

Acoustic Enhancements at St. Joseph Medical Center

Tacoma, Washington

EXECUTIVE SUMMARY

SSA Acoustics, a leader in hospital acoustics, was retained to provide detailed design solutions and conduct noise impact and acoustic measurements at the completion of the open plan NICU renovations at St. Joseph Medical Center in Tacoma, Washington. These results are compared to the 2010 FGI standards for healthcare environments and the NICU performance standards, and the improvements from the pre-design evaluation.

The new Formatrac[®] curtain track and carriers used in the Level III area are 75% quieter than the existing carrier style track in the Level II area and meets the noise impact guidelines.

DETAILED FINDINGS - Curtain Rail & Carriers

Before: The curtain track and carrier use a plastic carrier that slides in the metal track. This style of track and carrier has a tendency to repeatedly get stuck and slide, which creates rattling, and plastic on metal contact that produces excess noise. The curtain tested within the NICU produced 50% more instantaneous noise than the goal Lmax.

After Renovation Complete:

The new Formatrac[®] curtain track and carrier shown supporting the privacy curtain in Figure 1, produces 75% less sound than the original grooved style and has been installed throughout the Level III areas.



Figure 1: New Formatrac[®] Curtain Rail & Carrier

	Leq (Average) of Curtain	Lmax (Instantaneous) of Curtain @ 3 ft.	Lmax (Instantaneous) of Curtain @ nearest alcove
Measure Pre-renovation	67 dB(A)	75 dB(A)	73 dB(A)
Renovation Complete Original Curtain Rail Measured	55 dB(A)	68 dB(A)	65 dB(A)
Renovation Complete New Curtain Rail Measured	48 dB(A)	55 dB(A)	52 dB(A)
2010 FGI Criteria			65 dB(A)

To learn more about the St. Joseph acoustic study, contact SSA Acoustics at 206-839-0819.