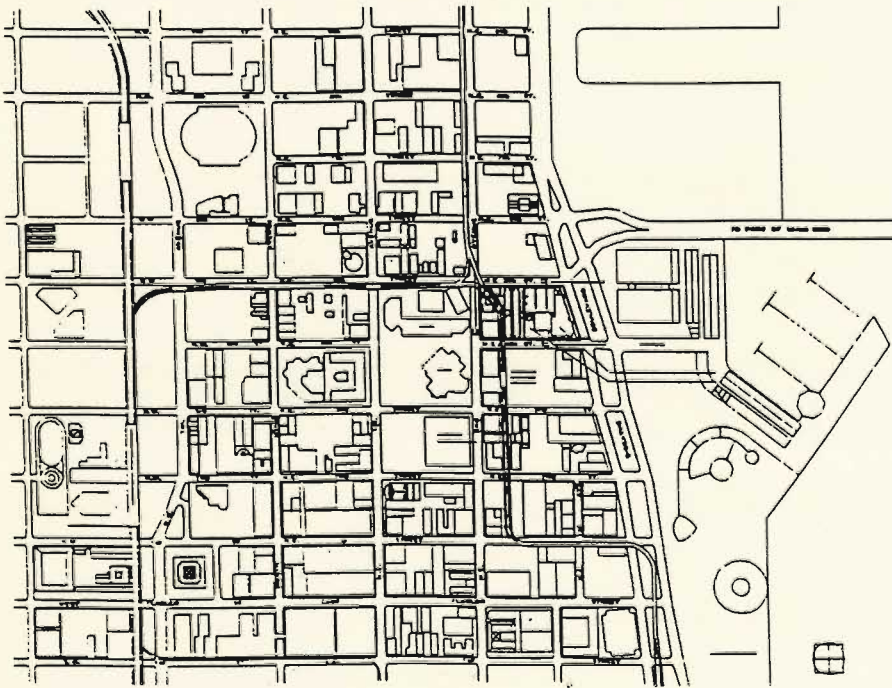


# METROMOVER-BAYSIDE PEDESTRIAN PROMENADE CONCEPT MASTER PLAN

## TECHNICAL MEMORANDUM NO. 2

ANALYSIS OF VEHICULAR TRAFFIC CIRCULATION



Prepared By:

**BERMELLO, AJAMIL & PARTNERS, INC.**

ARCHITECTS, ENGINEERS, PLANNERS, INTERIORS

2601 South Bayshore Drive, Miami, FL 33133 • (305)859-2050



## **TECHNICAL MEMORANDUM NO. 2**

**Technical Memorandum No. 2 is an analysis of vehicular traffic circulation in the context area of the proposed Metromover Bayside Pedestrian Promenade Concept Master Plan.**



Technical Memorandum No. 2  
March, 1993

## **SUMMARY OF FINDINGS**



## **SUMMARY OF FINDINGS**

Other than providing local access to abutting properties, the section of N.E. 4th Street between N.E. 2nd Avenue and Biscayne Boulevard has no significance in the overall vehicular traffic and circulation patterns of the study area. Complete closure of N.E. 4th Street between N.E. 2nd Avenue and Biscayne Boulevard would result in slight changes in vehicular circulation patterns, and would necessitate providing alternate access to the Marina Park Hotel parking lot from N.E. 3rd Street.

Closure of a section of N.E. 4th Street between N.E. 2nd Avenue and a point just west of the Marina Park property would permit access to that property via Biscayne Boulevard. This solution could be used to provide access to the parking lot on N.E. 4th Street which is part of the lot serving the Bayside Plaza development. Alternatively, N.E. 4th Street could be closed at mid-block so as to allow vehicular access to this parking lot from N.E. 2nd Avenue and the Marina Park Hotel from Biscayne Boulevard.

Finally, any closure of N.E. 4th Street between N.E. 2nd Avenue and Biscayne Boulevard needs to recognize that there will be a continuing need to allow emergency service and maintenance vehicles to access the street.





Technical Memorandum No. 2  
March, 1993

## **ANALYSIS OF VEHICULAR TRAFFIC CIRCULATION**



## INTRODUCTION

Technical Memorandum No. 2 forms part of the proposed Metromover-Bayside Pedestrian Promenade Concept Master Plan.

Stated objectives of this larger study are:

- 1) Promote increased use of public transportation in downtown Miami.
- 2) Enhance pedestrian mobility and linkage between the Metromover College/Bayside and College North Stations, Miami-Dade Community College's (MDCC) Wolfson Campus and Bayside Marketplace through the creation of a pedestrian promenade using N.E. 4th Street.
- 3) Assist in achieving urban area air quality goals.

In support of these objectives, it is the intent of this technical memorandum to examine vehicular traffic circulation along the perimeter of Bayside, Miami Dade Community College and in the vicinity of the two metromover stations.

In order to provide some focus to this examination it has been assumed that the creation of a pedestrian promenade using N.E. 4th Street would require as a minimum discouraging vehicular traffic on that street and as a maximum the complete closure of N.E. 4th Street between N.E. 2nd Avenue and Biscayne Boulevard.

## IDENTIFICATION OF STUDY AREA

For purposes of this analysis the study area, shown in Figure 1, has been generally defined as the area bounded by N.E. 5th Street on the north, N.E. 3rd Street on the south, Bayside on the east and N.E. 1st Avenue on the west. From the standpoint of vehicular traffic circulation within the study area, N.E. 5th, 4th and 3rd Streets; N.E. 2nd Avenue and Biscayne Boulevard appear most likely to be impacted by a Metromover-Bayside Pedestrian Promenade along N.W. 4th Street.

As part of the process used in identifying the study area, and consistent with study objective 2 stated above, streets north of N.W. 5th Street and south of N.W. 3rd Street were not included in this analysis.

## METHODOLOGY

N.E. 5th, 4th and 3rd Streets and N.E. 2nd Avenue and Biscayne Boulevard appear most likely to be impacted by a Metromover-Bayside Pedestrian Promenade. The vehicular traffic circulation characteristics and conditions of each of these streets were investigated. The

investigation included reviews of existing studies and reports, internal discussions and extensive field reconnaissance.

In these investigations a primary concern was to identify the roles or functions provided by each of the subject streets. Important basic functions which might be associated with these streets include:

- 1) Area Access (providing regional access to the area)
- 2) Area Circulation (providing important alternate routing and circulation of traffic in support of major roadways serving the area)
- 3) Local Access (providing direct access to abutting properties)
- 4) Local Circulation (providing circulation and/or recirculation of local traffic)

This analysis reflects upon both existing and future conditions which might physically impact the vehicular circulation system in the study area. In addition, concerns relative to the amount and nature of vehicular traffic using these streets and their relationship to pedestrian activities are discussed in the section entitled Analysis of Pedestrian Considerations.

## **ANALYSIS OF EXISTING CONDITIONS**

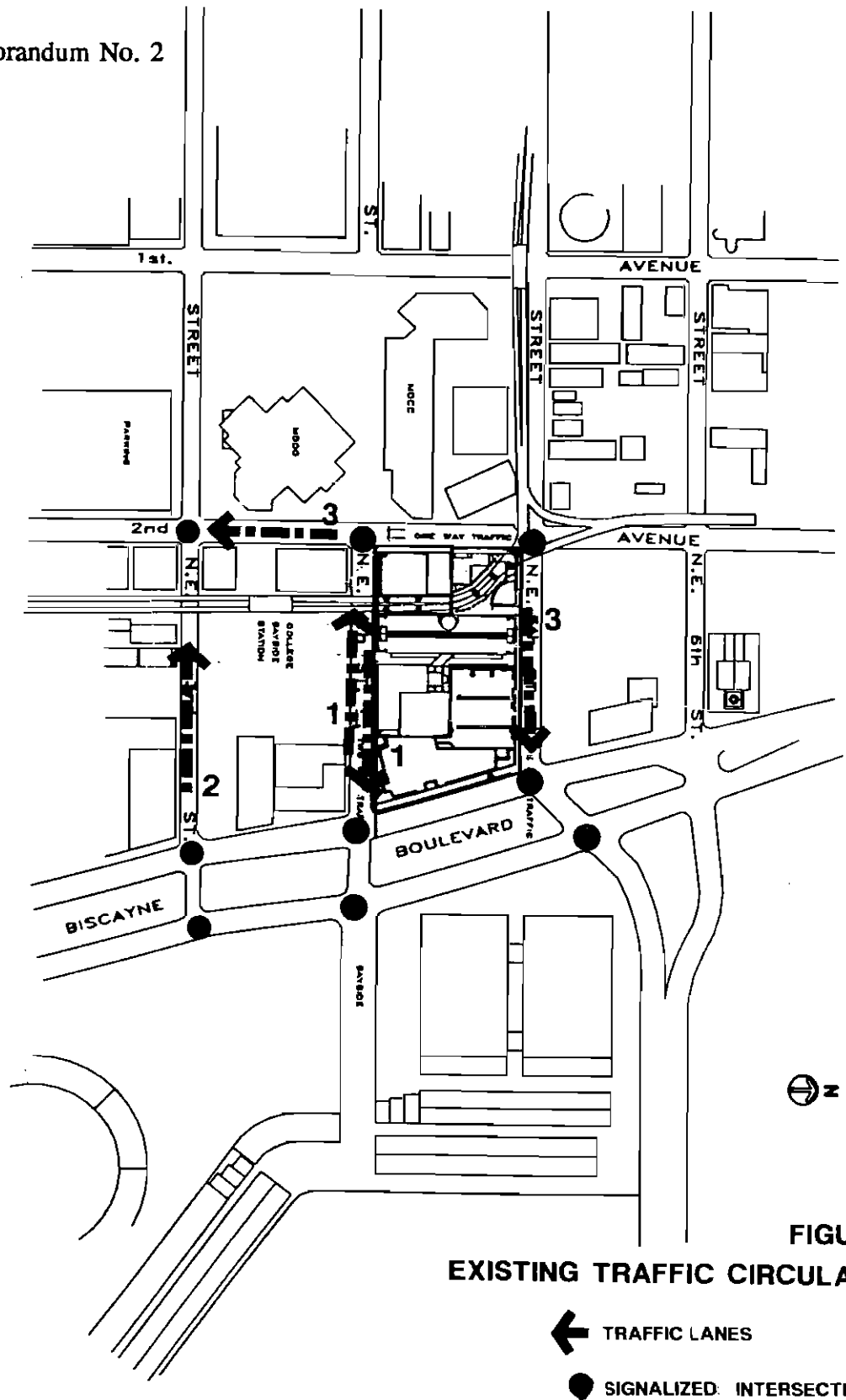
The more significant aspects of the existing traffic circulation system in the study area are shown on Figure 2. Existing development which could most likely impact vehicular traffic circulation in the study area are shown on Figure 3. The following paragraphs address existing traffic circulation considerations for each of the three east/west streets, N.E. 2nd Avenue and Biscayne Boulevard in the study area.

### **N.E. 5th Street**

Within the study area, N.E. 5th Street is a 3-lane 1-way street running eastbound. From the standpoint of vehicular traffic circulation, N.E. 5th Street is probably the most important east/west street in the area. Because of the ease of access it provides to I-95 via the N.E. 8th Street interchange; N.E. 5th Street provides important inbound access to the Port of Miami, Bayside and the Overtown/Arena area of downtown Miami.

No existing development along N.E. 5th Street appears to have a critical reliance on N.E. 4th Street for vehicular access.

By observation vehicular traffic volumes on N.E. 5th Street are typically the highest for the east/west streets in the study area. Obviously this results in considerable vehicular activity at the intersection of N.E. 5th Street and Biscayne Boulevard. Because of its role in providing



**FIGURE 1**  
**EXISTING TRAFFIC CIRCULATION**

- ← TRAFFIC LANES
- SIGNALIZED INTERSECTION

access to the Port of Miami, N.E. 5th Street carries a substantial amount of heavy truck traffic.

Existing development on N.E. 5th Street in the study area consists of:

- 1) MDCC and a City of Miami Fire Station on the south side of the street between N.E. 1st and 2nd Avenues;
- 2) A vacant parcel of land owned by MDCC and currently under construction on the south side of the street between N.E. 2nd Avenue and Biscayne Boulevard;
- 3) The First United Methodist Church at the southwest corner of the intersection of N.E. 5th Street and Biscayne Boulevard.

Currently, there is no scheduled Metrobus Service on N.E. 5th Street.

#### **N.E. 4th Street**

Running between N.E. 2nd Avenue and Biscayne Boulevard, N.E. 4th Street is a 2-lane 2-way street with on-street parking on its south side. While this section of N.E. 4th Street is 2-way, it should be noted that between northbound and southbound Biscayne Boulevard N.E. 4th Street is 3-lanes, 1-way westbound. At its intersection with southbound Biscayne Boulevard eastbound N.E. 4th Street traffic is forced to turn right and the westbound approach to the intersection consists of two left turn lanes to southbound Biscayne Boulevard and a single thru lane to westbound N.E. 4th Street.

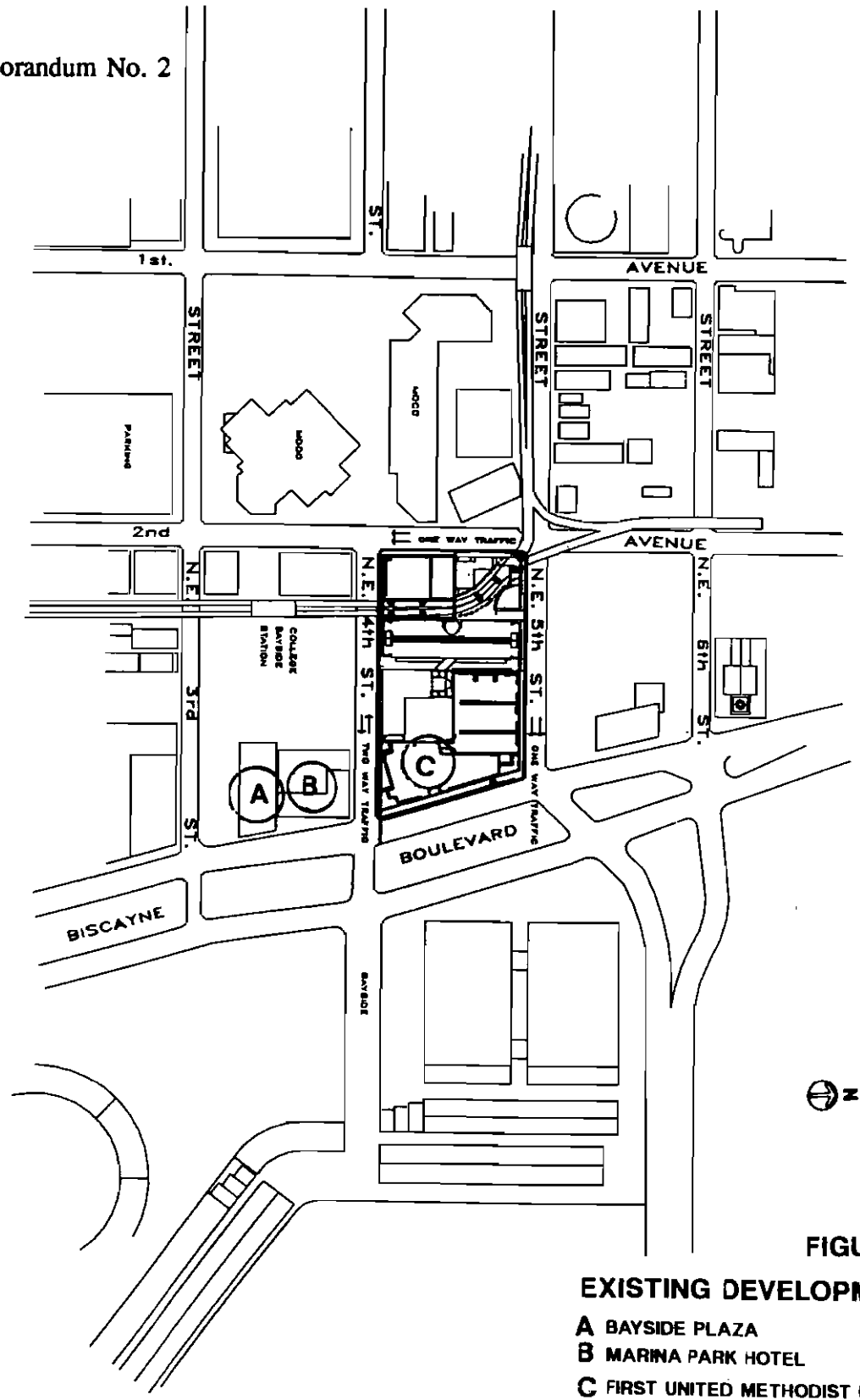
From the standpoint of vehicular traffic circulation in the study area, N.E. 4th Street has little or no significance. The principal functions of the section of N.E. 4th Street between N.E. 2nd Avenue and Biscayne Boulevard are:

- 1) To facilitate local access to properties located on N.E. 4th Street;
- 2) Allow minor exit movements associated with Bayside;
- 3) Provide some access to existing development along N.E. 2nd Avenue between N.E. 5th and N.E. 3rd Streets.

Each of these functions is described in greater detail in the following paragraphs.

#### **Local Access**

Currently the only building requiring access to this portion of N.W. 4th Street is the Marina Park Hotel and other ancilliary uses within the building. Vacant lots adjacent to the hotel



**FIGURE 2**  
**EXISTING DEVELOPMENT**  
**A BAYSIDE PLAZA**  
**B MARINA PARK HOTEL**  
**C FIRST UNITED METHODIST CHURCH**

**METROMOVER-BAYSIDE PEDESTRIAN PROMENADE  
CONCEPT MASTER PLAN**

Technical Memorandum No. 2  
March, 1993

will also require access. Parking for this facility is provided in a surface parking lot which is accessed by N.E. 4th Street.

### **Bayside Marketplace Exiting Traffic**

Minor exit movements associated with the Bayside Marketplace consist of allowing vehicular traffic exiting Bayside to travel west on N.W. 4th Street to N.W. 2nd Avenue and then travel south on N.W. 2nd Avenue to N.W. 3rd Street. At the intersection of N.W. 3rd Street and N.W. 2nd Avenue this traffic can either continue south on N.W. 2nd Avenue towards the Dupont Plaza/Brickell Avenue Bridge area, or turn right onto N.W. 3rd Street to travel west towards I-95. In either case these movements are not unique as they can be accomplished by another routing of traffic and are not critical to the Bayside Marketplace.

### **N.E. 2nd Avenue Development Traffic**

Finally, with respect to the third function, N.E. 4th Street provides the most convenient route for some traffic associated with the existing development on N.E. 2nd Avenue between N.E. 5th and 3rd Streets. These vehicular traffic routes shown in Figure 4 are as follows:

- 1) Biscayne Boulevard vehicular traffic south of N.E. 3rd Street accessing the existing development on N.E. 2nd Avenue between N.E. 4th and N.E. 3rd Streets.
- 2) Vehicular traffic leaving the existing development and/or on-street parking spaces on N.E. 2nd Avenue between N.E. 5th and N.E. 4th Streets to southbound Biscayne Boulevard.

Currently there is no scheduled Metrobus service on this section of N.W. 4th Street.

### **N.E. 3rd Street**

N.E. 3rd Street is a 2-lane 1-way westbound street with on-street metered parking on its north side. From the standpoint of vehicular traffic circulation in the study area, N.E. 3rd Street provides an important westbound connection between the CBD and I-95.

There is no currently scheduled Metrobus service on this section of N.W. 3rd Street.



Technical Memorandum No. 2  
March, 1993

### **N.E. 2nd Avenue**

Within the study area, N.E. 2nd Avenue is a 3-lane 1-way southbound roadway with on-street parking on either side.

Existing development along N.E. 2nd Avenue between N.E. 5th and 3rd Streets consists of the MDCC Wolfson Campus on the west side. On the west side of N.E. 2nd Avenue between N.E. 5th and 4th Streets there are two buildings, the Van Dyke Sign Company and the New World Center of the Arts. Between N.E. 4th and 3rd Streets there are several small neighborhood eating establishments, a small store and a McDonalds Restaurant on the northeast corner of the intersection of N.E. 2nd Avenue and N.E. 3rd Street. All of this development appears to relate most to MDCC activities and appears to be supported almost entirely by foot traffic. Vehicular traffic changes on N.E. 4th Street will not have an adverse impact on traffic distribution on N.E. 2nd Ave.

Currently there is Metrobus service on N.E. 2nd Avenue.

### **Biscayne Boulevard**

Biscayne Boulevard in the study area consists of 4 northbound traffic lanes and 4 southbound traffic lanes separated by a parking median.

Currently there is Metrobus service on Biscayne Boulevard.

## **ANALYSIS OF FUTURE CONDITIONS**

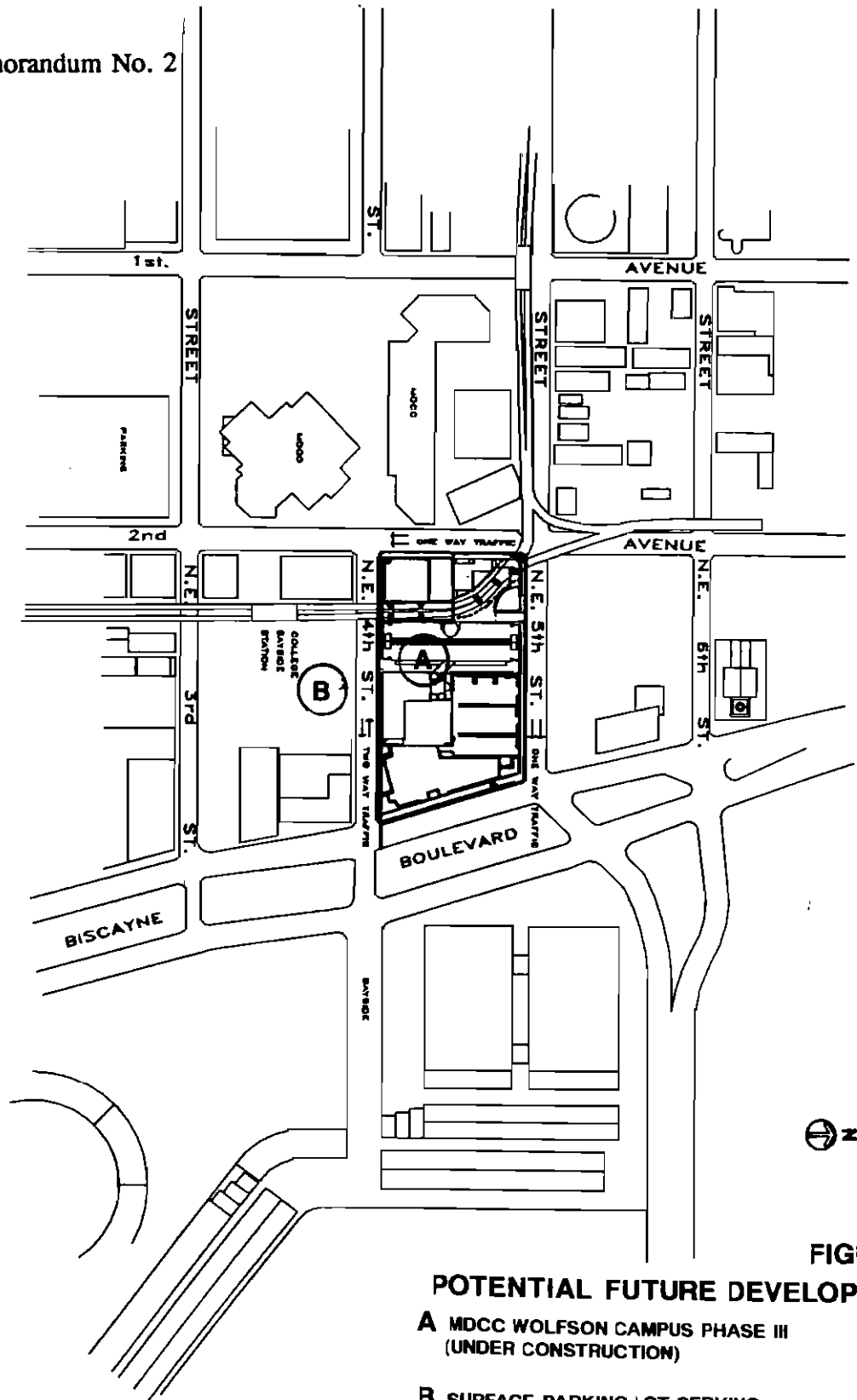
Future development in the downtown area will have an impact on the east/west streets in the study area. The potential impacts of this development on the three east/west streets in the study area are discussed in the following paragraphs.

Areas of potential future development in the study area which could most likely impact vehicular traffic circulation are shown on Figure 5.

### **N.E. 5th Street**

Redevelopment of the FEC/Bicentennial Park area will increase the amount of traffic on N.W. 5th Street.

While the north leg of the Metromover system will improve north/south pedestrian access, N.E. 5th/6th Streets will continue to pose a significant impediment to the north/south



**FIGURE 3**  
**POTENTIAL FUTURE DEVELOPMENT**  
**A MDCC WOLFSON CAMPUS PHASE III**  
**(UNDER CONSTRUCTION)**  
**B SURFACE PARKING LOT SERVING**  
**BAYSIDE PLAZA DEVELOPMENT**

movement of pedestrians. This is due to the volume and nature of vehicular traffic using N.E. 5th/6th Streets, and can be attributed to the impact of traffic associated with the Port of Miami. The north/south movement of pedestrians in this area will continue to be impeded until a new vehicular access route connecting the port to I-395 is developed.

#### **N.W. 4th Street**

Future development of properties on either side of N.E. 4th Street will impact the need for this street.

On the north side of the block, MDCC has begun construction which will develop the currently vacant portion of the block between the Metromover system and the First United Methodist Church. This development does not appear to translate into a need for public vehicular access to N.E. 4th Street. Miami Dade Community College plans and Metromover needs indicate that it will be necessary to maintain vehicular access for both service and emergency vehicles.

Potential future development on the south side of N.E. 4th Street could require the need for public vehicular access.

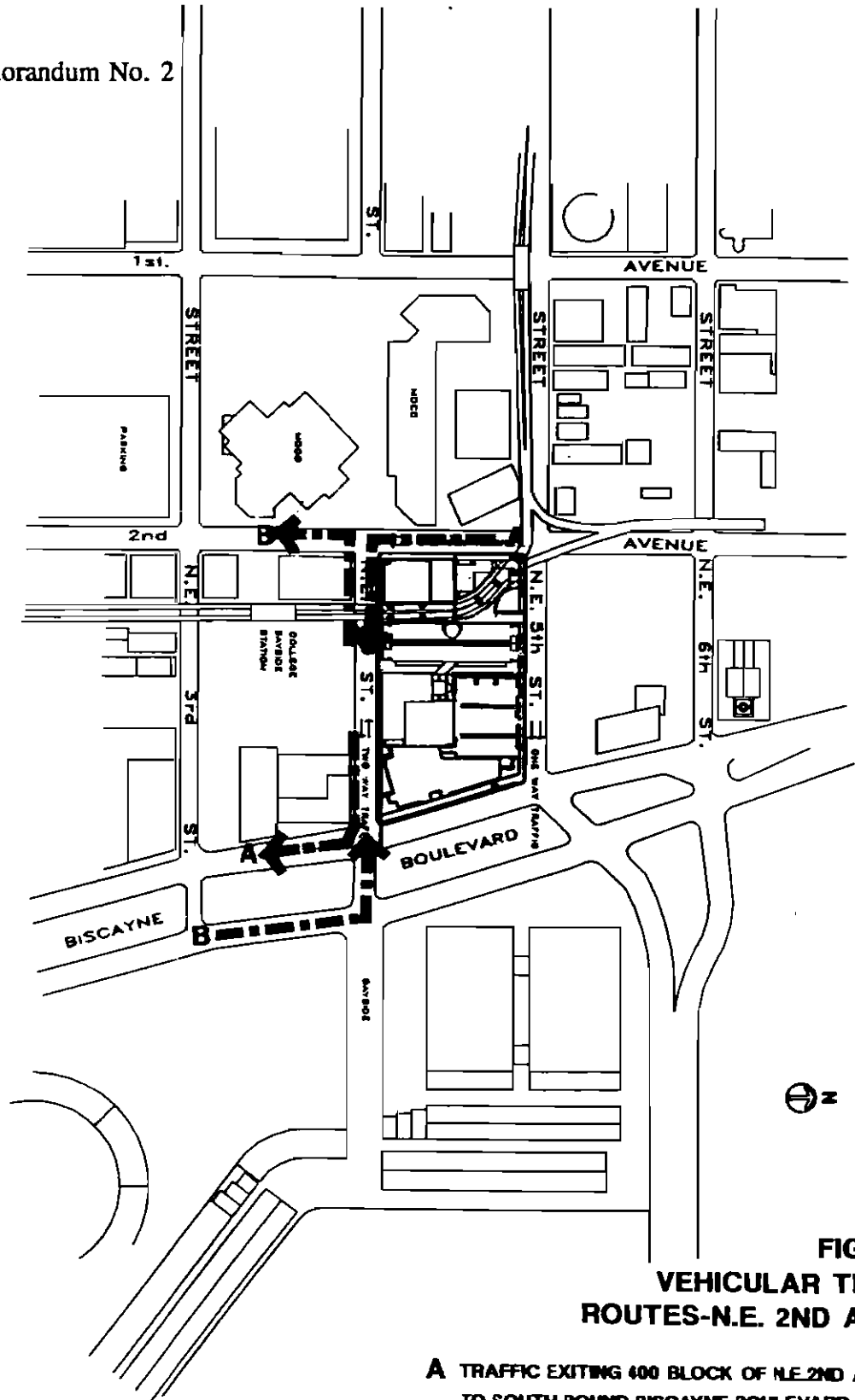
Finally, as discussed previously in the section entitled Analysis of Existing Conditions, N.E. 4th Street does provide some minor access to development on N.E. 2nd Avenue. The potential for future development along N.E. 2nd Avenue in the study area is discussed later, however, it is unlikely that the nature and/or magnitude of this development will create a significantly greater vehicular traffic impact on N.E. 2nd Avenue.

#### **N.W. 3rd Street**

The greatest potential for future development along N.E. 3rd Street in the study area is on the north side of the street between N.E. 2nd Avenue and Biscayne Boulevard. As previously discussed, this area is currently developed as a surface parking lot serving the Bayside Plaza development. Development of parking lot would not translate into need for vehicular traffic on N.E. 4th Street unless that development was planned so as to require access to that street.

#### **N.E. 2nd Avenue**

Future development along N.E. 2nd Avenue will likely take the form of additional MDCC campus expansion and/or redevelopment of the minor commercial development on the east



**FIGURE 4**  
**VEHICULAR TRAFFIC**  
**ROUTES-N.E. 2ND AVENUE**

**A** TRAFFIC EXITING 400 BLOCK OF N.E. 2ND AVENUE  
TO SOUTH BOUND BISCAYNE BOULEVARD

**B** TRAFFIC ENTERING 400 BLOCK OF N.E. 2ND AVENUE  
FROM NORTH BOUND BISCAYNE BOULEVARD

side of the street. It is unlikely that the nature and/or magnitude of this development will create a significantly greater vehicular traffic impact on N.E. 2nd Avenue or N.E. 4th Street.

### **ANALYSIS OF PEDESTRIAN CONSIDERATIONS**

The Metromover station closest to Bayside is the College/Bayside Station located between N.E. 3rd and 4th Streets east of N.E. 2nd Avenue. This is the most desirable access point for a pedestrian connection between the Metromover system and Bayside. N.E. 4th Street is an important pedestrian access route - channeling pedestrian traffic from the Courthouse Complex, MDCC Campus and Central Business District into the Bayside/Waterfront area.

### **CONCLUSIONS AND RECOMMENDATIONS**

As a result of the foregoing analysis it has been concluded that other than providing local access to abutting properties, the section of N.E. 4th Street between N.E. 2nd Avenue and Biscayne Boulevard has no significance in the overall vehicular traffic and circulation patterns of the study area. Complete closure of N.E. 4th Street between N.E. 2nd Avenue and Biscayne Boulevard would result in slight changes in vehicular circulation patterns, and would require development of a vehicular connection to N.E. 3rd Street to provide alternative access to the Marina Park Hotel parking lot. Closure of a section of N.E. 4th Street between N.E. 2nd Avenue and a point just west of the Marina Park property would permit access to that property via Biscayne Boulevard. This solution could be used to provide access to the parking lot on N.E. 4th Street which is part of the lot serving the Bayside Plaza development. Alternatively, N.E. 4th Street could be closed at mid-block so as to allow vehicular access to this parking lot from N.E. 2nd Avenue and the Marina Park Hotel from Biscayne Boulevard.

Finally, any closure of N.E. 4th Street between N.E. 2nd Avenue and Biscayne Boulevard needs to recognize that there will be a continuing need to allow emergency service and maintenance vehicles to access the street.

