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Feasibility and Risk

3.1 **INTRODUCTION**

In a prototype development such as this scheme, certain risks need to be catered for to increase its financial feasibility due to the lack of a suitable precedent to depend on. In this case the different functions need to be as flexible and adaptable as possible, while still being able to function as one integrated whole.

The approach was to allow for future adaptability by allowing the different functions to be independent of each other in terms of circulation. This will enhance the project's feasibility, even in the case of postponement or cancellation of the HGSD.

This aspect is insured by the placing of the circulation infrastructure on the outside, linking the different functions. In a study of the floor plans it becomes evident that all the different functions can operate separately, without the normal security problems associated with changing the programme of a development. This aspect also links with the project profile which stated that the building should promote work in progress. All movement by occupants is therefore visible by passers-by.



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3.2 **STAKEHOLDERS**

Target user group:

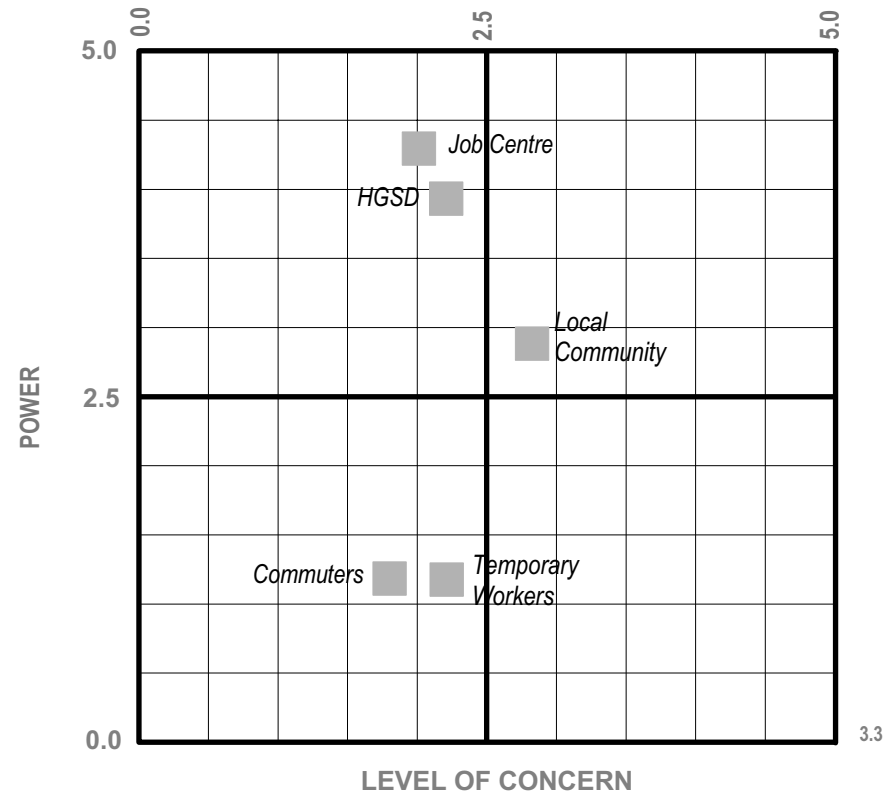
- _Temporary Workers.
- _Commuters.
- _Local student population.

Programme collaborators:

- _Gautrain Rapid Rail Link: HGSD.

Financing Capital:

- _Department of Labour: Job Centre.



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- 3.1 Commuter stakeholder.
- 3.2 Stakeholder Weighting Table.
- 3.3 Key Stakeholders Matrix.

STAKEHOLDERS	POWER		LEVEL OF CONCERN				X-Axis
	Influence on others	Direct labour control	Y-Axis	Technical	Social	Environmental	
	0.65	0.35		0.2	0.2	0.4	
<i>Temporary Workers</i>	2	0	1.3	0	5	3	2.2
<i>Commuters</i>	2	0	1.3	3	4	1	1.8
<i>Local Community</i>	4	1	2.95	3	5	3	2.8
<i>HGSD</i>	5	2	3.95	5	2	2	2.2
<i>Department of Labour: Job Centre</i>	5	3	4.3	5	1	2	2

3.2

<i>RISK DESCRIPTION</i>	<i>CONSEQUENCE</i>	<i>LIKELIHOOD</i>	<i>RISK FACTOR</i>	<i>RISK RESULT</i>	<i>MITIGATION</i>
STAKEHOLDER RISKS					
Temporary Workers	4 Major	4 Moderate	16	HIGH	Management and promotion of facilities need to be efficient to ensure centre usage by workers. Backup plan: Robust layout, centre can be subdivided in different functions.
Commuters	4 Major	4 Moderate	16	HIGH	Influx of commuters will depend on the success of the HGSD. Ensure close collaboration with this development.
Local Community	2 Minor	3 Unlikely	6	LOW	A high need for such a development exist within the local student population, enhancing the feasibility of the project, therefore lowering the risk. Ensure usage through promotion of facilities.
HGSD	4 Major	4 Moderate	16	HIGH	The project depends to a large degree on the success of this development. Financial mitigation need to be planned for to ensure feasibility of the centre in separation of this development.
Department of Labour: Job Centre	3 Moderate	3 Unlikely	9	MEDIUM	The initial capital depends on the client. As a government initiative, the risk minimises. Risk of capital loss need to be catered for by proper financial and project management.
INTERNAL RISKS					
Structural Failure	5 Catastrophic	3 Unlikely	15	HIGH	Large spans of overhead structures poses a problem. Risk minimised by overdesigning the structural steel members.
HGSD Failure	4 Major	3 Unlikely	12	MEDIUM	Development is dependant on the HGSD. Design centre to be able to function independently
Ventilation System Failure	3 Moderate	3 Unlikely	9	MEDIUM	Backup generator supplied, and openings to aid natural ventilation.
Management	3 Moderate	3 Unlikely	9	MEDIUM	The different functions need to be managed to ensure the success of the centre as a whole.
Loss of potential	4 Major	4 Moderate	16	HIGH	Failure of interest in the centre and its functions can fail the project. Design for flexibility in terms of function: Robust
Stakeholder Group Conflict	3 Moderate	2 Rare	6	LOW	The interaction of the HGSD and the Job Centre is of cardinal importance in the development. Proper project management and communication will minimise this risk

RISK DESCRIPTION	CONSEQUENCE	LIKELIHOOD	RISK FACTOR	RISK RESULT	MITIGATION
UNPREDICTABLE EXTERNAL RISKS					
Failure of completion	3 Moderate	4 Moderate	12	MEDIUM	Controlled management of the design and building phases within the program of works.
PREDICTABLE BUT UNCERTAIN RISKS					
Market Risks	3 Moderate	4 Moderate	12	MEDIUM	Monitor economics during planning phase, ensure partnership with the HGSD.
Inflation / Taxation	4 Major	5 Likely	20	HIGH	Proper project management, ensure proper promotion of facilities to generate income as soon as possible
LEGAL RISKS					
Health & Safety Legislation	3 Moderate	4 Moderate	12	MEDIUM	Plan for possible safety issues especially in Warehosue function.
Contractual	4 Major	3 Unlikely	12	MEDIUM	Proper project management with the employers recruiting the temporary workers.
Performance	4 Major	5 Likely	20	HIGH	The quality of workmanship will determine success of the project: high risk due to structural challenges.
Size of project	4 Major	4 Moderate	16	HIGH	Ensure the construction time and implementation are well managed within the scope of the HGSD.

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