

Figure 6.1 Early form development (Author 2015)

VI

DESIGN DEVELOPMENT

6.1 INTRODUCTION

This chapter explains the main design considerations in translating the conceptual approach into architecture whilst dealing with micro-contextual issues. The design process will be ordered into the four main considerations of incision, extraction, processing and redistribution. The process aims at establishing an alternative manner in which to navigate public spatial considerations as a result of built form. By providing tangible expression to the intervention's programmatic structure, the scheme considers public spatial experience as the main end result and focus from beginning to end.

6.2 “INCISION”: A Response to Scale

A main concern of the design was establishing a relationship between the scales of the new building in response to the imposing nature of its surrounding high-rise structures. Scale, as defined in this instance, not only relates to the physical height of the existing structures, but also relates to the plinth void and the scale of administrative program associated with the existing buildings. With public (insurgent) activity as main outcome, the design process had to navigate a relationship between the plinth, the user as the main beneficiary, the proposed building and existing high-risers. It became a major concern to retain the marginal and secretive nature of the plinth space, whilst introducing a public program to its character.

For this reason, the new building does not drastically conform to the large scale height of the 100m National Treasury Building and 80m High Court Chambers, but mainly adjusts to the height of the Mutual and Federal building across Vermeulen Street.

During the design iterations, it was established that the new building should constitute a minimum height of five storeys, including that of the plinth level. Symbolising a penetration into the existing form of the High Court Chambers, the intervention decreases in height, scale and density from the point of incision down to the plinth, where the use of exterior skin lowers in regularity and increases visual permeability. This was done so as to emphasise the marginal plinth void, as well as the existing high-risers which aided in the formation of this marginal space. In totality, the southern facade acts as a horizontally-layered skin, placing emphasis on the building's extroverted and inclusive nature, as well as providing rhythmic visual links, allowing street activity to link with that of the marginal plinth. The skin of the new building, as it detaches from itself at the point of incision, not only represents opening-up an existing introverted building into the public sphere, but also explores a reinterpretation of Pretoria's architectural heritage with regards to tropical modernism and the movement's manipulation of the building facade in addressing specific environmental considerations.

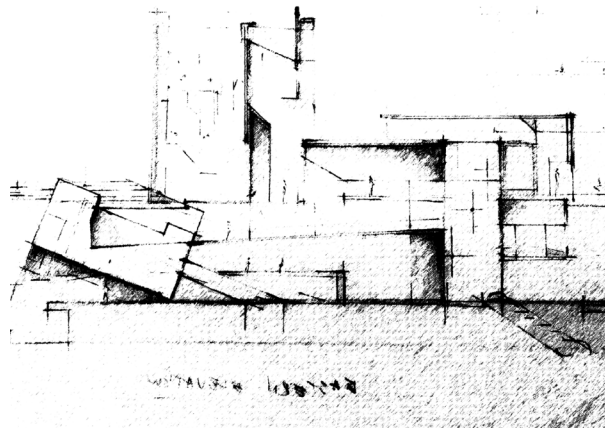


Figure 6.2 Author 2015

Figure 6.3 Early Form Development (Author 2015)



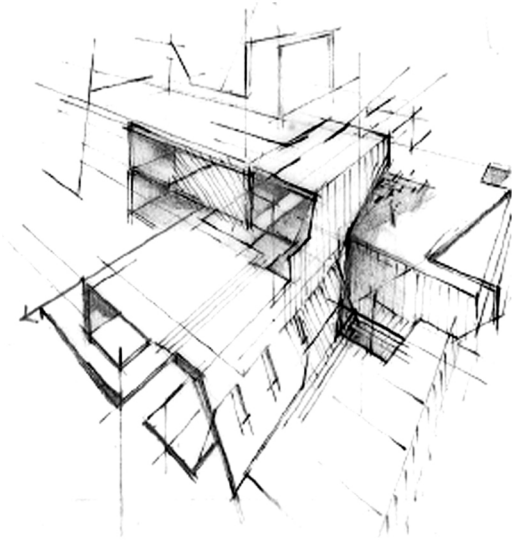


Figure 6.5 Author 2015

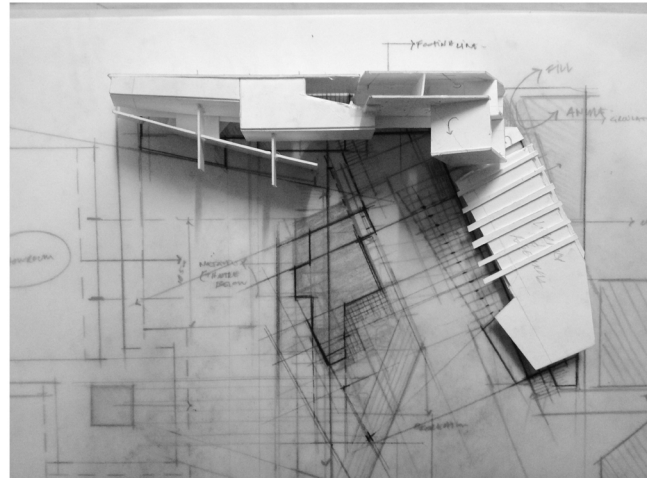


Figure 6.7 Author 2015

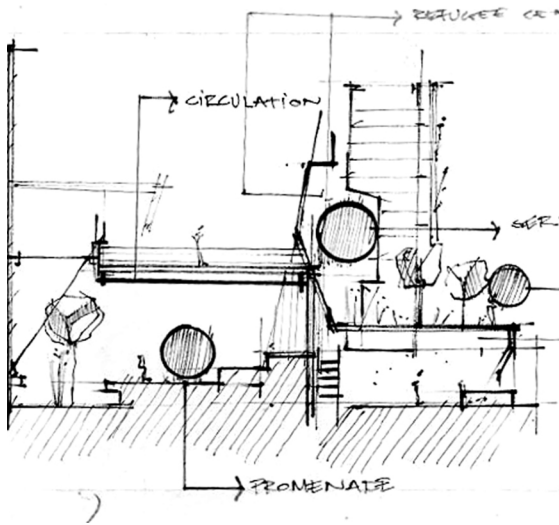


Figure 6.6 Author 2015

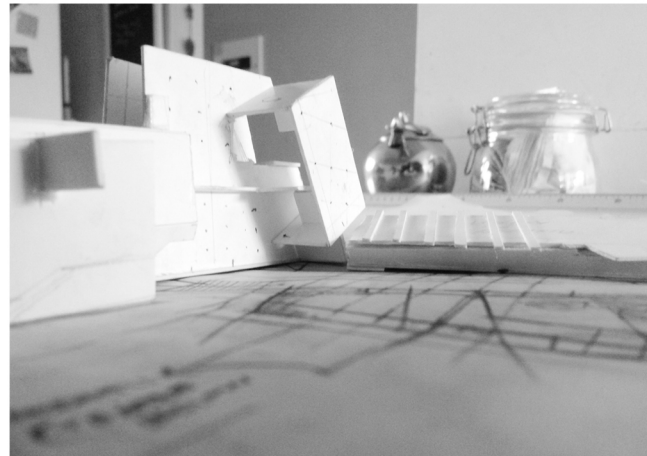


Figure 6.8 Author 2015

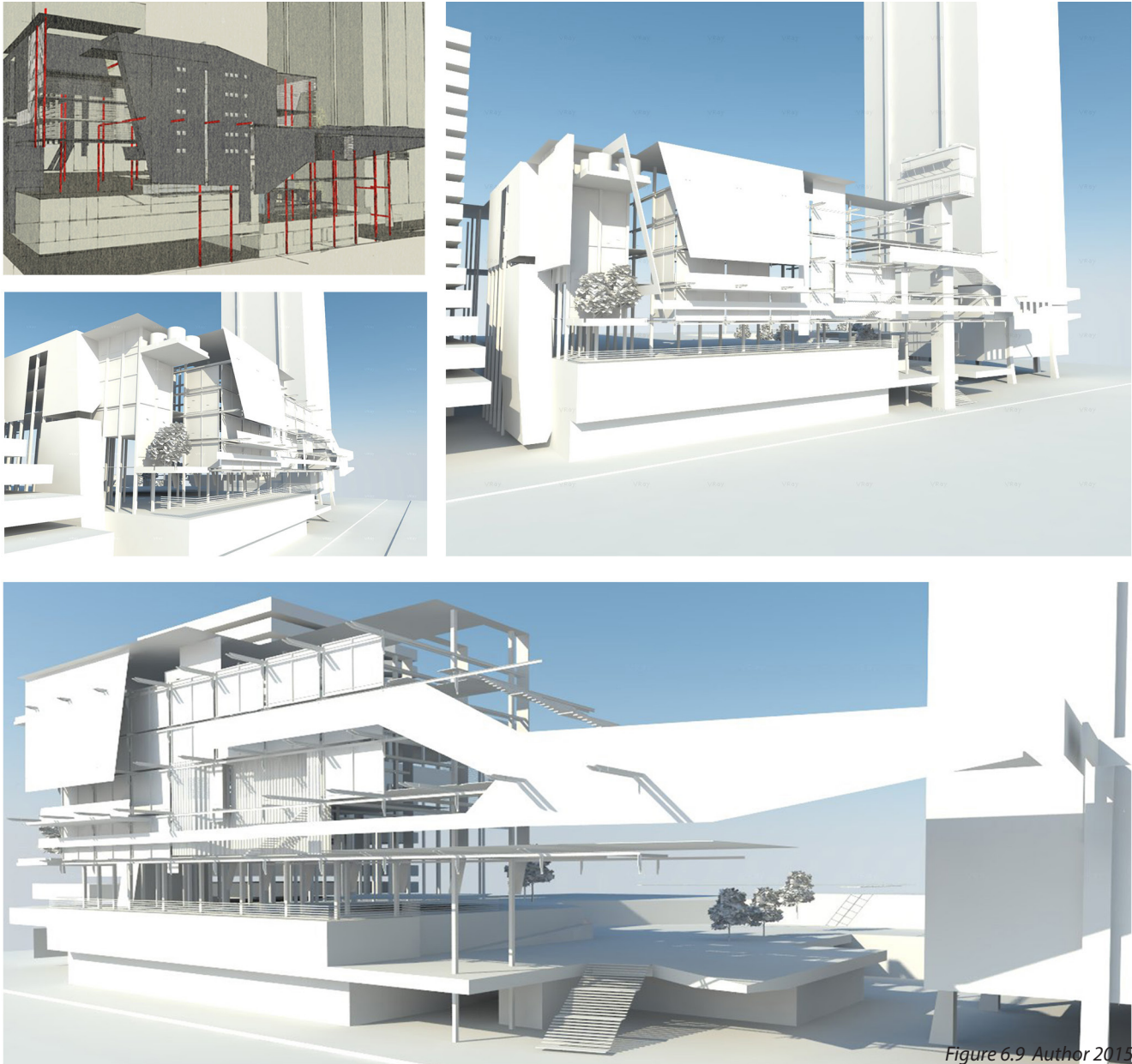


Figure 6.9 Author 2015

The skin performs the additional function of hiding and exposing the workings of structure and services, increasing the perceived depth of the form as an alternative to conventional internalised buildings commonly associated with Pretoria's CBD. By extending the structure of the plinth through the use of concrete columns, the building will be elevated above the plinth at single storey height. This effect places further emphasis on the architecture's intent of extending from, existing form as well as the alternative temporariness of urban form.

6.3 "EXTRACTION": A Transition from Building to Plinth

In keeping with the conceptual approach, the intervention is perceived as extracting programmatic information from a high-pressured internalised building and redistributing this program into the low-pressure zone of the marginal plinth, viewed as the main public zone. The structural density and linear rhythm, as required by the law library extension from the Advocates Building, provides the initial function of extraction from high- to low pressure. The library is to act as main private access route into the building for legal professionals and clients. As services are located on the street edge, as an abstraction to conventional back-of-house strategies, interior circulation of movement will be positioned to the back of the L formation. Space provided for the storage of books will then serve the additional function of a north-south orientated bridge to provide the initial transition from private to semi-private, to animate the experience of circulation through and into the building with a sense of information as the main theme. Access via the National Treasury building is to be less prominent and of a more casual nature, as this section of the building is located on the opposite end of the incision zone, although it will be visible from street- and plinth view to clarify the project's intention of incision into existing form.

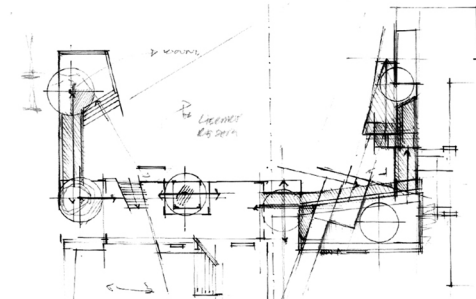
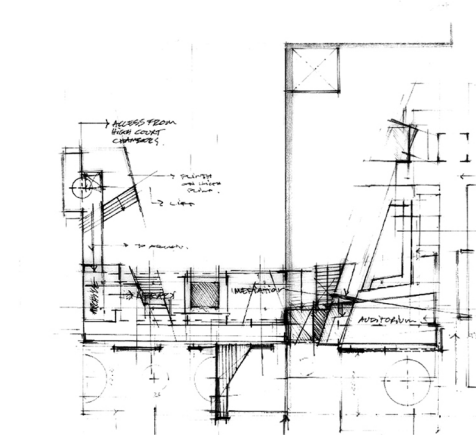
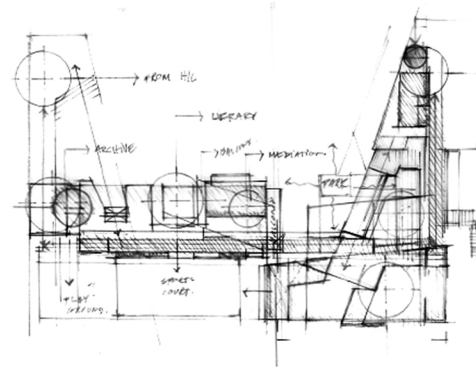


Figure 6.10 Author 2015

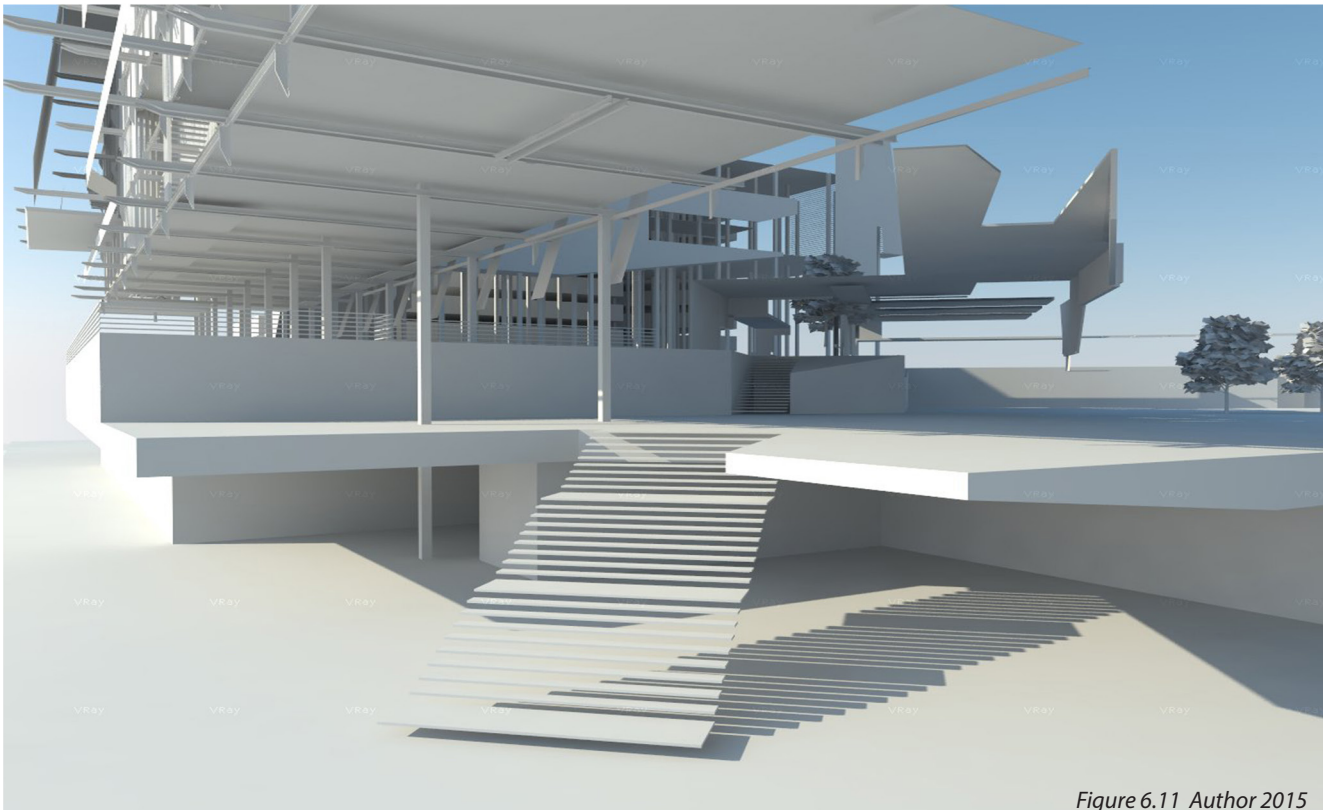
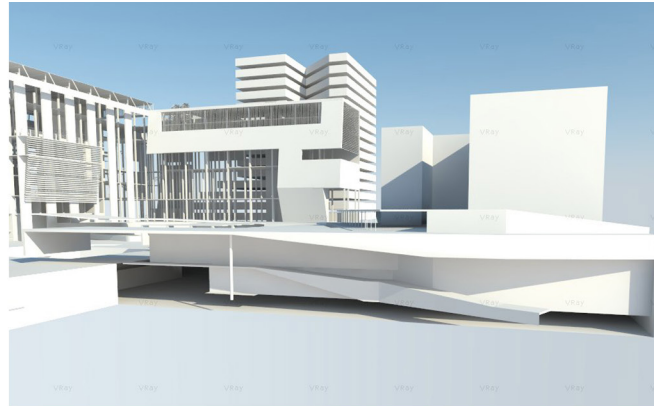
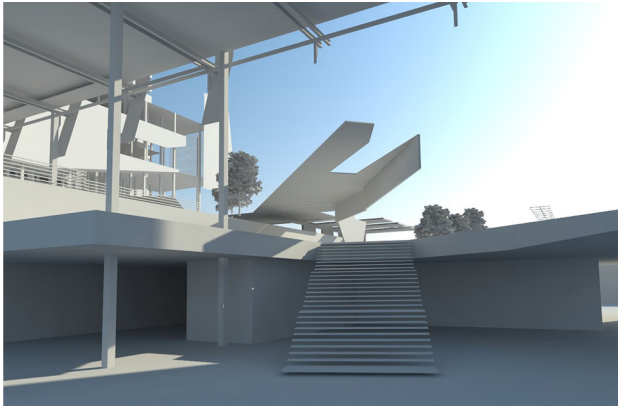


Figure 6.11 Author 2015



Figure 6.12 Author 2015

As the building diffuses into the public domain, semi-private access from the plinth will be made possible via the legal-aid facility, whilst more public activity is to be catered for on the plinth itself and extended to the northeastern section of the plinth where additional street interface will be established. These publicised programs associated with the legislative environment will act as a buffer to soften the transition from private (formal) to public (informal) function. Various programs located at the base of the new building where it meets the plinth are to associate predominantly with public use. These include a public library, bookshop, coffee shop, legal aid as well as an platform for discussions, performances and exhibitions.

6.4 “PROCESSING”: Defining a New Plinth Condition

Positioning of the building was predominantly governed by the poor access of natural light entering the site. With the high-rise Department of Home Affairs building to the north, natural light and direct solar gain in particular, is limited to the far southern edge and the eastern border of the plinth, where sunlight is allowed to enter through a gap shaped between the Home Affairs high-rise and the High Court Chambers.

This requires the building to be positioned in an L-shaped typology, extending southwards along the western border of the plinth from the High Court Chambers to the site’s most southern edge and continuing eastwards where it terminates against the National Treasury building.

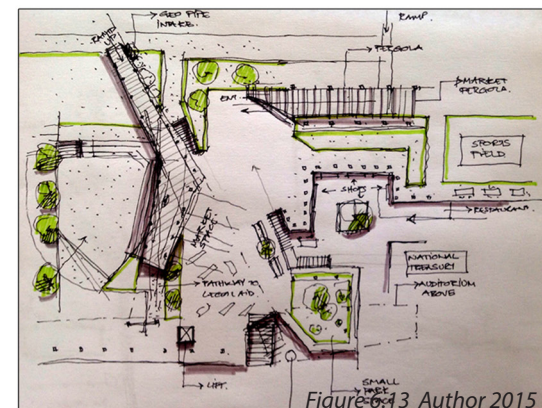
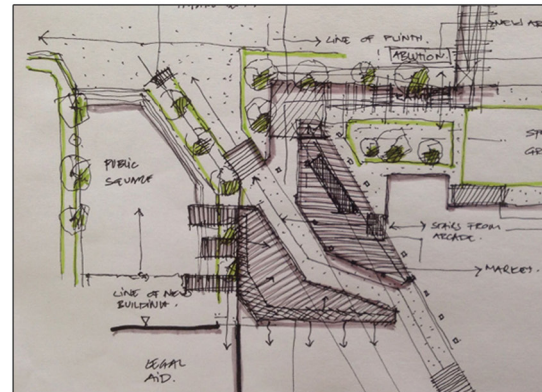
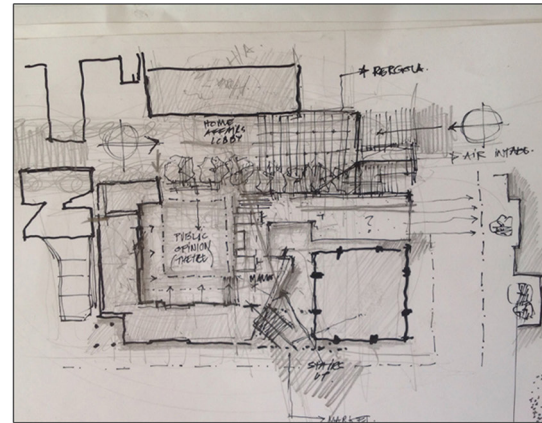


Figure 6.43 Author 2015

The height of the structure is similarly determined so as to ensure that adequate natural light enters the internal spaces and henceforth determines the positioning of particular program throughout the building as per their specific lighting requirements, with the added result of the interior space depth being kept to a practical minimum.

Columns grounding the building will penetrate through the plinth to ground level, causing the entire structure to seem separate from the plinth, to emphasise the temporary nature of the intervention, to contrast against the definite form present on site and to gain height for adequate solar exposure otherwise prevented by the Department of Home Affairs building positioned to the north of the site.

By separating the structure from the plinth to emphasise the new building as an extension of the existing built form, it will give the space where the building meets the plinth accessibility to public experience and frames a vista from street to plinth. In keeping with the notion that the existing urban environment is harnessed and altered towards a new urban experience, the raised building will also pay homage to the modernist heritage of Pretoria's architectural development through employing and contrasting modernist and Pretoria-regionalist principles.

In addition to separating the building from its ground plane, the design will also explore principles such as the roof garden, the domino structure whilst manipulating the skin of the building to both reveal the structure and to control the building's climatic response to its environment. The L-shaped typology of the plan will place focused definition on the interior plinth by forming a courtyard, similar in principle to that of the ancient Agora, where visibility of activity will be established across a public courtyard defined by colonnades.

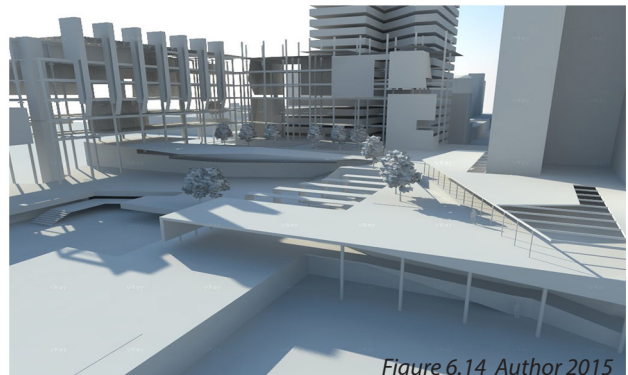
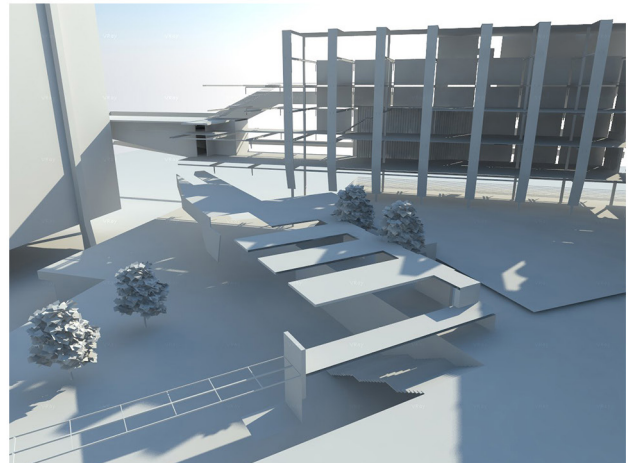
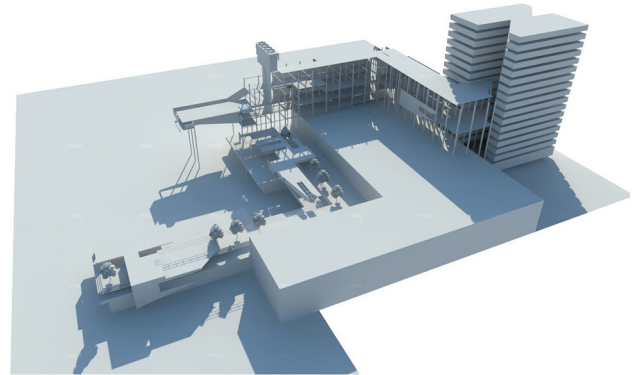


Figure 6.14 Author 2015

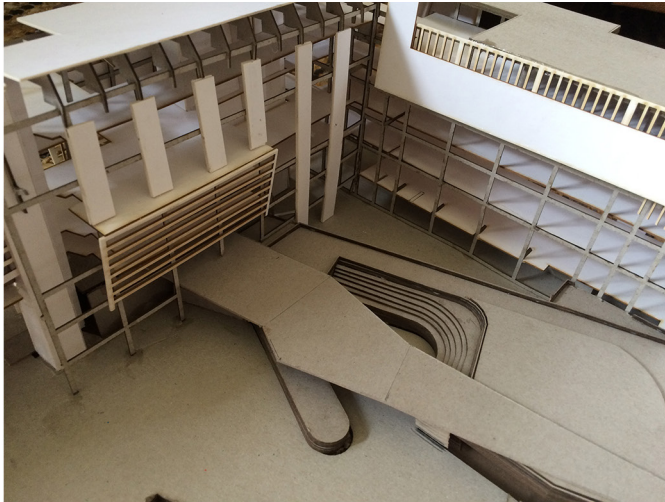


Figure 6.15 Author 2015

These sections of the building demonstrate where extracted information will be processed for public use and provide a base for the public and professionals to interact in a more democratic manner. This will be further articulated by ensuring that the new building facades facing inwards will be less dense and more exposed to the public-dominated plinth space. The typology also offers a valuable advantage in terms of securing the safety of users who will occupy this space; the already present high-riser, as well as the new intervention with user visibility facing inwards, will provide ample passive surveillance that could deter unwanted activity within the space, and establish the plinth as a safe and pleasant public environment.

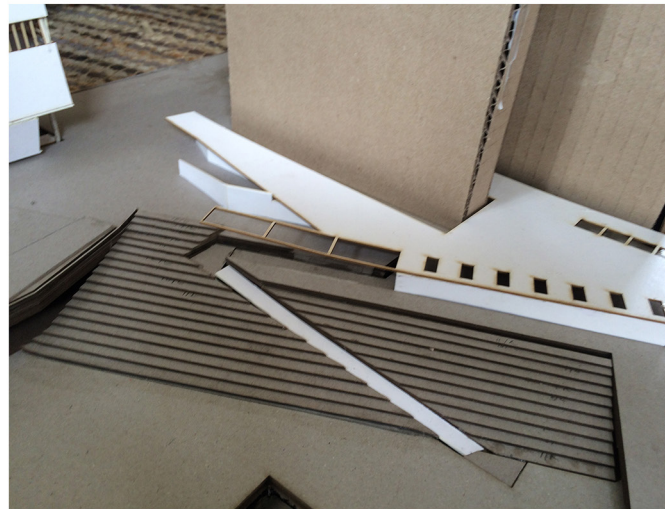


Figure 6.16 Author 2015

xPositioned to the edge of the plinth, the design will provide opportunity to occupy the street condition and to establish a relationship with the building and passing pedestrians. By transferring pedestrian energy from the sidewalk directly onto the plinth via an exterior staircase as primary public access, the street facade is animated by providing alternative pedestrian routes to the precinct and establishing the building as a public orientated entity. This enables the suggestion of a pull of public activity onto the plinth and will be reinforced by the elevated auditorium, hovering above the sidewalk, that will accentuate the street-plinth staircase as threshold. The auditorium is to represent the accumulation of extracted and processed information being made available for public redistribution.

Figure 6.17 Author 2015



The skin of the building, as it extends downwards to the street level, combined with the structural colonnade framing a view from the plinth onto the street level, will reveal and expose movement and service to the exterior of the plinth, while suggesting shelter from vehicular traffic. An alternative purpose for the skin will clarify the project's intension of distributing information into the public domain by acting as a street-facing billboard and an exterior theatre screen to serve public activity on the plinth.

6.5 "Redistribution": Occupying the Plinth

Seen as equally introverted and inaccessible in comparison to the existing buildings on site, the plinth structure and form is to be altered to facilitate public activity and to act as an extension of the new building. The lower plinth with its concrete roof will retain its original level and act as the main public space, as this level is most visible from street level and the courtyard separating the plinth from the National Treasury building.

The sheeted roof of the Hallmark Building's parking structure is to be removed to gain access to the top concrete floor slab as an additional structural base, with the added effect of decreasing the 8m difference between the lower and upper plinth by one storey. Shaded by the Department of Home Affairs head office, the plinth space is to be re-adapted to represent park-like qualities. This new raised green space will be served at its edges by the public orientated programs located at the base of the new building via a public library, bookshop, legal aid, an outdoor theatre and an open urban market pavilion. Secondary access onto the site will be accomplished through the readaptation of the existing courtyard around the base of the National Treasury.



Figure 6.18 Author 2015



Figure 6.19 Author 2015



Figure 6.20 Author 2015

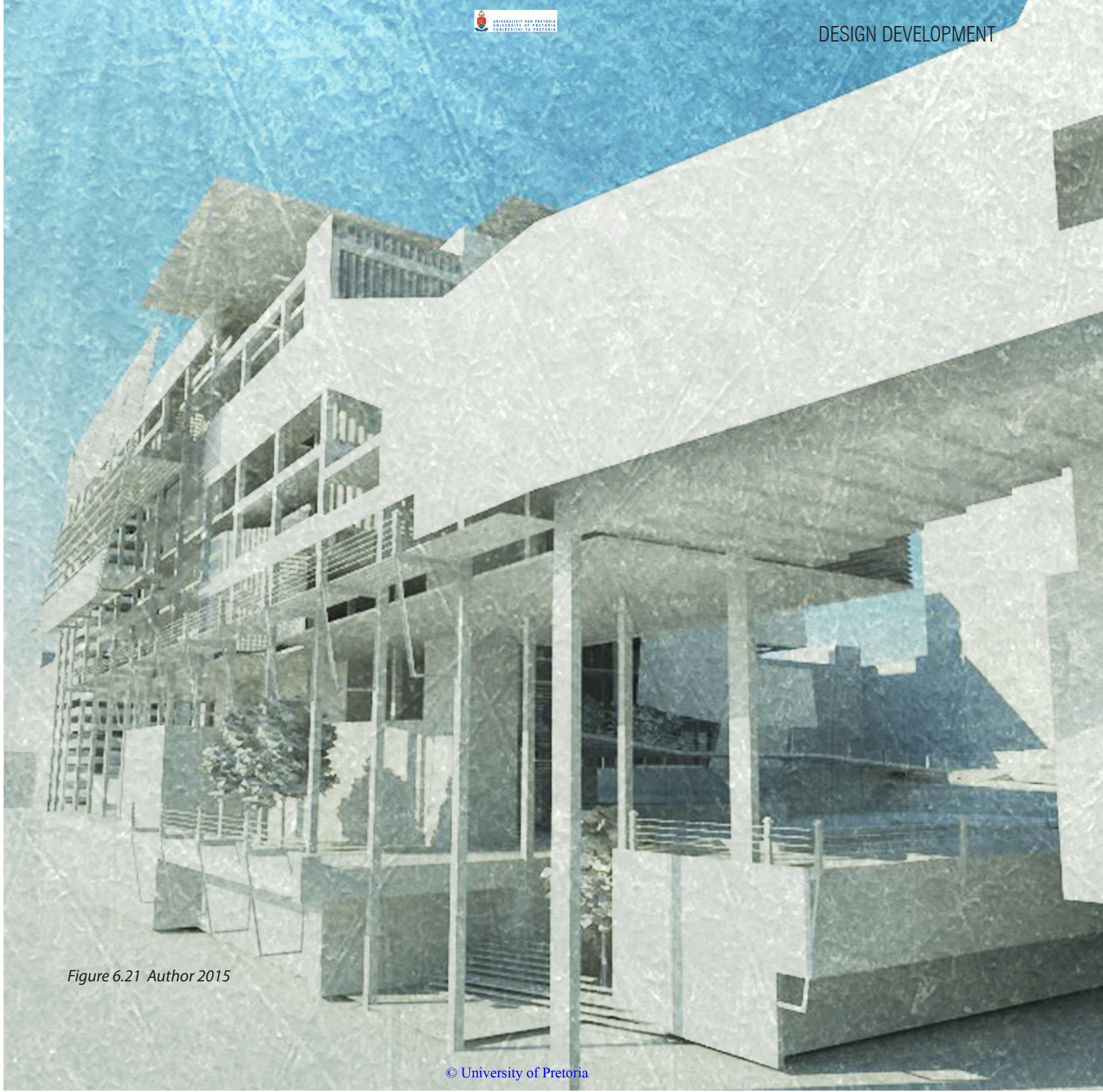


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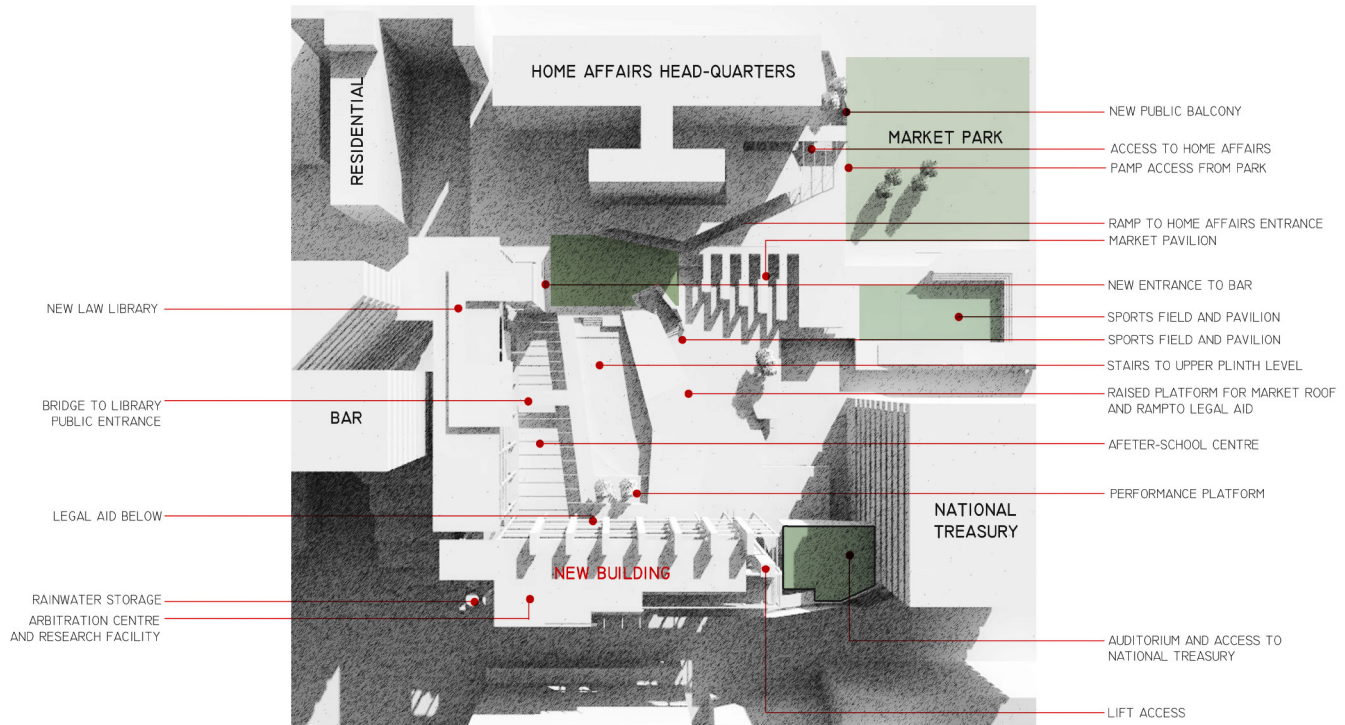


Figure 6.22: Plinth and Program (Author 2015)

The plinth edge, which defines the existing courtyard, is to be activated with public activity to increase the vibrancy of the space. This reactivation will not only aim to establish and strengthen the courtyard as a public space and a pedestrian thoroughfare, but as this space represents slower pedestrian traffic and a break in high urban activity, it will provide an alternative and “safe” access point onto the plinth, with particular regard to disabled public users via a ramp system.

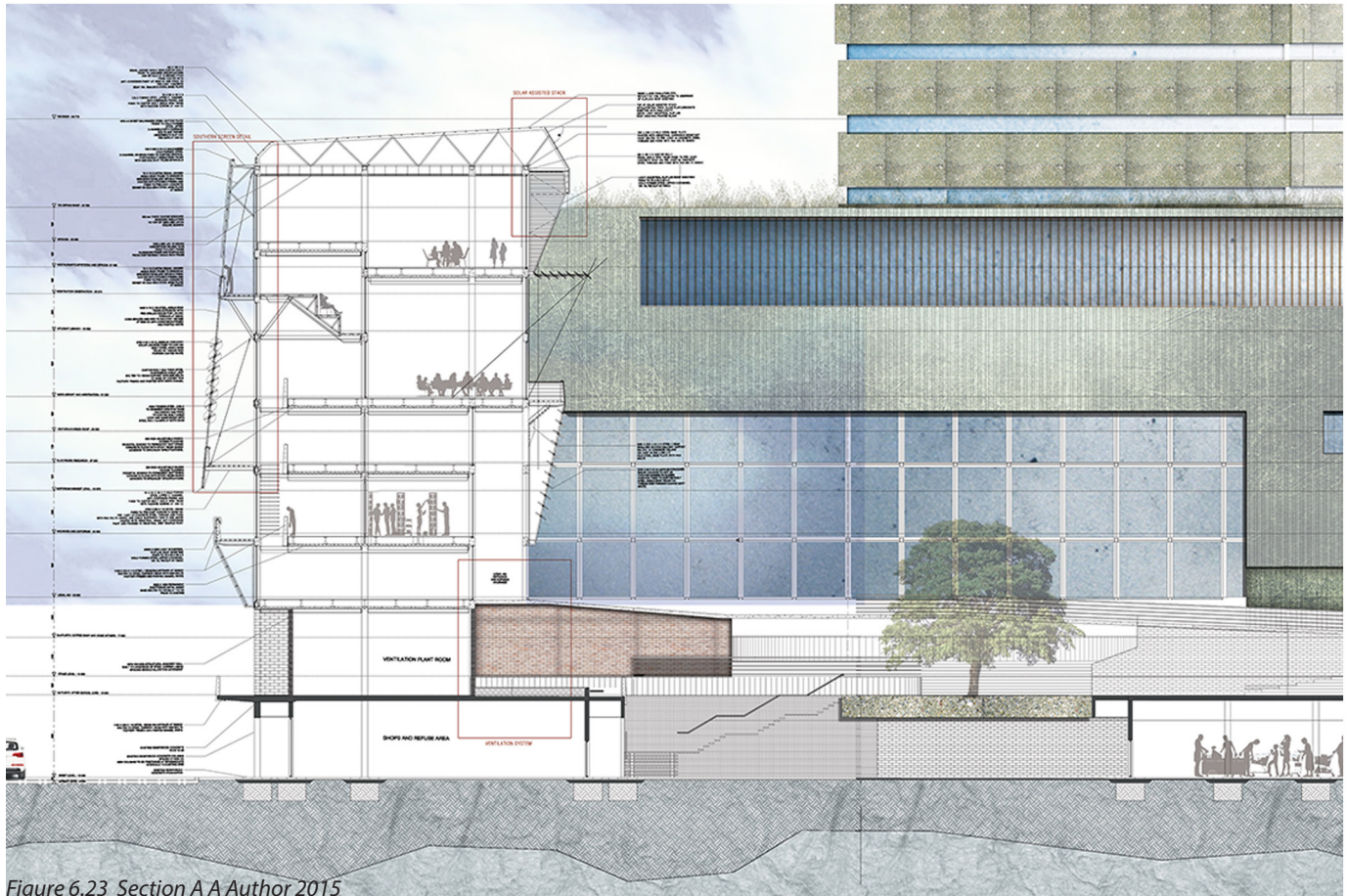


Figure 6.23 Section A A Author 2015

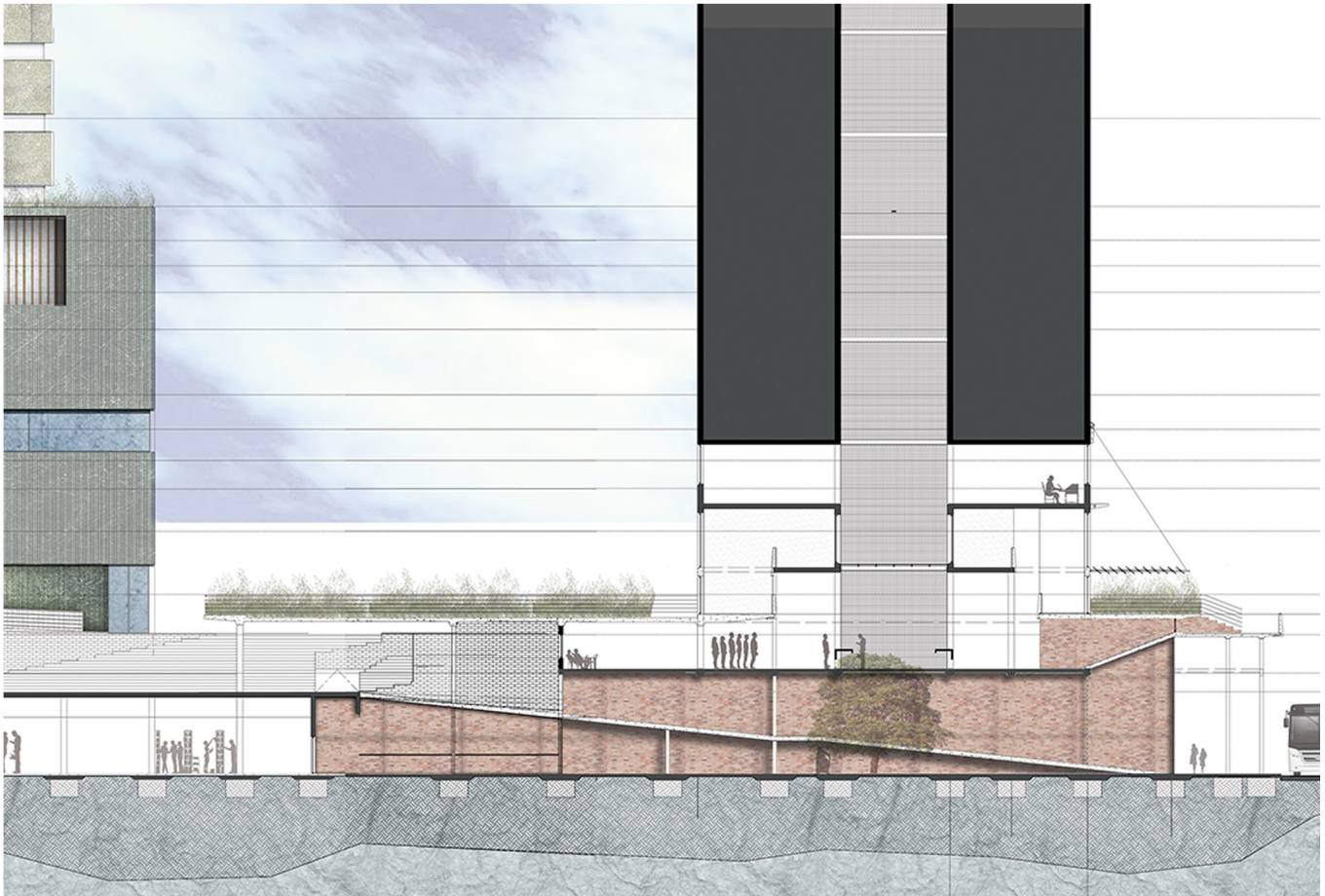
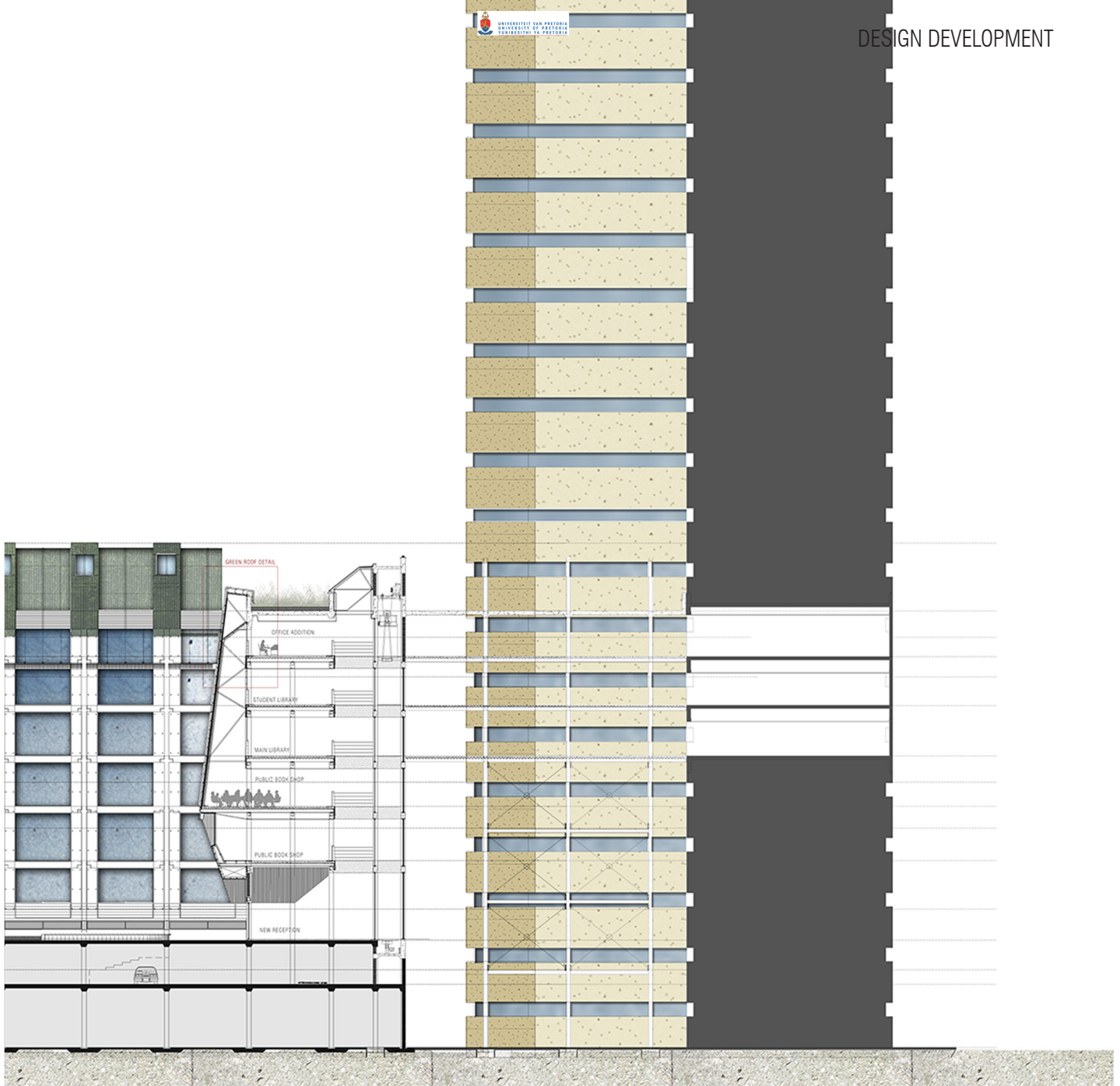




Figure 6.24 Section B B Author 2015



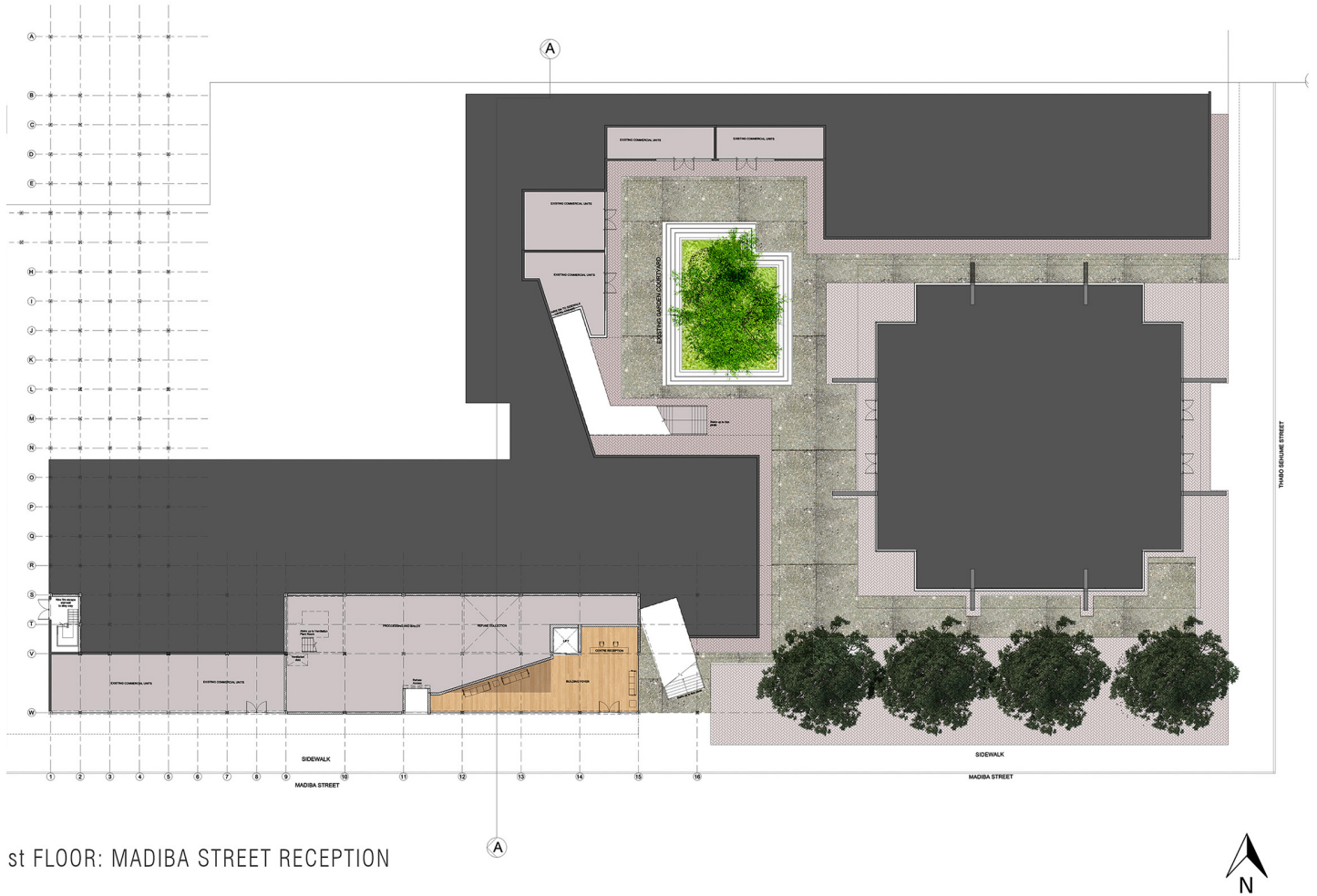
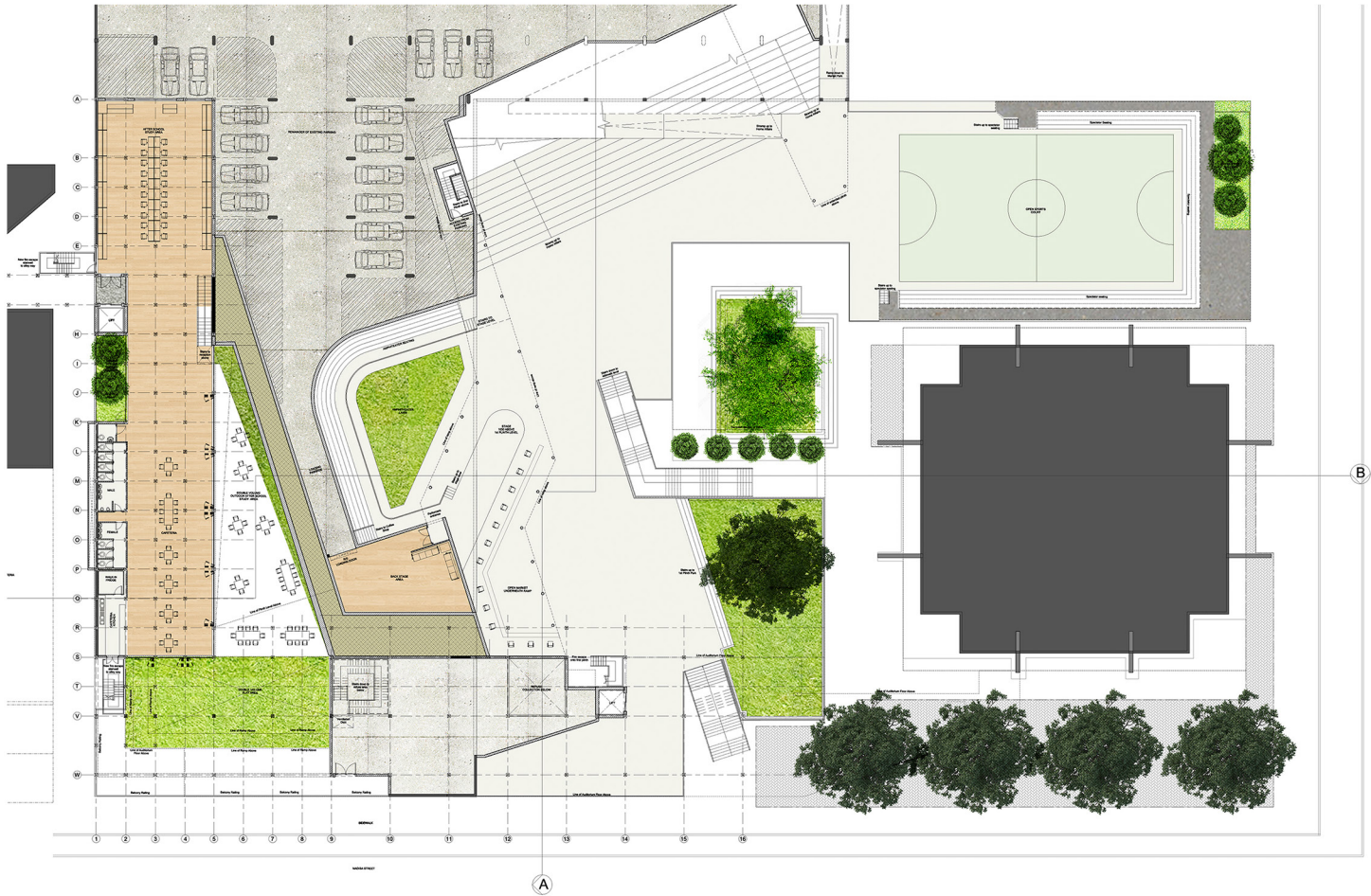


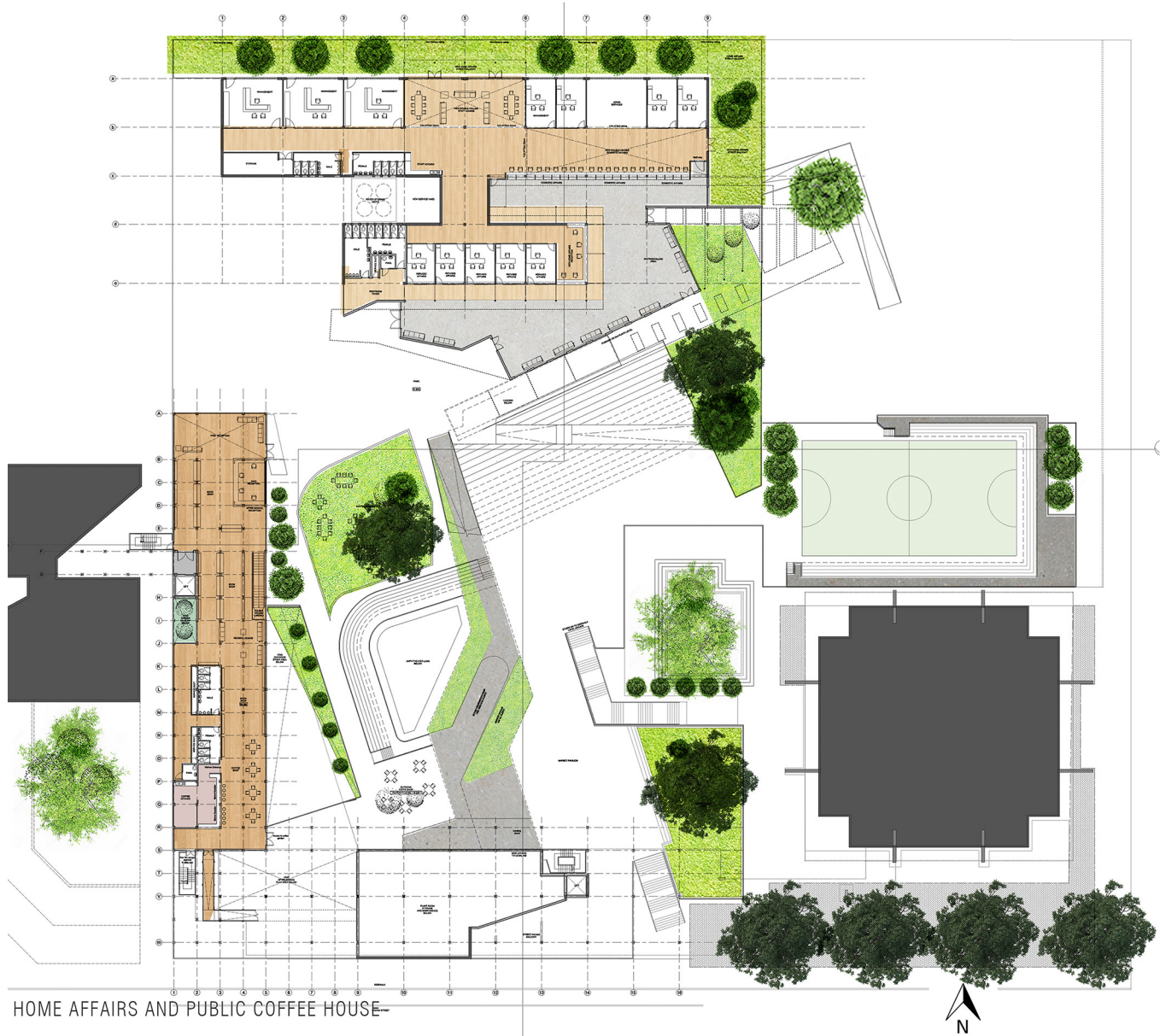
Figure 6.25 1st Floor Plan: Street Reception (Author 2015)

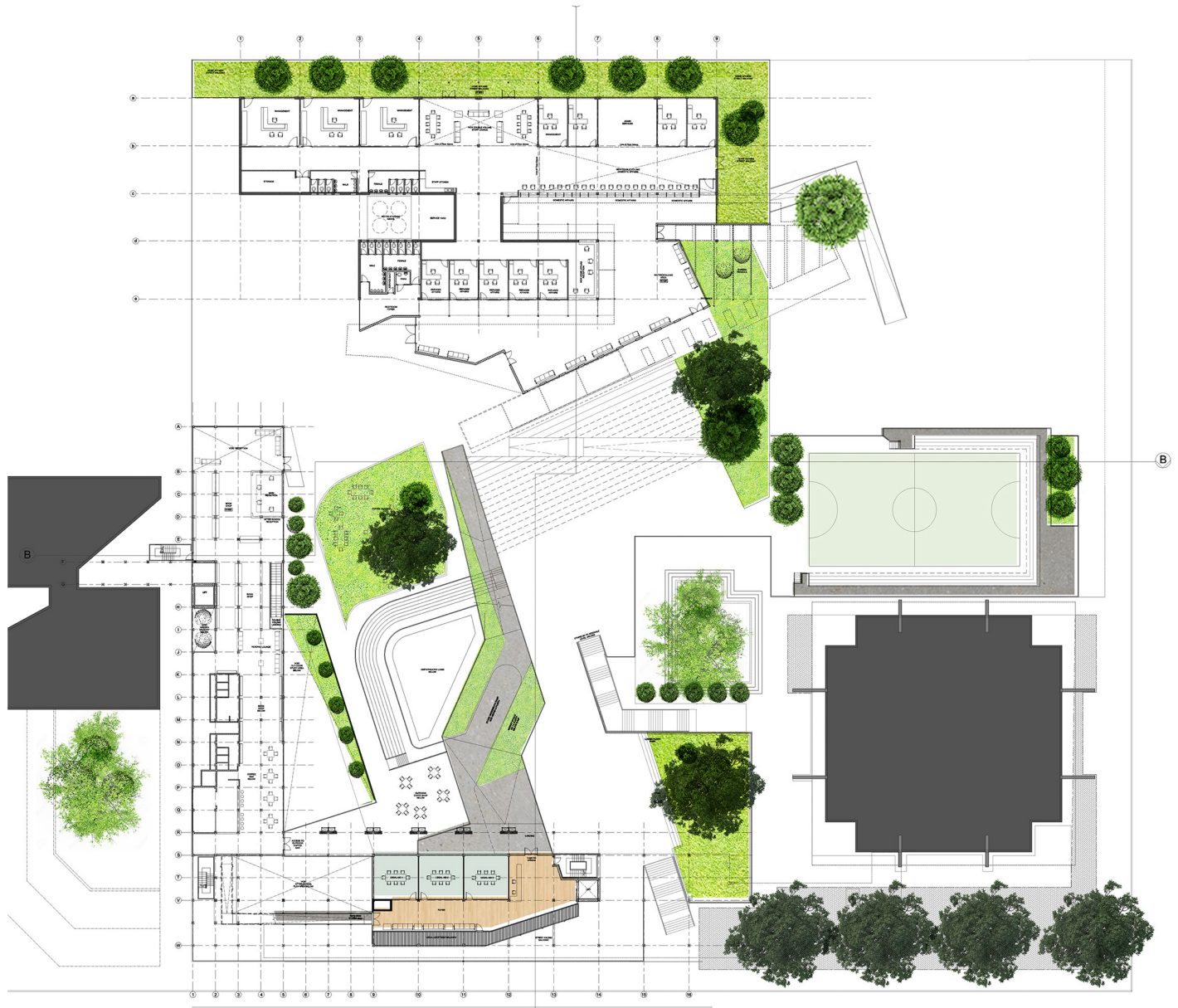


2nd FLOOR: AFTER SCHOOL CARE



Figure 6.26 2nd Floor Plan: After School Care (Author 2015)

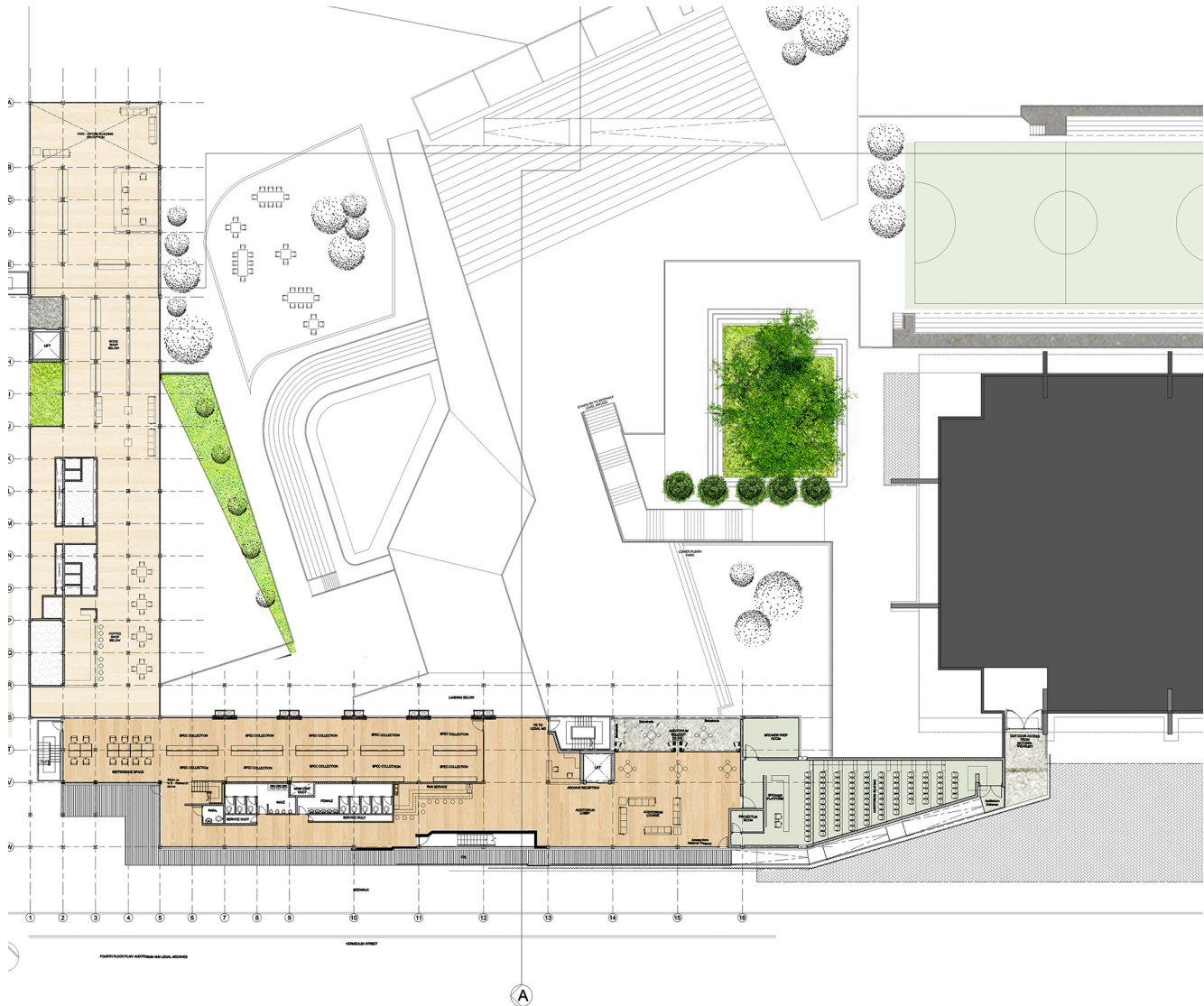




4th FLOOR: LEGAL AID

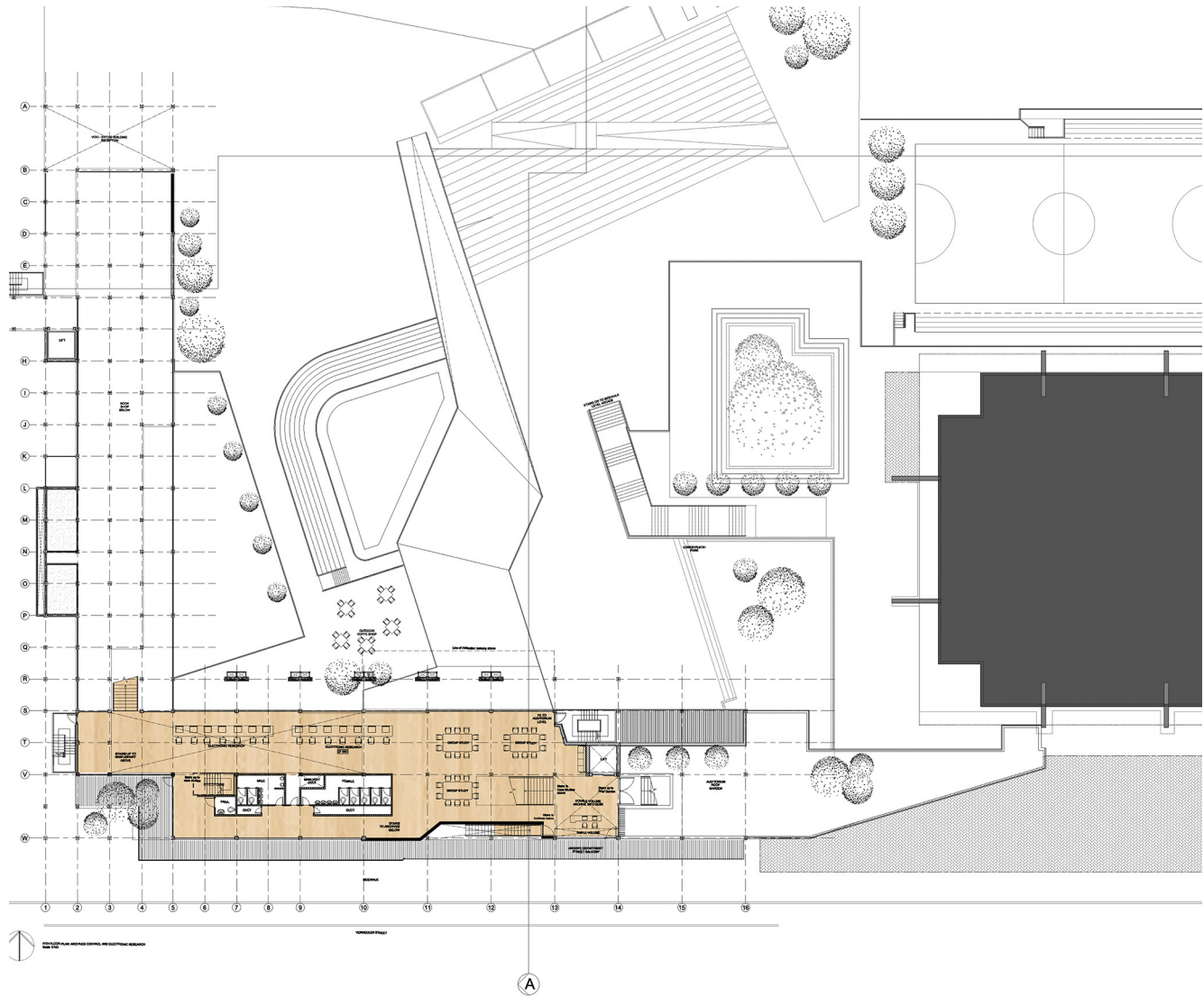
Figure 6.28 4th Floor Plan: Home Affairs and Public Library (Author 2015)





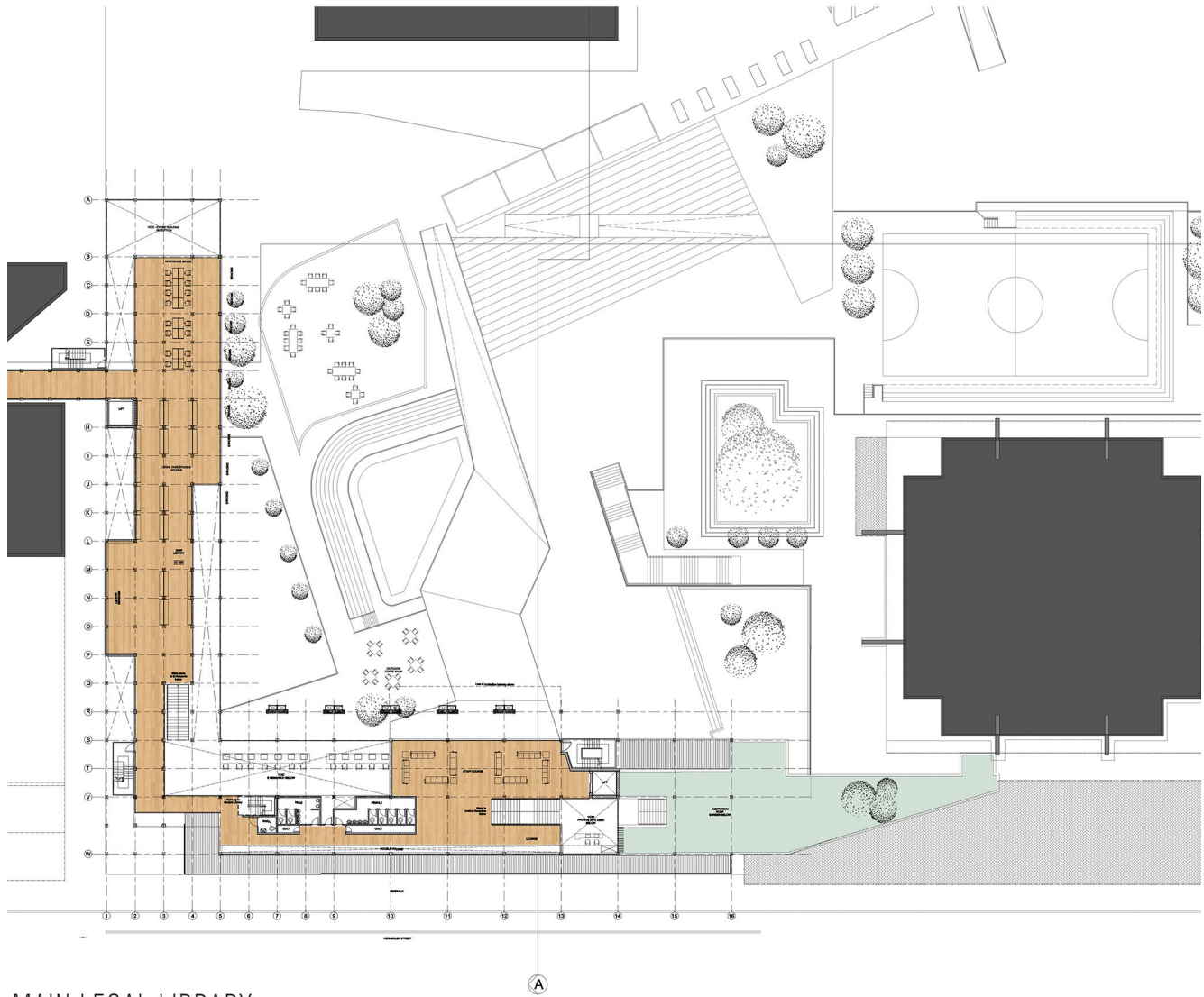
ARCHIVES AND AUDITORIUM

Figure 6.29 5th Floor Plan: Archives and Auditorium (Author 2015)



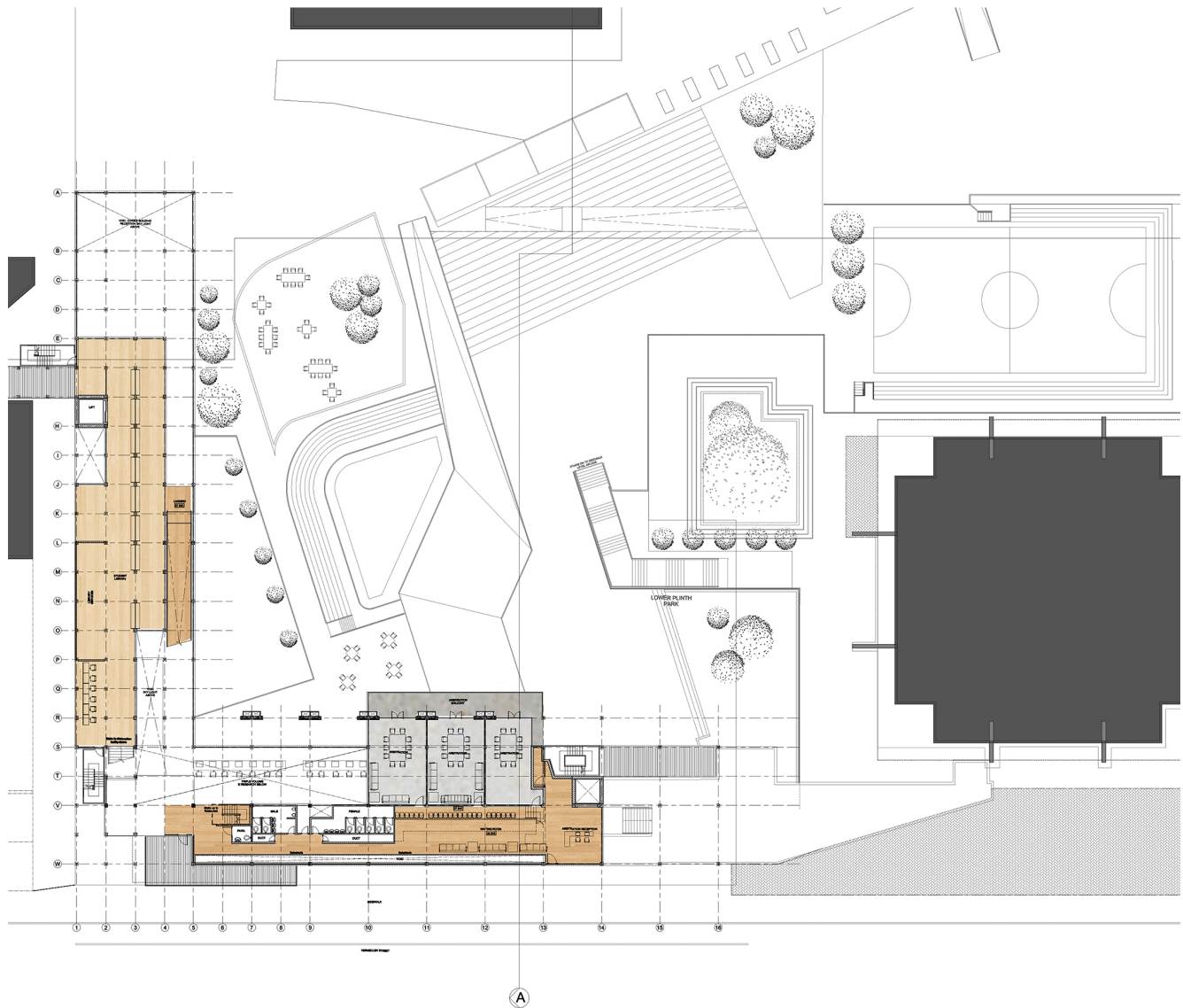
ELECTRONIC RESEARCH AND OPEN STUDY AREA

Figure 6.30 6th Floor Plan: Electronic Research and Open Study Area (Author 2015)



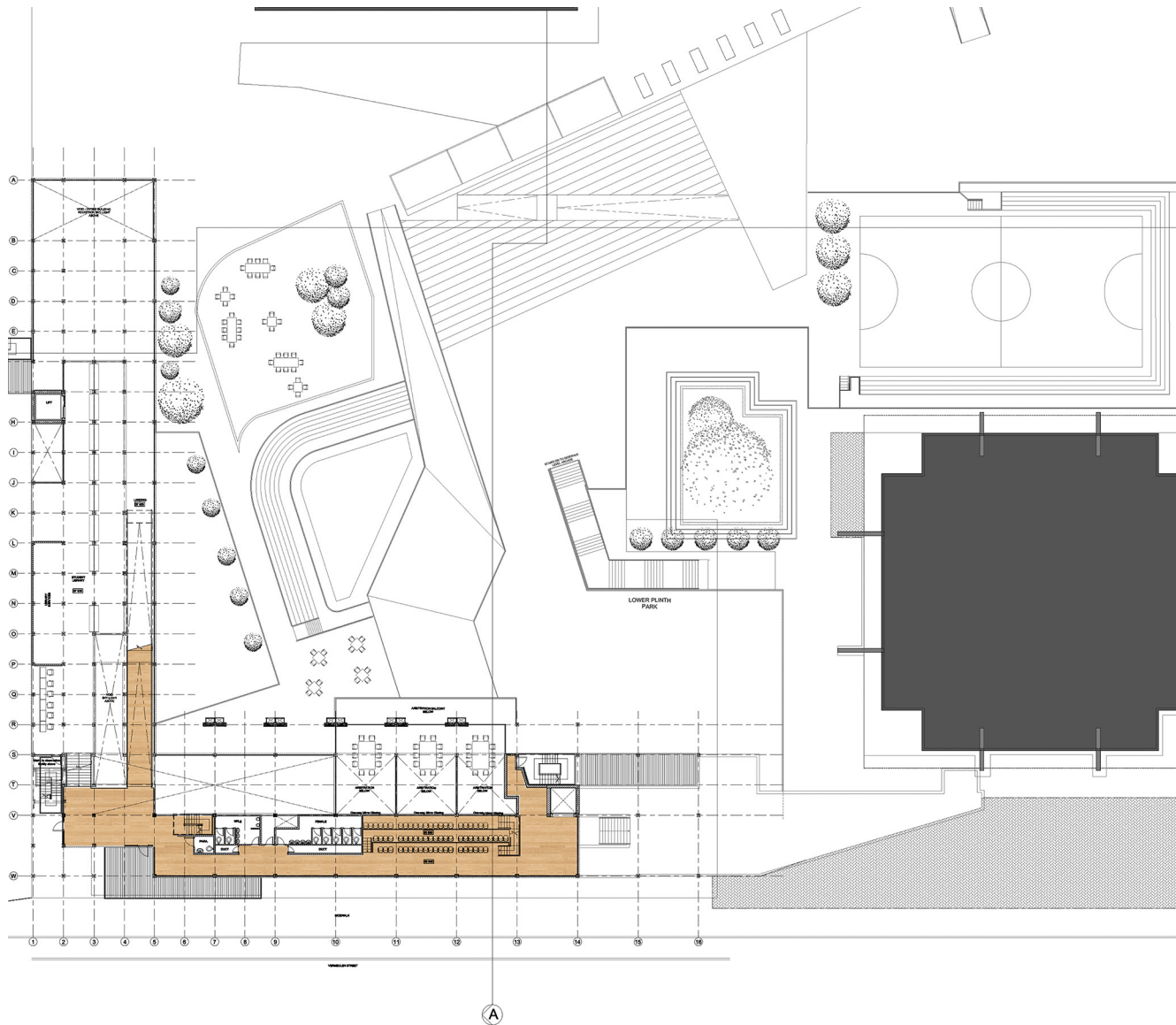
MAIN LEGAL LIBRARY

Figure 6.31 7th Floor Plan: Main Library (Author 2015)



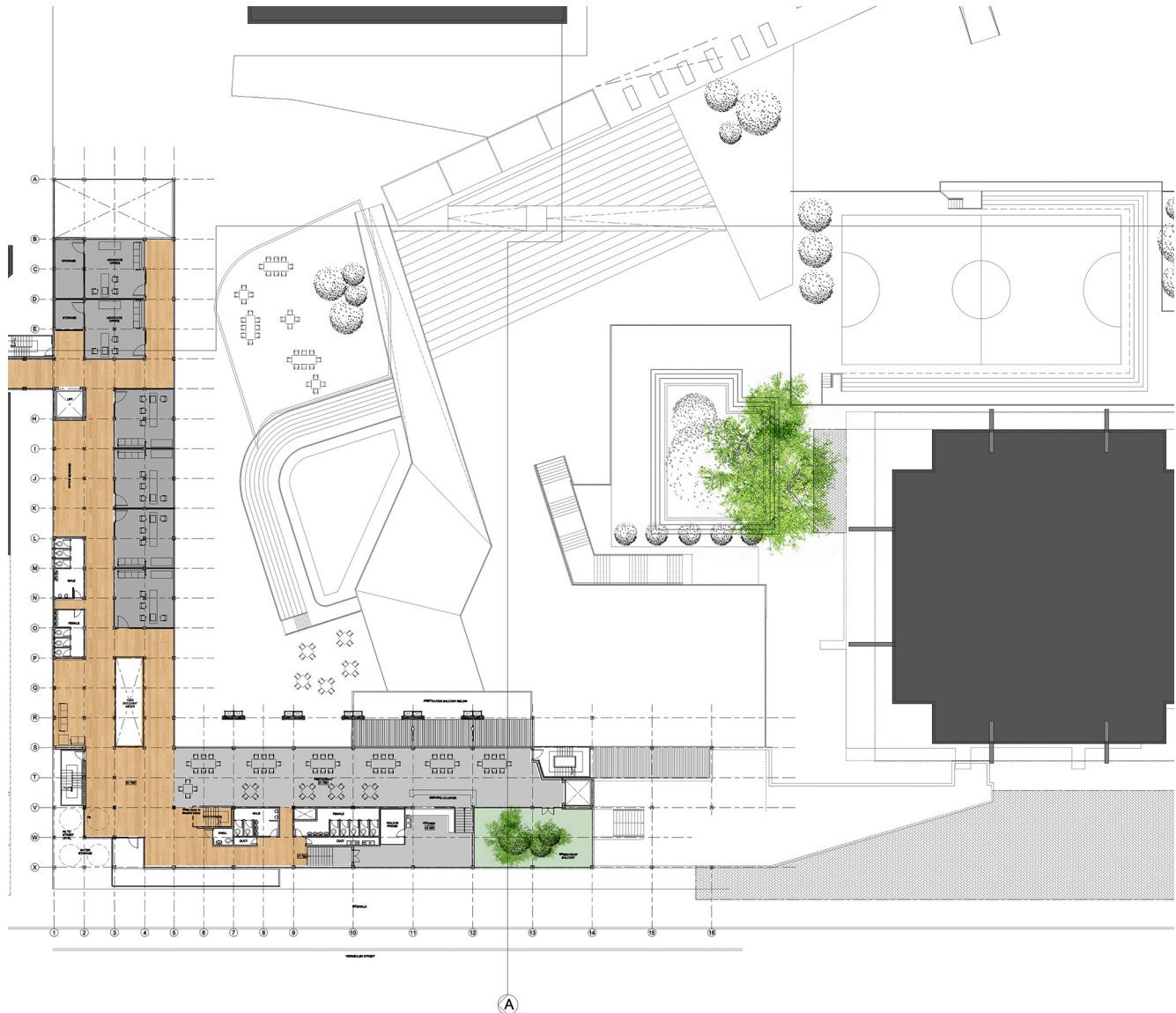
ARBITRATION FACILITIES

Figure 6.32 8th Floor Plan: Arbitration (Author 2015)



1: ARBITRATION OBSERVATION FACILITY AND STUDENT LIBRARY

Figure 6.33 9th Floor Plan: Arbitration Observation and Student Library (Author 2015)



LEGAL OFFICE ADDITION AND CAFETERIA

Figure 6.34 10th Floor Plan: Office Additions and Cafeteria (Author 2015)