Using DRCOG building footprints to determine floor area ratio

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This article originally appeared in the second quarter 2020 Denver Regional Data Consortium newsletter.

Effective community planning uses a comprehensive approach for visioning and problem solving through review of existing conditions, community priorities and best practices. In both large- and small-scale planning in the DRCOG region, application of detailed, full coverage data is critical to understanding trends and identifying opportunities. Logan Simpson, an environmental and community planning firm in Fort Collins, often uses DRCOG planimetric data to understand trends, changes in the built environment and development density through floor area ratios in planning projects along the Front Range.

In community planning, Logan Simpson uses FAR in conjunction with land use to understand where there might be room for additional density in a large parking lot, for example, or to understand average utility usage per square foot by land use type. A project example, illustrated below, shows how Logan Simpson used building footprints to reveal FARs that can support transit. FARs, combined with dwelling units or employees per acre, can indicate where there is enough activity to support a transit stop. Shown below, building footprints were used to determine an average FAR within a half-mile of a transit stop.

The target FAR for a bus with frequent trips is two. Logan Simpson used DRCOG building footprints to estimate the existing number of stories for buildings near transit stops and calculate FAR to determine whether a transit stop is currently feasible, or if changes in land use regulations at key locations would support additional density to make the transit stop more successful.

Floor area ratio (FAR) is the total floor area in a building compared with the area of the lot on which the building is constructed, or floor area divided by lot area. For instance, if a one-story building takes up half of a parcel, it has an FAR of 0.5. (A) If a two-story building takes up half of a parcel, it has the same area as the parcel and it has an FAR of 1. (B)

A key element to the success of projects crossing multiple jurisdictions is the application of DRCOG’s planimetric building footprint layer. Using current and accurate building footprint data enables us to compare each transit stop equally. The data also aids in the recommendation of bus stop locations or changes to land use code to support higher densities around proposed bus stops based in real, on the ground conditions.