**Amendment 1 Amendment No. 33 to Council Bill No. 28 -2023**

**BY: The Chairperson at the Request of the County Executive**

**Legislative Day 12**
**Date: October 11, 2023**

**Amendment No. 1 to Amendment No. 33**

*(This Amendment to Amendment No. 33 makes a technical correction to group electric bikes and cars together, separate from charging stations.)*

In Chapter 4, County in Motion, substitute page CIM 32 attached to Amendment No. 33 with the page CIM 32 attached to this Amendment to Amendment.

In Chapter 11, Implementation, substitute page IMP 27 attached to Amendment No. 33 with the page IMP 27 attached to this Amendment to Amendment.

## Climate Change and Air Quality

As outlined in the Ecological Health chapter, climate change can be generally defined as a significant long- term shift in weather patterns for a specific geographic region. Emissions of the long-lived greenhouse gases carbon dioxide (CO2), methane, nitrous oxide, and fluorinated gases are causing climate change as they build up and trap heat in the atmosphere. A significant contributor to emissions is the transportation sector. In the United States, transportation accounts for 33% of CO2 emissions, with 65% of that total resulting from gasoline consumption in cars and light trucks. Annual vehicle miles traveled (VMT) in Howard County has grown slightly in recent years, increasing by just over 400,000 between 2013 and 2018. This growth in VMT represents nearly 500 additional miles driven by every county resident per year. On a per capita basis, the county VMT is approximately 37% higher than the regional average. This difference is a function of slightly longer commuting distances to Baltimore and Washington, DC, high per capita auto ownership, and a limited number of transit options for most commute trips.

Air pollution levels are reported to the general public via the Air Quality Index (AQI), which measures the level of criteria pollutants (air pollutants that contribute to the formation of ozone and particulate matter, including hydrocarbons, carbon monoxide, and oxides of nitrogen, which can have adverse short- and long-term health effects). In the Baltimore-Washington region, the AQI is driven by ground level ozone and particulate matter. The Clean Air Act enables interstate commissions to develop regional strategies for reducing air pollution. Maryland is part of the Northeast Ozone Transport Region, which includes 12 states and the District of Columbia. At the local level, Howard County is a member of the Baltimore Metropolitan Council (BMC) and its Baltimore Regional Transportation Board (BRTB), which coordinate regional transportation planning and work to reduce emissions from transportation. Under the Clean Air Act, the BRTB cannot approve any project, program, or plan that does not conform to Maryland's State Implementation Plan, which guides Maryland's actions to attain and meet air quality standards.

Reducing emissions and air pollutants from the transportation system will take multiple approaches, including the following: 1) reducing direct emissions from vehicles; 2) shifting demand to more efficient transportation modes with fewer direct emissions; and 3) reducing VMT. The national, state, and local vehicle fleet is still primarily comprised of gasoline and diesel vehicles; however, electric and hybrid vehicles are becoming more common. In 2022, less than 1% of the US vehicle fleet was electric but sales were increasing rapidly. Meaningful market penetration of electric vehicles will depend on availability of government incentives, alleviating buyers' range anxiety, and facilitating investment in charging infrastructure. The high cost of electric vehicles is often cited as a barrier, as approximately two-thirds of households that own electric or hybrid vehicles have incomes over $100,000. Therefore any incentives and supporting policies will need to address the County's equity goals. Shifting demand to other modes, such as transit, walking, and biking, is another reliable and equitable method to reduce VMT and emissions. By investing in reliable transit and safe walking and cycling facilities, the County can ensure that community members will have the option to shift their vehicle trips. Additionally, increasing frequency of transit service not only benefits those who depend on it out of necessity, but also improves the attractiveness of transit to those who are able to choose their mode of travel.

Climate change is also forecast to impact the reliability of the transportation system as periods of higher temperatures increase wear on road surfaces; stronger and more sustained rain events increase flooding on roads, bridges, and culverts; and long-term droughts dry out subsurface soils, leading to subsidence. Additionally, reduced capacity, detours, and crashes from flooding impact travel time, reliability, and safety. As articulated in the BMC's Capital Improvement Program study, viewing asset management and county design standards through a resiliency lens will be critical to ensuring the County's transportation system can continue to operate safely and effectively.

### CIM-8 Policy Statement

Actively plan for and evaluate the impact of technology and climate change on the transportation system.

#### Implementing Actions

1. Evaluate and update parking and land development requirements to reflect greater use of mobility and delivery as service models.
2. Amend design standards and asset management approaches to ensure resilience.
3. Support the installation of electric ~~vehicle~~ vehicles (EV), such as electric cars, and electric bikes, and charging stations in private and public space, with particular attention to shared parking lots to ensure they are EV ready by including connections and infrastructure.
4. Evaluate and address the potential impact of electric vehicle charging stations on electric power requirements.
5. Participate in regional and state coordination efforts to ensure federal and state regulations on connected and autonomous vehicles account for vulnerable road users such as pedestrians and cyclists.

### CIM-9 Policy Statement

Support efforts to improve air quality with an emphasis on communities and populations most threatened by high levels of pollution.

#### Implementing Actions

1. Develop land use and environmental policy strategies that reduce the impact of diesel particulate matter in communities adjacent to industrial areas.
2. Develop a plan to transition the County's fleet (including school buses and contracted services) to low/ no emission vehicles.
3. Continue to invest in increasing public transit frequency and walking and cycling infrastructure to support both a more equitable transportation system and shifts away from automobiles to non-automobile modes.
4. Consider targeted financial incentives and the removal of regulatory barriers for property owners and companies that deploy electric vehicle charging infrastructure, idle reduction technology, and other technologies that capture or mitigate diesel emissions at the source.
5. Consider a subsidy program to support low emission vehicles, bicycles, and scooters in traditionally underserved communities.

## Table 10-1: Implementation Matrix

| Policy and Implementing Actions | Lead Agency | Timeframe (Mid-Term five-year, Long-Term six+ years, Ongoing) |
|---|---|---|
| **CIM-8 - Actively plan for and evaluate the impact of technology and climate change on the transportation system.** | | |
| 1. Evaluate and update parking and land development requirements to reflect greater use of mobility and delivery as service models. | **DPZ** OOT | Mid-Term |
| 2. Amend design standards and asset management approaches to ensure resilience. | **DPW** OOT DPZ | Mid-Term |
| 3. Support the installation of electric ~~vehicle~~ vehicles (EV), such as electric cars~~,~~ and electric bikes, and charging stations in private and public space, with particular attention to shared parking lots to ensure they are EV ready by including connections and infrastructure. | **DPW** **OCS** OOT Private Partners | Ongoing |
| 4. Evaluate and address the potential impact of electric vehicle charging stations on electric power requirements. | **DPW** OOT OCS | Long-Term |
| 5. Participate in regional and state coordination efforts to ensure federal and state regulations on connected and autonomous vehicles account for vulnerable road users such as pedestrians and cyclists. | **OOT** | Ongoing |
| **CIM-9 - Support efforts to improve air quality with an emphasis on communities and populations most threatened by high levels of pollution.** | | |
| 1. Develop land use and environmental policy strategies that reduce the impact of diesel particulate matter in communities adjacent to industrial areas. | **OCS** **OOT** | Long-Term |
| 2. Develop a plan to transition the County's fleet (including school buses and contracted services) to low/no emission vehicles. | **OOT** OCS | Mid-Term |
| 3. Continue to invest in increasing public transit frequency and walking and cycling infrastructure to support both a more equitable transportation system and shifts away from automobiles to non-automobile modes. | **OOT** | Ongoing |
| 4. Consider targeted financial incentives to property owners and companies that deploy electric vehicle charging infrastructure, idle reduction technology, and other technologies that capture or mitigate diesel emissions at the source. | **OOT** OCS Private Property Owners | Mid-Term |
| 5. Consider a subsidy program to support low emission vehicles, bicycles, and scooters in traditionally underserved communities. | **OOT** | Long-Term |



## Table 10-1: Implementation Matrix

| Policy and Implementing Actions | Lead Agency | Timeframe (Mid-Term five-year, Long-Term six+ years, Ongoing) |
|---|---|---|
| **CIM-10 - Advance transportation planning and transportation investments to support an economically and environmentally sustainable transportation system that moves people safely and efficiently throughout the County and supports the land use and equity goals in HoCo By Design, including its emphasis on mixed-use activity centers.** | | |
| 1. Develop a countywide transportation plan and conduct a focused transportation study for each activity center in the Route 1 Corridor. | **OOT** DPW | Mid-Term |
| 2. Continue to use the Functional Road Classification Map to guide the design, capacity, and function of roads as they are built or improved. | **DPW** OOT DPZ | Ongoing |
| 3. Implement HoCo By Design's recommendations for transit service through future transit service functional plans or master plans. | **OOT** DPZ | Long-Term |
| 4. Continue to implement recommendations from WalkHoward and BikeHoward as methods to advance the broad concepts and recommendations in the General Plan. | **OOT** | Ongoing |
| 5. Ensure the Design Manual is consistent with the General Plan as part of the regular update process for the Design Manual. | **OOT** | Long-Term |
| **EP-1 - Retain and expand the use of industrial land to support employment opportunities that pay a living wage.** | | |
| 1. As part of the Zoning Regulations update, consider protective measures to ensure an adequate long-term supply of industrial land, such as additional requirements or impact statements for rezoning industrial land, zoning that discourages incompatible uses in heavy industrial areas, heavy buffer requirements for non-industrial users locating near heavy industrial land, or industrial overlay zoning for prime industrial land. | **DPZ** | Mid-Term |
| 2. Determine how compatible uses can co-locate in designated Industrial Mixed-Use character areas to support industrial operations and create an active sense of place. | **DPZ** | Long-Term |
| 3. Prioritize for retention industrial land that is uniquely accessible to regional highways for continued industrial use. | **DPZ** | Mid-Term |
| 4. During the Zoning Regulations update or via Zoning Amendments, favorably consider context-sensitive industrial uses along the Interstate 70 corridor. | **DPZ** | Mid-Term |
| **EP-2 - Ensure redevelopment is consistent with the character of industrial areas.** | | |
| 1. Update the Route 1 Design Manual to include Industrial Mixed-Use character areas and incorporate buffers between redevelopment areas and industrial areas. | **DPZ** | Long-Term |