

# Cost Analysis

## Chapel

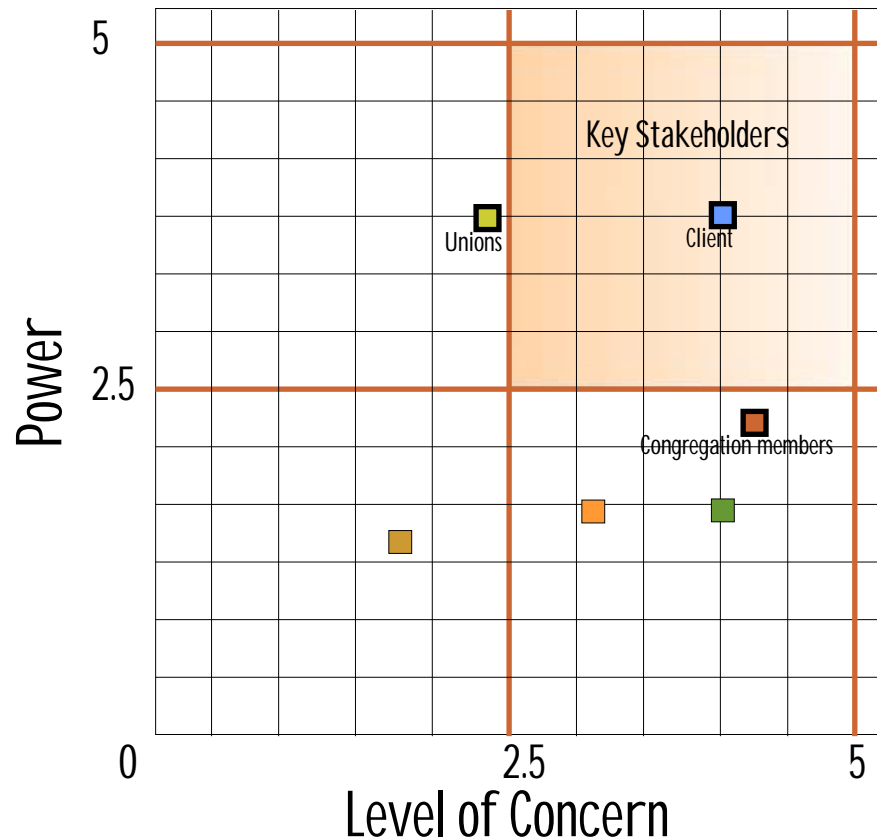
Material description	Quantity	R/mxm	R/m	R/item	Amount	Total
Custom designed precast concrete blocks	46mxm	250			11 500	
Profiled Copper roof covering	226mxm	1 500			339 000	
Timber Roof Structure	226mxm	100			22 600	
Timber Chapel benches	131m		700		91 700	
Concrete roof slab	115mxm	380			43 700	
Concrete floor with screed	190mxm	80			15 200	
Slate wall cladding	45mxm	100			4 500	535 400
230 brick wall	45mxm	160			7 200	+ 10%
						<u>R588 940</u>
Custom designed precast concrete blocks with openings	268mxm	500			134 200	
Custom designed copper frames	1202			800	961 600	
Slate wall cladding	46mxm	250			270 000	
230 plastered brick wall	200mxm	160			32 000	
Black marble tiles	292mxm	200			58 472	
Concrete paving blocks	790mxm	100			79 000	1 564 522
						+ 10%
Custom designed precast concrete blocks	117mxm	250			29 250	<u>R1 720 974</u>
						R2 309 914

## Memorial Walls



low 1 - 5 high

Stakeholders	Power			Level of Concern		
	Influence on others	Direct labor control	Y- axis	Technical	Social	X-ais
	0.3	0.7		0.3	0.7	
Client (Building Commission)	4	5	4.7	5	4	4.3
Congregation members	3	2	2.3	3	5	4.4
Neighbors	4	1	1.9	1	4	3.1
Environment	3	1	1.6	1	2	1.7
Unions	1	5	3.8	1	3	2.4
City Council	4	1	1.9	1	4	3.1



The most important stakeholders have been identified and sorted according to their power and level of concern. From the resulting graph the Key Stakeholders can be identified. It is clear that the client is the most important stakeholder with the most power and greatest level of concern. The next two stakeholders of importance are the Unions and the Congregation members. The graph illustrates that the Unions can be a possible risk if the laborers are not treated legally and fairly. This is valuable information and the project manager can pay attention to the requirements of the union. The graph indicates that the congregation members have a relatively high influence and should be respected where involved in the project.

The City Council and neighbors are not stakeholders with immense influence but should still be considered in decision making and the development. The environment is the stakeholder that receives lowest priority. This is reflected in the direction of focus in the project. Social issues are much more important than environmental concerns.

# Risks

## Identifying Possible Risks:

### Stakeholders as risks:

- Unions
- Neighbors

### Typical internal risks

- Proper cost analysis
- Communication between church and building commission
- Management of the Wall after completion

### Typical unpredictable external risks

- Natural hazards :Storms danger to Chapel roof structure
- Deliberate intent: Vandalism of the wall
- Failure of Completion: financial support

### Typical predictable external but uncertain risks

- Availability of raw material

### Table Key:

#### Consequence

Catastrophic	5
Major	4
Moderate	3
Minor	2
Insignificant	1

#### Likelihood

Likely	5
Moderate	4
Unlikely	3
Rare	2

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#### Risk Result

High  
Medium  
Low

Risk Description	Consequence	Likelihood	Risk factor	Risk Result	Mitigation measure
Trade Unions	3 Moderate	3 Unlikely	9	Medium	The building commission must be fully aware of all Labor Legislation and should always comply. The laborers must be treated fairly and just. Ensure good communication with Unions.
Neighbors	3 Moderate	3 Unlikely	9	Medium	The congregation must maintain good relations with the neighbors. The activities at the church should not disturb the peace. They should have prior notice of major happenings.
Proper cost analysis	4 Major	4 Moderate	16	High	All custom designed elements must be carefully analyzed for a proper cost analysis. Specialists must be employed for accurate estimates.
Communication between church and building commission	4 Major	5 Likely	20	High	In such a large project with so many people involved, good communication is indispensable. Regular meetings and updates must be held to ensure good communication.
Management of the Wall after completion	3 Moderate	3 Unlikely	9	Medium	The letting of niches must be managed effectively in order to generate an income for the church. Responsibilities must be appointed to individuals.

# Risks

Risk Description	Consequence	Likelihood	Risk factor	Risk Result	Mitigation measure
Natural hazards : Storms danger to Chapel roof structure	4 Major	3 Unlikely	12	Medium	The copper roof is the most expensive element in the Chapel and will be a great expense to replace or repair in case of a hazardous storm. The cantilever roof is in danger of collapse when under enormous wind loads. Proper engineering details and specifications are essential.
Deliberate intent: Vandalism of the wall	4 Major	3 Unlikely	12	Medium	The Memorial Walls are open to the public 24 hours a day and therefore in danger of vandalism. Material finishes must prevent vandalism.
Failure of Completion: financial support	4 Major	3 Unlikely	12	Medium	Funds are generated from members of the congregation in the form of pledges and donations. Proper management of these pledges and donations is essential to collect the needed amount.
Availability of raw material	3 Moderate	2 Rare	6	Low	A large quantity of copper is required for the Chapel and Walls. Good management of resources is essential to reach completion within the planned time.

Consequence	Likelihood					
		5. Likely	4. Moderate	3. Unlikely	2. Rare	
5. Catastrophic		25	20	15	10	High Risk
4. Major		20	16	12	8	Medium Risk
3. Moderate		15	12	9	6	Low Risk
2. Minor		10	8	6	4	
1. Insignificant		5	4	3	2	