



## Scope of Work for 161KV Transmission Line Road Repair and Maintenance

<b>PROJECT NO.</b>
006
<b>PROJECT OBJECTIVES</b>
To work on the 161KV transmission line, the Mill electrical team needs a good access road along the Transmission line. From Tower 19 to Tower 78 the repair was done in 2023, while bypass roads were established between Tower 1 and Tower 18. This part of the Transmission line road requires scheduled maintenance to ensure the integrity of the access road to the different Towers. Road upgrade is needed between Towers 79 and 93 and also between Towers 1 and 18.

### Step 1. Project Deliverable

DELIVERABLE NO.	DESCRIPTION
1 (Tower 1-17A)	<ul style="list-style-type: none"> <li>Fix the bypasses with suitable material to make the towers accessible.</li> <li>Make sure the drainage of the road and bypasses are functional</li> </ul>
2 (Tower 17B-78)	<ul style="list-style-type: none"> <li>Ensure the road surfaces are maintained, and where required are repaired to make these towers accessible.</li> <li>Make sure the drainage system along the road is working properly.</li> <li>The road surface should have a crowned or cross-fall profile, especially after grading.</li> </ul>
3 (Tower 79-93)	<ul style="list-style-type: none"> <li>The bad spots along the road between these towers are repaired and stabilized.</li> <li>Make sure the drainage along the road is functional.</li> <li>The road surface should have a crowned or cross-fall profile</li> </ul>
4 (Tower 1-93)	<ul style="list-style-type: none"> <li>After inspections, any section that requires repair or maintenance will need to be discussed and fixed or maintained.</li> </ul>
5 (Tower 3-93)	<ul style="list-style-type: none"> <li>Regular inspection and traffic control on monthly basis to ensure the integrity of the road and the towers.</li> </ul>



## Step 2. Technical requirements

TASK NO.	DESCRIPTION
1	<p><b><u>Access to Towers 1 to Tower 17A</u></b></p> <ul style="list-style-type: none"> <li>• Dig out some soft spots.</li> <li>• Backfill the soft spots with some pit rock for stabilization.</li> <li>• Place, level, and compact the surface layer with material from a laterite borrow source nearby.</li> <li>• Grading of the bypasses for maintenance purposes (1-2 times a month)</li> <li>• Dig or clean the drainage channel along the road</li> </ul>
2	<p><b><u>Access to Tower 17B to Tower 78</u></b></p> <ul style="list-style-type: none"> <li>• Regular grading of the road (1-2 times a month)</li> <li>• Placement, leveling, and compaction of surface layer material from a borrow source nearby.</li> <li>• Profiling the surface layer in a crowned or cross-fall profile along the road</li> <li>• Dig or clean the drainage channel along the road.</li> </ul>
4	<p><b><u>Access to Tower 79 to Tower 93</u></b></p> <ul style="list-style-type: none"> <li>• Dig out some soft spots.</li> <li>• Backfill the soft spots with some pit rock for stabilization.</li> <li>• Place, level, and compact the surface layer with material from a laterite borrow source nearby.</li> <li>• Grading of the bypasses for maintenance purposes (1-2 times a month)</li> <li>• Dig or clean the drainage channel along the road.</li> <li>• Two 22" Black pipe installations are required for drainage control</li> </ul>
5	<p><b><u>Equipment Requirement for the Project</u></b></p> <ul style="list-style-type: none"> <li>○ 2 Excavators</li> <li>○ 1 Dozer</li> <li>○ 1 Grader</li> <li>○ 3 ADTs or 3 Highway trucks</li> <li>○ 1 Compactor</li> </ul>
6	<p><b><u>Golden rules:</u></b></p> <ul style="list-style-type: none"> <li>• <b>Make sure the road surface is not flat and that drainage control is in place. The road surface is either crowned or cross-fall to a nearby channel.</b></li> <li>• <b>Ramp systems should have a drainage control on the wall side, which means the surface should be sloped towards the wall.</b></li> <li>• <b>All uncertainties should be discussed first with the Engineering Team before execution.</b></li> </ul>



7	<p><b>Material requirements:</b></p> <ul style="list-style-type: none"> <li>• 11750 m3 material, including laterite, Graskow, rock as surface layer.</li> <li>• 2 HDPE pipes, size 22inch</li> </ul>
8	Contractor to provide a long-term plan that will minimize the traffic on the transmission lines road

### Step 3. Out of Scope

<p>This project <b>will NOT accomplish or include</b> the following:</p>	<ul style="list-style-type: none"> <li>• Berm construction is not required and not included.</li> <li>• Bush clearing is not required and is not included.</li> </ul>
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### Step 4. Project Constraints

<b>PROJECT START DATE</b>	<ul style="list-style-type: none"> <li>• 1st of June, 2024</li> </ul>
<b>PROJECT END DATE</b>	<ul style="list-style-type: none"> <li>• 31<sup>st</sup> of May, 2025</li> </ul>
<b>LIST ANY HARD DEADLINE(S)</b>	<ul style="list-style-type: none"> <li>• All accesses to the Towers should be graded before the 30<sup>th</sup> of April 2024</li> <li>• All accesses should be repaired before the 30<sup>th</sup> of September 2024</li> </ul>
<b>LIST OTHER DATES / DESCRIPTIONS OF KEY MILESTONES</b>	<ul style="list-style-type: none"> <li>• 31<sup>st</sup> of December 2024, all access should be in good condition.</li> </ul>
<b>BUDGET CONSTRAINTS</b>	<ul style="list-style-type: none"> <li>• The contractor must make sure to deliver the project within budget, any changes in the scope should be first discussed with the Engineering and the Mill Electrical team.</li> <li>• Any repair or material requirement between Tower 17B and Tower 78, should be discussed with Engineering and Mill Team. (Rates should be included in the BOQ)</li> </ul>
<b>QUALITY OR PERFORMANCE CONSTRAINTS</b>	<ul style="list-style-type: none"> <li>• RGM Mine Technical Service Department, the Project Engineering Team, will supervise the project execution.</li> <li>• The RGM Mine Technical Service Department, the Project Engineering Team, will also do the QA/QC</li> <li>• The Mill Electrical team is the owner and can decide to cease or revise the scope.</li> <li>• No construction during bad weather conditions (Rain)</li> </ul>

<p><b>EQUIPMENT / PERSONNEL CONSTRAINTS</b></p>	<ul style="list-style-type: none"> <li>• The contractor should ensure equipment availability.</li> <li>• The contractor should ensure employees' availability.</li> <li>• The contractor should have an operation and a H&amp;S supervisor.</li> </ul>
<p><b>REGULATORY CONSTRAINTS</b></p>	<p><b><u>RGM Policies</u></b> In addition to the services outlined in the specification, the Contractor shall comply with all policies and codes of practice, which can be found in the following locations.</p> <p><b><u>Health and Safety Policy:</u></b> HR requirements:</p> <ul style="list-style-type: none"> <li>○ Police clearance for all contractors working on site/ RGM projects.</li> <li>○ Medical screening from HCCO - Human Capital Care Outsourcing</li> <li>○ Proof of SOR insurance for all contractors working on-site</li> </ul> <p>Health &amp; Safety requirements:</p> <ul style="list-style-type: none"> <li>○ General induction should be completed.</li> <li>○ All mobile equipment, light vehicles and operators should comply with RGM Mobile Equipment standards.</li> </ul>

**Step 5. Updated Estimates and Bill of Quantities**

<p>Estimate the hours required to complete the project.</p>	<p>N/A</p>
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**Picture1: Showing the different locations of different location on the 161KV transmission line that requires fixing**