

Appendix A Critical Connection Case Studies

The following case studies provide more detailed plans for the design and implementation of the greenway network in areas that are threatened by conflicting land uses in their immediate vicinities.

Mountain Road Crossing at Loblolly Lane

This critical connection forms the only direct link between the Lake Shore Athletic Complex and the Compass Point Hub and forms one of only a few possible connections across Mountain Road (see Figure A-1). This connection would be particularly valuable to make because it would serve as a regionally valuable link between the northern and southern greenway networks in Lake Shore and link two corridors that may currently function as “dead ends”.

While the residential development along the western side of Loblolly Road and the development on the east side of the corridor very likely acts to funnel wildlife migrating south from the high-quality habitat in the Compass Point Hub, the existing culvert at Mountain Road is too small for all but the smallest mammal species to pass through. This forces migrating wildlife to either move out of the greenway into the developed areas on either side of the corridor or to attempt to cross Mountain Road through vehicular traffic.

Implementation of a “critter crossing” at this location would reduce road kill in this area by allowing wildlife to migrate through the area naturally.



Existing culvert under Mountain Road near Loblolly Lane is too small for all but the smallest mammal species

The topography in this location favors the construction of a culvert-based crossing under Mountain Road. Since the travel lanes extend nearly to edge of the existing culvert already, any future widening of Mountain Road would very likely require replacement of the existing culvert with a longer structure. It would be practical to install one or more oversized culverts during the course of future improvements to Mountain Road that could serve as critter crossings. This approach could take advantage of the natural topography in the area and the existing stream channel south of Mountain Road. In order to maximize use of these culverts by wildlife, the bottoms of the culverts should be covered with natural substrate and the culverts should be large enough that light is visible through them. To make the crossing more attractive, the bare area immediately north of Mountain Road should be planted with native species to provided cover for wildlife as they approach or exit the crossing.

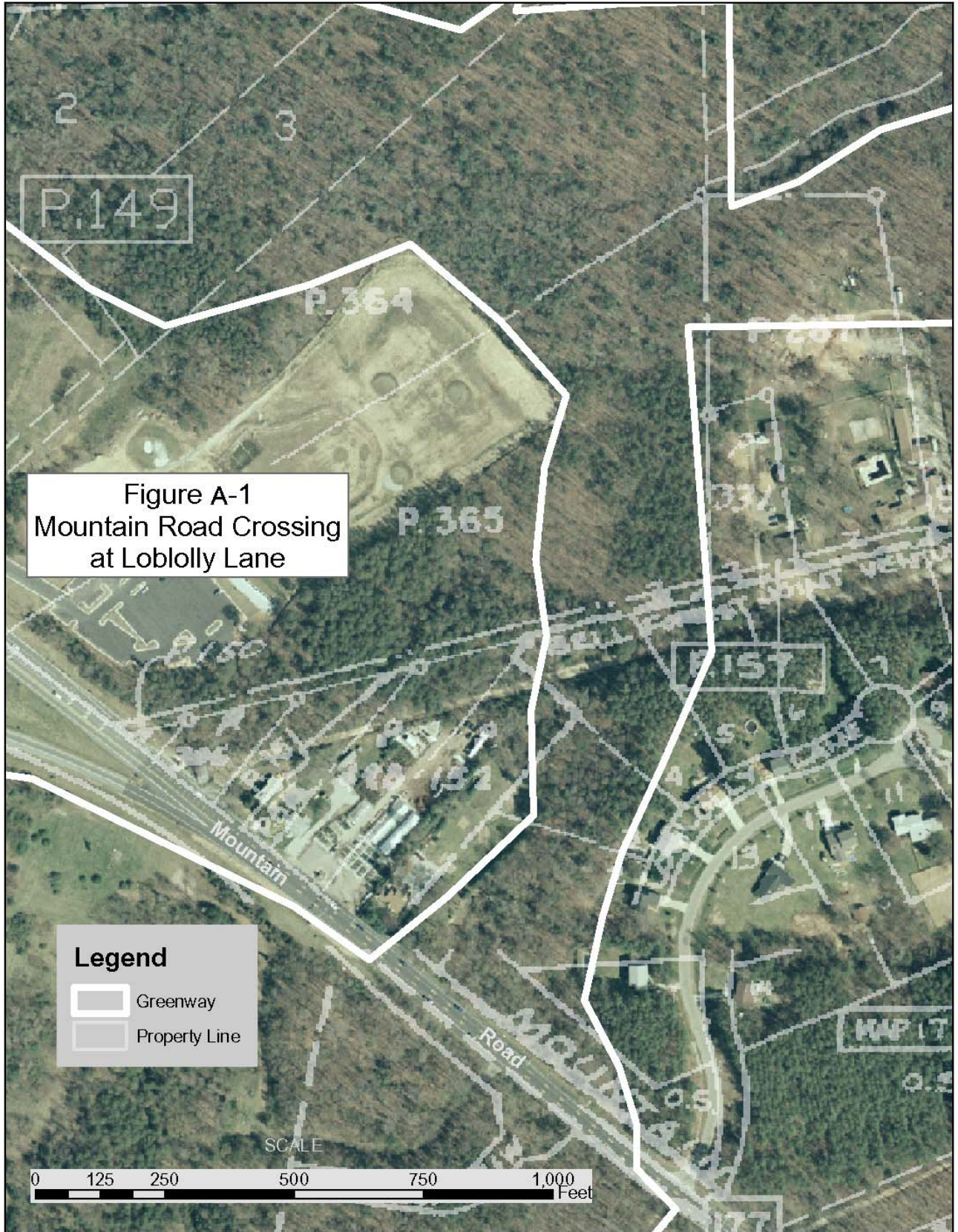


Figure A-1
Mountain Road Crossing
at Loblolly Lane

Legend

- Greenway
- Property Line



Fairwood Corridor

The Fairwood Corridor represents a new addition to the Countywide greenways network. It is significant because it could provide a connection between the Compass Pointe Hub and the rest of the network should the connection across Mountain Road near Loblolly Lane prove unsuccessful (see Figure A-2). Because the crossing at Fairwood Lane is essentially flat and Fairwood accommodates relatively light traffic volumes, it may be sufficient to place signage alerting drivers that wildlife may be crossing the road in this area. Under this scenario, wildlife is likely to utilize not only the greenway corridor but the surrounding areas as well to cross the road, particularly because much of area surrounding the greenway is forested up to the road surface. Should diffuse crossings become problematic for vehicular traffic, exclusion devices such as fences could be installed along the roadway to focus wildlife to designated crossings.

Implementation of this connection would maximize the value of habitat within the corridor and beyond to wildlife without affecting private property within the greenway. The greenway boundary was chosen very carefully in this location to include the highest quality habitat and maintain the minimum width necessary to support a naturally functioning greenway while attempting to exclude areas that are currently managed for residential use.

Mountain Road Crossing at Forest Glen Drive, and Forest Glen Drive

The critical connection across Mountain Road at Forest Glen Drive is similar to the connection at the Fairwood Corridor in that is essentially an at-grade crossing with very little opportunity to use natural topographical features to enhance a critical connection (Figure A-3). Mountain Road supports somewhat lower traffic volumes in this location than further west near its junction with MD 100, therefore complete exclusion of wildlife from the travel lanes is less crucial in this location than in other locations further west on Mountain Road.

This connection is also similar to the Fairwood Corridor in that natural vegetation exists up to the road boundary and that diffuse use of this corridor and the surrounding areas by wildlife likely occurs throughout the area rather than at a specific culvert or facility. It is likely that the general area between the intersections of Mountain Road and Old Mountain Road and Mountain Road and Forest Glen Drive experience the greatest density of wildlife use because this area contains the least dense residential development of any location in the immediate vicinity. Construction of a culverted critter crossing at this location would be impractical. However the placement of road signage indicating the high probability of encountering wildlife crossing the road may be sufficient to provide for the safe passage of most species across Mountain Road.

Forest Glen Drive constitutes another critical connection and is crucial to the corridor that connects Downs Park to the remainder of the greenway network. Like the Mountain Road connection described above, this connection is at-grade, includes a relatively low-volume road crossing with natural vegetation up to the road surface, and likely experiences diffuse use by wildlife. This critical connection would also be best implemented using road signs and possibly exclusion devices, although the Mountain Road crossing near Forest Glen Drive described above likely experiences heavier vehicular traffic and would therefore be a better candidate for exclusion devices at the present time.

Unlike the previously described critical connections, the Forest Glen connection is more dependent on sensitive vegetation management by property owners for its success than on

construction of specialized crossings. Three private residences adjoin this crossing along the west side of Forest Glen Drive, and sensitive management of natural vegetation in these areas is crucial to maintaining the integrity of this greenway corridor.

