



## HOV Lanes

### Definition

- HOV is an acronym for High Occupancy Vehicles.
- Only vehicles with the required occupancy, typically two or more people in one vehicle carpooling, or transit vehicles, are allowed to access HOV lanes.

### Purpose

- The primary purpose of HOV lanes is to maximize the number of people traveling in a lane, while promoting carpooling and transit.
- HOV lanes optimize the number of people rather than vehicles that travel on the lane. An HOV lane often carries more people than the adjacent two or more general-purpose lanes.



### Characteristics & Applicability in Maryland

- Tolls are not charged on HOV lanes.
- HOV lanes do not assure congestion-free travel. Indeed, portions of the existing I-270 HOV system are regularly congested. The only "time-saving" incentive of an HOV lane is provided by the extent to which the lane is not fully utilized.
- As HOV lanes become more congested, the primary way to manage traffic volume in these lanes is by raising occupancy requirements to decrease the volume of vehicles, while still retaining the same number of people in the lanes.
- Traditional Federal, State and local funding sources are used to build HOV lanes; therefore, construction of additional HOV lanes would still depend on these funding sources which can take decades to assemble.
- HOV lanes currently exist in Maryland on I-270 and US 50, with plans for additional HOV lanes in some County, Regional, and State long-term plans.



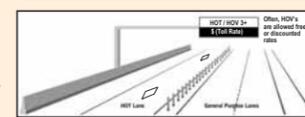
## HOT Lanes

### Definition

- HOT is an acronym for High Occupancy/Toll.
- HOT lanes are HOV lanes that also allow lower occupancy vehicles to gain access to the lanes by paying a toll.
- HOVs are generally allowed to use HOT lanes at a discount or free of charge.

### Purpose

- The primary purpose of HOT lanes is to optimize lane utilization by "selling" the extra capacity not being used by carpools and transit vehicles to lower occupancy vehicles.
- HOT lanes optimize the number of people and vehicles that travel on the lanes, managing demand through a user fee (toll).



### Characteristics & Applicability in Maryland

- HOT lanes currently exist in Texas and California, with plans for additional facilities underway in other states, including Virginia where they are being considered for portions of the Capital Beltway and I-95.
- The HOT lane approach does not exist in Maryland and is not currently under consideration. This is due to a number of factors:
  - ♦ Limitations on the ability to enforce lane restrictions and occupancy requirements due to a lack of sufficient right-of-way on highways under study. Current technology requires visual inspection of vehicles to enforce occupancy restrictions on a HOT lane which, in turn, requires additional right-of-way and physically separated lanes and can sometimes create additional congestion.
  - ♦ Limited ability to generate sufficient revenue to facilitate expedited construction of new capacity. Tolls on HOT lanes are often used as both a tool to manage traffic volume and a revenue source to repay debt-financed construction costs. By allowing HOVs a discount or free passage on a toll lane, less revenue is received from motorists using these lanes.
  - ♦ Lack of available capacity. 20-Year projections (and beyond) for Maryland's more heavily congested highways show that even HOV 3+ lanes fail with too much congestion, leaving no available capacity for single occupant users.
  - ♦ Limitations in current legal documents governing debt backed by toll revenues. Current "trust agreements" prohibit the ability to allow free passage to vehicles on toll lanes based on occupancy.

## ETLs (Express Toll Lanes)

### Definition

- Express Toll Lanes are forms of managed lanes, a concept known as variable or "value" pricing.
- On Express Toll Lanes, motorists who choose to pay a user fee (toll) to access these lanes on a given trip receive access to a relatively free-flowing travel lane, separate from the general-purpose lanes.

### Purpose

- The primary purpose of Express Toll Lanes is to provide needed highway capacity to address congestion through toll financing much sooner than traditional approaches allow.
- A secondary purpose is to provide motorists with an option for relatively congestion-free travel when needed most.



### Characteristics & Applicability in Maryland

- Express Toll Lanes give everyone the option of paying a fee to drive in separate relatively free-flowing lanes on a given trip or of remaining in the existing free lanes.
- Toll rates vary based on demand -- by time of day or based on actual traffic conditions -- and are collected 100 percent electronically at full highway speeds.
- The Express Toll Lane alternative does not allow for discounts or free passage of HOVs; Drivers still will have a financial incentive to carpool in the Express Toll Lanes, reducing the cost of using the lanes by one-half or one-third for two- and three-person carpools, for instance.
- Express Toll Lanes have the potential to improve transit travel times, efficiency, and reliability, by ensuring access to relatively free-flowing travel lanes for commuter bus service, especially during rush hour.
- Selective tolls can reduce traffic during peak periods. A peak-period toll could encourage motorists on discretionary trips to travel off-peak, carpool, take transit, or use less congested routes. Because congestion grows exponentially as roads near capacity, even a small reduction in the number of cars on the road can substantially reduce congestion-related delays and accidents.
- Express Toll Lanes would generate the maximum revenue potential and offer the ability to deliver expedited highway capacity.

