**San Francisco
County Transportation
Authority**

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SUBJECT:
San Francisco County Transportation Authority Comments on Modifications to Proposed Regulations for the Testing and Deployment of Autonomous Vehicles (AVs) on California's Public Roads

Dear Counsel Chapman:

The San Francisco County Transportation Authority (Transportation Authority) respectfully submits the following comments on the Department of Motor Vehicles' (Department) Proposed Regulations for the Testing and Deployment of Autonomous Vehicles (AVs) on California's Public Roads, issued on December 3, 2025. We commend the Department for its continued leadership in advancing the AV industry in California while maintaining a strong commitment to public safety and regulatory accountability.

At the same time, the two-week review period provided for these proposed regulations significantly limits stakeholders' ability to thoroughly assess the regulatory text, understand its internal logic and implications, and provide thoroughly-researched feedback or recommended refinements. Accordingly, the comments below highlight key areas of concern that merit further consideration, but they should not be viewed as comprehensive given the limited timeframe.

While we recognize the urgency to implement new AV regulations, the Transportation Authority encourages the Department to create additional opportunities for continued, constructive dialogue with stakeholders. We welcome the opportunity to continue working collaboratively with Department staff and other stakeholders to strengthen and clarify the regulatory framework prior to implementation.

1. Previously Submitted Comments Not Addressed in Revised Draft Regulations

The Transportation Authority submitted comments on proposed draft regulations on June 9, 2025. The specific requests are distilled in the following list, and struck-through if the revised draft regulations address them:

1. Performance Standards and Monitoring
    a. Specify quantitative performance metrics and standards for determining risk of accident, death, injury, or exacerbating injury.
    b. Specify quantitative performance metrics and standards for determining reasonable risk.
    c. Require collision records with submission of a Deployment Permit Application, not just a total number.
    d. Consolidate and align data reporting requirements across data types, and require on a monthly cadence.
    e. Replace safety assessment data reporting requirements during a permit application with evaluation of data submitted regularly through monthly reports.
    f. Raise mileage thresholds to a minimum of 1 million to advance between permitting phases.
2. Data Reporting and Transparency
    a. Require VMT reporting under deployment.
    b. Require VMT to be reported disaggregated by geography (city or county), roadway facility type, and time of day.
    c. Make data reporting consistent across permit types.
    d. Require reporting of events on light rail tracks in addition to heavy rail tracks.
    e. Ensure data is available to the public.
3. Phased Permitting
    a. Create separate permits for Drivered Deployment and Driverless Deployment, mirroring the testing permit structure
    b. Create a pathway for moving from Drivered Deployment to Driverless Deployment, or clarify that no such pathway exists.
    c. Set operational bounds on geographic size and type, roadway type, time of day, weather conditions, and fleet size by permitting phase, and create a pathway for incremental, performance-based expansion.
    d. Create permit types and associated requirements that are tailored to the use type (passenger transportation, sale to the public, transportation of hazardous goods, transportation of non-hazardous goods).

4. Safety Case
    a. Provide a clear, precise definition of what constitutes an "unreasonable risk of accident, death, injury, or exacerbated injury."
    b. Create and require clear performance standards.
    c. Specify how safety cases will be reviewed, including allocating adequate review time and leveraging individuals with qualified expertise.
    d. Allow for DMV to work with independent third-parties for review of safety cases.
    e. Clarify triggers for submitting a resubmission and review of a safety case.
5. Permit Restriction
    a. Clarify that a pattern of minor incidents (vs a single more serious incident) may trigger a permit restriction.
    b. Clarify triggering events for permit restrictions.
    c. Use performance standards to trigger and/or inform decisions to restrict permits.
    d. Identify how notices of noncompliance will be used to inform decisions to restrict permits.
6. Regulatory Fees
    a. Develop a fee schedule that sets fees at appropriate levels to cover DMV costs for providing oversight.
    b. Allow reimbursement of costs incurred by law enforcement and first responders, and build those costs into regulatory fees.
7. Remote Operations
    a. Require remote assistants and remote drivers to hold a valid CA license.
    b. Require remote assistants and remote drivers to be physically located in CA.
    c. Establish communication latency standards / requirements.
    d. Ensure remote drivers and remote assistants are subject to drive-time limits that humans in drivers' seats are subject to.
8. Standardization of Protocols
    a. Require manufacturers to conform to standards for first responder and law enforcement interactions.
    b. Require manufacturers to accept geofencing data provided by jurisdictions, rather than requiring jurisdictions to conform to possibly numerous different manufacturer specifications.

9. Private Ownership / Leasing / Operation of AVs
    a. Prohibit individual ownership / leasing until the issues involved are fully contemplated, including, at a minimum:
        i. Clarify data reporting requirements for individually owned / leased AVs.
        ii. Clarify whether and how owners / lessees will be held to ODD requirements, and how these requirements are enforced.
        iii. Clarify what happens to an individual owner's / lessee's AV when the AV manufacturer's license is revoked, suspended, or restricted.
        iv. Clarify how on-board data recorder requirements will be fulfilled for individual owners and lessees.
        v. Clarity whether individual owners and lessees will receive citations or notices of noncompliance, and how a peace officer will determine which is appropriate.

The majority of these comments were not addressed by any revisions in the Revised Draft Regulations. Therefore, the Transportation Authority respectfully resubmits these requests.

2. Reporting Templates Referenced in Proposed Regulations Should be Provided for Comment

The Proposed Regulations make numerous references to various data-sharing templates that the department will create to help providers meet data-reporting requirements. However, these templates have not been made available, preventing the public from reviewing and commenting on them. The ability to derive meaningful performance metrics hinges on details of these templates which are not included in the Proposed Regulations.

For example, the Vehicle Miles Traveled (VMT) reporting template is not available, so it is unclear whether VMT will be reported with any of the granularity needed to meaningfully assess performance. A statewide VMT figure is far too coarse and obscures important differences in roadway context, deployment patterns, and local risk exposure. Similarly, local VMT is essential for jurisdictions to understand the extent of AV operations on their streets, assess the associated safety implications, and plan for future infrastructure and investment needs in response to those operations.

The Transportation Authority encourages the department to release these templates prior to the implementation of the new regulations, so that public feedback can help ensure the templates are clear, practical, and aligned with their intended goals.

3. Braking events

The Transportation Authority appreciates the Department's inclusion of braking-event reporting for operations under both testing and deployment permits. However, the proposed revision, limiting required reporting to events that occur only on public roads with posted speed limits of 35 miles per hour or higher, would render data for cities like San Francisco effectively meaningless. Nearly all of San Francisco's streets have posted speed limits under 35 miles per hour. In the Statement of Reasons, the Department explains that this restriction responds to concerns from industry that reporting for all roads would be overly burdensome for both providers and the Department, and that reporting should focus on "events that present the most potential risk." A braking threshold of 35 mph omits most of San Francisco's High Injury Network (HIN) and effectively under-regulates complex downtown conditions in cities and urbanized areas across the state.

Moreover, due to the density of road users, competition for curb-space and high number of conflicting movements especially in commercial areas, meaningful braking events can occur frequently on lower-speed streets. A deceleration of 5 m/s^2 sustained for 0.5 seconds, producing a speed reduction of 3 m/s, is entirely plausible on streets posted at 25 mph or lower. These situations commonly arise in response to safety-critical conditions such as:

- A pedestrian entering a crosswalk
- A cyclist swerving or changing lanes
- A vehicle pulling out of a driveway
- A traffic signal turning yellow or red
- A double-parked vehicle blocking the lane
- School zones, dense commercial areas, and residential neighborhoods

These are exactly the types of environments where human lives are at risk and where close monitoring is essential. Hard braking data will provide critical insights to San Francisco and other jurisdictions who are addressing their HINs and developing a High Risk Network, but this is not possible if data from a majority of roadways are obscured from public oversight. The Department should remove the 35 mph reporting threshold and require all hard-braking events meeting the remaining criteria to be reported.

4. Incremental, Performance-Based Permitting

The Transportation Authority authored the Conceptual Safety-Focused AV Permitting Framework report, approved unanimously by the Transportation Authority Board in September, which describes a conceptual approach to an incremental, transparent and performance-based permitting framework for autonomous vehicles. It proposes that AV deployment should consist of a series of phases with operational constraints that start off as more restrictive, and become more

permissive as an AV company advances. Advancement through each phase would be conditioned on driving at least 1 million miles or more depending on the phase and by meeting certain safety-oriented performance standards, like a lower injury-collision rate than human drivers. This report builds on San Francisco's experience as the primary hub for AV testing and deployment in the state over the past decade. The full report can be found here: https://www.sfcta.org/policies/av#panel-reports-documents

The Proposed Regulations include some of the concepts, like requiring testing be conducted prior to a deployment permit, and requiring that a mileage threshold be met. However, as noted in our earlier comments, the proposed thresholds of 50,000 vehicle miles traveled (VMT) are trivial to meet, there are no performance standards, and advancement is not conditioned on performance. Absent these features, the Proposed Regulations do not adequately mitigate risks to the public.

The Department must establish performance standards to which AV manufacturers can be held accountable, and which are transparent to the industry and the public. These standards should include traffic law violations reported through notices of noncompliance, pursuant to AB 1777. Moreover, the regulations should clarify how permitted activities may be reduced, based on the number or severity of documented noncompliance reports, as this important aspect of enforcement was not addressed in AB 1777. Transparency into AV performance and permitting is essential for building public trust in this growing industry and in the structures designed to safeguard the public.

5. Safety case

The Transportation Authority supported the Department's proposal in the prior draft regulations to require providers to submit full safety cases on an annual basis and with each permit application. We also offered several points of feedback to strengthen these requirements, including establishing a clear definition of "unreasonable risk to the public," developing performance standards, and providing additional clarity on the process the Department would use to review safety cases.

It is therefore concerning to see that the requirement to submit full safety cases has been downgraded to a requirement to submit only a "comprehensive description of a completed safety case" on a biannual basis. If providers are expected to develop and adhere to their safety cases, it should not be an excessive burden for them to share their complete safety cases with the Department. While the draft regulations outline a comprehensive list of 14 areas that the safety case description must address, it appears that providers would only need to describe their processes and structures for managing safety in those areas, rather than submit the totality of actual claims and factual evidence that make up a complete safety case.

The Transportation Authority recommends that the Department revert to requiring full safety case submissions rather than only comprehensive descriptions. We recognize that reviewing full safety

cases is a significant undertaking that may exceed the Department's internal resources. For this reason, we support the new language allowing the Department to use third-party expert consultants for this very purpose. However, such consultants (often those who support type-certification processes) are likely to be costly, and the current application fee of $3,600 will surely not be sufficient to cover such expenses. Accordingly, we also encourage the Department to increase its application fees based on a market assessment of the costs associated with third-party safety case review services.

6. Confidential business information

The Department rightly allows providers to make confidential business information claims regarding their applications and the data they submit to the public. However, such claims need to be carefully balanced with the public interest and the potential public utility that could come from making some of that information available. For example, local governments should have access to at least portions of applications that affect their jurisdiction so they can provide meaningful feedback to the Department as it evaluates those applications. Similarly, there is significant value in sharing with the public data on braking events, dynamic driving task performance, relevant system failures, vehicle immobilizations, and notices of noncompliance to support analysis of AV performance and impacts, allowing local jurisdictions to better prepare for current and future AV operations.

Prior to implementing these new regulations, the Department should host a series of workshops to develop a clear confidentiality matrix for the data it receives. Workshops would help ensure that regulators, providers, local governments, safety experts, and community stakeholders can collectively identify what data is truly proprietary, what data is essential for oversight, and how to structure disclosure requirements that are both workable and equitable. This collaborative approach would help establish transparent, technically sound criteria for confidentiality while fostering greater trust, improving regulatory consistency, and enabling data-driven decision-making that supports safer, more accountable AV deployment.

7. Notification of Local Officials and the Public

The Department's recent granting of expansive new testing and deployment permits to Waymo highlights the need for local officials to be notified and consulted regarding AV companies' intent to expand into their jurisdictions. The Proposed Regulations should be revised to require that officials of local jurisdictions are notified upon the submission of a testing or deployment application that includes their jurisdiction within the ODD and prior to the approval of any testing or deployment application that includes their jurisdiction. Notice of applications and granted permits should also be made available to the public on the Department's website. This information should include information regarding the ODD, other relevant permit conditions, and the status of the permit.

Conclusion

The Transportation Authority appreciates the opportunity to provide feedback on the Draft Regulations and looks forward to continued engagement with the Department as future drafts are developed or other opportunities for comment and collaboration arise. Please do not hesitate to contact us with any questions regarding these comments or if we can be of assistance in any capacity.

Sincerely,

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