

North Capitol Street Corridor Transportation Study

Scope of Work

June 15, 2004

Purpose

The District Department of Transportation (DDOT) proposes to investigate transportation improvements in the North Capitol Street area, between G Street and Rhode Island Avenue. These efforts are in response to citizen concerns regarding speeding traffic, pedestrian conflicts and safety concerns. The purpose of the study is to examine existing transportation conditions in the study area, determine short-term and long-term transportation and infrastructure improvements and prepare the engineering design plans to implement these improvements. These improvements are intended to improve safety and efficiency of movement for pedestrians, and improve vehicular flow, while still meeting the needs of pedestrians.

Background

The North Capitol Street area is a heavily traveled roadway that moves approximately 37,000 vehicles daily both northbound and southbound through the city. Between G Street and Rhode Island Avenue, North Capitol Street is a principal arterial surface roadway, passing through neighborhoods, with a posted speed limit of 25 miles per hour.

Since North Capitol Street's Main Street designation, the community has been interested in improving the traffic flow and safety in this area. The community has also expressed an interest in the feasibility reconstructing Truxton Circle, which was located at the intersection of North Capitol Street and Florida Avenue until 1946. They believe it will help return the local communities of to a more traditional, local type of traffic pattern.

DDOT recently completed a study of several corridors with high crash intersections (Corridors with High Crash Intersections, March 2003). North Capitol Street was one of the corridors included in the study. The March 2003 study presents general recommendations to improve safety at key intersections in the North Capitol Street Corridor. In this project, the Consultant will review the general recommendations included in the March 2003 project for the following intersections:

1. North Capitol Street & M Street
2. North Capitol Street & New York Avenue

The Consultant will refine and provide more detail on the recommended improvements and will develop recommendations on needed improvements at other intersections in the study area.

Study Area

The study area for this project is bounded by the following:

1. North Capitol Street on the east
2. First Street NW on the West
3. G Street on the south
4. Rhode Island Avenue on the north

Definition of Work

The Consultant will examine existing traffic conditions in the study area, estimate projected future, year 2014 traffic conditions using traffic growth factors and make recommendations to improve mobility and traffic safety. Over a 28-week period, the Consultant will investigate current and future needs regarding vehicle and pedestrian mobility and safety and work in close connection with community stakeholders in addressing their safety concerns. The consultant will develop engineering design plans necessary for the construction of the recommended improvements the following eight study area intersections:

1. North Capitol Street & M Street
2. North Capitol Street & New York Avenue
3. North Capitol Street & Florida Avenue
4. North Capitol Street & Rhode Island Avenue
5. 1st Street NW & Q Street NW
6. 1st Street NW & New York Avenue
7. 1st Street NW & Florida Avenue
8. 1st Street NW & Rhode Island Avenue

Description of Work to be Performed

Task 1: Kickoff Meeting

The Consultant shall hold an internal meeting with representatives from DDOT to mark the beginning of the project. Data requirements, the project scope of work and schedule will be discussed.

Task #1 to be completed Week 1

Task 2: Project Coordination Meetings

The Consultant shall hold up to five meetings with DDOT representatives to discuss project status, public meeting strategies and submittals. The Consultant will produce meeting minutes.

Task #2 to be conducted throughout the 28-week duration of the project

Task 3: Public Meetings

The Consultant shall develop a meaningful community participation process that will consist of four meetings with community stakeholders in the North Capitol Street study area. The purpose of these meetings shall be to obtain input for assessment of intersection improvements and the development of the concept designs. The first meeting will be held with Advisory Neighborhood Commission 5C and other local community groups and stakeholders to discuss the proposed scope of work and schedule, and receive public comment. This meeting will be scheduled for the second week of the study. The aim of this meeting will be to announce the project to the neighborhood, outline the projected timeframe for the study and introduce the Consultant to community stakeholders. This meeting will also allow for community input in refining the study scope of work.

The second public meeting will occur after Task 4 (Collection and Consolidation of Data) is completed and will provide the community with an opportunity to comment on the data collection phase and discuss preliminary Short-Term and Long-Term improvements options.

The third public meeting will be held after Task 7 (Development of Improvement Options) is completed. At this meeting, the community can comment on the preliminary findings and recommendations.

The fourth public meeting will be held after 30% design plans are completed. This meeting will allow for a presentation of the recommended improvements.

With the assistance of the District Department of Transportation and the Office of Planning, the Consultant shall develop a project contact/ mailing list of parties within the study area and other interested parties. The Consultant shall provide notice of public meetings through local community newspapers, neighborhood flyering and leafleting, and mailings to key community and business groups. The consultant will prepare meeting minutes for the first three public meetings. No meeting minutes will be prepared for the fourth meeting. All public meetings will be held in Ward 5.

Task #3 to be completed

- **Meeting 1 – by the end of Week 2**
- **Meeting 2 – by the end of Week 6**
- **Meeting 3 – by the end of Week 12**
- **Meeting 4 – by the end of Week 20**

Task 4: Collect and Consolidate Data

The Consultant will collect data on the following elements:

- A. Existing traffic volumes for roadway segments within the study area. This includes mapping, aerial photography, historical research and other materials available from the D.C. Office of Planning, DDOT Transportation Policy and Planning, Traffic Services Administration, and other District and Federal government agencies.

- B. Signal timing information for all the signalized intersections in the study area
- C. Information from traffic studies conducted in the study area within the past two years.
- D. Field reconnaissance of the corridor area noting existing land uses, existing roadway geometric and traffic control conditions, traffic flow patterns, transit facilities and services, pedestrian facilities, bicycle facilities (if any), as well as opportunities and constraints pertaining to access from the intersecting sidestreets and driveways.
- E. Review recommendations included in the Corridors with High Crash Intersections report prepared for DDOT dated March 2003.
- F. Conduct field studies to identify vehicular and pedestrian traffic characteristics, during the morning peak period (7 AM to 9 AM) and the afternoon peak period (4:30 PM to 6:30 PM) on typical weekdays.
- G. Conduct turning movement counts during the morning peak period (7 AM to 9 AM) and the afternoon peak period (4:30 PM to 6:30 PM) on typical weekdays at the key intersections listed below:
 - 1. North Capitol Street and M Street
 - 2. North Capitol Street and New York Avenue
 - 3. North Capitol Street and P Street
 - 4. North Capitol Street and Florida Avenue
 - 5. North Capitol Street and R Street
 - 6. North Capitol Street and Randolph Place
 - 7. North Capitol Street and Rhode Island Avenue
 - 8. 1st Street NW and New York Avenue
 - 9. 1st Street NW and O Street
 - 10. 1st Street NW and P Street
 - 11. 1st Street NW and Q Street
 - 12. 1st Street NW and Florida Avenue
 - 13. 1st Street NW and Rhode Island Avenue / T Street

Turning movement counts will include vehicular counts, bicycle counts and pedestrian counts.

- H. Conduct automated volume, speed and classification counts for a period of two weeks at the following locations:
 - 1. North Capitol Street between G Street and New York Avenue
 - 2. North Capitol Street between New York Avenue and Florida Avenue
 - 3. North Capitol Street between Florida Avenue and Rhode Island Avenue
- I. Observations of pedestrian traffic within the study area, including pedestrian crossing of North Capitol Street inconsistent with traffic regulations.

- J. The Consultant will prepare a brief report of findings regarding traffic and safety identified through Task 2 and make 20 copies available to District agencies, ANC 5C and other interested community groups.

Task #4 to be completed Week 5

Task 5: Public meeting

As described in Task #3, the Consultant will conduct a public meeting to review transportation data collected in Task #4 and obtain comments on potential improvement options from ANC 5C and other community groups and stakeholders in the study area.

Task #5 to be completed Week 6

Task 6: Transportation Impacts and Simulations

Using the data collected in Task #4, the Consultant shall develop computerized traffic simulation models of existing conditions (AM Peak hour and PM Peak hour). The computerized traffic simulation models will be used to evaluate traffic operations impacts. The Synchro software traffic modeling program will be used for this analysis.

The Consultant will estimate future trips applying a growth factor to develop year 2014 design volumes. Existing safety and transportation deficiencies as well as the impacts on traffic associated with growth and future year traffic will be assessed.

Task #6 to be completed Week 8

Task 7: Development of Improvement Options

The Consultant will analyze the current vehicular, pedestrian and bicycle traffic conditions as well as the recommendations included in “Corridors with High Crash Intersections” and develop descriptions of recommended improvements and preliminary drawings for the improvement options which could be implemented to improve safety and mobility and reduce congestion, such as traffic control measures, traffic calming measures, improved signage, signalization, channelization, etc. As part of this analysis the Consultant will assess the impact of the proposed improvements on safety, mobility and level of service.

Using the computerized traffic simulation models, the Consultant will analyze the feasibility of converting the intersection of North Capitol Street with Florida Avenue, Q Street and Lincoln Road from a signalized intersection to a traffic circle. The Consultant will develop and analyze measures of effectiveness to determine the feasibility of reconstructing Truxton Circle to replace this intersection.

The Consultant will prepare a report summarizing the results of this task. This report will include sketch planning drawings of the recommended improvements as well the feasibility assessment of the reconstruction of Truxton Circle.

Task #7 to be completed Week 11

Task 8: Public meeting

As described in Task #3, the Consultant will conduct a public meeting to discuss the recommended improvements with the ANC 5C, community groups and other stakeholders in the study area and obtain comments.

Task #8 to be completed Week 12

Task 9: Engineering Design Plans

The Consultant will develop engineering design plans, cost estimates and specifications for the construction of the improvements developed in Task 7 for the following eight intersections:

1. North Capitol Street and New York Avenue
2. North Capitol Street and Florida Avenue
3. North Capitol Street and Rhode Island Avenue
4. North Capitol Street and M Street
5. 1st Street NW & Q Street NW
6. 1st Street NW & New York Avenue
7. 1st Street NW & Florida Avenue
8. 1st Street NW & Rhode Island Avenue

The development of these design plans will require the conduct engineering surveys at each of these intersections.

The Consultant will submit the deliverables noted below at each project phase:

Preliminary Design (30% Submission)

Preliminary Design Plans	5 sets of blacklines
Preliminary Construction Estimate	2 copies

Intermediate Review (60% Submission)

Intermediate Design Plans	5 sets of blacklines
Preliminary Special Provisions	5 sets
Intermediate Construction Estimate	2 copies

Final Design Review (90% Submission)

Final Design Plans	5 sets of blueines
Special Provisions and Pay Item Schedule	5 copies
Final Construction Estimate	2 copies
Design Computations	2 copies

Corrections

Construction Contract Drawings	1 set
Construction Estimate	1 set
Pay Item Schedule	1 set

Special Provisions	1 set
PS&E Submission	2 sets
Final Bid Documents	1 set of mylar
MicroStation CADD files	1 CD ROM
Construction Estimate	1 set
Pay Item Schedule	1 set
Special Provisions	1 set
Final Special Provisions	5 sets
Half-Size Final Contract Plans	5 sets
Full Size Reproducible (vellums)	2 sets

The design plans will be prepared consistent with standards of the District Department of Transportation and will be signed by a certified professional engineer.

Task #9 to be completed Week 28

Task 10: Public Meeting

As described in Task #3, the fourth public meeting will be held after 30% design plans are completed. This meeting will allow for a presentation of the recommended improvements.

Task #10 to be completed Week 20

Deliverables

- Detailed scope of work and study schedule and project budget. (20 copies)
- Preliminary report on transportation findings (20 copies)
- Report on recommended improvements (20 copies)
- Design plans (see list of deliverables listed in Task 9)

Coordination

Consultant will work closely with the DDOT Transportation Policy and Planning, Traffic Services Administration, the ANCs from the neighborhood, other community groups, stakeholders and the D.C. Office of Planning.

Key Dates/Schedule

Week 1: Kickoff meeting with DDOT and D.C. Office of Planning.

Week 2: Conduct a public scoping meeting with local ANC 5C and community groups.

Week 5: Determine existing traffic volumes and level of service for roadway segments within the study area. Identify turning motions at key intersections.

Week 6: Public meeting

Week 11: Identify short-term and long-term improvements to improve mobility, safety and reduce congestion.

Week 12: Public meeting

Week 20: Public meeting

Week 28: Complete engineering design