NC 273 (South Main Street)
From Tuckaseege Road (at Beatty Drive) to Highland Street (at A & E Drive),
Widen to Multi-Lanes, Mount Holly
Gaston County
Federal Aid Project No. STP-273-(1)
WBS Element 37649.1.1
S.T.I.P. PROJECT U-3633

ADMINISTRATIVE ACTION
CATEGORICAL EXCLUSION

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
AND
N. C. DEPARTMENT OF TRANSPORTATION

submitted pursuant to 42 U.S.C. 4332(2) (c)

APPROVED:

08-28-2012
Date

for Stacy Oberhausen
Gregory J. Thorpe, Ph.D., Unit Manager
Project Development and Environmental Analysis Unit, NCDOT

8-27-12
Date

for Michael O Sabuzid
John F. Sullivan III, P.E., Division Administrator
Federal Highway Administration

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CATEGORICAL EXCLUSION

AUGUST 2012

Documentation Prepared in Project Development and Environmental Analysis Unit by:

8/27/12
DATE

Angela Sanderson
Angela Sanderson
Project Planning Engineer

PROJECT COMMITMENTS

NC 273 (South Main Street)
From Tuckaseege Road (at Beatty Drive) to Highland Street (at A&E Drive),
Widen to Multi-Lanes, Mount Holly
Gaston County
Federal Aid Project STP-273-(1)
WBS Element 37649.1.1
STIP Project No. U-3633

NCDOT Division 12

This project involves construction activities on or adjacent to FEMA-regulated streams. Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Roadside Environmental Unit

NCDWQ requests Design Standards for Sensitive Watersheds be adhered to in any area that drains to streams with WS-CA classifications.

NCDOT Hydraulics Unit

The Hydraulics Unit will coordinate with the NC Flood Plain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final letter of Map Revision (LOMR).

The Best Usage Classifications for the unnamed tributaries (UT-1 and UT-2) to Catawba River are WS-IV;CA and there is a structure located within one half mile of the this Critical Area, therefore Hazardous Spill Basins will be required.

Roadway Design, Program Development

The construction of a sidewalk, where included in the proposed project, will be dependent upon a cost-sharing and maintenance agreement between NCDOT and the City of Mount Holly as outlined in NCDOT's *Pedestrian Policy Guidelines* dated October 1, 2000.

Project Development and Environmental Analysis –Natural Environment Section

A survey for Schweinitz's sunflower and any necessary coordination with the USFWS will be completed prior to construction.

TABLE OF CONTENTS

PAGE

I. DESCRIPTION OF PROPOSED ACTION 1

II. NEED AND PURPOSE FOR PROJECT 1
- A. Need for Project 1
- B. Purpose of Project 2
- C. Description of Existing Conditions 2
  - 1. Functional Classification 2
  - 2. Physical Description of Existing Facility 2
  - 3. Right of Way and Access Control 2
  - 4. Speed Limit 2
  - 5. Intersections 2
  - 6. Railroads 3
  - 7. Structures 3
  - 8. Bicycle and Pedestrian Facilities and Greenways 3
    - a. Bicycle Facilities 3
    - b. Pedestrian Facilities 3
    - c. Greenways 3
  - 9. Utilities 3
  - 10. School Buses 4
  - 11. Airports 4
  - 12. Public Transportation 4
  - 13. Lighting 4
  - 14. Emergency Services 4
- D. Traffic Volumes and Traffic Carrying Capacity 4
  - 1. Existing and Future Traffic Volumes 4
  - 2. Existing and Future Levels of Service 5
    - a. General Information 5
    - b. Existing Levels of Service (2009) 5
    - c. Future Levels of Service (No Build Scenario) 5
- E. Accident Data 6
- F. Transportation and Land Use Plans 7
  - 1. NCDOT State Transportation Improvement Program 7
  - 2. Gaston Urban Area Metropolitan Planning Organization Long Range Transportation Plan 8
  - 3. Local Land Use Plans 8
- G. System Linkage 8
- H. Benefits of Proposed Project 8

III. ALTERNATIVES 9
- A. No Build Alternative 9
- B. Improve Existing Facility (NCDOT-recommended alternative) 9
  - 1. Best Fit Alignment and Widen to the Left (west) in Middle Segment 9
  - 2. Best Fit Alignment and Widen to the Right (east) in Middle Segment 9
  - 3. Roundabout at South Main and Rose Street Intersection 10

IV. PROPOSED IMPROVEMENTS 12
- A. Roadway Cross Section 12
- B. Right of Way and Access Control 12

TABLE OF CONTENTS

C. Speed Limit 12
D. Design Speed 12
E. Anticipated Design Exceptions 12
F. Intersections 12
1. NC 273 (South Main Street) and South Main Street/Belmont-Mt. Holly Road 13
2. NC 273 (South Main Street) and Forest Hills Drive 13
3. NC 273 (South Main Street) and East Catawba Drive/West Catawba Drive . 13
4. NC 273 (South Main Street) and Carey St/Cloisters Apartment Entrance 13
G. Railroad Crossings 13
H. Structures 13
I. Utilities 13
J. Bicycle and Pedestrian Facilities and Greenways 13
1. Bicycle and Pedestrian Facilities 13
2. Greenways 14

V. ENVIRONMENTAL EFFECTS OF PROPOSED ACTION 14
A. Natural Resources 14
1. Physical Resources 14
a. Soils 14
b. Water Resources 14
2. Biotic Resources 15
a. Terrestrial Communities 15
b. Terrestrial Community Impacts 16
c. Terrestrial Wildlife 16
d. Aquatic Resources 16
e. Invasive Species 16
3. Jurisdictional Topics 17
a. Waters of the United States 17
b. NC River Basin Buffer Rules 17
c. Avoidance, Minimization and Mitigation 17
4. Protected Species 18
a. Federally Protected Species 18
b. Bald Eagle Protection 19
B. Cultural Resources 20
1. Compliance Guidelines 20
2. Historic Architecture Resources 20
3. Archaeological Resources 20
C. Sections 4(f) and 6(f) Resources 20
D. Social Effects 20
1. Neighborhoods/Communities 20
2. Indirect and Cumulative Effects 21
a. Summary of Indirect Effects 21
b. Summary of Cumulative Effects 21
3. Relocations 21
4. Title VI and Environmental Justice 21
5. Limited English Proficiency 22
E. Farmland Impacts 22
F. Flood Hazard Evaluation 22
G. Traffic Noise Analysis 23
1. Introduction 23
2. Traffic Noise Impacts and Noise Contours 23

TABLE OF CONTENTS

3. No Build Alternative 24
4. Traffic Noise Abatement Measures 24
5. Noise Barriers 24
6. Summary 24

H. Air Quality Analysis 25
1. Introduction 25
2. Attainment Status 25
3. Mobile Source Air Toxics 25
4. Construction and Air Quality Effects 26
5. Summary 26

I. Hazardous Materials 26

J. Construction Impacts 27

VI. COMMENTS AND COORDINATION 27

A. Agency Coordination 27

B. Scoping Meeting 28

C. Section 404/NEPA Merger Process 28

D. Public Involvement 29
1. Local Officials Meeting 29
2. Citizens Information Workshop 30

E. Public Hearing 30

VII. CONCLUSION 30

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NC 273 (South Main Street)
From Tuckaseege Road (at Beatty Drive) to Highland Street (at A&E Drive),
Widen to Multi-Lanes, Mount Holly
Gaston County
Federal Aid Project STP-273(1)
WBS Element 37649.1.1
STIP PROJECT U-3633

I. DESCRIPTION OF THE PROPOSED ACTION

The North Carolina Department of Transportation (NCDOT) and Federal Highway Administration (FHWA) propose widening NC 273 (South Main Street) to a multi-lane facility from Tuckaseege Road to Highland Street at A & E Drive Avenue in Mount Holly, Gaston County. The project is approximately 1.3 miles in length and is shown in Figure 1. Figure 2 shows the proposed improvements on an aerial photograph. The proposed improvements also include the following:

- Construction of a raised grassed median along NC 273 (South Main Street) with median openings and a raised concrete median where turn lanes are located
- Turn movements at NC 273 (South Main Street) and Carey Street/Cloisters Apartment Entrance and NC 273 (South Main Street) and West Catawba/East Catawba Drive intersection will be restricted to left over type intersections
- Bulb outs to accommodate U-turns are located between West Catawba Drive/East Catawba Drive and Carey Street
- Turn movements at the following intersections will be limited to right in /right out type intersections: South Main Street, Sunset Drive, Forest Hills Drive, Stonebridge Drive, and Nutall Drive
- Wider outside lanes along NC 273 (South Main Street) to accommodate bicyclists
- Sidewalk along both sides of NC 273 (South Main Street)

The project is included in the *NCDOT 2012-2018 State Transportation Improvement Program* (STIP) as project No. U-3633. The current schedule includes right of way acquisition in fiscal year (FY) 2013 and construction in FY 2015. The STIP includes funding for right of way acquisition of $700,000, $1,350,000 for utility relocation, $294,000 for mitigation and $11,900,000 for construction.

The current cost estimate for this project is $16,573,854 which includes $2,385,000 for right of way acquisition, $2,488,854 for utility relocation, and $11,700,000 for construction.

II. NEED AND PURPOSE FOR PROJECT

A. Need for Project

NC 273 is the primary north-south facility for local commuters serving the City of Mount Holly from Interstate 85 in east central Gaston County. Traffic volumes are expected to almost double by the design year of 2035 on this segment of NC 273 (South Main Street). 2011 traffic volumes along the project ranged from 18,215 to 24,485 vehicles per day (vpd). In the design year 2035, traffic volumes are expected to range from 31,600 to 42,300 vpd. If this segment of NC 273 (South Main Street) in Gaston County is not widened, it is expected that traffic volumes on the project will exceed the current capacity of the existing facility by at least 100%.

B. Purpose of Project

The purpose of this project is to increase system capacity and improve efficiency along NC 273 (South Main Street) for local and regional traffic, thereby improving mobility.

C. Description of Existing Conditions

1. Functional Classification

NC 273 (South Main Street) is classified as a major thoroughfare in the Gaston Urban Area Thoroughfare Plan and as a principle arterial in the North Carolina functional classification system.

2. Physical Description of the Existing Facility

NC 273 (South Main Street) is primarily a two-lane facility with 12 foot lanes in each direction. At the beginning of the project, NC 273 is a four-lane, median divided facility that tapers to a two-lane undivided facility just north of Sunset Drive.

At the north end of the project beyond the crossing of Fites Creek, additional turn lanes at the intersections increase the cross section to a three-lane facility from just south of Carey Street/Cloisters Apartment Entrance to north of the Springs Crossing Shopping Center Entrance/ South Main Street intersection. From there, the facility is a two-lane undivided facility to the project's northern terminus at A & E Drive. Photos showing the existing conditions are presented in Figure 3 in Appendix A.

The existing horizontal and vertical alignment of NC 273 (South Main Street) is suitable for the posted speed limit of that facility, 35 mph. There are steep topographical slopes along both sides of NC 273 adjacent to Fites Creek. At this location there is also a sag curve at the Fites Creek. The vertical alignment mirrors the rolling topography typical for the Piedmont Physiographic Province.

3. Right of Way and Access Control

The existing right of way width varies from 60 to 100 feet along NC 273 (South Main Street) within the project limits. Access along NC 273 is not controlled.

4. Speed Limit

The posted speed limit on NC 273 (South Main Street) is 35 mph. South of the Tuckaseege Road/South Main Street (at Beatty Street) intersection, the speed limit is 45 mph.

5. Intersections

All intersections in the project area are at-grade intersections. There are no grade separated crossings within the project limits.

There are four signalized intersections along NC 273 (South Main Street) in the project area. These locations are shown in Figure 2 in Appendix A:

- South Main Street/Tuckaseege Road
- South Main Street/Rankin Avenue
- South Main Street/Highland Street

- A & E Drive

In addition to these signalized intersections, there are numerous stop-sign controlled private driveways and nine small residential two lane streets that intersect NC 273 (South Main Street) including; Lowe Street, Sunset Drive, East Catawba Drive, West Catawba Drive, Forest Hills Drive, Stoneridge Drive, Carey Street, the Cloisters Apartment Entrance, and Nutall Drive.

6. Railroads

There are no railroad crossings within the proposed project limits. However, the Seaboard Coastline Railroad crossing on NC 273 located just north of the project limits will be upgraded for safety as part of STIP Project P-5200. Safety improvements will add gates and signals at this two lane, at-grade crossing.

7. Structures

There are no bridge crossings along NC 273 (South Main Street) within the proposed project limits. A triple barrel (3 @ 8 ft. x 12 ft.) concrete culvert exists at Fites Creek. Photos of the culvert are presented in Figure 3 in Appendix A. Section IV presents information about this structure.

8. Bicycle and Pedestrian Facilities/Greenways

a. Bicycle Facilities

NC 273 (South Main Street) is not designated as a bicycle route nor does it correspond to a bicycle STIP request. This section of NC 273 (South Main Street) connects two Gaston County Bike Routes, Route 2 Cherryville-Mt. Holly Route and Route 4, Belmont Cramerton Route.

b. Pedestrian Facilities

Sidewalk is provided for a short distance in the northwest quadrant of the South Main Street/Highland Street intersection along South Main Street. There is another short segment of sidewalk located along the east side of NC 273 (South Main Street) for one block in front of the Springs Crossing Shopping Center from Tuckaseege Road to the intersection of South Main Street/Highland Street intersection. Sidewalk is also provided along Rankin Street from the intersection of South Main Street/Highland Street to Oak Grove Drive. No other sidewalk is provided along roadways that intersect NC 273.

c. Greenways

No greenways currently exist within the proposed project limits. The Gaston County Parks and Recreation Master Plan (adopted September 27, 2007) proposes a future greenway along Fites Creek that would pass under NC 273 (South Main Street) within the proposed project limits. This proposed greenway would provide access to Tuckaseege Park and then link to the proposed Carolina Thread Trail, both are located east of the proposed project limits and outside the project study area.

9. Utilities

There are two utility easements that intersect NC 273 (South Main Street). One is a transmission line utility corridor near the beginning of the project at the intersection of NC 273 (South Main Street) and Forest Hills Drive. A transmission tower is located within 15 feet of the

existing pavement at the intersection of NC 273 and Forest Hills Drive. The other easement is located at the end of the project north of the intersection of Highland Street at A & E Drive. See Figure 2 for the locations. An abandoned concrete sewer vault is located on the south side of Fites Creek along NC 273. Photos of the transmission tower and concrete sewer vault are presented in Figure 3 in Appendix A.

City of Mount Holly water and gravity sewer lines are located along NC 273 (South Main Street) and the cross streets within the project limits. It is anticipated that relocation of some existing utilities will be necessary during construction. Other subsurface utilities are also located along the project such as telephone, power, cable, and gas. Overhead power lines and poles are also present along NC 273.

10. School Buses

There are no schools located within the proposed project limits. Gaston County Public School System bus routes utilize NC 273 (South Main Street) within the project limits. Six buses make two trips each day for a total 12 trips per day.

11. Airports

There are no airports located within the proposed project limits. The closest airport is Gastonia Regional Airport located in Gastonia. This airport is the only airport in the county and is classified as a general aviation facility only. Charlotte Douglas International Airport, located in Charlotte approximately 10 miles east of Mount Holly in Mecklenburg County, is the closest commercial aviation facility.

12. Public Transportation

There is no fixed route public transit currently serving in the NC 273 (South Main Street) corridor or Mount Holly. The Charlotte Area Transit System (CATS) operates an express bus between the Charlotte Transportation Center and Gastonia that residents of Mount Holly and NC 273 can access at the park and ride lot near I-85. The 85x Gastonia Express Route stops on NC 273, south of I-85 at exit 27 approximately one mile south of the project at the intersection of NC 273 and I-85.

13. Lighting

Municipal lighting is provided along NC 273 (South Main St) within the proposed project limits.

14. Emergency Services

Mount Holly Fire and Rescue is located west of the project limits on Fire Department Drive. See Figure 2 for the location.

D. Traffic Volumes and Traffic Carrying Capacity

1. Existing and Future Traffic Volumes

This segment of NC 273 (South Main Street) traffic volumes are expected to almost double by the design year of 2035. 2011 traffic volumes along the project ranged from 18,215 to 24,485 vehicles per day (vpd). In the design year 2035, traffic volumes are expected to range from 31,600

to 42,300 vpd. If this segment of NC 273 (South Main Street) in Gaston County is not widened, it is expected that traffic volumes on the project will exceed the current capacity of the existing facility by at least 100%. Figures 4a and 4b located in Appendix A show 2009 and 2035 projected average daily volumes along the corridor. 2011 traffic volumes were calculated from the traffic volumes presented in Figures 4 using the straight-line method of interpolation.

2. Existing and Future Levels of Service

a. General Information

Level of service (LOS) is a qualitative measure describing operational conditions within a traffic stream and how motorists and/or passengers perceive these conditions. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety. Six levels are used, ranging with letter designations from A (Best) to F (Worst). D is the minimum acceptable level of service for this facility.

b. Existing Levels of Service

This segment of NC 273 (South Main Street) is currently operating at a level of service (LOS) F, and is projected to be operating at a more congested LOS F by the design year 2035. Table 2 shows the existing levels of service for the mainline segments.

c. Future Levels of Service

The proposed improvements will improve the operation of the existing facility by increasing the capacity with the addition of one additional lane in each direction. The proposed raised median will limit full movements at cross streets and intersections that are currently operating at LOS F. These improvements will improve the LOS from F to LOS D or better at key intersections. The LOS for the No-Build and the proposed improvements are shown in Table 2.

Table 2 Mainline Levels of Service

Intersection	No Build				Build - 4 Lane Section		
	Movement		2009	2035	Movement		2035
NC 273 (S. Main St.) and Springs Crossing Shopping Center Entrance	Signalized		C	F	Signalized		D
NC 273 (S. Main St.) and Rankin Ave. /Tuckaseege Rd.	Signalized		F	F	Signalized		D
NC 273 (S. Main St.) and Carey St./Cloister Apt. Entrance	EB	LTR	F	F	EB	R	B
	WB	LTR	F	F	WB	R	E
	NB	L	C	F	NB	L	E
		T				TR	
		R					
	SB	L	B	D	SB	L	D
		T				TR	
NC 273 (S. Main St.) and Forest Hills Dr.	WB	LR	F	F	WB	R	D
	NB	TR			NB	TR	
	SB	TL	A	A	SB	T	
NC 273 (S. Main St.) and W. Catawba Dr./E. Catawba Dr.	EB	LTR	F	F	EB	R	D
	WB	LTR	F	F	WB	R	D
	NB	LTR	A	A	NB	L	D
						TR	
	SB	LTR	A	A	SB	L	D
						TR	
NC 273 (Beatty Dr.) and S. Main St./Belmont - Mt. Holly Rd.	EB	L	E	F	EB	R	C
		R					
	NB	T			NB	T	
	SB	T			SB	R	A
						T	
NC 273 (Beatty Dr.) and Tuckaseege Rd.	Signalized		B	C	Signalized		C
Tuckaseege Rd. and Belmont-Mt. Holly Rd.	WB	LR	B	D			
	NB	TR					
	SB	T					

E. Accident Data

Traffic crash data for the three year period between March 1, 2008 and February 28, 2011 shows 81 crashes along NC 273 (South Main Street) between Tuckaseege Road and Highland Street at A & E Drive. The most frequent type of crash (57%) consisted of rear end, slow or rear end collisions with one or more vehicle traveling at a slower speed, slowing down or stopping in

traffic. This was followed by angle crashes (12%) and left turn from different roadway type crashes (10%). These accidents are primarily the result of heavy stop and go traffic during peak travel times. There were no fatal crashes reported during the rating period.

Current crash rates exceed the statewide crash rates in all categories except the fatal category, and the total of all crashes exceeded the critical crash rates for similar urban two-lane undivided facilities. A summary of the accident rates for the analyzed section of NC 273 (South Main Street), statewide average rates and the critical rates for similar urban two-lane, undivided North Carolina (NC) routes is provided in Table 3. Calculated crash rates for short segments lengths such as this project, tend to artificially inflate the crash rates.

Table 3 Crash Rates Comparisons NC 273 (South Main Street)

Crash Type	Number of Crashes	Crash Rate[1]	Statewide Rate[2]	Critical Rate[3]
Total	81	**383.42**	**292.56**	**356.14**
Fatal	0	0.00	0.92	6.72
Non-Fatal Injury	25	118.34	94.29	131.41
Night	17	**80.47**	62.64	93.33
Wet Conditions	11	52.07	44.10	70.23

[1] Crashes per 100 million vehicle miles

[2] 2006-2008 Statewide Crash Rate for Urban 2-lane, undivided NC Routes

[3] Based on the statewide crash rate (95% level of confidence).

F. Transportation and Land Use Plans

1. *NCDOT State Transportation Improvement Program*

The 2012-2018 STIP lists the following projects in the vicinity of U-3633.

Table 4 Nearby STIP Projects

STIP Number	County	Project Description	Project Schedule
R-2206	Catawba	NC 16-From south of Lucia in Gaston Co to SR 1895 in Catawba Co. Four lanes divided on new location (16.9 miles)	A, AA, B, and C-Complete BA and CA under Construction
B-4118	Gaston	SR 1905, SR 1905 over Stanley Creek. Replace Bridge No. 200	Right of way Complete Construction FY 2011
B-4751	Gaston	SR 1935 over Stanley Creek. Replace Bridge No. 203	Right of way Unfunded Construction Unfunded
P-5200	Gaston	Rail Corridor between Gastonia and Mt Holly including the Belmont Spur, Reactivation of Rail Corridor	In Progress

2. ***Gaston Urban Area Metropolitan Planning Organization (GUAMPO) Long-Range Transportation Plan***

The Gaston Urban Area Metropolitan Planning Organization (GUAMPO) is responsible for overseeing the development of a transportation system in Gaston County. GUAMPO includes the member governments of Belmont, Bessemer City, Cramerton, Dallas, Gaston County, Gastonia, Lowell, McArdenville, Mount Holly, Ranlo, Spencer Mountain and Stanley. GUAMPO's 2035 Long Range Transportation Plan (LRTP) recommends the widening of NC 273 (South Main Street) from a two lane facility to a four-lane, median divided facility with median openings for turning movements by 2025. The LRTP description is consistent with the proposed STIP improvements.

The Gaston Urban Area Metropolitan Planning Organization (GUAMPO) Thoroughfare Plan adopted on September 28, 2004 classifies NC 273 (South Main Street) as a major thoroughfare. The following intersecting facilities are classified in the GUAMPO Thoroughfare Plan as major thoroughfares: Tuckaseege Road, Lowe Street, Sunset Drive, East and West Catawba Drive, Forest Hills Drive, Stonebridge Drive, Cloisters Apartment Entrance, Carey Street, Nutall Drive, Rankin Avenue, and A&E Drive.

3. Local Land Use Plans

The City of Mount Holly has not adopted a specific area plan for this section of NC 273, but has designated the areas surrounding NC 273 within their land use maps and zoning ordinances to align with the proposed improvements of this project. The proposed project is not expected to change the existing land use patterns.

G. System Linkage

NC 273 is the primary north-south facility for local commuters serving the City of Mount Holly from Interstate 85 in east central Gaston County. NC 273 (South Main Street) is not a federally designated truck route. Truck traffic accounts for approximately 2-3 % of the existing traffic volumes within the proposed project limits. I-85, which intersects NC 273 approximately one mile south of the proposed project limits, is a designated truck route.

H. Benefits of Proposed Action

NC 273 is the primary north-south facility for local commuters serving the City of Mount Holly from Interstate 85 in east central Gaston County. Traffic volumes are expected to almost double by the design year of 2035 on this segment of NC 273 (South Main Street). 2011 traffic volumes along the project ranged from 18,215 to 24,485 vehicles per day (vpd). In the design year 2035, traffic volumes are expected to range from 31,600 to 42,300 vpd. If this segment of NC 273 (South Main Street) in Gaston County is not widened, it is expected that traffic volumes on the project will exceed the current capacity of the existing facility by at least 100%.

The proposed improvements will provide relief from present and future congestion and provide a higher level of efficiency on NC 273 (South Main Street) for local and regional traffic, thereby improving mobility.

III. ALTERNATIVES

A. No Build Alternative

The no build alternative would not provide relief from existing traffic congestion and would result in the further deterioration of traffic conditions as volumes increase. The no-build alternative does not meet the purpose and need of the project and is not recommended.

B. Improve Existing Facility (NCDOT-recommended alternative)

Two build alternatives have been considered for the proposed project. Impacts to jurisdictional resources, cost, and constructability issues were weighed and considered in determining a preferred design.

There are multi-lane sections at the beginning and end of the project limits. Existing pavement widths are sufficient to widen these end sections using a best fit alignment. The middle segment of the project from Sunset Drive to Cloisters Apartments entrance/Carey Street is approximately 0.5 miles in length. Due to its short length, a best fit alignment is not feasible to maintain traffic during construction. NC 273 is a major thoroughfare and maintaining traffic during construction is recommended. An adequate off site detour that can handle the existing traffic volumes is not available. Therefore, the best fit alignment for the entire proposed project limits was not recommended.

Since a best fit alignment for the short middle segment is not feasible, two other options were evaluated for widening of this middle segment; widen to the left (west), Alternative 1, and widen to the right (east), Alternative 2, of the existing alignment. Impacts were calculated for each of these options and the alternative with the least overall impacts was determined to be widening to the right (east) of the existing alignment due to lower construction costs, right of way costs and utility relocation costs.

The impacts for each of the middle segment options are presented in Table 5.

1. Best fit alignment and widen to the left (west) in middle segment (Alternative 1)

This alternative proposes widening the middle segment to the left (west) of the existing alignment from Sunset Drive to Cloisters Apartments entrance/Carey Street. This alternative will allow traffic to be maintained during construction. The impacts associated with this alternative are presented in Table 5. Alternative 1 was not recommended due to constructability concerns involving cut sections that would require potential blasting, rock excavation for utility relocations, and the construction of a retaining wall.

2. Best fit alignment and widen to the right (east) in middle segment (Alternative 2-Recommended)

This alternative proposes widening the middle segment to the right (east) of the existing alignment from Sunset Drive to Cloisters Apartments entrance/Carey Street. This alternative will allow traffic to be maintained during construction. The impacts associated with this alternative are presented in Table 5. Alternative 2 was recommended due to lower right of way acquisition costs, and no rock blasting would be necessary in the cut section just south of Fites Creek.

3. Roundabout at South Main and Rose Street Intersection

A roundabout was recommended at the South Main/South Main/Rose Street intersection to improve traffic operations. The roundabout is shown as Option 2 in Figure 2, sheet 1a in Appendix A. This option would require the relocation of three businesses, and for this reason, the roundabout is no longer recommended.

Impacts Summary for Build Alternatives

Table 5 summarizes impacts for the build alternatives that were considered feasible and that would allow traffic to be maintained during construction.

Table 5 Summary of Impacts

Evaluation Factors	Alternatives	
	1	2 (Recommended)
Railroad crossings	0	0
Residential relocations	2	1
Business relocations	5	5
Total relocations	7	6
Historic properties	0	0
Archaeological Sites	0	0
Wildlife and waterfowl refuges	0	0
Parks and recreational areas	0	0
Section 4 (f) and 6(f) properties	0	0
Major stream crossings	1, Fites Creek	1, Fites Creek
Jurisdictional wetland impacts (acres)	0	0
Jurisdictional stream impacts (linear feet)	897	960
Water supply watershed protected areas	0	0
Stream mitigation sites from past projects	0	0
Storm water retention basins	0	0
Hazardous spill basin areas	0	0
Right of Way Cost	$2,890,000	$2,385,000
Construction Cost	$12,380,000	$11,700,000
Utilities Cost	$2,856,286	$2,488,854
Total Cost	$18,126,286	$16,573,854
Noise Receptors	19	25
Geotechnical Construction Impact- Rock Cut	Rock Blasting is anticipated	N/A
Federally-protected species	0	0
Hazardous waste sites or landfills	0	0
UST Facilities	3	3
Voluntary Agricultural District Impacts (acres)	0	0
Prime, Unique, or Important Farmland	Present, effects minimal, no further action needed	
Federally-owned or managed lands and resources	0	0
Anticipated permits	Individual	

IV. PROPOSED IMPROVEMENTS

Proposed improvements to NC 273 (South Main Street) are presented below and are shown in Figure 2 in Appendix A.

A. Roadway Cross Section

A four-lane median-divided facility is proposed along NC 273 (South Main Street) with curb and gutter, sidewalks, and a wide outside lane to accommodate bicycles. See Figure 5 in Appendix A for the proposed typical section.

B. Right of Way and Access Control

Proposed improvements will increase the right of way width to 120 feet. A raised median is proposed for the entire length of the proposed project. Median openings with bulb outs will be constructed to provide U-turns for trucks between the West Catawba Drive/East Catawba Drive intersection and the Carey Street/Cloisters Apartment Entrance intersection.

No driveway control of access is proposed for the project.

C. Speed Limit

A posted speed limit of 35 mph will be maintained on NC 273 (South Main Street). The project improvements were designed to allow for the speed limit to be increased to 45 mph from the beginning of the proposed improvements to just north of Fites Creek. The existing speed limit at the beginning of the project, 45 mph, is reduced to 35 mph just north of Fites Creek where the existing four lanes narrow to two lanes. The proposed improvements will accommodate a higher posted speed limit.

D. Design Speed

The proposed design speed is 50 mph for the proposed project.

E. Anticipated Design Exceptions

There are no anticipated design exceptions associated with the proposed project.

F. Intersections

All intersections will remain at-grade intersections. A raised median is proposed along the entire length of the proposed project and will limit the existing full movement conditions at the numerous private driveways and the following two lane side streets that intersect NC 273 (South Main Street); Lowe Street, Sunset Drive, Stoneridge Drive, and Nutall Drive.

Bulb outs to accommodate U-turns are located between East Catawba Drive/West Catawba Drive and the Carey Street/ Cloisters Entrance intersections with NC 273 (South Main Street).

The sections below describe the proposed improvements to the following intersections:

1. NC 273 (South Main Street) and South Main Street/Belmont - Mt. Holly Road

This intersection will be converted from a right in/right out with a left out to a right in/right out intersection. A concrete median will limit turning movements and prevent left turns from South Main Street/Belmont - Mt. Holly Road.

2. NC 273 (South Main Street) and Forest Hills Drive

This intersection will be converted from a stop signed controlled full movement intersection to a right-in/right-out intersection. A concrete median will restrict traffic to right-in/right-out turn movements.

3. NC 273 (South Main Street) and East Catawba Drive/West Catawba Drive

This intersection will be converted from a full movement intersection to a left-over type intersection. A raised concrete median will limit movements to left turn into those streets from either direction.

4. NC 273 (South Main Street) and Carey Street/Cloisters Apartment Entrance

This intersection will be no longer be a right-in right out with a left-out intersection. The proposed improvements include a raised concrete median that will restrict traffic to right-in/right-out turn movements.

G. Railroad Crossings

There are no railroad crossings within the proposed project limits. However, the Seaboard Coastline Railroad crossing on NC 273 located just north of the project limits will be upgraded for safety as part of STIP Project P-5200. Safety improvements will add gates and signals at this two lane, at-grade crossing.

H. Structures

The project study area contains one structure, a 3 @ 8 ft. x 12 ft. concrete box culvert at Fites Creek. This culvert will be replaced.

I. Utilities

Utilities along the project will be relocated prior to construction.

J. Bicycle and Pedestrian Facilities and Greenways

1. Bicycle and Pedestrian Facilities

The proposed improvements include sidewalk and a wide outside lane to accommodate bicyclists along NC 273 (South Main Street). The sidewalk construction will be funded as per the cost sharing guidelines included in the NCDOT Sidewalk Cost Share Policy. The construction will be contingent upon agreement to the cost share policy between NCDOT and the City of Mount Holly.

2. Greenways

A future greenway is proposed along Fites Creek that is included in the Gaston County Parks and Recreation Master Plan adopted September 27, 2007. At this time, the proposed greenway crossing at Fites Creek is in the conceptual stage.

V. ENVIRONMENTAL EFFECTS OF PROPOSED ACTION

A. Natural Resources

1. Physical Resources

The project study area is located in the Piedmont physiographic region of North Carolina. Topography in the project vicinity is comprised of gently rolling hills with narrow, level floodplains along streams. The elevations in the study area range from 600 to 700 feet above mean sea level (MSL). Land use in the project vicinity consists primarily of residential and urban development interspersed with forestland along stream corridors.

a. Soils

The Gaston County Soil Survey identifies six soil types within the project study area, as shown in Table 6:

Table 6 Soils in the Project Study Area

Soil Series	Mapping Unit	Drainage Class	Hydric Status
Cecil urban land complex*	CfB	Well Drained	Non-Hydric
Chewacla loam	ChA	Somewhat Poorly Drained	Hydric
Lloyd sandy clay loam	LdB2	Well Drained	Non-Hydric
Lloyd sandy clay loam	LdD2	Well Drained	Non-Hydric
Wilkes loam	WkF	Well Drained	Non-Hydric
Winnsboro loam	WnB	Well Drained	Non-Hydric

* Soils which are primarily non-hydric, but may contain hydric inclusions

b. Water Resources

Water resources within the project study area are part of the Catawba River Basin (USGS Hydrologic Unit 03050101). Five streams were identified in the project study area (see Table 7). The location of each water resource is shown in Figure 2 in Appendix A. The physical characteristics of these streams are provided in Table 8.

Table 7 Water Resources in the Project Study Area

Stream Name	NCDWQ Index Number	Best Usage Classification
UT-1 to Catawba River (SA)	11-(117)	WS-IV;CA
UT-1 to Fites Creek (SB)	11-121-(1)	WS-IV
Fites Creek	11-121-(1)	WS-IV
UT-2 to Catawba River (SC)	11-(117)	WS-IV;CA
UT-2 to Fites Creek (SD)	11-121-(1)	WS-IV

Table 8 Physical characteristics of water resources in the Project Study Area

Stream Name	Bank Height (ft)	Bankful Width (ft)	Water Depth(in)	Channel Substrate	Velocity	Clarity
UT-1 to Catawba River (SA)	1-2	1	0-3	Silt, sand	Low/absent	Clear
UT-1 to Fites Creek (SB)	1-2	3-4	1-2	Clay,sand, gravel,cobble	Low	Clear
Fites Creek	8	2	6-8	Sand, gravel,cobble	Low	Clear
UT-2 to Catawba River (SC)	2-3	1-4	2-4	Sand, clay	Low	Cloudy
UT-2 to Fites Creek (SD)	2-3	2-3	2-3	Clay, silt, gravel	Low	Clear

The proposed improvements will not impact the UT-2 to Catawba River (SC), but is included because it is within the project study area.

The best usage classification for UT-1 and UT-2 to Catawba River is WS-IV;CA and there is a structure located within one half mile of this Critical Area, therefore Hazardous Spill Basins will be required for this project.

There are no designated High Quality Waters (HQW) or water supply watersheds (WS-1 or WS-II) within 1.0 mile downstream of the project study area. The North Carolina 2010 Final 303(d) list of impaired waters lists one water resource within 1.0 mile downstream of the project area. The Catawba River is listed as a 303(d) stream for low pH. In addition, 0.5 mile upstream and northwest of the project area, Dutchman's Creek is listed as a 303(d) stream for turbidity, however the project area does not drain into this stretch of creek. No streams listed as 303(d) for sedimentation or turbidity occur within 1.0 mile and downstream of the project area. There are not benthic or fish monitoring stations within 1.0 mile of the project study area. No construction moratoriums will be required on any streams located in the project study area. Gaston County is not a State or NC Wildlife Resources Commission designated trout county.

2. Biotic Resources

a. Terrestrial Communities

Two terrestrial communities were identified within the project study area: maintained/disturbed and mixed hardwood forest. A brief description of each community type follows.

- **Maintained/Disturbed**

Maintained/disturbed areas are scattered throughout the study area in places where the vegetation is periodically mowed, such as roadside shoulders and residential lawns. The vegetation in this community is comprised of low growing grasses and herbs, ornamental shrubs and trees, including fescue, crab grass, clover, dandelion, wild onion, Japanese honeysuckle, smilax, English ivy, blackberry, boxwoods, crepe myrtle, nandina, willow oak, black walnut, Bradford pear, and southern magnolia.

- **Mixed Hardwood Forest**

The mixed hardwood forest community exists in the middle of the project study area. Dominant tree species in this community include beech, yellow poplar, northern red oak, mockernut hickory, sweet gum, willow oak, sycamore, water oak, shagbark hickory, and white pine in the overstory, and eastern red cedar, privet, smilax, dogwood, redbud, bamboo, downy arrowood, and Christmas fern comprise the shrub and herbaceous layers.

b. Terrestrial Community Impacts

Table 9 summarizes acreages of terrestrial communities located within the project study area. The terrestrial communities within the project study area were delineated on an aerial photograph base and verified in the field. The totals presented in Table 9 represent the total coverage area within the project study area of each community type. The actual project impacts will be substantially less than acreages presented in Table 9.

Table 9 Coverage of Terrestrial Community Types

Plant Community	Coverage (acres) within Study Area
Maintained/Disturbed Land	137.1
Mixed Hardwood Forest	66.7
Total	203.8

c. Terrestrial Wildlife

Terrestrial communities in the study area are comprised of both natural and disturbed habitats that may support a diversity of wildlife species (those species actually observed are indicated with *. Mammal species that commonly exploit forested habitats and stream corridors found within the study area include species such as eastern cottontail*, raccoon, Virginia opossum*, and white-tailed deer*. Birds that commonly use forest and forest edge habitats include the American crow*, blue jay*, Carolina wren*, tufted titmouse*, and yellow-rumped warbler. Birds that may use open habitat or water bodies within the study area include American kestrel, belted kingfisher, eastern bluebird*, eastern meadowlark, and turkey vulture. Reptile and amphibian species that may use terrestrial communities located in the study area include the corn snake, eastern box turtle*, eastern fence lizard, five-lined skink, and Northern dusky salamander.

d. Aquatic Resources

Aquatic communities in the study area consist of both perennial and intermittent piedmont streams. Perennial streams in the study area could support bluehead chub, redlip shiner, small mouth buffalo, white sucker, northern dusky salamander, and redbreast sunfish. Intermittent streams in the study area are relatively small in size and would support aquatic communities of spring peeper, crayfish, and various benthic macroinvertebrates.

e. Invasive Species

Six species from the NCDOT Invasive Exotic Plant List for North Carolina were found to occur in the study area. The species identified were privet (Severe threat), bamboo (Moderate threat), Japanese honeysuckle (Moderate threat), English ivy (Moderate threat), Bradford pear (Watch list), and nandina (Watch list). NCDOT will manage invasive plant species on the Department's right of way, as appropriate.

3. Jurisdictional Topics

a. Waters of the United States

Five jurisdictional streams were identified in the study area (Table 10). The locations of these streams are shown in Figure 2. No wetlands or ponds were identified within the project study area. All jurisdictional streams in the study area have been designated as warm water streams. The USACE and DWQ have determined that the intermittent portions of Stream SA and SB will not require mitigation during the verification.

Table 10 Jurisdictional characteristics of water resources in the project study area

Map ID	Length(ft) within Study Area Intermittent/Perennial	Classification	Compensatory Mitigation Required
UT-1 to Catawba River (SA)	121/168	Intermittent/Perennial	Undetermined/2:1
UT-1 to Fites Creek (SB)	200/2240	Intermittent/Perennial	Undetermined/2:1
Fites Creek	1057	Perennial	2:1
UT-2 to Catawba River (SC)	330	Perennial	2:1
UT-2 to Fites Creek (SD)	700	Perennial	2:1

The proposed improvements will impact no linear feet of UT-2 to Catawba River, but it is included because it is within the project study area.

The total linear feet of jurisdictional stream impacts to UT-1 to Fites Creek will be greater than 300 linear feet; therefore, an Individual Permit will be required for this project.

There are no trout streams in the project study area. The proposed project would impact 4 jurisdictional streams, no wetland areas, and no ponds. Impacts to jurisdictional streams are approximately 960 linear feet.

b. NC River Basin Buffer Rules

All streams are located within the Catawba River basin. The buffer rules within the Catawba River basin only apply to the main stem of the Catawba River and the main stem lakes below Lake James. This project is not subject to the Catawba River Basin buffer rules as it is located outside of the buffer along the full pond elevation for the adjacent Lake Wylie (based on the best information at this time).

c. Avoidance, Minimization and Mitigation

The NCDOT will attempt to avoid and minimize impacts to streams and wetlands to the greatest extent practicable in choosing a preferred alternative and during final design. There are no wetlands located on this project and therefore there are no wetland impacts. The recommended Alternative 2 minimizes impacts to resources. However, it is not feasible for the proposed project to completely avoid impacts to the Waters of the US and still meet the purpose and need of the project.

The USACE may require compensation for activities that impact more than 150 linear feet of perennial streambed impacts or intermittent streambed impacts if the intermittent stream has important aquatic function(s) as deemed by USACE. In accordance with 15A NCAC 2H .0506(h), DWQ may require compensation for impacts to 150 linear feet or more of jurisdictional streams. Impacts of the proposed project are estimated at 960 linear feet of jurisdictional streams. Final compensatory mitigation requirements for jurisdictional stream impacts are ultimately left to the discretion of the USACE and DWQ.

The NCDOT will investigate potential on-site stream mitigation opportunities once a final decision has been made. Off-site mitigation needed to satisfy the Federal Clean Water Act requirements for the project may be provided by the North Carolina Department of Environment and Natural Resources (NCDENR) Ecosystem Enhancement Program (EEP) in accordance with the "North Carolina Department of Natural Resources' Ecosystem Enhancement Program In-Lieu Fee Instrument", dated July 28, 2010.

4. **Protected Species**

a. Federally Protected Species

Currently the USFWS lists two federally protected species in Gaston County. Species with the federal classification of Endangered (E), Threatened (T), or officially Proposed (P) for such listing, are protected under the Endangered Species Act (ESA) of 1973 (16 USC 1531 *et seq*.) as amended. Table 11 presents the federal protected species listed for Gaston County, North Carolina (22 September 2010 USFWS list). Descriptions of these federally protected species along with habitat requirements and biological conclusions for this project are presented following the table.

Table 11 Federally Listed Species for Gaston County, NC

Common Name	Scientific Name	Federal Status	Habitat Present	Biological Conclusion
Bog turtle	*Clemmys muhlenbergii*	T(S/A)	No	Not Required
Schweinitz's sunflower	*Helianthus schweinitzii*	E	Yes	MANLAA

T (S/A)- Threatened due to similarity of appearance
E – Endangered
MANLAA- May affect, not likely to adversely affect

Bog turtle (*Clemmys muhlenbergii*) Threatened **Biological Conclusion: Not Required**

Bog turtle habitat consists of open, groundwater supplied (spring-fed), graminoid dominated wetlands along riparian corridors or on seepage slopes. These habitats are designated as mountain bogs by the NCNHP, but they are technically poor, moderate, or rich fens that may be associated with wet pastures and old drainage ditches that have saturated muddy substrates with open canopies. Plants found in bog turtle habitat include sedges, rushes, marsh ferns, herbs, shrubs (tag alder, hardhack, blueberry, etc.), and wetland tree species (red maple and silky willow). These habitats often support sphagnum moss and may contain carnivorous plants (sundew and pitcherplants) and rare orchids. Potential habitats may be found in western Piedmont and Mountain counties from 700 to 4,500 feet elevation in North Carolina. Soil types (poorly drained silt loams) from which bog turtle habitats have been found include Arkaqua, Chewacla, Dellwood, Codorous complex, Hatboro, Nikiwasi, Potomac-Iotla complex, Reddies, Roasman, Tate-Cullowhee complex, Toxaway, Tuckasegee-Cullasaja complex, Tusquitee, Watauga, and Wedhadkee.

Species listed as threatened due to similarity of appearance do not require Section 7 consultation with the USFWS. A review of the NCNHP records, updated October 2011, indicates no known bog turtle occurrence within 1.0 mile of the project.

While a biological conclusion for this species is not required, this project is not expected to have an effect on the bog turtle.

Schweinitz's sunflower (*Helianthus schweinitzii*) Endangered

Biological Conclusion: May Effect, Not Likely to Adversely Affect

Schweinitz's sunflower is endemic to the Piedmont of North and South Carolina. The few sites where this rhizomatous perennial herb occurs in relatively natural vegetation are found in Xeric Hardpan Forests. The species is also found along roadside rights-of-way, maintained power lines and other utility rights-of-way, edges of thickets and old pastures, clearings and edges of upland oak-pine-hickory woods and Piedmont long leaf pine forests, and other sunny or semi-sunny habitats where disturbances (e.g., mowing, clearing, grazing, blow downs, storms, frequent fire) help create open or partially open areas for sunlight. It is intolerant of full shade and excessive competition from other vegetation. Schweinitiz's sunflower occurs in a variety of soil series, including Badin, Cecil, Cid, Enon, Gaston, Georgeville, Iredell, Mecklenburg, Misenheinmer, Secrest, Tatum, Uwharrie, and Zion, among others. It is generally found growing on shallow sandy soils with high gravel content; shallow, poor, clayey hardpans; or shallow rocky hills, especially those derived from mafic rocks.

Habitat does exist in the project study area for Schweinititz's sunflower in the disturbed areas along the road shoulders. Surveys in suitable habitat were conducted on September 28, 2009 and again on September 28, 2011 by NCDOT biologists and no specimens were observed. A search of the NHP database, updated October 2011, found one occurrence of Schweinititz's sunflower approximately 2.300 feet to the east of the project study area in a utility easement near Broome Road. Therefore, the biological conclusion is May Affect, Not Likely to Adversely Affect. Concurrence from the USFWS will be required prior to project construction.

b. <u>Bald Eagle Protection</u>

Effective August 8, 2007, the bald eagle (*Halieaeetus leucocephalus*) was delisted from the Endangered Species Act. A Biological conclusion is no longer necessary for this species. The bald eagle is protected under the Bald and Golden Eagle Protection Act. The National Bald Eagle Management Guidelines restrict disturbance activities within a primary zone extending 330 to 660 ft outward from a nest tree, which is considered critical for maintaining acceptable conditions for bald eagles (USFWS 2007b).

Habitat for the bald eagle primarily consists of mature forests in proximity to large bodies of open water for foraging. Large, dominate trees are utilized for nesting sites, typically within 1.0 mile of open water. Suitable foraging habitat for the bald eagle exists outside the study area within 1.0 mile of the project study area along the Catawba River. Surveys for nest trees were conducted on July 22, 2009, September 28, 2009 and December 3, 2009 within the study area and to a distance of 660 feet on all sides. No nest trees were identified. Due to the lack of habitat and known occurrences, it has been determined that this project will not affect this species.

B. Cultural Resources

1. Compliance Guidelines

This project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and implemented by the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified as 36 CFR Part 800. Section 106 requires federal agencies to take into account the effect of their undertakings (federally-funded, licensed, or permitted) on properties included in or eligible for inclusion in the National Register of Historic Places and to afford the Advisory Council a reasonable opportunity to comment on such undertakings.

2. Historic Architectural Resources

The Historic Preservation Office (HPO) noted there was one district of historical or architectural importance within the general area of the project and recommended further evaluation of this district. A field survey of the Area of Potential Effects (APE) was conducted for the proposed project by an architectural historian and pursuant to Section 106 of the National Historic Preservation Act. All properties within the APE were evaluated for National Register eligibility. The architectural historian concluded that no properties within the project's APE were considered eligible for the National Register of Historic Places. There are no National Register-listed or Study Listed properties within the project's APE. On September 15, 2009, the State Historic Preservation Office (HPO) concurred that compliance with Section 106 of the National Historic Preservation Act has been completed for this project. A copy of the signed concurrence form is included in Appendix C.

3. Archaeological Resources

The Historic Preservation Office (HPO) noted that there are no known archaeological sites within the proposed project area (correspondence dated 6-17-06, Appendix C) and recommended no additional archaeological investigations. Therefore compliance with Section 106 of the National Preservation Act in regards to archaeological resources is complete and no further action is necessary.

C. Sections 4(f) and 6(f) Resources

There are no Section 4(f) or Section 6(f) properties within the study area.

D. Social Effects

1. Neighborhoods/Communities

The proposed project is not expected to separate or isolate existing neighborhoods, isolate portions of the community, create a barrier between residents and community facilities, or cause interruption in community cohesion or interactions. Impacts may occur to residences and businesses along NC 273 where property along the road may be reduced because of right of way requirements associated with the widening.

2. Indirect and Cumulative Effects

a. Summary of Indirect Effects

The proposed widening of NC 273 (South Main Street) is not expected to result in indirect land use effects. The proposed widening would be limited to an approximate one-mile portion of NC 273. The project is not expected to substantially reduce average travel times along the corridor. Consequently, the potential for the proposed project to result in a change or increase in the relative attractiveness of the area is low. In addition, the Future Land Use Study Area (FLUSA) does not contain a large amount of developable land, and growth management controls affecting land development in the FLUSA are well established. For these reasons, the project is not expected to indirectly affect land use within the study area.

b. Summary of Cumulative Effects

This project has been evaluated using pre-screening criteria as noted in the NCDOT *Guidance for Assessing the Indirect and Cumulative Impacts of Transportation Projects in North Carolina – Volume II: Practitioners Handbook.* Based on a review of the Indirect and Cumulative Impact (ICI) Pre-Screening criteria, it is concluded that the widening project is not expected to significantly add, in a cumulative fashion, to effects associated with on-going regional economic growth and development. No major transportation or infrastructure projects have been identified in the FLUSA, and the proposed project is not anticipated to yield indirect land use effects. Accordingly, there is little potential for combined projects in the area to create a transportation or land use node, or to affect regional economic growth trends. In conclusion, the project is not expected to result in cumulative impacts.

3. Relocations

NCDOT anticipates one home and five businesses will be displaced as a result of the proposed project which includes a best fit alignment at the beginning and end of the project and widening the middle section from Sunset Drive to Cloisters Apartment entrance/Carey Street to the right (east) of the existing alignment, Alternative 2. A relocation report for the project is included in Appendix D of this document. That report provides preliminary information regarding ownership status and income level of the anticipated displacees. Information regarding NCDOT Relocation Programs is included in Appendix D. Since the relocation report was prepared, the design has been revised and the actual number of relocations has been reduced.

Based on the preliminary relocation study performed for this project, NCDOT anticipates no special relocation services will be necessary, the project will not cause a housing shortage, additional housing programs will not be needed, Last Resort Housing should be considered, public housing will not be needed (but is available), and replacement housing within financial means will not be an issue. In addition, business services will still be available after the project is completed, and suitable replacement business sites are available in the project area.

4. Title VI and Environmental Justice

Title VI and Environmental Justice considerations promote the fair treatment and involvement of all people, regardless of race, color, national origin, or income with respect to development, implementation, and enforcement of environmental law and regulations. In order to assess social impacts associated with this project, a field review and review of the demographic

information, available through the US Census Bureau, were performed. The proposed project is not expected to have a disproportionately high or adverse impact on low-income or minority populations.

5. Limited English Proficiency

Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency", requires all recipients of federal funds to provide meaningful access to persons who are limited in their English proficiency (LEP). The US Department of Justice defines LEP individuals as those "who do not speak English as their primary language and who have a limited ability to read, write, speak, or understand English" (67 FR 41459). Data about LEP populations was gathered in the 2000 Census.

The 2000 census data indicates there are no language groups within the study area in which more than 5% of the population or 1,000 persons speak English less than “Very Well”. Therefore the demographic assessment does not indicate the presence of LEP language groups that exceed the Department of Justice’s Safe Harbor threshold. However, NCDOT will include notice of Right of Language Access for future meetings for this project. Thus, the requirements of Executive Order 13166 appear to be satisfied.

E. Farmland Impacts

According to data from the United States Department of Agriculture, Prime Farmland Soils and Soils of Statewide Importance are located along the project corridor. From just south of Forest Hills Drive to the NC 273 split, Soils of Statewide Importance exist. From the intersection of Forest Hills Drive to the Fites Creek crossing, prime farmland exists. Prime Farmland Soils are also located within the Fites Creek corridor. The total amount of acres is 78.17, with Prime Farmland Soils representing 73.97 acres and Soils of Statewide Importance representing 4.2 acres within the study area of the proposed project.

No impacts to active or dormant farm operations are anticipated as there are none located within the study area. Disruption of prime farmland soils and soils of statewide importance will occur as the important soils exist within the right of way. However, all the parcels containing these soils have been developed as residential or commercial and are within an urban area. In order to satisfy the requirements of *North Carolina Executive Order No. 96 Conservation of Prime Agricultural and Forest Lands*, the acreage of prime farmland soils potentially to be converted has been documented. No further action is needed.

F. Flood Hazard Evaluation

Gaston County is currently participating in the National Flood Insurance Regular Program. The major streams crossed within the limits of the proposed project are: Fites Creek, unnamed tributaries to Fites Creek, and unnamed tributaries to Catawba River. Fites Creek is a FEMA regulated stream. The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to NCDOT’s Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

This project involves construction activities on or adjacent to FEMA-regulated streams. Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-yr. floodplain were built as shown in the construction plans, both horizontally and vertically.

G. Traffic Noise Analysis

1. Introduction

In accordance with Title 23 Code of Federal Regulations Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise (Title 23 CFR 772) and the 2011 North Carolina Department of Transportation Traffic Noise Abatement Policy, each Type I highway project must be analyzed for predicted traffic noise impacts. In general, Type I projects are proposed Federal or Federal-aid highway projects for construction of a highway on new location, improvements of an existing highway which significantly changes the horizontal or vertical alignment or increases the vehicle capacity or projects that involve new construction or substantial alteration of transportation facilities such as weigh stations, rest stops, ride-share lots or toll plazas.

Traffic noise impacts are determined through implementing the current Traffic Noise Model (TNM®) approved by the Federal Highway Administration and following procedures detailed in Title 23 CFR 772 and the NCDOT Traffic Noise Analysis and Abatement Manual. When traffic noise impacts are predicted, examination and evaluation of alternative noise abatement measures must be considered for reducing or eliminating these impacts. Temporary and localized noise impacts will likely occur as a result of project construction activities. Construction noise control measures will be incorporated into the project plans and specifications.

A copy of the unabridged version of the Traffic Noise Analysis, NC 273 from Tuckaseege Road to Highland Street, is located in the project file and is appended by reference.

2. Traffic Noise Impacts and Noise Contours

The maximum number of receptors in each project alternative predicted to become impacted by future traffic noise is shown in the table below. The table includes those receptors expected to experience traffic noise impacts by either approaching or exceeding the FHWA Noise Abatement Criteria (NAC) or by a substantial increase in exterior noise levels as defined in the NCDOT Traffic Noise Abatement Policy.

The maximum extent of the 71- and 66- dB(A) noise level contours measured from the center of the proposed roadway is 70 feet and 119 feet, respectively.

Predicted Traffic Noise Impacts by Alternative*

Alternative	**Traffic Noise Impacts**			
	Residential (NAC B)	Churches/Schools, etc. (NAC C & D)	Businesses (NAC E)	Total
Symmetrical	23	0	0	23
West Side	16	0	3	19
East Side	24	0	0	24

*Per TNM®2.5 and in accordance with 23 CFR Part 772

3. No Build Alternative

The Traffic Noise Analysis also considered traffic noise impacts for the No-Build alternative. If the proposed project does not occur, 22 receptors are predicted to experience traffic noise impacts and the future traffic noise levels will increase by approximately 4 dBA. Based upon research, humans barely detect noise level changes of 2-3 dBA. A 5-dBA change is more readily noticeable. Therefore, most people working and living near the roadway will notice this predicted increase.

4. Traffic Noise Abatement Measures

Measures for reducing or eliminating the traffic noise impacts were considered for all impacted receptors in each alternative. The primary noise abatement measures evaluated for highway projects include highway alignment changes, traffic system management measures, establishment of buffer zones, noise barriers and noise insulation (NAC D only). For each of these measures, benefits versus allowable abatement measure quantity (reasonableness), engineering feasibility, effectiveness and practicability and other factors were included in the noise abatement considerations.

Substantially changing the highway alignment to minimize noise impacts is not considered to be a viable option for this project due to engineering and/or environmental factors. Traffic system management measures are not considered viable for noise abatement due to the negative impact they would have on the capacity and level of service of the proposed roadway. Costs to acquire buffer zones for impacted receptors will exceed the NCDOT base quantity value of $37,500 per benefited receptor, causing this abatement measure to be unreasonable.

5. Noise Barriers

Noise barriers include two basic types: earthen berms and noise walls. These structures act to diffract, absorb, and reflect highway traffic noise.

This project will maintain uncontrolled right of way access, meaning that most noise-sensitive land uses will have direct access connections to the proposed project, and most intersections will adjoin the project at grade. The Traffic Noise Analysis for this project confirmed that the physical breaks in potential noise barriers that would occur due to the uncontrolled right of way access would prohibit any noise barrier from providing the minimum required traffic noise level reductions at all predicted traffic noise impacts, as defined by the noise abatement measure feasibility criteria of the NCDOT Traffic Noise Abatement Policy.

5. Summary

Based on this preliminary study, traffic noise abatement is not recommended and no noise abatement measures are proposed. This evaluation completes the highway traffic noise requirements of Title 23 CFR Part 772. No additional noise analysis will be performed for this project unless warranted by a significant change in the project scope, vehicle capacity or alignment.

In accordance with NCDOT Traffic Noise Abatement Policy, the Federal/State governments are not responsible for providing noise abatement measures for new development for which building permits are issued after the Date of Public Knowledge. The Date of Public Knowledge of the proposed highway project will be the approval date of the Categorical Exclusion (CE). For development occurring after this date, local governing bodies are responsible to insure that noise compatible designs are utilized along the proposed facility.

H. Air Quality Analysis

An Air Quality Analysis was completed for the proposed project in January 29, 2012. Additional details of the methodology and analysis supporting the information provided in this section are provided in the January 2012 air quality analysis report: *Air Quality Analysis, NC 273 from Tuckaseege Road to Highland Street*, which is located in the project file and appended by reference.

1. Introduction

Air pollution originates from various sources. Emissions from industry and internal combustion engines are the most prevalent sources. The impact resulting from highway construction ranges from intensifying existing air pollution problems to improving the ambient air quality. Changing traffic patterns are a primary concern when determining the impact of a new highway facility or the improvement of an existing facility. Motor vehicles emit carbon monoxide (CO), nitrogen oxide (NO), hydrocarbons (HC), particulate matter, sulfur dioxide (SO_2), and lead (Pb) (listed in order of decreasing emission rate).

2. Attainment Status

The project is located in Gaston County, which is within the Charlotte-Gastonia-Rock Hill nonattainment area for ozone (0_3) as defined by the EPA. This area was designated moderate nonattainment for O3 under the eight-hour ozone standard effective June 12, 2004. Section 176(c) of the CAAA requires that transportation plans, programs, and projects conform to the intent of the state air quality implementation plan (SIP). The current SIP does not contain any transportation control measures for Gaston County. The Gaston Metropolitan Planning Organization 2035 Long Range Transportation Plan (LRTP) and the 2012-2018 State Transportation Improvement Program (STIP) conform to the intent of the SIP. The USDOT made a conformity determination on the LRTP on December 16, 2011, the STIP on December 16, 2011 and Gaston County projects from the State Transportation Program (STIP) on December 16, 2011. For the donut area of Gaston County, the projects from the December 16, 2011 STIP conform to the intent of the SIP (or base year emissions, in areas where no SIP is approved or found adequate). The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. There are no significant changes in the project's design concept or scope, as used in the conformity analyses.

3. Mobile Source Air Toxics

Recently, concerns for air toxics impacts are more frequent on transportation projects during the NEPA process. Transportation agencies are increasingly expected by the public and other agencies to address MSAT impacts in their environmental documents as the science emerges. Mobile Source Air Toxics (MSAT's) analysis is a continuing area of research where, while much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health impacts from MSAT's are limited. These limitations impede FHWA's ability to evaluate how mobile source health risks should factor into project-level decision making under the National Environmental Policy Act (NEPA). Also, EPA has not established regulatory concentration targets for the six relevant MSAT pollutants appropriate for use in the project development process. FHWA has several research projects underway to more clearly define potential risks from MSAT emissions associated with transportation projects. While this research is ongoing, FHWA requires each NEPA document to qualitatively address MSATs and their relationship to the specific highway project through a tiered approach per the US DOT, Federal Highway Administration memorandum, "Air Quality Guidelines for Environmental Documents", dated February 2011. The FHWA will continue to monitor the

developing research in this emerging field. A qualitative analysis of MSATs for this project appears in its entirety in the February 29, 2012 *Air Quality Analysis*, which is located in the project file and appended by reference.

4. Construction and Air Quality Effects

During construction of the proposed project, all materials resulting from clearing and grubbing, demolition or other operations will be removed from the project, burned or otherwise disposed of by the Contractor. Any burning done will be done in accordance with applicable local laws and ordinances and regulations of the North Carolina State air quality implementation plan (SIP) for air quality in compliance with 15 NCAC 2D.0520. Care will be taken to insure burning will be done at the greatest distance practicable from dwellings and not when atmospheric conditions are such as to create a hazard to the public. Burning will be performed under constant surveillance. Also during construction, measures will be taken to reduce the dust generated by construction when the control of dust is necessary for the protection and comfort of motorists or area residents. This evaluation completes the assessment requirements for air quality of the 1990 Clean Air Act Amendments and the NEPA process, and no additional reports are necessary.

5. Summary

Vehicles are a major contributor to decreased air quality because they emit a variety of pollutants into the air. Changing traffic patterns are a primary concern when determining the impacts of a new highway facility or the improvement of an existing highway facility. New highways or the widening of existing highways increase localized levels of vehicle emissions, but these increases could be offset due to increases in speeds from reductions in congestion and because vehicle emissions will decrease in areas where traffic shifts to the new roadway. Significant progress has been made in reducing criteria pollutant emissions from motor vehicles and improving air quality, even as vehicle travel has increased rapidly.

The proposed project is located in Gaston County, which complies with the National Ambient Air Quality Standards. This project will not add substantial new capacity or create a facility that is likely to meaningfully increase emissions. Therefore, it is not anticipated to create any adverse effects on the air quality of this attainment area.

I. Hazardous Materials

The following is a summary of the *Hazardous Materials Report*, prepared by the NCDOT Geotechnical Engineering Unit, March 2009. A copy of this report is located in the project file and is appended by reference.

Geographical Information System (GIS) technology was utilized to identify potential contaminated sites. Three (3) possible UST (underground storage tank) facilities were identified within the project study area. All of these sites are anticipated to result in low monetary and scheduling impacts.

No additional contaminated properties were observed during the GIS records search. If any USTs or any potential source of contamination is discovered during construction activities, NCDOT should be notified of their presence immediately upon discovery. An assessment must be conducted to determine the extent of any contamination, to identify the potential impacts, and to make recommendations for further actions.

J. Construction Impacts

NCDOT Best Management Practices for Construction and Maintenance Activities will be adhered to during construction to minimize potential adverse effects caused during construction.

VI. COMMENTS AND COORDINATION

This project was coordinated with appropriate federal, state, and local agencies and the public. Comments and concerns expressed were incorporated into this document, and copies of responses received are included in Appendix B.

A. Agency Coordination

A project scoping letter announcing the start of U-3633 project development, environmental and engineering studies was mailed out to federal, state and local agencies in February 2009 .The letter requested recipients supply information that would be helpful in evaluating potential environmental impacts of the project and invited them to a project scoping meeting held in March 2009. A list of agencies contacted for comments via scoping letters is provided below. An asterisk (*) next to the name indicates that a written response was received.

- Federal Highway Administration (FHWA)
- US Environmental Protection Agency
- US Army Corps of Engineers
- US Fish and Wildlife Service
- State Clearinghouse-Department of Administration*
- NC Department of Public Instruction
- US Geologic Survey
- NC Department of Cultural Resources, Division of Historical Resources, State Historic Preservation Office (HPO)*

- NC Department of Environment and Natural Resources (NCDNR)*
  - Division of Water Quality*
  - Natural Heritage Program
  - NC Wildlife Resources Commission*
  - Division of Forest Resources*

- NC Department of Transportation
  - Aviation Division
  - Bicycle and Pedestrian Division*
  - Board of Transportation Member, Division 12
  - Bridge Maintenance Unit
  - Congestion Management Unit
  - Construction Unit
  - Geotechnical Engineering Unit
  - Gaston Urban Area Metropolitan Planning Organization
  - Highway Design Branch
  - Highway Division 12
  - Human Environment Unit
  - Hydraulics Unit
  - Locations and Surveys Unit
  - Natural Environment Unit

- Office of Civil Rights
- Photogrammetry Unit
- Preconstruction
- Program Development Branch
- Project Services Unit
- Public Transportation
- Rail Division
- Roadside Environmental Unit
- Roadway Design Branch
- Right of Way Branch
- Strategic Planning Office
- Structure Design Unit
- Traffic Engineering and Safety Systems Branch
- Transportation Planning Branch
- Utilities Coordination Unit
- Work Zone and Traffic Control

- Local Agencies and Interest Groups
  - City of Mount Holly*
  - Gaston County Government
  - Gaston County Schools

B. <u>Scoping Meeting</u>

On March 11, 2009, a project scoping meeting was held to exchange information about the project. Federal, state, and local agency representatives were invited to participate in the scoping meeting. Representatives from NCDOT, FHWA and the Gaston Urban Area Metropolitan Planning Organization attended the meeting.

C <u>Section 404/NEPA Merger Process</u>

A Section 404/NEPA Merger Screening Meeting was conducted on August 5, 2010. Representatives from NCDOT, FHWA, USACE, and DWQ discussed the project and potential environmental impacts. It was determined the project would be advanced outside the Merger Process because the purpose and need is to widen NC 273 (South Main Street) to a multi-lane facility and there would not be a new alignment or alternative route developed. An agreement was made that NCDOT would:

- revise the preliminary designs to minimize jurisdictional stream impacts;
- conduct a meeting at a later date to discuss the minimization efforts; and
- present the department's recommended alternative.

At the August 2010 Merger Screening meeting, the total jurisdictional stream impacts (within slope stakes plus 25 feet beyond) were approximately 750 linear feet for Alternative 1 (best fit design at each end of project and middle segment widening to the left, west) and approximately 1150 linear feet for Alternative 2 (best fit design at each end and middle segment widening to the right, east). There are no wetland impacts associated with this project.

An alternative selection meeting was held on October 6, 2011 with representatives from FHWA and NCDOT (Hydraulics Unit, Natural Environment Unit, Roadway Design, and PDEA) in

attendance. Alternative 2 was selected as the department's preferred alternative based on the following:

- Potential noise and vibration resulting from the required blasting of the rock slope on Alternative 1
- Lower Right of Way costs
- Lower construction costs
- Fewer residential relocations

A meeting was held on October 20, 2011 to discuss design changes made since the project was screened and to inform attendees of the department's selection of Alternative 2 (best fit design at each end and middle segment widening to the right, east) as the preferred alternative. The purpose of this meeting was to discuss project impacts and to summarize the design changes that reduced impacts to jurisdictional streams. In attendance were representatives from NCDOT including Roadway Design Unit, Hydraulics Unit, USACE, DWQ and FHWA.

Since the Merger Screening meeting held in 2010, the impacts on Alternative 2 were reduced from 1150 linear feet to 960 linear feet through the realignment of two private driveways located east of NC 273 (South Main Street). The realignment of these driveways was adjusted to a more perpendicular approach to cross the stream that runs roughly parallel to NC 273. Stream impacts were further reduced by shortening the length of improvements along Sunset Drive, East Catawba Drive, and Forest Hills Drive east of NC 273. DWQ and USACE were concerned that the linear feet of jurisdictional stream impacts may change before the issuance of the permit. Therefore hydraulic designs, design changes and impacts were reviewed at the CP4b meeting held May 9, 2012.

D. Public Involvement

A local officials meeting and a Citizens Informational Workshop (CIW) for the project were held on June 16, 2009 in the Mount Holly Citizens Center located at 400 East Central Avenue in Mount Holly.

The meeting and workshop are described below.

1. Local Officials Meeting

A local officials meeting was held prior to the CIW. Meeting participants included elected officials and staff from the City of Mount Holly, NCDOT staff from Division 12, Roadway Design Unit, and the Project Development and Environmental Analysis Unit.

Aerial photographs of the project study area were displayed at several locations in the meeting room, and participants were able to review them prior to the meeting. The aerial photographs showed the project study area, the project terminals, and other major points of interest.

NCDOT representatives presented a summary of the information included in the CIW packet and a description of the proposed project as shown on the photos. The project is not controversial and all in attendance were in support of the proposed project and improvements. The following questions and comments were also received from meeting attendees:

- It was suggested NCDOT should accelerate the project schedule.
- It was questioned whether additional funding could accelerate the project schedule.
- Would all travel lanes be open during construction?

2. Citizens Informational Workshop

A citizens informational workshop was held between the hours of 4:00 p.m. and 7:00p.m. Approximately 40 citizens, NCDOT representatives from Division 10, the Roadway Design Unit, the Right of Way Branch, the Locations and Surveys Unit and the Project Development and Environmental Analysis Branch were in attendance.

A project information packet (see Appendix D) was given to each workshop attendee. Aerial photographs of the project study area were displayed at several locations in the room. The aerial mosaics showed the project study area, the project terminals, and landmarks within the study area. A map showing other nearby proposed NCDOT projects was also displayed.

The citizens in attendance voiced support for the project and their main concern was could the project be completed sooner than currently scheduled.

E. Public Hearing

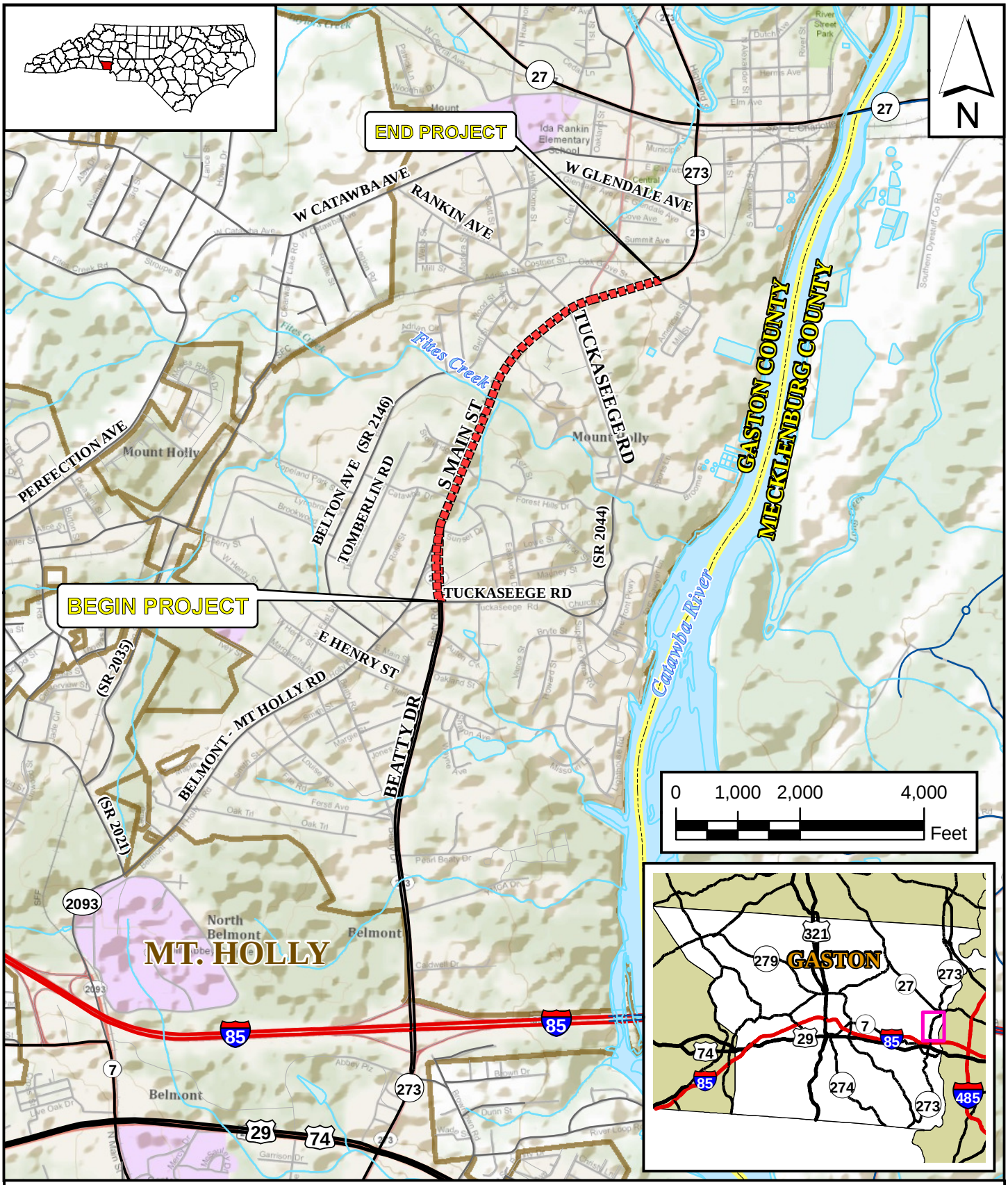
A design public hearing will take place after the publication and distribution of this document. At the hearing citizens will be given the chance to learn about all of the project's design features and comment on the project.

VII. CONCLUSION

On the basis of planning and environmental studies, it is concluded that no substantial adverse environmental impacts will result from the implementation of this project. The project is therefore considered to be a Categorical Exclusion due to its limited scope and lack of substantial environmental consequences.

Appendix A

Figures



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS UNIT

VINICITY MAP
WIDENING OF NC 273
(SOUTH MAIN STREET) FROM
TUCKASEEGE ROAD TO
HIGHLAND STREET AT A & E DRIVE
MOUNT HOLLY GASTON COUNTY
TIP PROJECT U-3633

County:	GASTON
Div: 12	TIP# U-3633
WBS:	37649.1.1
Date:	SEPT 2011

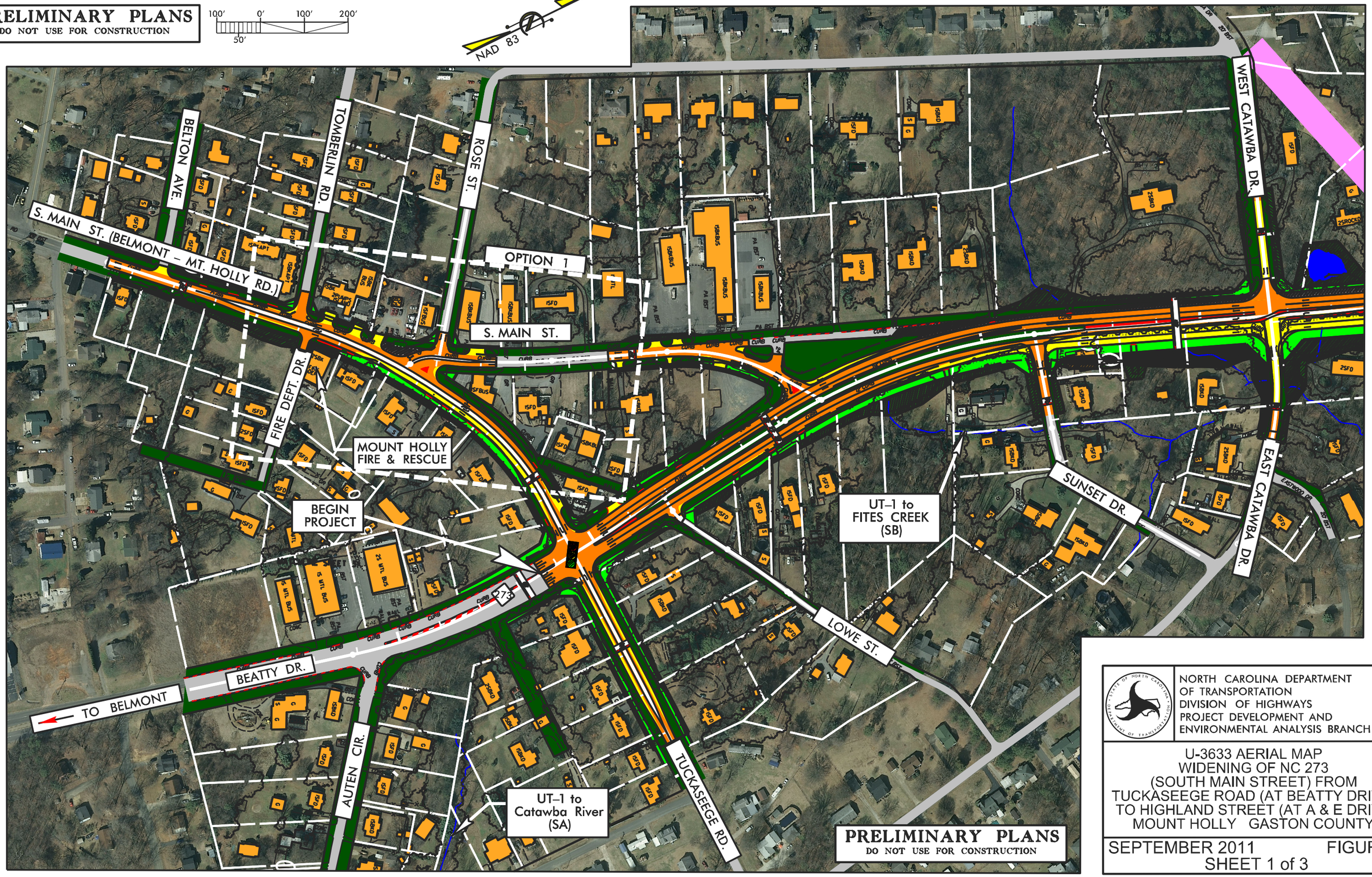
Figure 1

By: J.TORTORELLA

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

100′ 0′ 100′ 200′
50′

NAD 83



MATCHLINE SHEET 2

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS BRANCH

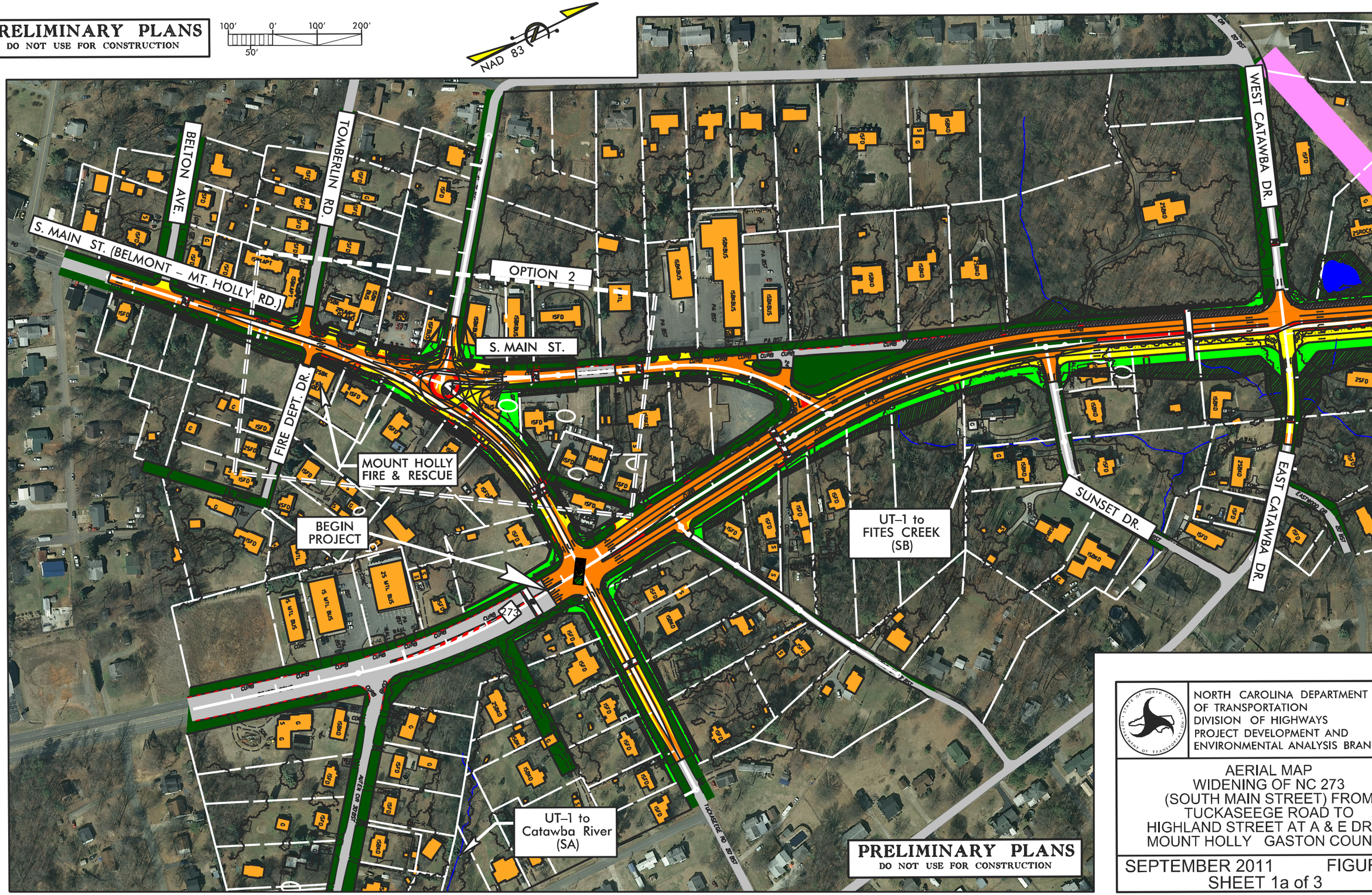
U-3633 AERIAL MAP
WIDENING OF NC 273
(SOUTH MAIN STREET) FROM
TUCKASEEGE ROAD (AT BEATTY DRIVE)
TO HIGHLAND STREET (AT A & E DRIVE)
MOUNT HOLLY GASTON COUNTY

SEPTEMBER 2011 FIGURE 2
SHEET 1 of 3

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

100' 0' 100' 200'
50'

NAD 83



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS BRANCH

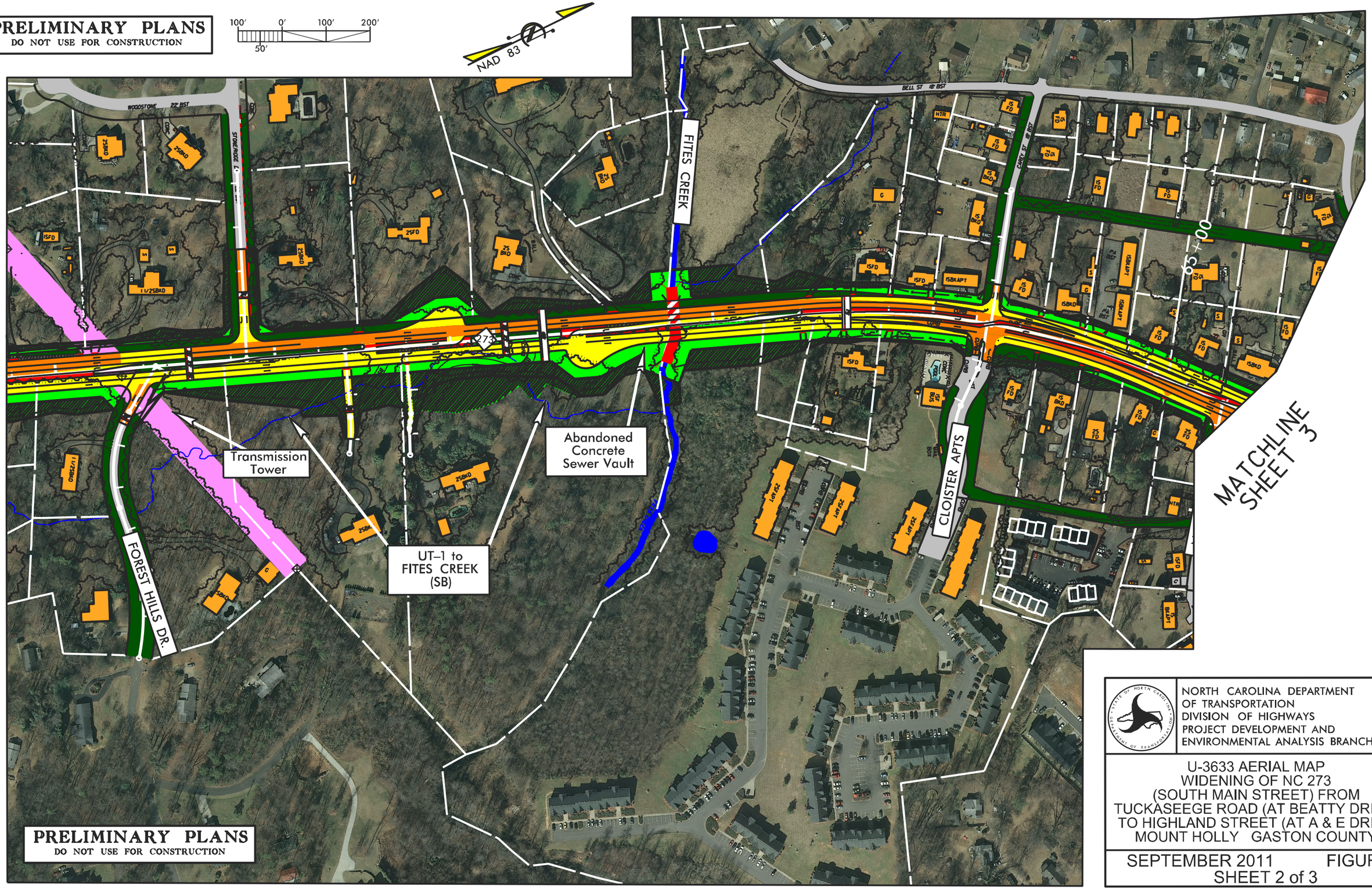
AERIAL MAP
WIDENING OF NC 273
(SOUTH MAIN STREET) FROM
TUCKASEEGE ROAD TO
HIGHLAND STREET AT A & E DRIVE
MOUNT HOLLY GASTON COUNTY

SEPTEMBER 2011 FIGURE 2
SHEET 1a of 3

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

100' 0' 100' 200'
50'

NAD 83



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS BRANCH

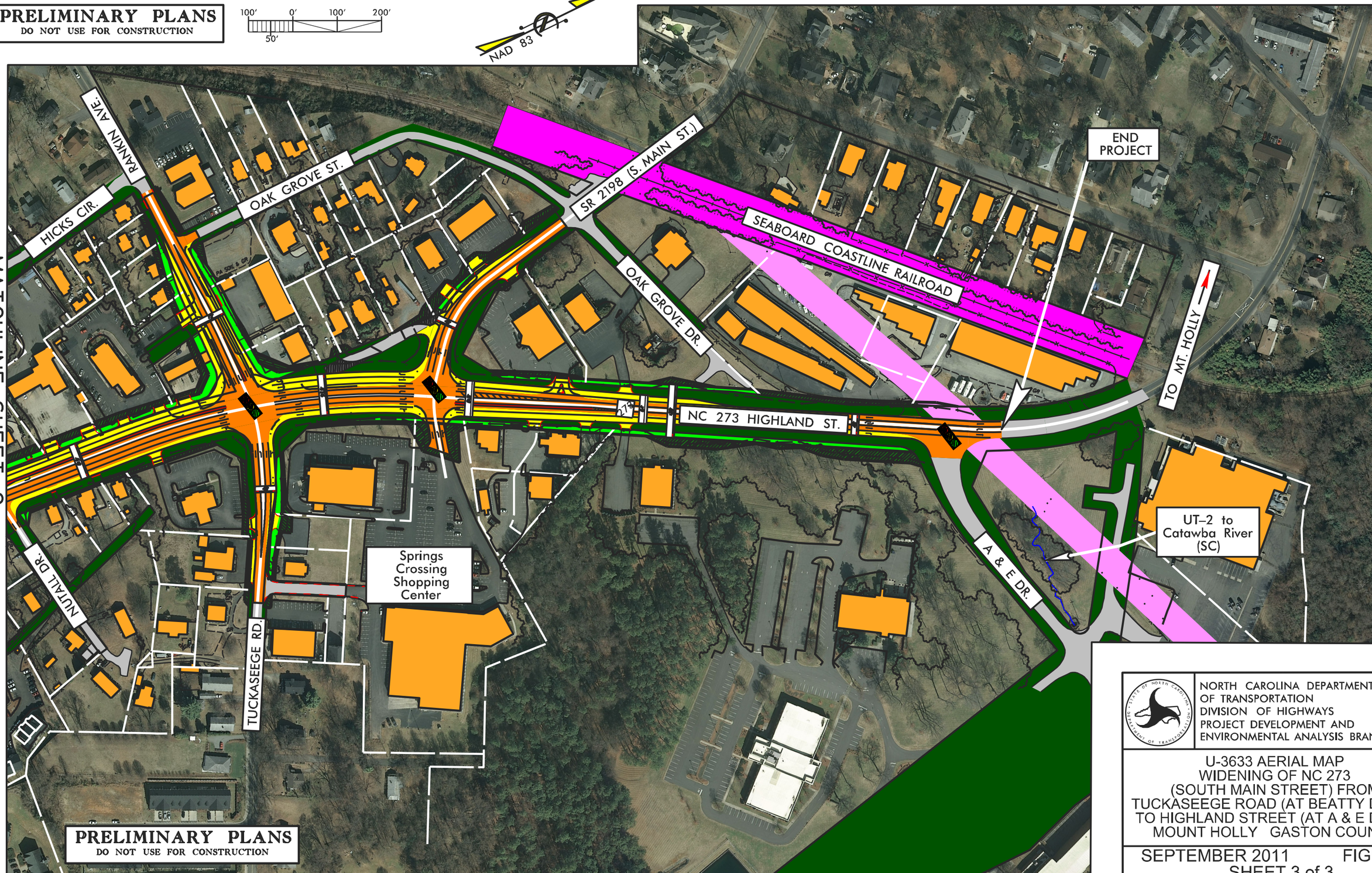
U-3633 AERIAL MAP
WIDENING OF NC 273
(SOUTH MAIN STREET) FROM
TUCKASEEGE ROAD (AT BEATTY DRIVE)
TO HIGHLAND STREET (AT A & E DRIVE)
MOUNT HOLLY GASTON COUNTY

SEPTEMBER 2011 FIGURE 2
SHEET 2 of 3

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

100′ 0′ 100′ 200′
50′

NAD 83



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS BRANCH

U-3633 AERIAL MAP
WIDENING OF NC 273
(SOUTH MAIN STREET) FROM
TUCKASEEGE ROAD (AT BEATTY DRIVE)
TO HIGHLAND STREET (AT A & E DRIVE)
MOUNT HOLLY GASTON COUNTY

SEPTEMBER 2011 FIGURE 2
SHEET 3 of 3

Transmission Tower at Intersection of NC 273 (South Main Street) and Forest Hills Drive

Sewer manhole on east side of NC 273 (South Main Street) just south of Fites Creek culvert

East side of culvert at Fites Creek

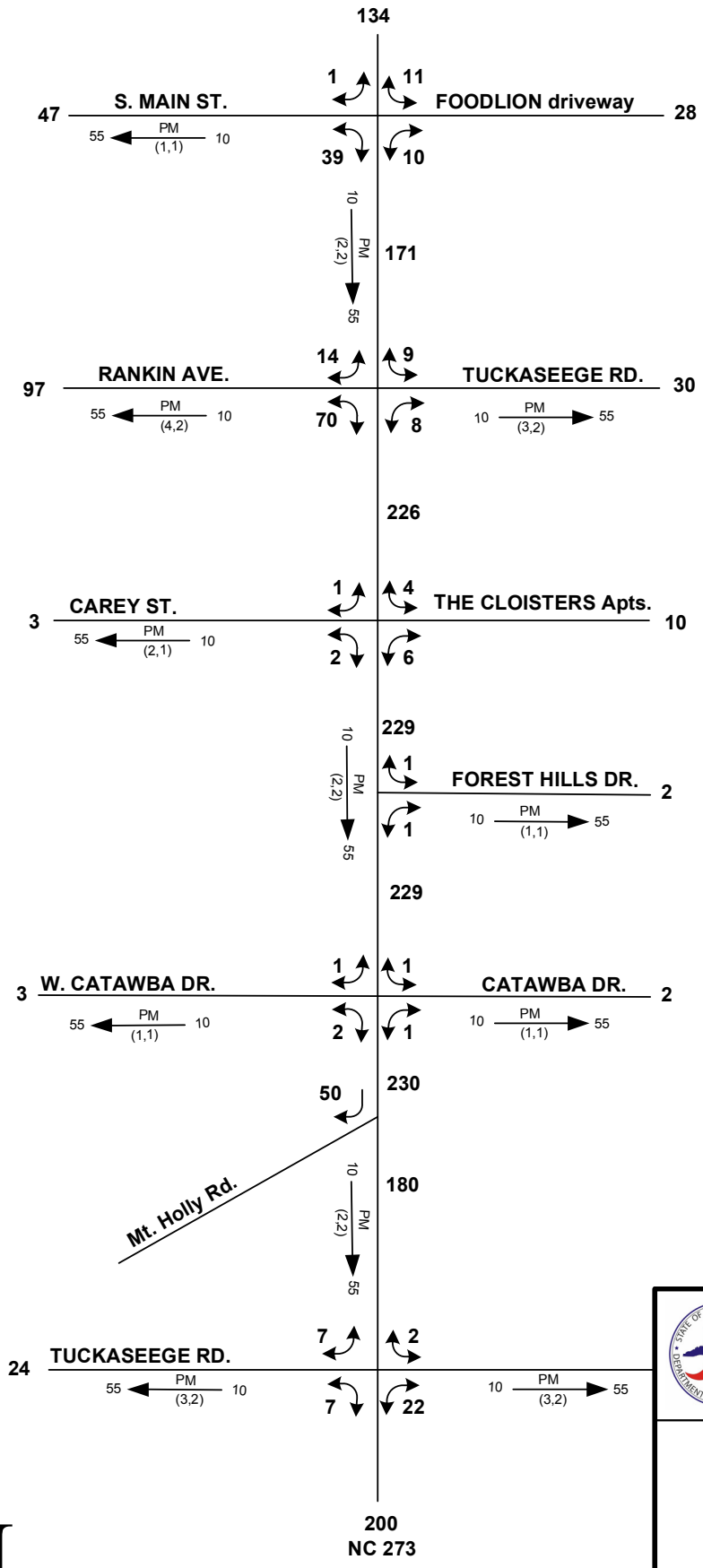
West side of culvert at Fites Creek

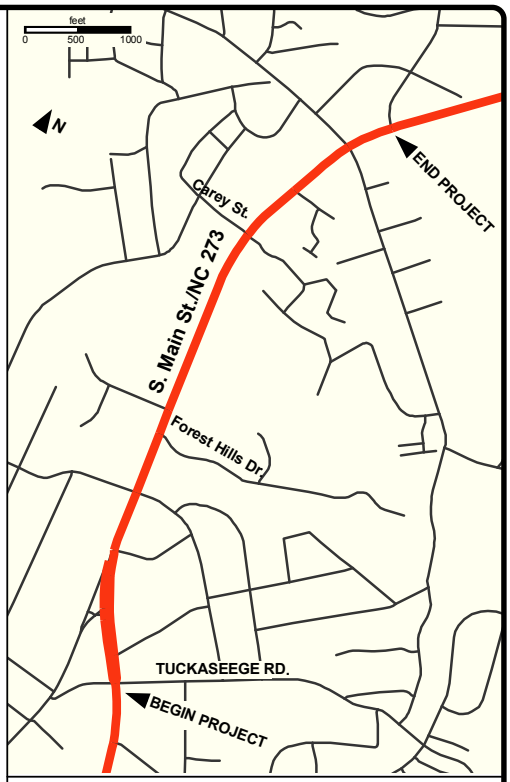
Northbound NC 273 (South Main Street) four lane divided section at beginning of project

Northbound NC 273 (South Main Street) at Cloisters Apartment Entrance

Northbound NC 273 (South Main Street) at Fites Creek

Southbound NC 273 (South Main Street) at Fites Creek





2009 ANNUAL AVERAGE DAILY TRAFFIC

L E G E N D

DHV —PM (d, t)→ D

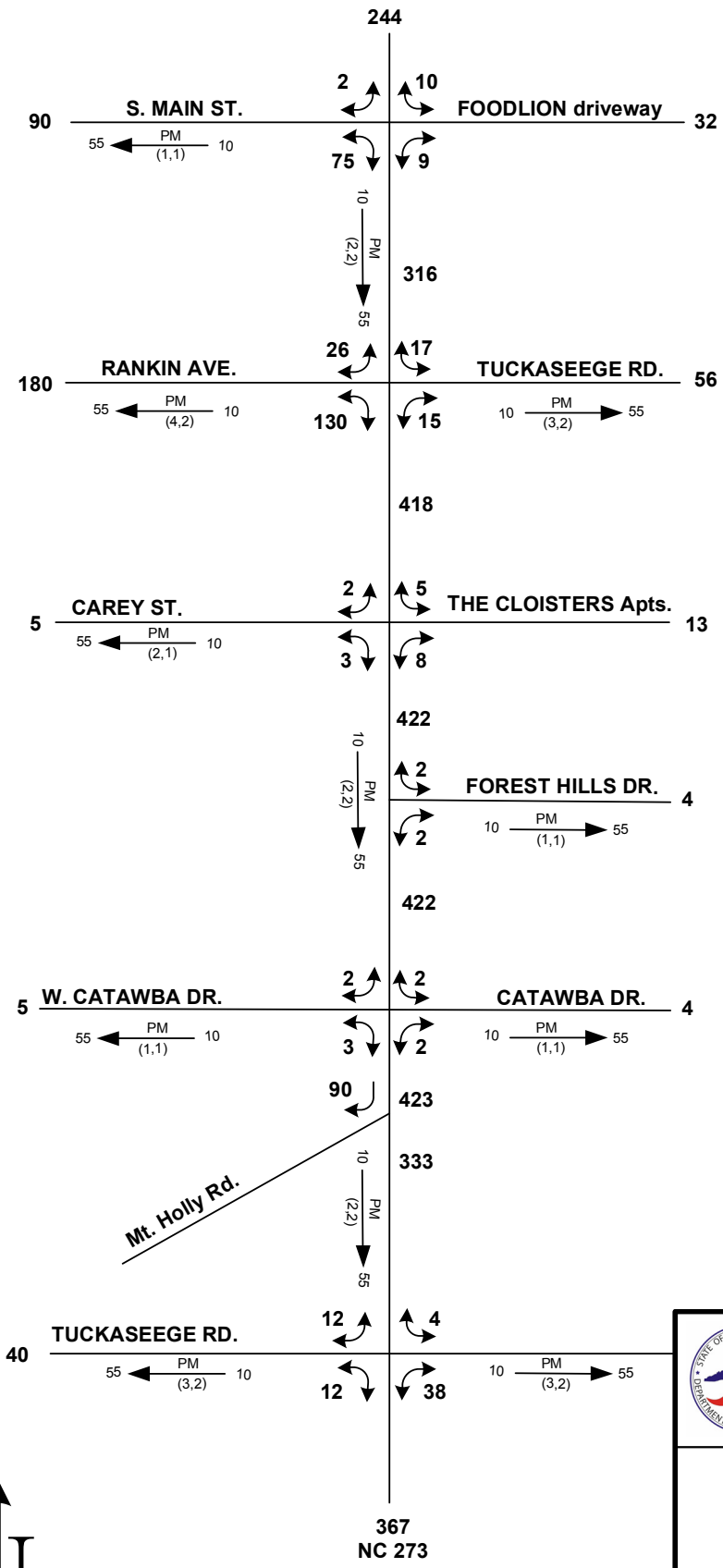
###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
-------	Roadway
DHV	Design Hourly Volume
PM	PM Peak Period
D	Peak Hour Directional Split
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

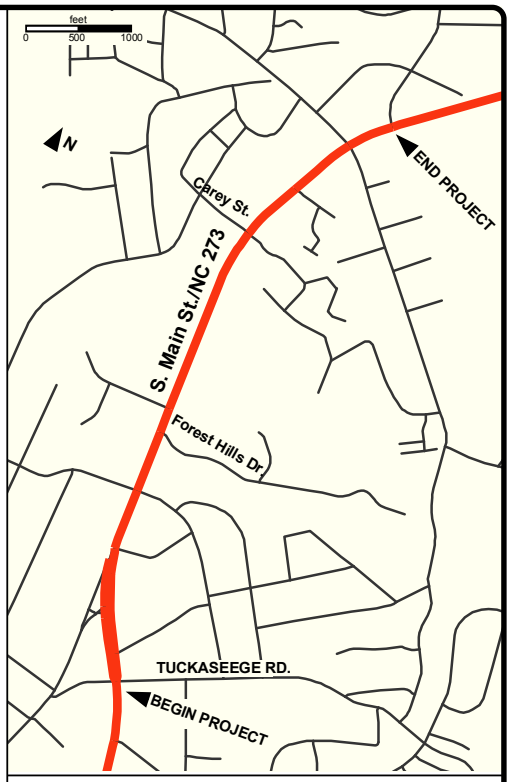
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH

WIDENING OF NC 273 (SOUTH MAIN STREET) FROM TUCKASEEGE ROAD TO HIGHLANDSTREET AT A & E DRIVE

MOUNT HOLLY GASTON CONTY
TIP PROJECT U-3633

December 2011 **FIGURE 4a**





2035 ANNUAL AVERAGE DAILY TRAFFIC

L E G E N D

DHV —PM (d, t)→ D

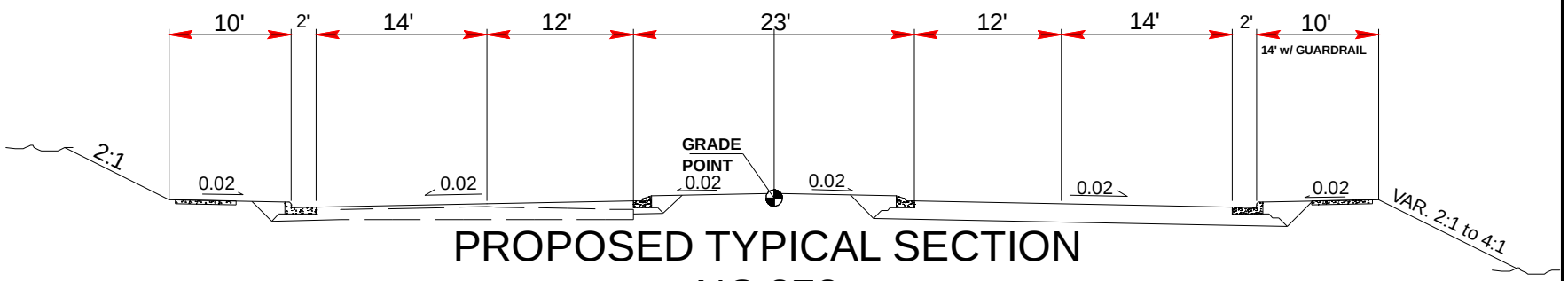
###	No. of Vehicles Per Day (VPD) in 100s
1-	Less than 50 VPD
X	Movement Prohibited
-------	Roadway
DHV	Design Hourly Volume
PM	PM Peak Period
D	Peak Hour Directional Split
→	Indicates Direction of D
(d,t)	Duals, TT-STs (%)

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH

WIDENING OF NC 273 (SOUTH MAIN STREET) FROM TUCKASEEGE ROAD TO HIGHLANDSTREET AT A & E DRIVE

MOUNT HOLLY GASTON CONTY
TIP PROJECT U-3633

December 2011 **FIGURE 4b**



PROPOSED TYPICAL SECTION
NC 273

Figure
5

County: GASTON	TIP# U-3633
Div: 12	
WBS: 37649.1.1	
Date: JULY 2011	

PROPSED TYPICAL SECTION
WIDENING OF NC 273
(SOUTH MAIN STREET) FROM
TUCKASEEGE ROAD TO
HIGHLAND STREET AT A & E DRIVE
MOUNT HOLLY GASTON COUNTY
TIP PROJECT U-3633

NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS UNIT

Appendix B

Correspondence

RECEIVED
Division of Highways

JUN 1 2 2008

Preconstruction
Project Development and
Environmental Analysis Branch

North Carolina
Department of Administration

Michael F. Easley, Governor

Britt Cobb, Secretary

June 10, 2008

Mr. Gregory Thorpe
N.C. Dept. of Transportation
Proj. Dev. & Env. Analysis
1548 Mail Service Center
Raleigh NC 27699-1548

Dear Mr. Thorpe:

Subject: Scoping - NC 273 (South Main Street), 5-lane widening from South of Catawba Drive to Highland Street at Rankin Avenue in Gaston County, TIP No. U-3633.

The N. C. State Clearinghouse has received the above project for intergovernmental review. This project has been assigned State Application Number 08-E-4220-0373. Please use this number with all inquiries or correspondence with this office.

Review of this project should be completed on or before 07/10/2008. Should you have any questions, please call (919)807-2425.

Sincerely,

Valerie McMillan

Valerie W. McMillan, Director
State Environmental Policy Act

cc: Kristina Solberg, Project Planning Engineer

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail: valerie.w.mcmillan@doa.nc.gov

Location Address:
116 West Jones Street
Raleigh, North Carolina

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NCDENR
North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

MEMORANDUM

TO: Valerie McMillan
State Clearinghouse

FROM: Melba McGee
Environmental Review Coordinator

RE: 08-0373 Scoping, NC 273 Widening from south of Catawba Drive to Highland Street at Rankin Avenue in Gaston County

DATE: June 30, 2008

The Department of Environment and Natural Resources has reviewed the proposed project. The attached comments are for the applicant's consideration. More specific comments will be provided during the environmental review process.

Thank you for the opportunity to respond. If during the preparation of the environmental document, additional information is needed, the applicant is encouraged to notify our respective divisions.

Attachments

1601 Mail Service Center, Raleigh, North Carolina 27699-1601
Phone: 919-733-4984 \ FAX: 919-715-3060 \ Internet: www.enr.state.nc.us/ENR/

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Division of Highways

JUL 15 2008

Preconstruction
Project Development and
Environmental Analysis Branch

North Carolina
Department of Administration

Michael F. Easley, Governor

Britt Cobb, Secretary

July 11, 2008

Mr. Gregory Thorpe
N.C. Dept. of Transportation
Proj. Dev. & Env. Analysis
1548 Mail Service Center
Raleigh, NC 27699-1548

Re: SCH File # 08-E-4220-0373; SCOPING; NC 273 (South Main Street), 5-lane widening from South of Catawba Drive to Highland Street at Rankin Avenue in Gaston County, TIP No. U-3633.

Dear Mr. Thorpe:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are the comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

VM|SJG

Valerie W. McMillan, Director
State Environmental Policy Act

Attachments

cc: Region F

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail valerie.w.mcmillan@doa.nc.gov

Location Address:
116 West Jones Street
Raleigh, North Carolina

An Equal Opportunity/Affirmative Action Employer

North Carolina Wildlife Resources Commission

TO: Melba McGee, Environmental Coordinator
Office of Legislative and Intergovernmental Affairs, DENR

FROM: Marla Chambers, Western NCDOT Permit Coordinator *Marla Chambers*
Habitat Conservation Program, NCWRC

DATE: June 18, 2008

SUBJECT: Scoping review of NCDOT's proposed 5-lane widening of NC 273 (South Main Street) from south of Catawba Drive to Highland Street at Rankin Avenue, Gaston County. TIP No. U-3633. OLIA Project No. 08-0373, due 07/07/2008.

North Carolina Department of Transportation (NCDOT) is requesting comments from the North Carolina Wildlife Resources Commission (NCWRC) regarding impacts to fish and wildlife resources resulting from the subject project. Staff biologists have reviewed the information provided and have the following preliminary comments. These comments are provided in accordance with the provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

The NCDOT proposes to widen NC 273 (South Main Street) to 5 lanes from south of Catawba Drive to Highland Street at Rankin Avenue in Mount Holly. No scoping informational sheets were included as indicated in the cover letter, only a vicinity map. It has been our understanding that 5-lane roads were no longer being constructed in NC due to safety concerns. This issue should be addressed in the forthcoming documents. Fites Creek, classified WS-IV waters, crosses the project about midway.

In an urban setting, stormwater and growth management are important for the protection of water quality, wildlife habitat, and the quality of life for area citizens. Numerous studies have shown that when 10–15% of a watershed is converted to impervious surfaces, there is a serious decline in the health of receiving waters (Schueler 1994) and the quality of fish habitat and wetlands are negatively impacted (Booth 1991, Taylor 1993). We encourage the use of Low Impact Development (LID) techniques and other important measures to minimize negative impacts from development. Information on Low Impact Development practices and measures can be found at

Mailing Address: Division of Inland Fisheries • 1721 Mail Service Center • Raleigh, NC. 27699-1721
Telephone: (919) 707-0220 • **Fax:** (919) 707-0028

www.lowimpactdevelopment.org, http://www.epa.gov/owow/nps/lid/lidnatl.pdf and http://www.stormwatercenter.net/. Measures to mitigate secondary and cumulative impacts can be found in the Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife Resources and Water Quality (NCWRC 2002).

The NCWRC has no specific concerns at this time regarding this project. However, to help facilitate document preparation and the review process, our general information needs are outlined below:

1. Description of fishery and wildlife resources within the project area, including a listing of federally or state designated threatened, endangered, or special concern species. Potential borrow areas to be used for project construction should be included in the inventories. A listing of designated plant species can be developed through consultation with the following programs:

   The Natural Heritage Program
   http://www.ncnhp.org
   1601 Mail Service Center
   Raleigh, N. C. 27699-1601

   and,

   NCDA Plant Conservation Program
   P. O. Box 27647
   Raleigh, N. C. 27611
   (919) 733-3610

2. Description of any streams or wetlands affected by the project. If applicable, include the linear feet of stream that will be channelized or relocated.

3. Cover type maps showing wetland acreage impacted by the project. Wetland acreage should include all project-related areas that may undergo hydrologic change as a result of ditching, other drainage, or filling for project construction. Wetland identification may be accomplished through coordination with the U. S. Army Corps of Engineers (USACE). If the USACE is not consulted, the person delineating wetlands should be identified and criteria listed.

4. Cover type maps showing acreage of upland wildlife habitat impacted by the proposed project. Potential borrow sites and waste areas should be included.

5. Show the extent to which the project will result in loss, degradation, or fragmentation of wildlife habitat (wetlands or uplands).

6. Include the mitigation plan for avoiding, minimizing or compensating for direct and indirect degradation in habitat quality as well as quantitative losses.

7. Address the overall environmental effects of the project construction and quantify the contribution of this individual project to environmental degradation.

8. Provide a discussion of the probable impacts on natural resources, which will result from secondary development, facilitated by the improved road access.

9. If construction of this facility is to be coordinated with other state, municipal, or private development projects, a description of these projects should be included in the environmental document, and all project sponsors should be identified.

Thank you for the opportunity to provide input in the early planning stages of this project. If you have any questions regarding these comments, please contact me at (704) 485-8291.

cc: Polly Lespinasse, NCDWQ
Christopher Militscher, USEPA

Literature Cited:

Booth, D. 1991. Urbanization and the natural drainage system-impacts, solutions, and prognoses. Northwest Environmental Journal. 7(1):93-118.

NCWRC (North Carolina Wildlife Resources Commission). 2002. Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife Resources and Water Quality. NCWRC, Raleigh. Available: http://www.ncwildlife.org/pg07_WildlifeSpeciesCon/pg7c3_impacts.pdf. (February 2003).

Schueler, Tom. 1994. The Importance of Imperviousness. Watershed Protection Techniques. 1:3 (pp100-111).

Taylor, B.L. 1993. The influences of wetland and watershed morphological characteristics and relationships to wetland vegetation communities. Masters thesis. Dept. of Civil Engineering. University of Washington. Seattle, WA.

Michael F. Easley, Governor

William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Coleen H. Sullins, Director
Division of Water Quality

June 16, 2008

MEMORANDUM

To: **Melba McGee, Environmental Coordinator**

From: **Polly Lespinasse, NC Division of Water Quality, Mooresville Regional Office**

Subject: **Scoping Comments on Proposed Improvements to NC 273 (South Main Street) from South of Catawba Drive to Highland Street at Rankin Avenue in Gaston County, Federal Aid Project No. STP-0273(1), WBS 37649.1.1, TIP No. U-3633, DENR Project Number 08-0373, Due Date 07/07/08**

Please reference the correspondence dated June 6, 2008, in which you requested comments for the above referenced project. Preliminary analysis of the project reveals the potential for multiple impacts to perennial streams and jurisdictional wetlands in the project area. More specifically, impacts to:

Stream Name	River Basin	Stream Classification(s)	Stream Index Number
Fites Creek	Catawba	WS-IV*	11-121-(1)

*** Project appears to be located within 0.5 miles of a reach of Fites Creek that carries a stream classification of WS-IV, CA**

Further investigations at a higher resolution should be undertaken to verify the presence of other streams and/or jurisdictional wetlands in the area. In the event that any jurisdictional areas are identified, the Division of Water Quality (DWQ) requests that NCDOT consider the following environmental issues for the proposed project:

Project Specific Comments:

Review of the project reveals the presence of surface waters classified as Water Supply Critical Area in the project study area. Given the potential for impacts to these resources during the project implementation, the DWQ requests that DOT strictly adhere to North Carolina regulations entitled "Design Standards in Sensitive Watersheds" (15A NCAC 04B .0124) throughout design and construction of the project. This would apply for any area that drains to streams having WS CA (Water Supply Critical Area) classifications.

Should the project be located within the Critical Area of a Water Supply, the NCDOT will be required to design, construct, and maintain hazardous spill catch basins in the project area. The number of catch basins installed should be determined such that runoff would enter said basin(s) rather than flowing directly into the stream, and in consultation with the DWQ.

General Project Comments:

1. The environmental document should provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping.

If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.

2. Environmental assessment alternatives should consider design criteria that reduce the impacts to streams and wetlands from storm water runoff. These alternatives should include road designs that allow for treatment of the storm water runoff through best management practices as detailed in the most recent version of NC DWQ *Stormwater Best Management Practices*, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.

3. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 1 acre to wetlands. In the event that mitigation is required, the mitigation plan should be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as wetland mitigation.

4. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 150 linear feet to any single perennial stream. In the event that mitigation is required, the mitigation plan should be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as stream mitigation.

5. DWQ is very concerned with sediment and erosion impacts that could result from this project. NCDOT should address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.

6. If a bridge is being replaced with a hydraulic conveyance other than another bridge, DWQ believes the use of a Nationwide Permit may be required. Please contact the US Army Corp of Engineers to determine the required permit(s).

7. If the old bridge is removed, no discharge of bridge material into surface waters is allowed unless otherwise authorized by the US ACOE. Strict adherence to the Corps of Engineers guidelines for bridge demolition will be a condition of the 401 Water Quality Certification.

8. Bridge supports (bents) should not be placed in the stream when possible.

9. Whenever possible, the DWQ prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the streambanks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges allow for human and wildlife passage beneath the structure, do not block fish passage and do not block navigation by canoeists and boaters.

10. Bridge deck drains should not discharge directly into the stream. Stormwater should be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of NC DWQ *Stormwater Best Management Practices.*

11. If concrete is used during construction, a dry work area should be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.

12. If temporary access roads or detours are constructed, the site shall be graded to its preconstruction contours and elevations. Disturbed areas should be seeded or mulched to stabilize the soil and appropriate native woody species should be planted.

When using temporary structures the area should be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.

13. Placement of culverts and other structures in waters, streams, and wetlands shall be below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by DWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NC DWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.

14. If multiple pipes or barrels are required, they should be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.

15. If foundation test borings are necessary; it should be noted in the document. Geotechnical work is approved under General 401 Certification Number 3494/Nationwide Permit No. 6 for Survey Activities.

16. Sediment and erosion control measures sufficient to protect water resources must be implemented and maintained in accordance with the most recent version of North Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250.

17. All work in or adjacent to stream waters should be conducted in a dry work area unless otherwise approved by NC DWQ. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures should be used to prevent excavation in flowing water.

18. Sediment and erosion control measures should not be placed in wetlands and streams.

19. Borrow/waste areas should avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas could precipitate compensatory mitigation.

20. While the use of National Wetland Inventory (NWI) maps, NC Coastal Region Evaluation of Wetland Significance (NC-CREWS) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.

21. Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

22. In most cases, the DWQ prefers the replacement of the existing structure at the same location with road closure. If road closure is not feasible, a temporary detour should be designed and located to avoid wetland impacts, minimize the need for clearing and to avoid destabilizing stream banks. If the structure will be on a new alignment, the old structure should be removed and the approach fills removed from the 100-year floodplain. Approach fills should be removed and restored to the natural ground elevation. The area should be stabilized with grass and planted with native tree species. Tall fescue should not be used in riparian areas.

23. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.

Thank you for requesting our input at this time. The NCDOT is reminded that issuance of a 401 Water Quality Certification requires that appropriate measures be instituted to ensure that water quality standards are met and designated uses are not degraded or lost. If you have any questions or require additional information, please contact Polly Lespinasse at (704) 663-1699.

cc: Steve Lund, US Army Corps of Engineers, Asheville Field Office
Ron Lucas, Federal Highway Administration
Kristina Solberg, Project Planning Engineer, NCDOT PDEA
Chris Militscher, Environmental Protection Agency
Marla Chambers, NC Wildlife Resources Commission
Marella Buncick, US Fish and Wildlife Service
Sonia Gregory, DWQ Central Office
File Copy

State of North Carolina
Department of Environment and Natural Resources

Reviewing Office: Mooresville Regional Office

INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

Project Number: 08-0373 Due Date: 7/7/08

After review of this project it has been determined that the ENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of the form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
☐	Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters.	Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual.	30 days (90 days)
☐	NPDES - permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begin activity. On-site inspection. Pre-application conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90-120 days (N/A)
☐	Water Use Permit	Pre-application technical conference usually necessary	30 days (N/A)
☐	Well Construction Permit	Complete application must be received and permit issued prior to the installation of a well.	7 days (15 days)
☐	Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Pre-application conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)
☐	Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.O100 thru 2Q.0300)	Application must be submitted and permit received prior to construction and operation of the source. If a permit is required in an area without local zoning, then there are additional requirements and timelines (2Q.0113).	90 days
☐	Permit to construct & operate Transportation Facility as per 15 A NCAC (2D.0800, 2Q.0601)	Application must be submitted at least 90 days prior to construction or modification of the source.	90 days
☐	Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)
☐	Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-5950.		
☐	Complex Source Permit required under 15 A NCAC 2D.0800		
☐	The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) At least 30 days before beginning activity. A fee of **$65** for the first acre or any part of an acre. An express review option is available with additional fees.		20 days (30 days)
☑	Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.		(30 days)
☐	Mining Permit	On-site inspection usual. Surety bond filed with ENR Bond amount varies with type mine and number of acres of affected land. Any arc mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)
☐	North Carolina Burning permit	On-site inspection by N.C. Division Forest Resources if permit exceeds 4 days	1 day (N/A)
☐	Special Ground Clearance Burning Permit - 22 counties in coastal N.C. with organic soils	On-site inspection by N.C. Division Forest Resources required "if more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual bum is planned."	1 day (N/A)
☐	Oil Refining Facilities	N/A	90-120 days (N/A)
☐	Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to: prepare plans, inspect construction. certify construction is according to ENR approved plans. May also require permit under mosquito control program. And a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of $200.00 must accompany the application. An additional processing fee based on a percentage or the total project cost will be required upon completion	30 days (60 days)

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
☐	Permit to drill exploratory oil or gas well	File surety bond of $5,000 with ENR running to State of NC conditional that any well opened by drill operator shall, upon abandonment, be plugged according to ENR rules and regulations.	10 days N/A
☐	Geophysical Exploration Permit	Application filed with ENR at least 10 days prior to issue of permit. Application by letter. No standard application form.	10 days N/A
☐	State Lakes Construction Permit	Application fees based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property.	15-20 days N/A
☑	401 Water Quality Certification	N/A	60 days (130 days)
☐	CAMA Permit for MAJOR development	$250.00 fee must accompany application	55 days (150 days)
☐	CAMA Permit for MINOR development	$50.00 fee must accompany application	22 days (25 days)
☐	Several geodetic monuments are located in or near the project area. If any monument needs to be moved or destroyed, please notify: N.C. Geodetic Survey, Box 27687 Raleigh, NC 27611		
☐	Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100.		
☐	Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.		
☐	Compliance with 15A NCAC 2H 1000 (Coastal Stormwater Rules) is required.		45 days (N/A)
☐	Tar Pamlico or Neuse Riparian Buffer Rules required.		

* Other comments (attach additional pages as necessary, being certain to cite comment authority)

LQ - No Comments Jeff Sill 6/12/08

APS - no comments AMP 6.12.08

SWP - comments will be sent under separate cover. 6/16/08 T.S.

REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

☐ **Asheville Regional Office**
2090 US Highway 70
Swannanoa, NC 28778
(828) 296-4500

☐ **Fayetteville Regional Office**
225 North Green Street, Suite 714
Fayetteville, NC 28301-5043
(910) 433-3300

☑ **Mooresville Regional Office**
610 East Center Avenue, Suite 301
Mooresville, NC 28115
(704) 663-1699

☐ **Raleigh Regional Office**
3800 Barrett Drive, Suite 101
Raleigh, NC 27609
(919) 791-4200

☐ **Washington Regional Office**
943 Washington Square Mall
Washington, NC 27889
(252) 946-6481

☐ **Wilmington Regional Office**
127 Cardinal Drive Extension
Wilmington, NC 28405
(910) 796-7215

☐ **Winston-Salem Regional Office**
585 Waughtown Street
Winston-Salem, NC 27107
(336) 771-5000

NCDENR

North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

Post-it® Fax Note 7671	Date 7/7/08	# of pages ▶ 5
To VALERIE McMILLAN	From MELBA McGEE	
Co./Dept.	Co. DENR	
Phone #	Phone #	
Fax #	Fax #	

MEMORANDUM

TO: Valerie McMillan
State Clearinghouse

FROM: Melba McGee
Environmental Projects Officer

SUBJECT: #08-0373 Widen NC 273, Gaston County

DATE: July 3, 2008

The attached comments were received by this office after the response due date. These comments should be forwarded to the applicant and made a part of our previous comment package.

Thank you for the opportunity to respond.

Attachment

1601 Mail Service Center, Raleigh, North Carolina 27699-1601
Phone: 919-733-4984 \ FAX: 919-715-3060 \ Internet: www.enr.state.nc.us/ENR/

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North Carolina
Department of Environment and
Natural Resources

Michael F. Easley, Governor
William G. Ross Jr., Secretary

North Carolina
Division of Forest Resources

Wib L. Owen, Director

June 30th, 2008

MEMORANDUM

TO: Melba McGee, Office of Legislative Affairs

FROM: Ron Myers, NC Division of Forest Resources

SUBJECT: Start of study letter for TIP Project No. U-3633, in Gaston County.

PROJECT #: 08-0373

The North Carolina Division of Forest Resources has received the scoping document and asks that the following comments be addressed in the EA concerning impacts to woodlands.

1. In order to evaluate construction impact, list, by timber type, the total forest land acreage that is planned to be removed or taken out of forest production as a result of the project. Fragmentation of woodlots into small sections can make forest management difficult and should be avoided where possible. If minimal or no impacts will occur please state how this will be accomplished in the document.

2. Efforts should be made to avoid or minimize impact to forest resources. Areas to avoid include unique or unusual ecosystems, highly productive managed woodlands and wetlands. Additionally, efforts should be made to align corridors to minimize impacts to woodlands in the following order of priority:
   - Managed, high site index woodland
   - Productive forested woodlands
   - Managed, lower site index woodlands
   - Unique forest ecosystems
   - Unmanaged, fully stocked woodlands
   - Unmanaged, cutover woodlands
   - Urban woodlands

3. The EA should include a summary of the potential productivity of the forest stands affected by the proposed project. Potential productivity can be quantified by the soil series, and is found in the USDA Soil Survey for the county involved.

4. The provisions the contractor will take to utilize the merchantable timber removed during construction. Emphasis should be on selling all wood products. However, if the wood products cannot be sold then efforts should be made to haul off the material or turn it into mulch with a tub grinder. This practice will minimize the need for debris burning, and the risk of escaped fires and smoke management problems to residences, highways, schools, and towns.

5. If woodland burning is needed, the contractor must comply with the laws and regulations of open burning as covered under G.S. 113-60.21 through G.S. 113-60.31. Gaston County is classified as a non-high hazard counties, and G.S. 113-60.24 requiring a regular burning permit applies.

6. The provisions that the contractor will take to prevent erosion and damage to forestland. Trees, particularly the root system, can be permanently damaged by heavy equipment. Efforts should be made to avoid skinning of the tree trunk, compaction of the soil around the tree, adding excessive layers of fill, exposing the root system, or spilling petroleum or other substances.

We appreciate the opportunity to comment on the proposed project, and encourage the impact on our forestland be considered during the planning process.

Sincerely,

Ron Myers
Staff Forester – Hardwood Silviculture
Registered Forester #869, Certified Arborist #SO-5520A

cc: Barry New

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

Project Number
08-0373
County
Gaston

Inter-Agency Project Review Response

Project Name NC-DOT Type of Project NC 273 (South Main Street), 5-lane widening from South of Catawba Drive to Highland Street at Rankin Avenue.

☐ The applicant should be advised that plans and specifications for all water system improvements must be approved by the Division of Environmental Health prior to the award of a contract or the initiation of construction (as required by 15A NCAC 18C .0300et. seq.). For information, contact the Public Water Supply Section, (919) 733-2321.

☐ This project will be classified as a non-community public water supply and must comply with state and federal drinking water monitoring requirements. For more information the applicant should contact the Public Water Supply Section, (919) 733-2321.

☐ If this project is constructed as proposed, we will recommend closure of _____ feet of adjacent waters to the harvest of shellfish. For information regarding the shellfish sanitation program, the applicant should contact the Shellfish Sanitation Section at (252) 726-6827.

☐ The soil disposal area(s) proposed for this project may produce a mosquito breeding problem. For information concerning appropriate mosquito control measures, the applicant should contact the Public Health Pest Management Section at (919) 733-6407.

☐ The applicant should be advised that prior to the removal or demolition of dilapidated structures, an extensive rodent control program may be necessary in order to prevent the migration of the rodents to adjacent areas. For information concerning rodent control, contact the local health department or the Public Health Pest Management Section at (919) 733-6407.

☐ The applicant should be advised to contact the local health department regarding their requirements for septic tank installations (as required under 15A NCAC 18A. 1900 et. sep.). For information concerning septic tank and other on-site waste disposal methods, contact the On-Site Wastewater Section at (919) 733-2895.

☐ The applicant should be advised to contact the local health department regarding the sanitary facilities required for this project.

☒ If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Environmental Health, Public Water Supply Section, Technical Services Branch, 1634 Mail Service Center, Raleigh, North Carolina 27699-1634, (919) 733-2321.

☒ For Regional and Central Office comments, see the reverse side of this form.

Jim McRight	PWSS	6/19/08
Reviewer	Section/Branch	Date

JUN 24 2008

Project Number
08-0373
County
Gaston

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF ENVIRONMENTAL HEALTH

Inter-Agency Project Review Response

Project Name NC-DOT Type of Project NC 273 (South Main Street), 5-lane widening from South of Catawba Drive to Highland Street at Rankin Avenue.

Comments provided by:

- ☐ Regional Program Person
- ☒ Regional Supervisor for Public Water Supply Section
- ☐ Central Office program person

Name Britt Setzer-Mooresville RO Date 6/19/08

Telephone number: 704 235-2127

Program within Division of Environmental Health:

- ☐ Public Water Supply
- ☐ Other, Name of Program: _____

Response (check all applicable):

- ☐ No objection to project as proposed
- ☐ No comment
- ☐ Insufficient information to complete review
- ☐ Comments attached
- ☒ See comments below

RECEIVED Mooresville Office JUN 23 2009 NCDENR Public Water Supply

See comments on Inter Agency Project Review Response form.

Return to:
Public Water Supply Section
Environmental Review Coordinator
for the
Division of Environmental Health

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

STATE NUMBER: 08-E-4220-0373 F02
DATE RECEIVED: 06/10/2008
AGENCY RESPONSE: 07/07/2008
REVIEW CLOSED: 07/10/2008

MR JOHN GERBER
CLEARINGHOUSE COORD
CC&PS - DEM, NFIP
MSC # 4716
RALEIGH NC

REVIEW DISTRIBUTION
CC&PS - DEM, NFIP
CENTRALINA COG
DENR LEGISLATIVE AFFAIRS
DEPT OF AGRICULTURE
DEPT OF CUL RESOURCES
DEPT OF TRANSPORTATION

JUL 2008
RECEIVED
Secretary's Office
DOA

PROJECT INFORMATION
APPLICANT: N.C. Dept. of Transportation
TYPE: National Environmental Policy Act
ERD: Scoping
DESC: NC 273 (South Main Street), 5-lane widening from South of Catawba Drive to Highland Street at Rankin Avenue in Gaston County, TIP No. U-3633.

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED:

☐ NO COMMENT

☒ COMMENTS ATTACHED

SIGNED BY: _____

DATE: 6/30/08

North Carolina Department of Crime Control and Public Safety
Division of Emergency Management
Office of Geospatial and Technology Management
4719 Mail Service Center • Raleigh, NC 27699-4719

Michael F. Easley
Governor

Bryan E. Beatty
Secretary

June 25, 2008

4 JUL 2008
RECEIVED
Secretary's Office
DOA

MEMORANDUM

TO: Valerie W. McMillan, Director, State Environmental Policy Act

FROM: John Gerber, State NFIP Coordinator, NCFMP

SUBJECT: Clearing House Comments to # 08-E-4220-0373

The proposed widening of South Main Street include crossing Fites Creek which is a detailed studied stream with a regulatory floodway. North Carolina E.O. 123 directs NCDOT to coordinate with the FHWA and comply with the Federal E.O. 11988. This includes a certification that there will be no increase in the base flood elevations, floodway elevations, or change to the floodway widths as part of the proposed bridge widening. This analysis is referred to as a no-rise certification. If an increase in the base flood elevations or floodway elevations are anticipated, a Conditional Letter of Map Revision is required prior to any construction occurring within the Special Flood Hazard Areas.

The NCDOT and NCFMP have entered into an MOA that addresses no-rise certification reviews and map revisions due to decreases in the base flood elevations. Dr. David Chang, PE, Assistant State Hydraulics Engineer is the NCDOT point of contact for the MOA.

Please contact me at extension 106 if there are any questions.

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

RECEIVED
JUN 11 2008
HISTORIC PRESERVATION OFFICE

STATE NUMBER: 08-E-4220-0373 F02
DATE RECEIVED: 06/10/2008
AGENCY RESPONSE: 07/07/2008
REVIEW CLOSED: 07/10/2008

MS RENEE GLEDHILL-EARLEY
CLEARINGHOUSE COORD
DEPT OF CUL RESOURCES
ARCHIVES-HISTORY BLDG - MSC 4617
RALEIGH NC

ER 04-3040

REVIEW DISTRIBUTION
CC&PS - DEM, NFIP
CENTRALINA COG
DENR LEGISLATIVE AFFAIRS
DEPT OF AGRICULTURE
DEPT OF CUL RESOURCES
DEPT OF TRANSPORTATION

JUN 2008 RECEIVED Secretary's Office DOA

A - NO JIM/SS 6-17-08

S - See letter 6/10/08 CZS

PROJECT INFORMATION
APPLICANT: N.C. Dept. of Transportation
TYPE: National Environmental Policy Act
ERD: Scoping
DESC: NC 273 (South Main Street), 5-lane widening from South of Catawba Drive to Highland Street at Rankin Avenue in Gaston County, TIP No. U-3633.

Due 6/24/08

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED:

☐ NO COMMENT

☒ COMMENTS ATTACHED

SIGNED BY: Renee Gledhill-Earley

DATE: 6-17-08

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

June 17, 2008

JUN 2008
RECEIVED
Secretary's Office
DOA

MEMORANDUM

TO: Greg Thorpe, Ph.D., Director
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: Peter Sandbeck PBS for Peter Sandbeck

SUBJECT: NC 273, 5-Lane Widening from south of Catawba Drive to Highland Street at Rankin Avenue, U-3633, Gaston County, ER 04-3040

Thank you for your letter of June 6, 2008, concerning the above project.

There are no known archaeological sites within the proposed project area. Based on our knowledge of the area, it is unlikely that any archaeological resources that may be eligible for inclusion in the National Register of Historic Places will be affected by the project. We, therefore, recommend that no archaeological investigation be conducted in connection with this project.

We have conducted a search of our maps and files and have located the following district of historical or architectural importance within the general area of the project:

- GS 222, Adrian-Madora Textile District.

We recommend that a Department of Transportation architectural historian evaluate this district and report the findings to us.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT
Matt Wilkerson, NCDOT
SCH

Federal Aid # STP-0273(1) *TIP #* U-3633 *County*: Gaston

CONCURRENCE FORM FOR PROPERTIES NOT ELIGIBLE FOR THE NATIONAL REGISTER OF HISTORIC PLACES

Project Description: Widen NC 273 (South Main Street) in Mount Holly from Tuckaseege Road to Highland Street at South Main Street

On **15 September 2009**, representatives of the

- ☒ North Carolina Department of Transportation (NCDOT)
- ☐ Federal Highway Administration (FHWA)
- ☒ North Carolina State Historic Preservation Office (HPO)
- ☐ Other

Reviewed the subject project at historic architectural resources photograph review session/consultation and

All parties present agreed

- ☐ There are no properties over fifty years old within the project's Area of Potential Effects (APE).
- ☒ There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's APE.
- ☒ There are properties over fifty years old within the project's APE, but based on the historical information available and the photographs of each property, the properties identified as 1-52 are considered not eligible for the National Register and no further evaluation of them is necessary. Photographs of these properties are attached.
- ☒ There are no National Register-listed or Study Listed properties within the project's APE.
- ☒ All properties greater than 50 years of age located in the APE have been considered at this consultation, and based upon the above concurrence, all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- ☐ More information is requested on properties _____.

Signed:

Courtney Molloy — 15 SEPT. 2009
Representative, NCDOT — Date

FHWA, for the Division Administrator, or other Federal Agency — Date

Representative, HPO — Date

Renee Gledhill-Early — 9-15-09
State Historic Preservation Officer — Date

If a survey report is prepared, a final copy of this form and the attached list will be included.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

Beverley Eaves Perdue
GOVERNOR

Eugene A. Conti
SECRETARY

MEMO TO: Kristina Solberg, Project Engineer
Project Development and Environmental Analysis Branch

FROM: Robert Mosher, ASLA, AICP
Division of Bicycle and Pedestrian Transportation

DATE: March 19, 2009

SUBJECT: Scoping Comments for **U-3633**, NC 273 Widening, Mount Holly, NC Gaston County

In response to your request for information on U-3633, the widening of NC 273, South Main St., from Tuckaseegee Rd. to Highland St. in Mount Holly, NC; the Division of Bicycle and Pedestrian Transportation has the following comments:

In talking to the Town of Mt. Holly, Planning Dept., we have found that the town would like to work with us to provide pedestrian facilities along the project. They would like to consider AASHTO standard 5 ft. wide sidewalks on both sides of South Main St. Also, the town would like this project to address safe pedestrian crossings at the intersection of South Main and Tuckaseegee Rd., given the commercial land-uses and significant number of pedestrians walking from the Cloister Apartments.

In addition, our division suggests that you consider adding 14 ft. wide outside lanes to accommodate cyclists who would like to commute from downtown Mt. Holly to Belmont Abbey College and to the City of Belmont. This section of NC 273 would connect two Gaston Co. Bike Routes, Route 2 Cherryville – Mt. Holly Route and Route 4, Belmont Cramerton Route.

Also, Fites Creek is shown as a Greenway Corridor both on the Catawba Outdoor Corridor Plan and on the Carolina Thread Trail Plan. Fites Ck. flows into the Catawba River just upstream of the U.S. National Whitewater Center and directly connects to Tuckaseegee Park, a town park. Depending on cost and ease of construction, the town asks us to consider a greenway underpass to allow the trail to continue west along Fites Creek.

The Division of Bicycle and Pedestrian Transportation appreciates this opportunity to comment. Please contact us if there is a need for additional information.

cc: Tom Norman, Director, Division of Bicycle and Pedestrian Transportation

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
DIVISION OF BICYCLE & PEDESTRIAN TRANSPORTATION
1552 MAIL SERVICE CENTER
RALEIGH NC 27699-1552

TELEPHONE: 919-807-0772
FAX: 919-807-0773

WEBSITE: WWW.NCDOT.ORG/TRANSIT/BICYCLE/
EMAIL: RMOSHER@DOT.STATE.NC.US

LOCATION:
Cameron Village
401 OBERLIN ROAD
SUITE 250
RALEIGH NC 27601

Appendix C

Public Meetings Information

North Carolina Department of Transportation

Project Development and Environmental Analysis Branch

Citizen's Informational Workshop

NC 273 (South Main Street), from Tuckaseegee Road (at Beatty Drive) to Highland Street (at South Main Street)

Mount Holly

Gaston County

June 16, 2009

STIP PROJECT U-3633

CITIZENS INFORMATIONAL WORKSHOP

Proposed Widening of NC 273 (South Main Street)
Gaston County
STIP Number U-3633

PURPOSE OF THE CITIZENS INFORMATIONAL WORKSHOP

The purpose of this workshop is to involve the public in the project development process and to present the alternates under consideration for the proposed widening of NC 273 (South Main Street). Public involvement is an integral part of the North Carolina Department of Transportation's project development process. The concerns of citizens and interest groups are considered during project development studies. Often, additional project alternatives are studied or recommended alternatives are changed based on comments received from the public and/or local officials.

NCDOT realizes individuals living close to a proposed project want to be informed of the possible effects of the project on their homes and businesses. However, detailed information may not be available at this stage of the project development process. For example, design work is necessary before the actual right of way limits can be established. This type of detailed information will be available at a later date. The purpose of this workshop is to receive your comments *before* final design decisions are made.

Written comments on this project may be left with NCDOT representatives at the workshop or mailed to the address below. If additional information is needed or you would like to submit comments after the workshop, please address requests and comments to:

Write: Dr. Gregory Thorpe, Manager
ATTN: Kristina Solberg, PE, Project Planning Engineer
Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Call: Kristina Solberg, PE, Project Planning Engineer
(919) 733-7844 x 259

Email: klsolberg@ncdot.gov

THE PROJECT DEVELOPMENT PROCESS

Planning and environmental studies for federally funded highway projects are conducted in order to comply with the National Environmental Policy Act (NEPA). The type of document published following the planning study depends on the magnitude of the project and its expected environmental impact. NCDOT is preparing an Environmental Assessment (EA) for this project.

The Environmental Assessment will discuss the purpose and need for the proposed improvements, evaluate alternatives, and analyze the project's impact on both the human and natural environment. The document will address the following areas of concern:

Efficiency and safety of travel	Wildlife and plant communities
Neighborhoods and communities	Water quality
Relocation of homes and businesses	Floodplains and streams
Economy of project area	Farmland
Land use plans	Archaeological sites
Historic properties	Hazardous materials
Wetlands	Traffic noise
Endangered species	Air quality

Following the completion of the EA, NCDOT will conduct a Public Hearing to review the proposed project design.

OPPORTUNITIES FOR PUBLIC AWARENESS

SCOPING LETTER - Published in the NC Environmental Bulletin. This letter notifies agencies and groups on the State Clearinghouse mailing list that a project study has been initiated and solicits comments from them.

CITIZENS INFORMATIONAL WORKSHOP (WE ARE HERE) – Informal meeting with the public. NCDOT staff conducts these workshops to speak one-on-one with citizens about projects. Comment sheets are provided for citizens to write down their questions, comments, and concerns. The number of workshops scheduled for a project depends on the scope and anticipated impact of the project.

DOCUMENT DISTRIBUTION – Copies of environmental documents are submitted to the State Clearinghouse for distribution and a notice is published in the NC Environmental Bulletin. Upon request, NCDOT will provide copies of the document to the public. Copies are available for public viewing at NCDOT Raleigh and Division offices, the State Clearinghouse office, local government offices, including the local council of government office, and local public libraries.

PUBLIC HEARING – One or more formal public hearings are held and public comments are recorded. Format typically involves a short presentation followed by an opportunity for citizens to comment.

CITIZEN LETTER – Citizens are encouraged to write NCDOT and provide information and express concerns regarding proposed improvements at anytime during the process. Correspondence from citizens and interest groups is considered during the course of planning study and is included in the project file.

PROPOSED PROJECT IMPROVEMENTS

NCDOT STIP Project U-3633 proposes widening NC 273 (South Main Street) from Tuckaseegee Road (at Beatty Drive) to Highland Street (at South Main Street) in Mount Holly. Additional lanes on NC 273 (South Main Street) will improve the traffic flow and as a result, relieve congestion in that area. The proposed project is 1.1 miles in length.

PROJECT PURPOSE AND NEED

The purpose of the proposed project is to relieve congestion on NC 273 (South Main Street) for local and regional traffic from Tuckaseegee Road (at Beatty Drive) to Highland Street (at South Main Street), thereby improving mobility and safety.

MOBILITY

This segment of NC 273 (South Main Street) traffic volumes are expected to almost double by the design year of 2035. Currently, traffic volumes along the project range from 17,100 to 23,000 vehicles per day (vpd). In the design year 2035, traffic volumes are expected to range from 31,600 to 42,300 vpd. If this segment of NC 273 (South Main Street) in Gaston County is not widened, it is expected that traffic volumes on the project will exceed the current capacity of the existing facility by at least 100%. This segment of NC 273 (South Main Street) is currently operating at a level of service (LOS) F and is projected to be operating at a more congested LOS F by the design year 2035.

According to the Highway Capacity Manual, LOS is defined as "a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers." There are six levels of service and they are given letter designations from A to F. A represents the best operating conditions and F represents the worst. LOS F is described as the condition representing unstable flow and high vehicle delay.

SAFETY

During a three-year period from January 2006 to December 2008, there were 125 crashes recorded on NC 273 (South Main Street) within the proposed project limits. Rear-end crashes accounted for 50 % of total crashes and were distributed along the length of the project. Angled collisions accounted for another 13% of the accidents. These accidents were spread throughout the week and occurred at various times during the day. The crash rate within the project limits for the same time period was 441 accidents per 100 million vehicle miles traveled (100MVMT), which exceeds the statewide critical crash rate (358 100MVMT) for the same period. Crash rates above the statewide critical rate represent a safety problem.

EXISTING CONDITIONS

NC 273 (South Main Street) is predominantly a 2-lane undivided facility along the project, from Tuckaseegee Road to Highland Street. The posted speed limit outside Mount Holly city limits is 55 mph and 45 mph. Within the city limits the speed limit is 35 mph. Right of way width along the project is generally 60 feet. NC 273 (South Main Street) intersects with several roads that are stop sign controlled. The exceptions are at Tuckaseegee Road at Belmont Mount Holly Road where there is a signalized intersection at the beginning of the project (southern terminus). At the end of the project (northern terminus) there are two signalized intersections- one at Rankin Avenue and another at Highland Street at South Main Street. There is one triple barrel box culvert on the project that spans Fites Creek.

POTENTIAL ENVIRONMENTAL CONCERNS

The proposed improvements to NC 273 (South Main Street) may include impacts to both the human and natural environments. Detailed planned studies and surveys will be conducted by field personnel in the coming months. These surveys will help identify and measure further impacts with more detail. Several known areas of concern are discussed below.

Natural Environment

- There is potential habitat for the federally protected Schweinitz's sunflower (*Helianthus schweinitzii*) that may be within the project limits.

- Fites Creek, a perennial stream that is within the project limits, is located near the middle of the project and runs perpendicular to NC 273.

Human Environment

- Several residential properties are located throughout the project. There may be impacts to these residential properties.

- There are several businesses at or near the intersection of Tuckaseegee Road/ Rankin Avenue and Highland Street at NC 273 (South Main Street). These businesses may be impacted by the widening of NC 273 (South Main Street).

- A greenway corridor intersects NC 273 (South Main Street) within the project limits at Fites Creek. A key component of this future greenway corridor is connectivity to Tuckaseegee Park, which abuts the Catawba River and provides riverfront access and other park services.

PROJECT SCHEDULE AND COSTS

Currently, NCDOT is scheduled to complete an Environmental Assessment (EA) in May, 2011. A public hearing is anticipated four to six months after the completion of the document. A preliminary design will be presented at the public hearing. The FONSI (Finding of No Significant Impact) is the final environmental document and is scheduled for completion in August, 2012. Currently, the Right of Way for this project is scheduled for purchase in the federal fiscal year (FFY) 2013 and construction is scheduled for the federal fiscal year 2015. The construction cost is funded in the 2009-2015 Transportation Improvement Program. This schedule is subject to change.

NCDOT's 2009-2015 STATE TRANSPORTATION IMPROVEMENT PROGRAM		
PROJECT STAGE	**STIP SCHEDULE**	**ESTIMATED COSTS**
RIGHT OF WAY	Federal Fiscal Year 2013	$700,000
CONSTRUCTION	Federal Fiscal Year 2015	$7,400,000
TOTAL CONSTRUCTION COST		$8,100,000

OTHER STIP PROJECTS IN THE AREA

R-2206 NC 16, from South of Lucia in Gaston County to SR 1895 (Tower Road) in Catawba County. Four lanes divided on new location.

A, AA, B and C	Complete
BA and CA	Under construction

B-4118 SR 1905 over Stanley Creek. Replace Bridge No. 200. Gaston County

ROW	2010
Construction	2011

B-4751 SR 1935 over Stanley Creek. Replace Bridge No. 203. Gaston County

ROW	Future Years
Construction	Future Years

COMMENT SHEET

NC 273 (SOUTH MAIN STREET) WIDENING, FROM TUCKASEEGEE ROAD (AT BEATTY DRIVE) TO HIGHLAND STREET (AT SOUTH MAIN STREET),

MOUNT HOLLY

GASTON COUNTY

STIP NUMBER U-3633

June 16, 2009

Name: _____

(please print)

Address: _____

City: _____ State: _____ Zip Code: _____

Comments, concerns, and/or questions regarding STIP U-3633:

Please continue on a separate sheet of paper if necessary. Send comments to: Dr. Gregory Thorpe, ATTN: Kristina Solberg, PE, Project Development and Environmental Analysis Branch, North Carolina Department of Transportation, 1548 Mail Service Center, Raleigh, NC 27699-1548

Citizens Informational Workshop
Comment Sheet (Continued)
U-3633

Was the project adequately explained to you? Yes _____ No _____

Were NCDOT representatives understandable and clear in their explanations?
Yes _____ No _____ Further comments: _____

_____

_____

Were NCDOT representatives courteous and helpful? Yes _____ No _____

_____

_____

Were display maps and handouts easy to read and understand? Yes _____ No _____

How might we better present proposed projects and address citizens' concerns in future informational workshops?

_____

_____

_____

How did you hear about this meeting today?

_____

_____

_____

Based on the information available, were all substantial questions answered?
Yes _____ No _____

_____

_____

What was the most helpful aspect about the workshop today? What was the least helpful?

_____

_____

_____

_____

THANK YOU FOR ATTENDING THE WORKSHOP.
YOUR COMMENTS ARE VERY IMPORTANT IN THE PLANNING PROCESS.

Appendix D

NCDOT Relocation Report and
Relocation Programs

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	37649.1.1	COUNTY	Gaston	Alternate 1 of 2 Alternate
T.I.P. NO.:	U-3633	F.A. Project	STP-0273(1)	
DESCRIPTION OF PROJECT:	NC 273 (South Main Street) widen to Multi-lanes from Tuckaseegee Road to Highland Street			

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	7	2	9	2
Businesses	7	2	9	1
Farms	0	0	0	0
Non-Profit	1	0	1	0

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	2	4	3	0

VALUE OF DWELLING				DSS DWELLING AVAILABLE			
Owners		Tenants		For Sale		For Rent	
0-20M	0	$ 0-150	0	0-20M	0	$ 0-150	0
20-40M	0	150-250	0	20-40M	0	150-250	0
40-70M	3	250-400	0	40-70M	6	250-400	0
70-100M	2	400-600	2	70-100M	10	400-600	4
100 UP	2	600 UP	0	100 UP	4	600 UP	1
TOTAL	7		2		20		5

ANSWER ALL QUESTIONS

Yes	No	*Explain all "YES" answers.*
	X	1. Will special relocation services be necessary?
	X	2. Will schools or churches be affected by displacement?
X		3. Will business services still be available after project?
X		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	X	5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
	X	7. Will additional housing programs be needed?
X		8. Should Last Resort Housing be considered?
	X	9. Are there large, disabled, elderly, etc. families?
	X	10. Will public housing be needed for project?
X		11. Is public housing available?
X		12. Is it felt there will be adequate DSS housing housing available during relocation period?
	X	13. Will there be a problem of housing within financial means?
X		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? **18 Months**

REMARKS (respond by number)

3. Places available to relocate businesses. See #6 below.

4.The Java Bean Gourmet Coffee House -1500SF – 2 employees and 0 minorities

Citgo Corporation – 2500 SF- 4 employees- 1 minority
Super Clean Car Wash- 2 employees
Handy Pantry Store- 3000 SF – 6 employees- 2 minorities
Town Square Barber Shop- 600 SF- 2 employees –0 minority
Extol Hair Therapy- 600 SF- 2 employees- 0 minority

Ivets Salon- 900 SF- 3 employees – 2 minorities

L & E Properties- 3500 SF- 12 employees – 2 minorities
Carolina Digestive Health Assoc.- 6000 SF- 12 employees- 3 minorities

6. MLS, Newspapers, realtors, Real Estate publications, on Ground canvassing, apt. quides
8. Will be administrated according to State Law.
11. Section 8 Housing in Gaston County.
12. There are no Government Programs competing for housing.

14. MLS, Newspapers, realtors, Real Estate publications.

1 nonprofit –Mount Holly Fire & Rescue- 2500 SF- 4 employees 0 minority.

Darryl L. Harris	June 28, 2010		7/1/10
Darryl L. Harris Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	37649.1.1	COUNTY	Gaston	Alternate	2	of	2	Alternate
T.I.P. NO.:	U-3633	F.A. Project	STP-0273(1)					
DESCRIPTION OF PROJECT:	NC 273 (South Main Street) widen to Multi-lanes from Tuckaseegee Road to Highland Street							

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	7	2	9	2
Businesses	8	3	11	3
Farms	0	0	0	0
Non-Profit	1	0	1	0

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	2	4	3	0

VALUE OF DWELLING				DSS DWELLING AVAILABLE			
Owners		Tenants		For Sale		For Rent	
0-20M	0	$ 0-150	0	0-20M	0	$ 0-150	0
20-40M	0	150-250	0	20-40M	0	150-250	0
40-70M	3	250-400	0	40-70M	6	250-400	0
70-100M	2	400-600	2	70-100M	10	400-600	4
100 UP	2	600 UP	0	100 UP	4	600 UP	1
TOTAL	7		2		20		5

ANSWER ALL QUESTIONS

Yes	No		*Explain all "YES" answers.*
	X	1.	Will special relocation services be necessary?
	X	2.	Will schools or churches be affected by displacement?
X		3.	Will business services still be available after project?
X		4.	Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	X	5.	Will relocation cause a housing shortage?
		6.	Source for available housing (list).
	X	7.	Will additional housing programs be needed?
X		8.	Should Last Resort Housing be considered?
	X	9.	Are there large, disabled, elderly, etc. families?
	X	10.	Will public housing be needed for project?
X		11.	Is public housing available?
X		12.	Is it felt there will be adequate DSS housing housing available during relocation period?
	X	13.	Will there be a problem of housing within financial means?
X		14.	Are suitable business sites available (list source).
		15.	Number months estimated to complete

RELOCATION? **18 Months**

REMARKS (Respond by Number)

3. Places available for businesses to relocate to. See #6.

4.The Java Bean Gourmet Coffee House -1500SF – 2 employees and 0 minorities

Citgo Corporation – 2500 SF- 4 employees- 1 minority

Super Clean Car Wash- 2 employees

Handy Pantry Store- 3000 SF – 6 employees- 2 minorities

Town Square Barber Shop- 600 SF- 2 employees –0 minority

Extol Hair Therapy- 600 SF- 2 employees- 0 minority

Ivets Salon- 900 SF- 3 employees – 2 minorities

L & E Properties- 3500 SF- 12 employees – 2 minorities

Carolina Digestive Health Assoc.- 6000 SF- 12 employees- 3 Minorities

Wimco Convenient Store- 2500 SF- 5 employees- 2 minorities

Catawba Heights Laundromat- 1500 SF- 3 employees- 1 minority

6. MLS, Newspapers, realtors, Real Estate publications, on Ground canvassing, apt. quides

8. Will be administrated according to State Law.

11. Section 8 Housing in Gaston County.

12. There are no Government Programs competing for housing.

14. MLS, Newspapers, realtors, Real Estate publications.

*1 nonprofit –Mount Holly Fire & Rescue- 2500 SF- 4 employees

Darryl L. Harris	June 28, 2010		7/1/10
Darryl L. Harris Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E

DIVISION OF HIGHWAYS RELOCATION PROGRAMS

It is the policy of NCDOT to ensure comparable replacement housing will be available prior to construction of state and federally-assisted projects. Furthermore, the North Carolina Board of Transportation has the following three programs to minimize the inconvenience of relocation:

- Relocation Assistance
- Relocation Moving Payments
- Relocation Replacement Housing Payments or Rent Supplement

As part of the Relocation Assistance Program, experienced NCDOT staff will be available to assist displacees with information such as availability and prices of homes, apartments, or businesses for sale or rent and financing or other housing programs. The Relocation Moving Payments Program, in general, provides for payment of actual moving expenses encountered in relocation. Where displacement will force an owner or tenant to purchase or rent property of higher cost or to lose a favorable financing arrangement (in case of ownership), the Relocation Replacement Housing Payments or Rent Supplement Program will compensate up to $22,500 to owners who are eligible and qualify and up to $5,250 to tenants who are eligible and qualify.

The relocation program for the proposed action will be conducted in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646) and/or the North Carolina Relocation Assistance Act (GS-133-5 through 133-18). The program is designed to provide assistance to displaced persons in relocating to a replacement site in which to live or do business. At least one relocation officer is assigned to each highway project for this purpose.

The relocation officer will determine the needs of displaced families, individuals, businesses, non-profit organizations, and farm operations for relocation assistance advisory services without regard to race, color, religion, sex, or national origin. The NCDOT will schedule its work to allow ample time, prior to displacement, for negotiations and possession of replacement housing which meets decent, safe, and sanitary standards. The displacees are given at least a 90-day written notice after NCDOT purchases the property. Relocation of displaced persons will be offered in areas not generally less desirable in regard to public utilities and commercial facilities. Rent and sale prices of replacement property will be within the financial means of the families and individuals displaced and will be reasonably accessible to their places of employment. The relocation officer will also assist owners of displaced businesses, non-profit organizations, and farm operations in searching for and moving to replacement property.

All tenant and owner residential occupants who may be displaced will receive an explanation regarding all available options, such as (1) purchase of replacement housing, (2) rental of replacement housing, either private or public, or (3) moving existing owner-occupant housing to another site (if possible). The relocation officer will also supply

information concerning other state and federal programs offering assistance to displaced persons and will provide other advisory services as needed in order to minimize hardships to displaced persons in adjusting to a new location.

The Moving Expense Payments Program is designed to compensate the displacee for the costs of moving personal property from homes, businesses, non-profit organizations, and farm operations acquired for a highway project. Under the Replacement Program for Owners, NCDOT will participate in reasonable incidental purchase payments for replacement dwellings such as attorney's fees, surveys, appraisals, and other closing costs and, if applicable, make a payment for any increased interest expenses for replacement dwellings. Reimbursement to owner-occupants for replacement housing payments, increased interest payments, and incidental purchase expenses may not exceed $22,500 (combined total), except under the Last Resort Housing provision.

A displaced tenant may be eligible to receive a payment, not to exceed $5,250, to rent a replacement dwelling or to make a down payment, including incidental expenses, on the purchase of a replacement dwelling. The down payment is based upon what the state determines is required when the rent supplement exceeds $5,250.

It is a policy of the state that no person will be displaced by the NCDOT's state of federally-assisted construction projects unless and until comparable replacement housing has been offered or provided for each displacee within a reasonable period of time prior to displacement. No relocation payment received will be considered as income for the purposes of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other federal law.

Last Resort Housing is a program used when comparable replacement housing is not available, or when it is unavailable within the displacee's financial means, and the replacement payment exceeds the federal/state legal limitation. The purpose of the program is to allow broad latitudes in methods of implementation by the state so that decent, safe, and sanitary replacement housing can be provided. It is not felt that this program will be necessary on the project, since there appear to be adequate opportunities for relocation within the area.