

## M 3.11.1

SCHEDULE NO 3.11: INSTALLATION B11: MAHAMBHA -WASTE WATER TREATMENT WORKS  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	2200.00	<u>WASTE WATER TREATMENT WORKS</u>				
	2201.00	Maintenance of a complete installation:  .01 Waste Water Treatment Works  The maintenance scope is descbedid in technical specifications: EB,EC, EF, EJ, EK	point	360		
SA.04	2202.00	Payment reduction:  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate only
	SA.05	.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate only
SA.07	2203.00	Call-out for repair of Emergency Breakdown (24 hours) response.	No	36		
TOTAL SCHEDULE NO 3.11: CARRIED TO SUMMARY: MAINTENANCE WORK						

M 4.2.1

SCHEDULE NO 4.2: INSTALLATION C2: BOTHASHOOP-PLUMBING, DRAINAGE AND WET SERVICES  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	2300.00	<u>MAINTENANCE OF PLUMBING DRAINAGE AND WET SERVICES</u>				
	2301.00	Maintenance of a complete installation:  .01 Plumbing, drainage and wet services installations  The maintenance scope is descbided in technical specifications: AA, PAA, CF, EG, KA.	point	360		
	2302.00	Payment reduction:  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days			Rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days			Rate only
		.03 Payment reduction due to exceeding o maximum allowable down-time during malicious damage breakdown	Days			Rate only
	2303.00	Call-out for repair of Emergency Breakdown (24 hours) response.	No	36		
	TOTAL SCHEDULE NO 4.2: CARRIED TO SUMMARY: MAINTENANCE WORK					

M 4.3.1

SCHEDULE NO 4.3: INSTALLATION C3: BOTHASHOOP- BUILDING AND SITE ELECTRICAL  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	2400.00	<u>MAINTENANCE OF BUILDING ELECTRICAL SERVICES</u>				
	2401.00	Maintenance of a complete installation:  .01 Building electrical services  The maintenance scope is descbided in technical specifications: AB	point	360		
SA.04	2402.00	Payment reduction:  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate only
SA.05						
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate only
SA.07	2403.00	Call-out for repair of Emergency Breakdown (24 hours) response.	No	36		
TOTAL SCHEDULE NO 4.3: CARRIED TO SUMMARY: MAINTENANCE WORK						

M 4.4.1

SCHEDULE NO 4.4: INSTALLATION C4: BOTHASHOOP-FENCING, CLEANING AND SITE KEEPING  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	
SA.01	2500.00	<u>MAINTENANCE OF FENCING AND GATES</u>				
	2501.00	Maintenance of a complete installation:  .01 Fencing and Gates  The maintenance scope is descbided in technical specifications: CC	point	360		
	2502.00	<u>MAINTENANCE OF SITE KEEPING INSTALLATION</u>				
SA.01	2503.00	Maintenance of a complete installation:				
SA.08		.01 Cleaning of site, removal of waste and cutting of gras  The maintenance scope is descbided in technical specifications: CG, CJ	point	360		
	2504.00	<u>MAINTENANCE AND CLEANING OF BUILDINGS</u>				
SA.01	2505.00	Maintenance of a complete installation:				
SA.07		.01 Cleaning of Buildings  The maintenance scope is descbided in technical specifications: CJ	points	360		
	2505.00	Payment reduction:				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate only Rate only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate only
	TOTAL SCHEDULE NO 4.4: CARRIED TO SUMMARY: MAINTENANCE WORK					

M 4.5.1

SCHEDULE NO 4.5: INSTALLATION C5: BOTHASHOOP-BULK WATER AND EXTERNAL WATER RETICULATION  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	2600.00	<u>MAINTENANCE OF BULK WATER AN EXTERNAL WATER RETICULATION</u>				
	2601.00	<b>Maintenance of a complete installation:</b>  .01 Bulk Water and External Water  The maintenance scope is descibed in technical specifications: CE, CI, DA, DL, DN, EK, FN, KA	point	360		
SA.04	2602.00	<b>Payment reduction:</b>  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate only
SA.05		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate only
SA.06						
SA.07	2603.00	Call-out for repair of Emergency Breakdown (24 hours) response.	No	36		
EJ.05	2604.00	<b>POTABLE WATER QUALITY TESTING</b>  .01 Potable water quality tests to be performed by an approved authority on a monthly basis on the water delivered to the consumers.See EJ 03.08	month	36		
	TOTAL SCHEDULE NO 4.5: CARRIED TO SUMMARY: MAINTENANCE WORK					

M 4.6.1

SCHEDULE NO 4.6: INSTALLATION C6: BOTHASHOOP- ROADS AND STORMWATER DRAINAGE  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	2700.00	<u>MAINTENANCE OF ROADS AND STORMWATER DRAINAGE</u>				
	2701.00	Maintenance of a complete installation:  Roads and Stormwater  The maintenance scope is descbided in technical specifications: CA, CB	point	360		
	2702.00	Payment reduction:				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate only
TOTAL SCHEDULE NO 4.6: CARRIED TO SUMMARY: MAINTENANCE WORK						

**SCHEDULE NO 4.7:                    INSTALLATION C7: BOTHASHOOP-STANDBY POWER-RELATED MAINTENANCE WORK**

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	2800.00	<u>MAINTENANCE OF STANDBY POWER INSTALLATION</u>				
SA.01	2801.00	Maintenance of a complete installation:  .01 Standby Power installation  The maintenance scope is descibded in technical specifications: HB	point	360		
	2803.00	<b>Payment reduction:</b>				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate only
SA.07	2804.00	Call-out for repair of Emergency Breakdown (24 hours) response.  <b>Mandatory periodical services not included in preventative maintenance items listed above:</b>	No	36		
	2804.00	<u>GENERATOR</u>				
HB 10.03.02	2804.01	Service 150 kVA genset	No	3		
HB 10.03.03	2804.02	Service John Deere diesel engine 150kVA	No	3		
HB 10.03.08	2804.03	Supply diesel fuel	litre	12000		
TOTAL SCHEDULE NO 4.7: CARRIED TO SUMMARY: MAINTENANCE WORK						

M 4.8.1

SCHEDULE NO 4.8: INSTALLATION C8: BOTHASHOOP -EXTERNAL LIGHTING -RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	2900.00	<b><u>MAINTENANCE OF EXTERNAL LIGHTING INSTALLATION</u></b>				
	2901.00	<b>Maintenance of a complete installation:</b>  .01 External Lighting Installation  The maintenance scope is descbided in technical specifications: HE	point	360		
	2902.00	<b>Payment reduction:</b>  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate only
SA.04		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate only
SA.05		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate only
SA.06						
HE 09.03	2903.00	<b><u>AREA LIGHTING SYSTEM -CONTROL AREA</u></b>				
HE 09.03(a)	2903.01	<b>Re-lamp luminaire:</b>  .01 250W HPS Floodlight .02 250W HPS Floodlight	No No	4 4		
HE 09.03(b)	2903.02	<b>Service luminaire</b>  .01 250W HPS Floodlight .02 250W HPS Floodlight	No No	4 2		
HE 09.03(f)	2903.03	<b>Replace luminaire</b>  .01 Luminaire 400 W HPS Floodlight .02 250W HPS Floodlight 03 250W HPSE Streetlight	No No No	2 4 2		
HE 09.03	2904.00	<b><u>SECURITY FENCE LIGHTING SYSTEM</u></b>				
HE 09.03(a)	2904.01	<b>Re-lamp luminaire:</b>  .01 400W HPS Floodlight .02 250W HPS Floodlight 03 250W HPSE Streetlight	No No No	8 8 8		
HE 09.03(b)	2904.02	<b>Service luminaire</b>  .01 400W HPS Floodlight .02 250W HPS Floodlight 03 250W HPSE Streetlight	No No No	8 8 8		
HE 09.03(f)	2904.03	<b>Replace luminaire</b>  .01 Luminaire 400 W HPS Floodlight .02 250W HPS Floodlight 03 250W HPSE Streetlight	No No No	4 3 26		
	CARRIED FORWARD					



M3.8.2

SCHEDULE NO 4.8: INSTALLATION C8: BOTHASHOOP -EXTERNAL LIGHTING -RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BROUGHT FORWARD					
HE 10.03	2904.00	<u>SECURITY FENCE LIGHTING SYSTEM</u>				
HE 10.03(b)	2904.01	Re-lamp luminaire:				
		.01 250W HPS Floodlight	No	6		
HE 10.03(e)	2904.01	Service luminaire				
		.01 250W HPS Floodlight	No	26		
HE 10.03(d)	903.04	Replace luminaire				
		.01 250 W HPS Floodlight	No	2		
HE 10.03(a)	2904.02	Service security light pole	No	2		
HE 09.03(g)	2904.03	Replace security light pole				
		.01 7m Wooden pole Floodlight	No	14		
	2905.00	<u>STREET LIGHTING HOUSES</u>				
HE 10.03(b)	2905.01	Re-lamp luminaire:				
		.01 125W MV Streetlights	No	14		
HE 10.03(e)	2905.02	Service luminaire				
		.01 125W MV Streetlights	No	14		
HE 10.03(d)	2905.04	Replace luminaire				
		.01 125W MV Streetlights	No	2		
	2906.00	<u>DISTRIBUTION KIOSKS</u>				
HC 12.03 (a)	2906.01	Service Distribution kiosk	No	2		
HC 12.03 (b)	2906.02	Remove rust and paint kios	No	10		
	TOTAL SCHEDULE NO 4.8: CARRIED TO SUMMARY: MAINTENANCE WORK					

M 3.9.1

SCHEDULE NO 4.9: INSTALLATION C9: BOTHASHOOP -HEATING, VENTILATION AND AIRCONDITIONING SYSTEMS-RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	2000.00	<b><u>MAINTENANCE OF HEATING, VENTILATION AND AIRCONDITIONING</u></b>				
	2001.00	<b>Maintenance of a complete installation:</b>  .01 Heating, Ventilation and Air conditioning  The maintenance scope is described in technical specifications: AFD, PFD	point	360		
	2002.00	<b>Payment reduction:</b>  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate only
SA.04						
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate only
	2003.00	<b>Mandatory periodical services not included in preventative maintenance items listed above:</b>				
	2003.01	<b>BOTHASHOOP</b>				
PFD 05.01.01		Provide Full service of Airconditioning unit according to manufacturer's specification:				
		.01 Wall type Airconditioner	No	42		
		.02 Split type Airconditioner	No	12		
		.03 Casette type Airconditioner	No	10		
	<b>TOTAL SCHEDULE NO 3.9: CARRIED TO SUMMARY: MAINTENANCE WORK</b>					

M 3.10.1

SCHEDULE NO 4.10: INSTALLATION C10: BOTHASHOOP-CONVENTIONAL FIRE FIGHTING EQUIPMENT  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	3100.00	<u>MAINTENANCE OF CONVENTIONAL FIRE FIGHTING EQUIPMENT</u>				
	3101.00	<b>Maintenance of a complete installation:</b>  .01 Fire Fighting Equipment  The maintenance scope is descibded in technical specifications: JC, PJC	point	360		
SA.04	3102.00	<b>Payment reduction:</b>  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate only
		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate only
		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate only
SA.07	3103.00	Call-out for repair of Emergency Breakdown (24 hours) response.	No	10		
	2103.00	<b>Mandatory periodical services not included in preventative maintenance items listed above:</b>				
PJC.09		.01 Statutory annual servicing of STP fire extinguishers				
PJC.09		.02 Statutory annual servicing of CO2 fire extinguishers:	No	42		
PJC.07		.03 Statutory annual servicing of fire hydrants:	No	12		
PJC.08		.04 Statutory annual servicing of fire hose reels:	No	12		
PJC.012		.05 Statutory annual servicing of fire booster pump system:	No	12		
PJC.11		.06 Fire Fighting Training	No	10		
	TOTAL SCHEDULE NO 4.10: CARRIED TO SUMMARY: MAINTENANCE WORK					

**SCHEDULE NO 4.11:           INSTALLATION C11: BOTHASHOOP -WASTE WATER TREATMENT WORKS  
RELATED MAINTENANCE WORK**

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	3200.00	<u>WASTE WATER TREATMENT WORKS</u>				
SA.01	3201.00	Maintenance of a complete installation:  .01 Waste Water Treatment Works  The maintenance scope is descbedid in technical specifications: EB,EC, EF, EJ, EK	point	360		
	3202.00	Payment reduction:				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate only
SA.07	3203.00	Call-out for repair of Emergency Breakdown (24 hours) response.	No	36		
TOTAL SCHEDULE NO 4.11: CARRIED TO SUMMARY: MAINTENANCE WORK						R0,00

## M 5.2.1

SCHEDULE NO 5.2: INSTALLATION D2: EMAHLATHINI-PLUMBING, DRAINAGE AND WET SERVICES  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	3200.00	<u>MAINTENANCE OF PLUMBING DRAINAGE AND WET SERVICES</u>				
SA.01	3201.00	Maintenance of a complete installation:  .01 Plumbing, drainage and wet services installations  The maintenance scope is descbided in technical specifications: AA, PAA, CF, EG, KA.	point	305		
SA,04	3202.00	Payment reduction:  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	Days			Rate Only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	Days			Rate Only
SA.06		.03 Payment reduction due to exceeding o maximum allowable down-time during malicious damage breakdown	Days			Rate Only
SA.07	3203.00	Call-out for repair of Emergency Breakdown (24 hours) response.	No	36		
TOTAL SCHEDULE NO 5.2: CARRIED TO SUMMARY: MAINTENANCE WORK						

M 5.3.1

SCHEDULE NO 4.3: INSTALLATION D3: EMAHLATHINI- BUILDING AND SITE ELECTRICAL  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	3300.00	<u>MAINTENANCE OF BUILDING</u> <u>ELECTRICAL SERVICES</u>				
	3301.00	Maintenance of a complete installation:  .01 Building electrical services  The maintenance scope is descibded in technical specifications: AB	point	250		
SA.04	3302.00	<b>Payment reduction:</b>  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate Only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate Only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate Only
SA.07	3303.00	Call-out for repair of Emergency Breakdown (24 hours) response.	No	36		
TOTAL SCHEDULE NO 5.3: CARRIED TO SUMMARY: MAINTENANCE WORK						

## M 5.4.1

SCHEDULE NO 5.4: INSTALLATION D4: EMAHLATHINI-FENCING, CLEANING AND SITE KEEPING  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	3400.00	<u>MAINTENANCE OF FENCING AND GATES</u>				
	3401.00	Maintenance of a complete installation:  .01 Fencing and Gates  The maintenance scope is descbided in technical specifications: CC	point	360		
	3402.00	<u>MAINTENANCE OF SITE KEEPING INSTALLATION</u>				
SA.01	3403.00	Maintenance of a complete installation:				
SA.08		.01 Cleaning of site, removal of waste and cutting of gras  The maintenance scope is descbided in technical specifications: CG, CJ	point	360		
	3404.00	<u>MAINTENANCE AND CLEANING OF BUILDINGS</u>				
SA.01	3405.00	Maintenance of a complete installation:				
SA.07		.01 Cleaning of Buildings  The maintenance scope is descbided in technical specifications: CJ	points	360		
	3406.00	Payment reduction:				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate Only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate Only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate Only
TOTAL SCHEDULE NO 5.4: CARRIED TO SUMMARY: MAINTENANCE WORK						

## M 5.5.1

SCHEDULE NO 5.5: INSTALLATION D5: EMAHLATHINI-BULK WATER AND EXTERNAL WATER RETICULATION  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	3500.00	<b><u>MAINTENANCE OF BULK WATER AND EXTERNAL WATER RETICULATION</u></b>				
SA.01	3501.00	<b>Maintenance of a complete installation:</b>  .01 Bulk Water and External Water  The maintenance scope is described in technical specifications: CE, CI, DA, DL, DN, EK, FN, KA	point			
	3502.00	<b>Payment reduction:</b>				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate Only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate Only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate Only
SA.07	3503.00	Call-out for repair of Emergency Breakdown (24 hours) response.	No	36		
	3504.00	<b>POTABLE WATER QUALITY TESTING</b>				
EJ.05		.01 Potable water quality tests to be performed by an approved authority on a monthly basis on the water delivered to the consumers. See EJ 03.08	month	36		
<b>TOTAL SCHEDULE NO 5.5: CARRIED TO SUMMARY: MAINTENANCE WORK</b>						



M 5.6.1

SCHEDULE NO 5.6: INSTALLATION D6: EMAHLATHINI- ROADS AND STORMWATER DRAINAGE  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	3600.00	<u>MAINTENANCE OF ROADS AND STORMWATER DRAINAGE</u>				
	3600.01	Maintenance of a complete installation:  Roads and Stormwater  The maintenance scope is described in technical specifications: CA, CB	point	360		
SA.04	3602.00	Payment reduction:  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate Only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate Only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate Only
TOTAL SCHEDULE NO 5.6: CARRIED TO SUMMARY: MAINTENANCE WORK						

## M 5.7.1

## SCHEDULE NO 5.7: INSTALLATION D7: EMAHLATHINI-STANDBY POWER-RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	3700.00	<b><u>MAINTENANCE OF STANDBY POWER INSTALLATION</u></b>				
SA.01	3701.00	<b>Maintenance of a complete installation:</b>  .01 Standby Power installation  The maintenance scope is descbided in technical specifications: HB	point			
	3702.00	<b>Payment reduction:</b>				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate Only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate Only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate Only
SA.07	3703.00	Call-out for repair of Emergency Breakdown (24 hours) response.  <b>Mandatory periodical services not included in preventative maintenance items listed above:</b>	No	36		
	3704.00	<b><u>GENERATOR</u></b>				
HB 10.03.02	3704.01	Service 150 kVA genset	No	3		
HB 10.03.03	3704.02	Service John Deere diesel engine 150kVA	No	3		
HB 10.03.08	3704.03	Supply diesel fuel	litre	12000		
TOTAL SCHEDULE NO 5.7: CARRIED TO SUMMARY: MAINTENANCE WORK						

## M 5.8.1

SCHEDULE NO 5.8: INSTALLATION D8: EMAHLATHINI -EXTERNAL LIGHTING -RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	3700.00	<u>MAINTENANCE OF EXTERNAL LIGHTING INSTALLATION</u>				
SA.01	3701.00	Maintenance of a complete installation:  .01 External Lighting Installation  The maintenance scope is descbided in technical specifications: HE	point	360		
	3702.00	Payment reduction:				
SA.04		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate Only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate Only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate Only
HE 09.03	3703.00	<u>AREA LIGHTING SYSTEM - REPAIR CONTROL AREA</u>				
HE 09.03(a)	3703.01	Re-lamp luminaire:  .01 250W HPS Floodlight  .02 250W HPSE Streetlight	No  No	13  1		
HE 09.03(b)	3703.02	Service luminaire  .01 250W HPS Floodlight  .02 250W HPSE Streetlight	No  No	13  1		
HE 10.03	1904.00	<u>SECURITY FENCE LIGHTING SYSTEM</u>				
HE 10.03(b)	1904.01	Re-lamp luminaire:  01 250W HPS Floodlight	No	21		
HE 10.03(e)	1904.01	Service luminaire  .01 250W HPS Floodlight	No	21		
	CARRIED FORWARD					

## M 5.8.2

SCHEDULE NO 5.8: INSTALLATION D8: EMAHLATHINI -EXTERNAL LIGHTING -RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BROUGHT FORWARD					
HE 10.03(d)	3704.03	Replace luminaire .01 250 W HPS Floodlight	No	2		
HE 10.03(a)	3704.02	Service security light pole	No	21		
HE 09.03(g)	3704.03	Replace security light pole .01 7m Wooden pole Floodlight	No	1		
HE 11.03	3705.00	<u>STREET LIGHTING HOUSES</u>				
HE 11.03(b)	3705.01	Re-lamp luminaire .01 70W HPS Post Top luminaire .02 125W MV Post Top luminaire	No No	6 4		
HE 11.03(c)	3705.02	Service luminaire .01 70W HPS Post Top luminaire .02 125W MV Post Top luminaire	No No	6 4		
HE 11.03(a)	3705.03	Service light pole	No	15		
HE 11.03(d)	3705.04	Replace luminaire .01 70W HPS Post Top luminaire .02 125W MV Post Top luminaire	No No	6 4		
HE 09.03(g)	1905.05	Replace area light pole .01 3.5 Meter Fibreglass pole	No	15		
	1906.00	<u>DISTRIBUTION KIOSKS</u>				
HC 12.03 (a)	1906.01	Service Distribution kiosk	No	6		
HC 12.03 (b)	1906.02	Remove rust and paint kios	No	2		
	TOTAL SCHEDULE NO 3.8: CARRIED TO SUMMARY: MAINTENANCE WORK					

## M 5.9.1

SCHEDULE NO 5.9: INSTALLATION D9: EMAHLATHINI -HEATING, VENTILATION AND AIRCONDITIONING SYSTEMS-RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SA.01	3900.00	<u>MAINTENANCE OF HEATING, VENTILATION AND AIRCONDITIONING</u>				
	3901.00	Maintenance of a complete installation:  .01 Heating, Ventilation and Air conditioning  The maintenance scope is descibed in technical specifications: AFD, PFD	point	360		
SA.04	3902.00	<b>Payment reduction:</b>  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate Only
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate Only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate Only
PFD 05.01.01	3903.00	<b>Mandatorory periodical services not included in preventative maintenance items listed above:</b>				
	3903.01	<b>EMAHLATHINI</b>  Provide Full service of Airconditioning unit according to manufacturer's specification:				
		.01 Wall type Airconditioner	No	12		
		.02 Split type Airconditioner	No	192		
	TOTAL SCHEDULE NO 5.9: CARRIED TO SUMMARY: MAINTENANCE WORK					

M 5.10.1

SCHEDULE NO 5.10: INSTALLATION D10: EMAHLATHINI-CONVENTIONAL FIRE FIGHTING EQUIPMENT  
RELATED MAINTENANCE WORK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	3900.00	<u>MAINTENANCE OF CONVENTIONAL FIRE FIGHTING EQUIPMENT</u>				
SA.01	3901.00	Maintenance of a complete installation:  .01 Fire Fighting Equipment  The maintenance scope is descibed in technical specifications: JC, PJC	point	360		
	3902.00	<b>Payment reduction:</b>  .01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	days			Rate Only
SA.04						
SA.05		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days			Rate Only
SA.06		.03 Payment reduction due to exceeding of maximum allowable down-time during malicious damage breakdown	days			Rate Only
	3903.00	<b>Mandatory periodical services not included in preventative maintenance items listed above:</b>  .01 Statutory annual servicing of STP fire extinguishers	No	75		
PJC.09						
PJC.09		.02 Statutory annual servicing of CO2 fire extinguishers:	No	12		
TOTAL SCHEDULE NO 5.10: CARRIED TO SUMMARY: MAINTENANCE WORK						

## DEPARTMENT OF PUBLIC WORKS &amp; INFRASTRUCTURE

H24/020 AI

## MAHAMBAMBA, EMAHLATHINI AND BOTHASHOOP LAND PORT OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)

## SUMMARY OF SCHEDULE OF QUANTITIES: MAINTENANCE WORK - MAHAMBAMBA POE

SCHEDULE NO 3.2:	INSTALLATION B2: MAHAMBAMBA - PLUMBING, DRAINAGE AND WET SERVICES	R _____
SCHEDULE NO 3.3:	INSTALLATION B3: MAHAMBAMBA - BUILDING AND SITE ELECTRICAL	R _____
SCHEDULE NO 3.4:	INSTALLATION B4: MAHAMBAMBA - FENCING, CLEANING AND SITE KEEPING	R _____
SCHEDULE NO 3.5:	INSTALLATION B5: MAHAMBAMBA - BULK WATER AND EXTERNAL WATER RETICULATION	R _____
SCHEDULE NO 3.6:	INSTALLATION B6: MAHAMBAMBA - ROADS AND STORMWATER DRAINAGE	R _____
SCHEDULE NO 3.7:	INSTALLATION B7: MAHAMBAMBA - STANDBY POWER	R _____
SCHEDULE NO 3.8:	INSTALLATION B8: MAHAMBAMBA - EXTERNAL LIGHTING	R _____
SCHEDULE NO 3.9:	INSTALLATION B9: MAHAMBAMBA - HEATING, VENTILATION AND AIRCONDITIONING SYSTEMS	R _____
SCHEDULE NO 3.10:	INSTALLATION B10: MAHAMBAMBA - CONVENTION/ FIRE FIGHTING EQUIPMENT	R _____
SCHEDULE NO 3.11:	INSTALLATION B11: MAHAMBAMBA - WASTE WATER TREATMENT WORKS	R _____

MAHAMBAMBA POE TOTAL

R \_\_\_\_\_

SUMMARY OF SCHEDULE OF QUANTITIES: MAINTENANCE WORK - BOTHASHOOP POE

SCHEDULE NO 4.2:	INSTALLATION C2: BOTHASHOOP - PLUMBING, DRAINAGE AND WET SERVICES	R	
SCHEDULE NO 4.3:	INSTALLATION C3: BOTHASHOOP - BUILDING AI SITE ELECTRICAL	R	
SCHEDULE NO 4.4:	INSTALLATION C4: BOTHASHOOP - FENCING, CLEANING AND SITE KEEPING	R	
SCHEDULE NO 4.5:	INSTALLATION C5: BOTHASHOOP - BULK WATEf AND EXTERNAL WATER RETICULATION	R	
SCHEDULE NO 4.6:	INSTALLATION C6: BOTHASHOOP - ROADS AND STORMWATER DRIANAGE	R	
SCHEDULE NO 4.7:	INSTALLATION C7: BOTHASHOOP - STANDBY POWER	R	
SCHEDULE NO 4.8:	INSTALLATION C8: BOTHASHOOP - EXTERNAL LIGHTING	R	
SCHEDULE NO 4.9:	INSTALLATION C9: BOTHASHOOP - HEATING, VENTILATION AND AIRCONDITIONING SYSTEMS	R	

BOTHASHOOP POE TOTAL		R	
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SUMMARY OF SCHEDULE OF QUANTITIES: MAINTENANCE WORK - EMAHLATHINI POE

SCHEDULE NO 4.10:	INSTALLATION C10: BOTHASHOOP- CONVENTIC FIRE FIGHTING EQUIPMENT	R _____
SCHEDULE NO 4.11:	INSTALLATION C11: BOTHASHOOP - WASTE WA TREATMENT WORKS	R _____
SCHEDULE NO 5.2:	INSTALLATION D2: EMAHLATHINI - PLUMBING, DRAINAGE AND WET SERVICES	R _____
SCHEDULE NO 5.3:	INSTALLATION D3: EMAHLATHINI - BUILDING AI SITE ELECTRICAL	R _____
SCHEDULE NO 5.4:	INSTALLATION D4: EMAHLATHINI - FENCING, CLEANING AND SITE KEEPING	R _____
SCHEDULE NO 5.5:	INSTALLATION D5: EMAHLATHINI - BULK WATEI AND EXTERNAL WATER RETICULATION	R _____
SCHEDULE NO 5.6:	INSTALLATION D6: EMAHLATHINI - ROADS AND STORMWATER DRIANAGE	R _____
SCHEDULE NO 5.7:	INSTALLATION D7: EMAHLATHINI - STANDBY POWER	R _____
SCHEDULE NO 5.8:	INSTALLATION D8: EMAHLATHINI - EXTERNAL LIGHTING	R _____
SCHEDULE NO 5.9:	INSTALLATION D9: EMAHLATHINI - HEATING, VENTILATION AND AIRCONDITIONING SYSTEMS	R _____
SCHEDULE NO 5.10:	INSTALLATION D10: EMAHLATHINI - CONVENTIC FIRE FIGHTING EQUIPMENT	R _____

<b>BOTHASHOOP POE TOTAL</b>	<b>R _____</b>
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<b>TOTAL OF SCHEDULE OF QUANTITIES - MAINTENANCE WORK CARRIED TO CALCULATION OF TENDER SUM</b>	<b>R _____</b>
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SIGNED ON BEHALF OF TENDERER .....

DEPARTMENT OF PUBLIC WORKS & INFRASTRUCTURE

H24/020 AI

MAHAMBA, EMAHLATHINI AND BOTHASHOOP LAND PORT OF ENTRY: 36 MONTHS INFRASTRUCTURE  
MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS  
(APPOINTMENT OF A CONTRACTOR)

CALCULATION OF TENDER SUM

TOTAL OF SCHEDULE OF QUANTITIES - CORRECTIVE MAINTENANCE WORK R \_\_\_\_\_

TOTAL OF SCHEDULE OF QUANTITIES - MAINTENANCE WORK R \_\_\_\_\_

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SUBTOTAL 1 R \_\_\_\_\_

VALUE-ADDED TAX (VAT) R \_\_\_\_\_

the tenderer shall add 15% of the subtotal for value-added tax

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TENDER SUM CARRIED TO FORM OF TENDER R \_\_\_\_\_

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SIGNED ON BEHALF OF TENDERER .....

## PG-01.1 (EC) SCOPE OF WORKS – GCC 3<sup>rd</sup> Edition (2015)

Project title:	MAHAMBHA, EMAHLATHINI AND BOTHASHOOP LAND PORT OF ENTRY: 36 MONTHS INFRASTRUCTURE MAINTENANCE AND REPAIRS OF BUILDINGS, CIVIL, MECHANICAL, ELECTRICAL AND INSTALLATIONS (APPOINTMENT OF A CONTRACTOR)		
Tender no:	H24/020 AI	Reference no:	H24/020 AI

### C3. Scope of Works

#### CONTENTS

#### C3.1 STANDARD SPECIFICATIONS

#### C3.2 PROJECT SPECIFICATIONS

##### A: GENERAL

- PS 1 GENERAL DESCRIPTION
- PS 2 DESCRIPTION OF SITE AND ACCESS
- PS 3 DETAILS OF CONTRACT
- PS 4 CONSTRUCTION PROGRAMME
- PS 5 SITE FACILITIES AVAILABLE
- PS 6 SITE FACILITIES REQUIRED FOR THE ENGINEER
- PS 7 FEATURES REQUIRING SPECIAL ATTENTION
- PS 8 CERTIFICATES OF PAYMENT
- PS 9 CONSTRUCTION IN RESTRICTED AREAS
- PS 10 DRAWINGS
- PS 11 LEGISLATION
- PS 12 INSURANCE AMOUNTS
- PS 13 TIMES FOR COMPLETION
- PS 14 PRACTICAL COMPLETION
- PS 15 PENALTIES
- PS 16 NON-WORKING DAYS AND HOURS
- PW 371-A Edition 2.1, 2014
- DPW-05: (EC) CONTRACT DATA - GCC 2015: 3RD EDITION

##### B: AMENDMENTS TO THE PARTICULAR SPECIFICATIONS

##### TECHNICAL SPECIFICATIONS

- AA Plumbing and drainage Installations
- AB Building electrical installations
- BA Roof coverings
- BB Carpentry joinery for roofs and ceilings
- BC Waterproofing of concrete roofs
- BD Walls
- BE Floors

BF	Structural Concrete
BH	Fittings
BJ	Paintwork
BK	Structural Concrete (Repair)
CA	Roads
CB	Stormwater drainage
CC	Fencing & Gates
CE	Water distribution networks
CF	Sewerage networks
CG	Solid waste
CI	Pressed steel tanks
CJ	Site keeping & clearing
CK	Patented earth retaining walls systems
DA	Borehole pump systems
DB	Pressure filters
DL	Chlorination systems for the disinfection of drinking water at remote boreholes installations
DN	Dosing systems for the flocculation of drinking water
EB	Wastewater pump systems & aerators
EC	Sedimentation tanks
EG	Septic tank facilities
EQ	Reed beds
FD	Heating ventilation and air-conditioning systems
FN	Clear-water pump systems
FF	Kitchen equipment installations
FG	General Refrigeration
HA	MV switchgear systems
HB	Standby power systems
HD	Substation Transformers
HE	Exterior lighting installations
JC	Conventional fire-fighting equipment
KA	Water audit

### C3.3 PARTICULAR SPECIFICATIONS

PAA	Plumbing and Drainage Installations
PBF	Pest Control
PFD	Heating ventilation and air conditioning systems
PJC	Conventional Fire Fighting Equipment
PW 371-B Edition 2.2, 2015	

### C3.4 STANDARD SPECIFICATIONS:

The standard specifications on which this contract is based are the **South African Bureau of Standards Standardized Specifications for Civil Engineering Construction SABS 1200**. *(Note to compiler. "SABS" has been changed to "SANS"; the SABS 1200 specifications are due to be replaced in the foreseeable future by SANS 2100)*

Although not bound in nor issued with this Document, the following Sections of the Standardized Specifications of SABS 1200 shall form part of this Contract:

SA	General Maintenance
SB	Operating and Maintenance Manuals
SC	General Decommissioning, Testing and Commissioning Procedures
SD	General Training
SH	HIV / AIDS Requirements
SI	Occupational Health and Safety
SJ	Covid-19 Guidelines for Management of Risk on Construction Sites

### C3.5 PROJECT SPECIFICATIONS:

#### Status

The Project Specification, consisting of two parts, forms an integral part of the contract and supplements the Standard Specifications.

Part1 A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments and additions to the Standardized Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardised of Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

#### PS-1 GENERAL DESCRIPTION:

Each installation requires work that may include any one or more of the activities as set out in below, i.e. decommissioning, repair, reconditioning, testing, re-commissioning during the Contract period. The consultants and the contractor will compile a set of operating and maintenance manuals. The work also includes compilation/updating of operating and maintenance manuals as well as training of User Department operators and all maintenance personnel.

NOTE: Repair work will be carried out within facilities that are occupied by User Department's personnel and associates.

#### PS-2 DESCRIPTION OF SITE AND ACCESS

Descriptions of all sites as per PG-03.1 (EC) SITE INFORMATION

The Contractor will be granted access to all the installations at the date of Site Handover. Access will also be given to completed installations that were kept in a working condition during a previous similar Contract.

## PS-4 DETAILS OF CONTRACT

All work forming part of this Contract is divided into installations. The repair and maintenance work to be performed as part of an installation under this Contract mainly consists of the following:

- a. The various installations at the PORTS form part of an existing Repair and Maintenance Programme. As such the various installations were repaired and maintained under the contract and are in perfect working order which places the emphasis of this contract on maintenance.
- b. No distinction will be made between prior to practical completion and completed installations for the purpose of maintenance.
- c. The Contractor will have the opportunity at the start of the contract to point out items which are not in perfect working order which in turn will be repaired as per the relevant tendered repair rates.
- d. The Contractor will further more at the start of the contract perform annual maintenance on all the installations as per the items listed in the different Technical and Particular Specifications as part of the Contractor's maintenance obligation.
- e. Maintenance of each of these installations will be the responsibility of the Contractor and will be evaluated on a monthly basis by the Engineer. The remuneration for maintenance work and responsibilities will be certified accordingly.

The Contractor will have the opportunity at the start of the contract to point out items which are not in a perfect working order by means of an Assessment and Verification report. Typically the following installation, but not limited to, shall be assessed:

- Structural and buildings related works
- Plumbing, drainage and wet services
- Fencing, cleaning and site keeping
- Roads and storm water drainage
- Building electrical
- External lighting
- Heating, ventilation and air-conditioning systems
- Kitchen Equipment
- Conventional fire-fighting equipment, etc.

These items will be serviced and repaired as per the relevant tendered repair rates. The detail Assessment and Verification report shall provide an overview of problem areas at the beginning of the contract period, just after site handover. This shall include the testing of all equipment (pumps, etc.) as well as all civil, electrical and mechanical services. The detail Assessment and Verification report shall include photos (presented as a photo report) with a description and orientation/location of problem areas. The final detail Assessment and Verification report must be submitted one calendar month after site handover. A penalty of R500 per day shall be imposed for late submission.

Payment for the Assessment and Verification report shall be included in the fixed preliminary and general charges.

The description of the Works given is not necessarily complete and shall not limit the work to be carried out by the Contractor' under this Contract.

#### **PS 4.1 PORT OF ENTRY**

The sites listed below are included in the contract. All of these are the property of the Department of Public Works.

- Mahamba Port of Entry is located at the Swaziland border, approximately 35 km from Piet Retief on road R543
- Emahlathini Port of Entry is located approximately 30 km from Piet Relief on the road between Piet Relief to Sicunusa (Swaziland) on the Swaziland border line.
- Bothashoop Port of Entry is located approximately 20 km from Piet Relief on the road between Piet Relief to Gege (Swaziland) on the Swaziland border line.

#### **PS 4.2 CORRECTIVE MAINTENANCE WORK**

The following corrective maintenance work is included at Mahamba, Bothashoop and Emahlathini Port of Entry:

##### **Structural and Building Works**

- General structural repair work such as paintwork, replacement of damaged items, e.g. doors, locks, windows, etc. on all buildings
- Repair of timber roof structures
- Apply varnish to all exterior timber doors
- Repair and/or replacement of roof coverings and waterproofing
- Waterproofing of concrete roofs
- Repair and maintenance of exterior and interior walls
- Pest control
- Repair and/or replacement of fittings
- Repair of existing structural concrete elements
- Repair and maintenance floor coverings, skirting, screed, concrete floors and paving
- Painting/repainting and maintenance of new and existing building components
- Construction of new residential houses

##### **Plumbing, Drainage and Wet Services**

- General maintenance and servicing of plumbing and drainage installations
- Repair and upgrading of wastewater drainage systems
- Repair, replace missing and/or damaged sanitary and brassware equipment
- Replacement of sewer pumps
- Replacement of toilette seats, toilette pans, shower head etc
- Servicing of all taps, valves, Cisterns and flush masters etc.
- Servicing and cleaning of all geysers

##### **Building Electrical**

- Replace 400kVA transformer with a new 500kVA transformer
- Upgrade the supply cable to 2x185mm<sup>2</sup> cu
- Replace the main circuit breaker with a 700A 3p
- The transformer must be replaced with a 200kVA mini-sub and the main cable to be upgraded to 95mm<sup>2</sup> cu or 185mm<sup>2</sup> al; to avoid theft, we will recommend that the contractor install aluminium cable
- Replace the main kiosk with a brand new distribution kiosk with a 250A main circuit breaker
- Contractor to trace the reticulation and update the labelling of the distribution boards with the

incomer cable size and supply

- Contractor to draw schematic diagram of the entire LV network from the transformer to each distribution boards including all cable/wire sizes
- Bulk lamp replacements
- Service distribution boards
- Replacement of faulty lights, light switches and socket outlets
- Contractor to trace all wiring and cables from distribution board to each load
- The exposed conduits to be fixed where necessary
- All wires and electrical cables to be made neat and installed in appropriate conduits

#### **Fencing, Cleaning and Site Keeping**

- Repair and maintenance of fencing and gates
- Routine landscaping
- Regular solid waste disposal

#### **Bulk Water & External Water Reticulation**

- Repair, service and clean out of water distribution and reticulation networks
- Replacement of borehole pumps
- Repair to water reticulation lines
- Yield testing of Boreholes

#### **Roads and Storm water Drainage**

- Repair and maintenance of existing roadways, parking areas and miscellaneous areas subjected to vehicular traffic
- Repair and maintenance of existing storm water structures
- Road marking and maintenance of road signs
- Construction of storm water drains
- Servicing of all rainwater drainage pipes, manholes, catch pits, drain points, channel drains and gutters

#### **Standby Power**

- New 500kVA generator to be installed for the entire site including the residential areas
- New 50kVA UPS to be installed for all dedicated plugs and printing machines
- New 200kVA generator to be installed for the entire site including the residential areas

#### **External Lighting**

- Servicing of the existing perimeter, street and area lights
- Replace all faulty incandescent, CFL and fluorescent light fixtures with new LED light fixtures
- Installation of occupancy sensors, daylight switch and timers for lighting control and air-conditioning
- All old types of lights in toilets and corridors to be replaced with new LED lights

#### **Heating, Ventilation and Air-Conditioning Systems**

- All HVAC units to be serviced
- All aging HVAC units to be replaced
- All faulty HVAC units to be repaired

#### **Conventional Fire-Fighting Equipment**

- Servicing of all fire fighting equipment

The description of the Works given above is not necessarily complete and shall not limit the work to be carried out by the Contractor under this Contract. All work will be performed according to the relevant specifications forming part of this Contract.



### **PS 4.3 MAINTENANCE OF INFRASTRUCTURE**

The 36 months maintenance period includes the following installations:

#### **Installation B: Mahamba Port of Entry**

Installation B1: Mahamba - Structural and Building Works  
Installation B2: Mahamba - Plumbing, Drainage and Wet Services  
Installation B3: Mahamba - Building Electrical  
Installation B4: Mahamba - Fencing, Cleaning and Site Keeping  
Installation B5: Mahamba - Bulk Water & External Water Reticulation  
Installation B6: Mahamba - Roads and Storm Water Drainage  
Installation B7: Mahamba - Standby Power  
Installation B8: Mahamba - External Lighting  
Installation B9: Mahamba - Heating, Ventilation and Air-Conditioning Systems  
Installation B10: Mahamba - Conventional Fire-Fighting Equipment  
Installation B11: Mahamba - Waste Water Treatment Works

#### **Installation C: Bothashoop Port of Entry**

Installation C1: Bothashoop - Structural and Building Works  
Installation C2: Bothashoop - Plumbing, Drainage and Wet Services  
Installation C3: Bothashoop - Building Electrical  
Installation C4: Bothashoop - Fencing, Cleaning and Site Keeping  
Installation C5: Bothashoop - Roads and Storm water Drainage  
Installation C6: Bothashoop - Bulk Water Supply and External Water Reticulation  
Installation C7: Bothashoop - Roads and Stormwater Drainage  
Installation C8: Bothashoop - Standby Power  
Installation C9: Bothashoop - Heating, Ventilation and Air-Conditioning Systems  
Installation C10: Bothashoop - Conventional Fire-Fighting Equipment

#### **Installation D: Emahlathini Port of Entry**

Installation D1: Emahlathini - Structural and Building Works  
Installation D2: Emahlathini - Plumbing, Drainage and Wet Services  
Installation D3: Emahlathini - Building Electrical  
Installation D4: Emahlathini - Fencing, Cleaning and Site Keeping  
Installation D5: Emahlathini - Roads and Storm water Drainage  
Installation D6: Emahlathini - Bulk Water Supply and External Water Reticulation  
Installation D7: Emahlathini - Roads and Stormwater Drainage  
Installation D8: Emahlathini - Standby Power  
Installation D9: Emahlathini - Heating, Ventilation and Air-Conditioning Systems  
Installation D10: Emahlathini - Conventional Fire-Fighting Equipment

### **PS 4.4 ROUTINE MAINTENANCE WORK**

Maintenance of each of the above installations will be the responsibility of the Contractor and will be evaluated on a monthly basis by the Engineer. The remuneration for maintenance work and responsibilities will be certified accordingly.

Details of the required routine- and preventative maintenance are given in the relevant technical specifications and in Additional Specification SA: General Maintenance.

### **PS- 5 CONSTRUCTION PROGRAMME**

When drawing up his construction programme, the Contractor shall take into account the time for completion for the repair work of each installation as indicated in Clause 42.1 as amended in Part 1 of the Contract Data.

If the programme submitted by the Contractor in terms of Clause 12 of the General Conditions of Contract, has to be revised because the Contractor is falling behind in his programme, he shall submit a revised programme of how he intends to regain lost time to ensure practical completion of repair work of each installation, and completion of the Works within the periods stipulated Part 1 of the Contract Data or within a granted extension of time and also to ensure that other contractors have access to the site to start their work on the dates as shown in the original programme. Proposals to increase the tempo of work must incorporate positive steps to increase production either by more labour and plant on the Site, or by using the available labour and plant in a more efficient manner.

Instructions by the Engineer to expedite progress shall not be the subject of additional compensation to the Contractor unless the instruction explicitly states that the Contractor is entitled to additional compensation and cites the amount of such compensation or the basis on which it is to be determined.

Failure on the part of the Contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Engineer to take steps as set out in Clause 55 of the General Conditions of Contract as amended in Part 1 of the Contract Data.

The approval by the Engineer of a programme shall have no contractual significance other than that the Engineer will be satisfied if the work is carried out according to the programme. The said approval shall not limit the right of the Engineer to instruct the Contractor to vary the programme if necessary. The Contractor is also referred to Clause PS 8 and Clause PS 12 when preparing this programme.

**NOTE:**

For reasons of limited access, it may not be possible to carry out the repair work on some of the installations in parallel with repair work on other installations. The repair work of some of the installations shall follow sequentially as indicated in the specifications.

The Contractor shall organise his work in such a manner as to cause the minimum inconvenience to the User Department's personnel and operations.

## **PS-5 SITE FACILITIES AVAILABLE**

### **PS 5.1 CAMPSITE AND STORE ROOM**

**a. Campsite**

A Site Establishment area will be made available after consultation with the user client and will be indicated to the Contractor.

**b. Store room**

None of the existing service buildings may be used for storage. The Contractor must provide his own storeroom facilities for the duration of the Contract.

The existing and new facilities must comply with the South African National Building Regulations and Standards in all aspects.

## **PS 5.2 WATER, ELECTRICITY AND SEWERAGE**

### **a. Water supply**

The Contractor must make his own arrangements for water supply. Water will be available at specific points not necessarily adjacent to working areas. Water will be available free of charge but wastage will not be tolerated. The Contractor must supply his own standard fittings to couple up at the points where water is available.

### **b. Electrical power supply**

Electrical power supply is available on the Site and will be free of charge. The Contractor must make his own arrangements for a connection to the electrical power supply. The Contractor will be responsible, at his own cost, for the distribution of electricity for construction and domestic use.

### **c. Sewerage connection**

Refer to Subclause PSA 4.2 in connection with toilet requirements. Chemical toilets shall be used.

NOTE: The Employer shall not be held responsible for any losses or inconvenience due to a disruption in the supply of water and/or electricity.

## **PS 5.3 PARKING FACILITIES**

Parking facilities to be made available on the Site.

## **PS 6 SITE FACILITIES REQUIRED FOR THE ENGINEER**

### **PS 6.1 GENERAL**

The Contractor shall provide on the Site, for the duration of the repair phase, if needed during the maintenance phase, and for the exclusive use of the Engineer and/or his Representative (as applicable), the various facilities described hereunder. The duration of the repair phase is stated in Part 1 of the Contract Data. All such facilities shall be provided promptly on the commencement of the Contract and failure on the part of the Contractor to provide any facility required in terms of this specification shall constitute grounds for the Engineer to withhold payment of the Contractor's Preliminary and General items until the facility has been provided or restored, as the case may be.

### **PS 6.2 OFFICE ACCOMMODATION**

The Contractor shall provide on Site one (1) office for the exclusive use of the Engineer. Such office(s) shall comply with and be furnished in accordance with the

requirements of Subclause 3.2 of SABS 1200 AB. The Contractor shall maintain the office(s) in accordance with the requirements of Subclause 5.2 of SABS 1200 AB.

Irrespective the type of material of which an office is constructed, the Contractor shall ensure that the temperature inside the office is always between 20°C and 24°C. Such office accommodation shall be provided within the Contractor's site establishment facilities.

### **PS 6.3 CARPORTS**

The Contractor shall provide on Site Two (2) carport for the exclusive use of the Engineer, in accordance with requirements of Subclause PSAB 3.3 of the Project Specifications.

### **PS 6.4 SITE MEETING VENUE**

The Contractor shall provide within its own site establishment facilities (or arrange the use of the User Clients facilities), a suitably furnished office or other venue capable of comfortably accommodating a minimum of six (6) persons at site meetings. The Engineer shall be allowed free use of such venue for conducting any other meetings concerning the Contract at all reasonable times.

### **PS 6.5 SURVEY EQUIPMENT AND ASSISTANTS**

- a. Survey equipment is required

### **PS 6.6 TELEPHONE FACILITIES**

The Contractor shall, in accordance with the requirements of Subclause PSAB 4.1 of the Project Specifications, provide on-site, the following telephone facilities for the use of the Engineer and his Representative:

- a. Cellular telephones
  - Number of cellular telephones required for a period of 36 months: one (1).
  - The average call cost at business rates (over the 36-month contract period) shall not exceed R3500,00 per month.

### **PS 6.7 COMPUTER FACILITIES**

The Contractor shall provide computer facilities together with the specified software installed, for the exclusive use of the Engineer and his staff, in accordance with the requirements of SANS 1200 AB (as amended).

## **PS 6.8 ELECTRICITY SUPPLY FOR THE ENGINEER**

All electricity supply to the Engineer's office, whether provided by the Contractor by way of a reticulated supply from a local authority or by way of on-site generators, shall be regulated by the Contractor to within limits such as to prevent damage occurring to any electrical plant and equipment provided by the Contractor or by the Engineer, as a result of fluctuations in the electrical current supplied.

## **PS 6.9 HOUSING FOR ENGINEER'S REPRESENTATIVE**

The Engineer will provide housing for the Engineer's representative. The housing and the relevant services and local authority rates and charges shall be paid for by the Contractor on the written instruction of the Engineer, from an amount included in the Bill of Quantities for this purpose.

The Contractor is entitled to a percentage of the value of each payment to the Engineer to cover his expenses in this regard.

## **PS 7 FEATURES REQUIRING SPECIAL ATTENTION**

### **PS 7.1 INSTALLATIONS AT FACILITIES**

The installations at all facilities shall be carefully checked for damage and all damages shall be listed and discussed with the Engineer before commencement of repair and maintenance work. The Contractor shall present copies of all correspondence in this regard for discussion at the following site meeting.

### **PS 7.2 SECURITY**

a. Restrictions on movement and limited access

The Contractor's personnel, vehicles and equipment will be restricted to areas of construction only. The Contractor shall comply with any requirements that the Engineer may have in this regard and shall take note that for security reasons the access to some areas, may be limited.

b. Prohibition on taking of photographs

The Contractor's attention is drawn to the Defence Act, 1957 (Act No 44 of 1957) and the Correctional Services Act, 1998 (Act No 111 of 1998) which clearly state that the taking of photographs is prohibited and that even the possession of a camera on Site is an offence. Permission to take photographs of damaged equipment may be arranged by the Engineer.

c. Security check on personnel

The Employer may require the Contractor to have his personnel or a certain number of them security-classified, if so required by any competent authority.

In the event of the Employer or any competent authority requiring the removal of a person or persons from the site for security reasons, the Contractor shall do so forthwith and the Contractor shall thereafter ensure that such person or persons are denied access to the site and/or to any documents or information relating to the work. In such circumstances the Contractor shall indemnify the Employer and the Engineer and shall hold the Employer and the Engineer harmless against any and all claims of whatever nature arising.

d. Access cards to security areas

The Contractor shall supply access cards (laminated cards containing colour photograph, name, surname, ID number etc.) for his security-cleared personnel and employees who work within such an area. The Contractor must comply with any regulations or instructions issued from time to time, concerning the safety of persons and property, by the Department of Public Works or SA Police services.

**PS 7.3 SITE TO BE KEPT CLEAN**

During progress of the work and upon completion thereof, the Site of the Works shall be kept and left in a clean and orderly condition. The Contractor shall store materials and equipment for which he is responsible in an orderly manner, and shall keep the Site free from debris and obstructions.

All redundant materials, rubbish and waste arising from the work must be removed from the Site at the Contractor's cost and the site and buildings left clean and tidy.

**PS 7.4 FACILITIES TO OTHER CONTRACTORS**

In addition to the requirements of Clause 18 of the General Conditions of Contract the Contractor must make allowances for other Contractors on the Site. This may involve adapting his programme to accommodate the work of other contractors and ensuring access to their sites along prescribed routes over the Site of this Contract.

**PS 7.5 SUBCONTRACTORS**

In addition to the requirements of Clause 6 of the General Conditions of Contract as amended in Part 1 of the Contract Data, the Contractor shall be responsible for work carried out by subcontractors on his behalf. The Engineer will not liaise directly with such subcontractors. Problems related to payments, programming, workmanship, etc., shall be the responsibility of the Contractor and the subcontractor, and the Engineer will not become involved.

## **PS 7.6 SANS SPECIFICATIONS AND CODES OF PRACTICE**

All reference in this document to South African National Standards specifications and codes of practice, or any other standard specifications or codes of practice, including National Building Regulations, shall be deemed to be references to the latest issues of such specifications and codes.

## **PS 7.7 MATERIALS**

The monthly payment for materials brought onto the Site will only be applicable for repair work and not for maintenance work.

Unless otherwise instructed in writing by the Engineer, all proprietary materials are to be used, mixed, applied, fixed, etc., strictly in accordance with the manufacturer's recommendations.

## **PS 7.8 BORROW PITS**

There will be no designated borrow pits. The Contractor shall utilise the material on Site or import material from commercial sources.

## **PS 7.9 PROTECTION OF FURNITURE AND EQUIPMENT**

Most of the work to be done inside buildings will be carried out in places where there is furniture and other equipment.

The Contractor shall be responsible for moving the furniture and equipment in order to provide working space for his personnel. The programme shall be drawn up in such a way as to keep the movement of furniture and equipment to the very minimum and the Contractor shall be solely responsible for any damage to furniture or equipment.

## **PS 7.10 TESTING AND QUALITY CONTROL**

The Contractor shall engage the services of an approved independent laboratory or other institution as applicable for quality testing, to ensure that his work complies with the Specifications.

**No separate payment will be made for such testing, the cost of which will be deemed to be included in the Contractor's rates bid for the items of work that require testing in accordance with the Specifications.**

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the Specifications and Drawings rests with the Contractor, and the Contractor shall, at his own expense, institute a quality-control system and provide experienced engineers, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the Works at all times.



The cost of supervision and process control, including testing carried out by the Contractor, will be deemed to be included in the rates bid for the related items of work.

The Contractor's attention is drawn to the provisions of the various Specifications regarding the minimum frequency of testing required. The Contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion and submission of every part of the work to the Engineer for examination, the Contractor shall furnish the Engineer with the results of the relevant tests to indicate compliance with the Specifications.

## **PS 8 CERTIFICATES OF PAYMENT**

The statement to be submitted by the Contractor in terms of Clause 49 of the General Conditions of Contract shall be prepared in accordance with the standard payment certificate prescribed by the Engineer and shall comprise at least two sets of A4-size paper copies.

All costs for the preparation and submission of the statements shall be borne by the Contractor.

## **PS 9 CONSTRUCTION IN RESTRICTED AREAS**

Working space in certain areas may be restricted. The construction method used in these restricted areas largely depends on the Contractor's Plant. However, the Contractor must note that measurement and payment will be according to the specified cross-sections and dimensions irrespective of the method used, and that the rates and prices submitted will be deemed to include full compensation for difficulties encountered while working in restricted areas. Neither extra payment nor any claim for payment due to these difficulties will be considered.

## **PS 10 DRAWINGS**

The Contractor will, in terms of Clause 13 of the General Condition of Contract, be provided free of charge with three paper prints of each drawing issued to him "when applicable".

All information in the possession of the Contractor that is required by the Engineer's representative to complete the as-built drawings must be submitted to the Engineer's representative before a Certificate of Completion will be issued.

Only figured dimensions shall be used and drawings shall not be scaled unless required by the Engineer. The Engineer will provide the dimensions that may have been omitted from the Drawings.



## PS 11 LEGISLATION

- a. Changes in legislation  
Reference in the General Conditions of Contract and in any other standard document forming part of this Contract to legislation which has been amended or superseded by other legislation since the most recent publication of such standard document, shall be deemed to be a reference to the amended or replacement legislation.
- b. Such amended or replaced legislation shall be applicable during the Contract Period provided the amendment or replacement occurred more than 28 days before the closing date for bids in terms of Clause 46.4 of the General Conditions of Contract as amended in Part 1 of the Contract Data.
- c. The Occupational Health and Safety Act  
The Contractor shall be required to comply with the Occupational Health and Safety Act, 1993: Construction Regulations, 2003 as promulgated in Government Gazette No 25207 and Regulation Gazette No 7721 of 18 July 2003. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.
- d. The proposed type of work, materials to be used and hazards likely to be encountered on this Contract are detailed in the Scope of Work, Pricing Data and Drawings. The Employers' health and safety specifications (subclause 4(1)) of the regulations will be issued separately.
- e. The Contractor shall in terms of subclause 5(1) provide a comprehensive health and safety plan detailing his proposed compliance with the regulations, for approval by the Employer.
- f. The Contractor shall at all times be responsible for full compliance with the approved plan as well as the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.
- g. A payment item is included in the Bill of Quantities to cover the Contractor's cost for compliance with the OHS Act and the abovementioned Construction Regulations 2003.

## PS 12 INSURANCE AMOUNTS

The amounts for which the Contractor must insure the Works in terms of Clause 35 of Part 1 of the Contract Data are stated in the Agreement.

## PS 13 TIMES FOR COMPLETION

Times for completion of repair work to installations as well as the maintenance down-time for different types of breakdowns are given under Clause 42.1 of Part 1 of the Contract Data. The time for completion will start on the date of access to an installation.

## PS 14 PRACTICAL COMPLETION

The Contractor shall be entitled in terms of Clause 51.1 of the General Conditions of Contract to receive a Certificate of Practical Completion when the Works to be executed under the Contract have been completed to the stage where:

1. all materials which are required to be replaced have been replaced and installed to the satisfaction of the Engineer; and
2. all repair works have been completed.

The Engineer shall issue to the Contractor and the Employer a Certificate of Completion in terms of Clause 51.4 of the General Conditions of Contract except where a thirty-day commissioning period, as stated in paragraph (c) below, is applicable.

Where indicated at the end of this paragraph, the issuing of a Certificate of Practical Completion for a certain installation will be followed by a thirty-day commissioning period. The tasks of the Contractor during the thirty-day commissioning period are described in Additional specification SC: General Decommissioning, Testing and Commissioning Procedures. After the completion of the thirty-day commissioning period to the satisfaction of the Engineer, a certificate of completion will be issued to the Contractor as described in Clause 51.4 of the General Conditions of Contract.

## PS 15 PENALTIES

Penalties in terms of Clause 43.1 of the General Conditions of Contract for late completion of repair work to different installations are given under Clause 43.1 of Part 1 of the Contract Data. Payment reductions for exceeding the maintenance down-time for different types of breakdowns are given under the applicable pay items in the Bill of Quantities for Additional specifications SA: General Maintenance. Penalties will run concurrently where applicable.

a. Penalty for failing to meet undertakings and/or conditions pertaining to Targeted Procurement for the award of points

If the bid adjudication points awarded to the Contractor are found to be based on incorrect or false information or the conditions pertaining to the award of points are not met and the Contractor fails to substantiate that such failure is due to a reason acceptable to the Employer (as being) beyond the Contractor's control, the Contractor shall be liable for and pay to the Employer, an amount determined in accordance with clause 2 and subject to clause 1 both of the Works Information, Part 2 of the Conditions of Bid.

b. Payment reduction for non-performance

If the Contractor shall fail to rectify a fatal breakdown, an emergency maintenance breakdown, an ordinary maintenance breakdown and damage breakdown within the time as stipulated in Additional Specifications SA: General Maintenance, the Contractor shall be liable to the Employer for the sum/sums stated in the Bill of Quantities for Additional Specification SA as a payment reduction for every hour/day down-time counting from the hour/day the breakdown was reported to the Contractor until the day it was repaired. These payment reductions will be cumulative and will run concurrently.

Where indicated above that the money will be recovered from the Contractor by means of payment reductions, the fixed negative amounts in the rate column of the Bill of Quantities will be used to reduce payments due to the Contractor.

The imposition of such payment reductions shall not relieve the Contractor from his obligation to complete the Works or from any of his obligations and liabilities under the Contract.

c. Application of penalties to be accumulative

The imposition of all penalties in terms of this clause shall be accumulative and shall not relieve the Contractor from his obligation to complete the Works or from any of his obligations and liabilities under the Contract.

**PS 16 NON-WORKING DAYS AND HOURS**

Whenever any special non-working days stated in Clause 1.6 and Clause 38 of Part 1 of the Contract Data fall within the days allowed or stipulated in the Contract in terms of Clause 1.6 of Part 1 of the Contract Data, such special non-working days shall also be excluded from the calculation of the number of working days concerned.

The Contractor shall not work on any statutory public holidays or on any public holidays declared by the Government to be statutory non-working days, except for work related to repair fatal and emergency breakdowns which influences the functionality of any of the installations.

Working hours might be limited and the Contractor shall work in close cooperation with the User Department and Engineer in this regard. Working hours for the different installations are indicated at the end of this clause where applicable.

The Engineer shall be entitled at any time during the Contract, to vary the normal working hours specified in the Bid documents, including increasing or decreasing the total number of hours per day during which the Contractor may execute the Works or specific portions thereof.

If any variation by the Engineer of the normal working hours specified in the Bid Documents should result in an increase or a decrease in the total number of hours per week during which the Contractor is permitted to execute the Works or any particular portions of Works, then the time allowed in the Contract for the completion of the respective part of the Works to which the varied normal working hours apply shall be adjusted proportionately in relation to:

- a. the remaining time allowed for completion of the specific part or parts of the Works; and
- b. the extent of the variation in the total normal working hours per week.

**C3.5.2 AMENDMENTS TO THE STANDARD AND PARTICULAR SPECIFICATION:**

The following variations and additions to the SANS 1200 Standardised Specifications referred to in the last clause of Portion 1 apply to this Contract. The prefix PS indicates an amendment to SANS 1200. The letters and numbers following these prefixes respectively indicate the relevant Standardised Specification and clause numbers in SANS 1200.

**Note: Amendments to the Standard and Particular Specification are included in book 2 of 2 of the tender document**

### **C3.5.3 PARTICULAR SPECIFICATIONS:**

#### **PSA 1 SCOPE**

#### **REPLACE SUBCLAUSE 1.1 WITH THE FOLLOWING:**

"1.1 This specification covers requirements, principles and responsibilities of a general nature that are normally applicable to all Civil Engineering Contracts, as well as the requirements for the Contractor's establishment on the Site."

#### **PSA 2 INTERPRETATIONS**

#### **PSA 2.3 DEFINITIONS**

##### **(a) General**

#### **ADD THE FOLLOWING DEFINITIONS:**

"General conditions: The General Conditions of Contract specified for use with this Contract, and the Contract Data.

Specified: As specified in the standardised and standard specifications, the Drawings or the Scope of Work.

Permanent Works: as defined in Clause 1.1.17 of the General Conditions of Contract shall for the purpose of this Contract, be regarded as the repair work and maintenance work as defined in Subclause SA 02.06 of Additional Specification SA: General Maintenance."

##### **(c) Measurement and payment**

#### **REPLACE THE DEFINITIONS FOR "fixed charge", "time-related charge" AND "value-related charge" WITH THE FOLLOWING:**

"Fixed charge: A charge that is not subject to adjustment on account of variation in the value of the Contract price or the Contract Time of Completion.

Time-related charge: A charge, the amount of which varies in accordance with the Time for Completion of the repair work, adjusted in accordance with the provisions of the Contract.

Value-related charge: A charge, the amount of which varies pro rata with the final value of the measured repair work executed and valued in accordance with the provisions of the Contract."

## **PSA 2.4 ABBREVIATIONS**

(a) Abbreviations relating to standard documents ADD THE FOLLOWING ABBREVIATION:  
"CKS: SABS Co-coordinating Specification."

## **PSA 3 MATERIALS**

### **PSA 3.1 QUALITY**

ADD THE FOLLOWING:

"All manufactured materials supplied shall be new materials unless the contrary is specified. All materials specified in accordance with SABS Specifications shall bear the SABS mark, whether so specified or not."

ADD THE FOLLOWING SUBCLAUSE:

### **"PSA 3.3 ORDERING OF MATERIALS**

The quantities set out in the Bill of Quantities have been carefully determined from calculations based on data available at the time and should therefore be considered to be approximate quantities only. Before ordering materials of any kind the Contractor shall check with the Engineer whether or not the scope of the work for which the materials are required is likely to change substantially. No liability or responsibility whatsoever shall be attached to the Employer for materials ordered by the Contractor except when ordered in accordance with written confirmation issued by the Engineer."

## **PSA 4 PLANT**

### **PSA 4.2 CONTRACTOR'S OFFICES, STORES AND SERVICES**

ADD THE FOLLOWING PARAGRAPH BEFORE THE FIRST PARAGRAPH:

"The Contractor's construction camp shall be fenced off and shall contain all offices, stores, workshops, testing laboratories, toilet facilities, etc. The camp shall always be kept in a neat and orderly condition.

No personnel may reside on the Site. Only one night-watchman may be on the Site after hours."

ADD THE FOLLOWING TO THE SECOND PARAGRAPH:

"One chemical toilet per 10 workmen shall be provided and must be screened from public view and its use shall be enforced.

The Contractor shall, where applicable, make the necessary arrangements for the removal of night soil."

## **PSA 5 CONSTRUCTION**

### **PSA 5.4 PROTECTION OF OVERHEAD AND UNDERGROUND SERVICES**

REPLACE THE HEADING AND THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

### **"PSA 5.4 LOCATION AND PROTECTION OF EXISTING SERVICES**

#### **PSA 5.4.1 Location of existing services**

Before underground or excavation work is carried out, the Contractor shall ascertain the presence and position of all services likely to be damaged or interfered with by his activities. He shall obtain up-to-date plans from the Engineer for this purpose, showing the position of services in the area where he intends to work. As services can often not be reliably located from such plans, the Contractor shall determine the exact position of such services by means of suitable detecting equipment and afterwards by careful hand excavation where necessary in order to expose the services at the positions of possible interference by his activities. This procedure shall also be followed in respect of services not shown on the plans but believed to be present.

All such services, the positions of which have been located at the critical points, shall be designated as 'known' services and their positions shall be indicated on a separate set of Drawings, a copy of which shall be furnished to the Engineer.

While he is occupying the Site, the Contractor shall be liable for all damage caused by him to known services as well as for consequential damage, whether caused directly by his operations or by the lack of proper protection.

#### **PSA 5.4.2 Protection during repair and maintenance work**

The Contractor shall exercise all the necessary care to prevent damage to known services during repair and maintenance work. Where applicable, major excavating equipment and other Plant shall not be operated dangerously close to these services. Where necessary, excavation in close proximity to these services shall be carefully carried out with suitable hand tools, excluding picks wherever their use could damage the services. No additional payment will apply to such more difficult work.

Services left exposed shall be suitably protected from damage.

#### **PSA 5.4.3 Alterations and repairs to existing services**

Unless the contrary is clearly specified or ordered, the Contractor shall not carry out alterations to existing services. When this is necessary, the Contractor shall inform the Engineer, who will either make arrangements for such work to be executed by the owner of the service, or instruct the Contractor to make such arrangements himself.

When existing services are damaged by the Contractor, he shall immediately inform the Engineer, or when this is not possible, the relevant authority, and obtain instructions as to who should carry out repairs. In urgent cases the Contractor shall take the necessary steps to minimise damage to and interruption of the service. No repairs of telecommunication cables or electric power lines and cables shall be attempted.

The Employer will accept no liability for damages due to a delay in having such alterations or repairs effected. The Contractor shall provide all reasonable opportunity, access and assistance to persons carrying out alterations or repairs of existing services."

ADD THE FOLLOWING SUBCLAUSE:

#### **"PSA 5.9 SITE MEETINGS**

The Contractor will be required to attend regular site meetings, normally held once a month to discuss general progress, quality of work, problems, claims, payments, etc., but not matters concerning the day-to-day running of the Contract."

#### **PSA 6 TOLERANCES**

ADD THE FOLLOWING SUBCLAUSE:

#### **"PSA 6.4 GENERAL**

No guarantee is given that the full specified tolerances will be available independently of each other, and the Contractor is cautioned that the liberal or full use of any one or more of the tolerances may deprive him of the full or any use of tolerances relating to other aspects of the work.

Except where the contrary is specified or when clearly not applicable, all quantities for measurement and payment shall be determined from the 'authorised' dimensions. These are specified dimensions or those shown on the Drawings or, if changed, as finally prescribed by the Engineer, without any allowance for the specified tolerances. Except if otherwise specified, all measurements for determining quantities for payment will be based on the 'authorised' dimensions.

If the work is therefore constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, quantities will be based on the 'authorised' dimensions regardless of the actual dimensions to which the work has been constructed.

When the work is not constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, the Engineer may nevertheless, at his sole discretion, accept the work for payment. In such cases no payment shall be made for quantities of work or material in excess of those calculated for the 'authorised' dimensions, and where the actual dimensions are less than the 'authorised' dimensions minus the tolerance allowed, quantities for payment shall be based on the actual dimensions as constructed."

#### **PSA 8 MEASUREMENT AND PAYMENT**

##### **PSA 8.1 MEASUREMENT**

##### **PSA 8.1.2 Preliminary and general items or section (for repair phase only)**

##### **PSA 8.1.2.2 Bid sums**

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"The Contractor's bid sums under items PSA 8.3 and PSA 8.4 shall collectively cover all charges during the repair phase for

risks, costs and obligations in terms of the General Conditions of Contract, the Contract Data and of this Standardised Specification, except where provision is made in these Project Specifications to cover compensation for any of these items;

head-office and site overheads and supervision;

profit and financing costs;

expenses of a general nature not specifically related to any item or items of permanent or temporary work;

providing facilities on Site for the Contractor's personnel, including offices, storage facilities, workshops, ablutions, for providing services such as water, electricity, sewerage, sewage and rubbish disposal, for access roads and all other facilities required, as well as for the maintenance and removal on completion of the Works of these facilities and the cleaning-up of the camp site on completion of the Works;

providing facilities for the Engineer and his staff as specified in SABS 1200 AB and in these Project Specifications"



## **PSA 8.2 PAYMENT**

### **PSA 8.2.1 Fixed-charge and value-related items**

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"Payment of fixed charges in respect of item 8.3.1 will be made as follows:

Eighty per cent (80%) of the sum bid will be paid when the facilities have been provided and approved. The remaining 20% will be paid when the repair works have been completed, the facilities have been removed and the camp site has been cleared and cleaned.

Payment for the sum bid under item 8.3.2 will be made in three separate instalments as follows:

The first instalment, which is 40% of the sum, will be paid when the Contractor has fulfilled all his obligations to date under this Standardised Specification, the General Conditions of Contract and the Contract Data, and when the value of work certified for payment, excluding materials on Site and payments for preliminary and general items, is equal to not less than 5% of the total value of the repair work listed in the Bills of Quantities.

The second instalment, which is 40% of the sum, will be made when the amount certified for payment, including retention monies but excluding this second instalment, exceeds 50% of the repair work.

The final payment, which is 20% of the sum, will be made when the repair works have been certified as completed and the Contractor has fulfilled all his obligations to date under this Standardised Specification, the General Conditions of Contract and the Contract Data.

Should the value of the measured repair work finally completed be more or less than the Bid Sum for repair work, the sum bid under item 8.3.2 will be adjusted up or down in accordance with the provisions of Clause 50 of the General Conditions of Contract as amended in Part 1 of the Contract Data, and this adjustment will be applied to the third instalment. No adjustment will apply to item 8.3.1 in respect of variations in the value of work done or after the finally authorised Time for Completion."

Note: Payment under item 8.3.2 will only be applicable to repair work.

### **PSA 8.2.2 Time-related items**

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"Subject to the provisions of Subclauses 8.2.3 and 8.2.4, payment under item 8.4.1 (time- related item) will be made monthly in equal amounts for each installation, calculated by dividing the sum bid for the item by the repair phase period for the installation in months, provided always that the total of the monthly amounts so paid for the item is not out of proportion with the progress of the work on the installation as a whole.

Should the Engineer grant an extension of Time for Completion of the repair works on the installation, the Contractor will be entitled to an increase in the sum bid for the time-related item, which increase shall be in the same proportion to the original sum bid as the extension of time is to the original Time for Completion of the repair works.

Payment of such increased amounts will be deemed full compensation for all additional time- related preliminary and general costs due to the circumstances pertaining to the extension of time granted for an installation. The length of the repair phase for each installation is indicated in Part 1 of the Contract Data.

In the Bills of Quantities separate provision is made for time-related items for each installation individually. Time-related payment for an installation shall only be made when the repair work on the installation is in progress and shall end when the time for completion or an extension of time granted by the Engineer expires. When repair work on more than one installation is in progress, time-related



payment will be made for each installation and the conditions as stated above shall apply to each installation individually."

### **PSA 8.3 BILLED FIXED-CHARGE AND VALUE-RELATED ITEMS**

REPLACE THE ITEMS WITH THE FOLLOWING:

<b>"PSA 8.3.1</b>	<b>Fixed preliminary and general charges</b>	<b>Unit : Sum</b>
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<b>PSA 8.3.2</b>	<b>Value-related preliminary and general charges</b>	<b>Unit : Sum</b>
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The sums bid shall include full compensation for all fixed and value-related preliminary and general charges as described in Subclause PSA 8.1.2.2. Payment will be made as described in Subclause PSA 8.2.1."

### **PSA 8.4 BILLED TIME-RELATED ITEMS**

REPLACE THIS ITEM WITH THE FOLLOWING:

#### **"PSA 8.4.1 Time-related preliminary and general charges:**

##### **"PSA 8.4.1 Time-related preliminary and general charges:**

Mahamba Port of Entry	Unit: Month
Bothashoop Port of Entry	Unit: Month
Emahlathini Port of Entry	Unit: Month

The sums bid shall include full compensation for all time-related preliminary and general charges as described in Subclause PSA 8.1.2.2. Payment will be made as described in Subclause PSA 8.2.2.

NOTE: The total amount bid for items PSA 8.3.1, PSA 8.3.2 and PSA 8.4.1 shall not exceed 15% of the total amount bid for repair work, excluding value-added tax.

### **PSA 8.6 PRIME COST ITEMS**

REPLACE THIS ITEM WITH THE FOLLOWING:

#### **"PSA 8.6 PRIME COST SUMS:**

Housing for Engineer's representative	Unit: PC Sum
Charge required by Contractor on subitem (a) above	Unit: %

The Prime Cost Sum provided under subitem (a) in the Bill of Quantities will be expended in accordance with Clause 45.2 of the General Conditions of Contract.

The bid percentage under subitem (b) will be paid to the Contractor on the value of each payment made to the Engineer.

### **PSA 8.8 TEMPORARY WORKS**

REPLACE ITEM 8.8.4 WITH THE FOLLOWING:

**"PSA 8.8.4 Location and protection of existing services:**

**PSA 8.8.4.1 Provision of detecting devices for:**

Water and sewer pipes Unit : Sum

Electrical and other cables Unit : Sum

The bid sums shall cover the cost of providing and operating suitable equipment for as long as it is needed to locate all the existing services likely to be affected by the construction activities. Alternatively, an approved specialist firm may be employed to carry out the work.

**PSA 8.8.4.2 Hand excavation necessary for locating and exposing existing services in all material:**

In roadways Unit: m3

In all other areas Unit: m3

The rates shall cover the cost of excavating by means of hand tools within authorised dimensions, for all precautionary measures to protect the services from damage during excavation and backfilling, and for subsequent backfilling and compacting. Compaction of material in all areas except in roadways shall be to 90% of the modified AASHTO density.

The rate for hand excavation in roadways shall include compensation for compacting excavated or selected backfill material to 93% of modified AASHTO density.

The bid rates shall also include for keeping excavations safe, for dealing with surface and subsurface water, for removing surplus excavated material from the Site, for transporting all material, and for supplying adequate supervision during both excavation and backfilling operations."

ADD THE FOLLOWING ITEMS:

**"PSA 8.9 ADDITIONAL TESTS:**

Additional tests required by the Engineer Unit : Sum

Attendance and profit Unit : %

An amount has been allowed in the Bill of Quantities under subitem (a) to cover the cost of additional tests required by the Engineer. The Engineer will have the sole authority to spend the amount or part thereof.

The bid percentage under subitem (b) will be paid to the Contractor on the value of each payment made to the testing authority.

Note in connection with subitem (a):

The Contractor is responsible for both the cost of normal testing as described in Subclause PS 8.10 in portion 1 of the Project Specifications and for the cost of any additional test that indicates that the Specifications have not been complied with.

**PSA 8.10 SECTIONAL FENCING FOR THE PROTECTION OF THE WORKFORCE**

Unit : m

The bid rate shall include full compensation for the supply, delivery, initial erection and finally removal from the site of the sectional fencing. The cost to move the fencing will not be paid for separately but shall be deemed to be included in the rate bid.

#### **PSA 8.11 MAINTENANCE MATERIAL:**

Supply and deliver maintenance material to the site:

Description of type of service for which material is needed:

Description of specific material

Unit: litre, m<sup>2</sup>, m, number

Etc., for other types of material.

Etc. for other types of service.

The unit of measurement shall be the litre, square metre, metre or number as applicable to each item ordered on the written instructions of the Engineer.

The bid rates shall include full compensation for supplying and delivering to the maintenance store(s) of the Employer on the Site of the Works each item as billed and shall include for all labour, material, waste and, transport.

A complete book keeping system with delivery notes and order "invoices" shall be kept by the Contractor and the cost thereof shall be deemed to be included in the rates bid for the various items.

The rates bid will be fixed for the full duration of the repair phases and shall be applicable to any quantity "ordered" irrespective of size, contents, volume of container or the number. The actual square metre size of the "ordered" items will be calculated to two decimal points for payment purposes. No "rounding-off" to the nearest square metre quantity will be allowed. It is expected that the maintenance material will be ordered in small quantities throughout the duration of the Contract."

#### **PSAS.12 CALL CENTRE**

Call centre operating costs for breakdown calls logged .....

Unit: Sum

Charge required by contractor on subitem {a) above

Unit%

An amount has been allowed in the Bill of Quantities under subitem (a) to cover the cost of administrating breakdown calls logged through the call centre. The call centre will submit to the contractor a monthly invoice for breakdown calls logged and monthly subscription. The Contractor will be responsible for prompt payment of the invoice received from the call centre.

The bid percentage under subitem (b) will be paid to the Contractor on the value of each payment pertaining to the call centre to cover his expenses in this regard.

Payment to the Contractor will only become due upon submission of proof of payment to the call centre.

#### **PSA 8.13 COMPLIANCE WITH OHS ACT AND CONSTRUCTION REGULATIONS 2003**

**Unit: sum**

The bid sum shall include full compensation to the Contractor for compliance with all the requirements of the OHS Act and the Construction Regulations 2003 at all times during the repair and maintenance phase, as described in PS 13 of Portion 1 of the Project Specifications. The successful bidder shall provide the Engineer with a complete breakdown of this bid sum.

This sum will be paid to the Contractor in equal monthly amounts for the entire duration of the contract period.

## **PSAB ENGINEER'S OFFICE**

### **PSAB 3 MATERIALS**

#### **PSAB 3.1 NAMEBOARDS**

REPLACE THE FIRST SENTENCE OF SUB-CLAUSE 3.1 OF SANS 1200AB WITH THE FOLLOWING:

"The Contractor shall supply and erect at locations approved by the Engineer, the number of contract nameboards specified in Portion 1 of the Project Specifications, which, unless otherwise specified in the Contract, shall comply with the recommendations for the standard board of the South African Association of Consulting Engineers, with regards to size, painting, decorating and detail, and the requirements described hereunder."

#### **PSAB 3.2 OFFICE BUILDING(S)**

REPLACE THE WORDS: "as scheduled" IN PARENTHESIS IN THE FIRST LINE OF SUBCLAUSE 3.2 OF SANS 1200 AB WITH: "as specified in Portion 1 of the Project Specifications";

AND REPLACE SUBCLAUSE 3.2(j) OF SANS 1200 AB WITH THE FOLLOWING:

"(j) a heater and fan / air-conditioning unit both of such capacity that the inside of the office(s) is always at a temperature of between 20°C and 24°C."

ADD THE FOLLOWING SUBCLAUSE IN CLAUSE 3:

#### **"PSAB 3.3 CAR-PORT**

The Contractor shall construct the number of carports indicated in Portion 1 of the Project Specifications, for the sole use of the Engineer and his staff. Each car-port shall be constructed so that the vehicle parked under it is always protected against the direct rays of the sun. The carport area shall be at least 36 m<sup>2</sup> and the floor shall be covered with a layer of crushed stone to alleviate dusty and muddy conditions. The carport(s) shall be positioned so as to provide easy and convenient access to the Engineer's office."

### **PSAB 4 PLANT**

#### **PSAB 4.1 TELEPHONE**

REPLACE THE WORDS: "Department of Post and Telecommunications" WITH "Telecoms Provider" AND ADD THE FOLLOWING AT THE END OF SUBCLAUSE 4.1 OF SABS 1200 AB:

ADD THE FOLLOWING NEW SUBCLAUSES TO CLAUSE 4 OF SABS 1200 AB:

#### **"PSAB 4.2 COMPUTER EQUIPMENT**

Where it is specified in Portion 1 of the Project Specifications that the Contractor shall provide computer equipment on site for the exclusive use of the Engineer and his staff, such computer hardware and software shall comply with the specifications set out in Subclauses PSAB 4.2.1 and PSAB 4.2.2 hereunder.

##### **PSAB 4.2.1 Computer hardware**

#### 1. Computers

Laptop shall comply with the following minimum specifications: System Features  
1x laptop with CPU - Intel® Core™ i9-14th generation Genuine Windows® 11 Professional 64  
Memory - 32 GB MEMORY  
Storage - 1TB Solid State Drive  
Graphics – 15 .6 LED-backlit FHD Anti-Glare 4k display 16 GB dedicated video memory  
Ports - 3USB 3.0 ports,  
Mobile Broadband 4G/LTE/5G wireless card 1x 32-inch 4k display monitor

#### 2. Printers

Printers shall, unless otherwise approved by the Engineer, be DeskJet (Black and White) or laser printers.

All computer hardware shall be provided complete with the requisite connecting cables and all interfacing devices and software necessary for its efficient operation as an integral system.

### **PSAB 4.2.2 Computer software**

The following software shall be properly installed on the computer, and the original license agreements and disks shall be provided to the Engineer for safekeeping:

- Microsoft Windows® 11 Professional 64-bit
- MS-Office 2021 Professional

### **PSAB 4.3 TELEFAX FACILITIES**

Not applicable

### **PSAB 4.4 SURVEY EQUIPMENT**

The Contractor shall provide on site and make available for the exclusive use of the Engineer and his staff, the survey equipment listed in Portion 1 of the Project Specifications.

All survey equipment provided by the Contractor shall be in good condition, properly calibrated and fit for the purpose.

In addition to survey equipment provided by the Contractor for the exclusive use of the Engineer and his staff, the Contractor shall make available for use by the Engineer, the further survey equipment listed in Portion 1 of the Project Specifications, at all times when such is reasonably required by the Engineer and his staff for the purposes of the Contract."

### **PSAB 5 CONSTRUCTION**

#### **PSAB 5.4 TELEPHONE**

REPLACE THE CONTENTS OF SUBCLAUSE 5.4 OF SABS 1200 AB WITH THE FOLLOWING:

##### **"PSAB 5.4.1 Telkom telephones**

The Contractor shall advise Telkom promptly of any faults which develop in the telephone service and shall, in such circumstances, arrange for the earliest possible restoration of the said service.

The Contractor shall ensure that the telephone account is promptly paid.

#### **PSAB 5.4.2 Cellular telephones**

The Contractor shall advise the cellular service provider of any faults which develop in the cellular telephone service and/or the cellular telephone handsets and shall, in such circumstances, arrange for the earliest possible restoration of the said service.

The costs of any necessary repairs and/or the replacement of components to the handsets of the cellular telephones shall be for the Contractor's account.

The Contractor shall ensure that all accounts for cellular phone calls and the respective service contracts are promptly paid."

ADD THE FOLLOWING NEW SUBCLAUSES TO CLAUSE 5 OF SABS 1200 SB:

#### **"PSAB 5.6 COMPUTER EQUIPMENT**

All computer equipment provided shall be kept fully serviceable at all times by the Contractor. The Contractor shall have any defective equipment repaired or replaced at his own cost within 12 hours after notification by the Engineer's staff.

The Contractor shall further provide at his own cost, all paper and black ink cartridges and other consumables reasonably required by the Engineer.

#### **PSAB 5.7 TELEFAX FACILITIES**

Not applicable

#### **PSAB 5.8 SURVEY EQUIPMENT**

All survey equipment provided by the Contractor shall be kept fully serviceable at all times by the Contractor. The Contractor shall have any defective equipment repaired or replaced at his own cost within 24 hours after notification by the Engineer's staff.

Where required by the Engineer, the Contractor shall at his own cost, promptly arrange for the re-calibration of survey equipment provided."

### C3.6 STANDARD MINIMUM REQUIREMENTS

In terms of section 5(2) of the Construction Industry Development Board Act, 2000 (Act no. 38 of 2000) (the Act), the Construction Industry Development Board is empowered to establish and promote best practice standards, Standard Requirements and Guidelines which includes the following but not limited to:

- C3.6.1 cidb Best Practice: Green Building Certification, No. 34158 Government Gazette, 1 April 2011
- C3.6.2 cidb Standard for Developing Skills through Infrastructure Contracts, No. 36760 Government Gazette, 23 August 2013
- C3.6.3 cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013
- C3.6.4 Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2017, No. 40553 Government Gazette, 20 January 2017
- C3.6.5 cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts, No. 41237 Government Gazette, 10 November 2017
- C3.6.6 cidb Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts, No. 41237 Government Gazette, 10 November 2017
- C3.6.7 cidb Standard for Minimum Requirements for Engaging Contractors and Sub- Contractors on Construction Works Contracts, No. 42021 Government Gazette, 9 November 2018
- C3.6.8 cidb Standard for Developing Skills through Infrastructure Contracts, No 48491 Government Gazette, 23 April 2023

### C3.7 CONTRACT PARTICIPATION GOALS AND CIDB BUILD PROGRAMME

Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the respective CPGs. Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

Monthly progressive reports to be submitted to the Employer's representative indicating the percentage targets achieved which must be reconciled upon completion of the project and to form part of the final account.

The contractor shall achieve in the performance of this contract the following Contract Participation Goals (CPGs) as indicated below:

#### C3.7.1 Minimum Targeted Local Material Manufacturer Contract Participation Goal

**The Minimum Targeted Local Building Material Manufacturers CPG is “Applicable” to this project.**

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprise Local Material Manufacturers (SMME's) in executing this contract, irrespective whether a minimum percentage Participation Goals is applicable or not.

The Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020.



A Targeted Local Material Manufacturer is a targeted enterprise that operates or maintains a factory or establishment that produces on its premises materials or goods required by the principal contractor for the performance of the contract.

Note: Adapted from SANS 10845-7:2015, definition 2.13

Preference shall be given to the Targeted Local Material Manufacturer where feasible in **Republic of South Africa**, and provided that:

- (a) Such materials comply in all respects with the specific requirements of PW371 and SANS specifications,
- (b) The non-availability of such materials shall not adversely affect the desired progress of the specific works,
- (c) The use of such suppliers shall not constitute grounds for any claim for increased cost in respect thereof,
- (d) Materials of at least **five percent (5%)** of the total value of materials purchased excluding VAT to be sourced from **Republic of South Africa**,
- (e) Materials of at least **five percent (5%)** of the total value of materials purchased excluding VAT to be sourced from **Republic of South Africa**,

Failure to achieve the minimum specified value as indicated in the CPG Bill of Quantity Section for Targeted Local Material Manufacturer participation will result in a **thirty percent (30%)** penalty of the prorate targeted value of materials not complied with unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The contractor shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

### C3.7.2 Minimum Targeted-Local Building Material Suppliers Contract Participation Goal

**The Minimum Targeted Local Building Material Suppliers CPG is “Applicable” to this project.**

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprise Local Material Suppliers (SMME's) in executing this contract, irrespective whether a minimum percentage Participation Goals is applicable or not.

The Minimum Targeted Local Manufacturers of Material Contract Participation Goal shall be achieved in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract..

A targeted supplier is a targeted enterprise that

- a) owns, operates or maintains a store, warehouse or other establishment in which goods are bought, kept in stock and regularly sold to wholesalers, retailers or the public in the usual course of business; and
- b) engages, as its principal business and in its own name, in the purchase and sale of goods.

Note: Adapted from SANS 10845-7:2015, definition 2.14

Preference shall be given to the local material suppliers where feasible in the **Republic of South Africa**, and provided that:

- (a) Such materials comply in all respects with the specific requirements of PW371 and SANS specifications,
- (b) The none availability of such materials shall not adversely affect the desired progress of the specific works,
- (c) The use of such suppliers shall not constitute grounds for any claim for increased cost in respect thereof,
- (d) Materials of at least **five percent (5%)** of the total value of materials purchased excluding VAT to be sourced from Republic of South Africa,
- (e) Materials of at least **five percent (5%)** of the total value of materials purchased excluding VAT to be sourced from Republic of South Africa.



Failure to achieve the minimum specified value as indicated in the CPG Bill of Quantity Section for Targeted Local Material Manufacturer participation will result in a **thirty percent (30%)** penalty of the prorate targeted value of materials not complied with, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

### C3.7.3 Minimum Targeted Local Labour Skills Development Contract Participation Goal

**The Minimum Targeted Local Labour Skills Development CPG is “Applicable” to this project.**

It is the requirement of the employer that the contractor enhances the use of local labour in executing this contract. This is required to be done through the use of both traditional building techniques and labour-intensive construction techniques careful and considered construction planning and implemented in the project irrespective whether a minimum percentage Participation Goal is applicable or not.

The Minimum Targeted Local Skills Development Contract Participation Goal shall be achieved in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. No. 48491 of 28 April 2023 and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract..

Targeted labour: individuals who:

- a) are employed by the principal contractor, sub-contractor or targeted enterprises in the performance of the contract;
- b) are defined as the target group in the targeting data; and
- c) permanently reside in the target area or who are recognized as being residents of the target area on the basis of identification and association with and recognition by the residents of the target area.

Adapted from SANS 10845-7:2015, definition 2.12

Targeting of labour by skills categories is only permissible within categories of semi-skilled and unskilled labour.

Contract participation goals for semi-skilled and unskilled labour shall be limited to on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract and in a manner that does not compromise worker health and safety. In the case of targeted labour, the certification of records shall be in accordance with SANS 10845-8.

Beneficiaries will be sourced from the **Mpumalanga Province** for the full duration of the Construction Period, employed by either the principal contractor, sub-contractors or targeted enterprises. The total number of working days to complete the Works amount to **36 months** working days. The minimum CPG participation for Targeted Local Labour Skills Development is **five percent (5%)**, expressed as a percentage of the total number of working days required to complete the Works. The contractor shall attain or exceed the CPG in the performance of the contract. Failure to achieve the minimum Targeted Local Labour Skills Development CPG will result in a payment reduction of **R5 000** (Excluding VAT), per working day which training has not been provided to the workforce in attendance, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

### C3.7.4 CIBB BUILD PROGRAMME: Minimum Targeted Enterprise Development Contract Participation Goal

**The Minimum Targeted Enterprise Development CPG is “Applicable” to this project.**

The aim of this best practice standard for indirect targeting for enterprise development in accordance with the Standard for Indirect Targeting for Enterprise Development (published in Government Gazette 36190 of 25 February 2013), as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract. is to promote enterprise development by providing for a minimum Contract Participation Goal (CPG) of **minimum of 5%** of the contract amount as defined in the Standard (Tender amount, excluding allowances and VAT) on selected contracts to be undertaken by joint-venture partners or to be sub-contracted to developing contractors that are also to be beneficiaries of enterprise development support from the main contractor.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer’s Representative.

The lead partner or main contractor shall dedicate a **minimum 5%** of the tender value at the time of award, excluding allowances and VAT, to provide developmental support to targeted subcontractor or joint venture partner applicable to contracts in Grades 7 to 9, General Building and Civil Engineering contracts. Preference will be given to insert type of enterprises, e.g. General Building, Electrical, Mechanical, Plumbing, etc. .It could be either or any combination of all Enterprises.

Failing to achieve the targeted Contract Skills Development Goal will result in A) a thirty percent (30%) penalty of the value of the portion not achieved, excluding VAT, and B) the issuing of completion certificates only after the completion certificate of achieving the skills development goal, counter-signed by the relevant individuals has been submitted, unless the contractor can prove to the Employer’s satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer’s Representative.

#### C3.7.4.1 Criteria

The main or lead partner of the successful bidder shall:

- (a) There must be a needs analysis for indirect targeting and development or skill standard and should be development in at least any two developmental areas namely;
  - Administrative and cost control systems
  - construction management systems and plans
  - planning, tendering and programming
  - business; technical; procurement skills
  - legal compliance
  - credit rating/history; financial loan capacity/history
  - contractual knowledge
- (b) The above needs analysis shall be mutually agreed upon between contractor and targeted enterprise
- (c) The contractor shall appoint an enterprise development coordinator to:
  - perform needs analysis on the targeted enterprise to identify developmental goals
  - develop a project specific enterprise development plan to improve the targeted enterprise/s performance in the identified developmental areas
  - provide internal mentorship support to improve the targeted enterprise/s performance
  - monitor and submit to the employer’s representative a monthly enterprise development report thereby reporting on the progress of the agreed development areas with the targeted enterprise/s
  - submit a project completion report to the Employer’s representative for each targeted enterprise.

#### C3.7.4.2 Management

The contractor shall provide a competent person/s to provide internal mentorship to the Targeted Enterprise/s in the two agreed developmental areas.

#### C3.7.4.3 Competence Criteria for an Enterprise Development Co-ordinator

The enterprise development co-ordinator shall have the following competencies:

- Minimum experience of 5 years in the construction industry at Managerial level as a Site Agent, Contracts Manager, Site Manager, Construction Manager, Business Development Manager or Enterprise Development Manager.
- Minimum experience of 2 years in training and development in Building or Construction; and
- National Diploma or B Degree in the Built Environment or Business Management

#### C3.7.4.4 Format of Communications

The contractor shall submit to the Employer's Representative:

- *Project interim reports* in the specified format (**ED105P**) detailing interim values of the CPG that was achieved together with an assessment of the enterprise development support provided should be tabled and discussed at least monthly at progress meetings between employer's representative and the contractor;
- *Project completion report* in the specified format (**ED101P**) to the Employer's Representative for acceptance within 15 days of achieving practical completion. The report shall include the value of the CPG that was certified in accordance with the contract, cidb registration numbers of each and every targeted enterprise, and the value of the subcontracted works or of the joint venture entered into; and the participation parameter
- *Enterprise development declaration* (**ED104P**).

#### C3.7.4.5 The Key Personal

The contractor shall appoint an Enterprise Development Co-ordinator and a competent person/s to provide internal mentorship.

#### C3.7.4.6 Management Meetings

The contractor shall report to the Employer's Representative on the implementation and progress of the targeted enterprise development and CPG at monthly progress site meetings.

#### C3.7.4.7 Forms for contract administration

The contractor shall submit to the Employer's Representative the following proformas:

- Form ED 105P Project Interim Report
- Form ED 104P Enterprise Development Declaration
- Form ED 101P Project Completion Report

#### C3.7.4.8 Records

The contractor shall:

- keep records of the targeted enterprise development
- keep records of the payments made to the targeted enterprises in relation to the CPG.
- ensure all the documentation required in terms of the Standard is provided with each monthly progress payment certificate and according to a prescribed format where applicable.

#### C3.7.4.9 Payment Certificates

The contractor shall:

- achieve the measurable CPG and providing enterprise development support to the targeted enterprise/s as per the Standard.
- submit payment certificates to the Employer Representative at intervals determined in the Contract.

#### C3.7.4.10 Compliance requirements

##### **Non-compliance with the Best Practice Project Assessment Scheme**

The wording of regulation 27A of the cidb regulations makes provision for the Board to enforce the cidb code of conduct in the event of clients being found to be in breach of the best practice project assessment scheme.

- Not including the requirements of the cidb standards in the conditions of tender
- Not registering the award of contract on the cidb Register of Projects (RoP)
- Not reporting practical completion on the cidb Register of Projects (RoP)

#### 3.7.5 **CIDB BUILD PROGRAMME: Minimum Targeted Contract Skills Development Goal (CSDG)**

**The Minimum Targeted Contract Skills Development CPG is “Applicable” to this project.**

The contractor shall achieve or exceed in the performance of the contract the Contract Skills Development Goal (CSDG) established in the Standard for Developing Skills through Infrastructure Contracts (published in Government Gazette No 48491 of 23 April 2023 and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.

Failing to achieve the targeted Contract Skills Development Goal will result in A) a **thirty percent (30%)** penalty of the value of the portion not achieved, excluding VAT, and B) the issuing of completion certificates only after the completion certificate of achieving the skills development goal, counter-signed by the relevant individuals has been submitted, unless the contractor can prove to the Employer’s satisfaction that the non-achievement was beyond his/her control.

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 3 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.

#### C3.7.5.1 Methodology

The contractor shall achieve the measurable contract skills development goal by providing opportunities to learners requiring structured workplace learning using one or a combination of any of the following in relation to work directly related to the contract or order:

**Method 1:** structured workplace learning opportunities for learners towards the attainment of a part or a full occupational qualification;

**Method 2:** structured workplace learning opportunities for apprentices or other artisan learners towards the attainment of a trade qualification leading to a listed trade (GG No. 35625, 31 August 2012) subject to at least sixty percent (60%) of the artisan learners being holders of public TVET college qualifications;

**Method 3:** work integrated learning opportunities for University of Technology or Comprehensive University students completing their national diplomas;

**Method 4:** structured workplace learning opportunities for candidates towards registration in a professional category by a statutory council.

The contract skills participation goals, expressed in Rand, shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 1 in the Standard for the applicable class of construction works.

*Table 1: Contracting skills development goals for different classes of engineering and construction works contracts*

Class of construction works as identified in terms of Regulation 25 (3) of the Construction Industry Regulations 2004		Construction skills development goal (CSDG) (%)
Designation	Description	
CE	Civil Engineering	0.25
CE and GB	Civil engineering and General Building	0.375
EE	Electrical Engineering works (buildings)	0.25
EP	Electrical Engineering works (infrastructure)	0.25
GB	General Building	0.5
ME	Mechanical Engineering works	0.25
SB	Specialist	0.25

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 2 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.

**Table 2: Notional Cost of Training per Headcount**

*Source: cidb Standard for Skills Development*

Type of Training Opportunity	Provision for stipends (Unemployed learners only)	Provisions for mentorship	Provisions for additional costs*	Total costs	
				Unemployed learners	Employed learners
Method 1					
Occupational qualification	R7 000	R0	R9 000	R16 000	R9 000
Method 2					
TVET College graduates	R14 000	R0	R9 000	R23 000	N/A
Apprenticeship	R14 000	R0	R12 000	R26 000	R12 000
Method 3					
P1 and P2 learners	R24 000	R20 000	R4 500	R48 500	N/A
Method 4					
Candidates with a 3 year diploma	R37 000	R20 000	R4 500	R61 500	R20 000
Candidates with 4 year qualification	R47 000	R20 000	R4 500	R71 500	R20 000

*Note: the required CPG will be recalculated based on the awarded tender amount and "Contract amount" once the beneficiaries have been appointed and actual costs are known. The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI. Should the rates increase after bid award or during construction the rates will be adjusted as a remeasuarble item.*

- (a) (a) The successful contractor may employ part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates directly or through a Skills Development Agency (SDA), (A1 - List of cidb accredited SDAs).
- (b) The successful contractor must employ at least sixty percent (60%) of the learners from an FET / TVET college should the contractor select to have part/full occupational qualification learners and trade qualification learners contributing to the CSDG.
- (c) The successful contractor shall employ at least **one percent (1%)** from eligible part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates in the employment of the employer.
- (d) The successful contractor shall ensure that no single method shall contribute more than seventy five percent (75%) of the CSDG for the contract.
- (e) The successful contractor may only place thirty three percent (33%) employed employees or that of his subcontractors contributing to the CSDG.
- (f) The contractor shall employ at least sixty percent (60%) of the learners from a Public FET / TVET college should the contractor select to have trade qualification learners (Method 2) contributing to the CSDG.
- (g) One of the objectives of the project is to train **2 (two)** Occupational qualifications, trade qualification, work integrated learners.

#### C3.7.5.2 Management

- (a) The successful contractor must keep site records regarding the part/full occupational qualification learners', trade qualification learners', work integrated learners' or candidates' (delete that which is not applicable) progress, site attendance, hours worked and other relevant information as required by the Standard.
- (b) The successful contractor shall provide the required number of appropriately qualified mentors to the maximum number of part/full occupational qualification learners, trade qualification learners, work integrated learners in the proportion as specified in the Standard.



- (c) The successful contractor shall provide a supervisor to manage the training of the part/full occupational qualification learners, trade qualification learners, work integrated learners.
- (d) The successful contractor shall submit to the employer's representative a baseline training plan in the specified format (Pro-forma A2) for the part/full occupational qualification learners, trade qualification learners, work integrated learners, within 30 days of start of the contract.
- (e) The successful contractor shall submit to the employer's representative project interim report in the specified format (Pro-forma A3) on the progress of each of part/full occupational qualification learner, trade qualification learner, work integrated learner, every three months.
- (f) The successful contractor shall submit to the employer's representative the names and particulars in the specified format (Pro-forma A4) of the supervisor, mentors for the part/full occupational qualification learners, trade qualification learners, work integrated learners within 30 days of start of the contract.
- (g) The successful contractor shall keep a daily record of all the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates on site and their daily activities and shall be made available to the employer's representative on request.
- (h) The successful contractor shall submit to the employer's representative the reports on the progress and status of the part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates with the monthly invoice for the payment certificate.
- (i) The successful contractor shall have health and safety inductions for all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates.
- (j) The successful contractor shall conduct entry and exit medical tests of all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates.
- (k) The successful contractor shall provide personal protective equipment (PPE) to all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates at the start of their employment on site.
- (l) Based on the agreed skills methods the contractor may employ part/full Occupational Qualification Learners and /or Trade Qualification Learners and/or Work Integrated Learners and/or Candidates directly or through a Skills Development Agency (SDA), training provider or skills development facilitator (Form A1 - List of cidb accredited SDAs). The contractor shall ensure that no more than one Method shall be applied to any individual concurrently in the calculation of the CSDG for the contract.

### C3.7.6 NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME (NYS)

**The National Youth Service Training and Development Programme is “Not Applicable” to this project.**

The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities. Monthly reports are to be submitted to the Employer's Representative.

Failure by the contractors to achieve the specified number to be trained in the NYS section of the CPG section within the Bills of quantities will result in a payment reduction as per bill of quantities per person, excluding VAT unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

### C3.7.7 LABOUR-INTENSIVE WORKS

**Labour Intensive Works is “Not Applicable” to this project.**

Where labour intensive work is specified in the Bill of Qualities and indicated by “LI” the contractor must price for and include in rates. Contractors are expected to use their initiative to identify additional activities that can be done labour-intensively to comply with the set minimum labour intensity target. Allowance must be made for submitting monthly reports illustrating the value of the works executed under Labour Intensive Works.

Failure by the contractor to achieve the specified value of the Labour Intensive Participation Goal as stipulated within the Bills of Quantities will result in a **thirty percent (30%)** penalty of the value of the works not done by means of labour intensive methods, excluding VAT, unless the contractor can prove to the Employer’s satisfaction that the non-achievement was beyond his/her control.

Employer’s objectives:

The employer’s objectives are to deliver public infrastructure using labour-intensive methods in accordance with EPWP Guidelines.

Labour-intensive works:

Labour-intensive works shall be constructed/maintained using local workers who are temporarily employed in terms of the scope of work.

Labour-intensive competencies of supervisory and management staff:

Contractors shall only engage supervisory and management staff in labour-intensive works that have completed the skills programme including Foremen/ Supervisors at NQF level 4 “National Certificate: Supervision of Civil Engineering Construction Processes” and Site Agent/ Manager at NQF level 5 “Manage Labour-Intensive Construction Processes” or equivalent QCTO qualifications (See Appendix C) at NQF outlined in Table 1

#### C3.7.7.1 GENERIC LABOUR-INTENSIVE SPECIFICATION

Contractors are referred to the Guidelines for the Implementation of Labour-intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP) for the generic labour-intensive specification applicable to the contract.

This specification establishes general requirements for activities which are to be executed by hand involving the following:

- trenches having a depth of less than 1.5 metres
- stormwater drainage
- roads
- sidewalks and non-motorised transport infrastructure
- water and sanitation

**Precedence**

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail

**Hand excavateable material**

Hand excavateable material is:

**a) granular materials:**

- i) whose consistency when profiled may in terms of Table 3 be classified as very loose, loose, medium dense, or dense; or
- ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

**b) cohesive materials:**

- i) whose consistency when profiled may in terms of Table 3 be classified as very soft, soft, firm, stiff and stiff / very stiff; or



ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

**Note**

1) A boulder is material with a particle size greater than 200mm, a cobble and gravel is material between 60 and 200mm.

2) A dynamic cone penetrometer is an instrument used to measure the in-situ shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with respect to the horizontal) into the material being used.

<b>Table 3: Consistency of materials when profiled</b>			
<b>GRANULAR MATERIALS</b>		<b>COHESIVE MATERIALS</b>	
<b>CONSISTENCY</b>	<b>DESCRIPTION</b>	<b>CONSISTENCY</b>	<b>DESCRIPTION</b>
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of a geological pick; requires many blows for excavation.	Stiff	Can be indented by thumb-nail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumb-nail with difficulty; slight indentation produced by blow of a geological pick point.

**Trench excavation**

All hand excavateable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

**Compaction of backfilling to trenches (areas not subject to traffic)**

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers;

a) to ninety percent (90%) Mod AASHTO;

b) such that in excess of 5 blows of a dynamic cone penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than ten (10%) gravel of size less than 10mm and contains no isolated boulders, or

c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

**Excavation**

All excavateable material including topsoil classified as hand excavateable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand. Any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

**Clearing and grubbing**

Grass and bushes shall be cleared by hand.

**Shaping**

All shaping shall be undertaken by hand.

**Loading**

All loading shall be done by hand. Haulage equipment should be selected in a manner that allows loading by hand to the greatest extent possible.

**Haul**

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.

**Offloading**

All material, however transported, is to be off-loaded by hand, unless tipper-trucks are utilised for haulage.

**Spreading**

All material shall be spread by hand.

**Compaction**

Small areas may be compacted by hand provided that the specified compaction is achieved. Appropriate rollers should be used where higher (than can be achieved by hand) levels of compaction are required or for large areas.

**Grassing**

All grassing shall be undertaken by sprigging, sodding, or seeding by hand.

**Stone pitching and rubble concrete masonry**

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must to be collected, loaded, off loaded and placed by hand.

Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.

Grout shall be mixed and placed by hand.

**Manufactured Elements**

Elements manufactured or supplied by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. Where the mass of an element exceeds 55 kg, consideration should be given to the size of the element relative to its total mass related to the number of workers who would be needed to lift such mass

**C3.8 SUBMISSION OF ACCRUAL REPORTS**

The Contractor shall submit accrual reports to the client representative at the end of March and September each year for the duration of the Service Contract period from the date of appointment up to and including project closeout. This is to ensure that PMTE complies with the accounting framework GRAP, which requires that PMTE disclose all its accruals as at the end of each reporting date.

**C.3.9 SUBMISSION OF MONTHLY LOCAL MATERIAL UTILISATION REPORT (LOCAL CONTENT)**

**Submission of Monthly Local Material Utilisation Report (Local Content) is “Applicable” to this project.**

The contractors shall be responsible for record keeping, documenting and submission of monthly local material utilization report with supporting documentation to the Employer's representative within 7 working days of the beginning of the successive month, in terms of DTI&C designated industry/sector/sub-sector schedule as per the PA36 and Annexures C attached to the tender document. The final percentage achievement to be reconciled upon completion of the project and form part of the final account.

Failure by the contractors to achieve the specified percentage of local content per designated industry/sector/sub-sector as listed will result in a thirty percent thirty percent (30%) penalty of the value not achieved, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control. Allowance must be made for submitting monthly reports illustrating the value of local material utilisation report.