Tempered Mirrors

Tempered mirrors, which were available at one time, are no longer produced by the mirror manufacturers that fabricate and supply products to WA Wilson.

It was found that the tempering process adversely changed the optical quality of the glass, causing distortion to occur in the reflected image mirror. Also, defects present in tempered mirrors due to the heating and cooling processes were easily viewed in the reflected surface.

When they were produced, tempered mirrors never met the ASTM C1503 standard specification for silvered flat glass mirrors. This meant that physical defects, although objectionable, were not considered as a reason for rejection.

Tempered mirrors were also never covered by standard mirror manufacturer’s warranties.

WA Wilson is recommending annealed mirrors with safety backing for this project.

They will be manufactured using mirror quality glass, confirming to ASTM C1036, the Standard Specification for Flat Glass. The mirrors would also meet or exceed quality standards set forth in ASTM C1503-01 Standard Specification for Silvered Flat Glass Mirrors. This includes reflectance measurements in accordance with Test Method E903 as stated in C 1503-01.

The safety backing tape is a composite of copolymer film laminated to a bi-directional woven copolymer alloy. This process provides Category II impact resistance in which a 100 lb. steel ball is dropped from a height of 48” above the mirror surface. The glass will break, but the ball will not penetrate through the vinyl.
This test achieves ANSI Z97.1-1984, HUD, CPSC, CAN 2-12.1, as well as 16CFR1201 Category II