



INTRODUCTION

MEC was invited in mid-2013 by the Hong Kong Nicaragua Canal Development Investment Company (HKND Group) to advise on the earthworks associated with this landmark development. MEC's involvement in the early stages of this project laid a sound technical foundation for earthworks efficiency. The client received value synonymous with MEC; optimising the project, limiting risk and therefore increasing certainty for stakeholders.

BENEFITS TO CLIENT

MEC prepared detailed plans and presented key findings on the optimisation of excavation, haulage and material placement. This information was leveraged for construction planning and during the equipment selection process.



PROJECT PROFILE

“The Canal de Nicaragua (Project) is a major infrastructure project with the potential to transform global trade and make Nicaragua a major center for transport and global logistics.”¹ “The Project would be the largest civil earthmoving operation in history, requiring the excavation of approximately 5,000 Mm³ of material. The excavation will include about 4,019 Mm³ of “dry” uplands material (e.g., rock and soil) and 980 Mm³ of marine and freshwater dredging.”² MEC Mining was engaged to optimise the earthworks component of the project.

KEY CONSIDERATIONS

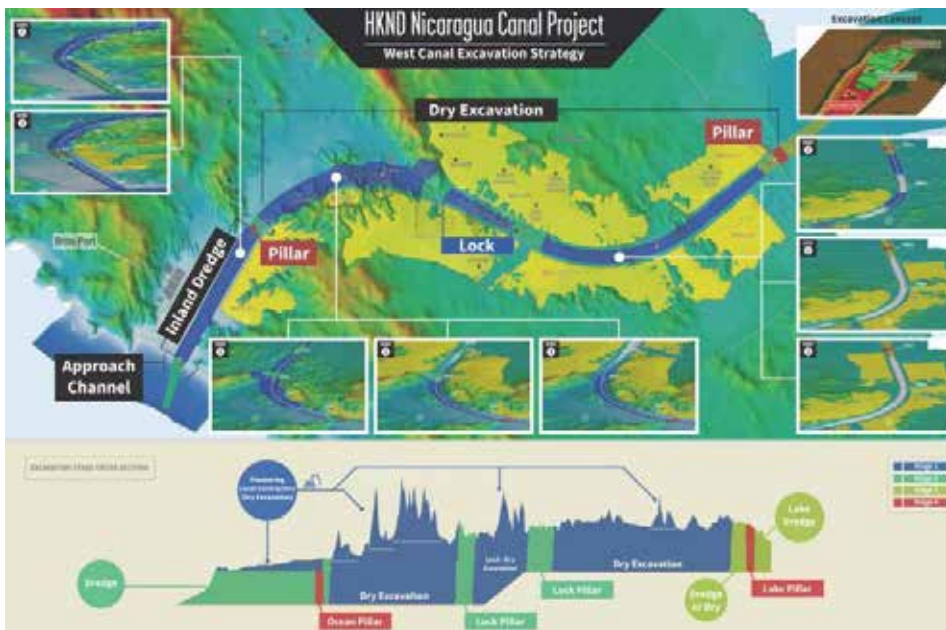
- Excavation quantity calculation and material placement optimisation
- High intensity excavation simulations
- Complex topography
- Varied geological considerations

1. Citing Source :[http://hknd-group.com/upload/pdf/20150105/Nicaragua_Canal_Project_Description_EN.pdf]:1. Introduction: (Dec. 2014)

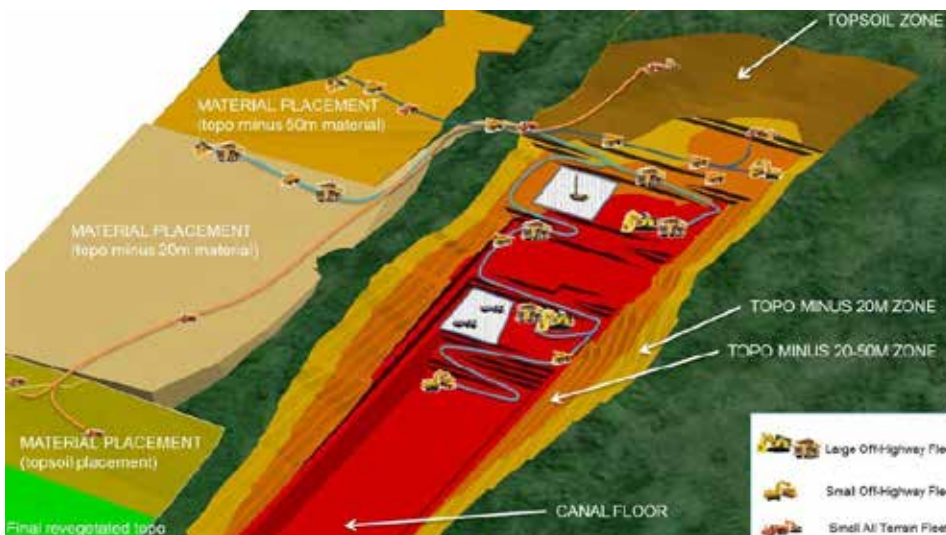
2. Citing Source :[http://hknd-group.com/upload/pdf/20150105/Nicaragua_Canal_Project_Description_EN.pdf]: 3.1.4 Excavated Material Placement Areas: (Dec. 2014)

OUR SOLUTION

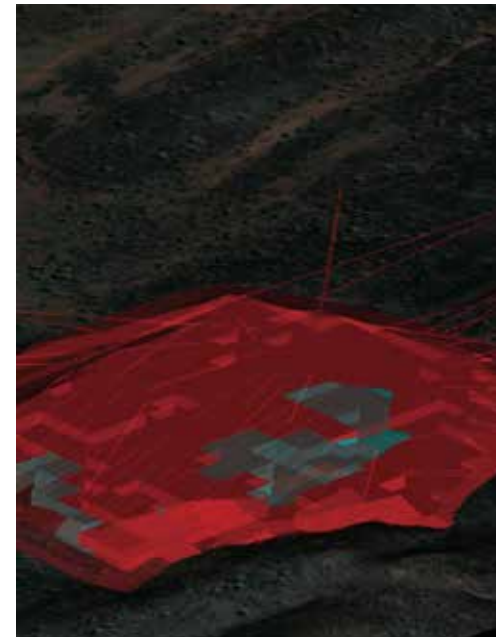
The use of the latest mining software enabled MEC to present the client with visual models of a large scale earth moving process. MEC prepared detailed plans and presented key findings on the optimisation of excavation, haulage and material placement. This information was leveraged for construction planning and during the equipment selection process. The various iterations performed by MEC allowed for different scenarios to be critically evaluated during the study phase.



[http://hknd-group.com/upload/pdf/20150105/Nicaragua_Canal_Project_Description_EN.pdf Figure 4.7-1] (Dec. 2014)



[http://hknd-group.com/upload/pdf/20150105/Nicaragua_Canal_Project_Description_EN.pdf] Figure 4.6-8 (Dec. 2014)



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