INDEX TO BILL OF QUANTITIES

SECTION 1 PRELIMINARY AND GENERAL

PART AA PRELIMINARIES

PART AB GENERAL SPECIFICATIONS

PART AH OCCUPATIONAL HEALTH and SAFETY

SECTION 2 SITE CLEARANCE

PART B SITE CLEARANCE

SECTION 3 EARTHWORKS

PART DA EARTHWORKS: BULK

PART DD EARTHWORKS FOR STRUCTURES

PART EL DUMPROCK SUBGRADE IMPROVEMENT

SECTION 4 ROADWORKS

PART EB GRADED CRUSHED STONE

PART ED ROAD ASPHALT

PART EF KERBS AND HAUNCHES

SECTION 5 PROTECTION WORKS

PART F PROTECTION WORKS

SECTION 6 CONCRETE WORKS

PART C CONCRETE WORK

SECTION 7 ROAD SIGNS AND MARKINGS

PART TA ROAD SIGNS

PART TB ROAD MARKINGS

R

BILL OF QUANTITIES

SECTION 1 PRELIMINARY AND GENERAL

PART $\mathbf{A}\mathbf{A}$ **PRELIMINARIES**

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|-------------|---|--------|----------|------|-----------|
| 1 | GCC 2015 | GENERAL CONDITIONS OF CONTRACT (GCC 2015) READ IN CONJUNCTION WITH THE CONTRACT DATA | sum | 1 | | |
| 2 | GCC 2015 | Time Related Obligations | sum | 1 | | |
| 3 | SANS 1921-1 | SANS 1921-1 : GENERAL ENGINEERING AND CONSTRUCTION WORKS READ IN CONJUNCTION WITH THE ASSOCIATED SPECIFICATION DATA IN THE SCOPE OF WORKS | sum | 1 | | |
| 4 | SANS 1921-1 | Time Related Obligations | sum | 1 | | |
| 5 | C.1.2.3.1 | COMMUNITY LIAISON OFFICER Allow for CLO to be appointed and monthly submission of proof of employment and payment for the CLO. | PC Sum | 45000 | 1.00 | 45 000.00 |
| 6 | | Handling costs etc. in respect of Item 5 above. Tenderer to state % markup. (Markup =%) | % | 45000 | | |

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

PART AB **GENERAL SPECIFICATIONS**

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|-------------------|---|--------|----------|------|--------|
| 1 | AB.4 PS.AB.1.2 | Contractor's Camp Site / Store Yard | sum | 1 | | |
| 2 | AB.5 PS.AB.6 | Notice Board | sum | 1 | | |
| 3 | AB.7 PS.AB.4 | Road Deviations | sum | 1 | | |
| 4 | AB.7.2 | Initial supply of all signs, barricades and delineators | sum | 1 | | |
| 5 | AB.7.1 | Maintenance of Pedestrian and Traffic Facilities | sum | 1 | | |
| 6 | AB.7.2 | Maintenance of all signs, barricades and delineators | sum | 1 | | |
| 7 | PS.AB.5 | Allow for Progress Photographs | PC Sum | 250 | 1.00 | 250.00 |
| 8 | | Handling costs etc. in respect of Item 7. Tenderer to state % markup. (Markup =%) | % | 250 | | |
| 9 | PS.11 | Survey for, and Preparation of, 'As-Built' Drawings | sum | 1 | | |
| 10 | PS.11 | Preparation and submission of Materials 'As-Built' Report | sum | 1 | | |

Part Continued PART AB GENERAL SPECIFICATIONS

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|---------------|--|--------|----------|------|------------|
| 11 | PS.13 AB.6 | Cost of Samples and Contractor's Preliminary and Site Control Testing | sum | 1 | | |
| 12 | | Allow the following additional items which the tenderer required to be priced separately:- | sum | 1 | | |
| 13 | | a) | sum | 1 | | |
| 14 | | b) | sum | 1 | | |
| 15 | | c) | sum | 1 | | |
| 16 | PS.2.3 | Service Relocations | PC Sum | 100000 | 1.00 | 100 000.00 |

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

PART AH OCCUPATIONAL HEALTH and SAFETY

| tem | Clause | Description | Unit | Quantity | Rate | Amount |
|-----|------------------|--|------|----------|------|--------|
| | | The Tenderer shall ensure that the total sum of Part AH shall not be less than one percent (1%) of the Tender Amount (excluding VAT) | | | | |
| 1 | AH.14.1 PS.10 | Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations | sum | 1 | | |
| 2 | AH.14.2 PS.10 | Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations | sum | 1 | | |
| 3 | AH.14.3 PS.10 | Submission of the Health and Safety File | sum | 1 | | |

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL

R

R

02-Nov-22 ENGINEERING Page 2 of 9

SECTION 2 SITE CLEARANCE

PART B SITE CLEARANCE

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|---------------------------|---|------|----------|------|--------|
| 1 | B.8.2 | General clearance and grubbing in road reserve. | m2 | 180 | | |
| 2 | B.8.14 PS.B.1 PS.12 | Removal of asphalt driveways to tip as directed by Engineer on site. | m3 | 5 | | |
| 3 | B.8.14 | Removal of existing asphalt speed humps to tip as directed by Engineer on site. | m3 | 5 | | |
| 4 | B.8.4 PS.B.3 | Removal of trees of girth exceeding 0,250 m to tip as directed by Engineer on Site. | no. | 1 | | |
| 5 | B.8.9 PS.B.4 PS.12 | Removal of brickwork to tip as directed by Engineer on Site. | m3 | 2 | | |
| 6 | B.8.10 PS.B.5 PS.12 | Removal of unreinforced concrete to tip as directed by Engineer on Site. | m3 | 5 | | |
| 7 | B.8.11 PS.B.5 PS.12 | Removal of reinforced concrete to tip as directed by Engineer on Site. | m3 | 5 | | |
| 8 | PS.B.7 | High Pressure Cleaning of concrete block road base. | m2 | 600 | | |
| 9 | PS.B.8 | Application of weed killer on concrete block road base. | m2 | 600 | | |

TOTAL CARRIED TO SECTION 2 SUMMARY: SITE CLEARANCE

SECTION 3 EARTHWORKS

PART DA EARTHWORKS: BULK

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|---------------------------------------|---|--------|----------|------|-----------|
| 1 | DA.8.3 PS.DA.3 PS.12 | Excavate soft material to spoil | m3 | 120 | | |
| 2 | DA.8.3 PS.DA.2 PS.DA.3 PS.12 | Extra over Item 1 for the excavation of intermediate material to spoil as directed by Engineer on Site | m3 | 25 | | |
| 3 | PS.DA.5 DA.8.4 | Import and process suitable G9 fill material from contractor's off-site source inclusive of haulage and royalties | m3 | 35 | | |
| 4 | DA.8.5 PS.DA.6 | Compact imported G9 fill material to 93% Mod. A.A.S.H.T.O. | m3 | 35 | | |
| 5 | DA.8.9 PS.13 PS.DA.7/8 | Formation | m2 | 240 | | |
| 6 | PS.DA.5 PS.13 | Import and process suitable G7 material from contractor's off-site source inclusive of haulage and royalties | m3 | 35 | | |
| 7 | DA.8.5 PS.DA.6 | Compact imported G7 material to 95% Mod. A.A.S.H.T.O. | m3 | 35 | | |
| 8 | DA.8.6 | Trimming of embankments | m2 | 120 | | |
| 9 | DB.8.19 | Proving of existing services by hand excavation (provisional), where depth is :- Over 0,0m and not exceeding 1,5m | m3 | 10 | | |
| 10 | PS.13 AB.6 | Allow for testing of subgrade by a SANAS accredited Specialist Materials Testing Laboratory as directed by Engineer on Site | PC Sum | 15000 | 1.00 | 15 000.00 |
| 11 | | Handling costs etc. in respect of Item 10. Tenderer to state % markup. (Markup =%) | % | 15000 | | |
| 12 | DA.8.3 PS.DA.3 PS.DA.4 PS.12 | Excavate for un-suitable material below formation. | m3 | 60 | | |

TOTAL CARRIED TO SECTION 3 SUMMARY: EARTHWORKS

PART DD EARTHWORKS FOR STRUCTURES

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|---------------------------|---|------|----------|------|--------|
| 1 | DD.8.2 PS.F.3 PS.12 | Excavate in all material for TB300 or approved equivalent retaining wall and wall base to spoil at approved tip and as directed by Engineer on Site | m3 | 7 | | |

TOTAL CARRIED TO SECTION 3 SUMMARY: EARTHWORKS

R

PART EL DUMPROCK SUBGRADE IMPROVEMENT

| Item Clause | Description | Unit | Quantity | Rate | Amount |
|-------------|-------------------------------|------|----------|------|--------|
| 1 EL.8.1 | Dumprock subgrade improvement | m3 | 35 | | |

TOTAL CARRIED TO SECTION 3 SUMMARY: EARTHWORKS

SECTION 4 ROADWORKS

PART EB GRADED CRUSHED STONE

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|-------------------|---|------|----------|------|--------|
| 1 | EB.8.1 PS.EB.1 | Graded crushed stone G2, 150mm thick compacted to 98% Mod.A.A.S.H.T.O | m3 | 36 | | |
| 2 | EB.8.1 PS.EB.1 | Graded crushed stone G5, 150mm thick compacted to 95% Mod.A.A.S.H.T.O | m3 | 36 | | |
| 3 | EB.8.2 PS.EB.2 | Prime Coat @ 0,6litres/m2 | m2 | 36 | | |

TOTAL CARRIED TO SECTION 4 SUMMARY: ROADWORKS

R

PART ED ROAD ASPHALT

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|---------------------------|--|------|----------|------|--------|
| 1 | ED.8.1 | Private Plant Asphalt Sa-S14. Bitumen content % as per mix design entered at | t | 65 | | |
| | PS.ED.1/2/4/5/ 6/7/8/9 | time of use. | | | | |
| 2 | ED.8.1 | Private Plant Asphalt Mix A to speed hump. Bitumen content % as per mix design entered at time of use. | t | 2.5 | | |
| 3 | PS.ED.8 | Saw Cut existing road edge | m | 50 | | |
| 4 | ED.8.4 | Tack Coat @ 0,3litres/m2 | m2 | 700 | | |

TOTAL CARRIED TO SECTION 4 SUMMARY: ROADWORKS

R

PART EF KERBS AND HAUNCHES

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|----------|--|------|----------|------|--------|
| | PS.EF.2 | Supply and lay Fig.12 kerb edge restraint as detailed on Drawing No.49164. | m | 120 | | |
| | 2 EF.8.1 | Extra over Item1 for curves of radius less than 25 m | m | 40 | | |

TOTAL CARRIED TO SECTION 4 SUMMARY: ROADWORKS

R

02-Nov-22 ENGINEERING Page 6 of 9

SECTION 5 **PROTECTION WORKS**

PART F PROTECTION WORKS

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|------------------|---|------|----------|------|--------|
| 1 | F.8.1 PS.F.1 | Imported, process and compact topsoil: thickness 100 mm | m2 | 120 | | |
| 2 | F8.3 PS.F.11 | Supply and lay Grass sodding (Cynodon Dactilon - Creepy Variety). | m2 | 120 | | |
| 3 | PS.F.9 | Supply and lay plantable interlocking TB300/Geolok 400 or approved equivalent earth retaining system blocks as detailed on Drawing No.49164 and as directed by Engineer on Site | m2 | 48 | | |
| 4 | PS.F.2 PS.F.5 | Supply and install 50mm weepholes to earth retaining system as detailed on Drawing No.49164. | no. | 40 | | |
| 5 | PS.DA.9 | Supply and Install of Geofabric as detail on Drawing No. 49164. | m2 | 40 | | |
| 6 | PS.PG.2 | Supply and Install of Subsoil drain as per Drawing No. 38575. | m | 120 | | |

TOTAL CARRIED TO SECTION 5 SUMMARY: PROTECTION WORKS

SECTION 6 CONCRETE WORKS

PART C CONCRETE WORK

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|----------------------|---|------|----------|------|--------|
| 1 | PS.C.1/2/3/4/6 | Supply and place Grade 15/19 mass concrete in and between top row of blocks as detailed on Drawing No.49164 and as directed by Engineer on Site | m3 | 2 | | |
| 2 | PS.C.1/2/3/4/5 /7 | Supply and place Grade 25/26 concrete for cast insitu Base Type A including mesh ref.245, excavation and compaction of sub-grade to 95% Mod. A.A.S.H.T.O as detailed on Drawing No.49164. | m3 | 8 | | |
| 3 | PS.C.1/2/3/4/6 | Supply and place Grade 20/26 concrete for cast insitu encasement to ducts as directed by Engineer on Site | m3 | 6 | | |

TOTAL CARRIED TO SECTION 6 SUMMARY: CONCRETE WORKS

SECTION 7 ROAD SIGNS AND MARKINGS

PART TA ROAD SIGNS

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|-------------------------------|--|------|----------|------|--------|
| 1 | TA.8.1 PS.TA.1/2/5/6/ 7 | Supply and erect road sign boards, area not exceeding 2m2 | no. | 2 | | |
| 2 | TA.8.2 PS.TA.3 | Supply and erect standard 76mm diameter hotted dipped galvanised road name sign supports. Rate to include haulage. | no. | 2 | | |
| 3 | TA.8.3 PS.DA.3 | Excavate and backfill for road sign supports | m3 | 1 | | |
| 4 | TA.8.4 PS.C.1/2/3/4/7 | Supply and place Grade 20/19 concrete for road sign footings | m3 | 1 | | |

TOTAL CARRIED TO SECTION 7 SUMMARY: ROAD SIGNS AND MARKINGS

PART TB ROAD MARKINGS

| Item | Clause | Description | Unit | Quantity | Rate | Amount |
|------|----------|---|------|----------|------|--------|
| 1 | TB.8.1.1 | Retroreflective painted road lines 150mm wide (white), including setting out and premarking as directed by Engineer on Site | m | 5 | | |
| 2 | TB.8.1.1 | Retroreflective painted road lines 300mm wide (white), including setting out and premarking as directed by Engineer on Site | m | 5 | | |
| 3 | TB.8.1.2 | Retroreflective painted road Marking for lettering, symbols and traffic islands (white), including setting out lettering, symbols and traffic island markings as directed by Engineer on Site | m2 | 5 | | |

TOTAL CARRIED TO SECTION 7 SUMMARY: ROAD SIGNS AND MARKINGS

02-Nov-22 ENGINEERING Page 9 of 9

R

SUMMARY OF BILL OF QUANTITIES

| Sect | <u>etion</u> | | |
|------|---|---|---|
| 1 | PRELIMINARY AND GENERAL | R | |
| | AA PRELIMINARIES | R | - |
| | AB GENERAL SPECIFICATIONS | R | - |
| | AH OCCUPATIONAL HEALTH and SAFETY | R | - |
| 2 | SITE CLEARANCE | | R |
| | B SITE CLEARANCE | R | - |
| 3 | EARTHWORKS | | R |
| | DA EARTHWORKS : BULK | R | - |
| | DD EARTHWORKS FOR STRUCTURES | R | - |
| | EL DUMPROCK SUBGRADE IMPROVEMENT | R | - |
| 4 | ROADWORKS | | R |
| | EB GRADED CRUSHED STONE | R | _ |
| | ED ROAD ASPHALT | R | - |
| | EF KERBS AND HAUNCHES | R | - |
| 5 | PROTECTION WORKS | | R |
| | F PROTECTION WORKS | R | - |
| 6 | CONCRETE WORKS | | R |
| | C CONCRETE WORK | R | - |
| 7 | ROAD SIGNS AND MARKINGS | | R |
| | TA ROAD SIGNS | R | - |
| | TB ROAD MARKINGS | R | - |
| SUE | B TOTAL | R | |
| ADI | D VAT (15%) - (only if a registered VAT Vendor) | R | |
| | | | |
| TOT | TAL CARRIED TO FORM OF TENDER | R | |