

SAFETY on Friction Courses — Update

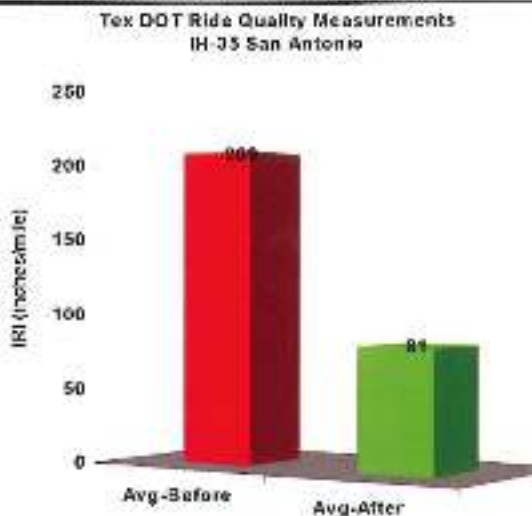


A few years ago, records of accidents on certain Texas highways were analyzed before and after the applications of Permeable Friction Courses (PFC). A project in San Antonio Texas on I-35 used a 1.5 inch (38 mm) Asphalt-Rubber PFC. The nominal aggregate size was 1/2" and used a binder content of 8.3%. About 16,000 tires were used in the two (2) mile project. AR was selected as the binder material because it is so "sticky". It was determined to have the best chance of bonding to the aged trans-

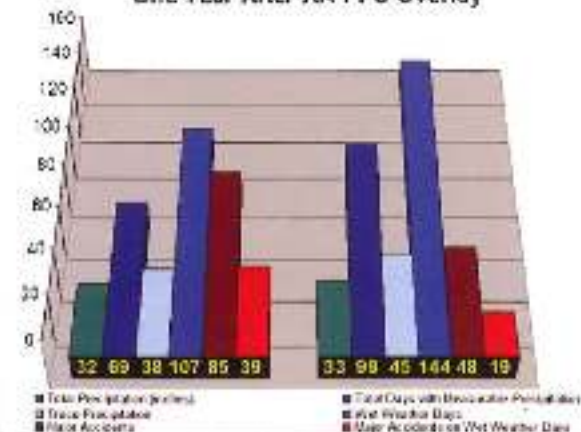
versely tined PCCP which was constructed in the early 1980s. The old concrete pavement was still serviceable, but had become extremely rough. The AR PFC provided an excellent ride improvement, 61%, as is seen in the IRI chart. AR overlays will typically cut the roughness in half every time.

After the overlay there was a noticeable decrease in accidents, according to Gary Fitts, Asphalt Institute office in San Antonio. Visibility during inclement weather was enhanced through a reduced splash and spray. A chance photograph of the pro-

ject during a rain storm halfway through construction was taken and is provided nearby. Note the difference in visibility between the lanes paved with an AR PFC and the old PCCP. A close up of the surface the old surface texture during better weather helps explain why water collects on the surface of the old concrete.



Weather and Accident Data I-35 One Year Before and One Year After AR PFC Overlay



Gary decided to take a look at the accident reports maintained by the San Antonio Police Department in the year prior to the AR PFC overlay and for the year after. (See Weather and Accident Data on I-35 Bar Chart Above).

Notice that the number of major accidents overall had decreased from 85 to 48 and wet weather major accidents dropped from 39 to 19. Major accidents are categorized by the dispatching of emergency injury response (ambulances) teams. Besides the trauma caused to the individuals in the major accidents, think about the reduction in delays to other users with less traffic back ups and also reduced insurance claims. The insurance industry may wake up some day and lobby DOTs for safer roads to reduce the number of insurance claims.

