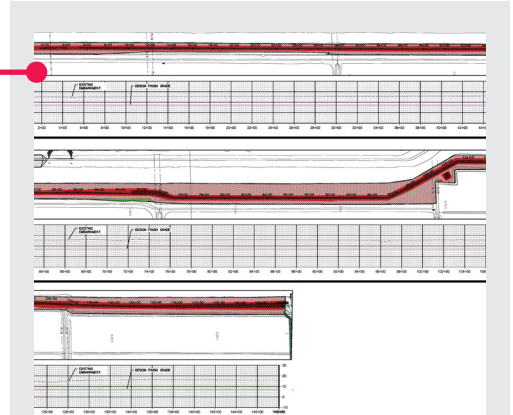


Case Study:

South Florida Water Management District

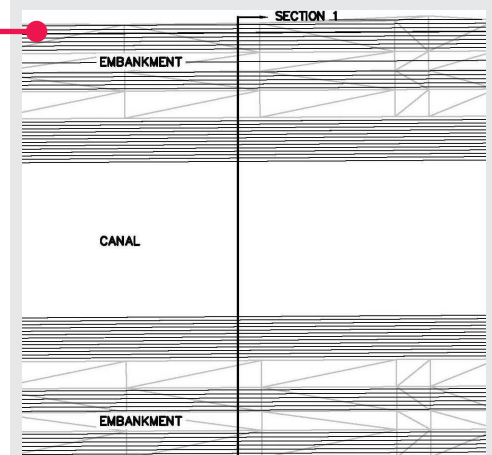
DOCUMENT

Lake Okeechobee in South Florida is the source of South Florida's drinking water. Fed by the Everglades, the water quality in recent years has suffered due to sediment and nutrient runoff from surrounding farmlands. The South Florida Water Management District has embarked on several projects for water quality upgrades including reclamation of farmlands and installation of control and treatment measures for runoff waters. One such project, STA 1W Expansion involves the reclamation of 4,500 acres of farmland with a series of berms and dykes to provide water quality treatment prior to entering the Everglades.



DESIGN

Construction of the improvement project involves the creation of a complex series of treatment control dykes and surrounding berms. The measures proposed require the movement of millions of yards of material, including excavation of thousands of yards of limestone. Calculation of accurate volumes and movement of material is crucial in order to bid the project and execute the job to obtain the required results. LandTech was hired to obtain these volumes by production of a 3D model of the various materials. Utilizing existing design files and subsurface boring results LandTech was able to produce surface models of the project at the material interfaces. Overlaying existing and proposed surfaces LandTech was able to generate accurate quantity reports of the types of materials to be moved and placed.



DEVELOP

As a result of accurate three dimensional quantity models, LandTech's client was low bidder on the \$79 million dollar project. The model created by LandTech was further able to be developed into a machine control model to assist with material movement.

