

PRECASTERS NOTEBOOK

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CHAPTER 3, Page 210

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Problem: SUMMARIZE LRFD DISCUSSION AS PREVIOUSLY WRITTEN IN "PRECASTERS NOTEBOOK"

Chapter 2 is titled "Loads on Structures"

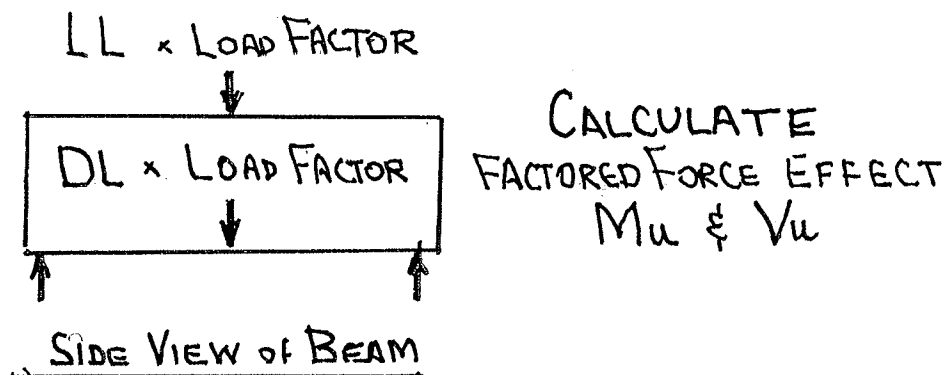
The introduction to LRFD design starts on Chapter 2 page 136. It includes calculations for finding the "FORCE EFFECT" on the structure. Force effect can also be thought of as "actual moment" and "actual shear".

Chapter 3 is titled "Design of Structures"

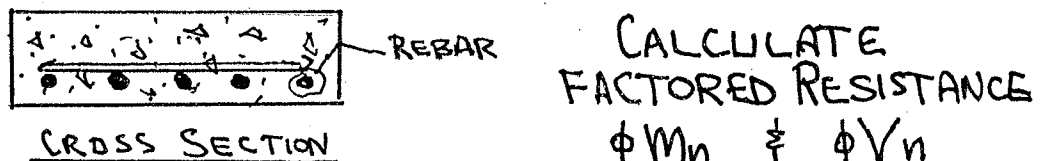
Determination of "RESISTANCE" for LFD starts on Chapter 3 Page 110. Resistance for LRFD starts with this page. Resistance can also be thought of as capacity of a member to resist the actual moments applied.

Problem: REVIEW DESIGN PROCESS

Step 1 - Apply load factors to Live Load and Dead Load to obtain "factored load applied" M_u and V_u .



Step 2 - Determine "Factored Resistance"



END RESULT IS SATISFACTORY WHEN :

FACTORED RESISTANCE \geq FACTORED FORCE EFFECT

$$\phi M_n \geq M_u$$
$$\phi V_n \geq V_u$$