



# **KAI !GARIB MUNICIPALITY**

## **TECHNICAL REPORT**

### **NEW CEMETRY AUGRABIES**

**Prepared for:**

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## 1. BACKGROUND

Augrabies is located approximately 35 km from Kakamas within the jurisdictional area of Kai !Garib municipality with Kakamas as the main centre of the municipality. The existing cemetery at Augrabies is located to the south of the town. This existing cemetery is approximately 95% full and is reaching its capacity.

Kai !Garib municipality applied for funding from MIG program to conduct a feasibility study for the development of a new cemetery for Augrabies. This application was approved and a service provider was appointed to conduct the feasibility study for a new cemetery at Augrabies. The main outcome of this feasibility study was to identify the most suitable and cost-effective cemetery site for use by the residents of Augrabies.

## 2. INTRODUCTION

Kai !Garib municipality appointed Stabilis Development to assist with the compiling of the relevant MIG applications, including the technical reports required by the MIG office and to conduct the feasibility study after registration of the project. The outcome and recommendations of the feasibility study will lead to the application for capital funding by the MIG program to develop a new cemetery for Augrabies. Approximately 400 new stands are in planning for this town.

This project was identified as a priority at a ordinary council meeting held on **26 November 2009** to prioritize the MIG projects of Kai !Garib Municipality. The minutes of this meeting and the approved IDP is attached as part of this report as supportive documents to the MIG application.

**The IDP number of this project is 64.**

### 2.1 PURPOSE OF TECHNICAL REPORT

This purpose of this technical report is to:

- Briefly describe the outcome of the feasibility study and,
- Scope of the proposed new project, the development of a new cemetery for the community at Augrabies.

### 2.2 OUTCOME OF FEASIBILITY STUDY

**The feasibility study mainly entails the following:**

- Status Quo of existing cemetery at Augrabies,
- Identify new suitable land for a new cemetery
- Determine needs of new cemetery
- Rezoning and sub-division of site for new cemetery-if required
- Conduct Environmental Assessment for new cemetery and submit project registration documents at the local offices of Department of Environmental Affairs and Tourism,
- Determine suitability of soil conditions for new cemetery,
- Estimated capital, operational and maintenance costs for the new cemetery,
- Submit feasibility study to Kai !Garib municipality

- Compile MIG application for funding of the new cemetery project to the MIG office.

**The outcomes of the feasibility study are as follows:**

- **Status Quo**

The existing cemetery is located to the south of the town.

The existing cemetery is also approximately 95 % full and a new cemetery needs to be developed for the community of Augrabies.

- **Identification of Land**

Suitable land for the extension of the existing cemetery is located to the east of the existing cemetery and approximately 14 277 m<sup>2</sup> of land is available for the development of a new cemetery.

The site on this land is currently vacant and belongs to Kai Garib Municipality and is within walking distance from the town of Augrabies.

- **Suitability of site**

Profiles from test holes indicated that the soil conditions, although it varies from soft to intermediate in the profile, are suitable for a cemetery and services required at the site are available. Only water is available as Augrabies does not have a sewer network.

- **Zoning requirements**

The existing land belongs to Kai !Garib Municipality and therefore a rezoning and sub-division application was required. This rezoning and sub-division application for the site was compiled and submitted to Kai !Garib Municipality in terms of Act 7 of 1997.

- **Environmental Assessment**

In terms of the regulations of NEMA, the land use constitutes a listed activity in terms of the regulations and authorization from the Department of Environmental Affairs and Tourism is required. A Basic Assessment for an Environmental assessment was compiled and submitted to the office of the said Department for adjudication.

Currently, the decision of this Department is still outstanding. Any further actions regarding the EIA process will depend on the outcome of the project registration at the Department.

### ➤ Needs Assessment

According to the register kept by the official at the municipal pay-point, the average burials are approximately 35 per annum. The official also indicated that this figure is most probably not correct as many families did not register the burials at the municipality.

The new proposed cemetery can accommodate a total of 2 050 graves, 1 310 adult graves and 740 for children. Due to the geological formation at the site, it is recommended that the graves be pre-excavated and backfilled. This will enable the community to do the hand excavation for the graves in a much easier way.

**The following infrastructure is required at the new proposed cemetery:**

- Water supply to the site by means of a 75 mm diameter line and an approximate length of 80 meters,
- Sanitation can be provided by means of a conservancy tank
- A store room of approximately 16m<sup>2</sup> for storing hand tools, etc.
- An ablution facility, male/female, of approximately 16m<sup>2</sup> in total
- A fence on the perimeter of the site as per the requirements of Kai !Garib municipality
- The pre-excavation of the graves
- Gravel roads on the cemetery site, of 5 meter and 2 meter width respectively.
- Pegging of the site by a registered Land Surveyor as soon as the rezoning and sub-division is approved.

The proposed layout of the cemetery is shown on drawing SK 2278/2 attached to this report.

## 2.3 PROJECT OBJECTIVES

The main objectives of this proposed project are the following:

- To develop a new cemetery for the community at Augrabies
- The proposed new cemetery to be serviced with the necessary infrastructure to accommodate the needs of the community and to ensure a fully operational cemetery,
- Involve the relevant Community in the implementation of the project.
- Conduct any further actions, if required, by the Department of Environmental Affairs

## 2.4 PROJECT OUTCOMES

The expected outcomes for the project are the following:

- New proposed cemetery for the community at Augrabies developed and in operation.
- The operation of the new cemetery includes the registration of burials as per the register held at Kai !Garib Municipality,
- Maintenance of the infrastructure at the cemetery and the appointment of a caretaker at the cemetery.

## 3. PROPOSED PROJECT

### 3.1 PROJECT NAME : KAI !GARIB: NEW CEMETERY FOR AUGRABIES

The proposed project mainly entails the development of a new cemetery for Augrabies.

### 3.2 LOCATION

The location of the proposed project is in the Kai !Garib Municipal area at the town of Augrabies– see attached map.

### 3.3 GIS REFERENCE

District: Siyanda  
Nearest town: Kakamas

#### **Augrabies**

Longitude: 28' 40" 21,8'  
Latitude: 20' 25" 4'

### 3.4 PURPOSE OF PROJECT BUSINESS PLAN

The main purpose of this technical report is to support the MIG application for funding of this proposed project and to briefly describe the proposed project and the processes to be followed for implementation.

## 4. PROJECT BENEFICIARIES

### 4.1 BACKGROUND

The existing cemetery at Augrabies reached its capacity and therefore a new cemetery needs to be developed for the community.

## **4.2 BENEFICIARIES**

The beneficiaries of this project are mainly the residents of Augrabies. The new site will also serve the informal settlements in the area. The town of Augrabies has a total population of 783 households with approximately 5 members per household, according to the 2007 household survey- STATSA.

## **5 SCOPE OF THE WORKS**

The proposed project will include the following project elements to ensure that the required outcomes will be met:

### **5.1 BRIEF DESCRIPTION OF PROJECT.**

The proposed project comprise of the following main elements:

- Pegging of site by a registered Land Surveyor as soon as the rezoning and sub-division is approved.
- Detail planning and design of infrastructure and compilation of the necessary drawings and tender documentation
- Appointment of suitable contractor to construct the required infrastructure
- Operation and maintenance of the developed cemetery.

### **5.2 IMPLEMENTATION AGENT**

Kai !Garib Municipality will be the Implementing Agency and the responsible agent.

- Contact person: Mr AJP Wells  
Head : Technical Services
- Address: Kai !Garib Municipality  
Private Bag X 6  
KAKAMAS  
8870
- Telephone number: 054- 461 6400
- Fax number 054- 516 9066

### **5.3 FUNDING PLAN**

All funds must be made available to the Municipal Manager, Kai Garib Municipality who will, in accordance with Standard Procedures, take responsibility for the administration of all funds. Application for funding of this project will be submitted to the MIG office, Department of Local Government and Housing, Northern Cape.

## 5.4 BUDGET PROPOSAL

The preliminary budget for the proposed project in the municipal area is as follows:

## 5.5 ESTIMATED PROJECT COST:

The estimated project cost is the following as per Annexure A:

|    |                                       |                       |
|----|---------------------------------------|-----------------------|
| a) | Capital Costs -                       | R 933 548.00          |
| b) | Professional Fees & Expenses          | R 96 700.00           |
|    | Sub Total A                           | R 1 030 248.00        |
|    | 10% Contingencies                     | R 103 025.00          |
|    | <b>Sub Total B</b>                    | <b>R 1 133 273.00</b> |
|    | 14 % VAT                              | R 158 658.00          |
|    | <b>TOTAL ESTIMATED PROJECT AMOUNT</b> | <b>R 1 291 931.00</b> |

## 5.6 OPERATIONS AND MAINTENANCE

The operations and maintenance of the project after completion is the responsibility of Kai !Garib Municipality.

## 5.7 TRAINING

The training of the officials required for the operation of this facility will be arranged internally and will mainly focus on the registration process of burials and the operation of the facility on the site.

C.J Botha Pr Eng  
**Stabilis Development (Pty) Ltd**

**27 June 2011**

Municipal Manager  
**Kai !Garib Municipality**

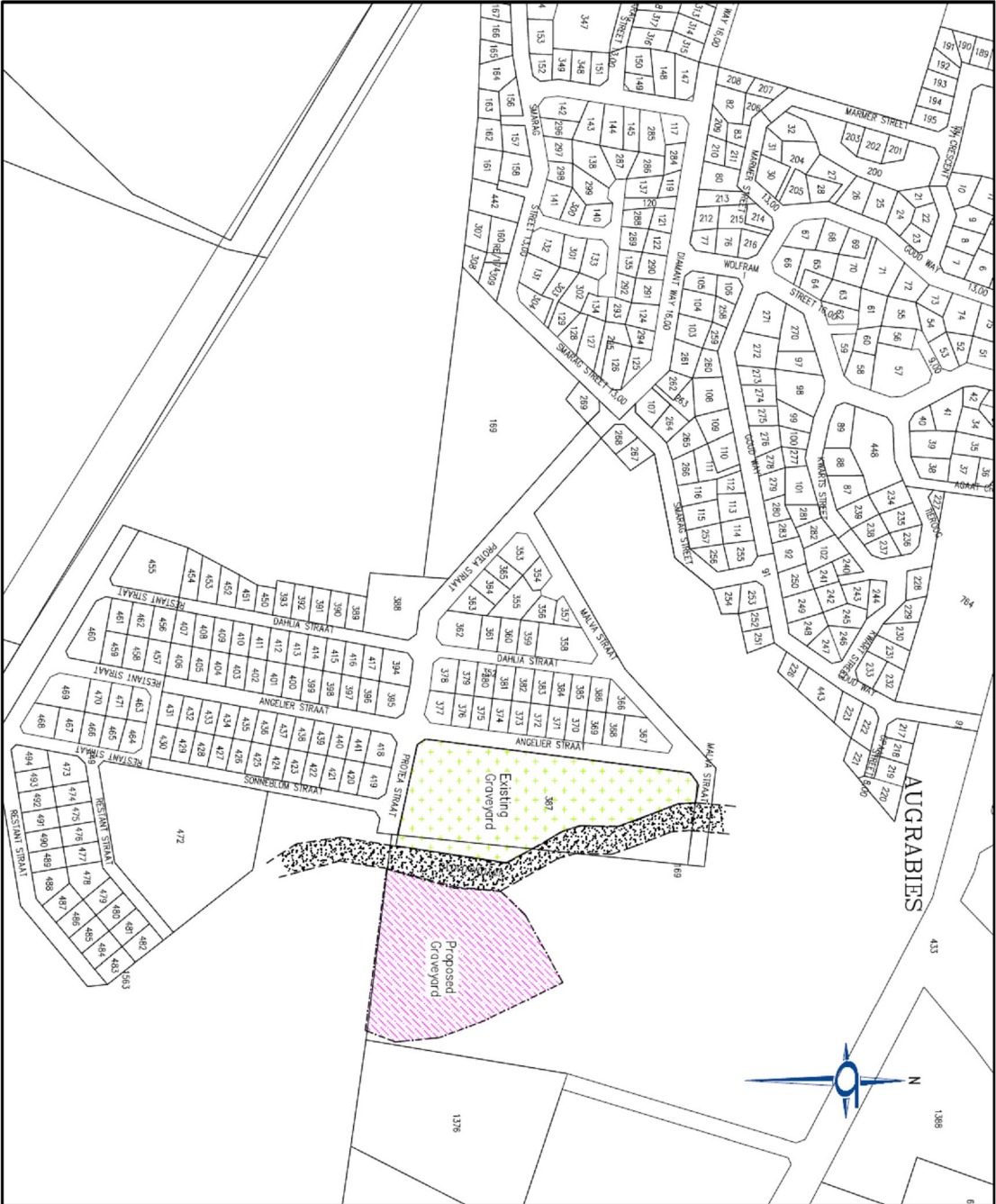


## ANNEXURE A

**Kai !Garib Municipality : Cemeteries : Estimated Costs for AUGRABIES**

| ITEM   | UNIT           | RATE      | AUGRABIES |                     |
|--|----------------|-----------|-----------|---------------------|
|  |                |           | QTY       | AMOUNT              |
| 1. Toilets   | m <sup>2</sup> | 3 000.00  | 16        | 48 000.00           |
| 2. Store room                                      | m <sup>2</sup> | 1 800.00  | 16        | 28 800.00           |
| 3. Sanitation : Conservancy tank & connection      | No             | 50 000.00 | 1         | 50 000.00           |
| 4. Water supply: Connection to network             | No             | 10 000.00 | 1         | 10 000.00           |
| 5. Water supply : connector pipe line              | m              | 250.00    | 80        | 20 000.00           |
| 5. New fencing                                     | m              | 106.00    | 433       | 45 898.00           |
| 6. Site clearance                                  | Ha             | 15 000.00 | 1.5       | 22 500.00           |
| 7. Gravel roads - 5 meter wide                     | m <sup>2</sup> | 60.00     | 1 050     | 63 000              |
| 8. Gravel roads - 2 meter wide                     | m <sup>2</sup> | 60.00     | 3 000     | 180 000             |
| 9. Excavation abd backfilling of graves            | No             | 227.00    | 2 050     | 465 350             |
| <b>Estimated Total : Capital</b>                   |                |           |           | <b>933 548.00</b>   |
| 10. Engineering fees                               |                |           |           | 46 700.00           |
| 11. Land surveyor                                  |                |           |           | 25 000.00           |
| 12. Expenses : Surveys, documentation & travelling |                |           |           | 25 000.00           |
| <b>Estimated Total : Indirect Costs</b>            |                |           |           | <b>96 700.00</b>    |
| <b>Total Estimated Costs</b>                       |                |           |           | <b>1 030 248.00</b> |
| Contigencies @ 10 %                                |                |           |           | 103 024.80          |
| Estimated total - Excluding VAT                    |                |           |           | 1 133 272.80        |
| Estimated total - Including VAT                    |                |           |           | <b>1 291 930.99</b> |

**ANNEXURE B**  
**LAYOUT DRAWINGS**



NOTES / NOTES

Area : existing graveyard = 1455m<sup>2</sup>  
proposed graveyard = 1427m<sup>2</sup>

| DRAWN | BY | DATE | APPROVED | DATE | HANDT. |
|-------|----|------|----------|------|--------|
|       |    |      |          |      |        |

CLIENT / CLIENT  
IKAI GARIEB MUNICIPALITY

**STABILIS**  
Development  
Pty Ltd  
101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

DISE / SERVICE  
AURGABIES  
UPGRADING OF  
GRAVEYARD

TITLE / TITLE  
PLAN LAYOUT

TECHNICAL / DRAWING NO.  
SK2278/1

| SCALE / SCALE       | 1:3000    | DESIGNER / O. SCHREIBER |
|---------------------|-----------|-------------------------|
| USER NO. / FILE NO. |           | DESIGNED /              |
| DATE                | SEPT 2010 | CHECKED /               |

| LEGEND                     |               |            |
|----------------------------|---------------|------------|
| DESCRIPTION                | NO. of GRAVES | ROAD WIDTH |
| Blocks for children graves | 740           |            |
| Blocks for adult graves    | 1310          |            |
| Access road                |               | 5m         |
| Internal road              |               | 2m         |
| Buffer area                |               | 4m         |

| NOTAS / NOTES |     |         |       |
|---------------|-----|---------|-------|
| DATE          | ISS | ISSUING | HAND  |
| DATE          | NO. | NO.     | SIGN. |
| NOTES / NOTES |     |         |       |
| PRINT ISSUED  |     |         |       |

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## AURCABIES UPGRADING OF GRAVEYARD

| TRBL / TITLE |
|--------------|
| PLAN LAYOUT  |

TEKENING NR. / DRAWING NO.  
SK2278/2

|                     |           |                     |         |
|---------------------|-----------|---------------------|---------|
| SCALE / SCALE       | 1:1 000   | GETTEREN<br>DRAWN   | E. HESS |
| LEER NR. / FILE NO. |           | OUTWEP<br>DESIGNED  | E. HESS |
| DATUM<br>DATE       | SEPT 2010 | NAGESSEN<br>CHECKED |         |