MetroLink

Transport Infrastructure Ireland

Additional Groundborne Noise and Vibration Commitments

P01.1

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MetroLink

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1. GROUNDBORNE NOISE AND VIBRATION FROM SWITCHES AND CROSSINGS

TII will ensure that special track work, which includes switches and crossings, required for the Metrolink railway will comply with the following minimum requirements to prevent significant operational ground-borne noise and vibration effects:

- Only 'swing-nose' switches, which remove significant discontinuities in the tangential running lines of the railway, will be installed at the following locations:
    - Charlemont turnback facility
    - St Stephens Green Station
    - O'Connell Street Station
    - Glasnevin Station
    - Ballymun Station
- the performance specification for the final design of each section of special trackwork, will require that groundborne noise and vibration levels in overlying properties during the use of the special trackwork at the maximum operational speeds (both for the normal revenue service, and for the re-arrangement of trainsets outside of revenue service) will be no worse than those levels presented in the EIAR at each respective location.

2. COMBINED RAIL / WHEEL ROUGHNESS LIMIT

TII will put in place measures that will ensure that at no point during the operational life of the Metrolink passenger service will the combined power spectral density of the wheel and rail roughness amplitudes be worse than 30 dB re 1 micron in the 1/3 octave centred on a wavelength of 2m, decreasing by 15 dB per tenfold reduction in wavelength.

Prior to the opening of the railway, TII will ensure that the rails of the underground sections of Metrolink are conditioned by grinding, or other suitable means. TII will ensure that both the rails and wheels are appropriately maintained thereafter to achieve the above roughness specification.