

PROPOSED RESOLUTION

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

RAIL SAFETY DIVISION
RAIL CROSSINGS AND ENGINEERING BRANCH

Resolution SX-141
May 6, 2021

RESOLUTION

RESOLUTION SX-141 GRANTING SAN DIEGO METROPOLITAN
TRANSIT SYSTEM AN EXEMPTION FROM SECTION 9.5 OF
GENERAL ORDER 75-D AT TWO PRIVATE AT-GRADE HIGHWAY-
RAIL CROSSINGS NEAR HAZARD CENTER DRIVE IN CITY OF
SAN DIEGO, SAN DIEGO COUNTY.

SUMMARY

By letter dated and received electronically on October 27, 2020, pursuant to Section 13.1 of California Public Utilities Commission (Commission/CPUC) General Order (GO) 75-D, Metropolitan Transit System (MTS) requests authority to deviate from Section 9.5 of Commission GO 75-D, which requires the railroad crossing warning device system to sound the bells during operation in conjunction with the flashing light signals.

MTS proposes to shorten the bell sounding duration by silencing them when the warning device gate arms are in the horizontal position. The warning device flashing light signals will continue to function throughout the entire warning operating cycle; however, the bells will silence once the gates are within 10 degrees of the horizontal position. MTS requests the exemption at two private at-grade highway-rail crossings (crossings) on the alignment.

BACKGROUND

The MTS Green Line begins at the Imperial Transfer Station and extends 23.8 miles through Mission Valley, under San Diego State University via a subway

and continues east on a semi-exclusive right-of-way to Cuyamaca Street in Santee. The last 0.6 miles of the line are operated on city streets before terminating at the Santee Town Center Station.

MTS requests the exemption at the crossings, listed in Table 1, along the Green Line alignment, to mitigate the noise to the adjacent Union Square residential community. Union Square consists of single and multi-family residential homes in proximity of the two crossings. MTS operates light rail transit (LRT) service seven days a week, with LRT trains ultimately operating on 15-minute headways during peak periods. MTS service begins at 0400 hours and ends at 0100 hours.

Table 1: List of Crossings for Gate-Down Bell Variance Request

No.	CPUC Crossing Number	Street Names	City
1.	081MV-6.75-X	Hazard Center East Driveway	San Diego
2.	081MV-6.50-X	Hazard Center West Driveway	San Diego

The Hazard Center East Driveway crossing is a two-way private roadway crossing the two LRT tracks. It is adjacent to and contiguous with the Hazard Center transit station platform. The crossing existing automatic warning devices are configured primarily to provide warning to motorists at the roadway.

The Hazard Center West Driveway crossing is a one-way private roadway crossing the two LRT tracks. It is adjacent to and contiguous with a publicly used pedestrian pathway between the San Diego River Trail and Hazard Center Drive. The existing crossing automatic warning devices are configured primarily to provide warning to motorists at the roadway.

DISCUSSION

The Commission has previously addressed community concerns regarding noise from the sounding of bells and other audible warning devices at grade crossings with several LRT agencies in the state. The development and expansion of LRT systems has increased this concern and the Commission Rail Safety Division

(RSD) is working with California's LRT agencies to address the concern without compromising safety at grade crossings.

Previously, Commission granted MTS deviations from Commission GO 75-D, Section 9.5 bell sounding requirements at other crossings identified in Resolution SX-14 dated January 7, 1998, and in Resolution SR-4 dated May 10, 1989. In those prior authorizations, the Commission authorized MTS to deviate from bell sounding requirements at specific MTS crossings, with operation described as: "bells will sound only during the initial warning and descent stages until the gates are within ten degrees of the horizontal down position." The prior resolutions did not apply to the two private crossings subject to the current request. These two crossings were never officially approved by the Commission.

MTS states that both crossings have been in service since November 1996. MTS has not reported any incidents at the Hazard Center East Driveway crossing. MTS has reported one train incident, which occurred in 2019, involving a crossing user at the Hazard Center West Driveway crossing.

Private crossings generally do not require approval by the Commission; however, they are required to meet the minimum requirements of GO 75-D, Section 7. Under these requirements, all private crossings are required to have Standard 1-X "PRIVATE CROSSING" signs (Section 7.3) and all approaches shall have either a "STOP" sign or an automatic warning device (Section 7.4). The two crossings under discussion here both have Standard 9 warning devices. Section 9.5 of Commission GO 75-D states:

Audible Warning Devices. Bells or other audible warning devices shall be included in all automatic warning device assemblies (except as provided in Section 10) and shall be operated in conjunction with the flashing light signals. See *American Railway Engineering and Maintenance of Way Associations Communications and Signals Manual of Recommended Practice* for reference.

The Federal Highway Administration (FHWA) Highway-Rail Crossing Handbook, Third Edition (2019): Chapter 2: Engineered Treatments, page 62, states in part "When gates are used, the bell may be silenced when the gate arms

descend to within 10 degrees of the horizontal position. Silencing the bell when the train reaches the crossing or when the gates are down may be desired to accommodate residents of suburban areas.”

Part 3.1.15(E)(10) of the American Railway Engineering and Maintenance of Way Associations (AREMA) Communications and Signals Manual of Recommended Practices states: “Pedestrian bell or other audible warning device shall sound for the duration of the warning system activation, except when gates are being raised, unless otherwise determined by the Diagnostic Team or ordered by a public agency.”

Request for Modification

The MTS request for modification of the automatic crossing warning devices would allow for the bells to sound when triggered by the approaching LRT train, while the gate arm is moving from the vertical to the horizontal position. The bells would then stop sounding once the gate arm reaches within 10 degrees of horizontal position.

MTS proposes the following operational protocol for sounding the bells on the warning devices:

- When the LRT train(s) activates the crossing warning devices, the bells are silenced once the gates have descended to within 10 degrees of horizontal.
- If a second LRT train occupies the approach to a crossing while the first LRT train is exiting the crossing, the gates will remain down, and the bells will remain inactive.

The request for this exemption is generally consistent with guidelines found in industry standards promulgated by the FHWA and AREMA.

Proposed Safety Treatments

The LRT train’s onboard horn must be sounded in accordance with Commission regulations in GO 143-B sections 3.04 and 7.09 and MTS’s established rules and procedures.

MTS has also made the following modifications at the crossing:

- The speed of trains through the two crossings has been reduced to 20 miles per hour.
- Detectable warning surfaces, Standard 1-X "PRIVATE CROSSING" with "NO TRESSPASING" signs, as required by GO 75-D Section 7.3, and "LOOK BOTH WAYS" markings have been installed at both crossings.
- An additional pair of flashing light signals have been installed on the existing Commission Standard 9 warning device (flashing light signal assembly with automatic gate arm) at the Hazard Center West crossing, facing the pedestrian pathway to the west.

NOTICE

On March 24, 2021, this Resolution was published on the Commission's Daily Calendar.

COMMENTS

The Draft Resolution of the Rail Safety Division in this matter was mailed in accordance with Section 311 of the Public Utilities Code and Rule 14.2(d)(1) of the Commission's Rules of Practice and Procedure.

No comments were received.

FINDINGS

1. MTS requests authority for a deviation from the requirements of Commission GO 75-D Section 9.5 to silence the crossing warning device bells after the gate arms descend to within 10 degrees of the horizontal position, at private Hazard Center East Driveway and Hazard Center West Driveway crossings in the City of San Diego, San Diego County.
2. The MTS request for this exemption is in accordance with recommended practice found in industry standards recommended by AREMA and

therefore consistent with the provision of Section 9.5 of Commission GO 75-D which references that industry standard.

3. These two crossings were never officially approved by the Commission.
4. Commission staff has reviewed MTS's proposal and finds that the request is a practical and reasonable approach for mitigating noise in the community and safety will not be compromised.
5. Commission staff will coordinate with MTS to witness testing of the modified audible warning system.
6. Commission staff recommends that this resolution be adopted.

THEREFORE, IT IS ORDERED THAT:

1. Metropolitan Transit System is granted authority to deviate from Section 9.5 of California Public Utilities Commission General Order 75-D, by shortening the bell sound duration on its warning devices, by silencing the bells when the gate arms reach the horizontal position at private Hazard Center East Driveway crossing, identified as California Public Utilities Commission Crossing Number 081MV-6.75-X and private Hazard Center West Driveway crossing, identified as California Public Utilities Commission Crossing Number 081MV-6.5-X, in the City of San Diego, San Diego County.
2. The following requirements shall apply to the modification of the warning devices at the two crossings:
 - a. The automatic crossing warning devices shall continue to operate for a minimum of 20 seconds prior to the light rail vehicle reaching the crossing, and gate arms must be in the fully down (horizontal) position prior to the light rail vehicle arrival at the crossing.
 - b. The crossing warning device bells shall continue to sound until the gate arms descend to within 10 degrees of the horizontal position.

- c. Metropolitan Transit System shall notify the City of San Diego and the California Public Utilities Commission Rail Crossings and Engineering Branch when the modifications to the crossing warning devices are completed.
- d. Metropolitan Transit System shall coordinate with the California Public Utilities Commission Rail Safety Division's Rail Crossings and Engineering Branch for the testing of the audible warning devices. Rail Crossings and Engineering Branch shall witness testing and compliance with applicable California Public Utilities Commission requirements and this Order.
- e. The California Public Utilities Commission's Rail Safety Division is delegated the power to rescind the authority granted by this resolution under the following conditions:
 - i. If the Metropolitan Transit System modifies the number, type, and functionality of the standard warning devices at the crossings without prior California Public Utilities Commission approval.
 - ii. If the light rail vehicle operators do not sound an audible warning device when approaching the crossing, as required by California Public Utilities Commission General Order 143-B Section 7.09.
 - iii. The California Public Utilities Commission's Rail Safety Division is authorized to temporarily suspend the authority granted by this resolution subsequent to any collision, or near collision, while the California Public Utilities Commission's Rail Safety Division is investigating whether a causal link exists, pending the findings of that investigation, if the California Public Utilities Commission's Rail Safety Division suspects that light rail vehicle involved collisions, or near collisions, at the crossing may have been caused by any of the authority granted by this resolution.
 - iv. If the California Public Utilities Commission's Rail Safety Division determines that light rail vehicles involved in collisions, or near

collisions, at the crossing have been caused by any of the authority granted by this resolution, the California Public Utilities Commission's Rail Safety Division Director is authorized to suspend the authority granted by this resolution.

3. This resolution is effective today.

I certify that this resolution was adopted by the Public Utilities Commission at its regular meeting held on May 6, 2021. The following Commissioners voting favorably thereon:

RACHEL PETERSON
Acting Executive Director