

ENVIRONMENTAL IMPACT

NOISE

A medium-sized, rubber-tired, electrically powered transit vehicle as recommended, operating at any headways, will generate lower average noise levels and lower peak noise levels than either a comparable automobile system or diesel bus system, or any feasible combination of automobiles and diesel buses.

NOISE GENERATED BY RECOMMENDED SYSTEM (dBA 50 feet from centerline of track)

Speed (mph)	Train Size	
	1 Car	2 Cars
30	67	69
40	71	73
50	74	76
60	76	78

Noise Criteria

Maximum permissible noise levels for transit systems should be 78 dBA at 50 feet from the centerline of track.

Properly designed noise barriers along the edge of the transitway will reduce these noise levels from 8 to 10 dBA.

Neighborhood Noise Criteria

The following table indicates recommended maximum transit noise generation for different types of areas.

Area	Background Noise	Recommended Maximum Noise 50 Feet from Track
Quiet Residential	40/45	65*
Average Residential	45/50	70*
Busy Residential	50/55	75
Commercial	50/60	75
Industrial	50/60	80

* In these areas sound barriers will be necessary to ensure acceptable noise levels.

Alternative Transport Systems

A single modern diesel bus will, at all speeds, create a noise level 86 to 88 dBA, 50 feet from the centerline of the vehicle.

The data indicate the considerable acoustic superiority of the medium-sized, rubber-tired, electrically-powered transit vehicular system over either buses or automobiles in any reasonable combination under all conditions.

AIR QUALITY

On a total weight basis, irrespective of the location of the emission source, an electrified fixed-guideway system is, with respect to air quality, the most favorable system of regional or local transportation when compared with private automobiles or diesel buses, or any combination of automobiles and buses.

ESTHETICS

Modern, quiet, medium-sized vehicles on handsome guideways can enhance the urban environment in which they are set.