

Association of Professional Engineers

of the

Province of Manitoba

Certificate of Engineering Achievement

to

MANITOBA SAFE-T-BASE

The 1992 Certificate of Engineering Achievement is awarded to Manitoba Safe-T-Base for the development of a breakaway pole-to-base coupling device.

The mobility and personal freedom that the automobile has provided are legendary, even though it is a leading cause of death and injury. While many engineers have redesigned cars and personal restraint devices to reduce injury in accidents, Dr. John Shewchuk, of the Department of Mechanical Engineering at the University of Manitoba, concentrated on changing the environment to reduce the damage of car/fixed-object collisions. His patented invention, Safe-T-Base, which was developed with the assistance of Professor W.D. Alexander, was designed to be mounted between a concrete footing and a light standard or traffic signal pole, and was designed for convenient and economical retrofit application. The mounting provides the strength required for normal loads caused by wind; yet, it breaks easily when struck by a car.

In 1975, the City of Winnipeg adopted Safe-T-Base couplings for utility poles on its regional streets which carry 80% of the traffic in the city. In the previous three years, there had been an average of 1100 accidents, four fatalities and 240 injuries per year, involving utility poles. By 1991, this breakaway base had been installed on 100% of pedestrian corridor poles, 85% of traffic signal poles and more than 50% of street lighting poles on regional streets. No fatal collisions involving breakaway-type bases on street lighting poles, traffic signal poles or pedestrian corridor poles have occurred. Safe-T-Base is now widely used in Canada.

In 1977, Safe-T-Base received the Premier's Design Award - one of the top awards for engineering design in Manitoba. The Director of the University of Manitoba Road Safety Research Unit has stated that "The elimination of roadside hazards has become a high priority item in the struggle to reduce the appalling human wastage and suffering that continues to occur on our road system. The Safe-T-Base, in my opinion, is one of the most effective impact-altering devices now available to highway design engineers".

October 30, 1992