

### **Certification**

The proposed bus model fully complies with the side impact crash test requirements that are detailed in the UMTA (FTA) Baseline Advanced Design Transit Coach White Book specifications (Section 2.1.2.10 Crashworthiness).

### **Background**

The following report, including pre and post-crash pictures, shows the results of the testing conducted at a private test facility in Ohio. The test was conducted on a specially built “worst-case” forty foot (40’) Low Floor built in late 1997. The bus was first subjected to the full Altoona Bus Test prior to the crash test in 1998.

### **Results Summary**

The test requires a 4,000lb car to be crashed into the side of the bus at 25mph. The impact is to cause no more than 3” of permanent structural deformation at the seated passengers’ hip height and should not produce any sharp edges protruding into the interior of the bus.

The test results found that the impact caused no more than ½” deformation at the H-point and there were no sharp edges or protrusions.

### **Conclusion**

- Actual deformation was less than 17% of that allowed
- Damage was so insignificant that structural repair was not required
- Damage was essentially confined to two quick-change skirt panels and their lower anchor plates
- Total repair time was estimated at less than 1 hour for a 3M mechanic. No welding was required; skirt panels were unbolted from their anchor plates and were pulled from the mid-rail channel. The anchor plates were replaced, and new, pre-painted skirt panels were installed
- Total repair cost was estimated at less than \$1,000, parts and labor

These results are unmatched by any competing vehicle and are a testimony to GILLIG’s superior design knowledge and technology as well as an acknowledgment of the vehicle’s structural strength and build integrity. These results are proof of the value and durability built into each GILLIG bus.