

ANNEX A SCHEDULE OF PERMISSIBLE SOUND LEVELS

SCHEDULE 1

MAXIMUM PERMISSIBLE SOUND LEVEL (L_{Aeq}) BY RECEIVING LAND USE FOR PLANNING AND NEW DEVELOPMENT

Receiving Land Use Category	Day Time 7.00 am - 10.00 pm	Night Time 10.00 pm - 7.00 am
Noise Sensitive Areas, Low Density Residential, Institutional (School, Hospital), Worship Areas.	50 dBA	40 dBA
Suburban Residential (Medium Density) Areas, Public Spaces, Parks, Recreational Areas.	55dBA	45 dBA
Urban Residential (High Density) Areas, Designated Mixed Development Areas (Residential - Commercial).	60 dBA	50 dBA
Commercial Business Zones	65 dBA	55 dBA
Designated Industrial Zones	70 dBA	60 dBA

SCHEDULE 2**MAXIMUM PERMISSIBLE SOUND LEVEL (L_{Aeq}) OF NEW DEVELOPMENT
(ROADS, RAILS, INDUSTRIAL) IN AREAS OF EXISTING
HIGH ENVIRONMENTAL NOISE CLIMATE**

Receiving Land Use Category	Day Time 7.00 am - 10.00 pm	Night Time 10.00 pm - 7.00am
Noise Sensitive Areas, Low Density Residential	$L_{90} + 10$ dBA	$L_{90} + 5$ dBA
Suburban and Urban Residential Areas	$L_{90} + 10$ dBA	$L_{90} + 10$ dBA
Commercial, Business	$L_{90} + 10$ dBA	$L_{90} + 10$ dBA
Industrial	$L_{90} + 10$ dBA	$L_{90} + 10$ dBA

L_{90} is the measured ninety percentile sound level for the respective time period of the existing areas of interest in the absence of the proposed new development.

SCHEDULE 3**MAXIMUM PERMISSIBLE SOUND LEVEL (L_{Aeq}) TO BE MAINTAINED AT THE EXISTING
NOISE CLIMATE**

Existing Levels	New Desirable Levels	Maximum Permissible Levels
L_{Aeq}	L_{Aeq}	$L_{Aeq} + 3$ dBA

SCHEDULE 4***LIMITING SOUND LEVEL (L_{Aeq}) FROM ROAD TRAFFIC (FOR PROPOSED NEW ROADS AND/OR REDEVELOPMENT OF EXISTING ROADS)***

Receiving Land Use Category	Day Time 7.00 am - 10.00 pm	Night Time 10.00 pm - 7.00 am
Noise Sensitive Areas Low Density Residential Areas	55 dBA	50 dBA
Suburban Residential (Medium Density)	60 dBA	55 dBA
Urban Residential (High Density)	65 dBA	60 dBA
Commercial, Business	70 dBA	60 dBA
Industrial	75 dBA	65 dBA

SCHEDULE 5***LIMITING SOUND LEVEL (L_{Aeq}) FOR RAILWAYS INCLUDING TRANSITS
(FOR NEW DEVELOPMENT AND RE-ALIGNMENTS)***

Receiving Land Use Category	Day Time 7.00 am - 10.00 pm	Night Time 10.00 pm - 7.00 am	L_{max} (Day & Night)
Noise Sensitive Areas Low Density Residential Areas	60 dBA	50 dBA	75 dBA
Suburban and Urban Residential Areas	65 dBA	60 dBA	80 dBA
Commercial, Business	70 dBA	65 dBA	80 dBA
Industrial	75 dBA	65 dBA	NA

SCHEDULE 6

MAXIMUM PERMISSIBLE SOUND LEVELS (PERCENTILE L_N AND L_{MAX}) OF CONSTRUCTION, MAINTENANCE AND DEMOLITION WORK BY RECEIVING LAND USE

Receiving Land Use Category	Noise Parameter	Day Time 7.00 am - 7.00 pm	Evening 7.00 pm - 10.00 pm	Night Time 10.00 pm - 7.00 am
Residential (Note 2 **)	L_{90}	60 dBA	55 dBA	* (Note 1)
	L_{10}	75 dBA	70 dBA	*
	L_{max}	90 dBA	85 dBA	*
Commercial (Note 2 **)	L_{90}	65 dBA	60 dBA	NA
	L_{10}	75 dBA	70 dBA	NA
Industrial	L_{90}	70 dBA	NA	NA
	L_{10}	80 dBA	NA	NA

NOTES

*1. At these times the maximum permissible levels as stipulated in the Schedule 1 for the respective residential density type shall apply. This may mean that no noisy construction work can take place during these hours.

**2. A reduction of these levels in the vicinity of certain institutions such as schools, hospitals mosque and noise sensitive premises (apartments, residential dwellings, hotel) may be exercised by the local authority or Department of Environment.

Where the affected premises are noise sensitive, the limits of the Schedule 1 shall apply.

3. In the event that the existing ambient sound level (L_{90}) without construction, maintenance and demolition works is higher than the L_{90} limit of the above Schedule, the higher measured ambient L_{90} sound level shall prevail. In this case, the maximum permissible L_{10} sound level shall not exceed the Ambient L_{90} level + 10 dBA, or the above Schedule L_{10} whichever is the higher.

4. NA = Not Applicable.