

KITCHENER WASTE WATER TREATMENT PLANT UPGRADES – SOIL ANCHORS

PROPERTY: THE REGIONAL MUNICIPALITY OF WATERLOO

GENERAL CONTRACTOR: GRAHAM CONSTRUCTION LTD / HARBRIDGE & CROSS LTD JOINT VENTURE

SCOPE OF WORK: SOIL ANCHORS

INTRODUCTION

This Job Report is about the soil anchors execution for the Upgrades of the Kitchener Wastewater Treatment Plant.

SCOPE OF WORK

The Works of SITE Canada was to design / build the structural and permanent soil anchors to avoid the uplift effect of the water level on the new Aeration Tank, Pumping stations and Clarifier structures according the load.



Before the start of the production soil anchors and to confirm the design solution, a campaign of verification test take place in three sacrificial soil anchors tested at 200% the Design Load.



After the approval of Site Canada design, with the result of the production micropiles, the installation of the soil anchors takes place between January and December 2016.

The soil anchors had a 200 mm drilling diameter with a 36 mm DIWIDAG DCP bar as a steel reinforcement.

Due to the presence of loose soils such as sand, gravel and saturated silty sandy soil, the drilling has been made with casing with bar installation and grouting. All the soil anchors are double corrosion protected and proof tested at 133% the Design Load.

QUANTITIES

21,120 m	Drilling with 200 mm diameter
1,920 units	Φ 36 DIWIDAG DCP Thread bar

