

A Civil Engineer's Risky Non-technical Journey Through Ethics, Law, and Business
A Text for Civil Engineering Seminar At the University of Kentucky College of Engineering
by J. Richard Cheeks, PE JD

Much to my chagrin, as I read the manuscript of my new book in preparation for class, I discover errors that remain after multiple attempts to identify and eliminate them from the text. I will update this ERRATA SHEET as I discover additional errors over the course of this semester.

One of the obstacles that all writers face is finding errors in the writer's own writing. The writer knows what the writer intended to write, and the writer's eyes (and brain) tend to see what should be there rather than what is there. For this reason, fresh eyes are better equipped to identify these types of errors.

Each of you have a set of such fresh eyes, and each of you will be reading this material.

I will award 5 bonus points to any student this semester who identifies an error in the current manuscript that is not already cited on this ERRATA SHEET. A student may submit an error to me by email citing the location of the error and describing what the error is. In response, I will review the submitted error, and I will notify the submitting student of the outcome of my investigation by return email. If it is an error that has not been previously added to this ERRATA SHEET, I will add the error to the ERRATA SHEET with a notation of the student who identified it and the date of the addition to the ERRATA SHEET, and I will add 5 bonus points to that student's point total for the semester.

Each time I modify this ERRATA SHEET, I will upload the updated version to CANVAS, and students can track the status of identified errors by downloading this PDF from time to time either via CANVAS or from the CE-401 webpage.

ERRATA SHEET¹

1. Page v, change "PhD PE" to "PE, PhD." **Identified by Dr. Drnevich on September 5, 2020**
2. Page 3, "focuses" should be "focus"
3. Page 4, "During all other times, students can contact me by electronically." I think the word "by" should be omitted to make the sentence read, "During all other times, students can contact me electronically." **Identified by Lucas Moore on August 20, 2020.**
4. Page 22, "maintain" should be "maintaining" **Identified by Lucas Moore on August 20, 2020.**
5. Page 28, "SECTION" should be "SECTOR"
6. Page 34, "here" should be "hear" **Identified by Michael Hutchinson on August 24, 2020.**
7. Page 42, Double use of "harm" in one sentence. **Identified by Tanner Whipkey on August 25, 2020**
8. Page 51, "walkways" should be "walkway"
9. Page 51 and Page 52, Change "G.C.E." to "GC" in FN68 and FN70
10. Page 52, the quote that starts, "he is undertaking ... " has no ending quote mark, which should occur at the end of the sentence, ending "... atrium roof." Add the quote mark. **Identified by Lucas Moore on August 31, 2020.**
11. Page 53, the sentence, "This informant directed the paper that a specific Shop Drawing for the construction of the hotel would reveal the cause of this tragedy" should be revised to read "This

¹ All errata items in red have been corrected in the original manuscript on 9/5/20 and 10/19/20. Each change is preserved here for completeness of this record. The items in black are items identified subsequent to the 9/5/20 revisions.

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informant notified the paper that a specific Shop Drawing for the construction of the hotel would reveal the cause of this tragedy.” Change “directed” to “notified”

12. Pages 54-55, Not errata, but clarification. The text currently says
13. On Monday, a spokesman for the firm said they have looked hard but do not know why it failed yet Mr. Gillum's subsequent account claims that he recognized the cause of the failure as soon as he looked at the hangar rod connection in the Hyatt atrium on Friday night. It seems the lawyers on Sunday may have directed the message that the GC spokesman provided to the media on Monday.
14. The spokesman for the firm cited in the current text is Mr. Gillum, quoted in the KC Star on Monday, July 20, 1981 in an article entitled, “Collapse not due to load, engineer says.” Therefore, this passage should be modified to say,
15. On Monday, Mr. Gillum said he reviewed design documents for the Hyatt this weekend “and found everything to be correct” and that he had no idea why the sky walks collapsed. Yet, in his subsequent account, Mr. Gillum claims that he recognized the cause of the failure as soon as he looked at the hangar rod connection in the Hyatt atrium on Friday night. It seems the lawyers on Sunday may have controlled the message Mr. Gillum provided to the KC Star on Monday.
16. Page 57, “GCE” should be “GC” in the 2nd paragraph of FN81, and add a period “.” at the end of FN81.
17. Page 59, “statue” should be “statute”
18. Page 60, the “6” bulleted item is a different font from the rest. Fix font. **Identified by Preston McDowell on September 1, 2020.**
19. Page 61, the “2” bulleted item is a different font from the rest. Fix font.
20. Page 68, the passage “... I participated ASFE's Fundamentals ...” should be “... I participated in ASFE's Fundamentals ...” Insert “in” into this sentence.
21. Page 69, the passage “... the failure took 114 lives.” Should be “... the failure that took 114 lives.” Insert “that” into passage.
22. Page 72, “non-technical” should be “non-ethical”
23. Page 86, Improve the graphic quality for the print version (Apartheid was Legal)
24. Page 92, “Truesteel's” should be “Truesteel”
25. On Pages 98-99, I quote several specific statements made by various people in this case “about the consequences of the dilution option.” My goal is to capture the range of statements on this specific issue. If there are other direct quotes from the video that should be considered for this specific part of the analysis, please bring them forward for consideration. If I agree, I will add them to a later edition of the book, and I will award the bonus points this semester for the suggestion.
26. Page 103, “Then the Chapter 7 ...” in the opening paragraph should be “Then Chapter 7 ...”
27. Page 113, “are” should be “as”
28. Page 121, the phrase “... higher duties that requires full reporting.” Should read “... higher duties that require full reporting.” Change
29. Page 123, the phrase “... integral to in any discussion ...” should read “... integral to any discussion ...” Delete “in” from the passage.
30. Page 124, Missing “is” in the following passage, “Otherwise, there nothing to prevent any decision maker from always concluding that any amount of personal sacrifice is unreasonable.” Add “is” between “there” and “nothing” **Identified by Michael Hutchinson on October 13, 2020.**
31. Page 126, eliminate the double period at the end of a sentence near the bottom of the page.

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32. Page 130, the following passage, "While criminal action against engineers and other members of the construction industry have been rare, ..." should be, "While criminal actions against engineers and other members of the construction industry have been rare, ..."
33. Page 131, the "6" bulleted item is a different font from the rest. Fix font. .
34. Page 141, the final sentence, "To establish Cause in Fact, the assertion that "But for the defendant's breach of duty, the plaintiff's damage would not have occurred." should be modified to say, "To establish Cause in Fact, the assertion that "But for the defendant's breach of duty, the plaintiff's damage would not have occurred," must be true.
35. Page 142, the first sentence, "For example, "But for the engineer's approval of the double rod shop drawing without analysis, the Hyatt collapse would not have occurred." should be modified to say, "For example, "It is correct to say, 'But for the engineer's approval of the double rod shop drawing without analysis, the Hyatt collapse would not have occurred.'"
36. Page 142, a missing period in item 2 mid-page. Add the period.
37. Page 142, the passage "The owner reacts to the change order as an unnecessary cost caused by the designer's negligence ..." should read "The owner reacts to the change order as an unnecessary cost caused by a breach of the designer's duty ..." In addition, at the end of this paragraph, add the following to explain the concept of "unjust enrichment." **"The contract price does not include any money for the omitted work. If the owner wants to add the omitted work, the owner must be willing to pay for that work. If the owner expects someone else, the contractor or the design professional, to pay for this omitted work, then the owner seeks that work for nothing, which is the definition of "unjust enrichment.""**
38. Page 151, "ALJ" should be "AAJ"
39. Page 151, Footnotes 185 has changed since researching for the manuscript. Change FN 185 to <https://www.justice.org/advocacy/our-issues>
40. Page 154, "Statute" of Repose should be "Statutes" of Repose.
41. Page 154, "justices hall" should be "justice shall"
42. Page 154, "Tort reformer seek" should be "Tort reformers seek"
43. Page 158, Formatting issue, space above heading "**CONTRACT TERM ALTERS TIME LIMITS ON FILING LAWSUITS**"
44. Page 164, the passage "This is one reason an engineering companies must charge the client ..." should be "This is one reason an engineering company must charge the client ..."
45. Page 164, the passage "I have never seen a PLI offered ..." should be "I have never seen a PLI policy offered ..."
46. Page 173, last sentence of 2nd paragraph, "come" should be "comes" **Identified by Preston McDowell on October 26, 2020.**
47. Page 174, second line, "mistakedly" should "mistakenly" **Identified by Preston McDowell on October 26, 2020.**
48. Page 174, second line under MEDIATION heading, the passage "assists them in the negotiating" should be "assists them in negotiating" **Identified by Preston McDowell on October 26, 2020.**
49. Page 175, first line of page, the passage "As problems escalate into disagreements, conflicts, and disputes the cost ..." needs a comma after "disputes"
50. Page 174, "professional" should be "professionals"
51. Page 178, several dollar values need commas for proper formatting, including \$30,000, \$80.000, \$40 000, \$5.000, and \$50.000. Correct these formatting errors. **Identified by Dr. Drnevich on September 5, 2020**
52. Page 181, remove "," after "and" in second line of last paragraph on page.
53. Page 182, Change " " " to " ? " at the very end of the page.

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54. Pages 184, 185, 186, 202, and 221, the term "Dispute Resolution" should be changed to "Conflict Resolution" for consistency.
55. Page 190, second line after "DIRECTIONS" heading, change the use of 2nd person (your and you) to 3rd person (group's and group) as shown below:

After hearing Mr. Webb's message, all architects, all geotechnical engineers, and all contractors will go to rooms assigned for strategy where each group will have about 50 minutes to discuss the background of the situation and establish a negotiating position with the help of a student selected to facilitate these discussions as the group's "lawyer" and advocate a strategy and position for negotiations.

Upon completion of the strategy sessions, negotiations will begin in the assigned rooms. The goal of the negotiations is to resolve the conflict. Negotiating units will have about 50 minutes for negotiations. Group lawyers will not participate or assist their "clients" during the negotiation sessions. The lawyers will be observing only. If a negotiating unit cannot resolve this conflict in week one, these students will repeat the strategy and continue its negotiation in week two of this exercise. This second round will be the final opportunity to resolve the conflict.

56. Page 195, the sentence, "Therefore, the contractor must either demobilize the small equipment and mobilize the large equipment, or the mobilize a powder trailer and a track drill ..." should be modified by deleting "the" prior to "mobilize a powder trailer"
57. Page 195, change "losses" to "loses" in last paragraph on page.
58. Page 199, formatting issue, "**Boring Layout: Is the boring layout adequate?**" There is an unnecessary space prior the "Is" which should be removed.
59. Page 193-201, change the heading types to the type of heading used for "INTRODUCTION"
60. Page 200, the passage "in the its report ..." should be "in its report ..."
61. Page 202, in the 3rd line, "each of the parties have dirty hands" should be "each of the parties has dirty hands" for subject verb agreement
62. Page 205, "involves" should be "involve"
63. Page 208, The final sentence includes a redundancy, and reads "These biases set up the arguments that dominated the arguments during the first round of negotiations." Revise to say, "These biases set up the arguments that dominated the first round of negotiations."
64. Page 221, rewrite the passage "to pay far more later to prove get a smaller judgment for little or nothing at all." to say "to pay far more later to get a smaller judgment or owe nothing at all."
65. Page 224, "negligence" should be "negligent"
66. Page 227, bulleted item near bottom of page that reads "On site presence, but no specific job safety job responsibility" should read "On site presence, but no specific job safety responsibility" **Identified by Dustin Asher on November 17, 2020.**
67. Page 232, "UNLIINED" should be "UNLINED"

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Substantive Issues for consideration

- a) Page 93, in the discussion of Robert's options, need to consider adding a statement under option 1, fixing the trusses, to suggest a way Robert might sway Mr. Carter to agree to the repairs.

Robert could have refused to go along and fix the trusses with or without Carter's authorization. Of course, this would have protected the interests of every stakeholder except Robert and his family because the repairs would eliminate the danger posed by the defective trusses. However, Robert must either find a way to persuade Mr. Carter to agree to the repairs or Robert would probably have to pay for the repairs himself, hoping that he might be reimbursed later. With respect changing Mr. Carter's mind, Robert might engage the Trueteel employees by sharing with them the probable consequences of not repairing the trusses and lead them to ask Mr. Carter to repair the trusses. Failing to change Mr. Carter's mind, Robert is likely to lose his job at Trueteel due to his defiance of Mr. Carter.

- b) Page 120, The next to last paragraph, "Jim resolved his dilemma when he decided to resist the order to only report some of the data and take his concern about the partial reporting order up the chain of command at Porter Rodman. Thereafter, the issue shifts to Porter Rodman's upper management to address the dilemma that Porter Rodman management created when the company agreed to give Anderson Properties a limited report despite knowing of its ethical duty to make complete reports." In this case, Porter-Rodman's dilemma was created by its agreement to violate a provision of the code of ethics, a provision that engineers making this contract either knew or should have known at the time. Therefore, the circumstances surrounding the creation of this dilemma is unique because the dilemma only exists because Porter-Rodman agreed to violate an ethical provision that now creates the one arm of the dilemma that Porter-Rodman now must resolve. If honoring a contract requires a violation of law, that contract is not enforceable. Should the same principle apply when a contract requires a violation of an ethical duty? This paragraph could be expanded to frame this unique aspect of the of this dilemma. Another place to introduce this issue is in the discussion about the need for Porter-Rodman to "push back" when Anderson makes the request for the secret wells on page 121 after "Those Porter Rodman engineers should have pushed back as soon as Anderson made the request" adding "... , because failure to push back on such a clear request to violate a known ethical duty is when the real ethical breach in this case occurred."
- c) Pages 151-152, expand the Tort Reform Section by providing brief commentary on each of the specific identified Tort Reform Proposals with the following addition to replace the sentence prior to the Loser Pays subsection with the following text and 10 additional footnotes.

I encourage the reader to explore the details of these and other tort reform proposals. However, I offer additional information here regarding punitive damages, precertification, discovery, and loser pays.

Caps on Punitive Damages

The Civil Justice System allows the addition of punitive damages to a plaintiff's compensatory damages to punish the defendant for outrageous conduct and to deter the defendant and others

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from acting in that manner in the future.² They are the legal system's method of discouraging future bad behavior by making it financially harmful to the defendant.

Defendants have long argued that punitive damages should be capped at a level that bears some relationship to actual damages. These critics cite cases like the Exxon Valdez oil spill in Alaska due to the \$5 billion punitive damage award despite Exxon's prompt and effective response to the spill.³ A wildly cited anecdote, whether true or not, has also motivated the proponents for this change.⁴ Nevertheless, "[i]n the infamous 'hot coffee' case in New Mexico, the jury awarded the plaintiff \$200,000 in compensatory damages but more than thirteen times that amount (\$2.7 million) in additional punitive damages, for a total of \$2.9 million."⁵ The Supreme Court weighed into this debate in 2003 when it found that a ratio of 4:1 between punitive to actual damages was too high, and again in 2008 when the Court held that a 1:1 ratio is a "fair upper limit" for maritime law.⁶

Some states are beginning to impose caps on punitive damages. For example, Arkansas' proposed cap is the lesser of three times the actual damages or \$500,000.⁷ Some advocates for change do not focus on limits based solely on the ratio to actual damages, or a strict cap on punitive damages, and Alexander Volokh's treatise on the subject is especially enlightening.⁸

Precertification of Professional Negligence Claims Prior To Filing

Professionals have long sought reforms to reduce the number of lawsuits alleging malpractice (professional negligence) by creating barriers to filing, i.e. filing a certification of review by members of the profession identifying the merits of the proposed case. The medical profession has been successful in getting precertification requirements in 28 states,

2 Moncivais, Katy, Punitive Damages, The Meneo Law Group,
<https://www.consumersafety.org/resources/punitive-damages/>

3 Yoder, Edwin M., PUNITIVE DAMAGES ARE OUT OF CONTROL\ A COSTLY PROBLEM, September 20, 1994, updated January 26, 2015. https://greensboro.com/punitive-damages-are-out-of-control-a-costly-problem/article_ed26afab-87cc-56c7-a5e6-89d7ddcf2496.html

⁴ Tort reform advocates frequently cite a products liability case in Federal Court in Mississippi in which a jury awarded a plaintiff a multi-million-dollar punitive damage despite finding actual damages of one dollar. Searches have been unable to verify these basic facts for any specific case, yet the anecdote survives.

5 Greenberg, Dan, What are punitive damages, and how does tort reform affect them? August 2, 2017.
<https://www.thearkansasproject.com/punitive-damages-tort-reform-affect/>

⁶ Id.

⁷ Id. Florida has a similar limit, See <https://www.alllaw.com/articles/nolo/personal-injury/punitive-damages-gross-negligence.html>

⁸ Volokh, Alexander, PUNITIVE DAMAGES AND ENVIRONMENTAL LAW: RETHINKING THE ISSUES, Policy Study No. 213, September 1996. <https://reason.org/wp-content/uploads/files/76a01f43ff7eec045e97b61c0f23caf5.pdf>

including Kentucky;⁹ however, I am not aware of any state that has extended these precertification requirements to the other professions.

Methods and Time Allowed for Discovery

Discovery is an array of “ procedural devices employed by a party to a civil or criminal action, prior to trial, to require the adverse party to disclose information that is essential for the preparation of the requesting party's case and that the other party alone knows or possesses.”¹⁰ Each party to a lawsuit is entitled under the rules to know what evidence the other party possesses that may be relevant to the case to encourage pre-trial resolution of the dispute and to reduce the element of surprise at trial. “Supreme Court Justice William J. Brennan, Jr. stated that the major benefit achieved by discovery is 'assuring that right and justices hall have the most favorable opportunity of prevailing in cases that are tried.' ”¹¹ The Rules of Civil Procedure provide an array of discovery procedures including physical examination, requests for admissions of facts, production and inspection of documents, interrogatories, and depositions.

The discovery process is expensive and time consuming. Tort reformer seek to shorten the time and reduce the cost. Some of the more common reforms for discovery include:

1. Require disclosure of “core information”
2. Presumptive limits on discovery
3. Penalties for abuse
4. Incentives to admit facts not in dispute
5. Tie discovery requests to the pleadings (complaint and answer)¹²

And the debate on discovery reforms continues to rage.

- d) Chapter 4:
 - a. Expand discussion of the 6 pillars for all 6 like done for Trustworthiness to the ethical value level
 - b. Clarify some issues re values, types, etc. See confusion in Standard Response
 - c. Add False Necessity Trap to narrative
- e) Chapter 5: Strengthen discussion of the appearance of impropriety
- f) Change Question 2 Part 2 for Week 5: “Should a profession prohibit conduct that may be proper but gives the appearance of impropriety?”

9 Medical Liability/Medical Malpractice Laws, Last Updated: August 15, 2011

<https://www.ncsl.org/research/financial-services-and-commerce/medical-liability-medical-malpractice-laws.aspx>

¹⁰ Discovery, <https://legal-dictionary.thefreedictionary.com/discovery>

¹¹ Sugarman, Paul R., and Perlin, Marc G., PROPOSED CHANGES TO DISCOVERY RULES IN AID OF “TORT REFORM”: HAS THE CASE BEEN MADE, *The American University Law Review*, Vol. 42:1465, 1993 at 1497 citing Chief Justice G. Joseph Tauro, *Improving the Quality of Justice in Massachusetts*, 49 *Mass .L.Q.* 7, 19 (1964) (quoting Justice William J. Brennan, Jr., *Address at The Round Table on Administration of Justice, San Juan, Puerto Rico* (Feb. 5, 1962)).

¹² *Id.* At 1465.

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- g) Chapter 7: Expand the discussion of Gilbane Gold based on notes taken during week 06
- h) Chapter 7: On Testing Waters, address the nature of the ethical dilemma of confidentiality as well as Promise Keeping
- i) Chapter 8: Modify to address the 6 discussion questions more effectively. See notes from week 09.
- j) Chapter 9 issues need expansion. Importance of client selection and the characteristics of high risk clients. Expand on how the litigious culture impacts the practice of engineering, i.e. defensive scoping of work. <https://www.thefoldlegal.com.au/blog/know-your-high-risk-client>
- k) Chapter 9: Improve the discussion of the impact of litigiousness on innovation and methods of practice.
- l) Chapter 11 and 12: Improve the introduction to the CRW with history and actors. Perhaps pull some material forward from Chapter 13
- m)