

March 2009 MEETING

Wednesday, March 11, 2009

TECHNICAL PROGRAM

Take a Stand on Protecting Residential Foundations

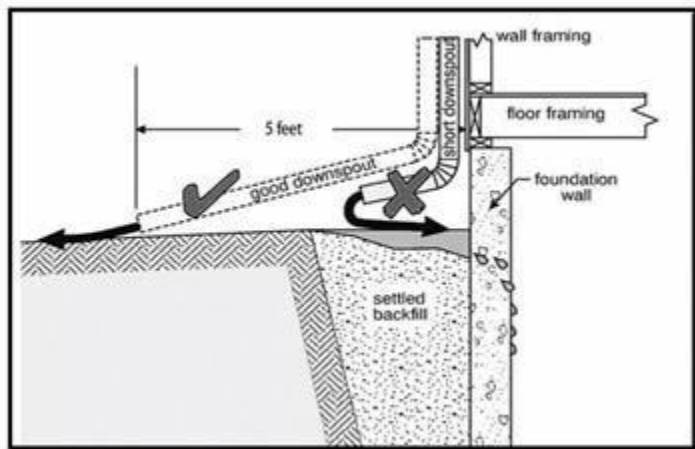
Speaker: [Mr. Ray Burgess](#) with [Senox Corporation](#), Austin, Tx., Tel: 512-539-7701

PRESENTATION SUMMARY

Ray Burgess AAS-CFM, FPA Member, retired chief building official and Code Outreach Director for Senox Corporation's Roof Drainage Building Codes and Standards / Rainwater Collection Systems presented, "Take a Stand on Protecting Residential Foundations".

Some drainage and gutter points made by Mr. Burgess

- Real estate inspectors must report on drainage deficiencies, including gutters and downspouts.
- IRC Section R801.3 Roof Drainage says, "In areas where expansive or collapsible soils are known to exist, all dwellings shall have a controlled method of water disposal from roofs that will collect and discharge roof drainage to the ground surface at least 5 feet from foundation walls or to an approved drainage system."
- 70% of homes in Texas have no gutter systems.
- Proper gutter sizing calculations assume at least 1/32 inch/ft slope to downspouts, though 1/16 inch/ft is ideal.
- Based on the 25 year rainfall intensity, the minimum sizing of downspouts is 1 sq in of downspout for every 100 sq ft of roof, with a maximum spacing of 30 ft between downspouts.



Mr. Burgess' slide presentation (slide no. 37) included a graph for sizing gutters. E.g., for a 5 inch/hr. rainfall intensity (similar to current Houston requirements) a 5-inch gutter can handle up to 700 SF of roof (believed to be the horizontal or projected area).

Mr. Burgess also spoke about the rainwater collection system to conserve water. By routing the downspouts to cisterns, it is possible for a 2500 SF roof to harvest 45,000 gallons of water for a rainfall of 32 inches, which equates to 0.56 gallons/SF of Roof/Inch of rain. This harvested water can be used for irrigation or flushing toilets, and the 2009 IRC may require cisterns as currently required in Sante Fe, NM.

To download Mr. Burgess' slide presentation, [click here](#).