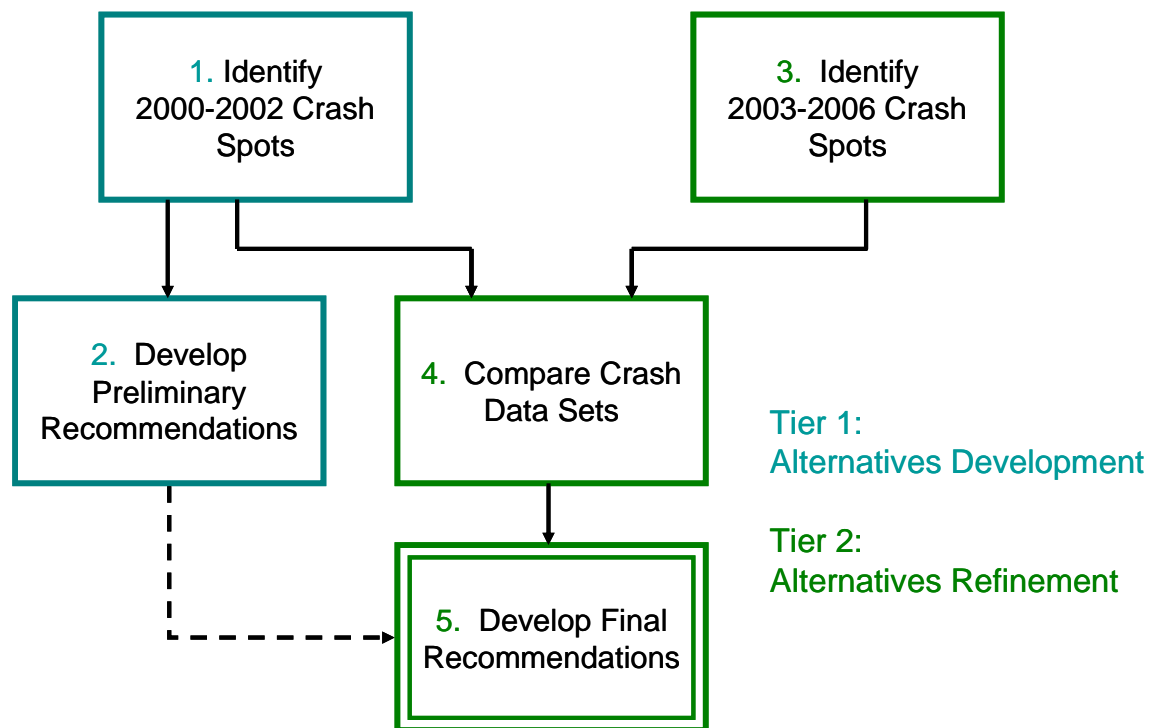


## VII. ALTERNATIVES DEVELOPMENT

Safety improvement recommendations evolved over a two-tiered process. Initially, 2000-2002 crash data was analyzed and coupled with resource agency input to develop a preliminary set of prioritized recommendations. This “Alternatives Development” stage included the second and third project team meetings and is covered in this chapter. The second, or “Alternatives Refinement,” tier of the process is presented in **Chapter 8**. In the second stage, crash data for 2003-2006 was collected, then compared to the 2000-2002 data. A set of final recommendations were developed, based on the reported crashes in both data sets and incorporating elements from the preliminary recommendations. **Exhibit 7.1** illustrates the two-tier process.

**Exhibit 7.1 – Alternatives Development and Refinement Process**



### A. Identification of Potential Spot Improvements

To identify candidate locations for spot improvement projects, analysts began by listing each 0.10-mile crash spot with a CRF greater than 0.90 based on 2000-2002 crash data. Each of these locations was given a name composed of the phase number, a hyphen, and a

sequential number (beginning with “1”) for the southernmost end of the project corridor. Additional improvement locations of varying lengths were included in the list of potential spot improvements based on resource agency recommendations.

Members of the project team completed a field visit in November 2003 to observe the existing conditions along the route and at each of the identified spots.

## **B. Project Team Meeting II**

A second project team meeting was conducted February 17, 2005, in Central City, Kentucky. Attendees included representatives from KYTC Districts 2 and 3, KYTC Central Office, and the Green River, Pennyrite, and Barren River ADDs. The project team met to review the environmental justice information and resource agency responses, and to discuss the identified spot improvements sites. The meeting minutes are included in **Appendix E**.

Potential concerns from an Environmental Justice perspective include two low-income/elderly apartment complexes in Adairville; a low-income area in Lewisburg; minority neighborhoods in Drakesboro and Cleaton; concentrations of minority and elderly populations in Central City; and a Tract in Daviess County containing elevated numbers of minority, low-income, elderly, and disabled persons. Resource agency responses received to date were summarized. The team requested that the Education Cabinet and area school districts be contacted to determine if any new school projects are planned; one new school development (Muhlenberg South Elementary School in Beechmont) is already known.

The remainder of the meeting was spent discussing potential spot improvement locations. A complete copy of this discussion material is included with the meeting minutes in **Appendix E**.

Overall, Phase I included 19 spots, two of which were added to the initial list of potential spots based on project team discussions. Eight Phase I spots were not recommended for further consideration. There was one segment identified by the Kentucky State Police which was not recommended for improvement unless follow-up crash data identifies an obvious problem. Phase II included 24 spots, 5 of which were not recommended for additional consideration. Four additional segments were identified based on input by the Kentucky State Police.

### **C. Additional Spot Safety Research**

Following the second project team meeting, spots which had not been eliminated were subjected to a more detailed crash investigation. In some cases, detailed police reports were examined and reported crashes during 2003-2004 were accessed from the CRASH database to provide further insight into crash patterns. Maintenance personnel from each District were also given an opportunity to review and comment on the identified high crash spots.

Remaining spots were ranked as a High, Medium, or Low priority based on crash characteristics.

### **D. Project Team Meeting III**

A third project team meeting was conducted November 1, 2005, in Central City. Attendees included representatives from KYTC Districts 2 and 3, KYTC Central Office, and the Green River, Pennyriple, and Barren River ADDs. The project team met to review the detailed police reports for spots that required follow up. Projects were also re-prioritized following a numeric ranking scheme, with the highest CRF spot in each Phase becoming Priority 1. The meeting minutes are included in **Appendix E**.

A total of 15 recommended spot improvements in Phase I and 16 in Phase II resulted from team discussions, including a number of realignments around small developed areas along the route. A set of tables displaying the preliminary recommended build projects are also included in **Appendix E** following the third project team meeting minutes.

### **E. Preliminary Costs and Recommendations**

KYTC District 2 personnel conducted an additional field inspection following the third project team meeting. As a result of this effort, project recommendations at each of the remaining spots were developed. Cost estimates were established and are discussed further in **Chapter 9**. A copy of the field notes for each spot can be found in **Appendix E**.