NEW FACILITY FOR ADULT BASIC EDUCATION AND VOCATIONAL TRAINING

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M.Arch

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1 INTRODUCTION

The design of the proposed Centre for Adult Basic Education and Vocational Education sets out to provide an environment for learners and educators which is positive, inspiring and conducive to learning. This is achieved by providing a facility which is informal, yet provides all the facilities required by the centre users in order to best facilitate the achievement of learning and teaching goals. By considering the special needs of the adult learner, it has been established that the most effective learning environments are those which are flexible, comfortable and informal, which allow for the personalisation of space which results in a sense of ownership and an increased level of comfort. The free-flowing spaces allow all users, both learners and educators, to make use of the facilities unrestricted and thereby establish an equitable relationship between the two parties, thereby enhancing the teaching and learning experience by reducing the discomfort brought about by imposing institutional environments.

The informal links created between the various functioning parts of the centre across the landscaped courtyard result in the integration of all the users into the centre. Activities in and around the courtyard are visible to all users, making learners aware of the opportunities that are available to them. The learner is exposed to new experiences and skills on a passive level, and is encouraged to participate in new activities and learn new skills.
2 THE CLIENT AND BRIEF

2.1 Client Organisation

The client for the proposed centre is the Bridges to the Future Initiative (BFI), which is a public-private collaboration that includes the Department of Education, Multichoice Africa Foundation, SchoolNet South Africa, Unisa and the International Literacy Initiative.

The BFI aims to provide skills for out-of-school youth and adults in ICT and adult education through:

- the development of community learning and technology centres for lifelong learning and income-generation;
- the development of tools to improve basic education and literacy through teacher training in selected nodal areas;
- and the use of ICT for human development in areas such as health, agriculture, and HIV and AIDS prevention (Burger, 2007: internet).

2.2 The Client’s Requirements

The design of a Centre for Adult Basic Education and Vocational Training should facilitate the aims and objectives of the client, but focus in this case in particular on the development of “community learning and technology centres for lifelong learning and income generation”. The proposed centre should therefore incorporate technology and income-generating skills training facilities into the curriculum, and therefore facilities. The centre will cater for 680 learners, facilitators, administrative staff and library users. The possibility of a second phase to the development to include facilities for educational tools development and educator training can also be accommodated on adjacent sites.

2.3 Users and Functions of the Building

Adult basic education and vocational training will take place in the proposed centre. Activities will range from more formalised classes and courses such as literacy, numeracy and life skills, to vocational and empowerment classes such as arts and crafts and beading, to more technical training such as woodworking and bricklaying. The centre will therefore consist of classrooms, craft workshops and technical workshops with support facilities, seminar and lecture rooms, administrative facilities, a learning resources centre, and a child-minding facility. The centre accommodates users ranging from ‘educators in training’ to adult learners, facilitators and administrative staff, and will be open to the public.

2.4 Detailed Brief

Due to the nature of adult education and the fact that the development of a central facility for Adult Basic Education and Vocational Training will be primarily funded by government and private organisations, it is important that the centre combine income generating activities with the other essential functions of the centre. Income
generating facilities include a coffee shop and lecture, seminar and meeting facilities which can serve both the centre and the public as rentable accommodation. The inclusion of a child-minding facility, which will generate income as well as meet the needs of the adult learners who have small children, is also appropriate.

The centre provides an environment which is conducive to learning. There are several factors which influence the quality of the learning environment. The spaces of the building promote a sense of comfort, informality and flexibility of use. This is achieved by the appropriate use of colour, texture and furnishings. Further, the environment is enhanced by the inclusion of natural lighting and ventilation and comfortable outdoor spaces into the centre. The teaching spaces of the centre benefit from opening windows, adequate volume and divisible, flexible floor areas.

The main objective was to design a Centre for Adult Basic Education and Vocational Training that is relevant to its context and simultaneously conducive to learning. The centre therefore offers teaching spaces for group discussion, small meetings, seminars, lecture, case study and workshops. These spaces are of the appropriate size and function in order to accommodate the ideal group sizes, with the additional ability to adapt according to the fluctuations of groups size and changes in curriculum and teaching methods over time. Supporting facilities such as administration and learning resources are also accommodated in the centre.

2.5 Schedule of Accommodation
The schedule of accommodation on the following pages lists in detail the spaces to be provided, the type of activity or function of the space, the size of the spaces, and the general requirements of each space.
<table>
<thead>
<tr>
<th>Function</th>
<th>Room Description</th>
<th>Activities/Functions</th>
<th>Quantity</th>
<th>No. of people</th>
<th>Area (m²)</th>
<th>General Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admin</td>
<td>Foyer/Reception</td>
<td>This is the point of arrival as well as the place where registration will take place</td>
<td>1x</td>
<td>-</td>
<td>175.00</td>
<td>This area will incorporate a reception desk as well as administrative offices for four staff, with a help desk for registering students and seating in a small waiting area, with tables for filling in of forms. Space for display is necessary, as well as access to the LRC and teaching centre, café, day-care centre and careers counselling facilities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitators' Offices</td>
<td>Educators workrooms for admin, preparation &amp; one-on-one meetings</td>
<td>5x 5</td>
<td>150.00</td>
<td>Allows for standard office furniture: desk and chairs, and seating for consultation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Plan Offices</td>
<td>Reception of visitors, administration of facility</td>
<td>1x 10</td>
<td>165.00</td>
<td>Privacy is not vital here so the space will need to accommodate 8 individuals, allowing for chair, workspace, and storage space for each person, as well as incorporate comfortable seating in a small waiting area. Allows for a company fax machine, photocopier and printers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centre Manager's Office</td>
<td></td>
<td>1x 1</td>
<td>25.00</td>
<td>Allows for standard office furniture: desk and chairs, and a mini lounge for informal discussion/meeting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boardroom/Meeting Rooms</td>
<td>Staff meetings other organisations meetings will be held here</td>
<td>1x 12</td>
<td>45.00</td>
<td>This boardroom will need to accommodate a table large enough for 12 people, chairs and also allow for extra people, should the need arise. AV &amp; IT networks are essential for projection and presentation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Lounge &amp; Kitchenette</td>
<td>Relaxation &amp; refreshment for staff between classes</td>
<td>1x 12</td>
<td>40.00</td>
<td>This room should allow for 16 people at any one time, with facilities for coffee machine, microwave, fridge and dish washing, with adequate seating and tables.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ablutions</td>
<td>Unisex ablutions for the use of staff</td>
<td>1x 2</td>
<td>12.00</td>
<td>1 WC 1 WHB; 5 lockers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function</td>
<td>Room Description</td>
<td>Activities/Functions</td>
<td>Quantity</td>
<td>No. of people</td>
<td>Area (m²)</td>
<td>General Requirements</td>
</tr>
<tr>
<td>------------------</td>
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<td>-------------------------------------</td>
<td>----------</td>
<td>---------------</td>
<td>-----------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Public Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day-care Centre</td>
<td>Care of staff &amp; learners' children</td>
<td>1x</td>
<td>200.00</td>
<td></td>
<td></td>
<td>To have secure outdoor play area, children's toilets, nappy change, lockers, staff office, small kitchen, sleeping area, reading room and indoor playroom</td>
</tr>
<tr>
<td>Café</td>
<td>Public restaurant - indoor - outdoor</td>
<td>1x (35), 1x (30)</td>
<td>70.00</td>
<td></td>
<td></td>
<td>Coffee bar and tables and chairs for 100 people, with indoor and outdoor seating, with public access. Must have own wc facilities for males and females.</td>
</tr>
<tr>
<td>Kitchen</td>
<td>Food preparation &amp; cooking Yard &amp; Service Area</td>
<td>1x</td>
<td>55.00</td>
<td></td>
<td></td>
<td>Storage and preparation space and staff facilities with changerooms, wc's and storage. Access from loading bay with storage space for bins, etc.</td>
</tr>
<tr>
<td>Shops</td>
<td>Small stores for use by learners and for rent by public.</td>
<td>6x</td>
<td>75.00</td>
<td></td>
<td></td>
<td>Kiosk-type shops to have access from workshops and from service corridor with adequate shelving for storage. To open to public by means of roller-shutter doors or similar mechanism. Must be secure.</td>
</tr>
<tr>
<td>Refuse Zone</td>
<td>Refuse from café, shops and centre</td>
<td>1x</td>
<td></td>
<td></td>
<td></td>
<td>Bin storage and wash area, with easy access to the street for refuse collection</td>
</tr>
<tr>
<td>Cleaning Store</td>
<td>Storage of cleaning supplies</td>
<td>1x</td>
<td>5.00</td>
<td></td>
<td></td>
<td>Storage of cleaning supplies with access to the cleaning staff room.</td>
</tr>
<tr>
<td>Careers Room</td>
<td>Reading</td>
<td>1x (4)</td>
<td>5.00</td>
<td></td>
<td></td>
<td>Shelves for pamphlets and catalogues, with comfortable chairs for reading and waiting.</td>
</tr>
<tr>
<td></td>
<td>Counselling</td>
<td>1x (2)</td>
<td>15.00</td>
<td></td>
<td></td>
<td>Councillor's office to have a desk and two chairs as well as comfortable seating for a maximum of three people.</td>
</tr>
<tr>
<td>Public Toilets</td>
<td>To serve the public square and shop owners</td>
<td>1x</td>
<td>6.00</td>
<td></td>
<td></td>
<td>Unisex: 1 WC, 1 WHB</td>
</tr>
<tr>
<td>Function</td>
<td>Accommodation</td>
<td>Activities</td>
<td>Quantity</td>
<td>No. of people</td>
<td>Area (m²)</td>
<td>General Requirements</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>----------</td>
<td>---------------</td>
<td>-----------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Teaching Spaces</strong></td>
<td>Lecture Theatre</td>
<td>Foyer&lt;br&gt;Large group lectures for learners and available for hire</td>
<td>1x</td>
<td>120</td>
<td>250.00</td>
<td>Easy access from main entrance foyer providing direct access to lecture room. Should have seating and writing desks for 120 people, with audio-visual equipment, appropriate adjustable lighting and mechanical ventilation. A degree of flexibility is desirable.</td>
</tr>
<tr>
<td></td>
<td>Seminar Rooms/Group meetings</td>
<td>For use by learners and educators as well as available for rent</td>
<td>8x</td>
<td>12</td>
<td>250.00</td>
<td>To have moveable furniture, with whiteboard and projection screen, with IT connections and adequate storage for teaching aids.</td>
</tr>
<tr>
<td></td>
<td>Case study/Role Play/Demonstration</td>
<td>For presentation and demonstration skills, and role play of situations relevant to course content</td>
<td>2x</td>
<td>15</td>
<td>60.00</td>
<td>To have moveable furniture, with whiteboard and projection screen, with IT connections and adequate storage for teaching aids.</td>
</tr>
<tr>
<td></td>
<td>Classrooms</td>
<td>Adaptable standard classrooms with breakaway spaces as classroom extensions, flexible teaching and learning</td>
<td>4x</td>
<td>16</td>
<td>200.00</td>
<td>To have moveable furniture, storage, whiteboard and projection facilities and adequate IT connections.</td>
</tr>
<tr>
<td></td>
<td>Craft Workshops</td>
<td>Rooms for learning practical skills.</td>
<td>4x</td>
<td>16</td>
<td>250.00</td>
<td>Each workshop should offer flexibility to adapt to a changing course curriculum and courses offered, ranging from beading and dress-making to painting and sculpting workshops</td>
</tr>
<tr>
<td></td>
<td>Vocational Workshops</td>
<td>Rooms for learning practical skills.</td>
<td>3x</td>
<td>16</td>
<td>420.00</td>
<td>Each vocational training room is to cater for a specific vocational skill, such as woodworking, brick-laying, metal-working and cooking.</td>
</tr>
<tr>
<td></td>
<td>Covered Outdoor Classrooms</td>
<td>Breakaway rooms as extension of the classrooms</td>
<td>4x</td>
<td>16</td>
<td>160.00</td>
<td>To be directly accessible to classrooms and access outdoors.</td>
</tr>
<tr>
<td></td>
<td>Workshop Stores</td>
<td>For storage workshop equipment.</td>
<td>4x</td>
<td>-</td>
<td>140.00</td>
<td>To have shelving for books and other equipment. These rooms must be secure.</td>
</tr>
<tr>
<td></td>
<td>Storage</td>
<td>For storage of furniture and equipment</td>
<td>2x</td>
<td>-</td>
<td>35.00</td>
<td>General stores for storage of equipment and furniture, to have shelving for books and other equipment. These rooms must be secure.</td>
</tr>
<tr>
<td>Function</td>
<td>Accommodation</td>
<td>Activities</td>
<td>Quantity</td>
<td>No. of people</td>
<td>Area (m²)</td>
<td>General Requirements</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------------------</td>
<td>-----------------------------------------------</td>
<td>----------</td>
<td>---------------</td>
<td>-----------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Learning Resources Centre</strong></td>
<td>Foyer</td>
<td>Reception, exhibition</td>
<td>1x</td>
<td>-</td>
<td>25.00</td>
<td>Extensive space for display. Direct access to student bags &amp; circulation of LRC</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Circulation Desk</strong></td>
<td>1x</td>
<td>-</td>
<td>40.00</td>
<td>Only 1 exit from here to foyer. Plenty space around circulation desk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control and surveillance</td>
<td>1x</td>
<td>-</td>
<td>40.00</td>
<td>Only 1 exit from here to foyer. Plenty space around circulation desk</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Ethereal Lit &amp; Fiction</strong></td>
<td>1x</td>
<td>-</td>
<td>300.00</td>
<td>Low chairs &amp; coffee tables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Browsing/reading</td>
<td>1x</td>
<td>28</td>
<td>300.00</td>
<td>Low chairs &amp; coffee tables</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Non-Fiction/Periodical/Reference</strong></td>
<td>1x</td>
<td>24</td>
<td>100.00</td>
<td>Tables with four chairs each and shelving for books and journals.</td>
</tr>
<tr>
<td>Individual Study</td>
<td></td>
<td>Study Carrels</td>
<td>13x</td>
<td>13</td>
<td>25.00</td>
<td>Sound proof or located in a quiet area, with desk, chair and reading light.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Small Group Rooms</td>
<td>2x</td>
<td>6</td>
<td>100.00</td>
<td>Sound Proof with desks and chairs to accommodate groups of up to 6 people.</td>
</tr>
<tr>
<td>Computer Training</td>
<td></td>
<td>Information and Communication Terminals</td>
<td>1x</td>
<td>13</td>
<td>80.00</td>
<td>Anti-static carpet &amp; fire escape. Provide 1 computer per 2 students.</td>
</tr>
<tr>
<td>Computer Server Room</td>
<td></td>
<td>Storage of server</td>
<td>1x</td>
<td>-</td>
<td>10.00</td>
<td>Adequate ventilation and cooling in order to maintain required temperature.</td>
</tr>
<tr>
<td>Offices</td>
<td></td>
<td>Administration of learning resources centre</td>
<td>1x open plan</td>
<td>3</td>
<td>20.00</td>
<td>Allows for standard office furniture: desk and chairs, and seating for consultation.</td>
</tr>
<tr>
<td>Learners Bags</td>
<td></td>
<td>Storage of learners' bags</td>
<td>1x</td>
<td>-</td>
<td>10.00</td>
<td>Opposite circulation desk for the purposes of surveillance.</td>
</tr>
<tr>
<td>Lecture Room</td>
<td></td>
<td>Large group lectures for learners and available for hire</td>
<td>1x</td>
<td>120</td>
<td>70.00</td>
<td>Should have seating and writing desks for 40 people, with audio-visual equipment, appropriate adjustable lighting and mechanical ventilation. A degree of flexibility is desirable.</td>
</tr>
<tr>
<td>Ablutions (as per SABS 0400)</td>
<td></td>
<td>To cater for 350 people at peak use</td>
<td>3x</td>
<td>350</td>
<td>135.00</td>
<td>Min. Male: 6 WC, 9 Urinals, 6 WHB Female: 15 WC, 9WHB</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>Sub-Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>3793.00</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Area/Unit</td>
<td>Quantity</td>
<td>Unit Cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------</td>
<td>-----------</td>
<td>----------</td>
<td>-----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circulation</td>
<td></td>
<td>25%</td>
<td></td>
<td>950.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td></td>
<td><strong>4743.00</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Grade Parking</td>
<td>Staff and visitors parking</td>
<td>12.5m²/bay</td>
<td>15</td>
<td>187.50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 3: SITE SELECTION AND ANALYSIS

3. SITE SELECTION AND ANALYSIS

3.1. Introduction

In conducting research for the dissertation document, the following criteria were established for selecting an appropriate site for a Centre for Adult Basic Education and Vocational Training:

The main selection criteria are:

- Availability of land
- Access by public transport
- Central location
- Proximity to existing educational facilities
- Restrictions

Secondary considerations for site selection include:

- Access to water and electricity supply
- Orientation
- Image, character and identity

The requirement for access by public transport and the need for a central location, as well as the proximity to other educational facilities suggest that the most suitable location for a new centre for adult education and vocational training would therefore be within an urban context, as opposed to an isolated situation. Site selection has therefore been limited to the urban area in and around Durban’s CBD, which is efficiently served by public transport, and is central to a large population, thereby making it more accessible to as large a portion of the population as possible.

Three sites were initially identified as possible choices for the development of an adult education centre:

- **Site A**: Centenary Road, Greater Warwick Junction Precinct, Durban
- **Site B**: Queen Street, Durban CBD
- **Site C**: Hoy Park, Old Fort Road, Durban

These three sites were assessed based on the criteria discussed above in order to make a final site selection.
3.2. Site Selection

3.2.1. Site A: Centenary Road, Greater Warwick Junction Precinct, Durban

Site A is located within the Greater Warwick Junction Precinct, on the corner of Centenary Road and Carlisle Street.

Site A has good potential for the development of a Centre for Adult Basic Education and Vocational Training. The site is serviced and relatively flat, requiring little demolition and site works. The need for the relocation of existing functions may be problematic. The site is highly accessible by both pedestrians and commuters making use of public transport or private vehicles. By locating the facility here, the centre may form part of a district, and avoid being a stand-alone building in an isolated context.

Fig. 4: Aerial photograph of Greater Warwick Junction Precinct in relation to major vehicular routes and landmarks.
3.2.2. Site B: Queen Street, Durban CBD

Site B is located between Queen Street and Commercial Road in Central Durban. The Department of Education and Training is located here, and there is a possibility that a link may be created between this building and the proposed centre for adult education.

Site B is not an ideal site for the development of a Centre for Adult Basic Education and Training. The site is located well in terms of accessibility by various means of transport, as well as centrality. The site will be accessible from a number of different directions by people coming from all over the city. However, there is little room to service the site, and the dense nature of the district means that there will not be opportunity for greening of spaces. Overshadowing by high surrounding context will impact negatively on the quality of the learning environment. The institutional nature of the Department of Education and Training adjacent to the site may also have a negative impact on the learning environment.
3.2.3. **Site C: Hoy Park, Old Fort Road, Durban**

Site C is located in Hoy Park, adjacent to UNISA. This site has been identified for this reason, as there is an opportunity for the clustering of educational units here.

This site is less ‘urban’ than the Sites A and B. There is therefore less opportunity to partake of the benefits of a city location. The location further away from the CBD means that the site is less accessible by businesses, employees and individuals wishing to make use of the facilities. The site is large and there is therefore space available for parking and outdoor learning spaces. The site is long and narrow, and it has north-south orientation which is ideal for learning environments. However, the site is too large for the scale of the proposed project.

Fig. 6: Aerial photograph of Site C showing the major vehicular routes and landmarks in relation to the site.
3.2.4. **Summary and Conclusions**

By analysing the three sites above using the same criteria, each site obtains a scorecard that is comparable and objective. This allows the site to be interrogated in terms of how it would respond to the development of the proposed structure. From the analysis done above, Site A in the Greater Warwick Junction is seen as the best site for the development. This is due mainly to its centrality and accessibility by means of public transport, which allows the site to link with the city and the surrounding residential areas. There is a potential linkage to be created between the existing educational facilities and the new centre, or at the very least, for the integration of the new centre into an existing educational district. The site is underutilised and the development of an educational facility here will contribute to the continuity of the urban fabric in which there currently is a gap. Further, there is also the opportunity here for the extension of the southern market district up towards the north.

![Table](image)

<table>
<thead>
<tr>
<th></th>
<th>Availability of land</th>
<th>Access by public transport</th>
<th>Access to site via pedestrian routes</th>
<th>Access to site via public roads</th>
<th>Central location</th>
<th>Access to electricity supply</th>
<th>Access to water supply</th>
<th>Links to existing educational facilities</th>
<th>Orientation</th>
<th>Urban context</th>
<th>Image/character/identity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SITE A</strong></td>
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<tr>
<td><strong>SITE B</strong></td>
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<tr>
<td><strong>SITE C</strong></td>
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</table>

Fig. 7: The table lists the site selection criteria based on the discussion above and compares three sites, Site A, Site B and Site C, under these categories. The results of this analysis resulted in the choice of Site A as the most preferable site. Qualities are represented as follows:

- Good
- Average
- Bad
3.3. Site Analysis

A study of the figure/ground map revealed a gap in the urban fabric which is the current site of the bus depot and parking. It also reveals a change in scale across the major transport route, Centenary Road. This suggests that an infill project of an intermediate scale which will reinforce the transition from the urban scale to the smaller educational and residential scales towards the west.

There are particular districts within the precinct with which links should be established. To the east is the residential and mixed use Beatrice Street District, and to the north and west are the educational facilities which form the educational district of which the proposed new facility will form a part.

Particular landmarks to which the proposed facility should respond are predominantly educational facilities, including ML Sultan Campus of DUT and St. Anthony’s School, and also include the existing bus depot buildings, St. Aidan’s Hospital to the west, and bus and taxi terminals towards the south.

Centenary Road is the busiest of the roads which surround the site, both in terms of vehicular and pedestrian movement. This suggests that the main entrance and the public facilities should be located along this street.

North-east winds can be used advantageously in order to naturally ventilate the centre, while the exposed west and northern sides of the site need protection from the sun. While the site is in an urban area, there are no tall buildings
surrounding the site, and therefore there is little to no overshadowing of the site. Natural light can therefore be used to illuminate the building and reduce the need for artificial light.

Fig. 11: The strongest winds come from the north-east and south-west, bringing warm and cool breezes respectively, while the main edges of the site are orientated about 10° west of north.

Fig. 12: View of the site from the south east as it is today, used as a bus shelter.

Fig. 13: View of the bus shelters and commuters seen from the busiest street, Centenary road.
3.4. Urban Design Proposal

The proposal for the site aims to eliminate the gap in the centre of the precinct by proposing the insertion of an Adult Education Centre into the already existing educational district to act as a linking mechanism between the residential district to the east and the educational district to the west. The creation of links and the provision of an active public edge result in a destination which will draw pedestrians beyond the proposed flyover and into the quieter educational zone. The proposal relates to the surrounds, engaging with the hospital to the west on Centenary Road, as well as with St. Anthony’s School to the north. Links will be created to the various bus and taxi terminals in the immediate vicinity. To the south of the site, a semi-permeable edge will begin the transition for the commuter onto the site and into the building. On the western edge will be a permeable public edge which is the first step in the transition into the building for the pedestrian.

3.4.1. Urban Design Framework:

- Strengthen and rationalise existing trade, movement and infrastructure
- Provide diverse functions relevant to the context and community
- Revitalisation and repurposing of existing buildings in order to positively impact on physical connectivity, economic viability and imageability of the precinct
- Reinforce the existing character of the district through appropriate scale, facilities and choice of materials
- Create links to the surrounding precinct both physically and through function
- Encourage interaction between the public and the built environment through the provision of retail and public service facilities on various scales
- Create an environment that is safe for both the pedestrian and the motorist
- Improve the quality of the environment by means of planting and landscaping, high quality materials and increased activity at street level
- Create pedestrian-friendly routes and links to public transport
Fig. 14: The aims of the proposal was to establish links to existing facilities and to fill the gap in the urban fabric with a meaningful intervention which will form a cohesive part of the educational district.

Fig. 15: The urban design connects Mansfield Road to Beatrice Road. Pedestrian walkways and shaded squares enhance the quality of the environment for the pedestrian. The centre forms part of the education district.
4. DESIGN INTENTIONS

- To accommodate existing traders in an appropriate way
- To improve the pedestrian environment and experience
- To design a building which is functional and legible
- To design a centre which addresses the needs of the learners and educators.
- To cater for a wide variety of training courses
- To adapt to the changing needs of society and individuals
- To provide information to as many people as possible through technology and appropriate media
- To create a positive learning environment
5. DESIGN CONCEPTS

The design concepts are developed out of the design brief which states that basic principles are to be present in the centre for adult education. These are interface, informality, legibility and flexibility. Concepts have been further developed to include comfort, adaptability and accessibility. These concepts will be used to influence the design development of the proposed Centre for Adult Basic Education and Vocational Training.

5.1. Interface

The interface between the public and private realms should be transitional, thereby including the public in some of the activities of the proposed centre. This concept has been further developed to include the interface between indoor and outdoor spaces, where the boundary can be blurred through the use of materials and intermediate space.

5.2. Informality

Informality is vital in establishing an effective and positive learning environment. The informal arrangement of functional spaces around a centrally located space encourages chance encounters and interaction between learners and educators. An informal environment positively reinforces the establishment of the relationship between the educators and the learners, allowing for the establishment of mutual respect and thereby opening lines of communication.
5.3. **Legibility**

Fig. 18: This diagram explores the concept of legibility through the creation of clear links.

Clearly defined paths make the building easy to understand and use. Further, legibility is enhanced by the clear, gradual transition from the public to private realms.

5.4. **Flexibility**

Fig. 19: Flexibility, allowing unrestricted movement from space to space.

Different internal configurations within the core elements of the facility allow for flexibility and personalisation of spaces by the users. This facilitates the various learning goals and teaching methods established by the individual educators and learner.

5.5. **Comfort**

Fig. 20: Provision for cross-ventilation and natural lighting enhance the comfort of users.

Comfort within the learning environment constitutes a very important factor in determining the quality of that learning environment. Comfort can be enhanced by the function and adaptability of a space, by the furnishings, and the provision of means for promoting natural ventilation, lighting and overshadowing.

5.6. **Adaptability**

Fig. 21: Large span structure allows for the adaptable rearrangement of furniture and functions according to changing needs of the users of the proposed centre.

Large span open plan structure allows for the adaptable rearrangement of furniture and functions according to changing needs of the users of the proposed centre.

5.7. **Accessibility**

Fig. 22: Links to existing facilities and amenities make the centre accessible.

The establishment of links between existing facilities and public transport networks makes the site easily accessible to the largest portion of the community possible. Accessibility also refers to the media used and appropriateness of the information which is made available to the use.
6. PLANNING

Shops and Coffee Shop: these facilities are located at the public front of the centre along the main street in order to activate the building edge and result in interaction between passers-by and the built environment.

The Public Plaza: the public area should provide communal facilities to give the space relevance and vibrancy through activity. A bus shelter, public telephone, seating for passers-by, and traders kiosks are provided.

The Courtyard: The courtyard is the focus of the scheme. The informal and comfortable nature of this space will serve to set the tone for the entire scheme. Most of the functions, including workshops, classrooms and craft workshops will have access to this outdoor space, thereby enriching it with activity. The creation of spaces for chance meetings and informal gatherings is essential to the operation of a centre for adult education. The courtyard serves this purpose as the platform for gatherings, conversations and cultural integration to take place.

The Lunch Pavilions: these form part of the courtyard and serve the needs of the learners and educators alike. The central location make the pavilions accessible to all users, and provide the users with shaded seating areas facing onto the courtyard in which they can enjoy meals or informal meetings and outdoor classes and activities.

The Three Educational ‘Boundaries’: the three major educational functions are provided for in three separate, but interrelated, ‘boundaries’ to the courtyard. The
teaching boundary consists of the flexible teaching spaces which accommodate learning activities such as seminars, case studies, group discussions, tests, and lectures. It consists of primary teaching spaces accompanied by breakaway spaces as extensions to the classrooms. The divisions between these spaces are adaptable, light-weight and flexible in order that the spaces can be rearranged into different sizes and groupings depending on the needs which arise. The teaching wing is orientated in a northern direction in order to take advantage of natural daylighting and ventilation opportunities.

The technical boundary houses the technical vocational training workshops in which vocational skills such as bricklaying, plastering, woodworking, and so on, will take place. Each workshop has access to a screened outdoor workshop area, as well as access from the parking area for the loading and off-loading of equipment and materials. These workshops are located as far away from the other functions as possible in order to avoid noise contamination in the quieter spaces, but maintain physical and visual links to the other teaching spaces, workshops and central courtyard.

The craft workshop boundary consists of smaller, less sophisticated workshops which can be easily adapted to accommodate a wide variety of craft training activities, including dressmaking, beading, sculpture, art classes, and so on. The craft workshops will be orientated in a northerly direction in order to make use of daylighting and natural ventilation opportunities.
The Learning Resources Centre: forms the fourth and final ‘boundary’ to the courtyard. It is highly visible from the public street, and accessible from the street and Centre itself. It is open to the public and provides a range of facilities and media, from magazines and newspapers to children’s library facilities, adult fiction and non-fiction, and electronic training and research facilities. Visibility into the ground level of the library, where the informal functions of the learning resources centre serves to enliven the façade, create public interest, and demystify the nature of libraries. Having public presence also serves to convey the message of the importance of literacy and information to the public.

The Child-Minding Facility: this accommodates children from toddlers up to school-going age, and provides the relevant facilities. Essential is the provision of a safe and secure outdoor play area. The child-minding facility is able to operate independently from the functions of the Centre, while maintaining close physical and visual links.

The Administrative Function: this is accommodated within the fourth ‘boundary’, linking to the main entrance foyer and learning resources centre as well as to the teaching spaces. Staff members are provided with leisure facilities and ‘hot-desking’, which allows facilitators the opportunity to access computers for the preparation of course materials as well as for the purposes of research. Individual offices are avoided and an open plan layout is adopted to prevent the isolation of staff from each other. Meeting spaces in which facilitators can hold private meetings with learners are also provided, as well as a boardroom which can accommodate all staff for internal meetings.
7. ENVIRONMENTAL RESPONSE STRATEGIES

7.1. Building Form

The configuration of the proposed building creates a landscaped courtyard which forms an oasis within the harsh context of the city. This results in the provision for users of a private open space in which learning can continue outside of the classroom. The courtyard is protected from the city on all sides by functional elements of the centre. Each function is separated to form a “boundary” of the site in order to allow the free use of space and to prevent noise contamination between the quieter and noisier functional spaces.

The result of the building form is a courtyard which is shaded and protected from the elements, with teaching and activity spaces with views and access to useable green space. The connection with the outside prevents a sense of institutionalism from being established, and rather results in an informal, comfortable learning environment.

The form also allows for each wing or ‘boundary’ of the building to be naturally illuminated and ventilated, further enhancing the comfort and quality of the internal environment.

7.2. Shading and Illumination

Where appropriate, solar shading has been employed to prevent excessive solar gain on the facades of the building. Summer sun is prevented from penetrating the building directly, while winter sun is allowed in the cooler months. The majority of room depths are kept below 8m deep, thereby maximising the positive effects of natural daylighting and reducing the need for artificial light. During daytime hours there should be no need for artificial lighting, except in specialised areas such as lecture rooms and auditoria, where natural light would interfere with projection.
7.3. Ventilation

Where possible, fenestrations have been located at an angle of approximately 45° to the prevailing winds. This allows for effective cross-ventilation of spaces, thereby reducing running costs and the need for artificial ventilation. High level operable glass louvers allow for the ventilation of the roof space on the top level of the teaching, craft and vocational training spaces, thereby reducing heat build up during the day. The provision of operable windows and louvers allows the users to control their environment, thereby increasing individual comfort levels throughout the teaching and administration spaces.

Fig. 38: Cross ventilation is encouraged by the placement of windows and high-level louvers at an angle approximately 45° to the prevailing winds.
8. TECHNICAL RESOLUTION

8.1. Form and Structure

In order to facilitate the most efficient room sizes for teaching, initially a standard column grid of 7.5m was established throughout. This has then been modified and manipulated where necessary in order to accommodate such elements as lifts, stairs, break-away spaces and stores. Smaller spaces have been accommodated as “add-ons” to this grid which function much like bay windows, and are roofed and supported independently of the standard column grid. The use of a free-span standard grid allows for the flexible division of the internal spaces which optimises the usability of the spaces.

8.2. Parking Area

The location of the parking to the east of the site freed up the western side of the site, which is fronted by Centenary Road, the busiest of the four streets which surround the site. This increased the opportunity for public facilities and an active street edge.

The parking itself is based around a one-way road with a single entry and exit point for security. Parking is on grade and is designed to accommodate educators and some users. The parking area will be paved with clay pavers, with concrete kerbs defining the limits of the parking area. To improve the quality of the parking area and to reduce heat gain over the paved area, planted islands and some large trees have been indicated.

One parking bay has been allocated for disabled users, and a loading bay with mountable kerb is also included in this area so that it may be overseen from the single security point.

8.3. Services

Services in this case consist of standard services of lighting, mechanical ventilation, water, telecommunications, and so on. In most cases these are all accommodated in the horizontal instance in the ceiling voids, and in the vertical instance in vertical ducts.
9. CONCLUSIONS
The design approach has resulted in the design of a building which aims to address those issues inherent in adult education which are typically ignored or insufficiently addressed. This has resulted in a centre which maintains links to the context and the users around the building while creating an internal environment which is comfortable and secure, thereby allowing the learners to participate uninhibited in the learning activities taking place within the centre.

Further, the centre provides a public amenity in the form of the learning resources centre which incorporates formal and informal functions of a library with new technology and research methods into a facility which is comfortable, bright and accessible to people with all levels of reading experience.

Overall, by considering the site and context in conjunction with the users of such a centre the design process has resulted in a positive learning environment where learners are free to participate without fear or insecurity; where the changing needs of learners and society can be accommodated, and where education can be brought to the community in a way that is appropriate and accessible.

Fig. 40: Overall view of the proposed centre from the north east towards the technical workshops on the left and the teaching wing to the right.
10. BIBLIOGRAPHY

Research Reports:


Books:


Internet:


Appendix A – Presentation Drawings