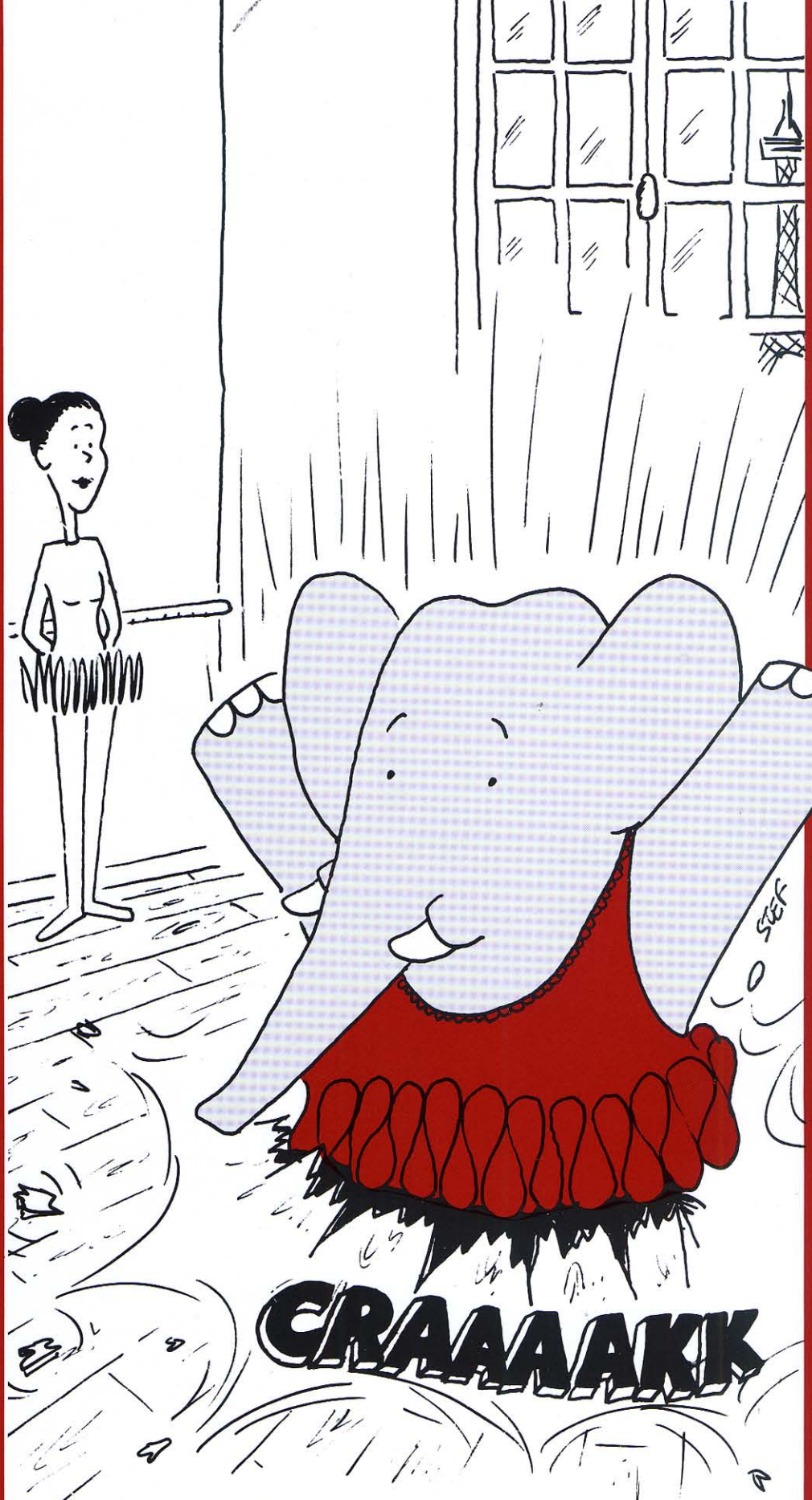
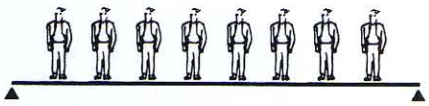


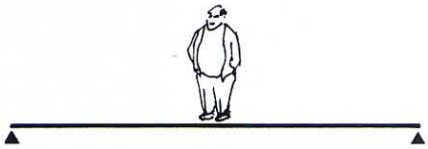
Regrettable structural weaknesses of the dance floor cut short the world's most famous elephant ballet career

WHY SOME FLOORS & ROOFS SAG

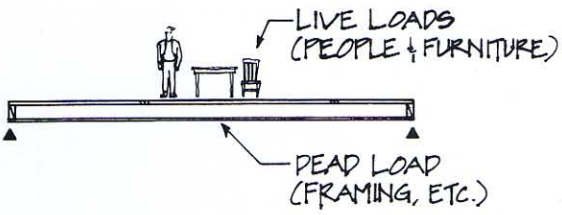
COMMON TERMS



Uniform load – Force evenly distributed over a relatively large area (i.e. a waterbed).



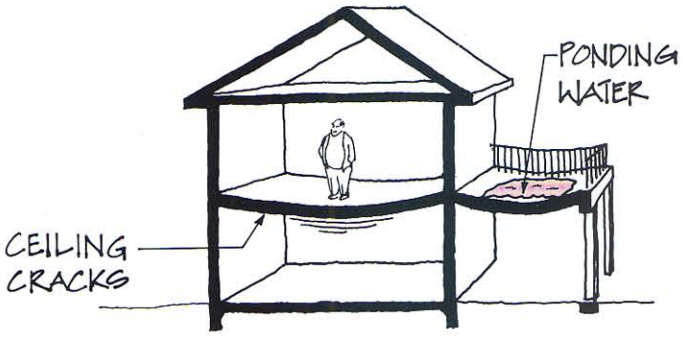
Concentrated (Point) Load – Force localized over a relatively small area (i.e. a load-bearing post or a woman's spike-heel shoe).



Dead Load – Weight of permanent components such as roofs, walls, floor, etc.
Live load – loads superimposed by use and occupancy such as building occupants, furniture, etc.

COMMON PROBLEMS

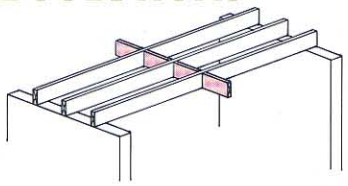
- Improper design does not account for all load the floor must support.
- Improper construction that increases span of framing or decreases size of framing members.
- User applies more load than anticipated for type of occupancy.
- Structural weakening by wood rot due to water intrusion and ponding.



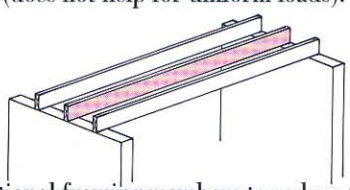
POTENTIAL DAMAGES

- Ponding of water on exterior surfaces such as balconies or roofs.
- Cracking of finishes such as stucco or gypsum board.
- Walking surface excessively sloped and springy.
- Squeaking floors.

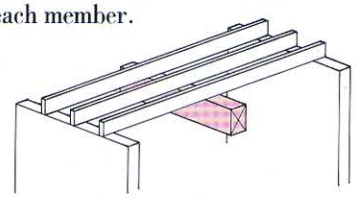
TYPICAL SOLUTIONS



- Add full-depth blocking between framing members to help spread out concentrated loads to adjacent members (does not help for uniform loads).



- Add additional framing members to reduce the amount of load to each member.



- Provide additional points of support beneath the floor to reduce the span.

Building Analysts is a full-service architectural and engineering firm with over 12 years experience in construction litigation. Our services include: architectural and structural investigations, repair recommendations, preparation of exhibits and expert testimony. We hope this newsletter is helpful. Please contact Stan Livingston, Pete diGirolamo, Mike Romanowski or Bob Carroll at Building Analysts if you need our input or recommendation. **(619) 234-8153**

WINTER 1994 ***NEXT ISSUE:*** **SHEARWALLS**