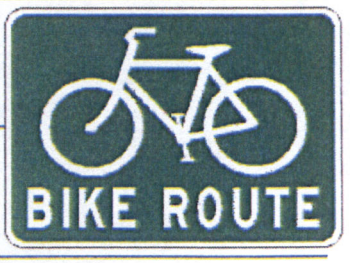
Coweta Bicycle Plan 2000



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Autumn 2000

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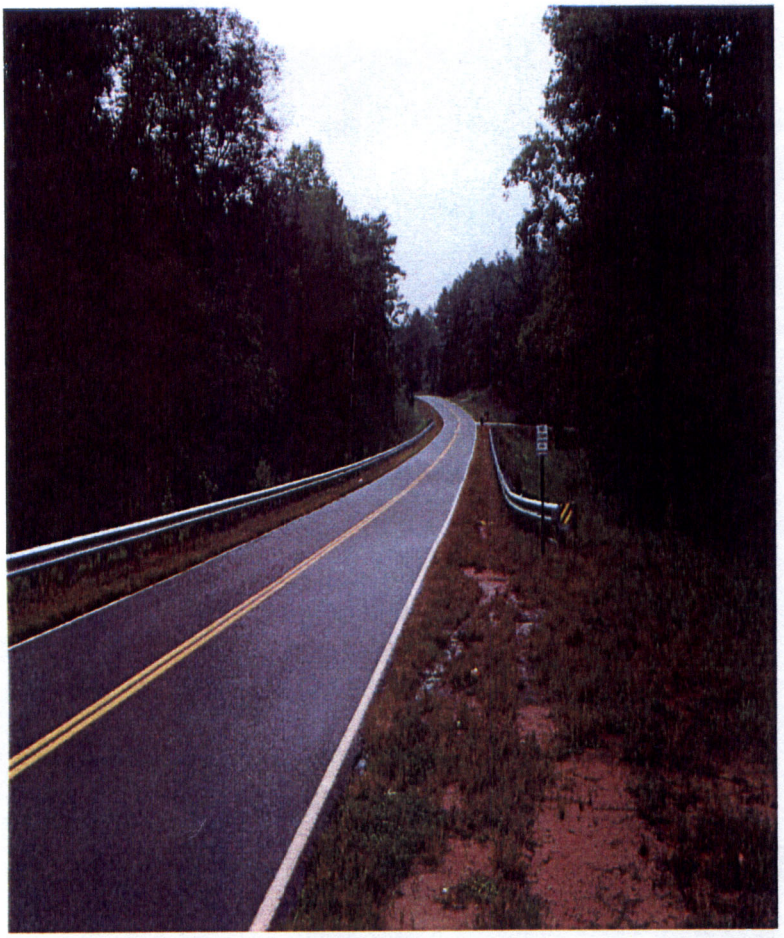


Coweta County -road without shoulders or lanes

Coweta County -road without shoulders or lanes

Figure 1

Introduction

It has been well established that less-polluting transportation systems will be necessary to sustain population growth in the new century. As supplies of fossil fuels begin to dwindle, and recognition of the environmentally destructive side-effects of their use grows among stakeholders, the pressure to develop and institute new transit forms will mount. This problem is particularly urgent for metropolitan Atlanta, which continues to suffer from serious air quality deficiencies, caused primarily by automobile pollution, that may impact certain measures of quality of life. Coweta County is not immune from these same problems.

The bicycle still provides inexpensive and accessible transportation to individuals that might otherwise have none and is still ignored in the United States by planners and engineers as a transportation design vehicle. Yet it remains popular: in a 1995 Harris Poll survey, 20% of Americans said they would commute by bicycle more regularly if better facilities were provided. (Oregon DOT 1995)

The idea of developing a set of county-wide bicycle routes serves several functions. One, it enhances the ability of all levels of bicyclists to recreate safely. Two, it offers a comprehensive plan for alternative transit options, hopefully reducing the overall number of automobile trips (thereby reducing harmful emissions) and offering county residents the option of speedy travel without aid of a motorized vehicle. Three, well-planned bicycle routes promote public health and provide ground for building social capital. And finally, popular bicycle paths offer economic benefits to the communities through which they pass, creating jobs and boosting tax revenues, and fit easily within historic district and main street economic development programs.

In order to best address bicycling in Coweta, this plan is effectively divided into two parts. The first deals exclusively with designating and signing routes geared to recreation riders. These routes use the county's network of rural and minor roads, and do not require significant infrastructure upgrades. They connect easily to the three state-designated routes that traverse Coweta, thereby offering touring cyclists opportunity for short diversions and local cyclists a gateway into the state system. Implementation is suggested based on existing funds.

The second section concerns the larger issues surrounding bicycles as primary and secondary transportation means. The emphasis here is changing policy to promote a bicycle-friendly environment throughout the county, with the ultimate goal of making all roads as safe for cyclists as they are for automobiles. The changes suggested are meant to serve long-term goals, and necessarily involve other facets of development planning (zoning, site design, building permitting, etc.).

With changing circumstances comes the necessity of a flexible plan. This comprehensive plan attempts to provide the residents of Coweta a snapshot of existing conditions and suggestions for creating suitable infrastructure, but is by no means a rigid document. Ideally, it will be used as a guide for future development, but will be effective only if the notions within the plan are sonorous with the community's goals, bending as goals themselves bend. As the plan unfolds over time, Coweta's development patterns will likely shift, in turn altering the impact of the policies in the plan, which requires alteration of the plan itself.

Definitions **(taken from Minnesota DOT's "Bicycle Transportation Planning and Design Guidelines, June 1996")**

Bicycle: bicycle means every device propelled solely by human power upon which any person may ride, having two tandem wheels except scooters and similar devices.

Average Bicyclists: bicyclists comprised of both Group B (basic bicyclists) and Group C (children).

Bicycle Facilities: a general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling, including parking facilities, bikeways, bikeways maps, and shared roadways not specifically designated for bicycle use.

Bicycle Lane: bicycle lane means a portion of a roadway or shoulder designed for exclusive or preferential use by people using bicycles. Bicycle lanes are to be distinguished from the portion of the roadway or shoulder used for motor vehicle traffic by physical barrier, striping, marking, or other similar device.

Bicycle-Pedestrian Lane: a portion of a roadway designated for the preferential or exclusive use of bicycles and pedestrians.

Bicycle Network: a continuous system of bikeways and roadways in a region or municipality.

Bicycle Path: bicycle path means a bicycle facility designed for exclusive or preferential use by people using bicycles and constructed or developed separately from the roadway or shoulder.

Bicycle Route: the term bicycle route means a roadway or shoulder signed to encourage bicycle use.

Group A: advanced/experienced cyclists capable of operating under most traffic conditions.

Group B: basic cyclists who are typically casual or new riders who have difficulty operating in traffic without bicycle provisions.

Group C: children.

Designated Shared Street or Highway: Any street or highway designated as a bikeway and recommended for use by bicyclists and characterized by basic signage and the absence of striping or marking for bicyclists.

Rights of Way: a general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

Roadway: portion of a highway improved, designed, or ordinarily used for vehicular travel, exclusive of the sidewalk or shoulder.

Shoulder: portion of a highway contiguous to the regularly traveled portion of the highway and on the same level as the highway.

Street or Highway: entire width between boundary lines of any way or place when any part thereof is open to the use of the public, as a matter of right, for the purposes of vehicular travel.

Vehicle: every device in, upon, or by which any person or property is or may be transported or drawn upon a highway, except devices used exclusively upon stationary rails or tracks.

Existing Conditions

Topography

Coweta County lies in west-central Georgia, in the southwestern corner of Metropolitan Atlanta, some 35 miles from the city. It is bounded by the Chattahoochee River and Fulton County to the north, Spaulding and Fayette counties to the east, Troup and Merriwether counties to the south, and Heard County to the east. Newnan is the largest municipality and governmental seat.

The landscape of the county consists primarily of rolling ridge tops and hillsides cut by drainage ways. Floodplains vary from narrow to wide. Elevations within the county range from 720 to 1040 feet above sea level, the highest areas being in the northern section (toward the Fulton border), the lowest in the south. The Piedmont Province, in which Coweta rests, is morphologically dominated by gneiss and schist, with spots of mica schist, granite, and granite gneiss scattered throughout.

Three major soil types can be found in Coweta: those found along flood plains, those found on gently sloping ridge tops, and those found on steep slopes in upland areas. Soil types, and their approximate location, may impact bicycle route implementation, particularly if the routes require grading and paving.

Coweta plays host to a variety of flora and fauna, particularly in the undeveloped portions of the county. A recent influx of human infrastructure has diminished the native habitats of many species. Suburban building patterns, infused with asphalt and pollution, have exacerbated the demolition of natural habitats and may create crisis conditions if continued unabated. A bicycle plan, because of its relative unintrusivenss, fits easily into an ecologically sensitive context.

The historic resources outlined in the 1995 Comprehensive Land Use Plan are important to consider during route planning. Several of Coweta's smaller municipalities, especially Moreland and Senoia, are popular cycling destinations. The historic character of these places imbues them with special cultural significance, and provides extra enticement for leisurely bicycle riders. Increased cycling may further heighten consciousness of preservation and restoration issues surrounding historic sites and structures.

Demographics

The population of Coweta County in 1990 was 53,853. By mid-1999, its population was estimated at 89,401, a 66% increase in nine years. Such phenomenal growth parallels that of the larger Altanta region, which has seen more than three decades of sustained population and infrastructure expansion. The county population will likely reach upwards of 100,000 by 2002 (a level significantly higher than predicted by the 1995 Comprehensive Plan). Rapid growth will persist in the coming decade, though likely at a somewhat diminished pace.

The geographic distribution of population is skewed toward the unincorporated county. Of Coweta's estimated 89,401 persons, only 20% resided within the boundaries of any of the county's eight municipalities. If recent trends are indicative, this distribution will likely not change in the near future.

The age distribution of Coweta's population is slowly shifting. The elderly population, those ages 55 and older, are expected to grow significantly during the early years of the 21st century. By 2015, the number of individuals over the age of 45 may account for 39.1% of Coweta's total population, while the percent age 25 and under will decline to less than 34%. This trend mirrors national shifts in the relative size of age cohorts. With this shift toward older cohorts will come an increasing need for accessible (and appropriate) recreational facilities.

Coweta's household income distribution roughly parallels the state of Georgia's. Both household and per capita income levels have increased in recent years, along with population, bringing somewhat wealthier in-migrants. Median household income increased from $31,965 in 1990, to an estimated $39,493 in 1996. The Coweta Chamber of Commerce projects a median of $47,819 by the end of 2001. During the same period, annual per capita income is estimated to have risen from $16,381 to approximately $29,000.

Land Use

Existing land use conditions vary by geography. The northeastern section of the county is the most intensively suburbanized. Single-family houses on acre or less lots in subdivision-style arrangements are the norm. This is where one finds the majority of recent commercial and industrial development, the heaviest automobile congestion, and the largest population concentration. It is likely that this pattern will continue in the coming decade, continuing the trend of low-density, single-family detached house subdivisions. Further expansion of the road network is thusly expected, though with effective land use controls might be avoided.

The southeastern quadrant still has some of its rural character intact, but is beginning to experience spill over growth from the north. Much of this area of the county is still rural, with scattered large estates and low density residential developments. As one moves north within the southeastern section, the intensity of land uses changes, more closely resembling the patterns of the north from the southeastern corner of the county. Industrial commercial properties are concentrated around interstate exit 9 (U.S. Highway 29). One scenario calls for a lengthy spell of residential, industrial, and commercial growth to occur in this section of the county. Sharpsburg's proximity to the county airport, East Coweta High School, and Peachtree City (which is rapidly approaching build out) should make it the focal point of this growth.

In the northwest, where the Chattahoochee River divides Carroll from Coweta, there are no incorporated municipalities, only sparse commercial and industrial properties, and acres upon acres of undeveloped land. Dunaway Gardens, a large outdoor theater complex there, sits vacant and dilapidating; large swaths of untouched wetlands border the Chattahoochee and nearby smaller creeks. As result of this geography, the northwest possesses a large ground water recharge area, a resource the county should protect from contaminating land uses but that might serve as a fine place to build recreational bike paths.

But the northwest may see new commercial development along Georgia Highway 16 in the coming years. An increase in single-family residential development, a result of overflow from Newnan, is also likely. The completion of the Newnan by-pass, a major arterial, will further bolster the area's attractiveness to developers.

Scenes of Coweta roads without bicycle facilities

Coweta County -road without shoulders or lanes

Coweta County -road without shoulders or lanes

Figure 2

The southwestern portion of Coweta is the least developed. Significant areas are used for cattle and horse pasture, though in no continuous manner. A large, now closed, county landfill lies dormant just south of State Road 34, though a plan has been underway to open a construction and demolition waste site on adjacent property. There are several working farms in the southernmost section, near the Troup County boundary. Long term development will probably be limited since the county plans to preserve the area's large drainage basins for future water supplies. According to the comprehensive plan, any residential development that does occur will be very low or estate density.

Transportation

Coweta's transportation network is road based. There is no mass transportation (bus or rail) currently available. The road system consists of four basic types of passageways: limited access freeways (Interstate 85), arterials (U.S. Highways and major county roads), collectors (most county roads), and local streets (residential and rural roads).

Traffic volume along the major thoroughfares varies by location within the county. Data available for the U.S. and State Highways passing through Coweta in 1998 show that traffic flow generally tends to be greatest in the northeastern section of the county, reflecting intensive residential development in the area. At Newnan, average flow on Highway 34 was 36,300 vehicles per day, 10,300 vehicles per day on Highway 29, and 11,800 vehicles per day on Highway 27. West of Newnan, flow on Highway 34 dropped to 5400 vehicles per day; south of Newnan, Highway 29's daily flow dropped to 2400 vehicles. Highway 54, passing through the southeastern corner of the county, had a flow of 2100 vehicles per day, and Highway 70, in the north-central area of the county, had an average daily vehicle count of 3200.

Within the county lie 1,031 total miles of roads and highways, 91% of which are paved. The vast majority of this mileage is county roads (787 miles), perhaps advantageous for bicycle planning purposes because the authority to physically alter these roads lies with local administrative departments. As the plan evolves, the county will be able to incorporate bicycle infrastructure upgrades in capital improvement budgets, thereby reducing the overall cost of implementing the plan.

A significant number of transportation improvement projects have been planned for the next decade. Among the improvements: 16 bridge replacements, two intersection improvements, and particularly relevant for bicycle planning purposes, pedestrian/bicycle enhancements along the Heritage Highway corridor. The Future Thoroughfare Plan sets forth criteria for road designs to match expected needs. As part of this plan, the status of certain roadways may be changed, which will likely impact efforts to implement bicycle routes.

The majority of Coweta's road network is two-lane and shoulderless. Road widths vary by type within the county. In an attempt to provide a rough measure of roads and widths, roads already identified as potential routes were randomly measured for total and lane width. The typical width for county roads was between 20 and 23 feet. Those same roads all have directional lanes 10 feet wide or slightly less, but this may not be problematic. Despite their width, most county-maintained roads are smooth and blemish-free. Few of these roads are heavily traveled and most do not host swift traffic. Signage, even without paving upgrades, would provide adequate short-term safety precautions for most (but by no means all) bicyclists.

The condition of state highways differs somewhat. They tend to be wider, but also carry significantly heavier and faster traffic. State Highway 29, for example, has smoothly paved shoulders already, but carries a high volume of large trucks and speeding cars. Even with

shoulders, which are 3 feet wide, bicycling along 29 without signed bicycle lanes remains somewhat dangerous. Drivers do not expect to encounter cyclists and the wind created by high speed traffic produces unstable conditions, making entering or leaving the roadway an act for only the most hard-nerved riders. The circumstances on Highways 34, 16, 85, 27, and 54 are similar.

Because the state highways are major arterials and most commercial infrastructure is located along their sides, it is an important and forward-thinking task to improve the conditions for bicyclists. Coweta residents may desire accessibility to stores for shopping without depending on motorized transit. A large part of this accessibility hinges on the ability of cyclists to make safe passage through congested areas, i.e. along state highway corridors. Thus, among long-term goals should be changes in commercial corridors to better accommodate bicycles. It is recognized that these changes will be expensive and lengthy in process, but in order to build a truly comprehensive network, such changes are necessary.

According to the 1990 Census of Population and Housing, approximately 0.2% of Coweta's population regularly used a bicycle to commute to work, and another 1.5% walked. This is obviously a very small segment of the total population of the county. But the decennial census does not measure bicycle usage for recreational purposes, and recreational uses are by far the most prevalent. Therefore, the actual number of bicyclists is ultimately difficult to pinpoint without an extensive survey.

Goals and Implementation

Developing a county-wide bicycle plan is a complex process that involves much more than dirt and asphalt. It is imperative that a clearly-defined set of goals be established at the beginning of the planning process. These goals serve to provide a suggested future direction for the community's planning efforts and define an agenda of issues (both present and future) that will affect the county. If these goals are not aligned with the needs of the county's residents, the bicycle plan will have little chance of impacting long-term development.

The ultimate purpose, then, of this plan is to enunciate a set of goals. Goals are necessarily general in scope, and should remain so. The process of implementing programs should be flexible. Because conditions may change during the early implementation phase, the later steps should remain open to alteration. Nevertheless, this plan will also outline a few early implementation steps designed to spark future planning efforts. These steps address the necessity of spending currently allocated funds.

The goals of the plan can be divided effectively into short-term and long-term. Short-term goals are designed to reflect existing issues and infrastructure, while long-term goals suggest action appropriate for future conditions. The contents of both short- and long-term goals revolve around a so-called "3-E" approach: Education, Enforcement, and Engineering. This scheme provides a rough framework for guiding the development of a comprehensive, integrated, and safe bicycle route and trail system that riders of different skill levels can share.

Most of the goals expressed in the plan were culled from public input and field observation. An early survey by the Coweta Bicycle Club enunciated several key issues, and provided an information from which to begin work. A subsequent public hearing offered an official forum for the expression of concerns about the state of bicycling in Coweta. Robert and Company representatives later participated in a recreational ride with members of the bicycle club and made

several additional excursions into the county to collect data and photograph conditions. One additional public presentation of a preliminary version of the plan solicited evaluative comments used to edit the final draft.

Part One

As described above, the first section of the plan suggests immediate implementation opportunities, projects that can be completed (or at least initiated) with existing funds. The projects outlined herein primarily address experienced cyclists (type A and some type B), those riders who are comfortable negotiating constant automobile traffic, riding in travel lanes, and most often ride specific routes for recreational purposes. Bear in mind that these goals and implementation strategies are suggestions for only the short term. The more difficult work lies ahead. In order to make Coweta into a bicycle-friendly place, fundamental development policies must change, a process that is necessarily protracted and challenging.

Appropriate Signage

Part of every bicycle network, signage provides ready reminders to motorists of the possible presence of bicycles. Signs should create continuous routes that provide cyclists challenging and enjoyable rides. Because through traffic represents a significant portion of the total traffic on Coweta's streets on any given day, signs can serve as fixed public information sources for the non-resident motorists who may only occasionally drive in Coweta. Additionally, sign installation is relatively inexpensive and can be initiated quickly. The utility of quick turn-around should not be overlooked. It offers concerned parties at least a modicum of reassurance about the program's potential.

But simply signing a few routes does not represent a significant commitment to bicycling. Signs are only a beginning. Therefore, it is important to bear in mind the ultimate necessity of changing the way urban development is allowed to proceed. Policies to comprehensively upgrade road shoulders, install striped bicycle lanes, and design a system of bicycle paths should follow the early stages of implementation. Zoning ordinances and land use plans must be rewritten to encourage the kind of dense development a bicycle- and pedestrian-friendly environment requires.

Policy Implementation Strategies:

- Signs should be placed every two miles along routes, and just before and after every intersection involving turns
- Design should feature standardized, easily recognizable bicycle graphic (following MUTCD Guidelines)
- Signs should designate beginning and end of routes
- Each route should be color coded to create familiarity
- A system of markers identifying historically or architecturally significant structures and sites should be placed along each route
- Require all retail centers to place signs in parking areas notifying motorists of bicyclists' presence
- Gateway signs that announce Coweta's route system should be placed along Interstate 85 and where major state highways cross county boundaries

Connectivity

Connectivity is of the utmost importance to creating effective bicycle routes, lanes, and paths. The bicyclists surveyed frequently expressed a desire for a contiguous network of facilities. It is therefore important to establish an obstruction-free network that crosses political boundaries. Fortunately, three of the new state-wide routes, which will include standardized cross-jurisdictional signage, pass through Coweta, two for extended distances. The routes are, by name: Chattahoochee Trace (24.1 miles in Coweta), Little White House (31.0 miles in Coweta), and Central (2.8 miles in Coweta). The newly designated Heritage Highway also traverses Coweta, and is planned to include special bicycle route signage. With luck, these routes will increase the number of riders and provide much needed positive publicity for cyclists.

While the state routes are a good beginning, they do not go far enough toward the goal of reducing total motorized vehicle miles traveled and creating a bicycle-friendly environment. They simply provide an introduction to bicycling, but leave the remainder of the task in the hands of counties and municipalities. Thus the proposed Coweta routes will connect directly into the state system, creating a good framework for future in-fill.

Once adopted and implementation begins, Coweta's plan should help spur adjacent municipalities that have not already done so begin planning networks that can be connected to each other in the future. As more municipalities build facilities, the pressure on those that have not grows. Given the pollution and congestion problems metro Atlanta currently faces, infrastructure that helps mitigate motorized trip congestion will increasingly become a high public priority.

Policy Implementation Strategies:

- Develop literature in conjunction with the Georgia DOT to promote Coweta's routes as "loops", official extensions of state routes; this information should be available at state welcome centers, on the web, and from the state office of tourism
- Any new route should be planned based on existing coverage, so that a dense network of connecting facilities grows as the system matures

Safety and Public Awareness

One issue that has been consistently highlighted during public discussions is safety for cyclists. Coweta's existing transportation infrastructure largely consists of two-lane county and state roads where no provisions have been made previously to accommodate bicycles. Few roadways have paved shoulders (which provide a ready-made bicycle lane) and most motorists are not familiar with the details of sharing existing roadways with bicycles.

Because the non-bicycling public may have numerous misconceptions about cyclists, promoting public awareness is an important device for enhancing the local bicycling climate. One way of addressing safety is through a community education program for both cyclists and drivers. A well-constructed program helps legitimate the needs and concerns of cyclists in a culture that may be hostile to their presence. Local media can be used to disseminate information, and may also provide a forum for open public discussion of significant issues.

Policy Implementation Strategies:

- Build awareness of bicycle issues through local media outlets
- Hold public "ribbon-cutting" ceremony when routes are completed

- Begin developing a bicycle plan website with information and route maps and a bulletin board for public comments
- Sponsor a bicycle training program for local riders
- Design and print brochures distributed through Chamber of Commerce and tourism office
- Secure inclusion in state-wide route system and Georgia vacation guidebooks (contact David Crites, Georgia DOT bicycle coordinator for further information)

Law Enforcement

In developing a bicycle plan, a good understanding of the laws affecting the safe operation of bicycles is important. The program should include strengthened enforcement programs targeted specifically at road sharing laws. "This type of program could concentrate on bicyclists riding against traffic, disregarding traffic signals and stop signs, and not lighting bicycles at night, and motorists failing to yield to bicyclists at intersections. This would educate both motorists and bicyclists in the rules of the road and could reduce unsafe operation." (Convissor 2000)

But bicycle laws must be consistently enforced. It is impossible to exhort cyclists to obey the law if they know police never issue tickets to cyclists. (Schimek 1996) Enforcement directed at cyclists therefore is a necessary ingredient in improving bicycle safety. The police department should conduct regular enforcement campaigns targeted at the most critical violations (in terms of car/bicycle accident causation) by both bicyclists and motorists. (Convissor 2000) Some communities implement specific bicycle monitor programs or bicycle law enforcement programs -giving designated civilians or specially-trained law enforcement officers the responsibility of enforcing traffic laws on bicyclists. Casual bicyclists will benefit from selective enforcement programs promoted through the media. If these bicyclists, assumed to be law-abiding citizens, are educated about their responsibilities to obey the rules of the road, and if this education is reinforced through high visibility law enforcement then they will be more likely to bicycle in a safe manner. (Wisconsin DOT 1993)

Policy Implementation Strategies:

- Upon opening of routes, enlist local media to publish the state and local laws governing bicycles and road sharing; use website for permanent notice of relevant laws
- Place signs along routes notifying riders and motorists of enforcement procedures and penalties
- Encourage police to target bicycle and automobile transgressions equally

Routes

The routes selected by the plan shall be color coded to make spot identification of routes easier. The colors should be painted stripes located on smaller signs below the standard route signs. Signs marking areas where two or more routes follow the same path can have multiple stripes. Coweta's route system has been designed to tie into the state-designated routes that cross the county's boundaries, which will provide local cyclists with a vast signed network extension and visiting cyclists options for side trips through the county.

Description of Routes

Black Route:
Begin on Broad Street at intersection with Wells Street in downtown Senoia

Right onto Wells Street (.9 miles)
Left onto Rockhouse Road (4 miles)
Left onto Elders Mill Road (1.6 miles)

Straight onto Gordon Road (4.4 miles) 12.2
Right onto Todd Road (1.3 miles)
End at Dolly Nixon Road (Little White House Route)

Blue Route:
Begin on Corinth Road at intersection with Millard Farmer Road
Right onto Millard Farmer Road (2.5 miles)
Right onto Old Corinth Road (2.0 miles)
Left onto Smokey Road (11.0 miles) 23.2
Left onto Corinth Road (3.0 miles)
Right onto Bohannon Road -changes to Colley Street (4.7 miles)
End at Lagrange Street in Grantville (Chattahoochee Trace Route)

Green Route:
Begin on Palmetto-Tyrone Road at intersection with Craig Wood Way 5.2
Straight on Palmetto-Tyrone Road (1.2 miles)
Right onto Minix Road at fork (4.0 miles)
End at Fisher Road (Little White House Route)

Orange Route:
Begin on Georgia Highway 16 at intersection with Highway 34 by-pass
Right onto Highway 34 by-pass -changes to Ishman Ballard Road (1.4 miles)
Right onto Welcome Road (2.8 miles)
Left onto Providence Church Road (1 mile)
Right onto Keith Road -changes to Handy Road at Pierce Chapel Road (3.4 miles)
Left onto Hoot Owl Hollow (1 mile)
Left onto Handy Road (.5 miles)
Left onto Thomas Powers Road (2.7 miles)
Left onto Highway 34 (.5 miles) 28.15
Right onto J.D. Walton Road (3.5 miles)
Left onto Smokey Road (6.6 miles)
Right onto Old Corinth Road (2 miles)
Left onto Millard Farmer Road (2.75 miles)
End at Cornith Road

Purple Route:
Begin on Edgeworth Road at intersection with Highway 29
Straight on Edgeworth Road (.5 miles)

Left onto Frank Hood Road (.5 miles)
Left onto Hal Jones Road (.5 miles)
Right onto Happy Valley Road (.3 miles)
Left onto Buddy West Road (2.8 miles)
Cross Roscoe Road -changes to Macedonia Road (2 miles)
Right onto Newton Road (1.6 miles)
Right onto Old Carrollton Highway (.5 miles)
Right onto Sewell Mill Road (4.5 miles)
Right onto Roscoe Road (2.3 miles) 27.8
Right onto Hucheson's Ferry Road (2.5 miles)
Right onto Sardis Church Road (1.2 miles)
Right onto Tommy Lee Cook Road (1.5 miles)
Right onto Jim Starr Road (1.2 miles)
Left onto Happy Valley Circle (5.4 miles)
Left onto Edgeworth Road (.5 miles)
End at Edgeworth and Highway 29

Red Route:
Begin on Corinth Road at intersection with Millard Farmer Road
Right onto Millard Farmer Road (2.5 miles) 11.6
Left onto Old Corinth Road (4.4 miles)
Left onto Bohannon Road -changes to Colley Street (4.7 miles)
End at Lagrange Street in Grantville

Yellow Route:
Begin on Highway 54 at intersection with Christopher Road
Straight on Highway 54 (.4 miles)
Right onto Steward Road (.5 miles)
Right onto Smith Road (2 miles)
Left onto Lower Fayetteville Road (3.8 miles)
Left onto Mary Freeman Road (1.2 miles)
Right onto Poplar Road (.10 miles)
Left onto Goodwynn Road -changes to Raymond Sheddan Avenue (1.6 miles)
Left onto Highway 16 (.4 miles)
Right onto Martin Mill Road (.4 miles)
Left onto Moore Road (2.9 miles)
Left onto Gordon Road (4.0 miles) 25.7
Left onto Johnson Road (2.2 miles)
Right onto Linch Road (2.5 miles)
Left onto South Hunter Road -changes to North Hunter (.7 miles)
Right onto Odom Road (.6 miles)
Left onto Reese Road (1.2 miles)
Right onto McIntosh Trail (1.2 miles)
End at Christopher Road

133.85

Part Two

"Inadequate facilities discourage users and unnecessary facilities waste money and resources."
-Oregon Bicycle and Pedestrian Plan, 1995

The second section concerns longer-term goals and issues. If Coweta hopes to foster a bicycle-friendly environment, a concentrated focus on policies impacting development must be sought. This may include changes to the county's comprehensive plan, zoning ordinances, transportation fund allocations, and economic development strategies. The goals outlined below should be considered part of larger changes aimed at improving the conditions for non-motorized transportation in Coweta County.

Land Use Improvements/Sustainability

The manner in which land is developed can have a profound effect on the feasibility and accommodation of bicycling. In order to create an equitable environment, bicycle and pedestrian planning must occupy a prominent place in the long-term comprehensive land use planning efforts in Coweta. Heightened attention to neighborhood design can improve future development, making communities not only more conducive to non-motorized transit and thus aid the county and the region in attenuating air quality problems, but also make frequent, short automobile trips less attractive.

For better bicycling conditions, land use planning and zoning should encourage tighter, more efficient land forms. (Wisconsin DOT 1993) Several simple suggestions to encourage this practice can make bicycle and pedestrian trips more attractive. Allowing greater housing densities in designated nodes places more residents closer to potential destinations and one another. Mixing zoning districts allows commercial properties to be adjacent to residential areas, and, coupled with denser housing districts, makes it easier for residents to access these facilities on foot or by bicycle, and more likely to do so. Various traffic calming measures (medians, narrower lanes, on-street parking) not only make streets more inviting to bicyclists and pedestrians but more congested and less welcoming to automobiles. (Oregon DOT 1995) Changing the way site and subdivision design proposals are evaluated (and permitted) will help engender future bicycle-friendly development (a self-perpetuating process). Developers should be required to reserve off-road space for bicycle paths, build bicycle-friendly roadways, and install appropriate signage. Site plans should be required to show bicycle parking facilities and street entrance ways with bicycle-safe dimensions.

By changing the existing land use design, bicycles can be better accommodated in the county's transportation network, and more economically and ecologically sustainable development can be encouraged. The final goal of sustainable development is simple: "meeting the vital human needs of present generations without compromising the ability of future generations to meet their own needs by preserving and protecting ecosystems and natural resources." (APA 2000) General ideas about implementing sustainability are sometimes difficult to distill into concrete actions. But the bicycle turns out to be a remarkably sustainable vehicle: by its cleanliness, affordability, and efficiency. It is a perfect machine to plan around.

Sustainable planning includes bicycle and pedestrian issues as part of a larger effort to better integrate all aspects of county-level planning: land use, water resource, transportation, education, recreation, and economic development. All of this can be accomplished without discouraging

development or impeding the county's efforts to expand its economy. "Planning for sustainability promotes responsible development -not anti-development." (APA 2000)

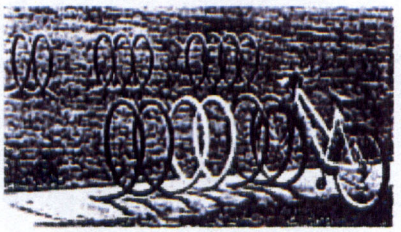
Policy Implementation Strategies:

- Require that all rezoning requests address bicycle/pedestrian accessibility issues
- All approved site plans should include provisions for adequate bicycle parking facilities and bicycle access
- Encourage the development of dense, mixed use districts (activity centers)
- Raise permissible housing densities in urban (eastern) areas of the county while simultaneously lowering those in rural (western) areas
- To increase the attractiveness of bicycles as alternative transit, the rate of new road construction should be closely monitored and curtailed where possible

Bicycle Parking Facilities

Bicycle parking is often overlooked in the design of new buildings, and many existing commercial or public buildings have unsuitable bicycle lock-up or storage facilities. Encouraging bicycle use depends on adequate and safe bicycle storage at all trip destinations and mode transfer points. A local ordinance must be written to require the inclusion of bicycle parking facilities in all public, large residential, and large commercial buildings. Mirroring auto parking requirements already in existence, bicycle parking requirements should require a certain number of spaces per unit of auto spaces.

Land Use	**Bicycle Parking Recommendations**
Commercial	1 space per 15,000 square feet floor space
Industrial	1 space per 20,000 square feet floor space
Multi-family	1 space per 15 dwelling units
Public transportation facilities	1 space per 50 auto spaces



Two bicycle parking designs

Policy Implementation Strategies:

- Mandate bicycle parking facilities adjacent to all public infrastructure (including schools, parks, and recreation areas)
- Revise zoning ordinance to require large shopping centers to include bicycle parking facilities based on a percentage of total automobile spaces
- Bicycle parking facilities should be located as close to building entrances as possible

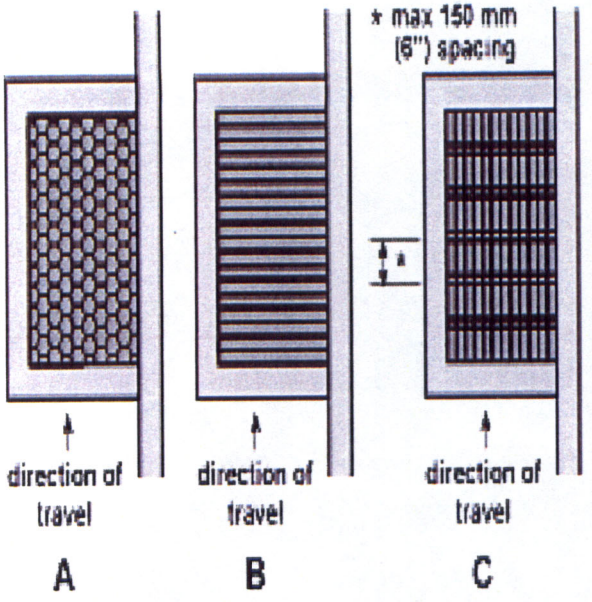
A selection of drainage grates

Dangerous Drainage Grate

Safe Drainage Grate

Figure 3

A selection of drainage grates



Three Safe Drainage Grates
Source: Portland Bicycle Plan

Safe Drainage Grate

Figure 4

- Trash receptacles should be placed sporadically along routes, with signs alerting riders of their presence
- Develop a tax incentive program to be offered to businesses and employers willing to retrofit their facilities to accommodate bicycle parking

Drainage Grates

Drainage grates can be hazardous to bicyclists. While most rural roadway sections are not fettered by grates (being beyond the reach of sewer lines), grates may be employed for runoff drainage in basin sections or near shoulders. There are two potential problems grates cause for bicycles. One is the width and orientation of the bars within the grate. In many cases, the bars run in a direction parallel to the direction of travel, which, if the slots are not sufficiently narrow, makes the possibility of bicycle tires falling into the openings much greater, and the resulting accident for the bicyclist severe. The other problem is the abrupt edge often formed at the junction of grates and pavement overlays. Sometimes this ledge is several inches high, easily ignored by motorists but insidious to fast moving cyclists who may not have enough space or reaction time for safe avoidance. There are several simple steps to take to solve these problems. Given the paucity of dangerous grates on Coweta's county road network, the cost of replacing any problematic grates should be minimal.

Policy Implementation Strategies:

- All dangerous drainage grates (those with parallel bars) should be retrofitted with bicycle-safe, perpendicular bar versions
- Create county policy that requires all future grates to be bicycle safe
- Grates that cannot be immediately replaced should be marked with special signs as dangerous

Improved Road Shoulders and Bicycle Lanes

Though notoriously expensive, asphalt upgrades are ultimately necessary for building a bicycle-friendly environment. A standard width lane is typically too narrow for comfortable lane sharing if traffic moves fast or there is a high volume of truck traffic (large vehicles create a wind blast in passing which can cause a cyclist to lose control). (Schimek 1996) Wide shoulders provide bicyclists a dedicated safe space, separated from potentially dangerous encounters with automobiles. Shoulders provide a right of way that keeps motorists from having to movie outside their travel lane to overtake bicycles moving at much slower speeds, an action that is often necessary on rural roads and even some city streets. To allay potential tension between motorists and cyclists, shoulder upgrades should be pursued as quickly as possible.

The most economical path to shoulder improvements is to include them in scheduled maintenance and paving activities. Thus Coweta should change its transportation policy to require shoulders to be paved during all routine maintenance; all main county roads should be covered. However, the width of shoulders may vary. The dimensions for shoulders typically range from three feet on rural roads to five feet on high traffic urban arterials.

Suggested Shoulder Widths

Low-volume rural roadways (less than 700 cars per day)	3 foot shoulder (no rumble strip)
High-volume rural roadways (more than 700 cars per day)	4 foot shoulder (with 1 foot rumble strip)

Low-volume state highways (less than 2500 cars per day)	4 foot shoulder (with 1 foot rumble strip)
High-volume state highways (more than 2500 cars per day)	5 foot shoulder (with 1 foot rumble strip)

Daily Traffic Counts of Selected Coweta Routes

DOT Route	Common Name		Daily Traffic Count (1998)
14	State Highway 14 (Palmetto)		8222
14	Brimer Road (Roscoe)		666
16	State Highway 16 (SE of Sharpsburg)		5563
16	State Highway 16 (Plant Yates)		8398
20	Frank Cook Road		2453
54	State Highway 54 (SW of Sharpsburg)		1549
54	State Highway 54 (SW of Sharpsburg)		1732
70	State Highway 70 (Roscoe Road)		998
103	Big Poplar Road (Sharpsburg)		3090
157	Cox Road (Senoia)		1916
251	Wagers Mill; Arthur Storey; Summer McKoy; Pierce Chapel; Bruce Jackson		380
252	Smokey Road (SW of Newnan)		650
301	Welcome Sargent Road		724
317	Henry Bryant (Sargent)		885
546	Lower Fayetteville Road (near Fayette border)		2150
547	Gordon Road (Haralson)		367
548	Collinsworth Road (Palmetto)		4267
549	Welcome Road (Newnan)		2439
550	Old Highway 85 (Senoia)		1521
552	Tyrone-Palmetto Road (Palmetto)		2168
552	Fischer Road (SE of Palmetto)		1273
553	Tommy Lee Cook Road (Palmetto)		777
553	Tommy Lee Cook Road (Palmetto)		1300
554	Corinth Road		884
555	West Grantville Road (Grantville)		587

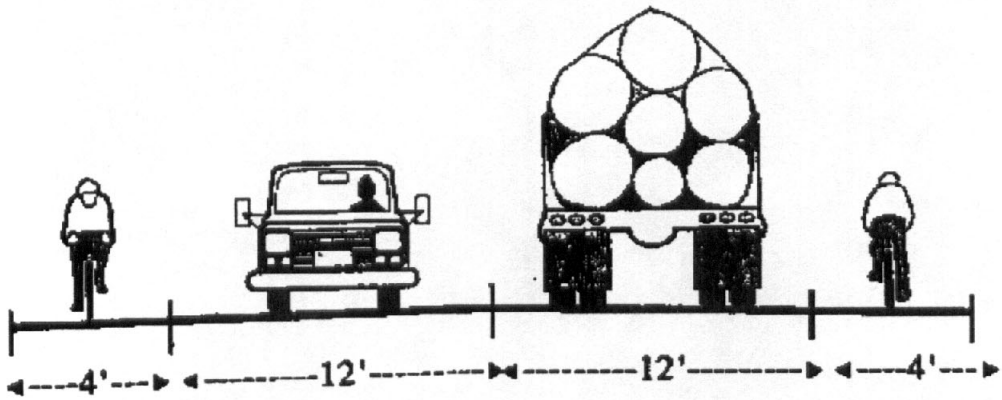
Source: Georgia Department of Transportation

As a complement to improved shoulders, Coweta should begin devising a process to build bicycle lanes. A more significant investment than paved shoulders, bicycle lanes are one way facilities delineated by painted stripes that carry bicycle traffic parallel to vehicular traffic. Proper lanes require substantial alterations to intersections (movement patterns and light sensors), dedicated rights of way, and significant signage and pavement markings. Because of their clear demarcation, bicycle lanes tend to boost cyclists' confidence and channel motorists safely away from riders. For average and inexperienced cyclists (type B and C), lanes are a significant factor

in route choice and destination, and thus should be planned to include important points of interest and need.

Wide curb lanes are another possible approach to accommodating bicycles and automobiles together. Such lanes are designed to function similarly to painted lanes, in that they allow cyclists to travel on-grade and parallel to motorized traffic, but sans the lines themselves. Most sources recommend lanes at least 12 feet wide, 14 feet being ideal. But 14 feet is a fine boundary, because lanes of greater width often unwittingly encourage motorists to operate two vehicles in one lane concomitantly (despite the fact that a 15 foot lane is too narrow for two cars). Purposely widening curb lanes is most often attempted on four lane roads in urban areas, where auto speeds are more tightly controlled and existing travel lanes can be restriped. (AASHTO forthcoming)

The results of a recent study by the Federal Highway Research Center on the differences in safety between dedicated bicycle lanes and wide curb lanes suggest that both are beneficial to cyclists', but that because lanes tend to increase the perception of safety as well as the number of cyclists, lanes should be constructed where ever possible. The study also stressed the need for more bicycle facilities on domestic roads. More facilities mean more regular bicyclists, which helps raise the overall awareness of motorists to the presence of bicycles and thus drivers' confidence in sharing the road. (Hunter et al 1998)



Courtesy Wisconsin DOT

Policy Implementation Strategies

- Create and institute county ordinance the requires paved road shoulders as part of all periodic road resurfacing activities
- Where rumble strips are necessary use a design similar to the one depicted in the appendix; this model allows bicycles to safely enter and exist shoulders
- Stripe all roads of sufficient width with four foot wide bicycle lanes and accompanying signage3
- Petition the Georgia DOT to adopt similar guidelines for paved shoulders for state-maintained roads within the boundaries of Coweta County
- The following state-maintained highways are recommended for bicycle lane upgrades: 16, 27, 29, 34, 54, 70, 74, 154
- Aggressively enforce laws against motorists driving or parking in bicycle lanes
- Begin redesigning intersections to accommodate future bicycle lanes following AASHTO guidelines

Bicycle/Pedestrian Paths

There is ample room in Coweta for a system of bicycle paths, and seemingly no dearth of interest (most bicyclists surveyed for this plan expressed interest in a system of paths). Pathways are grade-separated from motorized vehicular traffic by open space or a material barrier and usually lie in an independent right of way. Because of their distance from fast-moving auto traffic, off-road paths are attractive to recreational riders who might otherwise drive to a specially designated riding area (Callaway Gardens or Peachtree City, for example). Paths encourage families to ride together, which offers parents a chance for meaningful interaction with their children and provides a forum for bonding around mutual interests.

Off-road paths offer particular benefits for children, who typically do not have well-developed riding skills or knowledge of on-road operating etiquette. Paths that connect important destinations, like schools, libraries, and parks, provide freedom of access for children, and teach them valuable lessons about non-motorized transit. Increased accessibility positively impacts a child's ability to participate in her or his community, perhaps combating the frequently noted suburban problem of social isolation, as accessible transportation networks are often the biggest obstacles for children seeking wider social integration. (New York Times 1999)

Grade-separated paths can be planned and constructed in different ways. Abandoned railroad rights of way are increasingly popular because they offer flat, smooth surfaces for paving, and often do not require expensive easement acquisitions. In many places, old rail beds provide scenic backdrops and pass near historic resources, which may become popular destinations. The national Rails-to-Trails Conservancy and the local PATH Foundation both support municipalities attempting to acquire easements for conversion into bicycle paths. The Silver Comet trail is a very recent local example. Though still under construction, when completed the trail will stretch from metro Atlanta into eastern Alabama and provide a continuous, unobstructed public recreational area.

Recently, some municipalities have established successful bicycle paths along active railroads, a practice once considered untenable. Experience has conclusively demonstrated the plausibility of rails and paths sharing an easement. In a 1997 study of localities operating rails with paths, only 1 out of 37 reported an accident involving trains and trail users. Most (70 percent) used a barrier to separate paths from rails in addition to simple physical distance (which averaged 55 feet), though these barriers were frequently only vegetation or inexpensive chain-link fence or some combination thereof. (Kraich 1997)

There are several active railroads that traverse Coweta which could provide space for parallel paths. In many cases, space for constructing parallel paths is simply donated by the railroad, making construction costs of the physical pathway the only significant financial expense the county must cover. Acquiring similar rights from individual property owners likely would be prohibitively difficult. Several lines pass through the most urbanized areas of the county, which would place parallel paths within easy reach of a large portion of the county's population, offering safe, close to home recreation opportunities in places where they are otherwise scarce.

The county's large network of floodplains provides another possible set of off-road routes. Because floodplains are usually shady and level, they could provide enticing spaces for recreational riders (especially families and children). They cross political boundaries and slither through subdivisions and commercial districts. Dekalb County has recently developed a comprehensive plan for off-road bicycle paths that will connect residents to public transit, parks, and commercial nodes and that makes extensive use of floodplains. (PATH 2000) Even if

Coweta is not yet in a position to embark on such an extensive plan, the moment is quickly approaching, which only exacerbates the need for effective long-term thinking.

One other option, though it is perhaps the most expensive and difficult to implement, is to build trails along utility company easements (Georgia Power, Plantation Pipeline, and Transcontinental Gas Line have facilities passing through Coweta). These swaths of land are relatively straight, though not always level, cut across varies county jurisdictions, and in some places offer ideal conditions for mountain bike trails. The difficulty lies in the fact that the land through which the easements pass is not owned by the utility companies, but by individuals, and thus obtaining permission to construct trails would likely involve negotiations with a prohibitively wide array of people.

Policy Implementation Strategies:

- Write a county-wide ordinance that requires both commercial and residential developers to set aside special easements for future paths to be constructed
- Establish policy that requires all county schools to set aside land for the future construction of paths
- Plan grade-separated paths that connect specific places: important destinations within the county and municipalities (e.g. historic sites, recreation areas, commercial districts, neighborhoods)
- Begin process of acquiring abandoned railroad lines within the County for rails-to-trails conversion (The Rails-to-Trails Conservancy provides expert guidance)
- Seek funding from outside sources to cover trail construction costs and easement acquisitions
- Begin surveying floodplains for possible trail locations
- Investigate possibility of building paths parallel to functioning railroads
- Investigate possibility of building off-road trails along sections of utility company easements (several cross the county)

Social Capital

It is difficult to grasp the idea of social capital as a clear end product of planning efforts. Social capital is not tangible or always apparent. The term refers to the "features of social organization, such as networks, norms, and trust, that facilitate coordination and cooperation for mutual benefit." But despite its conceptual difficulty, it is increasingly recognized as a crucial part of human communities, ultimately necessary because it substantially "enhances the benefits of investment in physical and human capital." (Putnam, 1993)

How are bicycle routes connected to social capital? By promoting the use of bicycles as recreation and transportation, both the frequency and intensity of citizen interaction can be increased. Bicycling builds horizontal (relationships with equal footing) rather than vertical (relationships without equal footing) ties between individuals, thereby increasing the density of beneficial social networks. Neutral interaction in public space is important for community stability. It creates an informal forum for discussion and exchange among individuals who might otherwise never have occasion to speak. (Bickford 2000) Paths and routes create a sense of shared existence and concern, and can help raise awareness of important community issues: natural habitat and historic resource preservation, air quality, and land use policy. Some evidence suggests that social capital is even crucial to individual health. (Kawachi, 1997) Promoting bicycling helps a sense of shared experience among community members develop, a point not to

be overlooked given the problems of deep segregation of individuals based on race and economic class creates for viable democracy. (Bickford 2000)

Social capital is necessarily a long-term goal, and must ultimately involve much more than planning bicycle routes and paths. Yet routes and paths are an important beginning, a tacit recognition on the part of the community of needed change in existing development patterns. The planning process can be a starting point for greater citizen involvement. Bicycle paths can serve to open discussion on a variety of other community-related issues, improve the dialogue between citizens and elected officials, and ultimately create a more vigorous public life.

Policy Implementation Strategies:

- Devise a local publicity program to tout bicycling as a vital community-building activity
- Sponsor regular county-wide family bicycle rides, perhaps in conjunction with other community gatherings (e.g. cook outs, holiday festivals, parades, etc.)
- Support civic environmentalism (e.g. clean air days, recycling), of which bicycling can be an important part
- Establish workplace-based training programs to educate workers about the facts of commuting via bicycle
- Investigate the possibility of starting a "yellow bike" program, like ones currently operating in Portland, Minneapolis/St. Paul, Madison (Wisconsin), and Austin (Texas), where publicly owned bicycles are freely available for anyone needing (or desiring) temporary transportation

Economic Development

As an enhancement to the overall quality of life in a place, a comprehensive bicycle route and trail system can provide a valuable economic development resource. As the National Bicycle and Pedestrian Clearinghouse reports, "choosing a location that will help attract and retain key personnel was cited as the number one factor in selecting office locations, and corporate real estate executives now say employee "quality of life" issues are as important as cost when deciding where to locate a new factory or office." Many homebuyers are recognizing the benefits of an adjacent bicycle trail. Recreational paths ranked third among 39 features identified by homebuyers as crucial factors in home-purchasing decisions, according to a 1994 study. Paths are cost-effective, saving taxpayers anywhere from 5 to 22 cents for every automobile mile displaced by bicycling. (NBPC Technical Brief, 1995) Bike paths could give Coweta an edge in recruiting and retaining businesses (particularly "New Economy" industries), as well as attracting talented individuals, who will participate in community life and contribute to the wider perception of Coweta as a desirable place.

Bicycle facilities also attract tourists, especially those interested in ecologically sensitive experiences. The rising global popularity of eco-tourism (trips to destinations where flora, fauna, and cultural heritage are the primary attractions) could bode well for Georgia and Coweta, which have a bevy of attractive and unspoiled landscapes. (Georgia Bicycle Plan 1999) Bicyclists from around the country could be enticed to visit the state, ride the routes, and with the right encouragement, make Coweta a stop. The economy of the county would benefit from their presence and spending but would not be forced to absorb the negative externalities commonly associated with tourist pollution and intrusion. Thus the bicycle routes and paths proposed herein could become an important part of Coweta's overall economic growth strategy and help the county capitalize on the anticipated overall growth of tourism in the coming decades.

Policy Implementation Strategies:

- Emphasize routes and bicycle-friendly environment in chamber of commerce business recruitment literature, including the relationship between bicycles, air quality, congestion, and quality of life measures
- Develop a public relations program in conjunction with the state's tourist guide to promote Coweta as an eco-tourist destination

Evaluation Process

A formal evaluation performs an important function: it gives municipalities a way to measure the relative success or failure of a plan. It also allows them an opportunity to develop and find expression for a set of preferred outcomes before implementation is initiated. Establishing a set of evaluative parameters early on makes later analysis not only easier but more effective. Measurable outcomes are crucial to the success of any plan.

To address this, a straightforward system for charting yearly progress should be developed. As part of the process, a set of concrete expectations should be established which can then be evaluated for successful completion. As the plan unfolds, a measurable accumulation of successes and failures can be collected, which should then be used to devise questions for future efforts: have expectations been fulfilled, were expectations too nebulous to be understood, have stakeholders been satisfied with the outcomes so far, has safety risen or declined, have accidents increased or decreased, what mistakes were made, what parts of the plan should be updated to reflect changing conditions? A set of possible indicators is listed below:

- Overall increase in bicycle ridership: conduct survey of a sample of riders before and after plan implementation
- Shifts in self-reported rider satisfaction
- Miles of routes signed, paths constructed: develop quantitative database of details of all signed routes and grade-separated paths
- Reduction in the number of bicycle-automobile collisions: maintain database of details of all signed routes and paths
- Durability of signs: conduct twice-yearly inspections for signs of degradation
- Motorist complaints/complements
- Number of bicycle parking facilities installed or planned: develop quantitative database of details of facilities installed and planned
- Miles of right of way acquisitions for future paths
- Zoning ordinance updated to reflect new standards for bicycle/pedestrian set asides
- New county road shoulder paving standards written into law

Short Term Work Program

A three month program, in conjunction with Part One of the plan, to use existing TE funds (~$80,000) to acquire and install appropriate signage is presented below. This is the first phase of implementation. Once it is underway, additional funding should be sought to help implement other suggestions in the plan. Since funding comes from a variety of sources, many of which are not tied to a bi-yearly appropriation cycle (like TE), hasty action is encouraged.

Estimates of per unit and total system-wide cost are provided for the purpose of budgeting. Ultimate responsibility for acquiring the necessary materials and contracting labor lies with county authorities and may force deviation from the time schedule included here.

October 2000

- Present final draft of comprehensive plan to Coweta County Commission and Citizens
- Request bids for signs from qualified companies

November 2000

- Select a company to provide signs
- Design and print brochures with information about and maps of the routes
- Begin limited distribution of brochures at local shops, community centers, and government offices

December 2000 – March 2001

- Begin sign installation
- Following completion of sign installation, hold a ribbon-cutting ceremony with county officials and bicyclists
- Orchestrate local and, if possible, regional media coverage
- Begin wide-scale distribution of county route pamphlets and maps and information about state routes and the four-county Heritage Highway

Short-term Implementation Cost Estimate

Sign	Cost Per Unit (est. $)	Number of Units (est. $)	Total Cost (est. $)
Bike Route (D11-1)	35.00	258	9030
Share The Road (W16-1)	42.00	15	630
Left or Right Arrow (M7-1)	12.00	258	3096
Bicycles Use Shoulder (R9-8)	55.00	100	5500
Ride With Traffic (R9-3d)	42.00	75	3150
Bicycle (W11-1)	42.00	24	1008
U-Channel Post	12.25	397	4863
Installation			25000
Brochure (design/printing)			10000
Total (est. $)			**62277**

Conclusion

Building a network of bicycle routes and paths is an expensive and labor intensive activity. This plan is meant to serve as a guide, providing a flexible set of goals and policy suggestions for the future. However, Coweta County is changing rapidly, and what today effectively serves its population several years from now may prove misguided. Therefore the ideas and suggestions presented here are expected to evolve over the course of the coming years.

The fact that responsibility for transportation design and maintenance is distributed among separate but overlapping authorities suggests the need for Coweta's municipal governments to work together, and with the state DOT, to avoid duplicative or conflicting efforts. In other words,

goal setting must be consistent and cooperative. A comprehensive bicycle plan, like any boundary-crossing plan, requires cooperation so that routes, lanes, and paths remain consistent and seamless. Growing populations do not always follow existing political boundaries, and individuals have been conditioned to expect public infrastructure to respect their private settlement decisions.

Bicycles represent an incredibly clean and efficient means of transportation. They move people without contributing to existing air quality problems, and by simultaneously reducing the number of automobile trips they actually help clean the air. Because they are compact and human-powered, bicycles require no fossil fuel inputs and much smaller infrastructure investments. A reduction in infrastructure cost saves limited public monies for investment in more meaningful areas (education, the arts, health).

Routes and paths offer opportunities for safe and affordable transit for the 30% of the population that does not drive, namely children and senior citizens. They encourage tourism, an effective economic development tool, which brings money and jobs into the community. If they are carefully constructed, routes and paths can bring positive exposure to Coweta's citizenry and political leaders, highlighting the quality of life residents enjoy. This is a self-perpetuating process, for tourists create more tourists, some of who may turn into permanent residents. Bicycling can alleviate individual health problems, reducing the burden on health care networks, and helps build community-wide social capital.

Given the recent shifts in political climate, planning for bicycles is likely to be a growing priority for metropolitan and state governments, particularly around metropolitan Atlanta. This suggests an increasing availability of special funding and support for development conducive to these activities. It also suggests a shifting public perception of the positive social externalities attached to bicycles. If this shift continues, the fate of bicycles in the urban and suburban landscape will be secure.

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Appendix One

Potential Funding Sources

Bicycle and pedestrian projects are broadly eligible for funding from almost all the major Federal-aid highway, transit, safety, and other programs. However, bicycle projects must be "principally for transportation, rather than recreation, purposes" and must be designed and located pursuant to the transportation plans required of States and Metropolitan Planning Organizations.

Federal-aid Highway Programs

Contact the Federal Highway Administration for more information about the following grant opportunities.

National Highway System: funds may be used to construct bicycle transportation facilities and pedestrian walkways on land adjacent to any highway on the National Highway System, including Interstate highways.

Surface Transportation Program (STP): funds may be used for either the construction of bicycle transportation facilities and pedestrian walkways, or non-construction projects (such as maps, brochures, and public service announcements) related to safe bicycle use and walking. TEA-21 adds "the modification of public sidewalks to comply with the Americans with Disabilities Act" as an activity that is specifically eligible for the use of these funds.

Transportation Enhancement Activities (TEAs): Ten percent of each State's annual STP funds are set-aside for these activities. The law provides a specific list of activities that are eligible TEAs and this includes "provision of facilities for pedestrians and bicycles, provision of safety and educational activities for pedestrians and bicyclists," and the "preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian and bicycle trails)."

Hazard Elimination and Railway-Highway Crossing programs: address bicycle and pedestrian safety issues and are funded by 10 percent of each State's STP funds. Each State is required to implement a Hazard Elimination Program to identify and correct locations which may constitute a danger to motorists, bicyclists, and pedestrians. Funds may be used for activities including a survey of hazardous locations and for projects on any publicly owned bicycle or pedestrian pathway or trail, or any safety-related traffic calming measure. Improvements to railway-highway crossings "shall take into account bicycle safety."

Congestion Mitigation and Air Quality Improvement Program: funds may be used for either the construction of bicycle transportation facilities and pedestrian walkways, or non-construction projects (such as maps, brochures, and public service announcements) related to safe bicycle use.

Recreational Trails Program: funds may be used for all kinds of trail projects. Of the funds apportioned to a State, 30 percent must be used for motorized trail uses, 30 percent for nonmotorized trail uses, and 40 percent for diverse trail uses (any combination).

Federal Lands Highway Program: Provides provisions for pedestrians and bicyclists under the various categories in conjunction with roads, highways, and parkways. Priority for funding projects is determined by the appropriate Federal Land Agency or Tribal government.

National Scenic Byways Program: funds may be used for "construction along a scenic byway of a facility for pedestrians and bicyclists."

Job Access and Reverse Commute Grants: available to support projects, including bicycle-related services, designed to transport welfare recipients and eligible low-income individuals to and from employment.
High Priority Projects and Designated Transportation Enhancement Activities: identified by TEA-21 and include numerous bicycle, pedestrian, trail, and traffic calming projects in communities throughout the country.

Federal Transit Program: Title 49 U.S.C. (as amended by TEA-21) allows the Urbanized Area Formula Grants, Capital Investment Grants and Loans, and Formula Program for Other than Urbanized Area transit funds to be used for improving bicycle and pedestrian access to transit facilities and vehicles. Eligible activities include investments in "pedestrian and bicycle access to a mass transportation facility" that establishes or enhances coordination between mass transportation and other transportation. The Transit Enhancement Activity program provides a one percent set-aside of Urbanized Area Formula Grant funds designated for, among other things, pedestrian access and walkways, and "bicycle access, including bicycle storage facilities and installing equipment for transporting bicycles on mass transportation vehicles".

Highway Safety Programs

Pedestrian and bicyclist safety remain priority areas for State and Community Highway Safety Grants funded by the Section 402 formula grant program. A State is eligible for these grants by submitting a Performance plan (establishing goals and performance measures for improving highway safety) and a Highway Safety Plan (describing activities to achieve those goals). Research, development, demonstrations and training to improve highway safety (including bicycle and pedestrian safety) is carried out under the Highway Safety Research and Development (Section 403) program.

American Greenways DuPont Awards

Grants are available for planning and design of greenways. Although applications will be accepted from public agencies and individuals, the program is aimed primarily at community groups and non-profit organizations. Mapping, brochures, conferences, ecological assessments, interpretive displays, audio-visual productions, surveys, planning, or other creative projects are eligible. Grants are available in increments of $500.00 to $25,000. American Greenways, The Conservation Fund, 1800 North Kent Street, Suite 1120, Arlington, VA 22209.

Bikes Belong Coalition

Bikes Belong Coalition is sponsored by members of the American Bicycle Industry. Our goal is putting more people on bikes more often through the implementation of TEA-21. We seek to assist local organizations, agencies, and citizens in developing bicycle facilities projects that will be funded by TEA-21, the Transportation Equity Act for the 21st Century. Bikes Belong Coalition will accept applications for grants of up to $10,000 each, and will consider successor grants for continuing projects. Funding decisions will be made on a rolling basis. Applications and proposals will be reviewed under the auspices of the Bikes Belong Coalition's Executive Director and presented to the Board of Directors for approval, rejection, or resubmission. Bikes Belong Coalition, Ltd., 1368 Beacon Street, Suite 102, Brookline, MA 02446-2800

National Energy Foundation - Washington, D.C.

In addition to the previously described local funding foundations, the National Energy Foundation is also a source of revenue. This fund was established in cooperation with the nation's leading fuel companies in an effort to develop new and more energy conscious alternatives to fossil fuels. Annual funding levels exceed $1 million. In general this foundation supports transportation improvements in alternative fuels technology, telecommuting, and air quality improvements and is an excellent source of potential funding for unique bicycle programs.

Appendix Two

Georgia laws governing bicycles on roadways
Georgia Official Code 40-6-294

(a) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, except when turning left or avoiding hazards to safe cycling, when the lane is too narrow to share safely with a motor vehicle, when traveling at the same speed as traffic, or while exercising due care when passing a standing vehicle or one proceeding in the same direction; provided however, that every person operating a bicycle away from the right side of the roadway shall exercise reasonable care and shall give due consideration to the other applicable rules of the road. As used in this subsection, the term "hazards to safe cycling" includes, but is not limited to, surface debris, rough pavement, drain grates which are parallel to the side of the roadway, parked or stopped vehicles, potentially opening car doors, or any other objects which threaten the safety of a person operating a bicycle.

(b) Persons riding bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

(c) Whenever a usable path has been provided adjacent to a roadway and designed for the exclusive use of bicycle riders, then the appropriate governing authority may require that bicycle riders use such path and not use those sections of the roadway so specified by such local governing authority. The governing authority may be petitioned to remove restrictions upon demonstration that the path has become inadequate due to capacity, maintenance, or other causes.

(d) Paths subject to the provisions of subsection (c) of this code section shall at a minimum be required to meet accepted guidelines, recommendations, and criteria with respect to planning, design, operation, and maintenance as set forth by the American Association of State Highway and Transportation Officials, and such paths shall provide accessibility to destinations equivalent to the use of the roadway.

(e) Electric assisted bicycles as defined in Code Section 40-1-1 may be operated on bicycle paths.

Appendix Three

MUTCD Compatible Bicycle Signs

W16-1

W11-1

M11-8

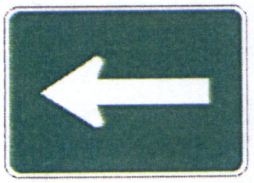
D11-1

R9-3d

R9-8

R3-17

M1-9



M7-1

These images are from the Manual of Traffic Signs, by Richard C. Moeur