05

ASSIGNMENT AND ACCOMODATION
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5.1 Calculations

Theatre
The proposed theatre accommodates a population of 150 people. This is sufficient to host a large event and ideal for daily community use. 0.5m² is the minimum area occupied by each individual in a theatre, and 0.65m² is comfortable. It is analyzed and concluded that stage layout dimensions are as follows according to Neufert:

Stage 1 (Performance stage) – Not less than 100m²
Stage 2 (Rehearsal stage) – Not more than 100m²

This dissertation follows these guidelines to determine the area for the Theatre.

Calculations:
Audience space – 150 people x 0.65m²
= 97.5m²

Stage 1 = 150m²
Stage 2 = 80m² (Will perform a dual function as a Nursery school)
Change rooms = 50m²
Total Area = 377.5m²

Ablutions (as per S.A.B.S); assuming that at anytime there are 60% males or 60% females (at 1 person for every 5m²: inclusive of the stage)
= 377.5 / 5
= 76 Males & 76 Females

Therefore, Males need 6 Urinals, 5 W.C’s, 6 W.H.B and 3 Showers
Females need 8 W.C’s, 6 W.H.B and 3 Showers
5.1 Calculations

Music Studios
The proposed music studio is used for, amongst others, recording music and dance. It is designed to accommodate a total population of 50 people. It has the dual function of hosting small community meetings. Neufert (2000:122) states that in multipurpose speech and music space, each individual requires 5m³ of volume with a maximum volume of 8000m³.

The following assumption is taken: The height of the space is 3.5m

Therefore Area person – 5m³ / 3.5m

= 1.42m²

Total Area of space – 8000m³ / 3.5

= 2285m²

This dissertation follows these guidelines to determine the area for music studion.

Calculations:

Studio space – 50 people x 1.42m²

= 71m²

Recording space

= 25m² (Assumed)

Change rooms (Sharing with Theatre) = 50m²

Total Area = 96m²

Ablutions (as per S.A.B.S); assuming that at anytime there are 60% males or 60% females (at 1 person for every 2m²; inclusive of the recording studio)

= 96 / 2

= 48 Males & 48 Females

Therefore, Males need 3 Urinals, 2 W.C’s, 3 W.H.B

Females need 4 W.C’s, 4 W.H.B
5.1 Calculations

Other programme
The listed programmes below do not have area limitations. The areas are determined by desired spatial qualities, therefore the areas listed below are per the spatial experience proposed by the dissertation:

Admin Office = 80m² (15people/m²)
Ablutions = 80m² / 15
= 6
Therefore, Males need 2 Urinals, 1 W.C and 2 W.H.B’s
Female need 2 W.C’S and 2 W.H.B’s

Gallery and Art Studios = 350m² (Excluding ramp area): Dual Function as community Hall (10people/m²)
Ablutions = 350m² / 10
= 35
Therefore, Males need 3 Urinals, 2 W.C’s and 3 W.H.B.’s
Females need 4W.C’s and 4 W.H.B’s

Jazz Club = 250m² (Use common ablutions)
Retail = 150m² (Use common ablutions)
Restaurant = 300m² (Including Kitchen) (10people/m²)
Ablutions = 300m² / 10
= 30

Therefore, Males need 3 Urinals, 2 W.C’s and 3 W.H.B’s
Female need 4W.C’S and 4 W.H.B’s
5.2 Accommodation Schedule

**Ground Floor**

<table>
<thead>
<tr>
<th>Retail</th>
<th>Unit 1 = 23.02m²</th>
<th>Unit 2 = 171.25m²</th>
<th>Unit 3 = 108.54m²</th>
<th>Unit 4 = 71.90m²</th>
<th>Unit 5 = 61.29m²</th>
<th>Unit 6 = 39.45m²</th>
<th>Unit 7 = 46.20m²</th>
<th>Total Area = 521.65m²</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Fast food outlet 1</th>
<th>Sitting Area 1 = 52.65m²</th>
<th>Kitchen = 52.65m²</th>
<th>Sitting area 2 = 72.80m²</th>
<th>Total Area = 178.10m²</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Fast food outlet 2</th>
<th>Sitting Area = 79.06m²</th>
<th>Kitchen = 79.06m²</th>
<th>Total Area = 158.12m²</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Restaurant</th>
<th>Sitting Area = 123.05m²</th>
<th>Kitchen = 52.00m²</th>
<th>Total Area = 175.05m²</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Café</th>
<th>Sitting Area = 56.65m²</th>
<th>Total Area = 56.65m²</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Coffee and Book shop</th>
<th>= 70.16m²</th>
<th>Total Area = 70.16m²</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Sports and Jazz Club</th>
<th>Stage Area = 30.50m²</th>
<th>Total Area = 269.75m²</th>
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</table>

<table>
<thead>
<tr>
<th>Community Club</th>
<th>Reception = 34.72m²</th>
<th>Total Area = 181.82m²</th>
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</table>

<table>
<thead>
<tr>
<th>Exhibition</th>
<th>= 168.86m²</th>
<th>Total Area = 168.86m²</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Children play area</th>
<th>= 87.48m²</th>
<th>Total Area = 87.48m²</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Informal traders</th>
<th>Storage = 3.60m²</th>
<th>Total Area = 351.76m²</th>
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</thead>
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<table>
<thead>
<tr>
<th>Atrium</th>
<th>= 119.04m²</th>
<th>Total Area = 119.04m²</th>
</tr>
</thead>
</table>

**First Floor**

<table>
<thead>
<tr>
<th>Café</th>
<th>Sitting Area = 116.09m²</th>
<th>Kitchen = 25.56m²</th>
<th>Total area = 141.65m²</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Offices</th>
<th>Rentable space = 179.02m²</th>
<th>Reception = 43.16m²</th>
<th>Boardroom = 25.74m²</th>
<th>Total Area = 247.92m²</th>
</tr>
</thead>
</table>
### First Floor

**Exhibition** = 197.20m²  
Storage = 22.95m²  
Total Area = **220.15m²**

**Auditorium** = 215.78m²  
Stage = 89.10m²  
Storage = 14.50m²  
Dance Studios = 159.96m²  
Pose Area = 30.55m²  
Performers lounge = 72.05m²  
Choral and instrument room = 89.08m²  
Total Area = **886.80m²**

**Viewing deck**  
Viewing deck 1 = 40.74m²  
Viewing deck 2 = 93.58m²  
Total Area = **134.32m²**

**Flea market** = 285.10m²  
Storage = 84.00m²  
Total Area = **369.10m²**

**Gym** = 174.26m²  
Gym reception = 17.64m²  
Total Area = **191.90m²**

**Nursery**  
Reception = 27.50m²  
Classrooms = 40.15m²  
Dining = 12.88m²  
Kitchen = 21.16m²  
Play area = 40.74m²  
Balcony = 9.00m²  
Total Area = **151.43m²**

### Second Floor

**Bridge link** = 36.66m²  
Total Area = **36.66m²**

**Information Box** = 1.20m²  
Total Area = **1.20m²**

**Offices**  
Rentable space = 612.64m²  
Reception = 43.16m²  
Kitchen = 28.08m²  
Staff lounge = 37.62m²  
Boardroom = 25.95m²  
Storage = 22.95m²  
Total Area = **1383.04m²**