

## #7: LAND USE

### OPTIONAL METRIC FOR CATEGORY A & B & C CITIES

**Bold, green font indicates metrics that must improve to be recognized at Step 5**

#### METRICS

- 7.1 % of land within commercial/mixed zoning districts built with a FAR at/above 1.0
- 7.2 % of land within residential/mixed zoning districts with dwelling units per acre (DUA) at/above 7.0
- 7.3 Market value per acre
- 7.4 a: Location affordability index number: housing + transportation  
b: Location affordability index number: housing
- 7.5 Acres of new development in past year on previously developed land
- 7.6 **New affordable housing units added in past year as a percent of all new past year housing units**

#### METRIC DEFINITION

- **FAR (Floor Area Ratio)** is a common “building intensity” measure: gross floor area in a building divided by the lot/parcel size. For example, a structure with two floors of equal size that has a footprint that covers 50% of the lot will have an FAR of 1.0. Add a third floor and the FAR increases to 1.5 (Metric 7.1)
- **DUA (Dwelling Units per Acre)**, similar to FAR, is a measure of rental and ownership housing intensity and specifically density. For this GreenStep metric, total only the housing units within residential (and mixed-use: residential/commercial) districts that are zoned for a DUA of 1.0 or more, and divide by the net acreage of the district(s). Exclude those city lands zoned for fewer than one house (dwelling unit) per acre so as to focus on the core city residential area served by city services such as a sewer collection system. Net acreage excludes undevelopable acres within the residential/mixed-use zoning districts, such as streets and parks. (Metric 7.2)
- **Market value per acre** is a city-wide measure of development “efficiency” and an indicator of the economic sustainability / tax productivity of land use. Total acreage in a city rarely changes, but the total dollar value of the total acreage and buildings does. If a city has many parcels with a low market and taxable value (for example, many parking lots, a high proportion of single family houses on large lots) on which taxes are levied, this results – if the tax rate is not increased or if few nodes of dense development exist - in fewer tax dollars per acre with which to maintain and improve and add infrastructure and with which to provide city services. Total market value, however, is also affected by other factors beyond a city’s control (including building use, parcel ownership by non-profit organizations and inflation). (Metric 7.3)
- **Location Affordability Index** estimates the percentage of a family’s income dedicated to the combined cost of housing and transportation in a given location – city, region, or neighborhood. Traditional measures of housing affordability ignore transportation costs. Typically a household’s second-largest expenditure, transportation costs are largely a function of the characteristics of the neighborhood in which a household chooses to live. Compact and dynamic neighborhoods with walkable streets and high access to jobs, transit, and a wide variety of businesses allow a household to afford more expensive housing because transportation costs can be cut dramatically. However, in greater Minnesota, the transportation percentage may be larger than the housing percentage and reporting the combined percentage and the two separate percentages can be very useful to a city. (Metric 7.4)
- **Acres of new development in the past year on previously developed land** is an “in-fill” measure that should track increases in city-wide market value per acre and yet should change more dramatically each year. It focuses attention on developments that, rather than requiring more costly extension of city services as does “greenfield” development, better utilize existing infrastructure, make an area more viable for improved transit service, and enhance the economic and social viability of an area. (Metric 7.5)

## Minnesota GreenStep Cities Performance Metrics for Recognition at Steps 4 and 5

- **Affordable housing** uses a federal definition and is a serious issue for many Minnesota cities, resulting, for example, in the inability for basic workers such as teachers to live close to where they work and reap all the related financial and social benefits. As acres of infill development is to market value per acre, new affordable housing tracks the Location Affordability Index number, changing more dramatically each year and counts both the addition of new rental and ownership housing units and conversions of units into affordable units. (Metric 7.6)
- **Alternative metrics:** If you have been gathering different metrics or want to gather different metrics, report those in the notes section of the survey reporting form and explain how they are a better fit for your city.

### DATA SOURCES

- City records, zoning and plat maps, and if available, your Geographic Information System. (Metrics 7.1 & 7.2)
- City, County property assessor's records. (Metrics 7.1 & 7.2)
- Annual LMC report at <https://www.lmc.org/page/1/property-tax-reports.jsp> - click on the most recent year "property tax data and use the "taxable tax capacity" column. (Metric 7.3)
- Location Affordability Index: <https://htaindex.cnt.org/map/> (Metric 7.4)
- Building permit records. (Metrics 7.5 & 7.6)

### METRIC CALCULATION AND PUBLIC REPORTING

- **Annual measurement and reporting** for these metrics is based upon 12 months as of December 31<sup>st</sup> before the reporting year. Acres of infill development and of new affordable housing will likely change significantly each year. The other metrics will likely change slowly and so cities may choose to re-measure them every 2-3 years. In years when no re-measurement is done, simply repeat the previously years' measure and report this in the notes section of the GreenStep reporting form. (Metrics 7.1-7.6)
- **% of land within commercial/mixed zoning districts built with a FAR at/above 1.0:** Ideally, use a spreadsheet of property tax records to total gross floor area of all buildings within city land zoned for commercial and mixed use, and divide that total by the total footage of all parcels in those zoning districts. Use permit records to update the data annually. See more details on calculating FARs under Land Use at <https://metro council.org/Handbook/Files/Resources/Fact-Sheet/LAND-USE/How-to-Calculate-Floor-Area-Ratio.aspx> (Metric 7.1)
- **% of land within residential/mixed zoning districts with dwelling units per acre at/above 7.0:** First, take data only from residential and mixed-use (residential plus commercial) districts that are zoned for a DUA of 1.0 or more. Ideally, use a spreadsheet of property tax records to total housing units within those relevant zoning districts and divide that total by the net acreage of all land in those zoning districts. Use permit records to update the data annually. Net acreage excludes undevelopable acres within the residential/mixed-use zoning districts: land covered by arterial road rights-of-way, wetlands, water bodies, public parks and trails, public open space, and other land protected by local ordinances such as steep slopes. See more details on calculating net residential density under Land Use at <https://metro council.org/Handbook/Files/Resources/Fact-Sheet/LAND-USE/Net-Residential-Density.aspx> (Metric 7.2)
- **Market value per acre:** Total the market value in dollars of all parcels (land plus buildings) in the city, and divide by the total land acres within city limits. Technically, we use the total (estimated) market value (MV) rather than the taxable market value (which is MV minus two exclusions (homestead and disabled vet homestead) that are changed over time by the Minnesota Legislature. See a webinar at <https://www.strongtowns.org/journal/2019/10/11/strong-towns-member-leads-a-diy-value-per-acre-analysis> for a step-by-step process to use (Metric 7.3)
- **Enter your city name into the Location Affordability Index** web site and report (a) the resulting percentage of a family's income dedicated to the combined cost of housing + transportation in the city, (b) the percent of income going to housing. Use the default values on the web site – median-income family, combined rental/ownership – but change them if the resulting calculation is more relevant and report your changed assumptions in the notes section of the GreenStep reporting survey. Because what is affordable is different for everyone, users can choose among eight

different family profiles--defined by household income, size, and number of commuters--and see the affordability landscape for each one. (Metric 7.4)

- **Acres of new development on previously developed land:** Consider as “previously developed” those parcels where the built (improved) value of the parcel was at least 10% of total parcel value (land plus building value) prior to the new development. Therefore do not count empty lots on the edge of, or within, the city that have never been built on. Count the gross footage (converted to acres) of construction on: parcels where an empty building is demolished; on brownfields (unused, abandoned parcels); on parcels where the building is more than 50% reconstructed; on parcels where a vacant/abandoned building is rehabilitated.

If counting empty lots never built on makes this measure much more relevant for your city (as it might for a small rural city), do so and report this in the notes section of the GreenStep reporting survey. (Metric 7.5)

- **New affordable housing units:** According to US Housing and Urban Development, housing is affordable “when the occupant(s) is/are paying no more than 30% of their income for gross housing costs, including utilities. Some cities may define affordable housing based on other, locally (for example, county) determined criteria and should note that criteria in the notes section of the GreenStep reporting survey form. For each GreenStep reporting year, total the number of affordable housing rental and ownership units created within the city – either new construction, or reconstruction, or financially restructured units. Divide that total by the total number of all new housing (rental and ownership) created in the city during the year and report the percentage.

The Twin Cities Metropolitan Council has established new affordable housing targets for all metro cities for the period 2020 – 2040. GreenStep cities may report as an alternative metric (and note this on the GreenStep reporting survey) new affordable units each year as a percent of their 2040 target. (Metric 7.6)

## METRIC RATIONALE

**Land use exceeding FAR and DUA thresholds.** Cities have authority over the two interrelated factors with the greatest long-term potential to increase energy efficiency, reduce greenhouse gas emissions, and buttress financial security: land use (through comprehensive planning) and transportation, especially public transportation. By choosing a mix of allowing, encouraging, facilitating, incentivizing and requiring a higher commercial and residential intensity and density (and mixed-use development) in already developed areas, cities can help create compact, human-scaled communities that are walkable and transit friendly, and that offer a more complete mix of uses, services, and housing options for families at all income levels. A FAR above 1.0 generally results in buildings with two or more floors – an historically durable and financially productive building form in Minnesota – and thus 1.0 is set as a GreenStep threshold measure. A DUA at/above 7.0 is the threshold established by the national STAR Community and LEED for Neighborhood Development rating systems - largely because long-term viability of transit, and infrastructure replacement, becomes difficult below 7.0. In state policy, as a condition for funding, Minnesota Housing requires 6+ DUA for single-family projects.

**Market value per acre.** As the adage goes - “land: they ain’t makin’ it anymore” – and so it makes sense to make existing acres more productive in terms of taxes. A narrower and related metric that has been explored in the rural Twin Cities exurban areas is property taxes collected per linear foot of road, a key indicator for tracking and answering the basic question of whether enough tax money is being collected and saved so that roads can be repaired/rebuilt as their useful life ends.

**New development on previously developed land** is the major way to increase market and taxable value per acre and has been chosen as a Metropolitan Council metric in its Thrive MSP 2040 plan, which has a focus on growth in infill areas and a focus on redevelopment that does not require the extension of water, sewer, and road infrastructure.

**The Location Affordability numbers help** the city, businesses and residents get a more complete understanding of the costs of living in the city, pointing to aspects of housing and transportation where changes can result in financial savings to individuals.

**New affordable housing.** A mix of housing opportunities is valued by all cities to accommodate residents with a range of incomes, and cities typically measure a number of data points: median or average rents; rental vacancy rates; home sale numbers and median price; number of houses on the market; percent housing affordable [to some defined subset of the

Minnesota GreenStep Cities  
Performance Metrics for Recognition at Steps 4 and 5

population]; mix of rental, ownership and senior housing; mix of single-family housing and 2-4-plexes and multi-family housing. An argument can be made for the preeminent value of any one measure for a specific city. That said, affordability and the need to add more affordable housing is a widely shared need among Minnesota cities, and thus GreenStep has chosen to measure new affordable housing units added each year as a percent of all new housing units added during the year.

- Being mindful however of the Location Affordability Index, this affordable housing metric is not to be construed as simply “the more the better.” Building affordable units in locations that lack the public transportation infrastructure and social service networks that lower-income households so importantly benefit from is not necessarily good public policy; nor is over-concentrating affordable housing, for example, in a central city location.

### STEP 5 METRICS

There are no state-wide goals for these metrics nor any guidance useful at this point in time for all cities in Minnesota. Therefore individual cities are best equipped to set realistic goals for metric improvement, and any improvement in the metrics has clear, quantifiable, and multiple benefits.

The national STAR Community Rating System does set these two related and relevant targets:

- Aim for at least 75% of new housing units in each 3 year period to utilize existing water and sewer mains and existing roads without widening them.
- Aim for households, in at least 80% of those Census block groups that earn at or below the Area Median Income, to spend less than 45% on housing and transportation costs combined.

### NEED HELP? CONTACT

**Brian Ross**, [land use planner](#), Great Plains Institute: [bross@gpisd.net](mailto:bross@gpisd.net) , 612-767-7296

October, 2020