The Buchanan area in Haralson County, Georgia represented by the Buchanan 7.5-minute quadrangle is one of many areas in the southeastern Piedmont/Blue Ridge which show very pronounced differences in orientation of dominant large-scale structural features. Throughout most of the west Georgia Piedmont/Blue Ridge the trend of the major geologic structures is dominantly northeast-southwest. For example, in the Cartersville-Emerson area of Georgia, a major fault separates mafic-bearing stratigraphic sequences from non-mafic-bearing stratigraphic sequences. The northeast-southwest trend of this boundary (Allatoona Fault) is dominant over much of its course. However, at Buchanan, this boundary fault zone changes trend abruptly to a nearly north-south trend.

This abrupt change in major structural trend is accompanied by numerous disruptions in the stratigraphic sequence as well as intense shearing over large areas, particularly along, and adjacent to the north-south trending segment of the major stratigraphic boundary referred to above (the Allatoona Fault in the Cartersville-Emerson area; the Lake Olympia fault here). This change in structural trend combined with the disruption and repetition of the stratigraphy is similar to the Tecumsah Furnace lateral ramp that has been mapped further west near the Georgia-Alabama State line on the Borden Springs, GA-AL quadrangle.