Lesson Plan # 3:
Fundamentals of Compression Members – Part 1

Topics:

- Euler Buckling & Column Theory
- End Conditions and Effective Length
- Global Buckling Behavior – AISC curves
- Local Buckling of Compression Members

Learning Objectives:

- Students will be able to calculate the Euler buckling capacity of a compression member including the influence of end conditions
- Students will identify the mode shapes associated with a buckled member
- Students will be able to check for local buckling of a compression member

Textbook Sections: 4.1 – 4.4; 4.7 (p. 125-132 only)

Suggested Problems: 4.3-2, 4.3-3, 4.3-5

Required Problems:

Due Tuesday, 02/09/2010 at 8 a.m.

1. Problem 4.3-1 of Segui
2. Problem 4.3-4 of Segui – parts (a) and (b), but LRFD only.
3. Problem 4.3-6 of Segui – parts (a) and (b), but LRFD only.
4. Problem 4.3-9 of Segui – part (a) only
5. Problem 4.3-10 of Segui – part (a) only