

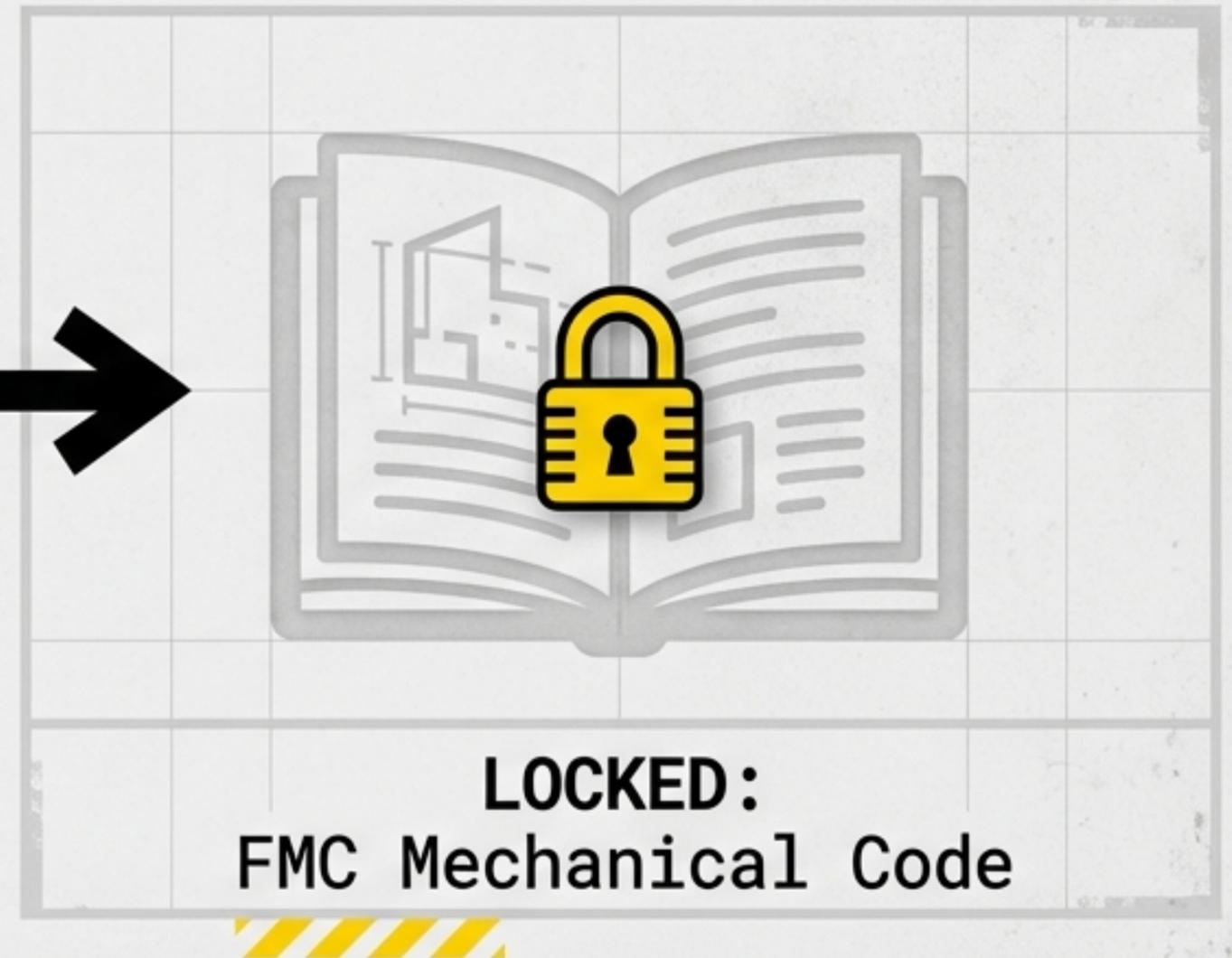
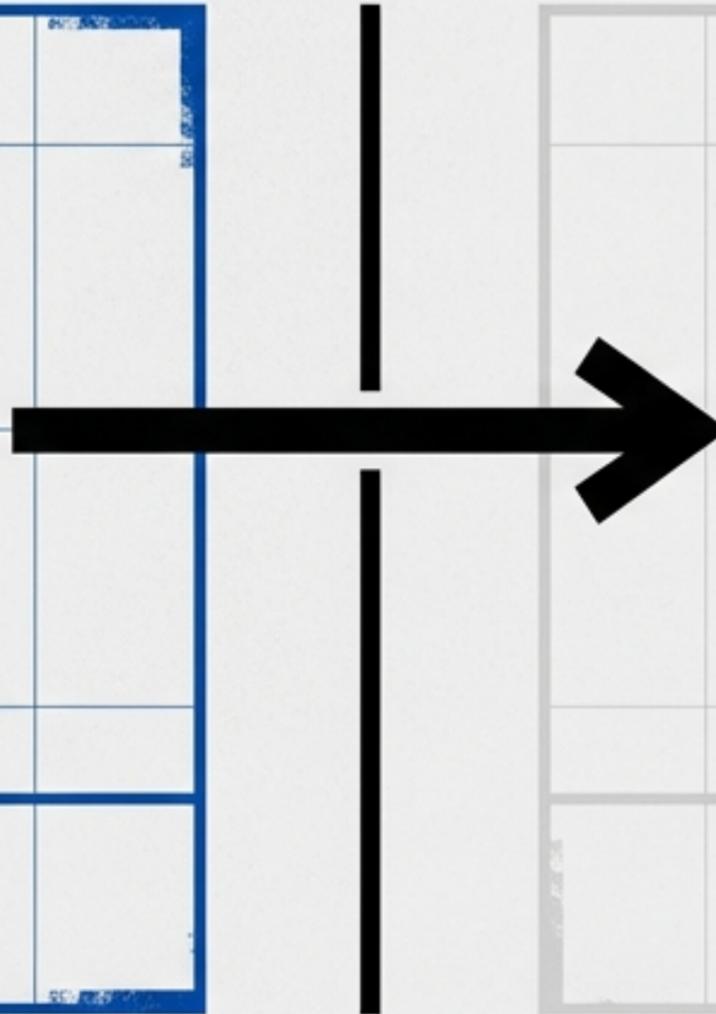
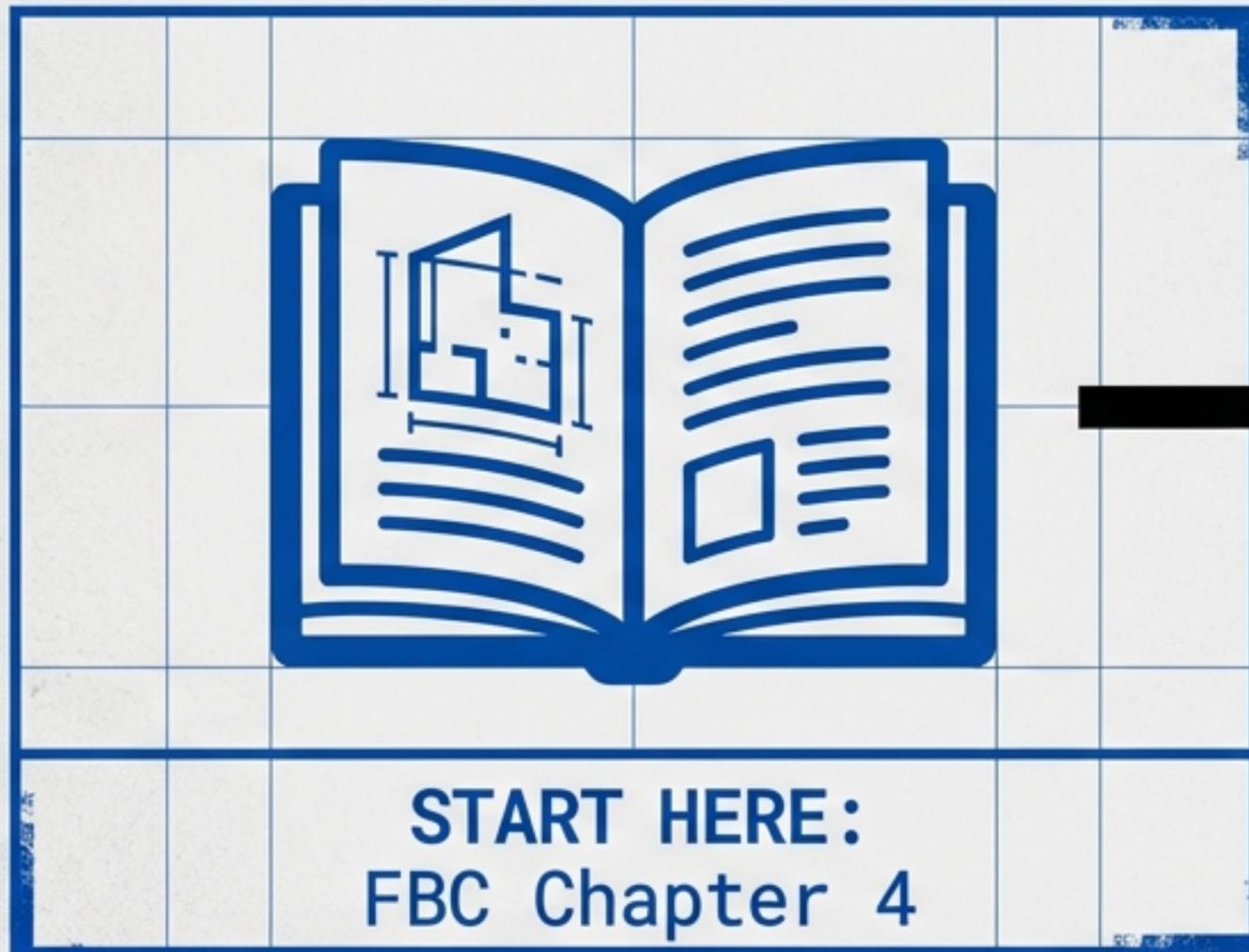
# FLORIDA GARAGE VENTILATION STANDARDS

Navigating the Intersection of  
[Building](#) & [Mechanical](#) Codes

[ REFERENCE: Florida Building Code (8th Edition, 2023)  
& Florida Mechanical Code ]

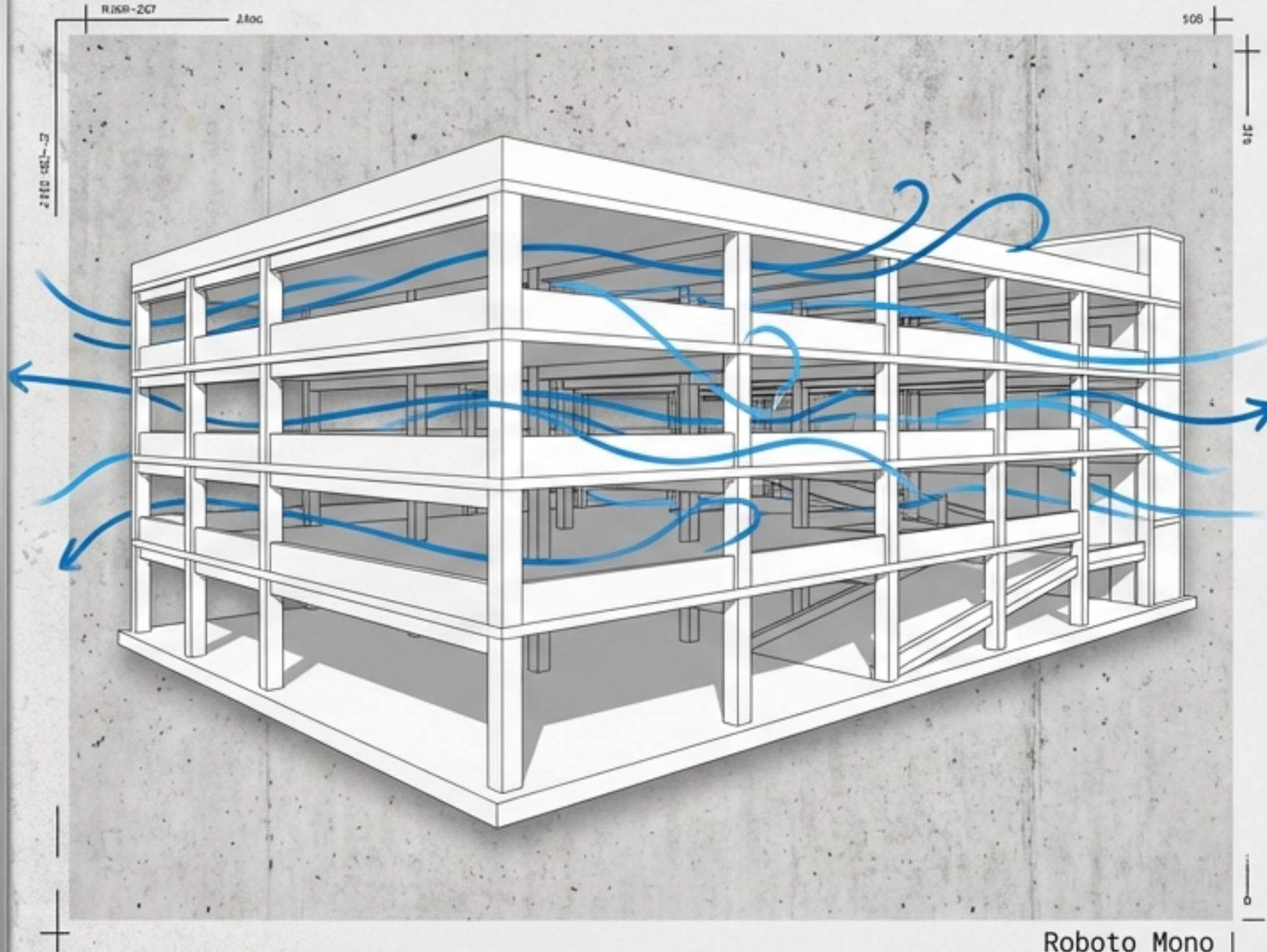
# THE ORDER OF OPERATIONS

1. **THE STARTING LINE:** Evaluation begins with the Florida Building Code.
2. **THE MISCONCEPTION:** Mechanical Code does not determine Open vs. Enclosed.
3. **THE RULE:** FBC classification triggers the FMC requirements.



# THE EXEMPTION: OPEN PARKING GARAGES

Florida Building Code § 406.5



- ✓ Permanent openings on at least two sides.
- ✓ Sufficient percentage of open perimeter wall area.
- ✓ Openings distributed to ensure cross-ventilation.

**OUTCOME: If compliant,  
Mechanical Ventilation  
is NOT REQUIRED.**

# THE TRIGGER: BECOMING ENCLOSED

Evaluate FBC 406.5 Criteria

Meets  
Standards?

Yes → Exempt

## Failure Points:

- Excessive solid wall area
- Architectural screening restricting airflow
- Below-grade location
- Insufficient perimeter openings

**TRIGGER:  
ENCLOSED GARAGE (§ 406.6)**

# THE MECHANICAL MANDATE

Florida Mechanical Code § 404.1



## OPTION A: CONTINUOUS OPERATION

System runs 24/7.  
High energy  
consumption.

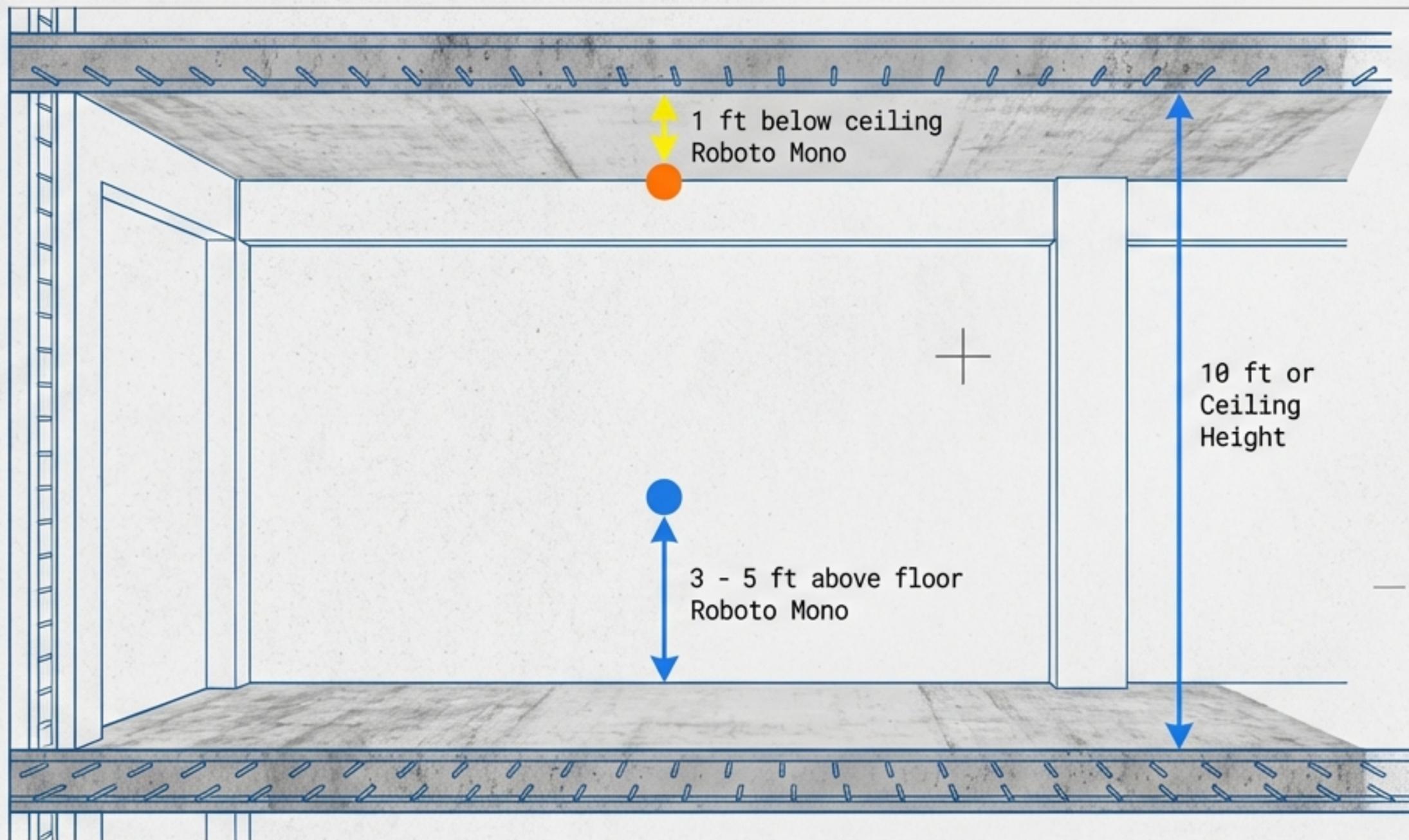


## OPTION B: AUTOMATIC DETECTION

Controlled by  
hazardous gas  
detection (CO + NO<sub>2</sub>).

Compliance requires one of these two methods.

# THE NERVOUS SYSTEM: SENSOR PLACEMENT



**CARBON MONOXIDE (CO):**  
Install in breathing zone  
(3-5 ft).



**CARBON MONOXIDE (CO):**  
Install in breathing zone.



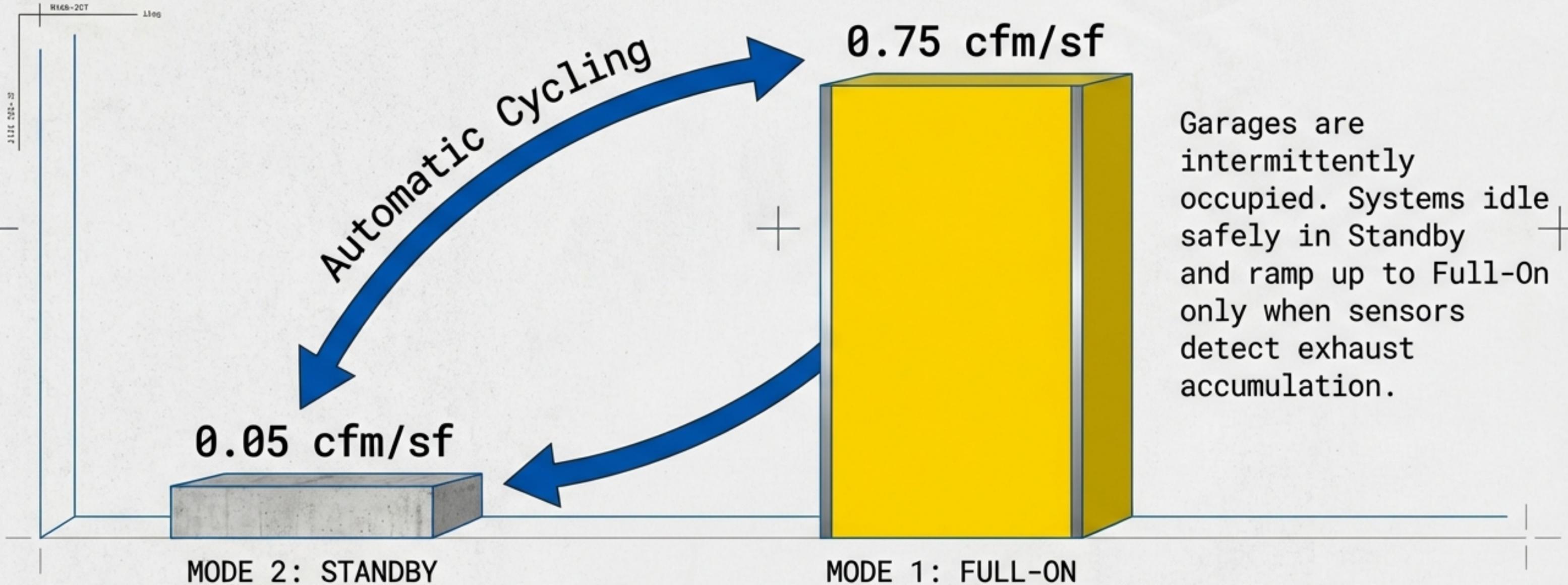
**NITROGEN DIOXIDE (NO2):**  
Install near ceiling  
(1 ft down).



**CERTIFICATION:**  
Must be UL 2075 listed.

# OPERATING MODES & AIRFLOW RATES

Table 403.3.1.1



# PUBLIC GARAGES INTEGRATION

Florida Mechanical Code § 502.13



- The Mechanical Code explicitly ties public garage exhaust systems back to Section 404.
- Requirement: Continuous operation OR Automatic control per Section 404.

# SAME VEHICLES, DIFFERENT RULES

The Transition to Repair Garages



**PARKING**



**REPAIR**

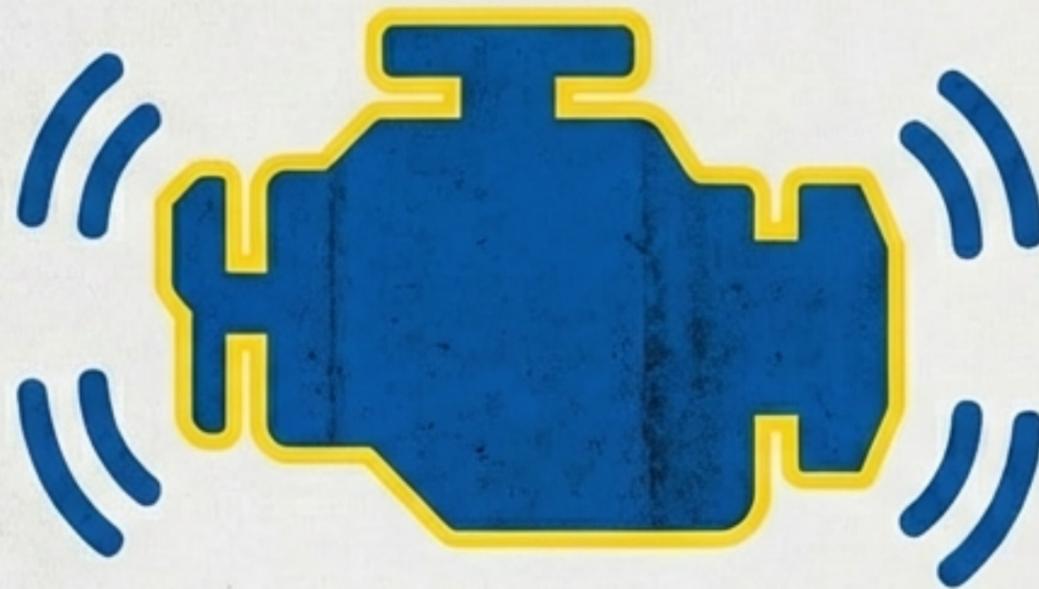
The critical variable is not the car. It is the human occupancy.

# DEFINING THE WORKSPACE

FBC § 406.4: Repair Garages



Servicing &  
Maintenance



Stationary Engine  
Operation



Full Shift  
Occupancy

Because workers remain inside for long durations while engines run, the risk profile shifts from "Transient" to "Occupational".

# VENTILATION RATE PARITY & DIVERGENCE

ENCLOSED  
PARKING



Standby Mode  
(0.05) Allowed



REPAIR  
GARAGE



NO Standby Mode

FMC § 403 & Table 403.3.1.1

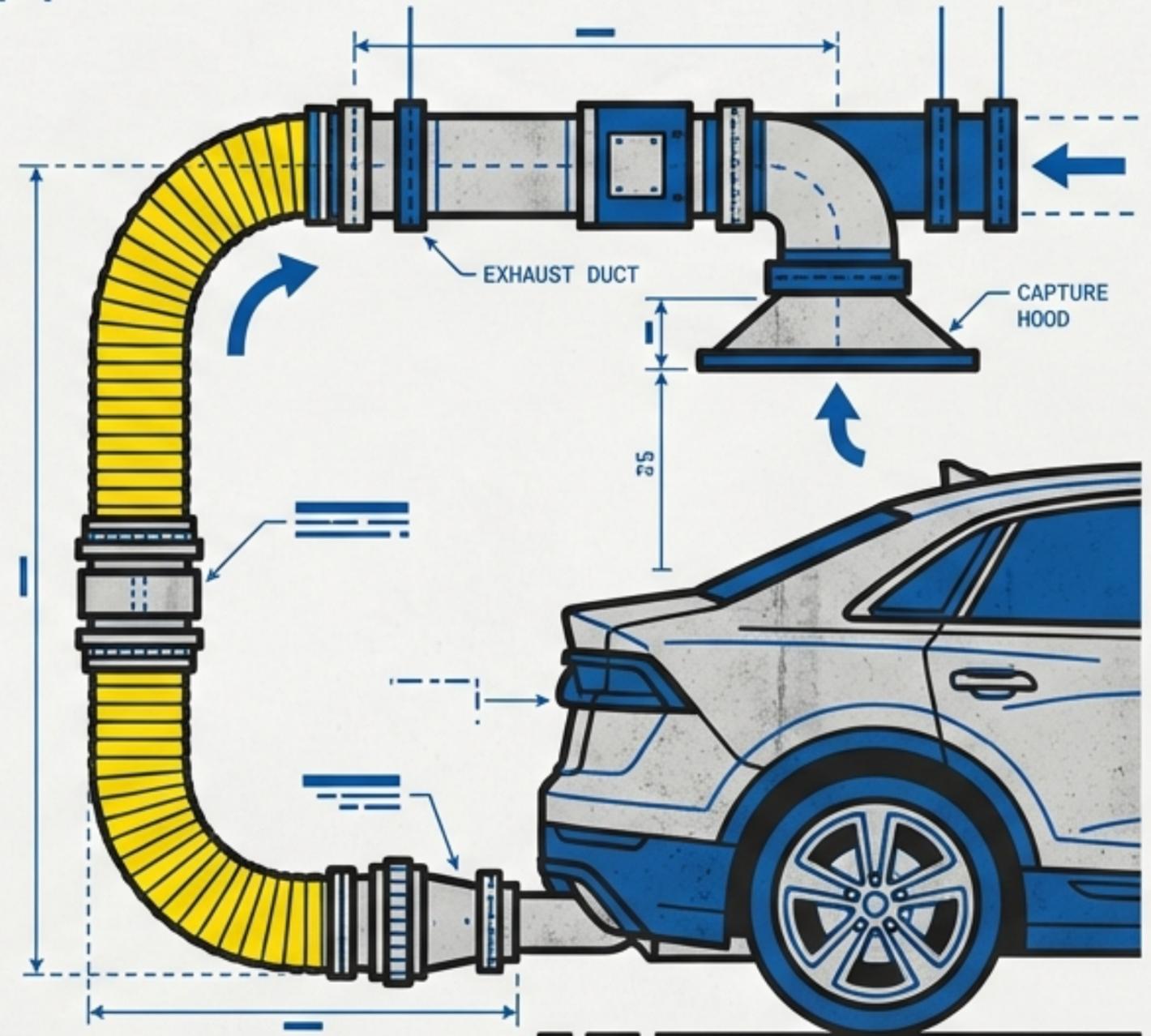
# SOURCE CAPTURE REQUIREMENTS

Florida Mechanical Code § 502.14

**MANDATE:** Areas with stationary motor vehicle operation must have source capture.

## REQUIREMENTS:

- Connect directly to vehicle exhaust.
- Engineered by registered design professional OR factory-built for purpose.



# EXCEPTIONS TO SOURCE CAPTURE

When is Section 502.14 NOT required?



Electrically  
Powered Vehicles



Residential  
(One- or Two-Family  
Dwellings)



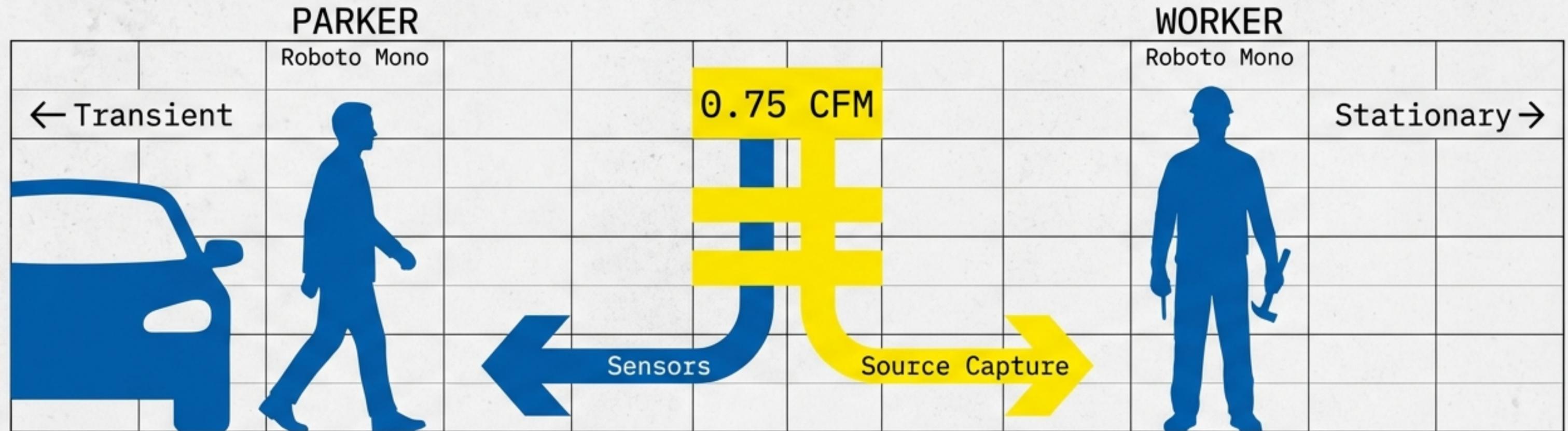
Transient Movement  
(Moving in/out only,  
no stationary testing)

# CODE COMPARISON MATRIX

FEATURE	ENCLOSED PARKING	REPAIR GARAGE
Building Code	Section 406.6	Section 406.4
Ventilation Rate	0.75 cfm/sf	0.75 cfm/sf
Primary Control	Section 404.1 (Sensors)	Section 502.14 (Source Capture)
Standby Mode	Allowed (0.05 cfm/sf)	<b>NOT</b> Allowed
Occupancy	Short-term / Transient	Full Work Shift

# THE HUMAN ELEMENT DRIVES THE CODE

## Helvetica Now Display



1. FBC determines the Type.
2. FMC handles the Airflow.
3. Occupancy determines the Technology.