

# Architecture as Dialogue

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**The Law Annexe: An Extension to the Law Faculty Precinct at the University of Pretoria**

Submitted in part requirement for the Degree Magister in Architecture (Professional) in the  
Faculty of Engineering, Built Environment and Information Technology.  
University of Pretoria. Department of Architecture  
2009

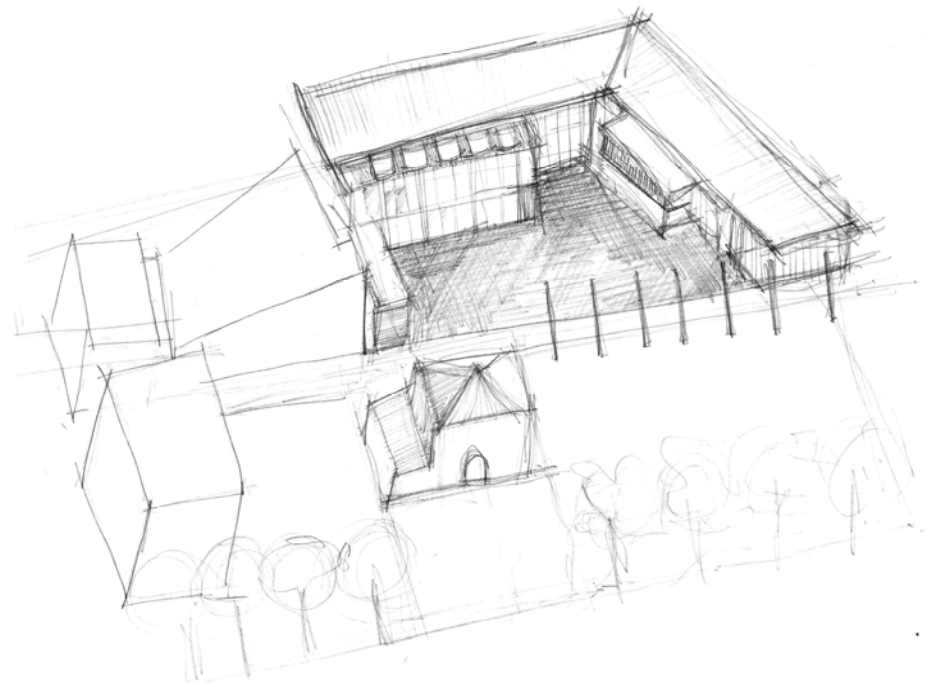
**Course Coordinator: Jacques Laubscher**  
**Study Leader: Catherine Karusseit**  
**Mentor: Amira Osman**

**Nazly Chothia**



# Abstract

The Law Faculty precinct, located at the north-eastern edge of the University of Pretoria's Hatfield Campus, is already one of great esteem to the University. The precinct consists of two buildings: the celebrated Law Faculty Building and the inadequately accommodated Law Clinic. The Law Faculty is currently negotiating with the board of the University of Pretoria for a new facility, the Institute for International Comparative Law, for which they will require additional space. This design proposal is for an extension building within the existing Law Faculty precinct to accommodate the new Institute for International Comparative Law and to provide improved premises for the existing Law Clinic. The project seeks to design consciously, within its physical context and within the socio-political and historical context of South Africa. Furthermore, it seeks to reconcile the discordant boundary of the University of Pretoria with the Hatfield surrounds.





## Table of Contents

	<b>List of Figures</b>	<b>(i)</b>
<b>1.</b>	<b>Introduction</b>	<b>1</b>
<b>2.</b>	<b>A Contextual Analysis of the South African Socio-political and Legal Landscape</b>	<b>7</b>
<b>3.</b>	<b>Context and Site Analysis</b>	<b>15</b>
<b>4.</b>	<b>Theoretical Enquiry</b>	<b>31</b>
<b>5.</b>	<b>Precedent Study 1: Legal Architectural Languages</b>	<b>39</b>
<b>6.</b>	<b>Precedent Study 2: The Process of Extension</b>	<b>49</b>
<b>7.</b>	<b>Design Development</b>	<b>57</b>
<b>8.</b>	<b>Technical Investigation</b>	<b>79</b>
<b>9.</b>	<b>Technical Documentation</b>	<b>87</b>
<b>10.</b>	<b>Conclusion</b>	<b>116</b>
<b>11.</b>	<b>Bibliography</b>	<b>118</b>

## List of Figures

- Fig. 1.1 Photograph of a model of the Law Faculty Building (date and author unknown)
- Fig. 1.2 Location of the Law Faculty Precinct in the University of Pretoria's Hatfield Campus (Digitally enhanced image from the University of Pretoria)
- Fig. 2.1: Caricature by Zapiro (Jonathan Shapiro) (Shapiro: 2008)
- Fig. 2.2: Exert from Number Four Jail Exhibition (Constitutional Hill Exhibition)
- Fig. 2.3: Poll by the Legal Aid Board (The Legal Aid Board: 2009. image by author)
- Fig. 2.4: Poster advertising for *16 Days of Activism*. (November 2008)
- Fig. 3. 0 Hatfield Square (photograph by author: March 2008)
- Fig. 3. 00 Burnett Street (photograph by author: March 2008)
- Fig. 3.1: Hatfield Metropolitan Core Urban Framework Study Area (Adapted from the Hatfield Metropolitan Core Urban Framework)
- Fig. 3.2: The Hatfield Framework (Adapted from the Hatfield Metropolitan Core Urban Framework)
- Fig. 3.3: Figure Ground of the University and Surrounding Areas with Grassed Open Spaces Highlighted.
- Fig. 3.4: Conflict between the Poor Campus Edge and the Hatfield Framework
- Fig. 3.5: Main Pedestrian Movement and Nodes on the University of Pretoria Campus
- Fig. 3.6: Existing Site
- Fig 3.7(a): View of North Boundary of the Site (photograph by author: March 2008)
- Fig 3.7(b): View of parking lot on the east boundary of the site (photograph by author: March 2008)
- Fig 3.7(c): View of the Duxbury Street entrance which is intended to be reopened by the University (Jordaan: 2008) (photograph by author: March 2008)
- Fig. 3.8: Surrounding Buildings (photographs by author: March 2008)
- Fig. 3.9: Rissik House (photographs by author: March 2008)
- Fig 3.10(a): Courtyard in Law Faculty Building (photographs by author: March 2008)
- Fig 3.10(b): South Entrance to Law Faculty Building (photographs by author: March 2008)
- Fig 3.10(c): Expression of Structure in the Law Faculty Building
- Fig. 3.11: The Library located on the light glazed south side of the building (photograph by author: March 2008)
- Fig 3.12: Sketches Analyzing Form of Law Faculty Building.
- Fig. 3.13: The north façade is more solid than the south with sheer white carefully punctured walls (photograph by author: March 2008)
- Fig 3.14 Organization and System
- Fig 3.15 Rhythm and Relationships
- Fig 3.16 Impact of 'Lines' Continued from Existing Buildings on Site.
- Fig. 3.17 Conclusions Derived from Site Analysis
- Fig. 4.1: Zoned Space for Group Work (Duffy: 1997: 184).
- Fig. 4.2: Zoned Space for Quiet Work, Valerio Dewalt Train Associates, Chicago (Myerson: 1999: 31)
- Fig. 4.3: Stimulating Interaction (Myerson: 1999: 66)
- Fig. 4.4: Expected Hierarchy at the Law Annexe (image by author)
- Fig. 4.5: Early Morning Street Scene in Church Square, Pretoria's CBD (photograph by author: June 2007)
- Fig. 5.1: The Union Buildings (Virtual Tourist: 2004)
- Fig. 5.2: Plan of the Union Buildings (The University of Pretoria: 2006)



- Fig 5.3: The Viewer Looks Uphill at the Building (The University of Pretoria: 2006)
- Fig. 5.4: View from the Union Buildings (Virtual Tourist: 2004)
- Fig. 5.5: Ground Floor Plan of the Old Parliament Buildings (S.A. Institute of Architecture: 2000:54)
- Fig. 5.6: Traditional Kgotla dwelling (Hutton-Squire: 1981:41)
- Fig 5.7: The Parliament Buildings in Mmabatho (Hutton-Squire: 1981:41)  
Fig. 5.8: Entrance to the Court (Joburg City: 2006)
- Fig. 5.8: Entrance to the Constitutional Court (Joburg City: 2006)
- Fig 5.9: The Constitutional Court (Joburg City: 2006)
- Fig 5.10: The ceiling of the foyer in the Constitutional Court. The skylights seek to recreate the dappled light under a tree. (photograph by author April 2009)
- Fig. 5.11: View of the Exhibition Hall at the Constitutional Court (photograph by author: April 2009)
- Fig. 5.12: View of the Foyer of the Constitutional Court. (photograph by author: April 2009)
- Fig. 5.13: Main Court Area at the Constitutional Court (photograph by author: April 2009)
- Fig. 5.14: View of the Awaiting Trial Block Stair towers in the Public Square at the Constitutional Court (photograph by author: April 2009)
- Fig. 6.1: Ground Floor Plan (Deckler: 2006: 101)
- Fig. 6.2: Entrance to the Link Building (Deckler: 2006: 102)
- Fig. 6.3: View towards Devil's Peak (Deckler: 2006: 102)
- Fig. 6.4: Perspective drawing of the Link Building and Surrounds (Deckler: 2006: 101)
- Fig. 6.5: Plan of the Women's Jail (Deckler: 2006)
- Fig. 6.6: Entrance to the Courtyard (photograph by author: April 2009)
- Fig. 6.7: View from Courtyard (photograph by author: April 2009)
- Fig. 6.8: New Architecture Juxtaposed to the Existing Building (photograph by author: April 2009)
- Fig. 6.9: Covered Walkway
- Fig 7.1: Summary of Guiding Principles for the Law Annexe Resulting from Preceding Analysis
- Fig 7.2: Concept Drawings Exploring the North-east boundary of the Campus and Position of the Proposed Law Annexe, March 2008
- Fig 7.3: Development Concept Drawings of Public Square, August 2008.
- Fig 7.4: Concept Drawing of Public Square, June 2008.
- Fig 7.5: Exploration of the Link with the Existing Catering Offices proposed as Student Study Area in this Scheme: July 2008
- Fig 7.6: Concept Model Dated July 2008
- Fig 7.7: Concept Drawing of Law Annexe, September 2008.
- Fig 7.8: Concept Model, August 2008.
- Fig 7.9: Concept Model, September 2008.
- Fig 7.10: Concept Drawing of the Law Annexe: September 2008  
Strong Physical Link to the Law Faculty Building
- Fig 7.11: Concept Drawing of Law Annexe, September 2008
- Fig 7.12: Concept Drawing of Law Annexe, January 2009
- Fig 7.13: Concept Drawing of Law Annexe, January 2009
- Fig 7.14: Roof Plan
- Fig 7.15: Sketch of the Landscaping in the Public Square: April 2009
- Fig 7.16: Sketch of the Law Annexe North-east View

Fig 7.17: Sketch of the Law Annexe South-west View

Fig 7.18: North Elevation of the Law Annexe

Fig 7.19: South-west View of the Law Annexe

Fig 7.20: North-east View of the Law Annexe

Fig 7.21: South-east View of the Law Annexe

Fig 7.22: Section AA

Fig 7.23: Section BB

Fig 7.24: Interactive Zones and Quiet Work Zones on the Ground and First Floor

Fig 7.25: Axonometric of Ground Floor Plan and First Floor Plan of the Law Annexe

Fig 7.26: Law Annexe Circulation Spine shown on the Ground Floor Plan

Fig 7.27: Law Annexe North Elevation with Law Faculty Building shown in Context

Fig 8.1: structural axonometric of section of steel portal frame

Fig 8.2: Macsteel Cellular Beams (Macsteel: 2009)

Fig. 8.3: St. Anne's Hospital (Smart Glass: 2009)

Fig. 8.4: Cape Brick (Brand South Africa: 2008)

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Fig 8.6: Hula-Bond Aluminium Panels (Specifile: 2008)

Fig. 8.7: QC Decking from HH Robertson. (HH Robertson: 2009)

Fig. 8.8: Polished Concrete Floor (Spec-Net: 2009)

Fig 8.9: Polycarbonate translucent roof sheeting  
Advanced Roofing Solutions: 2009)

Fig 8.6: IsoBoard Insulation (IsoBoard: 2009)

Fig. 8.7: Grassed Pavers and Permeable Concrete (Soe Nyun: 2009)



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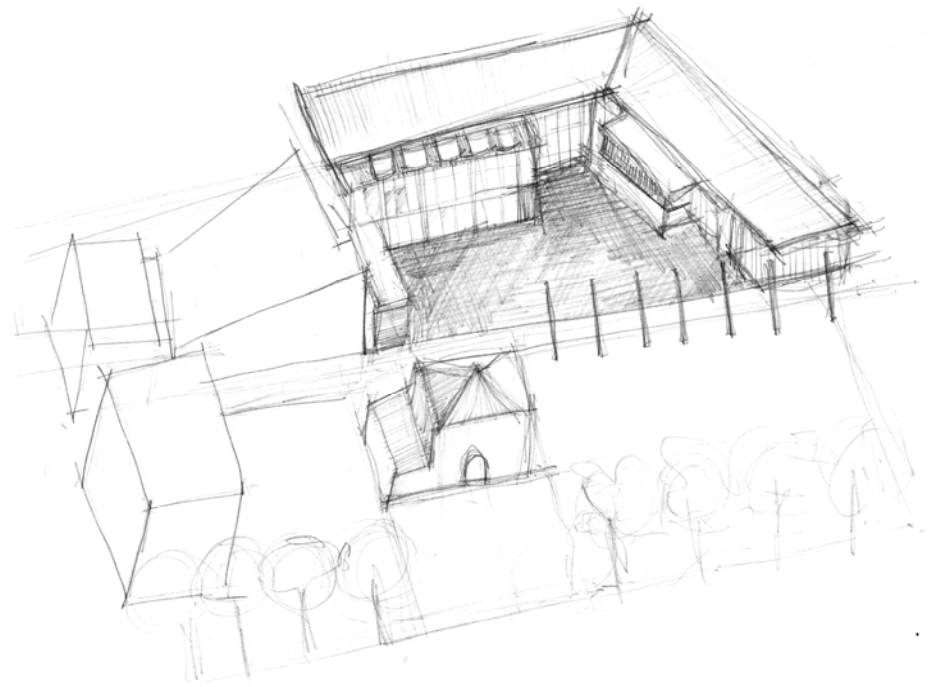
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## Table of Contents

	<b>List of Figures</b>	<b>(i)</b>
<b>1.</b>	<b>Introduction</b>	<b>1</b>
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<b>9.</b>	<b>Technical Documentation</b>	<b>87</b>
<b>10.</b>	<b>Conclusion</b>	<b>116</b>
<b>11.</b>	<b>Bibliography</b>	<b>118</b>

## List of Figures

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- Fig. 5.12: View of the Foyer of the Constitutional Court. (photograph by author: April 2009)
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- Fig 7.10: Concept Drawing of the Law Annexe: September 2008  
Strong Physical Link to the Law Faculty Building
- Fig 7.11: Concept Drawing of Law Annexe, September 2008
- Fig 7.12: Concept Drawing of Law Annexe, January 2009
- Fig 7.13: Concept Drawing of Law Annexe, January 2009
- Fig 7.14: Roof Plan
- Fig 7.15: Sketch of the Landscaping in the Public Square: April 2009
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Fig 7.18: North Elevation of the Law Annexe

Fig 7.19: South-west View of the Law Annexe

Fig 7.20: North-east View of the Law Annexe

Fig 7.21: South-east View of the Law Annexe

Fig 7.22: Section AA

Fig 7.23: Section BB

Fig 7.24: Interactive Zones and Quiet Work Zones on the Ground and First Floor

Fig 7.25: Axonometric of Ground Floor Plan and First Floor Plan of the Law Annexe

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1

## 1.1 Architecture as Dialogue

This dissertation focuses on the design of an extension building<sup>1</sup> to the existing Law Faculty precinct, located on the north-eastern boundary of the Hatfield Campus of the University of Pretoria.<sup>2</sup>

Architecture has been compared by many to language (Ruskin: 1989: 87). Language, either spoken or written, can pinpoint both the emotional and the experiential elements of human existence. It has been used as a tool to document history, to entertain, to communicate and to interact. The word 'language' is applied to numerous methods of expression such as mime, music and, of course, architecture. Architecture, in a similar way to language, has structure, meaning, emotion and a great deal of repetition. Therefore, architecture, like language is a powerful communicator of society's ideals. Time memorial, architecture has been no stranger to law and politics. Buildings are seen as symbols or images that represent a higher ideal than simply the brick and mortar that holds them together. With regards to politics, architecture is a powerful tool that can effectively communicate symbolism, power and stateliness (Vale: 1992: 04).

Many, if not most, public legal and political buildings can be described as fundamentally monumental since architects have often used monumentality as a tool to infuse buildings with power and political meaning through their architectural language (Vale: 1992: 04). The existing Law Faculty Building is of particular interest in this regard as it seems to be the physical contradiction of the architectural representation of values expected from legal buildings. The Law Faculty Building was built in 2003 (SAPA: 2005)

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<sup>1</sup> The proposed extension building will hereinafter be referred to as 'the Law Annexe.'

<sup>2</sup> The University of Pretoria's Hatfield Campus will hereinafter be referred to as 'the University' or 'the Campus'

placing its completion one year before the completion of the Constitutional Court of South Africa, located in Braamfontein, Johannesburg (Law-Viljoen: 2006: 07). Comparison between the buildings is inevitable because of their shared *Zeitgeist* and their completely different architectural responses to what is essentially the same message: that law and government is now more accessible and less intimidating than ever before. The law upholds honesty and transparency and most of all embraces equality. Neither of these buildings are monumental, yet they are effective in communicating their message, and seem to be the antithesis of architectural norm in their category.

## 1.2 Problem Statement

The architect Jacques Blondel wrote that "...architecture should be apprehended in its total setting or context...contextualism bridges the gap between artistic feelings and human qualities and needs "(Lesnikowski: 1982: 49). This implies that architecture needs to be viewed holistically; it is inseparable from the *Zeitgeist* or from its physical surroundings. Consequently, architecture can be viewed as a physical embodiment of time and place; it therefore has to be approached with conscientiousness to respond sensitively to both its environment and its period.



The focus of this dissertation is in contemplation of Contextualism. It seeks to create an architectural dialogue; not only on a physical level between the existing buildings on the Hatfield Campus site, but also in the broader context of a new kind of legal and judicial architecture emerging within the post-Apartheid South African socio-political and historical climate. This in itself is a dialogue between South Africa's political past and its future aspirations.



### 1.3 Project Brief: The Law Annexe

This brief is for a shared facility between a new Institute for International Comparative Law<sup>3</sup> and the existing Law Clinic, both of which will be developed as an extension to the existing Law Faculty precinct on the northern edge of the Campus.

The IICL is an addition that the Law Faculty at the University is currently negotiating with the University. Very few such institutes are in existence worldwide and the development of such a place would inevitably add to the prestige of the Law Faculty and help to establish it in even higher esteem worldwide. International Comparative Law deals with legal relationships between countries and protocols of international law. At the University, the IICL would only be accessible to postgraduate masters, doctorate students and professors and will focus largely on Africa, as well as the world at large.

Facilities at the IICL will include:

- Open plan study area for 30 students
- New library to accommodate the existing Law of Africa collection currently housed in the Law Faculty Library
- Offices for two visiting judges
- Offices for six visiting professors
- Office for Director
- Workspace for Secretary / receptionist (Heyns: 2008)

It is intended that the Law Clinic be relocated from Rissik House (c.f. Chapter 3) to the proposed Law Annexe.

Facilities at the Law Clinic will include:

- Ten consultation rooms
- Electronic and paper archives
- Office space for 15 attorneys,
- Office space for 15 candidate attorneys
- One boardroom.
- Reception and waiting areas
- Office for director
- Workspace for secretary / receptionist (Haupt: 2008)

### 1.4 Design Approach

The Law Annexe will be a building that concerns contrast between two very different legal fraternities. The IICL is both an intellectual and a glamorous addition to the University, whereas in contrast, the Law Clinic is often brushed aside as a poor relation, although it is undeniably a beacon symbolizing the humanity and compassion of the legal system at a grassroots level. These are essentially two extreme faces of the law that will be accommodated in the same building and given equal cognisance. The research and studies conducted at the IICL will have extensive global influence and regard, while through its juxtaposition to the Law Clinic, it will connect with the local community. Similarly, the Law Clinic will be deservedly exalted in status and stature within the University and will be further empowered to service the community even more effectively than it has done in the past.

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<sup>3</sup> The Institute for International Comparative Law will hereinafter be referred to as 'the IICL'



One of the considerations that will drive decision making is that the site is not a blank slate. It has two valued buildings on it: Rissik House (accommodating the existing Law Clinic) and the award-winning Law Faculty Building. As discussed earlier, a society reveals its core values through its architecture. The Law Faculty Building is narrating a distinctive story about honesty, transparency and *gravitas* surrounding the law. These ideals are valuable and should be preserved in the extension of the premises; however, the connotations that law and justice has in contemporary society should be revisited in the context of the new functions in the Law Annexe, specifically the Law Clinic and the IICL. The symbolism in the architecture should be supplemented in regard to these findings.

Although many of the current themes employed in the Law Faculty Building are considered of value and will be sustained, the aesthetic of the new extension will not be duplicated from the Law Faculty Building. Duplication of the architectural language would undermine both the Law Faculty Building and the Law Annexe in terms of profundity in the representation of law on the Campus.

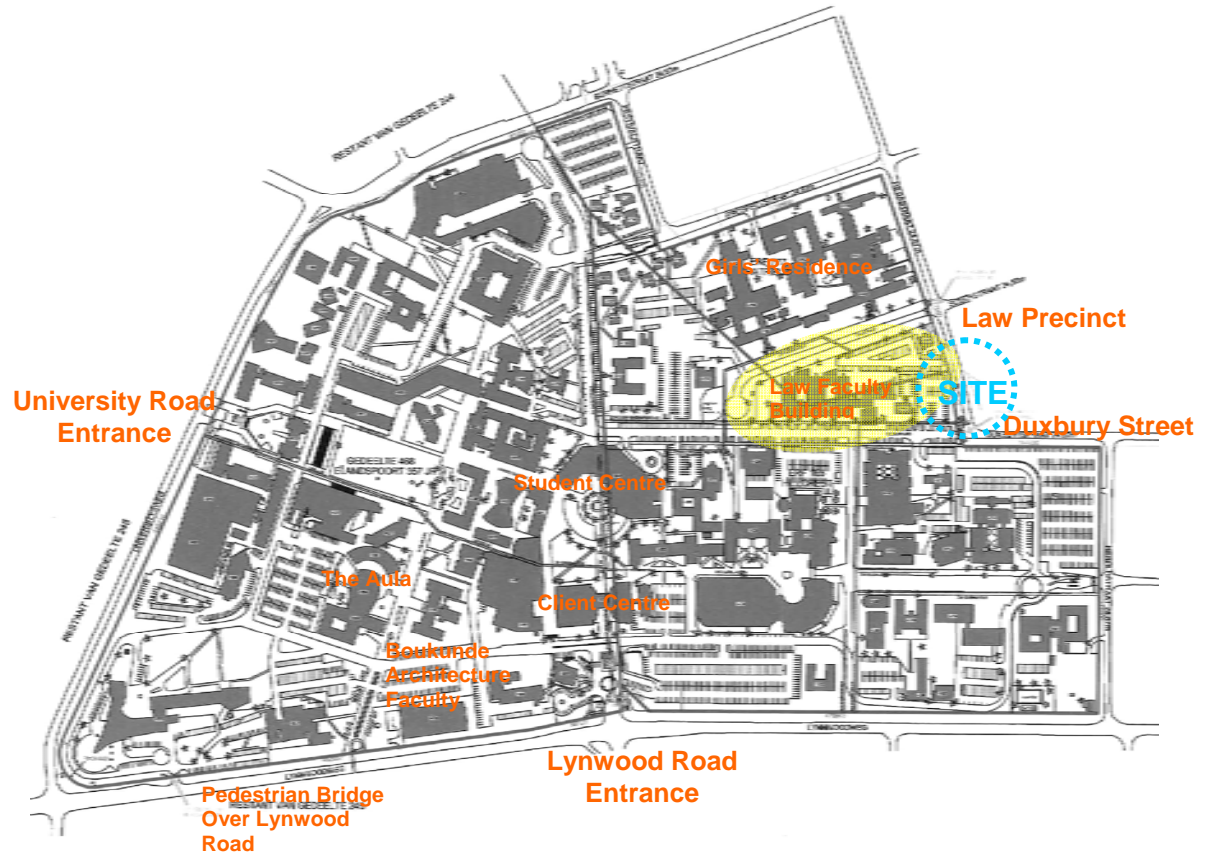


Fig. 1.2 Location of the Law Faculty Precinct in the University of Pretoria's Hatfield Campus

The Law Clinic needs to be more inviting as it needs to be perceived as a sanctuary by the underprivileged. Conversely, the IICL has the more extroverted function; the Law Annexe therefore has the added opportunity to engage with both the maternal, nurturing nature of the Law Clinic and the demonstrative, extroverted nature of the IICL.

## 1.5 Real World Problems

- The brief requires that the building is both community based and connected to the University. However, the security regulations at the University will make it difficult to design a truly integrated building.
- Finding an appropriate architectural language for the Law Annexe that blends in with the existing, yet is an independent design.
- Finding common ground between the two facets of law and creating an architectural language that can define them both.

## 1.6 Research and Design Objectives

This dissertation seeks to establish design parameters for the Law Annexe at the outset by exploring current issues of Law and Democracy with an emphasis on justice in post-Apartheid South Africa.

The development of legal architecture will be analysed in order to set the historical backdrop in which the Law Faculty Building exists. This will be done mainly through precedent study in this dissertation with selected examples, such as the Union Buildings in Pretoria (1910) and the Constitutional Court in Johannesburg (2006).

Examination of the Law Faculty Building's architectural language within the context discussed in the precedent study will be deliberated in the context analysis, as well as other factors that will influence the design of the Law Annexe.

Furthermore, the objective of 'extending' is to be explored, including how one can design onto the existing work of others and what the limitations of such projects are. This will also be done using precedent study. The idea of physical extension will be explored, dealing with the real world problem of both architectural and ideological Contextualism and with the difficulties associated with extending within a precinct that has iconic and heritage buildings.

The theories of Frank Duffy concerning innovative ways of working and issues pertaining to accessibility and power will be used to generate a design framework for the Law Annexe.

If the Law Annexe extension is successful, the existing urban landscape will not lose its original meaning, but rather, the social commentary of the landscape will be punctuated and supplemented with another layer of meaning.





# A Contextual Analysis of the South African Socio-political and Legal Landscape

- 2.1 Historical Context
- 2.2 The Have and the Have-nots
- 2.3 Social Implications of Inaccessibility to Legal Assistance
- 2.4 Case Study
- 2.5 Effect of Analysis on Design

# 2



Fig.2.1: Caricature by Zapiro

**Justice:** “From a liberal democratic perspective justice is viewed as equal access to rights and opportunities.”

(Gouws: 2005: 3)

This chapter outlines changes in the role and effectiveness of the legal system in post-Apartheid South Africa. It addresses the importance of the legal system in readdressing human rights in the country and bridging the widening gap between the poor and the wealthy. Furthermore, public perceptions of accessibility to justice and legal assistance, or the lack thereof, are analysed along with the wider implications of inadequate service delivery to poor communities. Deductions are made from the analysis that strengthen design decisions.

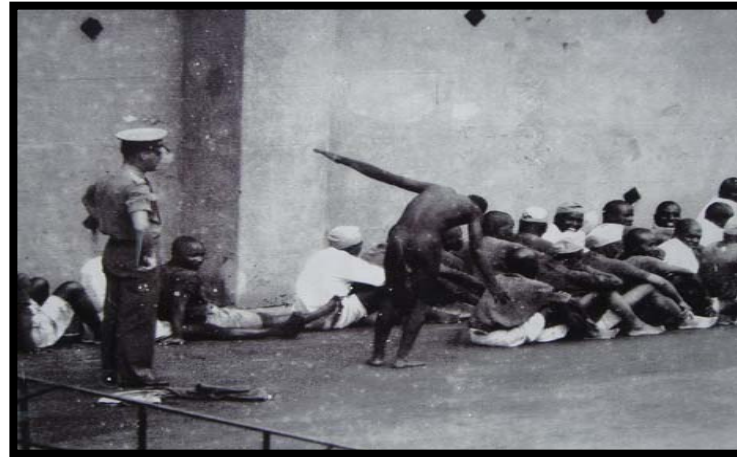
## Historical Context

South Africa is currently experiencing radical changes to social perceptions of justice and human rights since Apartheid; this country's terrible heritage. For more than half a century, the Apartheid government ignored the disapproval of the United Nations, dismissing calls for native emancipation as communist propaganda (Sarkin: 1998: 628).

Unfortunately, a substantial portion of the blame can be placed on the justice system. Human rights were violated since people were often arrested for breaking laws that were prejudicial to begin with and, moreover, they were imprisoned for long periods without trial. The Number Four Jail and the Women's Jail, now converted into museums located at Constitutional Hill, Johannesburg, lay tribute to the barbarism and violence suffered by prisoners serving detention there during Apartheid (Nkosi: 2009).

A culture of human rights simply could not develop during Apartheid South Africa. The continued degradation and intolerance suffered by non-white South Africans from the early 1900s until the first elections in 1994 has meant that

the country has faced a pressing need to foster a culture of human rights and readdress the justice system (Sarkin: 1998: 628).



*Fig. 2.2 Exert from Number Four Jail Exhibition (Constitutional Hill Exhibition)*

“Strip!”

We took off our clothes and stood stark naked in the yard... The warders mocked us for the nakedness they had ordered.

“Tausa!”

We refused, we had seen other prisoners doing the tausa and we were not going to do it. The naked person leapt in the air, spinning around and opening his legs wide while clapping his hands overhead, and then in the same moment, coming down, making clicking sounds with the mouth and bending his body right forward as to expose his rectum to the warders inspection.”

Indres Naidoo – Political Prisoner 1963

This image was secretly taken in 1954 from the rooftop of an adjacent building to the notorious Number Four Jail by Bob Gosani, a journalist from Drum Magazine.”

## The Have and the Have-nots: Bridging the Divide

It has been 15 years since the official termination of Apartheid and it still remains crucial, now more than ever, that South Africans strive to implement and maintain legal establishments that serve the purpose of providing equitable access to justice.

Sadly, distinctions that separated South African communities according to colour, race and creed during Apartheid now do so along economic lines (Stevens: 2006: 73). Although South Africa is an upper-middle income country, most South Africans continue to live well below the poverty line as defined by the United Nations Development Programme (UNDP). The distribution of wealth between the rich and the poor is one of the most unequal in the world and while not confined to any particular race group, poverty is concentrated within black communities. 61 percent of black South Africans and 38 percent of coloured South Africans are considered below the poverty line compared to five percent of South Africans of Asian heritage and only one percent of white South Africans (Stevens: 2006: 75). Even more alarming, the average income in black South African households fell by 19 percent between the years 1995-2000, implying that black communities were better off financially during the apartheid years! Conversely, the average income in white households rose by 15 percent. (Stevens: 2006:75).

The implication of this is that the same communities that were victims in the past continue to fall prey to economic injustices today, clearly giving credence to the effects of Apartheid in South Africa. In terms of the justice system, it is very likely that the poorest in any community are often the most vulnerable because of their lack of awareness of their rights and pending this, a lack of knowledge on how to

obtain those rights once they are aware of them and further, a lack of financial resources to ensure that these rights are protected and/or enforced.

In spite of this, all citizens of South Africa have access to free legal assistance via the Legal Aid Board, which in turn has cooperation agreements with various universities that have law clinics situated on their respective campuses. The criterion for accessing such legal assistance is that the aggrieved person earns less than R2 000 per month (Brand South Africa: 2008). Prescribing the threshold at R2 000 gives rise to a rather interesting dilemma. It simply means that lacking the exercise of any discretion by representatives at the Legal Aid Board, members of the public earning a salary in excess of R2 000 are simply prevented from accessing the Legal Aid Board, notwithstanding the fact that the cost of suitably qualified legal representation outside of the Legal Aid Board in many if not all instances results in legal fees well over R2 000 per matter. On the other hand, by increasing the threshold, for instance to R5 000, one inevitably opens the floodgates to an already saturated and over-exhausted resource. The solution to this dilemma is certainly one for the policy makers.

During a poll held by the Legal Aid Board between October 2006 and April 2009 which consisted of 175 people, public perception of the Legal Aid Board were analyzed with the following results: (See Fig. 2.3)

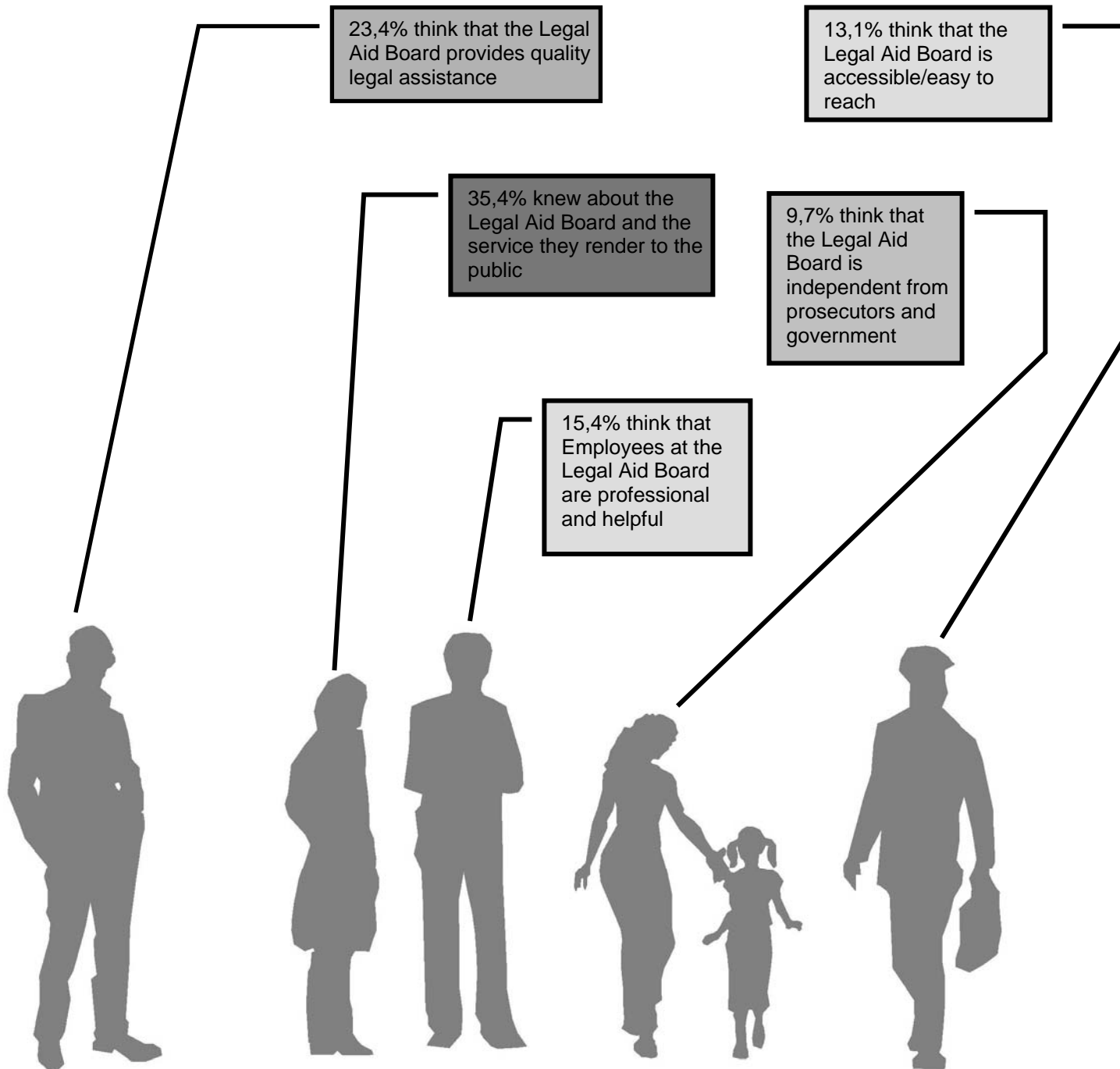


Fig. 2.3: Poll by the Legal Aid Board

The public perception of the Legal Aid Board in South Africa is unenthusiastic. Too few people seem to be aware of the organization while the ratings given to the service are extremely poor. The negative perceptions with regards to the Legal Aid Board are some what understandable given the multitude of people that cannot afford legal representation versus the scant resources available to the Legal Aid Board to assist these very people. The issues raised need to be addressed if South Africa is going to bring about social change and ultimately, provide access to the justice system in this country.

Other non-governmental, non-profit organizations include Legal Resources Centres, located in Johannesburg, Durban, Cape Town and Grahamstown; the Community Law Centre, which is a law clinic at the University of the Western Cape; and Lawyers for Human Rights, which currently has a branch working in conjunction with the Law Clinic at the University of Pretoria. Lawyers for Human Rights and the Law Clinics at the University of Pretoria's Hatfield, Mamelodi and Hammanskraal campuses are the only organizations that service the Tshwane district. Although it seems that there are multiple legal aid centres available, it must be noted that these centres are unable to handle the number of people seeking legal assistance and there are many who have been declined because of staff being unable to deal with the sheer number of cases. (Haupt:2008) For the past few years the Law Clinic at the University of Pretoria has handled more than 2000 cases per year, (The University of Pretoria: 2008) for those turned away, there is no alternative because they cannot afford private legal assistance.

## **2.3 Social implications of Inaccessibility to Legal Assistance**

The negative social issues of post-Apartheid South Africa are well documented in the media. One in four South African men admit to having raped a women and vigilante groups are notorious in the poorer townships as the police are considered ineffective in apprehending criminals (Guest: 2004: 226). Last year, the world watched their television sets in disbelief as horrific images of Xenophobia attacks in South Africa's poor townships appeared on their screens. According to Interpol, South Africa's current crime rate is unacceptably high, however, between 1994 and 2004, the number of murders per 100 000 of the population decreased by 37%, the rate of vehicle thefts by 30%, the rate of carjacking (between 1998 and 2004) by 29% and the number of attempted murders by 23%. Aggravated robbery has increased by 32% (Macdonald: 2005).

An article published by the Harvard School of Public Health argues that using what it terms 'social justice' and increased implementation of basic human rights in South Africa will prevent the scourge of violence that the country faces as a result of inequality. It perceives that communities are products of their environment, and service delivery methods in South Africa are based on international models for higher income countries. It proposes that models centred on 'social justice' need to be re-thought for South African conditions. Social justices include, among others, access to adequate health care, education and most apt for our purposes, legal assistance (Stevens: 2002: 205-211).



Therefore, facilities such as the Law Clinic (obviously not in isolation) contribute towards reducing the overall crime rate because they provide a forum whereby aggrieved people can voice their complaints. To this end, not only does the Law Clinic provide access to justice, it also serves as an active crime-fighting institution, making its existence a much welcomed one in South Africa.

## 2.4 Case Study

***“Rape case postponed 21 times  
15/04/2009 10:00 - (SA)***

***Johannesburg - A woman who was allegedly gang-raped while pregnant had her case postponed for the 21st time by the High Court in Johannesburg, The Times reported on Wednesday.***

***The woman, called Buyisiwe by gender activists, had her case postponed during Tuesday’s court appearance because one of the defense lawyers turned out to be the first cousin of one of the accused.***

***Spokesperson for the 1-in-9 campaign Carrie Shelver was quoted as saying: “I’m speechless. The docket went missing. Her statement and the tapes and transcripts also disappeared.”***

***Buyisiwe was gang-raped in 2005, allegedly by eight men who broke into her house in Tembisa. The men allegedly also paraded her in the street naked before raping her again next to a pit toilet.***

***The case had been moved forward to April 14 following protests by a women’s anti-sexual abuse coalition***

***group against the original July 27 trial date. The trial continues on Friday, April 17.”***

**(SAPA: 2009)**



Fig. 2.4: Poster advertising for 16 Days of Activism

Circumstances such as these, where administration is disorganised and the experience unbearable for the victims, are so common that one is hard pressed to find such articles reported in the print media. These violations have become so commonplace that one can speculate that they are no longer deemed newsworthy. But, it is in these kinds of circumstances that institutions such as the Law Clinic prove to be crucial, because without organizations like the Law Clinic, the danger is that Buyisiwe and others like her will choose to relinquish her need for justice because of their justified lack of confidence in the system used to achieve it. In cases such as Buyisiwe’s, the existence of the Law Clinic serves as a much needed support base and a sense of reassurance in anticipation of a long and sometimes traumatic litigious ordeal.

## 2.5 Effect of Analysis on Design

During Apartheid, legal official buildings were usually intimidating places; not only architecturally, but because of the injustices housed inside of them. At best, non-whites were treated with contempt and at worst, with violence. People would have entered with trepidation, not knowing what they would be greeted with, and would have been prepared to grovel. In the true spirit of transformation, the Law Annexe's architecture should:

- seek to embody the opposite of these sentiments. There should be little mystery to its inhabitants or its workings;
- the entrance should be fresh, light and airy to dispel all anxiety;
- the building should aim to increase both physical and perceived accessibility. This may be achieved by removing the excessive thresholds that clients have to pass to access the building at present;
- the building should also be as visible as possible from the public realm;
- the architecture of the Law Annexe should strive in its layout to break down the 'us' and them' mentality that seems to exist between employees of the Legal Aid Board and clients;
- the functions of the building should be visible to the clients so that employees are 'humanized' in their perception; and
- furthermore, the building should facilitate an environment of respect and organization, for example by creating dignified places for clients to wait (which they do not have at present) and catering for adequate facilities wherein staff may provide assistance to their clients.



# 3

## **Context and Site Analysis**

- 3.1 The Hatfield Metropolitan Framework
- 3.2 Site Analysis
- 3.3 The Law Precinct at the University of Pretoria
- 3.4 The Impact of Surrounding Buildings on Site
- 3.5 Conclusions

The site falls within the Law Faculty precinct on the northeast boundary of the University of Pretoria's Hatfield Campus. At present, the Law Faculty precinct consists of two buildings: the main Law Faculty Building and the Law Clinic. This chapter explores the site in relation to these two buildings in particular and the existing framework planned for the area created by the Pretoria Municipality, namely the Hatfield Metropolitan Core Urban Framework, City of Tshwane Metropolitan Municipality in 14 August 2007<sup>1</sup>. The development concept presented by the Metropolitan Council illustrates a plan for Hatfield centred on the Gautrain station and creating activity spines and links to nodes within the area.

The main roads through Hatfield are north-south via Duncan Road and University Road and east-west via Burnette Street, Pretorius Street, Schoeman Street and Church Street. The remaining streets are suburban. Burnette Street and North Campus remain the pedestrian nodes of the area.

### 3.1 The Hatfield Metropolitan Framework

Figure 3.1 demarcates the study area of the Hatfield Framework in relation to the University. Figure 3.2 has been adapted according to the authors understanding of the Hatfield Framework. It represents plans for an increased density and vibrancy in the Hatfield area reminiscent of the city's CBD. North-east to the Campus is a demarcation of an area termed 'the hub', the central point of activity and interest within the Hatfield Framework. The

<sup>1</sup> The Hatfield Metropolitan Core Urban Framework, City of Tshwane Metropolitan Municipality, 14 August 2007 will hereinafter be referred to as 'the Hatfield Framework'.

site for the Law Annexe is situated on the edge of the Campus at the point that interfaces with this section.



Fig. 3. 0: Hatfield Square



Fig. 3. 00: Burnett Street Scene



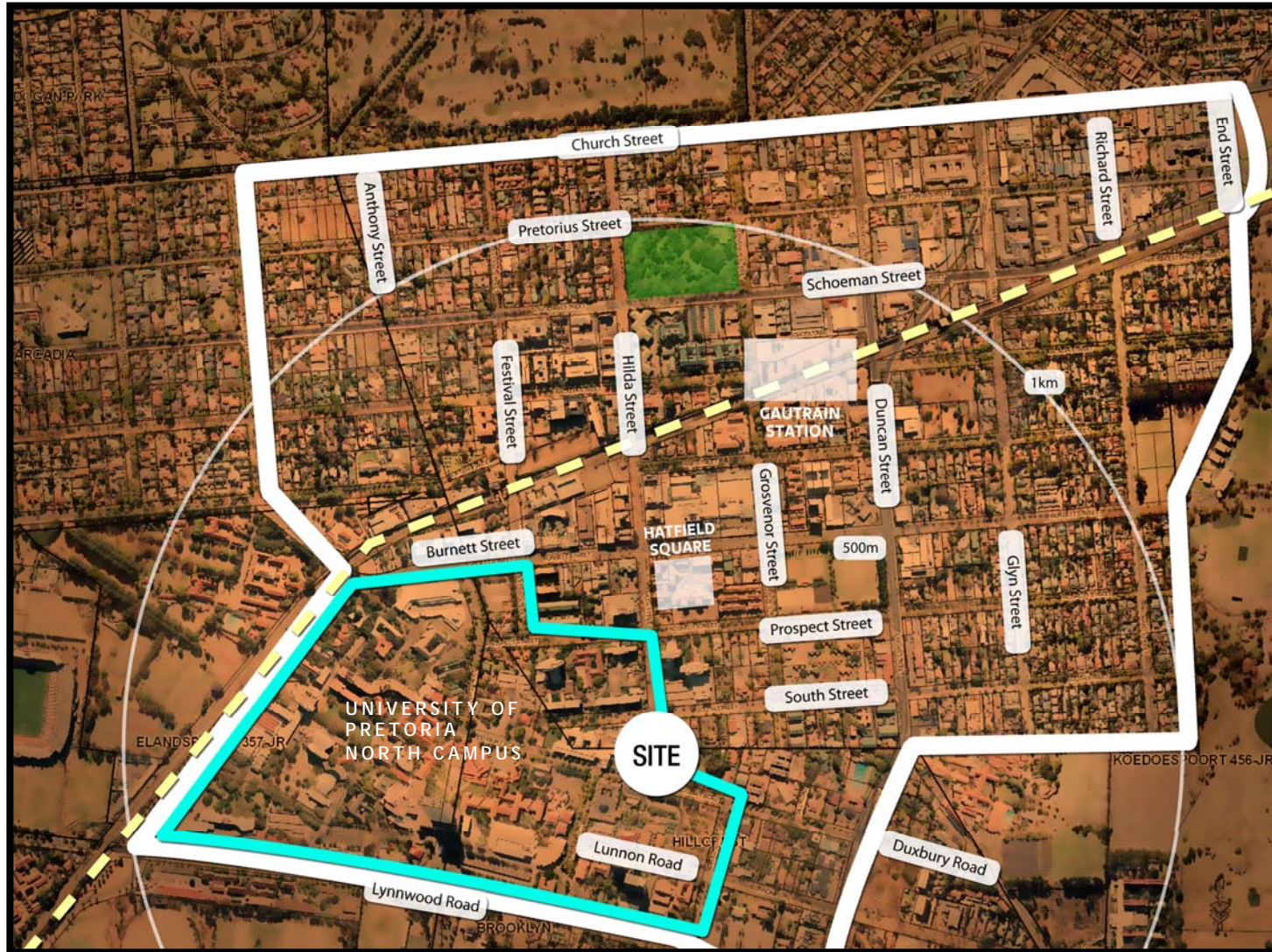


Fig. 3.1 Hatfield Metropolitan Core Urban Framework Study Area





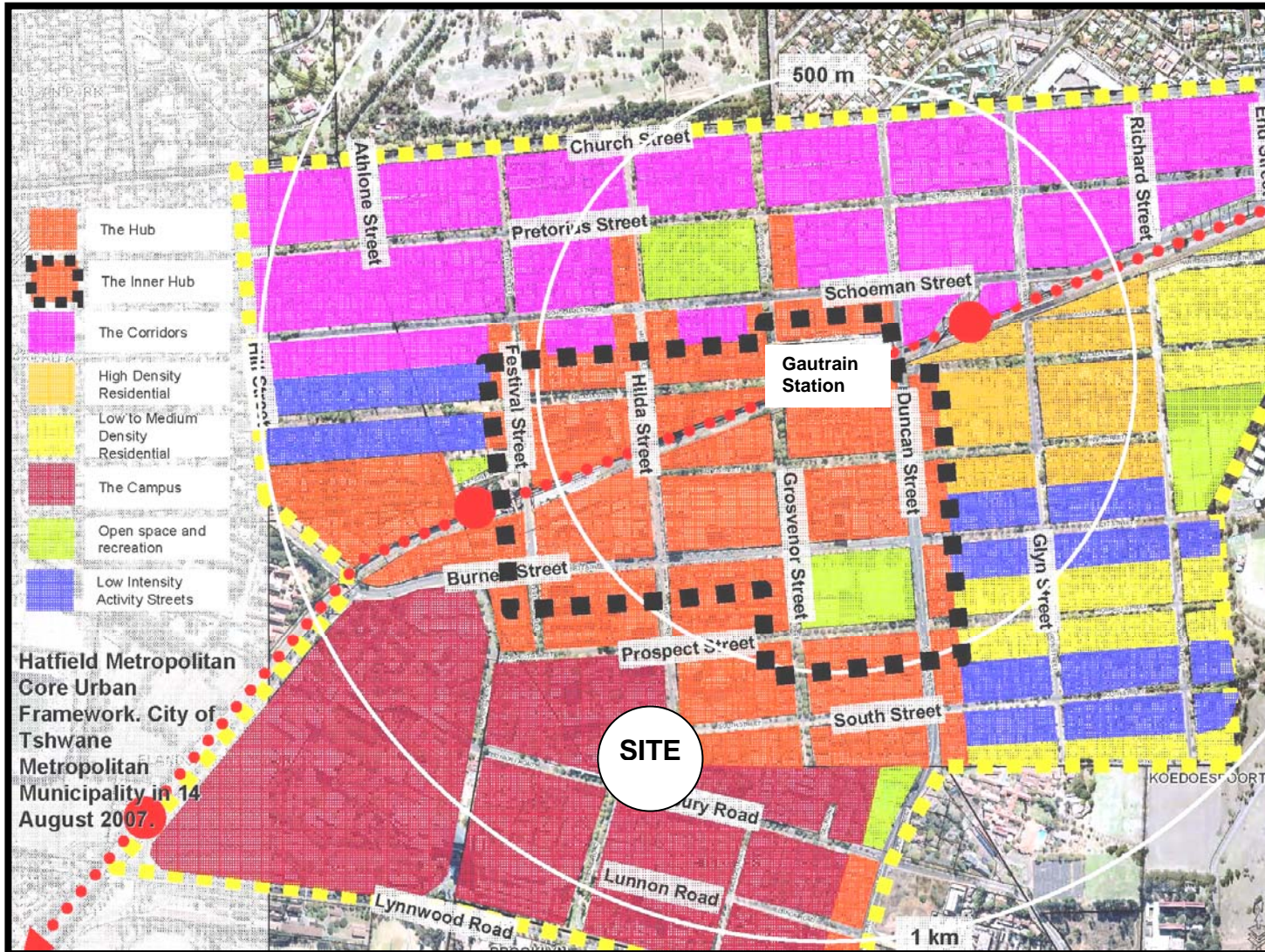


Fig. 3.2: The Hatfield Framework (Adapted from the Hatfield Metropolitan Core Urban Framework)



### 3.2 Site Analysis

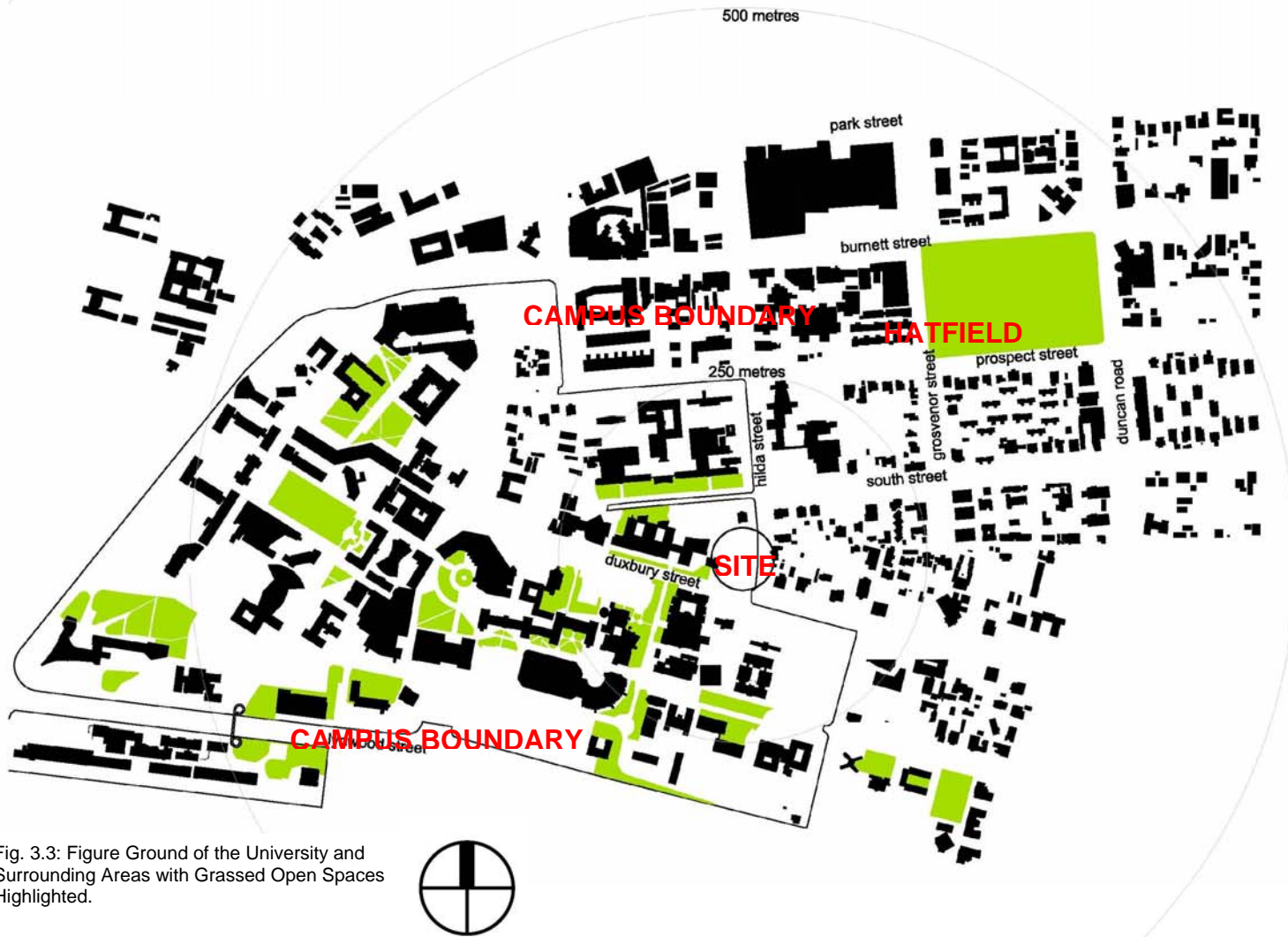


Fig. 3.3: Figure Ground of the University and Surrounding Areas with Grassed Open Spaces Highlighted.



Figure 3.4 depicts the conflict between important streets in the Hatfield Framework and the poor street edge around the Campus boundary. The boundary of the Campus is surrounded by a 2 m high steel palisade fence and a string of cars as there is not enough parking on the Campus to accommodate all of the student's cars. This issue will be partially resolved by the Rapid Bus Transport System planned into the Hatfield Framework (Hatfield Metropolitan Core Urban Framework: 2007). The busy nodes are located deep within the Campus boundary; therefore the public is not aware of much of the activity on the Campus.



**KEY:**






-  Busy Nodes Within Campus Boundary
-  Hatfield Framework
-  Heavy Vehicular Movement
-  Conflict between Campus Edge and Hatfield Framework
-  Poor Street Edge

Fig. 3.4: Conflict between the Poor Campus Edge and the Hatfield Framework



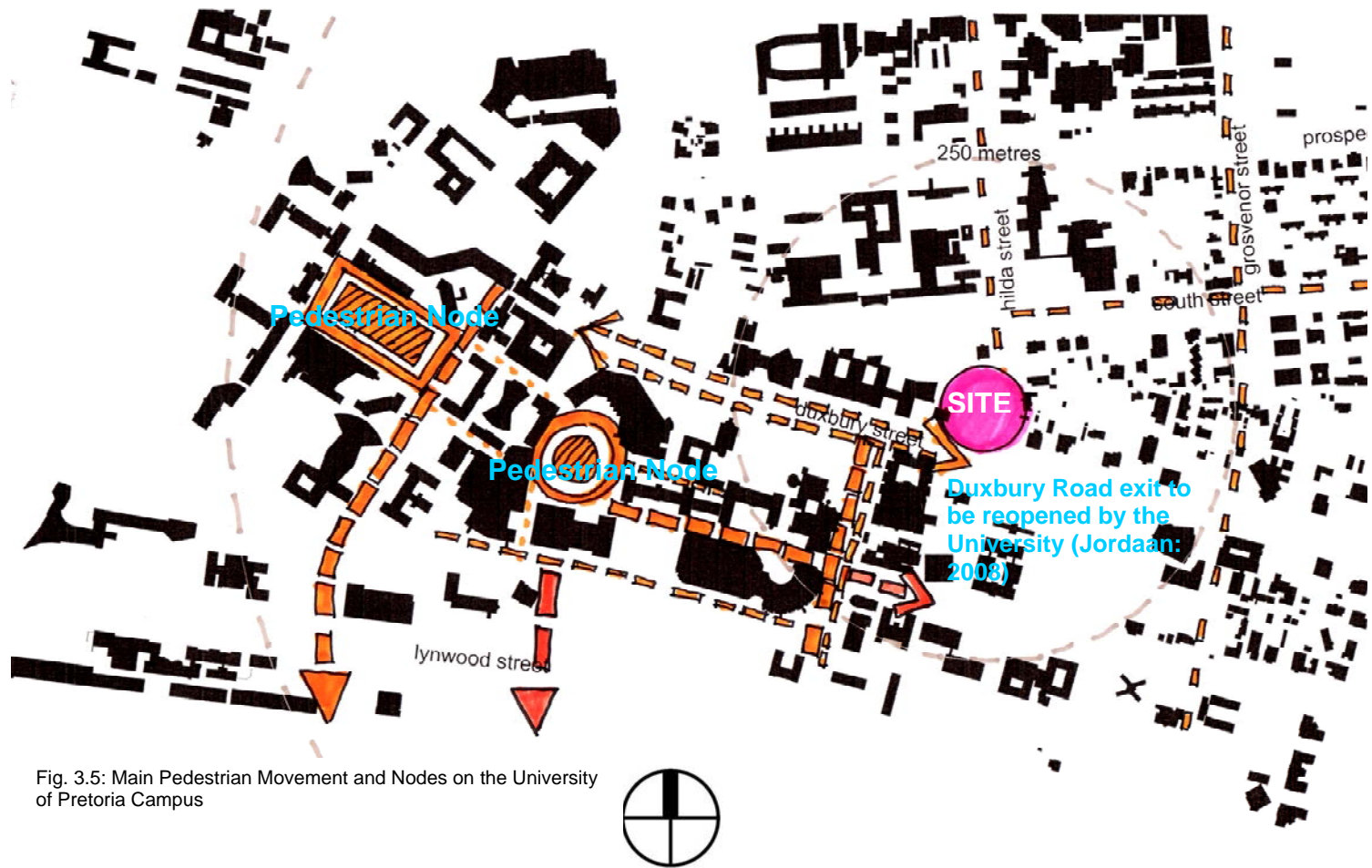


Fig. 3.5: Main Pedestrian Movement and Nodes on the University of Pretoria Campus

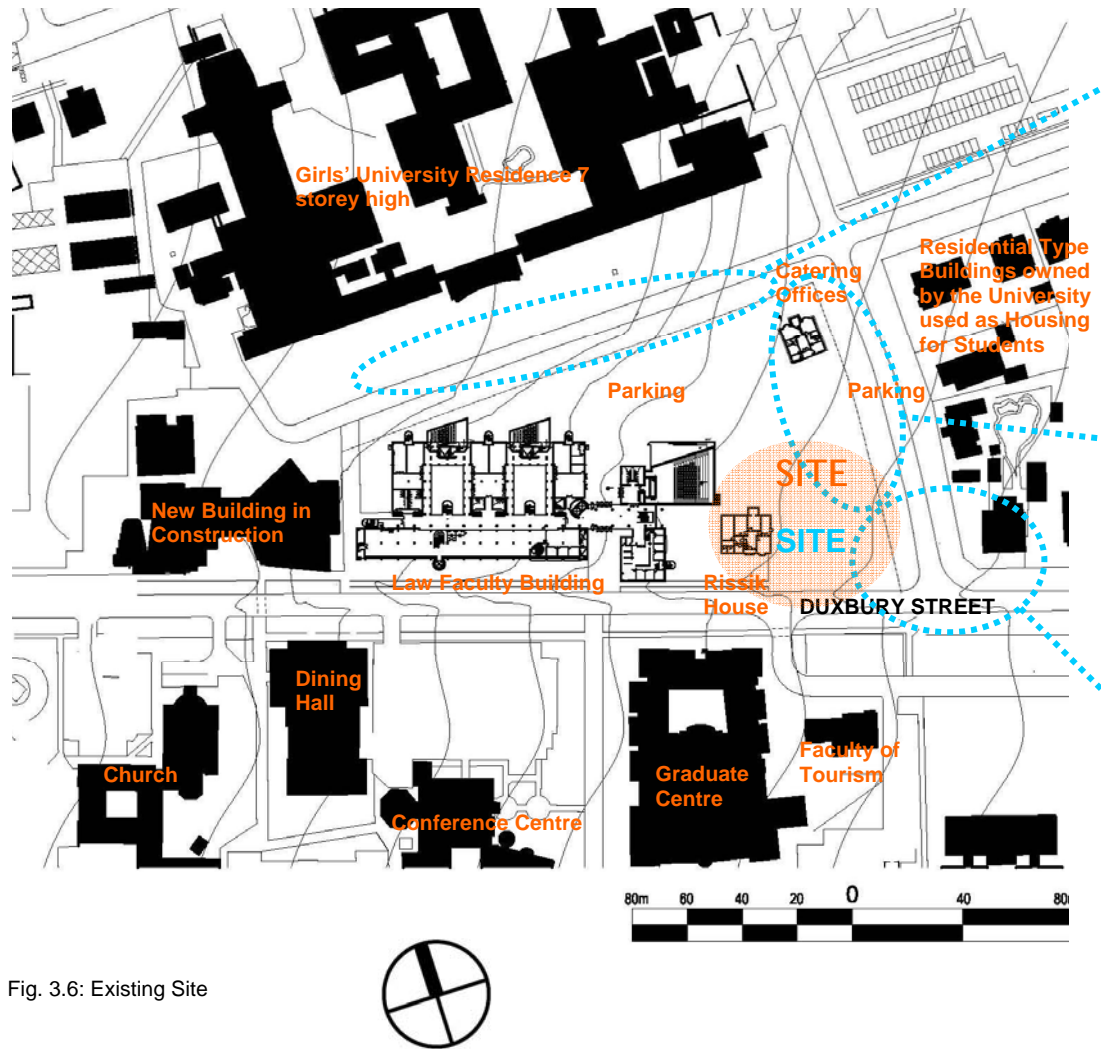


Fig. 3.6: Existing Site



Fig 3.7(a): View of north boundary of the site



Fig 3.7(b): View of parking lot on the east boundary of the site



Fig 3.7(c): View of the Duxbury Street entrance which is intended to be reopened by the University

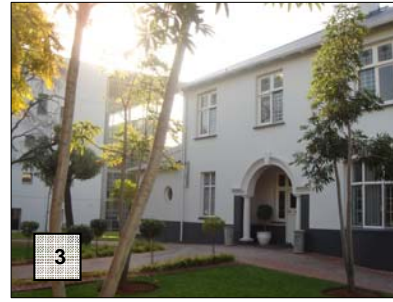




1  
Law Faculty Building



2  
Girls' Residence



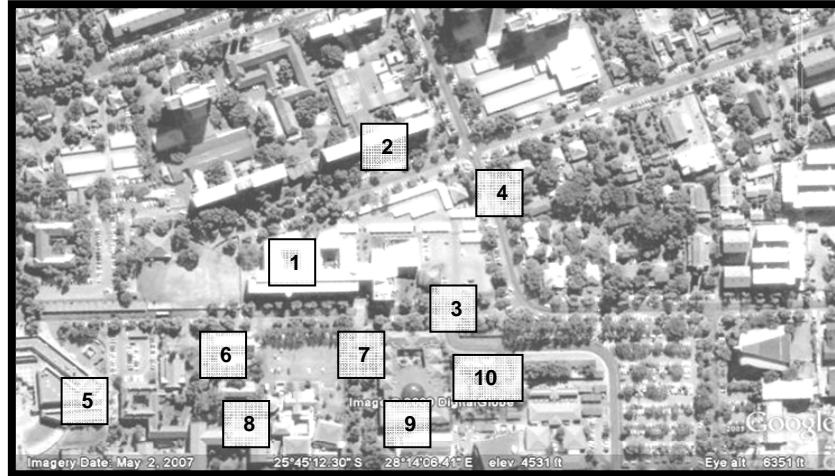
3  
Rissik House



4  
House used as Catering Offices



5  
Chapel



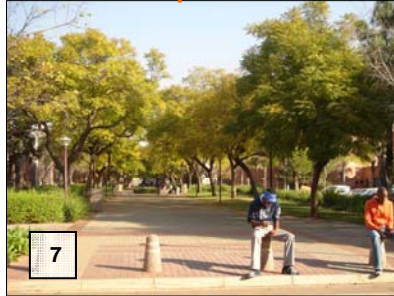
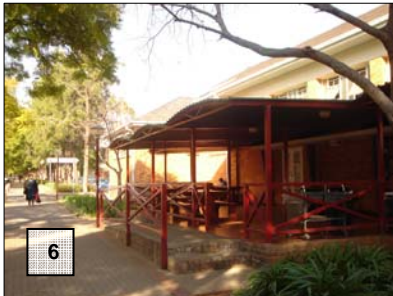
6  
Pedestrian Axis to South of Campus

8  
Conference Centre



10  
Faculty of Tourism

6  
Dining Hall



9  
Graduation Centre



Fig. 3.8: Surrounding Buildings

### 3.3 The Law Precinct at the University of Pretoria: Rissik House

At present, the Law Faculty precinct on the Campus consists of two buildings: the main Law Faculty Building and the Law Clinic located in Rissik House. In deciding on the location of the extension to these existing buildings, accessibility for the main users is a crucial factor; namely, these are students, lecturers, attorneys and clients. The IICL must be situated near the Law Faculty Building so that facilities such as the library and lecture rooms can be shared. Furthermore, it would be inconvenient for students and lecturers working at the Law Clinic to have to travel to another location to meet clients. Unfortunately, the legacy of Apartheid has meant that it is likely that the neediest of clients are often located in townships far flung from the city centre.

The Law Clinic is located close to the Law Faculty Building in a heritage building originally built by Johann Frederick Rissik and dates back to 1903 (University of Pretoria: 2005:18). Although the house has heritage status, it is considered of

little value historically and to the University. Unfortunately, the demands of the Law Clinic and former functions accommodated in the building have meant the repeated division and alteration of the interior and part of the exterior, which damaged some of the original characteristics of the house.

The alterations are reversible from a conservation perspective; however the house simply cannot accommodate the function of the Law Clinic in terms of its size, waiting areas and privacy requirements. Storage rooms within the main Law Faculty Building are currently being utilized as additional office space and consultation rooms, but they suffer from poor lighting and ventilation, making them uncomfortable for the users. The archives are located in the ground floor toilet because of a lack of any alternative. Moreover, many of the clients coming to visit the Law Clinic spill out onto the University's gardens outside the entrance of the building for many hours while they are waiting for their appointments. This arrangement is uncomfortable for the clients and Professor Haupt (2008), the director of the Law Clinic explains that while everyone has a right to seek assistance, not all of their



Fig. 3.9: Rissik House  
(photographs by author, March 2008)



clients are in fact innocent . A formalized waiting and reception area would help to negate the vulnerability the University perceives while still allowing the Law Clinic to run its sessions.

The Law Clinic has been doing commendable work for the past 28 years and has “made the law and the legal system accessible to thousands of our citizens who would otherwise have been excluded from equitable justice.” (University of Pretoria: 2005: 18). Unfortunately, since the end of Apartheid, the Law Clinic’s success has been marginalized and it remains one of the University’s unsung heroes. Furthermore, the existing location of the Law Clinic is within the University boundary and as a result, its accessibility to the public is compromised.

## The Law Faculty Building

The Law Faculty Building at the University of Pretoria was the winning entry of a design competition held by the University. The building is located on the northeast boundary of the campus where it effectively encloses what

was previously an anti-climatic edge of the Campus. (SAIA: 2006)

The main entrance is located on the southern façade at the end of a long tree-lined pedestrian axis, reminiscent of the monumental buildings analyzed in the precedent studies of this dissertation (c.f. Chapter 5). However, this confrontational entrance is where the similarity ends. The forthright entrance is softened by the lightness and delicacy of the glass planes that dominate most of the southern façade, giving clear views into the library in a symbolic gesture of openness (Fig. 3.10 (b)). Themes of *gravitas* and transparency surrounding the law are represented in the architectural language on much of the exterior façades, where there is juxtaposition on levels of visibility and weightiness between the carefully punctured walls and glazing. Throughout the building the structure and services, such as the air-conditioning conduits, remain exposed, giving a further indication of underlying concepts of transparency and honesty (Fig. 3.10 (c)).

Furthermore, the clear logical layout of the building helps a first time user to orientate themselves quickly and easily.



Fig 3.10 (a): Courtyard in Law Faculty Building



Fig 3.10 (b): South Entrance to Law Faculty Building



Fig 3.10 (c): Expression of Structure in the Law Faculty Building in the Circulation Spine

Access to all the spaces are off an east-west circulation spine that also connects to two internal courtyards (Fig. 3.10(c)).

The courtyards are successful social spaces and form welcome protected retreat areas in a building where many areas are exposed due to the south-facing glazed façades (Fig. 3.10(a)). Therefore, the building has a balance between extroverted and introverted spaces.

The building is striking and meticulously detailed; its aesthetic and quality correspond to international buildings as it relates to the world on a global rather than local dimension. However, at times, the extensive use of unprotected glazing on the north side of the multiple volume entrance (perhaps more appropriate in northern climates) makes it uncomfortable, especially in the upper levels of the space (Fig 3.10(b)). Furthermore, it seems there is less sensitivity to human scale on the north side than on the south as the sheer white walls and geometric forms tend to feel overwhelming from this façade (Fig. 3.13).

Most interestingly, the building embodies certain ideologies of law in contemporary South Africa. It personifies the qualities and ethics that law should (ideally) strive for, especially in this country that has survived an intense struggle for democracy and equality before the law. As discussed, the Law Faculty Building is juxtaposed with buildings such as the new Constitutional Court in Johannesburg that seeks to represent elements of our country's history and the present day founding principles of our constitution. Both of these buildings signify a departure from the use of monumentality in legal architecture and are products of the evolution of legal history and ideologies in the country.



Fig. 3.11: The Library located on the light glazed south side of the building



Fig. 3.13: The North Façade is more solid than the south with sheer white carefully punctured walls

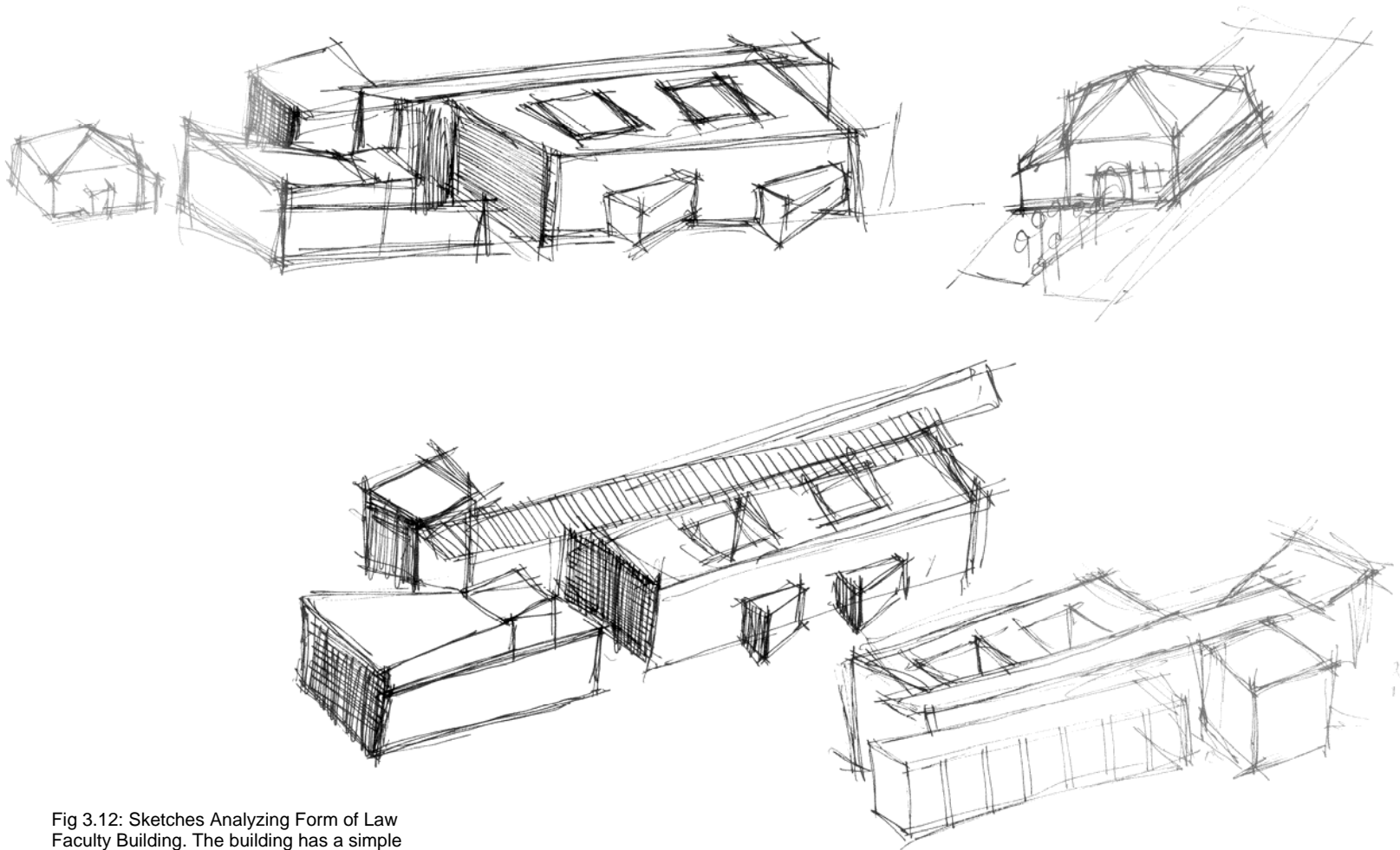
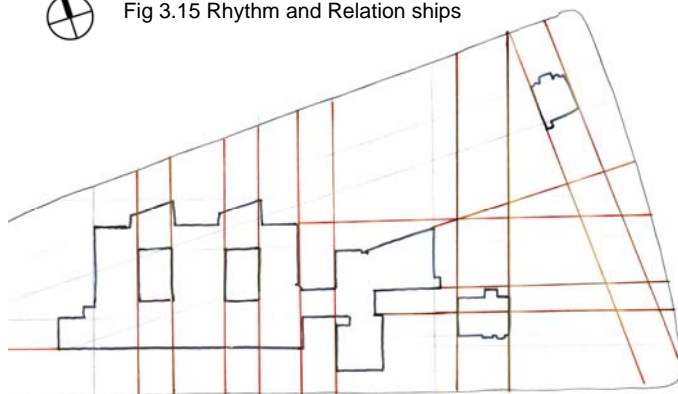
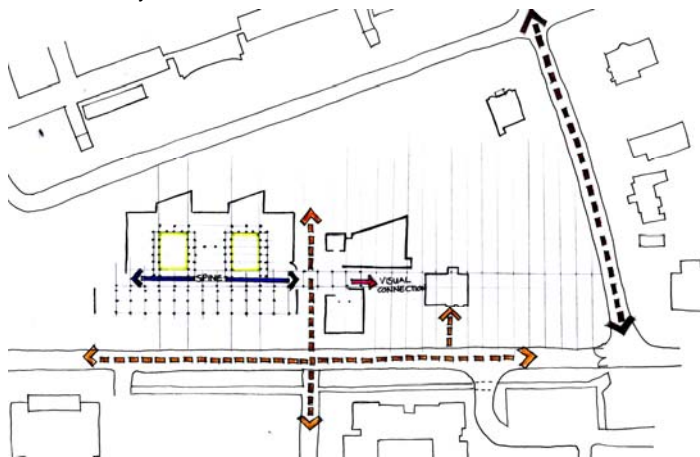
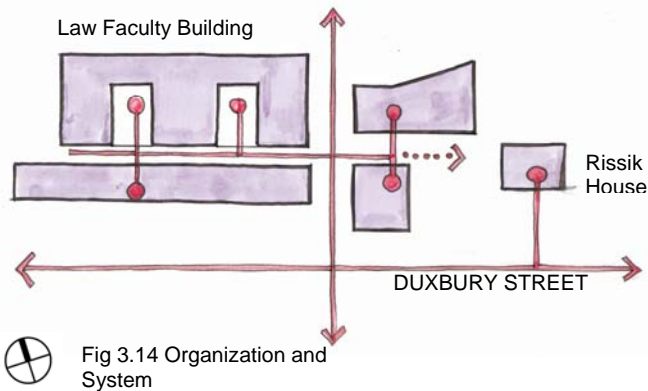


Fig 3.12: Sketches Analyzing Form of Law Faculty Building. The building has a simple 'base' shape with dramatic protrusions pertaining to function expressed on the façade.





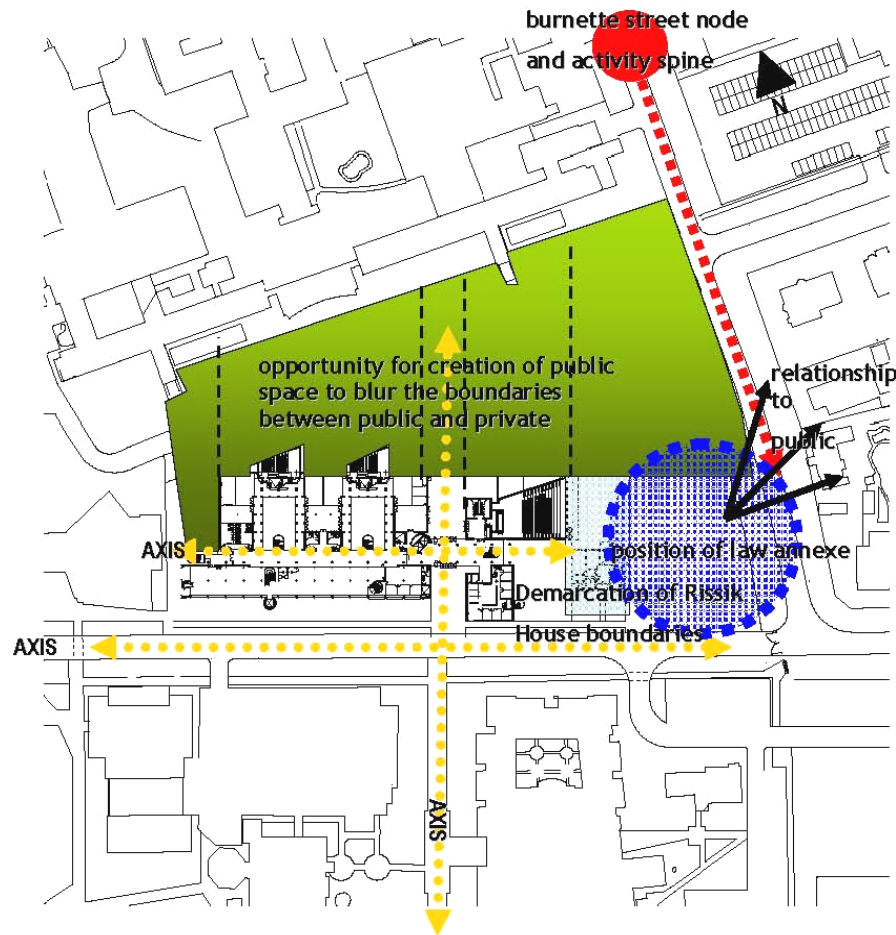
### 3.4 Impact of Surrounding Buildings on Site

Systematically, the Law Faculty Building is centered on the axes shown in figure 3.14. The building on one level terminates the north/south axis created by a pedestrian avenue, but also seems to suggest the continuation of the axis beyond the building. The north side is dominated by parking and an obtrusive fence that surrounds the entire campus. The building relates to a secondary east/west axis that runs along Duxbury Street leading to a soon to be opened entrance into the campus. It is this axis that links the Law Faculty Building to Rissik House. Within the building there is a strongly defined circulation spine that leads the inhabitant to the courtyards and other nodule-like elements. There is a distinct visual connection between the main building and Rissik House from the circulation spine.

Figure 3.15 illustrates the rhythm created by the repeated use of colonnades and courtyards within the building as a possible means of continuation for the extension.

Figure 3.16 is a study revealing the impact of extending lines off the buildings on the site. It provides an indication of the placement of the new extension. The building on the far north-east of the site is a remnant of a row of houses that used to exist before the development of the Law Faculty Building. Originally these buildings related to the street edge, and therefore, the lecture rooms, because of their shape, which relates strongly to this building. The east/west lines from the remaining house are interesting because they mark a former element or historic layer that physically does not exist anymore.

Law Faculty Building seems to command the area directly north of it as a forecourt to the building because of its stature and size. Similarly, Rissik House appears to covet the area immediately north and south of it in a manner remnant of its front and back yard.



### 3.5 Conclusions:

- The need for a forecourt on the northern section of the Law Faculty Building
- The definition of the area around Rissik house
- Either the termination or continuation of the axis created within Law Faculty Building and the University grounds
- The need to link the Campus to the Hatfield Metropolitan framework and public realm
- The possible continuation of the system of courtyards set up by the Law Faculty building
- To increase the accessibility of the Law Clinic to the community



Fig. 3.17 Conclusions Derived from Site Analysis



# 4

## **Theoretical Enquiry**

- 4.1 The Creation of Stimulating and Effective Work and Study Spaces
- 4.2 Diminishing Hierarchies
- 4.3 Accessibility and Power
- 4.4 Urban Space Philosophy

This chapter investigates the work of three theorists with the aim of developing a theoretical framework for the design of the Law Annexe. Firstly, it outlines the conjecture of Francis Duffy (1997) as a means to capitalize on human interaction and efficiency within and in the context of designing the Law Annexe and, therefore, the exchange of knowledge and ideas that the inhabitants of the Law Annexe necessitate. Secondly, it explores the complex processes and power struggles in buildings through the theories of Leslie Kanés Weisman (1992). Lastly, it seeks to apply the theories of Jane Jacobs (1963) to the precinct around the Law Annexe.

## 4.1 The Creation of Stimulating and Effective Work and Study Spaces

As indicated, the Law Annexe accommodates two different facets of the law within its walls: the Law Clinic and the IICL. The former is essentially a law firm with the additional function of apprenticeship for undergraduate students in what is essentially their first experience of working in an office. The latter function, the IICL is comprised of postgraduate masters students who for the most part will be returning from the workplace to attend university. Consequently, the Law Annexe will essentially be conceptualized as an office building in its design and rationale.

All of the staff in both faculties, except for the two directors, are to varying degrees transient staff who spend the majority of their time elsewhere, locally and

internationally. The attorneys working in the Law Clinic work at other firms on specific days of the week because the cases at the Law Clinic are pro bono and their employment there is voluntary. Moreover, the staff at the IICL are either esteemed judges or visiting professors that the Law Faculty invites to present lectures for predetermined periods. The undergraduate students working at the Law Clinic are also transient as they spend the majority of their time in the main Law Faculty Building and groups of the class will utilise the building in shifts. The postgraduate students are either studying part time or full time, therefore only a portion of them will set up a permanent workstation at the IICL for a period of one year.

Both facilities exist as a place of intense exchange of knowledge and experience between students, lecturers and colleagues. The design of the Law Annexe therefore has the primary function of efficiently promoting and maximising the exchange of knowledge between the users of the building, as there are relatively short windows of time that any one person has access to another.

Attitudes towards working in offices are changing because of global economic pressure, the need for less office space and advances in information technology. In the present day, in most offices, it is no longer necessary for one person to inhabit one desk from nine until five every day. Work has become more interactive and less repetitive and staff want to be able to choose where and when to work depending on what work they are doing and which place best facilitates it (Duffy: 1997: 08). Office

workspace such as at the Law Annexe needs to be flexible to the shift in workplace thinking and dynamics or it will adversely affect the efficiency and productivity of the inhabitants.

Behaviours and ways of working have been transformed in recent years in the office environment. The nature of the work at the Law Annexe is at times intense; requiring quiet space to work, read and at times the work is interactive; requiring groups of people to be able to participate in discussions (Fig. 4.1 and Fig. 4.2). It is impossible to design a single space for both these requirements of workspace because of the irritation that a discussion between some members could cause to the quiet time of others. The only alternative is to zone the layout of the workspace into quiet work and discussion areas (Duffy: 1997: 236). Zoning allows the inhabitants of the building to decide where the most appropriate place to execute the task at hand is. They are consequently able to choose their work environment in a way that will accomplish their task faster and more effectively (Duffy: 1997: 235).

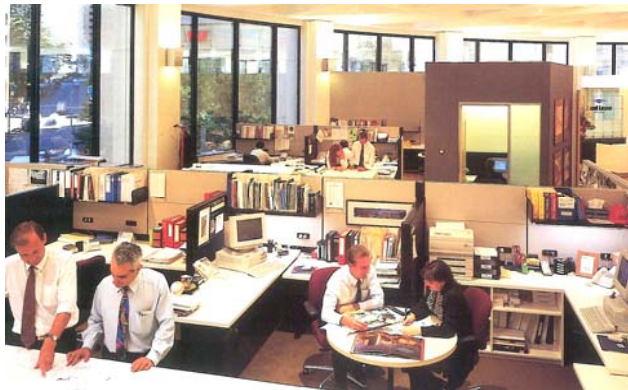


Fig. 4.1: Zoned Space for Group Work

Similarly, poor architectural design can undermine life in the building in a number of ways. The space can become either too large or too small for the work through the years or become expensive to operate. Internal subdivision and fragmentation of spaces can discourage personal communication or the design can overvalue the status of certain members of staff causing a negative atmosphere of hierarchy for inhabitants. Most importantly, architectural imagery reinforces the values of organizations and the people that work for them, therefore, attention has to be paid to the ethos of the organization when conceptualizing the design of the spaces (Duffy: 1997:09).

Buildings such as the Law Annexe that require areas that facilitate group discussion need superior areas of group interaction than those which office buildings usually provide for their inhabitants. Not only should there be more areas for team and group activities, display and video conferencing facilities should be designed into the architectural space (Duffy: 1997: 235).



Fig. 4.2: Zoned Space for Quiet Work

Similarly, interface between inhabitants should be encouraged simply by using generous circulation spaces. Developers generally tend to minimise circulation such as passages and lobby areas because they do not provide for a rentable income. Although it is prudent not to create large, overly glamorous spaces, the Law Annexe's primary function is to efficiently promote and maximise the exchange of knowledge between the users of the building and, therefore, places for serendipitous meetings and conversation need to be designed into the space (Fig. 4.3) (Duffy: 1997: 236).

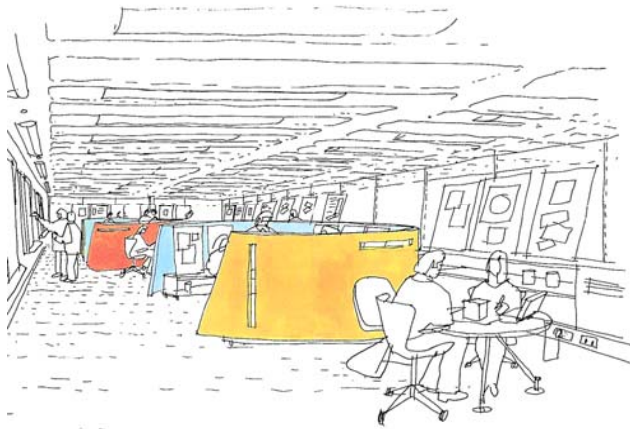


Fig. 4.3: Stimulating Interaction

## 4.2 Diminishing Hierarchies

The design of the Law Annexe must aim to increase both physical and perceived accessibility because of the considered socio-political context of South Africa (c.f. Chapter 2). This was discussed previously with regards to the relationship between the attorney or law student and the client at the Law Clinic. Duffy emphasizes the risk of reinforcing barriers and hierarchies using architectural form with regards to the pecking order in the office. This is not to say that there should be no hierarchy, but gratuitous importance should not be given to individuals through privileges of furniture, office décor or office size. Architecture that reinforces barriers results in the building's inhabitants perceiving themselves as being disconnected from each other. Interaction should be expressed through fluidity in the layout of the office and the design of spaces (Duffy: 1997: 238).

## 4.3 Accessibility and Power

Invariably there are roles and hierarchies of social power attached to all users of any public building. Many public buildings discriminate against certain groups of people by segregating or limiting them to particular spaces within the building where they are subordinate (Weisman: 1992: 35). This kind of discrimination was obvious in architecture during Apartheid when there were different entrances to buildings for black and white people, but today it has become more difficult to perceive, possibly because the

rigidity that dictates the social ordering in buildings has become an acceptable norm.

Law firms, for example, are by their nature intimidating places. Well-established law firms such as Edward Nathan Sonnenburgs or Werkmans located in Sandton City, Johannesburg, have large overwhelming entrances, but as you enter these buildings, they do not disclose what is inside the rest of the building. Therefore, although these entrances are large, they are not open and welcoming.

When a client has come to consult with a lawyer, they are led to a plush, air-conditioned room to wait, where after a few minutes a well-groomed man or woman will come in and formally introduce themselves as their lawyer. There is a hierarchy set up because the lawyer is privy to deeply personal issues, but the client is not knowledgeable about the lawyer; the room in which they meet is not personally allocated to the lawyer so that deductions can be made about the sort of person the client is dealing with. The persona of the human being and building alike is carefully manipulated to create a certain image that is often misguidedly referred to as professionalism. In reality, the building, the interiors and the etiquette of the lawyer result in a detachment and loss of interaction on levels that could have been mutually beneficial to both the lawyer and the client.

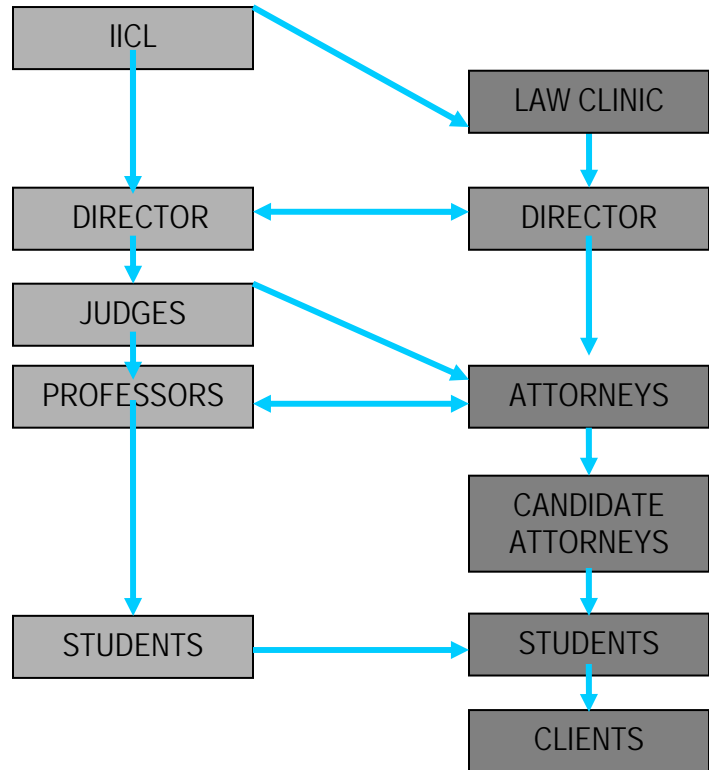
Weisman (1992: 37-8) writes that if people become aware of the social dimensions of architecture, they can begin to critically evaluate and revolutionize buildings to allow for more inclusive designs. In an office, the level of privacy is often an indication of the status and power of the member

of staff. Often executives are concealed firstly behind a lobby, then a receptionist and finally, a personal secretary. Protocol requires that permission is granted before one enters a director's office; however the director is free to walk into a subordinate's office anytime. Similarly, employee's access to the best positions in the building, for example, the best natural light or access to pleasant courtyards, is related to their status in the company.

Accessibility of public buildings can be evaluated on how easy it is for an inhabitant to use the building. Access for people with disabilities has been enshrined in South Africa's constitution, but details such as the height of buttons in an elevator or the gradient of ramps are often overlooked.

The design of the Law Annexe should encompass these ideas of accessibility and refrain from setting up power relationships between clients and lawyers, students and professors, directors and employees, and of course, the two facets of the law. Common ground needs to be found through the organization of spaces between the people who would traditionally be the most important people in the building and the people who are usually dismissed.

Fig. 4.4: Expected Hierarchy at the Law Annexe:



## 4.4 Urban Space Philosophy

The Site Analysis suggests the formation of an urban square on the northeast boundary of the University between the Law Faculty Building and the student residence. Jane Jacobs's (1963) approach to urban design methodology was analyzed and used in the context of designing the urban edge between the University and the public realm of Hatfield. The following is a synopsis of the criteria that was extracted from her writing and applied to the project.

### Cities as Generators of Diversity

Cities are natural generators of diversity; they need variety to support mixed-use environments. This is important to avoid the monotony and dullness that plagues many suburban areas. The area surrounding the northeast boundary of the University is diverse in use, but is nonetheless, lifeless at certain times. Mixed use is needed not only because of convenience for the inhabitants in the area, but also public safety – that there is always someone using the functions at any given time. Jacobs (1963: 144) writes that a mixture of uses needs a diversity of ingredients to sustain it. The following criteria will be applied to the creation of a public square and threshold to the University.

1. The district must perform more than one primary function, preferably more than two. This must ensure that users of the space inhabit it at different times and for different purposes but be able to use



the facilities provided in common' (Jacobs: 1962: 178-182).

2. Smaller blocks must be created in the urban fabric. Entrances and thoroughfares must be frequent. This encourages permeability and vigilance of the area, thereby neutralising the University's security concerns. Additionally, they encourage staff, students and other inhabitants of the University to walk along routes that he or she feels an ownership towards rather than walking all the way around the block and feeling disconnected to the unfamiliar people there (Jacobs: 1962: 178-182).
3. There must be a sufficiently dense concentration of people using the space, including people who live and work there. There is a link between the concentration of people coming to and moving through an area and the services that can survive there. Sufficient numbers of people are needed to support facilities and economic conveniences; therefore, the space needs to attract people for it to be successful. (Jacobs: 1962: 200-201).

### The Uses of Green Spaces

There needs to be a variety of people using the space or the space will be left abandoned at certain times of the day. Different kinds of people mean different schedules, for example, the space could be used for dog walkers early in the morning, people on their lunch breaks during the day for playing sport in the late afternoon, and for lovers at night. Alternatively, the space could be welcome families on

the weekends and a retreat for students during the week. Thus, the space becomes a vibrant layered place. If it is abandoned at certain times, it leaves an opening for anti-social people to lay a claim to the space, chasing out the other users and leading to the degeneration of the space (Jacobs: 1962: 98).



Fig. 4.5: Early Morning Street Scene in Church Square, Pretoria's CBD





# **Legal Architectural Languages**

**(Precedent Study Part 1:  
Examining the Development  
of Legal Architecture in  
South Africa)**

- **5.1 The Union Buildings  
by Sir Herbert Baker**
- **5.2 The Old Parliament  
Buildings, Mmabatho by  
Scholes Britz Architects**
- **5.3 The Constitutional  
Court by OMM Design  
Workshop and Urban  
Solutions**
- **5.4 Conclusion**

# 5

After the visual onslaught of Apartheid architecture that includes invasive and dominating forms such as the Voortrekker Monument, legal architecture in post-Apartheid South Africa is currently engrossed in a search for a national architectural identity that is truly South African and inclusive of all South Africans.

The following is a comparative analysis of the architecture of the Union Buildings in Pretoria, the Old Parliament Buildings of former Bophuthatswana in Mmabatho and the Constitutional Court in Johannesburg as examples of political and judicial architecture by differing regimes. It explores how the various architects have infused their buildings with power and political meaning through their architectural language, resulting in the evolution of architectural typology through political ideology.

## 5.1 The Union Buildings by Sir Herbert Baker

The Union Buildings convey characteristics in a manner that is customary for Neoclassical government buildings. Sir Herbert Baker received the commission to design the Union Buildings after the National Convention had decided that Pretoria should be the administrative capital in 1910 (Seymour: 1989: 171). The form consists of two block-shaped buildings linked by a curved colonnade, symbolizing unity and strength between the British and the Afrikaners. The formal garden is neatly terraced downhill to form a natural amphitheatre. The Union Buildings was the *finale* of Baker's work in South Africa as he continued his career in India and Britain after this building (Seymour: 1989: 171).



Fig. 5.1: The Union Buildings

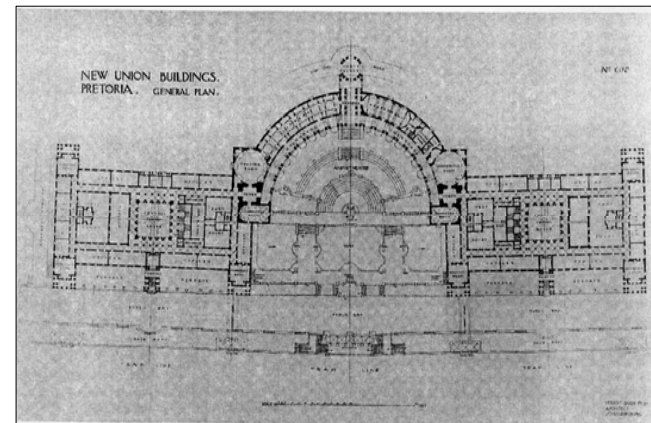


Fig. 5.2: Plan of the Union Buildings

Architecture has the capacity to produce symbols that can be manipulated by leaders and politicians as a means to reaching particular goals (Vale: 1992: 04). In this instance, The Union Buildings create a feeling of longstanding linkage with authoritative buildings in Britain through its use of Neoclassical references. Its location makes powerful symbolic use of the physical environment; its positioning on the hill in particular is evocative of Classical Greek temples (Seymour: 1989: 171), itself an association with authority and worship. Viewed from the city, it seems ethereal and makes the individual feel diminutive. It has endless views over the city and beyond and is visible from much of the city suggesting an omnipresence of supremacy, although the activities inside those walls are a mystery to the less significant commoner. To ascend to the building, especially when walking is difficult to say the least, suggesting that confrontation is not a usual occurrence – the administration of the country obviously does not need constant input from the masses. To an inhabitant in Pretoria, the building is more of an icon or monument to be looked at rather than a building one would personally enter.

The use of local stone is typical of Baker's work, which despite the Neoclassical reference, can be seen as a Regionalist gesture as it was customary at the time to import all building materials from Europe (Seymour: 1989: 171). The stone from the site and the visual impression made by the carved out amphitheatre gives the building an organic appearance, as if it is part of the earth or landscape. The building looks as if it has emerged out of the land. This is an ironic feature, for while one cannot insinuate that it was the architectural or political intention that the building looks as if it always belonged in that place – as uncontrived as any geological aspect of the earth, it is an uncanny summary of colonial ideology and history. The Union Buildings and thus, the regime demonstrate power in that it belongs to the land and thus, the land belongs to the regime.



Fig 5.3: The viewer looks uphill at the building



Similarly, many government and legal buildings can be perceived as an attempt to construct power and to support specific regimes, directly serving as symbols of the state. Power and identity are concepts that are embedded in the design of political and judicial architecture in cities around the world and South Africa is certainly no exception.

## 5.2 The Old Parliament Buildings, Mmabatho by Scholes Britz Architects

Bophuthatswana came into existence as a direct result of Apartheid's homeland policies. This was only implemented in areas where black political rights could be met without endangering white control over the rest of the country (Christopher: 1994: 65). It was developed using funding from the South African government as a separate entity with its own government and capital city. The Old Parliament Buildings was part of an elaborate urban design for Mmabatho. It was planned with extensive government quarters, presidential palaces, parliament buildings and government ministries and shopping complexes (Christopher: 1994: 87). However, it did not receive international recognition as a country separate from South Africa. Bophuthatswana gained independence in 1977 and Mmabatho was chosen as the capital city, however, it reverted to South Africa after the first democratic elections in 1991, leaving the old Parliament Buildings abandoned, except for local administrative use.

Bophuthatswana means, 'that which binds' which was to become a central theme for the Parliament Buildings. The preceding president, Lucas Mangope specified that the plans should reflect Tswana traditions and customs. The building was to be a contemporary representation of heritage, culture and tradition (Mallows: 1981: 40).

However, the site was a greenfields site, meaning that it had no built contextual starting point (Hutton-Squire: 1981: 40). Similar to the town of Jaipur in India, a town had to be designed from scratch, but still correlate to the culture of the people that were going to inhabit it.

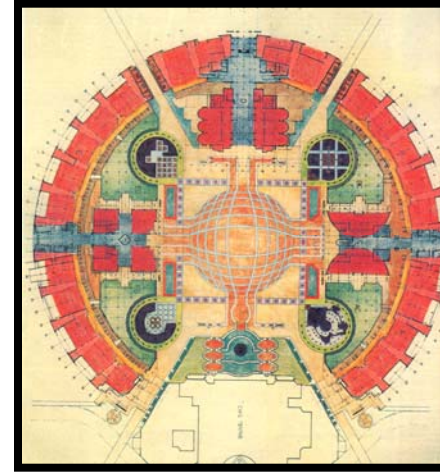


Fig. 5.5: Ground Floor Plan of the Old Parliament Buildings

The concept of the Old Parliament Buildings was to insert the traditional elements of a Tswana urban settlement, with the chief component of a traditional *Kgotla* or meeting place at the centre, into a principally Baroque urban design. The *Kgotla* is utilized to enclose the public square and is open and transparent, giving all members of the public free access. Pedestrian avenues are used to focus attention on a central square, with vehicular movement confined to the perimeter of the complex. The circular government building is positioned at the head of the axis to the north and surrounds a central square. The circular shape serves as protection from the harsh climate of the North West. Screen



walls are used on the exterior to offer a sense of scale to the building in its flat landscape (Hutton-Squire: 1981: 41).

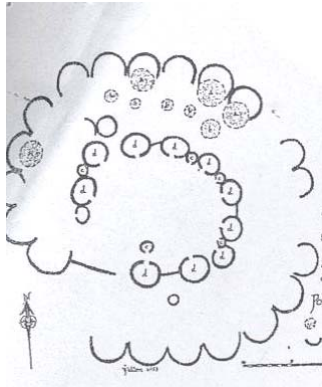


Fig.5.6: Traditional *Kgotla* dwelling

The Tswana connection is emphasized with the use of pyramidal roofs, circular openings and Tswana motifs on the walls. The walls are brick and thicker than average, conjuring up images of mud brick construction (Britz: 1984: 37). There is a clear distinction of spaces between the inside and outside. An allegorical connection can be made between the building and an oasis in a desert landscape; the ring wall protects a lush green centre although the building is situated in a semi-desert plain. Within the circle of the urban design, there is a definite hierarchy of space. The parliament building is emphasized as the central and most important point on the main axis of the complex (Britz: 1984: 37).

The Old Parliament Buildings projects power through its magnitude and monumentality. The walls are thick and weighty, exuding permanence in what was ironically to be an interim political circumstance. Their authority is one that is rooted in the supremacy of the Tswana culture and

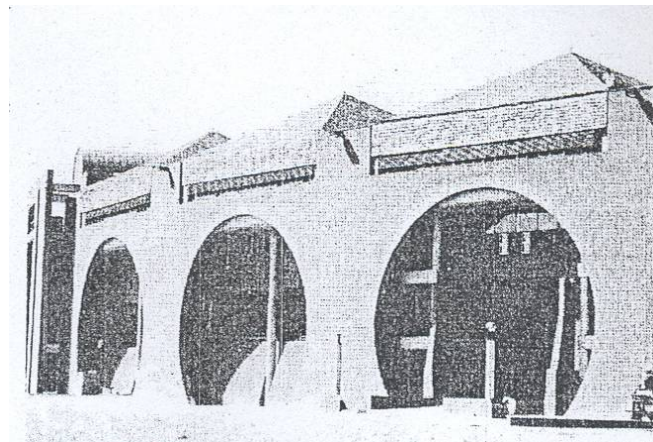
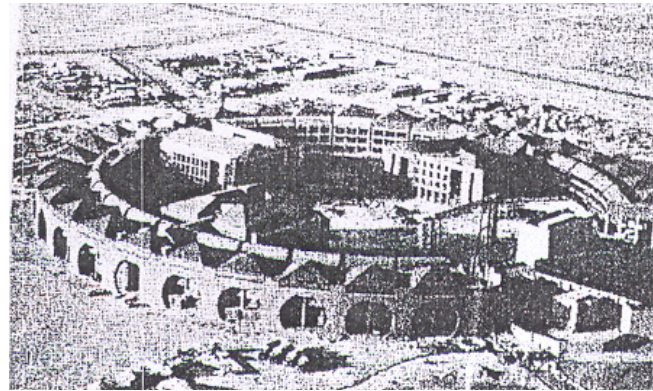
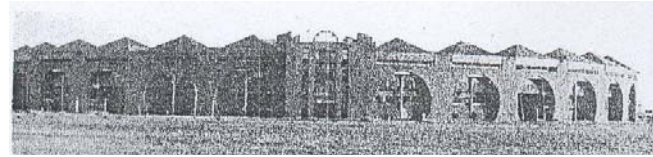


Fig 5.7: The Parliament Buildings in Mmabatho



not in the command of the Apartheid regime as it had been previously. However, its plan, although based on the traditional vernacular, is strangely Eurocentric as the role of government is emphasized through the creation of monumental boulevards, formal geometric spaces and imposing buildings as it was thought that this would create the most impact on the flat featureless terrain (Hutton-Squire: 1981: 41).

The Old Parliament Buildings' power comes from a very culture-specific architectural representation. From this standpoint, the buildings are exclusive; however, their dogma of openness and transparency to the public within the ring wall is a definite departure from the exclusivity evident at the Union Buildings. Consequently, it is possible, through the medium of architecture, that nationalism has the ability to bring about the existence of a nation and not the other way around. For example, the speaker at the first session of parliament in a newly unified Italy suggested, "We have Italy, now we have to make Italians." Ironically, at the time, only 2,5% of the population spoke Italian. In Italy's political situation, national identity was not an attribute that preceded statehood but a process that needed to be cultivated after the regime gained power (Vale: 1992: 45). The situation was the same in Bophuthatswana. Indigenous national pride and heritage had to be cultivated in a people that had been dominated by foreigners for centuries. The Parliament Buildings is an example of architecture facilitating control through the creation of nationalism.

### 5.3 The Constitutional Court by OMM Design Workshop and Urban Solutions

The Constitutional Court is a judicial building located in Braamfontein, Johannesburg in what was previously an inaccessible prison complex during the Apartheid era. It was established in 1994 by South Africa's first democratic government and is the highest authority on all legal matters (Law Viljoen: 2006: 8). The court is a significant symbol of the new culture of democracy in South Africa, a culture designed to embody openness, transparency and accountability. The Constitutional Court precinct, known as Constitution Hill, is positioned between the chaotic and notorious Hillbrow and the prosperous suburb of Parktown. Because of its infamous past, it was a site that needed urgent reintegration into the Johannesburg city grid (Law Viljoen: 2006: 8).



Fig. 5.8: Entrance to the Constitutional Court

Characteristic of some contemporary architecture in our country, the building seeks to create a redefined national South African identity with its architecture. The building draws on its site, which is rich in history and political controversy. In 1893, a high security prison was built on the ridge by the government led by President Paul Kruger. The prison later took on the aspect of a fort (Seymour: 1989: 148). A series of forts were then built around the prison in an effort to strengthen the military presence within the area.

Three prisons were housed in the complex: the Fort, where white men were jailed; Section Four and Five, infamously known as the 'natives' jail, and lastly, the Women's jail. The prison was eventually closed, but had by then jailed political icons such as Mahatma Gandhi and Albert Luthuli (Law Viljoen: 2006: 07).

The courthouse is erected on one of the former prisons, representing the new court's position of power from a previous site of oppression. Entrance into the foyer of the building is based on the notion of the *Kgotla* akin to the Old Parliament Buildings. It was originally designed to function as a traditional *Kgotla*, as a location for problem solving and the public upon entry into the building were able to walk directly into the session in progress, reinforcing the notion of openness and transparency. However, it was possibly considered impractical and this area now functions exclusively as a foyer (Sachs: 2005). The sinister political history of the location is remembered but diminished by the court's light and colourful structure that figuratively represents 'Justice under a Tree'. Colourful mosaics by local artists decorate tall slanted columns that reinforce the metaphor of a tree, while the concrete roof design filters natural light into the interior of the foyer, emulating the dappled light effect from the leaves of trees (Sachs: 2005)



Fig 5.9: The Constitutional Court



Fig 5.10: The ceiling of the foyer in the Constitutional Court. The skylights seek to recreate the dappled light under a tree.

The concrete structural beams of the roof display the words 'human dignity', 'equality' and 'freedom' handwritten by each of the judges. Local arts, craft and colour are infused with the structure throughout the building, such as the stained glass windows and the carved timber front door. Remnants of the partially demolished buildings remain within the new building as constant reminders of the past. The walls are lined with the work of local artists, both contemporary and dating back to the struggle, and the font in all the signage originates from the handwriting of one of the prominent judges. The building is a random collage of South African culture; everyone is represented here boldly and without restraint (Sachs: 2005).

Steel, concrete, glass, stone, timber and natural light are used in their structural capacity and their metaphoric capacity to reflect the values of South Africa's democracy. The concept of honesty of materials, such as the use of exposed concrete, reflects the transparency and integrity of the justice system. The aesthetics of the Constitutional Court emanate from the functions of each space within the building in an effort to express decoration and art as part of culture and tradition (Marschall: 2000: 141).



Fig. 5.11: View of the Exhibition Hall at the Constitutional Court



Fig. 5.12: View of the Foyer of the Constitutional Court.

Simple materials are highly detailed and expressed in various forms to become part of the structure and create a welcoming space. Much of the building form is a direct response to physical aspects of the site and 'leftover' elements have been given new meaning through clever manipulation of spaces. For example, 'the Great African Steps' were built from the bricks of the demolished Awaiting Trial Block. They serve to provide a physical barrier as they divide the old stone wall of the Number Four Prison from the glass facades of the courts. Metaphorically, the steps symbolize a transition between the past and the future (Joburg City: 2006). Akin to the Union Buildings, symbols of justice and lawful attributes are commonly articulated through 'temple like' elements.

The Constitutional Court rejects the traditional Classical and monumental elements of architecture associated with both judicial and political buildings. In contrast, and reminiscent of the Old Parliament Buildings, it creates an architectural typology that is relevant to its context and socio-political environment. However, the typology could not be based simply on a singular traditional vernacular since the current regime represents cross cultural unity and the inclusiveness of all South African people. Interestingly, it has not fallen into the trap of decorating a European modelled plan with recognizable but superficial elements in an attempt to create a local connection.



Fig. 5.13: Main Court Area at the Constitutional Court



Fig. 5.14: View of the Awaiting Trial Block Stair towers in the Public Square at the Constitutional Court



## 5.4 Conclusion

Instead of emphasizing grandeur and status in the somewhat threatening manner of the Union Buildings or monumentality such as at the Old Parliament Buildings, the Constitutional Court's response is based on harmony, dignity and cultural diversity. According to Janina Masojada, the building's principle architect, they "wanted to design a place in which all people would feel welcome... we imagined parades, protests, concerts, and celebrations...' (Law Viljoen: 2006: 45).The building establishes a direct link to the past, while commemorating spaces that were once oppressive.

The power of the Constitutional Court is in the ideology it represents. Architecture was used as a tool to harness an existing power and national identity, not to invent or reinvent it. Throughout the building the individual is made to feel comfortable and important as an inhabitant of a great country. Within the Constitutional Court, the power belongs to all of us and we leave this praiseworthy landmark holding that power within us.





# The Process of Extension

(Precedent Study Part 2:  
Examining the Design  
Methodology Pertaining to  
Extension Buildings)

- 6.1 Extending in Historical and Contemporary Contexts
- 6.2 The Link Building for the Institute of Infectious Disease and Molecular Medicine by Gabriël Fagan Architects
- 6.3 The Women's Jail Extension by Kate Otten Architects
- 6.4 Implications for the Design of the Law Annexe



The following chapter is divided into two parts: firstly, it evaluates the process of extending in both historical and contemporary contexts and discusses what constitutes a successful extension. Secondly, it analyses two precedent studies; the first is the Link Building for the Institute of Infectious Disease and Molecular Medicine at the University of Cape Town designed by Gabriël Fagan Architects<sup>1</sup> and the second is the Women's Jail at Constitution Hill in Braamfontein, Johannesburg designed by Kate Otten Architects. These precedent studies were chosen mainly because they are successful extension buildings and in addition, their typologies are of interest to this dissertation as the Link Building is an institutional building while the Women's Jail has a legal correlation.

## 6.1 Extending In Historic and Contemporary Contexts

The essence of the Modern Movement was to declare a distinct break with history and, therefore, with Classical architecture (Meek & Meek: 1963: 14). Unfortunately, the infiltration of Modernism to South Africa has meant the disregard and destruction of much of Pretoria's cultural heritage. A building is considered as heritage if it is over 60 years old, however there are not enough constraints protecting heritage buildings and the country lacks either the finance or the interest to conserve buildings that do not have a direct social or political history.

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<sup>1</sup>The Link Building for the Institute of Infectious Disease and Molecular Medicine at the University of Cape Town designed by Gabriël Fagan Architects will hereinafter be referred to as 'the Link Building'.

Furthermore, South Africa has a bitter relationship with its past, which is plagued with memories of repression. Much of what many consider heritage is considered as a reminder of authoritarian dictatorship to others. This is clearly the case in Pretoria as the public argues vigorously about the provincial name change from Pretoria to Tshwane and the appropriateness that statues of various old regime leaders have in city parks. Whatever decisions are made for the city, heritage is what we inherit as a nation, good or bad.

An extension by its definition is secondary to a preceding building. It is an addition, and is not often the point of focus. Architects differ regarding their technique of extending; some hide the extension, others celebrate it and many try to blend it in with the existing architecture to the point of replication. Whatever method is chosen, the site context and existing buildings need to be respected, as they are part of a visual heritage that defines a place and its people. Consequently, an extension cannot disregard the existing, whether it is historical, contemporary, contentious or compliant. The extension should, therefore, be harmonious and strive to create a sense of place within the existing context.

In this case, the Law Faculty Building can be considered as new history as it precedes the extension and represents a defining moment and doctrine of thought about law in its time. John Ruskin in *The Seven Lamps of Architecture* writes, "...the man who has an eye and intellect will invent beautiful proportions, but cannot help it; but he can no more tell us how to do it than Wordsworth could tell us how to write a sonnet, or than Scott could tell us how to write a romance." (Ruskin: 1989: 2: 39). Similarly, there do not

seem to be any hard and fast rules to designing within a strong context. However, the most pleasing spaces, as seen in the subsequent precedent study, relate to what is both recognizable and human. They do not replicate the old architectural language; alternatively, they both revere and enhance it. They allow the public to move freely between the old and the new and to enjoy the multi-layered meanings created in the urban space.

The International Council on Monuments and Sites (ICOMOS) General Assembly held a conference with the topic “New Buildings in Historic Setting” in Budapest in 1972. Three main points were conceived at this assembly:

- “The architectural language should be contemporary while the new building should integrate harmoniously into the old surroundings not breaking the balance of the composition”.
- It was decided that the finest architects found a way of “using the language of contemporary architecture, but volume, scale and proportions were determined by surroundings”.
- To design a well-contextualized building, one should “study the site, understand the logics and the system of local architecture feel the spirit of place and then use the language of contemporary architecture”.  
(Adam: 2005)

Notably, with each of these viewpoints, the speakers overwhelmingly stressed the importance of keeping a

contemporary architectural language, even in the most delicate of historical sites.

## 6.2 The Link Building for the Institute of Infectious Disease and Molecular Medicine by Gabriël Fagan Architects

The site of the Link Building is an 18 m wide space between two formal neoclassical buildings dating back to 1925, typical of the architecture that dominates most of the campus at the University of Cape Town (Deckler: 2006: 101). The bulk of Link Building is recessed from the two existing buildings except for a striking four storey cylindrical structure that is the building’s most prominent feature (Fig. 6.1). It appears to be freestanding, but it is in fact connected to the rest of the new extension. The ground floor of the cylindrical protrusion houses the cafeteria and the main entrance (Fig. 6.2). Circulation around the space is generous giving ample opportunity for spontaneous conversation between researchers (Deckler: 2006: 103).

Fig. 6.1: Ground Floor Plan

1. Existing passage
2. Void below
3. Kitchen
4. Servery
5. Reading room
6. Lobby Area
7. Cafeteria
8. Entrance
9. Drum plinth
10. Courtyard
11. New passage
12. New bridge

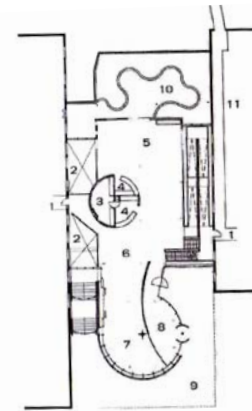




Fig. 6.2: Entrance to the Link Building

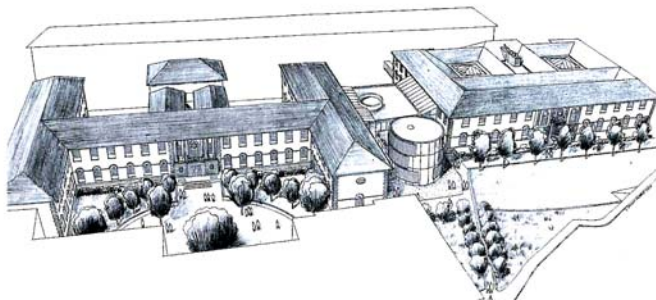


Fig. 6.3: View towards Devil's Peak

The Link Building makes use of the striking views to its west of Devil's Peak (Fig. 6.3). Manually operated vertical louvers protect the extensive glazed curtain walling from heat gain. The building is meticulously detailed and the architectural language is bold and in stark contrast to the existing neoclassical buildings. While the existing buildings' walls are thick and heavy, the Link Building is light and delicate. Moreover, the existing buildings follow a grid and are linear and steadfast in their form and in contrast, the Link Building's most visible feature, the cylindrical form at the entrance, gives the building a dramatic rotund appearance.

However, in conformity with the delineations set by the ICOMOS General Assembly, the overall effect is harmonious because attention has been paid to scale and the balance of composition has not been broken. The architectural language is contemporary, but the design is at accord with its surroundings.

Fig. 6.4 Perspective drawing of the Link Building and Surrounds (Deckler: 2006: 101)



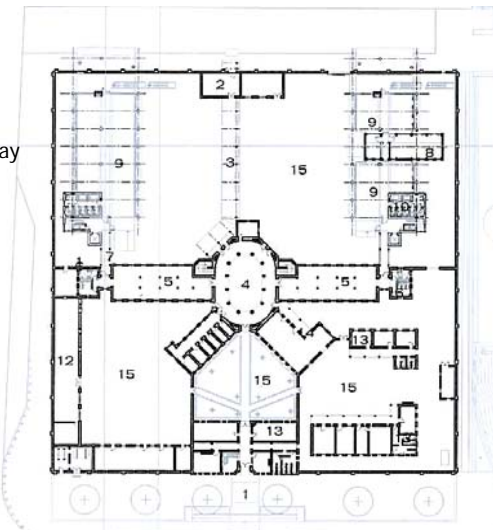
## 6.3 The Women's Jail Extension by Kate Otten Architects

The Women's Jail forms part of the Constitutional Hill precinct as discussed (c.f. Chapter 5). The Women's Jail is part of a "living museum" developed in the precinct to transform the site that historically has been a place of suffering and oppression to a site of forgiveness and renewal (Deckler: 2006: 23).

The new extension buildings to the Women's Jail accommodate the offices of the Human Rights Commission. The original building is a red brick Victorian building that belies the past violations that took place inside the building. The original building is comprised of linear wings departing from a central atrium and the plan is symmetrical along a north-south axis (Fig. 6.5).

Fig. 6.5: Plan of the Women's Jail

1. Old entrance
2. New Entrance
3. Covered Walkway
4. Central Atrium
5. Cell Blocks
6. Ablution block
7. Link walkway
8. Awaiting trial building
9. New office building
10. Service area
11. Balcony
12. Archive
13. Offices
14. Lekgotla Space
15. Courtyard





The extension building also comprises two linear wings running opposite each other along the east and west boundaries of the site. The new buildings respect the system of the original plan in that they follow the original symmetry of the central axis and the linearity of the shape of the additional wings. Moreover, the extension is accessed through the existing central atrium, so as not to undermine the hierarchy of the original spaces (Fig. 6.5).

Judging by the plan alone, the new extension is very discreet in placement and orientation. However, similar to the Link Building, the architectural language is in stark contrast to the original building. The extension “touches the (existing) building lightly”, thus retaining the integrity of both the new and the existing architecture (Deckler: 2006: 25). Also similar to the Link building is the awareness of scale and proportion. Although the new extension is a three-storey high structure and the existing building is only two storeys, the third storey of the new extension cantilevers off the level

beneath it, equating itself with the prominent hip roof of the original building. It thus achieves the accommodation of an extra level without disregarding the scale of the original building (Deckler: 2006: 25).

Due to the predominantly east-west orientation of the extension building, the uppermost level is clad in perforated corten steel sheeting that functions as a sun-screen (Fig. 6.7). The round cut-out openings in the sheeting are welded onto sliding screens on the lower two levels, creating a divergence in visibility on the façades. A further function of the corten steel sheeting is that it was deliberately left to rust and weather, turning the colour sienna, similar to the colour of the red brick used on the original building (Deckler: 2006: 25). Therefore, in terms of its colour, the extension has begun to blend with the original red brick of the Women’s Jail without mimicking the choice of material. As with the Link Building, the overall effect of the Women’s Jail Extension is harmonious although it is a building focused on contrast as well.

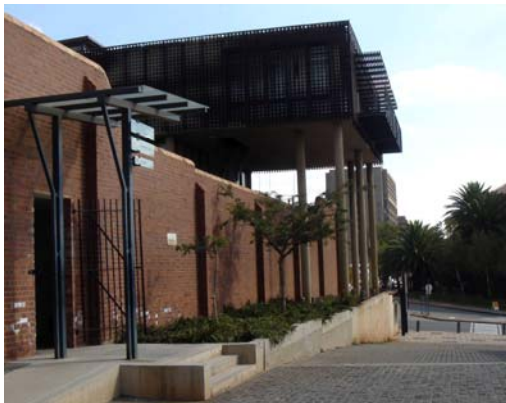


Fig. 6.6: Entrance to the Courtyard



Fig. 6.7: View from Courtyard to the East Wing



Fig. 6.8: New Architecture juxtaposed to the Existing Building



Fig. 6.9: Covered Walkway

## 6.4 Implications for the Design of the Law Annexe

- Develop a contrasting architectural language to the existing buildings around the site.
- Minimalist forms work best in a strong context.
- The new building should be conceptualized as another layer on the landscape; it should further enrich the landscape without eroding the meaning that is present.
- Patterns, symmetry and rhythm should be sought out in the context and then followed using a distinctive approach.
- Scale, form and colour are the tools most easily utilized to achieve harmony with the surrounding context.
- The current intervention is not necessarily the last and final development that the site will accommodate.



# 7

## **Design Development**

- 7.1 Primary Ideas and Design Progression
- 7.2 Design Discourse
- 7.3 Key Concepts: Accessibility and Interaction
- 7.4 Architectural Language and Form

## 7.1 Primary ideas and Design Progression

Fig. 7.1: Summary of Guiding Principles for the Law Annexe Resulting from Preceding Analysis



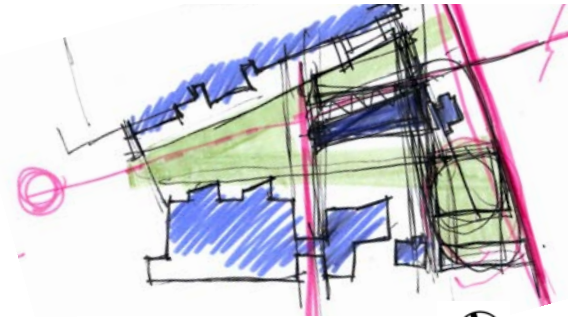
Although the primary concepts guiding the design of the Law Annexe in the early proposals are similar to the final product, it was initially difficult to establish the form, placement and architectural direction that was most suitable for the building. The many possibilities were explored through the analysis of various concept models and drawings. This was because of the multitude of directions that the information gathered could be interpreted.

Conclusions were drawn from these early schemes as to characteristics that were successful and those that were not. The explorations established a hierarchy between the 'lines' drawn from Figure 3.16 (c.f. Chapter 3) and the most effective way in which to relate it to the public realm without compromising the security of the University or losing the connection to the Law Faculty precinct.

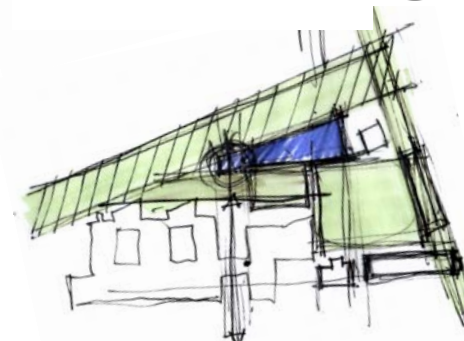
The architectural languages explored show the progression between a comparatively heavy and introverted brick building to a light and open steel building. The architectural language of the Law Annexe wavered between disconnecting completely with the Law Faculty Building and relating too closely to it, but finally, a harmonious contrast was found.

These issues were explored in conjunction with responses to climate, pedestrian movements in and around the site and the assumed development proposed for the Hatfield Framework.

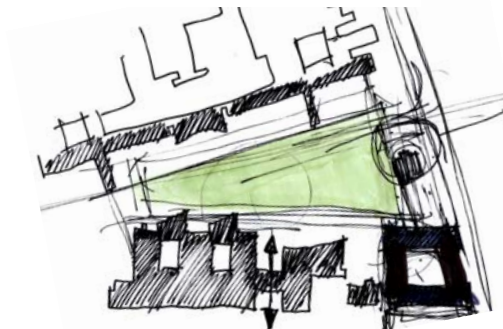
**Fig. 7.2: Concept Drawings exploring the northeast boundary of the Campus and position of the Proposed Law Annexe: March 2008**



Intention to relate to a street edge



Recognition of the need for a northern forecourt to the existing Law Faculty Building



Formulation of the Public Square and situation of the Law Annexe

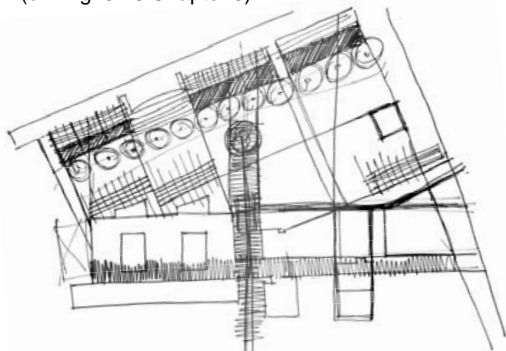




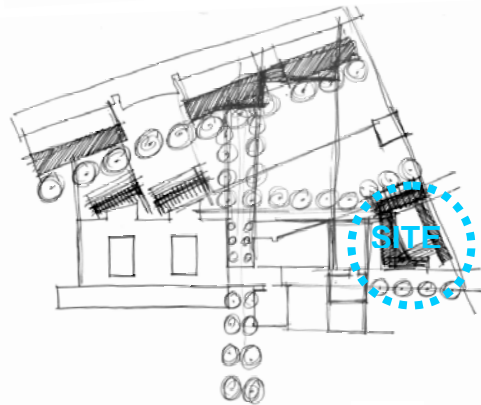
**Fig. 7.3: Development  
Concept Drawings of Public  
Square: August 2008.**



Extension of Existing Building  
'Lines'  
(c.f. Fig. 3.16 Chapter 3)



Extension of Circulation Spine  
and Axis (c.f. Fig. 3.15 Chapter 3)



Site of the Law Annexe



Initial sketches of the Law Annexe and the public square relate directly to Figure 3.14-16 (c.f. Chapter 3). A thoroughfare is created through the existing Law Faculty Building by continuing the axis of the tree-lined avenue from the south of the Campus into a proposed public square, which becomes a threshold between the Campus and Hatfield.

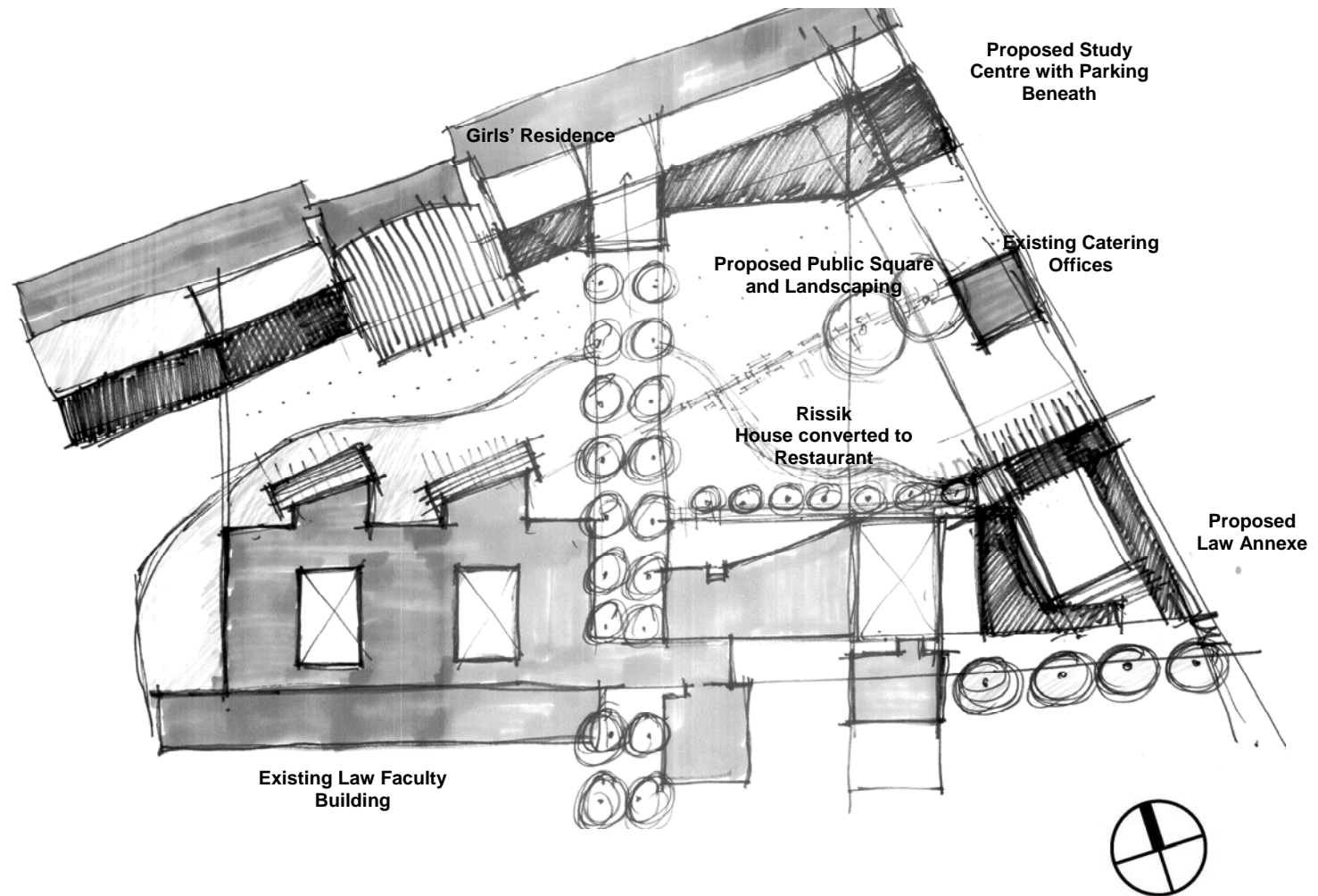
A 24-hour double-storey study centre with basement parking for 300 cars is proposed in front of the girls' residence both to soften the edge of the seven-storey building and to address security issues. It will have safer and more pleasant spaces for the residents to spill into in front of their residence.

The proposed Law Annexe is located to the east of the Law Faculty Building. It depicts the footprint of a building intended to relate strongly to Hilda Street and to the proposed square.

Rissik House is converted into a restaurant with banqueting facilities above. The area around it is demarcated with landscaping, recollecting the no longer present plot lines.

The memory of houses that were demolished to make way for the Law Faculty Building is landscaped into the public square.

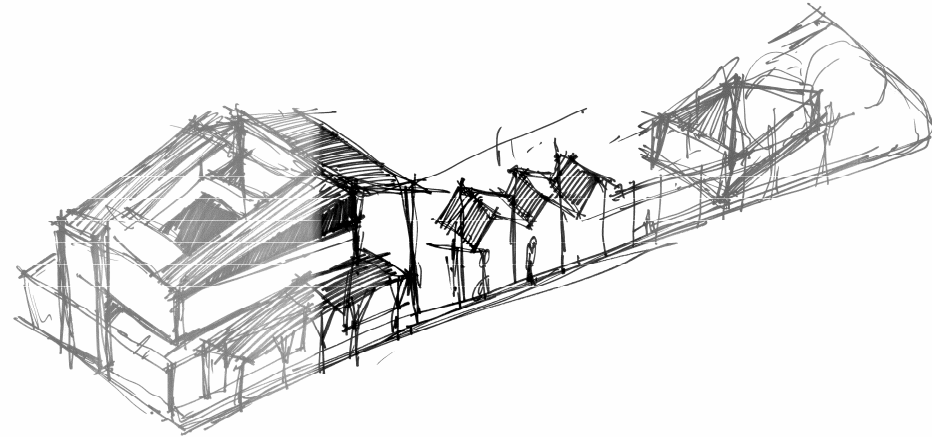
Fig. 7.4: Concept Drawing of  
Public Square: June 2008.



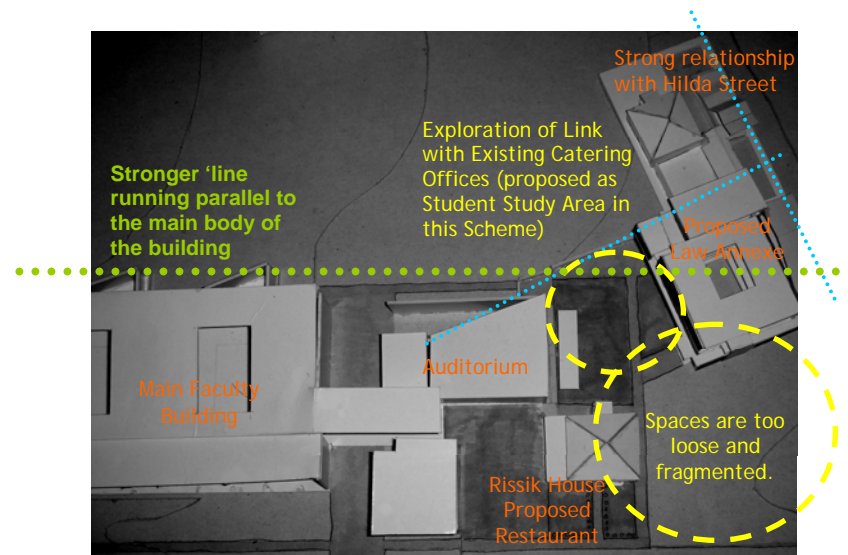
At the outset, a strong relationship with Hilda Street was applied. It correlated mostly with the 'line' extending off the angle of the auditorium from the Law Faculty Building. Effort was also made to keep the proportion of the courtyards from the Law Faculty Building. This scheme explored the possibility of a link with the house at the corner of Hilda and South Streets.

However, the area directly east of Rissik House became too loose and the scheme felt fragmented.

Moreover, the 'line' extending from the auditorium of the Law Faculty Building was found to be of lesser importance than the stronger 'lines' running parallel to the main body of the existing building (Fig. 7.6).



**Fig. 7.5: Exploration of the Link with the Existing Catering Offices proposed as Student Study Area in this Scheme: July 2008**



**Fig. 7.6 Concept Model: July 2008**



Changes in the orientation of the courtyard were made for climatic and security reasons.

The drawings and models began to explore the idea of a physical link in the form of a bridge from the Law Faculty building to the Proposed Law Annexe. Unfortunately, the position of Rissik House and existing columns in the Law Faculty Building meant this could not be done without 'kinking' the bridge, so this solution was unsuccessful.

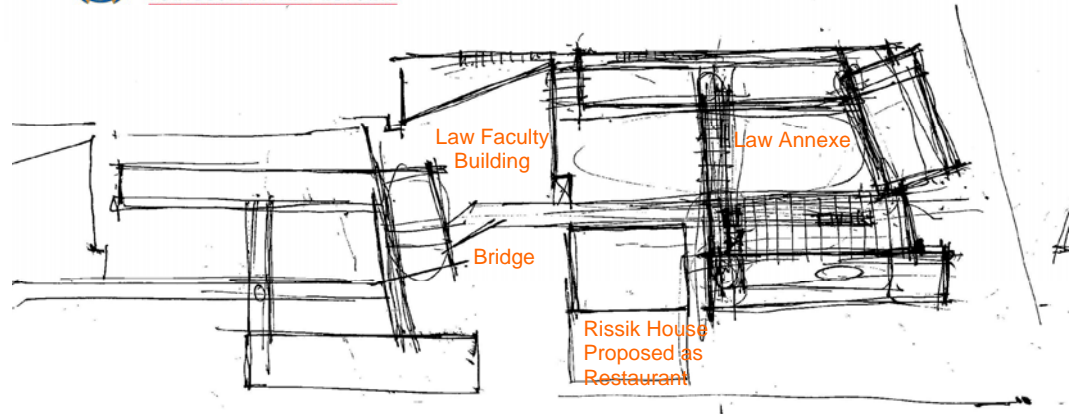


Fig. 7.7: Concept Drawing of Law Annexe: September 2008.

In Figure 7.8 and 7.9 the entrance to the Law Annexe is located in line with the strong circulation spine of the Law Faculty Building. Doors are proposed on the east end of the spine to link the existing building to the Law Annexe.

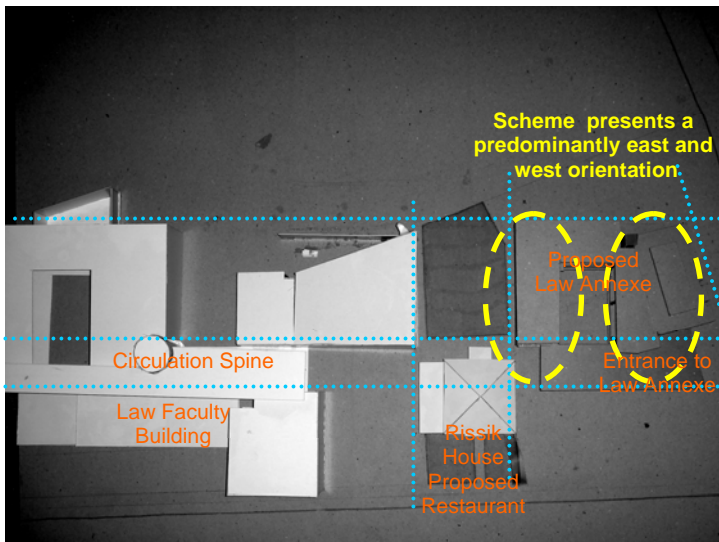


Fig. 7.8: Concept Model: August 2008.

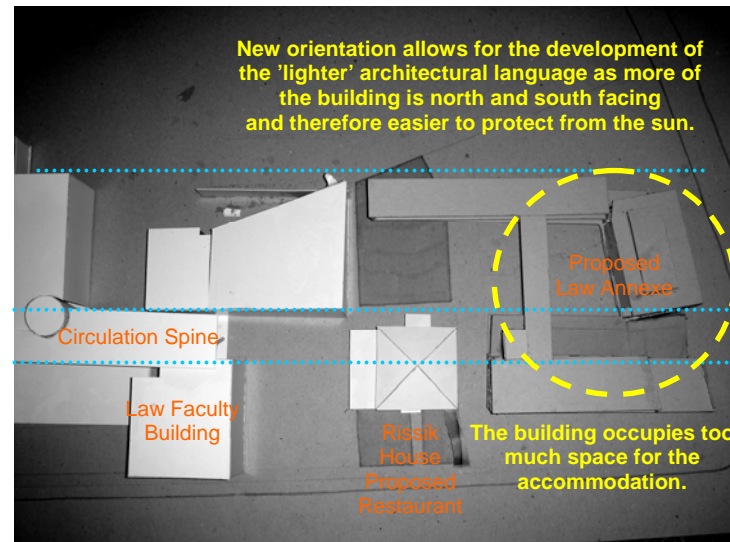
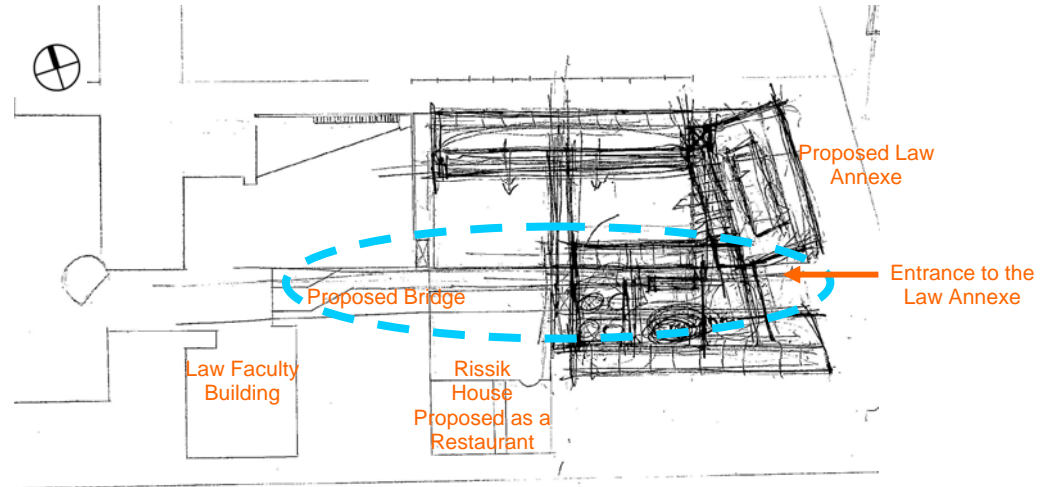


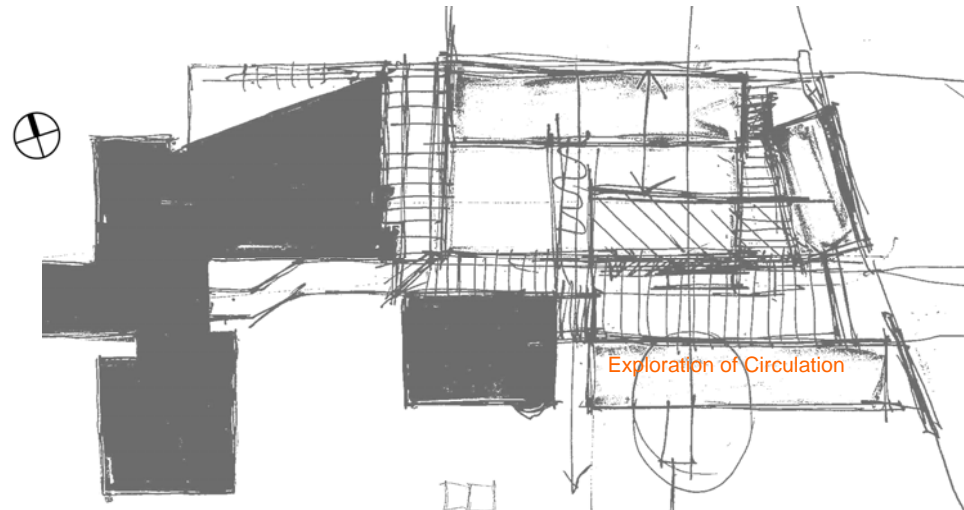
Fig. 7.9: Concept Model: September 2008.



**Fig. 7.10: Concept Drawing of the Law Annexe: September 2008**  
**Strong Physical Link to the Law Faculty Building**

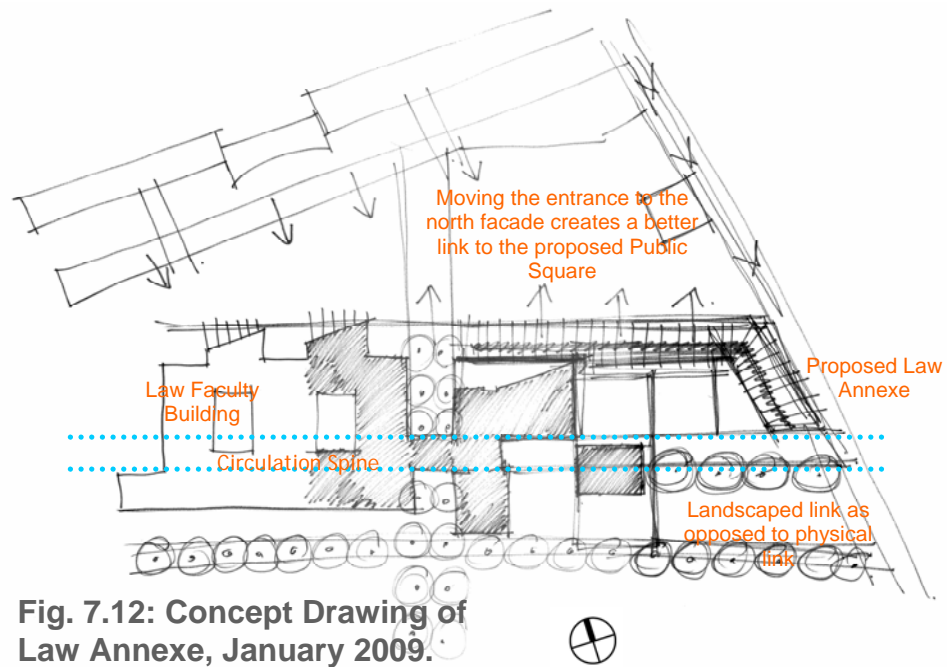


**Fig. 7.11: Concept Drawing of the Law Annexe: September 2008**

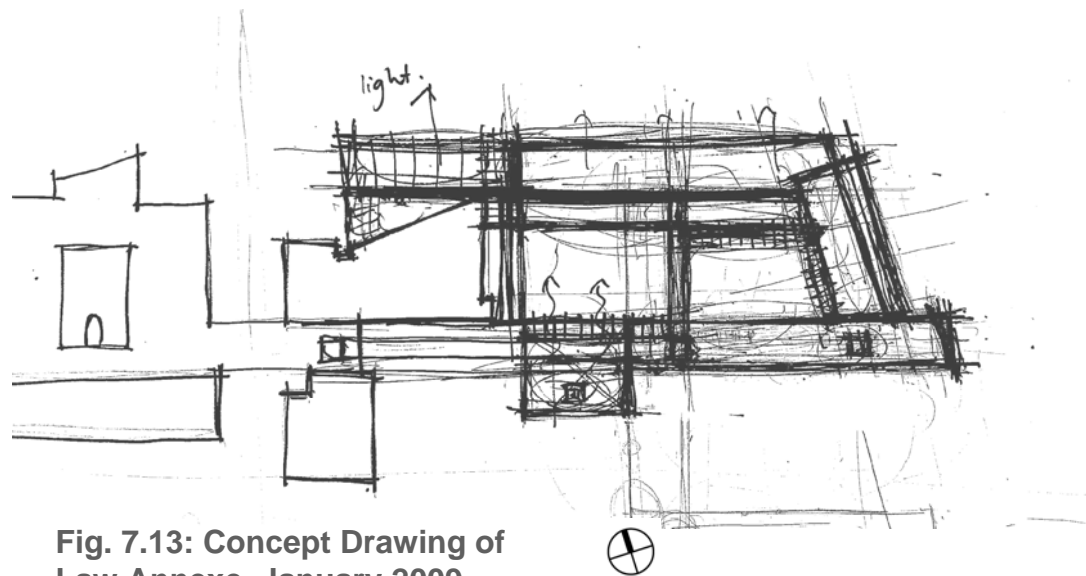




Movement north of the Law Faculty Building in Figure 7.12 and 7.13 was in the recognition that the north façades of the existing and proposed buildings were beginning to compete. Condensing the building creates more intense spaces. The courtyard begins to open up to the south. The continuation of the circulation spine from the Law Faculty Building is still existent, but it is landscaped into the grounds.



**Fig. 7.12: Concept Drawing of Law Annexe, January 2009.**



**Fig. 7.13: Concept Drawing of Law Annexe, January 2009**

## 7.2 Design Discourse

As discussed in the context analysis, the fence and edge condition around the University boundary is an obstacle to the proposed Hatfield Framework. This is mainly due to the barricade of cars that surround the Campus. The University is essentially a gated community and any proposal to take the fence down is bound to be met with intense resistance from the University's board.

The building was consequently designed as an alternative to the fence on the northeast boundary of the Campus. In a small way, this decision compromises themes of accessibility explored throughout this dissertation. However, realistically, it is better to design in cooperation with limitations set by the client and the site than to run the risk of unsightly security measures being placed around the building post-construction. The final building proposal is designed for the eventuality of the fence being removed in the future; however, it is not restricted in its connection to the Hatfield surrounds by the existence of the fence.

The proposed public square is surfaced with pervious concrete pavers and grass blocks (Fig. 7.15). The memory of the demolished houses is landscaped onto the surface of the square with coloured pavers and planting. The 'lines' taken up from the building are used to locate steps and ramps that navigate the slight east-west slope. The treed avenue is no longer continued all the way to the study centre (Fig. 7.4) so as not to break up the space. The axis is also landscaped into the surface of the square with coloured pavers and planting. Doors are proposed on the east end of the circulation spine from the Law Faculty Building and the continuation of the axis is expressed with paving bricks (to match the floor of the circulation spine inside the Law Faculty Building) to the boundary of the Campus. A pedestrian turnstile is situated at the end of the axis.

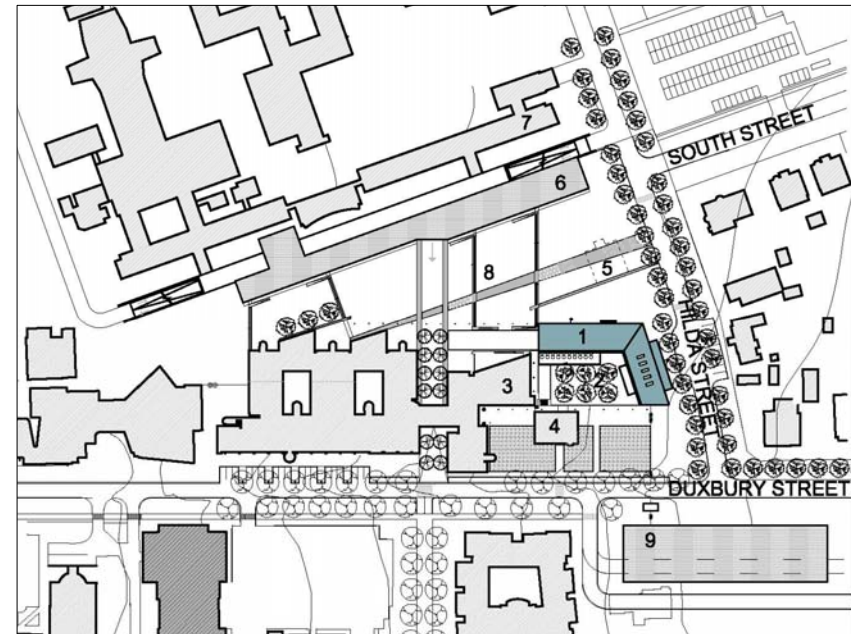
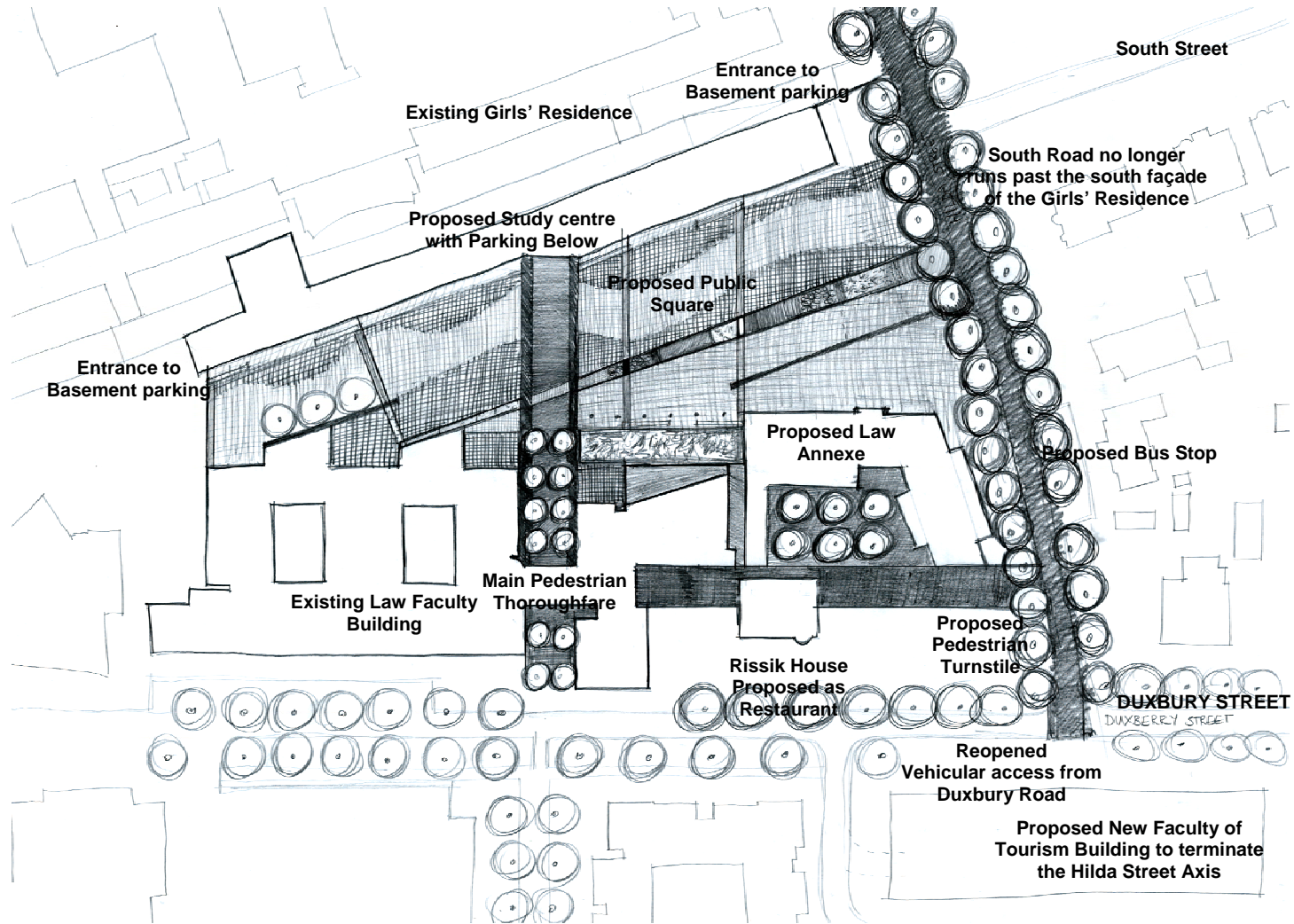


Fig. 7.14: Roof Plan

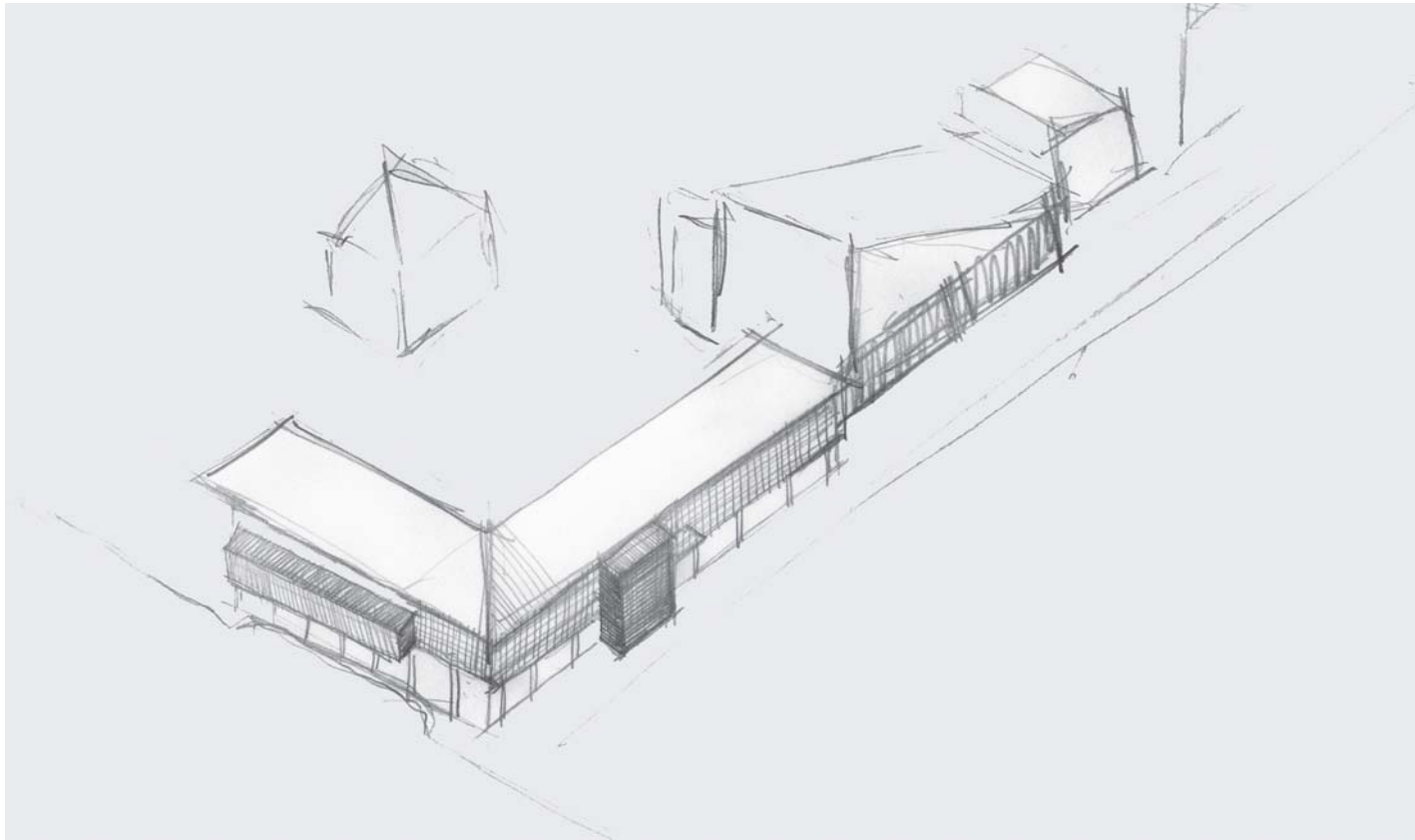


1. Proposed Law Annexe
2. Courtyard
3. Law Faculty Building
4. Rissik House Restaurant
5. Demolished Catering Office
6. Proposed 24-hour Study Centre
7. Girls' Residence
8. Proposed Public Square
9. Proposed Faculty of Tourism



**Fig. 7.15: Sketch of the Landscaping in the Public Square: April 2009**

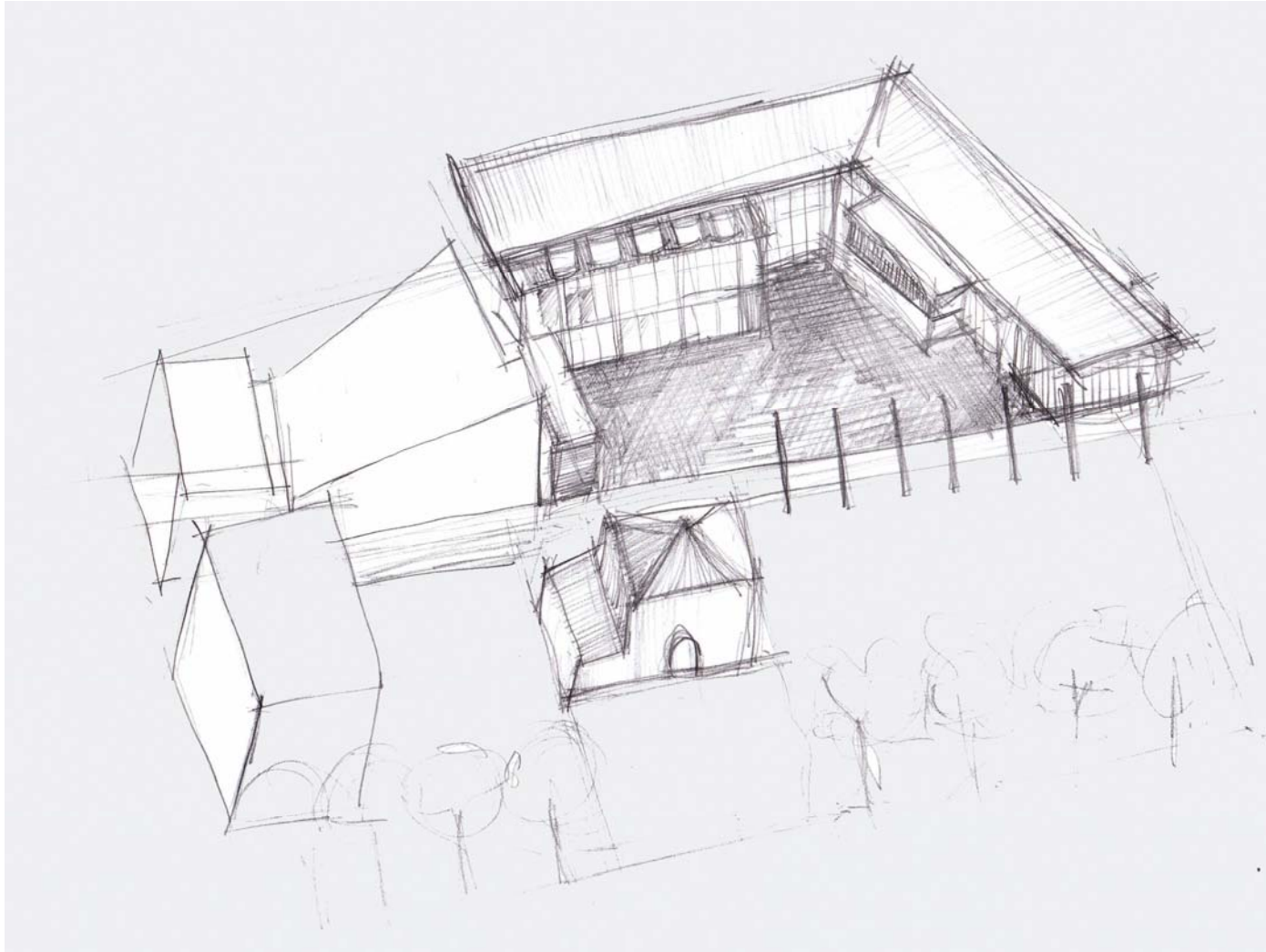




**Fig. 7.16: Sketch of the  
Law Annexe:  
North-east View**







**Fig. 7.17: Sketch of the  
Law Annexe:  
South-west View**







**Fig. 7.18: North Elevation of the Law Annexe**



**Fig. 7.19: South-west View of the Law Annexe**



**Fig. 7.20: North-east View of the Law Annexe**



**Fig. 7.21: South-east View of the Law Annexe**

### 7.3 Key Concepts: Accessibility and Interaction

Accessibility and interaction are the key concepts that guided the design. The building is essentially a partial edge to the University and the design aims to make the edge a lively point of interaction between the Campus and the Hatfield area. Furthermore, the building seeks to promote accessibility and interaction within its walls by setting up systems where this is encouraged.

On a large scale, the development of the Law Annexe and the public square seeks to make a connection between the Campus and the Hatfield surrounds and furthermore, to activate the Campus's street edges. Physically, the poor street edge around the Campus has been partially restored on the northeast corner by the public square (Fig. 7.15). The intention for the square is that it will be used both as a transitional space and occasionally for University functions and gatherings, such as concerts and orientation week activities. The Illumesh TM stainless steel utilized on the façade of the Law Annexe can be used to project digital images and film into the public square at night, thereby transforming the edge of the Campus into an interactive edifice.

The 300-car capacity basement parking under the 24-hour study centre partly relieves the lack of parking. The park and walk facility and the new and existing buildings around the Public Square help to generate 'feet' to activate the space. A waiting area for bus commuters is located on Hilda Street on the east side of the Law Annexe, as a result activating a potentially dull street edge.

Within the building, the Law Annexe seeks to diminish hierarchies within the building by increasing the visibility of the occupants inside. Passers by can easily see the activities of the Law Clinic through the glazing and there is no mystery upon entering the building regarding what one will be confronted with. Likewise, there is a visual connection from the Law Annexe into the public realm. From the waiting area, there are clear views into the office space of the Law Clinic and into the consultation cubicles; although public access is restricted into the office for confidentiality reasons (Fig. 7.22). Therefore, clients know at all times who and what to expect. A similar arrangement can be seen on the first floor of the building in the IICL where staff and students are clearly visible and accordingly, accessible to each other (Fig. 7.23). Functional requirements specify that staff have personal offices, however, there is no hierarchy pertaining to size, furniture or privacy, whether those staff members are judges or professors.

Interaction and accessibility in society are closely linked, because one can argue that the more people interact, the more accessible they perceive each other to be. The work and study spaces within the Law Annexe are zoned so that there is a combination of quiet workspaces and interactive discussion spaces (Fig. 7.24). Circulation spaces are generous to allow for spontaneous conversation and all the furniture is flexible to allow for the changing needs of the building's occupants. Most significantly, however, the waiting area for the Law Clinic is linked closely to the shared 'time-out' zone for the entire building. This means that at the heart of the building there is a space in which all types of occupants can come together to intermingle (Fig. 7.22).

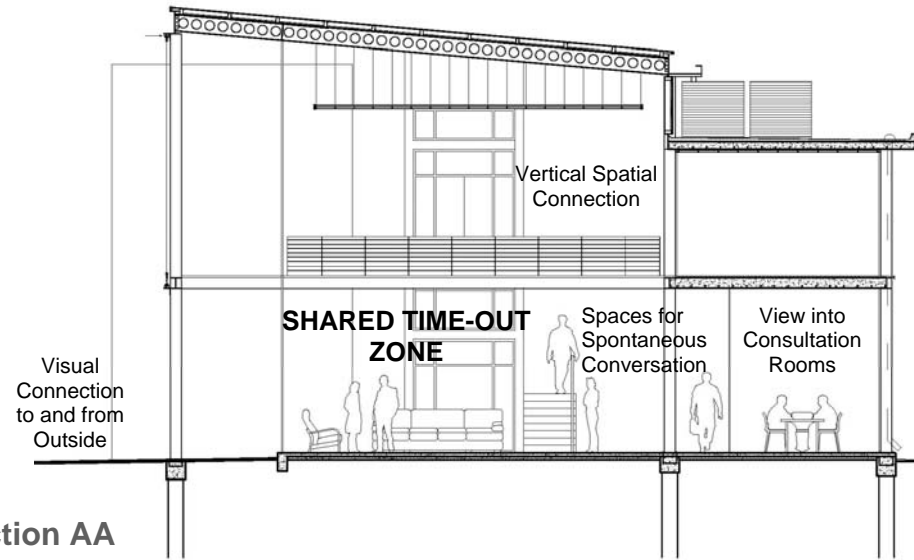


Fig. 7.22: Section AA

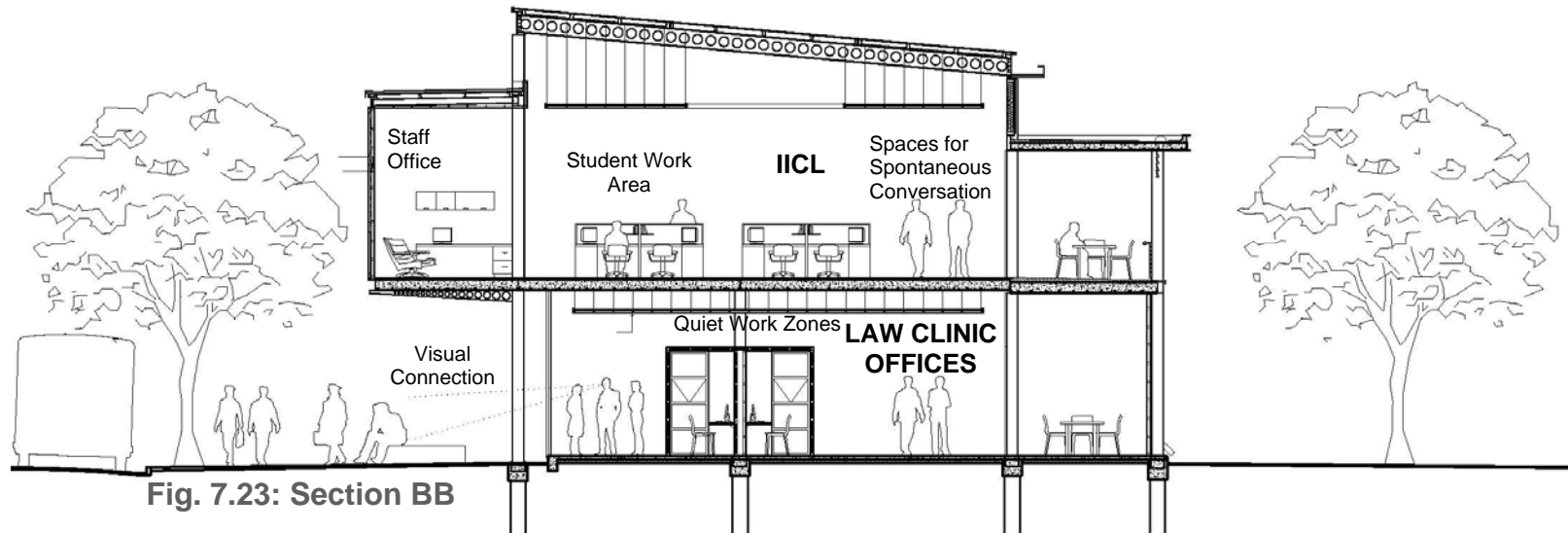
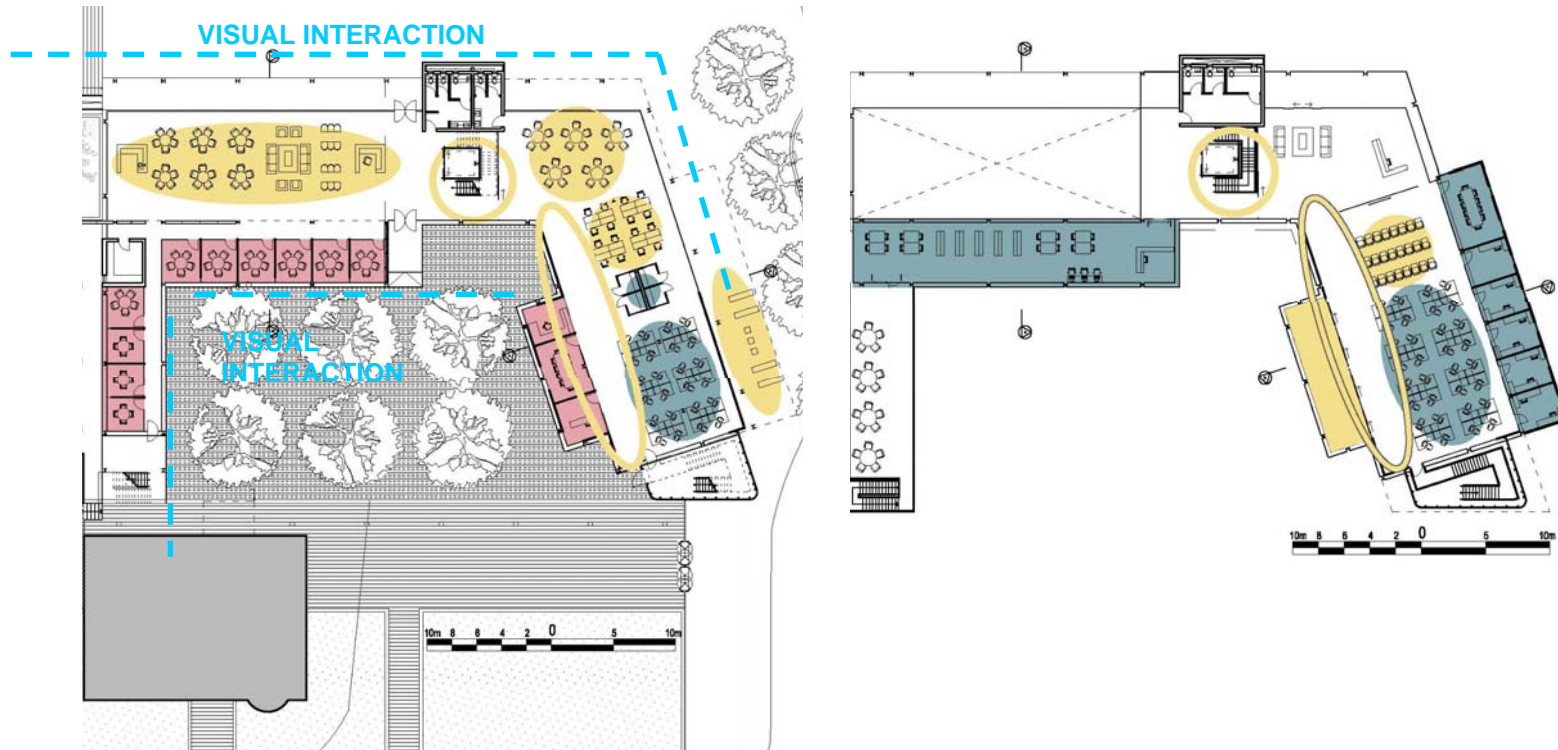


Fig. 7.23: Section BB





**Fig. 7.24: Interactive Zones and Quiet Work Zones on the Ground (left) and First Floor (right)**

- KEY:**
- Quiet Work Spaces
  - Interactive and Discussion Zones
  - Specified Work Spaces
  - Interactive Circulation Zones



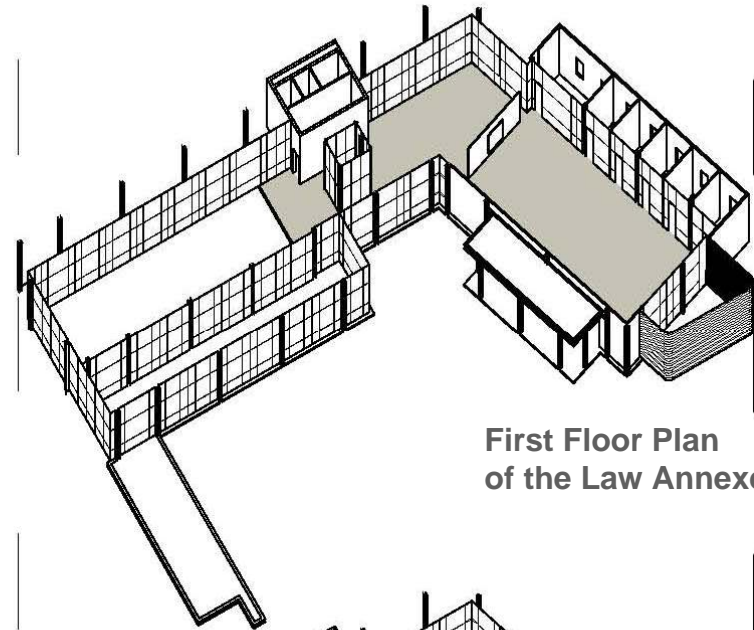


## 7.4 Architectural Language and Form

The final product is a layered design solution that has integrated elements from the existing Law Faculty Building, such as the rhythm of the grid and concepts of transparency and *gravitas*, while maintaining an aesthetic contrast in its architectural language. The result is both one of concord and contrast.

The Law Faculty Building is a concrete framed building with an aesthetic emphasis on structure. In comparison, the Law Annexe is a steel framed building with a predominantly glazed skin; however, it also has a strong emphasis on structure, detail and truth to materials reminiscent of the Law Faculty Building. Moreover, the Law Annexe has incorporated both the Law Faculty Building's uncluttered lines and organization methodology and has continued the system of courtyards into the new extension.

The organization of the building is along a core circulation spine that initially runs parallel to the axis of the Law Faculty Building and then wraps around the site boundary (Fig. 26). Although most of the building is glazed, the wet services are enclosed in unpainted, bag washed, recycled concrete aggregate brick walls. There is extensive use of glazing to encourage views into the building and consequently, into the campus.



First Floor Plan  
of the Law Annexe

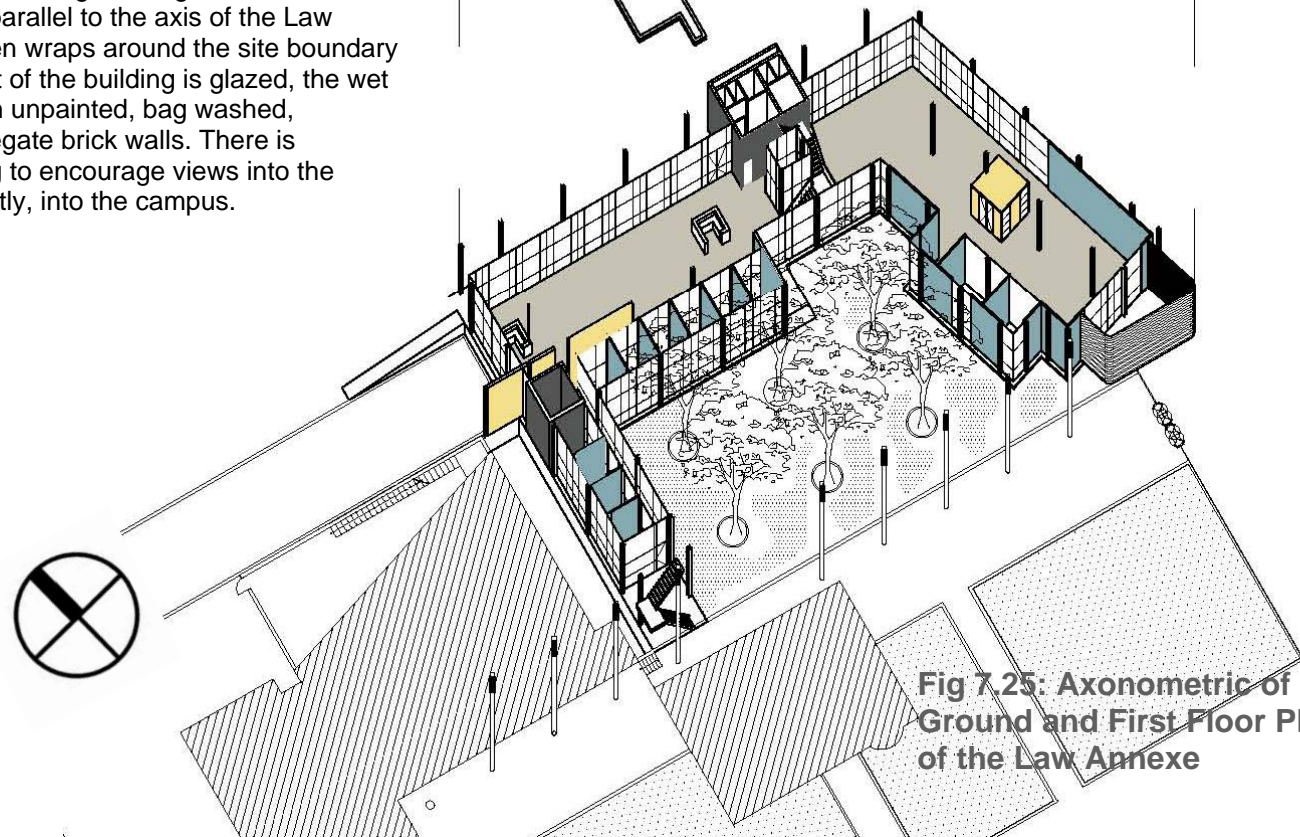
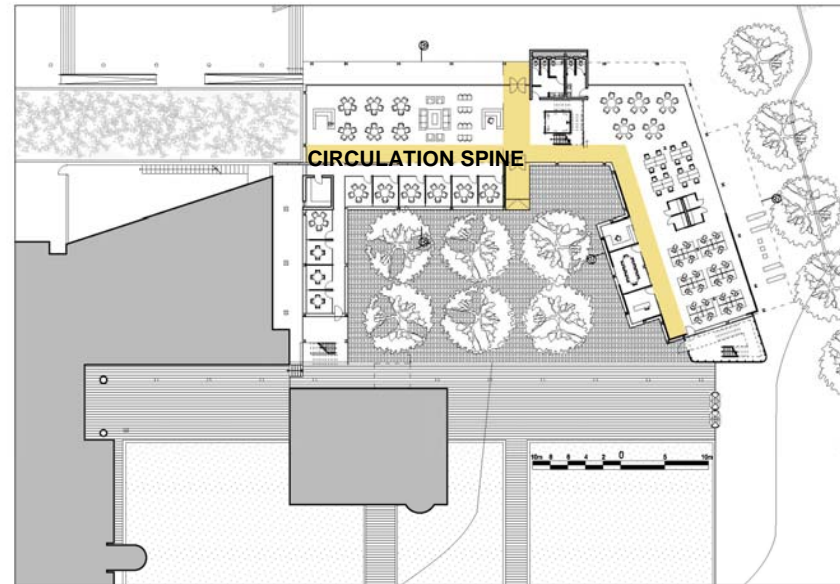


Fig 7.25: Axonometric of  
Ground and First Floor Plans  
of the Law Annexe

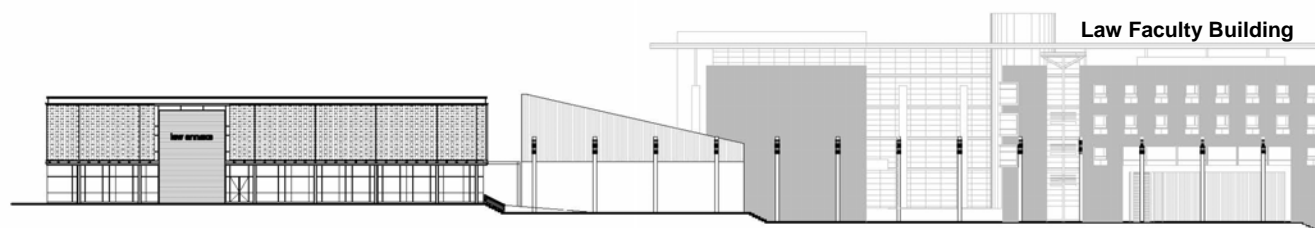
The Law Faculty Building and the Law Annexe are juxtaposed mainly on the northern façades of the buildings. The northern façade of the Law Faculty Building primarily consists of sheer white carefully punctured walls and large geometric forms protruding from a relatively plain and solid backdrop. The Law Annexe seeks to contrast with this, similar to the way that the precedent studies analyzed contrasted to existing buildings (c.f. Precedent Study 2), by utilizing minimalist façades and forms. The elevation is divided horizontally by the employment of an Illumesh™ screen in order to bring the façade down to a human scale and to protect the glazing from solar heat gain. The textures created by the screen and brick wall and the translucence of the façade as a whole contrast with the solid, light -reflecting characteristics of the Law Faculty Building (Fig. 7.24 and 7.25).



**Fig 7.26: Law Annexe Circulation Spine shown on the Ground Floor**



Along the eastern boundary of the site, Hula Bond aluminium cladding panels are used to enclose the building against sun exposure. On the first floor, the staff offices cantilever over the lower level, creating a protected place for bus commuters to wait.

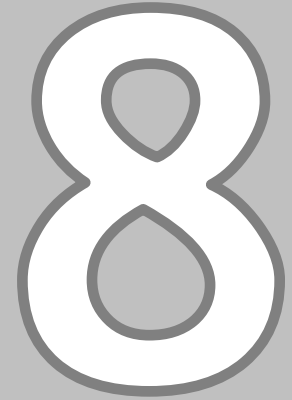


**Fig 7.27: Law Annexe North Elevation with Law Faculty Building shown in Context**



# Technical Investigation

- 8.1 Structural Composition
- 8.2 Façade Systems
- 8.3 Floor Surface and Floor Slab Construction
- 8.4 Roof System
- 8.5 Interior Environment
- 8.6 Passive Control Systems
- 8.7 Landscaping





## 8.1 Structural Composition

The Law Annexe consists of a portal frame structure. The building is based on a grid using 254 x 254 x 73 H-columns.

The roof is supported by 254 x 146 x 31 (original size) cellular I-beams by Macsteel TM.

The purlins are made up of 125 x 75 x 20 x 3 cold-rolled lipped channel sections which are bolted to 125 x 75 x 8 angle cleats that are welded to the rafters.

16 mm steel rods are threaded on the ends and bolted through the purlins to provide lateral stability.

The roof covering is pre-painted Chromadek in a corrugated profile. The H-columns are bolted to a base plate onto ground beams attached to pile foundations specified by an engineer.

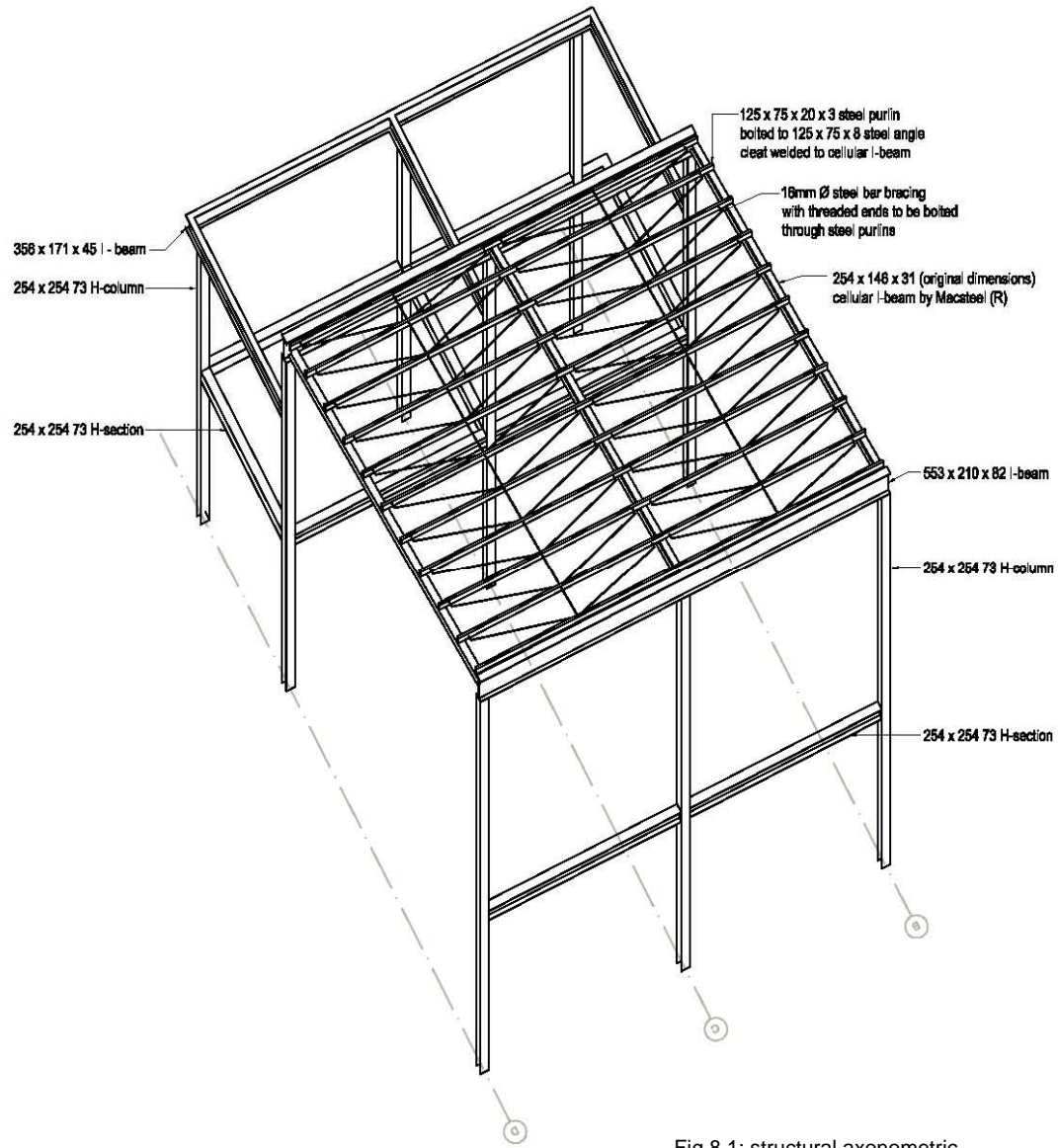


Fig 8.1: structural axonometric of section of steel portal frame



The longer spans and thinner columns allowed by the utilization of steel elements emphasize concepts of weightlessness employed in the design of the Law Annexe. Although steel is more expensive than reinforced concrete construction, the fast and accurate construction compensates for this (Wegelin: 2008: 3.2). Furthermore, in South Africa 30% of steel has been recycled and 70% of the steel used in buildings can be recycled or re-used in other buildings, therefore the use of steel in buildings can be considered as an investment as it can be sold at its inflated value if the building is ever demolished. (SASFA: 2009)

Cellular beams have been used for the rafters in the portal frame. Cellular beams are similar to castellated beams other than they have circular openings formed into the web instead of hexagonal openings. The advantage of cellular beams is that their increased depth means that they are significantly stiffer than beams of the same weight thereby improving the cost and efficiency of the design. The distance that the beams can span is increased giving the building a light uncluttered appearance (Macsteel: 2009).



Fig 8.2: Macsteel Cellular Beams

## 8.2 Façade Systems

The resolution of detail concerning the roof edge and the façades of the Law Annexe are of particular significance to the design because they emphasize fundamental concepts of translucence and linearity. The external walls of the Law Annexe consist predominantly of glazed curtain walling protected from solar heat gain by Illumesh TM stainless steel screens. Aluminium cladding is used in areas where solidity is required. The wet cores of the building are enclosed in bag washed, unpainted recycled brick. A 533x 210 x 82 I-beam runs along the roof edges creating a continuous shadow line.

Glazed curtain walls with aluminium frames are used for the external walls as well as to divide some internal spaces. The system selected is a simple stick system as it can be adjusted most easily to site conditions and sliding opening sections can be integrated into the system. The glazing on the external face of the building is Armourlam TM by Smart Glass. Armourlam TM is a combination of safety and security glass that is efficient in thermal control and sound dampening (Smart Glass: 2009). The benefits of using aluminium frames are that despite being rigid and strong, they are relatively lightweight and so easy to fabricate. Aluminium resists corrosion, is longwearing and low maintenance and possible to recycle.

The masonry walls surrounding the wet cores are Cape Brick TM, a product made mostly from recycled aggregate sourced from crushed demolition waste. According to a study led by Professor Daniel Irurah at the University of Witwatersrand, Cape Brick TM has the lowest embodied energy from all the masonry products currently on the market in South Africa (Brand South Africa: 2008).



Fig. 8.3: St. Anne's Hospital, Pietermaritzburg



  
**CAPE BRICK**



Fig. 8.4: Cape Brick

Illumesh screens are used to protect the glazing from solar heat gain. Illumesh TM is a woven stainless steel mesh used as both a sun-shading device and transparent digital media façade at night. Images can be projected onto the screen during functions held in the public square at night. It is supplied by GKD, a Germany based company. The screen has 60% transparency levels from the inside of the building and is either transparent or opaque from the outside, depending on the incidence of light. Additionally, it is resistant to weathering and corrosion, fire resistant, easy to maintain and recyclable. (GKD: 2009)

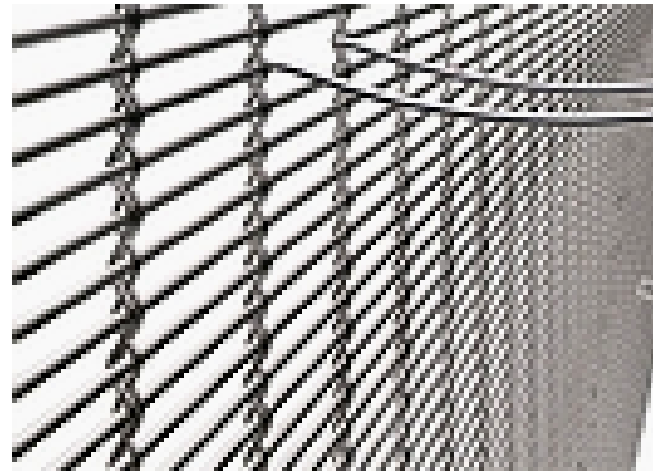
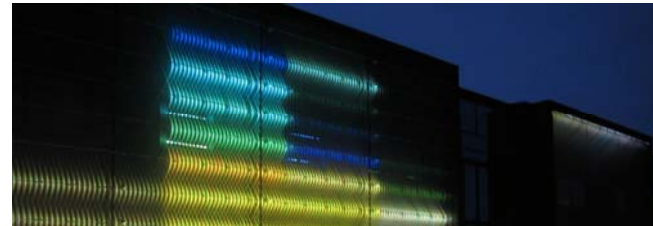


Fig 8.5: Illumesh TM digital media façade

Hula-Bond aluminium panels are used predominantly on the east and west facing façades. The standard 4 mm thick, rigid composite panel consists of a 0.5 mm thick aluminium facing sheet bonded to a polyethylene core (Specifile: 2008). The panel is fixed to aluminium hangers using polyurethane structural adhesive tape. The panels are waterproof and the spacing in-between panels are sealed using silicone. The aluminium panels form a smooth façade creating a correlation to the plastered and painted walls on the south side of the existing Law Faculty Building without replicate the material.



Fig 8.6: Hula-Bond Aluminium Panels

### 8.3 Floor Surface and Floor Slab Construction

Polished concrete floors are used in the Law Annexe to give emphasis to honesty of construction. The floor screed is to be sanded with a mechanical grinder to a polished finish. Expansion joints will later be cut into the surface with the grinder to prevent cracking.

In order to achieve the aesthetic of a predominantly steel building, it was felt that the floor slab should be cast into supporting I-beams to avoid the view of a concrete beam. To achieve this, the first floor slab is cast into steel QC decking supported by I-beams; QC decking is sourced from HH Robertson.

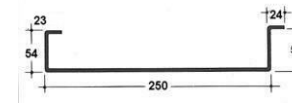


Fig. 8.7: QC Decking from HH Robertson



Fig. 8.8: Polished Concrete Floor

## 8.4 Roof System

The roofing material used over the main spaces of the Law Annexe is steel roof sheeting; predominantly grey pre-painted Chromadek TM by ArcelorMittal Steel.

Panels of polycarbonate translucent roof sheeting are alternated between the Chromadek TM over the work area on the first floor to aid day-lighting. Heat Stop TM by ArcelorMittal Steel is used for this as it eliminates 60% of the heat radiated by the sun and hence minimises heat gain. Additionally, it has a *'co-extruded layer of UV stabilized surface protection'* on the external side shielding it from weathering. The Chromadek TM is laid to a 5° fall and is supported by 125 x 75 x 20 x 3 steel lipped channels at a maximum of 1200 mm intervals. The Heat Stop TM is supported by 120 x 60 x 3 rectangular hollows at a maximum of 1200 mm intervals.

The roof is supported by 254 x 146 x 31 (original size) cellular I-beams by Macsteel TM. The roof sheeting over the staff offices is pre-painted Kliplok TM supplied by ArcelorMittal Steel utilized because the gradient of the roof is at a two degree fall. The concrete roof slabs are cast into steel QC decking supported by I-beams; QC decking is sourced from HH Robertson.



Fig 8.9: Polycarbonate translucent roof sheeting

## 8.5 Interior Environment

The use of natural timber in interior spaces can be associated with warmth, colour and tactility, all of which are commendable characteristics for any building. Timber was required in the interior spaces of the Law Annexe to offset the extensive use of steel and glazing. Unfortunately, in South Africa, the sustainability of the forestry industry has been called into question; 1.5 million hectares of tree plantations have replaced natural bio-diverse grasslands throughout the country. Eucalyptus and wattle constitute for more than 50% of the trees planted and both species are invasive to South Africa (Carrere: 2000). Indigenous woods such as Blackwood, Yellowwood and Stinkwood are available commercially from the Knysna forest, however to specify these woods would lead to destruction of valuable natural forest ecosystems.

With this in mind, BisonBord was specified for ceilings in the Law Annexe. BisonBord is a superior interior grade particleboard manufactured from wood chips that are a by-product of timber manufacturing. The chips are bonded with synthetic resin under heat and pressure creating a resilient board with an interesting timber texture (PG Bison: 2006). The boards are used as an alternative to timber panelling and are simply varnished to reveal the unique characteristics.



Fig 8.5: PG BisonBord TM



## 8.6 Passive Control Systems

### Thermal Comfort

Thermal comfort in buildings is considered to be between 20 to 28 degrees Celsius (IsoBoard: 2009) Most of the external walls in the Law Annexe are glazed using Armourlam TM by Smart Glass which has thermal control properties and is protected from solar gain at any rate by the Illumesh TM screens.

The dry aluminium clad walls and roofs of the Law Annexe are insulated using Isoboard TM insulation boards, an extruded polystyrene rigid foam thermal insulation. The panels are resistant to fire and do not support mould growth or vermin. Furthermore, they are waterproof, so although care has been taken to seal the external roof and wall systems, the IsoBoard TM acts as a second barrier to moisture penetration (IsoBoard: 2009).



Fig 8.6: IsoBoard Insulation

### Orientation

Since the site runs along an east west axis, it was possible to orientate the building predominantly to the north and south. The east wing of the Law Annexe is limited in size because of its east west orientation. These façades have smaller openings and manually operable sun shading in the form of a canvas screen on the west facing balcony of the first floor. The scale of the Law Annexe has been kept deliberately low to allow sunlight into the courtyard and still allow the northern sunlight to fall on Rissik House.

### Ventilation

The building's dimensions allow for predominantly passively controlled ventilation. The building has opening windows and sliding doors on the north, east, south and west façades of the building allowing fresh air into all the spaces. The prevailing summer wind direction in Pretoria is from the northeast therefore encouraging cross ventilation.

### Day Lighting

The extensive glazing in the Law Annexe enables the building to be naturally lit throughout the day. The Illumesh TM screens protect the interior space from direct sunlight while still allowing a subdued light to enter the building. Panels of polycarbonate translucent roof sheeting are alternated between the Chromadek TM over the work area on the first floor to promote the use of natural light instead of artificial light.

### Rainwater Harvesting

Of all the water on the planet, 97.5% is in the oceans, two percent is frozen, three quarters of a percent is in the ground as groundwater, and a mere quarter of a percent is useable for humans. The fact is that comparatively there is not much water available for humans to live on. Residential use in South Africa accounts for 15% of the total water use



of the country, and from that amount, 30% is used to flush toilets (DWAF: 2007). The rainwater harvested from part of the roof of the Law Annexe is used to flush toilets inside the building. The estimated harvesting potential of the catchment area was worked out as follows:

Annual Rainfall x Rainfall Coefficient x Catchment Area =  
Rainwater Harvesting Potential (DWAF: 2007).

$$0.674\text{m} \times 0.9 \times 460\text{m}^2 = 279\text{m}^3 \\ = 279\,000 \text{ litres/year}$$

20 x 1500 litre corrugated steel JoJo water tanks have been used to contain the water on the concrete roof slab above the library.

The average toilet uses 11 litres of water per flush:  
(DWAF: 2007)

279 000 litres divided by 11 litres = 25 363.6 flushes

Assuming that the Law Annexe has an average of 100 inhabitants per day, they all use the toilet once in the day, and there are approximately 261 working days in the year, the building requires 26 100 flushes per year.

The water required for flushing is 287 100 litres per year. The rainwater is able to provide 97% of the flushing water needed by the Law Annexe. These figures can be improved by using water efficient toilets that use less than 11 litres per flush.

## 8.7 Landscaping

The external landscape surfaces in the courtyard of the Law Annexe and the public square consists of mainly permeable concrete paving and grassed pavers. Pervious concrete is used to pave Hilda Street; it is a mixture of Portland cement, coarse aggregate, water and admixtures. It has between 15% - 25% void space in its make up that enables water to pass through, filtering storm water in the process. It consequently reduces storm water run-off and the associated water pollution by increasing absorption into the ground. Traffic is controlled along Hilda Street to 40 km/hour with the aid of speed bumps to reduce the chance of damage to the pervious concrete, the speed reduction is also appropriate because of the increase in pedestrian activity predicted in the area by the Hatfield Framework. (Rocke: 2008)

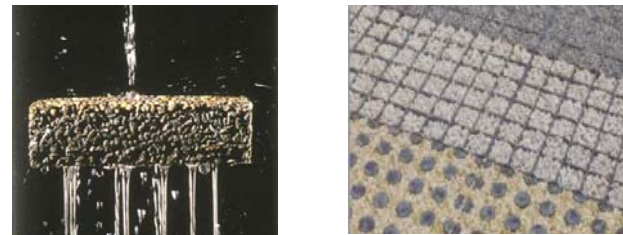


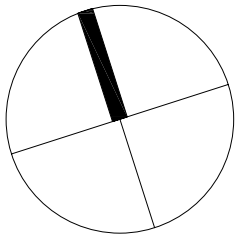
Fig. 8.7: Grassed Pavers and Permeable Concrete



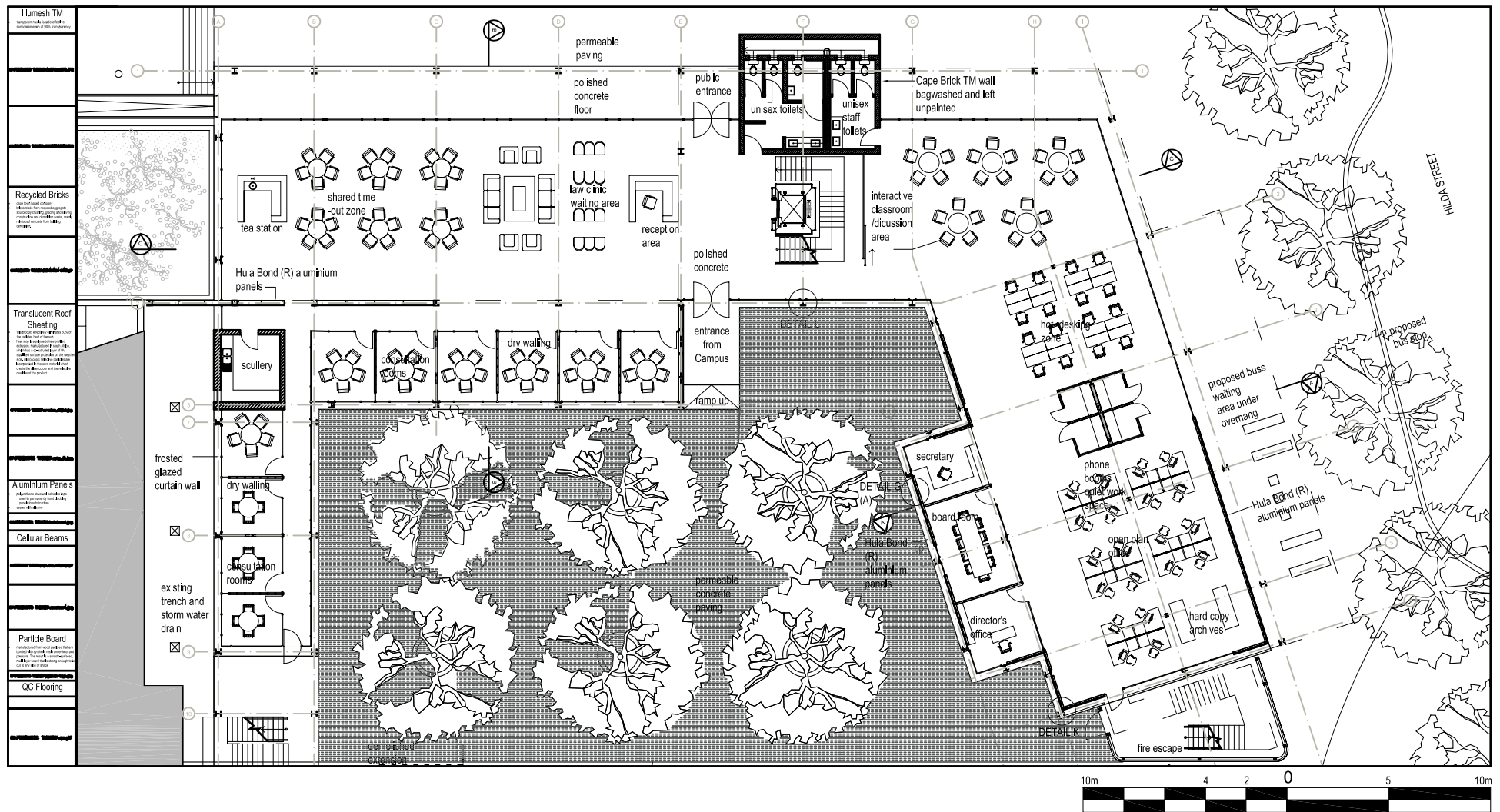
# 9

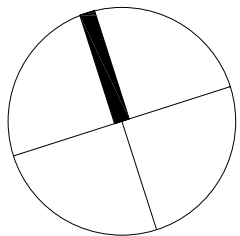
## **Technical Documentation**

- Plans
- Sections
- Elevations
- Details



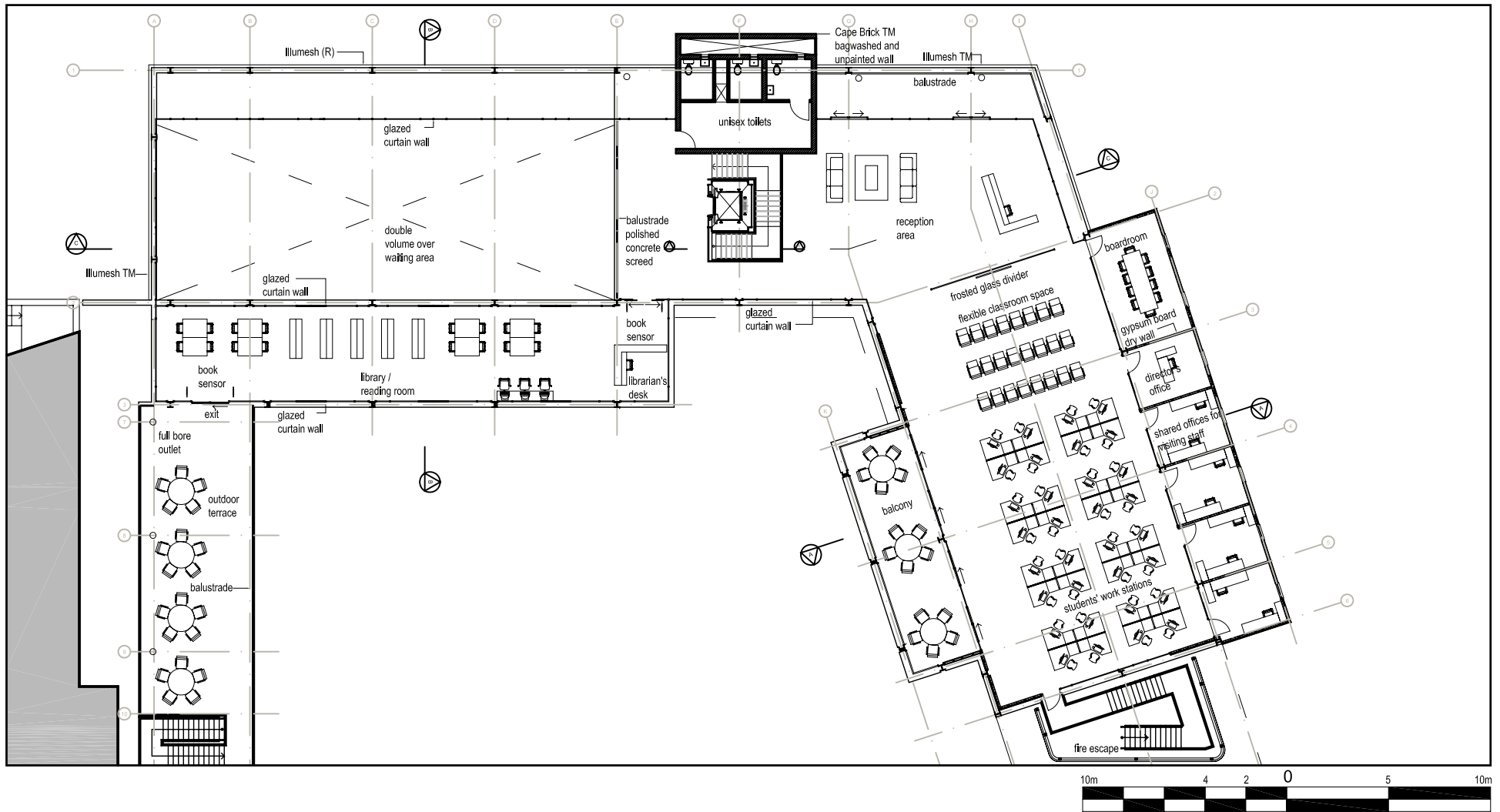
Ground Floor Plan 1:200

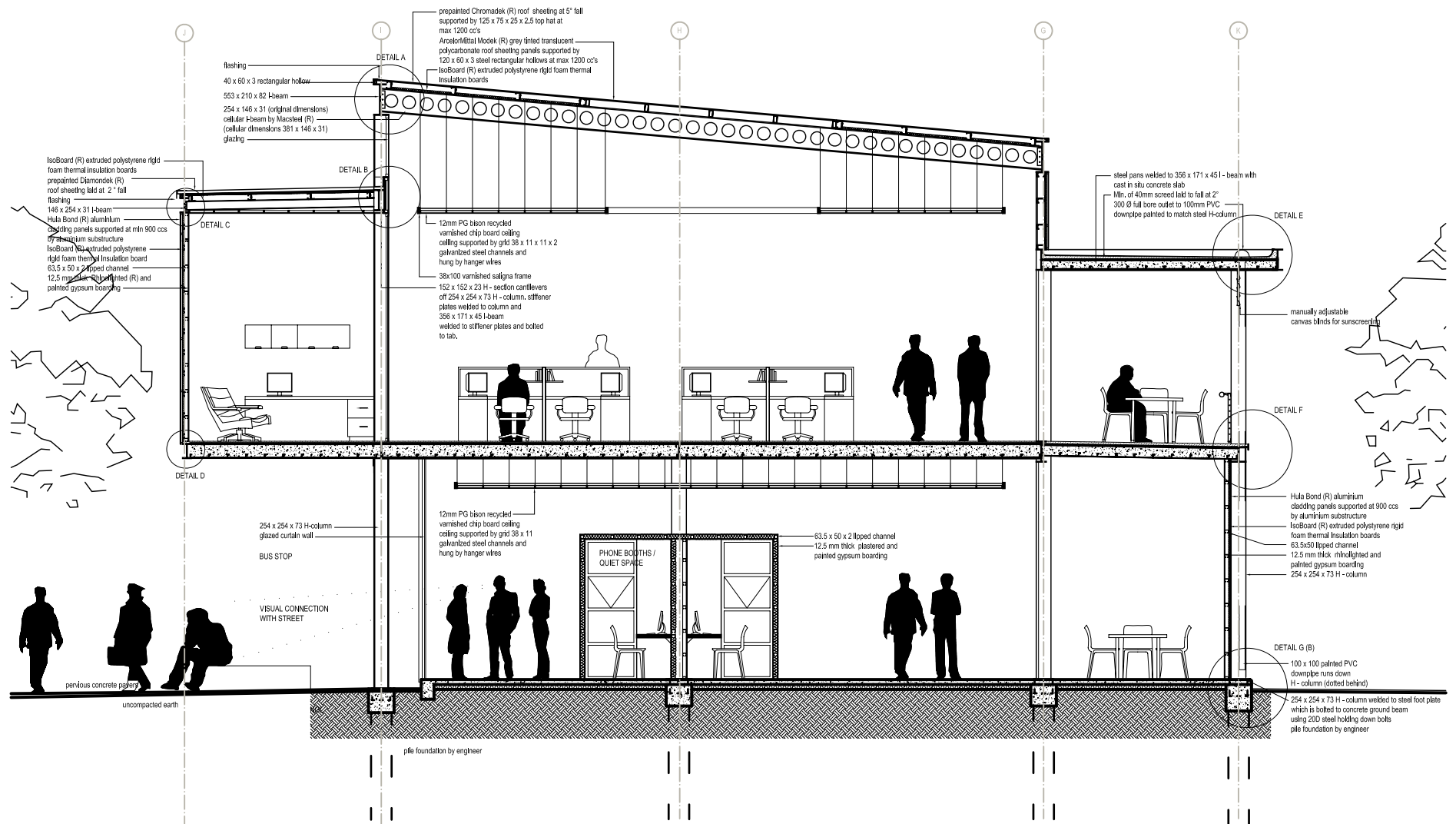




First Floor Plan 1:200







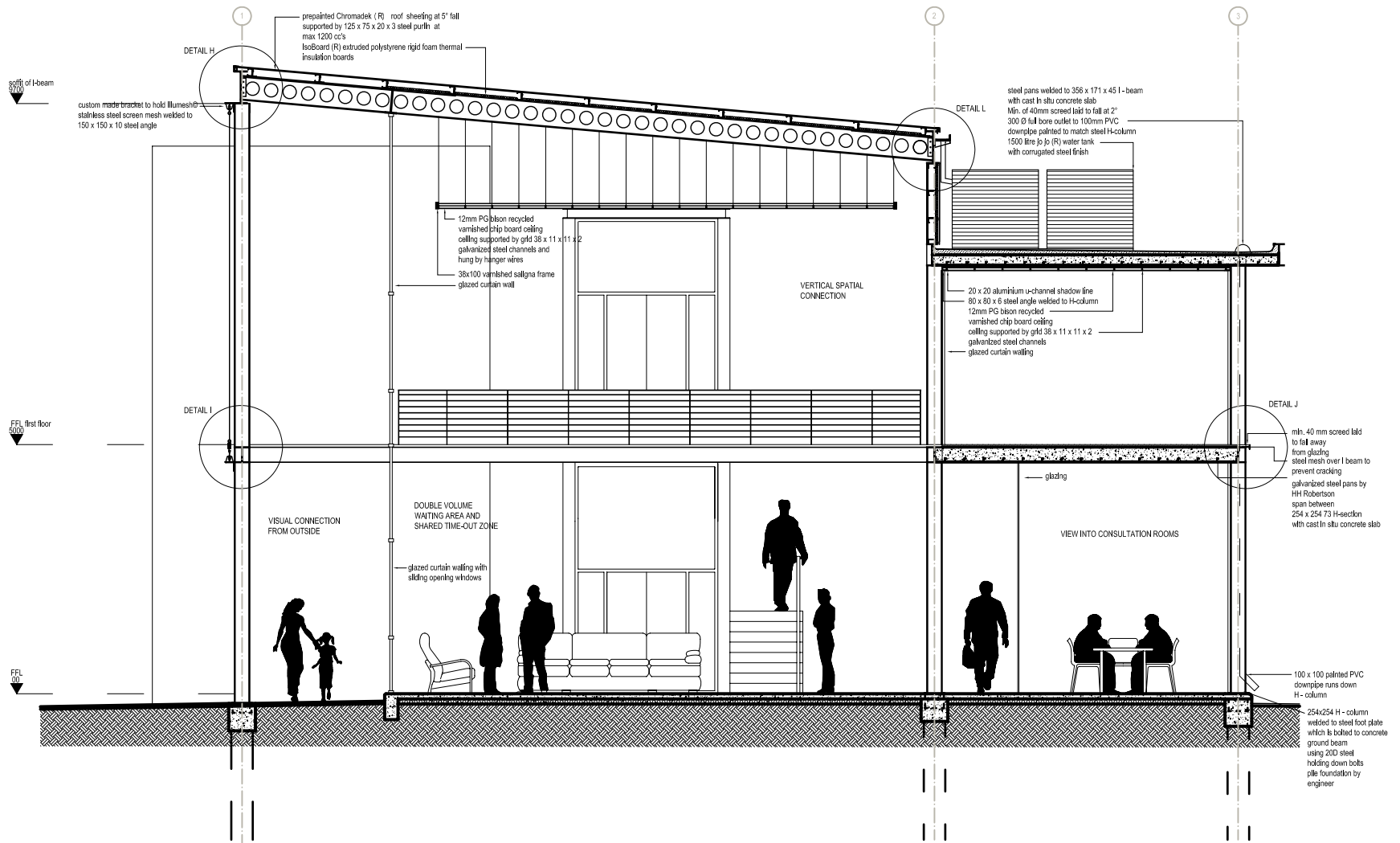
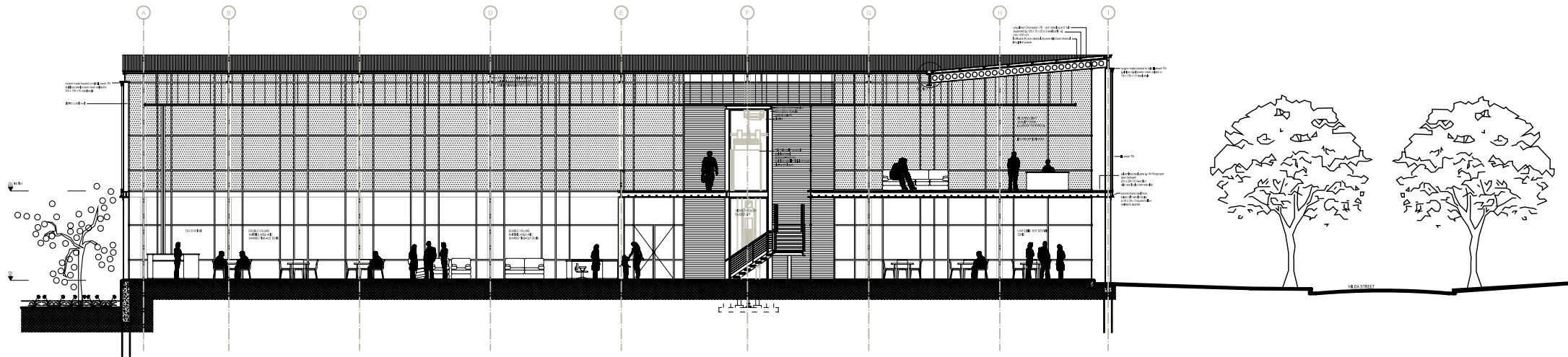
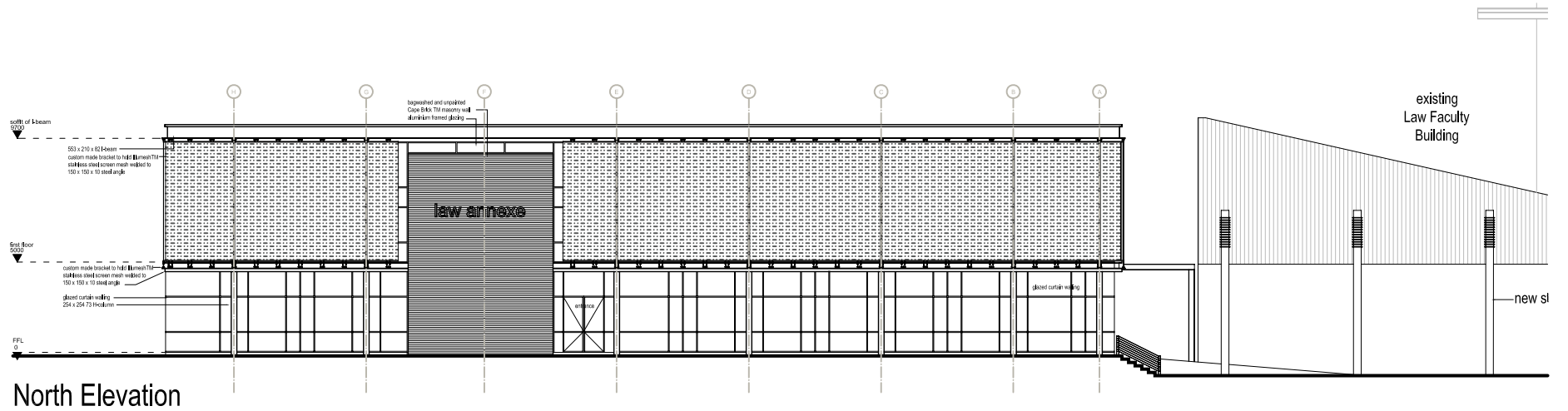


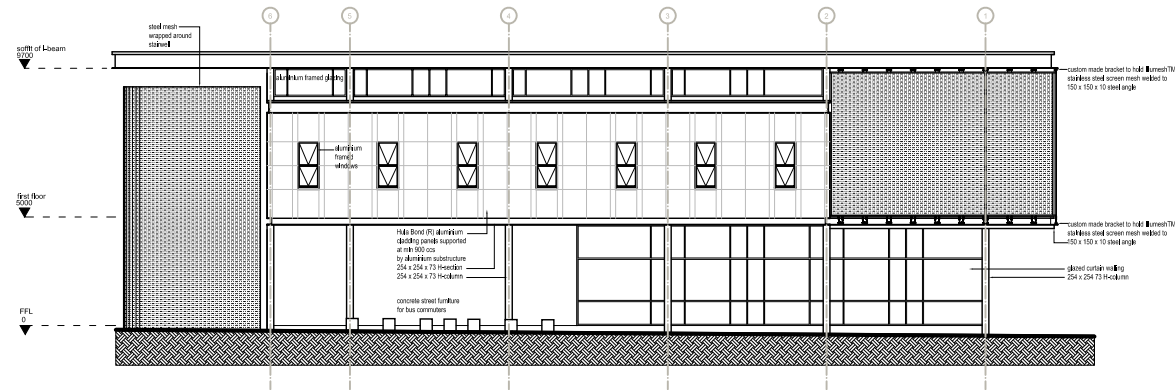
Fig. 9.4: Section BB 1:100



Section CC



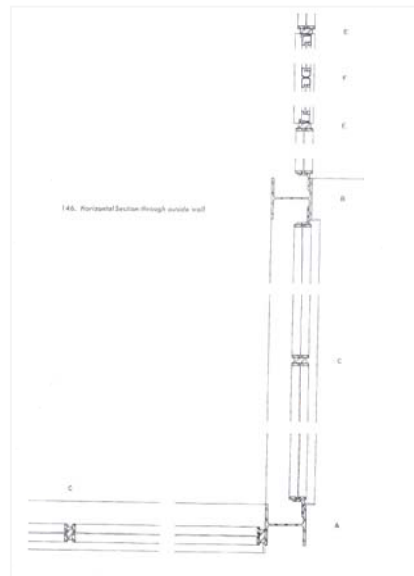
North Elevation



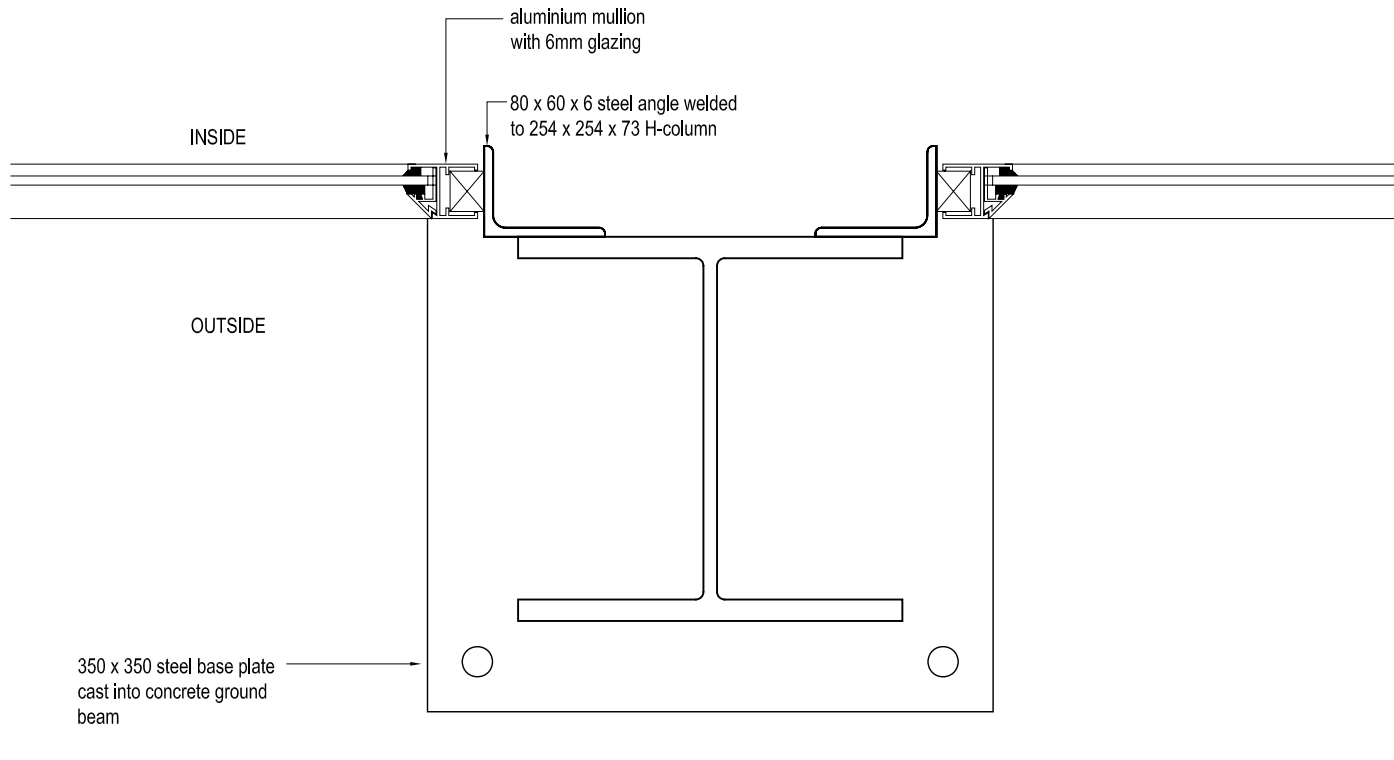
East Elevation



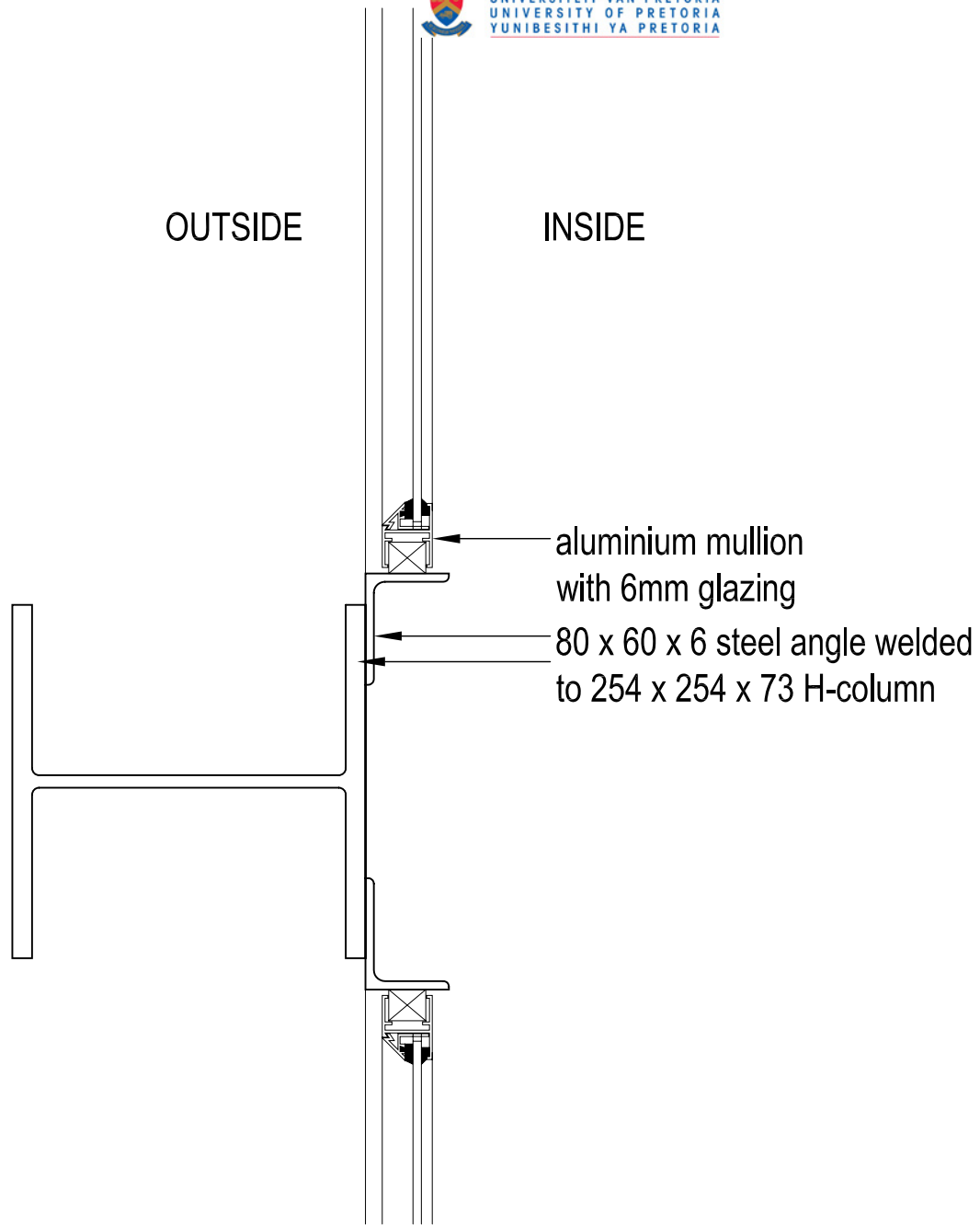
## Horizontal Sections



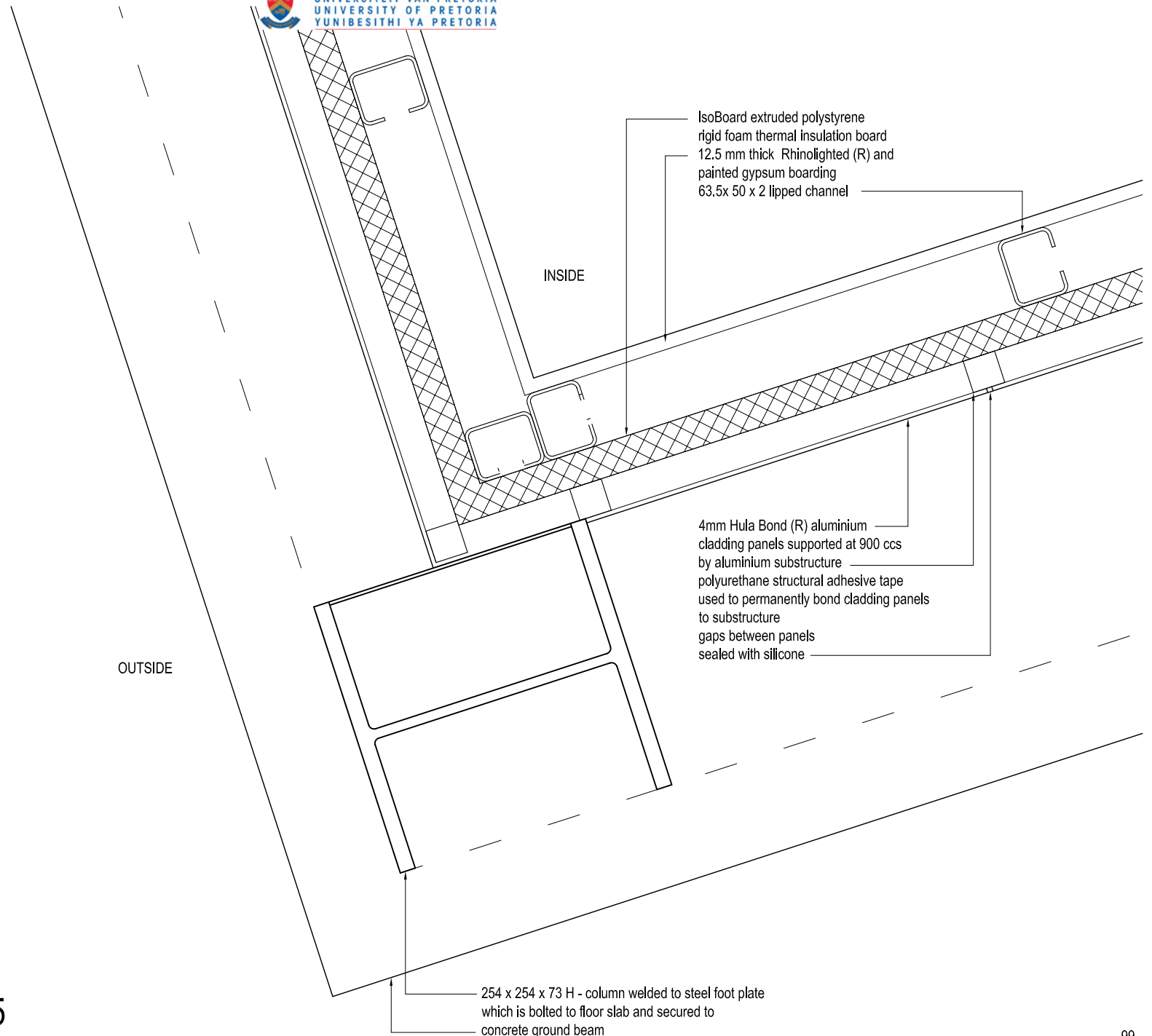
Horizontal Section through an Outside Wall  
Library and Administration Building,  
Chicago 1944,  
Mies van der Rohe



detail M 1:5



detail N 1:10



detail K 1:5

# Floor Slabs and Concrete Roof Slabs



Entrance Canopy at Mercedes Benz Sales Centre, Centurion



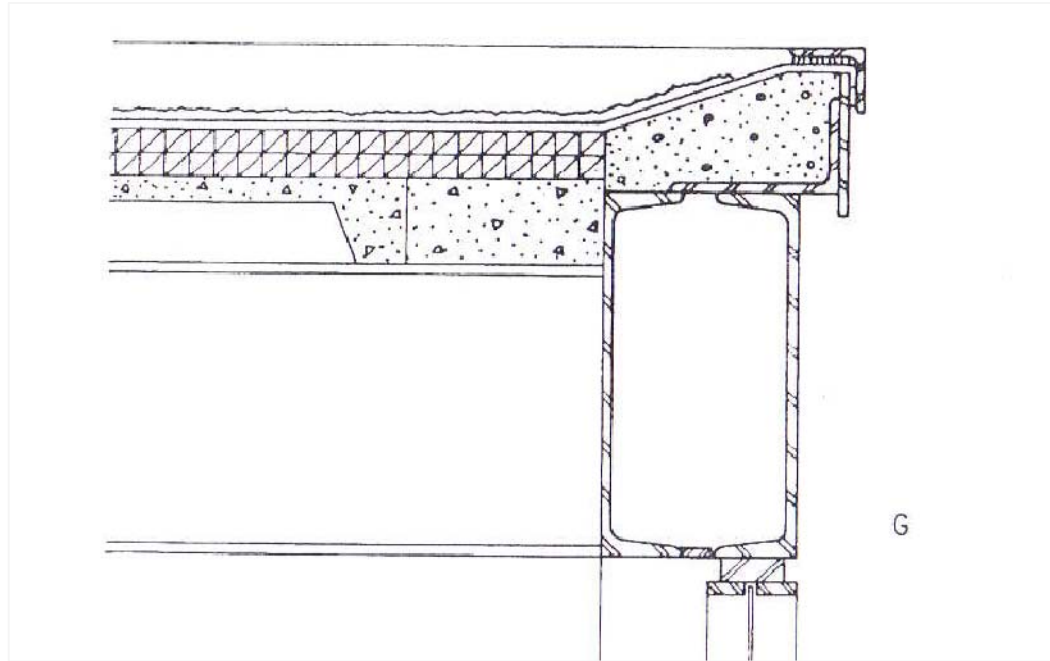
Balcony Detail at Melrose Arch, Corlett Drive, Johannesburg



Weld Detail at Voda World, Centurion, Pretoria



Design Quarter, William Nicol Road, Johannesburg



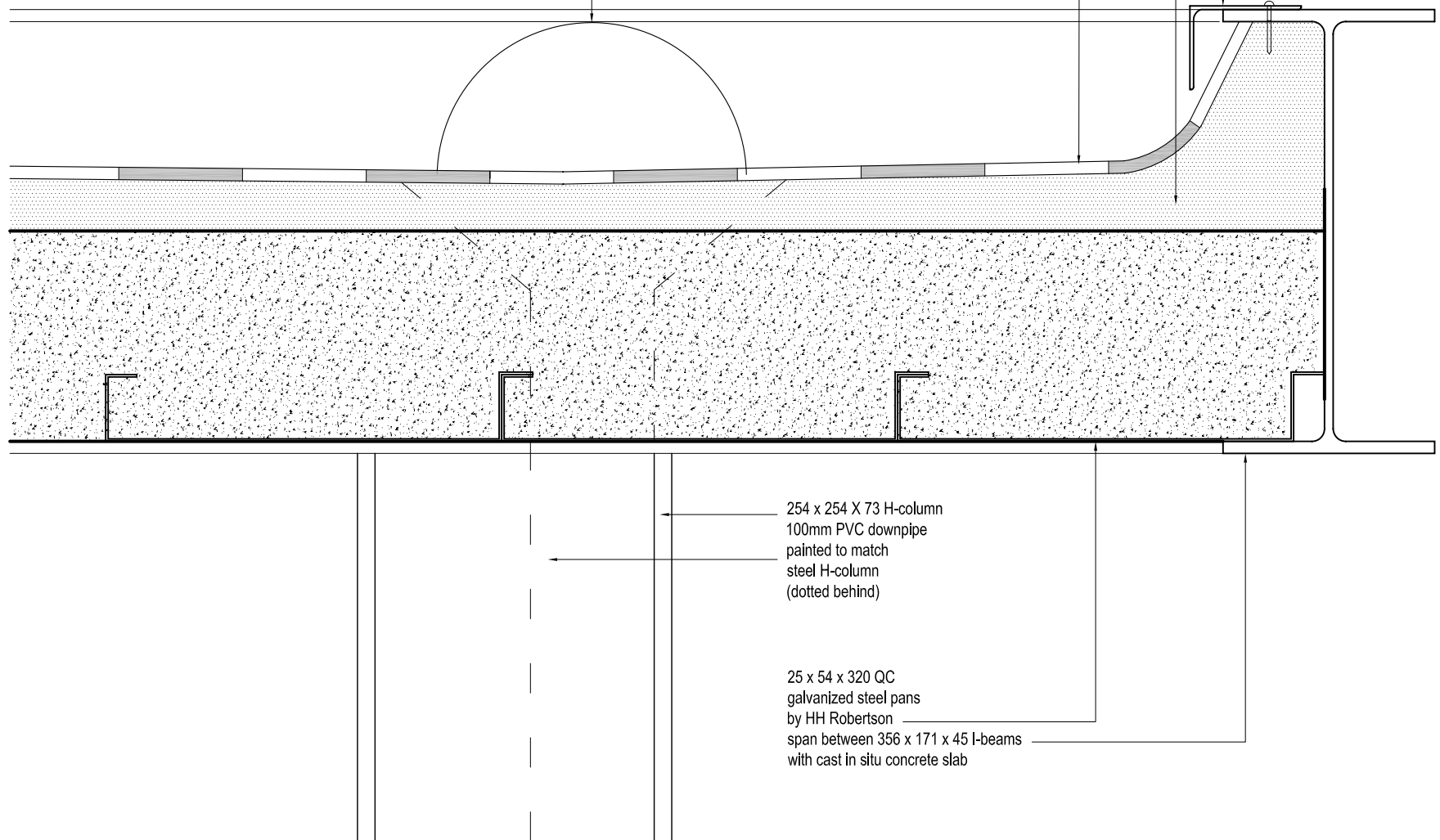
Roof Edge Detail Library and Administration Building, Chicago 1944, Mies van der Rohe





65 x 90 x 2 steel angle to protect waterproofing  
attached with self tapping screw

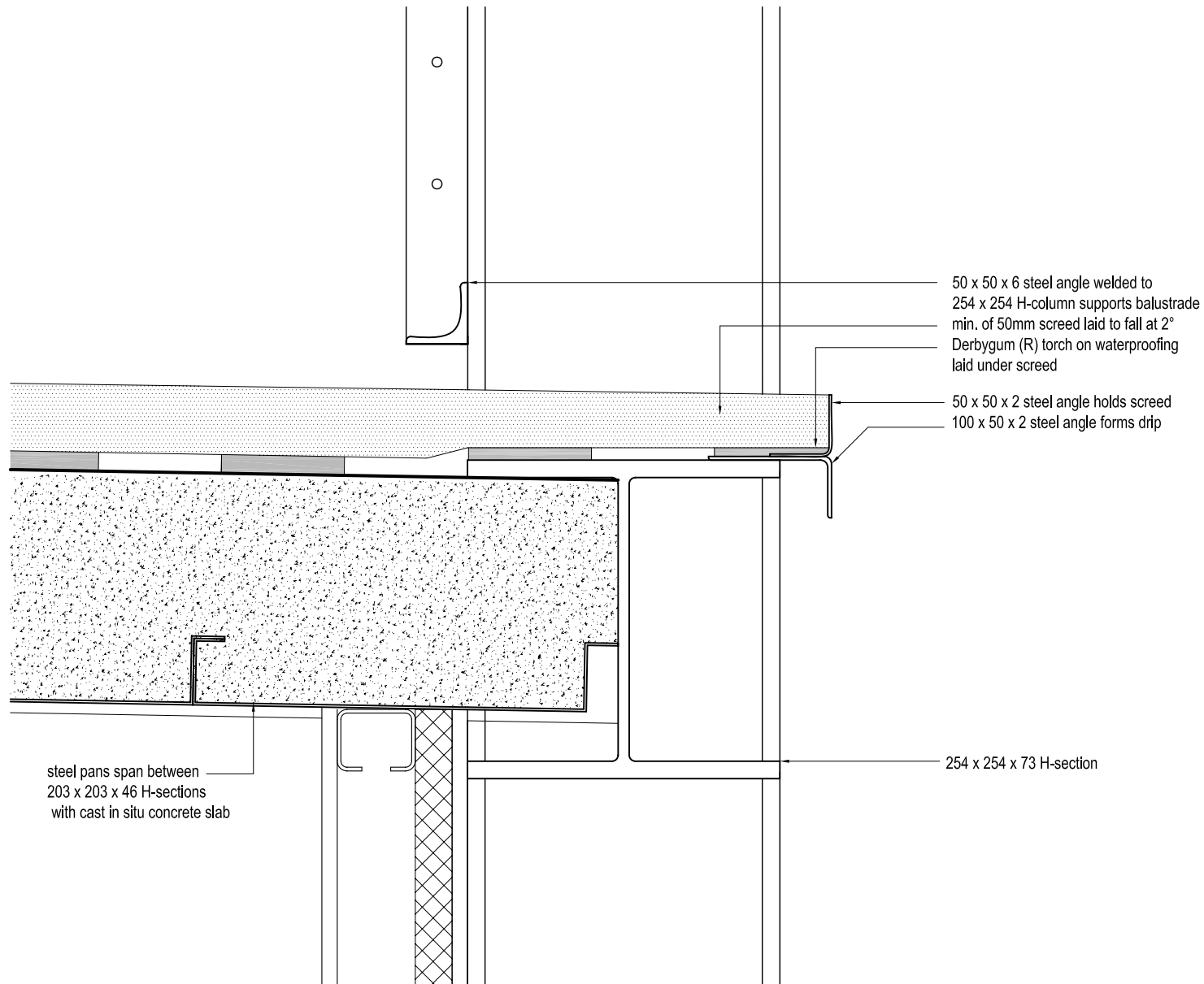
min. of 40mm screed laid to fall at 2°  
Derbygum (R) torch on waterproofing  
300 Ø full bore outlet to 100mm PVC



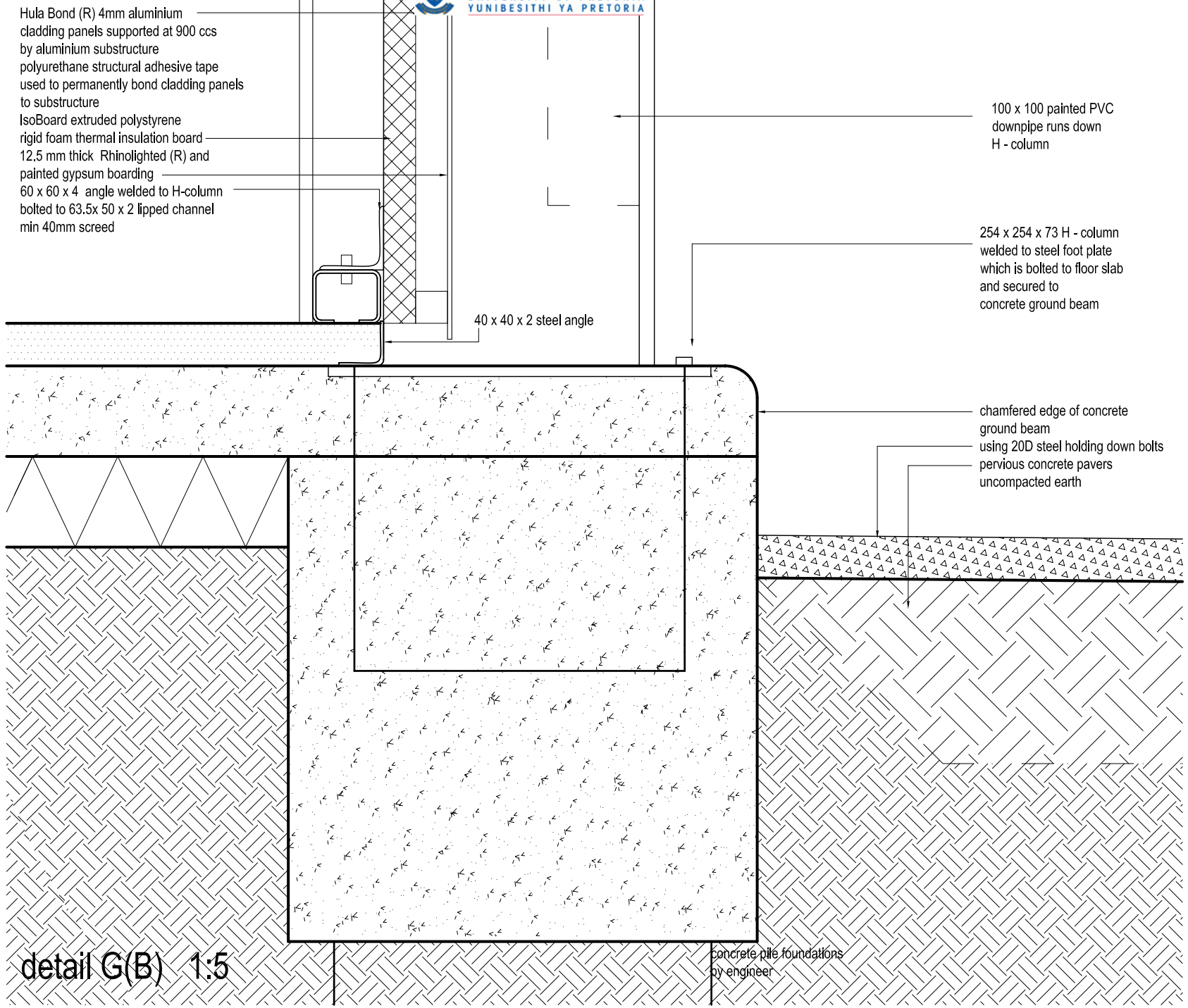
254 x 254 X 73 H-column  
100mm PVC downpipe  
painted to match  
steel H-column  
(dotted behind)

25 x 54 x 320 QC  
galvanized steel pans  
by HH Robertson  
span between 356 x 171 x 45 L-beams  
with cast in situ concrete slab

detail E 1:5



detail F 1:5



Hula Bond (R) 4mm aluminium cladding panels supported at 900 ccs by aluminium substructure  
 polyurethane structural adhesive tape used to permanently bond cladding panels to substructure  
 IsoBoard extruded polystyrene rigid foam thermal insulation board  
 12.5 mm thick Rhinolithed (R) and painted gypsum boarding  
 60 x 60 x 4 angle welded to H-column bolted to 63.5x 50 x 2 lipped channel min 40mm screed

100 x 100 painted PVC downpipe runs down H - column

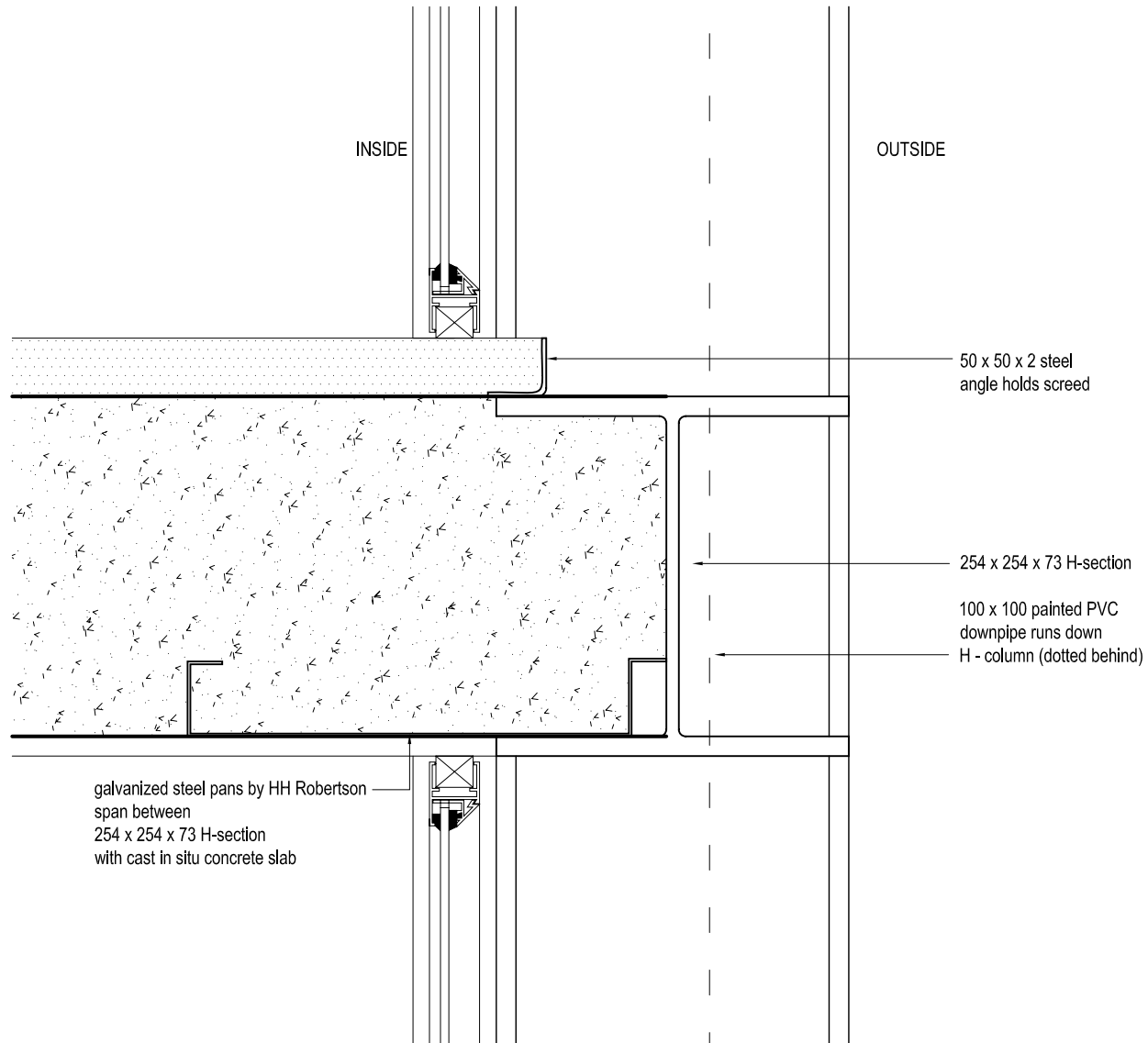
254 x 254 x 73 H - column welded to steel foot plate which is bolted to floor slab and secured to concrete ground beam

40 x 40 x 2 steel angle

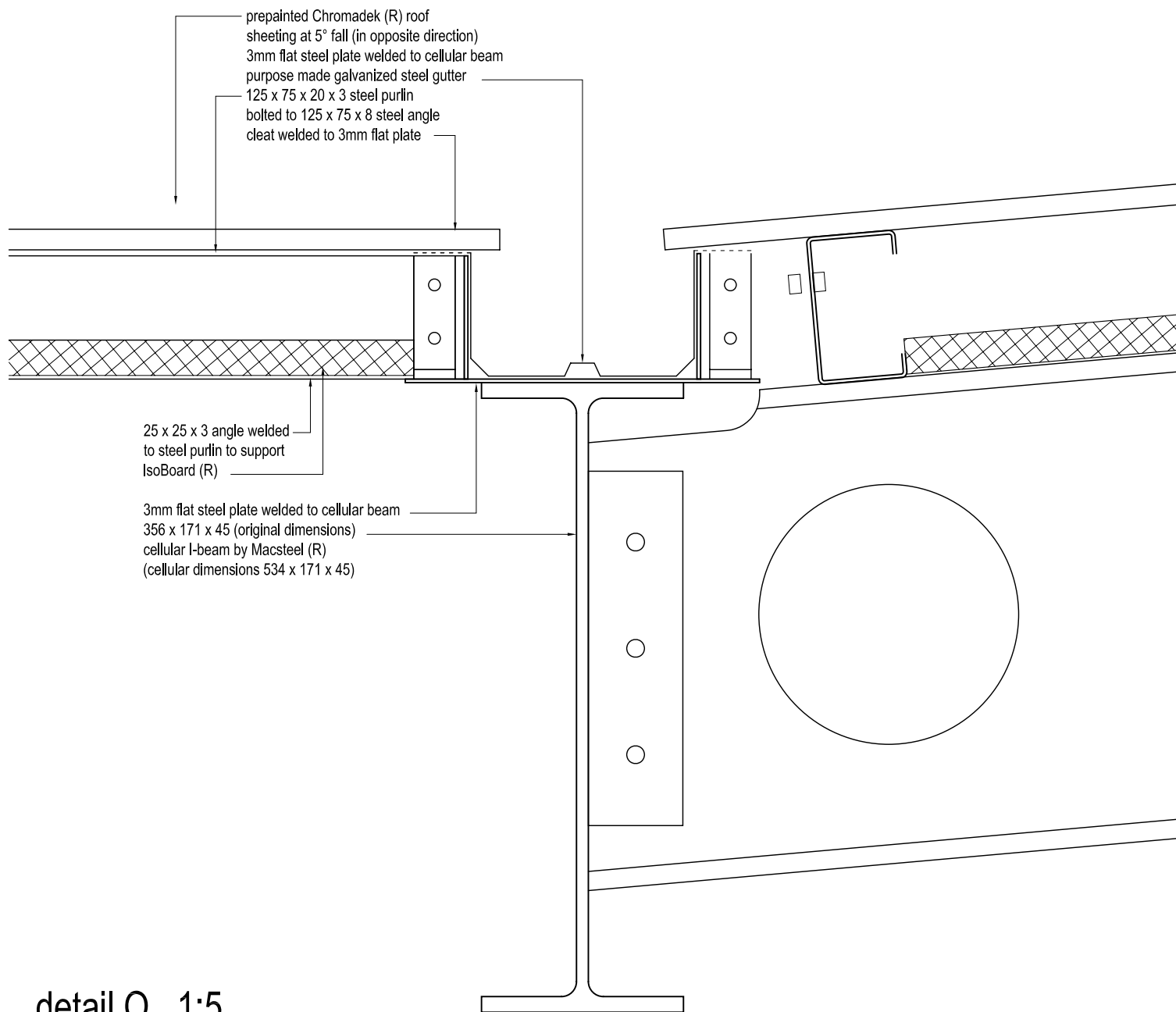
chamfered edge of concrete ground beam using 20D steel holding down bolts  
 pervious concrete pavers  
 uncompacted earth

detail G(B) 1:5

concrete pile foundations by engineer



detail J 1:5



detail O 1:5



# Roof Edge and Façade Details



Illumesh TM at Mary Fitzgerald Square,  
Johannesburg



Illumesh TM at Mary Fitzgerald Square, Johannesburg



Eave Detail at Mercedes Benz Sales Centre,  
Centurion, Pretoria



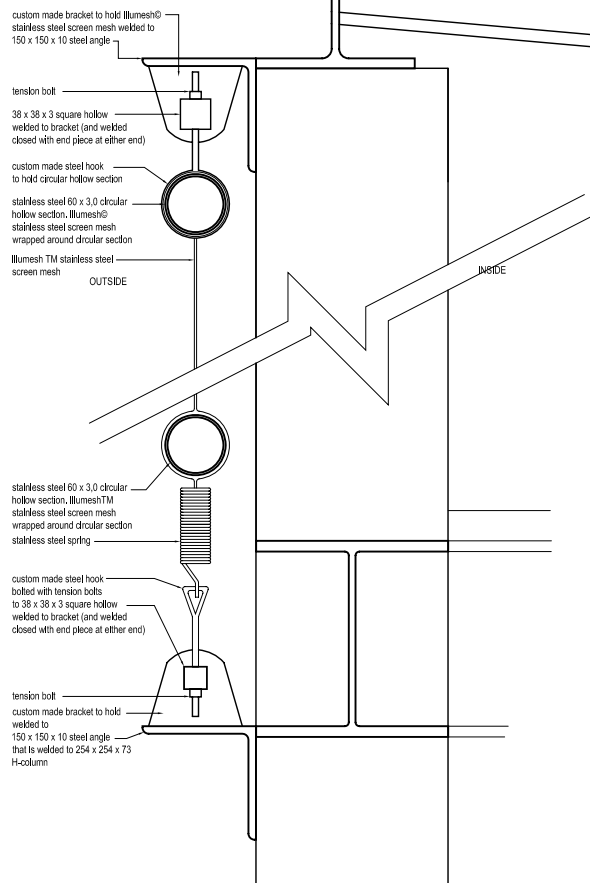
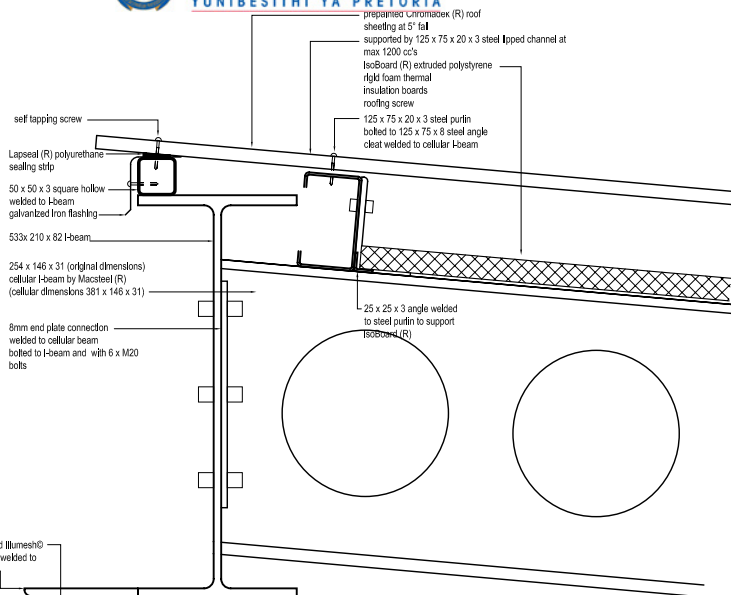
Cellular beams at Audi Car Sales Centre,  
Corlett Drive, Johannesburg



Farnsworth House, Illinois, 1950,  
Mies van der Rohe

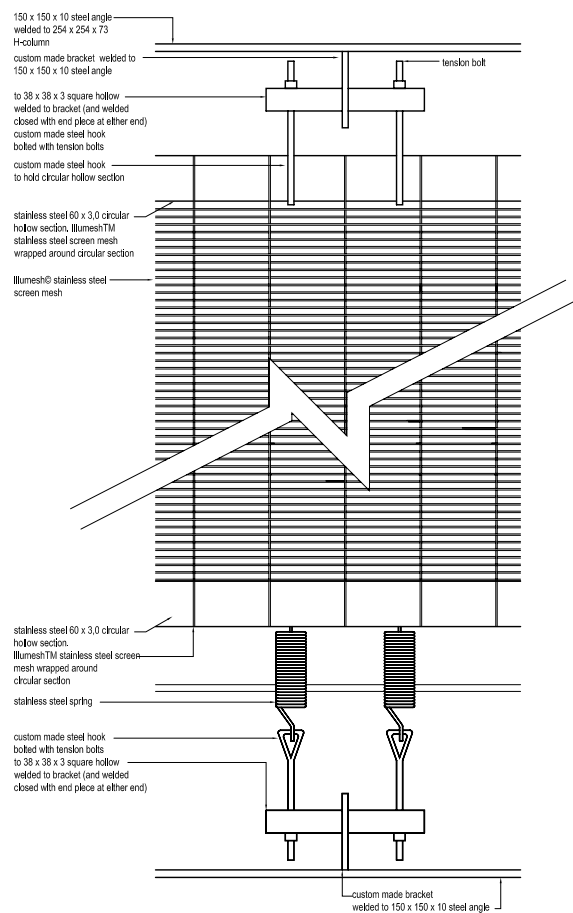
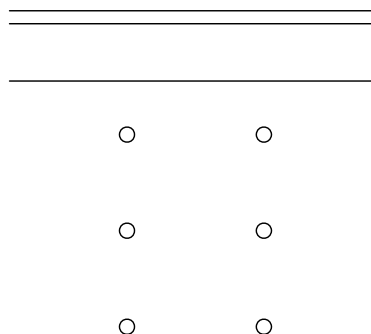


detail H 1:10

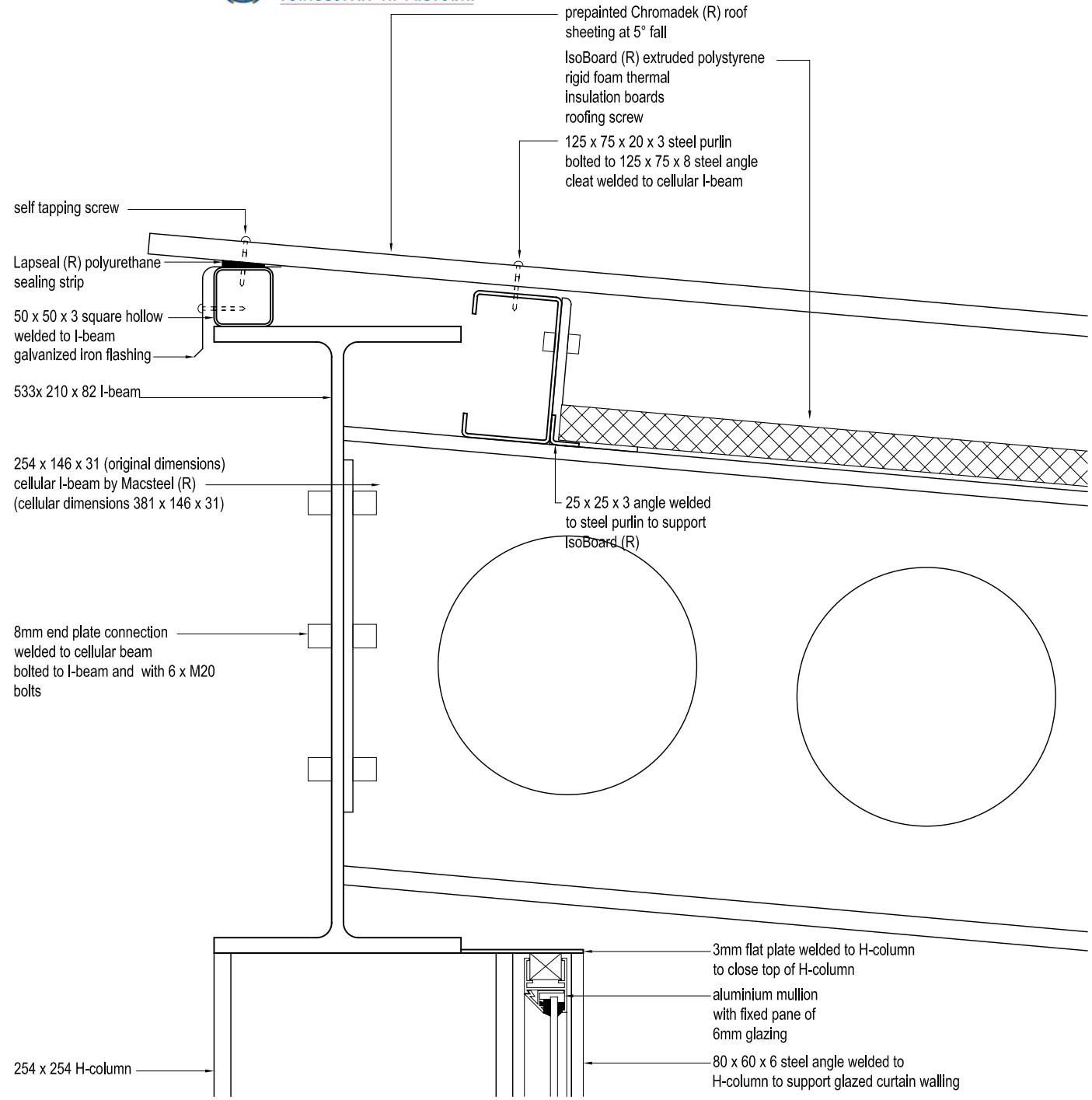


detail I 1:10

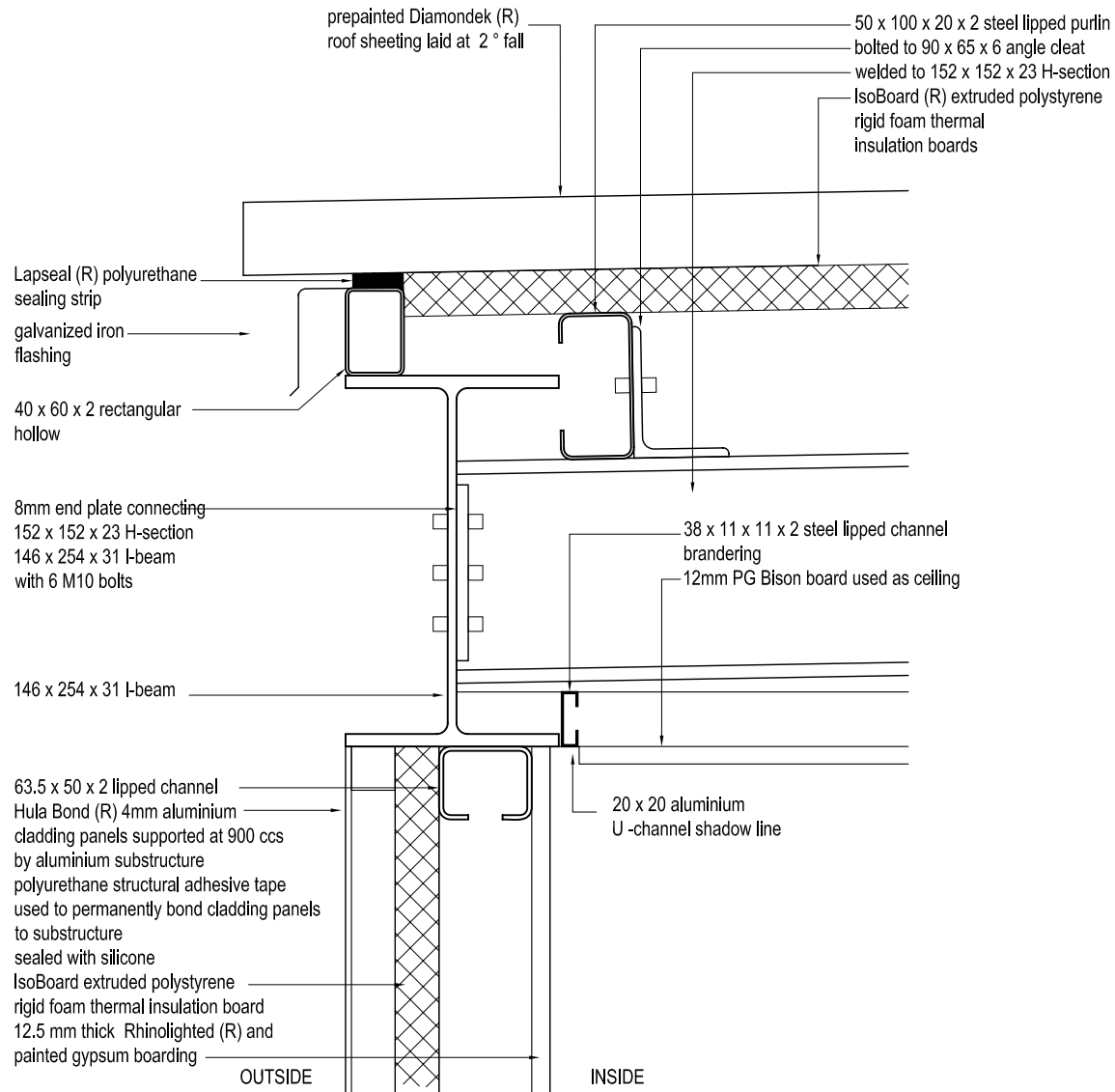
# elevation of detail H 1:10



# elevation of detail I 1:10

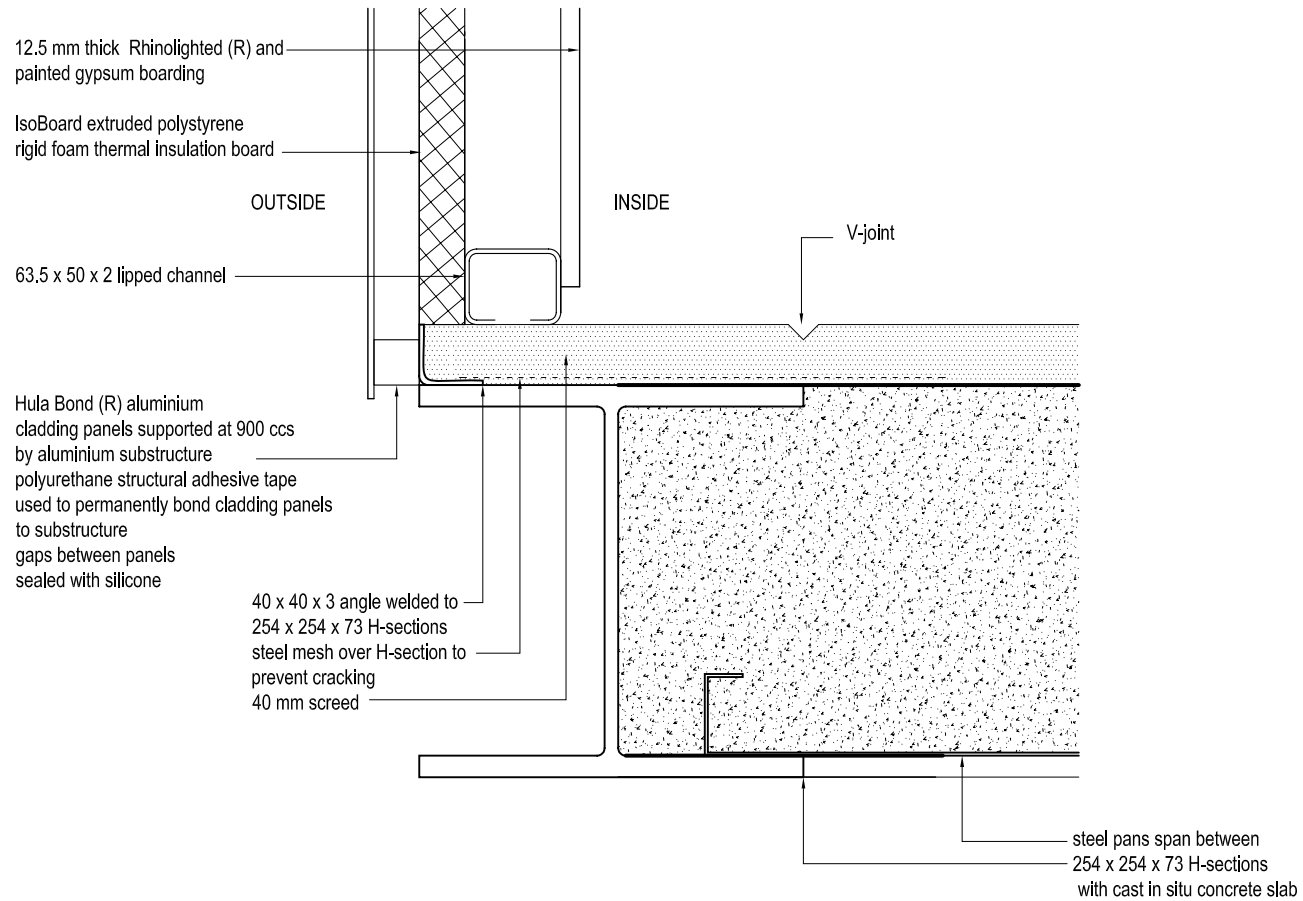


detail A 1:5

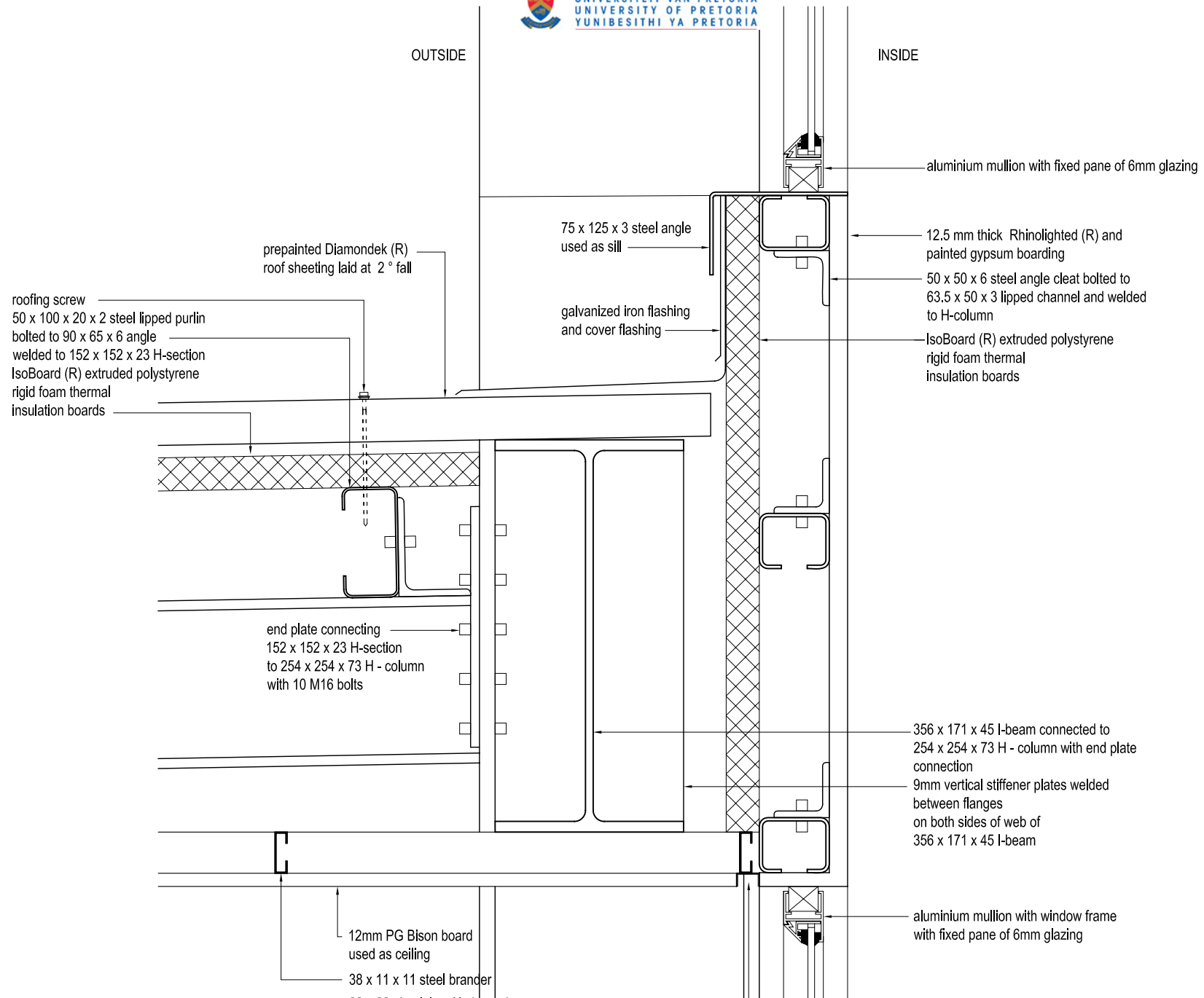


detail C 1:5





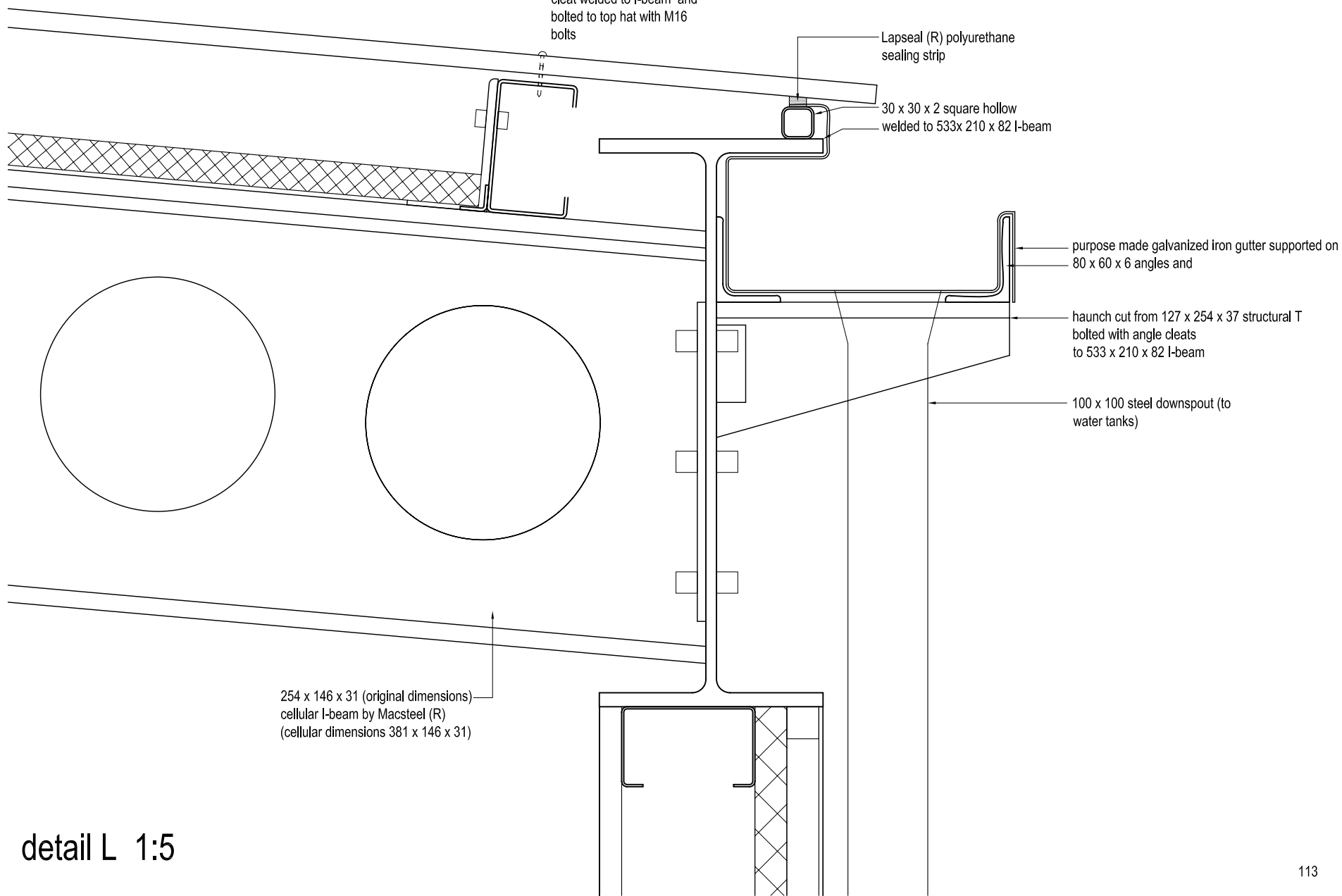
detail D 1:5



detail B 1:5



prepainted Chromadek (R) roof  
sheeting at 5° fall  
supported by 125 x 75 top hat at  
max 1200 cc's  
125 x 75 x 8 steel angle  
cleat welded to I-beam and  
bolted to top hat with M16  
bolts



Lapseal (R) polyurethane  
sealing strip

30 x 30 x 2 square hollow  
welded to 533x 210 x 82 I-beam

purpose made galvanized iron gutter supported on  
80 x 60 x 6 angles and

haunch cut from 127 x 254 x 37 structural T  
bolted with angle cleats  
to 533 x 210 x 82 I-beam

100 x 100 steel downspout (to  
water tanks)

254 x 146 x 31 (original dimensions)  
cellular I-beam by Macsteel (R)  
(cellular dimensions 381 x 146 x 31)

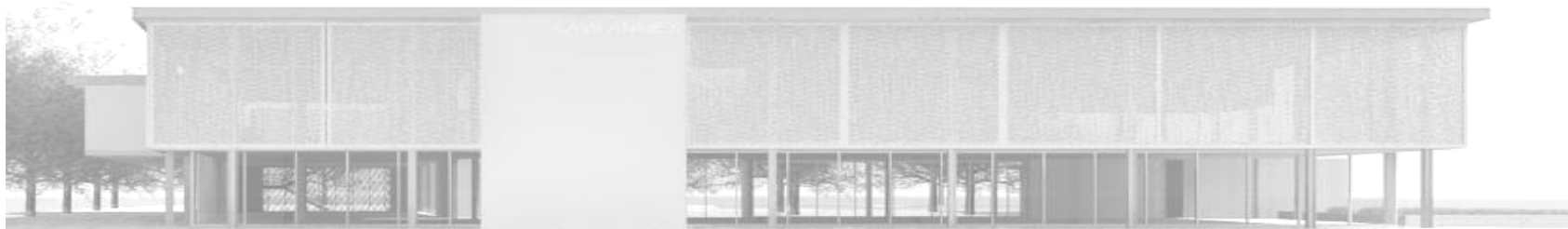
detail L 1:5

# Conclusion

Pierre Von Meiss (1986) writes that “it is perhaps one of the greatest compliments that can be paid to a work of architecture... that well-designed architecture should be condemned to ‘disappear’ behind its content”. With this in mind, the Law Annexe has been designed to be simple in its response to architectural form. The Law Faculty Building is an overwhelming building; in its size and stature and the satisfaction that it has brought to the Law Faculty. Consequently, it is a complex undertaking to extend within the Law Faculty precinct without resorting to architectural competitiveness.

The Law Annexe in response is discreet in that it is of a diminutive scale and uses limited materials and a narrow colour palette. The intention of both the materiality and the austere form was to create a translucence and lightness that is in dialogue with themes concerning the law in contemporary South Africa and in the Law Faculty Building.

10





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**To my Family..... Jazaak-Allah for your duaas. I really cannot express my gratitude or love for all of you.**

**To Catherine Karusseit and Amira Osman, thank you for the amazing mentorship, I've learned so much from you both.**

**To Jacques Laubscher and Piet Vosloo, thank you for your time and enthusiasm.**

**To Meera, thank you for your encouragement and 3D wizardry! Who would have thought in such a short time I would have found such a wonderful friend.**

**To Fahmida, thank you for all your help.**





# A Contextual Analysis of the South African Socio-political and Legal Landscape

- 2.1 Historical Context
- 2.2 The Have and the Have-nots
- 2.3 Social Implications of Inaccessibility to Legal Assistance
- 2.4 Case Study
- 2.5 Effect of Analysis on Design

# 2



Fig.2.1: Caricature by Zapiro

**Justice:** “From a liberal democratic perspective justice is viewed as equal access to rights and opportunities.”

(Gouws: 2005: 3)

This chapter outlines changes in the role and effectiveness of the legal system in post-Apartheid South Africa. It addresses the importance of the legal system in readdressing human rights in the country and bridging the widening gap between the poor and the wealthy. Furthermore, public perceptions of accessibility to justice and legal assistance, or the lack thereof, are analysed along with the wider implications of inadequate service delivery to poor communities. Deductions are made from the analysis that strengthen design decisions.

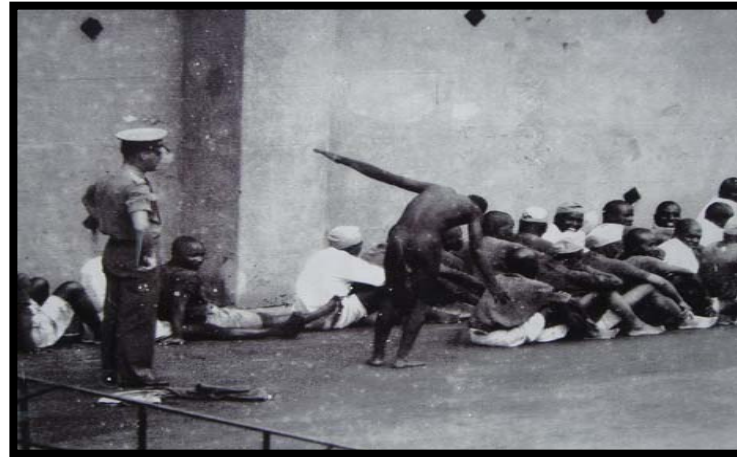
## Historical Context

South Africa is currently experiencing radical changes to social perceptions of justice and human rights since Apartheid; this country's terrible heritage. For more than half a century, the Apartheid government ignored the disapproval of the United Nations, dismissing calls for native emancipation as communist propaganda (Sarkin: 1998: 628).

Unfortunately, a substantial portion of the blame can be placed on the justice system. Human rights were violated since people were often arrested for breaking laws that were prejudicial to begin with and, moreover, they were imprisoned for long periods without trial. The Number Four Jail and the Women's Jail, now converted into museums located at Constitutional Hill, Johannesburg, lay tribute to the barbarism and violence suffered by prisoners serving detention there during Apartheid (Nkosi: 2009).

A culture of human rights simply could not develop during Apartheid South Africa. The continued degradation and intolerance suffered by non-white South Africans from the early 1900s until the first elections in 1994 has meant that

the country has faced a pressing need to foster a culture of human rights and readdress the justice system (Sarkin: 1998: 628).



*Fig. 2.2 Exert from Number Four Jail Exhibition (Constitutional Hill Exhibition)*

“Strip!”

We took off our clothes and stood stark naked in the yard... The warders mocked us for the nakedness they had ordered.

“Tausa!”

We refused, we had seen other prisoners doing the tausa and we were not going to do it. The naked person leapt in the air, spinning around and opening his legs wide while clapping his hands overhead, and then in the same moment, coming down, making clicking sounds with the mouth and bending his body right forward as to expose his rectum to the warders inspection.”

Indres Naidoo – Political Prisoner 1963

This image was secretly taken in 1954 from the rooftop of an adjacent building to the notorious Number Four Jail by Bob Gosani, a journalist from Drum Magazine.”

## The Have and the Have-nots: Bridging the Divide

It has been 15 years since the official termination of Apartheid and it still remains crucial, now more than ever, that South Africans strive to implement and maintain legal establishments that serve the purpose of providing equitable access to justice.

Sadly, distinctions that separated South African communities according to colour, race and creed during Apartheid now do so along economic lines (Stevens: 2006: 73). Although South Africa is an upper-middle income country, most South Africans continue to live well below the poverty line as defined by the United Nations Development Programme (UNDP). The distribution of wealth between the rich and the poor is one of the most unequal in the world and while not confined to any particular race group, poverty is concentrated within black communities. 61 percent of black South Africans and 38 percent of coloured South Africans are considered below the poverty line compared to five percent of South Africans of Asian heritage and only one percent of white South Africans (Stevens: 2006: 75). Even more alarming, the average income in black South African households fell by 19 percent between the years 1995-2000, implying that black communities were better off financially during the apartheid years! Conversely, the average income in white households rose by 15 percent. (Stevens: 2006:75).

The implication of this is that the same communities that were victims in the past continue to fall prey to economic injustices today, clearly giving credence to the effects of Apartheid in South Africa. In terms of the justice system, it is very likely that the poorest in any community are often the most vulnerable because of their lack of awareness of their rights and pending this, a lack of knowledge on how to

obtain those rights once they are aware of them and further, a lack of financial resources to ensure that these rights are protected and/or enforced.

In spite of this, all citizens of South Africa have access to free legal assistance via the Legal Aid Board, which in turn has cooperation agreements with various universities that have law clinics situated on their respective campuses. The criterion for accessing such legal assistance is that the aggrieved person earns less than R2 000 per month (Brand South Africa: 2008). Prescribing the threshold at R2 000 gives rise to a rather interesting dilemma. It simply means that lacking the exercise of any discretion by representatives at the Legal Aid Board, members of the public earning a salary in excess of R2 000 are simply prevented from accessing the Legal Aid Board, notwithstanding the fact that the cost of suitably qualified legal representation outside of the Legal Aid Board in many if not all instances results in legal fees well over R2 000 per matter. On the other hand, by increasing the threshold, for instance to R5 000, one inevitably opens the floodgates to an already saturated and over-exhausted resource. The solution to this dilemma is certainly one for the policy makers.

During a poll held by the Legal Aid Board between October 2006 and April 2009 which consisted of 175 people, public perception of the Legal Aid Board were analyzed with the following results: (See Fig. 2.3)

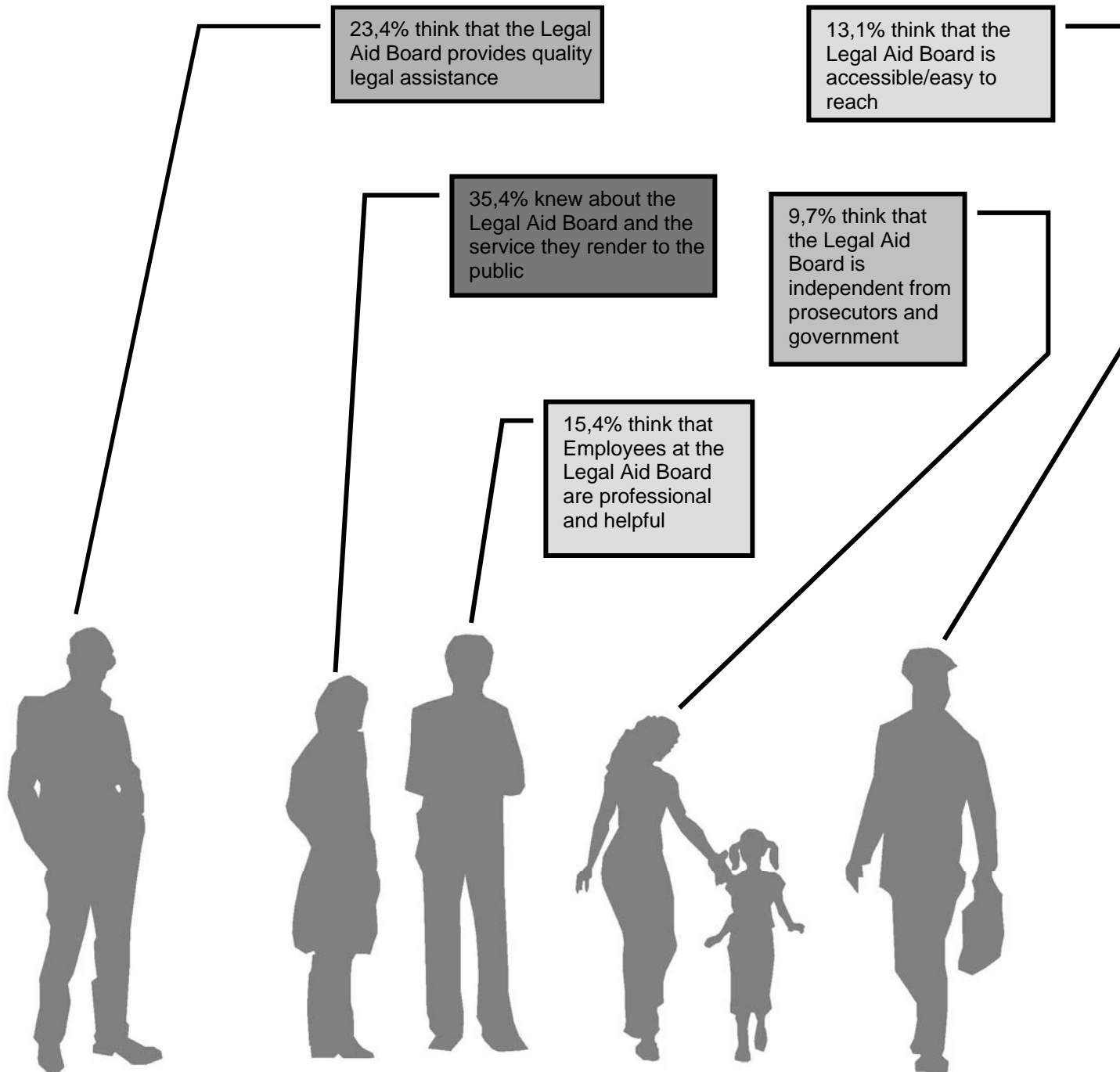


Fig. 2.3: Poll by the Legal Aid Board



The public perception of the Legal Aid Board in South Africa is unenthusiastic. Too few people seem to be aware of the organization while the ratings given to the service are extremely poor. The negative perceptions with regards to the Legal Aid Board are some what understandable given the multitude of people that cannot afford legal representation versus the scant resources available to the Legal Aid Board to assist these very people. The issues raised need to be addressed if South Africa is going to bring about social change and ultimately, provide access to the justice system in this country.

Other non-governmental, non-profit organizations include Legal Resources Centres, located in Johannesburg, Durban, Cape Town and Grahamstown; the Community Law Centre, which is a law clinic at the University of the Western Cape; and Lawyers for Human Rights, which currently has a branch working in conjunction with the Law Clinic at the University of Pretoria. Lawyers for Human Rights and the Law Clinics at the University of Pretoria's Hatfield, Mamelodi and Hammanskraal campuses are the only organizations that service the Tshwane district. Although it seems that there are multiple legal aid centres available, it must be noted that these centres are unable to handle the number of people seeking legal assistance and there are many who have been declined because of staff being unable to deal with the sheer number of cases. (Haupt:2008) For the past few years the Law Clinic at the University of Pretoria has handled more than 2000 cases per year, (The University of Pretoria: 2008) for those turned away, there is no alternative because they cannot afford private legal assistance.

## **2.3 Social implications of Inaccessibility to Legal Assistance**

The negative social issues of post-Apartheid South Africa are well documented in the media. One in four South African men admit to having raped a women and vigilante groups are notorious in the poorer townships as the police are considered ineffective in apprehending criminals (Guest: 2004: 226). Last year, the world watched their television sets in disbelief as horrific images of Xenophobia attacks in South Africa's poor townships appeared on their screens. According to Interpol, South Africa's current crime rate is unacceptably high, however, between 1994 and 2004, the number of murders per 100 000 of the population decreased by 37%, the rate of vehicle thefts by 30%, the rate of carjacking (between 1998 and 2004) by 29% and the number of attempted murders by 23%. Aggravated robbery has increased by 32% (Macdonald: 2005).

An article published by the Harvard School of Public Health argues that using what it terms 'social justice' and increased implementation of basic human rights in South Africa will prevent the scourge of violence that the country faces as a result of inequality. It perceives that communities are products of their environment, and service delivery methods in South Africa are based on international models for higher income countries. It proposes that models centred on 'social justice' need to be re-thought for South African conditions. Social justices include, among others, access to adequate health care, education and most apt for our purposes, legal assistance (Stevens: 2002: 205-211).

Therefore, facilities such as the Law Clinic (obviously not in isolation) contribute towards reducing the overall crime rate because they provide a forum whereby aggrieved people can voice their complaints. To this end, not only does the Law Clinic provide access to justice, it also serves as an active crime-fighting institution, making its existence a much welcomed one in South Africa.

## 2.4 Case Study

***“Rape case postponed 21 times  
15/04/2009 10:00 - (SA)***

***Johannesburg - A woman who was allegedly gang-raped while pregnant had her case postponed for the 21st time by the High Court in Johannesburg, The Times reported on Wednesday.***

***The woman, called Buyisiwe by gender activists, had her case postponed during Tuesday’s court appearance because one of the defense lawyers turned out to be the first cousin of one of the accused.***

***Spokesperson for the 1-in-9 campaign Carrie Shelver was quoted as saying: “I’m speechless. The docket went missing. Her statement and the tapes and transcripts also disappeared.”***

***Buyisiwe was gang-raped in 2005, allegedly by eight men who broke into her house in Tembisa. The men allegedly also paraded her in the street naked before raping her again next to a pit toilet.***

***The case had been moved forward to April 14 following protests by a women’s anti-sexual abuse coalition***

***group against the original July 27 trial date. The trial continues on Friday, April 17.”***

**(SAPA: 2009)**



Fig. 2.4: Poster advertising for 16 Days of Activism

Circumstances such as these, where administration is disorganised and the experience unbearable for the victims, are so common that one is hard pressed to find such articles reported in the print media. These violations have become so commonplace that one can speculate that they are no longer deemed newsworthy. But, it is in these kinds of circumstances that institutions such as the Law Clinic prove to be crucial, because without organizations like the Law Clinic, the danger is that Buyisiwe and others like her will choose to relinquish her need for justice because of their justified lack of confidence in the system used to achieve it. In cases such as Buyisiwe’s, the existence of the Law Clinic serves as a much needed support base and a sense of reassurance in anticipation of a long and sometimes traumatic litigious ordeal.

## 2.5 Effect of Analysis on Design

During Apartheid, legal official buildings were usually intimidating places; not only architecturally, but because of the injustices housed inside of them. At best, non-whites were treated with contempt and at worst, with violence. People would have entered with trepidation, not knowing what they would be greeted with, and would have been prepared to grovel. In the true spirit of transformation, the Law Annexe's architecture should:

- seek to embody the opposite of these sentiments. There should be little mystery to its inhabitants or its workings;
- the entrance should be fresh, light and airy to dispel all anxiety;
- the building should aim to increase both physical and perceived accessibility. This may be achieved by removing the excessive thresholds that clients have to pass to access the building at present;
- the building should also be as visible as possible from the public realm;
- the architecture of the Law Annexe should strive in its layout to break down the 'us' and them' mentality that seems to exist between employees of the Legal Aid Board and clients;
- the functions of the building should be visible to the clients so that employees are 'humanized' in their perception; and
- furthermore, the building should facilitate an environment of respect and organization, for example by creating dignified places for clients to wait (which they do not have at present) and catering for adequate facilities wherein staff may provide assistance to their clients.

# 3

## **Context and Site Analysis**

- 3.1 The Hatfield Metropolitan Framework
- 3.2 Site Analysis
- 3.3 The Law Precinct at the University of Pretoria
- 3.4 The Impact of Surrounding Buildings on Site
- 3.5 Conclusions

The site falls within the Law Faculty precinct on the northeast boundary of the University of Pretoria's Hatfield Campus. At present, the Law Faculty precinct consists of two buildings: the main Law Faculty Building and the Law Clinic. This chapter explores the site in relation to these two buildings in particular and the existing framework planned for the area created by the Pretoria Municipality, namely the Hatfield Metropolitan Core Urban Framework, City of Tshwane Metropolitan Municipality in 14 August 2007<sup>1</sup>. The development concept presented by the Metropolitan Council illustrates a plan for Hatfield centred on the Gautrain station and creating activity spines and links to nodes within the area.

The main roads through Hatfield are north-south via Duncan Road and University Road and east-west via Burnette Street, Pretorius Street, Schoeman Street and Church Street. The remaining streets are suburban. Burnette Street and North Campus remain the pedestrian nodes of the area.

### 3.1 The Hatfield Metropolitan Framework

Figure 3.1 demarcates the study area of the Hatfield Framework in relation to the University. Figure 3.2 has been adapted according to the authors understanding of the Hatfield Framework. It represents plans for an increased density and vibrancy in the Hatfield area reminiscent of the city's CBD. North-east to the Campus is a demarcation of an area termed 'the hub', the central point of activity and interest within the Hatfield Framework. The

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<sup>1</sup> The Hatfield Metropolitan Core Urban Framework, City of Tshwane Metropolitan Municipality, 14 August 2007 will hereinafter be referred to as 'the Hatfield Framework'.

site for the Law Annexe is situated on the edge of the Campus at the point that interfaces with this section.



Fig. 3. 0: Hatfield Square



Fig. 3. 00: Burnett Street Scene



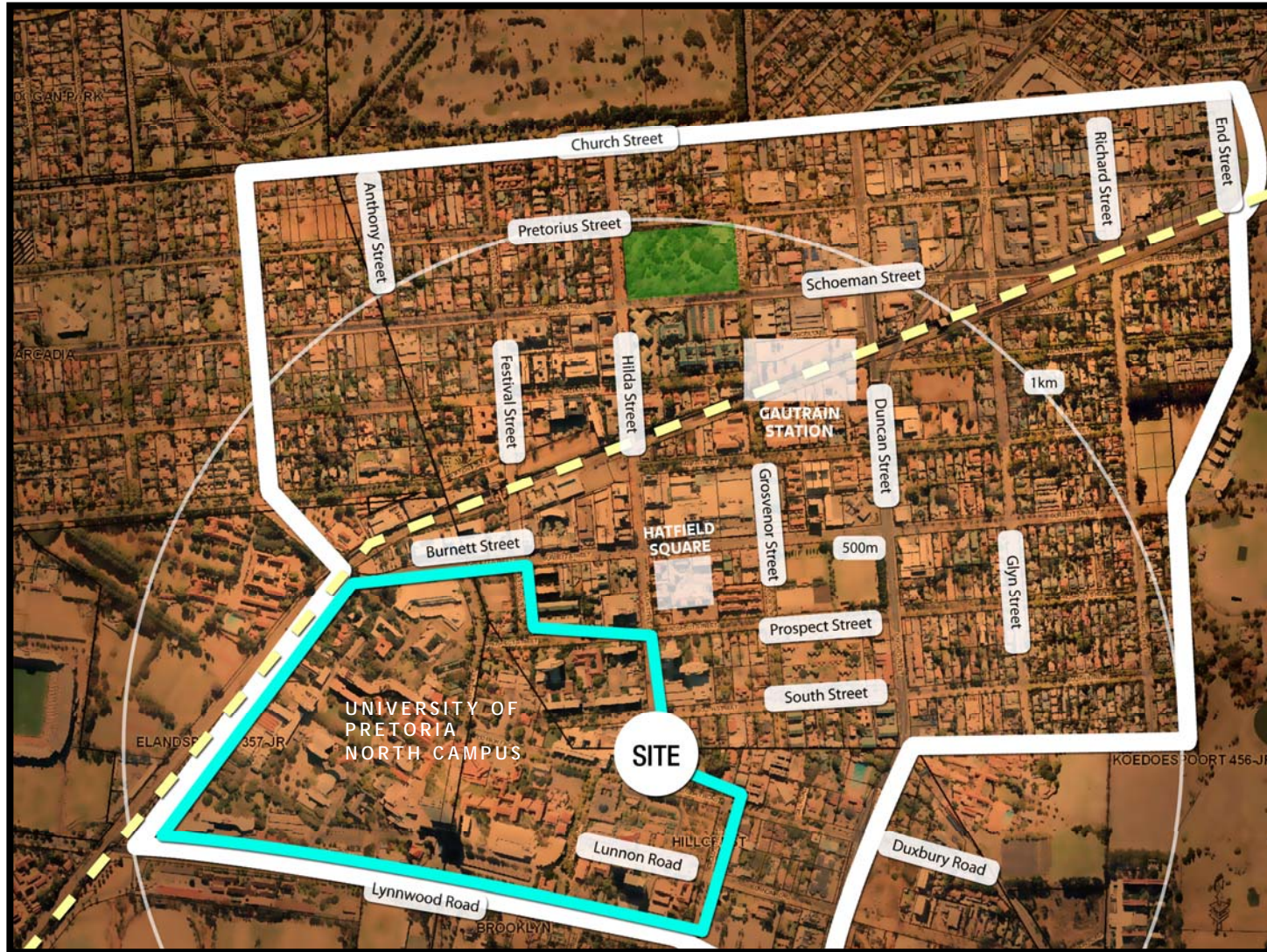


Fig. 3.1 Hatfield Metropolitan Core Urban Framework Study Area





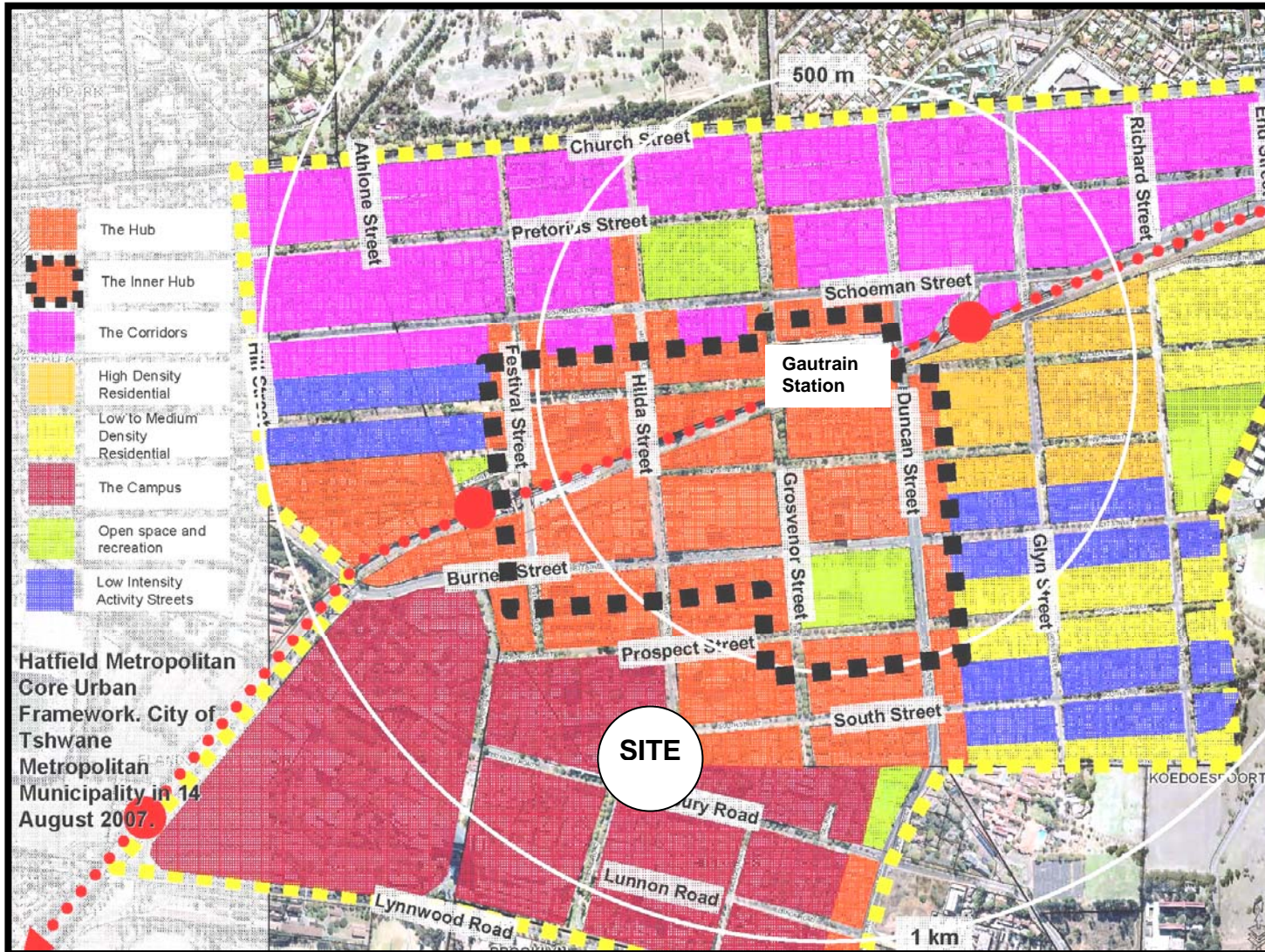


Fig. 3.2: The Hatfield Framework (Adapted from the Hatfield Metropolitan Core Urban Framework)



### 3.2 Site Analysis

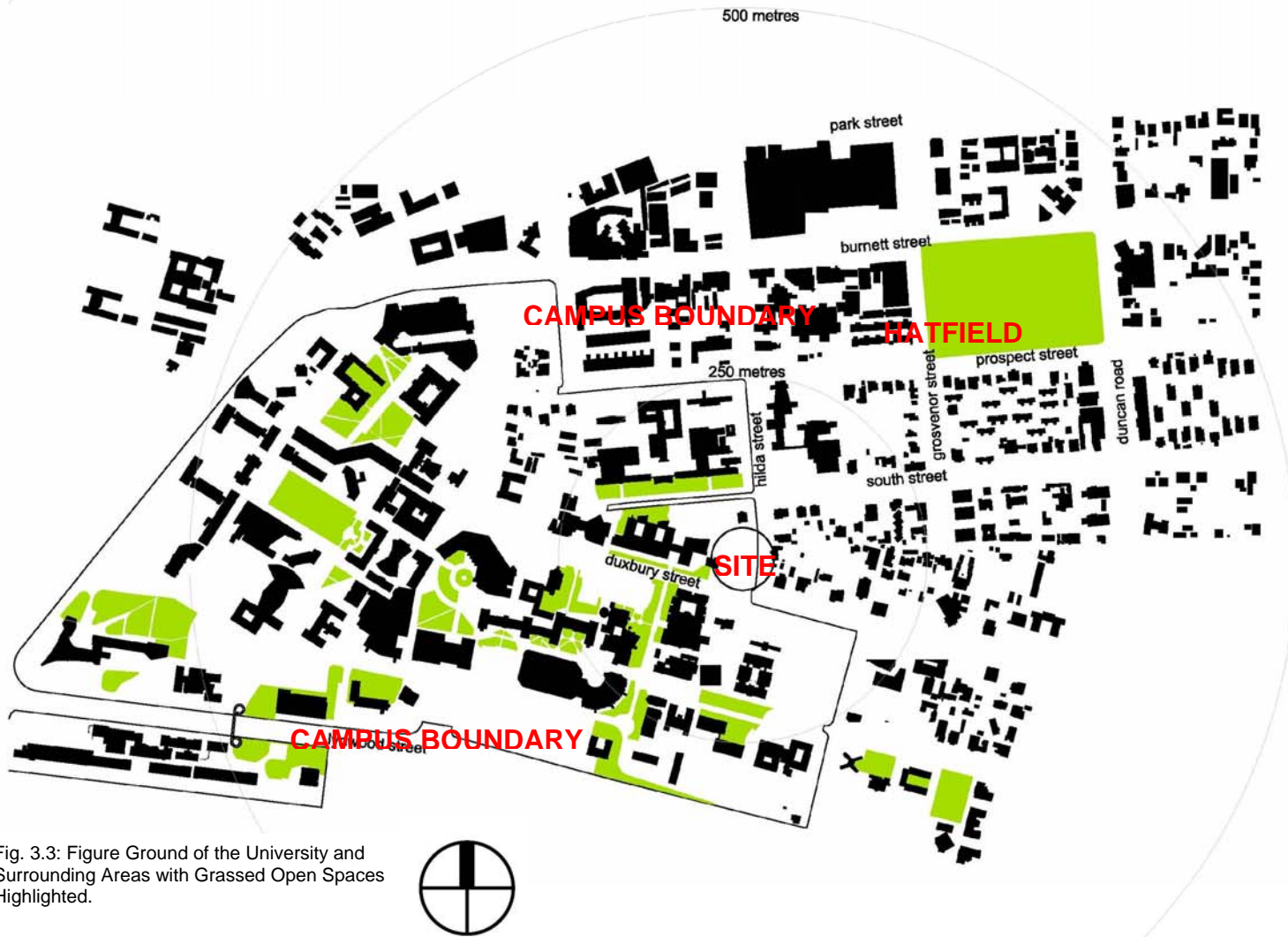


Fig. 3.3: Figure Ground of the University and Surrounding Areas with Grassed Open Spaces Highlighted.



Figure 3.4 depicts the conflict between important streets in the Hatfield Framework and the poor street edge around the Campus boundary. The boundary of the Campus is surrounded by a 2 m high steel palisade fence and a string of cars as there is not enough parking on the Campus to accommodate all of the student's cars. This issue will be partially resolved by the Rapid Bus Transport System planned into the Hatfield Framework (Hatfield Metropolitan Core Urban Framework: 2007). The busy nodes are located deep within the Campus boundary; therefore the public is not aware of much of the activity on the Campus.



**KEY:**






-  Busy Nodes Within Campus Boundary
-  Hatfield Framework
-  Heavy Vehicular Movement
-  Conflict between Campus Edge and Hatfield Framework
-  Poor Street Edge

Fig. 3.4: Conflict between the Poor Campus Edge and the Hatfield Framework



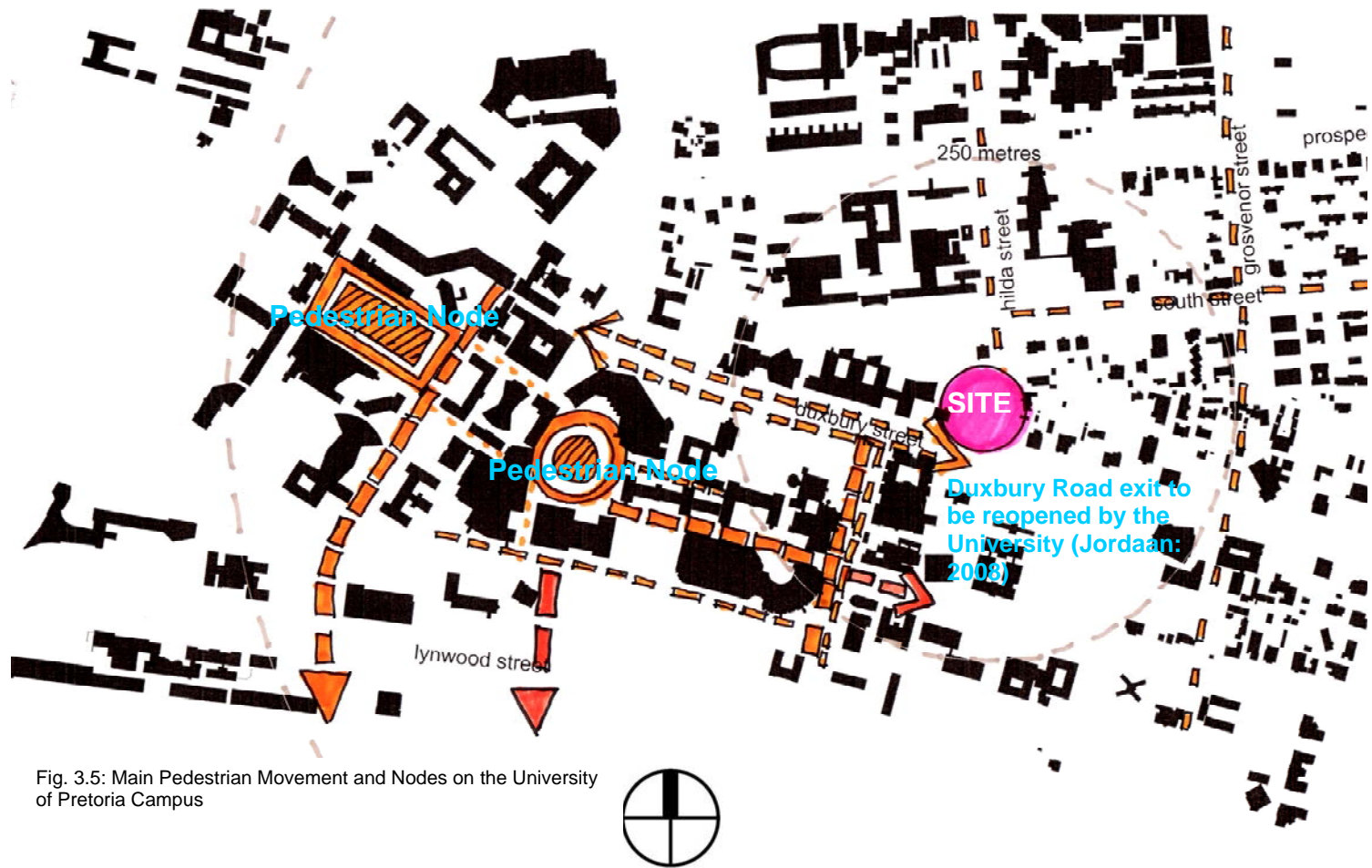


Fig. 3.5: Main Pedestrian Movement and Nodes on the University of Pretoria Campus



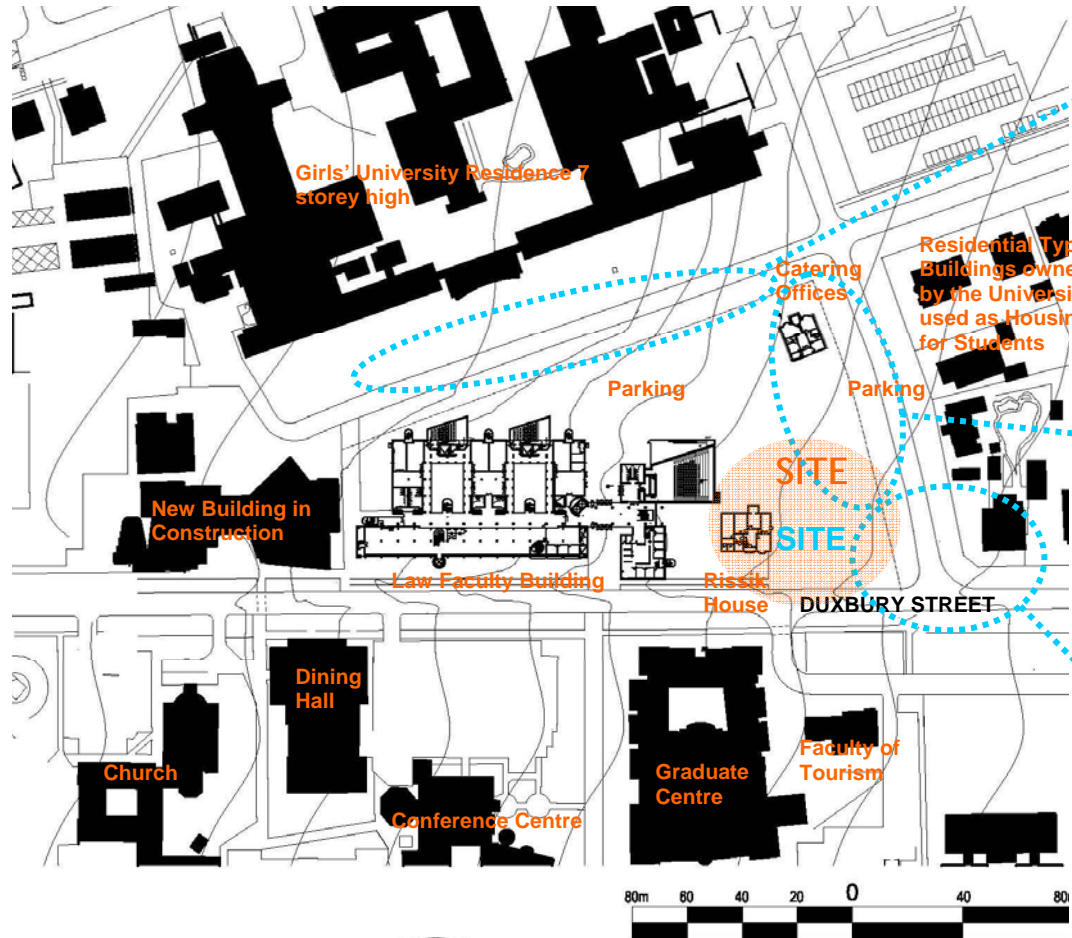


Fig. 3.6: Existing Site



Fig 3.7(a): View of north boundary of the site



Fig 3.7(b): View of parking lot on the east boundary of the site



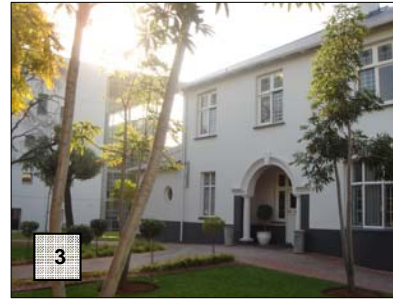
Fig 3.7(c): View of the Duxbury Street entrance which is intended to be reopened by the University



1  
Law Faculty Building



2  
Girls' Residence



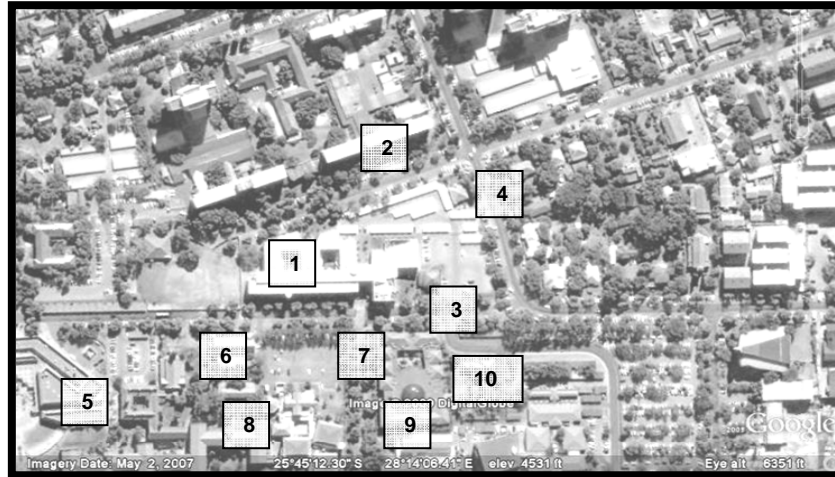
3  
Rissik House



4  
House used as Catering Offices



5  
Chapel



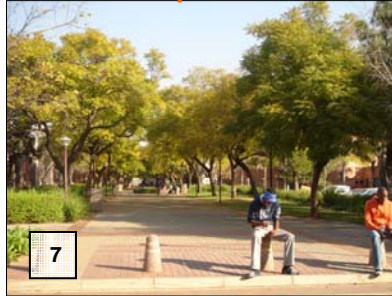
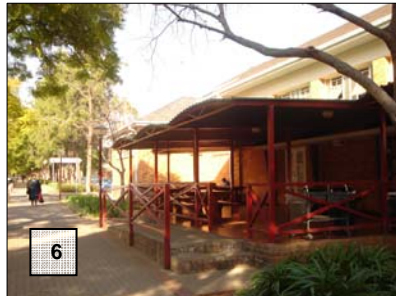
6  
Pedestrian Axis to South of Campus

8  
Conference Centre



10  
Faculty of Tourism

6  
Dining Hall



9  
Graduation Centre



Fig. 3.8: Surrounding Buildings



### 3.3 The Law Precinct at the University of Pretoria: Rissik House

At present, the Law Faculty precinct on the Campus consists of two buildings: the main Law Faculty Building and the Law Clinic located in Rissik House. In deciding on the location of the extension to these existing buildings, accessibility for the main users is a crucial factor; namely, these are students, lecturers, attorneys and clients. The IICL must be situated near the Law Faculty Building so that facilities such as the library and lecture rooms can be shared. Furthermore, it would be inconvenient for students and lecturers working at the Law Clinic to have to travel to another location to meet clients. Unfortunately, the legacy of Apartheid has meant that it is likely that the neediest of clients are often located in townships far flung from the city centre.

The Law Clinic is located close to the Law Faculty Building in a heritage building originally built by Johann Frederick Rissik and dates back to 1903 (University of Pretoria: 2005:18). Although the house has heritage status, it is considered of

little value historically and to the University. Unfortunately, the demands of the Law Clinic and former functions accommodated in the building have meant the repeated division and alteration of the interior and part of the exterior, which damaged some of the original characteristics of the house.

The alterations are reversible from a conservation perspective; however the house simply cannot accommodate the function of the Law Clinic in terms of its size, waiting areas and privacy requirements. Storage rooms within the main Law Faculty Building are currently being utilized as additional office space and consultation rooms, but they suffer from poor lighting and ventilation, making them uncomfortable for the users. The archives are located in the ground floor toilet because of a lack of any alternative. Moreover, many of the clients coming to visit the Law Clinic spill out onto the University's gardens outside the entrance of the building for many hours while they are waiting for their appointments. This arrangement is uncomfortable for the clients and Professor Haupt (2008), the director of the Law Clinic explains that while everyone has a right to seek assistance, not all of their



Fig. 3.9: Rissik House  
(photographs by author, March 2008)

clients are in fact innocent . A formalized waiting and reception area would help to negate the vulnerability the University perceives while still allowing the Law Clinic to run its sessions.

The Law Clinic has been doing commendable work for the past 28 years and has “made the law and the legal system accessible to thousands of our citizens who would otherwise have been excluded from equitable justice.” (University of Pretoria: 2005: 18). Unfortunately, since the end of Apartheid, the Law Clinic’s success has been marginalized and it remains one of the University’s unsung heroes. Furthermore, the existing location of the Law Clinic is within the University boundary and as a result, its accessibility to the public is compromised.

## The Law Faculty Building

The Law Faculty Building at the University of Pretoria was the winning entry of a design competition held by the University. The building is located on the northeast boundary of the campus where it effectively encloses what

was previously an anti-climatic edge of the Campus. (SAIA: 2006)

The main entrance is located on the southern façade at the end of a long tree-lined pedestrian axis, reminiscent of the monumental buildings analyzed in the precedent studies of this dissertation (c.f. Chapter 5). However, this confrontational entrance is where the similarity ends. The forthright entrance is softened by the lightness and delicacy of the glass planes that dominate most of the southern façade, giving clear views into the library in a symbolic gesture of openness (Fig. 3.10 (b)). Themes of *gravitas* and transparency surrounding the law are represented in the architectural language on much of the exterior façades, where there is juxtaposition on levels of visibility and weightiness between the carefully punctured walls and glazing. Throughout the building the structure and services, such as the air-conditioning conduits, remain exposed, giving a further indication of underlying concepts of transparency and honesty (Fig. 3.10 (c)).

Furthermore, the clear logical layout of the building helps a first time user to orientate themselves quickly and easily.



Fig 3.10 (a): Courtyard in Law Faculty Building



Fig 3.10 (b): South Entrance to Law Faculty Building



Fig 3.10 (c): Expression of Structure in the Law Faculty Building in the Circulation Spine

Access to all the spaces are off an east-west circulation spine that also connects to two internal courtyards (Fig. 3.10(c)).

The courtyards are successful social spaces and form welcome protected retreat areas in a building where many areas are exposed due to the south-facing glazed façades (Fig. 3.10(a)). Therefore, the building has a balance between extroverted and introverted spaces.

The building is striking and meticulously detailed; its aesthetic and quality correspond to international buildings as it relates to the world on a global rather than local dimension. However, at times, the extensive use of unprotected glazing on the north side of the multiple volume entrance (perhaps more appropriate in northern climates) makes it uncomfortable, especially in the upper levels of the space (Fig 3.10(b)). Furthermore, it seems there is less sensitivity to human scale on the north side than on the south as the sheer white walls and geometric forms tend to feel overwhelming from this façade (Fig. 3.13).

Most interestingly, the building embodies certain ideologies of law in contemporary South Africa. It personifies the qualities and ethics that law should (ideally) strive for, especially in this country that has survived an intense struggle for democracy and equality before the law. As discussed, the Law Faculty Building is juxtaposed with buildings such as the new Constitutional Court in Johannesburg that seeks to represent elements of our country's history and the present day founding principles of our constitution. Both of these buildings signify a departure from the use of monumentality in legal architecture and are products of the evolution of legal history and ideologies in the country.



Fig. 3.11: The Library located on the light glazed south side of the building



Fig. 3.13: The North Façade is more solid than the south with sheer white carefully punctured walls



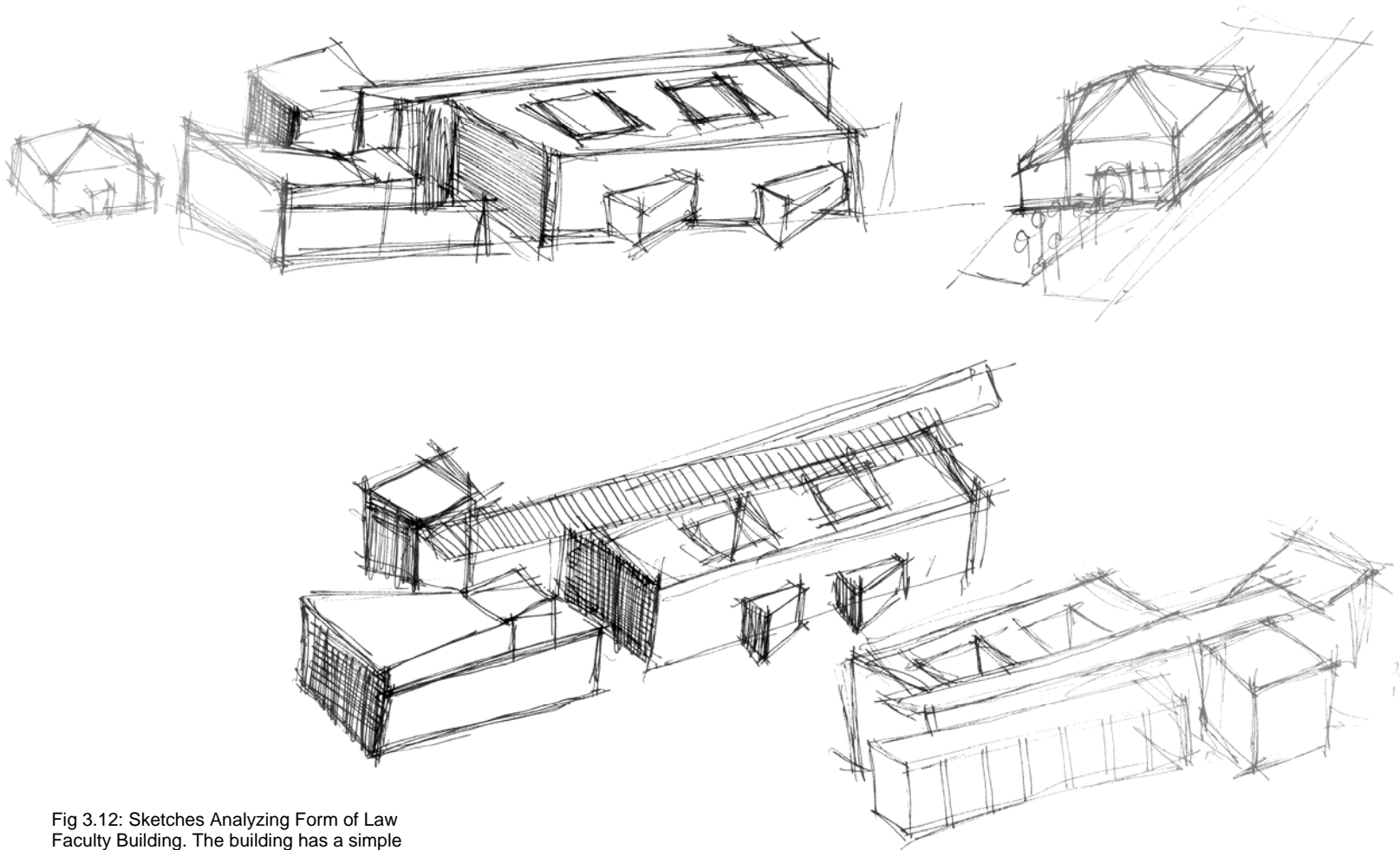


Fig 3.12: Sketches Analyzing Form of Law Faculty Building. The building has a simple 'base' shape with dramatic protrusions pertaining to function expressed on the façade.

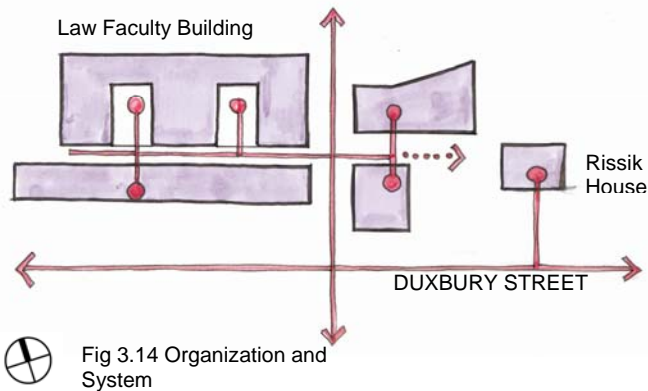


Fig 3.14 Organization and System

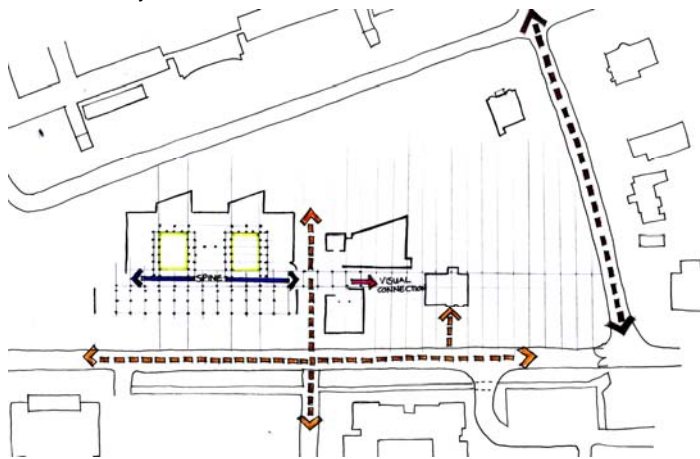


Fig 3.15 Rhythm and Relationships

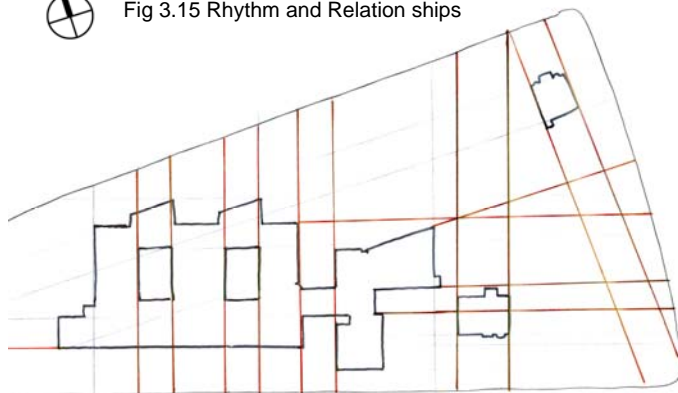


Fig 3.16 Impact of 'Lines' Continued from Existing Buildings on Site.

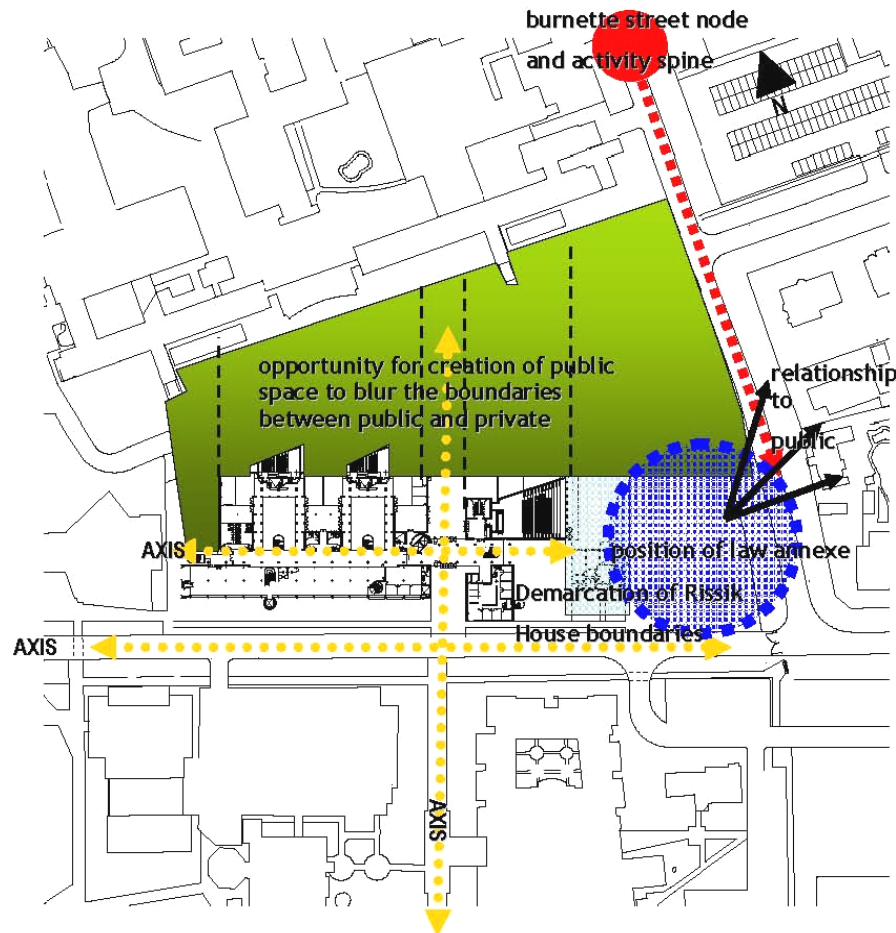
### 3.4 Impact of Surrounding Buildings on Site

Systematically, the Law Faculty Building is centered on the axes shown in figure 3.14. The building on one level terminates the north/south axis created by a pedestrian avenue, but also seems to suggest the continuation of the axis beyond the building. The north side is dominated by parking and an obtrusive fence that surrounds the entire campus. The building relates to a secondary east/west axis that runs along Duxbury Street leading to a soon to be opened entrance into the campus. It is this axis that links the Law Faculty Building to Rissik House. Within the building there is a strongly defined circulation spine that leads the inhabitant to the courtyards and other nodule-like elements. There is a distinct visual connection between the main building and Rissik House from the circulation spine.

Figure 3.15 illustrates the rhythm created by the repeated use of colonnades and courtyards within the building as a possible means of continuation for the extension.

Figure 3.16 is a study revealing the impact of extending lines off the buildings on the site. It provides an indication of the placement of the new extension. The building on the far north-east of the site is a remnant of a row of houses that used to exist before the development of the Law Faculty Building. Originally these buildings related to the street edge, and therefore, the lecture rooms, because of their shape, which relates strongly to this building. The east/west lines from the remaining house are interesting because they mark a former element or historic layer that physically does not exist anymore.

Law Faculty Building seems to command the area directly north of it as a forecourt to the building because of its stature and size. Similarly, Rissik House appears to covet the area immediately north and south of it in a manner remnant of its front and back yard.



### 3.5 Conclusions:

- The need for a forecourt on the northern section of the Law Faculty Building
- The definition of the area around Rissik house
- Either the termination or continuation of the axis created within Law Faculty Building and the University grounds
- The need to link the Campus to the Hatfield Metropolitan framework and public realm
- The possible continuation of the system of courtyards set up by the Law Faculty building
- To increase the accessibility of the Law Clinic to the community



Fig. 3.17 Conclusions Derived from Site Analysis

# 4

## **Theoretical Enquiry**

- 4.1 The Creation of Stimulating and Effective Work and Study Spaces
- 4.2 Diminishing Hierarchies
- 4.3 Accessibility and Power
- 4.4 Urban Space Philosophy

This chapter investigates the work of three theorists with the aim of developing a theoretical framework for the design of the Law Annexe. Firstly, it outlines the conjecture of Francis Duffy (1997) as a means to capitalize on human interaction and efficiency within and in the context of designing the Law Annexe and, therefore, the exchange of knowledge and ideas that the inhabitants of the Law Annexe necessitate. Secondly, it explores the complex processes and power struggles in buildings through the theories of Leslie Kanés Weisman (1992). Lastly, it seeks to apply the theories of Jane Jacobs (1963) to the precinct around the Law Annexe.

## **4.1 The Creation of Stimulating and Effective Work and Study Spaces**

As indicated, the Law Annexe accommodates two different facets of the law within its walls: the Law Clinic and the IICL. The former is essentially a law firm with the additional function of apprenticeship for undergraduate students in what is essentially their first experience of working in an office. The latter function, the IICL is comprised of postgraduate masters students who for the most part will be returning from the workplace to attend university. Consequently, the Law Annexe will essentially be conceptualized as an office building in its design and rationale.

All of the staff in both faculties, except for the two directors, are to varying degrees transient staff who spend the majority of their time elsewhere, locally and

internationally. The attorneys working in the Law Clinic work at other firms on specific days of the week because the cases at the Law Clinic are pro bono and their employment there is voluntary. Moreover, the staff at the IICL are either esteemed judges or visiting professors that the Law Faculty invites to present lectures for predetermined periods. The undergraduate students working at the Law Clinic are also transient as they spend the majority of their time in the main Law Faculty Building and groups of the class will utilise the building in shifts. The postgraduate students are either studying part time or full time, therefore only a portion of them will set up a permanent workstation at the IICL for a period of one year.

Both facilities exist as a place of intense exchange of knowledge and experience between students, lecturers and colleagues. The design of the Law Annexe therefore has the primary function of efficiently promoting and maximising the exchange of knowledge between the users of the building, as there are relatively short windows of time that any one person has access to another.

Attitudes towards working in offices are changing because of global economic pressure, the need for less office space and advances in information technology. In the present day, in most offices, it is no longer necessary for one person to inhabit one desk from nine until five every day. Work has become more interactive and less repetitive and staff want to be able to choose where and when to work depending on what work they are doing and which place best facilitates it (Duffy: 1997: 08). Office



workspace such as at the Law Annexe needs to be flexible to the shift in workplace thinking and dynamics or it will adversely affect the efficiency and productivity of the inhabitants.

Behaviours and ways of working have been transformed in recent years in the office environment. The nature of the work at the Law Annexe is at times intense; requiring quiet space to work, read and at times the work is interactive; requiring groups of people to be able to participate in discussions (Fig. 4.1 and Fig. 4.2). It is impossible to design a single space for both these requirements of workspace because of the irritation that a discussion between some members could cause to the quiet time of others. The only alternative is to zone the layout of the workspace into quiet work and discussion areas (Duffy: 1997: 236). Zoning allows the inhabitants of the building to decide where the most appropriate place to execute the task at hand is. They are consequently able to choose their work environment in a way that will accomplish their task faster and more effectively (Duffy: 1997: 235).



Fig. 4.1: Zoned Space for Group Work

Similarly, poor architectural design can undermine life in the building in a number of ways. The space can become either too large or too small for the work through the years or become expensive to operate. Internal subdivision and fragmentation of spaces can discourage personal communication or the design can overvalue the status of certain members of staff causing a negative atmosphere of hierarchy for inhabitants. Most importantly, architectural imagery reinforces the values of organizations and the people that work for them, therefore, attention has to be paid to the ethos of the organization when conceptualizing the design of the spaces (Duffy: 1997:09).

Buildings such as the Law Annexe that require areas that facilitate group discussion need superior areas of group interaction than those which office buildings usually provide for their inhabitants. Not only should there be more areas for team and group activities, display and video conferencing facilities should be designed into the architectural space (Duffy: 1997: 235).



Fig. 4.2: Zoned Space for Quiet Work

Similarly, interface between inhabitants should be encouraged simply by using generous circulation spaces. Developers generally tend to minimise circulation such as passages and lobby areas because they do not provide for a rentable income. Although it is prudent not to create large, overly glamorous spaces, the Law Annexe's primary function is to efficiently promote and maximise the exchange of knowledge between the users of the building and, therefore, places for serendipitous meetings and conversation need to be designed into the space (Fig. 4.3) (Duffy: 1997: 236).



Fig. 4.3: Stimulating Interaction

## 4.2 Diminishing Hierarchies

The design of the Law Annexe must aim to increase both physical and perceived accessibility because of the considered socio-political context of South Africa (c.f. Chapter 2). This was discussed previously with regards to the relationship between the attorney or law student and the client at the Law Clinic. Duffy emphasizes the risk of reinforcing barriers and hierarchies using architectural form with regards to the pecking order in the office. This is not to say that there should be no hierarchy, but gratuitous importance should not be given to individuals through privileges of furniture, office décor or office size. Architecture that reinforces barriers results in the building's inhabitants perceiving themselves as being disconnected from each other. Interaction should be expressed through fluidity in the layout of the office and the design of spaces (Duffy: 1997: 238).

## 4.3 Accessibility and Power

Invariably there are roles and hierarchies of social power attached to all users of any public building. Many public buildings discriminate against certain groups of people by segregating or limiting them to particular spaces within the building where they are subordinate (Weisman: 1992: 35). This kind of discrimination was obvious in architecture during Apartheid when there were different entrances to buildings for black and white people, but today it has become more difficult to perceive, possibly because the

rigidity that dictates the social ordering in buildings has become an acceptable norm.

Law firms, for example, are by their nature intimidating places. Well-established law firms such as Edward Nathan Sonnenburgs or Werkmans located in Sandton City, Johannesburg, have large overwhelming entrances, but as you enter these buildings, they do not disclose what is inside the rest of the building. Therefore, although these entrances are large, they are not open and welcoming.

When a client has come to consult with a lawyer, they are led to a plush, air-conditioned room to wait, where after a few minutes a well-groomed man or woman will come in and formally introduce themselves as their lawyer. There is a hierarchy set up because the lawyer is privy to deeply personal issues, but the client is not knowledgeable about the lawyer; the room in which they meet is not personally allocated to the lawyer so that deductions can be made about the sort of person the client is dealing with. The persona of the human being and building alike is carefully manipulated to create a certain image that is often misguidedly referred to as professionalism. In reality, the building, the interiors and the etiquette of the lawyer result in a detachment and loss of interaction on levels that could have been mutually beneficial to both the lawyer and the client.

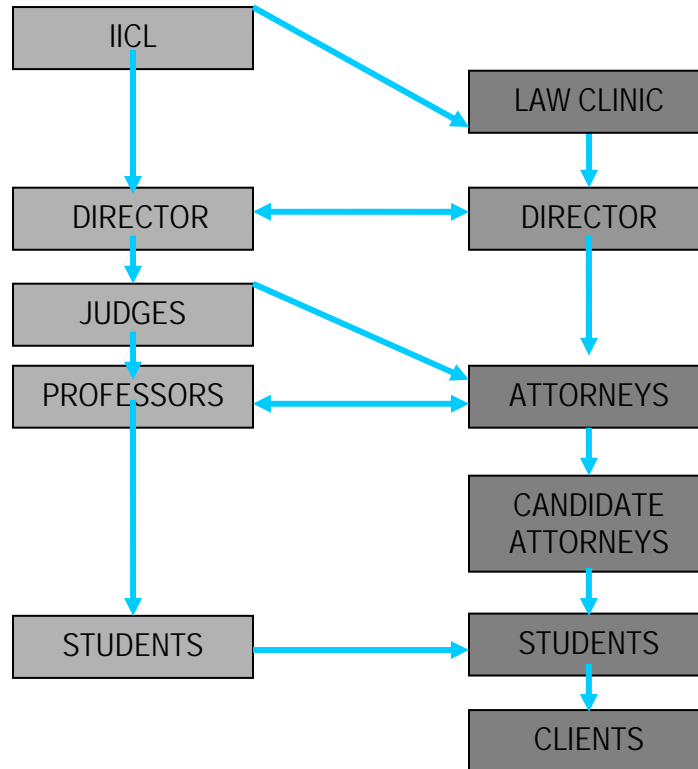
Weisman (1992: 37-8) writes that if people become aware of the social dimensions of architecture, they can begin to critically evaluate and revolutionize buildings to allow for more inclusive designs. In an office, the level of privacy is often an indication of the status and power of the member

of staff. Often executives are concealed firstly behind a lobby, then a receptionist and finally, a personal secretary. Protocol requires that permission is granted before one enters a director's office; however the director is free to walk into a subordinate's office anytime. Similarly, employee's access to the best positions in the building, for example, the best natural light or access to pleasant courtyards, is related to their status in the company.

Accessibility of public buildings can be evaluated on how easy it is for an inhabitant to use the building. Access for people with disabilities has been enshrined in South Africa's constitution, but details such as the height of buttons in an elevator or the gradient of ramps are often overlooked.

The design of the Law Annexe should encompass these ideas of accessibility and refrain from setting up power relationships between clients and lawyers, students and professors, directors and employees, and of course, the two facets of the law. Common ground needs to be found through the organization of spaces between the people who would traditionally be the most important people in the building and the people who are usually dismissed.

Fig. 4.4: Expected Hierarchy at the Law Annexe:



## 4.4 Urban Space Philosophy

The Site Analysis suggests the formation of an urban square on the northeast boundary of the University between the Law Faculty Building and the student residence. Jane Jacobs's (1963) approach to urban design methodology was analyzed and used in the context of designing the urban edge between the University and the public realm of Hatfield. The following is a synopsis of the criteria that was extracted from her writing and applied to the project.

### Cities as Generators of Diversity

Cities are natural generators of diversity; they need variety to support mixed-use environments. This is important to avoid the monotony and dullness that plagues many suburban areas. The area surrounding the northeast boundary of the University is diverse in use, but is nonetheless, lifeless at certain times. Mixed use is needed not only because of convenience for the inhabitants in the area, but also public safety – that there is always someone using the functions at any given time. Jacobs (1963: 144) writes that a mixture of uses needs a diversity of ingredients to sustain it. The following criteria will be applied to the creation of a public square and threshold to the University.

1. The district must perform more than one primary function, preferably more than two. This must ensure that users of the space inhabit it at different times and for different purposes but be able to use

the facilities provided in common' (Jacobs: 1962: 178-182).

2. Smaller blocks must be created in the urban fabric. Entrances and thoroughfares must be frequent. This encourages permeability and vigilance of the area, thereby neutralising the University's security concerns. Additionally, they encourage staff, students and other inhabitants of the University to walk along routes that he or she feels an ownership towards rather than walking all the way around the block and feeling disconnected to the unfamiliar people there (Jacobs: 1962: 178-182).
3. There must be a sufficiently dense concentration of people using the space, including people who live and work there. There is a link between the concentration of people coming to and moving through an area and the services that can survive there. Sufficient numbers of people are needed to support facilities and economic conveniences; therefore, the space needs to attract people for it to be successful. (Jacobs: 1962: 200-201).

### The Uses of Green Spaces

There needs to be a variety of people using the space or the space will be left abandoned at certain times of the day. Different kinds of people mean different schedules, for example, the space could be used for dog walkers early in the morning, people on their lunch breaks during the day for playing sport in the late afternoon, and for lovers at night. Alternatively, the space could be welcome families on

the weekends and a retreat for students during the week. Thus, the space becomes a vibrant layered place. If it is abandoned at certain times, it leaves an opening for anti-social people to lay a claim to the space, chasing out the other users and leading to the degeneration of the space (Jacobs: 1962: 98).



Fig. 4.5: Early Morning Street Scene in Church Square, Pretoria's CBD



# **Legal Architectural Languages**

**(Precedent Study Part 1:  
Examining the Development  
of Legal Architecture in  
South Africa)**

- **5.1 The Union Buildings  
by Sir Herbert Baker**
- **5.2 The Old Parliament  
Buildings, Mmabatho by  
Scholes Britz Architects**
- **5.3 The Constitutional  
Court by OMM Design  
Workshop and Urban  
Solutions**
- **5.4 Conclusion**

5

After the visual onslaught of Apartheid architecture that includes invasive and dominating forms such as the Voortrekker Monument, legal architecture in post-Apartheid South Africa is currently engrossed in a search for a national architectural identity that is truly South African and inclusive of all South Africans.

The following is a comparative analysis of the architecture of the Union Buildings in Pretoria, the Old Parliament Buildings of former Bophuthatswana in Mmabatho and the Constitutional Court in Johannesburg as examples of political and judicial architecture by differing regimes. It explores how the various architects have infused their buildings with power and political meaning through their architectural language, resulting in the evolution of architectural typology through political ideology.

## 5.1 The Union Buildings by Sir Herbert Baker

The Union Buildings convey characteristics in a manner that is customary for Neoclassical government buildings. Sir Herbert Baker received the commission to design the Union Buildings after the National Convention had decided that Pretoria should be the administrative capital in 1910 (Seymour: 1989: 171). The form consists of two block-shaped buildings linked by a curved colonnade, symbolizing unity and strength between the British and the Afrikaners. The formal garden is neatly terraced downhill to form a natural amphitheatre. The Union Buildings was the *finale* of Baker's work in South Africa as he continued his career in India and Britain after this building (Seymour: 1989: 171).



Fig. 5.1: The Union Buildings

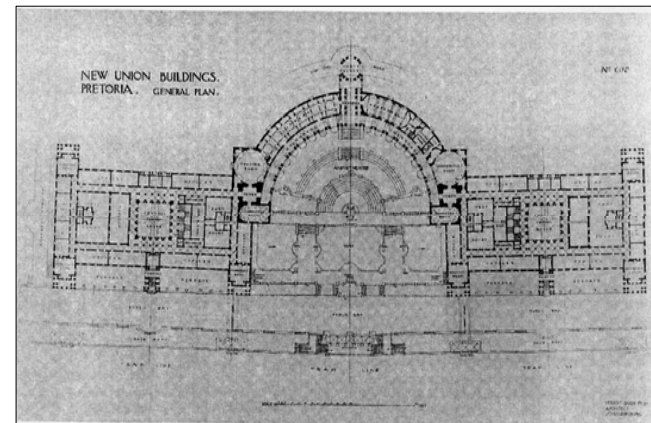


Fig. 5.2: Plan of the Union Buildings

Architecture has the capacity to produce symbols that can be manipulated by leaders and politicians as a means to reaching particular goals (Vale: 1992: 04). In this instance, The Union Buildings create a feeling of longstanding linkage with authoritative buildings in Britain through its use of Neoclassical references. Its location makes powerful symbolic use of the physical environment; its positioning on the hill in particular is evocative of Classical Greek temples (Seymour: 1989: 171), itself an association with authority and worship. Viewed from the city, it seems ethereal and makes the individual feel diminutive. It has endless views over the city and beyond and is visible from much of the city suggesting an omnipresence of supremacy, although the activities inside those walls are a mystery to the less significant commoner. To ascend to the building, especially when walking is difficult to say the least, suggesting that confrontation is not a usual occurrence – the administration of the country obviously does not need constant input from the masses. To an inhabitant in Pretoria, the building is more of an icon or monument to be looked at rather than a building one would personally enter.

The use of local stone is typical of Baker's work, which despite the Neoclassical reference, can be seen as a Regionalist gesture as it was customary at the time to import all building materials from Europe (Seymour: 1989: 171). The stone from the site and the visual impression made by the carved out amphitheatre gives the building an organic appearance, as if it is part of the earth or landscape. The building looks as if it has emerged out of the land. This is an ironic feature, for while one cannot insinuate that it was the architectural or political intention that the building looks as if it always belonged in that place – as uncontrived as any geological aspect of the earth, it is an uncanny summary of colonial ideology and history. The Union Buildings and thus, the regime demonstrate power in that it belongs to the land and thus, the land belongs to the regime.



Fig 5.3: The viewer looks uphill at the building



Similarly, many government and legal buildings can be perceived as an attempt to construct power and to support specific regimes, directly serving as symbols of the state. Power and identity are concepts that are embedded in the design of political and judicial architecture in cities around the world and South Africa is certainly no exception.

## 5.2 The Old Parliament Buildings, Mmabatho by Scholes Britz Architects

Bophuthatswana came into existence as a direct result of Apartheid's homeland policies. This was only implemented in areas where black political rights could be met without endangering white control over the rest of the country (Christopher: 1994: 65). It was developed using funding from the South African government as a separate entity with its own government and capital city. The Old Parliament Buildings was part of an elaborate urban design for Mmabatho. It was planned with extensive government quarters, presidential palaces, parliament buildings and government ministries and shopping complexes (Christopher: 1994: 87). However, it did not receive international recognition as a country separate from South Africa. Bophuthatswana gained independence in 1977 and Mmabatho was chosen as the capital city, however, it reverted to South Africa after the first democratic elections in 1991, leaving the old Parliament Buildings abandoned, except for local administrative use.

Bophuthatswana means, 'that which binds' which was to become a central theme for the Parliament Buildings. The preceding president, Lucas Mangope specified that the plans should reflect Tswana traditions and customs. The building was to be a contemporary representation of heritage, culture and tradition (Mallows: 1981: 40).

However, the site was a greenfields site, meaning that it had no built contextual starting point (Hutton-Squire: 1981: 40). Similar to the town of Jaipur in India, a town had to be designed from scratch, but still correlate to the culture of the people that were going to inhabit it.

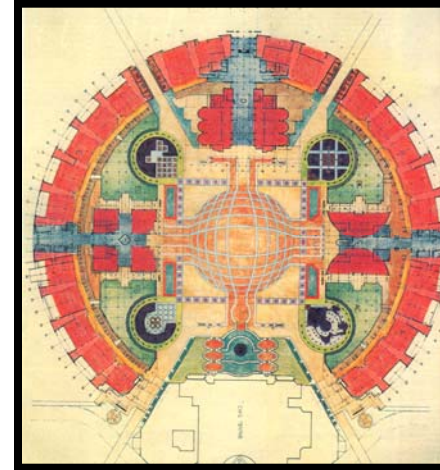


Fig. 5.5: Ground Floor Plan of the Old Parliament Buildings

The concept of the Old Parliament Buildings was to insert the traditional elements of a Tswana urban settlement, with the chief component of a traditional *Kgotla* or meeting place at the centre, into a principally Baroque urban design. The *Kgotla* is utilized to enclose the public square and is open and transparent, giving all members of the public free access. Pedestrian avenues are used to focus attention on a central square, with vehicular movement confined to the perimeter of the complex. The circular government building is positioned at the head of the axis to the north and surrounds a central square. The circular shape serves as protection from the harsh climate of the North West. Screen



walls are used on the exterior to offer a sense of scale to the building in its flat landscape (Hutton-Squire: 1981: 41).

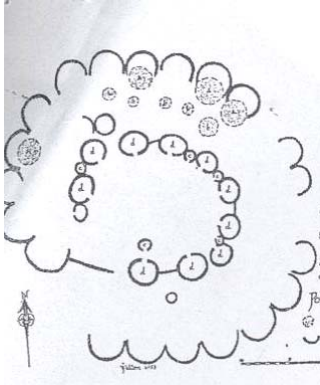


Fig.5.6: Traditional *Kgotla* dwelling

The Tswana connection is emphasized with the use of pyramidal roofs, circular openings and Tswana motifs on the walls. The walls are brick and thicker than average, conjuring up images of mud brick construction (Britz: 1984: 37). There is a clear distinction of spaces between the inside and outside. An allegorical connection can be made between the building and an oasis in a desert landscape; the ring wall protects a lush green centre although the building is situated in a semi-desert plain. Within the circle of the urban design, there is a definite hierarchy of space. The parliament building is emphasized as the central and most important point on the main axis of the complex (Britz: 1984: 37).

The Old Parliament Buildings projects power through its magnitude and monumentality. The walls are thick and weighty, exuding permanence in what was ironically to be an interim political circumstance. Their authority is one that is rooted in the supremacy of the Tswana culture and

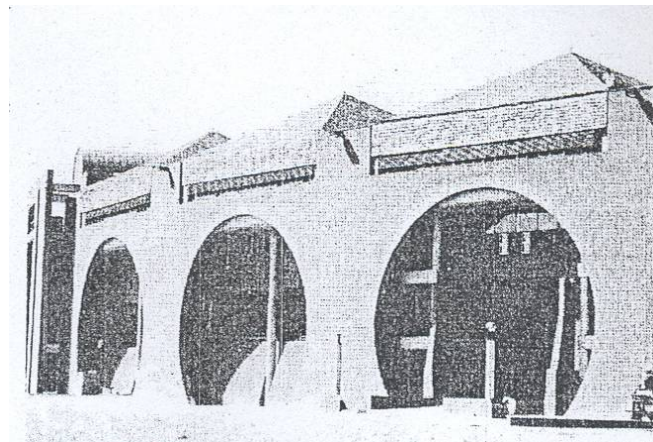
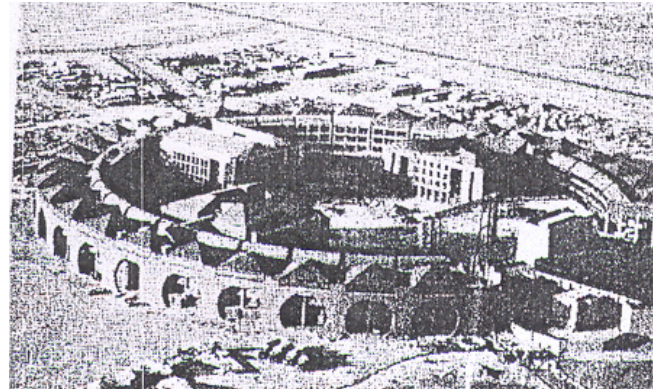
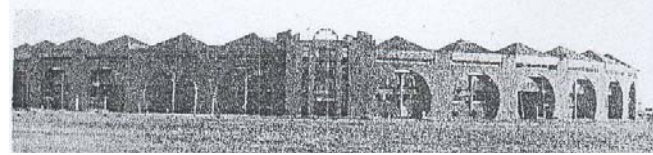


Fig 5.7: The Parliament Buildings in Mmabatho



not in the command of the Apartheid regime as it had been previously. However, its plan, although based on the traditional vernacular, is strangely Eurocentric as the role of government is emphasized through the creation of monumental boulevards, formal geometric spaces and imposing buildings as it was thought that this would create the most impact on the flat featureless terrain (Hutton-Squire: 1981: 41).

The Old Parliament Buildings' power comes from a very culture-specific architectural representation. From this standpoint, the buildings are exclusive; however, their dogma of openness and transparency to the public within the ring wall is a definite departure from the exclusivity evident at the Union Buildings. Consequently, it is possible, through the medium of architecture, that nationalism has the ability to bring about the existence of a nation and not the other way around. For example, the speaker at the first session of parliament in a newly unified Italy suggested, "We have Italy, now we have to make Italians." Ironically, at the time, only 2,5% of the population spoke Italian. In Italy's political situation, national identity was not an attribute that preceded statehood but a process that needed to be cultivated after the regime gained power (Vale: 1992: 45). The situation was the same in Bophuthatswana. Indigenous national pride and heritage had to be cultivated in a people that had been dominated by foreigners for centuries. The Parliament Buildings is an example of architecture facilitating control through the creation of nationalism.

### 5.3 The Constitutional Court by OMM Design Workshop and Urban Solutions

The Constitutional Court is a judicial building located in Braamfontein, Johannesburg in what was previously an inaccessible prison complex during the Apartheid era. It was established in 1994 by South Africa's first democratic government and is the highest authority on all legal matters (Law Viljoen: 2006: 8). The court is a significant symbol of the new culture of democracy in South Africa, a culture designed to embody openness, transparency and accountability. The Constitutional Court precinct, known as Constitution Hill, is positioned between the chaotic and notorious Hillbrow and the prosperous suburb of Parktown. Because of its infamous past, it was a site that needed urgent reintegration into the Johannesburg city grid (Law Viljoen: 2006: 8).



Fig. 5.8: Entrance to the Constitutional Court

Characteristic of some contemporary architecture in our country, the building seeks to create a redefined national South African identity with its architecture. The building draws on its site, which is rich in history and political controversy. In 1893, a high security prison was built on the ridge by the government led by President Paul Kruger. The prison later took on the aspect of a fort (Seymour: 1989: 148). A series of forts were then built around the prison in an effort to strengthen the military presence within the area.

Three prisons were housed in the complex: the Fort, where white men were jailed; Section Four and Five, infamously known as the 'natives' jail, and lastly, the Women's jail. The prison was eventually closed, but had by then jailed political icons such as Mahatma Gandhi and Albert Luthuli (Law Viljoen: 2006: 07).

The courthouse is erected on one of the former prisons, representing the new court's position of power from a previous site of oppression. Entrance into the foyer of the building is based on the notion of the *Kgotla* akin to the Old Parliament Buildings. It was originally designed to function as a traditional *Kgotla*, as a location for problem solving and the public upon entry into the building were able to walk directly into the session in progress, reinforcing the notion of openness and transparency. However, it was possibly considered impractical and this area now functions exclusively as a foyer (Sachs: 2005). The sinister political history of the location is remembered but diminished by the court's light and colourful structure that figuratively represents 'Justice under a Tree'. Colourful mosaics by local artists decorate tall slanted columns that reinforce the metaphor of a tree, while the concrete roof design filters natural light into the interior of the foyer, emulating the dappled light effect from the leaves of trees (Sachs: 2005)



Fig 5.9: The Constitutional Court



Fig 5.10: The ceiling of the foyer in the Constitutional Court. The skylights seek to recreate the dappled light under a tree.

The concrete structural beams of the roof display the words 'human dignity', 'equality' and 'freedom' handwritten by each of the judges. Local arts, craft and colour are infused with the structure throughout the building, such as the stained glass windows and the carved timber front door. Remnants of the partially demolished buildings remain within the new building as constant reminders of the past. The walls are lined with the work of local artists, both contemporary and dating back to the struggle, and the font in all the signage originates from the handwriting of one of the prominent judges. The building is a random collage of South African culture; everyone is represented here boldly and without restraint (Sachs: 2005).

Steel, concrete, glass, stone, timber and natural light are used in their structural capacity and their metaphoric capacity to reflect the values of South Africa's democracy. The concept of honesty of materials, such as the use of exposed concrete, reflects the transparency and integrity of the justice system. The aesthetics of the Constitutional Court emanate from the functions of each space within the building in an effort to express decoration and art as part of culture and tradition (Marschall: 2000: 141).



Fig. 5.11: View of the Exhibition Hall at the Constitutional Court



Fig. 5.12: View of the Foyer of the Constitutional Court.

Simple materials are highly detailed and expressed in various forms to become part of the structure and create a welcoming space. Much of the building form is a direct response to physical aspects of the site and 'leftover' elements have been given new meaning through clever manipulation of spaces. For example, 'the Great African Steps' were built from the bricks of the demolished Awaiting Trial Block. They serve to provide a physical barrier as they divide the old stone wall of the Number Four Prison from the glass facades of the courts. Metaphorically, the steps symbolize a transition between the past and the future (Joburg City: 2006). Akin to the Union Buildings, symbols of justice and lawful attributes are commonly articulated through 'temple like' elements.

The Constitutional Court rejects the traditional Classical and monumental elements of architecture associated with both judicial and political buildings. In contrast, and reminiscent of the Old Parliament Buildings, it creates an architectural typology that is relevant to its context and socio-political environment. However, the typology could not be based simply on a singular traditional vernacular since the current regime represents cross cultural unity and the inclusiveness of all South African people. Interestingly, it has not fallen into the trap of decorating a European modelled plan with recognizable but superficial elements in an attempt to create a local connection.



Fig. 5.13: Main Court Area at the Constitutional Court



Fig. 5.14: View of the Awaiting Trial Block Stair towers in the Public Square at the Constitutional Court



## 5.4 Conclusion

Instead of emphasizing grandeur and status in the somewhat threatening manner of the Union Buildings or monumentality such as at the Old Parliament Buildings, the Constitutional Court's response is based on harmony, dignity and cultural diversity. According to Janina Masojada, the building's principle architect, they "wanted to design a place in which all people would feel welcome... we imagined parades, protests, concerts, and celebrations...' (Law Viljoen: 2006: 45).The building establishes a direct link to the past, while commemorating spaces that were once oppressive.

The power of the Constitutional Court is in the ideology it represents. Architecture was used as a tool to harness an existing power and national identity, not to invent or reinvent it. Throughout the building the individual is made to feel comfortable and important as an inhabitant of a great country. Within the Constitutional Court, the power belongs to all of us and we leave this praiseworthy landmark holding that power within us.





# The Process of Extension

(Precedent Study Part 2:  
Examining the Design  
Methodology Pertaining to  
Extension Buildings)

- 6.1 Extending in Historical and Contemporary Contexts
- 6.2 The Link Building for the Institute of Infectious Disease and Molecular Medicine by Gabriël Fagan Architects
- 6.3 The Women's Jail Extension by Kate Otten Architects
- 6.4 Implications for the Design of the Law Annexe



The following chapter is divided into two parts: firstly, it evaluates the process of extending in both historical and contemporary contexts and discusses what constitutes a successful extension. Secondly, it analyses two precedent studies; the first is the Link Building for the Institute of Infectious Disease and Molecular Medicine at the University of Cape Town designed by Gabriël Fagan Architects<sup>1</sup> and the second is the Women's Jail at Constitution Hill in Braamfontein, Johannesburg designed by Kate Otten Architects. These precedent studies were chosen mainly because they are successful extension buildings and in addition, their typologies are of interest to this dissertation as the Link Building is an institutional building while the Women's Jail has a legal correlation.

## 6.1 Extending In Historic and Contemporary Contexts

The essence of the Modern Movement was to declare a distinct break with history and, therefore, with Classical architecture (Meek & Meek: 1963: 14). Unfortunately, the infiltration of Modernism to South Africa has meant the disregard and destruction of much of Pretoria's cultural heritage. A building is considered as heritage if it is over 60 years old, however there are not enough constraints protecting heritage buildings and the country lacks either the finance or the interest to conserve buildings that do not have a direct social or political history.

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<sup>1</sup>The Link Building for the Institute of Infectious Disease and Molecular Medicine at the University of Cape Town designed by Gabriël Fagan Architects will hereinafter be referred to as 'the Link Building'.

Furthermore, South Africa has a bitter relationship with its past, which is plagued with memories of repression. Much of what many consider heritage is considered as a reminder of authoritarian dictatorship to others. This is clearly the case in Pretoria as the public argues vigorously about the provincial name change from Pretoria to Tshwane and the appropriateness that statues of various old regime leaders have in city parks. Whatever decisions are made for the city, heritage is what we inherit as a nation, good or bad.

An extension by its definition is secondary to a preceding building. It is an addition, and is not often the point of focus. Architects differ regarding their technique of extending; some hide the extension, others celebrate it and many try to blend it in with the existing architecture to the point of replication. Whatever method is chosen, the site context and existing buildings need to be respected, as they are part of a visual heritage that defines a place and its people. Consequently, an extension cannot disregard the existing, whether it is historical, contemporary, contentious or compliant. The extension should, therefore, be harmonious and strive to create a sense of place within the existing context.

In this case, the Law Faculty Building can be considered as new history as it precedes the extension and represents a defining moment and doctrine of thought about law in its time. John Ruskin in *The Seven Lamps of Architecture* writes, "...the man who has an eye and intellect will invent beautiful proportions, but cannot help it; but he can no more tell us how to do it than Wordsworth could tell us how to write a sonnet, or than Scott could tell us how to write a romance." (Ruskin: 1989: 2: 39). Similarly, there do not

seem to be any hard and fast rules to designing within a strong context. However, the most pleasing spaces, as seen in the subsequent precedent study, relate to what is both recognizable and human. They do not replicate the old architectural language; alternatively, they both revere and enhance it. They allow the public to move freely between the old and the new and to enjoy the multi-layered meanings created in the urban space.

The International Council on Monuments and Sites (ICOMOS) General Assembly held a conference with the topic “New Buildings in Historic Setting” in Budapest in 1972. Three main points were conceived at this assembly:

- “The architectural language should be contemporary while the new building should integrate harmoniously into the old surroundings not breaking the balance of the composition”.
- It was decided that the finest architects found a way of “using the language of contemporary architecture, but volume, scale and proportions were determined by surroundings”.
- To design a well-contextualized building, one should “study the site, understand the logics and the system of local architecture feel the spirit of place and then use the language of contemporary architecture”.  
(Adam: 2005)

Notably, with each of these viewpoints, the speakers overwhelmingly stressed the importance of keeping a

contemporary architectural language, even in the most delicate of historical sites.

## 6.2 The Link Building for the Institute of Infectious Disease and Molecular Medicine by Gabriël Fagan Architects

The site of the Link Building is an 18 m wide space between two formal neoclassical buildings dating back to 1925, typical of the architecture that dominates most of the campus at the University of Cape Town (Deckler: 2006: 101). The bulk of Link Building is recessed from the two existing buildings except for a striking four storey cylindrical structure that is the building’s most prominent feature (Fig. 6.1). It appears to be freestanding, but it is in fact connected to the rest of the new extension. The ground floor of the cylindrical protrusion houses the cafeteria and the main entrance (Fig. 6.2). Circulation around the space is generous giving ample opportunity for spontaneous conversation between researchers (Deckler: 2006: 103).

Fig. 6.1: Ground Floor Plan

1. Existing passage
2. Void below
3. Kitchen
4. Servery
5. Reading room
6. Lobby Area
7. Cafeteria
8. Entrance
9. Drum plinth
10. Courtyard
11. New passage
12. New bridge

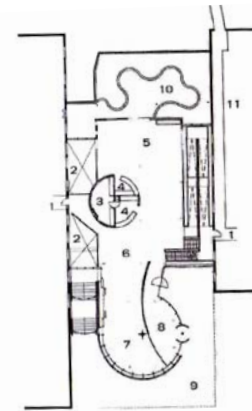




Fig. 6.2: Entrance to the Link Building

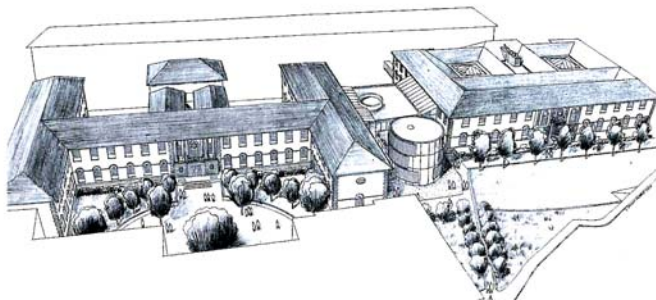


Fig. 6.3: View towards Devil's Peak

The Link Building makes use of the striking views to its west of Devil's Peak (Fig. 6.3). Manually operated vertical louvers protect the extensive glazed curtain walling from heat gain. The building is meticulously detailed and the architectural language is bold and in stark contrast to the existing neoclassical buildings. While the existing buildings' walls are thick and heavy, the Link Building is light and delicate. Moreover, the existing buildings follow a grid and are linear and steadfast in their form and in contrast, the Link Building's most visible feature, the cylindrical form at the entrance, gives the building a dramatic rotund appearance.

However, in conformity with the delineations set by the ICOMOS General Assembly, the overall effect is harmonious because attention has been paid to scale and the balance of composition has not been broken. The architectural language is contemporary, but the design is at accord with its surroundings.

Fig. 6.4 Perspective drawing of the Link Building and Surrounds (Deckler: 2006: 101)



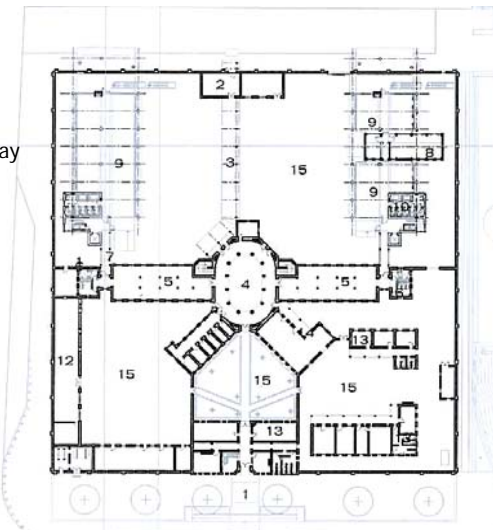
## 6.3 The Women's Jail Extension by Kate Otten Architects

The Women's Jail forms part of the Constitutional Hill precinct as discussed (c.f. Chapter 5). The Women's Jail is part of a "living museum" developed in the precinct to transform the site that historically has been a place of suffering and oppression to a site of forgiveness and renewal (Deckler: 2006: 23).

The new extension buildings to the Women's Jail accommodate the offices of the Human Rights Commission. The original building is a red brick Victorian building that belies the past violations that took place inside the building. The original building is comprised of linear wings departing from a central atrium and the plan is symmetrical along a north-south axis (Fig. 6.5).

Fig. 6.5: Plan of the Women's Jail

1. Old entrance
2. New Entrance
3. Covered Walkway
4. Central Atrium
5. Cell Blocks
6. Ablution block
7. Link walkway
8. Awaiting trial building
9. New office building
10. Service area
11. Balcony
12. Archive
13. Offices
14. Lekgotla Space
15. Courtyard





The extension building also comprises two linear wings running opposite each other along the east and west boundaries of the site. The new buildings respect the system of the original plan in that they follow the original symmetry of the central axis and the linearity of the shape of the additional wings. Moreover, the extension is accessed through the existing central atrium, so as not to undermine the hierarchy of the original spaces (Fig. 6.5).

Judging by the plan alone, the new extension is very discreet in placement and orientation. However, similar to the Link Building, the architectural language is in stark contrast to the original building. The extension “touches the (existing) building lightly”, thus retaining the integrity of both the new and the existing architecture (Deckler: 2006: 25). Also similar to the Link building is the awareness of scale and proportion. Although the new extension is a three-storey high structure and the existing building is only two storeys, the third storey of the new extension cantilevers off the level

beneath it, equating itself with the prominent hip roof of the original building. It thus achieves the accommodation of an extra level without disregarding the scale of the original building (Deckler: 2006: 25).

Due to the predominantly east-west orientation of the extension building, the uppermost level is clad in perforated corten steel sheeting that functions as a sun-screen (Fig. 6.7). The round cut-out openings in the sheeting are welded onto sliding screens on the lower two levels, creating a divergence in visibility on the façades. A further function of the corten steel sheeting is that it was deliberately left to rust and weather, turning the colour sienna, similar to the colour of the red brick used on the original building (Deckler: 2006: 25). Therefore, in terms of its colour, the extension has begun to blend with the original red brick of the Women’s Jail without mimicking the choice of material. As with the Link Building, the overall effect of the Women’s Jail Extension is harmonious although it is a building focused on contrast as well.

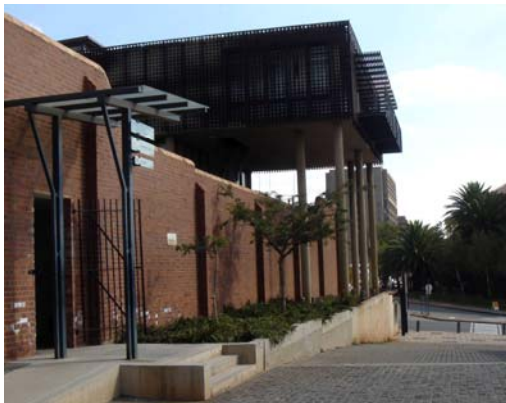


Fig. 6.6: Entrance to the Courtyard



Fig. 6.7: View from Courtyard to the East Wing



Fig. 6.8: New Architecture juxtaposed to the Existing Building



Fig. 6.9: Covered Walkway

## 6.4 Implications for the Design of the Law Annexe

- Develop a contrasting architectural language to the existing buildings around the site.
- Minimalist forms work best in a strong context.
- The new building should be conceptualized as another layer on the landscape; it should further enrich the landscape without eroding the meaning that is present.
- Patterns, symmetry and rhythm should be sought out in the context and then followed using a distinctive approach.
- Scale, form and colour are the tools most easily utilized to achieve harmony with the surrounding context.
- The current intervention is not necessarily the last and final development that the site will accommodate.



# 7

## **Design Development**

- 7.1 Primary Ideas and Design Progression
- 7.2 Design Discourse
- 7.3 Key Concepts: Accessibility and Interaction
- 7.4 Architectural Language and Form

## 7.1 Primary ideas and Design Progression

Fig. 7.1: Summary of Guiding Principles for the Law Annexe Resulting from Preceding Analysis



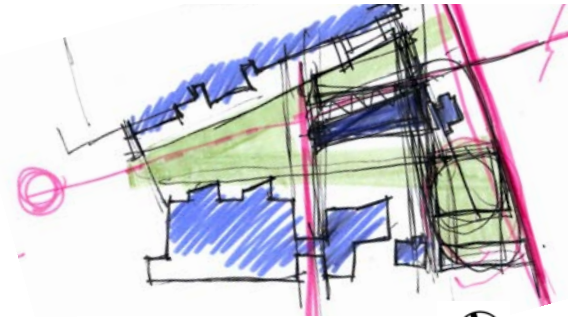
Although the primary concepts guiding the design of the Law Annexe in the early proposals are similar to the final product, it was initially difficult to establish the form, placement and architectural direction that was most suitable for the building. The many possibilities were explored through the analysis of various concept models and drawings. This was because of the multitude of directions that the information gathered could be interpreted.

Conclusions were drawn from these early schemes as to characteristics that were successful and those that were not. The explorations established a hierarchy between the 'lines' drawn from Figure 3.16 (c.f. Chapter 3) and the most effective way in which to relate it to the public realm without compromising the security of the University or losing the connection to the Law Faculty precinct.

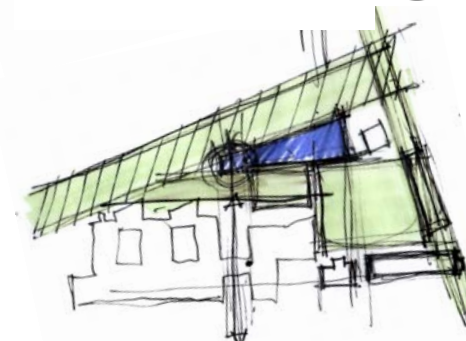
The architectural languages explored show the progression between a comparatively heavy and introverted brick building to a light and open steel building. The architectural language of the Law Annexe wavered between disconnecting completely with the Law Faculty Building and relating too closely to it, but finally, a harmonious contrast was found.

These issues were explored in conjunction with responses to climate, pedestrian movements in and around the site and the assumed development proposed for the Hatfield Framework.

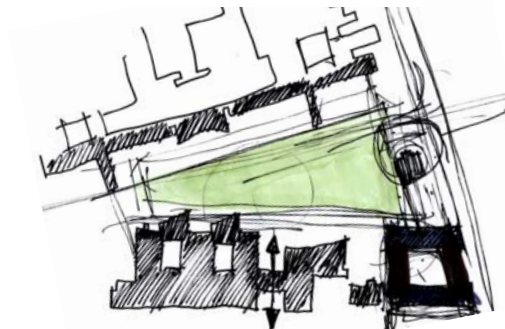
**Fig. 7.2: Concept Drawings exploring the northeast boundary of the Campus and position of the Proposed Law Annexe: March 2008**



Intention to relate to a street edge



Recognition of the need for a northern forecourt to the existing Law Faculty Building



Formulation of the Public Square and situation of the Law Annexe

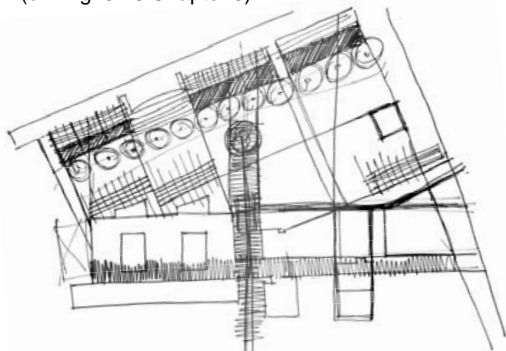




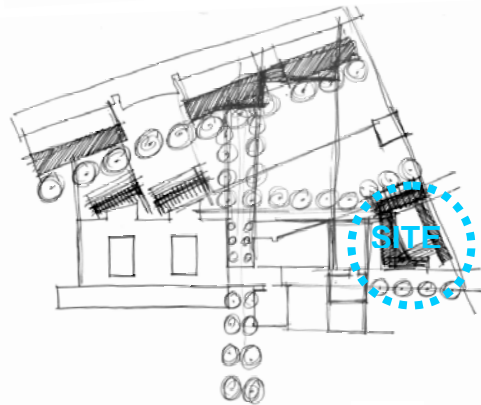
**Fig. 7.3: Development  
Concept Drawings of Public  
Square: August 2008.**



Extension of Existing Building  
'Lines'  
(c.f. Fig. 3.16 Chapter 3)



Extension of Circulation Spine  
and Axis (c.f. Fig. 3.15 Chapter 3)



Site of the Law Annexe



Initial sketches of the Law Annexe and the public square relate directly to Figure 3.14-16 (c.f. Chapter 3). A thoroughfare is created through the existing Law Faculty Building by continuing the axis of the tree-lined avenue from the south of the Campus into a proposed public square, which becomes a threshold between the Campus and Hatfield.

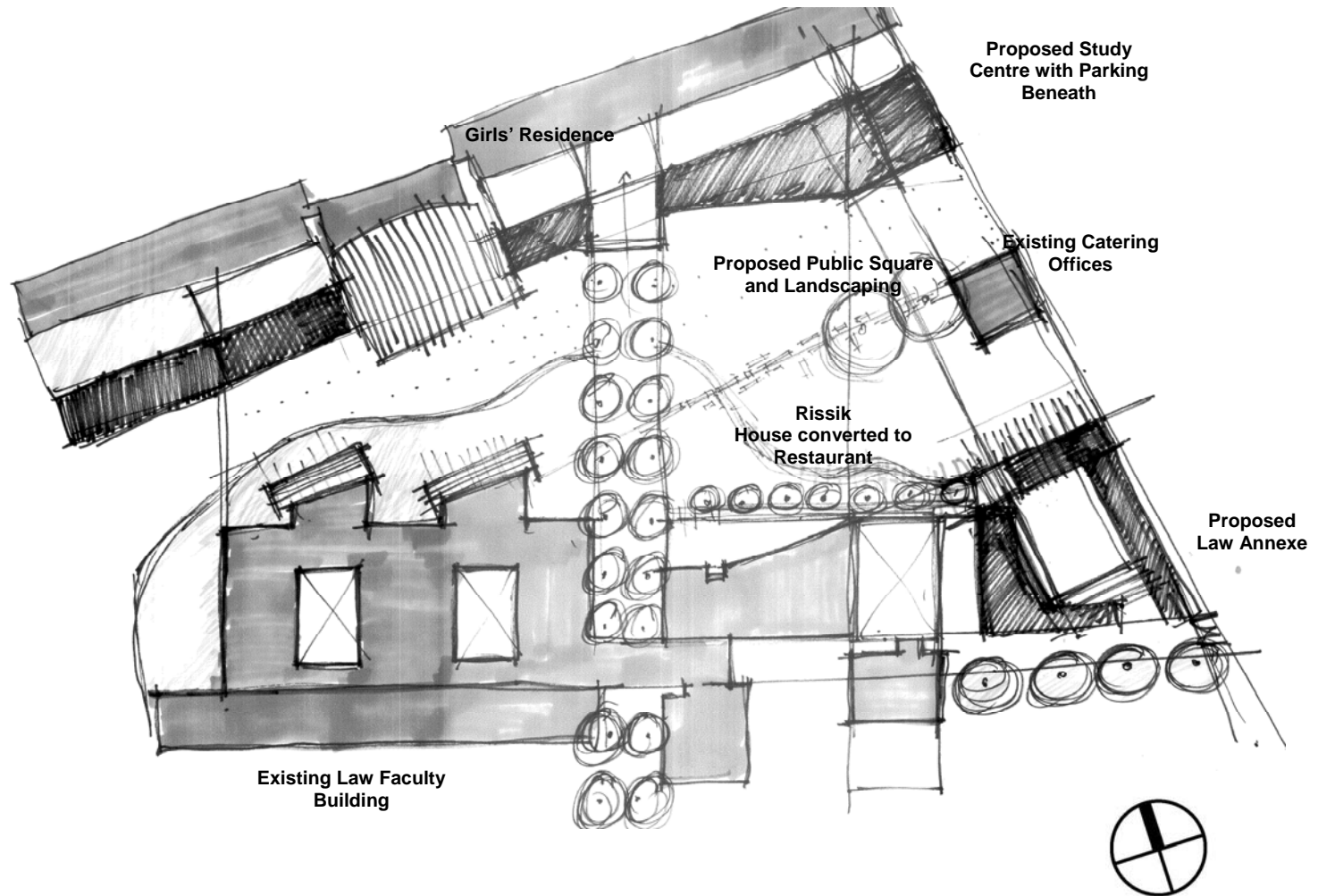
A 24-hour double-storey study centre with basement parking for 300 cars is proposed in front of the girls' residence both to soften the edge of the seven-storey building and to address security issues. It will have safer and more pleasant spaces for the residents to spill into in front of their residence.

The proposed Law Annexe is located to the east of the Law Faculty Building. It depicts the footprint of a building intended to relate strongly to Hilda Street and to the proposed square.

Rissik House is converted into a restaurant with banqueting facilities above. The area around it is demarcated with landscaping, recollecting the no longer present plot lines.

The memory of houses that were demolished to make way for the Law Faculty Building is landscaped into the public square.

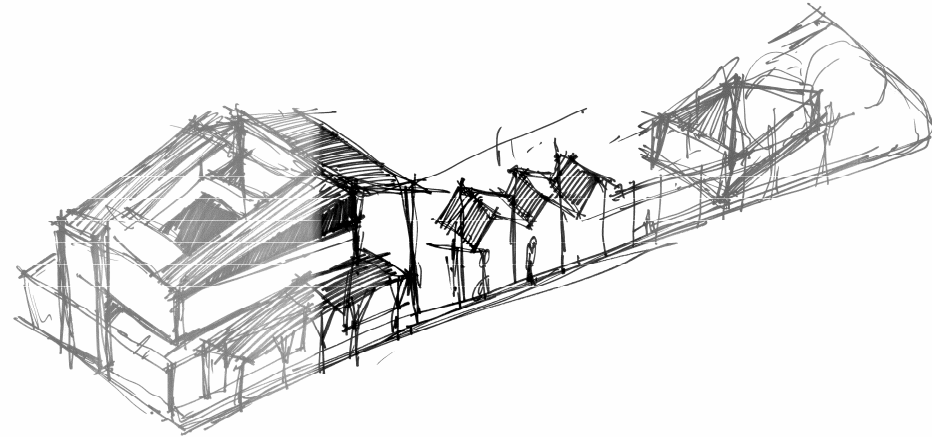
Fig. 7.4: Concept Drawing of  
Public Square: June 2008.



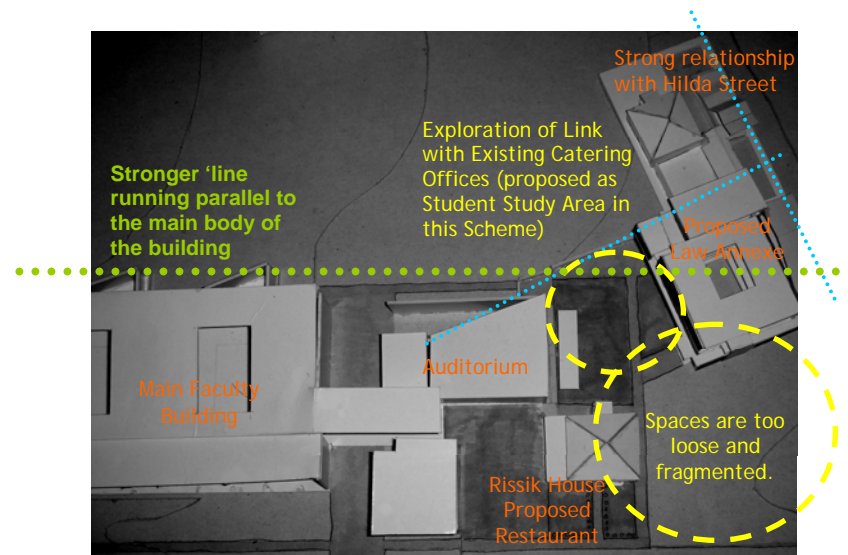
At the outset, a strong relationship with Hilda Street was applied. It correlated mostly with the 'line' extending off the angle of the auditorium from the Law Faculty Building. Effort was also made to keep the proportion of the courtyards from the Law Faculty Building. This scheme explored the possibility of a link with the house at the corner of Hilda and South Streets.

However, the area directly east of Rissik House became too loose and the scheme felt fragmented.

Moreover, the 'line' extending from the auditorium of the Law Faculty Building was found to be of lesser importance than the stronger 'lines' running parallel to the main body of the existing building (Fig. 7.6).



**Fig. 7.5: Exploration of the Link with the Existing Catering Offices proposed as Student Study Area in this Scheme: July 2008**



**Fig. 7.6 Concept Model: July 2008**



Changes in the orientation of the courtyard were made for climatic and security reasons.

The drawings and models began to explore the idea of a physical link in the form of a bridge from the Law Faculty building to the Proposed Law Annexe. Unfortunately, the position of Rissik House and existing columns in the Law Faculty Building meant this could not be done without 'kinking' the bridge, so this solution was unsuccessful.

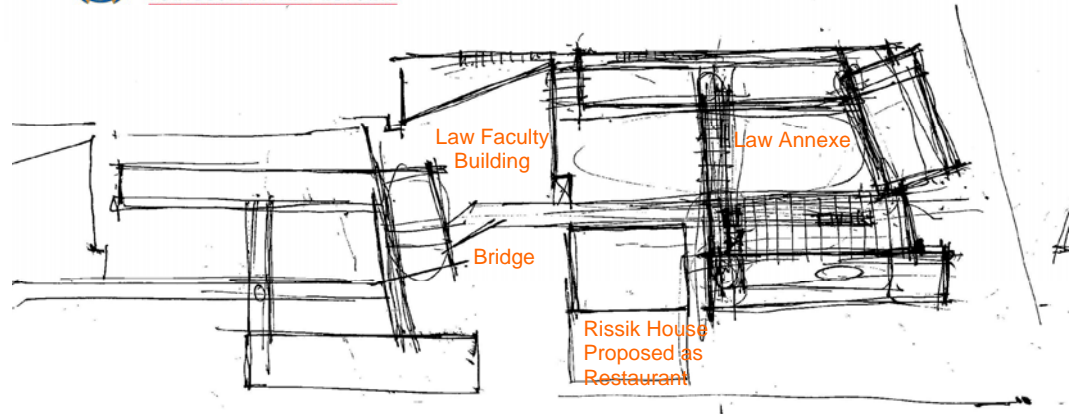


Fig. 7.7: Concept Drawing of Law Annexe: September 2008.

In Figure 7.8 and 7.9 the entrance to the Law Annexe is located in line with the strong circulation spine of the Law Faculty Building. Doors are proposed on the east end of the spine to link the existing building to the Law Annexe.

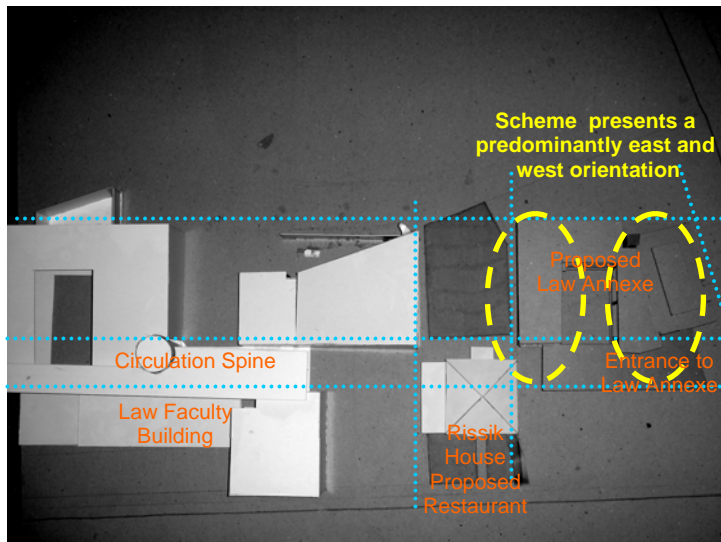


Fig. 7.8: Concept Model: August 2008.

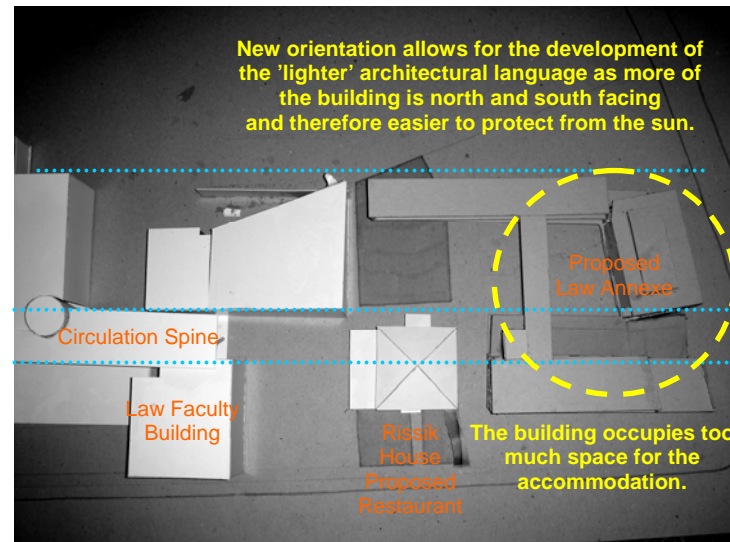
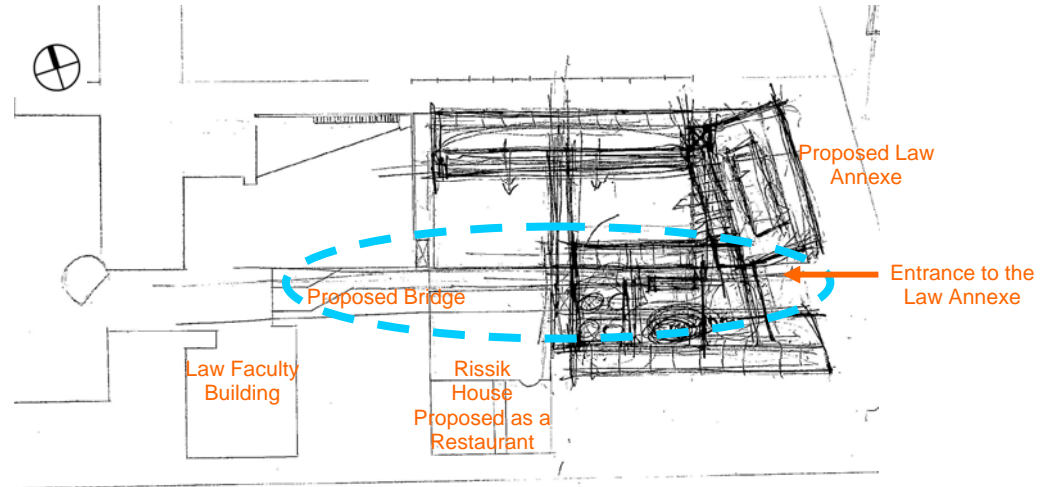


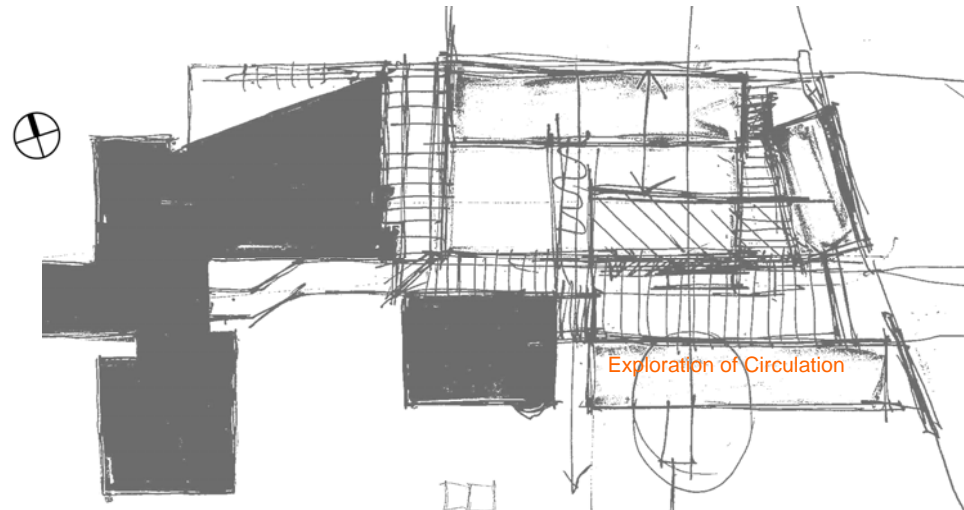
Fig. 7.9: Concept Model: September 2008.



**Fig. 7.10: Concept Drawing of the Law Annexe: September 2008**  
**Strong Physical Link to the Law Faculty Building**

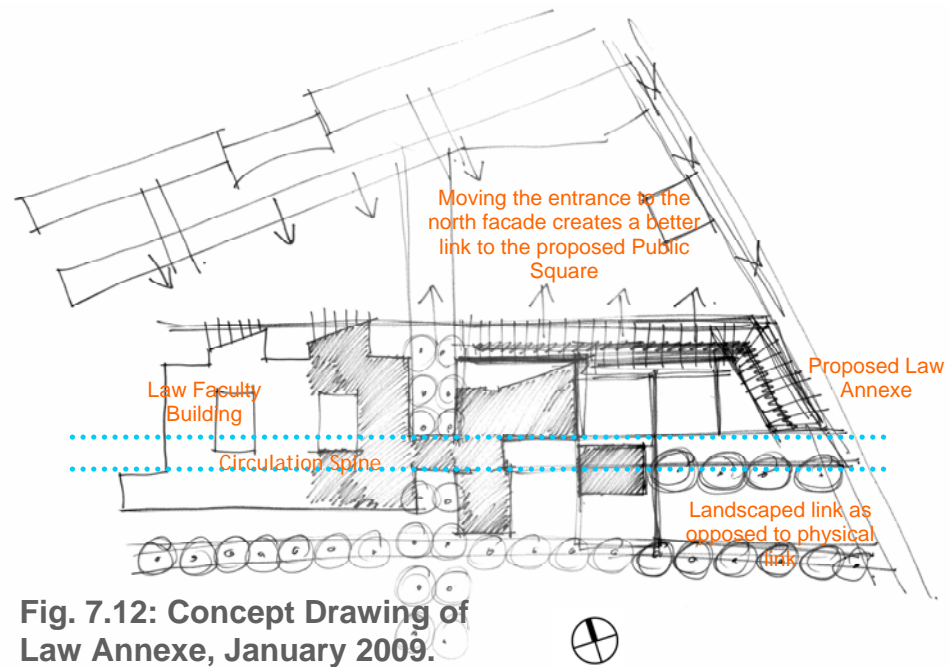


**Fig. 7.11: Concept Drawing of the Law Annexe: September 2008**

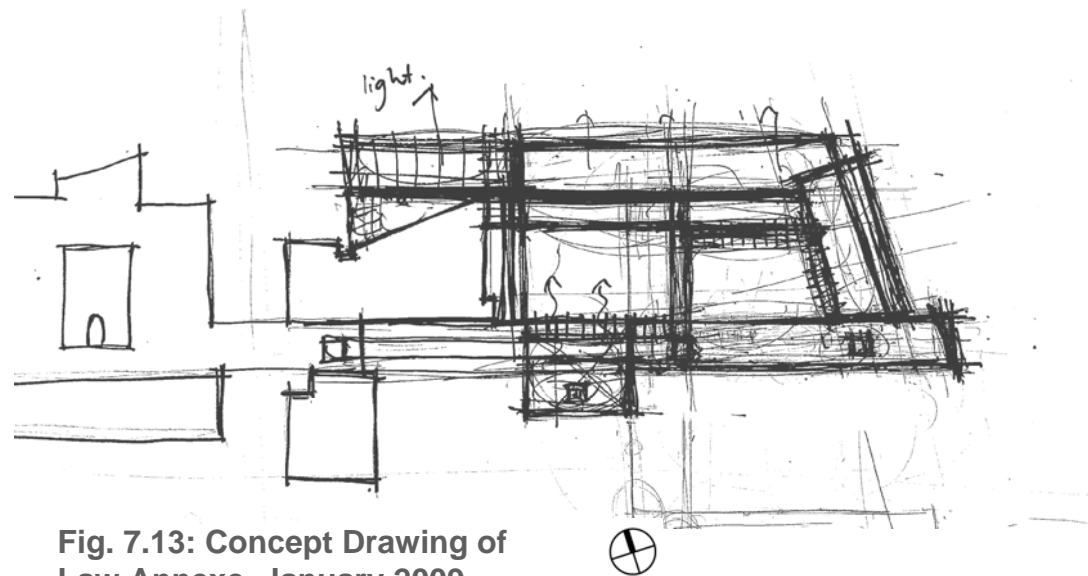




Movement north of the Law Faculty Building in Figure 7.12 and 7.13 was in the recognition that the north façades of the existing and proposed buildings were beginning to compete. Condensing the building creates more intense spaces. The courtyard begins to open up to the south. The continuation of the circulation spine from the Law Faculty Building is still existent, but it is landscaped into the grounds.



**Fig. 7.12: Concept Drawing of Law Annexe, January 2009.**



**Fig. 7.13: Concept Drawing of Law Annexe, January 2009**

## 7.2 Design Discourse

As discussed in the context analysis, the fence and edge condition around the University boundary is an obstacle to the proposed Hatfield Framework. This is mainly due to the barricade of cars that surround the Campus. The University is essentially a gated community and any proposal to take the fence down is bound to be met with intense resistance from the University's board.

The building was consequently designed as an alternative to the fence on the northeast boundary of the Campus. In a small way, this decision compromises themes of accessibility explored throughout this dissertation. However, realistically, it is better to design in cooperation with limitations set by the client and the site than to run the risk of unsightly security measures being placed around the building post-construction. The final building proposal is designed for the eventuality of the fence being removed in the future; however, it is not restricted in its connection to the Hatfield surrounds by the existence of the fence.

The proposed public square is surfaced with pervious concrete pavers and grass blocks (Fig. 7.15). The memory of the demolished houses is landscaped onto the surface of the square with coloured pavers and planting. The 'lines' taken up from the building are used to locate steps and ramps that navigate the slight east-west slope. The treed avenue is no longer continued all the way to the study centre (Fig. 7.4) so as not to break up the space. The axis is also landscaped into the surface of the square with coloured pavers and planting. Doors are proposed on the east end of the circulation spine from the Law Faculty Building and the continuation of the axis is expressed with paving bricks (to match the floor of the circulation spine inside the Law Faculty Building) to the boundary of the Campus. A pedestrian turnstile is situated at the end of the axis.

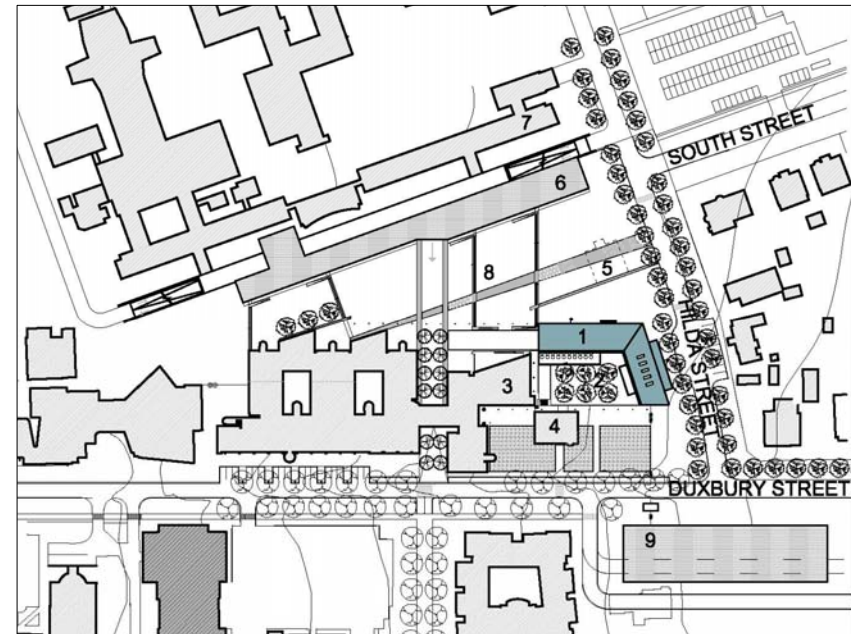
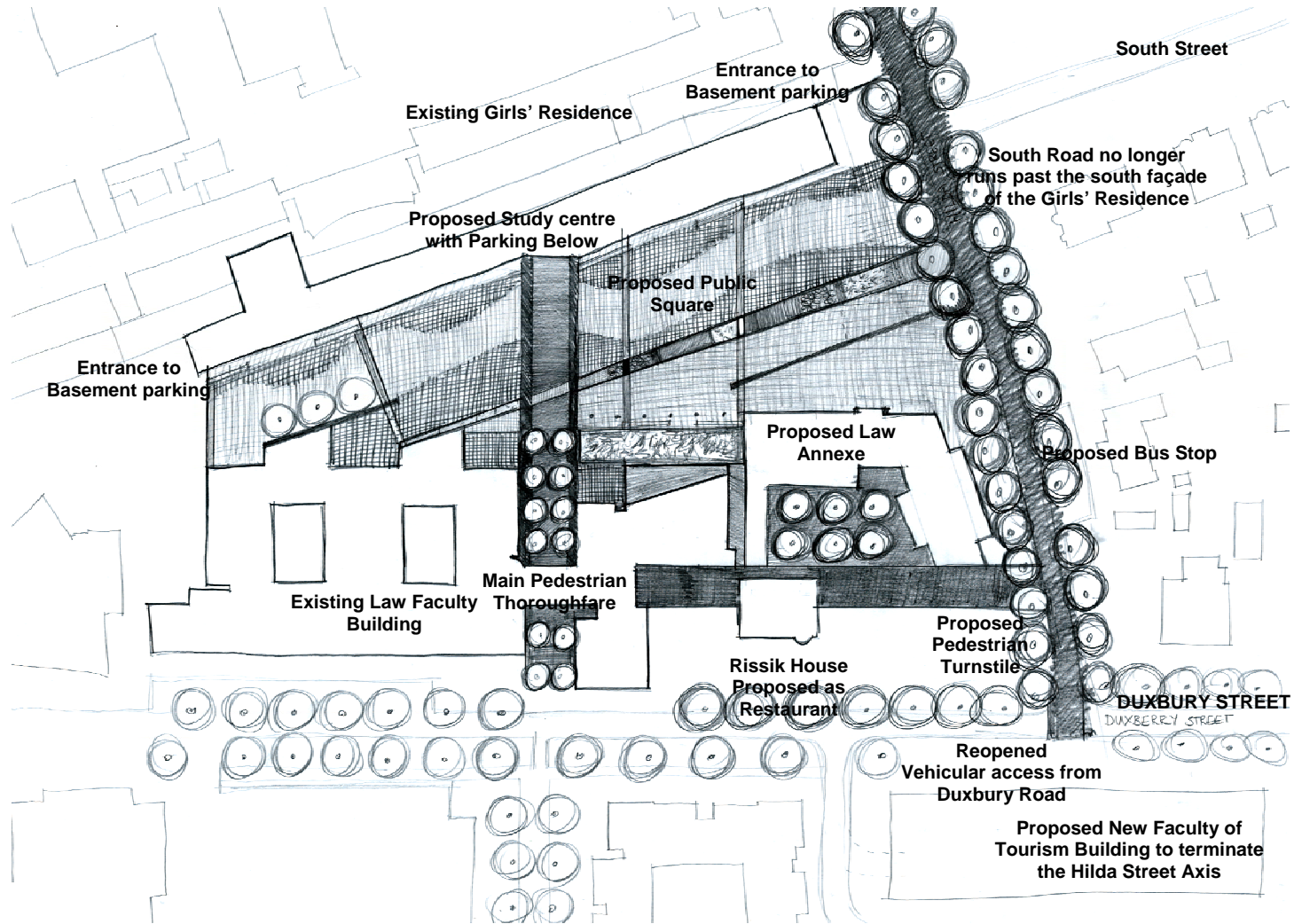


Fig. 7.14: Roof Plan

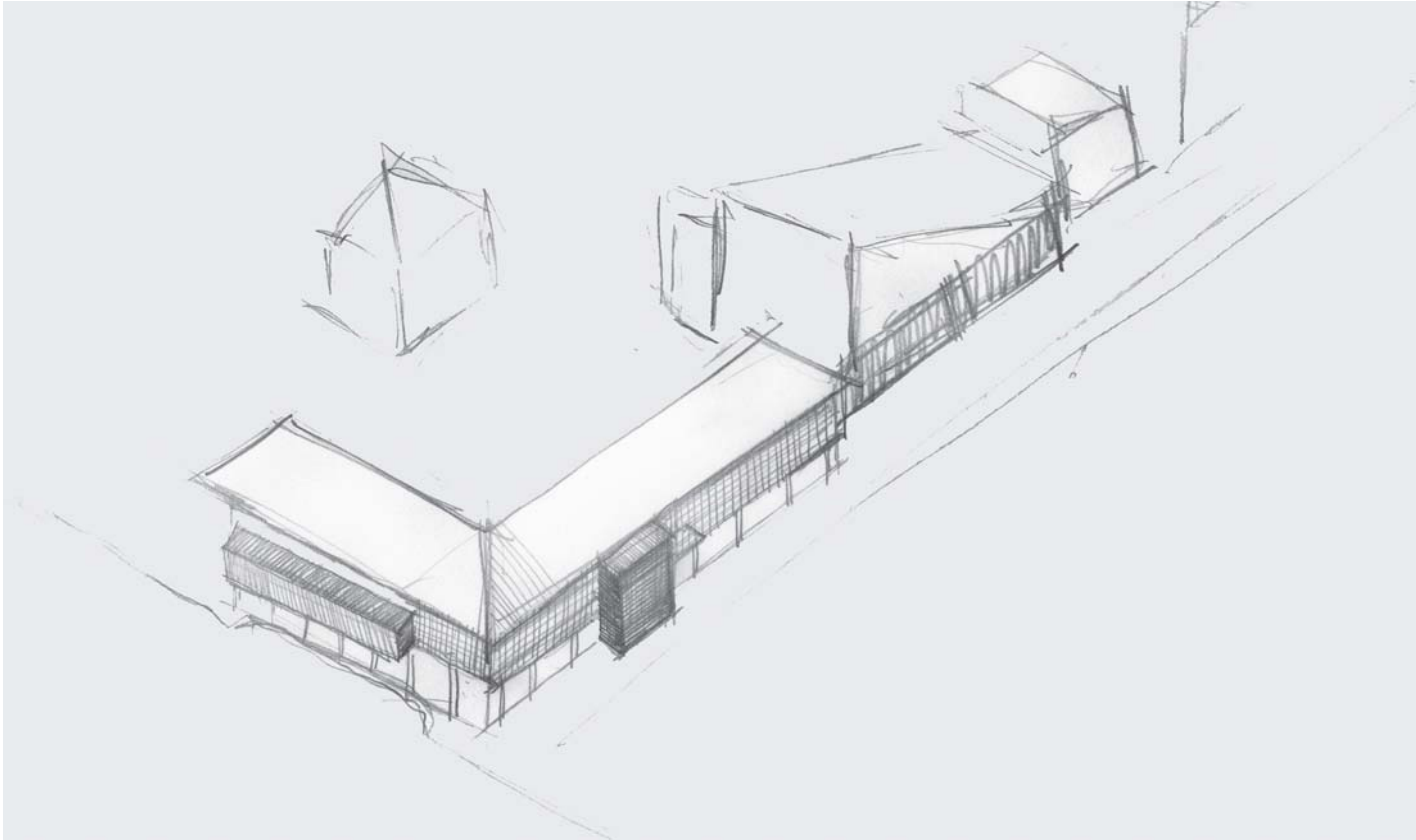


1. Proposed Law Annexe
2. Courtyard
3. Law Faculty Building
4. Rissik House Restaurant
5. Demolished Catering Office
6. Proposed 24-hour Study Centre
7. Girls' Residence
8. Proposed Public Square
9. Proposed Faculty of Tourism



**Fig. 7.15: Sketch of the Landscaping in the Public Square: April 2009**

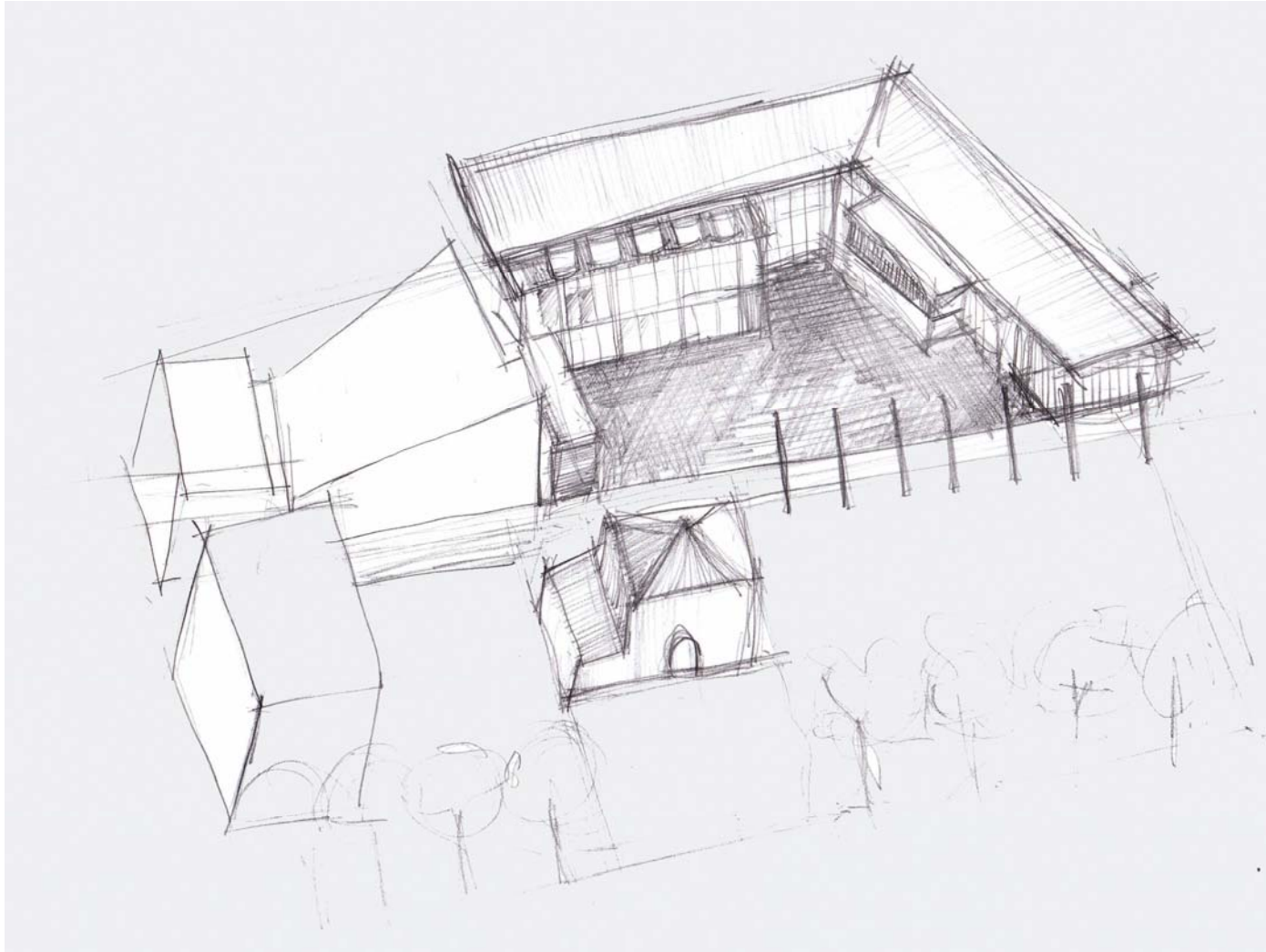




**Fig. 7.16: Sketch of the  
Law Annexe:  
North-east View**







**Fig. 7.17: Sketch of the  
Law Annexe:  
South-west View**







**Fig. 7.18: North Elevation of the Law Annexe**



**Fig. 7.19: South-west View of the Law Annexe**



**Fig. 7.20: North-east View of the Law Annexe**



**Fig. 7.21: South-east View of the Law Annexe**

### 7.3 Key Concepts: Accessibility and Interaction

Accessibility and interaction are the key concepts that guided the design. The building is essentially a partial edge to the University and the design aims to make the edge a lively point of interaction between the Campus and the Hatfield area. Furthermore, the building seeks to promote accessibility and interaction within its walls by setting up systems where this is encouraged.

On a large scale, the development of the Law Annexe and the public square seeks to make a connection between the Campus and the Hatfield surrounds and furthermore, to activate the Campus's street edges. Physically, the poor street edge around the Campus has been partially restored on the northeast corner by the public square (Fig. 7.15). The intension for the square is that it will be used both as a transitional space and occasionally for University functions and gatherings, such as concerts and orientation week activities. The Illumesh TM stainless steel utilized on the façade of the Law Annexe can be used to project digital images and film into the public square at night, thereby transforming the edge of the Campus into an interactive edifice.

The 300-car capacity basement parking under the 24-hour study centre partly relieves the lack of parking. The park and walk facility and the new and existing buildings around the Public Square help to generate 'feet' to activate the space. A waiting area for bus commuters is located on Hilda Street on the east side of the Law Annexe, as a result activating a potentially dull street edge.

Within the building, the Law Annexe seeks to diminish hierarchies within the building by increasing the visibility of the occupants inside. Passers by can easily see the activities of the Law Clinic through the glazing and there is no mystery upon entering the building regarding what one will be confronted with. Likewise, there is a visual connection from the Law Annexe into the public realm. From the waiting area, there are clear views into the office space of the Law Clinic and into the consultation cubicles; although public access is restricted into the office for confidentiality reasons (Fig. 7.22). Therefore, clients know at all times who and what to expect. A similar arrangement can be seen on the first floor of the building in the IICL where staff and students are clearly visible and accordingly, accessible to each other (Fig. 7.23). Functional requirements specify that staff have personal offices, however, there is no hierarchy pertaining to size, furniture or privacy, whether those staff members are judges or professors.

Interaction and accessibility in society are closely linked, because one can argue that the more people interact, the more accessible they perceive each other to be. The work and study spaces within the Law Annexe are zoned so that there is a combination of quiet workspaces and interactive discussion spaces (Fig. 7.24). Circulation spaces are generous to allow for spontaneous conversation and all the furniture is flexible to allow for the changing needs of the building's occupants. Most significantly, however, the waiting area for the Law Clinic is linked closely to the shared 'time-out' zone for the entire building. This means that at the heart of the building there is a space in which all types of occupants can come together to intermingle (Fig. 7.22).

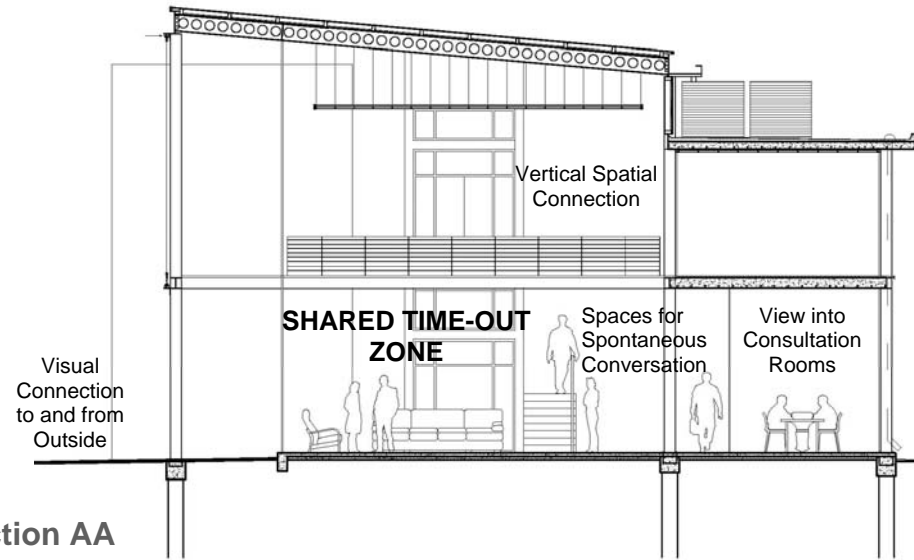


Fig. 7.22: Section AA

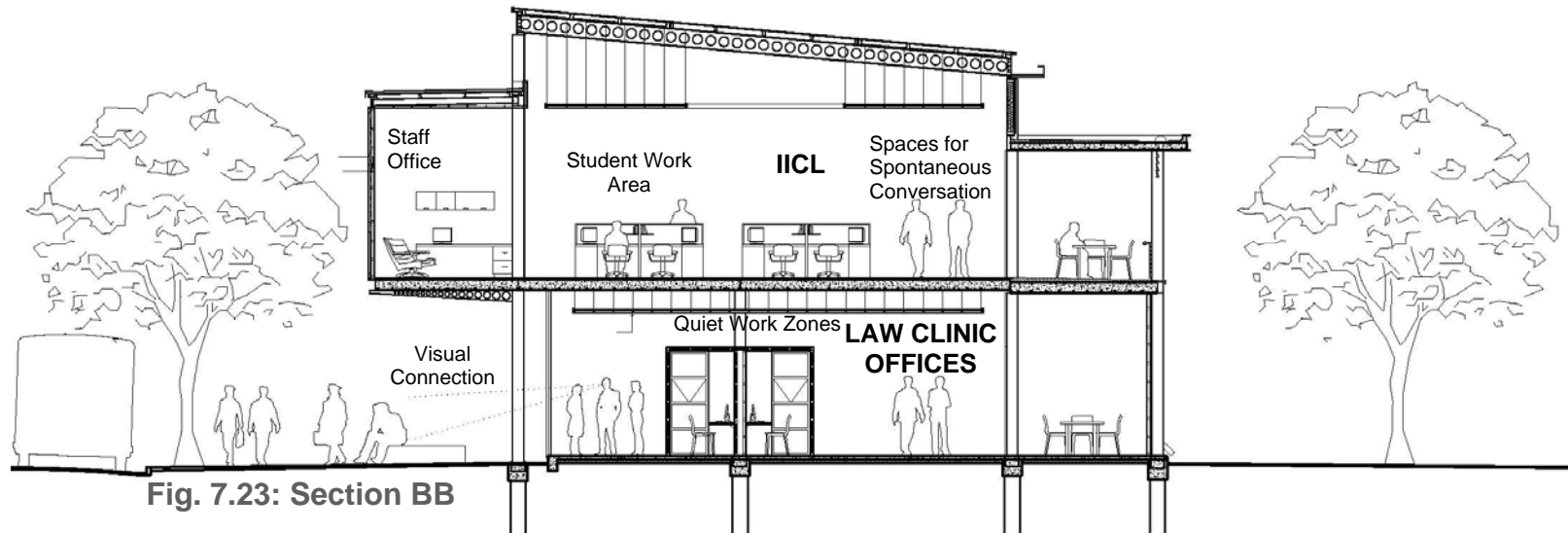
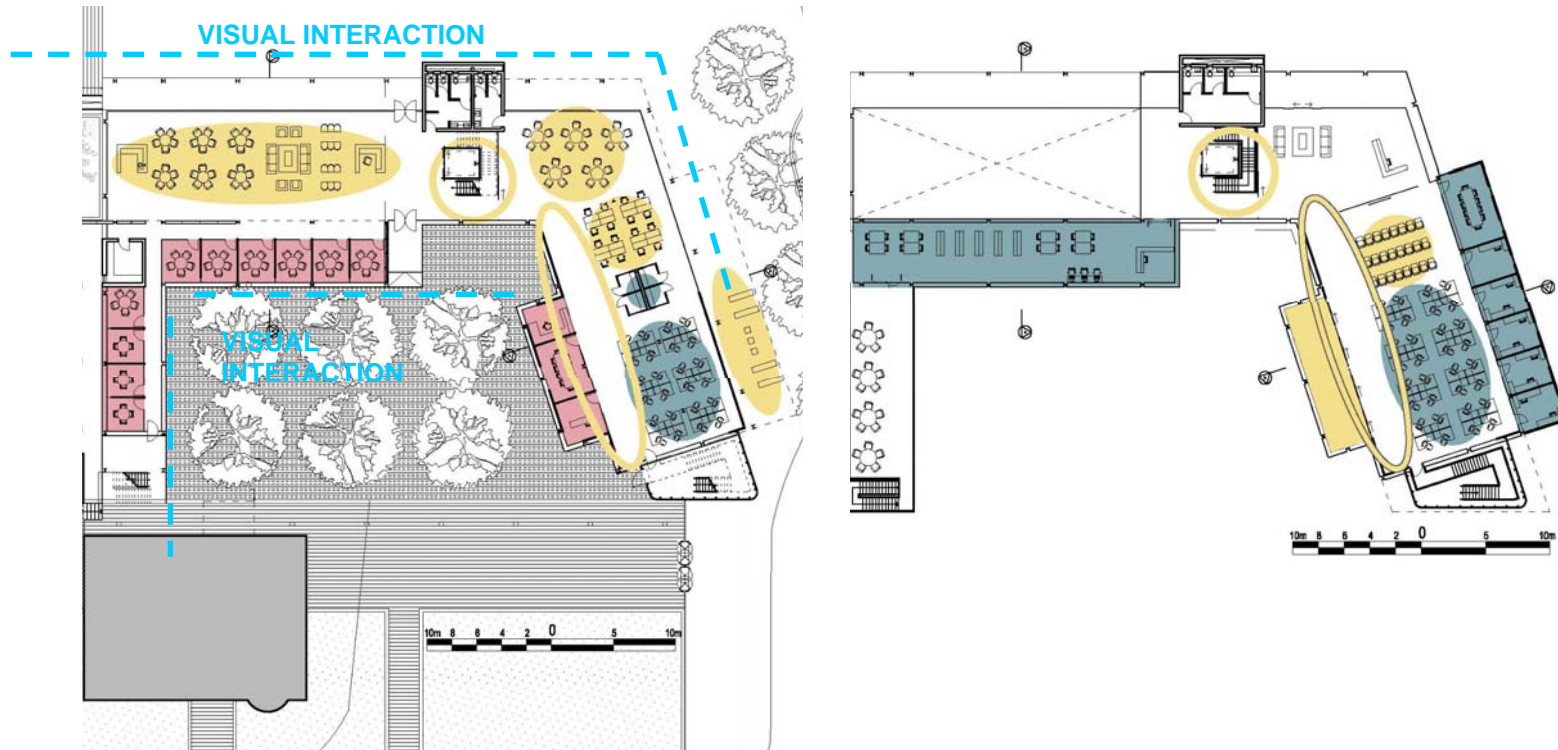






Fig. 7.23: Section BB





**Fig. 7.24: Interactive Zones and Quiet Work Zones on the Ground (left) and First Floor (right)**

- KEY:**
-  Quiet Work Spaces
  -  Interactive and Discussion Zones
  -  Specified Work Spaces
  -  Interactive Circulation Zones



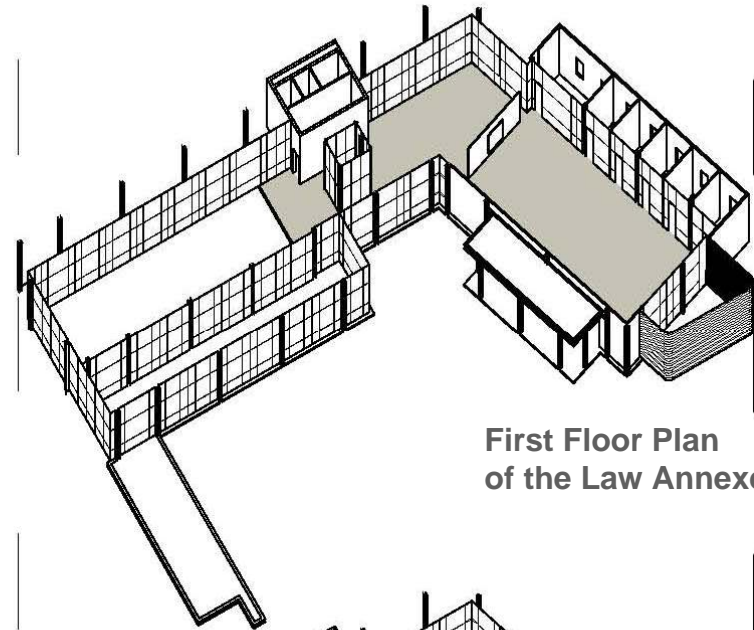


## 7.4 Architectural Language and Form

The final product is a layered design solution that has integrated elements from the existing Law Faculty Building, such as the rhythm of the grid and concepts of transparency and *gravitas*, while maintaining an aesthetic contrast in its architectural language. The result is both one of concord and contrast.

The Law Faculty Building is a concrete framed building with an aesthetic emphasis on structure. In comparison, the Law Annexe is a steel framed building with a predominantly glazed skin; however, it also has a strong emphasis on structure, detail and truth to materials reminiscent of the Law Faculty Building. Moreover, the Law Annexe has incorporated both the Law Faculty Building's uncluttered lines and organization methodology and has continued the system of courtyards into the new extension.

The organization of the building is along a core circulation spine that initially runs parallel to the axis of the Law Faculty Building and then wraps around the site boundary (Fig. 26). Although most of the building is glazed, the wet services are enclosed in unpainted, bag washed, recycled concrete aggregate brick walls. There is extensive use of glazing to encourage views into the building and consequently, into the campus.



First Floor Plan  
of the Law Annexe

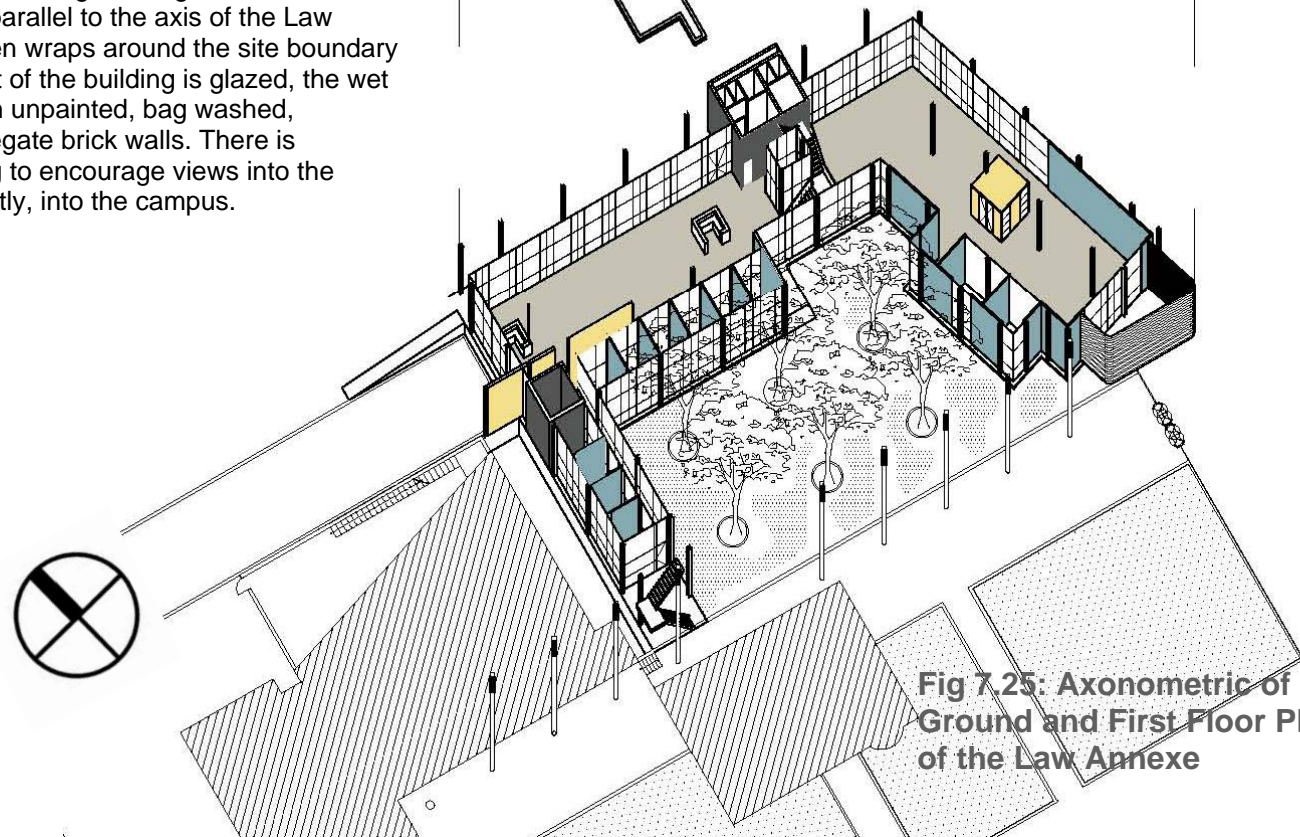
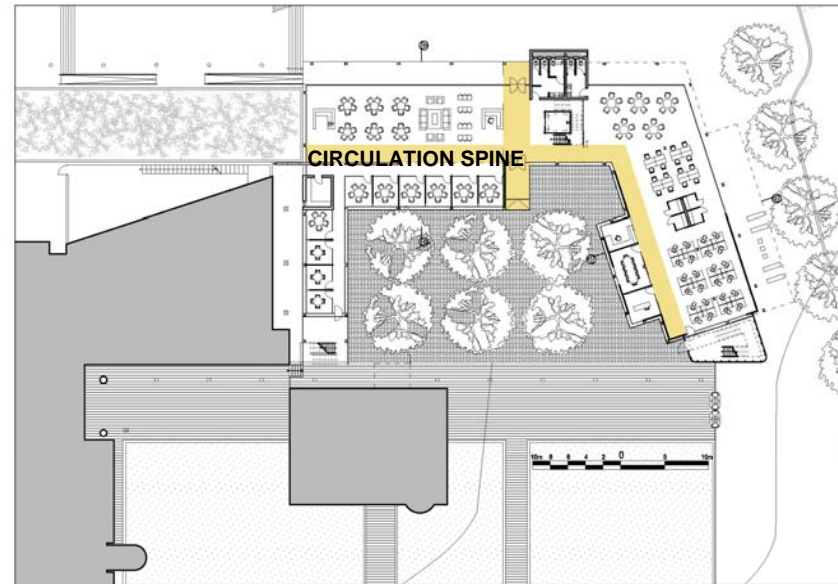


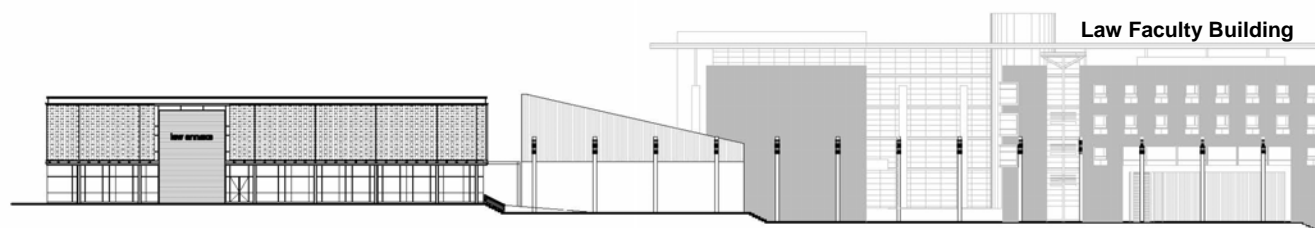
Fig 7.25: Axonometric of  
Ground and First Floor Plans  
of the Law Annexe

The Law Faculty Building and the Law Annexe are juxtaposed mainly on the northern façades of the buildings. The northern façade of the Law Faculty Building primarily consists of sheer white carefully punctured walls and large geometric forms protruding from a relatively plain and solid backdrop. The Law Annexe seeks to contrast with this, similar to the way that the precedent studies analyzed contrasted to existing buildings (c.f. Precedent Study 2), by utilizing minimalist façades and forms. The elevation is divided horizontally by the employment of an Illumesh™ screen in order to bring the façade down to a human scale and to protect the glazing from solar heat gain. The textures created by the screen and brick wall and the translucence of the façade as a whole contrast with the solid, light -reflecting characteristics of the Law Faculty Building (Fig. 7.24 and 7.25).



Along the eastern boundary of the site, Hula Bond aluminium cladding panels are used to enclose the building against sun exposure. On the first floor, the staff offices cantilever over the lower level, creating a protected place for bus commuters to wait.

**Fig 7.26: Law Annexe Circulation Spine shown on the Ground Floor**

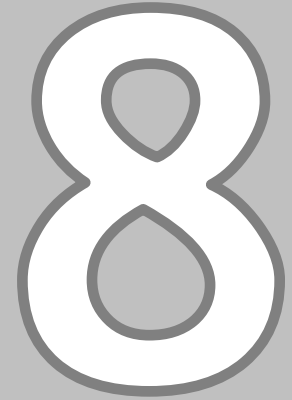


**Fig 7.27: Law Annexe North Elevation with Law Faculty Building shown in Context**



# Technical Investigation

- 8.1 Structural Composition
- 8.2 Façade Systems
- 8.3 Floor Surface and Floor Slab Construction
- 8.4 Roof System
- 8.5 Interior Environment
- 8.6 Passive Control Systems
- 8.7 Landscaping





## 8.1 Structural Composition

The Law Annexe consists of a portal frame structure. The building is based on a grid using 254 x 254 x 73 H-columns.

The roof is supported by 254 x 146 x 31 (original size) cellular I-beams by Macsteel TM.

The purlins are made up of 125 x 75 x 20 x 3 cold-rolled lipped channel sections which are bolted to 125 x 75 x 8 angle cleats that are welded to the rafters.

16 mm steel rods are threaded on the ends and bolted through the purlins to provide lateral stability.

The roof covering is pre-painted Chromadek in a corrugated profile. The H-columns are bolted to a base plate onto ground beams attached to pile foundations specified by an engineer.

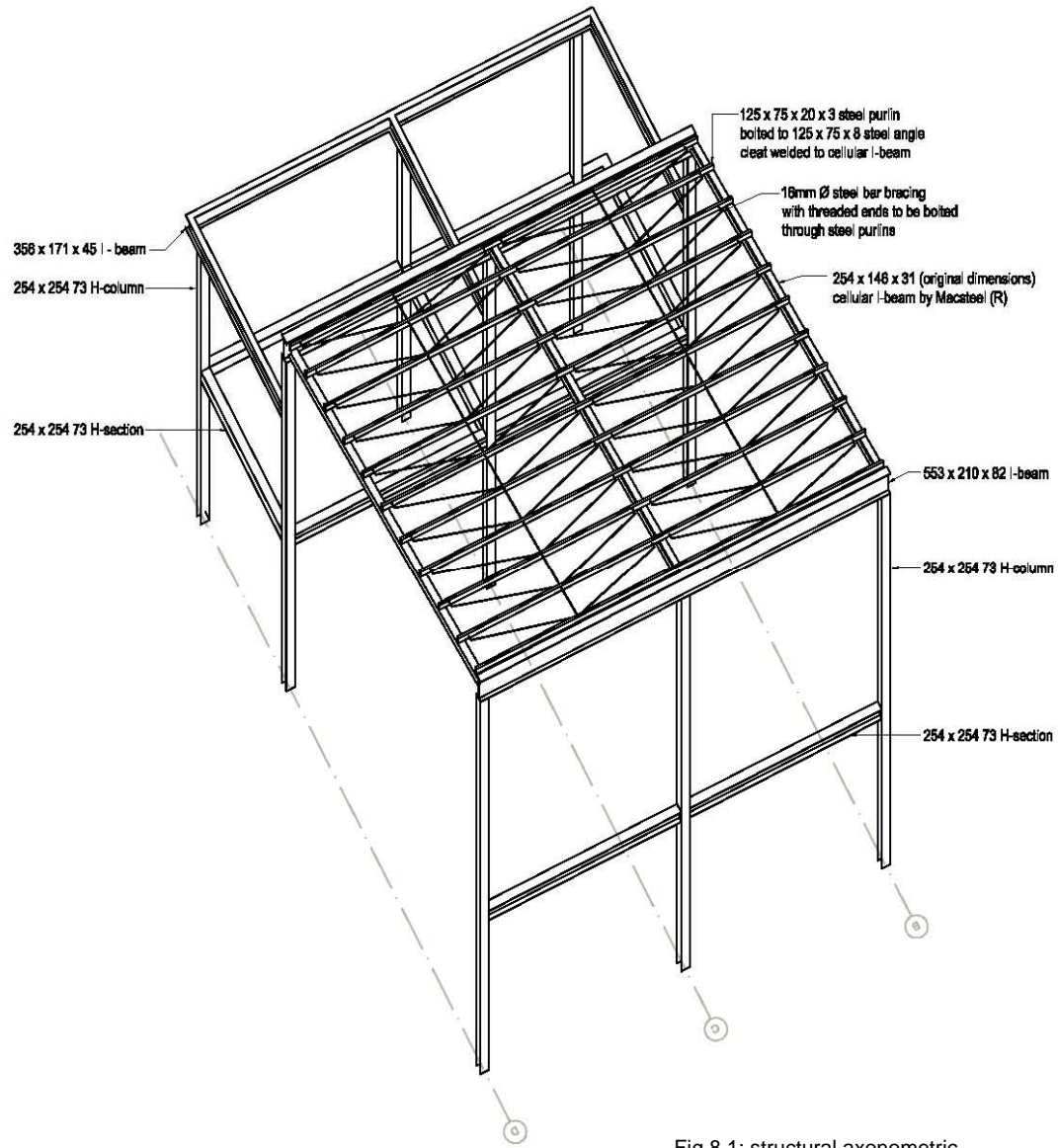


Fig 8.1: structural axonometric of section of steel portal frame



The longer spans and thinner columns allowed by the utilization of steel elements emphasize concepts of weightlessness employed in the design of the Law Annexe. Although steel is more expensive than reinforced concrete construction, the fast and accurate construction compensates for this (Wegelin: 2008: 3.2). Furthermore, in South Africa 30% of steel has been recycled and 70% of the steel used in buildings can be recycled or re-used in other buildings, therefore the use of steel in buildings can be considered as an investment as it can be sold at its inflated value if the building is ever demolished. (SASFA: 2009)

Cellular beams have been used for the rafters in the portal frame. Cellular beams are similar to castellated beams other than they have circular openings formed into the web instead of hexagonal openings. The advantage of cellular beams is that their increased depth means that they are significantly stiffer than beams of the same weight thereby improving the cost and efficiency of the design. The distance that the beams can span is increased giving the building a light uncluttered appearance (Macsteel: 2009).



Fig 8.2: Macsteel Cellular Beams

## 8.2 Façade Systems

The resolution of detail concerning the roof edge and the façades of the Law Annexe are of particular significance to the design because they emphasize fundamental concepts of translucence and linearity. The external walls of the Law Annexe consist predominantly of glazed curtain walling protected from solar heat gain by Illumesh TM stainless steel screens. Aluminium cladding is used in areas where solidity is required. The wet cores of the building are enclosed in bag washed, unpainted recycled brick. A 533x 210 x 82 I-beam runs along the roof edges creating a continuous shadow line.

Glazed curtain walls with aluminium frames are used for the external walls as well as to divide some internal spaces. The system selected is a simple stick system as it can be adjusted most easily to site conditions and sliding opening sections can be integrated into the system. The glazing on the external face of the building is Armourlam TM by Smart Glass. Armourlam TM is a combination of safety and security glass that is efficient in thermal control and sound dampening (Smart Glass: 2009). The benefits of using aluminium frames are that despite being rigid and strong, they are relatively lightweight and so easy to fabricate. Aluminium resists corrosion, is longwearing and low maintenance and possible to recycle.

The masonry walls surrounding the wet cores are Cape Brick TM, a product made mostly from recycled aggregate sourced from crushed demolition waste. According to a study led by Professor Daniel Irurah at the University of Witwatersrand, Cape Brick TM has the lowest embodied energy from all the masonry products currently on the market in South Africa (Brand South Africa: 2008).



Fig. 8.3: St. Anne's Hospital, Pietermaritzburg



  
**CAPE BRICK**



Fig. 8.4: Cape Brick

Illumesh screens are used to protect the glazing from solar heat gain. Illumesh TM is a woven stainless steel mesh used as both a sun-shading device and transparent digital media façade at night. Images can be projected onto the screen during functions held in the public square at night. It is supplied by GKD, a Germany based company. The screen has 60% transparency levels from the inside of the building and is either transparent or opaque from the outside, depending on the incidence of light. Additionally, it is resistant to weathering and corrosion, fire resistant, easy to maintain and recyclable. (GKD: 2009)

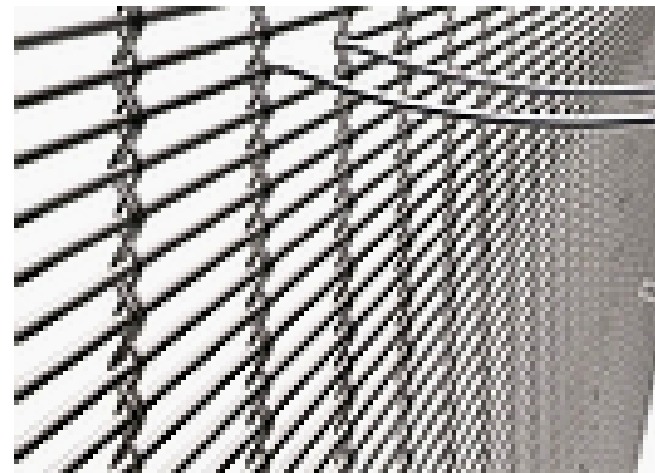
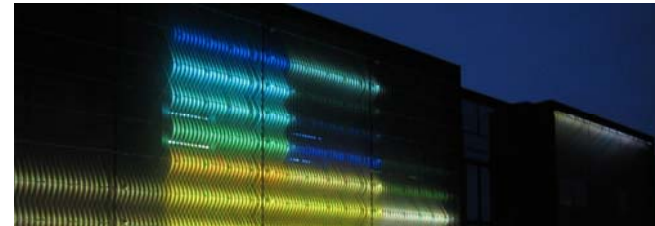


Fig 8.5: Illumesh TM digital media façade

Hula-Bond aluminium panels are used predominantly on the east and west facing façades. The standard 4 mm thick, rigid composite panel consists of a 0.5 mm thick aluminium facing sheet bonded to a polyethylene core (Specifile: 2008). The panel is fixed to aluminium hangers using polyurethane structural adhesive tape. The panels are waterproof and the spacing in-between panels are sealed using silicone. The aluminium panels form a smooth façade creating a correlation to the plastered and painted walls on the south side of the existing Law Faculty Building without replicate the material.



Fig 8.6: Hula-Bond Aluminium Panels

### 8.3 Floor Surface and Floor Slab Construction

Polished concrete floors are used in the Law Annexe to give emphasis to honesty of construction. The floor screed is to be sanded with a mechanical grinder to a polished finish. Expansion joints will later be cut into the surface with the grinder to prevent cracking.

In order to achieve the aesthetic of a predominantly steel building, it was felt that the floor slab should be cast into supporting I-beams to avoid the view of a concrete beam. To achieve this, the first floor slab is cast into steel QC decking supported by I-beams; QC decking is sourced from HH Robertson.

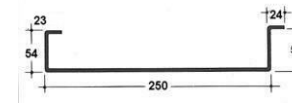


Fig. 8.7: QC Decking from HH Robertson



Fig. 8.8: Polished Concrete Floor

## 8.4 Roof System

The roofing material used over the main spaces of the Law Annexe is steel roof sheeting; predominantly grey pre-painted Chromadek TM by ArcelorMittal Steel.

Panels of polycarbonate translucent roof sheeting are alternated between the Chromadek TM over the work area on the first floor to aid day-lighting. Heat Stop TM by ArcelorMittal Steel is used for this as it eliminates 60% of the heat radiated by the sun and hence minimises heat gain. Additionally, it has a *'co-extruded layer of UV stabilized surface protection'* on the external side shielding it from weathering. The Chromadek TM is laid to a 5° fall and is supported by 125 x 75 x 20 x 3 steel lipped channels at a maximum of 1200 mm intervals. The Heat Stop TM is supported by 120 x 60 x 3 rectangular hollows at a maximum of 1200 mm intervals.

The roof is supported by 254 x 146 x 31 (original size) cellular I-beams by Macsteel TM. The roof sheeting over the staff offices is pre-painted Kliplok TM supplied by ArcelorMittal Steel utilized because the gradient of the roof is at a two degree fall. The concrete roof slabs are cast into steel QC decking supported by I-beams; QC decking is sourced from HH Robertson.



Fig 8.9: Polycarbonate translucent roof sheeting

## 8.5 Interior Environment

The use of natural timber in interior spaces can be associated with warmth, colour and tactility, all of which are commendable characteristics for any building. Timber was required in the interior spaces of the Law Annexe to offset the extensive use of steel and glazing. Unfortunately, in South Africa, the sustainability of the forestry industry has been called into question; 1.5 million hectares of tree plantations have replaced natural bio-diverse grasslands throughout the country. Eucalyptus and wattle constitute for more than 50% of the trees planted and both species are invasive to South Africa (Carrere: 2000). Indigenous woods such as Blackwood, Yellowwood and Stinkwood are available commercially from the Knysna forest, however to specify these woods would lead to destruction of valuable natural forest ecosystems.

With this in mind, BisonBord was specified for ceilings in the Law Annexe. BisonBord is a superior interior grade particleboard manufactured from wood chips that are a by-product of timber manufacturing. The chips are bonded with synthetic resin under heat and pressure creating a resilient board with an interesting timber texture (PG Bison: 2006). The boards are used as an alternative to timber panelling and are simply varnished to reveal the unique characteristics.



Fig 8.5: PG BisonBord TM



## 8.6 Passive Control Systems

### Thermal Comfort

Thermal comfort in buildings is considered to be between 20 to 28 degrees Celsius (IsoBoard: 2009) Most of the external walls in the Law Annexe are glazed using Armourlam TM by Smart Glass which has thermal control properties and is protected from solar gain at any rate by the Illumesh TM screens.

The dry aluminium clad walls and roofs of the Law Annexe are insulated using Isoboard TM insulation boards, an extruded polystyrene rigid foam thermal insulation. The panels are resistant to fire and do not support mould growth or vermin. Furthermore, they are waterproof, so although care has been taken to seal the external roof and wall systems, the IsoBoard TM acts as a second barrier to moisture penetration (IsoBoard: 2009).



Fig 8.6: IsoBoard Insulation

### Orientation

Since the site runs along an east west axis, it was possible to orientate the building predominantly to the north and south. The east wing of the Law Annexe is limited in size because of its east west orientation. These façades have smaller openings and manually operable sun shading in the form of a canvas screen on the west facing balcony of the first floor. The scale of the Law Annexe has been kept deliberately low to allow sunlight into the courtyard and still allow the northern sunlight to fall on Rissik House.

### Ventilation

The building's dimensions allow for predominantly passively controlled ventilation. The building has opening windows and sliding doors on the north, east, south and west façades of the building allowing fresh air into all the spaces. The prevailing summer wind direction in Pretoria is from the northeast therefore encouraging cross ventilation.

### Day Lighting

The extensive glazing in the Law Annexe enables the building to be naturally lit throughout the day. The Illumesh TM screens protect the interior space from direct sunlight while still allowing a subdued light to enter the building. Panels of polycarbonate translucent roof sheeting are alternated between the Chromadek TM over the work area on the first floor to promote the use of natural light instead of artificial light.

### Rainwater Harvesting

Of all the water on the planet, 97.5% is in the oceans, two percent is frozen, three quarters of a percent is in the ground as groundwater, and a mere quarter of a percent is useable for humans. The fact is that comparatively there is not much water available for humans to live on. Residential use in South Africa accounts for 15% of the total water use



of the country, and from that amount, 30% is used to flush toilets (DWAF: 2007). The rainwater harvested from part of the roof of the Law Annexe is used to flush toilets inside the building. The estimated harvesting potential of the catchment area was worked out as follows:

Annual Rainfall x Rainfall Coefficient x Catchment Area =  
Rainwater Harvesting Potential (DWAF: 2007).

$$0.674\text{m} \times 0.9 \times 460\text{m}^2 = 279\text{m}^3 \\ = 279\,000 \text{ litres/year}$$

20 x 1500 litre corrugated steel JoJo water tanks have been used to contain the water on the concrete roof slab above the library.

The average toilet uses 11 litres of water per flush:  
(DWAF: 2007)

279 000 litres divided by 11 litres = 25 363.6 flushes

Assuming that the Law Annexe has an average of 100 inhabitants per day, they all use the toilet once in the day, and there are approximately 261 working days in the year, the building requires 26 100 flushes per year.

The water required for flushing is 287 100 litres per year. The rainwater is able to provide 97% of the flushing water needed by the Law Annexe. These figures can be improved by using water efficient toilets that use less than 11 litres per flush.

## 8.7 Landscaping

The external landscape surfaces in the courtyard of the Law Annexe and the public square consists of mainly permeable concrete paving and grassed pavers. Pervious concrete is used to pave Hilda Street; it is a mixture of Portland cement, coarse aggregate, water and admixtures. It has between 15% - 25% void space in its make up that enables water to pass through, filtering storm water in the process. It consequently reduces storm water run-off and the associated water pollution by increasing absorption into the ground. Traffic is controlled along Hilda Street to 40 km/hour with the aid of speed bumps to reduce the chance of damage to the pervious concrete, the speed reduction is also appropriate because of the increase in pedestrian activity predicted in the area by the Hatfield Framework. (Rocke: 2008)

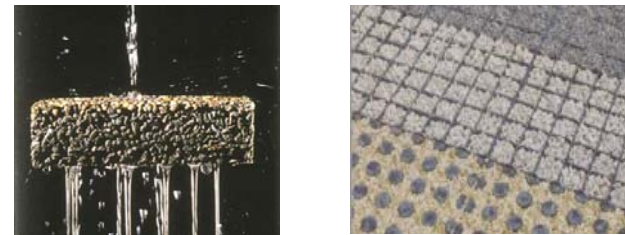


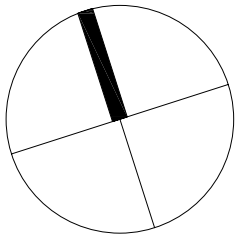
Fig. 8.7: Grassed Pavers and Permeable Concrete



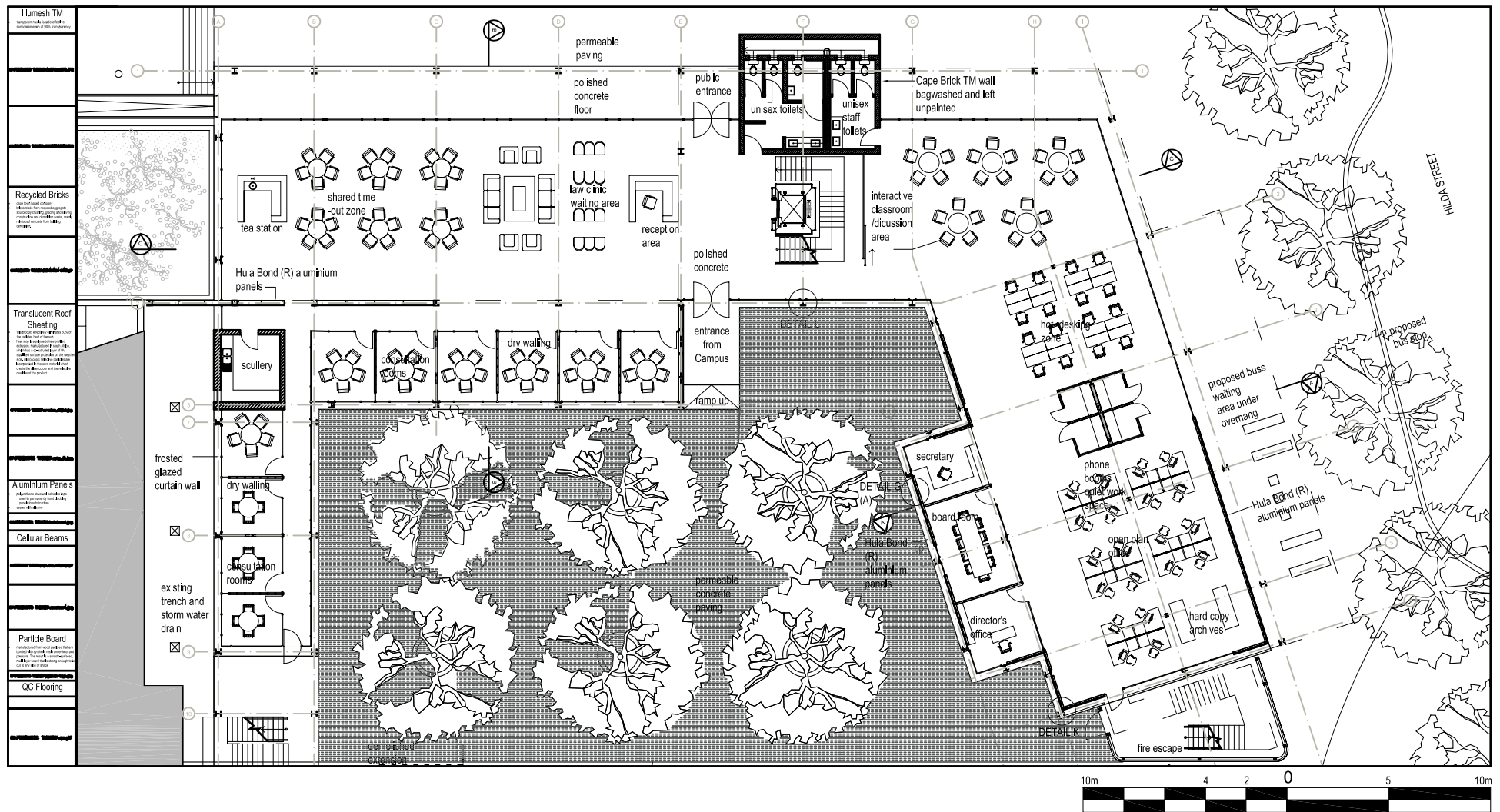
# 9

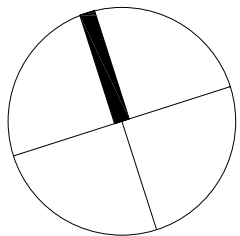
## **Technical Documentation**

- Plans
- Sections
- Elevations
- Details



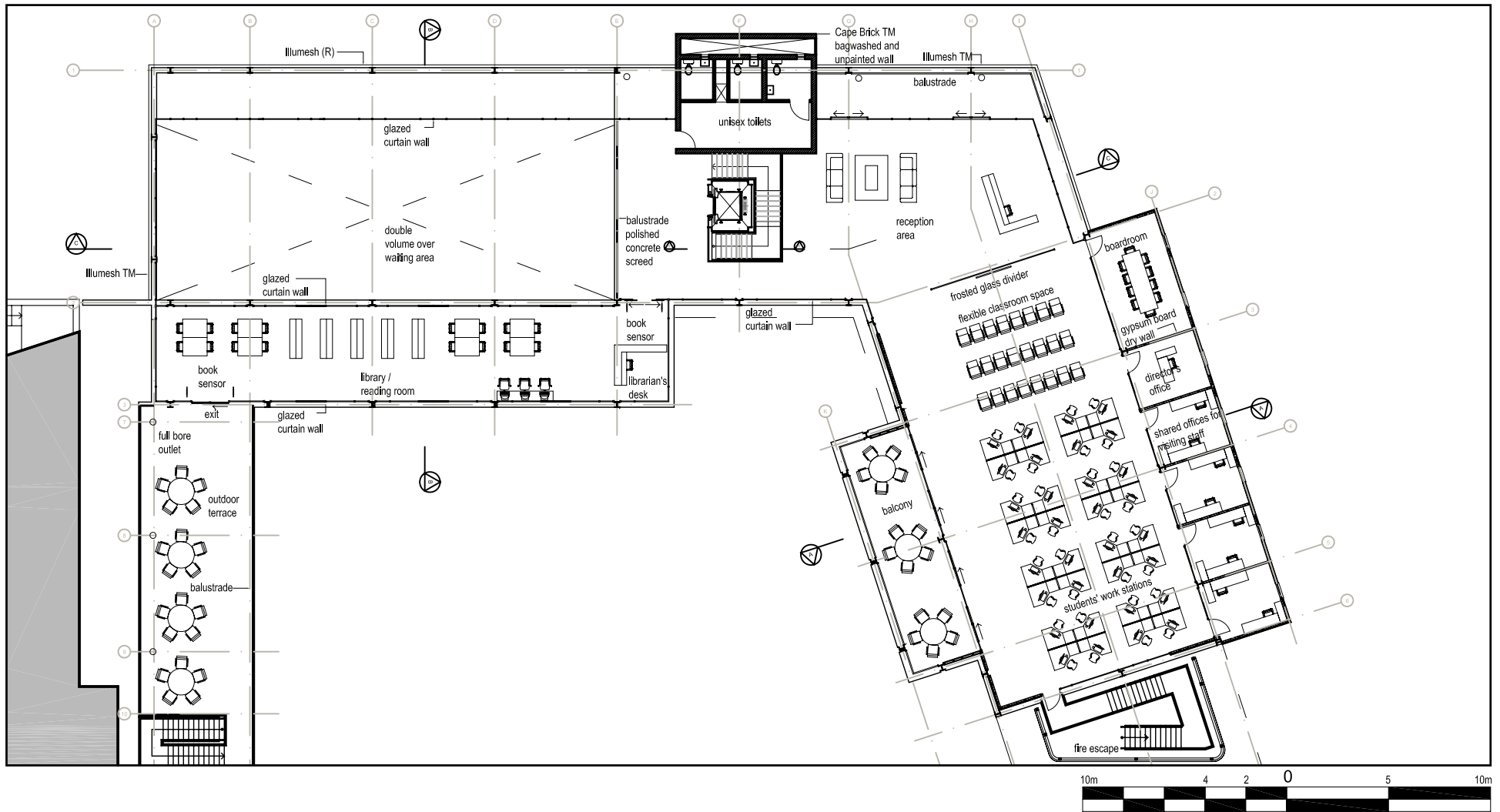
Ground Floor Plan 1:200

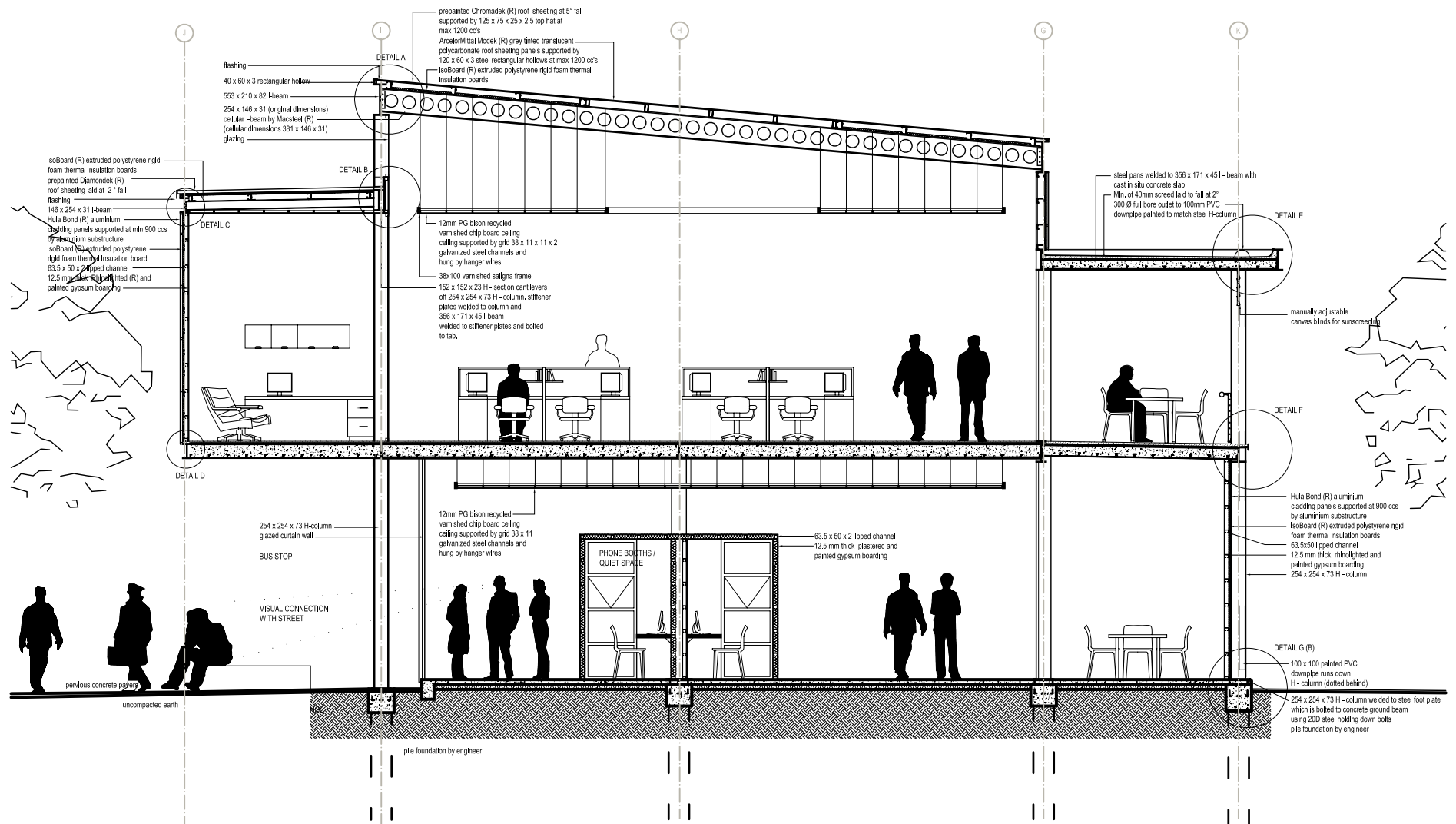




First Floor Plan 1:200







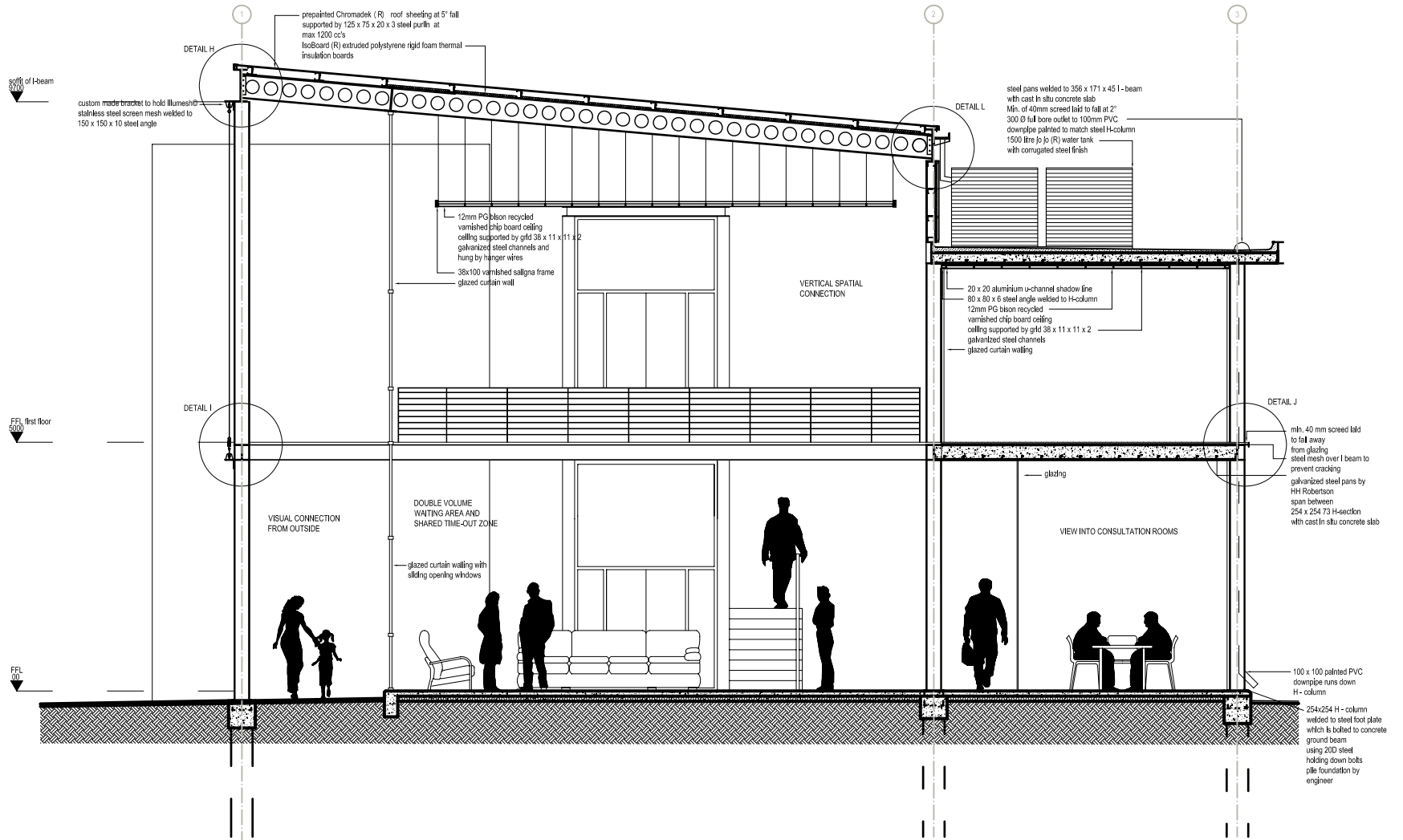
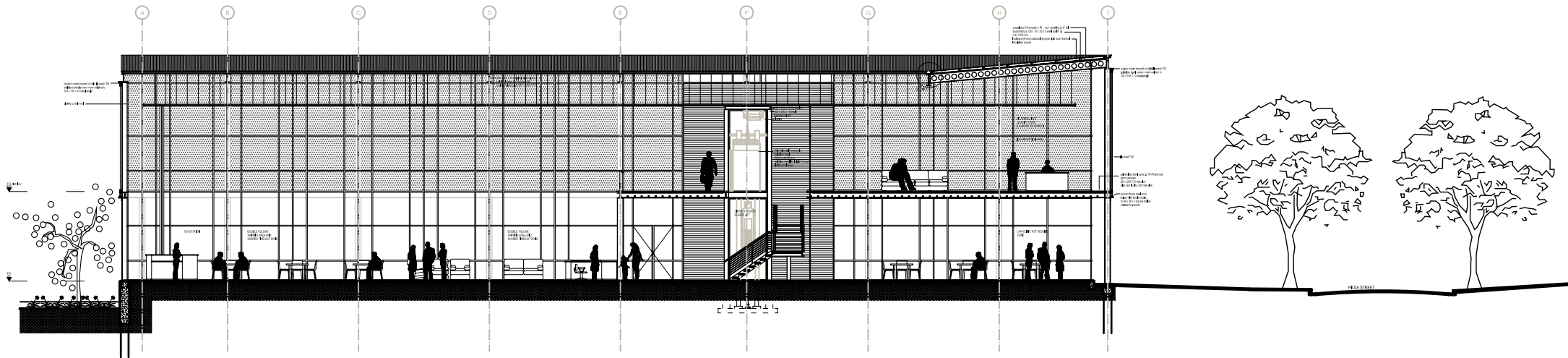
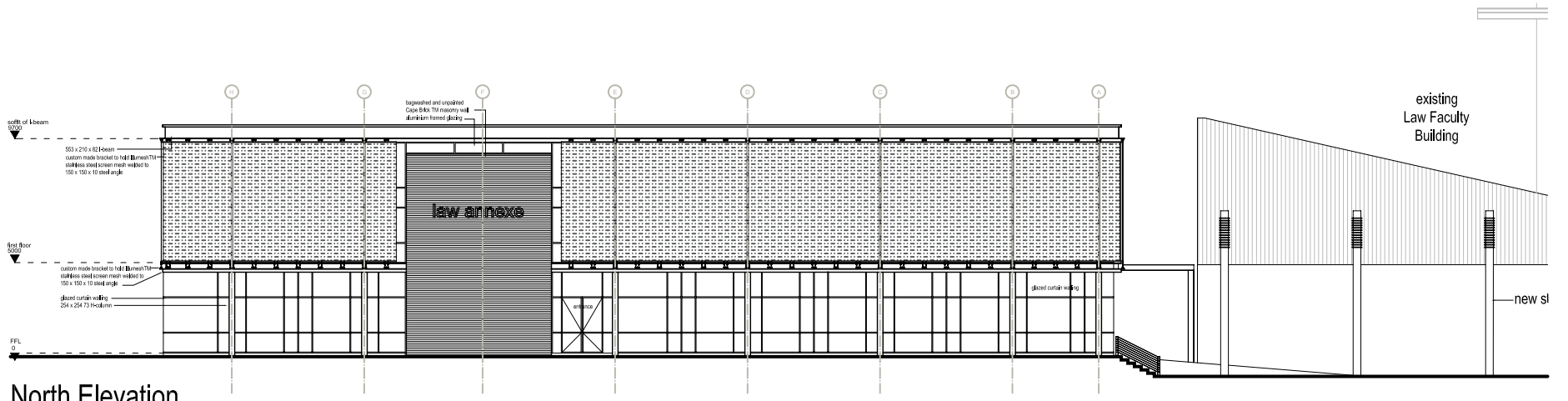


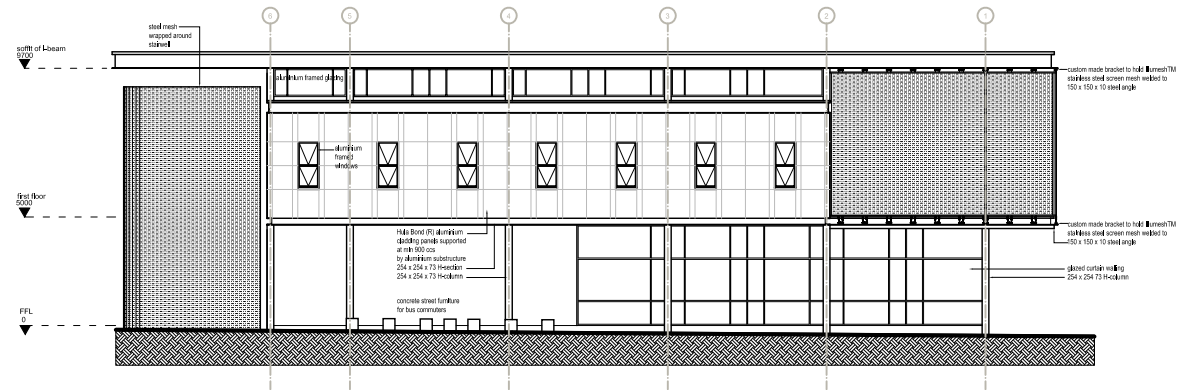
Fig. 9.4: Section BB 1:100



Section CC



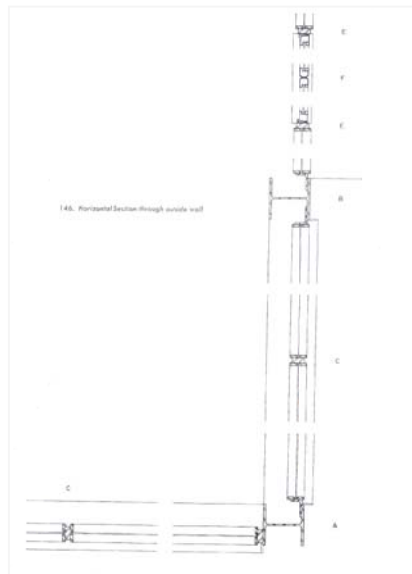
North Elevation



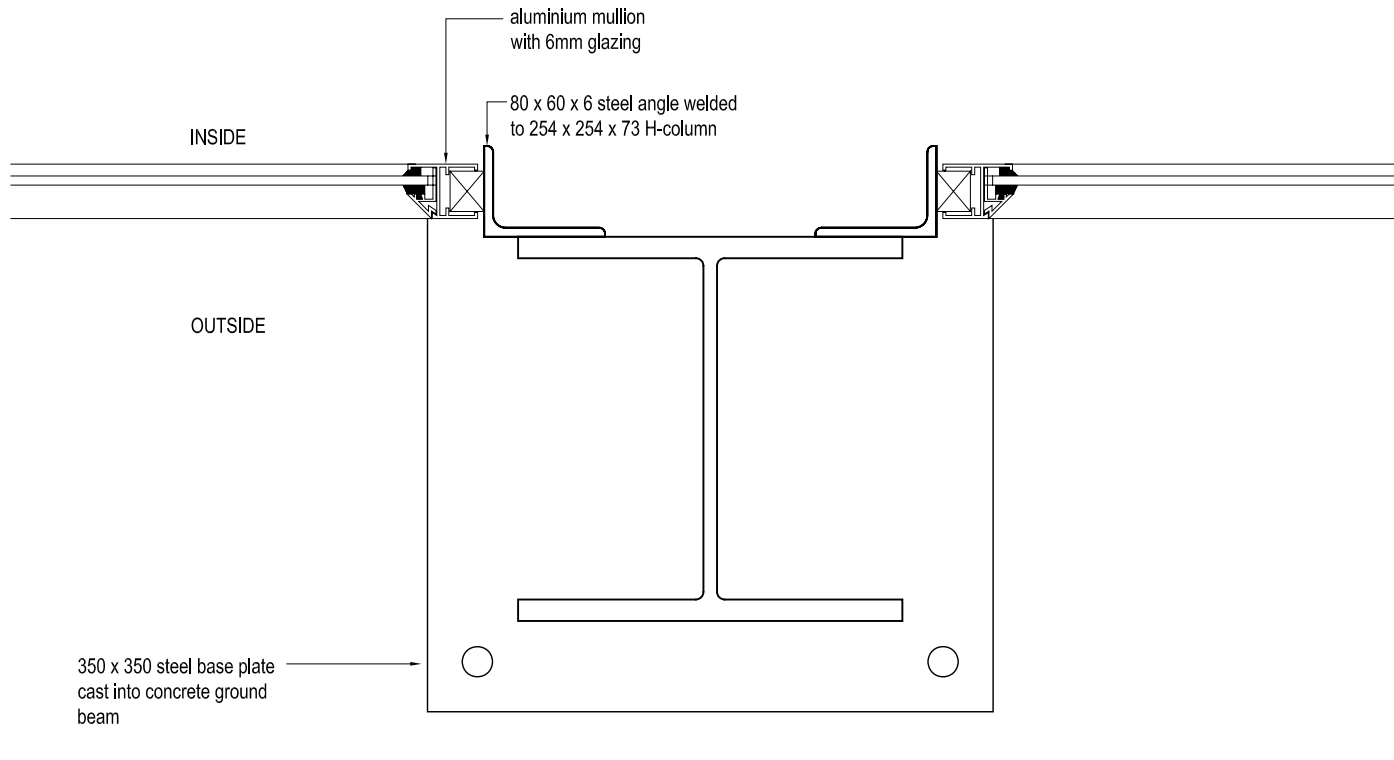
East Elevation



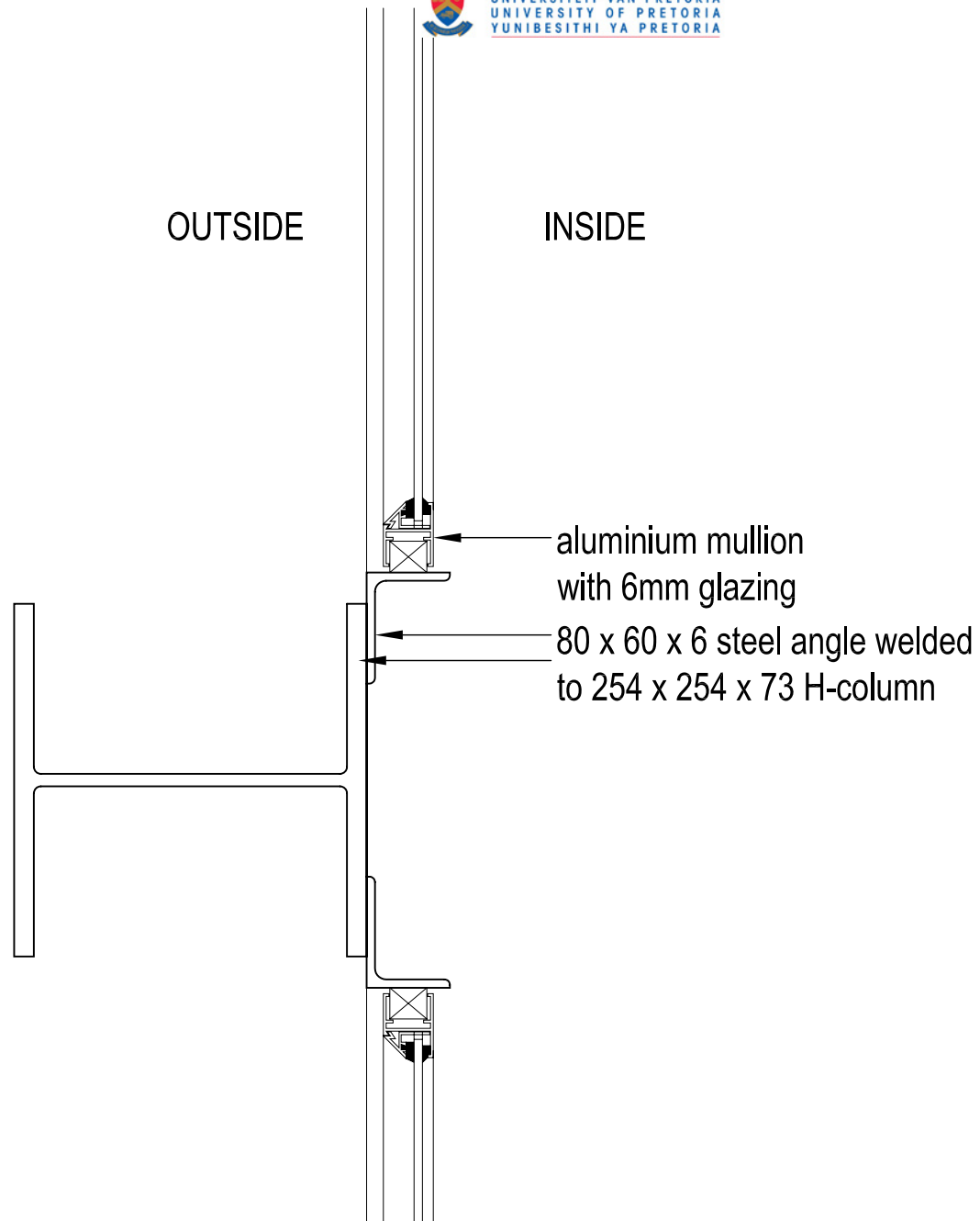
## Horizontal Sections



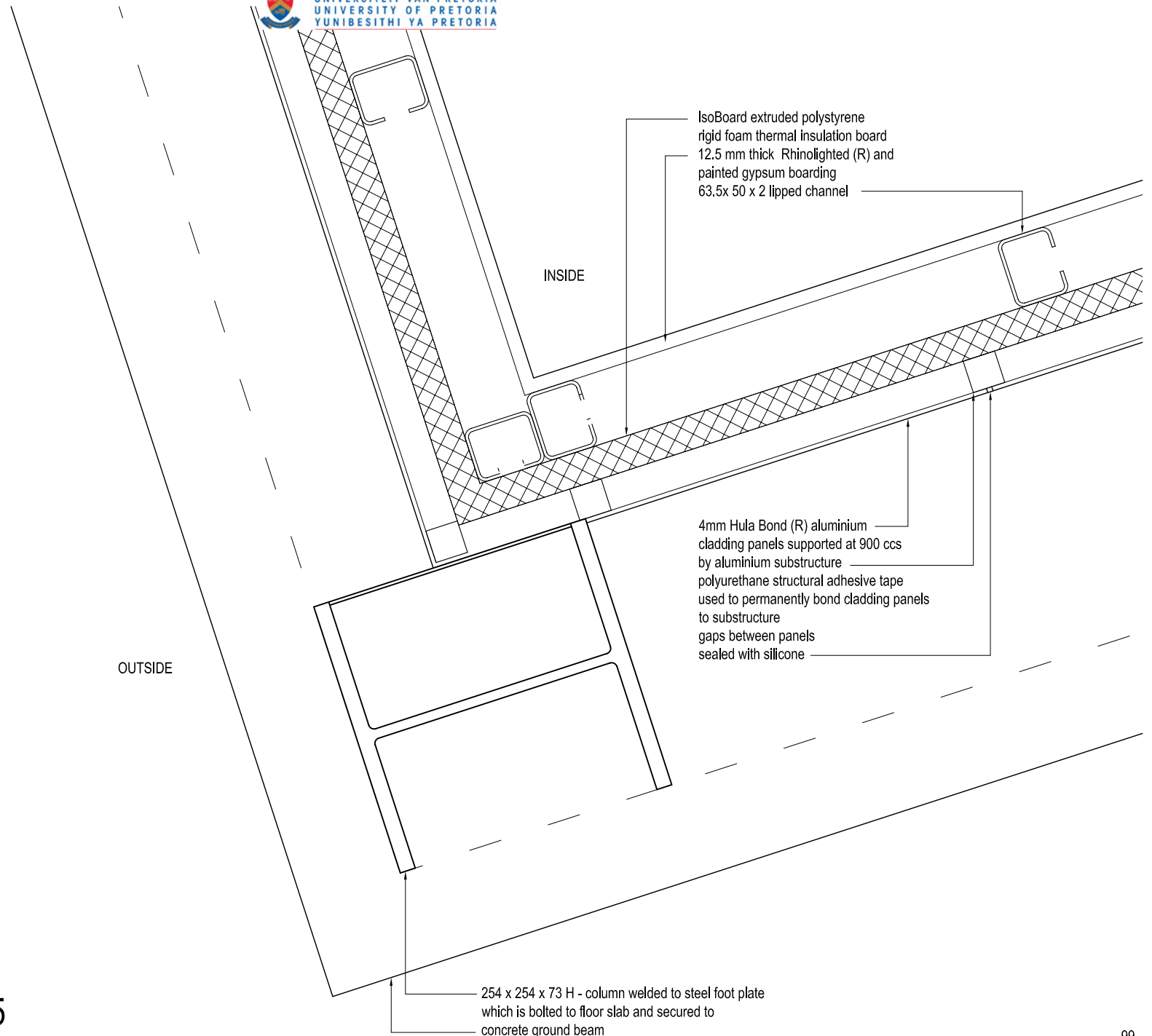
Horizontal Section through an Outside Wall  
Library and Administration Building,  
Chicago 1944,  
Mies van der Rohe



detail M 1:5



detail N 1:10



detail K 1:5

# Floor Slabs and Concrete Roof Slabs



Entrance Canopy at Mercedes Benz Sales Centre, Centurion



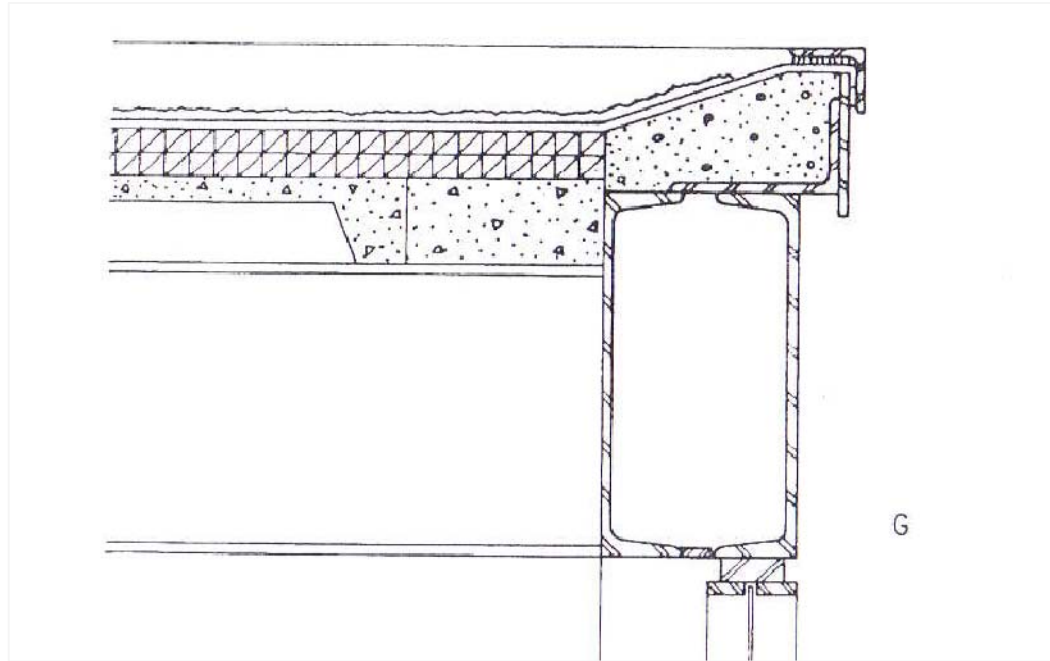
Balcony Detail at Melrose Arch, Corlett Drive, Johannesburg



Weld Detail at Voda World, Centurion, Pretoria



Design Quarter, William Nicol Road, Johannesburg



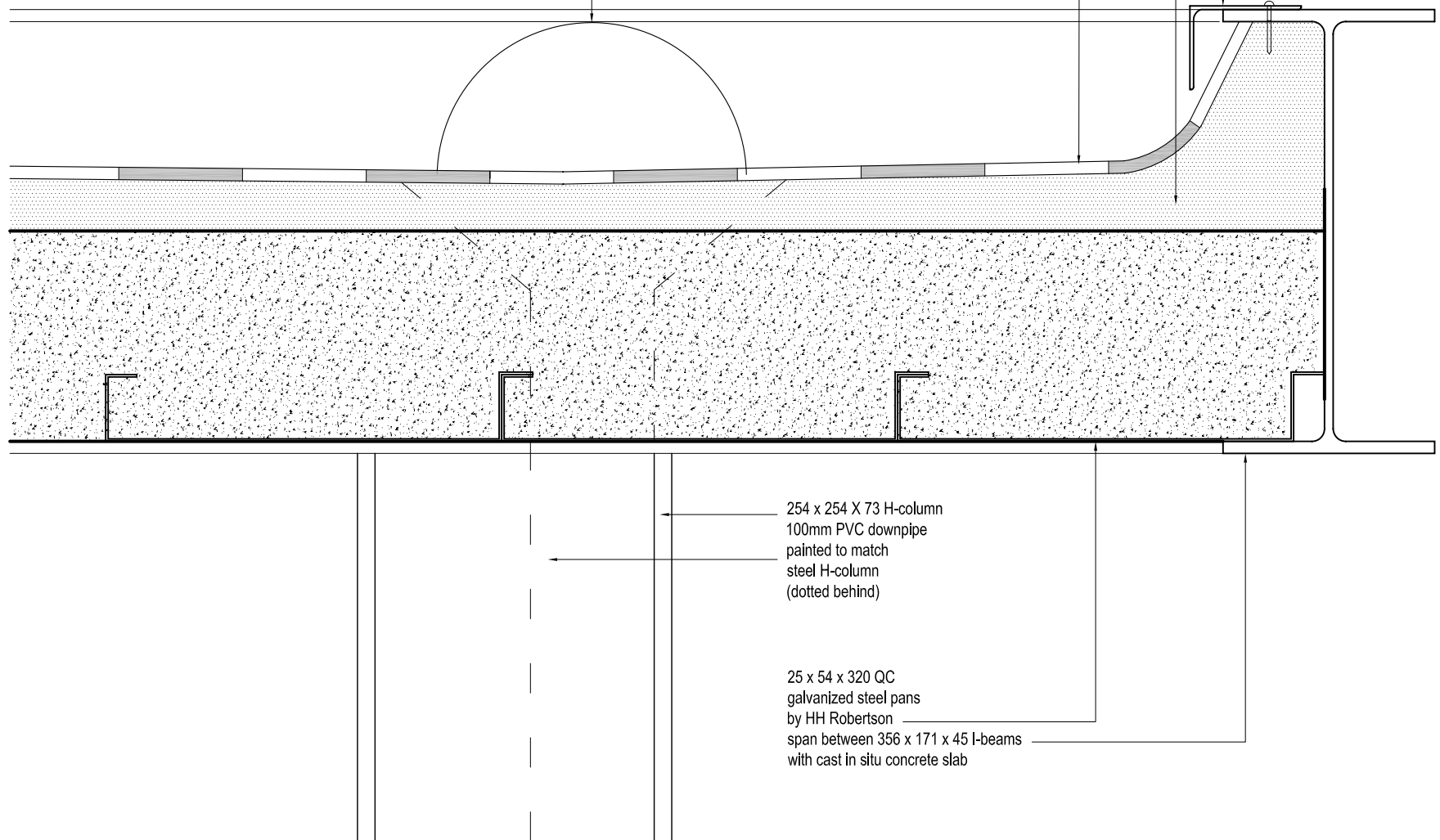
Roof Edge Detail Library and Administration Building, Chicago 1944, Mies van der Rohe





65 x 90 x 2 steel angle to protect waterproofing  
attached with self tapping screw

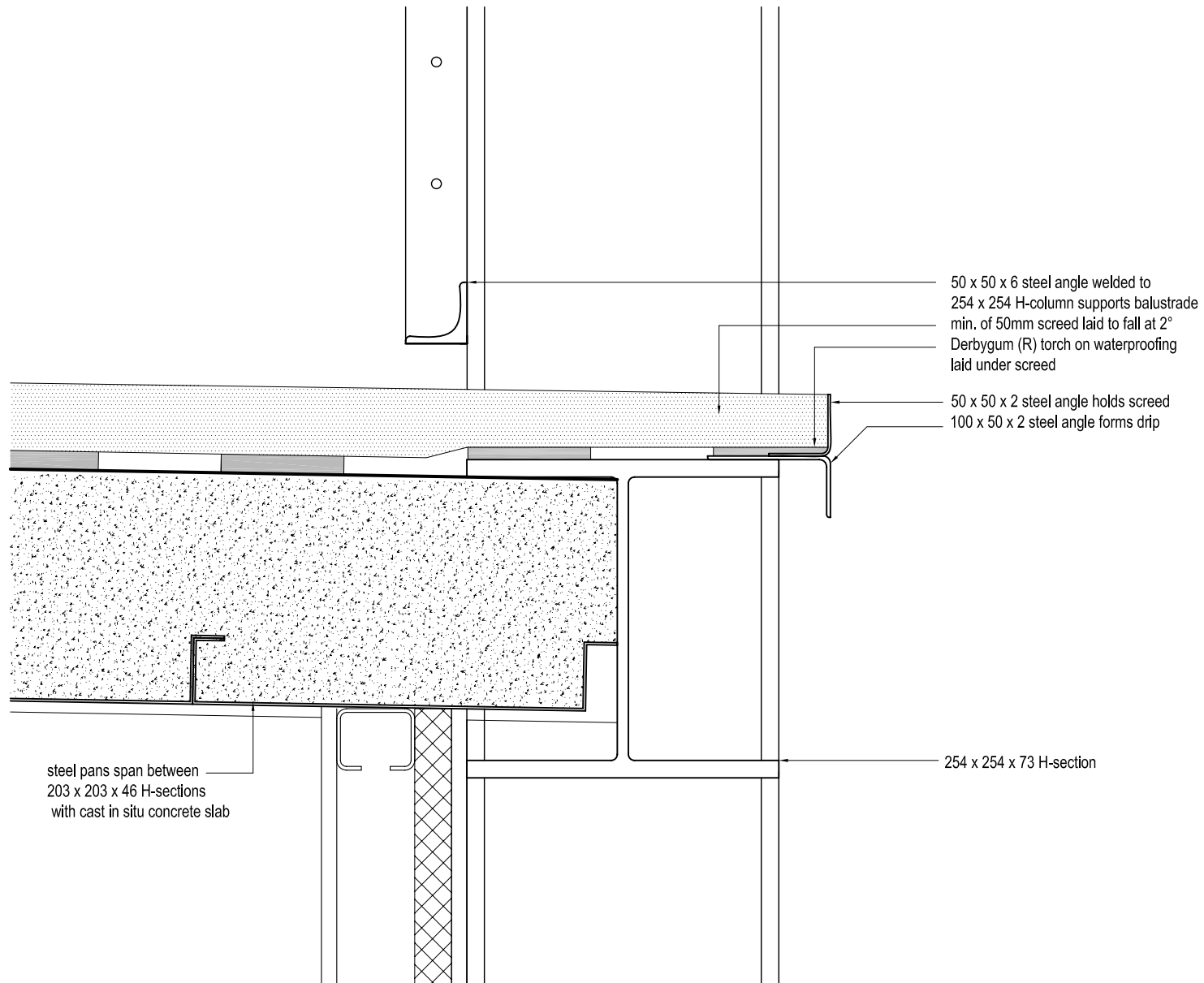
min. of 40mm screed laid to fall at 2°  
Derbygum (R) torch on waterproofing  
300 Ø full bore outlet to 100mm PVC



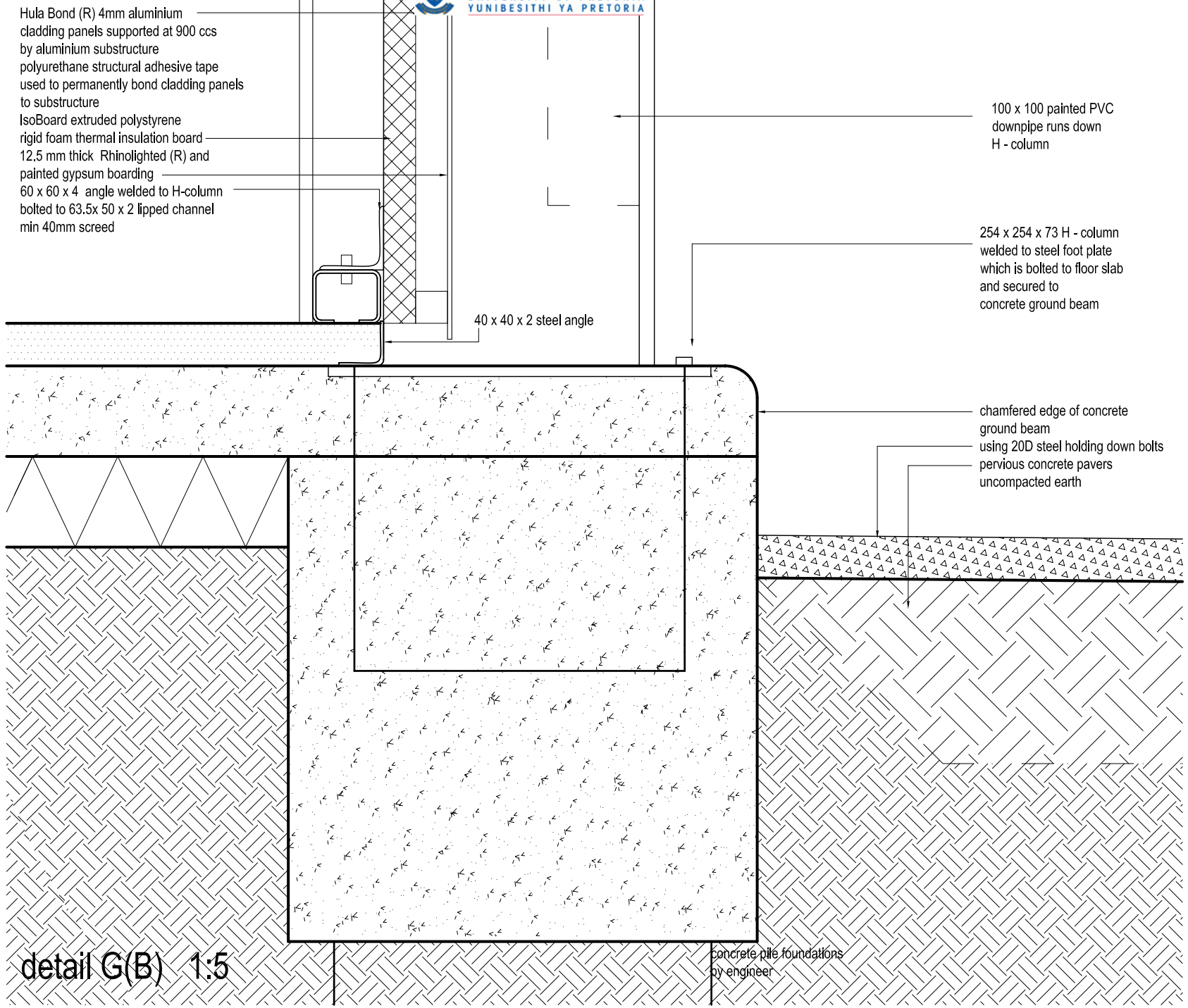
254 x 254 X 73 H-column  
100mm PVC downpipe  
painted to match  
steel H-column  
(dotted behind)

25 x 54 x 320 QC  
galvanized steel pans  
by HH Robertson  
span between 356 x 171 x 45 L-beams  
with cast in situ concrete slab

detail E 1:5



detail F 1:5



Hula Bond (R) 4mm aluminium cladding panels supported at 900 ccs by aluminium substructure  
 polyurethane structural adhesive tape used to permanently bond cladding panels to substructure  
 IsoBoard extruded polystyrene rigid foam thermal insulation board  
 12.5 mm thick Rhinolithed (R) and painted gypsum boarding  
 60 x 60 x 4 angle welded to H-column bolted to 63.5x 50 x 2 lipped channel min 40mm screed

100 x 100 painted PVC downpipe runs down H - column

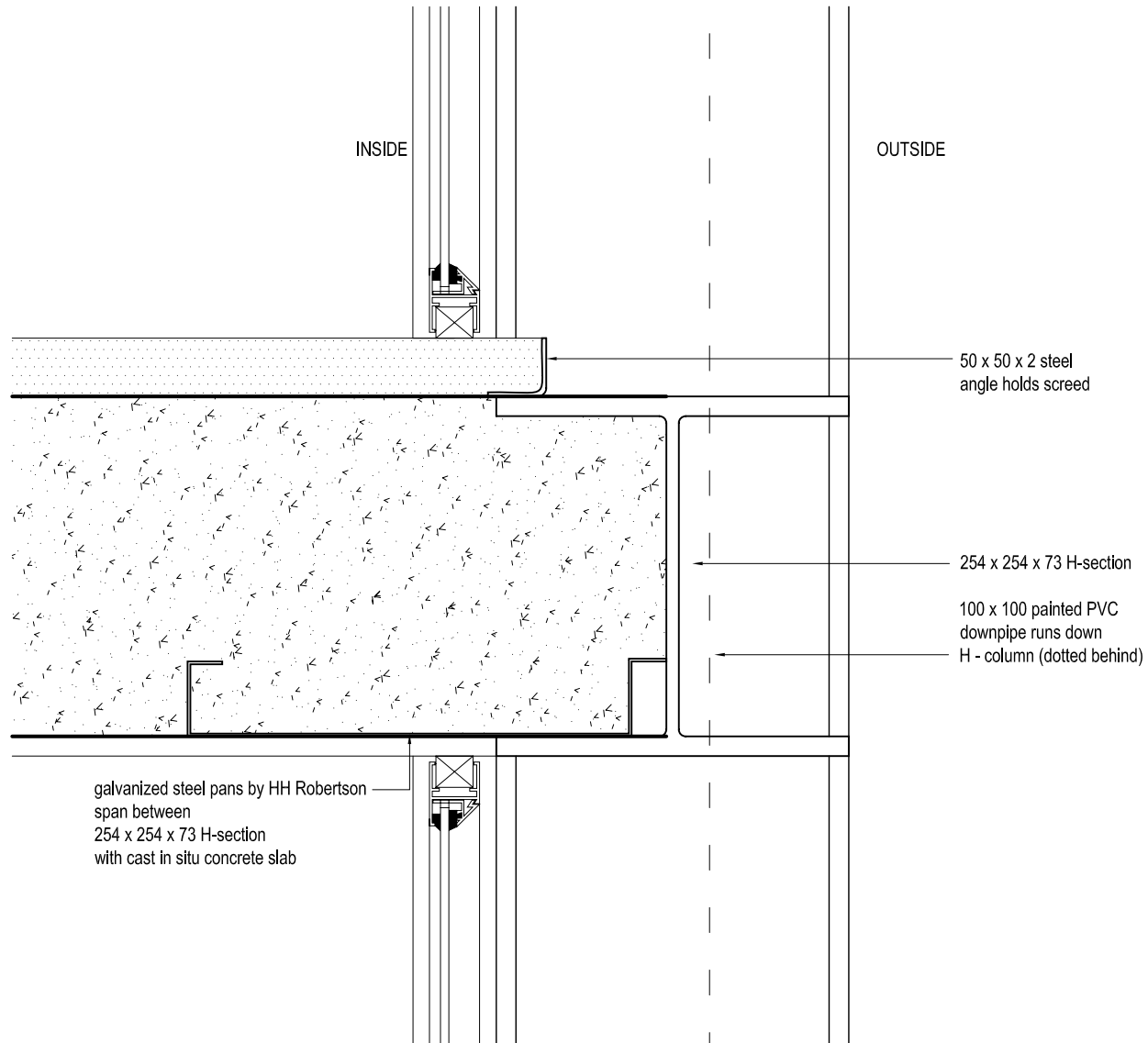
254 x 254 x 73 H - column welded to steel foot plate which is bolted to floor slab and secured to concrete ground beam

40 x 40 x 2 steel angle

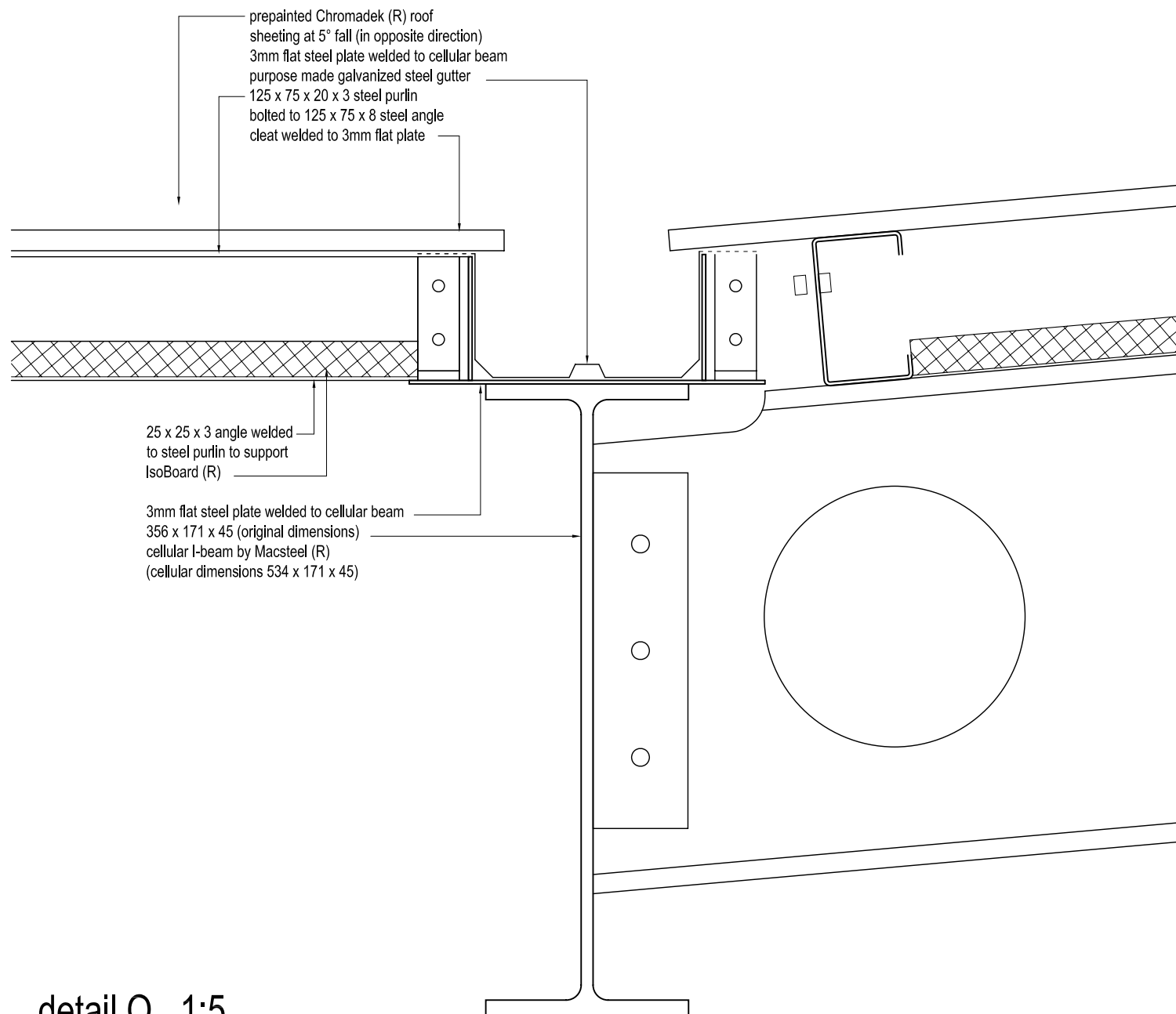
chamfered edge of concrete ground beam using 20D steel holding down bolts  
 pervious concrete pavers  
 uncompacted earth

detail G(B) 1:5

concrete pile foundations by engineer



detail J 1:5



detail O 1:5



# Roof Edge and Façade Details



Illumesh TM at Mary Fitzgerald Square,  
Johannesburg



Illumesh TM at Mary Fitzgerald Square, Johannesburg



Eave Detail at Mercedes Benz Sales Centre,  
Centurion, Pretoria



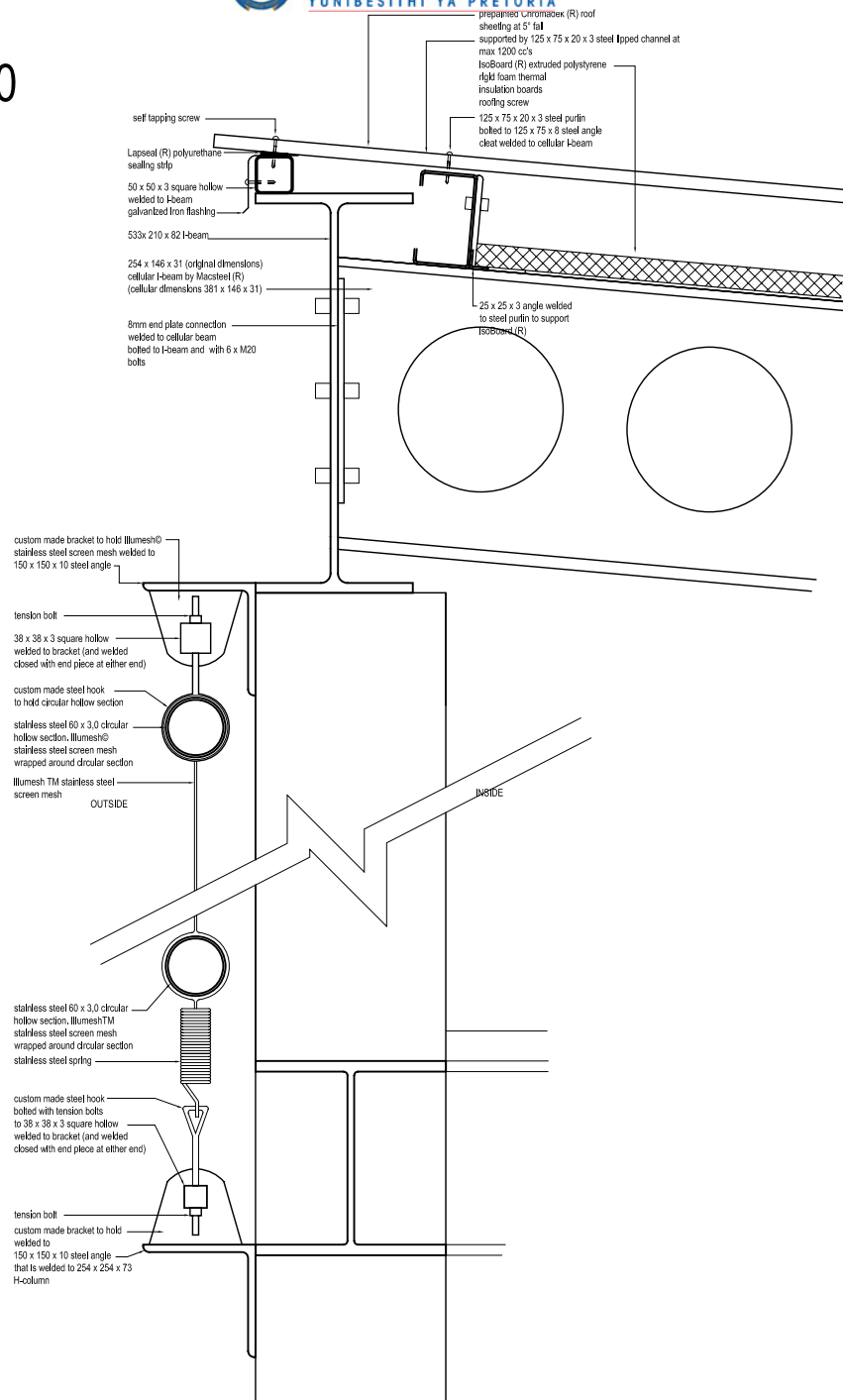
Cellular beams at Audi Car Sales Centre,  
Corlett Drive, Johannesburg



Farnsworth House, Illinois, 1950,  
Mies van der Rohe

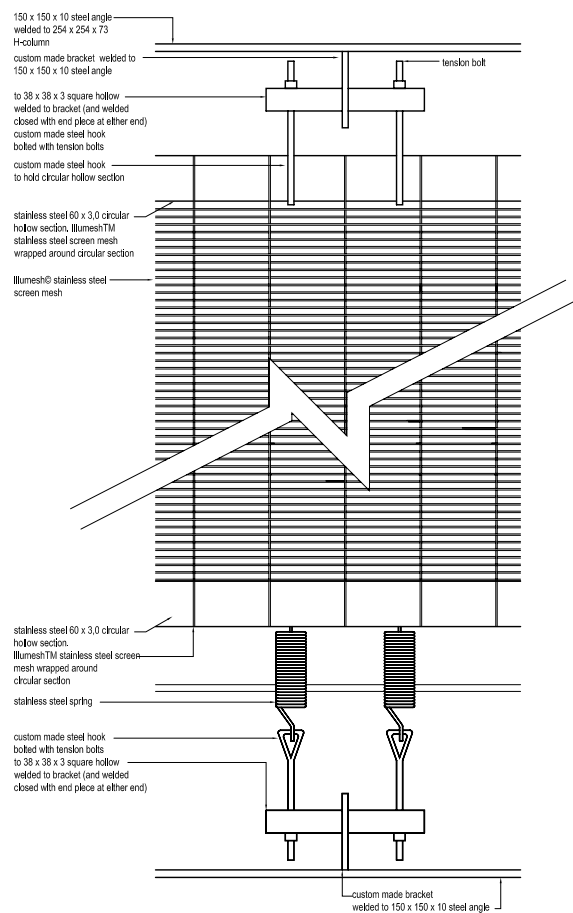
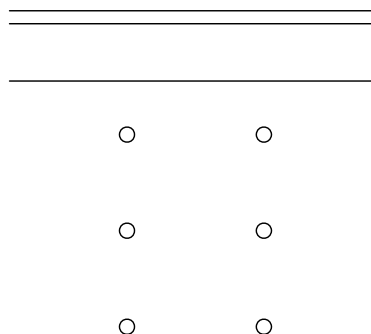


detail H 1:10

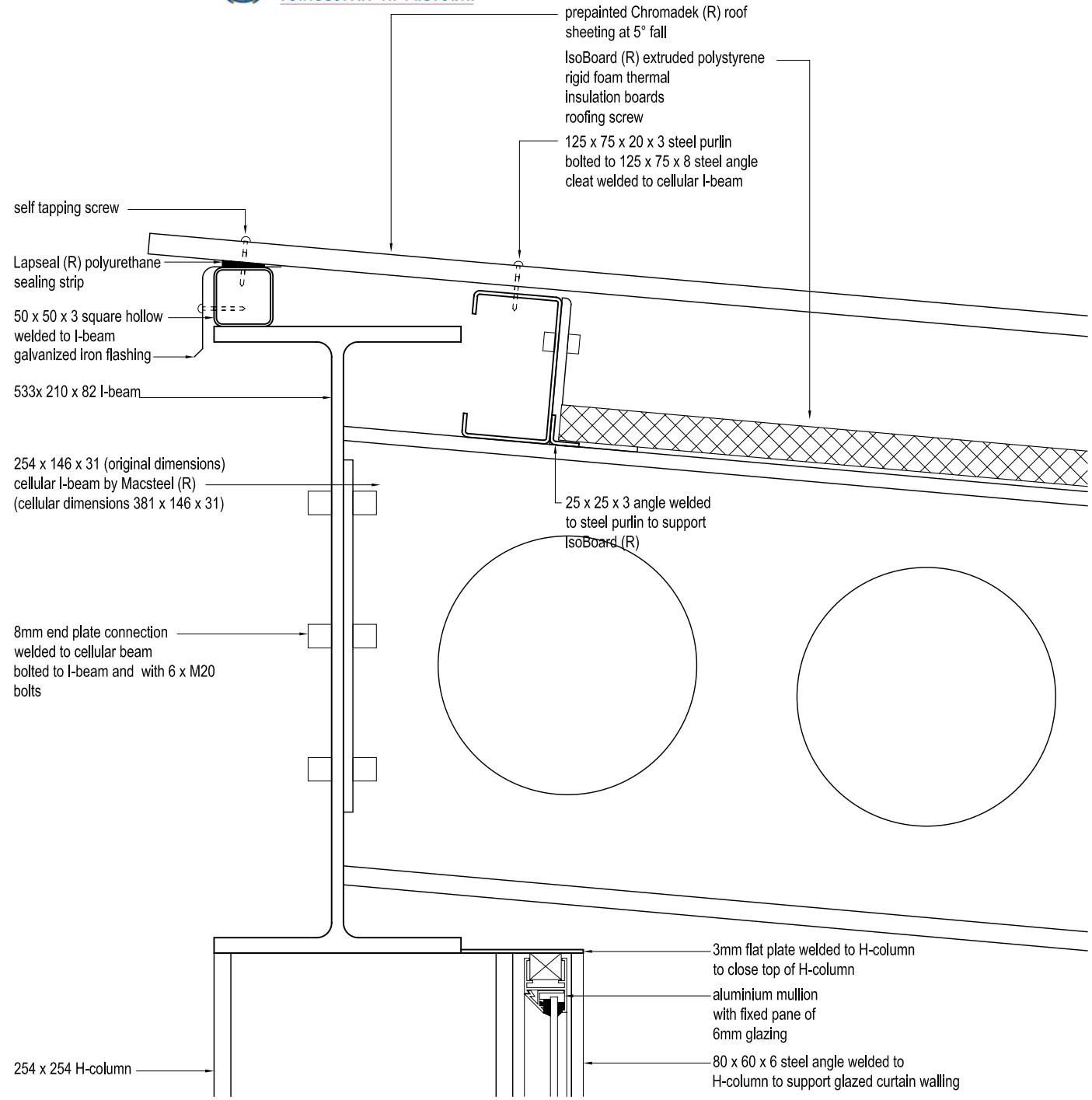


detail I 1:10

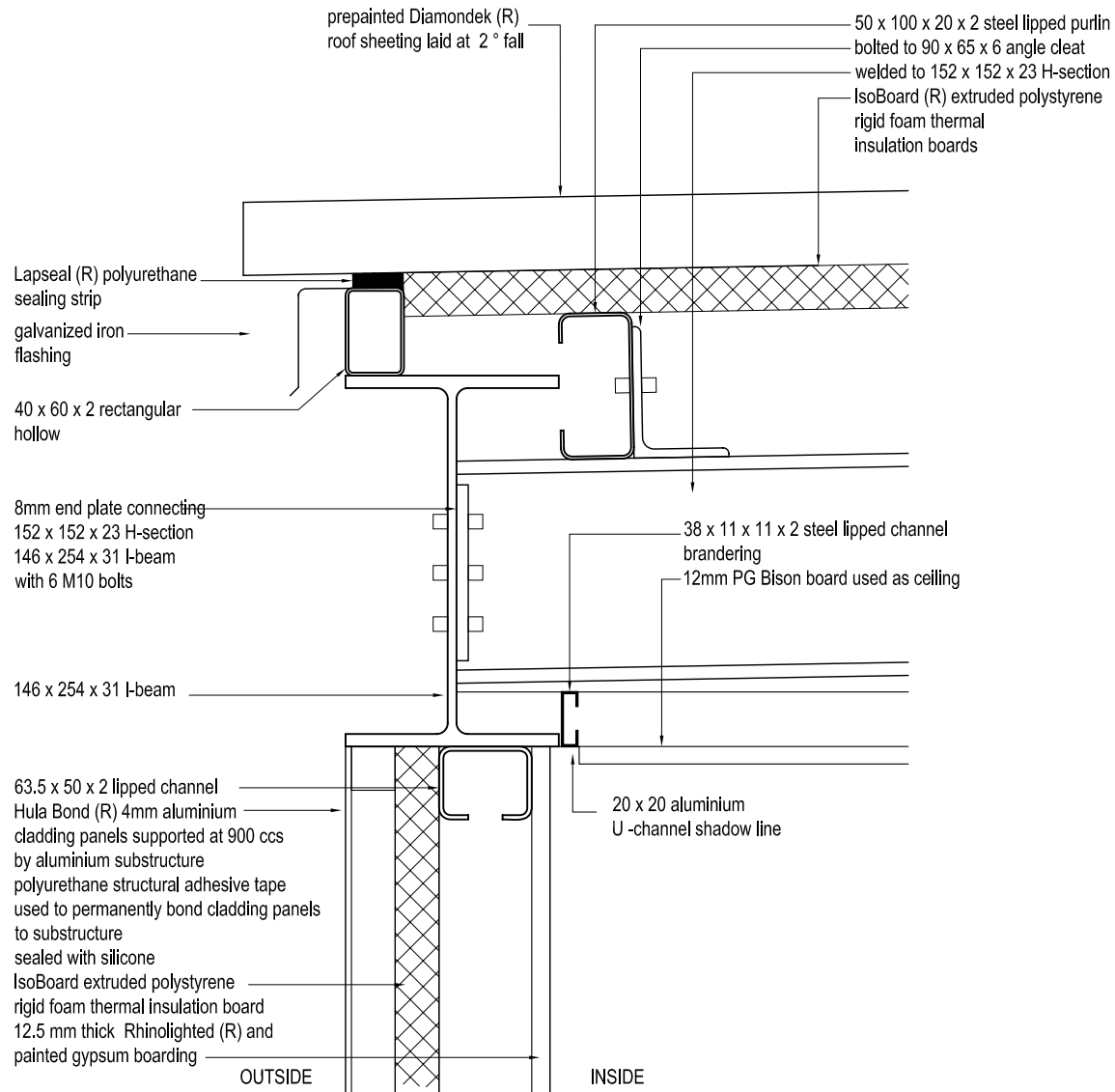
# elevation of detail H 1:10



# elevation of detail I 1:10

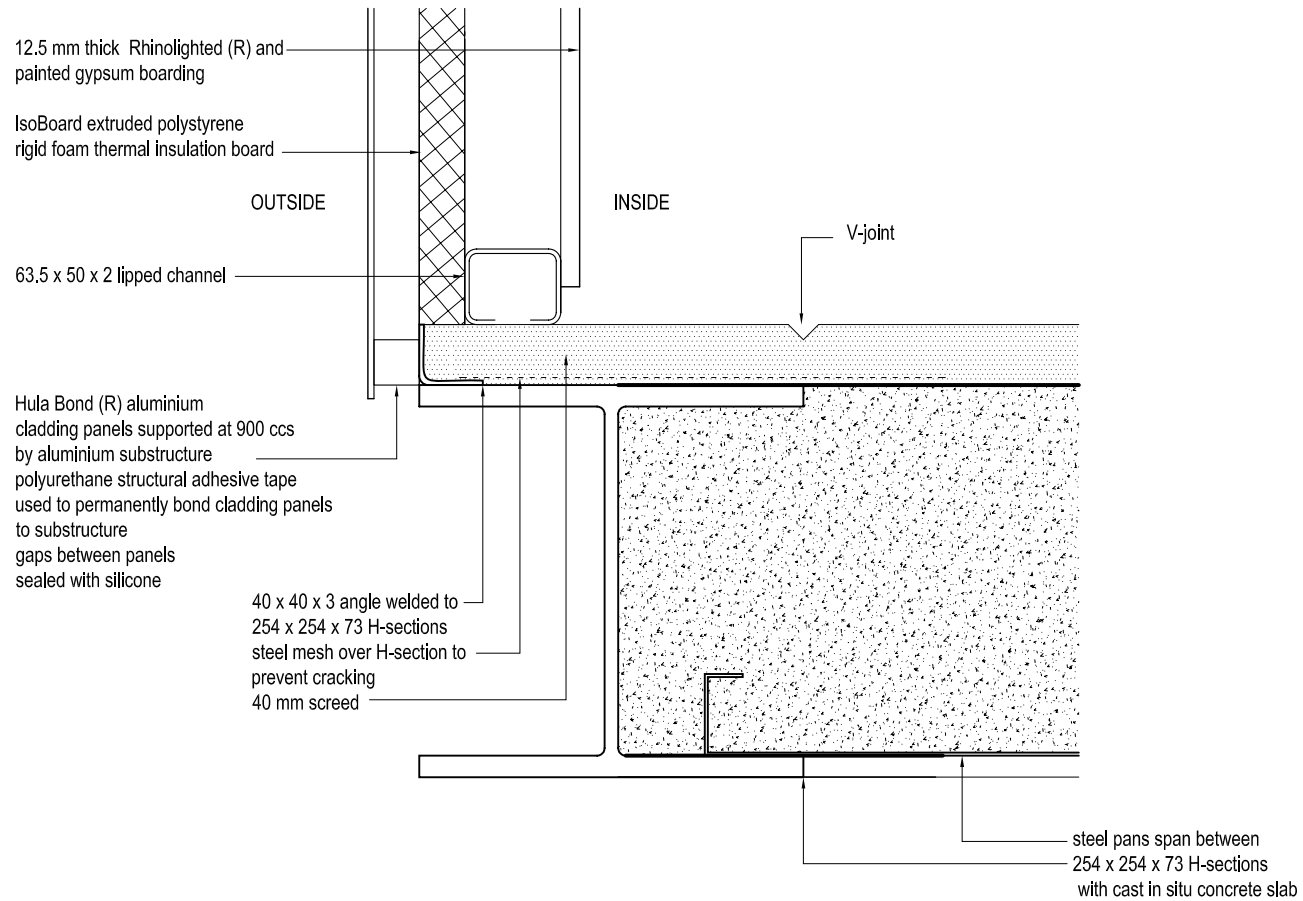


detail A 1:5

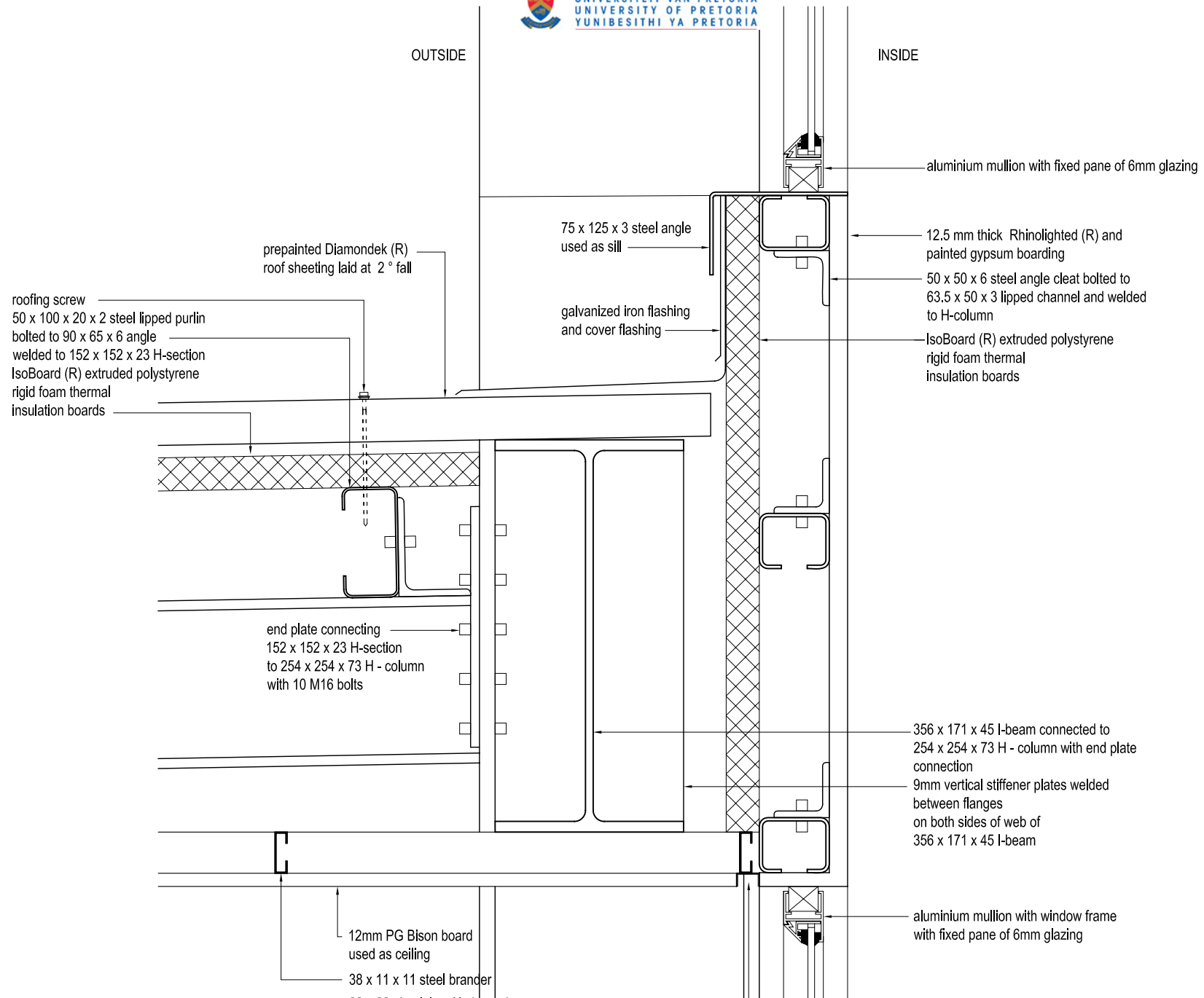


detail C 1:5





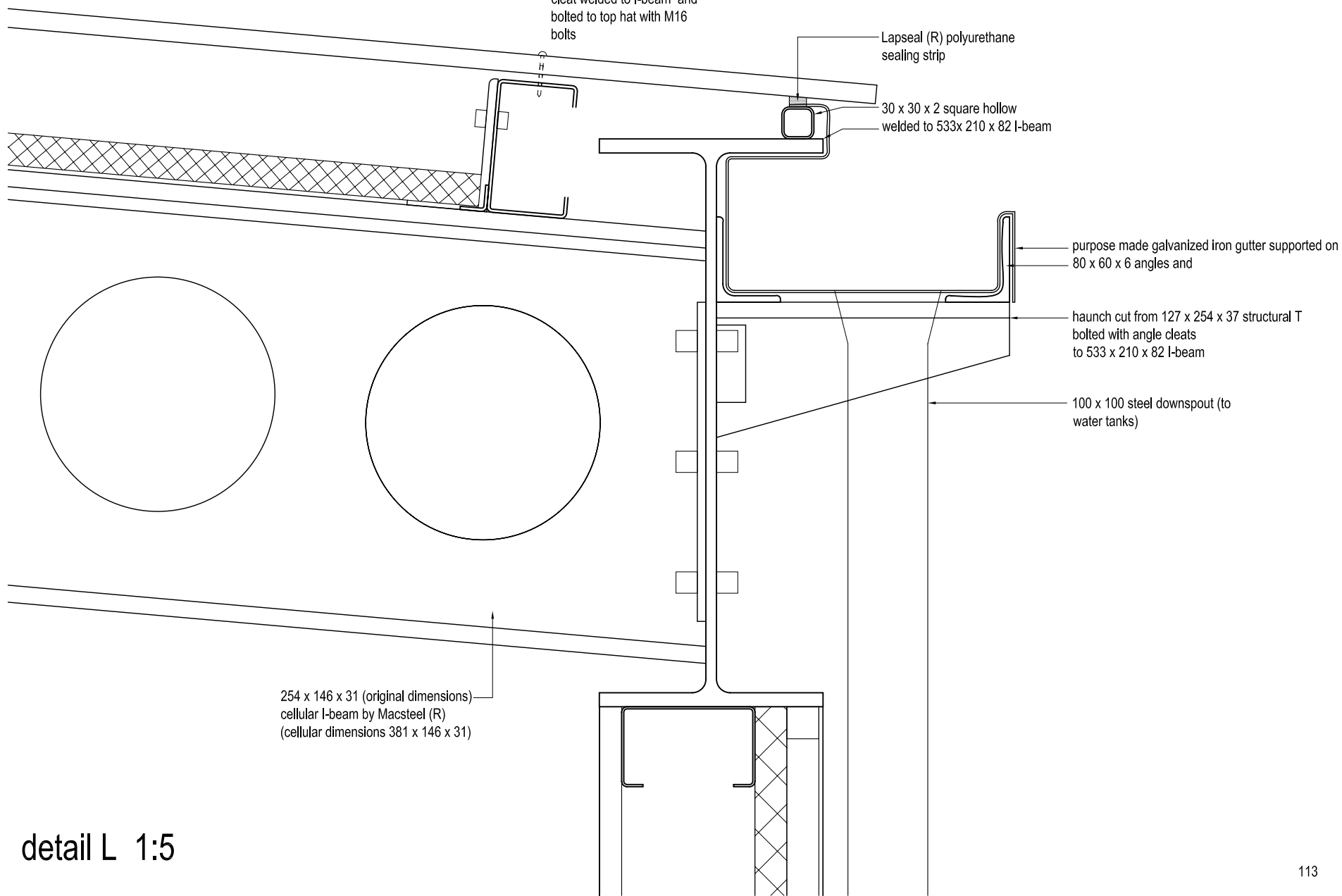
detail D 1:5



detail B 1:5



prepainted Chromadek (R) roof  
sheeting at 5° fall  
supported by 125 x 75 top hat at  
max 1200 cc's  
125 x 75 x 8 steel angle  
cleat welded to I-beam and  
bolted to top hat with M16  
bolts



Lapseal (R) polyurethane  
sealing strip

30 x 30 x 2 square hollow  
welded to 533x 210 x 82 I-beam

purpose made galvanized iron gutter supported on  
80 x 60 x 6 angles and

haunch cut from 127 x 254 x 37 structural T  
bolted with angle cleats  
to 533 x 210 x 82 I-beam

100 x 100 steel downspout (to  
water tanks)

254 x 146 x 31 (original dimensions)  
cellular I-beam by Macsteel (R)  
(cellular dimensions 381 x 146 x 31)

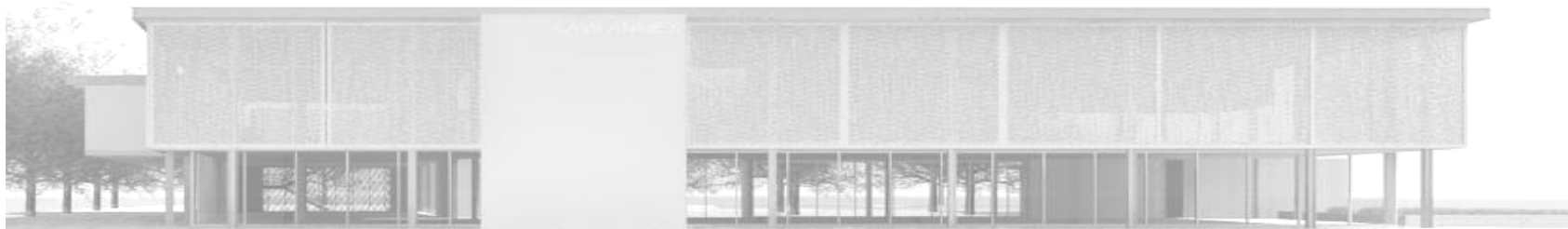
detail L 1:5

# Conclusion

Pierre Von Meiss (1986) writes that “it is perhaps one of the greatest compliments that can be paid to a work of architecture... that well-designed architecture should be condemned to ‘disappear’ behind its content”. With this in mind, the Law Annexe has been designed to be simple in its response to architectural form. The Law Faculty Building is an overwhelming building; in its size and stature and the satisfaction that it has brought to the Law Faculty. Consequently, it is a complex undertaking to extend within the Law Faculty precinct without resorting to architectural competitiveness.

The Law Annexe in response is discreet in that it is of a diminutive scale and uses limited materials and a narrow colour palette. The intention of both the materiality and the austere form was to create a translucence and lightness that is in dialogue with themes concerning the law in contemporary South Africa and in the Law Faculty Building.

10





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**To my Family..... Jazaak-Allah for your duaas. I really cannot express my gratitude or love for all of you.**

**To Catherine Karusseit and Amira Osman, thank you for the amazing mentorship, I've learned so much from you both.**

**To Jacques Laubscher and Piet Vosloo, thank you for your time and enthusiasm.**

**To Meera, thank you for your encouragement and 3D wizardry! Who would have thought in such a short time I would have found such a wonderful friend.**

**To Fahmida, thank you for all your help.**