KZN Housing

uMnyango:
wezeZindlu

ISIFUNDAZWE SAKWAZULU-NATALI

uMnyango wezeZindlu / Departement van Behuising

POLICY GUIDELINE TO CATER

FOR THE

LOCATION OF THE DEVELOPMENT

SITE

July 2009

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1 INTRODUCTION

1.2 The National Department of Housing approved the Policy and Implementation Manual on the Variation of the subsidy amount to cater for extra ordinary development conditions with effect from April 2007.

2.2 The manual replaced the 15% variation system. It specifies the conditions, the precautionary measures and the costs of these measures, except for the location of the development site. The following provision is made for the calculation of the variation based on location factors.

"Location of the development site

- Location of the development site in relation to the distance from (km) the identified major centre in the Province. Only sites in excess of 20km from the major centre will qualify for this adjustment of the subsidy amount. The major centres for each Province will be identified by the MEC.

- Adjustment of the subsidy amount as percentages (%) for material costs in major centres in the Provinces."

"Verification category

- The delivery of material for a 40 square meter house will be determined by measuring the distance of two trips with a ten ton truck. The distance will be measured in one direction from the major centre to the development site and multiplied by two. The distance for bigger houses will be calculated in the same manner."

- In order for a project to qualify for the location allowance the site must be located in excess of 20km (one direction) from the major centre. In such instances the location allowance can be applied for by using the variation manual calculator.

2 POLICY INTENT

The purpose of the policy guideline is to identify the major centres for KZN and to allow for the application of the location allowance based on distance. The major centres listed should be used to determine the adjustment of the subsidy to allow for additional costs relating to the delivery of materials to remote areas only.

The policy provision for compensation based on locational factors relating to price differences should not be implemented as it is currently not possible to ensure an equitable basis to determine the percentage variation within an acceptable level of reliability.

3 CALCULATION OF THE LOCATION ALLOWANCE

3.1 IDENTIFICATION OF MAIN CENTRES

3.1.1 METHODOLOGY

The following methodology should be used to determine major centres:

(1) Identify suppliers

- Search for all material suppliers listed the "Yellow Pages"
- Identify major suppliers
- Conduct internet research of the details of known leading suppliers

(2) Group suppliers by town and category and indicate how many there are within the municipal boundary, from the sources consulted.

a. Municipal areas with 3 suppliers should be considered a good option as a major centre as there is likely to be a continued availability should there be an economic downturn. (hence the selection of the following areas in the 2008/9 survey):

Table 1: Areas with 3 suppliers as at 2008/9, based on research conducted at the time

Uthungulu	Richards Bay, Empangeni, Eshowe, Melmoth,
Zululand	Pongola, Vryheid (also see table 2, below)
Amajuba	Newcastle
Umzinyathi	Dundee, Nqutu, Tugela Ferry
Ethekwini Metro	Amanzimtoti, Ballito, Bluff, Durban central, Kwamashu, Isipingo, Pinetown, and Umlazi
Ugu	Port Shepstone, Umzinto
Umgungundlovu	Pietermaritzburg, Howick
Uthukela	Ladysmith, Estcourt

b. In addition to this, some areas where there are 2 major suppliers have been included to ensure a more equitable geographic spread (especially in larger district municipalities), and to ensure that there would be at least one major centre per district, hence the selection of the following areas:

Table 2: Areas with at least 2 major suppliers as at 2008/9, based on research conducted at the time

Umzinyathi	Dundee, Nqutu, Tugela Ferry
Umkhanyakude	Ingwavuma, Mtubatuba
Ilembe	Mandeni, (KwaDukuza) Stanger
Sisonke	Ixopo, Kokstad
Zululand	Paulpietersburg, Nongoma

c. Cross border suppliers should also be evaluated as these may be used to source materials, as indicated in Table 3 below:

Table 3: Qualifying cross border areas as at 2008/9, based on research conducted at the time

Eastern Cape	Matatiele (included as sourcing could occur from this area)

d. The finalization of the major centres should take into account the following:

i. Finalisation of the major centres should consider the ease at which information can be obtained from suppliers in terms of obtaining prices for sand, stone, cement, blocks, 0.5 mm corrugated iron roof sheeting, and delivery of materials.

ii. The pricing for these materials must be based on the bill of quantities for the minimum house specification in terms of the conditional grant and should include cement, sand, stone, blocks, cranked roof sheeting and transport costs (Annexure A)

(3) Map areas with a 20 metre radius (Annexure B1 and B2 can be used as a guide)

- Application for locational (material delivery costs) to be considered only for areas outside the periphery (thus the white areas on the map of Annexure B2),
- Each district municipality must have at least one major centre
- The major centre must be accessible with reasonably well developed road infrastructure within the town.

3.1.2 INITIAL MAIN CENTRES

The following major centers have been identified:

Uthungulu	Richards Bay, Empangeni, Eshowe, Melmoth
Zululand	Pongola, Vryheid, Paulpietersburg, and Nongoma
Amajuba	Newcastle
Umzinyathi	Dundee, Nqutu, Tugela Ferry
Umkhanyakude	Ingwavuma, Mtubatuba
Ilembe	Mandeni, (KwaDukuza) Stanger
Ethekwini Metro	Amanzimtoti, Ballito, Bluff, Durban central, Kwamashu, Isipingo, Pinetown, and Umlazi
Ugu	Port Shepstone, Umzinto
Umgungundlovu	Pietermaritzburg, Howick
Uthukela	Ladysmith, Estcourt
Sisonke	Ixopo, Kokstad
Eastern Cape	Matatiele

3.2 KILOMETER CALCULATION

The distance to be determined as follows:

(1) The 20km inclusive distance of the development site from a major centre as defined in the national housing manual, will be a radius of 20km from the city/town hall (or nearest policy station in the case of a suburb).

(2) The distance beyond the 20km radius, must be measured in one direction along a road from the town/city hall to the development site that can accommodate a 10 ton truck. The reason for this is that the electronic calculator (spreadsheet updated annually by the national Department (see Annexure C)), already contains a factor that multiplies the distance by 2 to account for the return trip.

This factor was derived as follows:

10 companies were phoned at random in to establish the cost per kilometre for a ten ton truck to make 2 trips (in excess of 20 km) to deliver materials, in one direction. The average cost was then determined (at the time of finalising the calculator in 2007 it was approximately R7.45/kilometre). This amount is adjusted annually by the National Department to take into account the escalation of delivery, labour and fuel.

The formula can thus be summarised as:

Distance in excess of 20km = a +20
Average cost of ten ton truck to deliver materials (2 trips) in one direction in excess of 20 km = b
Annual adjustment factor for escalation (inlcuding fuel, labour and delivery fee) = c

Total variation amount (to a maximum of 5% of the subsidy quantum at the time) = f

Thus, f= (a+20km) x (bxc)

The value of (f) is programmed not to exceed 5% of the subsidy quantum.

(3) Use a map (as set out in 3.1.1(3) above, to identify a 20 kilometre radius from the nearest major centre (Annexure B can be used as a guide)

- Application for locational (material delivery costs) to be considered only for areas outside the periphery
- The kilometer distance to be measured from the location of the site office to the nearest area municipal (or where applicable, suburb boundary e.g. Durban areas).
- This can be done by:
    - actually traveling the distance
    - using electronic means such as “Google Earth”
    - measurement by “AA”- maps, “Brabys” Global positioning systems (GPS) or GIS

- In larger areas, additional points for measuring is suggested, as follows:

    - Measure from the closest area listed (determined as having more than 1 well known supplier) as indicated in the table below:

Ethekwini Metro	Amanzimtoti, Ballito, Bluff, Durban central, Kwamashu, Isipingo, Pinetown, and Umlazi

3.3 HOW TO CLAIM FOR THE LOCATION ALLOWANCE

- The National Department of Housing Variation Manual calculator will be used to calculate the location allowance.

- The distance measured from the city or town hall as outlined in paragraph 3.2(2) must be captured under section 12 (location adjustment) of the calculator questionnaire (Annexure C).

- The calculation sheet will automatically calculate the allowance based on the information captured on the calculator questionnaire.

- The Implementing Agent must submit a map showing the distance of the development site from the major centre. This should be verified by the Region by either (1) actually traveling the distance; (2) using electronic means such as "Google Earth"; or (3) measurement by "AA"- maps, "Brabys" Global positioning systems (GPS) or GIS

4 MONITORING AND EVALUATION

The major centres will be monitored for the next 3 years and reassessed to determine whether more centres can be identified, particularly in areas with few suppliers, and whether the application of the allowance has assisted in ensuring a sound standard of top structure is achieved.

MATERIAL LIST FOR TYPICAL 40M² HOUSE

Item	Description	Unit	Quantity	Rate	Total Cost per House
1	**FOUNDATIONS AND FLOOR SLAB**				
1.1	**Concrete 15 MPa**				
1.1.1	Concrete sand	m³	5.20		
1.1.2	20mm Crushed stone	m³	5.80		
1.1.3	Cement	pkt	58.00		
1.2	**Foundation Walls**				
1.2.1	Building Sand	m³	0.36		
1.2.2	Cement	pkt	3		
1.2.3	140 x 190 x 390mm Building Blocks	no	200		
1.2.4	90 x 190 x 390mm Building Blocks	no	100		
1.2.5	75mm Brickforce	20m roll	5.00		
	Total Cost carried forward to Summary				R -

Note:
1. All prices exclude VAT

MATERIAL LIST FOR TYPICAL 40M² HOUSE

Item	Description	Unit	Quantity	Rate	Total Cost per House
2	**TOP STRUCTURE**				
2.1	140 x 190 x 390mm Building Blocks	no	800		
2.2	90 x 190 x 390mm Building Blocks	no	300		
2.3	Cill Blocks	no	28		
2.4	U-Blocks	no	140		
2.5	Building Sand	m³	4.50		
2.6	Cement	pkt	25		
2.7	75mm Brickforce	20m roll	9		
2.8	DPC	40m roll	1		
2.8	NC3 Window frame	no	3		
2.9	NE1 Window frame	no	2		
2.10	90 mm wide 1.0 mm doorframe	no	3		
2.11	140 mm wide 1,0 mm doorframe	no	1		
2.12	Galvanised Crimped Hoop Iron	m	15		
2.13	Galvanised Roof Wire (8 gauge - 40m roll)	roll	1.00		
	Total Cost carried forward to Summary				R -

Note:
1. All prices exclude VAT

MATERIAL LIST FOR TYPICAL 40M² HOUSE

Item	Description	Unit	Quantity	Rate	Total Cost per House
3	**Roof Structure**				
3.1	Wall Plate (50mm x 76mm x 3,6m treated timber)	no	4		
3.2	Beams (152mm x 50mm x 3,6m treated timber)	no	12		
3.3	Gang Nails (for joining roof timber)	no	12		
3.4	Cranked Roof Sheet (7 m x 8½ x 0,5mm corrugated iron)	no	11		
3.5	Safe Top Roof Screws (65mm)	box	2.5		
3.6	Wire Nails (100mm)	kg	2		
3.7	Wire Nails (75mm)	kg	5		
	Total Cost carried forward to Summary				R -

Note:
1. All prices exclude VAT

MATERIAL LIST FOR TYPICAL 40M² HOUSE

Item	Description	Unit	Quantity	Rate	Total Cost per House
4.1	**Plaster**				
4.1.1	Plaster Sand	m³	4		
4.1.2	Cement	pkt	24		
4.2	**Painting**				
4.2.1	Enamel Paint (doors & windows)	litre	4		
4.2.2	Wood primer	litre	2		
4.2.3	PVA Paint	litre	40		
	Total Cost carried forward to Summary				R -

Note:
1. All prices exclude VAT

MATERIAL LIST FOR TYPICAL 40M² HOUSE

Item	Description	Unit	Quantity	Rate	Total Cost per House
5.1	**Doors & Locks**				
5.1.1	Pine external door	no	1		
5.1.2	Hollow Core Hardboard Door	no	3		
5.1.3	Steel Hinges with Screws	pair	4		
5.1.4	3 Lever Lockset	no	1		
5.1.5	2 Lever Lockset	no	3		
5.2	**Glazing**				
5.2.1	Supply & Fit glas	m²	5.5		
	Total Cost carried forward to Summary				R -

Note:
1. All prices exclude VAT

MATERIAL LIST FOR TYPICAL 40M² HOUSE

Item	Description	Unit	Quantity	Rate	Total Cost per House
6	**Plumbing**				
6.1	uPVC drainage pipes with hepsleeve coupling	m	12		
6.2	uPVC drainage bends 110 mm	no	3		
6.3	uPVC drainage access junction	no	2		
6.4	uPVC Gulley 110 mm	no	2		
6.5	uPVC access bend 110 mm	no	2		
6.6	uPVC 110 mm access bend with 50 mm anti-syphon horn	no	1		
6.7	uPVC pan connector 110 mm	no	1		
6.8	uPVC pipes 40 mm	m	4		
6.9	uPVC Bend 40 mm	no	3		
6.10	uPVC access junction 40 mm	no	6		
6.11	uPVC Marley P Trap 32 mm	no	3		
6.12	Porcelain basin with overflow and cast iron wall brackets	no	1		
6.13	WC complete with cistern and seat	no	1		
6.14	Single end bowl sink	no	1		
6.15	Brass stop cock 20 mm	no	4		
6.16	HDPE Pipes 20 mm	m	10		
6.17	PP Pipes 20 mm	m	8		
6.18	PP pipe 90° bends 20 mm	no	8		
6.19	PP Pipe connections	no	8		
6.20	Galvanised pipe (15mm) including shower tap, showerhead and fittings.	no	1		
6.21	15 mm Chromium plated ballostop.	no	2		
6.22	15 mm Brass tap	no	2		
	Total Cost carried forward to Summary				R -

Note:
1. All prices exclude VAT

MATERIAL LIST FOR TYPICAL 40M² HOUSE

Item	Description	Total Cost
	SUMMARY	
1	***Foundations & Floor Slabs***	R -
2	***Top Structure***	R -
3	***Roof Structure***	R -
4	***Plaster & Paint***	R -
5	***Doors, Locks & Glazing***	R -
6	***Plumbing***	R -
	Total Material Cost (excluding 14% VAT)	R -

KZN Housing

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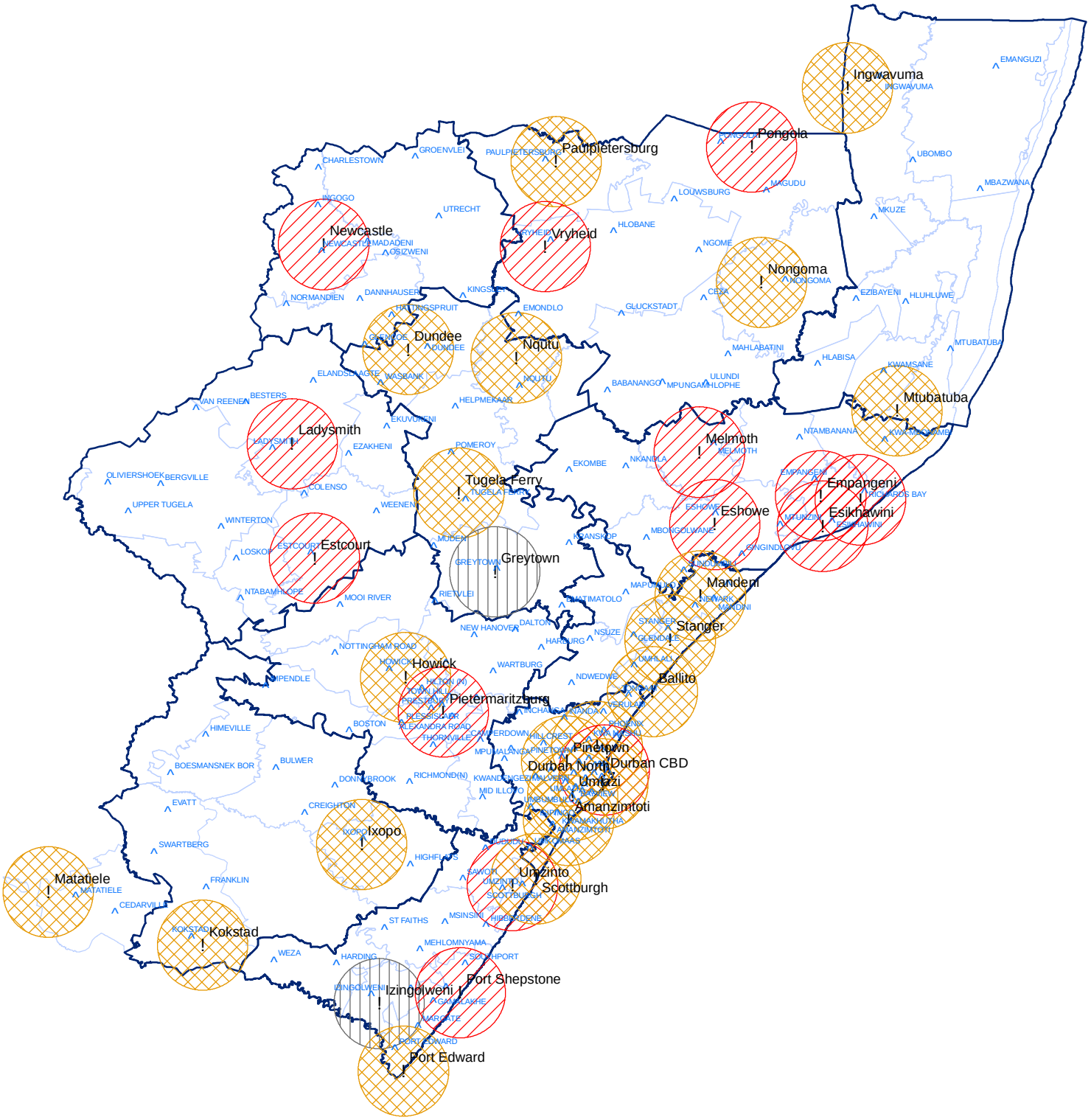
ISIFUNDAZWE SAKWAZULU-NATAL

REVISED MAJOR CENTRES

KWAZULU-NATAL DISTRICT MUNICIPALITY 20 KM BUFFERS



NATIONAL HOUSING PROGRAMME: The adjustment of the subsidy amount to cater for extraordinary development conditions.

User Manual

1. Groundwater

State Y or N.(yes or no) where applicable

for example:

1. GROUNDWATER	YOU MAY HAVE ONLY ONE "Y" IN THIS SECTION		
CATEGORY 1 - Permanent or perched water table equal to or less than 1.0m below ground level.		Y	Y ENTER
CATEGORY 2 - Permanent or perched water table more than 1.0 but less than 1.5m below ground level.		N	N ENTER

2. Erodibility of Soil

Again just state Y or N where applicable
for example:

2. ERODIBILITY OF SOIL	YOU MAY HAVE ONLY ONE "Y" IN THIS SECTION		
CATEGORY 1 - High risk- Erodibility index 1-8		N	N ENTER
CATEGORY 2- Meduim risk - Erodibility index 9-15		N	N ENTER

3. Hard excavation

At some of the sections there is orange blocks. Here you must put in more specified information and not a Y/N.
for example:

3. HARD EXCAVATION	YOU MAY COMPLETE ONLY ONE CATEGORY		
CATEGORY 1 - Hard rock excavation	10% - 100%	29	29 ENTER
CATEGORY 2 - Boulder excavation	10% - 100%	60	60 ENTER

4. Dolomite, 5. Expansive clays, 6. Collapsing sands, 7. Compressible soils

In sections 4-7 there can only be one "Y" (yes) if applicable.

for example:

4. DOLOMITE *YOU MAY HAVE JUST ONE "Y" IN SECTIONS 4-7*			
CATEGORY 1 - Class P and anticipated inherent risk Class 1 and 2: Dolomite area Class D2		N	N ENTER
CATEGORY 2 - Class P and anticipated inherent risk Class 3, 4 and 5: Dolomite area Class D3		N	N ENTER
5. EXPANSIVE CLAYS			
CATEGORY 1 - Meduim - Class H1		N	N ENTER
CATEGORY 2 - High - Class H2	Low PE: 5 < CDS < 20	N	N ENTER
	Medium PE: 20 < CDS < 40	N	N ENTER
CATEGORY 3 - Very high - Class H3	High PE: 40 < CDS < 60	N	N ENTER
	Very High PE: CDS < 60	N	N ENTER
6. COLLAPSING SANDS (Site Class C2)			
CATEGORY 1 - Class C1	Modified normal foundations	N	N ENTER
	Compaction below footings	N	N ENTER
CATEGORY 2 - Class C2	Compaction below footings	N	N ENTER
	Light raft	Y	Y ENTER
	Medium raft	N	N ENTER
	Heavy raft	N	N ENTER
	Special raft	N	N ENTER
7. COMPRESSIBLE SOILS (Site Class S2)			
CATEGORY 1 - Class S1	Modified normal foundations	N	N ENTER
	Compaction below footings	N	N ENTER
CATEGORY 2 - Class S2	Light raft	N	N ENTER
	Medium raft	N	N ENTER
	Heavy raft	N	N ENTER
	Special raft	N	N ENTER

8. Mining subsidence

Again just state Y or N where applicable
for example:

8. MINING SUBSIDENCE			
CATEGORY 1 - Old under-mining depth 90m-240m below surface	Compaction below footings	Y	Y ENTER

	Medium raft	N	N ENTER
CATEGORY 2 - Mining within a depth of between 90m-240m belo	Additional earthworks	N	N ENTER
	Soil mattress	N	N ENTER

9. Seismic activity

Again just state Y or N where applicable
for example:

9. SEISMIC ACTIVITY			
CATEGORY 1 - Mining induced seismic activity >100 cm/s²	Stiffened strip footings	N	N ENTER
	OR Heavy raft	Y	Y ENTER
CATEGORY 2 - Natural induced seismic activity >100 cm/s²	Stiffened strip footings	N	N ENTER
	OR Heavy raft	N	N ENTER

10. Topography of the site

Again just state Y or N where applicable
for example:

10. TOPOGRAPHY OF THE SITE		
CATEGORY 1 - Average ground slope flatter than 1:100	N	N ENTER
CATEGORY 2 - Average ground slope of between 1:11 and 1:20	N	N ENTER
CATEGORY 3 - Average ground slope of between 1:7.5 and 1:10	N	N ENTER
CATEGORY 4 - Average ground slope of between 1:5 and 1:7.5	N	N ENTER
CATEGORY 5 - Average ground slope of more than 1:5	Y	Y ENTER

11. Southern Cape coastal condenstaion areas.

Again just state Y or N where applicable
for example:

11. SOUTHERN CAPE COASTAL CONDENSATION AREAS		
Housing in the designated area is subject to severe condensation conditions.	Y	Y ENTER

12. Location adjustment

The MEC in each Province must determine the Major Centres and the % allowance for each Major Centre

Below is suggested Major Centres and % for each Province but it can be changed by each Province

PROVINCE	MAJOR CENTRE	% ALLOWANCE ON MATERIAL COST
EASTERN CAPE	Port Elizabeth	0%
	East London	1%
	Mthatha	3%
	Queenstown	4%
	Graaff Reinette	5%
FREE STATE	Bloemfontein	0%
	Welkom	1%
	Kroonstad	2%
	Beth;ehem	4%
GAUTENG	NONE	
KWA-ZULU NATAL	Durban	0%
	Pietermaritzburg	1%
	Vryheid	4%
	Richardsbay	3%
LIMPOPO	Polokwane	0%
	Bela Bela	2%
	Phalaborwa	2%
MPUMALANGA	Nelspruit	0%
	Lydenburg	1%
	Witbank/Middelburg	0%
	Ermelo	1%
NORTH WEST	Mafikeng	0%
	Klerksdorp/Potchefstroom	0%
	Rustenburg	2%
	Vryburg	2%
NORTHERN CAPE	Kimberley	0%
	Kuruman	2%
	Upington	5%
	Springbok	4%

	Calvinia	3%
	De Aar	2%
WESTERN CAPE	Cape Peninsula	0%
	Worcester	1%
	George	2%
	Vredendal	2%

EXAMPLE: NORTHERN CAPE PROVINCE

MEC will identify Kimberley, De Aar, Kuruman, Upington, Springbok and Calvinia as major centres in the province and will then determine % allowance for material costs.

For a housing scheme in Kakamas, the location allowance will thus be 5% on the material cost.(Upington is the nearets major centre and Kakamas is 90 km from Upington).

12. LOCATION ADJUSTMENT		
Major Centre	Upington	UPINGTON ENTER
Distance from identified major centre	90	90 ENTER
% allowance on material cost	5	5 ENTER

13. Physical disabilities and the special housing needs.

Again just state Y or N where applicable
for example:

13. PHYSICAL DISABILLITIES AND SPECIAL HOUSING NEEDS		
CATEGORY A- Needs walking aids	N	N ENTER
CATEGORY B - Partial usage of wheel chair.	Y	Y ENTER
CATEGORY C - Full-time usage of wheel chair.	N	N ENTER
CATEGORY D- Partially/profoundly deaf	N	N ENTER
CATEGORY E- Partially/totally blind.	N	N ENTER
CATEGORY F - Partially/ total movement loss/paralysis in the uper body limbs.	N	N ENTER
	N	N ENTER

Type in the number of houses that fit the decriptions above.
for example:

Number of houses:	30	30 ENTER

NATIONAL HOUSING PROGRAMME: **The adjustment of the su ıount to cater for extraordinary development conditions.**

Questionnaire

Name of project:

Project number:

ERF NRS:

		Size of House
1. GROUNDWATER	**YOU MAY HAVE ONLY ONE "Y" IN THIS SECTION**	
CATEGORY 1 - Permanent or perched water table equal to or less than 1.0m below ground level.		
CATEGORY 2 - Permanent or perched water table more than 1.0 but less than 1.5m below ground level.		
2. ERODIBILITY OF SOIL	**YOU MAY HAVE ONLY ONE "Y" IN THIS SECTION**	
CATEGORY 1 - High risk- Erodibility index 1-8		
CATEGORY 2- Meduim risk - Erodibility index 9-15		
3. HARD EXCAVATION	**YOU MAY COMPLETE ONLY GATEGORY**	
CATEGORY 1 - Hard rock excavation	10% - 100%	
CATEGORY 2 - Boulder excavation	10% - 100%	
4. DOLOMITE (Site Class D)	***YOU MAY HAVE ONLY ONE "Y" IN SECTIONS 4-7***	
CATEGORY 1 - Class P and anticipated inherent risk Class 1 and 2: Dolomite area Class D2		
CATEGORY 2 - Class P and anticipated inherent risk Class 3, 4 and 5: Dolomite area Class D3		
5. EXPANSIVE CLAYS (Site Class H)	***YOU MAY HAVE ONLY ONE "Y" IN SECTIONS 4-7***	
CATEGORY 1 - Meduim - Class H1		
CATEGORY 2 - High - Class H2	Low PE: 5 < CDS < 20	
	OR Medium PE: 20 < CDS < 40	
CATEGORY 3 - Very high - Class H3	High PE: 40 < CDS < 60	
	OR Very High PE: CDS < 60	
6. COLLAPSING SANDS (Site Class C)	***YOU MAY HAVE ONLY ONE "Y" IN SECTIONS 4-7***	
CATEGORY 1 - Class C1	Modified normal foundations	
	OR Compaction below footings	
CATEGORY 2 - Class C2	Compaction below footings	
	OR Light raft	
	OR Medium raft	
	OR Heavy raft	
	OR Special raft	
7. COMPRESSIBLE SOILS (Site Class S)	***YOU MAY HAVE ONLY ONE "Y" IN SECTIONS 4-7***	
CATEGORY 1 - Class S1	Modified normal foundations	
	OR Compaction below footings	
CATEGORY 2 - Class S2	Light raft	
	OR Medium raft	
	OR Heavy raft	
	OR Special raft	
8. MINING SUBSIDENCE	**YOU MAY HAVE ONLY ONE "Y" IN THIS SECTION**	
CATEGORY 1 - Old under-mining depth 90m-240m below surface	Compaction below footings	
	OR Medium raft	
CATEGORY 2 - Mining within a depth of between 90m-240m below surface	Additional earthworks	
	OR Soil mattress	
9. SEISMIC ACTIVITY	**YOU MAY HAVE ONLY ONE "Y" IN THIS SECTION**	
CATEGORY 1 - Mining induced seismic activity >100 cm/s²	Stiffened strip footings	
	OR Heavy raft	
CATEGORY 2 - Natural induced seismic activity >100 cm/s²	Stiffened strip footings	
	OR Heavy raft	
10. TOPOGRAPHY OF THE SITE	**YOU MAY HAVE ONLY ONE "Y" IN THIS SECTION**	
CATEGORY 1 - Average ground slope flatter than 1:100		
CATEGORY 2 - Average ground slope of between 1:11 and 1:20		
CATEGORY 3 - Average ground slope of between 1:7.5 and 1:10		
CATEGORY 4 - Average ground slope of between 1:5 and 1:7.5		
CATEGORY 5 - Average ground slope of more than 1:5		
11. SOUTHERN CAPE COASTAL CONDENSATION AREAS		
Housing in the designated area is subject to severe condensation conditions.		
12. LOCATION ADJUSTMENT		
Major Centre		
Distance from identified major centre (measured in ONE direction)		
% allowance on material cost		
13. PHYSICAL DISABILLITIES AND SPECIAL HOUSING NEEDS		
CATEGORY A- Needs walking aids		
CATEGORY B - Partial usage of wheel chair.		
CATEGORY C - Full-time usage of wheel chair.		
CATEGORY D- Partially/profoundly deaf		
CATEGORY E- Partially/totally blind.		
CATEGORY F - Partially/ total movement loss/paralysis in the uper body limbs.		

Number of houses:

NATIONAL HOUSING PROGRAMME: The adjustment o
subsidy amount to cater for extraordinary development conditions.

Calculation Sheet

			SIZE OF HOUSE	0	
1	**Groundwater**			R -	
1.1	**CATEGORY 1: Water table equal to or less than 1,0m**				
	Sub-Surface drainage			0	H
	Plus Improved damp proofing to houses			0	H
	Plus Dewatering of service trenches during construction			0	E
1.2	**CATEGORY 2: Water table more than 1,0m but less than 1,5m**				
	Dewatering of service trenches during construction.			0	E
2	**Erodibility of soil**			R -	
2.1	**CATEGORY 1: High Risk**				
	Retaining walls			0	H
	Plus Earthworks to reduce slopes			0	H
	Plus Surface Drainage			0	E
2.2	**CATEGORY 2: Medium Risk**				
	Provision of retaining walls			0	H
	Plus Earthworks to reduce slopes			0	H
3	**Hard Excavation**			R -	
3.1	**CATEGORY 1: Hard Rock Excavation**	10%-100%			
	Additional cost of trench excavation			0	E
3.2	**CATEGORY 2: Boulder Excavation**				
	Additional cost of trench excavation	10%-100%		0	E
	Additional cost of road excavation	10%-100%		0	E
4	**Dolomite (Site Class D)**			R -	
4.1	**CATEGORY 1: Class P and Risk Class 1 & 2**				
	Design and construction of township services			0	E
	Additional cost of foundations: Light Raft			0	H
4.2	**CATEGORY 2: Class P and Risk Class 3, 4 & 5**				
	Design and construction of township services			0	E
	Additional cost of foundations where sinkholes may occur: Light Raft			0	H
5	**Expansive clays (Site Class H)**			R -	
5.1	**CATEGORY 1: Medium Potential Expansiveness**				
	Modified normal foundations			0	H
5.2	**CATEGORY 2: High Potential Expansiveness**				
	Light raft (low PE 5<CDS<20)			0	H
	Medium raft (meduim PE 20<CDS<40)			0	H
5.3	**CATEGORY 3: Very High Potential Expansiveness**				
	Heavy raft (PE 40<CDS<60)			0	H
	Special raft (v high PE & CDS>60)			0	H
6	**Collapsing Sands (Site Class C)**			R -	
6.1	**CATEGORY 1: Class C1:**				
	Modified normal			0	H
	Or compaction below footings			0	H
6.2	**CATEGORY 2: Class C2:**				
	Compaction below footings			0	H
	Or Light raft (collapse potential 1-5%)			0	H
	Or Medium raft (collapse potential 5-10%)			0	H
	Or Heavy raft (collapse potential 10-20%)			0	H
	Or Special raft (collapse potential > 20%)			0	H
7	**Compressible soils (Site Class S)**			R -	
7.1	**CATEGORY 1: Class S1**				
	Modified normal			0	H
	Or Compaction below footings			0	H
7.2	**CATEGORY 2: Class S2**				
	Or Light raft (consolidation potential 1-5%)			0	H
	Or Medium raft (consolidation potential 5-10%)			0	H
	Or Heavy raft (consolidation potential 10-20%)			0	H
	Or Special raft (consolidation potential > 20%)			0	H
8	**Mining Subsidence**			R -	
8.1	**CATEGORY 1: Old undermining (90 - 240m below surface)**				
	Compaction below footings			0	H
	Or Medium raft (consolidation potential 5-10%)			0	H
8.2	**CATEGORY 2: Mining (90 - 240m below surface)**				
	Additional earthworks to fill open outcrop			0	H
	Or soil mattress			0	H
9	**Seismic Activity**			R -	
9.1	**CATEGORY 1: Mining induced seismic activity**				
	Stiffened strip footings			0	H
	Or Heavy raft			0	H
9.2	**CATEGORY 2: Natural seismic activity**				

	Stiffened strip footings	0	H
	Or Heavy raft	0	H
10	**Topography of the site**	R -	
10.1	**CATEGORY 1: Flatter than 1:100**		
	Increase depth of sewer trenches	0	E
	Provision of pumpstations	0	E
10.2	**CATEGORY 2: Slope between 1:10 and 1:20**		
	Terracing for houses	0	H
	Additional earthworks to roads	0	E
	Stormwater control measures	0	E
10.3	**CATEGORY 3: Slope btween 1:7.5 and 1:10**		
	Terracing for houses	0	H
	Additional earthworks to roads	0	E
	Stormwater control measures	0	E
10.4	**CATEGORY 4: Slope between 1:5 and 1:7.5**		
	Terracing for houses	0	H
	Additional earthworks to roads	0	E
	Stormwater control measures	0	E
10.5	**CATEGORY 5: Slope more than 1 : 5**		
	Terracing for houses	0	H
	Additional earthworks to roads	0	E
	Stormwater control measures	0	E
11	**Southern Cape Coastal Condensation Areas**	R -	
	Plaster and paint on all external walls	0	H
	6.4mm gypsum plasterboard ceilings	0	H
	80mm thick glass fibre insulation	0	H
12	**Location adjustment**	R -	
	Kilometer Location Adjustment	0	H
	% Location adjustment	0	H
13	**Physical disabilities and the special housing needs**	R -	
13.1	**CATEGORY A: Needs walking aids**		
	Access to house(12m² paving, and ramp at doorway	0	H
	Kick plates to doors	0	H
	Hand and Grab rails	0	H
	Lever action taps	0	H
	1 m vinyl folding door in bathroom	0	H
	Increase size of bathroom(reduce other rooms)	0	H
13.2	**CATEGORY B: Partial usage of wheel chair**		
	Access to house(12m² paving, and ramp at doorway	0	H
	Kick plates to doors	0	H
	Hand rails and grab rails	0	H
	Lever action taps	0	H
	1 m vinyl folding door in bathroom	0	H
	Increase size of bathroom(reduce other rooms)	0	H
13.3	**CATEGORY C: Full-time usage of wheel chair**		
	Access to house(12m² paving, and ramp at doorway	0	H
	Kick plates to doors	0	H
	Hand and Grab rails	0	H
	Lever action taps	0	H
	1 m vinyl folding door in bathroom	0	H
	Increase size of bathroom(reduce other rooms)	0	H
13.4	**CATEGORY D: Partially/profoundly deaf**		
	Visual doorbell indicator	0	H
13.5	**CATEGORY E: Partially/totally blind**		
	Access to house(12m² paving, and ramp at doorway	0	H
	Kick plates to doors	0	H
	Hand and Grab rails	0	H
	Lever action taps	0	H
	1 m vinyl folding door in bathroom	0	H
	Slip resistant flooring	0	H
	Colour contrast on doorways, stairs, corners of buildings and skirting on walls.	0	H
13.6	**CATEGORY F: Partially/total movement loss in upper body limbs**		
	Access to house(12m² paving, and ramp at doorway	0	H
	Kick plates to doors	0	H
	Hand and Grab rails	0	H
	Lever action taps	0	H
	1 m vinyl folding door in bathroom	0	H
	Slip resistant flooring	0	H
	Increase size of bathroom(reduce other rooms)	0	H
14	**ADDITIONAL PROFESSIONAL FEES**	R -	
TOTAL SUBSIDY VARIATION		**R -**	
TOTAL SUBSIDY VARIATION PER HOUSE		**#DIV/0!**	
SUBSIDY VARIATION FOR INFRASTRUCTURE PER ERF		R -	
SUBSIDY VARIATION FOR HOUSE PER ERF		R -	