



## CLIMATE ASSESSMENT FOR ZTA 24-01, HOUSEHOLD LIVING – CIVIC AND INSTITUTIONAL USES

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### PURPOSE OF CLIMATE ASSESSMENTS

The purpose of the climate assessments is to evaluate the anticipated impact of master plans and zoning text amendments (ZTAs) on the County’s contribution to addressing climate change. These assessments will provide the County Council with a better understanding of the potential climate impacts and implications of proposed master plans and ZTAs at the county level. The scope of the climate assessments is limited to the County’s contribution to addressing climate change, specifically upon the County’s contribution to greenhouse gas (GHG) emissions, and how actions proposed by master plans and ZTAs could improve the County’s adaptive capacity to climate change and increase community resilience.

While co-benefits such as health and cost savings may be discussed, the focus is on how proposed master plans and ZTAs may impact GHG emissions and community resilience.

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### SUMMARY

ZTA 24-01 will allow the construction of Multi-Unit Living and Townhouse Living in residential Detached zones as a conditional use when associated with Religious Assembly or Educational Institution (Private).

Montgomery Planning anticipates that ZTA 24-01 will result in an overall indeterminate minor negative impact resulting from an aggregate of minor local negative climate-related impacts toward the County’s goals of addressing greenhouse gas emissions and ensuring resilience, and a small positive impact on the adaptive capacity of our communities. This is because although the number of future permits issued pursuant to this ZTA, limits of disturbance, footprint of new construction, new impervious surfaces, where the sites might be located relative to each other and other sources of urban heat, and what changes in transportation-related changes might ensue are all unknown, the ZTA limits the proposed uses to religious assembly and private educational institutions. The anticipated impacts include small negative local impacts on some greenhouse gas emissions-related variables in the transportation and energy sectors, small negative local impacts on some resilience-related variable in the exposure-related and sensitivity-related sectors, and small positive impacts on one community adaptive capacity-related variable.

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## BACKGROUND AND PURPOSE OF ZTA 24-01

Zoning Text Amendment (ZTA) 24-01 was introduced on January 16, 2024. The Council has branded the ZTA as Facilitating Affordable Inclusive Transformational Housing (FAITH). The ZTA is intended to assist the faith based community in their charitable and social work by facilitating a new processes for providing affordable housing on Religious Assembly or Educational Institution (Private) land. Many institutional uses are located on larger properties and have extra development capacity on their properties. This ZTA creates opportunities for new affordable housing developments on these institutional properties, through a conditional use process.

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## VARIABLES THAT COULD AFFECT THE ASSESSMENT

### CLIMATE-RELATED VARIABLES

#### **Greenhouse Gas-related Variables:**

Transportation-related: Vehicle miles traveled (VMT); and Number of trips

Building Embodied Emissions: Building square footage; Pavement infrastructure; and Material waste produced

Energy-related: Electricity usage

Land Cover Change and Management: Area of Forest; Area of non-forest tree canopy; Area of green cover

#### **Resilience-related Variables:**

Exposure-Related Factors: Activity in urban heat islands; Exposure to other hazards

Sensitivity-Related Factors: Change to forest cover; Change to non-forest tree canopy; Change to quality or quantity of other green areas; Changes to impacts of heat; Change in perviousness; Change to water quality or quantity; and Change to air quality

#### **Adaptive Capacity-Related Variables:**

Change to community connectivity

### OTHER VARIABLES

Other variables include the number of future permits issued pursuant to the ZTA; presence of forest, non-forest tree canopy, or other green areas that may be impacted by construction; limits of

disturbance, footprint of new construction; and where the sites and transportation options are located relative to each other and other sources of urban heat.

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## ANTICIPATED IMPACTS

### GREENHOUSE GAS (GHG) EMISSIONS, CARBON SEQUESTRATION, AND DRAWDOWN

The number of future permits issued pursuant to this ZTA, limits of disturbance, footprint of new construction, new impervious surfaces, where the sites might be located relative to each other and other sources of urban heat, and what changes in transportation-related changes might ensue are all unknown. However, because the ZTA limits the proposed uses to religious assembly and private educational institutions, the ZTA is likely to result in an overall indeterminate minor negative impact resulting from an aggregate of minor local negative climate-related impacts toward the County's goals of addressing greenhouse gas emissions. These negative impacts would be associated with new development in areas with large-lot estate zoning that would otherwise not be allowed. The negative impacts would be associated with the greenhouse gas and sequestration-related variables listed above including vehicle miles traveled (VMT), number of trips, building square footage; pavement infrastructure; material waste produced, electricity usage, area of forest, area of non-forest tree canopy, and area of green cover.

### COMMUNITY RESILIENCE AND ADAPTIVE CAPACITY

For the same reasons indicated in the GHG and Sequestration section above, this ZTA is anticipated to result in an overall indeterminate minor negative impact resulting from an aggregate of minor local negative climate-related impacts toward the County's goals of addressing community resilience. These negative impacts would be associated with new development in areas with large-lot estate zoning that would otherwise not be allowed. The negative impacts would be associated with the resilience and adaptive capacity variables listed above including activity in urban heat islands, change to forest cover, change to non-forest tree canopy, change to quality or quantity of other green areas, changes to impacts of heat, exposure to other hazards, change in perviousness, change to water quality or quantity, and change to air quality. Regarding the change to forest and non-forest tree canopy cover variables, the negative impact is a potential one that could arise if new development under this ZTA involves forest removal that cannot be mitigated on the same site or non-forest tree canopy loss that cannot be replaced onsite. Regarding the exposure to other hazards variable there is the potential for some increase in local flooding due to additional runoff from increased impervious surface that could result from storms that are greater than stormwater management design criteria.

The ZTA is anticipated to have a small positive local impact on an adaptive capacity-related variable: change to community connectivity. This would be due to population increases in certain neighborhoods and associated potential enhancements in social support networks, and sense of

community. However, in view of the likely small number and size of any resulting new developments, these potential positive impacts would likely be minor.

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### RELATIONSHIP TO GHG REDUCTION AND SEQUESTRATION ACTIONS CONTAINED IN THE MONTGOMERY COUNTY CLIMATE ACTION PLAN (CAP)

ZTA 24-01 does not involve any GHG or sequestration activities that relate to the GHG reduction and sequestration actions from the County’s Climate Action Plan.

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### RECOMMENDED ACTIONS

One potential way to reduce the negative climate impacts described above would be to limit the applicability of the ZTA to zones less dense than the proposed estate zones. This would help to focus new development under the ZTA to areas within the Corridor Focus Growth Areas as described in Thrive Montgomery 2050. This is an observation and not a recommendation, as staff recognize that other factors and needs must be considered in coming to a decision on this ZTA. However, regardless of the zones to which the ZTA applies, incorporating language into the ZTA to limit the new uses to areas with existing access to public transit, as required by the Zoning Code for similar conditional uses, would at least help to mitigate negative climate impacts associated with additional vehicle miles traveled (VMT) and number of trips.

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### SOURCES OF INFORMATION, ASSUMPTIONS, AND METHODOLOGIES USED

The climate assessment for ZTA 24-01 was prepared using the methodology (tables 1, 2, and 8, in particular) for ZTAs contained within the [\*Climate Assessment Recommendations for Master Plans and Zoning Text Amendments in Montgomery County, December 1, 2022\*](#).