

TABLE OF CONTENTS

5.27 SUPPLY OF CABLE BARRIER AND METAL POSTS ..... 1

5.27.1 GENERAL ..... 1

5.27.2 STANDARDS OF REFERENCE ..... 1

5.27.3 MATERIALS ..... 1

5.27.3.1 **Cables** ..... 2

5.27.3.2 **Fittings** ..... 2

5.27.3.3 **Posts and Fabricated Steel Sections for Anchor Blocks** ..... 2

5.27.3.4 **Hook Bolts and Nuts** ..... 2

5.27.3.5 **Production** ..... 3

5.27.3.5.1 General Requirements ..... 3

5.27.3.5.2 Pressed Ferrule and Cable Fitting ..... 3

5.27.3.5.3 Marking ..... 3

5.27.4 EQUIPMENT ..... 3

5.27.5 MEASUREMENT AND PAYMENT ..... 3



Tension bolts and ferrous castings	TEB 3.44
End fittings	TEB 3.44
Slicers and wedges	TEB 3.44
Pressed ferrules and cable fittings	TEB 3.44
Fabricated steel sections for anchor blocks	TEB 3.45

#### 5.27.3.1 Cables

The barrier cable and the cable used for pressed ferrule and cable fittings shall conform to CSA/CAN 3-G12M for grade 110 steel wire strand, hot zinc coated (galvanized) or Class A electro-zinc-coated and shall be supplied in a continuous length of 305 metres on expendable reels.

The cable shall be a 13 mm diameter, 7-wire strand weighing approximately 228 kg per 300 m with a minimum breaking strength of 70 kN.

#### 5.27.3.2 Fittings

Ferrous castings for the end fitting and splicer shall conform to ASTM A47M for malleable iron, grade 32510 or ASTM Designation A536 for ductile iron, type 60-45-10.

The tension bolt for the end fitting shall be SAE 1035 hot rolled fine grained steel, and the ferrule shall be SAE 1020 rolled steel, conforming to SAE J403. As an option, the tension bolt may contain a square or hex nut welded as shown in drawing TEB 3.44, conforming to low hydrocarbon classification CSA W59M.

The ferrous castings, tension bolt and ferrule shall be hot dip galvanized conforming to CSA G164M. The ferrule shall be galvanized after it has been pressed onto the cable.

Wedges shall be bronze conforming to ASTM B30 for alloy suitable for sand casting.

All fittings shall be so designed and be of such section as to develop the full strength of a single cable or cable assemblies, as the case may be.

Single cable assembly (minimum tensile strength of 100 kN)

Three cable assembly (minimum tensile strength of 300 kN)

#### 5.27.3.3 Posts and Fabricated Steel Sections for Anchor Blocks

Posts shall be American Standard Beam Section. Posts, ground plates, brackets, and splice plates shall conform to CSA/CAN G40.21M, grade 230G.

#### 5.27.3.4 Hook Bolts and Nuts

Hook bolts and nuts shall conform to ASTM A307-86a.

Self-drilling, self-tapping fasteners shall be #12-24-1.50 indented hex washer head, cadmium plated.

**5.27.3.5 Production**

**5.27.3.5.1 General Requirements**

Welding shall conform to CSA W59M and W47.1.

All components and associated hardware except for self-drilling, self-tapping fasteners shall be hot dip galvanized after fabrication and shall conform to CSA G164M.

All dimensions are subject to manufacturing tolerances unless otherwise indicated. The individual components shall be capable of being assembled to conform to the finished structure as indicated on the drawings.

**5.27.3.5.2 Pressed Ferrule and Cable Fitting**

The ferrules supplied are for use at the end of the fitting cable and shall be pressed onto the end of the fitting cable.

The ferrule shall not slip from the cable when tested under a tensile static load to the limit of cable breakage.

**5.27.3.5.3 Marking**

Coils and reels of the guardrail cable shall be identified by an attached, durable tag on which the following information is indelibly recorded:

- Galvanized steel wire strand
- Manufacturer's name
- Nominal diameter of strand
- Grade
- Length of strand in metres
- Weight of strand in kilograms per coil

**5.27.4 EQUIPMENT**

The Contractor shall supply all equipment necessary to complete the Work.

**5.27.5 MEASUREMENT AND PAYMENT**

Payment for the supply of cable barrier including all required hardware and posts will be included in the unit price bid per metre for "Cable Barrier - Supply and Install" in accordance with Specification 2.19, Guardrail and Guide Posts.