

ACKNOWLEDGEMENTS

I would like to express my sincere thanks to the many people that I have come in contact with during my stay at Virginia Polytechnic Institute and State University.

I would like to thank my teachers at Virginia Tech for their extraordinary achievements in teaching courses, providing professional advice, and taking care of their students.

Prof. Jesús M. de la Garza, my academic advisor, had the initial idea for this study and gave continuous guidance throughout my course of studies and work on this thesis. His input as chair of my committee is greatly appreciated.

Prof. Michael C. Vorster illustrated his courses with delightful storytelling from engineering practice and served on my committee.

Prof. Julio C. Martinez introduced me to the art of simulating construction processes with computer models and provided challenging tasks.

Prof. W. Eric Showalter contributed to my skills in construction project estimating and especially presentation techniques. Mrs. Roxene T. Terrell, then his teaching assistant, was exemplary.

Prof. James Lefter illustrated his courses with many examples from his rich experience in the construction industry and served on my committee.

Prof. Richard M. Barker enhanced my understanding of design philosophy through his teaching and served on my committee.

Prof. David R. Widder of the Department of Music, my clarinet teacher, gave me opportunity to continue my hobby and improve my skills.

Prof. Ernest C. Houck of the Department of Management Science and Information Technology contributed to my knowledge in managerial issues.

I would like to thank the Commonwealth of Virginia Department of Transportation as well as PCL Civil Constructors, Inc. for making this study possible and their Project Engineer, Sean Bush, for the time that he dedicated to me and my colleagues and the patience with our many questions.

Acknowledgements

I would like to thank my very dear friends and classmates in the Department of Civil and Environmental Engineering, student groups, and music ensembles very much. My life in Blacksburg has been enriched so much through your ideas, advice, and the manifold activities on and off campus.

My host family has given me help and hospitality in abundance and I truly enjoyed the many visits and the activities that we undertook.

Finally, and most importantly I am most grateful for the continuous love and support that my family has always given me, during my stay at Virginia Tech and all the time prior to it. I dedicate this work to them.

I am proud of having had the unique chance of being a student of Virginia Tech and experiencing the truly unique spirit and enthusiasm of this university.

—*Go Hokies!*