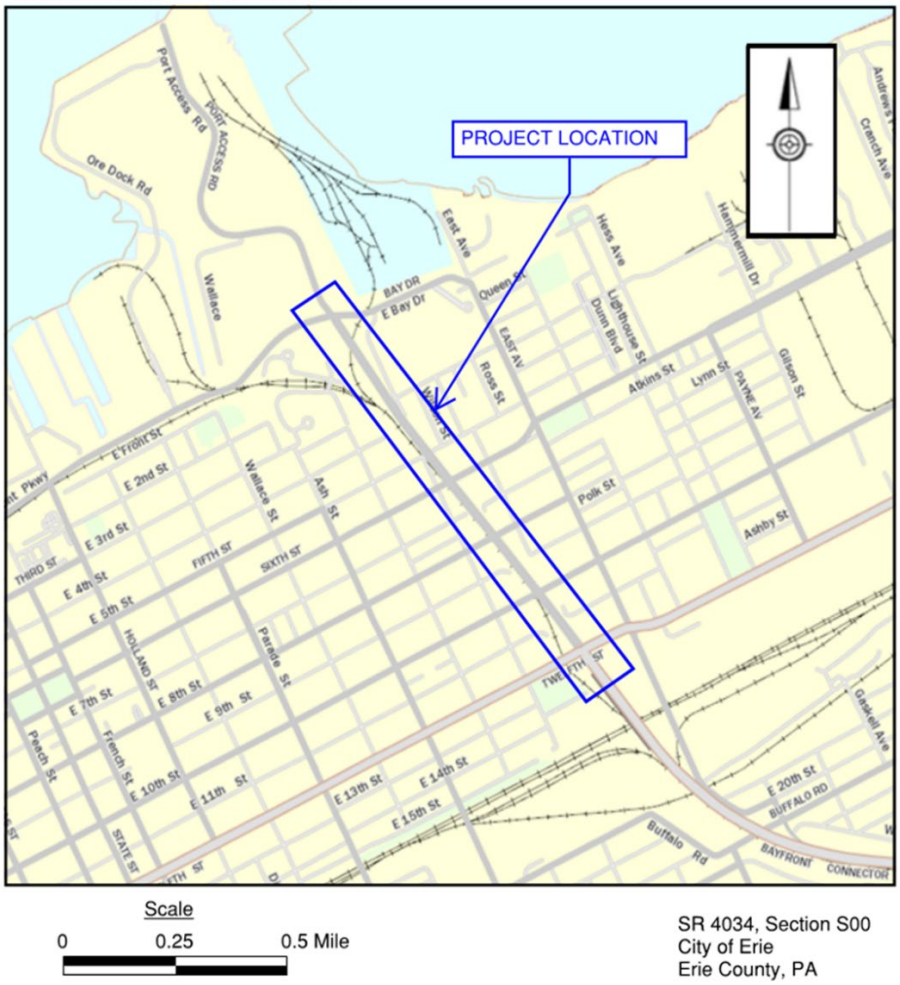
INTRODUCTION/BACKGROUND

The East Bayfront Parkway Safety Study involves the evaluation of conceptual improvement alternatives that could provide improved pedestrian safety in crossing the East Bayfront Parkway while continuing to provide acceptable traffic operations along the corridor. A preliminary alternatives analysis has been performed for five conceptual improvement alternatives. Existing SR 4034 consists of four 12'-0" thru lanes, one 12'-0" dedicated turn lane, and 2'-0" shoulders with curb and gutter. Currently pedestrians must cross five lanes of traffic to cross SR 4034 without any protection and/or refuge area. Public input is a very important aspect of determining the overall direction of the project.

PROJECT LIMITS/STUDY AREA

The project limits for this study extend along the SR 4034 (East Bayfront Parkway) from the intersection of Port Access Highway/East Bay Drive to the intersection of East 12th Street, in the City of Erie, Erie County, Pennsylvania. This corridor includes five existing signalized intersections depicted on the graphic below:

FIGURE 1: PROJECT LOCATION MAP



A brief description of each alternative concept is provided below.

ALTERNATIVE 1: REDUCED LANE WIDTHS / MEDIAN REFUGE ISLANDS

Alternative 1 would involve the narrowing of travel lanes on the East Bayfront Parkway in order to provide a median refuge area for pedestrians and accommodate a 2-step crossing of the Bayfront Parkway mainline. PennDOT Roadway Construction standards show a minimum 6-foot wide median for a crosswalk. Therefore, travel lane widths on the Bayfront Parkway were reduced from 12-feet to 11-feet. Providing the pedestrian median refuge islands would provide a safe place for pedestrians who are crossing the 5 travel lanes of SR 4034. The pedestrian median refuge islands are to be protected by vertical curbs on all sides of the refuge area. The raised curbs will act as a traffic calming measure by providing a less open feel to the motorist which will discourage speeding.

ALTERNATIVE 2: ROUNDABOUTS AT INTERSECTIONS

Alternative 2 analyzed the installation of a roundabout at each study intersection. It should be noted that there is a heavy rail line that runs parallel to the East Bayfront Parkway with at-grade railroad crossings on the west approaches of East 6th Street, East 8th Street and East 10th Street. A bridge carrying East 12th Street over the railroad provides a grade separated crossing on the west approach of East 12th Street. This alternative was eliminated during the alternatives phase due to the large footprints and severe impacts to surrounding areas.

Alternative 3: Managed Lanes

The Alternative 3 concept involves a reversible, managed lane system. Review of the corridor traffic volumes shows a commuter-type traffic pattern on the Bayfront Parkway. During the morning peak hour there is an approximate 65/35 split of northbound/southbound traffic along this portion of the East Bayfront Parkway. This split is nearly reversed to 62/38 in the evening peak hour. The midday peak hour volume data shows close to an even 50/50 split. This alternative was eliminated early in the alternatives phase. The reason the alternative was eliminated is that the reversable lanes cause motorist and pedestrian confusion on travel directions and does not improve the safety of the corridor.

ALTERNATIVE 4: ROAD DIET

The concept for Alternative 4 reduces the number of travel lanes on the East Bayfront Parkway from its current five-lane configuration to three lanes to provide one lane in each direction with a center turn lane. This alternative was eliminated early in the alternatives phase as the reduction of the number of lanes is not practical to accommodate the traffic volumes.

ALTERNATIVE 5: EXCLUSIVE PEDESTRIAN PHASE

An additional improvement alternative was investigated that would revise existing traffic signal phasing to add an exclusive pedestrian signal phase at each study intersection, except the Port Access Highway intersection. The required split time for this exclusive pedestrian phase was calculated using the worksheet available from the Department's Traffic Signal Portal.