

# KZN Intermodal Interchange

## KwaDukuza

16 September 2009



**GOBA**

CONSULTING ENGINEERS  
AND PROJECT MANAGERS



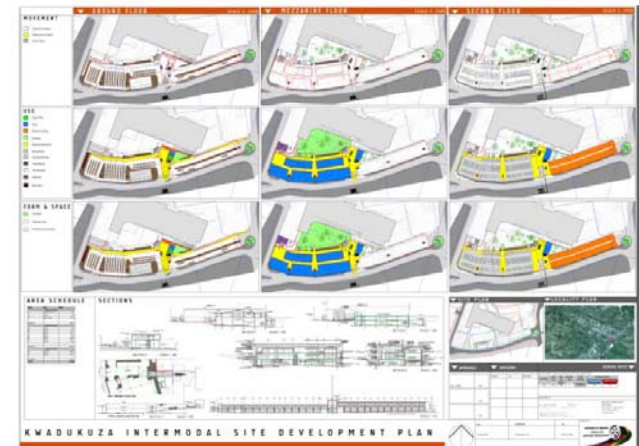
# INTRODUCTION

The Goba Consortium were successful bidders for planning and design of integrated intermodal facilities in two areas within the province viz Hibiscus and KwaDakuza Local Municipalities.

The appointment consisted of two distinct phases.

Firstly, the project planning and feasibility addressed all the complex inter-related issues that impacted on the public transport system and facility design.

Secondly the design stage dealt with the physical infrastructure requirements necessary to service the multiple modes, commuters, operational requirements and socio-economic activities.



## TERMS OF REFERENCE

### **Project Planning & Feasibility**

- Project Inception
- Stakeholders Engagement
- Marketing and Educational
- Formulating Guidelines, Norms & Standards
- Environmental & Socio-Economic Impact
- Land & Legal
- Information Technology
- Funding and Business Plan
- Monitoring Program Guidelines

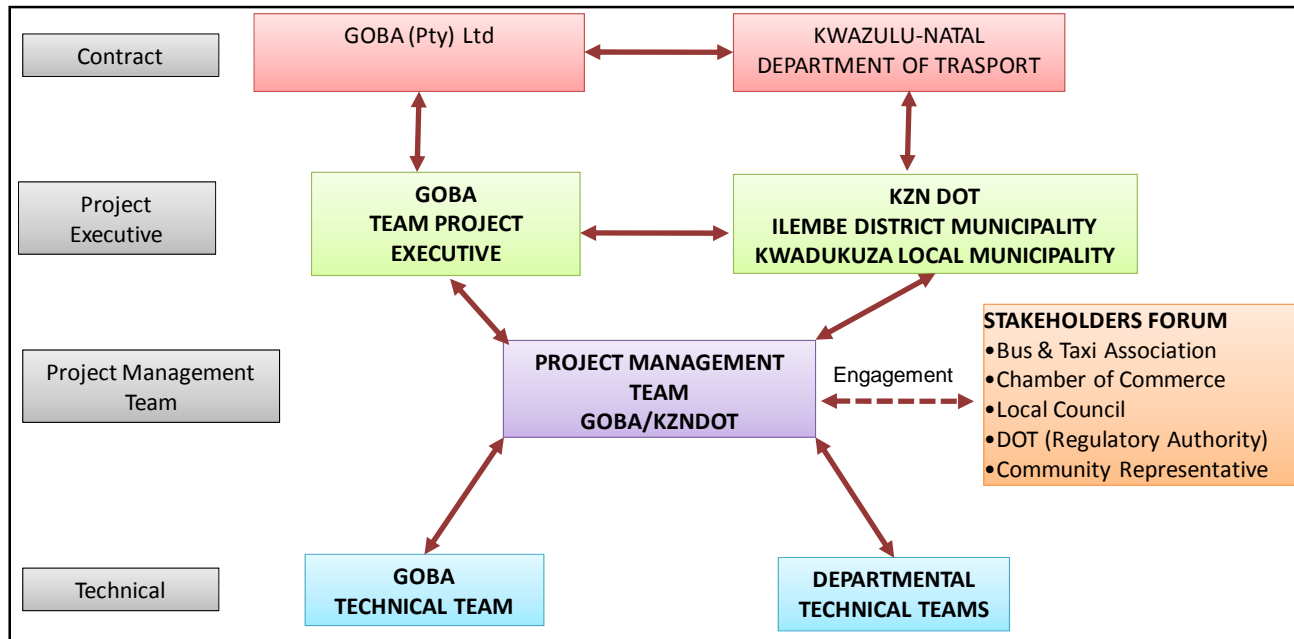
### **Design Stage**

- Transportation Planning
- Urban Design Framework
- Architecture
- Engineering
- Quantity Surveying

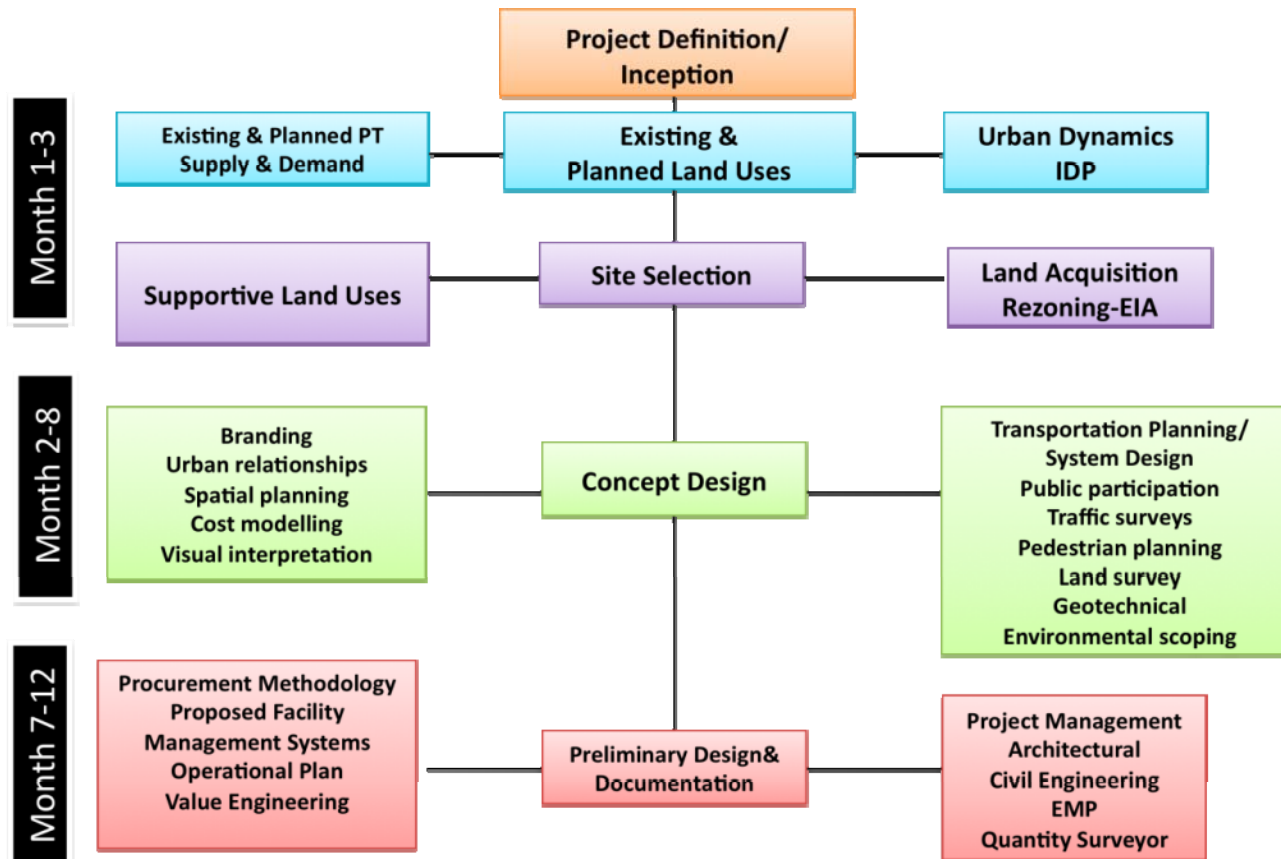
### **PT System Development (Phase 1)**

- Operational Plan
- Institutional Restructuring
- Financial / Business Planning, Consultation, Contract Negotiation Process

# PROJECT TEAM



# PROJECT PROGRAM



## TECHNICAL INPUTS

### Socio Economic

- The proposed facility could support up to 25,530m<sup>2</sup> retail & 7,840m<sup>2</sup> of commercial office
- The intermodal facility will, attract commuters, generate employment, make travel easier, increase economic activity in town centre .

### Transportation

- The existing PT system is a direct service which operates 1500 taxis and 15 busses during the peak period
- The new system will be a feeder line haul system (37 routes) with 3 regional trunk corridors , 2 local corridors and a complimentary service (48 routes).
- The KwaDukuza intermodal interchange caters for 10,000 peak period passengers

### Land Legal

- The proposed development extends over 5 properties which are individually zoned
- 2 sites are owned by the municipality, 2 sites are owned by Manat Investment and 1 site is owned by Transnet.
- A consolidation of all 5 sites is proposed with a special zone allowing for PT, commercial and office usage.

### Environmental

- A basic assessment is only required for the relocation of the mast. No other matters trigger an EIA.
- An EMP will be required for the construction phase which has been prepared.

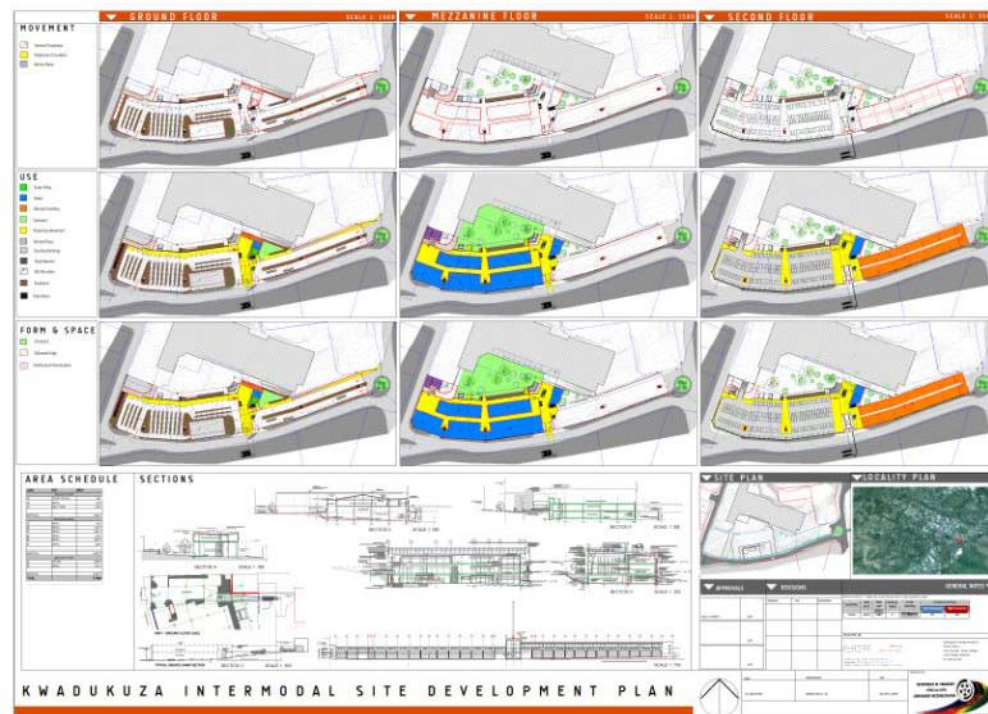
### Tennant Research

- A good tenant mix has a variety of stores that work together to enhance the centers performance and operate successfully as individual businesses.
- A variety of local and national brands have been identified as potential tenants for the facility.

## TECHNICAL CONCEPT

### Site Development Plan

- The Transnet building which is situated on the 1<sup>st</sup> floor will remain at present.
- The Transnet site will be reduced in size.
- A new access is proposed to the current site via Balcomb Street.
- An air servitude is proposed over the Transnet site.
- The Site Development Plan also addresses movement and circulation, land uses, building form and space



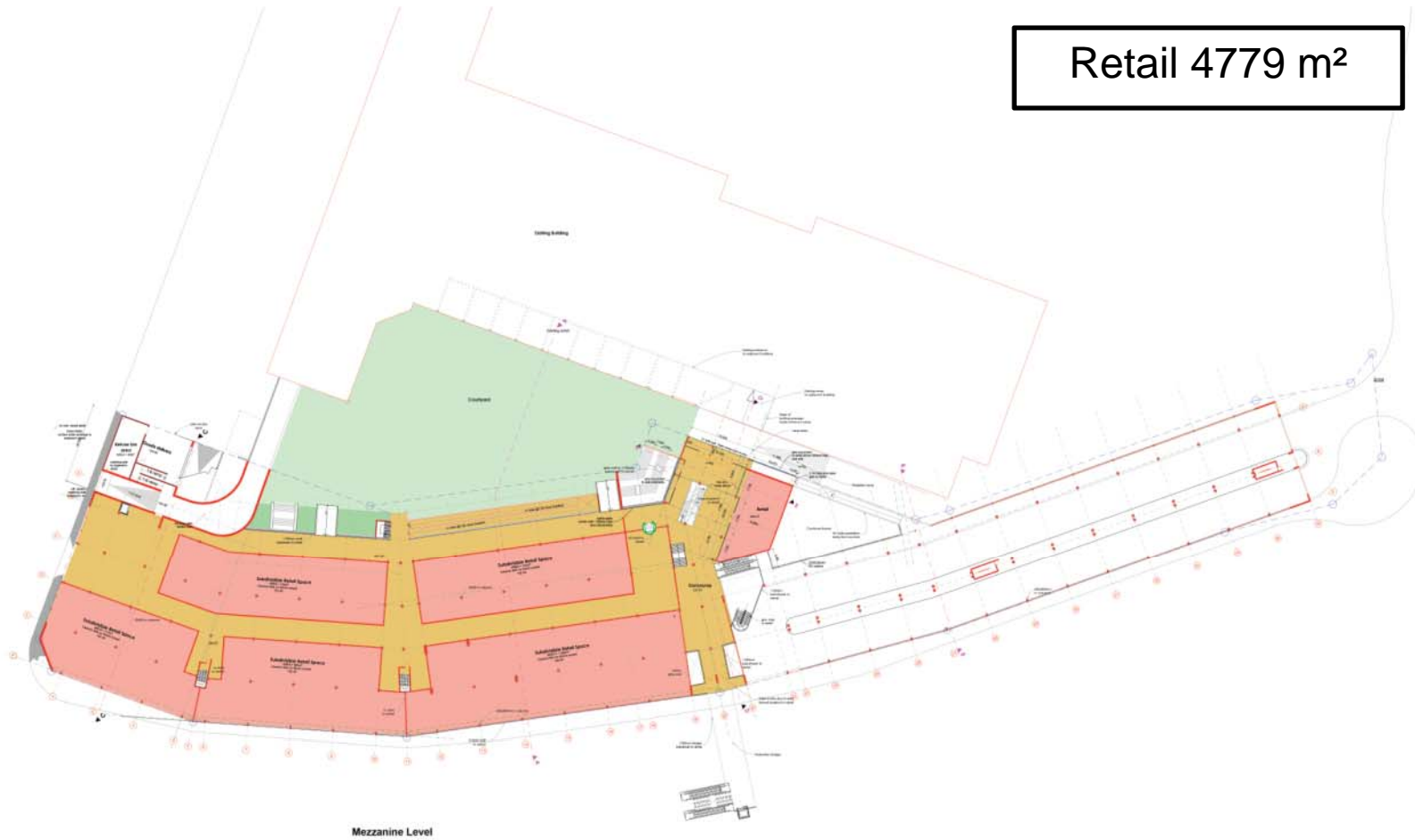
TECHNICAL CONCEPT-ARCHITECTURAL: RANK LEVEL



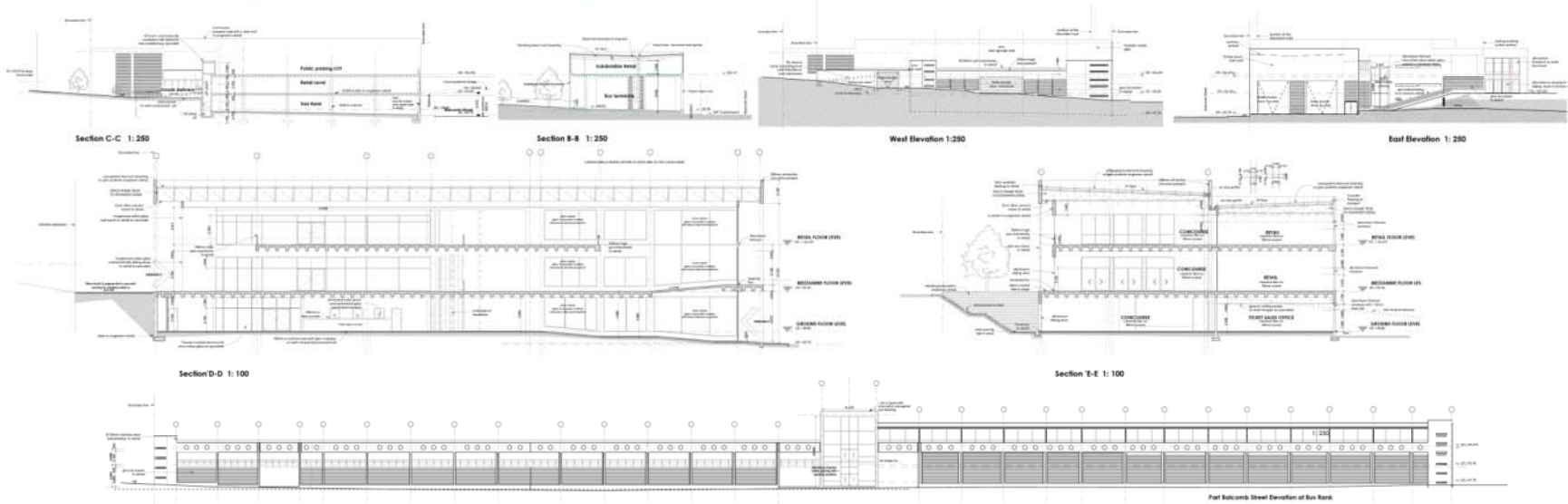


# TECHNICAL CONCEPT-ARCHITECTURAL: RETAIL LEVEL

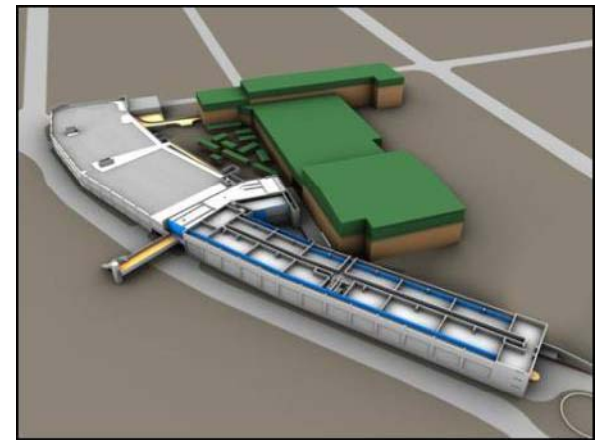
Retail 4779 m<sup>2</sup>



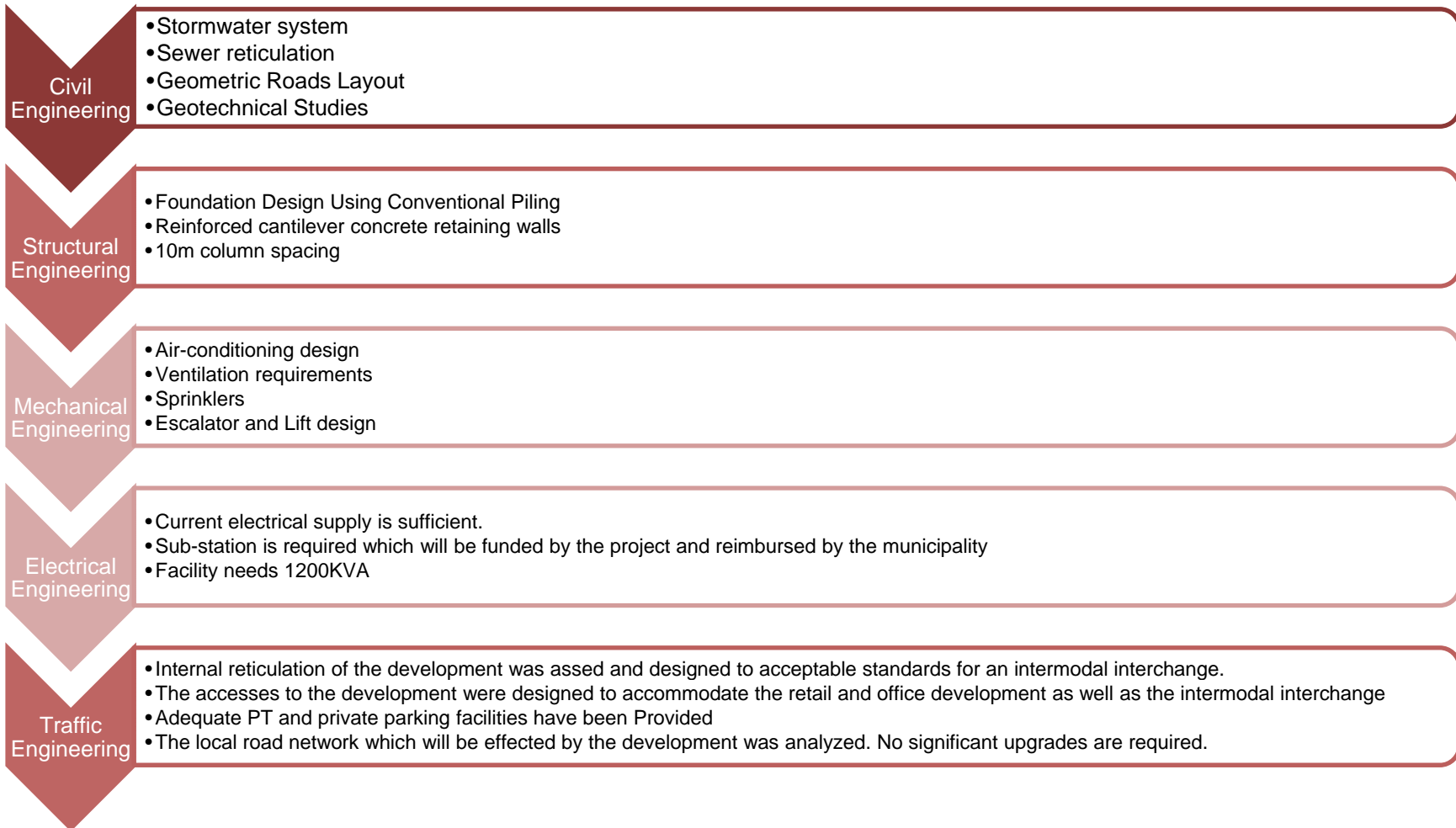
# TECHNICAL CONCEPT-ARCHITECTURAL: ROOF LEVEL



TECHNICAL CONCEPT-ARCHITECTURAL: RENDERING



## TECHNICAL CONCEPT-ENGINEERING





## BUSINESS STRUCTURE-BUSINESS MODELS

- “Standard.” This is the “base” case, built on the basic mechanisms which underlie most public-private partnerships. It strives to present proven, effective business structuring components (vs. more innovative and complex approaches) that can be used more rapidly.
- “Advanced.” This case is built on the same fundamental mechanisms as the “Standard” case, but incorporates creative BBEE approaches to provide additional financing components as well as community-oriented efforts in training, economic development, and business support.
- “Visionary.” This case incorporates several more advanced project development and funding mechanisms to provide an attractive opportunity to investors, address BBEE compliance, and encourage urban and regional economic development. It is unlikely that all mechanisms discussed in this case can be utilized in this project, but certain aspects and components may be accessible.



## BUSINESS STRUCTURE-STANDARD BUSINESS MODEL

- This is the “base” case, built on the basic mechanisms, which underlie most public-private partnerships. It strives to present proven, effective business structuring components (vs. more innovative and complex approaches) that can be used more rapidly.
- Rental income projections suggest that the facility should cost no more than approximately ZAR 31.6 million to provide private investors with a target 15% annual gross margin and positive NPV. Total projected construction and land acquisition costs are approximately ZAR 294 million (ZAR 187 million for public transportation functions, ZAR 105 million for retail-related facilities, and ZAR 2 million for land acquisition costs\*). This implies that that approximately ZAR 263 million would be required in public grant funding.
- As the recipient of this funding, it will be the responsibility of the developer to manage and operate the facility to generate sufficient income to cover the debt service and provide returns to private investors. At the end of the long-term servitude contract, ownership of the buildings should revert to the municipality, who can then either renew a contract with the existing developer or choose a new developer / operator to manage the facility going forward.

\*Note: Land acquisition costs are preliminary and based on the values of surrounding land. Full value assessments must be completed and contractual arrangements finalized for actual land acquisition costs.



## BUSINESS STRUCTURE-STANDARD BUSINESS MODEL COST ANALYSIS

Pro Forma Financial Statement	Annual	Notes / Assumptions
Gross Rental Income Potential	6,458,640	85 Rand / Month / m <sup>2</sup> * 6332 m <sup>2</sup> Retail GLA
<u>Vacancy Rate</u>	<u>(645,864)</u>	10%
Gross Income	5,812,776	
Operating Expenses (Retail)	(968,796)	Assumed at 15% of gross income potential
<u>Operating Expenses (PT)</u>	<u>-</u>	Municipality will provide, so no expense cost
Net Operating Income	4,843,980	
<u>Debt Service</u>	<u>(3,971,005)</u>	30 year loan at 15.5% for 80% of building value
Before-Tax Cash Flow	872,975	
Interest on Loan	(3,918,350)	
<u>Depreciation</u>	<u>(13,130,631)</u>	20 year depreciation term, 10% residual value
Taxable Income	(16,176,006)	
Taxes Due	-	
<u>Tax Incentive</u>	<u>-</u>	
After Tax Cash Flow	872,975	

Ratios and Figures	Value	Calculation
Gross Margin	15.02%	
Capitalization Rate	1.65%	NOI / Property Value
Gross Rent Multiplier (GRM)	45.54	Sale Price / Gross Rent Potential
Operating Expense Ratio	16.67%	OE / Gross Income
Debt service coverage ratio (DSCR)	1.22	NOI / Total Debt Service
Before Tax Cash-on-Cash	13.81%	Cash Flow / Cash Invested
After Tax Cash-on-Cash	13.81%	Cash Flow / Cash Invested
Breakeven Point	84.98%	Op Exp's + Annual Debt Svc / Gross Income
Loan-To-Value (LTV) Ratio	0.09	Loan Balance / Purchase Price
NPV of invested capital	1,909,544	30 year horizon
IRR of invested capital	13.50%	30 year horizon

Capital Expenditures	Value
Land Acquisition Cost	2,307,785
Construction Cost (PT)	186,627,398
<u>Construction Cost (Retail)</u>	<u>105,164,411</u>
Total CapEx	294,099,593
<u>Grants Against CapEx</u>	<u>(262,500,000)</u>
Remaining CapEx	31,599,593
<u>Cash Investment (Down Payment)</u>	<u>6,319,919</u>
Loan Value	25,279,675



## BUSINESS STRUCTURE-STANDARD BUSINESS MODEL

- The “Advanced” case is built on the same fundamental mechanisms as the “Standard” case, but incorporates a creative and combined private equity/BBBEE approach to provide additional financing components as well as community-oriented efforts in training, economic development, and business support.
- The “Advanced” case includes a social private equity (SPE) investor offering risk capital for the project. As with any other private investor, the project must demonstrate certain financial returns, although SPE investors often accept a lower return, typically in line with inflation projections (South Africa is targeting a 3-6% annual inflation rate); the project must also demonstrate a positive NPV. The model targets a gross margin as close to 4.5% as possible (the mid-point of target inflation rate) while still maintaining a positive NPV. The project must also provide a “social” return on the investment, spurring socio economic growth in line with the SPE fund’s objectives.
- Rental income projections suggest that the facility should cost no more than approximately ZAR 33 million to provide SPE investors with their target returns. Total projected construction and land acquisition costs are approximately ZAR 294 million (ZAR 187 million for public transportation functions, ZAR 105 million for retail-related facilities, and ZAR 2 million for land acquisition costs\*). This implies that that approximately ZAR 261 million would be required in public grant funding.
- As the recipient of this funding, it will be the responsibility of the developer to manage and operate the facility to generate sufficient income to cover the debt service and provide returns to private investors. The developer must also demonstrate social “returns” to meet SPE investor criteria. At the end of the long-term servitude contract, ownership of the buildings should revert to the municipality, who can then either renew a contract with the existing developer or choose a new developer / operator to manage the facility going forward.

\*Note: Land acquisition costs are preliminary and based on the values of surrounding land. Full value assessments must be completed and contractual arrangements finalized for actual land acquisition costs.





## BUSINESS STRUCTURE-STANDARD BUSINESS MODEL COST ANALYSIS

Pro Forma Financial Statement	Annual	Notes / Assumptions
Gross Rental Income Potential	6,458,640	85 Rand / Month / m <sup>2</sup> * 6332 m <sup>2</sup> Retail GLA
<u>Vacancy Rate</u>	<u>(645,864)</u>	10%
Gross Income	5,812,776	
Operating Expenses (Retail)	(968,796)	Assumed at 15% of gross income potential
<u>Operating Expenses (PT)</u>	<u>-</u>	Municipality will provide, so no expense cost
Net Operating Income	4,843,980	
<u>Debt Service</u>	<u>(4,134,371)</u>	30 year loan at 15.5% for 80% of building value
Before-Tax Cash Flow	709,609	
Interest on Loan	(3,918,350)	
<u>Depreciation</u>	<u>(13,130,631)</u>	20 year depreciation term, 10% residual value
Taxable Income	(16,339,372)	
Taxes Due	-	
<u>Tax Incentive</u>	<u>-</u>	
After Tax Cash Flow	709,609	

Ratios and Figures	Value	Calculation
Gross Margin	12.21%	
Capitalization Rate	1.65%	NOI / Property Value
Gross Rent Multiplier (GRM)	45.54	Sale Price / Gross Rent Potential
Operating Expense Ratio	16.67%	OE / Gross Income
Debt service coverage ratio (DSCR)	1.17	NOI / Total Debt Service
Before Tax Cash-on-Cash	10.78%	Cash Flow / Cash Invested
After Tax Cash-on-Cash	10.78%	Cash Flow / Cash Invested
Breakeven Point	87.79%	Op Exp's + Annual Debt Svc / Gross Income
Loan-To-Value (LTV) Ratio	0.09	Loan Balance / Purchase Price
NPV of invested capital	109,505	30 year horizon
IRR of invested capital	10.20%	30 year horizon

Capital Expenditures	Value
Land Acquisition Cost	2,307,785
Construction Cost (PT)	186,627,398
<u>Construction Cost (Retail)</u>	<u>105,164,411</u>
Total CapEx	294,099,593
<u>Grants Against CapEx</u>	<u>(261,200,000)</u>
Remaining CapEx	32,899,593
<u>Cash Investment (Down Payment)</u>	<u>6,579,919</u>
Loan Value	26,319,675



## BUSINESS STRUCTURE-VISIONARY BUSINESS MODEL

- The “Visionary” case incorporates several variations of an advanced project development and funding mechanism known as “Land Value Capture” (LVC) to provide an attractive opportunity to investors, address BBBEE compliance, and encourage urban and regional economic development. It is unlikely that all the LVC mechanisms discussed in this case can be utilized in this project, but certain aspects and components may be accessible. The Visionary case also introduces the concept of granting development rights on nearby properties to the developer, providing a more attractive portfolio of investment opportunities and offsetting potentially sub-optimal returns on a TOD facility investment in isolation.
- The “Visionary” case builds on the first two cases, incorporating public grants, debt, private investment, and social private equity to address up-front capital costs.
- Two additional financing mechanisms are introduced in this case: Land Value Capture (LVC) and the granting of additional development rights to the developer.
- Land value capturing is a process that public agencies use to assess the increased value of privately owned land directly attributable to public project investments. This value is “captured” in the form of taxes, fees, exactions or the buying and selling of development rights made possible by virtue of the public investment and planned densities. LVC can raise a portion or all of the capital required to construct the project, but is heavily dependent upon the local regulatory structure. The model assumes that the LVC contribution will be equal to the public grant contribution.
- The developer might also be granted development rights at preferred terms on adjacent or nearby property. Realizing higher returns on another property may be sufficient to persuade them to accept sub-optimal returns on the TOD facility itself. It also deepens the developer’s commitment to the project while simultaneously encouraging additional local growth, furthering urban economic development goals. These rights add value to the project and effectively reduce the amount of capital required from public grants and LVC mechanisms. We have projected a capital cost equivalent of ZAR 20 million in development rights against up front capital expenditures to demonstrate its usage in this type of project. The actual amount will differ based on the local situation and development plans.

The breakdown summary of CapEx contributions in this “Visionary” option is:

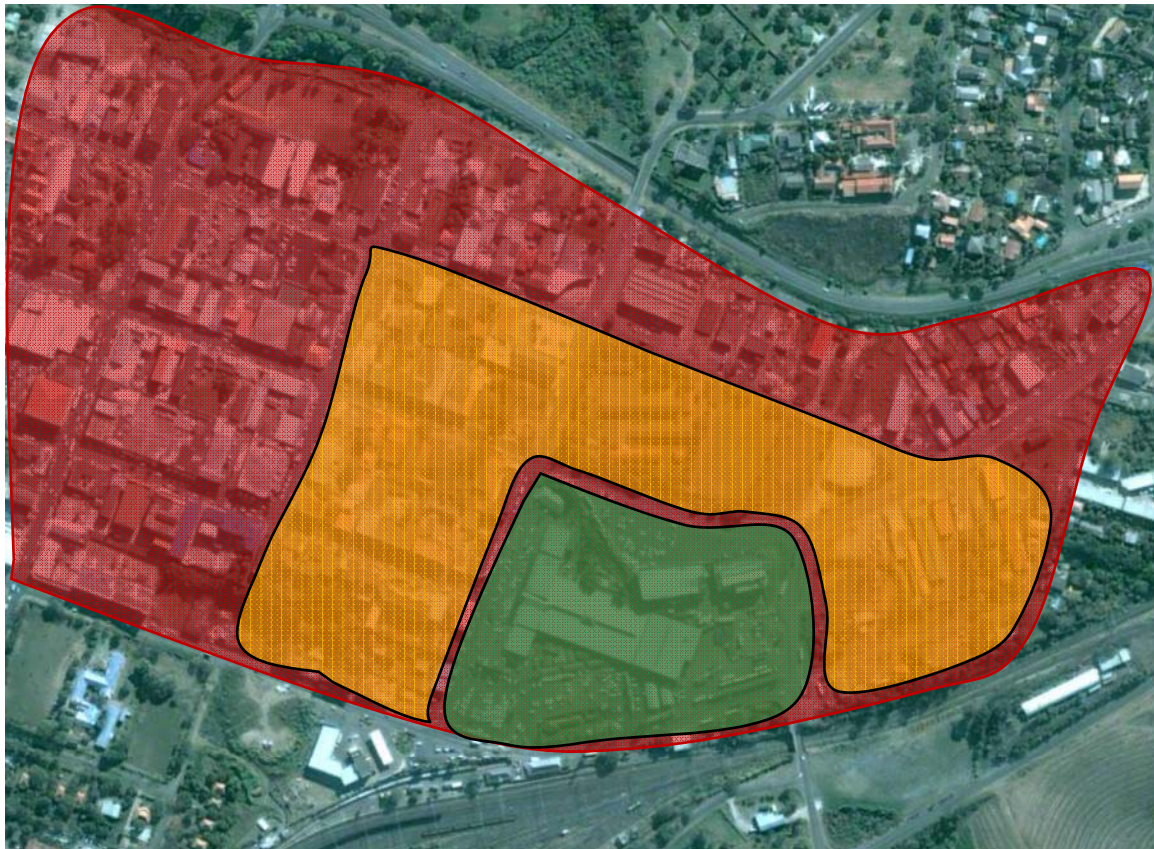
Public Grants: ZAR 120.6 million

LVC: ZAR 120.6 million

Additional Development Rights: ZAR 20 million

Debt / Equity financing from Developer: ZAR 33 million

## BUSINESS CASE-LAND VALUE CAPTURE



The current land uses in the KwaDukuza CBD generate a rates income for the KLM

The adjacent properties will benefit economically from the economic catalyst created by the new facility which will intern increase the revenue income of the adjacent businesses hence a higher rates can be charged. This is termed land value capture

The new facility is implemented by KLM and KZNDOT. This increases patronage and a through put of pedestrian activity due to the attractiveness of the development and new PT design. The economic activity is increased hence higher rates can be charged.



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<u>Tax Incentive</u>	<u>-</u>	
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Total CapEx	294,099,593
Public Grants Against CapEx	(120,600,000)
LVC Against CapEx	(120,600,000)
<u>Add'l Dev Incentives Against CapEx</u>	<u>(20,000,000)</u>
Remaining CapEx	32,899,593
<u>Cash Investment (Down Payment)</u>	<u>6,579,919</u>
Loan Value	26,319,675





# CONTACT DETAILS

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**GOBA**

CONSULTING ENGINEERS  
AND PROJECT MANAGERS

Thank You

CREATING UNIQUE SOLUTIONS  
TOUCHING EVERYDAY LIVES