

July 2019

Dear Transportation Engineering Instructors:

Since making changes to the textbook in May 2018, I have taught *Introduction to Transportation Engineering* in the Fall 2018 and Spring 2019 semesters. While doing so, I have received feedback and suggestions from some of the 129 students in those classes as to what should be clarified and modified.

If your classes are like mine, some students prefer to save money by buying used copies of the previous version of the book. For this reason, I tell the students which parts of the new printing are significantly different from the previous version. It is then their responsibility to compare versions and update their copies before an open book test.

Accordingly, at <https://engineering.purdue.edu/~ce361/JFRICKER/FTE/> I list the significant changes I have made to the sixth printing of *Fundamentals of Transportation Engineering* (FTE2.6), the results of which are the seventh printing (FTE2.7). I do not include minor wording changes in the list. The most important changes are shown in bold font.

Chapter 2.

- Add equation numbers for relationships shown on pages 2.16, 2.17, and 2.25 as Equations 2.4, 2.5, and 2.9. This causes other equations to be renumbered.
- Replace end-of-chapter Exercises 2.25 and 2.26.

Chapter 3.

- **Simplify the HCM2016 method in Section 3.1.** The numbers in the six-step HCM 2016 method and in Example 3.1 have been revised. These are reflected in revised Table 3.8.
- Replace end-of-chapter Exercise 3.12 and reorder Exercises 3.12 to 3.16.
- Switch order of Exercises 3.17 and 3.19. Replace Exercises 3.21 and 3.22.

Chapter 4.

- **Replace Figures 4.4 and 4.5 from the 6<sup>th</sup> edition of ITE *Trip Generation*** with updated plots from the 10th edition. Rewrite Section 4.1.2 accordingly.
- Changes to end-of-chapter exercises: nine new problems, some updated, others moved to improve sequence.

Chapter 5.

- In Tables 5.2 and 5.3, “400” should be “450”.
- Updated Examples 5.11 and 5.12.

Chapter 6.

- Renumber Equations 6.19 to 6.21 as Equations 6.18 to 6.20.
- Add end-of-chapter exercises for Sections 6.2, 6.3, and 6.4. This causes exercises to be renumbered.

Chapter 7.

- **Insert Section 7.3.4 on “Connecting two horizontal curves”**, which revises the paragraph that was just above old Example 7.17, adds new Equations 7.24 to 7.26, and replaces old Example 7.17.
- Renumber old Equation 7.24 as (7.27) and old Equation 7.25 as (7.28). Give the equation for  $G_m$  under Table 7.5 the number (7.29). Old Equations 7.26 to 7.31 become (7.30) to (7.35).
- Revise end-of-chapter exercises 7.36 to 7.38.

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Chapter 8.

- Revise and rename Figure 8.10.
- Revise the figure just above Equation 8.6 and call it “FIGURE 8.11 The dimensions of a dilemma zone.” Renumber all subsequent figures accordingly.
- Add end-of-chapter exercises 8.8. Renumber old exercises 8.8 to 8.29 to be 8.9 to 8.21.

Chapter 9.

- **Create new section “9.3.6 Refining Layer Design to Reduce Costs”, with a revised Example 9.4.**

Chapter 10.

- Reword end-of-chapter exercises 10.18 and 10.25.

Chapter 11.

- **Update the TPHP equation and Example 11.5 in Section 11.2.3.**

Chapter 12.

- **Rewrite Section 12.5 “OIL PIPELINES”**
- Add one end-of-chapter exercise for Section 12.7

---Jon D. Fricker