

## Table of Contents

<b>A Civil Engineer's Risky Non-Technical Journey Through Ethics, Law, and Business</b> .....	i
THANK YOU FOR THOSE WHO AIDED MY JOURNEY .....	v
Foreword .....	1
INTRODUCTION .....	1
THE GENESIS OF THE SEMINAR IDEA .....	1
THE SEMINAR JOURNEY .....	1
THE GENESIS OF THIS BOOK FOR THE SEMINAR EXPERIENCE .....	2
THE SEMINAR CONTENT .....	2
CE 401 DOWNLOAD SITE .....	4
ON CAMPUS SCHEDULE AND ELECTRONIC COMMUNICATIONS.....	4
OVERVIEW OF WEEK 1 ACTIVITIES.....	4
IMPORTANT INFORMATION ABOUT THE SEMINAR .....	5
SYLLABUS .....	6
PROCEDURES FOR WEEKLY GROUP DISCUSSIONS .....	6
ESSAY ASSIGNMENT .....	6
WEEK 1 DISCUSSION TOPICS.....	7
EXPECTATIONS .....	9
CONSENSUS BUILDING.....	10
Chapter 1 Introduction to Professional and Business Issues.....	13
INTRODUCTION.....	13
PROFESSIONAL ISSUES .....	13
WHAT IS A PROFESSION?.....	13
WHY PROFESSIONS HAVE SPECIAL STATUS:.....	14
PROFESSIONAL STATUS IS A PRODUCT OF A SOCIAL CONTRACT .....	15
GREENWOOD'S COMMUNITY SANCTION.....	16
GREENWOOD'S AUTHORITY .....	16
GREENWOOD'S PROFESSIONAL CULTURE .....	17

GREENWOOD’S SYSTEMATIC THEORY .....	17
GREENWOOD’S REGULATIVE CODE OF ETHICS .....	17
PROFESSIONAL STATUS AND WHISTLE BLOWING .....	18
LEGAL AND BUSINESS ISSUES.....	19
OVERVIEW OF LEGAL ISSUES CONTENT.....	19
IF I WERE STARTING A FRIM TODAY .....	19
QUALITY, TIME, AND COSTS ARE INTERRELATED .....	21
ECONOMICS OF ENGINEERING BUSINESS .....	22
PROCUREMENT OF DESIGN PROFESSIONAL SERVICES .....	23
QBS IS THE POLICY OF THE UNITED STATES .....	24
QBS HAS BEEN ADOPTED BY MOST STATES .....	25
THE ENGINEERING PROFESSION ENDORSES QBS.....	25
QBS IS IN THE CLIENT’S INTEREST.....	25
THE QBS PROCESS.....	26
NO MANDATE FOR QBS IN PRIVATE SECTOR BUT SOPHISTICATED OWNERS USE QBS.....	28
SOME DESIGN PROFESSIONALS DO NOT USE QBS TO HIRE OTHER DESIGN PROFESSIONALS.....	28
ROLE OF CIVIL ENGINEERING IN PUBLIC POLICY FOR ENVIRONMENT AND INFRASTRUCTURE .....	28
Chapter 2 Ethics: Good Guys Finish Last .....	31
INTRODUCTION.....	31
WHISTLE BLOWING .....	31
HOW DOES THE TARGET RESPOND TO WHISTLE BLOWER AND WHISTLE BLOWING? .....	32
WHAT HAPPENS TO THE WHISTLE BLOWER? .....	32
WHAT HAPPENS TO THE TARGET? .....	32
HOW DOES ONE DECIDE TO BLOW THE WHISTLE? .....	35
INTERNAL AND EXTERNAL WHISTLE BLOWING .....	37
DE GEORGE CRITERIA .....	37

MORAL PERMISSION.....	38
MORAL DUTY .....	39
JAMES vs. DE GEORGE .....	40
IS THE STANDARD FOR CRITERIA 1 BELIEF OR KNOWLEDGE? .....	41
WHY IS IT NECESSARY TO “EXHAUST” INTERNAL POSSIBILITIES, TO THE BOARD OF DIRECTORS? .....	42
WHY IS OBJECTIVE DOCUMENTATION ESSENTIAL TO GAIN A MORAL DUTY TO ACT?.....	42
THE ESSENTIAL QUESTIONS ANY POTENTIAL WHISTLE BLOWER SHOULD ANSWER.....	43
DE GEORGE ANALYSIS VS PROFESSIONAL DUTY.....	43
MORAL AUTONOMY .....	44
FINAL THOUGHTS ON WHISTLE BLOWING DECISIONS .....	45
Chapter 3 Ethics, Failures, Standard of Care, and Hyatt Regency Kansas City	47
INTRODUCTION.....	47
KOREAN SHOPPING CENTER .....	48
KANSAS CITY, MISSOURI HYATT REGENCY .....	50
PROJECT TIMELINE .....	51
THE CAUSE OF THE FAILURE .....	53
FINDINGS BY THE MISSOURI BOARD OF REGISTRATION .....	58
FINDINGS OF THE MISSOURI COURT OF APPEALS.....	59
THE STORY IN PHOTOGRAPHS .....	62
Chapter 4 Ethics and Ethical Decision Making .....	65
INTRODUCTION.....	65
HYATT REGENCY FOLLOW UP .....	66
THE KC STAR’S WHISTLE BLOWER REMAINS ANONYMOUS .....	66
WHO COULD KNOW WHAT THE WHISTLE BLOWER KNEW?.....	67
DID THE WHISTLE BLOWER HAVE A DUTY TO SPEAK PRIOR TO THE FAILURE?.....	67
DOES THE KC STAR KNOW THE WHISTLE BLOWER’S IDENTITY? .....	68

THE KC HYATT COLLAPSE IS AN ETHICAL FAILURE .....	69
JOSEPHSON’S APPROACH TO ETHICS.....	69
ETHICS IS.....	71
VALUES: .....	72
SIX PILLARS OF CHARACTER.....	73
OTHER COMPILATIONS OF CORE ETHICAL VALUES.....	74
DECISIONS MUST BE ETHICAL AND EFFECTIVE.....	75
CONSIDER THE STAKEHOLDERS.....	76
MAKING ETHICAL DECISIONS-THE PROCESS.....	76
MAKING ETHICAL DECISIONS-THE CRITERIA.....	78
RATIONALIZATIONS-OBSTACLES TO ETHICAL DECISION MAKING.....	79
A PERSON OF CHARACTER.....	80
Chapter 5 Ethics, Trueteel Affair.....	83
INTRODUCTION.....	83
ETHICAL CONCEPTS, THEORY AND FALSE THEORY .....	83
DILEMMAS VS. ETHICAL DILEMMAS.....	83
SIGNIFICANCE OF A MORAL IMPERATIVE.....	84
ETHICAL THEORIES.....	85
FALSE THEORIES OF ETHICS.....	87
ALMEDER ON GIFT GIVING: .....	89
APPEARANCE OF IMPROPRIETY .....	90
THE TRUETEEL AFFAIR:.....	91
TRUETEEL AFFAIR FACTS:.....	91
Chapter 6 Ethics, Gilbane Gold.....	93
INTRODUCTION.....	93
TRUETEEL AFFAIR ANALYSIS.....	93
CONSEQUENCES OF TRUETEEL’S BUSINESS FAILURE .....	94
THE STAKEHOLDERS.....	94
ROBERT’S OPTIONS.....	94

ROBERT'S ETHICAL DILEMMA.....	96
WHY WOULD ROBERT GO ALONG WITH MR. CARTER? .....	96
THE TRUESTEEL AFFAIR DE GEORGE ANALYSIS.....	97
ROBERT DID THE WRONG THING .....	97
GILBANE GOLD .....	98
GILBANE GOLD FACTS.....	98
HOW DOES Z-CORPS DISCHARGE AFFECT THE SLUDGE AND FARMER'S FIELDS .....	99
WHAT DO YOU DO WHEN THE BOSS DOES NOT WANT YOU TO TELL THE TRUTH? .....	103
Chapter 7 Ethics, Testing Water ... and Ethics.....	107
INTRODUCTION .....	107
GILBANE GOLD ANALYSIS.....	107
DAVID'S ETHICAL DILEMMA .....	107
THE STAKEHOLDERS.....	107
THE OPTIONS .....	108
REGULATIONS ARE THE PRODUCT OF RULE MAKING .....	108
THE IMPACT ON STAKEHOLDERS.....	109
GILBANE GOLD IS QUITE DIFFERENT FROM TRUESTEEL.....	110
DAVID SUSPECTS OR BELIEVES BUT DOES NOT KNOW THE EFFLUENT HARMS THE SLUDGE.....	110
FINAL THOUGHTS ABOUT WHISTLE BLOWING DECISIONS.....	114
TRUESTEEL: FAILING TO PROTECT THE PUBLIC SAFETY.....	114
GILBANE GOLD: FALLING ON A SWORD WITHOUT JUSTIFICATION.....	114
DIFFERENCE BETWEEN BLOWING THE WHISTLE AND REPORTING MISCONDUCT TO THE BOARD .....	115
TRUESTEEL AND GILBANE GOLD ARE BOOKEND EXAMPLES OF WHISTLE BLOWING DECISIONS.....	116
WHISTLE BLOWERS DO NOT GET A HERO'S WELCOME .....	117
TESTING WATER ... AND ETHICS.....	117

MANAGEMENT’S DELIBERATIONS AND DECISION: .....	119
ETHICS, AND ETHICAL DECISION-MAKING WRAP UP .....	120
Chapter 8 The Law, Contracts, and Torts .....	123
INTRODUCTION .....	123
TESTING WATER .. AND ETHICS ANALYSIS .....	123
THE ETHICAL DILEMMA .....	123
THE STAKEHOLDERS.....	125
THE OPTIONS AND PROBABLE CONSEQUENCES .....	125
RATIONALIZATIONS IN THE CASE.....	126
IS THE REASONABLE SACRIFICE STANDARD OBJECTIVE OR SUBJECTIVE? .....	126
DO CYA LETTERS WORK? .....	128
CAN PORTER RODMAN BE SUED? CAN JIM DUFFY BE SUED? .....	129
THE LAW.....	131
HEIRARCHY OF THE LAW .....	131
OUR LEGAL SYSTEM .....	133
CRIMINAL LAW AND ENGINEERING PRACTICE .....	133
CIVIL LAW OVERVIEW .....	134
LAW OF CONTRACTS.....	135
THE LAW DOES NOT REQUIRE A LAWYER TO WRITE A CONTRACT.....	136
Unfair Contract Terms .....	137
TORTS .....	141
WHO PAYS TO OPERATE THE CIVIL JUSTICE SYSTEM? .....	147
Chapter 9 Frivolous Litigation and Professional Liability.....	149
INTRODUCTION .....	149
THE RUNAWAY BUS CONTINUES DOWN THE HILL .....	150
MY CAT DIED, PLEASE SUE MY VET PRO BONO .....	151
MY ROOF IS LEAKING, PLEASE SUE MY CONTRACTOR .....	151
LITIGIOUSNESS SUPPRESSES INNOVATION.....	152

TORT REFORM.....	154
THE TORT REFORM DEBATE .....	154
MAJOR TORT REFORM PROPOSALS.....	155
Caps on Punitive Damages .....	156
Precertification of Professional Negligence Claims Prior To Filing .....	157
Methods and Time Allowed for Discovery .....	158
LOSER PAYS FOR THE UNITED STATES? .....	159
CONTRACT TERM ALTERS TIME LIMITS ON FILING LAWSUITS.....	160
IMPORTANCE OF DISPUTE AVOIDENCE AND LOSS PREVENTION IN ENGINEERING PRACTICE .....	162
REASONABLE CLIENT EXPECTATIONS ARE KEY TO A SUCCESSFUL PROJECT.	163
PROFESSIONAL LIABILITY INSURANCE .....	165
THE INSURANCE MARKET TIED TO ECONOMY .....	167
THE PROFESSIONAL LIABILITY CRISIS-THE ASFE STORY .....	167
XL INSURANCE'S TOP 10 WARNING SIGNS OF CLAIMS .....	169
Chapter 10 Cost of Litigation, ADR, Loss Prevention.....	171
INTRODUCTION .....	171
RISK IN CONSTRUCTION .....	171
CONSTRUCTION GENERATES DISPUTES .....	172
DISPUTE RESOLUTION FOR THE CONSTRUCTION INDUSTRY .....	174
MEDIATION VS. LITIGATION VS. BINDING ARBITRATION.....	176
COST OF LITIGATION .....	177
INDIRECT COSTS.....	178
HOW TO MINIMIZE LITIGATION COSTS .....	178
THE ORIGIN OF THE PROFESSIONAL LIABILITY CRISIS .....	180
LOSS PREVENTION IS OF PARAMOUNT IMPORTANCE.....	181
DO "GOOD" WORK .....	181
WORK ONLY IN YOUR AREA OF EXPERTISE.....	182
CLIENT SELECTION IS PARAMOUNT .....	182

ADDITIONAL ISSUES ABOUT LIABILITY .....	183
COST OF LITIGATION EXERCISE (To be Completed In Class) .....	185
Chapter 11 Conflict Resolution Workshop Strategy and Negotiation Session 01 .....	187
INTRODUCTION .....	187
SUMMARY OF THE CASE .....	187
ROLE PLAYING.....	188
CONFLICT RESOLUTION WORKSHOP PROCEDURES .....	189
THE CASE -ASFE CONFLICT RESOLUTION WORKSHOP.....	190
STATEMENT OF RICHARD WEBB, CHAIRMAN OF THE BOARD OF THE CHURCH OF BARRISH COUNTY DELIVERED TO ALL PROJECT PARTICIPANTS .....	195
Chapter 12 Conflict Resolution Workshop Strategy and Negotiation Session 02 .....	197
INTRODUCTION .....	197
Facts in case not consistent .....	197
Availability of A/E construction cost estimates during bidding .....	197
Contractor Low-ball Bidding .....	197
Change Order Issues .....	198
Basis for a Change Order: .....	198
Cost:.....	199
Financial Impact of the Change Order .....	200
Change Order Processing: .....	202
Does the Architect have the authority to approve the change order?.....	202
Who is responsible for not having geotechnical engineer on site during earthwork?.....	203
The use of supplemental information provided to the groups.....	205
Ran out of time .....	205
Lawyer Contribution to Ineffective planning during strategy sessions.....	205
SUMMARY OF WEEK 1 .....	206



Chapter 13 Conflict Resolution Workshop Closing Statement.....207

    Issues Raised During Workshop.....207

        During the Conflict Resolution Workshop, several issues emerged during strategy and negotiation sessions. Of these, the following four merit further comment. ....207

        SITE CONDITIONS: Is the Material Rock or Mostly Soil?.....207

        CHANGE ORDER: Does the Contractor have an approved Change Order? .....208

        BORING LAYOUT: Is the Boring Layout Adequate?.....209

        GEOTECHNICAL MONITORING: Does the geotechnical engineer have a duty to be on site as recommended?.....209

    Financial Consideration/Risk.....210

    Financial Impact of Change Order on contractor's bottom line .....212

    CONFLICT RESOLUTION WORKSHOP CLOSING STATEMENT.....213

        The Conflict Resolution Workshop Emulates Reality .....213

        The Impact of Reversing the Flow of Information.....213

        The Importance of Documentation .....213

        The Role Bias Can Play in Disputes .....215

    What Is A Reasonable Settlement of This Dispute?.....216

        The Owner .....216

        The Architect .....221

        The Contractor.....222

        The Geotechnical Engineer .....224

    Overview.....225

Chapter 14 Construction Jobsite Safety Issues.....227

    CONSTRUCTION EMPLOYS 5 PERCENT OF AMERICANS AND HAS 20 PERCENT OF WORK DEATHS.....227

    WORK RELATED INJURIES COST THE NATION .....227

    DESIGN PROFESSIONALS ARE NOT IMMUNE FROM THE COST OF CONSTRUCTION INJURIES .....228

NOT ALL CONSTRUCTION INJURIES AND DEATHS ARE ACCIDENTAL .....	229
WHY DO TRENCH COLLAPSE DEATHS CONTINUE? .....	230
A “NOT SO HYPOTHETICAL” HYPOTHETICAL.....	230
WHO MAY BE IN LEGAL JEOPARDY? .....	231
COULD THE GEOTECHNICAL ENGINEERING COMPANY ACT DIFFERENTLY TO REDUCE ITS LIABILITY EXPOSURE? .....	232
THE ENTIRE CONSTRUCTION INDUSTRY CAN AND SHOULD DO A BETTER JOB .....	234
SOME ADVICE FOR DESIGN PROFESSIONALS .....	235
ADDITIONAL DOCUMENTS ABOUT TRENCH COLLAPSES IN THE US .....	236
Chapter 15 “Incident at Morales” and The Essay .....	237
INTRODUCTION .....	237
RELEVANT FACTS.....	237
FACTS NOT RELEVANT TO FRED’S DECISION.....	239
FRED’S PRIOR EMPLOYMENT WITH CHEMITOIL.....	239
THOSE UNLINED PONDS .....	239
CHUCK’S BROTHER-IN-LAW, THE L&L SALES REPRESENTATIVE.....	240
THE NEW MEXICAN PIPE VENDOR.....	240
FRED’S WIFE IS A COMPLIANCE LAWYER FOR THE US EPA .....	241
FRED’S POINT OF NO RETURN .....	241
THE STAKEHOLDERS .....	243
FRED’S OPTIONS AT THE POINT OF NO RETURN.....	243
COMPARISON OF FRED MARTINEZ TO ROBERT WILLIAMS AND THE KOREAN SHOPPING CENTER.....	244
FRED’S ETHICAL DILEMMA .....	245
GKC ANALYSIS OF FRED’S DECISION .....	245
THE ESSAY ASSIGNMENT COMMENTARY .....	246