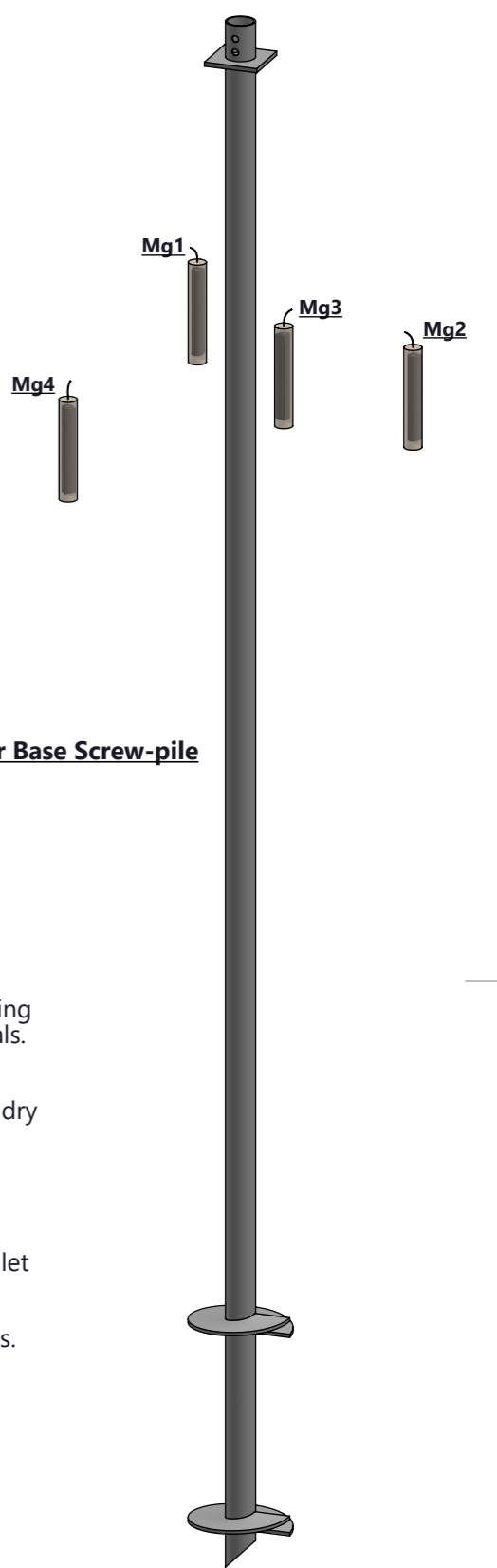


**17 lb High-Potential Magnesium Anode Assembly**

**HIGH-POTENTIAL MAGNESIUM ANODE SPECS.**

1. Magnesium alloy core shall conform to ASTM B843.
2. Weight of each magnesium alloy core is 17±0.5 lb.
3. Weight of each packaged anode is 35±2 lb.
4. Anode backfill material must include: gypsum (~77%), bentonite (~15%), and sodium sulphate (~8%).
5. Diameter of the cardboard tube (package) is 5 inches.
6. Length of the cardboard tube (package) is 30 inches.
7. Anode lead wire is AWG#10, with XLPE insulation (blue), with an original length 26 ft.



**Tower Base Screw-pile**

**GENERAL NOTES**

1. Four packaged anodes (Mg1, Mg2, Mg3, and Mg4) are required for cathodic protection system at tower base screw-pile.
2. Depth of boreholes for Mg1 and Mg3 is 6 feet; depth of boreholes for Mg2 and Mg4 is 8 feet. All boreholes must be vertical; unless instructed otherwise during site work.
3. Minimum diameter of boreholes is 7 inches.
4. All anodes must be soaked in water for 2-3 hours.
5. Plastic wrap/tape (if any) must be removed from cardboard tubes, prior to soaking the anodes.
6. It is recommended to make a few holes on both top & bottom caps of the anodes prior to soaking.
7. Anode wires shall not be under tension during and after anode bed installations. Before backfilling, leave about 20 cm (8 inches) of slack wire inside the borehole close to the anode.
8. Anode wires should come out of soil right behind the anchor shaft. Minimum depth of trench for anode wires is 30 cm (1 ft.).

**BELOW GRADE COATING SPECS.**

1. Mastic (PolyGuard CA-14) must be used for coating the pile shaft at transition zone and shallow burials.
2. Coating must cover 3 feet of the pile shaft, measured from 6-8 inches above grade line.
3. Prior to coating application, the surface must be dry and clean of soil, mill scale, oil/grease, and other foreign matter.
4. Surface preparation with hand or power tools (SSPC-SP 2 / SSPC-SP 3) is recommended.
5. Coating must be applied by brush or roller.
6. It is recommended to apply a thin layer first and let it dry, then apply a second layer.
7. Avoid using solvents and thinners. Heat the can before use if the coating material is highly viscous.
8. Minimum value of WFT must be 20 mils (500 micron).

FOR CLIENT REVIEW

<b>MATERGENICS</b> Engineering Ltd.		CLIENT		DO NOT SCALE DRAWING		REVISION	
		[Redacted]		SITE NAME:		9465R LOUGHEED	
DRAWN		NAME		DATE		PROJECT TITLE:	
CHK'D		A. GHOLAMI		MAY 2018		CATHODIC PROTECTION Anode Bed Design	
APPV'D		P. TAHERI		MAY 2018		DWG NO.	
MFG		P. TAHERI		MAY 2018		1 - TOWER BASE SCREW PILE	
Q.A		PROJECT NO.		[Redacted]		A3	
WEIGHT:		SCALE:		SHEET 1 OF 1			