NAKKAŞ BAŞAKŞEHİR HIGHWAY PROJECT

UPDATED NOISE BASELINE STUDY

2025

1. Purpose and Scope

The previous current noise studies carried out within the scope of the Environmental and Social Impact Assessment (ESIA) of the Nakkaş-Başakşehir Motorway Project represent the environmental conditions in 2021 when the measurements were carried out. Environmental noise levels; It may vary over time depending on traffic density, land use, activities carried out in the environment and other environmental conditions.

Accordingly, the current state noise measurements have been reconducted in order to determine the current state of the current acoustic environment and to provide an up-to-date reference for future environmental noise monitoring studies, and the updated study complements the current situation data previously obtained within the scope of the ESIA.

Within the scope of the study, 24-hour noise measurements at 23 different points determined along the project route were carried out by ÇEVTEST Measurement Laboratory Trade Ltd. Şti. It was carried out by. The TÜRKAK accreditation number of the laboratory is AB-0091-T.

The measurements were carried out on 24-28 February 2025 and 1 March 2025 with independent consultants, with all activities of the Project suspended.

2. Evaluation Criteria

The noise measurement results were evaluated by taking into account the evaluation periods and reference values used within the scope of the Turkish legislation and IFC Environment, Health and Safety (EHS) Guidelines, which are taken as a basis in the acoustic measurement report.

The evaluation criteria used in the source acoustic report are presented in Table 1.

Table 1. Limit Values

Reference	Evaluation Period	Time Range	Reference Value
Turkish Legislation	Daytime	07:00–19:00	65 dBA
Turkish Legislation	Evening	19:00–23:00	60 dBA
Turkish Legislation	Night	23:00–07:00	55 dBA
IFC	Daytime	07:00–22:00	55 dBA
IFC	Night	22:00–07:00	45 dBA

Within the scope of Turkish legislation, the Environmental Noise Control Regulation dated 30 November 2022 and numbered 32029 is referenced in the source acoustic report, and IFC / World Bank Group (2007), General Environmental, Health, and Safety (EHS) Guidelines are referenced in international standards.

3. Updated Current State Noise Measurements

Measurements were carried out in accordance with TS ISO 1996-1:2020 and TS ISO 1996-2:2020 standards.

Within the scope of the updated current situation study, the coordinates of 23 noise measurement points determined by international methodology and approved by independent consultants along the project route are presented below.

Table 2. Noise Measurement Points and Coordinates

Measuring Point	Latitude	Longitude
1	41.118964	28.811129
2	41.116832	28.809844
3	41.116964	28.805413
4	41.116294	28.802802
5	41.114722	28.788038
6	41.108953	28.774206
7	41.109275	28.770273
8	41.110734	28.761020
9	41.109698	28.755722
10	41.109395	28.751915
11	41.107451	28.743515
12	41.105614	28.737867
13	41.104330	28.724700
14	41.103703	28.713090
15	41.080081	28.694961
16	41.075199	28.700477
17	41.071271	28.699912
18	41.066185	28.703935
19	41.110773	28.676945
20	41.149153	28.621652
21	41.155765	28.608098
22	41.108642	28.682972
23	41.061418	28.701827

4. Updated Current Situation Measurement Results

The 24-hour measurement results obtained within the scope of the study were calculated in line with Turkish legislation and IFC evaluation time periods. The results of the two measurement periods are presented in the source acoustic report and are presented in Table 2 and Table 3.

Table 3. Average Noise Measurement Results by Turkish Legislation Time Zone

Measuring Point	Daytime (07:00–19:00) LAeq, dBA	Evening (19:00–23:00) LAeq, dBA	Night (23:00–07:00) LAeq, dBA
Reference Value	**65**	**60**	**55**
1	61.05	60.20	55.45
2	58.20	64.90	55.40
3	61.15	59.95	55.65
4	51.85	64.20	55.60
5	64.85	58.55	55.70
6	63.90	58.45	55.80
7	64.75	59.55	55.65
8	64.05	59.55	56.45
9	64.20	59.90	55.10
10	63.35	60.90	55.45
11	62.45	59.10	55.25
12	65.45	59.40	55.15
13	65.20	59.35	56.20
14	65.80	59.80	55.25
15	67.60	59.35	54.80
16	64.45	59.60	55.20
17	63.80	59.40	55.80
18	63.90	58.10	55.95
19	65.25	58.10	55.75
20	64.50	59.75	55.75
21	63.50	59.45	54.75
22	62.75	59.45	55.15
23	62.25	59.40	55.00

Table 4. Average Noise Measurement Results by IFC Time Period

Measuring Point	Daytime (07:00–22:00) LAeq, dBA	Night (22:00–07:00) LAeq, dBA
Reference Value	**55**	**45**
1	60.75	55.45
2	63.15	55.40
3	60.65	55.65
4	61.60	55.60
5	62.80	55.70
6	62.30	55.80
7	63.00	55.65
8	62.35	56.45
9	62.60	55.10
10	62.35	55.45
11	61.15	55.25
12	63.40	55.15
13	63.15	56.20
14	63.80	55.25
15	65.20	54.80
16	62.70	55.20
17	62.15	55.80
18	61.90	55.95
19	63.00	55.75
20	62.75	55.75
21	62.45	54.75
22	61.45	55.15
23	61.05	55.00

5. General Evaluation and Conclusion

With the updated current situation study, the acoustic conditions at 23 points determined along the project route were recorded with current measurements.

The measurement results reveal that environmental noise levels may vary depending on the measurement point and time period. The values obtained represent the total acoustic environment during the measurement period and may include the contribution of different noise sources such as traffic and other existing activities in the environment. Therefore, the current state measurement results do not represent the noise contribution of a specific source alone.

The updated current situation data complements the existing environmental assessment studies and is used as an up-to-date reference data set for the ongoing environmental monitoring and management activities of the project.