

Traffic and Parking Assessment

Georgetown University Multi-Sports Facility, Athletic Training Facility and New Science Center

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TABLE OF CONTENTS

List of Figures-----	ii
List of Tables -----	ii
Executive Summary-----	iii
Introduction -----	1
Existing Parking Conditions-----	3
Existing Transportation Conditions -----	4
South Campus Ingress/Egress -----	4
Campus Transportation Management Program -----	7
Campus Transit Access -----	7
Future Parking and Transportation Conditions-----	10
Characteristics of the Proposed Projects-----	10
South Campus Ingress/Egress Improvements-----	11
Conclusion -----	15



LIST OF FIGURES

Figure 1: Georgetown Academic Campus Vehicular Access Locations..... 5

Figure 2: Georgetown Academic Campus Vehicular Access Routing (Existing)..... 6

Figure 3: Georgetown Academic Campus Transit Access (Existing) 9

Figure 4: Georgetown Academic Campus Vehicular Access (Future) 13

Figure 5: Georgetown Academic Campus Transit Access (Future) 14

LIST OF TABLES

Table 1: Commuter Trip Distribution 11

Table 2: Commuter Volumes 12



EXECUTIVE SUMMARY

The following report presents the findings of traffic and parking assessment for Georgetown University in support of the zoning application for the development of three proposed new buildings: an Athletic Training Facility, a Multi-Sport Facility, and a New Science Center.

In 2005, Georgetown University adopted and the Board of Zoning Adjustment (BZA) approved a revised Campus Master Plan that addresses parking and traffic impacts due to new development on the campus. The Transportation Management portion of the Campus Master Plan included several key components such as:

- A parking cap which places a maximum on the number of parking spaces creating a finite limit on personal vehicle use;
- An effective public transportation policy and the provision of bus service;
- A set of parking policies which discourage personal vehicle use, but at the same time encourage those who drive to park on campus rather than in the adjoining neighborhoods; and
- Other demand management measures that complement the University's student housing policies to minimize the University's community impacts on traffic and parking.

Based on analysis conducted for this study and other Gorove/Slade studies for Georgetown University analyzing peak hour traffic volumes, we conclude that the Athletic Training Facility, Multi-Sports Facility, and New Science Center will not increase vehicular traffic and will not create additional parking demand on the residential streets surrounding the University's main campus.

Some traffic pattern changes are anticipated with the installation of a median break and traffic signal at the Canal Road campus access point. Improvements at the Canal Road access are nearing completion. The improvements will make all traffic movements possible, which will draw traffic away from the Prospect Street campus entrance. This will reduce campus generated traffic on residential streets.



INTRODUCTION

This report presents an assessment of traffic and parking impacts for the planned construction of a new Athletic Training Facility (ATF), a new Multi-Sports Facility (MSF) and a New Science Center (NSC) at Georgetown University's (GU) main campus in the Northwest Quadrant of Washington, D.C. The primary purpose of this study is to evaluate the local parking and traffic impacts of the ATF, MSF and NSC developments on the surrounding roadway network and on neighborhood residents. This report was produced in support of the University's zoning application for the planned facilities.

The ATF will consist of approximately 94,280 square feet and have five (5) stories; two of the five stories will be below grade. The project is expected to be complete by a date to be determined. The ATF will provide space for the basketball program that will relocate out of the old gymnasium building. The new facility will not result in an increase in staff or coach staff size; it will be a decompression of the current space constraints in the existing facility. The new ATF will include locker rooms, training rooms, strength and conditioning, and other related uses. The new ATF will not have parking.

The MSF will be a 17,371 square foot structure and is expected to be complete by a date to be determined. This structure was previously submitted to the Zoning Commission and is being reprogrammed. The Zoning Commission Case number for the project was 05-31. The initial program called for 41,397 gross square feet. This facility has been reduced by 24,026 feet below the previous proposal. The facility will be a new sports facility for football, lacrosse, and soccer including support spaces and seating for 4,500 people. The existing facility, Harbin Field, is in roughly the same location and includes a field and stands for 3,700 people with no support facilities. The new MSF will include concessions, restrooms, press boxes, and other related uses. The new MSF will not have parking. Most of the spectators are students who walk to the facility, which greatly reduces traffic and parking demand associated with events at the MSF. Most events will be scheduled for evenings or weekends.

The NSC will consist of a 38,801 square foot, five (5) story academic building. A substantial portion of the NSC's first floor is below grade and it contains approximately 109,335 square feet of gross floor area. No parking spaces are to be added but a bicycle rack for forty (40) bicycles will be installed. The project is expected to be completed by 2011. The NSC will provide space for existing science uses currently located in the adjacent Reiss Science Building. The new facility will not result in an increase in student or staff populations; it will be a decompression of the current space constraints in the existing facility. The facility will signify the University's commitment to state-of-the-art science education and research and support educational quality at a level commensurate with peer institutions. The facility will allow the University to fulfill major objectives related to its academic mission and student life goals.

As part of this assessment, the following tasks were completed:

- Traffic volumes at two campus ingress/egress points were studied; Prospect Street at 37th



Street and the Canal Road entrance; and

- Parking and traffic impacts of new facilities were assessed.

EXISTING PARKING CONDITIONS

Campus parking facilities are gated and monitored closely to prevent unauthorized persons from parking on campus. All undergraduates who live in campus-owned housing are not permitted to have vehicles on campus. Students who reside in the District and areas in Northern Virginia with good transit access are not permitted to use on-campus parking facilities. A limited number of spaces are available for commuter students at satellite lots in Rosslyn, Virginia. Georgetown University Transportation Shuttle (GUTS) service connects these lots to the main campus. Most commuter students commute to campus on foot, bicycle, GUTS or via Metrobus.

The campus parking policy has been effective in limiting the number of students commuting via private vehicle. A parking cap of 4,080 parking spaces was set as part of the 2005 Campus Master Plan. The remaining spaces are for the use of staff, faculty, and visitors to the University.

The University has also instituted visitor-parking policies aimed at limiting the number of drivers, but encouraging those who do drive, to park on campus. Further encouraging visitors to park on campus is the fact that street parking around campus is severely limited and strictly enforced by the D.C. police (MPD) and the D.C. Department of Public Works (DPW). Most streets require a Zone 2 residential permit issued by the District of Columbia for on-street parking longer than two hours. A limited number of metered spaces are available on Reservoir Road, 37th Street, and Prospect Street.

Most on-campus visitor parking is located in the Southwest Quadrangle Garage or in the Leavey Center. Visitor parking on campus is limited, but permits can be obtained from the parking attendant upon entering the University on an hourly or daily basis. Off-campus students can drive and park on campus occasionally as visitors, but during daytime hours, visitor parking rates are \$12 per day, which is not conducive to daily student use. Graduate student parking is \$2 after 5:00 p.m. weekdays and free all day on Saturdays and Sundays. The parking rate fee structure, strict enforcement, and available parking during the evenings and weekends encourage visitors and evening graduate students to park on campus and not in the community.

The parking policies have constrained the traffic impact of new facilities and campus activities since their creation.

EXISTING TRANSPORTATION CONDITIONS

The GU Campus is divided into northern and southern sections and the roadway networks of each section are physically separated. The northern portion of the campus houses the University Medical Center and Hospital and is used primarily for medical purposes. The southern portion of the campus, or the main campus, is used primarily for academic purposes. The new facilities will be located in the southern portion of the campus. The division limits traffic traveling through neighborhoods located north of the University to access facilities in south campus. This separation will remain in place once the new facilities are completed.

South Campus Ingress/Egress

The current vehicular entrances to the main academic campus and parking lots are from the Canal Road (South Entrance) or Prospect Street (East Entrance) as shown in Figure 1. Visitors and commercial vehicles are required to use the Canal Road entrance. GU employees with parking permits and GU vehicles are permitted to use the Prospect Street entrance.

The current configuration of the Canal Road entrance forces vehicles to make right turns in and out only. Due to the restricted turning movements at the Canal Road entrance, traffic must circulate through the Georgetown residential neighborhood to access the University via Prospect Street; this is especially true of traffic accessing the campus from the west via MacArthur Boulevard, Foxhall Road, and Canal Road. Egress traffic is also impacted, in particular traffic departing the District via the Key Bridge to Virginia.

The intersection of GU's Prospect Street entrance with 37th Street is an all-way stop controlled intersection with one travel lane on each approach. The Prospect Street entrance is accessed via local streets within the Georgetown residential neighborhood.

Figure 2 illustrates current ingress/egress travel routes.

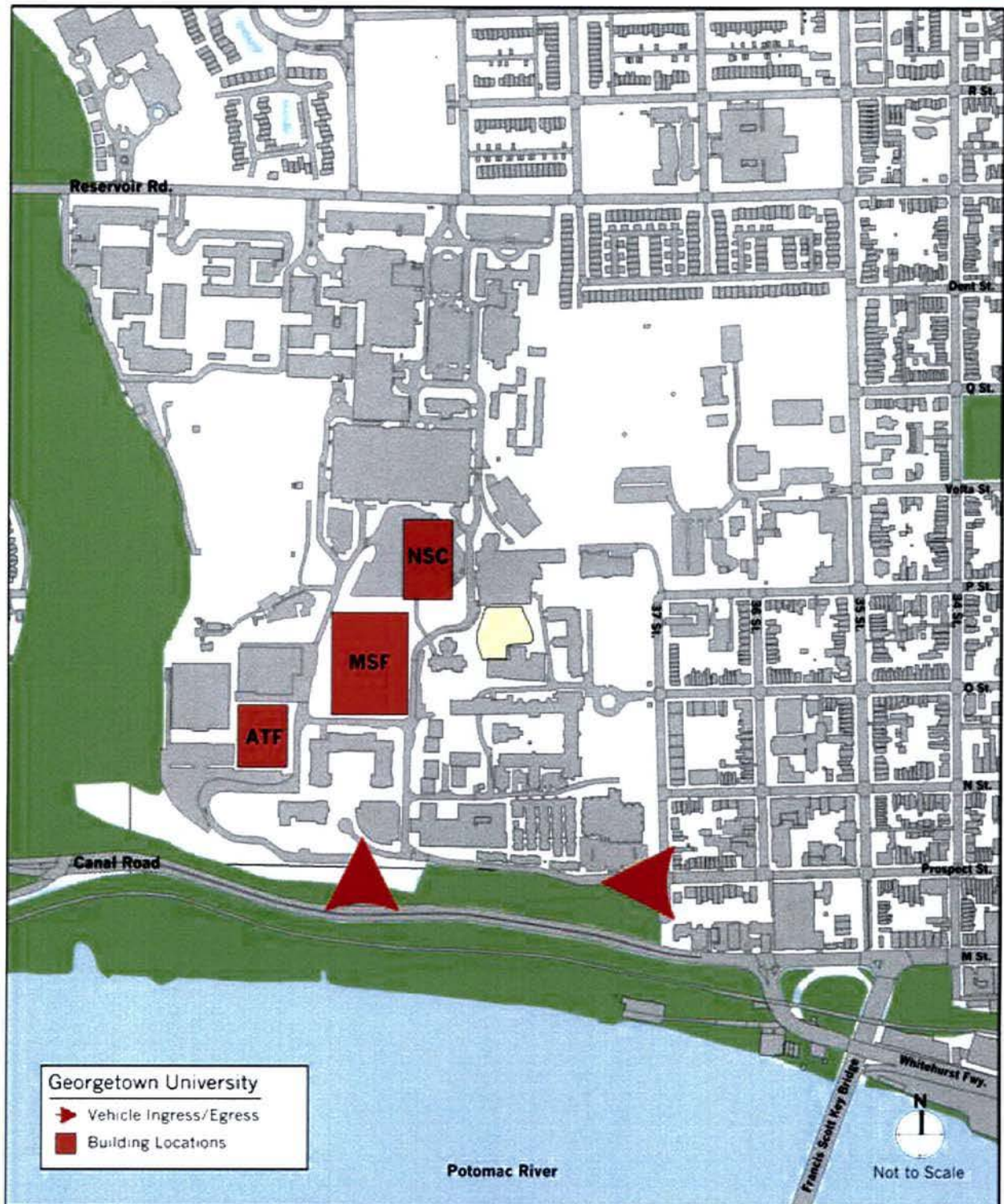


Figure 1: Georgetown Academic Campus Vehicular Access Locations

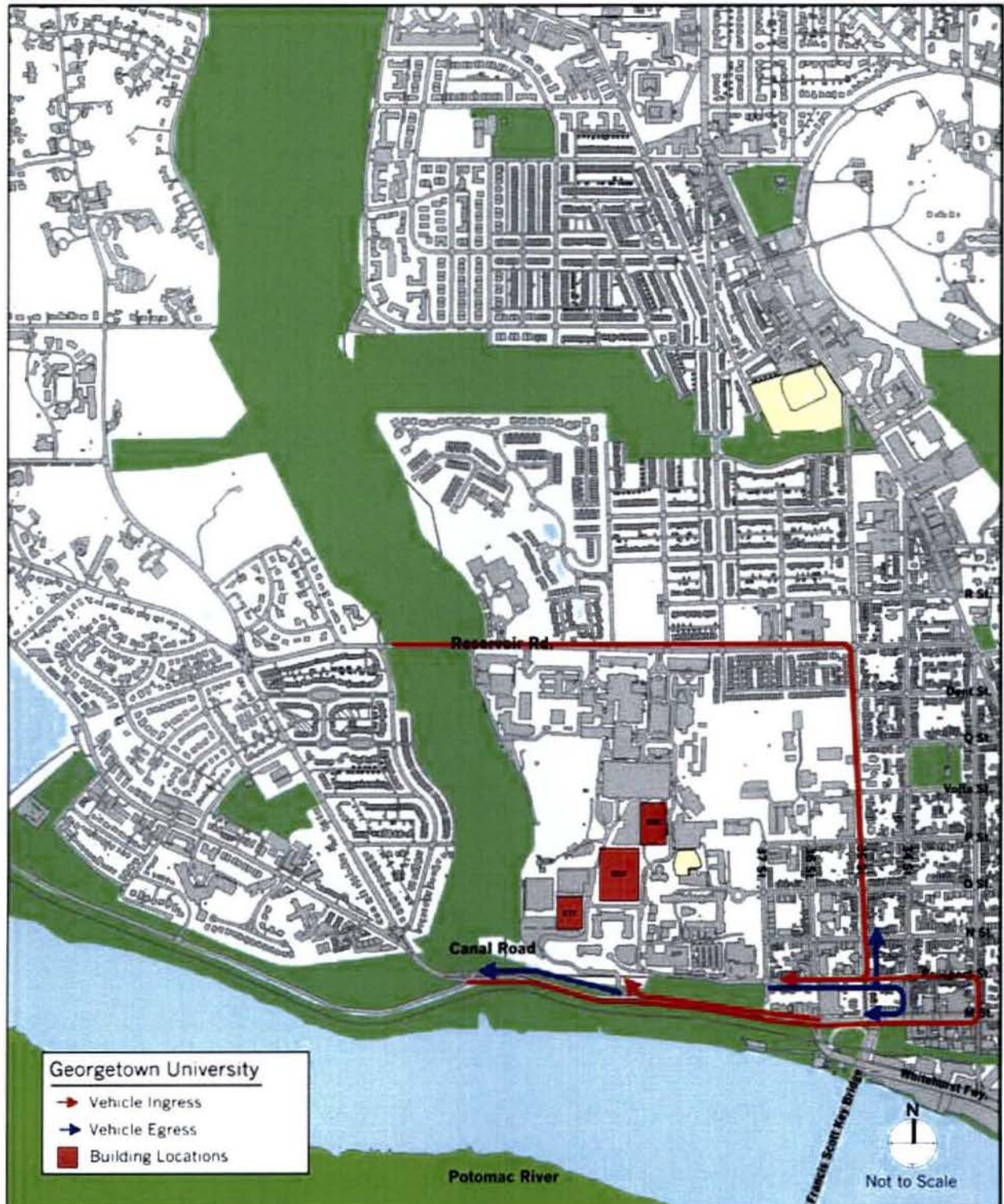


Figure 2: Georgetown Academic Campus Vehicular Access Routing (Existing)

Campus Transportation Management Program

The GU campus parking supply is limited to 4,080 parking spaces by a parking cap that was established in the 2000 Campus Master Plan. Additional parking cannot be added to the campus without adjusting this established parking cap and receiving approval from the D.C. Zoning Commission. No change in the parking regulations is being sought as part of the current application for the new facilities. As a result of this limitation on parking, the University has devised measures to ensure that campus expansion does not generate new vehicular trips. To satisfy this intention, GU has enacted a very comprehensive Transportation Management Program (TMP).

The parking policies described above are a critical part of this TMP. Components of the program include the following:

- Creation of a carpool program that provides incentives such as reduced individual cost;
- Activation of a parking fee structure to manage demand for on-campus parking;
- Restriction on parking privileges for students who live on-campus and tight control of the commuting student population parking requirements;
- Coordination with the surrounding neighborhoods to address issues that may arise with parking, traffic congestion, special event parking, and other transportation-related issues;
- Operation of the GUTS shuttle service, dramatically reducing on-campus-parking demand;
- Operation of a GUTS commuter bus between the free parking at the Park 'N Ride lot at Montgomery Mall and the main campus;
- Coordination with transit agencies to provide a total transit program thereby working to reduce single-occupant vehicle trips to and from the campus;
- Option to enroll in the WMATA Metrochek/SmarTrip program through the Office of Transportation Management; and
- Association with local transportation agencies to assist with the dissemination of regional transportation information to the University community.

Campus Transit Access

GU is served by a number of bus transit lines offering fast and frequent service between the main campus area and nearby Metrorail stations, including Foggy Bottom, Dupont Circle, and Rosslyn. These transit services are described below and are shown in Figure 3:

- *Georgetown University Transportation Shuttle (GUTS)*
The University is presently served by its own shuttle bus system. The GUTS system serves the campus with five main routes. With these routes, the GUTS system provides service to the Rosslyn and Dupont Circle Metrorail stations, as well as North Arlington, the Law Center, and



Wisconsin Avenue. All GUTS buses enter the University at the Canal Road and Reservoir Road entrances and terminate at the Leavey Center. The areas served by GUTS have become established as desired living areas for students, faculty, and staff.

- *Georgetown Metro Connection*

The Georgetown Metro Connection is operated by the Georgetown Partnership BID District and provides one service line within a few blocks of GU that offer connections to nearby Metrorail stations, including Dupont Circle and Rosslyn.

- *Metrobus*

The Washington Metropolitan Area Transit Authority (WMATA) provides Metrobus service to the campus along several routes. These routes connect the campus to Downtown, the Wisconsin Avenue corridor, and the Palisades neighborhood. Metrobus service brochures, printed especially for the University, are distributed at registration and throughout the year.

- *Georgetown Metro Connection*

The DC Circulator is a new bus service operated by District Department of Transportation (DDOT). It operates from 7:00 a.m. until 9:00 p.m. daily with service every 10 minutes. The Georgetown route stops along Wisconsin Avenue and M Street east of Wisconsin Avenue and links Georgetown with major transit, tourist, and commercial destinations.

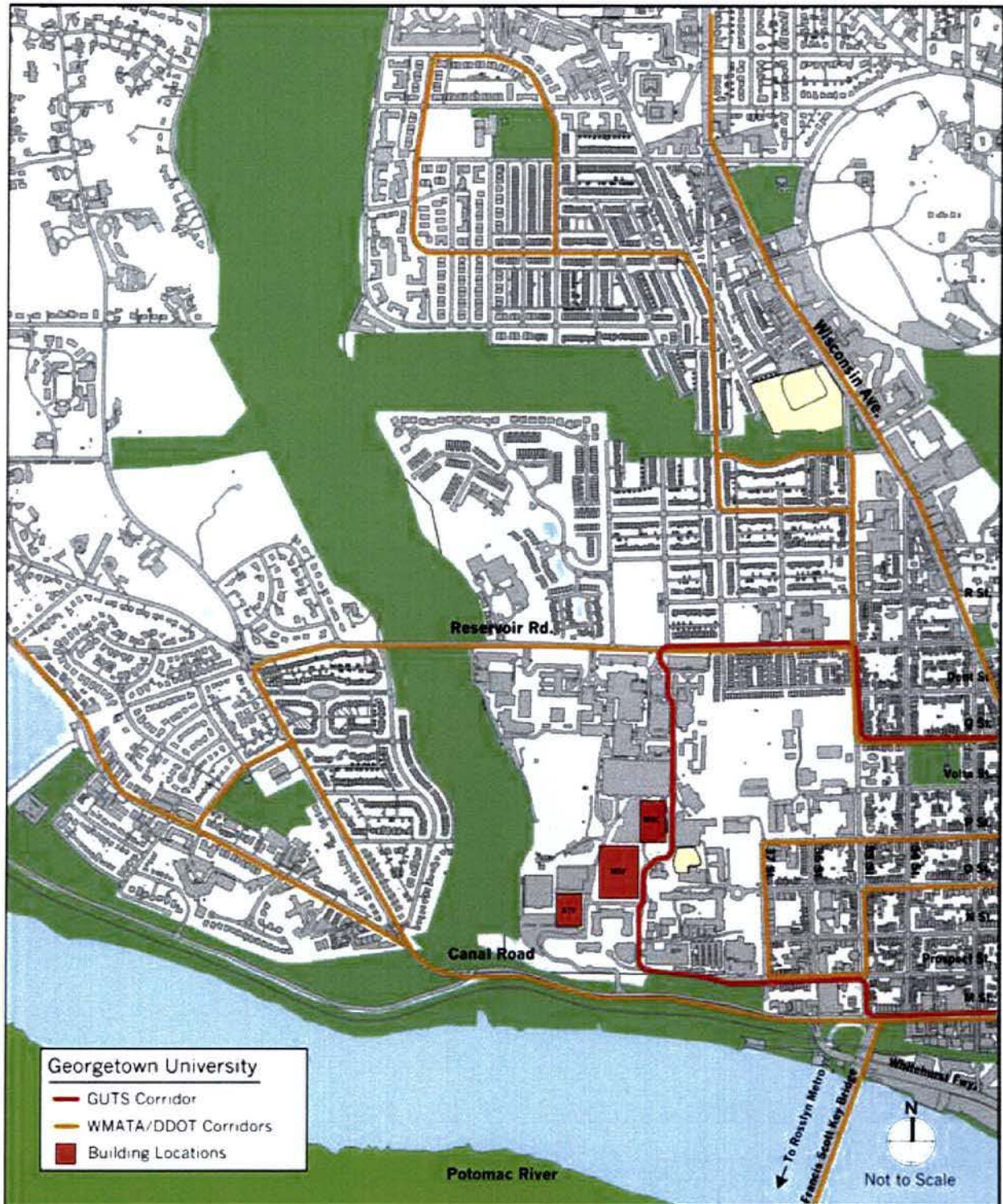


Figure 3: Georgetown Academic Campus Transit Access (Existing)

FUTURE PARKING AND TRANSPORTATION CONDITIONS

As previously mentioned, the GU campus parking supply is limited to 4,080 parking spaces by a parking cap that was established in the 2000 Campus Master Plan. Additional parking can not be added to the campus without adjusting this established parking cap. A change in the cap is not being sought.

Characteristics of the Proposed Projects

The new facilities are not projected to increase traffic as the buildings are intended to serve current student, faculty and staff populations. An increase in parking demand on the residential streets surrounding GU's main campus due to these buildings is not expected because existing restrictions will remain.

Characteristics of the new facilities that are expected to suppress traffic and parking demand are as follows:

- The ATF, MSF and NSC are replacements for, and improvements to, existing campus facilities.
- Since on-campus parking permits are not available for undergraduate and most full-time graduate students, there will be no change in traffic generated or parking demand for undergraduate and full-time graduate students.
- The redesign of Harbin Field will replace the existing athletic field with the MSF to accommodate football, soccer, and lacrosse. The facility will provide a net increase of 800 seats. Pursuant to Condition 4 in the Campus Master Plan Order, athletic events at the MSF expected to draw over 100 visitors shall begin before 4:00 p.m. or after 7:00 p.m. Also, GU personnel will be on hand as necessary to direct visitors to campus parking areas and to facilitate smooth traffic flow in to and out of campus.
- The University's calendar of athletic and performance events are scheduled at times that do not conflict with commuter traffic peaks with the exception of women's soccer, lacrosse, and field hockey, which are scheduled on weekday afternoons and evenings. These conflicting events typically only draw 500 student spectators (at most) who are already on campus so they would not generate traffic or a parking demand. The increased capacity of the MSF will not change the commuter peak period impacts of these particular athletic events.
- The MSF will have the capacity to host higher levels of attendance for other events, as well as NCAA intercollegiate soccer and lacrosse tournaments, but these events will rarely occur and would primarily be held during off-peak times when there is abundant parking available on the campus, including the Southwest Quadrangle garage.
- Construction traffic associated with the ATF, MSF and NSC will enter the University through the Canal Road entrance reducing impacts to the neighborhood streets.



South Campus Ingress/Egress Improvements

The purpose of studying the South Campus ingress/egress is to identify changes in trip distribution and volumes that will occur as a result of the improved access at Canal Road.

Canal Road is currently being upgraded by the U.S. Department of Transportation. Improvements consist of asphalt resurfacing, turn lane improvements and the installation of a traffic signal. The improvements will make possible all traffic movements at the Canal Road entrance. Currently ingress traffic can only enter from northbound lanes (right turn) and egress traffic can only turn right (northbound) onto Canal Road. This forces southbound ingress traffic to use the Prospect Street entrance and egress traffic traveling south to also use the Prospect Street entrance.

Improvement to the Canal Road entrance will make ingress/egress possible for north and southbound traffic on Canal Road. Figure 4 illustrates the impact of these improvements on traffic circulation patterns.

Recent data collection was attempted to quantify the impact of Canal Road improvements on traffic volumes and patterns, however, due to on-going construction at the Canal Road entrance count data was not credible. The counts data that was collected did indicate that traffic volumes were consistent with previous projects and may even be been lower.

Previous studies, in particular the 1999 Canal Road EIS, have established that Canal Road improvements will draw traffic away from the Prospect Street entrance, and Georgetown residential neighborhoods. Table 1 lists existing trip distribution patterns for the south campus ingress/egress traffic prior to the improvements under construction.

Table 1: Commuter Trip Distribution

Route	Arrivals			Departures		
	Via Canal Road	Via Prospect Street	Total	Via Canal Road	Via Prospect Street	Total
Key Bridge	30.2	2.7	32.9	0.4	32.8	33.2
Canal Road	0.0	8.2	8.2	12.2	3.3	15.5
Other	12.1	46.8	58.9	13.9	37.4	51.3
Total	42.3	57.7	100.0%	26.5	73.5	100.0%

Source: Canal Road EIS (December, 1998)

Previous studies have concluded that a change in traffic patterns will occur, reducing the amount of campus traffic in residential neighborhoods adjacent to the campus. Table 1 clearly identifies traffic patterns that result from the restricted turning movements at Canal Road; traffic that enters via Canal Road tends to depart via Prospect Street and traffic that enters via Prospect Street tends to depart via Canal Road.



The EIS estimated the anticipated change in traffic patterns and volumes based on the planned improvements to Canal Road. Table 2 lists the forecasted changes, which are consistent with the potential for change identified in Table 1. The improvements were projected to reduce traffic volumes on residential streets that provide access to the Prospect Street entrance by 26% during the AM peak hour and 43% during the PM Peak Hour.

Table 2: Commuter Volumes

Route	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Existing						
Canal Road	236	20	256	62	135	197
Prospect St.	213	85	298	150	315	465
Future						
Canal Road	436	20	456	99	298	397
Prospect St.	135	85	220	113	152	265
Change						
Canal Road	+200	0	+200	+37	+163	+200
Prospect St.	-78	0	-78	-37	-163	-200

Source: Canal Road EIS (December, 1998)

In addition to reducing auto traffic through the neighborhood, GUTS bus routes will be rerouted through the improved Canal Road entrance. This will further reduce University vehicular traffic in the adjacent residential neighborhood. Figure 5 illustrates the anticipated change.

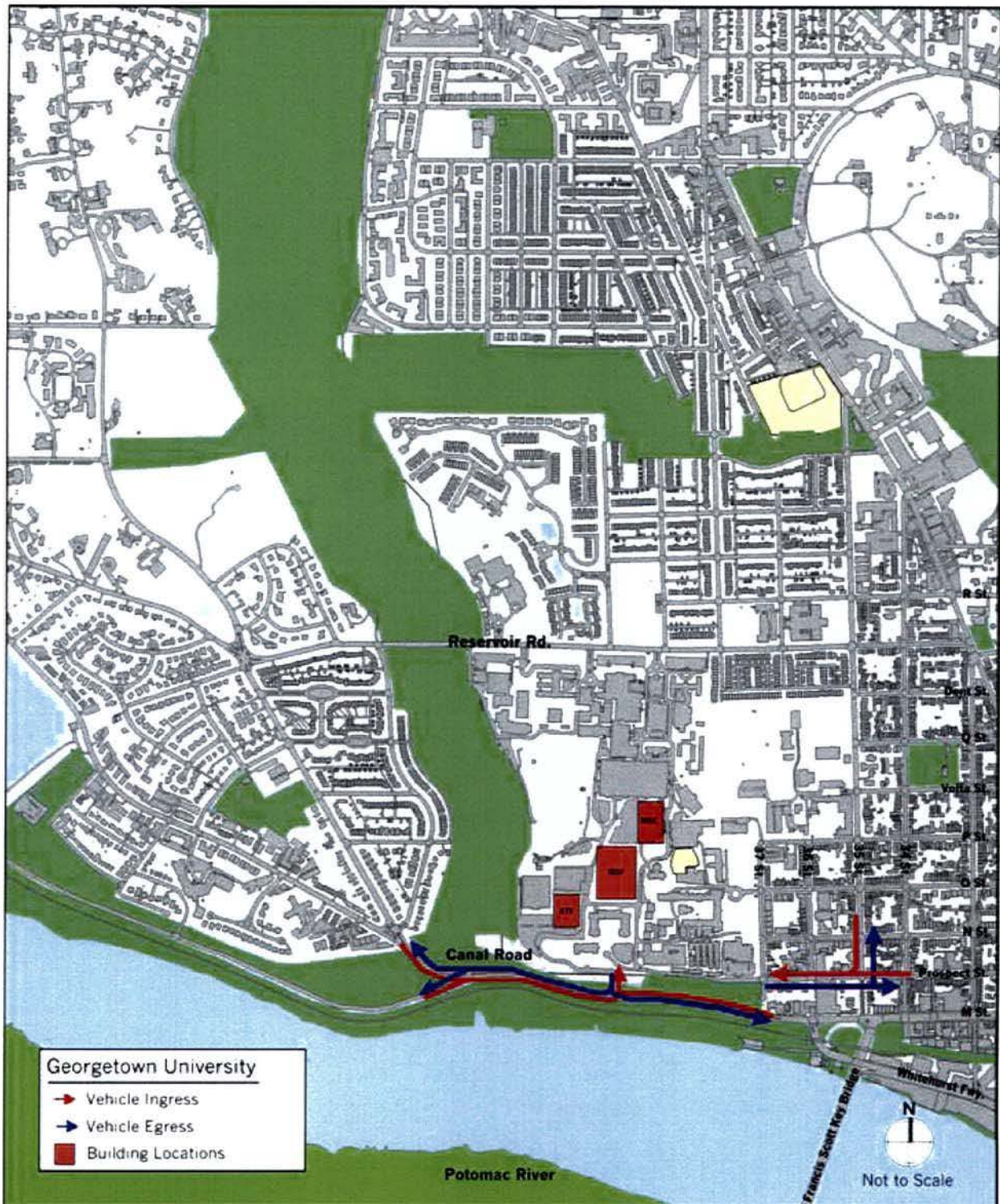


Figure 4: Georgetown Academic Campus Vehicular Access (Future)

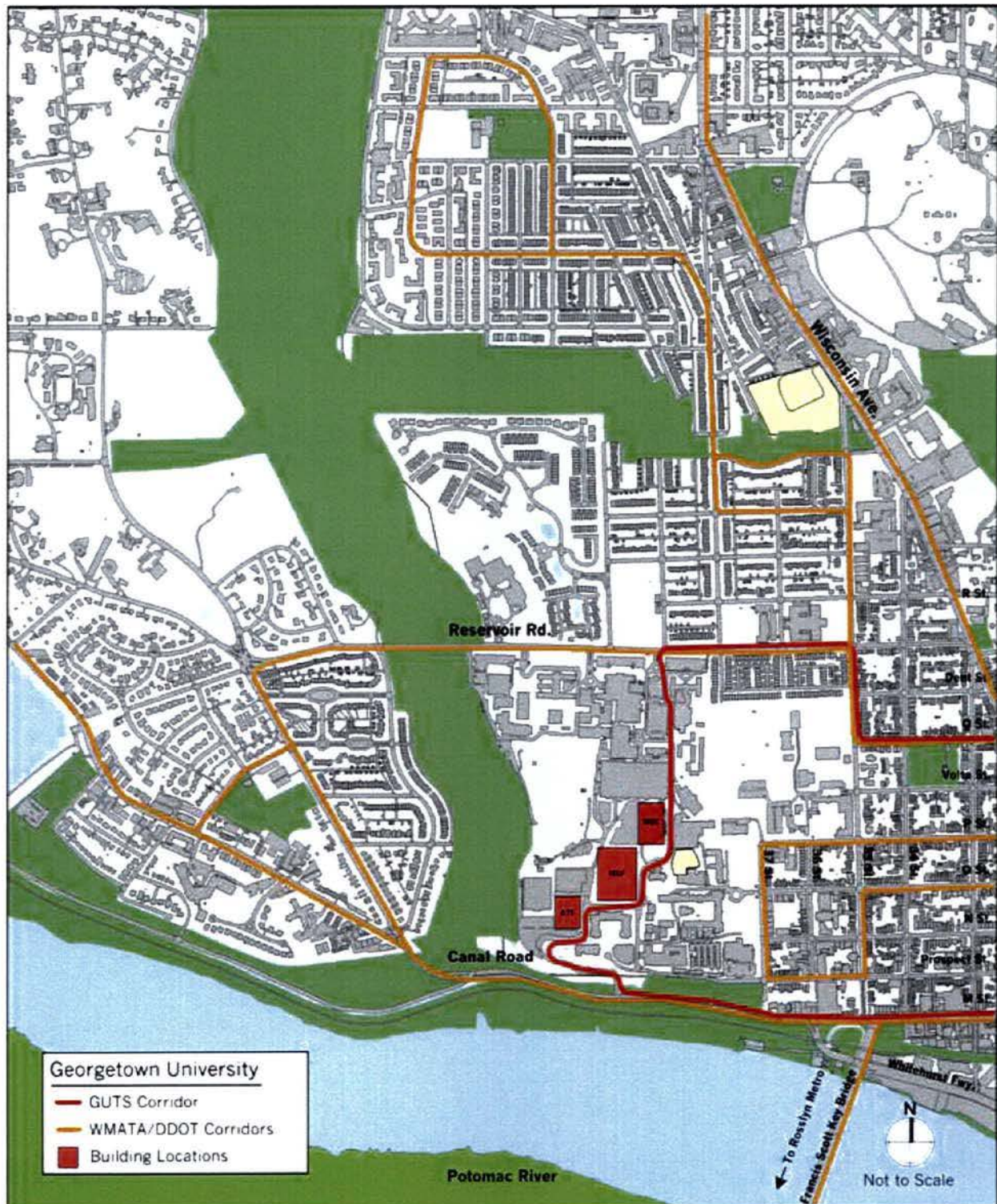


Figure 5: Georgetown Academic Campus Transit Access (Future)



CONCLUSION

This report concludes that the ATF, MSF and NSC facilities will not result in any significant increase in traffic or parking demand on residential streets surrounding the campus due to the established parking restrictions, vehicle access policies, availability of alternate modes of transportation, and the relocation of personnel to off-campus locations.

The facilities are intended to be used by students, faculty and staff that are either on campus, already commuting to campus, or used during off-peak times when demand on the local roadway network and the on-street parking supply is not at its greatest.

Visitor traffic is prohibited from using the Prospect Street entrance, which feeds directly into the adjacent residential streets. The Canal Road entrance provides direct access into the Southwest Quadrangle's new underground parking structure.

Improvements to the Canal Road entrance, which are nearly complete, can be expected to reduce traffic volumes in residential neighborhoods adjacent to the University.