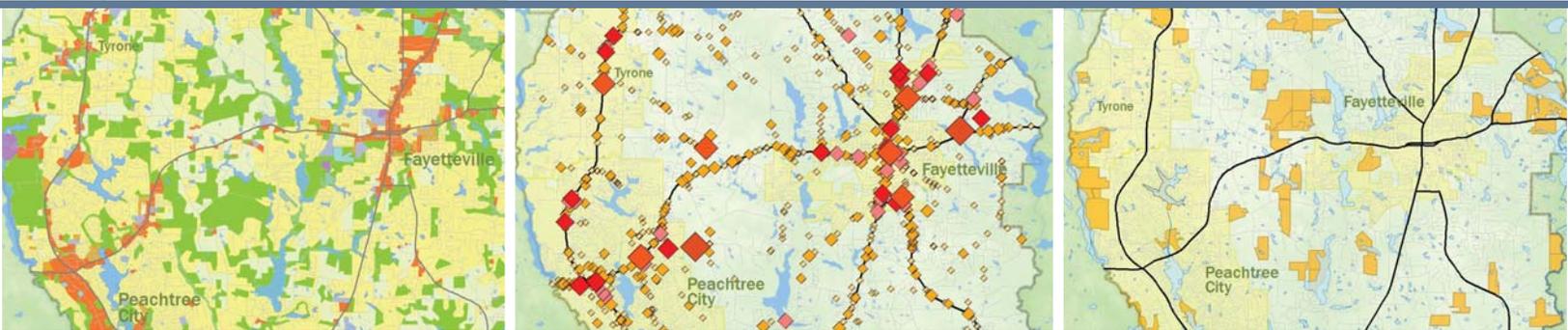




# *Candidate Projects and Design Approaches*





## 4.0 Project Candidates

The needs assessment and public input gave the Fayette Forward project team a broad set of ideas for potential transportation investments to provide connection and mobility while preserving the special qualities of Fayette County. However, the final outcome of the Fayette Forward process is a transportation plan that considers short-term funding availability and that reflects community consensus over projects that will best serve the County's residents, workers and economic needs. Because of this, not every idea developed in response to the needs assessment and public input may become a project recommendation for the plan. Many of these project ideas will be shown in the technical evaluation process (described in more detail in Chapter 5) to have limitations, from standpoints of either cost, constructibility or environmental or community impact.

Nonetheless, it is important to review all of these ideas as they represent a body of thought that responds to the questions and challenges suggested in the needs assessment and input from the public. The evaluation and assessment phase of the project that followed the development of these candidate ideas refined the list and established a system for prioritizing project implementation, but these candidates constitute the 'raw input' to be considered for developing a plan for Fayette County's transportation needs through 2030.

The various projects referred to and illustrated here are not specific recommendations. They are the unfiltered collection of ideas that were refined to lead to an ultimate set of recommendations, and they are presented here without specific technical commentary on their likely function or feasibility. The technical evaluation process that led to their recommended prioritization and selection is described in Chapter 5 of this plan, and the policy and specific project recommendations to which these project candidates contributed are discussed in Chapter 6. Appendix C provides a more detailed description of candidate projects considered, with their location in the County and graphic illustrations or representations of the project produced during the Fayette Forward design process.

### 4.1 Project Codes As Used in Fayette Forward

As a way of assigning a shorthand description to each candidate project being considered, the project team applied a coding system that described a general type of project and gave it a working number. This consisted of a two-character project code and a three-digit number. Assignment of numbers was determined strictly based on the order project ideas were discussed and formalized, and the numbers do not imply any priority or importance. Indeed, the overall project list changed throughout the evaluation process and many candidates were removed from it, from community discussion that determined a candidate was not in the County's interest to pursue or because it had entered into advanced design or construction during the evaluation process. This latter explanation applies mainly to projects identified in the 2003 Transportation Plan and the resulting SPLOST project list, as the SPLOST had reserved funding for these projects.

Table 4.1 on the following page provides a detailed explanation of each of these codes.



**TABLE 4.1 Explanation of Codes Used for Candidate Projects**

<b>Project Code</b>	<b>Explanation/Description</b>
<b>BG</b>	Bridges. Bridge projects can refer to either construction of a new bridge, or maintenance or replacement of an existing bridge.
<b>BR</b>	Bicycle Route. These projects compliment the candidate off-street, multi-use trail projects (TR). They are primarily improvements to existing roadways, especially roadway shoulders, to better accommodate bicycles.
<b>IR</b>	Intersections. The 'R' is intended to mean reconfiguration, which can take the form of a realignment of intersection approaches, the addition of vehicle capacity (especially turn lanes), or a new form of roadway-based traffic control such as a roundabout. Projects involving the addition of a traffic signal are classified differently (as IS projects).
<b>IS</b>	Intersection signalization. This refers to the addition of a traffic signal at an intersection.
<b>NS</b>	New streets that are to be partially or entirely provided by private development. In the Fayette Forward plan, several conceptual alignments were shown for such streets to provide guidance to Fayette County and its municipalities in working with developers to make infrastructure contributions. These conceptual alignments show where the key connections should be made.
<b>NW</b>	New streets that are intended to be public projects or that involve significant public contribution to private development streets.
<b>OP</b>	Operational corridor projects. These are intended as safety and capacity enhancement projects that do not constitute full roadway widening. Based on preliminary outputs from the regional travel demand model, many of these corridors are not likely to carry traffic volumes to warrant full widening, but local knowledge suggests that they have operational and/or congestion challenges nonetheless. These projects are intended to direct investment to smaller-scale enhancements, such as the placement of turning storage lanes and possibly continuous two-way left turn lanes, as a way of preserving capacity and mobility.
<b>PD</b>	Pedestrian-oriented projects. These involve projects targeted to the pedestrian realm, including sidewalk and landscaping enhancements, as well as intersection improvements to facilitate crossing.
<b>RA</b>	Roadway realignment. These projects alter existing roadway geometry to address challenges of safety and movement. Projects were given this classification only if they did not pertain to intersection approaches, which are separately classified as IR projects.
<b>RC</b>	Roadway capacity projects. These can take the form of widening existing roads or the construction of new roads. Note that for purposes of distinguishing previously identified projects, any capacity projects already identified in the ARC regional long-range transportation plan are given their own classification (RTP).
<b>RTP</b>	Refers to projects already identified in the ARC regional long-range transportation plan prior to the development of candidate projects as part of the Fayette Forward process. This classification is applied for any projects currently in the RTP because they have already been selected for current or future programming and would not, on their own, need to be reevaluated to be added to the RTP.
<b>TR</b>	Off-street, multi-use trail. These are intended to extend the County's current trail inventory and provide non-motorized connections from other parts of the County to the existing Peachtree City trail network. While intended to accommodate a similar range of users to those found on the Peachtree City system, these are more likely to serve bicyclists and recreational pedestrian travel in other parts of the county.

Refer to Appendix A for a comprehensive list of all candidate projects in alphabetical order and Appendix C for a detailed description of project candidates.



**Bridges.** A series of bridge projects were considered, mostly related to maintenance needs and the repair or replacement of bridges with low sufficiency ratings. Many of these bridge project candidates were included in the 2003 Transportation Plan and 2004 SPLOST project list. Notable additions to the list of bridges being proposed included the reconstruction of bridges that existed in the past but that had been destroyed by floods and other natural events.

In addition, one specific culvert project was identified due to its location on a state highway. In general, culverts have been treated as a general roadway maintenance element in terms of project classification. The County has historically directed a significant amount of its transportation resources to culvert maintenance, repair and replacement and expects for the need to do so to remain (or even increase) into the future.

**Bicycle Routes.** These projects represent the primary on-road bicycle facility expansion for the Fayette County. Early discussion of accommodating non-vehicular uses in the County originated with a series of suggestions that Peachtree City’s trail system was a highly popular amenity, even to non-Peachtree City residents, and as such should be expanded or at least accessible from other parts of the County. Although some stakeholders and community members expressed an interest in improved conditions for on-road cycling, many others stated that the higher travel speeds of many County roads discourage them from cycling as a form of transportation or recreation.

To better promote the expansion of the multi-modal network in the County, the Fayette Forward team began to explore strategic locations of bicycle routes where improvements and rehabilitation of an existing roadway could incorporate ample shoulder widths (typically four to six feet) to safely be marked and signed for shared bicycle designation. This on-road system would complement the trail projects considered as a separate facility type by allowing cyclists to reach a greater extent of the County along designated routes.



*Roadway rehabilitation can include shoulder width to accommodate bicycles. This is typically no wider than recommended vehicle-based design for these shoulders.*

**Intersection Reconfigurations.** In transportation planning, roadway intersections present a complex set of challenges, many related to the design of the roadways leading to them. Intersections are where roadway capacity is most tested, or where the constraints on this capacity are most pronounced. Vehicles turning at intersections without dedicated storage space for them to wait through oncoming traffic may block traffic behind them waiting to move through; this effectively reduces the potential number of vehicles that the intersection can serve per given period of time. Intersections also present some of the greatest differences in speed between moving vehicles, as vehicles accelerating out of an intersection (or decelerating into it) may come into conflict with vehicles moving through the intersections at higher speeds. This problem is compounded by roadway curves, both horizontal (bends or obstacles in the road requiring a motorist to steer around them) and vertical (hills or depressions that limit how far a motorist can see along the roadway). In areas with pedestrian activity, intersections are a potential place of

conflict, especially between pedestrians and turning vehicles that may be focused on monitoring other oncoming vehicle traffic.

Fayette County has many intersections that present some or all of these challenges. Because of this, the general category of intersection reconfigurations was intended to encompass many specific intersection design options. The planning team's designers approached each particular intersection being considered with a broad palette of design techniques. Some of these were conventional and commonly-used, such as the addition of left turn lanes to facilitate through-movement. Others were more advanced, such as the separation of multiple approach roadways into different intersections spaced farther apart, the integration of offset intersections into single points, and the use of roundabout intersections to permit simultaneous movement of different movements through an intersection while controlling speeds.

In many cases, the problem lies not in the intersection itself but in how its approach roadways are aligned and how they tend to carry traffic. Many high-speed roads with curves feature intersections with local roads. In many of these cases, the realignment of one or both roadways could help to increase the distances motorists can see in advance of the intersections and could help to slow traffic through the intersection so that motorists have greater stopping distance.

**Intersection Signalization.** In some cases, the intersection as it exists today lacks a traffic signal and warrants one. Transportation engineers use a standard set of tests to determine if a signal is warranted, and many of the signalization projects proposed under Fayette Forward come from previous plans and studies, such as the Downtown Fayetteville Traffic Study, the Peachtree City Transportation Plan and the 2003 Fayette County Transportation Plan.

**New Streets.** In many of the County's newer residential developments, streets only connect to one other street: they have a cul-de-sac or a dead end. This has occurred for a number of reasons, primarily because of a residential preference for living on quiet streets that do not allow passing traffic not originating or ending on the street. This type of development pattern and street layout does have consequences for the overall road network, however. It concentrates all traffic entering and exiting a street at a single point, and requires traf-



*Proposed intersection designs for candidate projects have sought to address these concerns in different ways and using a variety of potential design techniques.*



fic moving through a larger area to rely on a small number of roadways.

Street connections between two existing streets add to the overall range of network and route options. Many of these streets could be provided by private development, especially in the southern portion of Fayette County where multiple parcels remain that can be subdivided as of right.

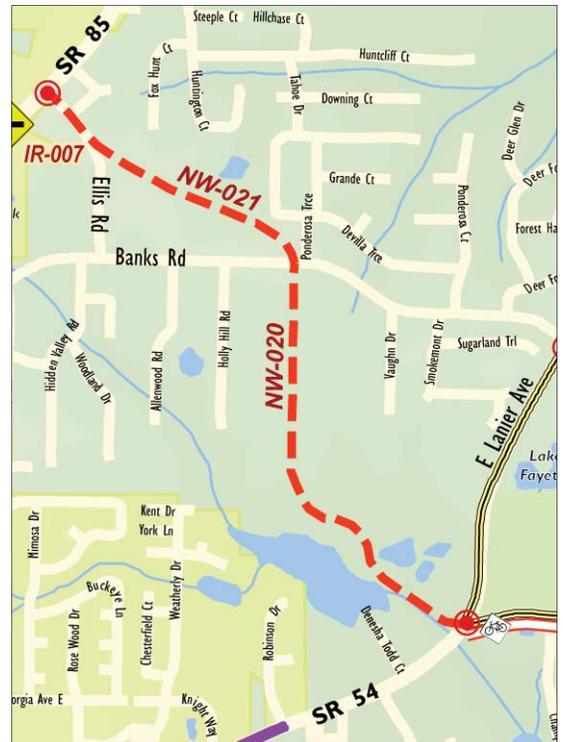
In other cases, new streets are likely to require a public contribution or to be public projects altogether. This is usually the case when a higher-cost infrastructure item such as a bridge is required, or when private development is not proposed or likely but when the project would serve a broad public purpose.

**Operational Corridors.** These projects were sought as a ‘lighter-build’ means of preserving roadway operations and enhancing capacity without the higher cost and community impact of a full roadway widening. In particular, they were envisioned for corridors where a widening has been proposed but not programmed with committed funding and where certain operational needs exist today. The operational corridors consist of a series of projects encompassing a smaller footprint and representing lower overall costs that could also achieve an acceptable level of performance.

These projects are intended to direct investment to smaller-scale enhancements, such as the placement of turning storage lanes and possibly continuous two-way left turn lanes, as a way of preserving capacity and mobility. Evaluation of these projects is explained in greater detail in Chapters 5 and 6. On roads where operational improvements were expected to alleviate traffic conditions and preserve an acceptable level of service, preliminary recommendations advised pursuing this option instead of a widening.

In most cases, the operational corridor was defined with selected points of operational challenge identified for improvements. As discussed in Chapter 6, many of these projects could be further refined through use of scoping studies that examine particular traffic conditions in more detail than Fayette Forward and isolate the more detailed corridor needs.

**Pedestrian-Oriented Projects.** These projects are mostly in Fayetteville and Peachtree City and refer specifically to improvements to streets, intersections and sidewalks that enhance walking conditions. Because of the greater distance between homes and other land uses in unincorporated parts of the County, pedestrian activity is not as prevalent. Walking and bicycling trail project candidates intended to enhance pedestrian connections are classified as a separate category.



*New streets sometimes have a public benefit and require substantial public contribution or are public projects altogether. These include the McDonough Road Extension, shown here. This would connect State Roads 54 and 85 and reduce the need to travel through downtown Fayetteville to make this movement.*



**Roadway Realignment.** In a limited number of cases, realignment of a roadway away from an intersection was explored to improve safety driver predictability. These projects were specified in their own classification because of their occurrence at spot locations and not along an entire corridor.

**Roadway Capacity Projects.** These projects follow a more conventional form of capacity addition than the operational corridor projects. In most cases as proposed in Fayette County, they refer specifically to widening projects to expand a roadway from two to four lanes. Most of these projects would occur on GDOT-controlled roadways, although some projects were discussed in previous plans and evaluated for local streets as well.

**Projects from the Regional Transportation Plan.** As discussed in previous chapters, Fayette Forward functions in part as a transportation plan to provide candidates for the ARC regional long-range transportation plan (RTP). The RTP is the plan that ARC uses for distributing federal transportation funding assistance. It reserves apportioned, committed funding for projects on a three- to five-year cycle in its transportation improvement program (TIP). Projects not in an active TIP cycle but in the RTP are intended to be included in a future TIP when funding is allocated.

Projects that are classified with an RTP designation have already been included in past versions of the Atlanta region's RTP and as such have been classified with reference to the classification system that the RTP uses. These projects may take one of several different forms, but because only certain types of projects are eligible for federal assistance most of these projects are for new roadway construction or roadway capacity. Some small-scale pedestrian improvements are also classified this way, as these projects are eligible for funding through special federal funds not used for roads and streets.

**Multi-Use Trail Projects.** As identified in early public outreach efforts and through the needs assessment, Fayette County has an opportunity to connect to the Peachtree City trail and golf-cart path system to allow other parts of the County non-motorized access to this popular amenity. During the project design workshop, the Fayette Forward team met with stakeholders to discuss specific trail ideas and performed site research to examine candidate roadways and estimate feasibility of their carrying trail corridors. The resulting series of projects is intended to provide a core network of non-motorized travel routes connecting Fayetteville and Peachtree City, but also serving schools and parks throughout the County.

Throughout the Fayette Forward planning efforts, the City of Peachtree City has continued to develop its multi-use path system and established new criteria for prioritizing projects that would expand it. Refer to the City of Peachtree City's 2011 Master Plan Map and Evaluation Matrix for information on the system that will be updated periodically.



*Several multi-use trail projects were considered to provide non-motorized connections between Fayetteville and Peachtree City as well as to other major destinations throughout the County.*

