Chapter 4

Transportation

ROADS AND HIGHWAYS

The NCDOT Secondary Road system serves the Plan area, except for the federal and state highways, US 321 and NC 10. US 321 is the freeway connecting Hickory south to Gastonia and Charlotte (via I-85) and north to Lenoir and the mountains. NC 10, the other major thoroughfare, bi-sects the Plan area from east to west.

Average daily traffic counts (number of vehicles per day or ADT) are available for various locations in the Plan area. Data for 2003 through 2009 are actual numbers recorded on site. Traffic projections for 2015, 2025 and 2035 are based on NCDOT modeling. *See Tables 4 and 5: Average Daily Traffic Count.*

Transportation

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Table 4: 321 Eco-Tech Corridor (Northern Portion): Average Daily Traffic Count 2003-2035					
	US 321 (North of River Road)	US 321 (North of NC 10 Inter-change)	River Road—SR 1144 (East of US 321 Inter-change)	Zion Church Road—SR 1008 (South of Sandy Ford Rd)	NC 10 (East of US 321 Interchange
2003	28,000	25,000	2,600	3,000	9,300
2005	32,000	28,000	2,600	3,200	9,500
2007	33,000	29,000	3,000	3,300	9,900
2009	30,000	27,000	2,100	3,500	9,100
2015	45,900	39,400	4,400	4,200	16,000
2025	58,000	48,500	5,400	6,200	19,500
2035	62,500	51,700	7,100	7,300	20,800

Source: NCDOT AADT Maps, 2003-2009; and 2035 Long Range Transportation Plan (for 2015, 2025 and 2035 projections)

Table 5: 321 Eco-Tech Corridor (Southern Portion): Average Daily Traffic Count					
	US 321 (South of NC 10 Interchange)	NC 10 (East of Hky-Lincolnton Hwy.)	Rocky Ford Rd.—SR 2019 (East of Hky Lincolnton Hwy.)	Hky-Lincolnton Hwy.—SR 1008 (South of NC 10)	Blackburn Bridge Rd.—SR 2021 (east of Hky-Lincolnton)
2003	23,000	8,100	1,200	3,500	1,100
2005	26,000	7,800	N/A	3,500	N/A
2007	25,000	8,400	N/A	4,200	1,100
2009	24,000	7,700	1,600	4,600	1,100
2015	35,700	8,500	N/A	3,600	N/A
2025	46,400	8,900	N/A	5,100	N/A
2035	52,800	11,100	N/A	6,700	N/A

Source: NCDOT AADT Maps, 2003-2009; and 2035 Long Range Transportation Plan (for 2015, 2025 and 2035 projections)

In addition to traffic counts at these locations, NCDOT has two traffic counts in the southern portion of the Plan area, at Startown Road north of West Maiden Road (7,900 vehicles daily in 2009) and on US 321 south of the Startown interchange (26,000 vehicles in 2009).

The 2009 ADT counts generally represent a 5-15% decrease from the 2007 counts, which is representative of the traffic counts found throughout the MPO region. It is thought that the downturn in the economy, with the resulting loss in jobs and reduction in disposable income, is the basis for the decline in the traffic counts.

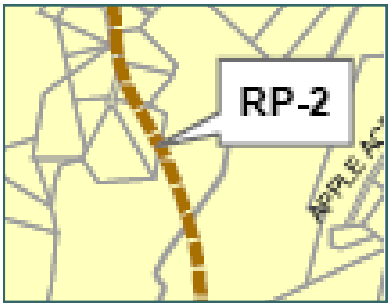
Transportation planning for the US 321 corridor Plan area is coordinated by the Greater Hickory Metropolitan Planning Organization (GHMPO). The GHMPO was created from the Hickory-Newton-Conover MPO when the Hickory urban area expanded after the 2000 Census. Future transportation needs for the US 321 corridor area are included in two different transportation plans: the 2035 Greater Hickory Urban Area Long Range Transportation Plan (2010) and the Thoroughfare Plan for Catawba County (2007).

In March 2010, the MPO's Transportation Advisory Committee adopted a 2035 Long Range Transportation Plan. This Plan is multi-modal and will guide the planning and development of the urban area's transportation systems for a 25-year horizon period. The Transportation Plan covers the entire corridor area but focuses mainly on the urban area north of Rocky Ford Road. The southern portion of the US 321 corridor is included in the County Thoroughfare Plan. Both plans provide recommendations for road improvements in the corridor area which include road widenings, new interchanges along US 321 and construction of new road facilities.

The 2035 Long Range Transportation plan includes several projects that impact the Plan area. Following is a general description of the projects and the funding status which are depicted on *Map 8: Transportation/ Multi-modal Recommendations* with a Road Project (RP) reference number that corresponds to the map.

NC 10 (RP-1):
The section between US 321 Business and the US 321 freeway is expected to exceed its capacity for a 2-lane road over the next 25 years. It is recommended that

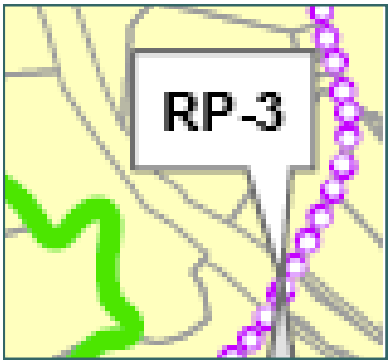
the road be widened to a 4-lane divided boulevard with a grass median. This project is unfunded in the State Transportation Improvement Program (STIP).



Robinson Road Extension

Robinson Road (SR 1146) Extension (RP-2):

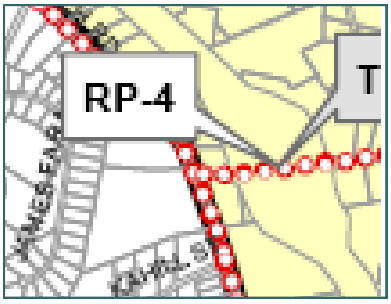
This new 2-lane road will extend southward from a location approximately 2000 feet north of NC 10 and will parallel Startown Road, connecting back to the existing West Maiden Road just west of the West Maiden/Startown Road interchange. The Robinson Road extension project was also included in the County's Thoroughfare Plan; however, the Startown Small Area Plan recommended the realignment of the road extension to the west of the current alignment and deletion of the portion of the road south of Rocky Ford Road. Although NCDOT has completed a "functional design" based on existing subdivisions, topography and likely road alignment, the project is not yet included in the STIP.



Rocky Ford Road Interchange

Rocky Ford Road (SR 2019) Interchange (RP-3):

This new interchange was first proposed in the Startown Small Area Plan and has been incorporated into the 2009 Long-Range Transportation Plan. In addition to a new interchange, it is recommended to realign Rocky Ford Road and construct a new bridge over the South Fork Catawba River to better accommodate industrial traffic, especially from the County's EcoComplex. The bridge replacement project is funded in the STIP; however, the realignment and new interchange are unfunded.



Sandy Ford Road Interchange

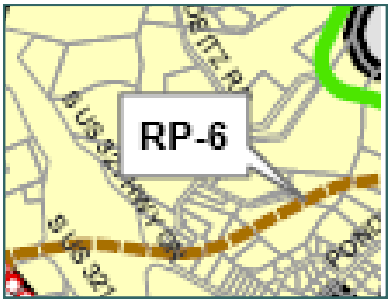
Sandy Ford Road (SR 1143) Interchange (RP-4):

When right-of-way was secured for the US 321 project, additional right-of-way was acquired for a future interchange at Sandy Ford Road. Currently, there is an at-grade separation at Sandy Ford Road and US 321; however, as growth in the corridor occurs the interchange could be promoted to be constructed. This interchange is not funded in the STIP.

Sixth Street Extension (RP-5):

This project is a new road segment extending from Sixth Street in Hickory at its existing location south of Catawba Valley Blvd. to the Southern Corridor near the River Road interchange of US 321. This is an unfunded project in the STIP.

Southern Corridor (RP-6):
This corridor is proposed as a 4-lane divided boulevard with a grass median that will be an east-west road network connecting the Mountain View area to Newton. The corridor is proposed to pass through the Plan area at the River Road interchange. The Southern Corridor is included in the STIP but is unfunded at this time.



Southern Corridor

Startown Road (SR 1005) (RP-7):
This major north-south thoroughfare, which forms a portion of the eastern Plan area boundary, is proposed to be widened to a 4-lane divided boulevard with a grass median between NC 10 to US 70. It is an unfunded project in the STIP.

PEDESTRIAN AND BICYCLE SYSTEM

Pedestrian and bicycle system planning for the County has been conducted over the last five years and is formulated in several documents: The Greater Hickory Recreation/Tourism Plan (2006), Catawba County Master Parks and Recreation Plan (2007) and the draft Carolina Thread Trail Master Trail Plan for Catawba County Communities (to be completed in late 2010). These plans have identified several pedestrian and bicycle trail segments within the Plan area:

Bicycle System

Henry Fork Greenway—This proposed 7-mile greenway parallels the Henry Fork River from the City of Hickory Henry Fork River Regional Park to the City of Newton Jacob Fork Park. This greenway will follow the northeast boundary of the Plan area along the Henry Fork River and will bisect the Plan area just north of the NC 10 interchange.

Jacobs Fork Greenway—This proposed 10.8-mile greenway parallels the Jacob Fork River from Camp Creek in the Mtn. View area to the City of Newton Jacob Fork Park. A small portion of the greenway is in the Plan area where the Jacob Fork River confluences with the Henry Fork River at the Jacob Fork Park.

Trail along the Jacobs Fork

South Fork River

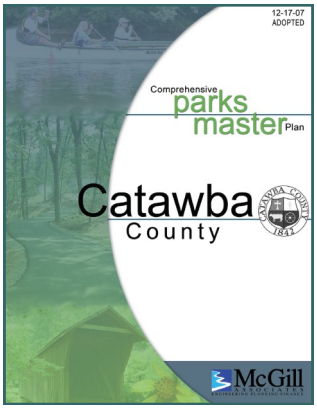
South Fork Catawba River Greenway—This proposed 8.5 mile greenway segment is along the South Fork River corridor from the Jacobs Fork corridor to the Lincoln County line. This entire greenway corridor falls within the Plan area. A portion of the corridor, as identified in the Carolina Thread Trail plan, would be constructed on land owned by the Catawba Lands Conservancy.

South Fork - Maiden Connector—This 6.0 mile segment connects the South Fork greenway through the Catawba Lands Conservancy property and the follows Herter Road, Blackburn Bridge Road and Startown Road to West Maiden Road where it joins the sidewalk network in Maiden.

Pedestrian—Sidewalk System

In addition to the trail projects above, the Startown and Mtn. View Small Area plans recommended several on-road bicycle routes throughout the Plan area which have been incorporated into a draft NCDOT Bicycle Route Map. The draft map and signing project, funded by NCDOT, is expected to be completed in 2012.

The proposed pedestrian and bicycle facilities within the Plan area are shown on *Map 8: Transportation/Multi-modal Recommendations*.



In order to implement the planned pedestrian and bicycle facilities, Catawba County's Unified Development Ordinance requires improvements for new development. Sidewalk construction in new residential development is required when 25 or more lots are proposed within the R-20 or higher density districts. For less dense residential development, open space is required with a portion to be improved with a trail system. In addition, sidewalks are required along the frontage of new residential and non-residential developments on major thoroughfares in urban areas and major collectors or higher road classifications in rural areas. A fee-in lieu of option in place of sidewalk construction or the provision of open space may be allowed by the County. These funds are to be used for installation of sidewalks, trails, bicycle paths or capital projects based upon the identified needs in the County Master Parks and Recreation Plan. The UDO also requires properties zoned 321-ED to provide for pedestrian travel between building clusters within new developments. Bicycle parking facilities are required under the UDO when non-

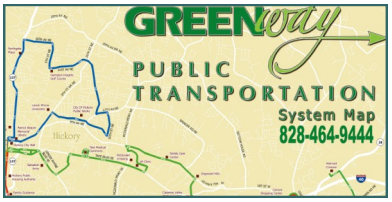
residential and multi-family developments are located within 500 feet of bicycle corridors in officially adopted bikeway plans.

It is now the policy of the MPO and NCDOT to evaluate any new road construction project for potential pedestrian needs (i.e., sidewalks and crossover) and bicycle accommodations. This coordination particularly has been emphasized with the Rocky Ford Road bridge construction project (STIP# B-4458).

Evaluate Construction Projects

TRANSIT SYSTEM

A consolidated public transportation system was established in 2008; whereby, the community transportation network provided by the Piedmont Wagon Transit System was combined with the other Unifour systems to become the Western Piedmont Regional Transit Authority. The new system now operates under the Greenway Public Transportation program providing limited transit services to the Plan area. Vans are available five days per week to transport senior citizens and disabled residents; however, no fixed Greenway routes currently exist in the Plan area.



GUIDING PRINCIPLES

ROADS & HIGHWAYS

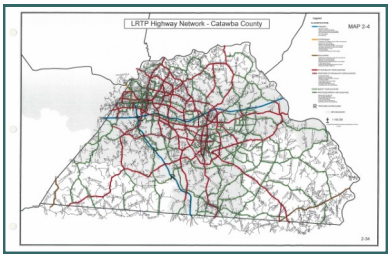
TP-1 Anticipate and plan for growth that will result from road improvements and widening.

TP-2 Preserve good roads, areas of low traffic and scenic highways.

TP-3 Coordinate transportation policies with land use policies.

TP-4 Encourage alternate modes of transportation, including increased use of existing means such as public buses, school buses, railroads, bicycles and pedestrian.

TP-5 Provide for better connectivity of road systems.



Long Range Transportation Plan Catawba County

PEDESTRIAN SYSTEM

TP-6 Provide safe alternatives for pedestrians.

BICYCLE SYSTEM

Bike Lane

TP-7 Provide safe options for bicyclists.

TRANSIT SYSTEM

TP-8 Increase opportunities to link with existing transit routes.

PLAN GOALS

Catawba County does not maintain roads and therefore the following recommendations will be forwarded to NCDOT or used in area-wide transportation planning. The transportation goals are depicted on *Map 8: Transportation/Multi-modal Recommendations. Note:* A Transportation Goal (TG) reference number is depicted on the map representing specific project sites.

South Fork River Crossing on Rocky Ford Road

ROADS & HIGHWAYS

TG-1 Collaborate with NCDOT on Rocky Ford Road bridge replacement, the realignment of Rocky Ford Road, and the new interchange. *See Map 8A: Existing Rocky Ford Road/US 321 Alignment - Bridges* and *8B: Proposed Rocky Ford Road Realignment, US 321 Interchange - Bridge Replacement.*

TG-2 Evaluate and aggressively pursue opportunities for NCDOT or special funding to construct the recommended Rocky Ford Road interchange.

TG-3 Re-evaluate the following road improvement projects as part of the MPO planning process:

- Robinson Road Extension
- Sandy Ford Road interchange

Service Road

TG-4 Evaluate the feasibility of constructing a frontage road system which will serve proposed and future developments that parallel the US 321 corridor. New developments must meet Unified Development Ordinance standards regarding screening and building construction standards preserving viewsheds from the frontage road and US 321. This process will be undertaken by the developer in coordination with NCDOT based

upon a site specific development plan (not depicted on *Map 8*).

Gateway Corridor into the County's EcoComplex

TG-5 Provide a gateway corridor into the County's Eco-Complex along Rocky Ford Road at its eastern and western extents.

TG- 6 Coordinate with NCDOT to ensure that the necessary turn lanes, acceleration lanes and deceleration lanes are constructed to provide for safe traffic movements (not depicted on *Map 8*).

PEDESTRIAN AND BICYCLE SYSTEM

TG- 7 Pursue Carolina Thread Trail funding and other grant sources to begin the design and construction of the South Fork Catawba River greenway segment.

TG-8 Promote the Carolina Thread Trail project to prospective industries that are looking to locate in the US 321 corridor.

TG-9 Challenge existing businesses to be active participants in the development of the Carolina Thread Trail network in the corridor.

TG-10 Encourage NCDOT to complete the Countywide Bicycle Mapping and Signage project.

TRANSIT SYSTEM

Greenwaay transit bus.

TG-11 Evaluate the inclusion of a "Park and Ride" lot at the US 321 interchanges as new development

projects are approved.

TG-12 Promote the expansion of the Greenway Public Transportation system to service the area (not depicted on *Map 8*).