The precedents researched have revealed a number of programme contents, both by their specificity and overall arrangement. The site and user analysis thus far also informs the accommodation schedule, asking for strict arrangement of functions that respond to different user movement in and around the respective buildings.

The new Trade and Transport Terminal is to accommodate a range of basic public services and amenities to sustain user interest within the mixed-use application.

Only selected buildings are chosen for this paper - Phase 1. The contents of which include:

1. Wholesale storage and retail space for consumables - providing for both informal and formal traders.

2. Housing for prospective owners of retail space and interested members of the public. This provision of housing must include units of standard family size, extended families, bed-sitters and bachelors.

3. Overnight accommodation for long distance travellers and tourists.

4. Basic public amenities which include:

   - ablutions and a bathouse serving the users of the transport facilities exclusively, and the users of the market itself.
   - restaurant and communal eatery.
   - laundermat services

5. Management and administration offices for the terminus, which includes security services.

6. Lettable office space for businesses.

The remaining spectrum of commercial functions and facilities not described above, such as banking and health services, will be provided within the other buildings, marked as Phase 2 in figure 3.58. The retail of non-consumables is to be included in this phase also.
Client Profile

The project is proposed as a Local Government Initiative, investing in economic development not only for the town itself, but for the greater community of informal economic type it supports also - as recognised by the IDP (2002).

Funding for the development will attract more formal interest from the commercial and business sector foreseeing the growth potential ascribed to those objectives sited by the Municipality and Local Government in the IDP (2002).

Particular emphasis is placed on the development of the Trans Limpopo Spatial Development Initiative, which will similarly be supported by government and private investors.

Affected Parties

The primary public user group is not only those residents of the town itself, but also the greater populace of the Makhado Municipality. Those users traversing from Zimbabwe en route to other major metropolitan areas in South Africa hope to supplement the regional user type too.

The private sector user is comprised of commercial and business interest making use of the facilities provided there.
The town and its surrounding areas are contained by the Soutpansberg mountain range to the north, with agricultural and mixed sour bushland making up the remainder of its circumventing land type of undulating plains. This character of the veld type falls under the biome of the Savanna.

With a relatively moderate erodibility index, the eutrophic soils found in the area prove to be beneficial to the activities of farming in both livestock and fresh produce, as they are soils that contain an excessive supply of nutrients (mostly nitrates and phosphates).

The mean annual precipitation of between 560mm and 700mm per annum reveals ultimately why this largely subtropical climate is favourable for agriculture. The bulk of this water is then dispatched to its primary catchments of the Limpopo River.

Wind activity is described by Holm (1996) as predominantly east northeasterly to east southeasterly in the summer. Winter winds are predominantly southwesterly with a fair amount originating from the northeast.

Makhado’s subtropical climate has a relatively high humidity content, thus aggravating high temperatures. Maximum and minimum temperatures reach an average of 29° and 18° in the summer, and winter temperatures of 21° and 8°.

There is an average of 13K difference between day/night temperatures, with winter temperatures reaching 15K below the comfort zone and 3K above in the summer months.

The treatment of solar ingress to buildings is determined by the summer solstice and winter sun angles for Louis Trichardt. These are:

- Summer (21 Mar/23 Sept) - 66.14°
- Winter (22 June) - 42.64°

As described earlier, a large number of Harpiphylum Caffrum trees located within the Eltivillas shopping complex, and the collection of eucalyptus on the northern portion of the Eltivillas business complex.

A number of acacia (thorn trees) are sporadically placed on the road reserve portion of the national road also.

Section drawings studied of the existing buildings on site reveal simple strip foundation construction and thus no problematic soils.