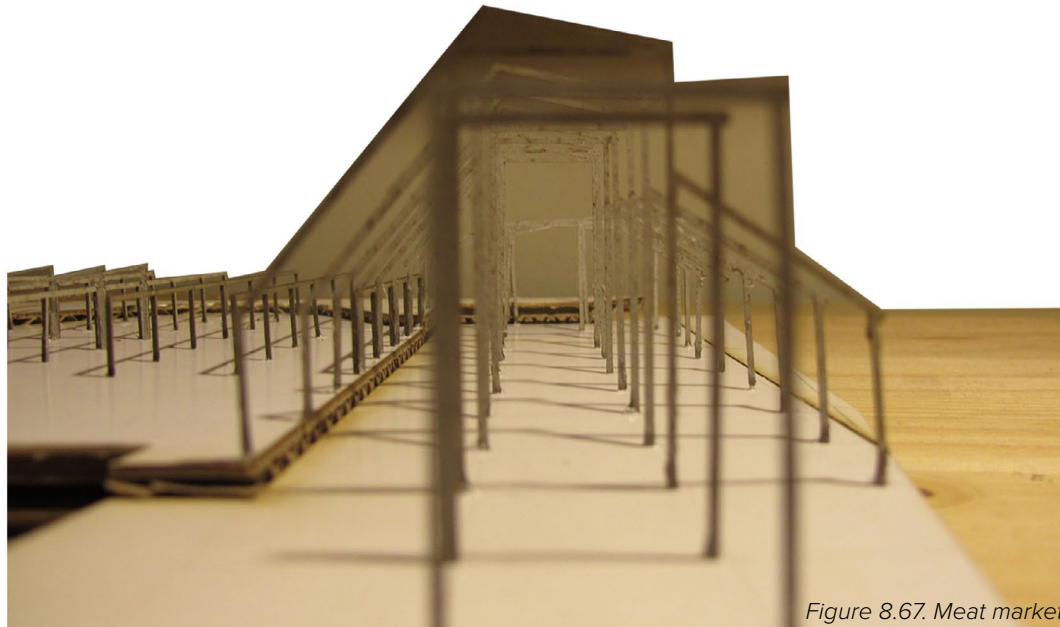
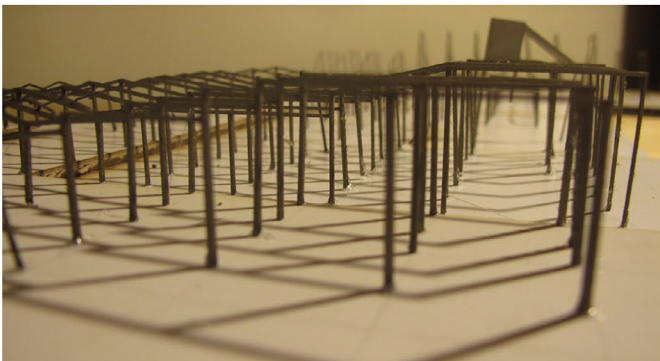


Figure 8.67. Meat market

PERSPECTIVE EXPLORATION



Figure 8.68. Informal market

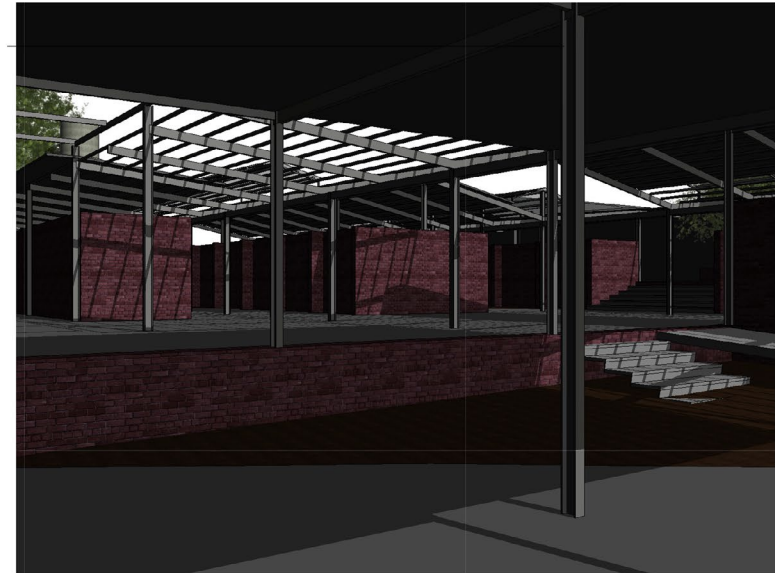


Figure 8.69. View from informal market to fruit & veg market

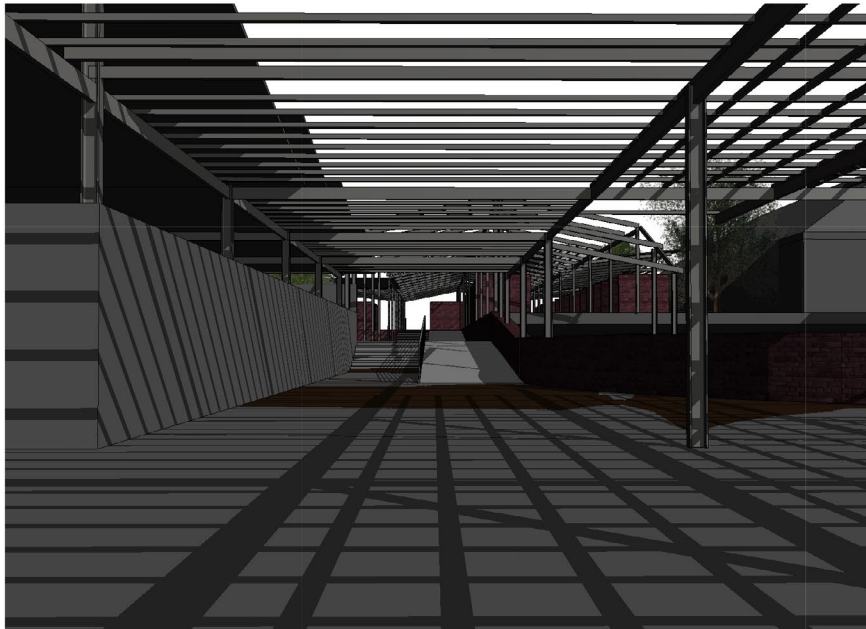


Figure 8.70. Walkway from meat market, past butchery (on the left) towards fruit & veg distribution

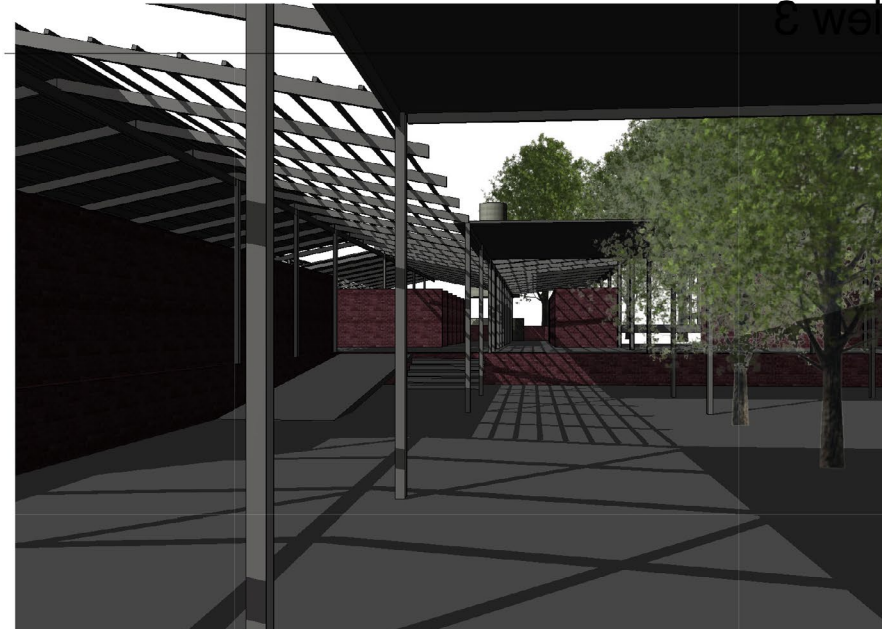


Figure 8.71. View of informal market and walkway

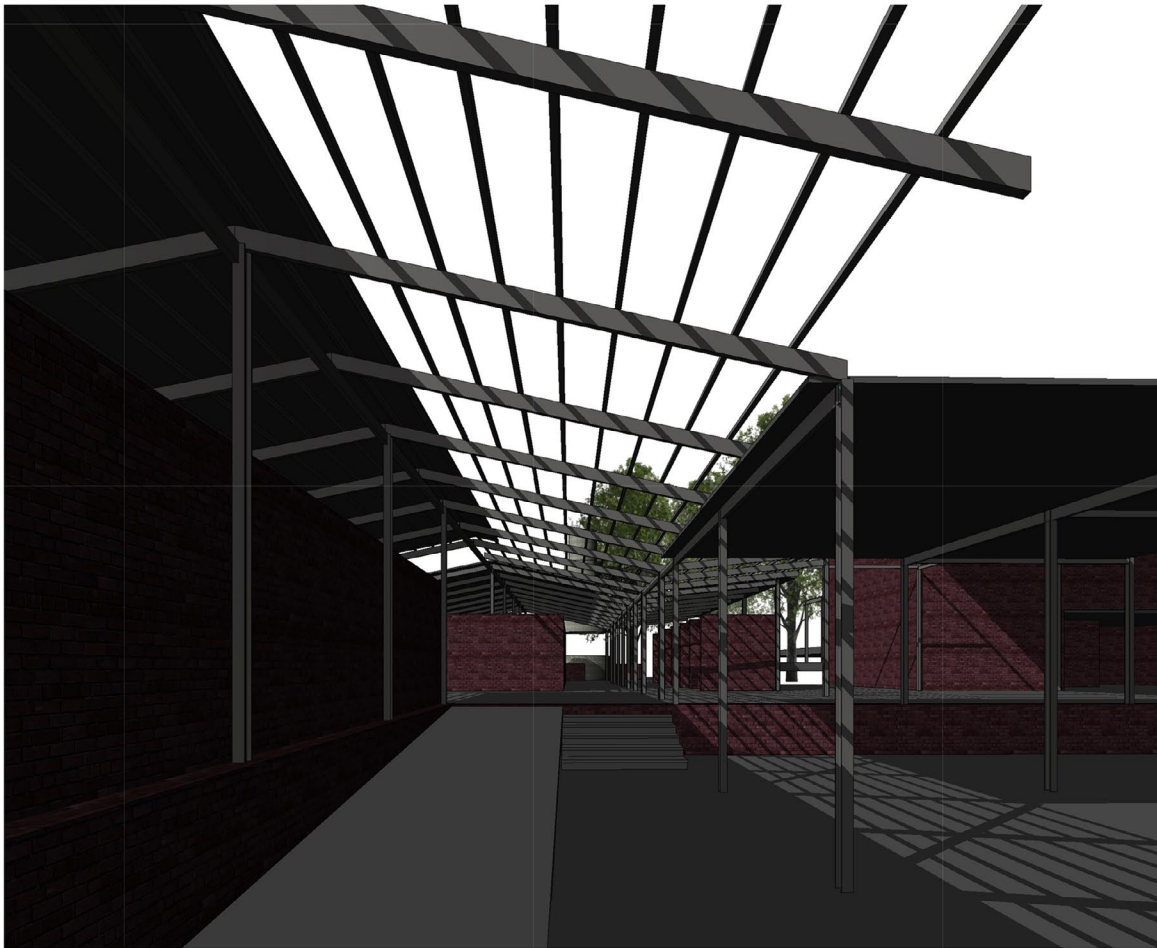


Figure 8.72. Ramp from meat market to braai area and restaurant

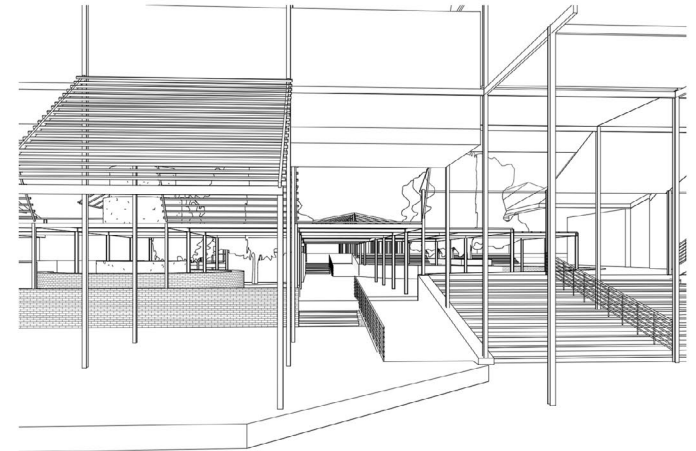


Figure 8.73. Northern taxi stop off looking towards site: meat market (left) and informal market (right)



Figure 8.74. Informal vendors at northern taxi stop

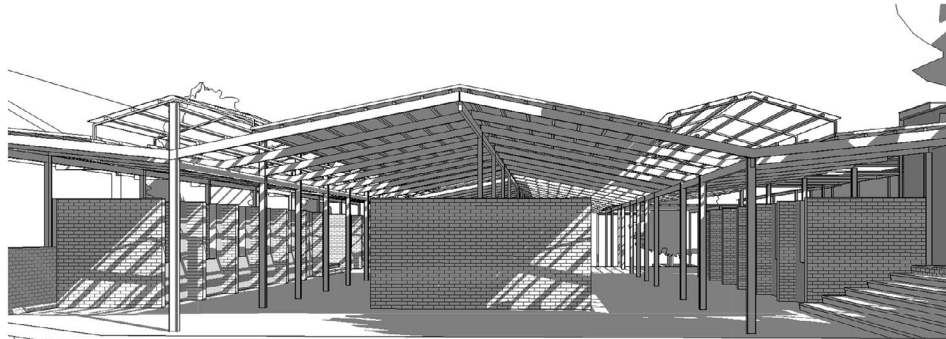


Figure 8.75. Fruit & vegetable market

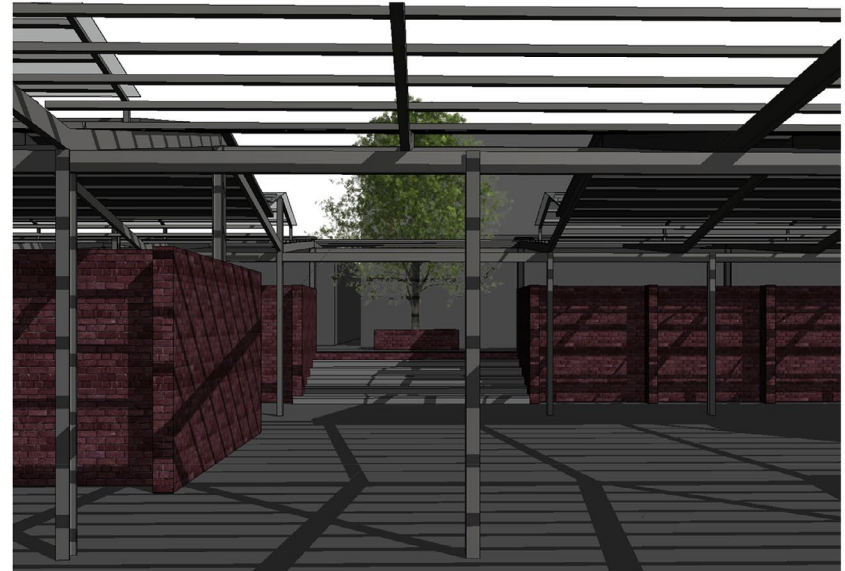


Figure 8.76. View from fruit & vegetable market towards formal stores

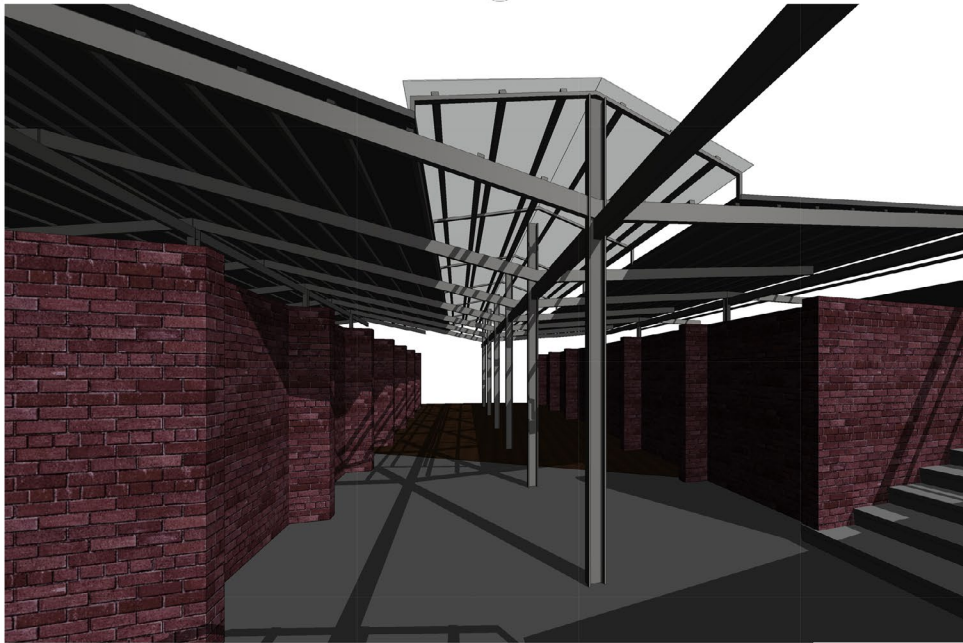


Figure 8.77. Walkway through fruit & vegetable market

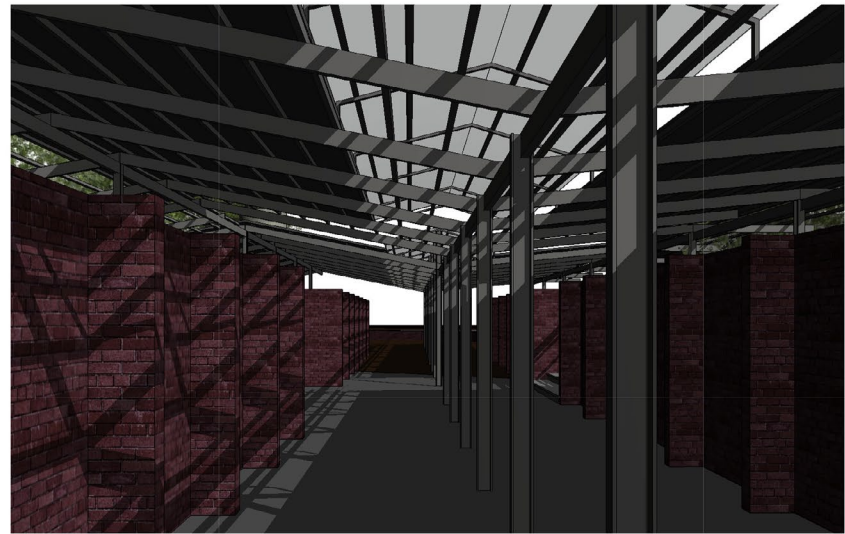
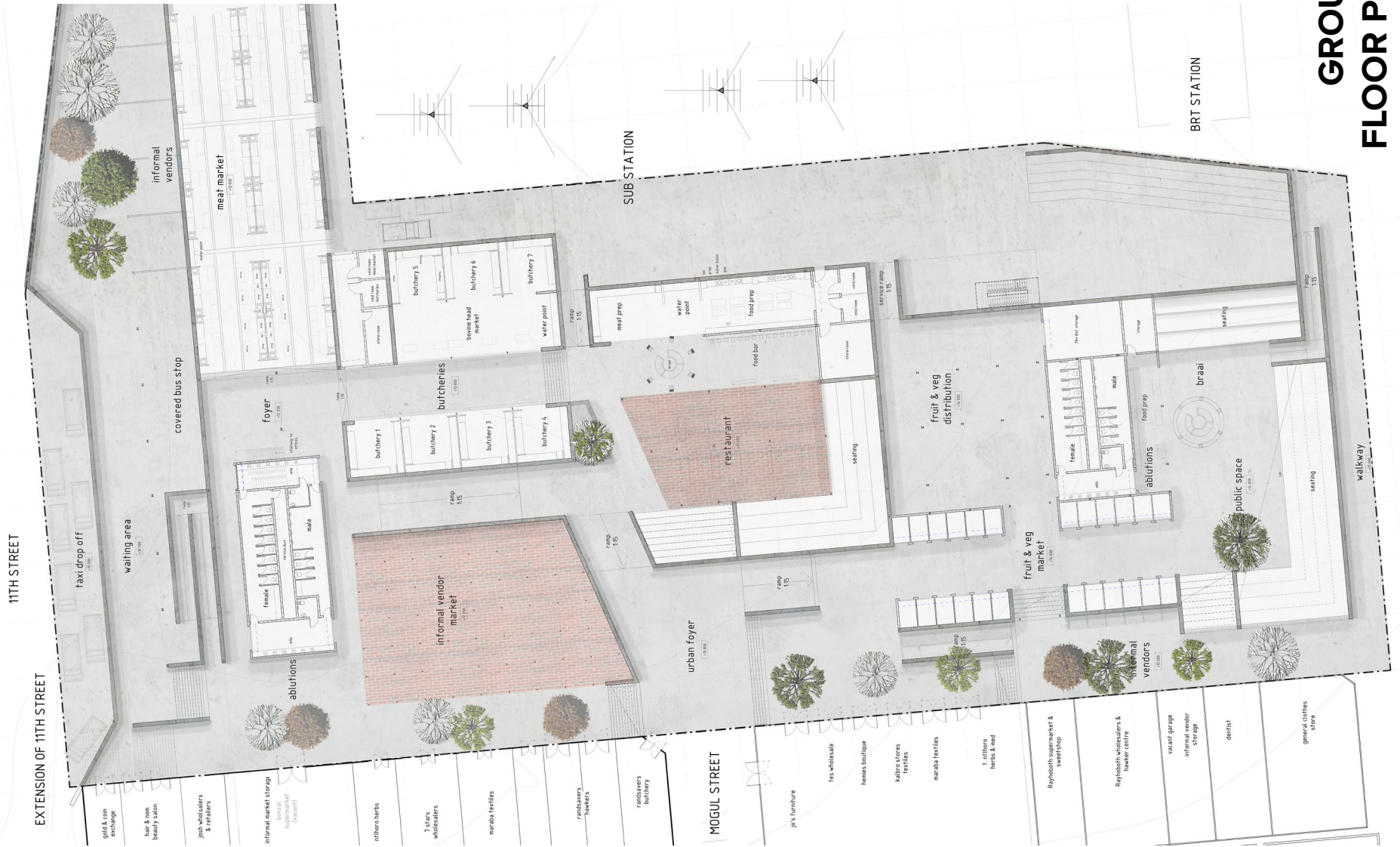


Figure 8.78. Natural light enters fruit & vegetable market





**GROUND
 FLOOR PLAN
 1:100**

11TH STREET

EXTENSION OF 11TH STREET

MOGUL STREET

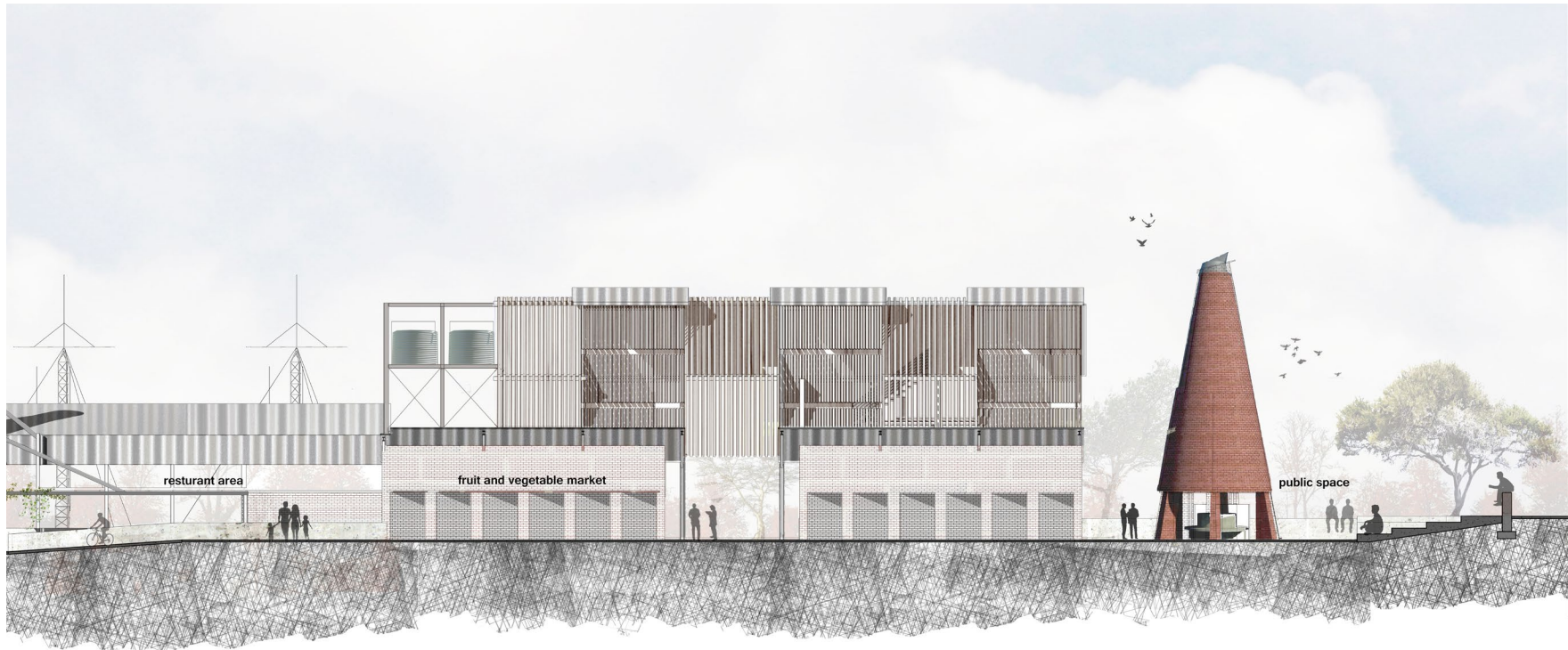
BOOM STREET

BRT STATION

SUB STATION

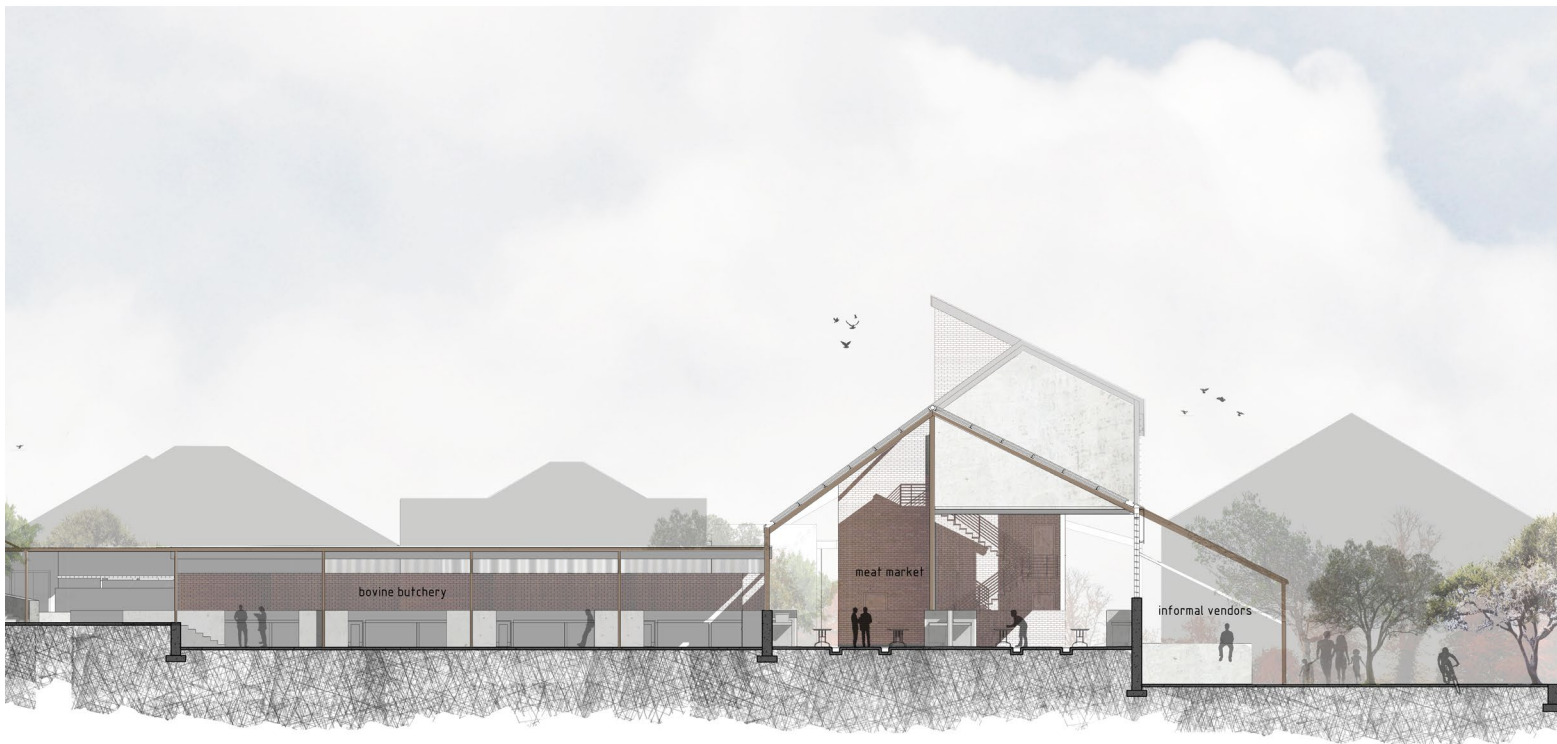
- gold & coin exchange
- hair & nail beauty salon
- job wholesalers & retailers
- informal market storage (supermarket (free rent))
- riffono herbs
- 3 stars wholesalers
- maraba textiles
- rainbowers bankers
- rainbowers butchery
- je & furniture
- tes whiteside
- hennies boutique
- babers stores textiles
- maraba textiles
- 1 withos herbs & seed
- Raybooth supermarket & sweetshop
- Raybooth wholesalers & baker centre
- vacant garage informal vendor storage
- dentist
- general clothes store





SECTION A-A
1:100





SECTION B-B
1:100

DESIGN INFORMANTS

levels respond to natural site slope of 4m



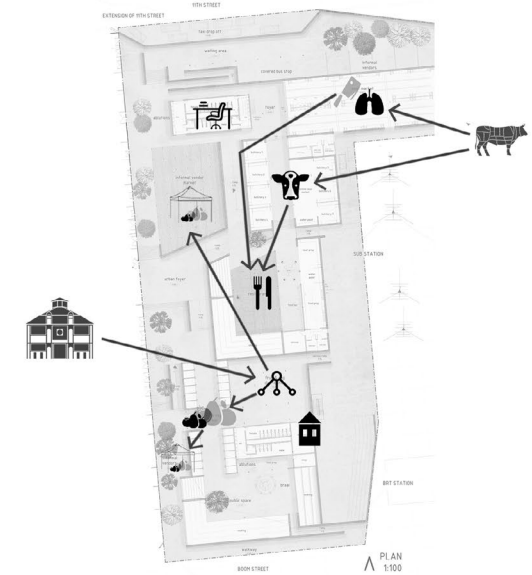
building placement to accommodate pedestrian movement



private programmes placed further from public spaces & walkways

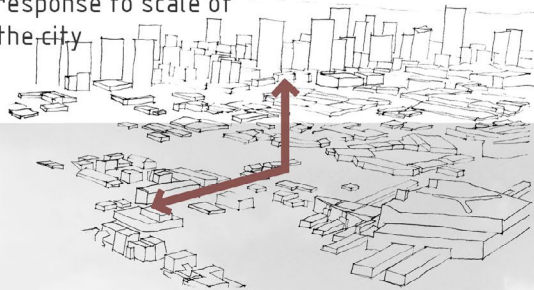


programmes located in accordance with other relating programmes

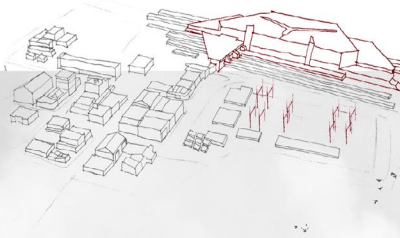


LARGE & SMALL SCALE

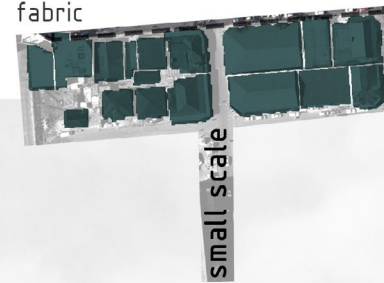
response to scale of the city



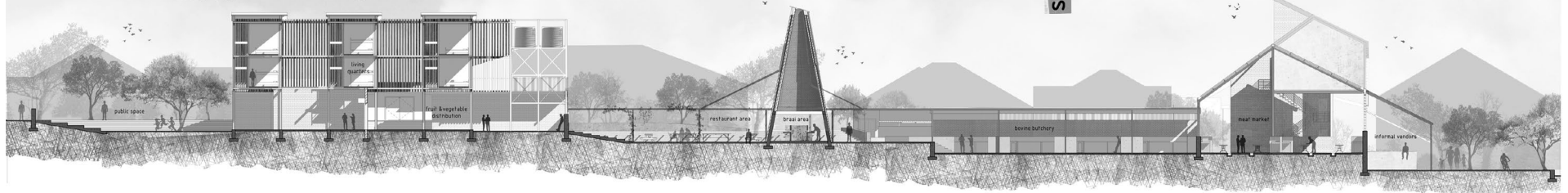
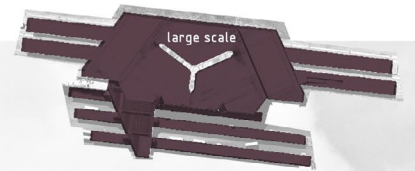
furnace is a response to height of sub station



response to small scale of heritage fabric

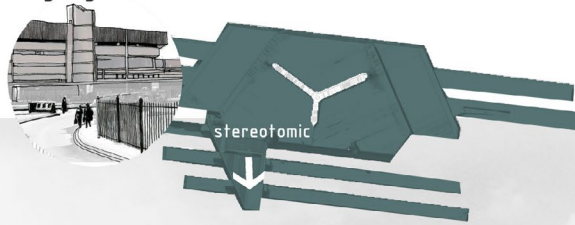


response to large scale of belle ombre

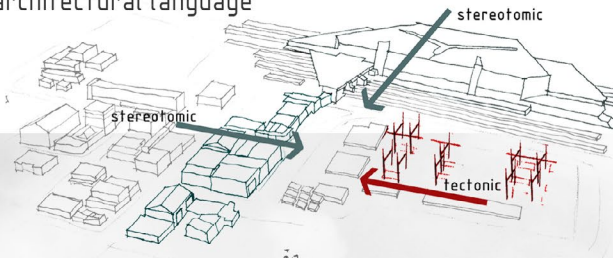


STEREOTOMIC VS. TECTONIC

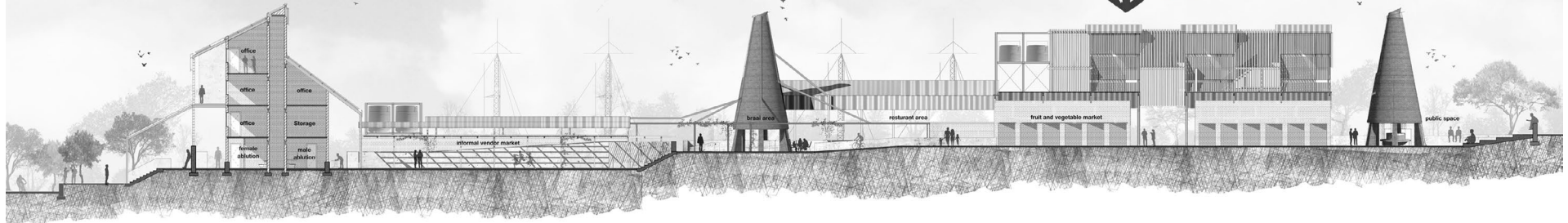
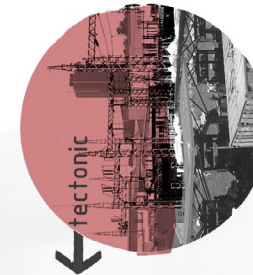
response to stereotomic
language of belle ombre



mediation between stereotomic & tectonic
architectural language



response to tectonic
language of sub-station



PERSPECTIVES



RESTAURANT & FURNACE





BOVINE HEAD BUTCHERY



INFORMAL VENDORS



FRUIT & VEGETABLE MARKET



BRAAI & RESTAURANT



NORTHERN VIEW FROM BELLE OMBRE



FRUIT & VEGETABLE DISTRIBUTION