CITY OF NORTH MIAMI BEACH
COMPREHENSIVE PLAN

VOLUME TWO: SUPPORT DOCUMENTS

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Executive Summary

City of North Miami Beach Comprehensive Plan

Future Land Use:

- The City of North Miami Beach is a built-out community.
- Population pressures, as a result of an increase in persons per household, continue to affect the City.
- A neighborhood approach is used by City staff to provide services, promote stability, and stimulate redevelopment of the City's commercial and residential areas.
- Four redevelopment areas within the City (University Park, Allen Park, the State Road 826 Corridor, and Highland Village) will be given priority over the next five years.
- Seven potential changes to the Future Land Use Map, aimed at supporting redevelopment and increases in population, will be further evaluated by the City.

Transportation:

- The City is entirely within a Traffic Concurrency Exemption Area
- In order to improve the traffic conditions as well as the condition of the properties along State Road 826, the City will conduct a corridor analysis and implement the resulting strategies
- The City will continue to investigate and implement as appropriate such projects as a Mini-Bus system, a Transit Hub, and extensions to the Bike Path System.
- Speeding and cut-through traffic in residential areas continues to be a concern addressed by the City on a neighborhood basis.

Housing:

- The availability of land in the City for new single-family housing is projected to be fully depleted soon after 2000. However, the demand for housing of all types and for all income levels is projected to continue increasing and far surpass the City's capacity (as determined by the Future Land Use Map) . The City will be investigating the potential for changes to the Future Land Use Map and its density/intensity restrictions as well as the Land Development Regulations and its urban design principles in order to accommodate housing needs while continuing to improve the quality of life in the City.
- The number of overcrowded units in the City increased from 4% to 10% between 1980 and 1990.

- The City will study alternatives for developing a housing program and adopt an implementation strategy.
- Sub-standard housing continues to be analyzed on a neighborhood basis and addressed as appropriate.

Infrastructure:

- The City is continuing to explore the financial feasibility of extending sewer service to those commercial and multi-family residential areas which currently do not have sewer service. Such projects involve a considerable cost for which a realistic funding source has not been identified.
- The City's provision of infrastructure is adequate to meet all adopted service levels. The financial burden for replacement and maintenance is the City's main concern.

Coastal Management:

- Preserve the natural estuary waterfront to the maximum extent possible, as public and private development occurs.
- In reviewing the development code intensities and setting arterial street improvements priorities, hurricane evacuation considerations are important.
- A redevelopment plan that coincides with the existing low-density land use designation of Highland Village, a mobile home park in the Hurricane Vulnerability Zone, will be developed by the City.

Conservation:

- An array of programs will continue to be used to minimize air and water problems, and vegetative losses.

  Examples include:

  - encourage bikeway and mass transit usage
  - sewer line extensions
  - development plan reviews relative to drainage and vegetative retention

Recreation and Open Space:

- Provision of additional land for active recreation is a high priority.
- Expand the public library building.

Intergovernmental:

- Key issues that require cooperation with other jurisdictions include:
  - either annexation or provision of City services to enclave areas
  - continue Miami-Dade HUD programming

- joint planning of adjacent County and State parks to assure water access and vegetative conservation
- Joint review of development plans along Biscayne Boulevard with the City of North Miami.
- Cooperative efforts with the adjacent, newly incorporated cities to the north (City of Aventura) and east (Sunny Isles/Aventura Beach).

Capital Improvement:

- The City annually adjusts its five-year Neighborhood Capital Improvement Program (CIP). The Comprehensive Plan's Goals, Objectives, and Policies provide the frameworks for the CIP -- the CIP implements the Goals, Objectives, and Policies of the Comprehensive Plan. The City's annual budget draws its capital improvement expenditures from the CIP.
- Anticipated major capital improvement expenditures for the planning period (1998-2003) include the construction of a new Public Services Complex, redevelopment of University Park, and revitalization of the State Road 826 Corridor.

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Future Land Use Element

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I. Future Land Use Element

Existing Land Use Data

The City of North Miami Beach is a completely developed community located in northeast Miami-Dade County. It stretches between NW 4 Avenue (just west of the I-95 Freeway) to the west and the Intracoastal Waterway to the east. The southern most boundary of the City is NE 135 Street and the northern most boundary of the City is NE 197 Terrace. To the southeast, North Miami Beach shares a limited common boundary with the City of North Miami. To the northeast, North Miami Beach shares a limited common boundary with the newly formed City of Aventura. The remainder of the City is adjacent to unincorporated Miami-Dade County, including the land east of the Intracoastal known as Sunny Isles. Some unincorporated portions of Miami-Dade County are surrounded by North Miami Beach City limits.

North Miami Beach is primarily a residential and shopping community. Single-family and multiple-family residential uses amount to 38 and 13 percent, respectively, of the City's land area. Commercial uses represent 14 percent of the City's land area. They are concentrated in a strip along North Miami Beach Boulevard (Northeast 167th Street and Northeast 163rd Street), and also along Northeast 164th Street, West Dixie Highway, Biscayne Boulevard (U.S. 1) and NE 19th Avenue. (Refer to Map 1.1, Existing Land Use Map, Volume Four) The commercial uses located within the City's corporate limits represent far less than the total such areas available to serve North Miami Beach residents. The Mall at 163rd Street is located in an unincorporated portion of Miami-Dade County which is virtually in the center of North Miami Beach. Aventura Mall is located just north of the City at Biscayne Boulevard and NE 199th Street in the City of Aventura.

North Miami Beach has a very limited amount of industrial development. Industrial uses occupy only five percent of the City's land area. Actual manufacturing activities are limited to a few small fabricating enterprises.

The existing land uses are identified on Map 1.1, which can be found in Volume Four of the Comprehensive Plan.

Table 1.1: Existing Land Use

Land Use	Acres	Percent
Single-Family Residential	1282.8	37.9
Duplex Residential	39.1	1.2
Multifamily Residential	376.2	11.1
Commercial: Office, and Retail	436.6	12.9
Light Industrial	163.7	4.8
Education	30.3	0.9
Public Buildings	43.8	1.3
Public Facilities	46.7	1.4
Private Institutions	43.9	1.3
Recreational	285.1	8.4
Roadways and Canals	534.0	15.8
Vacant	102.1	3.0
Total	3,384.3	100.0

Source: North Miami Beach Evaluation and Appraisal Report, 1995

Natural Resources

Shores, Rivers, Bays, Lakes, Wetlands

Wetlands including shores, rivers and bays are delineated on Map 1.2, Waterbodies and Wetlands, found in Volume Four. The delineations are based on the 1975 National Wet Lands Inventory prepared by the Fish and Wildlife Service, U.S. Department of Interior and the kinds of wetlands include:

1. Palustrine, Open Water, Non-Tidal Permanent, Excavated
2. Estuarine, Subtidal, Open Water, Tidal Sub-Tidal, Excavated
3. Riverine, Lower Perennial, Open Water, Non-Tidal, Permanent, Excavated
4. Estuarine, Intertidal, Forested, Broad-leaved Evergreen, Tidal Irregular
5. Estuarine, Intertidal, Scrub/Shrub, Broad-leaved Evergreen, Tidal Irregular
6. Estuarine, Intertidal, Scrub/Shrub, Broad-leaved Evergreen, Partially Drained/Ditched
7. Lacustrine, Limnectic, Open Water, Non-Tidal Permanent, Excavated

8. Estuarine, Intertidal, Forested, Broad-leaved Evergreen, Tidal Irregular, Partially Drained/Ditched
9. Primarily represents Upland Areas, but may not include unclassified wetlands such as man/modified areas, non photo identifiable areas, and/or unintentional omissions.

Flood Plains

The Federal Emergency Management Agency (FEMA) publishes flood insurance rate maps (FIRM) as part of the National Flood Insurance Program (NFIP). These maps delineate communities into flood hazard zones. The flood hazard zones directly relate the susceptibility of an area to flooding in a major storm. In 1993, the interpretation of flood zone maps and the provision of such information to property owners became the City's responsibility rather than Miami-Dade County's. The City now receives a score through FEMA's NFIP Community Rating System. This rating has a direct affect on home insurance rates in the City. There are programs and procedures the City can adopt and implement in order to improve the City's rating and thus decrease home owners' insurance costs.

The most recent edition of the FIRM maps for North Miami Beach is dated March, 1994 (see Map 1.3, Volume Four). The City falls within flood hazard zones AE and X. These zones are characterized as follows:

Zone AE

Zone AE areas are 100-year flood areas. This means they have a probability of being flooded once every 100 years. Base flood elevations for Zone AE area in North Miami Beach are eight feet.

Zone X

Zone X are areas outside the 100 year plain.

Zone C areas are subject to minimal flooding.

Soils

Due to a combination of climatic and geologic factors, soils that are found locally have been slow in formation. High rainfall, high temperatures, limited topographic relief and slow natural drainage have retarded soil development in the geological sense.

The four general types of soils found in North Miami Beach and their characteristics are as follows:

SOILS	BEARING VALUE	SHRINK/ SWELL	DEPTH TO LIMEROCK	DRAINAGE	LIMITS
SANDS Dade, Broward, Davie, St. Lucie	Good	Almost None	8” - 96”	Well-drained	Slight to moderate
MARLS Hialeah, Perrine	Very Poor to Good	Medium to High	4” - 72”	Poor to Very Poor	Moderate to Severe
PEAT & MUCK Everglades, Mangrove	Very Poor	Very High	6” - 60”	Very Poor Slow Runoff	Severe
MAN-MADE Landfill, Sanitary Fill	Very Good		Variable	Affected by Water table	Moderate

Topography

North Miami Beach, like all of South Florida, is characterized by a landscape of limited topographic relief. Much of the City rests upon the coastal ridge, an elevated land form which parallels the coastline several miles inland along much of Miami-Dade County. Elevations along this ridge average between 10 and 15 feet above mean sea level with some spots slightly higher. The ridge is bisected by the Snake Creek Canal, a low lying transverse glade and drainageway. Land areas east of the coastal ridge slope gradually to Biscayne Bay, with most areas less than five feet above mean sea level.

Historic Resources

The City of North Miami Beach has one historic structure on the National Register of Historic Places, the old Spanish Monastery located at 16711 West Dixie Highway (Dixie Highway and NE 22nd Avenue). The Fulford-by-the-Sea Monument located on NE 171 Street at NE 22 Avenue was constructed to commemorate the founding of the City of Fulford, as North Miami Beach was formally known.

The City of North Miami Beach has seven (7) structures and sixteen (16) archaeological sites listed within the Florida Master Site File prepared by the Division of Historical Resources of the Florida Department of State. The following are historically significant structures according to the Florida Master Site File or the National Register of Historic Places.

- 1751 NE 162 Street: Original structure built in 1925, presently the Italian American Civic Association.
- 1945 NE 167 Street: Built in 1930, single family home.
- Fulford-by-the Sea Marker, NE 171 Street and NE 22 Avenue: Constructed in 1924 to commemorate the founding of the City of Fulford, as North Miami Beach was known prior to incorporation.
- 16140 NE 18 Avenue: Believed to be the site of the first home built in 1890 by Captain William H. Fulford, founder of this area.
- 1634 NE 171 Street: Built in 1926, single family home. Significant alternations to original structure.
- 1731 NE 171 Street: Built in 1920, single family home. Significant alterations to original structure.
- Old Spanish Monastery, 16711 W. Dixie Highway: Monastery of St. Bernard of Clarvaux; Cistercian Monastery of Sacramenia, Segovia, Spain, built in 1141 A.D., reconstructed in Florida 1952 - 1953. Spanish Romanesque and early Spanish Gothic. The cloister, most notably its chapter house, is a representative example of 12th-century Spanish ecclesiastic architecture. Purchased by William Randolph Hearst in 1925 and reconstructed by Allen Carswell, who built the Cloisters in New York. Presently an Episcopal Church.

Information from Florida's History through its Places: Properties in the National Register of Historic Places, compiled by Morton D. Winsberg, June 1988.

There are three historically significant archaeological zones in and around North Miami Beach according to the Florida Master Site File (see Map 1.5, Volume Four). They are for the most part within the County. Within the three (3) zones are five (5) sites determined to be historically significant. In order to avoid vandalism, the sites are not specifically identified outside the state's files. The historically significant archaeological zones are as follow:

- Oleta River north of Sunny Isles Boulevard
- Land south of Sunny Isles Boulevard and west of the Oleta River
- The Arch Creek area

The City has prepared a listing of structures fifty (50) years old or older. These structures include residential, civic and commercial properties. This listing includes the

original plantation home of the Uleta Farms Pineapple Groves, located on NE 168 Street in Pan Uleta, and other significant structures. The Community Development Department has this listing on file.

Miami-Dade County has designated that portion of Old Dixie Highway from approximately NE 139 Street on Biscayne Boulevard south to NE 135 Street as a historic landmark. The old highway is the presumed route used by Abner Doubleday to first enter the Miami area.

Adjacent Land Uses

The areas surrounding North Miami Beach are, like the City itself, almost completely developed. There are no major land use incompatibilities between the City and its neighbors. Adjacent land uses are shown by Map 1.6.

Adjacent Land Uses to the North

For the most part, the land uses adjacent to the City along its northern boundary do not conflict with the uses within the City. The differences between the land use patterns within the City and those of adjacent lands are not readily evident, and in most cases there is an appropriate transition between them. In other areas, there is no difference at all between land uses in the City and outside the City. For example, the single family homes in the unincorporated portion of the Skylake neighborhood are not different than those within the City.

A few significant differences in the land uses and one conflict are notable. The differences that exist are along Miami Gardens Drive. Within the City there are single family home neighborhoods backing up to the heavily traveled state arterial. Walls separate some of the residential areas from Miami Gardens Drive. In the unincorporated area, three land uses exist along Miami Gardens Drive: commercial uses, high density residential uses, and single family homes that face an access road parallel to Miami Gardens Drive. The commercial and high density residential uses function appropriately along Miami Gardens Drive. The single family home area, however, is not adequately buffered from Miami Gardens Drive and appears to be deteriorating.

The one land use conflict exists where the commercial development on the south side of Miami Gardens Drive (which is in the unincorporated area) abuts Sunray West, a single family home neighborhood in North Miami Beach. The houses on the south side of NE 183 Street face the back of the commercial uses along Miami Gardens Drive. Although a partial wall separates the commercial uses from the single family homes, the conflict does result in problems. First, the maintenance performed by the commercial property owners and the county at the rear of commercial properties conflicts with the single family home owners' desires and their own maintenance standards. Second, NE 183 Street is a known cut-through route for motorists wanting to avoid Miami Gardens Drive. Not only is the street straight and unobstructed, but there are homes only on the south

side. This makes the street look wide open and inviting to speeders. These two problems negatively affect the homes on NE 183 Street.

Adjacent Land Uses to the West (north of S.R. 826)

North Miami Beach's western boundary is the I-95 Freeway, with the exception of a few square blocks of industrial land just west of the Golden Glades Interchange. On the east side of I-95 are two of North Miami Beach's single family home neighborhoods -- Uleta and Pickwick Estates. The Seaboard Railroad right-of-way and industrial development which is in, for the most part, unincorporated Miami-Dade County lie west of I-95. The freeway is elevated above the respective land uses to the east and west. In this way, I-95 forms a complete separation between those uses. Furthermore, the residential areas are buffered from the freeway by walls which serve as noise barriers. Thus, no conflicts between adjacent land uses to the west of the City exist.

There are inconsistencies within the Uleta neighborhood where unincorporated enclaves are surrounded by the City. The designated land uses are not different; both are residential low density. However, code enforcement and municipal services are provided by both the City and by Miami-Dade County for their respective residents. The differences between the two are often significant enough to be considered tantamount to a land use conflict.

Adjacent Land Uses South of S.R. 826

Properties fronting on the south side of 167th Street from I-95 to NE 8 Avenue are located within Miami-Dade County. They are developed with commercial uses, as are the properties in North Miami Beach fronting on the north side of 167th Street. County commercial frontage includes more auto repair and related uses than does the City frontage. Development regulations applicable to landscaping and setbacks are more rigorous for those 167th Street properties located within the City than for those located within the county, and code enforcement is more stringent in the City. The inconsistencies and their negative affect on the commercial corridor resulted in the City of North Miami Beach submitting an annexation request to the County to make the commercial properties part of the City. As of the writing of this plan, this action is pending approval by the County.

Along NE 8th Avenue and NE 151st Street, North Miami Beach's residential properties are abutted by residential properties that are within unincorporated Miami-Dade County. Most of these are single-family. While the City continues its single family home land use pattern to the east, multiple-family properties lie in the unincorporated area south of NE 151 Street between NE 14th Avenue and NE 18th Avenue. Again, while the land uses themselves are not in conflict, the inconsistencies in code enforcement and municipal services do affect the area.

The area from NE 18 Avenue east to the Intracoastal Waterway and from S.R. 826 south past NE 135 Street contains a conglomeration of uses that are not necessarily well matched or buffered. The lands within this area lie within either the City of North Miami

Beach, unincorporated Miami-Dade County or the City of North Miami. Industrial type uses lie to the south and north of the City boundary along NE 151st Street between West Dixie Highway and the Florida East Coast Railroad. Uses fronting Biscayne Boulevard are generally commercial in nature. However, within close proximity to the fairly well defined industrial and commercial areas just described, the following uses can also be found: single family homes, multi-family homes, high rise condominiums, a warehouse district, public parks, public utilities and other government buildings, a trailer park, a sewage treatment plant, a state park, and a state university campus. The development pattern in this area has resulted from many circumstances, including the way in which the transportation corridors (West Dixie Highway, the F.E.C Railroad tracks, and Biscayne Boulevard) cut through it. The fact that the municipal boundaries between North Miami Beach and North Miami are jagged and unusual in this area has not and does not cause the conflicts and inconsistencies. However, any attempts to address the buffering or redevelopment needs that do exist in this area should be coordinated between the two cities. An existing intergovernmental agreement to share with each other proposed land development applications along the corridor facilitates more coordinated development.

Adjacent Land Uses To The East

North of Sunny Isles Boulevard the eastern municipal limits of the City of North Miami Beach lie adjacent to Greynolds Park, Maule Lake and the Intracoastal Waterway. A common boundary is shared with the newly incorporated City of Aventura, but most of the common boundary lies within the submerged lands of Maule Lake and the Oleta River. No land use conflicts exist between the uses north and east of the City and those in the City.

South of Sunny Isles Boulevard and east of Biscayne Boulevard (U.S. 1) the City is adjacent to the Oleta River State Recreation Area, Florida International University, and the Munisport landfill, no longer in operation, which is owned by the City of North Miami.

Land Use Analysis

Neighborhoods

Modern-day North Miami Beach itself is not, because of its boundaries, easily identified in terms of location or landmarks. The harmonious but widespread, diverse, and unique neighborhoods making up the City of North Miami Beach are linked together by three transportation corridors (North Miami Beach Boulevard, Biscayne Boulevard, and Miami Gardens Drive) and function together around the cultural center of the City, including City Hall, the Performing Arts Theater, the Harry Cohen Complex (Lafe Allen Library, Gwen Margolis Amphitheater, and Challenger Park), the Public Safety Building, and Victory Park -- the historic location of downtown Fulford-by-the-Sea, North Miami Beach's original name. At the same time, most of the neighborhoods that make up the City have distinct identities due to either physical boundaries (e.g. a major traffic

corridor, a canal, the Oleta River), or land use characteristics (e.g. lot sizes, housing types, street pattern). Other areas of the City have developed distinct identities by choice or as the result of particular issues relevant to the area, most notably neighborhood crime watch organizations.

As a result of the desire to continue North Miami Beach's cooperative, unified approach and still address the concerns and needs of the diverse and unique areas of the City, North Miami Beach organizes many of its functions according to neighborhoods. Every Department of the City is affected by this approach. The Police Department's Community Patrol program, Code Enforcement assignments, Recreation Programming, the annual Town Meetings held in each neighborhood, annual surveys of neighborhood satisfaction, Public Works maintenance scheduling, and the City's overall Capital Improvements Planning are just a few examples of the activities that have neighborhoods at their core. In addition, the City has helped each neighborhood develop their own improvement plan, addressing such issues as security, landscaping, traffic management, lighting, recreation facilities, etc. The City recently created and filled a position within the Administrative Services Department with the title "Neighborhood Coordinator." This individual assists in creating homeowners' associations, organizes block parties, facilitates communication when the City plans and implements construction projects requested by a neighborhood, and insures that CIP projects are prioritized with neighborhood concerns in mind.

The City's neighborhood map (see Map 1.7, Volume Four) includes 12 neighborhoods. Some of the neighborhoods are divided into smaller areas for various reasons similar to those explained above. Following is a brief description of the land use in each neighborhood, including a description of each sub-area when appropriate. These descriptions are inclusive of the entire City since every parcel within the City is included in one of the 12 neighborhoods.

Uleta

Uleta is unique in that it is one of the largest neighborhoods in North Miami Beach in terms of area and population and yet it is very clearly defined in terms of geography. Uleta lies west of the heavily traveled, 4-lane, NE 6th Avenue and north of State Road 826. The neighborhood is contained by I-95 on its third, or northwesterly, side. A few square blocks of industrial land known as the I-95 Industrial area lies adjacent to Uleta west of I-95. While technically included in the Uleta neighborhood, this area is clearly set apart from it and has its own issues.

The southern part of Uleta includes commercial uses along State Road 826 and along NE 6 Avenue. Offices, duplexes and triplexes, and Parkway Regional Hospital are found in the south and east parts of the neighborhood. The remainder of Uleta contains single family homes.

Most Uleta residential lots are typical for North Miami Beach. They have 60 feet of frontage and are 100 feet deep. The blocks fronting on NE 4th Place and the square blocks south of 174th Street are platted with 25-foot lots. These 25-foot lots are

developed with one structure on two lots. More than half the structures on these 25-foot lot pairs are two-family structures. Uleta area homes were built in the 1950's. The number of homes needing repair or showing other evidence of deferred maintenance are substantial enough to warrant concern. The amount of tenant occupancy is over 50 percent.

Stabilizing Uleta has been placed at the top of the City's priority list. While the issues and trends in the neighborhood are fairly evident, homeowners and residents within the neighborhood are not organized, vocal, or involved enough to indicate by consensus to City officials what improvements they desire or believe would be helpful.

The City formed a Task Force of representatives from a number of different city departments to study the neighborhood, talk with its residents, and develop a list of improvements and activities that should occur. Three areas of concern -- speeding, cut-through traffic, and crime -- were used as a starting point to bring residents together. The City has developed alternatives for the residents to consider and is attempting to raise public awareness and input before implementing any improvements.

I-95 Industrial

The conglomeration of warehouses, heavy equipment yards, and light industrial uses known as the I-95 Industrial area is completely separated from the rest of the City by I-95 and the Golden Glades Interchange. Despite this separation, the City has worked closely with property owners and business owners in the area to address their concerns and maintain it as a thriving business location. The area was recently greatly improved with the reconstruction of the roads, installation of a storm water drainage system, landscaping, fire flow improvements, and sanitary sewers..

Pickwick Estates

Pickwick Estates is a comparatively small, completely residential area north of Miami Gardens Drive and just east of I-95. The secluded single-family home neighborhood has only one access point, is separated from Miami Gardens Drive and I-95 by a continuous 6' high wall, and is bordered on the east and north by a lake and canal. Due to its convenient but self contained location, Pickwick Estates is relatively stable. The reconstruction of the wall between the neighborhood and Miami Gardens Drive, the beautification of its entrance features, landscaping improvements, and lighting improvements on the interior of the neighborhood have helped meet the resident's needs and desires. The City and residents are discussing possible additional lighting improvements.

Windward

Windward is a neighborhood that is, in reality, larger than that portion within the City limits. Clearly defined by the Snake Creek canal on its north/east side, Windward's southern and western boundaries follow zig-zag City boundaries that have no apparent reason or meaningful purpose. Within these boundaries are mostly single family homes

and a few multi-family developments at the southeast end. Unincorporated Windward includes the Mall at 163 Street, North Miami Beach High School, John F. Kennedy Jr. Middle School, commercial and multi-family uses near State Road 826 and NE 9 Avenue, and a large area of single family homes bounded by NE 6 Avenue on the west and including Pan Uleta on the south.

Windward residential lots are among the largest in the city. The typical Windward lot is 65 feet wide and 110 feet deep. Homes were built during the 1960's. They are in sound condition. The typical home has 1,500 square feet of living area, three bedrooms, two baths and a Florida room plus carport. They were originally constructed to appeal to larger families than the homes in Sunray East and Sunray West. They continue to be attractive to families.

As in other neighborhoods, crime and cut-through traffic are of concern in Windward. Some homeowners have petitioned the City for assistance in reducing cut-through traffic. The City continues to work with them while maintaining a system view of traffic. However, additional discussions and efforts of the local homeowners have focused on another issue -- annexation.

Officially, North Miami Beach does not support or oppose the annexation of unincorporated Windward. Rather, the City suggests that the residents and homeowners in the area should decide what is best. The City has and will continue to provide information and scenarios to unincorporated Windward regarding annexation. For example, the City's Community Patrol program would help unincorporated Windward address its concern about crime. On the other hand, annexation would result in an increase in taxes for the property owners. There is little question that in terms of municipal service provision the annexation of unincorporated Windward is rational. However, if annexation is to occur, it will be as a result of property owners agreeing that the benefits that will result are worth the extra expense they will incur.

Monticello

Nestled in between the Mall at 163 Street, J.F.K. Middle School, and S.R. 826 is a single-family home neighborhood technically included in Windward, but widely known as Monticello. In the early 1990s, Monticello residents and the City developed a plan to stop the neighborhood's deterioration and restore its appeal and character. The City helped Monticello eliminate access on four streets leading from the Mall and the schools and began a series of aesthetic and infrastructure improvements such as swale restoration, fire flow improvements, a perimeter wall, and landscaping.

Pan Uleta

Pan Uleta is the southwestern corner of a large, unincorporated neighborhood that is known by City officials as "unincorporated Windward". Pan Uleta includes the commercial uses on the north side of State Road 826 from NE 6 Avenue to NE 8 Avenue. North of the commercial uses are single family

homes which back up to a wall separating the two uses. The residential area of Pan Uleta is more stable than Uleta, its namesake to the west, but has identified the same issues: speeding, cut-through traffic, and crime. The neighborhood is fairly vocal and some homeowners are working with the City to develop alternatives for addressing their concerns.

Sunray West

Sunray West is a clearly defined area consisting almost entirely of single family homes. The western limit of Sunray West is the Snake Creek Canal. Its eastern boundary is NE 19 Avenue. To the north it extends to the City boundary on NE 183 Street, and to the south its border is NE 171 Street. The only non-residential uses are an elementary school located in the middle of the neighborhood and some commercial uses on NE 19 Avenue. Although there are some cut-through traffic routes at the north end of the neighborhood (see section on "Adjacent Land Uses to the North", above) there are no major issues faced by Sunray West. Crime and property maintenance are the concerns that the City is most actively addressing in the neighborhood, but these issues are not unique to the area. Miami-Dade County has developed plans for improvements on NE 19 Avenue and NE 15 Avenue. The projects will affect Sunray West and the City is working with both the residents and the County to make sure their needs are addressed.

Residential lots in both Sunray West and Sunray East are relatively small. The typical lot has 50 foot of frontage and is 110 feet deep. Homes were built in the 1950's. Most of the homes are in sound condition, but there is scattered evidence of deferred maintenance. The typical home has 1,200 square feet of living area, two bedrooms and one and a half or two baths. They were originally constructed to appeal to "empty-nesters" and retired residents. During recent years many of the homes have been expanded by enclosing carports and adding rooms. One of the biggest changes in this area has been an increase in the percentage of tenant-occupancy and a decrease in the percentage of owner-occupancy. Numerous families of Hispanic origin have moved into the area.

Sunray East

Housing in Sunray East is very similar to that in Sunray West. The two Sunray neighborhoods meet at NE 19 Avenue with Sunray East extending east to Greynolds Park and West Dixie Highway. Sunray East is distinct from Sunray West for a few reasons. First, the uses within the neighborhood are more diverse. Not only are there multi-family uses at the south end and commercial uses on its north and west sides, but its location next to Greynolds Park results in concerns unique to its residents. Second, the homeowners in Sunray East are vocal enough to result in projects specifically for their neighborhood. Although cut-through traffic is a recurring concern of Sunray East, the residents and the City have been unable to develop an effective alternative that does not negatively affect access to Greynolds Park or traffic patterns on other streets.

Skylake

Skylake is that area of the City north of Miami Gardens Drive between NE 18 Avenue and NE 22 Avenue. For the most part, Skylake is made up of relatively large and well maintained single-family homes. Also included in the neighborhood are a few commercial uses facing Miami Gardens Drive and a multifamily development to the immediate north of the commercial area. NE 18 Avenue, NE 22nd Avenue, and NE 199 Street are local arterials which carry a fairly high volume of traffic and provide somewhat of a boundary. The actual City of North Miami Beach boundary zig-zags within the neighborhood, and over 1/2 of the homes within the "neighborhood" are within unincorporated Miami-Dade County. Miami Gardens Drive is a state road that sets Skylake apart from the neighborhood to the south, Sunray East.

The Skylake neighborhood is more similar to the unincorporated residential areas to the north and east of it, respectively Highland Oaks and Enchanted Lake, than it is to any residential areas within the City. To the west of Skylake there is a large tract of vacant, unincorporated land, the Diplomat Golf Club, and a large development of high density condominiums.

Sky Lake lots are among the largest in the City. The typical lot is 75 feet wide by 110 feet deep. Homes were built in the early 1960's. They are in sound condition. Homes on Sky Lake itself are the most valuable in the neighborhood. Their value influences the cost of other homes in the area. No vacant lots are available for development in the area.

Skylake is stable and adequately provided with public facilities. The issues of greatest concern are cut-through traffic, security, maintenance of property values, and the number of homes for sale. These issues led to a recent proposal to close many of the access points into the neighborhood, build guardhouses at the remaining entrances, and provide roving security. Because the neighborhood included many homeowners that actively pursue improvements to the area, the City takes a more reactive role in Skylake than it does in other neighborhoods. Because the homeowners are active and vocal in Skylake, the City is able to facilitate discussion and then provide those improvements desired by a majority.

Oak Grove

Oak Grove is that area of the City south of S.R. 826 and west of NE 14 Avenue. Oak Grove's southern and western boundaries are, like those in Skylake and Windward, zig-zagging City limits with no apparent rationale. Beyond the City limits the residential uses of what is known as Oak Grove extend a considerable distance south and west without encountering any major boundaries. The extended Oak Grove area supports many uses other than residential. This unincorporated area (which lies south of S.R. 826, east of both I-95 and the Biscayne River, and north of North Miami's corporate limits) directly relates to the characteristics of Oak Grove within the City. However, the land uses, their characteristics, and the potential issues involved are too vast to incorporate in this description. (For a discussion of the commercial land uses along the unincorporated

portion of S.R. 826 and the potential annexation of them, see "Adjacent Land Uses to the South," above.)

Within the City, Oak Grove consists of the commercial uses along S.R. 826 from NE 8 Avenue to NE 14 Avenue and various subdivisions to the south of the commercial uses. Three of these subdivisions have organized in an attempt to address their concerns. The remainder of the households suffer from a lack of identity. The area, other than the three organized subdivisions, is not vocal or active in the City's efforts. The housing stock is declining and crime is a concern.

Carl Byoir

Carl Byoir has the longest running and best organized Crime Watch within the City. The single-family home neighborhood is located between NE 159 Street on the south and businesses on S.R. 826 to the north, and between NE 8 Avenue and NE 10 Avenue on the west and east, respectively. While the Crime Watch has an obvious specific purpose, it serves as a broader forum for discussion of issues for which the City can provide assistance. The City has discussed various improvements with the neighborhood, including the possible provision of a tot-lot, additional street lighting, and traffic mitigation measures.

Fleeman Heights

Fleeman Heights organization also started as a crime watch. The concerned home owners have discussed many concerns with the City, including code enforcement in abandoned alleys, improving and dedicating as a park a median used as a neighborhood gathering point, sidewalk construction and reconstruction, and potential traffic mitigation measures. Fleeman Heights is bounded by NE 159 Street on the north, NE 12 Avenue on the east, NE 10 Avenue on the west, and NE 155 Street to the south.

Breezeswept

Breezeswept is adjacent to and directly south of Fleeman Heights. This neighborhood is attempting to raise public awareness and increase the participation of its homeowners and residents. No specific requests or issues have been brought to the City other than a request for assistance in organizing. Assuming Breezeswept is successful, the remainder of Oak Grove may be able to join with the three existing neighborhood organizations to represent the area's needs and desires.

Washington Park

Washington Park is a historically African American community that was built in the 1950s. The neighborhood is made up of small (50 foot wide by 90 foot deep) residential lots and a few churches. A park, a neighborhood resource center, a community center, and a convenience store are all located at the center of the neighborhood. Its outer boundaries are NE 14 Avenue and NE 16 Avenue, and it extends from NE 151 Street to

NE 155 Street. There are many housing structures in serious disrepair within Washington Park. The residents of Washington Park are relatively vocal and the City attempts to maintain a positive working relationship with the neighborhood's leaders. Crime is the major concern. The City and the home owners are currently discussing the possibility of additional security lighting in the neighborhood.

Allen Park

Allen Park, the neighborhood, is similar to Oak Grove in that it does not have an identity that is widely known or boundaries that are clearly evident. The neighborhood takes its name from Allen Park -- the city-owned youth center and athletic field adjacent to Fulford Elementary School. Allen Park is unlike Oak Grove due to the wide variety of land uses contained throughout the neighborhood (see also "Adjacent Land Uses South of S.R. 826" above). Allen Park consists of that area from NE 16 Avenue east to the FEC right-of-way and from S.R. 826 south to NE 151 Street. It also includes the mostly residential area from NE 16 Avenue west to NE 14 Avenue, south of S.R. 826 to Washington Park. Land uses within Allen Park include single family homes, multi-family developments, an elementary school, three public parks including one on a lake, the North Miami Beach Public Utilities Complex, other utility buildings such as People's Gas and FPL (vacant), Southern Memorial (a large cemetery), an industrial area, a warehouse area, and commercial uses along S.R. 826 and West Dixie Highway. The park/residential area on the lake and the industrial area are further described below.

Aqua Bowl

Taylor Park and the "Aqua Bowl" area is located east of NE 18 Avenue, south of NE 159 Street, and northwest of West Dixie Highway. It features a lake known as the Aqua Bowl. The residences in this area are fairly stable despite their location near land uses which can often conflict with residential uses. Although unique and fairly well secluded form other areas of the City, the Aqua Bowl area has only recently been active in working with the City to improve. Potential improvements include speed and traffic mitigation and lighting.

West Dixie Industrial

The West Dixie Highway Industrial district is located between West Dixie Highway on the west and the FEC right-of-way on the east, and between NE 151 Street and NE 155 Street. The uses are light industrial, automotive, and warehouse in nature. The City has begun an improvement project in the district that will connect each property to sanitary sewer and improve fireflow as well as the streets and drainage. These improvements, combined with the renovation and reuse occurring at a previously vacant car dealership facing West Dixie Highway will insure this area is maintained as a thriving business location.

Biscayne Boulevard

The City's boundaries along Biscayne Boulevard, particularly south of S.R. 826, carve out certain areas, which are included in the City while others are within North Miami's

city limits. Although this does provide difficulties and confusion, the various land uses in the Biscayne Boulevard area can be summarized if divided into three categories.

Highland Village

Although it is known mostly for the mobile homes located in the southeastern most tip of the City, Highland Village also includes a public park, some multifamily developments, and a few blocks of concrete block single family homes. The residents of the mobile home park are quite vocal and active in the City functions relative to their neighborhood. The most pressing issue relates to the Munisport landfill (in North Miami) and its potential affect on the groundwater in the area. The elevation in Highland Village is the lowest in the City, so ground water contamination and flooding are major concerns.

During the preparation of the Comprehensive Plan in 1987, Highland Village was identified as a potential redevelopment area. The area is within the Hurricane Vulnerability Zone and the trailers and homes are not elevated in conformance with FEMA requirements. For these reasons the City considered land development regulation changes which would disallow new or replacement mobile homes. However, as a result the of the concerns Highland Village residents expressed regarding the potential negative effects of such changes, the City did not adopt these regulations. The future land use designation for the mobile home park is residential-low density (maximum eight units per acre), while the zoning allows lots of 1,200 square feet. (which equates to approximately 36 units per acre)

Biscayne North

The commercial uses north of S.R. 826 on Biscayne Boulevard are grouped together as Biscayne North. The uses include two marinas, retail uses, dining establishments, and other entertainment related businesses. Also along this corridor are East Greynolds Park and long narrow tracts of undevelopable vacant land between Biscayne Boulevard and the FEC right-of-way. Along with the widening of Biscayne Boulevard, a substantial amount of activity has recently occurred or is currently occurring in this area. The City adopted a mixed-use future land use category to help spur development of some vacant tracts, redevelopment of parcels affected by the road widening, and existing uses which no longer conform to the character of the corridor.

Biscayne South

Biscayne South is the name used to refer to those uses facing Biscayne Boulevard south of S.R. 826. Nearly all of these properties were redeveloped, or greatly improved, in conjunction with the widening of Biscayne Boulevard that was recently completed. A few vacant parcels remain along this commercial corridor.

Easternshores

Eastern Shores is that area of the City east of the S.R. 826 bridge over the Oleta River. The uses within Eastern Shores include commercial establishments facing S.R. 826, the Intracoastal Mall, multifamily apartments and condominiums, and single family homes. All of these uses are north of S.R. 826; the Oleta River State Recreation Area is on the south side.

Eastern Shores is often used to refer more specifically to the residential areas accessed by NE 35 Avenue. The land to the west of NE 35 Avenue is developed with single family homes. These homes have the highest value of any in the City. Many of them are comparatively large and all have deep water access. They are within an area protected by 2 guardhouses. To the east of NE 35 Avenue are condominiums and apartments. The condominium owners are, for the most part, well organized and very vocal in City affairs. They also are within the area protected by a guardhouse. This area is scheduled for drainage improvements. Phase I, which includes those areas west of NE 35 Avenue are underway. The design stage for Phase II, which includes those areas east of NE 35 Avenue, has been completed. The City and the residents of Eastern Shores are also investigating possible lighting improvements, development of a tot lot in the area, and new a entrance feature with improved landscaping.

Western Eastern Shores

Western Eastern Shores is a name that is used to distinguish the residential uses accessed by NE 26 Avenue from those accessed by NE 35 Avenue. This area consists of townhomes and condominiums set on the south and west sides of Maule Lake. The homeowners in this area have created a distinct identity for themselves through their active participation in those City activities which involve their neighborhood. Development proposals for the vacant land between their homes and S.R. 826 and a recent street closure request have brought the neighbors together. Improvements being discussed include maintenance of Maule Lake and the possibility of developing a tot lot for this neighborhood.

City Center

If there is a “downtown” in North Miami Beach, City Center is it. Included within this neighborhood are City Hall, the Post Office, the Police and Fire Station, the Library, a performing arts theater, an amphitheater, three public parks, a university campus, numerous historic homes, the Fulford-by-the-Sea Monument, the Old Spanish Monastery (National Registry of Historic Places), and hundreds of commercial establishments including two grocery stores, numerous eating establishments, office buildings, and retail establishments. City Center extends from the FEC right-of-way on the east to NE 15 Avenue on the west, and from NE 172 Street on the north to S.R. 826 on the south. The area has the Snake Creek Canal as an east-west axis and has NE 19 Avenue as a north-south axis. Three bridges (NE 19 Avenue, NE 15 Avenue, and West Dixie Highway) provide symmetry to the City Center.

Fulford

At its east end, City center has as its base two well known establishments. First is Laurenzo's, an Italian market and restaurant known throughout South Florida. Laurenzo's is on the south side of the Snake Creek Canal and the east side of West Dixie Highway. Across the Canal is the Spanish Monastery which has a very interesting history and attracts many tourists each year. The first regional shopping mall in South Florida, the Mall at 163 Street, provides the base for the west end of City Center. Although it is not within City boundaries, the mall is associated with North Miami Beach more than any other landmark. Connecting the bases at the east and west ends is NE 164 Street. This street functions as a local retail corridor and interacts well with the adjacent regional retail corridor (S.R. 826) which lies to the immediate south. This area is sometimes referred to as Fulford. Fulford, Government Center, and University Park (see below) make up the three sub-districts of City Center.

University Park

Once home to Southeastern University, this area is now the focus of an innovative redevelopment proposal. Located north and east of the Snake Creek Canal and west of NE 19 Avenue, University Park includes the old Southeastern Campus and is surrounded by residential uses. The City is leading an effort to bring a school called the BEST Academy to the vacant campus. The academy would be a high school for both Dade and Broward County students with an interest in receiving training in the biomedical field. As part of this redevelopment, the City intends to improve the surrounding residential area. Funding sources for planning and implementation are being pursued.

Government Center

Government Center is the name used to refer to that area from NE 19 Avenue east to the FEC right-of-way and from the Snake Creek Canal north to NE 172 Street. This area has been the focus of the City's most recent and largest ever redevelopment project. Land uses within the area include residential units ranging from single family homes to large apartment buildings. One of the large apartment buildings is, as a result of the City's efforts, being managed by a not-for-profit corporation that will provide affordable housing. Along with the reconstruction of the streets, sidewalks, water lines, lighting, drainage and landscaping throughout the neighborhood, a new Public Safety Building was recently completed just south of City Hall. The City is currently investigating the possible purchase of acquiring over four acres of vacant land along the canal for development of active recreation and ballfields.

Retail and Office Areas

Retail and office development is concentrated along North Miami Beach Boulevard. The major facility is the 163rd Street Mall which is located in a portion of unincorporated

Miami-Dade County completely surrounded by the City. Well designed community and strip shopping centers are also located along North Miami Beach Boulevard and Sunny Isles Boulevard. However, much of the City's commercial frontage is older, strip-type development. It is characterized by no parking or minimal parking. Landscaping and building design standards are low. Maintenance is often deficient.

Convenience sales and personal service uses are the most frequently occurring retail uses in the City. A land use survey done in 1987 identified 781 different businesses or other activities in office and commercial areas. 209 of these, 27 percent, are convenience sales and personal services establishments (supermarkets, grocery stores, specialty food stores, quick stop stores, drug stores, barber shops, beauty shops, dry cleaning and laundry establishments and similar enterprises). Personal service enterprises outnumbered convenience retail enterprises by 135 to 74. Convenience sales and personal service uses are concentrated in areas 7, 8, 10 and 18. (See Map 1.11, Volume Four)

The second most frequently occurring type of establishment in North Miami Beach are those selling department store-type merchandise (clothing, furniture, appliances, sporting goods and other like products). The land use survey identified 140 department store-type merchandise establishments, 18 percent of the 781 establishments identified in the survey. Department store-type merchandise establishments are most prevalent in areas 2, 7, 8, 9, 10, 11, 13 and 16.

The land use survey identified 99 restaurants, 13 percent of the 781 establishments identified. Office uses represent a substantial number of enterprises in North Miami Beach. The land use survey identified 77 office uses in commercial strip areas. In addition, the survey identified 26 office buildings. The office buildings contain, in most cases, more than one individual office establishment.

North Miami Beach is perceived to have a large number of gas station and auto repair establishments. The survey identified 31 gas stations and/or auto repair establishments. These amounted to 4 percent of the total number of enterprises identified. The Land Use Survey also identified 12 tire, battery and/or automobile accessory stores.

Major Comparison Shopping Centers

Residents of North Miami Beach are served by three major comparison shopping centers. The closest of these is the 163rd Street Mall. The 163rd Street Mall is located in a portion of unincorporated Miami-Dade County which is completely surrounded by the City of North Miami Beach. The mall itself is bordered by the City of North Miami Beach on three sides. The mall site occupies over 50 acres. It contains over 70 stores including four department stores. It draws customers from Dade and Broward Counties.

The other major comparison shopping center serving North Miami Beach is the Aventura Mall in northern Miami-Dade County. The Aventura Mall is located on Biscayne Boulevard (U.S. 1) near 192nd Street. (See Map 1.12, Volume 4)

Ethnic and Other Specialty Food Stores

Over the years, North Miami Beach has been home to many ethnic groups, most notably Jewish and Italian. One of the results of this population mix has been the development of a strong ethnic-food retailing base Ethnic food stores include four Kosher food stores, three Italian food stores, two Chinese food stores and one Latin food store. Other specialty food stores include meat markets, bakeries, candy stores and ice cream stores. The City is developing alternatives for enhancing this niche in conjunction with the revitalization of State Road 826.

Redevelopment Analysis/Land Use Analysis Requirement

Redevelopment Analysis

Redevelopment can be motivated by three goals i.e., three categories: 1) to eliminate blight, 2) to eliminate incompatible land uses and 3) to take advantage of an economic opportunity that is not permitted by the existing pattern of development. Physical blight can result from deteriorating structures or obsolete structures, or both.

Potential redevelopment areas in North Miami Beach are identified below, including . potential redevelopment goals for each area.

Highland Village

Highland Village not only contains the mobile homes that are incompatible with the hurricane vulnerability of the area, but is located along Biscayne Boulevard where land values are comparably high. The redevelopment goal for Highland Village is to promote a reuse of the land that is less vulnerable to flooding and other harmful effects of a hurricane and more compatible with the types of uses along Biscayne Boulevard.

826 Corridor/Mall South

The widening of Biscayne Boulevard provided a stimulus to redevelopment and new development along that commercial corridor. A similar stimulus is desired for the S.R. 826 corridor. However, no major infrastructure changes such as those occurring along Biscayne Boulevard are planned (or even feasible) for S.R. 826. A frequently mentioned specific location for redevelopment is what is known as Mall South, or the south side of S.R. 826 between NE 12 Avenue and NE 15 Avenue. The redevelopment goal for S.R. 826 is to maintain the thriving and attractive businesses and stimulate private redevelopment of the underutilized and/or ill-maintained parcels of land with quality, long term commercial uses.

University Park

The redevelopment goal for this area (described in detail in the previous section) is to create a cohesive, attractive mixed-use neighborhood that provides for the needs and desires of its residents while providing a quality education alternative for the region. Objectives include adapting the existing campus facility to accommodate a

public high school, upgrading the neighborhood infrastructure, and improving the quality, aesthetic appeal and maintenance of the housing stock.

Allen Park

As described above, Allen Park contains a wide variety of land uses. As such, the neighborhood contains numerous redevelopment opportunities. Many of these opportunities have already been seized by both private and public entities. For example: Friendly Ford, located in the northeast corner of Allen Park, has undertaken a significant redevelopment of their operations, the West Dixie Highway Industrial area is undergoing substantial redevelopment by both the City and private interests, and the City's Public Utilities Department is building a new complex within the neighborhood. The redevelopment goal for Allen Park is to develop a cohesive land use and redevelopment plan for the neighborhood which addresses the full range of industrial uses, commercial uses, and multi family and single family residential uses within it and each of those uses specific issues. Objectives include improving the quality of the housing stock, addressing the lack of parking in the residential areas, identifying possible changes in land use designations aimed at addressing the City's projected housing shortage, and buffering existing and future residential uses from existing or future non-residential uses.

Availability of Public Facilities

Roadways

The three major traffic corridors affected by land uses within the City are S.R. 826 (North Miami Beach Boulevard), Biscayne Boulevard (U.S. 1), and Miami Gardens Drive. No major increases in demand are expected on any of these roadways since there are only a few vacant land areas of significance.

North Miami Beach Boulevard

The volume/capacity ratio is extremely high and the level of service typically runs at E.* There is not much possibility of widening North Miami Beach Boulevard because of the amount of commercial property that would have to be acquired.

Traffic problems on certain stretches of North Miami Beach Boulevard are exacerbated by an excessive numbers of curb cuts.

Biscayne Boulevard

Upon completion of the current widening project which will provide three and four lanes in each direction, Biscayne Boulevard will be adequate to serve the redevelopment and new developments which could occur along this corridor.

* See the Traffic Circulation Element for a detailed explanation of the current level of service on thoroughfares in North Miami Beach

Miami Gardens Drive

While the majority of the land uses immediately adjacent to Miami Gardens Drive are not within the City, this corridor has effects upon and is affected by land uses in North Miami Beach. A road widening project for Miami Gardens Drive, which is currently two lanes in each direction, is being planned by DOT.

*Sewer Facilities**

Over one-third of the City is now served by sewers. During the next several years, the City will be continuing to extend sewer service to those intensely developed areas which are not connected to sanitary sewers as well as to any newly developed parcels of land.

*Water Facilities**

Water distribution lines serve the entire City. Systematic upsizing of some older lines is continuing.

Groundwater Recharge Areas

There are no well fields within the City.

*Storm Drainage Facilities**

The City continues to upgrade the existing drainage infrastructure. The drainage system, and the standards and requirements for new development, are adequate to meet the existing development pattern.

*Solid Waste Facilities**

The City truck fleet and County disposal facilities are adequate to meet the land use plan needs.

*All four of these subject areas are analyzed in more detail in the Infrastructure Element. There is no vacant land for which development orders have been issued.

Vacant Land Analysis

Amount

Only 100 acres or about 3 percent of the City's land is vacant. About one-fourth of this amount is scattered in-fill vacant lots. However, most of it is in the coastal zone.

Natural Resources

Two vacant land areas have natural resource significance for the City. First is a portion of the land adjacent to the Old Spanish Monastery. The site contains shoreline along the Snake Creek Canal and contains a variety of plant and animal life. Second is an area which also lies along the Snake Creek Canal, some distance to the west of the Monastery site. This is the last remaining large vacant tract of land along the canal. The City hopes to acquire this parcel for a City Park and natural resource conservation.

Soils

A comparison of soils and vacant parcels in the City's Plan shows that in addition to the tracts cited above which have Mangrove Peat Soil, several of the Biscayne Boulevard corridor tracts are in the marl belt which also causes problems for development, particularly septic tanks. Major developments in these areas will require sanitary sewer service; fortunately almost all of these tracts are adjacent to sewers or planned for sewer extensions (Map 1.19 of the Comprehensive Plan, Volume Four).

Topography

All vacant land is level, generally about 10 feet above sea level so this is not an issue.

Other

None of the vacant land is significant from the standpoint of waterwells or historic resources.

Development and Redevelopment of Flood-Prone Areas

Most of the flood plain areas are developed with substantial buildings. There are three exceptions: 1) the mobile home subdivision at the southern end of the City in the 100-year flood plain; sound coastal management would call for its eventual replacement with more substantial buildings (see the redevelopment analysis for further details), 2) the environmentally sensitive vacant tracts along the Oleta River; special care must be taken if ever developed as discussed in the preceding section, and 3) the prime vacant land along Biscayne Boulevard which is on the western edge of the hurricane-sensitive coastal zone; again, development plan review is important. There is an extensive flood retention/absorption area to the east in Oleta River State Recreation Area and protected mangrove areas.

Flooding has not been a problem in North Miami Beach and none of the City's land is located on the barrier island. Therefore, the principal implication is to adhere to flood insurance and sound building code practice plus careful development plan review, particularly on setbacks from water bodies and on minimum floor elevations.

Land Use Analysis: Population Projections

Two fundamental tools in planning for the City’s future, population projections and the land use plan (Future Land Use Map) are described below. Following these descriptions is a list of potential changes to the Future Land Use Map based on the relationship between population projections and the City’s land use trends and needs.

Data Sources for Population Projections

The population data utilized for the North Miami Beach projections are based on the most current and accurate data available. The historical population data is from the decennial Census conducted by the U.S. Bureau of the Census. The official current population estimates used are prepared by the University of Florida Bureau of Economics

and Business Research (BEBR). Population projections are prepared for Miami-Dade County by BEBR, only estimates of current population for the preceding year are available for the City. Local data sources for population projection include City housing permit and residential capacity data, subarea projections prepared by the Miami-Dade County Planning Department, and residential electric meter connections. The North Miami Beach population projections have been based on Census data, official BEBR estimates, and Miami-Dade County Planning Department projections.

Historic Population Trends

Resident population and household trends for North Miami Beach, Miami-Dade County, and Florida are illustrated in Table 1.2 in the appendix to this element. The 1996 estimates have been provided by BEBR. Resident population is defined by the Census Bureau and BEBR as being those persons who reside in a place for six months or more each year, and are often referred to as permanent residents.

The compound annual population growth rate in the City was 3.62 percent during the 1960's and 1.75 percent during the 1970's. This rate was significantly higher than the compound annual rate for growth in Miami-Dade County or the State during the 1960's. However, from 1970 to 1980, the City's rate declined to less than the Miami-Dade County rate of 2.52 percent, and was substantially less than the State rate of 3.68 percent. The City’s population did not increase between 1980 and the early 1990s. Due to an increase in household size, the City’s population began to increase again in the mid 1990’s.

Current Population

In 1996, the number of permanent residents in North Miami Beach was estimated at 38,057 by BEBR; this number is used for the City population projections and analysis. The BEBR estimates are based partially on residential electric meter connection data and are subject to statistical error at the local level. These figures, as the official State population estimate for the City, are assumed to be sufficiently accurate as a basis for projecting the future population of the City.

Historic Household Trends

The number of persons per household steadily declined in North Miami Beach from 1960 through the early 1990s, as it did throughout Miami-Dade County and the State of Florida. According to estimates of population, since the mid 1990s however, this trend is no longer occurring. Average household size is on the increase in North Miami Beach.

A significant factor in the increasing resident population of North Miami Beach recently has been the increasing number of persons per occupied household. Estimated persons per household increased from 2.56 in 1990 to 2.71 in 1996.

School enrollment trends at the schools in and around North Miami Beach suggest that families with young children are moving into the City thereby possibly raising the average household size.

Determinants of Population Change

Resident Population: The population of a community can be divided into two main groups, defined on the basis of residency. The resident population lives in the community six months or more each year, and is comprised of persons who occupy year-round housing units and persons in group quarters. Group quarters include such residential uses as orphanages, nursing homes, prisons, and dormitories. Population estimates reported by the Census Bureau and projections reported by BEBR only address resident population. The resident population estimates for North Miami Beach are shown in Table 1.2.

Seasonal Population: There is another population group, the seasonal population, that is particularly important for many Florida communities. Seasonal population is important because it can place significant demands on public services and facilities. In North Miami Beach, this population component is comprised of persons who occupy seasonal housing units, mostly in Eastern Shores and Highland Village. Seasonal housing units are reported in the Census as vacant seasonal and migratory units and as vacant year-round units held for occasional use.

Table 1.3 presents estimates of the seasonal population categories for North Miami Beach for 1990. Table 1.5 shows seasonal population by neighborhood. This data has been obtained from the 1990 Census and interviews with City officials.

The 1990 estimate of seasonal population is likely to remain constant. The figures can be used for service delivery planning.

Residential Capacity Determinants of Population Change

North Miami Beach is approaching build-out. During the 1960's and 1970's, population growth in the City was accommodated by the construction of new housing units on vacant, residentially-zoned land. Most of this land has now been developed, leaving a very limited amount of suitable vacant land for the development of new residential units. Based on the 1987 land use survey and City records, it is estimated that approximately 120 single-family vacant lots remained in the City in 1996. The remaining vacant land zoned for multiple family units could accommodate an estimated 450 residential units at the maximum allowable density under current City policies.

The limited remaining residential capacity is a very significant factor for considering the future land use map and potential changes to it. Some additional residential units could possibly be accommodated through redevelopment of existing developed land at higher densities. The extent of this potential is limited, primarily because much of the residential property in the City is reasonably new and in good condition. However, some

underutilized non-residential land could be targeted for housing and some residential areas may be prime candidates for redevelopment within the near future.

Vacancy rate is another residential capacity factor influencing the total population of the community. Vacancy rates typically fluctuate with changing market conditions. Vacancy tends to be lower in housing units which are owner-occupied than in renter-occupied units. Based on previous estimates and current conditions for all occupied units, the vacancy rate in North Miami Beach can reasonable be expected to fluctuate between three and six percent during the planning period. It has been assumed that the vacancy rate in the City over the period covered by the population projections will average about four percent.

Ratio Method Projection

A ratio projection of North Miami Beach population is shown in Table 1.4. A ratio method of projection was used to derive the projected year-round population in the City for the time period from 1996 to 2015 in five-year intervals. These figures are based on population estimates and projections prepared by the Miami-Dade County Planning Department. There are two important reasons for the selection of the Miami-Dade County data. First, the projection of the County population by the County Planning Department includes subarea projections which are not available from the state. Second, the projected population for the City of North Miami Beach is now required to be coordinated with the County's projections.

The projection methodology used by the County Planning Department involved County, subarea, and census tract level analyses. A revised population estimate for Miami-Dade County was also prepared. At the subarea level, the Miami-Dade County projections consider an estimated population at buildout, historical data from the Census, and a current population estimate.

Table 43 of the Land Use Element in Miami-Dade County's 1995 Evaluation and Appraisal Report indicates that by the year 2000 the demand for single family units in the northeast part of the county will exceed capacity by 779 units. This demonstrates that the lack of capacity in the City is not unique for northeast Dade, and thus population estimates will not be skewed by the availability of vacant residential land in areas immediately surrounding the City.

Miami-Dade County Subarea 2.1 contains the census tracts which include the municipal area of North Miami Beach. To derive the projections for the City, the census tracts or tract parts in this subarea which are within the City were identified (see Table 1.5). The census tracts which do not contain an area of the City were excluded. The population projections for 1996 - 2015 for Sub-area 2.1 were used in a ratio comparing the individual census tracts to the sub-area. A ratio of the City population estimates for 1996 was then derived by dividing the City population figure into the corresponding Sub-area total.

This projection was used as a comparison to the projection prepared as a basis for the County's plan.

Selected Population Projection for Comprehensive Plan

The population projection presented in this report is prepared for planning purposes only. The actual population of the city at any given point in the future is dependent on the implementation of development policies during the planning period covered in the projections, as well as changing social and economic conditions which are beyond the scope of these projections. The official population projections for the City are represented in Table 1.4.

In sum, the population of North Miami Beach is expected to continue to increase from the current figure. The time frames for this plan are 2000, 2005, 2010 and 2015. Table 1.4 provides projections of 40,512; 43,296; 47,030; and 51,439 respectively.

Future Land Use Map

Map 1.22, Volume Four is the Future Land Use Plan. The land use densities and intensities are contained in Policy 1.8.1. State statute requires the City's Land Development Regulations (including all zoning district regulations) to conform with the densities and intensities described by Policy 1.8.1.

Potential Future Land Use Map changes are identified below. Each description includes the factors which will guide the City's evaluation of these potential changes. These are not existing conflicts but long term land use changes that may facilitate more appropriate re-use of the land if and when it is redeveloped.

1. Aqua Bowl Medium Density: This would involve the designation of under-utilized land within a certain proximity to the lake referred to as the Aqua-Bowl to medium density residential so as to encourage housing to meet the projected population increase.
2. Allen Park Mixed Use: This would involve changing the designation of transitional areas within Allen Park to mixed use to facilitate redevelopment that provides more appropriate buffers.
3. Mall South Mixed Use: This would involve the designation of an area on the south side of S.R. 826 between NE 12 Avenue and NE 15 Avenue to Mixed Use in order to encourage redevelopment that could address one or more issues facing the City while providing a buffer to the residential south of the area. The north/south depth of such a change would be determined based on market forces.
4. University Park: The redevelopment plan being developed by the City for the vacant university campus may identify land use designation changes that will help facilitate implementation.
5. Uleta Medium Density: This would involve a change in the future land use designation in the southern and possibly eastern areas of Uleta in order to better

accommodate the housing needs anticipated for the area while increasing the compatibility of the neighborhood with adjacent uses.

6. Zayres Property/Transit Hub: This would involve the redevelopment of vacant commercial land south of NE 167 Street and east of NE 15 Avenue for use as a transit hub with related commercial and/or recreational uses. The land use designation may be more appropriate if changed to public/quasi-public or mixed-use.
7. NE 183 Street Medium Density: This would involve a long term reuse of the land adjacent to the commercial uses on Miami Gardens Drive in order to provide a more appropriate buffer between the two uses. Medium density housing that backs up to the commercial uses rather than faces it would be one example.

The Future Land Use Map is supplemented by the series Maps 1.2 (Waterbodies and Wetlands), 1.3 (Floodplains), 1.4 (Soils) and 1.5 (Historic Resources). There are no wellfields, agricultural or conservation uses.

Population Tables

Table 1.2: Comparative Population Change, 1960-1996

N. Miami Beach	1960	1970	1980	1990	1996
Total Population	21,405	30,723	36,553	35,916	38,057
Households	7,037	11,446	15,810	14,007	14,055
Persons per Household	3.04	2.66	2.27	2.56	2.71
Miami-Dade County					
Total Population	935,047	1,267,792	1,625,781		1,776,099
Households	308,325	428,026	609,830		669,218
Persons per Household	2.98	2.91	2.63		2.61
Florida					
Total Population	4,951,460	6,791,418	9,747,197		11,657,843
Households	1,550,044	2,284,786	3,744,254		4,612,822
Persons per Household	3.11	2.90	2.55		2.47

Sources: U.S. Department of Commerce, Bureau of the Census, Census of Housing, General Housing Characteristics, 1960, 1970, 1980.

University of Florida, Bureau of Economic and Business Research, telephone contacts and "Population Studies," Bulletins 79 and 80, 1987.

Table 1.3: Non-Permanent Resident Population

Transient Lodging Units	Seasonal Population	Reported Units	Persons per Unit	Percent Seasonal
Mobile Homes	253	115	2.2	46.0
Single Family Homes	418	190	2.2	2.5
Multi Family Units	1,580	718	2.2	9.3
Est. Peak Season Population	2,251	1,023		7.1

Sources: U.S. Department of Commerce, Bureau of the Census, Census of Housing, General Housing Characteristics, 1990.

Note: Non-permanent residents are defined by the Census as residents who do reside in the county for less than 6 months annually. Units made of hotel/motel residents, transient housing, R.V. parks, seasonal units and day trips. Growth was assumed to mirror observed percentages in 1980-87 example (if seasonal residents comprised 2 percent of the current housing units, 2 percent of all future housing units will be occupied by non-permanent residents).

Table 1.4: Population Projections

	1996	2000	2005	2010	2015
Northeast Dade Projection (Minor Statistical Area 2.1)	135,501	143,708	153,533	166,775	182,409
Projected City Population (1 to 3.6 Ratio)	38,057	40,512	43,296	47,030	51,439

Source: Metro-Dade County Evaluation and Appraisal Report, 1995
Florida Estimates of Population, Bureau of Economic and Business Research, 1996

Table 1.5: Population by Neighborhood, 1990

Census Tract	Neighborhood	Seasonal Population	Resident Population	Total Population
1.03	Highland Village	253	1,105	1,358
1.06	Eastern Shores	1,643	5,096	6,739
2.01	Sunray East*	121	6,233	6,354
2.02	Sunray West*	40	5,496	5,536
2.03	Windward*	147	4,727	4,874
2.04	Uleta	18	3,400	3,418
2.05	Oak Grove/ Allen Park**	0	3,374	3,374
and 2.06	& Washington Park**	0	4,845	4,845
97.01	Skylake	20	973	993
97.02	Pickwick	9	110	119
Total		**2,251**	**35,359**	**37,610**

Source: Census of Population and Housing, 1990

* Population figures for the neighborhood known as City Center are not broken out, but are included among the populations of Sunray East, Sunray West, and Windward.

** The boundaries of Allen Park, Washington Park, and Oak Grove do not coincide with Census tracts boundaries. However Census Tracts 2.05 and 2.06, when consolidated, are inclusive of the three neighborhoods.

Methodology Note:

Table 1.4 uses planning projections set forth by the Miami-Dade County Planning Department and were used as a base for the County Comprehensive Plan. County figures were most recent ones prepared by Miami-Dade County at time of plan's preparation. If official Miami-Dade County projection figures change, population figures might have to be amended.

Total Miami-Dade County population is consistent with the projections prepared for State counties by the Bureau of Business and Economic Research and adopted by the Department of Community Affairs.

Public School Siting Analysis

Fundamental to the quality of life for the municipalities of northeast Miami-Dade County and the unincorporated areas of Miami-Dade County is the issue of public school siting. Provided below is the City of North Miami Beach's public school siting analysis.

Data Sources for Public School Siting Analysis

The data used for the North Miami Beach public school siting analysis are based on the most current and accurate data available. The data indicating public school location, membership (number of students), and permanent utilization estimates are provided by Miami-Dade County Public School Board (MDCPSB). The most current population estimates and projections for Metropolitan Statistical Area 2.1, Northeast Dade, are provided by Miami-Dade County Planning Department.

Current Location, Membership, and Utilization of Public Schools

The location of public schools within the city of North Miami Beach are as defined by the MDCPSB is displayed in Map 1.22. Fulford Elementary, Greynolds Park Elementary. And Primary Learning Center "C" are the only public schools that are directly within the municipal boundaries of North Miami Beach. The remaining public schools in Map 1.22 serve the residents of North Miami Beach and others, but are located adjacent to the municipal boundary or completely outside the City.

Table 1.6 illustrates current public school memberships (number of students) and utilizations for the public schools located within the North Miami Beach area. The permanent utilization figures are the focus of the public school siting analysis. Permanent utilization as defined by MDCPSB are the seats located within an educational structure that were designed originally for classroom use. The permanent utilization figures in Table 1.6 signify the percentage over capacity beyond the original design capacity of the school.

The data in Table 1.6 indicates that the elementary schools serving the North Miami Beach area are severely overcrowded. On average the elementary schools are 75% beyond the capacity or permanent utilization. The overcrowded state of the elementary schools has a significant impact on projected membership and site analysis.

Site Size Analysis for Current School Membership

Table 1.7 is an analysis based on the permanent utilization estimates provided by the MDCPSB. This analysis determines the design capacity (number of students present with 100% permanent utilization), theoretical acreage per student, theoretical site size, and site size deficiency.

The most important product of this analysis is site size deficiency. This analysis reveals that currently the public schools serving North Miami Beach are in total approximately 42 acres deficient in site size to accommodate the present number of students.

2000 to 2010 Projected Membership for North Miami Beach Schools

The year 2000 to 2010 projected membership for schools serving North Miami Beach is illustrated in Table 1.8. The projected population by age group for Metropolitan Statistical Area 2.1 have been provided by Miami-Dade County Planning Department. The most current enrollment membership estimates for the schools serving North Miami Beach have been provided by the MDCPSB.

The extrapolation data in table 1.8 displays that by 2010 elementary age (years 05-09) membership is projected to increase 36.6%, middle school age (years 10-14) membership is projected to increase 60.1%, and high school age (years 15-19) membership is projected to increase 83.5%.

Year 2000 to 2010 Projected Site Sizes for Schools Serving North Miami Beach

Table 1.9 is extrapolation of the data provided by the MDCPSB and Miami-Dade County Planning Department that projects the site sizes necessary to accommodate the projected membership of public schools serving North Miami Beach.

The analysis in table 1.9 projects the site size deficiency by 2000 to be 67 acres, by 2005 to be 86 acres, and by 2010 to 101 acres.

Conclusions

The projections of student membership and site size deficiency for the schools serving North Miami Beach indicates that the resolution of public school siting analysis is beyond the reasonable abilities of the City of North Miami Beach. There exist approximately 1698 acres of residential areas within the City of North Miami Beach. To address site size deficiency, utilizing 2010 projections, would require a reduction of approximately 101 acres. Addressing the projected deficiencies or current needs of schools serving North Miami Beach would mean an unnecessary burden for the citizens of a municipality that is already built-out.

In order to address the availability of lands for public schools it is necessary that a regional approach be taken by which a forum is available for further analysis and discussion of alternative solutions. The alternative solutions discussed could include the following: utilization of exisitng vacant sites, vacant commercial space, utilization of vacant office space, addition of 2nd stories to exisitng schools, and other alternatives that addresses the built-out nature of urban areas, and reduces the need for more land.

Table 1.5.1: Age Cohorts

	1995		
AGE COHORTS	**MSA 2.1 POPULATION**	**NMB SCHOOL ENROLLMENT**	**% IN NMB SCHOOLS**
Elementary School: AGE 05-09	9,314	4,192	0.4501
Middle School: AGE 10-14	7,998	1,656	0.2071
High School: AGE 15-19	7,494	2,505	0.3343
TOTAL	**24,806**	**8,353**	

	2000		
AGE COHORTS	**PROJECTED POPULATION MSA 2.1**	**PROJECTED NMB SCHOOL ENROLLMENT**	**PERCENTAGE INCREASE FROM 1995**
Elementary School: AGE 05-09	11,324	5,097	21.6%
Middle School: AGE 10-14	10.198	2,112	27.5%
High School: AGE 15-19	8,762	2,929	16.9%
TOTAL	**30,284**	**10,137**	

	2005		
AGE COHORTS	**PROJECTED POPULATION MSA 2.1**	**PROJECTED NMB SCHOOL ENROLLMENT**	**PERCENTAGE INCREASE FROM 1995**
Elementary School: AGE 05-09	11,776	5,300	21.4%
Middle School: AGE 10-14	12,385	2,564	54.8%
High School: AGE 15-19	11,077	3,703	47.8%
TOTAL	**35,238**	**11,567**	

	2010		
AGE COHORTS	**PROJECTED POPULATION MSA 2.1**	**PROJECTED NMB SCHOOL ENROLLMENT**	**PERCENTAGE INCREASE FROM 1995**
Elementary School: AGE 05-09	12,719	5,725	36.6%
Middle School: AGE 10-14	12,804	2,651	60.1%
High School: AGE 15-19	13,752	4,597	83.5%
TOTAL	**39,275**	**12,972**	

Sources: Miami-Dade County Planning Department, Projected Population by Age MDCPSB

Table 1.6: School Membership and Utilization Schools Located within of North Miami Beach

SCHOOL	MEMBERSHIP *	SITE SIZE (IN ACRES)	PERMANENT UTILIZATION*	PERMANENT TEMPORARY UTILIZATION***	PROGRAM CAPACITY UTILIZATION****
Elementary Schools					
Fulford	915	5	154%	128%	131%
Greynolds Park	1,114	8	244%	137%	172%
Primary Learning Center "C" Relief for Greynolds	274	1.5	110%	110%	110%
Ojus	806	5.87	217%	173%	135%
Sabal Palm	1,083	11	150%	111%	113%
Middle Schools					
John F. Kennedy	1,656	19	166%	129%	138%
Senior High Schools					
North Miami Beach	2,505	19	115%	100%	109%

Source: Miami-Dade County Public School Board
***MEMBERSHIP** = Present student enrollment
****PERMANENT UTILIZATION** = The seats within the educational structure that were designed for classroom use (Portables not included)
*****PERMANENT/TEMPORARY UTILIZATION** = Permanent utilization including portables
******PROGRAM CAPACITY UTILIZATION** = All space of an educational structure regardless of original use (i.e., Cafeteria or Auditorium)

Table 1.7: Site Analysis for Current Estimates of School Membership

SCHOOL	MEMBERSHIP *	SITE SIZE (IN ACRES)	PERMANENT UTILIZATION**	DESIGN CAPACITY***	THEORITICAL ACREAGES/ STUDENTS	THEORETICAL SITE SIZE	SITE SIZE DEFIENCY
Elementary Schools							
Fulford	915	5	154%	594	0.008	7.700	2.700
Greynolds Park	1,114	8	244%	457	0.018	19.520	11.520
Primary Learning Center "C" Relief for Greynolds	274	1.5	110%	249	0.006	1.650	0.150
Ojus	806	5.87	217%	371	0.016	12.738	6.868
Sabal Palm	1,083	11	150%	722	0.015	16.500	5.500
Total for Elementary Schools	**4,192**	**31.37**		**2,393**		**58.801**	**26.738**
Middle Schools							
John F. Kennedy	1,656	19	166%	998	0.019	31.540	12.540
Total for Middle Schools	**1,656**	**19**		**998**		**31.540**	**12.540**
Senior High Schools							
North Miami Beach	2,505	19	115%	2,178	0.009	21.850	2.850
Total for High Schools	**2,505**	**19**		**2,178**		**21.850**	**2.850**
Grand Total	**8,353**	**69.37**		**5,569**		**111.498**	**42.128**

Source: Miami-Dade County Public School Board

***MEMBERSHIP =** Present student enrollment

****PERMANENT UTILIZATION =** The seats within the educational structure that were designed for classroom use (Portables not included)

*****DESIGN CAPACITY =** Number of students present if at 100% permanent utilization

Schools located within a municipal boundary

Table 1.8: 2000 - 2010 Projected Membership for North Miami Beach Schools

	1995		
AGE COHORTS	**MSA 2.1 POPULATION**	**NMB SCHOOL ENROLLMENT**	**% IN NMB SCHOOLS**
Elementary School: AGE 05-09	9,314	4,192	0.4501
Middle School: AGE 10-14	7,998	1,656	0.2071
High School: AGE 15-19	7,494	2,505	0.3343
TOTAL	**24,806**	**8,353**	

	2000		
AGE COHORTS	**PROJECTED POPULATION MSA 2.1**	**PROJECTED NMB SCHOOL ENROLLMENT**	**PERCENTAGE INCREASE FROM 1995**
Elementary School: AGE 05-09	11,324	5,097	21.6%
Middle School: AGE 10-14	10.198	2,112	27.5%
High School: AGE 15-19	8,762	2,929	16.9%
TOTAL	**30,284**	**10,137**	

	2005		
AGE COHORTS	**PROJECTED POPULATION MSA 2.1**	**PROJECTED NMB SCHOOL ENROLLMENT**	**PERCENTAGE INCREASE FROM 1995**
Elementary School: AGE 05-09	11,776	5,300	21.4%
Middle School: AGE 10-14	12,385	2,564	54.8%
High School: AGE 15-19	11,077	3,703	47.8%
TOTAL	**35,238**	**11,567**	

	2010		
AGE COHORTS	**PROJECTED POPULATION MSA 2.1**	**PROJECTED NMB SCHOOL ENROLLMENT**	**PERCENTAGE INCREASE FROM 1995**
Elementary School: AGE 05-09	12,719	5,725	36.6%
Middle School: AGE 10-14	12,804	2,651	60.1%
High School: AGE 15-19	13,752	4,597	83.5%
TOTAL	**39,275**	**12,972**	

Table 1.9: Year 2000 – 2010 Projected Site Sizes for Schools Located within North Miami Beach

			2000				
NMB School	**Current Membership**	**Current % of Student Distribution**	**Projected School Membership 2000**	**Current Site Size (In Acres)**	**Theoretical Acreage/Student**	**Projected 2000 Site Size**	**Projected 2000 Site Size Deficiency**
Elementary Schools							
Fulford	915	21.8%	1,113	5	0.008	9	4
Greynolds Park	1,114	26.6%	1,354	8	0.018	24	16
Primary Learning Center "C" Relief for Greynolds	274	6.5%	333	1.5	0.006	2	0.5
Ojus	806	19.2%	980	5.87	0.016	16	10
Sabal Palm	1,083	25.8%	1,317	11	0.015	20	9
Total for Elementary Schools	**4,192**		**5,097**	**31**		**71**	**39**
Middle Schools							
John F. Kennedy	1,656	100%	2,112	19	0.019	40	21
Total for Middle Schools	**1,656**		**2,112**	**19**		**40**	**21**
Senior High Schools							
North Miami Beach	2,505	100%	2,929	19	0.009	26	7
Total for High Schools	**2,505**		**2,929**	**19**		**26**	**7**
Grand Total	**8,353**		**10,138**	**69**		**137**	**67**

Sources: Miami-Dade County Public School Board, Tables 1.6,1.7, and 1.8

			2005				
NMB School	**Current Membership**	**Current % of Student Distribution**	**Projected School Membership 2000**	**Current Site Size (In Acres)**	**Theoretical Acreage/Student**	**Projected 2000 Site Size**	**Projected 2000 Site Size Deficiency**
Elementary Schools							
Fulford	915	21.8%	1,157	5	0.008	9	4
Greynolds Park	1,114	26.6%	1,408	8	0.018	25	17
Primary Learning Center "C" Relief for Greynolds	274	6.5%	346	1.5	0.006	2	0.6
Ojus	806	19.2%	1,019	5.87	0.016	16	10
Sabal Palm	1,083	25.8%	1,369	11	0.015	21	10
Total for Elementary Schools	**4,192**		**5,300**	**31**		**74**	**42**
Middle Schools							
John F. Kennedy	1,656	100%	2,564	19	0.019	49	30
Total for Middle Schools	**1,656**		**2,564**	**19**		**49**	**30**
Senior High Schools							
North Miami Beach	2,505	100%	3,703	19	0.009	33	14
Total for High Schools	**2,505**		**3,703**	**19**		**33**	**14**
Grand Total	**8,353**		**11,567**	**69**		**156**	**86**

Sources: Miami-Dade County Public School Board, Tables 1.6,1.7, and 1.8

			2010				
NMB School	**Current Membership**	**Current % of Student Distribution**	**Projected School Membership 2000**	**Current Site Size (In Acres)**	**Theoretical Acreage/Student**	**Projected 2000 Site Size**	**Projected 2000 Site Size Deficiency**
Elementary Schools							
Fulford	915	21.8%	1,250	5	0.008	10	5
Greynolds Park	1,114	26.6%	1,521	8	0.018	27	19
Primary Learning Center "C" Relief for Greynolds	274	6.5%	374	1.5	0.006	2	0.7
Ojus	806	19.2%	1,101	5.87	0.016	18	12
Sabal Palm	1,083	25.8%	1,479	11	0.015	22	11
Total for Elementary Schools	**4,192**		**5,725**	**31**		**79**	**48**
Middle Schools							
John F. Kennedy	1,656	100%	2,651	19	0.019	50	31
Total for Middle Schools	**1,656**		**2,651**	**19**		**50**	**31**
Senior High Schools							
North Miami Beach	2,505	100%	4,597	19	0.009	41	22
Total for High Schools	**2,505**		**34,597**	**19**		**41**	**22**
Grand Total	**8,353**		**12,973**	**69**		**170**	**101**

Sources: Miami-Dade County Public School Board, Tables 1.6,1.7, and 1.8

(Amended by Ordinance NO. 99-7, 10/19/99)

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Transportation Element

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II. Transportation Element

Preface

The City of North Miami Beach's Evaluation and Appraisal Report (EAR), adopted on December 5, 1995, was found sufficient on February 12, 1996, as defined in Subsection 163.3191(9), Florida Statutes. Subsequently, the City began in 1996 the process of preparing a full update of the Comprehensive Plan in order to address the various activities in the City that had not been adequately addressed to date by the Comprehensive Plan.

Following review and comment by the required state agencies, the City of North Miami Beach approved on April 21, 1997, Ordinance 98-4 adopting the Evaluation and Appraisal Report based on Comprehensive Plan amendment 97-E and Future Land Use amendment LD-97-1. Amendment 97-E evaluated the City's success in implementing its Comprehensive Plan, resulting in suggested changes of objectives, policies, and standards intended to help the City face future challenges. Amendment LD-97-1 proposed a change in land use for a small piece of property (1.3 acres) in the central area of the City from residential to Public/Quasi-Public.

Amendment 97-E was considered to be a sufficient response to the Objections, Recommendations, and Comments (ORC) report prepared by the Florida Department of Community Affairs, dated December 6, 1997.

The Transportation Element for the City of North Miami Beach was not completed at that time because the City opted to complete the preparation of this Element upon the successful adoption of Miami-Dade County's amendments to its Comprehensive Development Master Plan (CDMP).

The Transportation Element, as presented herein, was prepared in accordance with the provisions of Florida Administrative Code Chapter 9J-5, and specifically, Section 9J-5.019 Transportation Element. This element has been prepared in keeping with the Transportation Element of the Adopted Components, Comprehensive Development Master Plan (CDMP) for Metropolitan Miami-Dade County, Florida, as amended on May 1, 1997. In addition, this Transportation Element addresses and integrates Miami-Dade County's proposed changes to the CDMP objectives and policies as per the Department of Community Affairs (DCA) and the County Settlement Agreement, as approved by the County Commission on April 27, 1999. Limited analysis changes, which address exemption from Transportation Concurrency and the current status of roadway construction projects, are also included.

Introduction

The Transportation Element of the North Miami Beach Comprehensive Plan provides an assessment of existing and projected traffic, public transit, and non-motorized transportation conditions in the City of North Miami Beach. The primary focus of this element is the examination of local transportation issues - how the system works and how it fits in with the overall plan for the City and the County. This element describes the existing conditions and trends for the City's transportation system based on the latest available information. The data and evaluation generally reflect post-1997 conditions.

The North Miami Beach traffic circulation system is a component of the Miami-Dade County regional roadway network. It has been developed in accordance with transportation plans prepared by the Miami-Dade County Metropolitan Planning Organization (MPO) as well as those prepared by the City as part of its Comprehensive Plan.

The responsibility for maintaining the roadways within the City of Miami Beach resides with the Florida Department of Transportation (FDOT) for state designated arterials, Miami-Dade County for county collectors, and the City for local roadways within the City limits (see Table 2.1).

Map 2.1 (located in Volume Four: Map Series) presents the current City boundary limits and street system of the City of North Miami Beach. Map 2.2 illustrates the locations of the major trip generators serving the City, including some located outside the City limits but that still impact the local roadway network.

Existing Transportation Facilities and Services

Commuter, High Speed and other Railroad Facilities and Services

The City is served by the Florida East Coast Railroad (FEC), within the eastern limits of the City, and the CSX Railroad just outside the City's western limits. The FEC is a freight line, whereas the CSX line carries both freight and passengers. The CSX line includes AMTRAK and the Tri-Rail commuter passenger service. No direct rail passenger service is provided within the city limits; however, a Tri-Rail Station is located nearby at the Golden Glades Intermodal Terminal (southwest of the City limits).

There are no high speed rail lines within the City; therefore, the provisions of Rule 9J-5 relating to this mode are not applicable.

Table 2.1: Existing Roadway Functional Classification

STREET NAME	LIMITS		LENGTH (MILES)	CLASSIFICATION	Ref
	FROM	TO			
SR 860 NW 183 St / Miami Gardens Dr.	I-95 / SR9 NE 19 Ave	South Glades Dr. NE 22 Ave.	0.34 Miles 0.40 Miles	State Minor Arterial	(1)
SR 826 NE 167-163 St. / North Miami Beach Blvd. / Sunny Isles Causeway	I-95 / SR9	Intracoastal Waterway	4.7 Miles	State Principal Arterial	(1)
NE 35 Ave	Sunny Isles Causeway	NE 171 St	0.66 Mile	Collector	(1)
NE 171 St.	NE 15 Ave	SR5 / US 1 Biscayne Blvd.	1.16 Mile	Collector	(1)
NE 19 Ave	NE 163 St	NW 183 St / Miami Gardens Dr.	1.33 Mile	Collector	(1)
NE 15 Ave	NE 163 St	NW 183 St / Miami Gardens Dr.	1.24 Mile	Collector	(1)
I-95 / SR 9	NE 167 St	Miami-Dade / Broward County Line	17.2 Miles	State Principal Arterial	(1)
SR 915 / NE 6 Ave	NE 167 St	NE 183 St / Miami Gardens Dr.	5.9 Miles	State Minor Arterial	(1)
NE 16 Ave	NE 151 St.	SR 826 / NE 163 St.	0.8 Mile	Collector	(1)
SR 5 / US 1 / Biscayne Blvd.	NE 135 Terr.	NE 175 St.	2.7 Miles	State Principal Arterial	(1)
W. Dixie Hwy / SR 909	NE 151 St NE 163 St.	NE 163 St. NE 176 St.	0.96 Miles 1.0 Mile	State Minor Arterial	(1)
W. Dixie Hwy	NE 163 St	NE 175 St	0.9 Mile	County Collector	(2)
NE 10 Ave	NE 151 St	NE 170 St	1.2 Mile	County Collector	(2)
NE 10 Ave	NE 175 St	NE 183 St.	0.5 Mile	County Collector	(2)
NE 12 Ave	NE 151 St	NE 163 St	0.8 Mile	County Collector	(2)
NE 16 Ave	NE 151 St	NE 163 St	0.8 Mile	County Collector	(2)
NE 18 Ave	NE 186 St	NE 187 St	0.1 Mile	County Collector	(2)
NE 22 Ave	NE 186 St	NE 188 St	0.1 Mile	County Collector	(2)
NE 22 Ave	NE 191 St	NE 194 St	0.2 Mile	County Collector	(2)
NE 151 St	NE 10 Ave	US 1 / SR-5	1.4 Mile	County Collector	(2)
NE 159 St	NE 8 Ave	NE 22 Ave	1.8 Mile	County Collector	(2)
NW 2 Ave	NW 167 St.	NW 170 St.	0.2 Mile	County Collector	(2)

Sources: (1) Florida Department of Transportation, District 6, 1992 Proposed Federal Functional Classification for Miami-Dade County, Summary Sheet, October 1992. (2) Miami-Dade County Public Works Department, County Road System within Municipalities, Revised November 10, 1998.

Ports and Airports

There are no ports or airports within the City; therefore, the provisions of Rule 9J-5 relating to these modes are not applicable.

Roadway System

The North Miami Beach roadway network as shown in Map 2.1 can generally be described as a grid system. Notable exceptions to this pattern can be found in the Eastern Shores and Sky Lake neighborhoods, where curvilinear street designs are the norm. West Dixie Highway, Miami Drive, and South Glades Drive represent three other significant

deviations from this strict grid pattern. The Snake Creek Canal provides a natural separator between the northeastern sector of the City and the other sectors. Bridge crossings are found on Biscayne Boulevard (US 1 / SR 5), 22nd Avenue (SR 909 / West Dixie Highway), Miami Gardens Drive (SR 860), NE 19th Avenue, and NE 15th Avenue.

Table 2.1 presents the functional classification of the major streets within or along the limits of the City of North Miami Beach. Map 2.3 depicts the location of the major roadways, the number of lanes per facility, and the functional classification of the principal streets.

Limited Access Facilities

Interstate 95 / SR 9 is the major multi-lane freeway facility serving the City of North Miami Beach. This facility has a southwest to northeast alignment (See Map 2.3) and generally serves as the western boundary of the City. Interstate 95 serves the region from Miami-Dade County northward through Broward and Palm Beach Counties and beyond. This roadway forms part of the Florida Intrastate Highway System (FIHS).

Within the general vicinity of the City of North Miami Beach, Interstate 95 consists of eight through lanes in addition to two high occupancy vehicle (HOV) lanes. Access to I-95 is provided at (1) the Golden Glades Interchange which includes I-95, Florida's Turnpike, SR 9, Palmetto Expressway / North Miami Beach Boulevard (SR 826), and U.S. 441, and (2) the interchange with Miami Gardens Drive (SR 860) and NE 6th Avenue (SR 915).

Principal and Minor Arterials

The City of North Miami Beach is generally well served by both north-south and east-west arterial thoroughfares. Biscayne Boulevard (US 1 / SR 5) is an eight-lane, north-south principal arterial that extends through the eastern portion of the City and provides north-south traffic movement throughout the Miami-Dade metropolitan area and beyond. NE 6th Avenue (SR 915) is a four-lane undivided State minor arterial which extends from Miami Gardens Drive southward to Miami. West Dixie Highway (SR 909) is a four-lane minor arterial that traverses the city along its eastern sector parallel to US 1.

The major east-west connection through the City is SR 826. This facility is named North Miami Beach Boulevard between I-95 in the west and Biscayne Boulevard in the east. Between I-95 and NE 10th Avenue, this road is also known as NE / NW 167th Street; while between NE 10th Avenue and Biscayne Boulevard, it is also referred to as NE 163rd Street. The segment of SR 826 east of Biscayne Boulevard is named Sunny Isles Boulevard. This road connects Collins Avenue (SR A1A) in the east with the Palmetto Expressway (Golden Glades Interchange) just west of the City limits. The facility provides the only link to the Atlantic Ocean between 125th Street to the south and the William Lehman Causeway (SR 856) in the Aventura area to the north. The segment of

SR 826 east of Biscayne Boulevard (US 1) is an eight-lane divided facility; the SR 826 segment between US 1 and I-95 is a six-lane divided arterial.

The absence of other major east-west thoroughfares in the area and the intense strip commercial development along North Miami Beach Boulevard contribute significantly to the congested traffic conditions along this cross-town arterial. The roadway has historically handled the heaviest traffic volumes in the City (see Table 2.2).

The only other significant east-west thoroughfare in the City is Miami Gardens Drive (SR 860, NE 183rd / 185th Street) which extends through portions of the northern sectors of North Miami Beach. Miami Gardens Drive is a four-lane, divided minor arterial and it has a full interchange with I-95 near its intersection with NE 6th Avenue (SR 915).

Collectors

In addition to the aforementioned major cross-town thoroughfares, several four-lane, undivided County and City collector streets serve the City. These collectors include NE 19th Avenue, NE 35th Avenue, and NE 171st Street.

Two-lane collectors are found primarily within residential areas of the City. NE 10th Avenue is a two-lane local collector that traverses the City from SR 860 in the north to beyond NE 151st Street at the southern City limits. NE 159th Street is a two-lane collector which functions as a residential street used by both local and cross-town motorists in their efforts to avoid traffic congestion on North Miami Beach Boulevard. NE 19th Avenue is a four-lane divided urban collector that provides a major connection between SR 826 in the south and SR 860 in the north.

Other significant collectors, all two-lane undivided facilities, include NE 10th Avenue, NE 12th Avenue, NE 15th Avenue, NE 16th Avenue, NE 18th Avenue, NE 22nd Avenue, NE 151st Street, and NE 179th Street.

Existing Traffic Volumes

Table 2.2 provides a summary of average daily traffic volumes (ADT) on North Miami Beach roadways between 1990 and 1998. Recent traffic counts are not available for the balance of the collector streets except for NE 10th Avenue. A recent neighborhood traffic study[1], prepared for the City, provided 1998 ADT volumes for two segments along NE 10th Avenue. Map 2.4 presents the 1998 AADT volumes for the roadways in the City of North Miami Beach as provided on the 1998 Traffic Data CD distributed by FDOT.

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[1] "***North Miami Beach Neighborhood Traffic Calming, Final Report***", Carr-Smith Corradino, August 1998.

Table 2.2 indicates that most of the state maintained roadway segments within the boundary limits of North Miami Beach have experienced only small percent increases in traffic volumes during the past decade. An exception is I-95 where the average annual increase is over six percent and actual daily traffic volumes have increased by over 65,000 vehicles. This increase is most likely attributed to the general growth rate in southeast Florida and not specifically new traffic growth in the City of North Miami Beach.

One facility, North Miami Beach Boulevard east of US 1, is shown on Table 2.2 with a negative average annual growth rate. Upon examination of the historical data, it is obvious that the 1998 traffic count is significantly lower than the preceding seven years and may be an outlier; considering the historical data only through 1997 results in an annual growth rate of 3.88%.

Map 2.5 presents the current estimated peak hour volumes for various roadway segments throughout the City. These volumes are based on peak hour, seasonal, weekly, and directional adjustment factors for 1997 as provided by FDOT. The 1998 peak hour volumes were not available in time for this report.

Table 2.2: Average Daily Traffic Volumes on State Arterials

Station #	Street and Location	1990	1991	1992	1993	1994	1995	1996	1997	1998	Average Annual Growth Rate (%) 1990-1998
366	N. Miami Beach Blvd. (E. of N. Miami Avenue)	63,098	58,619	62,000	61,500	63,000	58,000	62,000	63,000	66,500	0.80
5225	N. Miami Beach Blvd. (W. of NE 19th Avenue)	55,440	48,493	46,500	52,000	53,500	46,500	50,500	50,500	55,500	0.44
5229	N. Miami Beach Blvd. (W. of NE 10th Avenue)	52,448	51,413	-	59,000	59,000	52,500	56,000	60,000	56,000	1.05
5222	N. Miami Beach Blvd. (W. of US 1)	42,324	45,103	44,500	49,000	50,500	42,000	47,000	44,500	50,000	2.56
556	N. Miami Beach Blvd. (E. of U.S. 1)	37,953	42,553	-	39,500	41,000	42,500	47,500	49,000	33,000	-0.68
124	Sunny Isles Causeway (W. of Collins Avenue / A1A)	30,643	31,260	-	37,500	37,500	36,500	39,000	39,000	39,000	3.16
1229	Miami Gardens Drive (E. of NE 8th Avenue)	42,411	40,580	-	39,500	40,000	39,000	40,500	44,000	44,000	0.53
150	Miami Gardens Drive (E. of West Dixie Hwy.)	34,729	33,108	-	33,000	33,000	33,500	32,000	35,000	40,500	2.14
5219	Biscayne Boulevard (S. of NE 163rd Street)	39,173	37,787	-	40,500	36,000	36,500	39,500	44,000	42,500	1.25
168	NE 6th Avenue (S. of NE 170th Street)	23,691	24,239	-	26,000	30,500	25,500	26,000	28,000	27,000	2.06
166	NE 6th Avenue (N. of NE 163rd Street)	23,309	21,712	-	28,000	27,500	27,000	26,000	27,500	26,500	1.89
2137	I-95 (N. of Golden Glades)	115,673	115,463	133,500	132,500	140,000	166,500	145,000	183,000	183,500	6.61
531	West Dixie Highway (N. of NE 151st Street)	17,036	19,481	18,500	23,000	21,000	17,800	16,900	19,000	20,200	2.92
183	Biscayne Boulevard (S. of Miami Gardens Drive)	-	-	-	43,000	48,000	51,000	53,500	50,000	50,000	3.25

Source: Florida Department of Transportation, 1998 Traffic Data CD

Vehicle Occupancy

Vehicle occupancy estimates for North Miami Beach are based on the recent NE 167th / 163rd Street Corridor Study[2]. The results of this study showed an average occupancy rate of approximately 1.30 persons per vehicle for those vehicles traveling along this study corridor. Although no additional vehicle occupancy information on a citywide basis is available at this time, it can be assumed that the value determined for the NW / NE 167th / 163rd Street Corridor can be applied to the entire City. This is slightly higher than the average of 1.21 persons per vehicle for Miami-Dade County[3].

Significant Parking Facilities

Significant public parking facilities are defined as providing more than 500 parking spaces. The City of North Miami Beach does not maintain any singular facility with over 500 parking spaces. The City owns and maintains a multi-level parking garage and surface lots at the City Hall Complex on NE 19th Avenue. The City provides additional reserved spaces for City Hall visitors and employees. The City also regulates on-street parking throughout all City areas by means of ordinances and through enforcement by the city police department.

The major parking facilities that do exist in the City are private and most are located at shopping malls. These include Skylake Mall, Intracoastal Mall, Parkway Regional Medical Center, K-Mart Center, Nova Southeastern University, and various other private facilities. The Mall at 163rd Street is another major parking provider although this center is technically outside the city limits.

One of the areas with parking difficulties is in the strip commercial corridor along North Miami Beach Boulevard. This corridor includes the Mall at 163rd Street and approximately three miles of strip commercial development between the Golden Glades interchange and Biscayne Boulevard. Several blocks along this roadway are characterized by uninterrupted parking lot access and back-out parking spaces located only a few feet from the street frontage. These factors have contributed to the notable incidence of accidents and unstable traffic flows along the corridor. The parking and congestion issues along this corridor are addressed in more depth by the ***NE 167th / 163rd Street Corridor Study.***

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[2] "***NW/NE 167th and NE 163rd Street Corridor Study"***, Carr-Smith Corradino, January 1999.

[3] "***Long Range Transportation Plan Update, Year 2020"***, Miami-Dade Metropolitan Planning Organization, prepared by Barton-Aschman Associates, Inc., 1998.

Pedestrian and Bicycle Facilities

The City of North Miami Beach has established objectives and policies in its Comprehensive Plan addressing pedestrian facilities. The City continues to design and implement various neighborhood sidewalk improvement projects with the goal of providing for safe pedestrian travel. In 1974, The City of North Miami Beach developed an extensive pedestrian and bike path plan as shown in Map 2.6. This plan has been integrated into the Miami-Dade County's *North Miami-Dade Greenways Master Plan* and the *Metro Miami-Dade Bicycle Facilities Plan* (both Plans were approved by the County Commission in 1998 and 1995, respectively), as well as connected with similar projects in the cities of Aventura and North Miami. The proposed bicycle paths will link several of the City's neighborhoods. As of 1992, the City had eleven miles of bike paths. The most prominent existing facility is the combination pedestrian / bicycle path network along Snake Creek Canal between NE 181st Street and West Dixie Highway.

Public Transportation

Introduction

Public transportation in the City of North Miami Beach plays a key role in the overall transportation system of Miami-Dade County. The backbone of the Miami-Dade County public transportation system provides daily countywide service, with 600-plus buses travelling over 26 million miles each year (Source: Miami-Dade Transit Agency). More than 70 routes offer express bus service from north and south Miami-Dade County, service to all Metrorail and Tri-Rail Stations, and local and limited-stop service.

Public transit service in North Miami Beach includes fourteen (14) Miami-Dade Transit Agency (MDTA) bus routes (19% of all MDTA routes), one (1) Broward County Transit (BCt) route, a local municipal circulator system, and several privately operated jitney services. With twelve (12) of the fourteen bus routes utilizing the Mall at 163rd Street as a terminal or transfer point, the City of North Miami Beach has the second highest concentration of bus service in Miami-Dade county. Downtown Miami has the largest concentration with twenty-one (21) routes.

The City of North Miami Beach also benefits from the proximity of the Golden Glades Intermodal Transit Center located west of I-95 near the southwestern limit of the City. This Intermodal Center serves as the primary park-and-ride facility in northeast Miami-Dade County as well as functioning as a bus transfer point (with six routes) and a Tri-Rail station.

Existing Bus Service - Miami-Dade Transit Agency (MDTA) and Broward County Transit

Table 2.3 lists the MDTA and BCt routes serving the City. The table also presents each route's typical service frequencies and daily ridership. Map 2.7 presents the current (March 1999) bus routes serving North Miami Beach.

Table 2.3: MDTA and BCt Bus Routes Serving North Miami Beach

Bus Route	Description	Headways (minutes)			Average Daily Ridership
		Peak	Off-Peak	Weekend	
MDTA					
Biscayne Max	Aventura - Downtown Miami	15	N/A	N/A	1960
E	Aventura - Miami Lakes	60	60	60	886
H	North Miami Beach - Miami Beach	20	20	20	4841
V	Diplomat Mall / Golden Glades - Golden Glades Hospital	60	60	N/A	201
2	Mall at 163rd Street - Downtown Miami	60	60	N/A	3561
3	Diplomat Mall - Downtown Miami	20	20	20	8105
9	Aventura Mall - Downtown Miami	10	40	60	4324
10	North Miami Beach - Downtown Miami	30	40	60	2231
16	North Miami Beach - Downtown Miami	20	20	30	4310
22	North Miami Beach - Douglas Road Station	20	30	60	4292
28	Hialeah - Florida International University	60	60	60	686
75	Miami Lakes - Miami-Dade Community College (North Campus)	30	30	60	3607
83	Miami Lakes - Florida International University	30	30	60	4597
91	Miami Lakes - North Miami Beach	60	60	60	1005
BCt					
18	Margate Terminal-Mall at 163rd Street	20	30	60	7900

Sources: Miami-Dade Transit Agency and Broward County Transit, 1998

Of the fifteen bus routes serving the City of North Miami Beach,

- Six routes originate or terminate at North Miami Beach;
- Three routes originate at Miami Lakes (west of North Miami Beach);
- Six routes terminate in Downtown Miami to the south;
- Twelve of the routes serve the Mall at 163rd ;
- Three routes serve Aventura to the northeast;
- One route, 93 (Biscayne Max), operates express, limited stop buses during peak periods;
- One route, BCt 18, serves both Broward and Miami-Dade County; and

- Two MDTA routes, No. 3 and V, extend service into Broward County (Diplomat Mall in Hallandale).

The extensive MDTA network facilitates bus transfers at several specific points, a prime example being the Mall at 163rd Street, providing access to almost any destination within Miami-Dade and Broward Counties. In addition, MDTA routes E, V, and 22, and BCt Route 18 serve the Golden Glades park-and-ride lot. The Golden Glades park-and-ride lot is adjacent to the Golden Glades Tri-Rail Station, thus providing a true multi-modal transfer service.

The regular MDTA fare is $1.25. BCt Route 18 patrons pay $1.00 for a regular fare. Bus-to-bus transfers cost $0.25 for MDTA riders and $0.15 for BCt riders. In addition to the regular fare, both transit agencies provide reduced fares to senior / disabled / youth passengers. BCt users also have the option of buying weekly or monthly passes at reduced fares.

North Miami Beach Circulator Services

In 1996, the City of North Miami Beach, in partnership with Metro-Dade Transit Agency (MDTA), successfully applied to the Florida Department of Transportation (FDOT) for a $100,000 Service Development grant to fund a three-year special circulator demonstration project. MDTA also provided $100,000 in matching funds. The project was originally designed to provide customized fixed transit route services for the residents of the City's Uleta, Eastern Shores, Washington Park and Skylake neighborhoods. The major objectives of the project included:

- Development of an innovative, cost effective, coordinated transportation network via a partnership with a local municipality, thereby maximizing the use of transit dollars and expanding existing transit services.

- Development of a "customized" transportation system for municipal residents which would enhance their employment, health, social and recreational opportunities.

The *City Circulator Service* was initiated on May 27, 1997. Since that time, the City has made rather frequent route and schedule modifications to the Circulator system. As of November 1999, a private company under contract with the City and MDTA is operating this service. The equipment utilized for this service includes two 22-passenger mini-buses equipped with wheelchair lifts. Map 2.8 depicts the routes and service area of the current circulator system. Table 2.4 presents the current system service characteristics.

Table 2.4: City Circulator Services - Operations Information

Route	Number of Units	Headways	Days / Hours of Operation

		(Minutes)	
Yellow (Clockwise)	1 mini-bus	90 - 120	Monday - Friday 8:30 AM – 4:30 PM
Blue (Counter Clockwise)	1 mini-bus	90 - 120	Monday - Friday 9:15 AM – 3:45 PM

Source: City of North Miami Beach Circulator Services, November 23, 1999

Jitney Services

Jitneys have been serving numerous sectors of Miami-Dade County for decades. Generally, a jitney is a vehicle (usually a 15-passenger van or mini-bus) operated by a private operator for fare. Miami-Dade County has adopted several ordinances to regulate the jitney services, including certification of routes where jitneys can operate, vehicle inspection, insurance, and complaints regarding services. The jitneys are governed by the Passenger Transportation Regulatory Division of the Miami-Dade Consumer Services Department.

The fare for certified jitneys is $1.25, the same as for the MDTA. No transfer fares are provided. Typical operating periods are twelve hours per day (usually 6 AM to 6 PM). Information regarding the actual number of operational vehicles assigned to each route is very limited and often based on the operators' estimates.

At the present time, four jitney services, with current or pending certifications, provide transportation services within various sectors of the City of North Miami Beach. Map 2.9 presents the jitney routes currently serving North Miami Beach. The following is a brief description of each jitney service as it pertains to the City of North Miami Beach:

Miami Mini-Bus - This route operates from downtown Miami northward along NE 2nd Avenue to NE 25th Street where the route then connects with NE 6th Avenue travelling north to NE 167th Street (SR 826) where the route enters the City of North Miami Beach. The route then continues eastward via NE 167th Street, circling the Mall at 163rd Street and proceeding westward along NE 164th Street and 167th Street to NE 6th Avenue where the route turns south and exits the City limits. Miami Mini-Bus has applied at the Passenger Transportation Regulatory Division (PTRD) for certification of this route and approval is pending by the County Commission. Miami Mini-Bus staff indicated that they have approximately 30 15-passenger vans operating from 6:00 AM until the evening hours. The typical fare is $1.00.

Marcello Jitney - This jitney service's original route has been along North Miami Avenue, from Downtown Miami to NE 140th Street. However, the PTRD and Commission have recently approved an extension of the route. This extension permits jitney vehicles operated by Marcello Jitney to operate

northward to the City of Aventura along North Miami Avenue through the City of North Miami Beach, north of the City limits at 163rd Street. From this latter point, the route continues north on North Miami Avenue, east along NE 171st Street, and then north along NE 6th Avenue to Miami Gardens Drive, where it exits the City limits. From this point, the route extends westward via Miami Gardens Drive to North Miami Avenue and NE 199th Street, terminating at US 1 (Biscayne Boulevard). The route fare is $1.25. There is no current information available concerning the number of operational vehicles assigned to this route.

Excel Transportation - The primary routing of Excel Transportation is from Downtown Miami northward along North Miami Avenue and NW 2nd Avenue, serving several communities along the way through branch routes. The route enters the City of North Miami Beach via NE 159th Street at NE 8th Avenue. The route then turns southward along NE 10th Avenue, exiting the City at NE 151st Street. The route re-enters the City via NE 135th Street at the Florida East Coast Railroad crossing west of US 1. Excel has up to fifteen 15-passenger vans in operation for this route.

Florida Transportation - This is a relatively new route in the area having obtained a route certificate in 1998. Its petition for route service is currently before the County Commission for approval. The route originates at the Mall at 163rd Street, travelling north on NE 12th Avenue, east on 173rd Street, south on NE 14th Avenue, east on NE 169th Street, south on NE 15th Avenue, west on NE 163rd Street, and south on NE 10th Avenue. The route exits the City limits at NE 151st Street. The route then continues to the southwest and south, terminating at NE 36th Street and NE 4th Court. There is no current information available concerning the number of operational vehicles assigned to this route.

Ridership information for jitneys is difficult to obtain because of the nature of the service. An estimate of typical single vehicle daily ridership for Miami Mini-Bus was determined within the scope of the ***Northeast Dade Transit Improvement Study***, September 1996. This report states that a single jitney vehicle can carry up to 186 passengers per day (or approximately 15.5 passengers per hour).

Jitneys are a factor in the assessment of transportation activity in North Miami Beach since these services both complement the MDTA services and provide an alternate mode of transit. The major concerns with jitneys appear to be possible MDTA ridership loss, maintenance of vehicle conditions, and driver safety. A 1992 study conducted by the Urban Mobility Corporation (prepared under contract to the Federal Transit Administration) concluded that jitney services vehicles carried an average of 110 to 125 passengers per vehicle per day. The report also suggested that jitneys have developed a market and a clientele of their own, rather than taking riders from the Metrobus system.

MDTA Paratransit (STS and Medicaid)

Transportation services for the elderly, physically challenged, and indigent populations in Miami-Dade County are provided by special services. Indigent persons eligible for Medicaid are served by MDTA through the purchased-provider Comprehensive Paratransit Services. There is no fare and trip costs are paid by the state. Approximately 2,700 daily trips countywide are made via this service; however, there is no information available as to the number of specific trips provided to the residents of North Miami Beach.

Miami-Dade County's Special Transportation Services (STS) provides transit service to individuals in Miami-Dade County who qualify under the Americans with Disabilities Act (ADA). STS users must be MDTA certified. The trips are brokered through a private firm. The fare is $2.50 for each trip. This fare will be adjusted in the future to better reflect the true fare of comparable conventional transit trips, including transfer charges. Approximately 3,000 daily trips countywide are made via STS; however, there is no information available as to the specific number of trips provided to the residents of North Miami Beach.

Right-of-Way Widths

The City of North Miami Beach does not have any defined roadway right-of-way standards. Street right-of-way widths in the City vary from less than 40 feet (such as in the Washington Park and Highland Village neighborhoods) to approximately 125 feet on NE 19th Avenue and NE 171st Street. Most of the City residential streets have right-of-way widths ranging from 50 to 80 feet. State and County streets, such as Biscayne Boulevard and North Miami Beach Boulevard, have varying widths, but usually with a minimum 100 foot right-of-way.

Hurricane Evacuation

The Coastal Management Element of the Miami-Dade Comprehensive Development Master Plan, as amended in 1997, and the Coastal Management Element of the City of North Miami Beach's EAR, both describe the area of North Miami Beach east of Biscayne Boulevard (US 1 / SR 5) as being within the Hurricane Vulnerability Zone (HVZ). The barrier islands east of the Intracoastal Waterway lie within the Coastal High Hazard Area (CHHA) which is defined as the entire Storm Category 1 Hurricane Evacuation Area, as established by the local government. The CHHA is consistent with the regional hurricane evacuation plan. This plan is based on the ***1996 Lower Southeast Region Hurricane Evacuation Study*** prepared by the South Florida Regional Planning Council (SFRPC).

The HVZ is defined as the CHHA plus the evacuation zones as defined by the local government for Storm Category 2 and 3 Hurricanes. For North Miami Beach, the HVZ

includes all lands east of Biscayne Boulevard (US 1). The evacuation zone for Storm Category 4 hurricanes and above is the same as the HVZ. Thus, no evacuation is necessary for the areas of the City of North Miami Beach west of Biscayne Boulevard. Map 2.10 presents the areas designated as HVZ and CHHA and the primary evacuation routes.

The designated hurricane evacuation route in North Miami Beach is from SR A1A (Collins Avenue), east of the Intracoastal Waterway, via SR 826 / Sunny Isles Causeway (four lanes westbound) and North Miami Beach Boulevard (three lanes westbound), as shown in Map 2.10. The closest alternate evacuation routes are the William Lehman Causeway approximately 1.5 miles to the north in Aventura and Broad Causeway (SR 856) approximately 2.5 miles to the south in the City of North Miami. Table 2.5 presents the clearance times as determined by the SFRPC for Storm Categories 2 and 3.

Table 2.5: Storm Clearance Times for Hurricane Evacuation Routes North Miami Beach, Storm Categories 2 & 3

Evacuation Route	Clearance Times (Hours)		
	July	November	To County Line
Sunny Isles Causeway, SR 826	3.79	4.79	0.3
North Miami Beach Blvd., SR 826	7.06	8.85	0.3

Source: South Florida Regional Hurricane Evacuation Study, SFRPC, 1996

Crash Data

Table 2.6 presents a summary of yearly crashes along the principal state roadways within the boundaries of the City of North Miami Beach. Table 2.7 presents the recorded number of crashes at each of the major roadway intersections located within the City of North Miami Beach. The crash information was provided by the FDOT Safety Office, Tallahassee and reflects the 1995-1997 data base information.

As shown in Table 2.6, the number of crashes recorded during the three year data period increased from a total of 639 crashes in 1995 to a total of 748 in 1997, a net increase of 109 crashes. A more detailed review of the FDOT crash data indicated that the segment of North Miami Beach Boulevard with the highest number of crashes was between NE 3rd Court and NE 6th Avenue (SR 915) with 81 crashes during the period of 1995-1997.

Table 2.7 reveals that approximately one-third of all crashes along the major North Miami Beach roadways occur at intersections. The intersection of NE 167th Street (SR 826) and NE 6th Avenue registered the highest number of crashes (72) during the three year data period.

The North Miami Beach Boulevard (SR 826) Corridor has the highest average annual rate of crashes per mile (85.1), followed by Miami Gardens Drive (SR 860) with 49.5 crashes per mile, NE 6th Avenue with 28.3 crashes per mile, US 1 with 20.2 crashes per mile, and West Dixie Highway with 13.5 crashes per mile.

Table 2.6: Summary of Crashes by Roadway

Roadways	Number of Crashes			
	1995	1996	1997	Totals
SR 826 North Miami Beach Boulevard between I-95 and North Miami Beach City Limit near the Intracoastal Waterway	391	378	435	1,204
SR 860 Miami Gardens Drive between I-95 and US 1 (Biscayne Boulevard)	105	129	136	370
NE 6th Avenue / SR 915 between NE 167th Street and Miami Gardens Drive	22	19	33	74
SR 909 West Dixie Highway between NE 151st Street and SR 826	14	12	13	39
US 1 / SR-5 Biscayne Boulevard between NE 135th Street and Miami Gardens Drive	107	90	131	328
TOTALS	**639**	**628**	**748**	**2,015**

Source: Florida Department of Transportation, Safety Office, 1999

Table 2.7: Intersection Crashes

Intersection	1995	1996	1997
SR 826 North Miami Beach Blvd / Sunny Isles Blvd.			
NW 1st Ave.	1	8	3
North Miami Ave.	20	15	13
NE 2nd Ave.	14	14	16
NE 3rd Court	2	2	6
NE 6th Ave.	27	19	26
NE 8th Ave.	13	11	16
NE 9th Ave.	5	4	3
NE 10th Ave.	12	6	11
NE 11th Ave.	4	2	0
NE 12th Ave.	13	12	21
NE 15th Ave.	13	12	13
NE 18th Ave.	12	9	8
NE 19th Ave.	12	8	19
West Dixie Highway	12	12	7
US 1 / SR 5 / Biscayne Blvd.	9	13	17
NE 26th Ave.	5	2	1
NE 28th Ave.	4	6	4
Interama Blvd.	1	2	2
NE 35th Ave.	12	22	20
SR 860 - Miami Gardens Drive			
NE 10th Ave.	0	7	0
NE 18th Ave.	0	1	11
NE 19th Ave.	8	9	8
NE 22nd Ave.	5	7	5
NE 6th Ave.			
NE 177th Street	0	0	6
West Dixie Highway			
NE 159th Street	5	2	1
US 1 / SR 5 / Biscayne Blvd.			
NE 151st Street	0	0	9
NE 163rd Street / SR 826	0	0	15
NE 171st Street	0	0	2
Total Intersection Crashes	**209**	**205**	**263**
Total All Crashes	**639**	**628**	**748**
Percent Intersection Crashes of All Crashes	**32.7%**	**32.6%**	**35.2%**

Source: Florida Department of Transportation, Safety Office, 1999

Traffic Calming

The City of North Miami Beach has taken the initiative in addressing the concerns of its neighborhoods with respect to traffic intrusion, speeding, and/or other quality of life and safety issues. During the past decade, the City has initiated several traffic calming studies, and has implemented various traffic restricting or calming measures based upon the results of these studies as well as from community input. The Uleta and Windward Heights neighborhoods are two of the areas for which special traffic calming studies have been prepared recently. ***("North Miami Beach Neighborhood Traffic Calming, Final Report***" Carr-Smith Corradino, August 1998**)**

Existing Level of Service Analysis

Existing Roadway Level of Service (LOS) Analysis

Arterial Level of Service Categories

According to the ***Highway Capacity Manual*** (Transportation Research Board, 1998), roadway capacity can be defined as the maximum hourly rate at which vehicles can reasonably be expected to traverse a uniform section of a roadway during a given time period under prevailing roadway, traffic and control conditions. Level of Service (LOS) indicators are qualitative measures that characterize operational conditions within a traffic stream and their perception by motorists and passengers.

Six level of service standards have been established by the Transportation Research Board to describe operating conditions on a roadway or at an intersection; they are designated A through F, with LOS A representing the best operating conditions. The level of service standards for arterials are as follows:

> ***LOS A:*** *Primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the arterial classification. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delay at signalized intersections is minimal.*
>
> ***LOS B:*** *Reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the arterial classification. The ability to maneuver in the traffic stream is only slightly restricted and delays are not bothersome.*

LOS C: *Stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than in LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the average free-flow speed for the arterial classification.*

LOS D: *This level of service borders on a range in which small increases in flow may cause substantial increases in approach delay and hence decreases in arterial speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40 percent of free-flow speed.*

LOS E: *Characterized by significant delays and average travel speeds of one-third the free-flow speed or less. Such operations are caused by some combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.*

LOS F: *Characterized by arterial flow at extremely low speeds from less than one-third to one-quarter of the free-flow speed. Intersection congestion is likely at critical signalized locations, with long delays and extensive queuing.*

Table 2.8 illustrates the level of service characteristics for four classes of arterial roadways, usually defined in practice with posted speed limits. For example, the majority of the arterial roadways within the North Miami Beach city limits can be considered as Class II roadways. These level of service standards are incorporated in FDOT's 1998 Florida's Level of Service Standards and Guidelines Manual for Planning, which is used as a guiding source in establishing Florida's arterial capacities.

Table 2.8: Roadway Level of Service Parameters

Arterial Classification	I	II	III	IV
Range of free-flow speeds	45 to 55	35 to 45	30 to 35	25 to 35
Typical free-flow speeds	50	40	33	30
Level of Service	Average Travel Speed (mph)			
A	≥42	≥35	≥30	≥25
B	≥34	≥28	≥24	≥19
C	≥27	≥22	≥18	≥13
D	≥21	≥17	≥14	≥9
E	≥16	≥13	≥10	≥7
F	<16	<13	<10	<7

Source: 1998 Highway Capacity Manual Table 11-1

Miami-Dade County Roadway Level-of-Service (LOS) Standard

The approved Miami-Dade County Comprehensive Development Master Plan (CDMP), page IX-6, states:

"The minimum acceptable peak-period LOS for all State and County roads inside the UDB [Urban Development Boundary] shall be the following:

1) *Within the Urban Infill Area (UIA)*
   - *(a) Where no public mass transit service exists, roadways shall operate at or above LOS E;*
   - *(b) Where mass transit service having headways of 20 minutes or less is provided within ½ mile distance, roadways shall operate at no greater than 120 percent of their capacity;*
   - *(c) Where extraordinary transit service such as commuter rail or express bus service exist, parallel roadways within ½ mile shall operate at no greater than 150 percent of their capacity.*

2) *Between the UIA and the UDB*
   - *(a) Roadways shall operate at no worse than LOS D (90 percent of their capacity) except that State urban minor arterials (SUMAs) may operate at LOS E (100 percent of their capacity);*
   - *(b) Where public mass transit service exists having headways of 20 minutes or less within ½ mile distance, roadways shall operate at or above LOS E;*
   - *(c) Where extraordinary transit service such as commuter rail or express bus service exists, parallel roadways within ½ mile shall operate at no greater than 120 percent of roadway capacity.*

3) *Notwithstanding the foregoing, as required by s.163.3180(10), F.S., the following standards, established by rule by the Florida Department of Transportation (FDOT), are adopted by Dade County as its minimum LOS Standards for Florida Intrastate Highway System (FIHS) roadways in Dade County:*
   - *(b) Inside the UDB*
     - *1. Limited access State highways shall operate at LOS D or better, except where exclusive through lanes exist, roadways may operate at LOS E."*

This reprint of Miami-Dade County's standards is provided since portions of the City of North Miami Beach are located both within and outside the Urban Infill Area (UIA), and because the UIA criteria has not been officially adopted in Future Land Use Element of the North Miami Beach. The UIA boundary line traverses along the Palmetto Expressway and I-95. One small portion of the city lies north and west of the Golden Glades interchange and therefore is not included in the UIA. Only three local roadways are within this portion of the city, so the County standards do not apply in any case to them. Furthermore, since the City has not officially adopted the UIA in its Future Land Use Element at this time, the UIA standards are technically not applicable to any remaining portions of the City. However, all unincorporated portions of Dade County that are completely surrounded by the City follow such standards.

Thus, a situation exists in which SR 826 (North Miami Beach Boulevard) would have one set of LOS standards applied just west and just east of the 163rd Street Mall, but the portion of roadway in front of the Mall would have a different set of standards. The solution to this situation is for the City to amend their Future Land Use Map and adopt a new policy in their Future Land Use Element that is consistent with the UIA standards set forth by Miami-Dade County.

The Tri-Rail / I-95 segment running along the west side of North Miami Beach can be considered as an extraordinary transit corridor due to its provision of commuter trains and express buses. However, for the purposes of this study, the designation of Tri-Rail / I-95 as an extraordinary transit corridor would not apply to the City of North Miami Beach because access to these facilities from land uses within City boundaries is limited to specific locations along their routes. These locations are the interchange with Miami Gardens Drive and the Golden Glades interchange. Furthermore, no express bus or Tri-Rail access is available at the Miami Gardens Drive interchange, thus limiting the actual available transit corridor to the ½ mile surrounding the Tri-Rail station at the Golden Glades interchange.

Extraordinary transit service is available at this time along the US 1 (Biscayne Boulevard) corridor. The County standard permits an increase in capacity for parallel roads extending ½ mile on either side of this route. This corridor and its ½ mile transit "band" are displayed on Map 2.3. The Tri-Rail station located adjacent to the Golden Glades interchange is also described on this Map, although it technically lies outside of the City boundaries.

Although the City has not yet adopted the UIA, it has committed to do so in the near future, thus allowing the use of the 150% of LOS E criteria on these key roadways. Other roadways within the City limits that are more than ½ mile from US 1 can be characterized by the following capacity constraints.

1. 120% Capacity (LOS E):

- SR 826 between NW 2nd Avenue and US 1 (mostly within the City limits).
- NE 10th Avenue between NE 175th and NE 181st Streets (within the City limits).
- NE 10th Avenue between NE 151st and NE 156th Streets (within the City limits).
- NE 16th Avenue between NE 151st and 155th Streets (within City limits).
- Miami Gardens Drive (SR 860) between NE 12th and 15th Avenues (not within City limits).

2. Capacity (LOS E):
   - NE 12th Avenue between NE 151st and NE 155th Streets (within City limits).

It should be noted that until recently, SR 826 was considered an extraordinary transit facility due to MDTA express bus 95X service. However, MDTA discontinued Route 95X service through the City along this roadway, thus removing SR 826 from the extraordinary transit facility classification.

Existing Roadway Levels of Service in North Miami Beach

The roadway level of service (LOS) and capacity analyses for North Miami Beach were produced based on two sources. The first is based on the previously referenced "*NE 167th / 163rd Street Corridor Study*". This study provides detailed information regarding the 1997 peak period volumes and LOS along North Miami Beach Boulevard (NW / NE 167th Street and NE 163rd Street) between I-95 and the Intracoastal Waterway. The analyses were based upon recent traffic counts and the application of FDOT's ART-PLAN arterial analysis model. Table 2.9 presents a summary from that report of the existing LOS along North Miami Beach Boulevard. (See also Map 2.12). Table 2.10 presents the level of service for shorter segments of North Miami Beach Boulevard. As presented in Tables 2.9 and 2.10, segments of North Miami Beach Boulevard (SR 826) currently operate at or better than the minimum level of service E (based on criteria presented in Table 2.8).

The second analysis procedure involved the application of FDOT's 1998 LOS Manual, specifically *Table 5-1 Generalized Peak Hour Peak Directional Volumes for Florida's Urbanized Areas.* The capacity or LOS threshold values for the peak hours were adjusted to reflect either 120% or 150% of LOS E as applicable to the roadways in North Miami Beach and based upon the County's LOS standard as previously described.

Table 2.9: LOS Analysis: SR 826 North Miami Beach Boulevard – 1998

SR 826 – Sunny Isles Boulevard Eastern Section from NE 35th Avenue to US 1: PM Peak Hour				
Direction	Average Lanes	Speed (mph)	Maximum Directional Volume	LOS
Eastbound	8 Divided	25.7	1843	B
Westbound	8 Divided	23.0	2034	B
SR 826 – North Miami Beach Boulevard Western Section from US 1 to I-95: PM Peak Hour				
Direction	Average Lanes	Speed (mph)	Maximum Directional Volume	LOS
Eastbound	6 Divided	17.0	2255	D
Westbound	6 Divided	28.0	2714	B

Source: "NW / NE 167th and 163rd Street (SR 826) Corridor Study, Existing Traffic Conditions Report", Carr Smith Corradino, March 1998

Table 2.10: Existing Conditions Analysis – Arterial Performance

Arterial Section	**Direction**	**Afternoon Peak Hour**	
		LOS	**Arterial Speed (MPH)**
SR 826 between NW 2nd Ave. and NE 8th Ave.	Eastbound	C	19.8
	Westbound	C	19.8
SR 826 between NE 8th Ave. and NE 15th Ave.	Eastbound	C	19.7
	Westbound	C	18.7
SR 826 between NE 15th Ave. and Biscayne Blvd.	Eastbound	D	17.0
	Westbound	D	16.3
SR 826 between Biscayne Blvd. and NE 35th Ave.	Eastbound	B	25.2
	Westbound	D	16.8
NE 167th Street (SR 826) between West Dixie Hwy & NE 19th Ave.	Eastbound	B	17.9
	Westbound	D	28.2
NE 167th Street between NE 15th Ave. and SR 826	Eastbound	E	13.8
	Westbound	E	13.4
NE 164th Street (SR 826) between West Dixie Hwy & NE 15th Ave	Eastbound	D	14.9
	Westbound	E	14.0

Source: NW / NE 167th and NE 163rd Street Corridor Study, Carr Smith Corradino, January 1999

Table 2.11 presents the LOS analyses based on directional peak hour conditions. (See also Map 2.12). The existing peak period levels of service indicated in Table 2.11 show that almost all of the major North Miami Beach roadways operate at or better than the minimum acceptable level of service.

The only exception is the westbound PM peak period traffic movement along SR 826 just east of NW 2nd Avenue. This volume of traffic overwhelms the capacity at this section

primarily due to the confluence of the Golden Glades interchange directly adjacent to this segment of roadway.

Table 2.12 presents the results of the LOS evaluation for the daily volumes. The daily volumes are provided only for reference, since they are not applicable for adjustment as per County standards. The peak period volumes govern the level of service for the major roadways.

Public Transit Level of Service

MDTA Level of Service

Tables 2.13 and 2.14 present the current level of service for the bus routes serving North Miami Beach (Source: NW / NE 167th / 163rd Street Corridor Study, 1998). It is important to note that seven of the fourteen routes operate with peak period headways of 20 minutes or less. This Corridor Study report further explains that over the past few years, the number of bus riders in North Miami Beach has been increasing as the average age of the bus rider has been decreasing. Corresponding to the slight demographic shift in the population base from retired persons to immigrant working families, bus ridership shows an increase in both home to work trips and home to school trips, both of which establish a solid framework for consistent transit users. In addition, MDTA has reported an increase of trips between stops in North Miami Beach and the Aventura Mall north of the City limits.

These factors allow for the provision of exceptional transit service on some the major roadway corridors within the City limits and exceed the Miami-Dade County minimum peak hour mass transit level of service. This minimum requirement is that public transit having 60-minute headways and average route spacing of one mile must be provided in all areas of the County which have a combined resident and work force population of more than 10,000 persons per square mile.

Table 2.11(a): 1998 AM Peak Hour Directional Volume Levels of Service

Roadway	Location	AM PEAK HOUR							
		Peak Hour Directional Volume (1)	Level of Service E Capacity (2)	Volume / Capacity	Level of Service	Peak Hour Directional Volume (1)	Level of Service E Capacity (2)	Volume / Capacity	Level of Service
SR 826 North Miami Beach Boulevard	East of NW 2nd Ave.	3,085 Eastbound	3,276	0.94	E	3,096 Westbound	3,276	0.95	E
SR 826 North Miami Beach Boulevard	East of NE 2nd Ave.	2,441 Eastbound	3,276	0.75	D	2,330 Westbound	3,276	0.71	D
SR 826 North Miami Beach Boulevard	East of NE 6th Ave.	2,328 Eastbound	3,276	0.71	D	2,208 Westbound	3,276	0.67	D
SR 826 North Miami Beach Boulevard	East of NE 12th Ave.	2,061 Eastbound	3,276	0.63	D	2,187 Westbound	3,276	0.67	D
SR 826 North Miami Beach Boulevard	East of NE 15th Ave.	2,075 Eastbound	3,276	0.63	D	2,031 Westbound	3,276	0.62	D
SR 826 North Miami Beach Boulevard	East of NE 18th Ave.	1,878 Eastbound	3,276	0.57	C	1,714 Westbound	3,276	0.52	C
SR 826 North Miami Beach Boulevard	West of US 1	1,998 Eastbound	3,276	0.61	D	2,416 Westbound	3,276	0.74	D
SR 826 North Miami Beach Boulevard	East of US 1	1,604 Eastbound	3,350	0.48	C	1,769 Westbound	3,350	0.53	C
SR 860 Miami Gardens Drive	East of NE 8th Ave.	1,440 Eastbound	2,172	0.66	D	1,464 Westbound	2,172	0.67	D
SR 5 / US 1 Biscayne Boulevard	South of NE 163rd Street	1,440 Northbound	5,025	0.29	C	1,464 Southbound	5,025	0.29	C
SR 915 NE 6th Avenue	North of SR 826	917 Northbound	2,063	0.44	C	931 Southbound	2,063	0.45	C
SR 915 NE 6th Avenue	South of SR 826	900 Northbound	2,063	0.44	C	915 Southbound	2,063	0.44	C
SR 909 West Dixie Highway	North of NE 151st St.	622 Northbound	2,579	0.24	C	632 Southbound	2,579	0.25	C

(1) Peak hour volumes determined from FDOT 1997 ADT Volumes, and the "NW / NE 163rd / 167th Street Corridor Study", and peak hour, directional, and seasonal factors.
(2) Based on Table 5-1, "Generalized Peak Hour Peak Directional Volumes for Florida's Urbanized Areas", FDOT LOS Manual, 1998, using arterial classification II.

Table 2.11(b): 1998 PM Peak Hour Directional Volume Levels of Service

Roadway	Location	PM PEAK HOUR							
		Peak Hour Directional Volume (1)	Level of Service E Capacity (2)	Volume / Capacity	Level of Service	Peak Hour Directional Volume (1)	Level of Service E Capacity (2)	Volume / Capacity	Level of Service
SR 826 North Miami Beach Boulevard	East of NW 2nd Ave.	2,910 Eastbound	3,276	0.89	E	3,687 Westbound	3,276	1.13	F
SR 826 North Miami Beach Boulevard	East of NE 2nd Ave.	2,601 Eastbound	3,276	0.79	E	2,890 Westbound	3,276	0.88	E
SR 826 North Miami Beach Boulevard	East of NE 6th Ave.	2,470 Eastbound	3,276	0.75	D	2,448 Westbound	3,276	0.75	D
SR 826 North Miami Beach Boulevard	East of NE 12th Ave.	2,182 Eastbound	3,276	0.67	D	2,591 Westbound	3,276	0.79	E
SR 826 North Miami Beach Boulevard	East of NE 15th Ave.	2,026 Eastbound	3,276	0.62	D	2,438 Westbound	3,276	0.74	D
SR 826 North Miami Beach Boulevard	East of NE 18th Ave.	1,909 Eastbound	3,276	0.58	D	1,917 Westbound	3,276	0.59	D
SR 826 North Miami Beach Boulevard	West of US 1	2,043 Eastbound	3,276	0.62	D	2,478 Westbound	3,276	0.76	D
SR 826 North Miami Beach Boulevard	East of US 1	1,972 Eastbound	3,350	0.59	C	1,888 Westbound	3,350	0.56	C
SR 860 Miami Gardens Drive	East of NE 8th Ave.	1,493 Eastbound	2,172	0.69	D	1,677 Westbound	2,172	0.77	D
SR 5 / US 1 Biscayne Boulevard	South of NE 163rd Street	1,493 Northbound	5,025	0.30	C	1,677 Southbound	5,025	0.33	C
SR 915 NE 6th Avenue	North of SR 826	950 Northbound	2,063	0.46	C	1,067 Southbound	2,063	0.52	C
SR 915 NE 6th Avenue	South of SR 826	933 Northbound	2,063	0.45	C	1,048 Southbound	2,063	0.51	C
SR 909 West Dixie Highway	North of NE 151st St.	645 Northbound	2,579	0.25	C	724 Southbound	2,579	0.28	C

(1) Peak hour volumes determined from FDOT 1997 ADT Volumes, and the "NW / NE 163rd / 167th Street Corridor Study", and peak hour, directional, and seasonal factors.
(2) Based on Table 5-1, "Generalized Peak Hour Peak Directional Volumes for Florida's Urbanized Areas", FDOT LOS Manual, 1998, using arterial classification II.

Table 2.12: 1998 Daily Volume Levels of Service

Roadway	Location	1998 ADT (1)	LOS E Capacity (2)	Volume / Capacity	Daily Level of Service
SR 826 North Miami Beach Boulevard	East of NW 2nd Avenue	N/A	51,700	N/A	N/A
SR 826 North Miami Beach Boulevard	East of North Miami Avenue	66,500	51,700	1.29	F
SR 826 North Miami Beach Boulevard	East of NE 2nd Avenue	N/A	51,700	N/A	N/A
SR 826 North Miami Beach Boulevard	East of NE 6th Avenue	N/A	51,700	N/A	N/A
SR 826 North Miami Beach Boulevard	East of NE 10th Avenue	56,000	51,700	1.08	F
SR 826 North Miami Beach Boulevard	East of NE 12th Avenue	N/A	51,700	N/A	N/A
SR 826 North Miami Beach Boulevard	East of NE 15th Avenue	N/A	51,700	N/A	N/A
SR 826 North Miami Beach Boulevard	East of NE 18th Avenue	55,500	51,700	1.07	F
SR 826 North Miami Beach Boulevard	West of U.S.1	50,000	51,700	0.97	E
SR 826 North Miami Beach Boulevard	East of U.S.1	33,000	63,400	0.52	C
SR 860 Miami Gardens Drive	East of NE 8th Avenue	44,000	34,300	1.28	F
SR 5 / US 1 Biscayne Boulevard	South of NE 163rd Street (SR 826)	42,500	63,400	0.67	C
SR 915 NE 6th Avenue	North of SR 826	27,000	32,585	0.83	D
SR 915 NE 6th Avenue	South of SR 826	26,500	32,585	0.81	D
SR 909 West Dixie Highway	North of 151st Street	20,200	32,585	0.62	C

(1) Florida Department of Transportation, 1998 Transportation Data CD.
(2) FDOT, Level of Service Manual, 1998, Table 5-4, Generalized Annual Daily Volumes for Florida's Urbanized Areas, Class II (without applying 150% of the LOS E criteria)

Table 2.13: Bus Transit Level of Service - Headways, Hours of Operations, and Travel Times

Bus Route	Description	Weekday Headway (min)	Hours of Operation	Travel Time (min)
MDTA				
Biscayne Max	Aventura - Downtown Miami	15	6 AM-10:22 AM 3 PM-7:21 PM	48-57
E	Aventura - Miami Lakes	60	5:48 AM-8:53 PM	86-97
H	North Miami Beach - Miami Beach	20	5:21 AM-12:55 AM	60-97
V	Diplomat Mall / Golden Glades - Golden Glades Hospital	60	8:20 AM-6:16 PM	78-82
2	Mall at 163rd Street - Downtown Miami	60	4:56 AM-11:38 PM	60-77
3	Diplomat Mall - Downtown Miami	20	4:42 AM-2:08 AM	77-93
9	Aventura Mall - Downtown Miami	10-40	4:43 AM-11:58 PM	60-101
10	North Miami Beach - Downtown Miami	30-40	5:09 AM-12:27 AM	47-65
16	North Miami Beach - Downtown Miami	20	5:12 AM-11:08 PM	46-69
22	North Miami Beach - Douglas Road Station	20-30	4:44 AM-12:33 AM	50-101
28	Hialeah - Florida International University	60		
75	Miami Lakes - Miami-Dade Community College (North Campus)	30	5:15 AM-11:37 PM	71-91
83	Miami Lakes - Florida International University	30	5:08 AM-12:07 AM	66-79
91	Miami Lakes - North Miami Beach	60	5:12 AM-8:44 PM	66-80
BCt				
18	Margate Terminal-Mall at 163rd Street	20-30	4:55 AM-10:25 PM	110

Source: Miami-Dade Transit Agency, March 1999

Table 2.14: Bus Transit Level of Service - North Miami Beach

Bus Route	Description	Average Daily Load Factors		
		Peak	Off-Peak	Weekend
MDTA				
Biscayne Max	Aventura - Downtown Miami	37.3	N/A	N/A
E	Aventura - Miami Lakes	28.1	20.6	14.3
H	North Miami Beach - Miami Beach	47.8	41.0	41.8
V	Diplomat Mall / Golden Glades - Golden Glades Hospital	8.9	N/A	N/A
2	Mall at 163rd Street - Downtown Miami	30.5	20.8	15.9
3	Diplomat Mall - Downtown Miami	66.9	74.5	62.0
9	Aventura Mall - Downtown Miami	51.5	38.8	36.4
10	North Miami Beach - Downtown Miami	40.3	38.8	27.4
16	North Miami Beach - Downtown Miami	66.9	39.3	28.7
22	North Miami Beach - Douglas Road Station	55.4	38.2	34.3
28	Hialeah - Florida International University			
75	Miami Lakes - Miami-Dade Community College (North Campus)	54.3	23.5	11.2
83	Miami Lakes - Florida International University	55.6	40.1	24.6
91	Miami Lakes - North Miami Beach	33.5	21.1	21.6
BCt				
18	Margate Terminal-Mall at 163rd Street	158.0	N/A	N/A

Sources: NW / NE 167th Street Corridor Study, The Corradino Group, Carr Smith Associates, 1999

North Miami Beach Circulator System Evaluation

The evaluation criteria for this demonstration project, as established by FDOT, are 85 boardings per day for each route at a net cost of $4.95 per boarding, to be achieved by the end of the three-year period (June 30, 2000). Table 2.15 presents the performance evaluation for the circulator system, for the quarter ending September 1999. In order to meet the FDOT criteria, the four circulator routes would have to substantially increase average daily ridership (boardings) to match those shown in Table 2.16. Please note however, that as of November 1999, the four routes described in this analysis have been completely replaced by two new routes and schedules. The older analysis is still provided in this report since the new service does not have any significant data collected yet.

Circulator Objective and Issues

During the past year, a number of significant changes have occurred in North Miami Beach's circulator system.

- The relocation of the NE 15th Avenue Publix supermarket to the Skylake area resulted in substantial schedule and alignment changes.

- Route ES has discontinued service to the Woodside area but extended service to the new Skylake Publix. The headway has been increased from 45 minutes to 1 hour.

- Route SL has discontinued service to Marlen Gardens, Olympic Towers, and Gateway House condominiums. New service has been added to Skylake Publix and Walgreens, and the St. Lawrence and Temple Israel schools. The headway has been increased from 50 minutes to 1 hour.

- A new Central City (CC) route was created operating 1 minibus every hour five days a week. Route CC provides service previously not available to city condominiums, and to various other condominiums and apartments in the unincorporated area. This route includes stops at Skylake Publix, Walgreens, Eckerds, City Hall, the Library, Winn-Dixie, and Laurenzo's.

However as noted earlier, there have been additional changes since September 1999 to the circulator system. For example, the City had agreed to continue services into unincorporated areas on behalf of Miami-Dade County, pending the transit sales tax referendum scheduled in August 1999. Subsequent to the failure of this referendum, the City notified the County that Routes SL and M-U would be discontinued effective October 1, 1999. In September 1999, the City also developed a plan to combine Routes ES and CC into a single five day a week route, using two 22-passenger, lift-equipped minibuses. The City will set new objectives for this one route during its FY 2000-2001 budgeting process.

MDTA has agreed to continue the operation of Routes M-U and SL until new MDTA route service could be provided, at which time the circulator routes would be eliminated. Furthermore, MDTA will revise the Miami-Dade County-North Miami Beach Interlocal Agreement to reimburse the City for planning, monitoring and marketing services required to implement the unincorporated area routes on a temporary basis. The marketing will be of a limited nature, consisting primarily of informational brochures displaying route maps and schedules.

Table 2.15: North Miami Beach Circulator Performance Criteria

Route	FDOT Criteria	Daily Boardings		Cost per Boarding	
		Average Daily Boarding	% of Criteria	FDOT Criteria	Cost Per Boarding
ES	85.0	28.4	33.4%	$4.95	$11.22
M-U	85.0	12.6	14.8%	$4.95	$13.11
CC	85.0	7.0	8.2%	$4.95	$43.76
SL	85.0	18.0	21.2%	$4.95	$17.74

Source: City of North Miami Beach Circulator Services, Quarter Ending September, 1999

Table 2.16: Route Operations Objectives for the NMB Circulator

Route	Number and Type of Vehicle	Total Hours per Day	Average Daily Ridership
ES	1 Minibus	21.0	63
CC	1 Minibus	6.6	62
SL	1 Van	20.7	39
M-U	1 Van	6.5	32

Source: City of North Miami Beach Circulator Services, Quarter Ending September, 1999

Planned Improvements

The City of North Miami Beach will benefit from several roadway, transit, and other non-motorized improvement projects that are planned for future implementation in the area. These are presented in Tables 2.17(a) through 2.17(f). The Transportation Improvement Program (TIP), a major document of the Metropolitan Planning Organization (MPO) for the Miami Urbanized Area, specifies proposed transportation improvements to be implemented in the coming five years (fiscal years 2000 through 2004). Federal, state, and/or local grants fund these projects.

Table 2.17(a): Three-Year Federal Funded Projects

(Note: all costs in millions)

Item No.	Description	Location	Cost	Fiscal Year
4055811	Bike Path	City of North Miami Beach	$1.28	2000
2512011	Bike Path	City of North Miami Beach	$0.952	2000
2516621	I-95 Rigid Pavement Reconstruction	SR 5 / US 1 to Golden Glades	$0.93	2001
2516631	I-95 Noise Walls	North of SR 112 to 199th Street	$22.4 / $0.9	2000 / 2002
2516821	I-95 ITS System	SR 5 / US 1 to Broward County Line	$0.79	2000
2516841	Golden Glades Multi-Modal Terminal	Park and Ride Lots	$0.911 / $0.065	2000 / 2001
2516821	I-95 ITS System	SR 5 / US 1 to Broward County Line	$22.4	2002
2512831	Sidewalks	City of North Miami Beach	$1.2	2002
2502271	Safety Project	SR 826 / 167th Street at NE 6th Avenue	$0.252	2000

Source: Transportation Improvement Plan 2000-2004, Miami-Dade Metropolitan Planning Organization, 1999

Table 2.17(b): State Primary Highway and Intermodal (FDOT) Projects

(Note: all costs in millions)

Item No.	Description	Location	Cost	Fiscal Year
2502271	Safety Project	SR 826 / 167th Street at N.E. 6th Avenue	$0.252	2000
2512011	Bike Path	City of North Miami Beach	$0.952	2000
2512831	Sidewalks	City of North Miami Beach	$1.2	2002
2516621	I-95 Rigid Pavement Reconstruction	SR 5 / US 1 to Golden Glades	$0.93	2001
2516631	I-95 Noise Walls	North of SR 112 to 199th Street	$22.4 / $0.9	2000 / 2002
2516821	I-95 ITS System	SR 5 / US 1 to Broward County Line	$0.79 / $22.4	2000 / 2002
2516951	I-95 ITS System	SR 5 / US 1 to Broward County Line	$10.26	2003
4055811	Bike Path	City of North Miami Beach	$1.28 / $1.27	2000 / 2003

Source: Transportation Improvement Plan 2000-2004, Miami-Dade Metropolitan Planning Organization, 1999

Table 2.17(c): Road Impact Fee Projects

(Note: all costs in millions)

Item No.	Description	Location	Cost	Fiscal Year
671379	NE 12th Avenue Widen to 3 Lanes TOPICS Design Completed	NE 151st Street to NE 167th Street	Not funded	N/A
671306	NE 15th Avenue Widen to 4 Lanes Design Completed	NE 163rd Street to NE 170th Street	$1.0	2003-2004
671306	NE 15th Avenue Widen to 3 Lanes TOPICS Design Completed	NE 159th Street to NE 163rd Street	Not Funded	N/A
671306	NE 15th Avenue Widen to 3 Lanes TOPICS Design Completed	NE 170th Street to Miami Gardens Drive	Not Funded	N/A
671307	NE 18th / 19th Avenue Signalization TOPICS Construction Completed	NE 163rd Street to Miami Gardens Drive	N/A	N/A
671301	N 159th Street Widen Intersections TOPICS Design Completed	NE 8th Avenue to NE 19th Place	$1.0	1999-2000
N/A	Intersection Improvements TOPICS Design Completed	West Dixie Highway at NE 164th Street	N/A[1]	2000-2004
N/A	Signalization Traffic Control Devices	West Dixie Highway at NE 164th Street	N/A[2]	2000-2004

Source: Transportation Improvement Plan 2000-2004, Miami-Dade Metropolitan Planning Organization, 1999

1. This improvement is part of a countywide intersection improvement project.
2. This improvement is part of a countywide intersection signalization project.

Table 2.17(d): Multi-Modal Transit Improvement Projects

(Note: all costs in millions)

Description	Location	Cost	Fiscal Year
Passenger Amenities Northeast Miami-Dade Transit Center ($4,000,000 in Federal Discretionary Funds available – other sources pending)	N/A	$5.54 (projected)	N/A

Source: Transportation Improvement Plan 2000-2004, Miami-Dade Metropolitan Planning Organization, 1999.

Table 2.17(e): Non-Motorized Projects

(Note: all costs in millions)

Item No.	Description	Location	Cost	Fiscal Year
2512011	Bike Path	City of North Miami Beach	$0.952	2000
2512831	Sidewalks	City of North Miami Beach	$1.2	2002
4055811	Bike Path	City of North Miami Beach	$1.28 / $1.27	2000 / 2003

Source: Transportation Improvement Plan 2000-2004, Miami-Dade Metropolitan Planning Organization, 1999.

Table 2.17(f): Unfunded Priority Needs
(Note: All costs in millions of dollars)

Item No.	Description	Location	Cost	Fiscal Year
4-18	North Dade Greenways Master Plan	North Dade County	$0.15	2004
671379	NE 12th Avenue Widen to 3 Lanes TOPICS Design Completed	NE 151st Street to NE 167th Street	Not funded	N/A
671306	NE 15th Avenue Widen to 4 Lanes Design Completed	NE 163rd Street to NE 170th Street	$1.0	2003-2004
671306	NE 15th Avenue Widen to 3 Lanes TOPICS Design Completed	NE 159th Street to NE 163rd Street	Not Funded	N/A
671306	NE 15th Avenue Widen to 3 Lanes TOPICS Design Completed	NE 170th Street to Miami Gardens Drive	Not Funded	N/A
7	Non-Motorized Snake Creek Canal Multi-Use Path	I-95 Underpass	$0.06	2000
60	Northeast Transit Corridor Bicycle Accommodations	Downtown Miami to NE 199th St	N/A	N/A

Source: Transportation Improvement Plan 2000-2004, Miami-Dade Metropolitan Planning Organization, 1999

The City of North Miami Beach also has programmed a number of projects in their Capital Improvements Budget intended to improve the roadway infrastructure within the City limits over the next five years. These are shown in Table 2.18.

The NE 164th Street project listed in Table 2.18 is a high priority project for improving the transportation / planning relationship within the City of North Miami Beach. This corridor currently enjoys a good mix of existing land uses that are quite intense (well beyond the permitted densities of 60 to 80 dwelling units per acre). This project will reconstruct NE 164th Street between NE 15th Avenue and West Dixie Highway within the existing 80 feet of right-of-way to allow for wider sidewalks on both sides, on-street parking, bus pull-out bays, and one lane for vehicular travel in each direction. Additional pedestrian / transit enhancements include landscaping, street lighting, bus benches, and concrete pedestrian cross walks both at intersections and in mid-block locations.

One major goal of the improvements to NE 164th Street is to improve the continuous vehicle travel lanes in order for local traffic to use this roadway and avoid the much more congested SR 826. However, no signs will be posted along SR 826 offering NE 164th

Street as an alternate parallel route in order to avoid pass-through traffic from taking advantage of this facility. The North Miami Beach circulator system has also been rerouted to utilize this NE 164th Street corridor, and the private jitney operators will be approached to request that some jitney service also be provided in this corridor. In the long term, a transit station can be established at the intersection of this street with the FEC railroad tracks, thereby increasing the multi-modal opportunities for the local residents.

Table 2.18: North Miami Beach Capital Improvements Program

Fiscal Year	Project	Location	Work Description	Cost Estimate
2000-2001	Corona-Del-Mar Roadway Improvement	NE 18th Avenue to NE 21st Avenue from NE 159th Street to NE 163rd Street	Drainage, curbing, road reconstruction, street lighting and landscaping	$1,700,000
2000-2001	NE 186th Street Roadway Improvement	NE 186th Street from NE 18th Avenue to NE 19th Avenue	Drainage, curbing, road reconstruction, street lighting and landscaping	$200,000
2000-2001	Washington Park Roadway Improvement	NE 14th Avenue to NE 16th Avenue from NE 151st Street to NE 155th Street	Drainage, curbing, road reconstruction, street lighting and landscaping	$2,300,000
2001-2002	West Dixie Industrial District Roadway Improvement	NE 153rd Street and NE 154th Street from West Dixie Highway to Railway Avenue, and Railway Avenue from NE 151st Street to NE 154th Street	Drainage, curbing, road reconstruction, street lighting and landscaping	$450,000
2002-2003	Western Eastern Shores Roadway Improvement	NE 164th Street and NE 26th Avenue to dead-ends	Drainage, curbing, sidewalk, road reconstruction, decorative street lighting and landscaping	$600,000
2002-2003	NE 182nd Street Roadway Improvement	NE 182nd Street from NE 17th Avenue to NE 18th Avenue	Drainage, curbing, sidewalk, road reconstruction, decorative street lighting and landscaping	$200,000
2002-2003	North Miami Beach Downtown / NE 164th Street Roadway Modification	NE 164th Street from NE 15th Avenue to West Dixie Highway	Curbing, sidewalk, parking, decorative street lighting, brickpavers crosswalk and landscape	$3,000,000
2003-2004	Uleta Roadway Improvement	North Miami Avenue from 171st Street to 173rd Street, NW 171st Street from North Miami Avenue to NW 2nd Avenue, NE 168th Street from NW 2nd Avenue to NE 2nd Avenue, and NE 169th Street from NE 2nd Avenue to North Miami Avenue	Drainage, curbing, road reconstruction, street lighting and landscaping	$1,400,000
2003-2004	Mall South Parking Lot	City owned portions between NE 162nd Street and NE 163rd Street from NE 12th Avenue to NE 15th Avenue	Drainage, curbing, parking reconstruction, street lighting and landscaping	$500,000
2004-2005	NE 35th Avenue Roadway Improvement	NE 35th Avenue from NE 163rd Street to NE 171st Street	Drainage, curbing, road reconstruction, street lighting and landscaping, installation of lights and flower beds for the medians	$1,200,000
2004-2005	NE 13th Avenue Median Beautification	NE 13th Avenue median from NE 151st Street to NE 159th Street	Installation of trees, landscape, picnic tables and benches	$200,000
2004-2005	University Park Roadway Improvement	NE 167th Street to NE 171st Street from Snake Creek Canal to NE 19th Avenue	Drainage, curbing, road reconstruction, street lighting and landscaping	$2,500,000
			TOTAL	**$14,250,000**

Year 2020 Miami-Dade Transportation Plan

The Long-Range Element of the Year 2020 Miami-Dade Transportation Plan (Metropolitan Planning Organization for the Miami Urbanized Area, 1998), as approved in December 1998, identifies priority projects for the roadway system in North Miami Beach and the rest of Miami-Dade County. The following projects presented in Table 2.19 will impact North Miami Beach.

Table 2.19: Miami-Dade County Long Range Transportation Plan Projects

Priority	Facility	From	To	Description	Sponsor	Cost (Millions)	Funding
1	NW 12th Avenue 2000-05	NE 151st St	NE 167th St	Widen to 3 Lanes	County	$ 1.45	Not Funded
1	NE 15th Avenue 2000-05	NE 159th St	NE 163rd St	Widen to 3 Lanes	County	$ 1.87	Not Funded
2	Golden Glades Multi-modal Terminal 2005-10			Improvements – 1st Phase	State	$ 5.56	Not Funded
3	SR 860 (183rd St) 2010-15	NE 6th Ave	US 1	Widen to 6 lanes	State	$ 2.08	Other
4	US 1 / Biscayne	Downtown Miami	Broward County line	Premium Transit Corridor	MDTA	$ 859.42	Sect. 3

Source: Year 2020 Miami-Dade Transportation Plan (Metropolitan Planning Organization for the Miami Urbanized Area, 1998), as approved December 1998

Projected Needs

Map 2.11 presents the future roadway functional classifications for North Miami Beach based on the MPO transportation needs. No new roadways are added to the classifications. Miami Gardens Drive will be widened from four to six lanes but will remain in the same functional class. NE 12th and 15th Avenues will be widened to provide a center lane for left turning vehicles. Recent construction includes the widening of US 1 from six to eight lanes from south of North Miami Beach Boulevard to just north of Miami Gardens Drive.

Table 2.20 and Map 2.12 show the year 2020 projected peak period traffic volumes for the principal roadways within the City and the projected level of service assuming that the planned improvements (State, County and MPO) cited above are implemented. Table 2.21 presents the corresponding 2020 daily volumes and level of service values.

The 2020 volumes were estimated based upon the estimated rate of growth of the daily traffic volume as determined from the 1990 and 2015 FDOT Miami-Dade County Transportation model runs (as supplied by FDOT District VI Planning). The resulting

rates were then applied to the 1998 volumes in order to determine the year 2020 daily volumes.

It is obvious that several segments of SR 826 will have traffic volumes exceeding capacity in the year 2020 during the morning and evening time periods. If the City, along with MDTA, were to implement extraordinary transit service along this corridor (perhaps parallel exclusive bus lanes), then the number of failing roadway segments in 2020 would decline to one.

It is also important to remember that the growth rate is assumed to be constant between 1998 and 2020 and that the capacity of SR 826 is estimated using Florida's generalized planning tables. A quick comparison of the existing volumes level of service shown previously in this report between the planning tables and the much more specific SR 826 corridor study shows that this roadway operates better than the general tables indicate.

Table 2.20(a): Year 2020 AM Peak Hour Directional Volume Levels of Service

Roadway	Location	AM PEAK HOUR							
		Peak Hour Directional Volume (1)	Level of Service E Capacity (2)	Volume / Capacity	Level of Service	Peak Hour Directional Volume (1)	Level of Service E Capacity (2)	Volume / Capacity	Level of Service
SR 826 North Miami Beach Boulevard	East of NW 2nd Ave.	3,918 Eastbound	3,276	1.20	F	3,932 Westbound	3,276	1.20	F
SR 826 North Miami Beach Boulevard	East of NE 2nd Ave.	3,100 Eastbound	3,276	0.95	E	2,959 Westbound	3,276	0.90	E
SR 826 North Miami Beach Boulevard	East of NE 6th Ave.	2,957 Eastbound	3,276	0.90	E	2,804 Westbound	3,276	0.86	E
SR 826 North Miami Beach Boulevard	East of NE 12th Ave.	2,617 Eastbound	3,276	0.80	E	2,777 Westbound	3,276	0.85	E
SR 826 North Miami Beach Boulevard	East of NE 15th Ave.	2,635 Eastbound	3,276	0.80	E	2,579 Westbound	3,276	0.79	D
SR 826 North Miami Beach Boulevard	East of NE 18th Ave.	2,385 Eastbound	3,276	0.73	D	2,177 Westbound	3,276	0.66	D
SR 826 North Miami Beach Boulevard	West of US 1	2,537 Eastbound	3,276	0.77	D	3,068 Westbound	3,276	0.94	E
SR 826 North Miami Beach Boulevard	East of US 1	2,037 Eastbound	3,350	0.61	C	2,247 Westbound	3,350	0.67	C
SR 860 Miami Gardens Drive	East of NE 8th Ave.	1,829 Eastbound	3,276	0.56	C	1,859 Westbound	3,276	0.57	C
SR 5 / US 1 Biscayne Boulevard	South of NE 163rd Street	1,829 Northbound	5,025	0.36	C	1,859 Southbound	5,025	0.37	C
SR 915 NE 6th Avenue	North of SR 826	1,164 Northbound	2,063	0.56	C	1,183 Southbound	2,063	0.57	C
SR 915 NE 6th Avenue	South of SR 826	1,143 Northbound	2,063	0.55	C	1,162 Southbound	2,063	0.56	C
SR 909 West Dixie Highway	North of NE 151st St.	790 Northbound	2,579	0.31	C	803 Southbound	2,579	0.31	C

(1) Peak hour volumes determined from FDOT 1997 ADT Volumes, and the "NW / NE 163rd / 167th Street Corridor Study", and peak hour, directional, and seasonal factors.
(2) Based on Table 5-1, "Generalized Peak Hour Peak Directional Volumes for Florida's Urbanized Areas", FDOT LOS Manual, 1998, using arterial classification II.

Table 2.20(b): Year 2020 PM Peak Hour Directional Volume Levels of Service

Roadway	Location	PM PEAK HOUR							
		Peak Hour Directional Volume (1)	Level of Service E Capacity (2)	Volume / Capacity	Level of Service	Peak Hour Directional Volume (1)	Level of Service E Capacity (2)	Volume / Capacity	Level of Service
SR 826 North Miami Beach Boulevard	East of NW 2nd Ave.	3,696 Eastbound	3,276	1.13	F	4,682 Westbound	3,276	1.43	F
SR 826 North Miami Beach Boulevard	East of NE 2nd Ave.	3,303 Eastbound	3,276	1.01	F	3,670 Westbound	3,276	1.12	F
SR 826 North Miami Beach Boulevard	East of NE 6th Ave.	3,137 Eastbound	3,276	0.96	E	3,109 Westbound	3,276	0.95	E
SR 826 North Miami Beach Boulevard	East of NE 12th Ave.	2,771 Eastbound	3,276	0.85	E	3,291 Westbound	3,276	1.00	F
SR 826 North Miami Beach Boulevard	East of NE 15th Ave.	2,573 Eastbound	3,276	0.79	D	3,096 Westbound	3,276	0.95	E
SR 826 North Miami Beach Boulevard	East of NE 18th Ave.	2,424 Eastbound	3,276	0.74	D	2,435 Westbound	3,276	0.74	D
SR 826 North Miami Beach Boulevard	West of US 1	2,595 Eastbound	3,276	0.79	E	3,147 Westbound	3,276	0.96	E
SR 826 North Miami Beach Boulevard	East of US 1	2,504 Eastbound	3,350	0.75	D	2,398 Westbound	3,350	0.72	D
SR 860 Miami Gardens Drive	East of NE 8th Ave.	1,897 Eastbound	3,276	0.58	D	2,130 Westbound	3,276	0.65	D
SR 5 / US 1 Biscayne Boulevard	South of NE 163rd Street	1,897 Northbound	5,025	0.38	C	2,130 Southbound	5,025	0.42	C
SR 915 NE 6th Avenue	North of SR 826	1,207 Northbound	2,063	0.59	C	1,355 Southbound	2,063	0.66	D
SR 915 NE 6th Avenue	South of SR 826	1,185 Northbound	2,063	0.57	C	1,311 Southbound	2,063	0.64	D
SR 909 West Dixie Highway	North of NE 151st St.	819 Northbound	2,579	0.32	C	920 Southbound	2,579	0.36	C

(1) Peak hour volumes determined from FDOT 1997 ADT Volumes, and the "NW / NE 163rd / 167th Street Corridor Study", and peak hour, directional, and seasonal factors.
(2) Based on Table 5-1, "Generalized Peak Hour Peak Directional Volumes for Florida's Urbanized Areas", FDOT LOS Manual, 1998, using arterial classification II.

Table 2.21: Projected 2020 Daily Volume Levels of Service

Roadway	Location	2020 ADT (1)	LOS E Capacity (2)	Volume / Capacity	Level of Service
SR 826 North Miami Beach Boulevard	East of NW 2nd Avenue	N/A	51,700	N/A	N/A
SR 826 North Miami Beach Boulevard	East of North Miami Avenue	80,101	51,700	1.55	F
SR 826 North Miami Beach Boulevard	East of NE 2nd Avenue	N/A	51,700	N/A	N/A
SR 826 North Miami Beach Boulevard	East of NE 6th Avenue	N/A	51,700	N/A	N/A
SR 826 North Miami Beach Boulevard	East of NE 10th Avenue	76,200	51,700	1.47	F
SR 826 North Miami Beach Boulevard	East of NE 12th Avenue	N/A	51,700	N/A	N/A
SR 826 North Miami Beach Boulevard	East of NE 15th Avenue	N/A	51,700	N/A	N/A
SR 826 North Miami Beach Boulevard	East of NE 18th Avenue	64,135	51,700	1.24	F
SR 826 North Miami Beach Boulevard	West of U.S.1	56,515	51,700	1.09	F
SR 826 North Miami Beach Blvd	East of U.S.1	62,230	63,400	0.98	E
SR 860 Miami Gardens Drive	East of NE 8th Avenue	55,880	51,700	1.08	F
SR 5 / US 1 Biscayne Boulevard	South of 163rd Street (SR 826)	55,880	63,400	0.88	D
SR 915 NE 6th Avenue	North of SR 826	35,560	32,585	1.09	F
SR 915 NE 6th Avenue	South of SR 826	34,925	32,585	1.07	F
SR 909 West Dixie Highway	North of 151st Street	24,130	32,585	0.74	D

(1) Year 2020 Volumes based on expansion factors determined from Long Range Transportation Plan, Miami-Dade MPO, 1998.
(2) FDOT, Level of Service Manual, 1998, Table 5-4, Generalized Annual Average Daily Volumes for Florida's Urbanized Areas, Class II.

Roadways

I-95

This facility appears to satisfactorily operate at LOS C or D during the 2020 peak periods so no improvements are required to this facility.

SR 860 / Miami Gardens Drive

Miami-Dade County's Long Range Transportation Plan calls for this facility to be widened to six lanes between I-95 and US 1 (Biscayne Boulevard) sometime after 2010. This roadway improvement is not contained in the funded action plan. Miami Gardens Drive near I-95 will be operating at peak hour level of service D or better.

US 1 / Biscayne Boulevard

The projected volumes for 2020 show that US 1 south of SR 826 will remain at LOS C due to a low anticipated growth rate.

SR 826 / North Miami Beach Boulevard

North Miami Beach Boulevard will be operating at peak hour LOS ranging from C to F as shown in Table 2.20. North Miami Beach Boulevard is a "constrained roadway" west of Biscayne Boulevard; it cannot feasibly be widened. Therefore, the City will use traffic control measures that will be developed through the recently completed Corridor Study on North Miami Beach Boulevard itself and on adjacent local streets to minimize the impact of existing traffic volumes and minimize future increases in volumes.

SR 915 / NE 6th Avenue

This roadway is estimated to be operating at LOS C and D during the peak hours. Widening of this four-lane undivided road is undesirable due to the adverse impact on adjacent housing. At this time there are no plans nor is there a need to widen this road.

NE 12th and 15th Avenues

Improvements to segments of NE 12th and NE 15th Avenues are planned, but remain unfunded at the present time. These improvements are necessary to address the growing demand placed upon these local two-lane residential streets.

Transit-Land Use Compatibility Analysis

This section of the report provides a detailed analysis of current and future land uses within the City. It examines the relationships between the current development of the City as compared to the maximum potential future development allowed by current development standards. These are then compared to the standards established for analysis of the density and intensity of development (or redevelopment) as it pertains to the City's ability to support multi-modal transportation systems.

There are three potential areas of study related to this analysis. As listed below, these include areas that contain extraordinary transit service or roadways that are prime candidates for extraordinary transit due to heavy traffic congestion (i.e. SR 826).

- The SR 826 corridor from I-95 to US 1,
- The US 1, Biscayne Boulevard corridor within the City limits, and
- The Tri-Rail Commuter Train Station at the Golden Glades Interchange.

As noted in Section II.4.1, though the Tri-Rail / I-95 corridor is technically considered an extraordinary transit corridor, it is not included in this study as North Miami Beach has no direct access to these facilities.

The background for this analysis comes from a settlement agreement between Miami-Dade County and the Florida Department of Community Affairs, Docket No. 96-2ER-NOI-1301-(A)-(I)(N), which amended the County's CDMP Land Use Element to include development and redevelopment guidelines for existing and planned transit corridors. Miami-Dade County CDMP Land Use Element Objective 7, Policy 7F, states that "Residential development around rail rapid transit stations should have a density of at least 15 dwelling units per acre (15 du/ac) within ¼ mile walking distance from the stations and 20 du/ac or higher within 700 feet of the station, and at least 10 du/ac between ¼ and ½ mile walking distance from the station. Business and office development intensities around rail stations should produce at least 75 employees per acre within ¼ mile walking distance from the station, 100 employees per acre within 700 feet, and at least 50 employees per acre between ¼ and ½ mile walking distance from the station...."

In addition, the Metro-Dade County Transit / Land Use Relationship Report provides minimum residential densities that need to be established in order to promote transit usage. These residential thresholds are described in Table 2.22.

Table 2.22: Minimum Residential Thresholds for Promoting Transit Usage

Density	Public Transit
Single Family 2-4 du/ac	Local bus service that depends on riders walking a maximum of 1,320 ft to nearest stop may not be economically feasible.
Single Family 4 du/ac	Generally too low to support any transit except park & ride express busses to very large locations and/or employment centers.
Single Family 4-7 du/ac 2400-3700 persons sq. mile	This is the threshold for local bus service to residential areas, generally at a one-hour headway.
Single Family 7 du/ac	In certain locations, bus service may be improved to ½ hour from one hour between service (headway).
Medium Family Residential 7-15 du/ac 5,000-10,000 persons per sq. mile	Can generally support local bus service. If density is maintained over a large enough area with good access, rail transit may be supported. 7 du/ac needed for 30-minute headway; 15 du/ac needed for 10-minute headway.
Multi Family Residential 20-25 du/ac	Threshold to support high capacity transit such as express bus and rail services, if location and access are good. Can be dependent on size of downtown (or employment destination) and the distance to it.
High Density Residential 25+ du/ac	Can support all types of public transportation. At the home end, with levels of walk-in, auto- and feeder-bus-access experienced in other areas, residential densities to support fixed guideway transit service must range from 43 du/ac in the first 1/8 mile to 9.6 du/ac in the next 1/8 mile. In the next 1 7/8 mile, the density should be at least 1.2 to 2.4 du/ac, depending on various modes of transit usage.

Source: Metro-Dade County Transit / Land Use Relationship Report
Note: Under good conditions, 15 du/ac can increase bus usage 100% over 5 du/ac. At 30 du/ac bus usage can triple; at 50 du/ac bus trips can exceed auto trips.

The Metro-Dade County Transit / Land Use Relationship Report also describes the commercial densities required to support transit usage as shown in Table 2.23.

Table 2.23: Range of Density / Floor Area Ratios for Non-Residential Areas

Density / Floor Area	Public Transit
Low density .5 - 2.0 FAR*	Generates enough traffic to clog the roads but not enough ridership to sustain bus service. Can support car / van pool.
50-60 employees/acre	Threshold for employee-based local bus service with total employee base of 10,000 or more. FAR should exceed 2 to justify frequent service.
5 million sq. ft.	Minimal level of bus service (20 buses per direction/day or ½ hourly over 10 hours, or hourly over 20 hours)
10 million sq. ft.	Intermediate level of bus service (40 buses per direction/day or ½ hourly over 20 hours)
20 million sq. ft.	Frequent level of service (120 buses per direction/day or a bus every 10 minutes)
83-167 employees per net acre	Major employment center can support fixed guideway station.

*Note: Floor Area Ratio (FAR) = (total floor space) / (total land area)

Background, Definitions and Assumptions

The parameters and assumptions for this corridor analysis are:

1. The study addresses only those lands which lie within the city limits of the City of North Miami Beach;
2. Areas studied include lands within ½ mile on either side of the roadway or other facility;
3. The current density and intensity of the study areas is based upon the existing development of the property. This information is obtained from the Miami-Dade County Property Appraiser's Office;
4. The maximum development potential of the Future Land Use Categories is based upon the maximum development potential as defined by the City's Comprehensive Plan and the City's Land Development Regulations;
5. The maximum development potential for each of the Future Land Use Categories is defined in the Future Land Use Element under Policy 1.8.1 and replicated in Table 2.24;

Table 2.24: Future Maximum Development Potential

Future Land Use Category	Maximum Development
Residential Low Density	8.0 units per acre
Residential Medium Density	17.0 units per acre
Residential High Density	32 units per acre
Business	Maximum Impervious Area 80% Maximum Building Height 15 stories or 150 feet
Industrial	Maximum Impervious Area 85% Maximum Building Height 4 stories or 45 feet
Public and Quasi-Public	Maximum Impervious Area 75% Maximum Building Height 3 stories or 35 feet
Recreation and Open Space	N/A
Mixed Use	Maximum Impervious Area 80% Maximum Building Height 15 stories or 150 feet 32 units per acre
Open Water and Transportation Corridors	N/A

6. The development model used for all Residential categories to calculate the maximum development potential is the maximum number of units per acre permitted under Future Land Use Element Policy 1.8.1.
7. The development model used for the Business category to calculate the maximum development potential is the general office building. This would allow the most intense development of the land due to the low building area to parking area ratio for this category. The parking ratio for the general office building is defined in the Land Development Code as three parking spaces per each 1,000 sq. ft. of gross floor area.
8. The development model used for the Industrial category to calculate the maximum development potential is manufacturing. This would allow the most intense development of the land also due to the low building area to parking area ratio for this category. The parking ratio for manufacturing is defined in the Land Development Code as 1.5 parking spaces per each 1,000 sq. ft. of gross floor area.
9. The development model used for the Public and Quasi-Public category to calculate the maximum development potential is the government offices building. This would allow the most intense development of the land again due to the low building area to parking area ratio for its category. The parking ratio for the government offices building is defined in the Land Development Code as four parking spaces per each 1,000 sq. ft. of gross floor area.
10. There is no development model used for the Recreation and Open Space category to calculate the maximum development potential since the Recreation and Open Space category includes primarily City and County parks as well as large cemeteries.

11. The development model used for the Mixed Use category to calculate the maximum development potential, is the general office building. Despite the fact that a mixed use building or development would be comprised of several different uses, possibly including residential, retail, service and office uses combined, the intensity of development of the land would be greatest if developed as a general office building. This would allow the most intense development of the land again due to its low building area to parking area ratio. The parking ratio for the general office building is defined in the Land Development Code as three parking spaces per each 1,000 sq. ft. of gross floor area.
12. There is no development model used for the Open Water and Transportation Corridor category to calculate the maximum development potential since these lands are currently, and likely to continue into the future, as undeveloped open water and transportation corridors.
13. The City does not use the FAR method of calculating land use intensity in its Comprehensive Plan nor its Land Development Code. Instead, for Residential land uses, the method used to determine maximum land use density is the maximum number of units per acre permitted. For land uses other than Residential, the method of determining land use density and intensity is based upon maximum building height, minimum yard setbacks, minimum pervious area and on-site parking requirements. For the purposes of this analysis, the non-residential uses have been converted to FAR methodology to allow for comparison to available standards.
14. The calculation of FAR in this study is based upon the following formula:

$$FAR = \frac{Floor\ Area\ (square\ feet)}{Land\ Area\ (square\ feet)}$$

15. All land areas within a Future Land Use Category have been aggregated to calculate maximum development potentials.
16. Land development calculations are based upon net land area, not including transportation right-of-way or open water.

Analysis of the State Road 826 Corridor

The ½ mile corridor around SR 826 contains a significant amount of land that is not within the limits of the City of North Miami Beach. The analysis contained in this report applies only to those lands lying within the City limits.

The Future Land Use Categories existing in this corridor and the amount of land located in each of these categories is listed in Table 2.25. The number of dwelling units in the residential areas and the square footage of floor area for the other categories are listed as well.

Table 2.25: Existing Land Use Intensity – SR 826 Corridor

FUTURE LAND USE CATEGORY	AMOUNT OF LAND		BUILDING SQ. FT.	# OF DWELLING UNITS (DU)	FAR	DWELLING UNITS / ACRE
	SQ. FT.	ACRES				
RESIDENTIAL LOW	19,216,547	441.15		2,216		5.02
RESIDENTIAL MEDIUM	2,169,183	49.80		633		12.71
RESIDENTIAL HIGH	3,570,664	81.97		4,457		54.37
BUSINESS	10,785,807	247.61	3,727,098		0.35	
INDUSTRIAL	1,098,055	25.21	277,355		0.25	
PUBLIC/QUASI-PUBLIC	3,434,783	78.85	1,255,000		0.37	
RECREATION/OPEN SPACE	1,926,353	44.22	165,197		0.09	
MIXED-USE	0	0	0		0	
TOTALS	**42,201,392**	**968.81**	**5,424,650**	**7,306**		**12.75**

At current levels of land development, those portions of the City within the SR 826 corridor are, for the most part, not developed to the maximum potential allowed by current codes. The Residential Low Density lands are developed at the average rate of 5.02 units per acre, while a rate of up to 8 units per acre is permitted. Likewise, the Residential Medium Density lands are developed to a density of 12.71 units per acre where 17 units per acre are allowed. However, the Residential High Density lands are currently developed to a density of 54.37, while code allows the maximum density to be 32 units per acre. The Residential High Density area has developed at a density far above the current maximum allowed by the code. This occurred as a result of land use variances for density during the early years of the development of the City. The total of the residential areas of the corridor contain some 7,306 dwelling units on 573 acres of land, resulting in an overall average residential density of 12.75 dwelling units per acre.

The Business and Industrial areas of the corridor similarly are developed to only a fraction of the potential development allowed under current codes. The Business category currently contains approximately 3.7 million square feet of floor area on 248 acres, with a FAR of 0.35. The Industrial area is currently developed with 277,355 square feet of floor area on 25 acres of land resulting in a FAR of 0.25. The average of these two categories results in some 3.97 million square feet of floor area on 273 acres of land resulting and an average FAR of 0.33.

The remaining land use categories are the Public and Quasi Public as well as the Recreation and Open Space areas. The Public and Quasi Public land area is approximately 79 acres with 1.26 million square feet of floor area currently in place, for a FAR of 0.37. The Recreation and Open Space area is comprised of 165,197 square feet of floor area on 44 acres. This results in a FAR of 0.09.

However, even at these current land development rates, there is meaningful support for transit usage. One-hour headways are supported in the low density residential areas,

while medium density to high density residential support 10-minute headways for local bus service.

The current maximum potential development of the corridor is that allowed under the City's Comprehensive Plan, Future Land Use Element, Policy 1.8.1 and the City's Land Development Regulations.

Based upon the maximum development potential, the land areas within each of the Future Land Use Categories could be developed to the density and intensity shown in Table 2.26.

Table 2.26: Maximum Potential Land Use Intensity – SR 826 Corridor

FUTURE LAND USE CATEGORY	AMOUNT OF LAND		PERMITTED BLDG. SQ. FT.	PERMITTED DU/AC	FAR	TOTAL # OF UNITS (DU)
	SQ. FT.	ACRES				
RESIDENTIAL LOW	19,216,547	441.15		8		3,529
RESIDENTIAL MEDIUM	2,169,183	49.80		17		846
RESIDENTIAL HIGH	3,570,664	81.97		32		2,623
BUSINESS	10,785,807	247.61	68,120,000		6.31	
INDUSTRIAL	1,098,055	25.21	2,574,000		2.34	
PUBLIC/QUASI-PUBLIC	3,434,783	78.85	3,512,000		1.02	
RECREATION/OPEN SPACE	1,926,353	44.22	N/A		N/A	
MIXED-USE	0	0	0		0	
TOTALS	**42,201,392**	**968.81**	**74,206,000**			**6,998**

The land areas for this stage of the analysis remain the same. The potential maximum development of this land is changed by the application of the maximum development allowed under the current codes. This table illustrates the dramatic difference between the current intensity and density of the development of these lands as compared to the maximum potential granted under the codes. The number of dwelling units per acre for Residential Low Density increases significantly from 5.02 units per acre currently to 8 units per acre allowed under the present codes. The Residential Medium Density land area currently developed at 12.71 units per acre would be able to be developed at 17 units per acre. The Residential High Density is currently 54.37 du/ac, while the Future Land Use Element allows up to 32 du/ac. Thus, while portions of the corridor are at a density above that presently allowed, if the Residential Low Density and Residential Medium Density lands were developed to the maximum potential allowed, the number of total dwelling units added to the existing 4,457 dwelling units in the Residential High Density category would rise to approximately 8,832 for an overall residential density of 15.41 du/ac. This provides for a significant potential increase in the density of development of these lands under current code.

Those lands designated Business and Industrial in this corridor are developed currently at a combined FAR of 0.33. If the properties were to be developed at the maximum potential density and intensity, the 247 acres of Business would have approximately 68 million square feet of floor space for a FAR of 6.31 while the Industrial area of 25 acres could have 2.5 million square feet of floor space for a FAR of 2.34. This would result in a combined FAR for these two land uses of 5.94, a very large increase above present levels.

At these development densities and intensities, the lands in the corridor would exceed the thresholds for all forms of public transportation, including support of fixed guideway systems.

Analysis of the US 1, Biscayne Boulevard Corridor

That portion of the City that lies within ½ mile of US 1, Biscayne Boulevard is shown on Map 2.3 in Volume IV. This corridor also contains a significant amount of land that is not within the City limits. The analysis contained in this report applies only to those lands lying within the City limits.

The Future Land Use Categories existing in this corridor and the amount of land located in each of these categories is listed Table 2.27. The number of dwelling units in the residential areas and the square footage of floor area for the other categories are also listed in this table.

Table 2.27: Existing Land Use Intensity – US 1, Biscayne Boulevard

FUTURE LAND USE CATEGORY	AMOUNT OF LAND		BUILDING SQ. FT.	# OF DWELLING UNITS (DU)	FAR	DWELLING UNITS / ACRE
	SQ. FT.	ACRES				
RESIDENTIAL LOW	3,104,053	71.26		630		8.84
RESIDENTIAL MEDIUM	0	0		0		0
RESIDENTIAL HIGH	4,124,410	94.68		2,787		29.43
BUSINESS	7,848,194	180.17	1,791,740		0.23	
INDUSTRIAL	1,754,991	40.29	515,576		0.29	
PUBLIC/QUASI-PUBLIC	1,831,676	42.05	86,185		0.05	
RECREATION/OPEN SPACE	1,756,720	40.33	36,352		0.02	
MIXED-USE	601,233	13.80	131,634		0.22	
TOTALS	**21,021,277**	**482.58**	**2,561,487**	**3,417**		**20.58**

At current levels of land development, those portions of the City within the US 1, Biscayne Boulevard corridor are, for the most part, not developed to the maximum potential allowed by current codes. The Residential Low Density lands are developed at a rate of 8.84 units per acre. There is no Residential Medium Density land within this

corridor. In the Residential High Density area, these lands are developed to a density of 29.43 units per acre, while code allows the density to be as great as 32 units per acre. In fact, the total of the residential areas of the corridor contain some 3,417 dwelling units on 166 acres of land, resulting in an average residential density of 20.58 du/ac.

The Business and Industrial areas of the corridor similarly are developed to only a fraction of the potential development allowed under current codes. The Business category is developed with approximately 1.8 million square feet of floor area on 180 acres, with a FAR of 0.23. The Industrial area is currently developed with 515,576 square feet of floor area on 40 acres of land resulting in a FAR of 0.29. The sum of these two categories produces 2.3 million square feet of floor area on 220 acres of land resulting in an average FAR of 0.24.

The remaining land use categories are the Public and Quasi Public, the Recreation and Open Space areas and the Mixed Use area. The Public and Quasi Public land area contains 42 acres with 86,185 square feet of floor area, for a FAR of 0.05. The Recreation and Open Space area is comprised of 36,352 square feet of floor area on 40 acres resulting in a FAR of 0.02. The Mixed Use category land area is unique to this corridor. There exists approximately 13 acres of land in this category with 600,000 square feet of floor space. This results in a FAR of 0.22 for the Mixed Use area.

The maximum potential development of the corridor is that which is allowed under the City's Comprehensive Plan, Future Land Use Element, Policy 1.8.1 and the City's Land Development Regulations. Based upon the maximum development potential, the land areas within each of the Future Land Use Categories could be developed to the density and intensity shown in Table 2.28.

Table 2.28: Maximum Potential Land Use Intensity – US 1, Biscayne Boulevard

FUTURE LAND USE CATEGORY	AMOUNT OF LAND		PERMITTED BLDG. SQ. FT.	PERMITTED DU/AC	FAR	TOTAL # OF UNITS (DU)
	SQ. FT.	ACRES				
RESIDENTIAL LOW	3,104,053	71.26		8		570
RESIDENTIAL MEDIUM	0	0		17		0
RESIDENTIAL HIGH	4,124,410	94.68		32		3,029
BUSINESS	7,848,194	180.17	49,567,000		6.31	
INDUSTRIAL	1,754,991	40.29	4,115,000		2.34	
PUBLIC/QUASI-PUBLIC	1,831,676	42.05	1,873,000		1.02	
RECREATION/OPEN SPACE	1,756,720	40.33	N/A		N/A	
MIXED-USE	601,233	13.80	3,797,000		6.31	
TOTALS	**21,021,277**	**482.58**	**59,352,000**			**3,599**

The land areas for this stage of the analysis remain the same. The potential maximum development of this land is changed by the application of the maximum development allowed under the current codes. This table illustrates the dramatic difference between the current intensity and density of the development of these lands as compared to the maximum potential granted under the codes. The number of dwelling units per acre for Residential Low Density decreases slightly from 8.84 units per acre currently to 8 units per acre allowed under the present codes. This occurs due to the development of mobile home lots during the period from 1920 to 1950 platted at a density higher than that subsequently allowed. The Residential High Density is currently 29.43 dwelling units per acre, while the Future Land Use Element allows up to 32 dwelling units per acre. This provides for a potential increase in the density of development of these lands.

Those lands designated Business and Industrial in this corridor are developed currently at a combined FAR of 0.24. If the properties were to be developed at the maximum potential density and intensity, the 180 acres of Business would have approximately 49.6 million square feet of floor space for a FAR of 6.31 while the Industrial area of 40 acres could have 4 million square feet of floor space for a FAR of 2.34. This would result in a combined FAR for these two land uses of 5.59, a large increase above present levels.

At these development densities and intensities the lands in the corridor would exceed the thresholds for all forms of public transportation, including support of fixed guideway systems.

Analysis of the Tri-Rail Train Station at the Golden Glades Interchange of I-95

In setting the parameters for the analysis, the corridors and areas to be studied were to be those land areas within ½ mile either side of the roadway or within ½ mile of an area. The Tri-Rail station in the Golden Glades Interchange on I-95 was one of the potential areas considered for study. However, as the Tri-Rail station on the Seaboard RR line is further than ½ mile from the City limits of North Miami Beach, as indicated in Map 2.3 in Volume IV, this area has not been included in this analysis.

This section of the report examined the implications of the existing Future Land Use Designations and Land Development Regulations on the transportation system, including identification of the densities, intensities, and designs allowed by those regulations. The preceding discussion indicates that the development / redevelopment of the lands within the study corridors to a degree at or near the maximum development potential of the current codes would support all forms of a multi-modal transportation system.

Conclusions

The City's strategic location between the Golden Glades interchange and the causeway to the Miami Beach - A1A corridor suggests that traffic congestion will continue to be an issue on the major east-west arterial streets, particularly SR 826.

A principal challenge to the City government will be to minimize spillover traffic from the congested arterials from adversely impacting the local streets. The City has become proactive on this matter and has established traffic calming measures on several local streets to control speeding and pass through traffic.

The City of North Miami Beach has existing and proposed transportation facilities that will not only enhance but also complement the County's roadway, transit, bicycle, and pedestrian systems. The current service and the proposed multi-modal terminals will continue to emphasize transit use in the City as a primary objective.

Although the City of North Miami Beach is built-out when measured by raw land occupancy, the City has definitive goals in increasing the density of various sectors of the city, thereby further promoting an already well established transit utilization by its residents. The changes envisioned by the City and defined in their Future Land Use Element are as follows:

1. Designate the Aqua Bowl area, which is currently under utilized, to medium density residential to meet growing housing needs.

2. Change the transitional areas within Allen Park to mixed use designation to facilitate redevelopment.

3. Designate the south side of SR 826 between NE 12th Avenue and NE 15th Avenue as mixed use in order to encourage redevelopment.

4. Redevelop the vacant University Park area but keep it primarily as an educational institution.

5. Increase the housing availability in the southern and eastern portions of the Uleta neighborhood.

6. Modify the land uses adjacent to the commercial areas along Miami Gardens Drive in order to provide a more cohesive mix of uses.

Besides these goals, the City is actively working with private business on four projects that will soon be developed within the City limits. These include the addition of a Super Wal-Mart at the 163rd Street Mall, an expansion of Florida International University campus in the city, the possible expansion of Parkway Medical complex, and the construction of a new hotel to house up to 600 Nova Southeast students per week near that campus. This latter facility is a good example of how one structure can eliminate a significant number of commuting vehicular trips in the City and provide economic benefits to the local community.

In order to serve the future intensification of land uses, three major transit projects are planned for the North Miami Beach area (see Map 2.13). The first is the development of the Golden Glades Intermodal Transit Terminal just outside the southwestern limits of the City. This facility, scheduled for 1999-2000, will help enhance rail and bus service connectivity and park-and-ride services.

In addition to Golden Glades, the Northeast Dade Transit Study recommends the construction of an intermodal terminal in the vicinity of the intersection of SR 826 and US 1. This action will require the relocation of bus terminals and realignment of routes from the Mall on 163rd Street. The facility could eventually be integrated with the planned Northeast Transit Corridor.

Finally, the Miami-Dade Transportation Plan recommends the future implementation of a premium transit service corridor along the Biscayne Boulevard (US 1) corridor from Downtown Miami to NE 192nd Street. This is one of six possible corridors suggested in the Miami-Dade Long Range Transportation Plan. This corridor will include the aforementioned intermodal terminal at NE 163rd Street (SR 826).
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Housing Element

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III. Housing Element

Inventory Of Existing Conditions

Age and Tenure of the Housing Stock

The housing stock of North Miami Beach is relatively new. The 1990 Census of Population and Housing recorded a total of 15,821 housing units. Over one-third of these units were constructed in the post-war housing boom of the 1950's. The 1960's and 1970's also were periods of significant growth in the City's housing inventory. Nearly 95% of the City's housing was built between 1950 and 1980. Table 3.1 provides a distribution of the North Miami Beach 1990 housing inventory by year constructed.

Table 3.1: Housing Units by Year Constructed, North Miami Beach

Year Constructed	Number of Units	Percent of Existing Units
1989 to 1990	63	0.4%
1980 to 1988	736	4.7%
1970 to 1979	4,994	31.6%
1960 to 1969	3,820	24.1%
1950 to 1959	5,361	33.9%
1940 to 1949	627	3.9%
1939 to earlier	220	1.4%
Total	15,821	100%

Source: U.S. Department of Commerce, Bureau of the Census, Census of Population and Housing, 1990.

Sixty-one percent of the 13,968 occupied housing units in North Miami Beach were owner-occupied at the time of the 1990 *Census*. This represents a one percent decrease from 1980. The City's home ownership pattern, despite recent declines, is high compared to that of Miami-Dade County (see Table 3.3). The Census also indicated that there were 1,853 vacant residential units in the City, about 1/3 of them due to seasonality.

Housing Types

Forty-six percent of the housing units in the City are single family units. According to the 1990 Census, another 10 percent consists of duplexes, triplexes, and other middle-density type structures containing 9 or less units. This relative proportion of single family units and middle-density type structures did not change from 1980 to 1990. The remaining 44

percent of the housing in the City is contained within structures having 10 or more units, mobile homes, and other structure types. The City's percentage of single-family units is higher than the percentage for Miami-Dade County as a whole. Table 3.2 provides a detailed breakdown of the types of dwelling units comprising the North Miami Beach and Miami-Dade County inventories in 1990.

According to the 1990 Census, there are 249 mobile homes in the City of North Miami Beach, all located in the Highland Village area. The trailer park is not licensed by the Florida Department of Health and Rehabilitative Services.

Table 3.2: Number of Dwelling Units by Structure Type Compared

	North Miami Beach		Miami-Dade County	
Structure Type	**Number**	**Percent**	**Number**	**Percent**
Single-Family, Detached	6,707	42.4	309,962	40.2
Single-Family, Attached	594	3.8	75,094	9.7
Two-Family	438	2.8	22,715	3.0
Multifamily	7,674	48.5	334,380	43.3
Mobile Home	249	1.5	18,544	2.4
Other	159	1.0	10,593	1.4
Total	15,821	100.0	771,324	100.0

Source: U.S. Department of Commerce, Bureau of the Census, Census of Population and Housing, 1990.

Table 3.3: Housing Tenure Characteristics Compared

Tenure	North Miami Beach	Miami-Dade County
Occupied Housing Units	13,968	692,355
Owner-occupied units	8,518	376,006
Percent owner-occupied	61.0%	54.3%
Renter-Occupied Units	5,540	316,349
Percent renter-occupied	39.0%	45.7%

Source: U.S. Department of Commerce, Bureau of the Census, Census of Housing, Detailed Housing Characteristics, 1990.

Vacancy Rate

The vacancy rate in the City, excluding seasonal units, is reported in the 1990 Census as 7.5 percent. This percentage is just slightly lower than the figure for of all Miami-Dade County which is 7.7 percent. There was a 4.5 percent increase in the number of vacant rental units in the City from 1980 to 1990, however the number of vacant owner-occupied housing units remained constant. As a result of migration subsequent to Hurricane Andrew and other demographic changes since 1990, the vacancy rates are considered unreliable.

Housing Value

North Miami Beach is a community of moderately priced houses. According to 1990 *Census* data, the median value of surveyed owner-occupied housing units was $72,700. The median housing value in North Miami Beach increased by $23,500 between 1980 and 1990 due mostly to inflation. Over 75 percent of those owner occupied units surveyed had a value of between $50,000 and $99,000. Housing valued at $100,000 or more comprised seventeen percent of the total stock. Table 3.4 provides a summary of housing values in the City, as reported in the 1990 *Census*. North Miami Beach housing values increased substantially from 1980 to 1990 due to the inflation which affected most of the nation's housing during that time. Owner occupied housing values in the City have been rising gradually since the early 1990s. However, the value of owner occupied housing in the City has been increasing at a slower rate overall than the value of owner occupied housing in the County. This can be seen in the fact that the City's median housing value in 1980 was 11% less than the County's, but in 1990 was 17% less than the County's. This may be in part due to the lack of significant new housing construction in the City as compared to the County, and in part due to the decrease in the percentage of construction consisting of less expensive, multi-family condominium units.

Table 3.4: Value of Owner-Occupied Housing Units Compared

	North Miami Beach		Miami-Dade County	
Owner Specified Value	**Number**	**Percent**	**Number**	**Percent**
Less than $50,000	425	7.72%	23,870	8.76%
$50,000 to $99,000	4,134	75.07%	154,195	56.02%
$100,000 to $149,000	522	9.48%	52,723	19.15%
$150,000 to $199,999	136	2.47%	18,764	6.82%
$200,000 to $299,999	138	2.51%	13,841	5.02%
$300,000 or more	152	2.76%	11,905	4.23%
Total	5,507	100.0%	275,298	100.0%
Median Value	$72,700		$86,500	

Source: U.S. Department of Commerce, Bureau of the Census, Census of Population and Housing, 1990.

Monthly Cost of Owner Occupied Housing

The 1990 median gross monthly cost (includes contract rent and utilities) of a mortgaged, owner-occupied unit in North Miami Beach was $734. Unmortgaged, owner-occupied units had a median monthly cost of only $208 during the same period. An examination of the *Census* data found in Table 3.5 indicates that well over one-half of all homeowners had monthly costs in the $500 - $1000 range if the unit still had a mortgage. Thirteen percent of mortgaged households were paying between $1,000 and $1,500 in monthly costs, and fewer than six percent were paying more than $1,500 per month.

Miami-Dade County homeowners were, on the whole, paying more in total housing costs, with nearly 10 percent paying more than $1,500 per month. The Miami-Dade County median monthly cost of a mortgaged, owner-occupied unit was $796, nearly 9 percent higher than the North Miami Beach median.

Table 3.5: Monthly Costs of Owner-Occupied Units Compared

Mortgage Status and Monthly Costs	North Miami Beach		Miami-Dade County	
	Number	Percent	Number	Percent
With a mortgage:	4,094	--	223,902	--
less than $300	133	3.2%	8,397	3.8%
$300 to $499	587	14.3%	31,756	14.2%
$500 to $699	1,121	27.4%	46,432	20.7%
$700 to $999	1,481	36.2%	71,419	31.8%
$1,000 to $1,499	540	13.2%	44,064	19.7%
$1,500 or more	232	5.7%	21,834	9.8%
		Median $734		Median $796
Not mortgaged:	1,508	--	57,811	--
less than $100	95	6.3%	3,105	5.4%
$100 to $199	611	40.5%	16,768	29.0%
$200 to $299	457	30.3%	17,671	30.5%
$300 to $399	161	10.7%	9,484	16.4%
$400 or more	184	12.2%	10,783	18.7%
		Median $208		Median $244

Source: U.S. Department of Commerce, Bureau of the Census, Census of Population and Housing, 1990.

Nearly 10 percent of the City's owner-occupied households were not mortgaged at the time of the 1990 *Census*. In 1980, however, nearly 30 percent of the owner-occupied households were not mortgaged. The significant decrease appears to indicate that many of the long established residents of the City sold their homes between 1980 and 1990.

Monthly Rent of Renter Occupied Housing

Monthly gross rents in North Miami Beach in 1990 were up 60 percent from 1980 levels. Gross rents were 16 percent higher than those reported in Miami-Dade County for the same period. The 1980 median monthly rent of a renter-occupied dwelling unit in the City was $514, compared to a Miami-Dade County median of $493. Moreover, while over 15 percent of the County's renter households were paying less than $300 per month in gross rent, only 2 percent of North Miami Beach renters were able to secure housing in the same price range. Table 3.6 shows the range of rental unit housing prices in the City and County for 1990.

Table 3.6: Gross Rent of Specified Renter Occupied Units Compared

Monthly	North Miami Beach		Miami-Dade County	
Gross Rent	**Number**	**Percent**	**Number**	**Percent**
Less than $200	39	0.7	24,900	8.0
$200 to $299	71	1.3	23,264	7.4
$300 to $499	2,353	43.7	110,209	35.0
$500 to $749	2,408	44.7	111,401	35.3
$750 to $999	380	7.0	25,363	8.1
$1000 or more	59	1.1	12,817	4.1
No cash rent	81	1.5	6,678	2.1
Total	5,391	100.0	314,632	100.0
Median	$514		$493	

Source: U.S. Department of Commerce, Bureau of the Census, Census of Housing, 1990.

Housing Cost-to-Income Ratios

The Florida Department of Community Affairs considers a cost-to-income ratio of more than 30 percent to be a sign of excessive housing cost. Census figures reveal that over half of North Miami Beach's renter-occupied households were burdened with such excessive costs in 1990. However, less than a third of the homeowners were burdened with mortgage payments requiring 30 percent or more of their income. Low-income and moderate-income households were shouldering a disproportionate share of the City's cumulative rent-to-income ratio at that time, with nearly 87 percent of those households earning less than $19,999 paying excessive rents. Tables 3.7 and 3.8 depict rent-and mortgage-to-income ratios among North Miami Beach households.

Table 3.7: Rent-to-Income Ratios for Renter-Occupied Households*

	Income Range					
	Less than $19,999		$20,000 to $49,999		$50,000 or more	
Rent-to-Income	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Less than 20%	48	0.9	702	13.0	374	6.9
20% to 24%	38	0.7	611	11.3	13	0.2
25% to 29%	161	3.0	540	10.0	0	0
30% to 34%	222	4.1	247	4.6	0	0
35% or more	2,117	39.3	117	2.2	0	0
Not Completed	178	3.3	23	0.4	0	0
Total	2,764	51.3	2,240	41.5	387	7.1

* City of North Miami Beach
Source: U.S. Department of Commerce, Bureau of the Census, 1990, Census of Population and Housing.

Table 3.8: Owner Costs as a Percent of Income, North Miami Beach

	Percent of Income Used for Mortgage Payment				
	Less than 20 Percent	**20 to- 24 Percent**	**25 to 29 Percent**	**30 to 34 Percent**	**More than 35 percent**
Households	2,632	639	608	330	1,376

Source: U.S. Department of Commerce, Bureau of the Census, 1990, Census of Population and Housing.

Internal Housing Conditions

The 1990 *Census* surveyed internal housing conditions including such indicators as:

1. No plumbing or incomplete plumbing.
2. No kitchen or incomplete kitchen.
3. Overcrowded occupancy.

Table 3.9: Internal Condition of Housing Stock Compared

	North Miami Beach		Miami-Dade County	
Condition	**Number**	**Percent**	**Number**	**Percent**
Lacking complete plumbing	97	0.6	6,017	0.8
Lacking complete kitchen	72	0.5	6,899	0.9
Overcrowded housing units	890	5.6	53,021	6.9
Severely overcrowded units	761	4.8	65,652	8.5

Note: More than one of these conditions may occur in any one unit.
Note: A small percentage of the housing lacking complete plumbing or a complete kitchen is unoccupied.
Source: U.S. Department of Commerce, Bureau of the Census, 1990, Census of Population and Housing.

Based on these internal measures of housing adequacy, the North Miami Beach housing stock was in good condition. Less than one percent of surveyed units lacked complete plumbing for exclusive use. A similar percentage of the housing stock lacked complete kitchen facilities.

Overcrowded units comprised over ten percent of the occupied stock in 1990, up from approximately four percent in 1980. The Bureau of the Census considers more than one person per room an overcrowded housing unit and more than 1.50 persons per room to represent a severely overcrowded unit.

External Housing Conditions

Table 3.10 shows that the external condition of the City's housing stock is somewhat deteriorated, but is very rarely substandard. Two measures were used in a 1996 field survey of housing to determine external conditions.

1. Deteriorated: Meaning in need of minor exterior repair due to deferred maintenance of roof, foundation, windows, porches, siding (including painting) or accessory buildings.
2. Dilapidated: Meaning in need of substantial rehabilitation of the above listed items to the point that it is (or soon will be) unfit for human habitation.

At the time of the survey, four dilapidated structures have been identified by the City's Code Enforcement Department and five more have been identified as potentially unsafe structures. However, not all of these structures are residential. The deteriorated units are concentrated in four sections of the City with the largest number in the Washington Park area. The specific inventory of deteriorated housing changes annually, if not faster. However, the percentage of deteriorated housing, by neighborhood, tends to be more stable.

Table 3.10: External Condition of Housing Stock, North Miami Beach

Condition	Number	Percent
Standard/Non-deteriorated	13,913	87.9%
Deteriorated*	1,899	12%
Substandard/Dilapidated	9	0.1%
Total	15,821	100.0

*Area Breakdown	Deteriorated Units
Uleta	13.3%
Washington Park	50%
Sunray East	23.1%
Sunray West	21.9%
Highland Village	14.3%
Other neighborhoods	1.2%
Average	12%

Source: North Miami Beach Code Enforcement Department, 1996.

Construction and Demolition Activity Since 1989

Only one residential demolition permit was issued by the City's Community Development Department since 1989, while 98 demolition permits were issued from 1980 to 1989. During the same period 93 new housing units were constructed.

By subtracting demolitions (total units) from additions it can be estimated that a net total of 48 dwelling units have been added to the North Miami Beach housing stock since 1989. Tables 3.11 and 3.12 list annual permit activity in the City for the years 1980 through 1987.

Table 3.11: Construction and Demolitions, 1989-1994*

Activity	Single-Family	Duplex	Multifamily	Total
Construction	21	0	72	93
Demolition	0	0	45	45
Total New Units	21		27	48

Source: North Miami Beach Evacuation and Appraisal Report, 1995.
* North Miami Beach

Subsidized Rental Housing

There are no subsidized apartment projects in North Miami Beach. There are some households using the Existing Section 8 subsidy certificates.

Group Homes

There are eleven group homes (adult congregate living facilities) located in the City. These facilities provide housing for a total of 898 individuals. (Source: North Miami Beach Evaluation and Appraisal Report 1995).

Group homes are permitted in the duplex and multifamily zoning districts as a conditional use.

Mobile Homes

There is one concentration of mobile homes located in the Highland Village neighborhood south of Florida International University. The entrance is along Biscayne Boulevard; it contains 225 units.

Historically Significant Resources

The City of North Miami Beach has seven (7) structures and sixteen (16) archaeological sites listed within the Florida Master Site File prepared by the Division of Historical Resources of the Florida Department of State. Additionally, the Spanish Monastery located at 16711 West Dixie Highway is listed on the National Register of Historic

Places. The following are historically significant structures according to the Florida Master Site File:

- 16040 NE 21 Avenue
- 1751 NE 162 Street: Original structure built in 1925
- 1945 NE 167 Street: Built in 1930, single family home.
- Fulford-by-the Sea Marker, NE 171 Street and NE 22 Avenue: Constructed in 1924 to commemorate the founding of the City of Fulford, as North Miami Beach was known prior to incorporation.
- 16140 NE 18 Avenue: Believed to be the site of the first home built in 1890 by Captain William H. Fulford, founder of this area.
- 1634 NE 171 Street: Built in 1926, single family home. Significant alternations to original structure.
- 1731 NE 171 Street: Built in 1920, single family home. Significant alterations to original structure.
- Old Spanish Monastery, 16711 W. Dixie Highway: Monastery of St. Bernard of Clarvaux; Cistercian Monastery of Sacramenia, Segovia, Spain, built in 1141 A.D., reconstructed in Florida 1952 - 1953. Spanish Romanesque and early Spanish Gothic. The cloister, most notably its chapter house, is a representative example of 12th-century Spanish ecclesiastic architecture. Purchased by William Randolph Hearst in 1925 and reconstructed by Allen Carswell, who built the Cloisters in New York. Presently an Episcopal Church.

Information from Florida's History through its Places: Properties in the National Register of Historic Places, compiled by Morton D. Winsberg, June 1988.

The following are historically significant archaeological zones according to the Florida Master Site File or the National Register of Historic Places. Within these three (3) zones are five (5) sites determined to be historically significant.

- Oleta River north of Sunny Isles Boulevard
- Land south of Sunny Isles Boulevard and west of the Oleta River
- The Arch Creek area

The City has prepared a listing of structures fifty (50) years old or older. These structures include residential, civic and commercial properties. This listing includes the original plantation home of the Uleta Farms Pineapple Groves, located on NE 168 Street in Pan Uleta, and other significant structures. The Community Development Department has this listing on file.

Housing in the Flood Plain

The Federal Emergency Management Agency publishes Flood Insurance Rate Maps (FIRM) as part of the National Flood Insurance Program. These maps delineate areas into a number of flood hazard zones which directly relate to the susceptibility of an area to be affected by a major traditional rain storm. The most recent edition of these maps is dated March, 1994.

The City of North Miami Beach falls within Zones AE and X as shown on Map 1.3 in Volume Four. The land uses within the majority of the flood hazard areas consists of housing.

Zone AE	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
Zone X	Areas outside the limits of the 100-year flood elevations but potentially within a 500-year flood.
Zone C	Areas subject to minimal flooding.

Housing Needs Assessment And Analysis

Household Projections

Table 3.12 shows the projected number of households to the year 2015. The projected number of households is based upon the population projections shown by Table 1.4 in the Future Land Use Element. The projections are made with the assumption that population increases will result from a combination of increasing household size and the addition of housing units to the City. Additional housing units are expected to result from both new development and redevelopment at higher densities.

Table 3.12: Household Size Estimates and Projections

	1990	1996	2000	2005	2015
Households	14,007	14,055	14,500	15,000	16,000
Household size	2.47	2.63	2.79	2.89	3.20

Source: Census of Population and Housing 1990
City of North Miami Beach, 1996

Table 3.13: Households by Income Group

Income Group	Income Limit	Households	Percent
Very Low	$13,991	3,177	22.7%
Low	$22,386	3,132	22.4%
Moderate	$33,580	2,654	18.9%
Middle	$41,975	1,679	12.0%
Upper to High	$41,976+	3,365	24.0%

Source: Census of Population and Housing, 1990
Note: Based on Median Income of $27,983

Table 3.14 projects the number of households in various income groups. The projections assume the percentages of households per income group remain as shown in Table 3.13 and are based upon the population projections provided in Table 1.4 of the Future Land Use Element.

Table 3.14: Estimates and Projections of Households by Income Group*

Income Group	1996	New	2000	New	2005	New	2015
Very low	3,190	101	3,291	114	3,405	228	3,633
Low	3,148	100	3,248	112	3,360	224	3,584
Moderate	2,660	80	2,740	95	2,835	190	3,025
Middle	1,684	56	1,740	60	1,800	120	1,920
Upper to high	3,373	108	3,481	119	3,600	238	3,838
Total	14,055	445	14,500	500	15,000	1,000	16,000

* North Miami Beach
Source: City of North Miami Beach, 1996

Housing Needs of Anticipated Population

Tables 3.15 and 3.16 project the housing needs by income group, tenure, and type. The projections are based upon the household projections calculated in Table 3.14, which is based upon Tables 3.13 and 3.12, which in turn are based upon Table 1.4 (Population Projections) in the Future Land Use Element.

The numbers in Tables 3.15 and 3.16 regarding type and tenure follow the percentages used by Miami-Dade County for their housing needs assessments for Northeast Miami-Dade County as presented in Table V-38B of their Evaluation and Appraisal Report. Numbers from Table V-38B of Miami-Dade County's E.A.R. were used only to determine what percent of the City's projected housing needs to assign owner versus renter and what percent to assign to single family versus multi-family. For example, in Table V-38B, the 2005 Subtotal for housing need in the Very Low Income Owner Occupied category is 1,495 single family and 498 multi-family. (In other words 75% of the need in this category will be for single family and 25% will be for multi-family.) In the corresponding category in Table 3.15 of the City's Comprehensive Plan the numbers are 39 and 13. (In other words, the need will be 75% and 25% respectively - the same as Miami-Dade County's distribution of the need).

The analysis that has been prepared was done after receiving the state land planning agency's affordable housing needs assessment as required by F.A.C. 9J-5.010(2)(b). After reviewing the needs assessment, the City believes that its own assessment may be more realistic than the Shimberg Study's assessment. The Shimberg Study projects a housing unit surplus in the City of up to 952 units by 2010. This projection of surpluses is not consistent with the population projections and household size projections for the City. The inconsistency stems from the Shimberg Study's projections of households. It projects a decrease from 14,007 households in 1990 to 13,073 households by 2010. The City projects that the number of households will increase from 14,007 in 1990 to 16,000 by 2015. The User's Guide for the Shimberg Study explains that their projection is based on a sample, the weighting of that sample, rounding, and a large number of cross tabulations (see page 66 of the User's Guide – attached). The City's projection, however, is based on the simple assumption that North Miami Beach's population will increase proportionately with the population of the surrounding MSA. Based on historic trends and the fact that the City has a proportion of vacant land similar to that of the surrounding MSA, this is a reasonable assumption

Table 3.14.1: Housing Need by Type, and Tenure, Size and Income Range*

	1990 - 2005				2005 - 2015			
	Owner		Renter		Owner		Renter	
	Single Family	Multi Family	Single Family	Multi Family	Single Family	Multi Family	Single Family	Multi Family
Very-Low Income								
2-Bedrooms**	820	273	316	735	847	283	326	760
3-Bedrooms	444	148	171	398	459	153	176	411
4-Bedrooms	231	77	88	207	238	79	91	214
Subtotal	1,495	498	575	1,340	1,544	515	593	1,385
Low Income								
2-Bedrooms	595	198	187	437	615	205	194	451
3-Bedrooms	323	108	101	236	333	111	105	244
4-Bedrooms	163	56	53	123	173	58	54	127
Subtotal	1,086	362	341	796	1,121	374	353	822
Moderate Income								
2-Bedrooms	813	271	208	485	841	280	216	502
3-Bedrooms	440	147	113	263	455	151	116	271
4-Bedrooms	229	76	58	137	236	79	60	141
Subtotal	1,482	494	379	885	1,532	510	392	914
Middle Income								
2-Bedrooms	535	178	91	214	553	184	95	221
3-Bedrooms	290	97	50	116	300	100	51	120
4-Bedrooms	151	50	26	60	156	52	27	62
Subtotal	976	325	167	390	1,009	336	173	403
Upper Middle & High								
2-Bedrooms	1,664	555	146	341	1,720	573	151	352
3-Bedrooms	901	300	79	185	930	310	82	191
4-Bedrooms	468	156	41	96	484	162	42	99
Subtotal	3,033	1,011	266	622	3,134	1,045	275	642
TOTALS								
2-Bedrooms	4,427	1,475	948	2,212	4,576	1,525	982	2,286
3-Bedrooms	2,398	800	514	1,198	2,477	825	530	1,237
4-Bedrooms	1,247	415	266	623	1,287	430	274	643
Subtotal	8,072	2,690	1,728	4.033	8,340	2,780	1,786	4,166

Source: Research Division, Metro-Dade County Planning Department, 1995, Table V-38B
*For Miami-Dade County
**Two or fewer bedrooms

Table 3.15: Housing Needs for Projected 2000 Population*

	Owner		Renter		Total
Income Group	**Single Family**	**Multi-Family**	**Single Family**	**Multi-Family**	
Very Low Income	39	13	15	34	101
Low Income	44	14	13	29	100
Moderate Income	40	13	8	19	80
Middle Income	30	10	5	11	56
Upper/High Income	65	22	7	14	108
Total	219	72	48	107	445

* North Miami Beach
Source: City of North Miami Beach, 1996

Table 3.16: Housing Needs for Projected 2005 Population*

	Owner		Renter		Total
Income Group	**Single Family**	**Multi-Family**	**Single Family**	**Multi-Family**	
Very Low Income	82	28	32	73	215
Low Income	93	30	28	61	212
Moderate Income	88	28	18	42	176
Middle Income	64	21	9	22	116
Upper/High Income	138	45	14	29	226
Total	465	152	101	227	**945

* North Miami Beach
** Cumulative Total
Source: City of North Miami Beach, 1996

Land Requirements for the Housing Need

As pointed out in the population section of the Future Land Use Element, there are about 120 vacant lots in single-family areas while vacant land in multifamily areas can accommodate 450 units if developed at maximum densities. Thus, three conclusions can be drawn. First, the combined increase of 570 units would accommodate the projected potential increase in the number of households through the year 2000, but not through 2005. (See Table 3.17) Second, although the majority of the demand for housing is projected to be for single-family type units rather than multi-family units, the majority of the units included in the 570 unit increase would be multi-family. Finally, most of the vacant residential land is in the Eastern Shores area. This neighborhood, which has deep-water access and is protected by attended security gates, will provide housing options for

middle and upper income families but is unlikely to provide realistic options for other income categories.

Table 3.17: Housing Needs and Land Availability

Year	2000	2005
Housing Units Vacant Land Could Support	570	125
Projected New Family Units	445	945
Deficiency in Developable Residential Land	0	820 units (48.25 acres*)

Source: North Miami Beach, 1996
* Based on 17 units per acre, the upper limit of the Residential Medium Density Land Use Category.

In order to accommodate the market as it responds to the increased demand for middle, low, and very low income single-family housing units, the City is investigating the possibility of identifying areas where changes to future land use designations, density and intensity restrictions, land development regulations, and urban design principles would be appropriate. Anticipation of the changing identity of single-family housing will help facilitate potential redevelopments and insure that population growth affects the value of living and working in the City in a positive manner.

Table 3.17a: Provisions of New Housing Units on Vacant Land

Year	New Units (No Land Use Designation Changes)
1998	81
1999	81
2000	81
2001	81
2002	81
2003	82
2004	82
2005	82
TOTAL	570

Source: North Miami Beach, 1998

Although Tables 3.15 and 3.16 identify the projected housing needs in the City for 2000 and 2005, the City's ability and the reality of meeting that need in its entirety is suspect for two reasons. First, recent building activity in the City indicates that new housing units are not constructed in the City at such a rate, if at all. Secondly, the City has indicated its

desire to maintain its current residential densities. Therefore, Table 3.17a identifies the number of housing units that could be built in the City on vacant land without changes in allowed density. Table 3.17b identifies the distribution of these units in terms of meeting the needs of all income levels and maintaining the percentage of quality housing available to them.

Table 3.17b: Distribution of Units Per Year

Year	Very Low Income	Low Income	Moderate Income	Middle Income	High Income	Total
1998	19	18	15	10	19	81
1999	19	18	15	10	19	81
2000	19	18	15	10	19	81
2001	19	18	15	10	19	81
2002	19	18	15	10	19	81
2003	19	18	15	10	20	82
2004	19	18	15	10	20	82
2005	19	18	15	10	20	82
TOTAL	**133**	**126**	**105**	**70**	**136**	**570**

Source: North Miami Beach, 1998

Private Sector Capability to Meet the Need

Realistically, the private market is not going to be able to serve the 101 very low income households by 2000 unless subsidies of some kind are available. Land costs, particularly in the Eastern Shores area, would result in monthly housing costs in excess of 30 percent of household income. The balance of need can be met by the private sector, particularly if County financing mechanisms are used to reach the low income category.

Private Sector Housing Delivery Process

North Miami Beach is part of a much larger northeast Dade housing market. Therefore, North Miami Beach's needs and the characteristics of those needs, given the City's place in the housing market, must be viewed in the context of an analysis of the housing market in northeast Dade. The Metro-Dade Comprehensive Plan Housing Element contains such an analysis (Statistical Area 2 includes North Miami Beach).

The housing stock in the City is relatively new, in good condition and represents a healthy distribution of housing types and costs. Almost two-thirds of the housing stock is owner-occupied and costs average less than the County as a whole. The only weak element is the relatively high average rental rate hence the concern about meeting very low income rental needs. In short, the housing situation in North Miami Beach has no significant problems that would suggest the need for major policy initiatives other than working with the County to achieve some subsidies (see following page).

The private market's provision of additional single-family and townhouse units appears to be tapering off due to land constraints. However, there are no apparent obstacles to the private market housing delivery system other than the land limitation. Most of the new construction is in the Eastern Shores neighborhood.

Provision of Adequate Sites for Housing

The City of North Miami Beach is, except for a few infill lots, built-out. For this reason, the provision of adequate sites for housing is difficult regardless of the housing type. Summarized below are the various scenarios for each housing type.

Mobile Homes

Because the City is now largely built-out, with few remaining vacant residential lots, mobile homes are not likely to constitute a significant housing alternative in the future. The mobile home neighborhood in the southeastern corner of the City remains a viable residential area in the short run but it is in the coastal zone and has a number of deteriorated units. Nevertheless, the zoning code of the City contains the MH-1 district which accommodates mobile homes.

Licensed Group and Foster Homes

Currently there are four nursing homes and seven community residential homes in the City of North Miami Beach. Local land use and development regulations do not, however, prohibit the siting of such facilities in residential areas.

Substandard Housing

The City uses a Property Standards Ordinance to monitor and address substandard housing. This program is obviously successful given the very low one percent substandard rate yet there are over 6,000 (see table 3.14) low/very low income households. See also next paragraph. Again, the amount of blighted housing is very limited in North Miami Beach. The recent redevelopment of several blocks to the southeast of City Hall addressed many substandard units and will hopefully continue encouraging ACLF development (see above).

Low and Moderate Income Housing

There are "Section 8" rent subsidy certificate holders living within the City. In addition, the County has low interest rate loans which have been available in the past for low and moderate income households who wish to rehabilitate their houses. This program needs to continue particularly in the Washington Park area (the largest concentration) along with use of the County's mortgage financing programs that can bring new construction within reach of low and moderate income households. City officials should work with the County HUD agency relative to these programs, particularly code enforcement officials providing referrals to the subsidized rehabilitation program.

Conservation

Historic preservation of housing is not a significant need in North Miami Beach. With no dilapidated units in the City, the principal need is enforcement of the Property Standards Ordinance to deal with the deteriorated units. The County CDBG loan program cited above and the proposed redevelopment activity in the Southeastern Medical Center area are intended to reinforce this code enforcement program. Demolition is expected to increase through private redevelopment activities; no public action is needed or contemplated.

Appendix

Housing Need Projections

In order to project the City's housing needs, the following steps were utilized. First, the annual monetary limits of the various income groups was calculated based on the Northeast Miami-Dade County 1990 median household income of $27,983. Groupings (e.g. very low) were based on median income ratios established by the United States Department of Housing and Urban Development. This is shown in Table 3.18.

Table 3.18: Income Limits of Various Income Groups*

Income Group	Ratio to Median Income	Income Limits of Group
Very low	Less than 50% of median	$13,991
Low	Between 50% and 80% of median	$22,386
Moderate	Between 80% and 120% of median	$33,580
Middle	Between 120% and 150% of median	$41,975
Upper to high	150% or higher	$41,976+

* North Miami Beach
Note: Northeast Dade (MSA 2) Median Income = $27,983
Source: 1990 U.S. Census.

The totals of households by income group were then obtained from the 1990 Census. The 1996 estimates and the 2000 and 2005 projections assumed that the percentage of households in each income group would remain constant. For example, if 22 percent of all households were classified as low income in 1990, then in 1996 the same 22 percent of all households would continue to be classified as low income.

The change or increase in the number of households by income group was obtained based on the numbers in Table 3.14 .

Table 3.19: Projected Increase in Households by Income Group*

Income Group	1990-1996 Estimated	1996-2000 Projected	2000-2005 Projected	2005-2015 Projected
Very low income	13	101	114	228
Low income	16	100	112	224
Moderate income	6	80	95	190
Middle income	5	56	60	120
Upper to high income	8	108	119	238
Total	48	445	500	1,000

* North Miami Beach
Source: North Miami Beach.

The totals for the number of households by income group was obtained from Table 3.13. It was assumed that the percentage of households in each income group would remain constant.

The percentage of households occupying single family, or multifamily units was based on the breakdown reported in the 1980 U.S. Census, data trends observed from 1990-1996, and Miami-Dade County's analysis of the Northeast Dade housing market. The analysis assumed that these proportions would remain constant.

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Infrastructure Element

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IV. Infrastructure Element

Introduction

This section deals with five subject areas as follows:

1. Wastewater or sanitary sewer
2. Solid waste
3. Drainage
4. Potable water
5. Natural groundwater aquifer recharge

For each sub-element, there is a description of the existing situation, an analysis or needs assessment and the goals, objectives and policies section.

Miami-Dade County provides sewage treatment and solid waste disposal locations to North Miami Beach. This means the principal City infrastructure responsibilities are drainage and water supply.

Sanitary Sewer

Existing Conditions

Service Area

Sanitary sewers serve about one-third of the City's land area as shown on Figure 4.1. This service area is primarily the commercial (about 100 acres) and higher density residential (about 150 acres) areas north of State Road 826. The service area also covers the commercial area south of NE 163rd Street from NE 10th Avenue to NE 18th Avenue, a medium-density residential area south of NE 163 Street between NE 10 Avenue and NE 11 Avenue, the West Dixie Highway Corridor from NE 153rd Street to NE 163rd Street, and the Biscayne Boulevard Corridor from NE 135th Street to NE 163rd Street. The City's Public Utilities Department also serves an area west of the municipal boundaries. This is bounded by NW 37th Avenue on the west, the Snake Creek Canal, and I-95/SR 9 with approximately 6,000 customers. Service to the commercial areas on the east side of Biscayne Boulevard from NE 172 Street to NE 175 Street is currently under construction. The balance of the City is served by septic tanks.

Responsible Entity

The Miami-Dade Water and Sewer Department (WASD) is currently responsible for portions of the collection system north of State Road 826, as well as ultimate

treatment of all of the sewage collected from the City. Therefore, a City level of service is not pertinent. It is, however, important for the City to monitor the County's capacity and the effects that the City's development has upon it.

Current Demand and Plant Capacity

The City currently generates an average of about 1,545,180 gallons per day (gpd) or about 35 gallons per person per day. The current design capacity of the County treatment plant at NE 151st Street is 100,000,000 gpd (the County's current level of service for its North District Plant). The Plant's capacity is currently being increased to 110,000,000 gpd. This means the City is now providing between one and two percent of the plant's capacity. The plant's average flow is 98,800,000 gpd or 98.8 percent of capacity. By 1998, the plant capacity will be expanded to 130,000,000 gpd. Flows from North Miami Beach are expected to be 2,000,000 gpd by 2006 due to an expected increase in population and new commercial use flows.

Needs Assessment and Analysis

City Plans

The City is continuing to explore the financial feasibility of extending sewer service to those commercial and multi-family residential areas which currently do not have sewer service, including the Corona Del Mar neighborhood (South of NE 163rd Street between NE 18 Avenue and NE 20 Avenue) and the West Dixie Highway Industrial Area. This is in response to the regional goal of providing such service to all urban commercial and higher density residential areas. The Miami-Dade Water and Sewer Department would treat the sewage.

Soils and Septic Tanks

Although the County has sewer lines extending into the Sunray neighborhood (south of NE 176th Street), most of the City's single-family areas are served by septic tanks. The soils analysis in the Land Use Plan Element (Figure 1.4) shows the predominance of sandy soils which are good for septic tanks. However, the South Florida Regional Planning Commission policy prefers that lots of less than one acre ultimately be served by sanitary sewers although retroactive service is not mandated.

Timeframe

The target areas shown in Figure 4.1 represent locations where the City believes sewer service is desirable. These potential sewer projects are still under consideration. They involve a considerable cost, and thus the City has not committed to funding them.

Facility Life and Impact

The City's sewer collection system, within the City limits, is relatively new and no major sewer line replacements are anticipated to be necessary within the planning period. However, the portion of the City's system located in the unincorporated areas is older and is scheduled to be upgraded within five years. The impact of sewer installation will be positive in terms of natural resources; it will lessen the chance of septic tank effluent reaching water bodies or the water table.

Solid Waste

Existing Conditions

Collection System and Service Area

The City of North Miami Beach Public Works Department operates the following City-wide solid waste pick-up schedule throughout the entire City (see Table 1.1. for land uses served):

Residential garbage	twice a week
Residential and Commercial Trash	twice a month
Commercial Garbage and Recycling	as needed; daily to weekly
Residential Recycling	11 locations

Disposal

As of 1994, the City was collecting approximately 33,000 tons of solid waste per annum. This equals approximately 5.07 pounds per capita per day (33,000 tons per year x 2000 lbs. per ton / 365 days per year / 35,689 population). The City's adopted level of service standard is 5.5 pounds per capita per day.

The City transports all collections to a number of disposal sites in Miami-Dade and Broward Counties. The City pays a tipping fee per ton of waste deposited at each facility. The tipping fee at the Miami-Dade County transfer station west of I-95 on Miami Gardens Drive is considerably higher than the tipping fee paid at other facilities. For this reason, the City transports approximately 80% of its waste to Resources Recovery (Montenet -- the waste to energy incinerator in Miami-Dade County) and another 19% to Wheelabrator of South Broward. Less than 1% of the City's waste goes to the North Dade transfer station. The City signed a 20-year agreement with Miami-Dade County regarding waste disposal in 1995.

Capacity

The capacity of the facilities mentioned above is adequate to serve the City's needs.

Needs Assessment and Analysis

The City has instituted several programs that have improved productivity and service yet require fewer trucks. Therefore, with no significant population increase, the solid waste collection and disposal program should continue to operate satisfactorily at about its current tonnage for the five- and ten-year planning periods.

The City has no "facilities" other than trucks and the Public Work's sanitation complex. Trucks are replaced on a routine basis. The City will be constructing a new vehicle maintenance and truck wash facility at the existing Public Work's complex on NE 151 Street in 1997.

Drainage

Existing Conditions

Responsible Entity

The City of North Miami Beach is responsible for drainage within its rights-of-way as well as reviewing drainage plans for new developments and for projects within County and State roadways. See Table 1.1. for existing land uses. Through the Stormwater Utility program the City performs stormwater management procedures. The City operates its storm water system under its National Pollutant Discharge Elimination System (NPDES) permit. The permit specifies stormwater pollution prevention and management requirements, sets deadlines for compliance (implementation schedules) and outlines the means to achieve the requirements.

Types of Facilities

The North Miami Beach Stormwater Management System is comprised of various infrastructure elements that include swales, storm inlets, manholes, pipelines, French drains, soakage pits, drywells, drainage wells, overflows, headwalls, and pumping stations. The systems function so as to trap, conduct, store, dissipate, and dispose of rain water. Drainage systems near canals, lakes or Biscayne Bay have overflows. Systems further away from surface waters are of the infiltration type, usually comprised of French drains used in tandem with swale adjustments and street overlaying.

Terrain, Rainfall and Demand

North Miami Beach has very flat topography typical of South Florida. Elevations average about ten feet above sea level in most of the City. The average annual rainfall is about 60 inches. Since no new large-scale, vacant-land developments requiring public drainage systems are likely in the City, the demand is limited to improvements of the existing system and continued adherence to on-site drainage requirements.

Water Courses

The Snake Creek Canal and the extensive estuarine water bodies surrounding the Eastern Shores neighborhood provide natural drainage. The Canal itself is designed to accommodate a 100-year storm and drainage within its eastern basin is rated "good" by SFWMD.

Level of Service

The City designs its new street structural drainage systems to accommodate a five year rainfall event at peak time of concentration. All new development is required to meet (on-site) a level of service standard of one inch per hour.

Problems

A comprehensive 1986 drainage study pinpointed those areas where ponding is a problem including those locations where existing drainage structures are failing due to aging structures.

The existence of numerous residential and commercial uses and related infrastructure in flood prone areas is a concern which directly relates to drainage infrastructure. The Federal Emergency Management Administration publishes Flood Insurance Rate Maps to determine the hazards to which structures may be exposed. Many of the City's structures are within zones inundated by a 100-year flood. The flood zone in which a property lies and the stormwater management activities of the City have an effect on insurance rates as well as the City's rating by insurance regulators.

Needs Assessment and Analysis

The City continues to systematically improve drainage facilities throughout the City. Major needs have been identified in the City's Capital Improvement Program and include enhancement of the pumping system in Highland Village, storm sewers in Eastern Shores, and new curb and gutter as part of a redevelopment project on NE 164 Street at Dixie Highway. These projects are scheduled for the near future as are many smaller projects throughout the City.

The City uses a catch basin cleaner and a systematic drainage maintenance program to maximize the life span of the existing system.

The impact on natural resources from the following storm water related projects (which are under construction or have been recently completed) will be positive due to the protection of ground and surface waters from pollution.

- I-95 Industrial
- Sunray East Overlay
- Sunray West Overlay
- NE 164 Street at NE 16 Avenue

- Skylake Drainage Improvement
- NE 172 Street (Government Center Phase Three)
- Public Works Vehicle Maintenance Facility
- West Dixie Highway Industrial
- Stormwater Utility Building at Public Works
- Eastern Shores Drainage

Potable Water

Existing Conditions

Service Areas

The entire City is served by public water lines. See Land Use Element for existing land use. The City serves a larger area than the City limits. The service area is generally bounded by the Snake Creek Canal and Ives Dairy Road to the north, NW 37th Avenue to the west, NE and NW 135 Street to the south and Collins Avenue to the East.

Responsible Entity

The City Utilities Department is responsible for some of the water supply and treatment, and all of the distribution. Only about 25 percent of the City system's service area is within the City limits. The City obtains about one-half of its water from the Miami-Dade Water and Sewer Department.

Current Demand and Capacity

The system's current average daily demand is about 30,000,000 gallons per day. The City's treatment plant has a rated capacity of 17,670,000 gallons per day. The typical daily flow or use is about equally divided between the City and WASD sources, i.e. about 15,000,000 each. The City has three storage tanks at the treatment plant with a combined capacity of 4,000,000 gallons.

Level of Service

The current level of service is 150 gallons of potable water per person per day for the entire system. The City attempts to maintain a water pressure of 40 pounds per square inch (psi) although 20 psi is the legal minimum.

Problems

There are currently no significant problems facing the water system. However, some distribution lines need to be upgraded in size.

Needs Assessment and Analysis

In 1988, the City completed the drilling of two new wells located outside the City's boundaries, east of the Florida Turnpike, and about one half-mile west of the Norwood Water Treatment Plant. These wells supplement the existing 10 wells that are in service in the vicinity of the plant and Norland school sites. Provisions were made for expansion of the wellfield to the west. Additional storage tanks are being considered in the east at the Sunny Isles site. Plant upgrades and expansions are also being evaluated.

The Miami-Dade Water and Sewer Authority (WASA) will eventually directly supply water to the Aventura area. This represents approximately 7 MGD that is currently sold to them by the City. As a result, the City will have to purchase approximately 7 MGD less from WASA. Planned water treatment plant and system upgrades will eventually render the City independent of the County's water supply. Negotiations between the City and WASD are on-going and no timeframe has been determined. In addition, the City has a contract with the City of Hallandale by which it provides that City with 2 mgd of treated water. Hallandale recently constructed a water treatment plant and is considering the purchase of raw water.

The City wells, together with the treatment plant capacity and the agreement with WASD, are adequate to meet the projected increase in demand for potable water. The Miami Dade County Planning Department estimates this increase to be about one percent per year. Two factors contribute to the determination that the City's water capacity is adequate: 1) the City treatment plant typically operates at about 85 percent of capacity and 2) there is no cap on the amount of water the City can purchase from WASD.

Turning to the distribution system, the City is replacing antiquated two-inch mains, four inch mains, and six inch mains with eight-inch mains to assure adequate pressure and fire flow. This is an ongoing program which will be in effect beyond the Public Utilities Department's 10-year planning period and will replace 2% of the subject mains per year. The above improvements are being funded out of water connection fees and other current revenues rather than bonds. However, bonding may be necessary for upcoming projects such as water plant expansion.

A Water Conservation Plan was developed by the City in 1994 as required by the South Florida Water Management District.

Natural Groundwater Aquifer Recharge

Groundwater

It is particularly important to achieve maximum infiltration of stormwater into the soil and ultimately to the Biscayne Aquifer. The concerns here are both recharging this source for the City's nearby potable water wells and also preventing saltwater intrusion from the ocean. There are no water supply wells within North Miami Beach.

Aquifer Recharge

There are two principal kinds of recharge sources within the City:

- The Snake Creek Canal and several lakes.
- The drainage structures designed for infiltration plus natural infiltration from lawns and swales.

However, there are no classified prime water recharge areas within the City.

Existing Regulations

Three County/regional agencies have prime responsibility for surface waters within the City (there are no prime recharge areas). They are the Miami-Dade Department of Environmental Regulation and Management (DERM), the Miami-Dade County Water Conservation District and the South Florida Water Management District (SFWMD). Their programs of water management and permit review are adequately protecting the canal, groundwater, and the quality of potable water.

In addition to the County, regional and State controls relative to drainage and groundwater recharge, the City's principal control tools are the zoning and building codes. The zoning code sets the coverage requirements that assure some pervious lawn or landscaped area, including the landscaping of parking lots. The site planning review requirements adequately serve to protect existing natural drainage features.

The South Florida Building Code and County standards specify the kind of on-site detention and drainage structures that assure some groundwater infiltration in the case of new development. See Drainage Sub-Element.

Coastal Management Element

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V. Coastal Management Element

Introduction

There are no beaches or dunes within the City limits. Therefore, this element is primarily dealing with the limited development to the east of Biscayne Boulevard (U.S. 1) as required by Florida Statute 380.24.

Existing Development

Within the City limits, the existing land use pattern east of U.S. 1 is predominantly public open space, residential (single-family, multifamily and mobile homes), and commercial. This includes water dependent commercial uses between Biscayne Boulevard and Maule Lake; there are marinas and related restaurants, boat sales, etc. Virtually all of the housing in the Eastern Shores area is designed to take advantage of its waterfront setting; i.e., boat mooring capabilities. Of course, the County parks are water dependent for their passive and active recreational benefits.

There are no conflicts among the shoreline uses. Since the projected year 2005 demand for additional Biscayne Bay marina slips in Miami-Dade County will be met by those now planned, the City's land use policy should be responsive to the environmental value of natural shorelines.

Map 5.1 shows the coastal planning area in conformance with the definition contained in F.A.C. Rule 9J-5.003. Map 5.1 also shows important natural features and the area included in the Biscayne Bay Aquatic Preserve, which was designated as an Outstanding Florida Water by the state in 1974. The Biscayne Bay Aquatic Preserve, which is defined and regulated by Florida Administrative Code Chapter 18-18, is bounded on the north by S.R. 826 with the exception of the Oleta River. The Oleta River runs from its headwaters near Highland Oaks Park on Ives Dairy Road (in unincorporated Miami-Dade County), through Enchanted Lake (also in unincorporated Miami-Dade County), through Greynolds Park, through Maule Lake, through the Oleta River State Recreation Area and into Biscayne Bay just to the south of S.R. 826. The Preserve also includes Arch Creek, which is in the City of North Miami except for the portion of Miami-Dade's Arch Creek Park that is within North Miami Beach's City limits. .

The Biscayne Bay Aquatic Preserve is one of five preserves included in the planning area for the Biscayne Bay Surface Water Improvement and Management (SWIM) Plan. The other four preserves are the Virginia Key State Critical Wildlife Area, the Card Sound State Aquatic Preserve, Biscayne National Park, and the Florida Keys National Marine Sanctuary. The SWIM Plan, most recently updated in 1994 by the South Florida Water Management District, covers a 938 square mile area extending from south-central

Broward County to points south of the Florida mainland, and thus includes all of North Miami Beach. The stormwater retrofit program in the Eastern Shores neighborhood is part of the SWIM plan. In addition, the City's Stormwater Master Plan and stormwater utility, both required to obtain National Pollutant Discharge Elimination System (NPDES) permits for municipal stormwater projects, are referenced in the SWIM Plan.

Other items of particular concern to the City are addressed in the SWIM Plan, including: water quality in Maule Lake and Snake Creek, improvements and preservation along the Oleta River and in East Greynolds Park, shoreline stabilization in Oleta River State Recreation Area, the Munisport Landfill site, and water quality studies and recommendations for Arch Creek. The SWIM Plan also contains Goals and Objectives regarding stormwater treatment and the provision of sanitary sewer service.

There are three historically significant archaeological zones within or near the coastal area. Two are along the Oleta River and one is in the Arch Creek area. Within these three zones are five sites which the Florida Master Site File lists as historically significant.

Highland Village, a mobile home community at the south end of the City, is the only neighborhood in the coastal area that could be considered a location for redevelopment. Highland Village is discussed in the post-disaster section of this element, in the Housing Element, and in the Future Land Use Element. The economic base of the coastal zone consists of a) the water dependent uses along the estuary as listed above and b) the retail centers along Sunny Isles Boulevard.

Natural Features Inventory

Vegetation

Historically, the area now known as North Miami Beach was covered with a combination of pine forest, transitional hammock forest, and cypress forest. These vegetative communities have virtually disappeared as a result of development.

The northeasterly portion of Miami-Dade County, which includes all of North Miami Beach, is considered "urban landscape" which connotes the disappearance of natural vegetative communities and its attendant wildlife.

Mangrove vegetation still exists in a few areas east of U.S. 1. These fringe mangrove wetlands are dominated by the red mangrove specie (protected from development). See Estuarine, Intertidal, Tidal Irregular categories in Map 1.2, Volume Four.

The mangrove communities serve as a buffer against storm tides, protecting the shoreline from erosion. The maze created by the extensive prop root system provides protection and a desirable environment for a variety of marine organisms, fish, and wildlife.

Wildlife

The fish inhabiting the mangrove areas are generally young and juvenile, seeking safe refuge until it is time to venture into open waters. Other marine life found in the mangroves are coffee snails, amphipods, mangrove crabs, and hermit crabs. West Indian Manatees utilize estuaries for habitat.

As the forests on the mainland have disappeared, so have many of the former marine life sanctuaries. Maule Lake, Little Maule Lake (located north of Maule Lake and west of the Turnberry Development), and Dumfoundling Bay (the Intracoastal Waterway north of Biscayne Creek -- see Map 5.1) were dredged out of shallow estuaries; they are now bordered almost totally by bulkheads and urban development.

Throughout Greynolds Park and East Greynolds Park , there are a number of mangrove islands in an area that is commonly referred to as West Lake. These islands and the mixed red-white mangrove forests and lakes are a renowned bird nesting area. Roosting and nesting species include Common Egrets; Tri-colored, Black-crowned Night, Yellow-crowned Night, Little Blue and Green-backed Herons; cormorants, anhingas and hybrid scarlet ibises; Roseate Spoonbills and Brown Pelicans. The bird population has diminished in recent years because of racoons and cats.

The Oleta River, designated by the state as an Outstanding Florida Water, is assumed to be a major feeding area for the birds of the West Lake islands. During low tide, white ibises and various species of herons can be found feeding in the white mangroves along the Oleta River. Ospreys have also become quite numerous in the West Lake/Oleta River areas, although no nests have been seen in the area.

The relationship between rookery sites and feeding or roosting sites are little known. Since many birds selectively utilize differing regions of the coastal zone for feeding, resting and nesting, their life cycles tend to re-emphasize the importance of viewing the coastal zone as a whole system, rather than as a series of separate areas.

See Element appendix for endangered species list.

Estuarine Resources

Large schools of snook, mullet and tarpon inhabit the Oleta River as do oysters and manatees. See Element appendix tables for the invertebrate and fish species in the estuary.

Effect of Future Land Uses

The principal potential impact of the Future Land Use Map upon the significant natural resources of the coastal area is upon the mangroves on the remaining vacant, privately owned shoreline (and some non-mangrove shorelines). This serves to restrict the commercial and multifamily residential development to setbacks that respect these critical vegetative, wetland and wildlife areas.. Miami-Dade County, in conjunction with the State, purchased the largest such parcel, known as the Terama Tract, in 1994. Thus, the

City no longer contains large, environmentally-significant, privately owned lands that require protection above and beyond existing setback requirements. However, the City is supporting Miami-Dade County in its efforts to purchase and protect additional mangrove areas along the Oleta River

Coastal Flooding

The Federal Emergency Management Agency publishes Flood Insurance Rate Maps (FIRM) as part of the National Flood Insurance Program. These maps delineate areas into a number of flood hazard zones which directly relate to the susceptibility of an area to be affected by a major traditional rain storm. The most recent edition of these maps is dated March, 1994 .

The City of North Miami Beach's coastal area (east of U.S. 1) falls within Zone AE Zone AE is within the 100 year flood plain and has a required base flood elevation of 8 feet. As far as it concerns North Miami Beach, Miami-Dade County's designation of Areas Subject to Coastal Flooding follows the same boundaries as the already defined coastal area (east of U.S. 1).

It is important for the City to maintain strict adherence to floodplain code requirements as the limited vacant land is developed.

The Army Corps of Engineers has prepared a map of potential inundation along the east coast of south Florida in the event of a hurricane. The Sea and Land Overland Surge Heights map (see Map 5.3, Volume Four) shows that that area east of U.S. 1 as well as areas adjacent to the Snake Creek Canal, Pickwick Lake, and Skylake could be flooded by hurricane surge.

Assessment of General Estuarine Conditions

Biscayne Bay

The marshes along the banks of upper Biscayne Bay (near the Sunny Isles Causeway Bridge) are predominantly made up of mangrove forests. The water depth is low and "muck" soils line the bottom. Tidal circulation is generally not intensive. Tidal circulation in the bay depends primarily upon the openings in the causeway. Currents are greatest at bridge or causeway openings. Water quality is sporadic depending on the location. Flushed areas with good circulation (at the Causeway) generally have low levels of contaminants.

Dumfounding Bay

Dumbfounding Bay is a tidal water body linked by Biscayne Creek to Biscayne Bay; both bays barely touch North Miami Beach. The water in the Bay is shallow except for dredged areas and relatively clear. The banks and bay bottom have been extensively modified by dredge and fill activities. Very small amounts of natural vegetation exist. Development has totally dredged and bulkheaded the banks of the

Bay. Water quality is good. The body has traditionally met all water standards. The County has created an artificial reef in a 50 foot deep dredged area. Materials such as old boats and concrete are placed there on a regular basis. More than 5,000 square yards of material had been deployed as of 1995. To date the effort has been successful as plants and fish are beginning to settle around the artificial reef site.

Maule Lake

Maule Lake is a tidal water body (with limited tidal flow) which is almost surrounded by the City. The lower section of the Oleta River passes through a dense mangrove forest before emptying into Maule Lake. The Lake contains few areas of native vegetation because of extensive dredging. Water depths range from 3 feet to 25 feet in dredged areas. There is a limited amount of marine activity because of the lack of vegetation and food. Most of the birds that are found in the East Greynolds Park rookery are also observed in the mangrove trees bordering the Oleta River. The Lake empties into Biscayne Bay through the Oleta River and Biscayne Creek system.

Maule Lake is heavily impacted by discharges from Snake Creek and the Oleta River. In addition, the Lake is occupied by several houseboats that frequently discharge sewage into the water. Historically, water quality has been among the worst in Miami-Dade County because of limited water circulation. Metals and organic nutrients reached extremely high levels leading to complaints from residents. However, water quality trends from 1980 to 1993 showed improvement in the following categories: dissolved oxygen, turbidity, phosphorous concentration, cadmium levels, lead concentration, zinc concentration, and coliform levels. The level of cadmium in the lake remains unusually high, although the trend shows that it is decreasing. Concentrations of ammonia are increasing.

Identification of Known Existing Point and Non-Point Pollution Sources

The major source of pollutants entering the estuarine areas of North Miami Beach is non-point source pollution from stormwater runoff. Stormwater runoff from canals and roadways have had a pronounced negative effect on water quality. Chemicals and other contaminants collect in stormwater runoff and drain into canals and eventually the estuary. However, North Miami Beach has no direct outfalls into the estuary system in Eastern Shores. The drainage system west of NE 35 Avenue is currently under construction. The storm water will be handled by a deep well injection system. Subsequent to the project's completion, only overflow from the system will be discharged into the canals. This project contributes to the goals of the Biscayne Bay Surface Water Improvement and Management (SWIM) Plan described earlier in this element. While a similar project (Phase II) for the area east of NE 35 Avenue has been designed, no funding source has been identified. In addition to pollution from stormwater run-off,

septic tank seepage has occurred. Generally the canals such as Snake Creek have effected water quality through the addition of:

1. nutrients including high levels of phosphorous; and
2. bacteria caused by sewage seeping into canals.

There are several marinas located on the banks of the estuary that also cause pollution. Boat engines cause oil and gasoline to be discharged. Live-a-boards sometimes discharge sewage directly into the water. A State study of sediments at the bottom of Biscayne Bay concluded that hydrocarbon sediment associated with petroleum products covered large areas of bay bottom. The study did not specifically link marinas to these sediments but did suggest that boat traffic was a main contributor. Paint removal from boats is also an identified source.

Assessment of Impacts of Development

A limited amount of development or redevelopment is expected in the coastal area. All future development (other than scattered in-fill housing) will be required to utilize sanitary sewers; all existing dense development will ultimately use sewers. New marinas seem unlikely because of the current State requirements for siting. The following conditions are considered in marina siting:

1. effective water circulation
2. water quality
3. effect on seagrass and other vegetation
4. the County's requirement of a minimum water depth of 4 feet
5. Land use compatibility
6. Cumulative environmental effects

Impacts of Facilities Proposed in Plan Upon Water Quality

As North Miami Beach is generally well served by facilities, impacts of future facilities on water quality will be minimal. The one exception involves the extension of the sanitary sewer lines to serve the more dense residential and commercial areas currently using septic tanks. As discussed previously, septic tank leaching has negative effects on water quality.

Identification of Remedies for Existing Pollution Problems

In natural areas being enhanced for public use or commercial areas being developed for business use, rip-rap should be used in preference to seawalls. Rip-rap contributes to the cleaning and filtering of the water by naturally absorbing the waves reflected from the shoreline. Unlike seawalls, rip-rap allows natural circulation of water so that no alteration to the bottom or shoreline occurs.

The mangrove forests should be protected and preserved (even if adjacent development is permitted) since they positively influence water quality. Murky water carried into a mangrove swamp during a flood tide is cleansed by the filtering of organisms that lie in the mangrove roots and swamp floors.

New channels seem unlikely and should not be permitted unless detailed planning is completed that satisfies the County Shoreline Review Committee and DERM. Artificial channels and dredged depressions have been created with little or no regard for current flows or stability. Unless stabilized, each margin of a dredged depression or artificial channel is a likely site for erosion.

Further stormwater improvements under the City's stormwater utility program and in conformance with NPDES standards will contribute to efforts at decreasing pollution.

As discussed previously, the phasing out of numerous septic tanks will have a pronounced positive effect on water quality. The City should also monitor the sanitary sewer system in order to prevent leaks, cracks and lift station overflow. Water quality can be severely contaminated by sewer system discharge.

Living aboard houseboats has become a problem because of sewage discharge into the estuary. Miami-Dade County has proposed that all marinas containing houseboats be connected to a central sewer system. Even with this requirement it is difficult to prevent dumping.

Paint removal in marinas must be policed to keep any chips out of the water.

Existing Regulatory and Coastal Improvement Programs

North Miami Beach departments, Miami-Dade County departments, and other agencies undertake or regulate activities that may potentially affect coastal resources and estuarine and coastal water quality.

1. The City of North Miami Beach issues drainage and paving permits for projects that impact public rights-of-way .
2. The North Miami Beach Community Development Department reviews site plans and subdivision plats.
3. The County's Development Impact Committee reviews all applications for proposed developments that have Countywide impacts or are considered to be of Countywide significance. This committee makes recommendations to the Board of County Commissioners. These often include attaching conditions that minimize negative environmental impacts of a proposed project.
4. The County's Shoreline Development Review Committee examines all new projects and improvements to existing developments (except for single-family homes and duplexes) that are located along the Biscayne Bay system shore, in both incorporated and unincorporated areas.

5. The County's Department of Environmental Resources Management (DERM) regulates all activities directly impacting the Bay and their tributaries, including permits for dredge and fill, surface water discharge, stormwater outfalls, removal or trimming of mangroves, and enforcement of County, State and Federal Regulations relating to flood criteria and coastal construction.

6. DERM also carries out routine monitoring and enforcement activities throughout the Coastal Area. Under the Bay Restoration and Enhancement Program, DERM administers several projects that directly affect coastal and estuarine waters. These include the placement of rip-rap and mangrove planters, construction of artificial reefs, and demonstration projects to improve coastal systems.

7. As part of the ongoing Bay Restoration and Enhancement effort, DERM is working with the South Florida Water Management District, the agency charged with administration of the Surface Water Improvement and Management (SWIM) Act for south Florida, continue and improve Bay Restoration and Enhancement activities. State moneys appropriated pursuant to this act are being used to eliminate or improve stormwater outfalls, to maintain water quality monitoring and to improve the level of pollution control enforcement in Biscayne Bay.

8. The South Florida Water Management District is also the principal agency with responsibility for the quantity, quality and timing of freshwater deliveries to the estuarine waters in Miami-Dade County. The water management system is discussed in more detail in the Conservation, Aquifer Recharge and Drainage Element.

9. The South Florida Regional Planning Council has limited control over land development through reviews of local comprehensive plans and developments of regional impacts (DRI). The DRI process examines the potential impacts of large developments that may impact significant regional resources such as the Biscayne Bay Aquatic Preserve. The Regional Planning Council can stipulate conditions on the development order issued by the local government.

10. The Florida Department of Environment Protection is the principal State agency with jurisdiction over environmental quality. DEP regulates dredge and fill activity, discharge of pollutants into water bodies and commercial developments such as marinas that may impact coastal and estuarine waters. DEP reviews activities occurring on submerged land owned by the State. DEP is also responsible for managing the Biscayne Bay Aquatic Preserve, State parks and preserves such as the Oleta River State Recreation Area, and the State Marine Patrol.

11. The U.S. Army Corps of Engineers issues permits for projects impacting coastal waters and wetlands. In their review process, the Corps receives input from the Federal Fish and Wildlife Service, National Marine Fisheries Service and the Environmental Protection Agency. Through the issuance of a General Permit, the Corps has delegated to DERM the permitting of certain small projects in coastal waters.

12. Miami-Dade County passed a Manatee Protection Ordinance in 1995 which restricts the amount of boat docks that may be permitted per residential development.

13. Miami-Dade County's Public Works Department maintains the secondary Canal system.

Analysis and Recommendations

Based upon the above inventory, there seem to be two primary responsibilities for the City.

1. *Stormwater Runoff*: In order to minimize water pollution, continue to a) carefully review all development permit applications to assure adequate on-site detention and seepage of stormwater and b) complete the street drainage program.
2. *Sanitary Sewers*: Implement the program of installing sewers in the balance of the commercial and dense residential areas near the coastal area.

See the element policies for other recommendations bearing on the estuary.

Public Access Facilities

County Parks

East Greynolds Park is owned by the county, although within the City limits. A substantial portion of the park is maintained in its natural state, thereby limiting scenic roads or pedestrian access to the Oleta River shoreline due to mangrove and other vegetation. There is a fishing boardwalk, used mostly by local residents. However, a canoe dock and ramp are planned. Parking spaces: 45

Greynolds Park is also county-owned and just outside the City limits. The extensive natural shoreline contains scenic overlook areas including a fishing pier and there is also a facility to launch canoes in the Oleta River. Parking spaces: 420

Nearby on Route A1A is Haulover County Park, with wet slips, boat ramps, fishing charters, and ocean fishing from the jetty.

State Park

The Oleta River State Recreation Area contains approximately 850 acres and is primarily adjacent and southeast of North Miami Beach. Scenic views of the park mangroves are available from Sunny Isles Boulevard as are brief estuary views. Public access to the bay area is provided including a boat ramp and was recently enhanced by a beach construction project. The park's management plan is being updated in 1996-1997 to reflect many changes that are being planned, including the provision of cabins for lodging. Parking spaces: 1,000

Other Scenic Views

Biscayne Boulevard provides brief scenic views of Maule Lake; the site plan review process can help preserve them if new construction occurs.

Private Facilities

"Maule Lake Marina," at 17201 Biscayne Boulevard, is a private commercial marina containing 165 wet slips and approximately 150 spaces for surface storage. Ocean Neptune at 17501 Biscayne Boulevard, is a private commercial marina facility containing 12 wet slips and 96 dry slips. Shooter's Restaurant, located in the Intracoastal Mall, has limited docking space for their patrons. .

Analysis

These facilities, when combined with additional existing facilities in the immediate area, are meeting the needs of the population for public access to the shoreline for water-related activities. They will be further enhanced by planned public improvements. The County Coastal Management Element states that planned marina slips elsewhere along Biscayne Bay will adequately meet the State's Year 2005 projection.

Natural Disaster Planning

Evacuation Plan Analysis

The South Florida Regional Planning Council, in their South Florida Regional Hurricane Evacuation Study, April 1996, divided Miami-Dade County into 18 "Evacuation Model Zones." North Miami Beach is within Zone 2. Data regarding the population within each Hurricane Evacuation Zone comes from Miami-Dade County's Metropolitan Planning Organization's (MPO's) Transportation Analysis Zones (TAZs) data. Zone 2, for example is a conglomeration of TAZs 47 through 58, which cover roughly from NE 135 Avenue to NE 172 Street and from the Atlantic Ocean to U.S. 1 and thus includes all of North Miami Beach's coastal area as well as the area east of the Intracoastal Waterway. In terms of evacuation, theonly affected portion of North Miami Beach is east of Biscayne Boulevard. As defined by Miami-Dade County, the area of the City west of Biscayne Boulevard is outside both the Coastal High Hazard Area (CHHA) and the Hurricane Vulnerability Zone (HVZ) and thus would not need to evacuate North Miami Beach is fortunate in that all of its population is located west of the Intracoastal Waterway Bridge. On the other hand, the eastern part of the City will be the funnel through which a sizable population from the barrier island will have to be accommodated during an evacuation. The City is working closely with the Miami-Dade Fire Department's Office of Emergency management in coordinating evacuation plans. The City has been designated as one of Miami-Dade County's Divisional Emergency Operation Centers. Another possibility being explored is the creation of a Disaster Information Resource Center (DIRC) in North Miami Beach.

Shelter Planning

The Miami-Dade County Emergency Operations Plan contains assumed evacuee distribution percentages by destination. This information is shown in Table 5.1 below:

Assuming a person per unit ratio of 2.5 and not including hotel motel units, there are over 55,000 potential evacuees in Zone 2. , It can be assumed that persons requiring the safety of a public hurricane shelter will range from 3,153 (15 percent, low participation, category one storm.) to a high of 13,750 (25 percent, high participation, category 4-5 storm).

Table 5.1: Evacuaee Percentages by Destination Type

	Category 1-3 Storm		**Category 4-5 Storm**	
	High Participation	Low Participation	High Participation	Low Participation
Red Cross Refugees	20%	15%	25%	20%
Friends*	65%	5%	60%	50%
Hotel/Motel*	15%	10%	15%	12%
Not Evacuating	0%	30%	0%	18%

Source: 1989 North Miami Beach Comprehensive Plan

*of those going to the home of a friend or hotel/motel units, it is assumed that approximately 63 percent would stay in Miami-Dade County, 9 percent to Broward, 3 percent to Palm Beach County and 25 percent would go out of the region.

There are several shelters in the northern portion of Miami-Dade County. North Miami Beach Senior High School has a capacity of 656 according to the South Florida Regional Planning Council's Regional Resource and Shelter Capacity Analysis (September of 1993). This shelter is not for the general public; it is designated for people with special needs who must be pre-registered to be accepted. Table 5.2 lists the shelter locationsand capacities. While a new high school on Ives Dairy Road near I-95 provides additional shelter space, there is still a need for additional shelter capacity in Northeast Miami-Dade County. .

Table 5.2: Evacuation Shelters and Capacity

Shelter	Capacity
North Miami Beach Senior High	656
Miami Carol City Senior High	1,500
Norwood Elementary	960
North Miami Sr. High	920
North Miami Middle School	
Norwood Elementary	960

Source: Regional Resource and Shelter Capacity Analysis, SFRPC, September 1993

Special needs may be required for persons who are elderly, handicapped, hospitalized or otherwise hindered from taking care of themselves. Metropolitan Miami-Dade County Emergency Operations Plan lists hospitals, nursing homes and adult congregate living facilities by zone. There are no such facilities within the North Miami Beach evacuation zones. Conversely, there are two major hospitals within close proximity that can potentially accommodate evacuees in this special category.

North Miami Beach and its surrounding environs are almost fully developed. Therefore, the modest future population increases will not significantly impact these hurricane shelters and evacuation routes. However, the intersection improvements under construction at Biscayne Boulevard and North Miami Beach Boulevard will facilitate evacuation.

The area east of Biscayne Boulevard in North Miami Beach is within the Hurricane Vulnerability Zone (HVZ). This determination is based upon the state's revised definitions and boundaries pertaining to coastal areas. In 1993, Chapter 163 and Rule 9J-5.003(12) redefined the Coastal High Hazard Area (CHHA) to that of "the entire Category 1 Hurricane Evacuation Area, as defined by the local government and consistent with the regional hurricane evacuation plan," which, in the City's case, is the 1996 Lower Southeast Region Hurricane Evacuation Study by the South Florida Regional Planning Council. (In 1988, the state had used the Federal Emergency Management Agency's V Zone and land seaward of the Coastal Construction Line to define the CHHA.) Under the new definition, North Miami Beach is entirely outside the CHHA (as it was under the old definition). Also in 1993, the State eliminated the Coastal Hazard Area (CHA) and replaced it with the Hurricane Vulnerability Zone (HVZ), which is defined as the CHHA plus the evacuation zones as defined by the local government for Category 2 and 3 Hurricanes. For North Miami Beach, the HVZ includes all lands east of U.S. 1. The evacuation zone for Category 4 hurricanes and above is the same as the HVZ. In other words, no evacuation is necessary for North Miami Beach areas west of U.S. 1. :

Post-Disaster Planning Concerns

Should serious property damage occur in the coastal areas, it is anticipated the Eastern Shores area should probably be reconstructed as a residential area with supporting commercial. Reconstruction is also recommended for the commercial marinas along Maule Lake and the waterfront park facilities. However, mobile homes in the southern extremity of the City should not be replaced or added. This will reduce future exposure to hazards. The dense mobile home park should be replaced with more substantial structures. Any significantly damaged structures along the Oleta River should be reviewed for possible land additions to the existing county park. The Highland Village area was adversely impacted by the 1967 hurricane. Eastern Shores was not developed at that time.

High-Hazard Areas and Beach Systems

No portions of North Miami Beach are located with the Coastal High Hazard Area (CHHA).

There are no beach or dune systems within North Miami Beach.

Existing Infrastructure

Roadways

State Road 826 Causeway forms the spine of the City's coastal area. It now has eight lanes from the Intracoastal Bridge to Biscayne Boulevard. . The traffic volumes and level of service are analyzed in the Traffic Circulation Element. A new bridge over the Intracoastal Waterway was completed in 1989. Therefore, the roadway system is adequate to serve the principal coastal area until at least 2006, including being adequate for evacuation purposes. Biscayne Boulevard is the western edge of the coastal zone; the State is currently widening it to 6 lanes.

Water and Sewer

The entire developed area is served by City water lines. The Eastern Shores area is served by the County sewage collection system. Certain commercial developments along U.S. 1 are served by new sewer lines.

Shoreline

The Maule Lake and Eastern Shores waterfronts (almost all private) are structural. The Oleta River and public waterfronts (mostly County and State) are largely natural and should remain so.

Future Requirements

No significant increase in demand is foreseen for the City infrastructure.

Appendix

Invertebrate and Fish Species of Biscayne Bay

	Spawning Ground	Nursery	Commercial Harvesting	Adult Concentration	Sport Fishing
Invertebrates					
Blue Crab	X	X	X	X	X
White Shrimp		X			
Brown Shrimp		X			
Pink Shrimp		X			
Spiny Lobster			X	X	X
Fish					
Tarpon		X			X
Sea Catfish		X			X
Sheepshead					X
Spotted Seatrout	X	X	X	X	X
Weakfish	X		X	X	X
Spot		X			
Atlantic Croaker		X	X	X	X
Southern Kingfish		X			
Northern Kingfish		X			
Gulf Kingfish		X			
Red Drum		X			
Star Drum		X			
Black Drum	X				
Florida Pompano			X	X	X
Bluefish		X	X	X	X
Cobia					X
Mullet	X	X	X	X	X
Atlantic Spadefish		X			X
Pinfish		X			X
Pigfish		X			X
White Grunt		X		X	X
Ladyfish		X			X
Snook					X
Jack					X
Snapper		X			
Grouper		X			

Source: Atlantic Coast Ecological Survey, U.S. Fish and Wildlife Service, Miami, Florida, 1980.

Endangered and Threatened Species and Species of Special Concern

Species	Status	Agency
(Atlantic Marine Turtles)		
Loggerhead (Carretta caretta)	T	FWS, NMFS
Green (Chelonia mydas)	E	FWS, NMFS
Leatherback (Dermodhelys coriacea)	E	FWS, NMFS
Hawksbill (Eretmochelys imbricata	E	FWS, NMFS
Kemp's ridley (Lepidochelys kempii)	E	FWS, NMFS
(Intracoastal Marine Mammals)		
Florida Manatee (Trichecus manatus)	E	FWS
(Coastal Wading and Shore Birds)		
Peregrine falcon (Falco peregrinus)	E	FWFC
Least tern (Sterna albifrons)	T	FWFC
Brown pelican (Pelecanus occidentalis)	T	FWFC
American oystercatcher (Haematopus palliatus)	T	FWFC
Osprey (Pandion haliaetus)	T	FWFC
Great white heron (Ardea herodias occidentalis)	SSC	FWFC
Royal tern (Sterna maxima)	SSC	FWFC
Great (common) egret (Casmerodius albus)	SSC	FWFC
Black skimmer (Rynchops niger)	SSC	FWFC

E = Endangered: A species, subspecies, or isolated population so limited or depleted in number, or so restricted in range or habitat due to any man-made or natural factors, that it is in imminent danger of extinction or extirpation from the state, or may attain such a status within the immediate future.

T = Threatened: A species, subspecies, or isolated population that is so acutely vulnerable to environmental alteration, or declining in number at a rapid rate, or whose range or habitat is declining in area at a rapid rate, that as a consequence it is destined or very likely to become an endangered species within the foreseeable future.

SSC = Species of Special Concern: A species, subspecies, or isolated population that: warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation that may, in the foreseeable future, result in its becoming a threatened species; may already meet certain criteria for designation as a threatened species but for which conclusive data are limited or lacking; may occupy such an unusually vital and essential ecological niche that should it decline significantly in numbers or distribution other species would be adversely affected to a significant degree; or has not sufficiently recovered from past population depletion.

Sources: U.S. Fish and Wildlife Service, Marine Fisheries Service, Florida Game and Freshwater Fish Commission, Florida Natural Areas Inventory.

Conservation Element

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VI. Conservation Element

Introduction

The purpose of the Conservation Element of the North Miami Beach Comprehensive Plan is to identify strategies and policies which will ensure that the City's natural resources will be managed, protected, and enhanced. The element first provides an overview and assessment of existing natural resources and then sets out a series of goals, objectives, and policy statements. These statements are intended to direct both public and private activities which affect the natural environment of the City.

Natural Resources Inventory

The natural resources found within the City are identified below along with a short analysis. Because natural resources are not abundant in the City, many of the analyses are limited. None the less, included within this section are summaries regarding climate, waterbodies and wetlands, air quality, floodplains, soil erosion, natural habitat and vegetative communities, hazardous waste, and commercially valuable minerals. [F.A.C. 9J-5.013(1)(a)]

Climate

One of the most significant environmental attributes of North Miami Beach and the entire south Florida region is the warm, sub-tropical climate. The climatic conditions of the area play an important role in the overall environmental system of the area due to their effect on air and water resources.

Precipitation, for example, has a direct effect on the supply of water resources in the region and recharge to the Biscayne Aquifer is almost totally dependent on rainfall. Annual rainfall averages nearly 60 inches per year, with approximately 45 inches occurring during the summer months.

Seasonal temperature variations, too, play an important role in the environmental system by directly affecting the loss of water to the atmosphere due to evaporation and transpiration. Temperatures in the North Miami Beach area are moderated by trade winds. The yearly average temperature range is approximately 20 degrees, from the high 60's during the winter to the mid-80's in the summer.

Winds, due to their influence on the rate of evaporation from surface waters, soils and vegetation, play a significant role in the region's hydrologic process. Area wind velocities are generally calm to slow, although high wind speeds occur with the passing of storms and frontal systems. During the summer and fall, prevailing winds are usually from the east, with varying wind patterns during the remainder of the year.

Water Bodies and Wetlands

Of the limited natural resources in City, waterbodies may be the most evident, if not the most appealing. In August of 1995 the Oleta River, part of which runs through the City, was identified as a Natural Resource of Regional Significance in the South Florida Regional Planning Council Strategic Regional Policy Plan [Policy 3.1.3, page 68]. In addition, the C-9 Canal, Maule Lake, Skylake, and other water bodies provide recreational opportunities and aesthetic appeal to the City's residents. These water resources are further described in this section.

Fresh Water

The Snake Creek Canal, which bisects the City from west to east, is the most significant fresh water resource in the City. As one of the nine major canals within the Miami-Dade County drainage system, Snake Creek drains water from the interior conservation areas into Maule Lake and the Oleta River, which in turn channels water to Biscayne Bay (see Drainage Sub-Element for additional information on the functioning of this canal). Skylake and the Aqua Bowl are the other two major fresh water bodies in the City.

Estuaries

These water bodies are valuable ecological systems in which fresh water mixes with sea water. Two estuarine water resources are located within the City of North Miami Beach--Maule Lake and the finger inlets of the Eastern Shores area. The Intracoastal Waterway, the Oleta River and Dumfoundling Bay also represent significant adjacent estuarine boundaries with mangrove wetlands. The City of North Miami Beach retains jurisdiction over the Oleta River from Sunny Isles Boulevard to N.E. 175th Street. The City can control activities and construction both on the shoreline and within the water area. Some estuarine intertidal scrub is located along Biscayne Boulevard south of the State Park.

See Coastal Management Element for more in-depth analysis of pollution and means for protection or mitigation. These are major recreational areas.

Wetlands

The only significant wetland in the City, a parcel of land surrounded by Oleta River State Park and known as the Terama Tract, is owned by the State of Florida. The parcel consists of 14.5 acres of mangroves and estuarine waterways. It is designated for use as recreation and open space and will be protected and preserved by the State. [F.A.C. 9J-5.013(3)]

Air Quality

The City's location close to the ocean, when coupled with the prevailing easterly winds, results in generally satisfactory air quality. Air pollutants which effect North Miami Beach are produced both within and outside the City. The United States Environmental Protection Agency (EPA) has established Ambient Air Quality standards for several important pollutants. These standards were developed pursuant to the 1977 Clean Air

Act. The Act established maximum concentration limits of certain pollutants. In order to comply with the Act, Miami-Dade County and the Florida Department of Environmental Regulation established several air quality monitoring stations to determine compliance. There have been no recorded exceedances of any National Ambient Air Quality Standards in Miami-Dade County since 1991.

In April of 1995, the EPA approved Miami-Dade County's redesignation as an ozone attainment and maintenance area. The County must maintain all emission reduction programs currently in effect as well as maintain emissions at or below 1990 levels through the year 2005.

Floodplains

Map 1.3, Volume Four, illustrates the location of Flood Hazard Areas in the North Miami Beach area. The majority of the community lies outside of both the 100-year and 500-year floodplain. Only those areas adjacent to Snake Creek Canal, and the Eastern Shores and Highland Village neighborhoods pose significant flooding threats in the event of a 100-year frequency storm event. These areas are now almost entirely developed and present few opportunities for mitigation other than through use of the land development code.

Soil Erosion

Although North Miami Beach land areas are not threatened with significant erosion potential, difficulties occur in the surrounding bays and lakes. Dredged depressions and channels are susceptible to erosion along their edges between the deeper channels and shallow bay bottom. Informal channels are especially impacted. Boat traffic and increased water circulation triggers erosion of dredged banks. Marine patrol enforcement of speed limits is the principal mitigation.

Natural Habitat and Vegetative Communities

The forces of urban development have displaced and altered many of the region's natural habitats and vegetative communities. Most of the mangrove and wetland areas abutting Biscayne Bay have now been lost to dredge and fill activities or intensive development. The pine-palmetto forests, which were once the dominant type of vegetation in this area, have now largely disappeared.

North Miami Beach has been fortunate, however, to retain some natural vegetative associations and wildlife communities These areas are described below.

See appendix to Coastal Management Element for list of fish and invertebrates in the estuary and endangered wildlife species. See the analysis section of the Element for conservation and mitigation recommendations.

Recreationally and Commercially Important Fish and Shellfish

The fish and shellfish found in the surface waters and wetlands of North Miami Beach are an important aspect in the City's recreational appeal. There is no

widespread commercial use of such fish and shellfish as it concerns the City of North Miami Beach[9J-5.013(1)(a)(5)]

Wildlife and Marine Habitats

Mangrove estuaries, for example, are located in the eastern part of the community where they support a wide variety of birds and marine species including crabs, oysters, numerous species of fish, egrets, herons, cormorants, anhingas, ibis, spoonbills, osprey, pelicans, etc. The Oleta River is also rich in marine life including manatees. There are no substantial areas of unprotected wildlife habitat in the City as it is substantially built-out. The marine habitat that exists is limited to the few inland lakes in the City, the Snake Creek Canal, the Oleta River, and Maule Lake.

Vegetative Communities

Small stands of upland pines and palmetto forests are found interspersed amongst the residential and commercial development. However, the City is substantially built-out.

Hazardous Waste

The 1995 Miami-Dade County Evaluation and Appraisal Report for the Conservation Element (Figure VI-3) shows a number of potential sources of contamination from underground tanks within the City. Most are within the Biscayne Boulevard and S.R. 826 corridors. The County has expanded its monitoring and sampling activities and has performed several major studies of the impacts of landfills on ground water quality. The County is actively addressing the potential contamination of the acquifer and groundwater; see County Element.

Commercially Valuable Minerals

There are no known deposits of commercially valuable minerals in the City of North Miami Beach.

Analysis: Uses, Pollution, and Conservation/Protection Potential

The following section identifies the uses of, pollution affecting, and potential for conserving or protecting each of the natural resources described above. Uses could include commercial use, recreation, and/or conservation. [F.A.C. 9J-5013.(1)(b)]

Water Bodies and Wetlands

Uses

The Biscayne Bay estuary water bodies and wetlands are used for fishing, boating and serve conservation functions primarily the mangrove impact on the estuary. The Canal is used for flood control and recreational purposes. The scattered freshwater lakes are largely scenic.

Pollution

The estuaries surrounding North Miami Beach have experienced water pollution problems associated with drainage runoff contaminants. The problem is especially severe at the mouth of the Snake Creek Canal. Contaminants mixed with rain eventually drain into canals. Leaking sanitary sewer lines and septic tanks also discharge into the drainage canals. In areas with poor water circulation, quality becomes low. Maule Lake has experienced bacterial conditions that exceed federal water pollution guidelines. The other estuarine bodies experience contamination but are flushed and pollutants do not reach threatening levels. (See Coastal Management Element for more information).

Conservation Potential

The Coastal Management Element deals in depth with the conservation potential of the estuary including conservation fund acquisition, a zoning overlay district and other zoning controls, monitoring of park planning, marina siting controls, etc.

Air Quality

Uses

Not applicable.

Pollution

As described earlier in this element, Miami-Dade County has reached attainment status and will continue its emission reduction programs in order to further reduce the air pollution which is present. Carbon monoxide pollution is occasionally problematic due to the heavy urban traffic.

Conservation Potential

The City's principal role will be to facilitate highway improvements that will eliminate congestion, and continue to require landscaping of public and private lands.

Current programs administered by the Miami-Dade County Department of Environmental Resource Management's (DERM) Air Section and required as part of the County's maintenance plan include Stratospheric Ozone Protection (CFC) and Stage II Vapor systems for toxic pollutants. The maintenance plan is based on cooperation between the State Department of Environmental Protection and DERM's program and is managed in accordance with federal EPA requirements.

Floodplains

Uses

The full range of land uses is found in the two principal floodplain areas.

Pollution

The flood plain is fully developed. As a result, any flood waters have the potential to be polluted with the associated urban run-off.

Conservation Potential

The City has a floodplain code which will be reviewed as part of the development code review process. Most of the estuary preservation policies also speak to floodplain protection e.g. mangrove preservation.

Soil Erosion

Uses

Not applicable.

Pollution

As there are no agricultural lands in the City, the pollution of the soils is strictly the result of urban uses. No major soil pollution problems are known to exist. The City is interested in the maintenance and environmental redevelopment of shorelines.

Conservation Potential

Monitoring of County/State marine patrol performance and shoreline protection are the principal potentials.

The City has established a stormwater utility to better define the existing stormwater system, identify deficiencies, and recommend ways to address problematic drainage areas. Criteria have been developed to rank and prioritize problem areas and proposed improvements. Best management activities have been identified. The stormwater utility projects will help prevent soil erosion.

Wildlife and Vegetative Communities

Uses

Largely natural areas within the County and State parks.

Pollution

Those natural areas within the City that are not part of County or State parks are no longer pristine due to the urban nature of the environment. Pollution often exists in the form of debris.

Conservation Potential

Monitoring park planning activities plus the proposed zoning controls and possible acquisition of the mangrove areas as noted above under wetlands. Acquisition of any undeveloped land by the City for use as recreation and open space will result in scheduled maintenance, thus combating the accumulation of urban debris and

increasing protection of the natural area. Furthermore, as appropriate, buffers will be placed around the perimeter of such lands for protection purposes.

Commercially Valuable Minerals

Uses

Not applicable.

Pollution

Not applicable.

Conservation Potential

Not applicable.

Water Needs and Sources

An intergovernmental agreement and cooperative effort between the City of North Miami Beach Public Utilities Department and Miami-Dade County's Water and Sewer Authority is used to provide water to Northeast Miami-Dade County. The following briefly describes potable water sources, aquifer recharge, demand for water, and water conservation activity.[9J-5.013(1)(c)]

Potable Water Sources and Aquifer Recharge

The City does not contain any aquifer recharge areas. Drawing water from the ground is discouraged because of the shallow water tables and risk of salt water intrusion, especially during times of drought.

All wellfields are located west of North Miami Beach. The Miami-Dade County Water and Sewer Department (WASD) and the City both supply water, which is then distributed by the City. WASD is in the process of upgrading the distribution system to allow delivery of additional amounts of potable water. The completion of this improvement will upgrade overall system functions and flexibility throughout the northeast quadrant of the County. The City has drilled new wells near the Turnpike to assure greater quality and quantity than the existing wells near I-95. The old wells in the eastern part of the City are no longer used thereby helping combat further salt water intrusion into the groundwater. As the City contains no recharge area, special recharge protection measures are not necessary. Additional information is found in the Infrastructure Element.

Water Needs

The current demand on the City's water supply system (serves more than the City itself) is about 30 million gallons per day or 150 gallons per person per day. Total demand for water is growing at a rate of about 1 percent per year. No substantial demand increases are anticipated from the City itself during the 1989-1999 period for three reasons. There are no large tracts of undeveloped residentially designated land, the small industrial area

has no vacant land, and there is no agricultural land. The slight population increases that may occur as a result of changes in the average household size are not expected to create a substantial change in the demand for water. With no increase in water purchased from the County, the City can provide 30,000,000 gallons per day. See Infrastructure (Potable Water) Element for more details. Water quantity has not been a problem. Quality has not been a problem since the supply wells have been west of I-95 but in anticipation of possible septic tank effluent problems, new wells have been drilled closer to the Turnpike.

Water Conservation

The fact that water is supplied by both the City and the County results in the potential for water conservation on both levels as well as on the regional level, as determined necessary by the South Florida Water Management District.

City

As noted on page 4.12 in the Infrastructure Element, due to a unique combination of a court order and water quality considerations, a water conservation program (other than during droughts) is counter-productive and unworkable.

Miami-Dade County

Efforts to conserve potable water are evident in a variety of areas. One method includes the reuse of "gray water" used to wash the water plant filters. The recycling of this water saves approximately 7 million gallons per year. An additional 900,000 gallons per day is saved by reclaiming the water from the lime sludge produced in the water softening process.

There is potential for the use of treated wastewater effluent for irrigation, particularly near the coast where well water is unavailable; golf courses and landscaping would be prime candidates.

The County is promoting xeric landscaping (i.e. the use of plants which require little or no irrigation) to conserve water. The amount of treated potable water that can be conserved through this method has not been determined.

Finally, public education programs can increase awareness about the importance of water conservation as well as techniques for saving.

The South Florida Water Management District Water Shortage Plan

This has been adopted by Miami-Dade County and will be observed by the City. Whenever water shortages become imminent, SFWMD may declare a water emergency and require special water conservation measures. Phase I involves voluntary reduction of water use through reduction of car washing and lawn sprinkling. Phase II makes conservation mandatory with fines for violations of water use restrictions.

Recreation and Open Space and Educational Facilities Element

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VII. Recreation And Open Space Element and Educational Facilities

Recreation and Open Space Data and Analysis

Parks and open space areas make urban life more enjoyable. They provide space for the pursuit of recreation and leisure-time activities, and they offer quality of life opportunities. Active and passive recreation activities contribute to the physical and psychological well-being of individuals. Community recreation activities allow patrons the opportunity to participate with groups and share common experiences. The City of North Miami Beach offers many recreation facilities, neighborhood parks, and natural open spaces. (See Map 7.1, Volume Four)

Recreation Programs

The City of North Miami Beach offers a wide array of recreation programs and services for all ages including cultural, environmental, educational, and aquatic activities, day care, organized sports, after-school care, teen and at-risk youth programs, and events for adult and senior citizens.

Recreation or Activity-Based Facilities

The City of North Miami Beach owns and operates many developed recreation facilities in the city. These facilities are :

Allen Park/DeLeonardis Youth Center

1770 NE 162nd Street, 4.2 Acres

Facilities

- Sports complex
- Indoor gymnasium
- Boxing room (boxing ring)
- Weight training room
- 3 Upstairs meeting rooms
- Multi-sport athletic field (lighted)
- Tot lot

Comments

The facility serves as a multi-sport venue for the North Miami Beach Optimist Club.

Uleta Park and Community Center

16880 NE 4th Avenue, 3.0 Acres

Facilities

- Indoor gymnasium
- Office area
- Arts and crafts room/meeting room
- Uleta Playschool Room (partitioned multipurpose room plus storage room)
- Outside multi-purpose court with 4 basketball hoops
- Orseck Field (lighted baseball field)
- Uleta tot lot/1 chickee hut (playground equipment for preschoolers and elementary age children)
- Heated 25 yard swimming pool

Comments

This facility is home to a highly regarded after-school care program. Orseck field at Uleta is home to Optimist Baseball.

Judge Arthur I. Snyder Tennis Center

16851 W. Dixie Highway, 10.5 Acres

Facilities

- 12 hydrogrid, clay courts (six with lights)
- 6 lighted lay-kold hard courts
- Pro Shop/Clubhouse
- Lounge and shower facilities
- 4 short, three-wall racquetball courts
- 2 two-wall paddleball courts
- picnic area

Comments

The facility was renovated and beautified in 1996. As a result, the facility is once again the site of the prestigious Junior Orange Bowl Tennis Tournament.

Victory Park/Government Center

17011 NE 19th Avenue, 10.3 Acres

Facilities

- 2 outdoor basketball courts (lighted)
- 1 sand volleyball court
- tot lot constructed in 1996
- state of the art tot-lot for pre-schoolers to 12-year-olds constructed in 1996
- Safety City (a miniature city designed to teach elementary-age children traffic safety)
- Olympic size swimming pool, diving well and wading pool
- City Hall
- Police Headquarters, two-level parking garage, motor pool
- Employee and Public Parking
- North Miami Beach Performing Arts Theater (further described below)
- William and Marjorie McDonald Center (further described below)

Comments

During 1995/1996 the Victory Park/Government Center Complex was expanded and enhanced as part of Public Safety 2000, a $13,000,000 bond issue. The expansion included the purchase of additional land, construction of a state-of-the-art police station with a 2-story parking garage, major renovations to and expansion of the recreation and park facilities, and overall improvements to the facility in terms of aesthetics and function.

Safety City was created during the 1980s as a joint venture between the City of North Miami Beach and the local Kiwanis Club. Safety City is a scale model city designed to teach traffic safety to elementary school children. In 1987, it received the State Citizens Initiative Award.

Washington Park and Community Center

15290 NE 15th Court, 1.6 Acres

Facilities

- Community center building
- 2 activity rooms
- 1 office area with kitchen

- Baseball field (lighted)
- Tot lot (playground equipment for preschoolers and elementary-age children)
- Outdoor basketball court
- Multi-purpose court area
- 20-yard swimming pool

Comments

Washington Park Center is the site of local Kwaanza, Martin Luther King Day, and Heritage Day celebrations.

William and Marjorie McDonald Center at Victory Park

17051 NE 19th Avenue

Facilities

- Multi-purpose building
- Auditorium with a stage and kitchen area
- Lounge area
- Classrooms
- Office area
- Gazebo

Highland Village Community Center

13621 NE 21st Avenue, 2.3 Acres

Facilities

- Building with meeting room, kitchen area, office, and bathrooms -- renovated and expanded by 800 square feet in 1996
- Tot lot area (playground equipment for preschool and elementary-age children)
- Multi-purpose field
- 4 shuffle board courts
- Outdoor sand volleyball court
- Lawn bowling
- Outdoor basketball court

- Picnic tables

Aqua Bowl/Taylor Park

15450 W. Dixie Highway, 19.9 Acres

Facilities

- Baseball field (lighted)
- Picnic are by lake at NE 16 Avenue and NE 157 St.
- Hazel Crawford Day Care Center
- West Dixie Community Center/NMB Optimist Clubhouse

Comments

Aqua Bowl Park on West Dixie Highway is home of the Hazel Crawford Day Care Center and the West Dixie Community Center. It also serves as headquarters for the North Miami Beach Optimist Club.

North Miami Beach Performing Arts Theater at Victory Park

17011 NE 19th Avenue

Facilities

- 931-seat full service theater (392 permanent seats, 539 retractable)
- Meets ADA requirements
- Concession stand/kitchen
- Box Office

Harry Cohen Complex

NE 16 Avenue north of NE 164th Street, 12.0 acres

North Miami Beach/Gwen Margolis Amphitheater, 16501 NE 16 Avenue

- 1000-patron capacity counting seats and grassy incline
- multi-purpose stage with canvas roof
- handicapped accessible
- sound system
- dressing rooms/restrooms

Challenger Park

- All Wars Memorial

- 2 gazebos
- Restrooms
- Boat Ramp/fishing dock
- Bicycle/jogging path
- Walk bridge over canal

City of North Miami Beach/Lafe Allen Public Library
1601 NE 164 Street

- 23,000 square foot library
- addition and full-scale renovation completed in 1994/1995
- meeting rooms seating up to 100
- seating in main library for 150
- book volume capacity of 83,000

Existing Open Space Including Resource-Based Parks

The City of North Miami Beach maintains several landscaped open space areas in the community. The city's most prominent open space resource is 12 acre Harry Cohen Complex along the Snake Creek Canal. Picnic benches, a bicycle path and shelters have been added to the western banks of the canal and plans are now being developed to provide similar amenities on the eastern side of the canal. This will facilitate greater use of the existing footbridge which extends from Challenger Park across the Canal to the eastern side. The centerpiece of active recreation in the City is the newly renovated and expanded Victory Park.

Other open space resources in the community include landscaped traffic medians, the landscaped areas surrounding the Government Center Complex and other City facilities.

Table 7.1 Recreation Facilities, Parks, and Open Space Areas within the City of North Miami Beach

City owned and staffed recreation facilities	Acres
Victory Park in Government Center, 17011 NE 19th Avenue	♦10.3
Washington Park Community Center, 15290 NE 15th Court	♦1.6
Allen Park/DeLeonardis Youth Center, 1770 NE 162nd Street	♦4.2
Harry Cohen Complex, 16501 NE 16th Avenue	♦12.0
Highland Village Community Center, 13621 NE 21st Avenue	♦2.3
Judge Arthur I. Snyder Tennis Center, 16851 West Dixie Highway	♦10.5
Old Police Building, NE 171 and NE 19 Ave.*	♦1.9
Uleta Community Center, 16880 NE 4th Avenue	♦3.0
New Athletic Fields on NE 167 Street at NE 21 Ave.*	♦4.1
Total	**49.9**

City maintained open space	Acres
Hosea Sauls Park, Miami Drive at NE 159 Street	0.8
Dolphin Park, NE 3rd Avenue at NE 170 Street	0.1
Jack Chaiken Park, NE 22nd Ave. at NE 171/172 Street	0.1
NE 3rd Court Park, at NE 170 Street	0.1
Schreiber Promenade, NE 172nd St. & South Glades Drive	0.2
Edna Moffat Boulevard, NE 172 St./NE 19 Ave. to NE 15 Ave.	1.7
Lucienda Neal Park, NE 152 Terrace at NE 14 Avenue	0.1
Bonham Park, NE 158 Street at NE 12 Avenue	0.1
Carter Tyree Park, NE 15 Avenue at NE 162 Street	0.1
Total	**3.3**

School with playground and recreation area	

City owned and maintained parks	Acres
Martin Luther King Park, NE 16th Avenue and 155th Terrace	♦1.5
Schenkenberger Park, 169th Street & North Glades Drive	0.2
Taylor Park, NE 18th Ave. from 151 to 154 Ter.	♦19.9
Milton Littman Park, Miami Gardens Drive & NE 6th Ave.	0.8
Snake Creek Canal Linear Park (South/West Side of Canal)	♦3.5
The 19th Place Park, NE 19th Place & NE 160th Street	♦1.1
Total	**27.0**

County owned and operated parks	
Arch Creek Park, 1855 NE 155 Street*	10.0
East Greynolds Park, Biscayne Boulevard at NE 168 St.	58.0
Total	**68.0**

State owned and operated parks	
Oleta River State Recreation Area (Terama Tract)	14.5
Total	**14.5**

Total Recreation and Open Space in City	Acres
City owned recreation facilities	49.9
City owned parks	27.0
City maintained open space	3.3
County owned parks	68.0
State Owned Parks	14.5
Schools with park facilities	3.0
Cumulative Total	**165.7**

Greynolds Park Elementary School, NE 15 Ave. at NE 179 Street	3.0
Total	**3.0**

Source: City of North Miami Beach, 1996

TOTAL ACRES PER 1000 AT 38,057 POPULATION	**4.4**
NEIGHBORHOOD PARK ACRES/1000 @ 38,057 POPUL.	**2.0**
♦Neighborhood Parks (total acres = 75.9) *proposed	

Private Recreation Facilities and Open Space

There are many private leisure service providers in North Miami Beach and the surrounding areas. These private recreation sites include theaters, bowling centers, amusement parks, miniature golf courses, game rooms, private fitness clubs, etc.

The following are just a few private leisure service providers in the area:

- Michael Ann Russell Jewish Community Center, 18900 NE 25th Avenue, NMB
- Bally Total Fitness, 3455 NE 207th Street, Aventura
- Bally Total Fitness, 16720 NE 6th Avenue, North Miami Beach
- Aventura Beach Club, 19201 Collins Avenue
- Mini-golf, 200 NW 167 Street
- Miami Ice Arena & Skating Rink, 14770 Biscayne Boulevard
- Turnberry Isle Resort and Club, 19999 West Country Club Drive, Aventura
- Oceania Health Club, 16425 Collins Avenue
- Quayside, 10670 NE Quayside Plaza
- Olympia Gym and Fitness Center

  20311 Biscayne Blvd. and

  14736 NE 6th Avenue, North Miami

County and Regional Recreation Facilities and Resources

Residents of and visitors to North Miami Beach rely heavily on regional recreation and open space attractions for their leisure time activities. Several such regional attractions exist in close proximity to the City. In addition to the City parks and private facilities described above, the Miami-Dade County Parks and Recreation Department, for example, operates Haulover Park, a beachfront/waterway facility located directly east of the city on the barrier island. The following areas, when combined with the county parks located elsewhere in Miami-Dade County, provide a wealth of recreation opportunities within minutes of North Miami Beach.

GreynoldsPark

Greynolds Park is the largest and most prominent County-owned recreation facility in the area. Located off West Dixie Highway adjacent to North Miami Beach in unincorporated Miami-Dade County, Greynolds Park encompasses approximately 170 acres of developed open space and includes picnic facilities and a nine-hole, public golf course.

East Greynolds Park

East Greynolds Park, located just south of Greynolds Park, is a 58-acre open space park with picnic, water overlook and natural preservation areas. A canoe dock/ramp is planned. It has about 1,500 lineal feet of accessible frontage along the Oleta River (the northeastern area is accessible only by boat). It is within the City limits.

Arch Creek County Park

A 10 acre wooded park with picnic facilities is located within the City limits at the southern boundary next to the railroad. There is no access to the Creek due to the road pattern.

Oleta River State Recreation Area

An 850 acre park along the City's southeastern edge (in unincorporated Miami-Dade County) this park is largely a natural mangrove preserve but does provide waterfront boat access to the Oleta River picnic/camping areas and a beach is planned.

Oak Grove Park

Located on NE 159th Street, Oak Grove Park is a 22-acre community park with tennis, baseball, and tot-lot play areas. The facility also includes a civic center building. It is in unincorporated Miami-Dade County.

John F. Kennedy Jr. Middle School

The recreation area adjacent to J.F.K. High School, located at 1075 NE 167 Street, includes basketball courts and general open space area. Not in City.

North Miami Beach Sr. High School

This 10-acre recreation area, located at 1247 NE 167th Street, includes basketball, baseball and football facilities, as well as landscaped open space area. Not in City.

Sabal Palm Elementary School

Sabal Palm Elementary is surrounded by a five-acre open space area, with a tot-lot and basketball play area. Not in City.

Greynolds Park Elementary School

Located on NE 179th Street, Greynolds Park Elementary includes basketball goals and play areas. Is in City.

Fulford Elementary School

The school is located in the City on NE 18th Avenue and NE 161st Street. There is no recreation and open space availability at this site. The school uses Allen Park for physical education classes and uses the tot lot at Allen Park as a play area. The City recently vacated right-of-way previously used as a public street adjacent to the school in order to create an expanded area for the school's recreation activities.

Recreation And Open Space Needs Assessment

The City's Parks and Recreation Department has maintained and enhanced the quality and selection of community recreation programs and facilities in recent years. The City-owned parks and facilities when combined with the county and regional recreation resources offer local residents an adequate and impressive variety of leisure-time opportunities.

- The migration of residents to the City following Hurricane Andrew, along with general demographic changes that have resulted in more families with children and more cultural diversity in the City, have led to greater demands on the City's parks and recreation facilities and programs. The City anticipates that population will continue to increase slightly as such trends continue. Although state population estimates do not, in the City's opinion, accurately reflect the number of residents in the City -- especially children -- two needs have been identified. Those needs -- one tennis court and one baseball field -- are noted in the level of service summary found in Table 7.1. Fulfillment of these needs is a high priority for the City.

Table 7.2 shows the existing level of service for City owned facilities based upon the 1990 census population of 38,057.

Table 7.2: Recreation and Open Space Needs

Recommended Level of Service Standards ("Outdoor Recreation in Florida, 1994")	Suggested L.O.S. based on 38,057 residents	1996 Actual	Analysis based on suggested standard
2 Acres Neighborhood Park/1000 residents	76	76	Meets Standard
1 Tennis Court/ 2,000 residents	19	18	Add 1 Court
1 Basketball Court/ 5,000 residents	7.6	12	Exceeds standard
1 Tot Lot/ 10,000 residents	3.8	8	Exceeds standard
1 Auditorium 12,000 residents	3.2	4	Meets standard
1 Ballfield/ 5,000 residents	7.6	7	Add 1 field
1 Swimming Pool/ 25,000 residents	1.52	3	Exceeds standard

Source: North Miami Beach Parks and Recreation Department, 1996

Level Of Services

By comparing existing service levels with the service standards recommended by the State, it can be seen that the City's facilities currently meet or exceed these standards except in two areas. Addressing the need for playing fields and a tennis court is currently a City priority. In addition, the potential need for additional neighborhood parks is also being analyzed by the City and high priority has been given to continuing improvements to and extensions of its linear parks and greenway corridors. (See Map 7.2, Volume Four)

- In light of the excellent level of services and facilities already being provided, another important future need is the maintenance of facilities and programs.

The Library

This important leisure-time and educational facility is located on NE 164th Street at NE 16th Avenue. Florida Public Library Standards call for 0.6 square feet of building area per capita. The present library, as a result of the recent addition and renovation, exceeds this standard (see Table 7.3). However, the library serves not only North Miami Beach residents, but many thousands more individuals from unincorporated Miami-Dade County who are within very close proximity. Because of the trend toward youth and cultural diversity in the City and the fact that the Library serves a larger population than

the City alone, another expansion is under consideration. The addition would be 5,000 square feet of space specifically for children.

In addition to the building area per capita ratio described above, the Library evaluates its operation and future needs in terms of 7 other service standards set forth by the Florida Library Association and comparisons of its expenditures per capita to state-wide expenditures per capita (Table 7.4).

Table 7.3: Library Service Standards

Recommended Level of Service Standards (Florida Library Association, 1996)	**Suggested L.O.S. based on 38,057 residents**	**1996 Actual**	**Analysis based on suggested standard**
0.6 square feet of library space/resident	22,834	23,000	Exceeds standard
Basic Service Level = 2 volumes per capita	76,114	63.68	Add 18,026 Volumes.
Full Service Level = 4 volumes per capita	152,228	18.0	Add 94,140 Volumes.
3 magazines or newspapers/ 1000 residents	114	7.0	Exceeds Standard
5 MLS librarians/25,000 +1/8,000	7	8.0	Exceeds Standard
2 support staff per librarian	9	4.0	Add 5 support staff
35% of population have library card	13,320	5,955	Add 7,365 cardholders

Source: North Miami Beach Library, 1996

Table 7.4: Library Statistical Comparison

Description of Statistic	Florida Fiscal Year 95	City Fiscal Year 1995	City Fiscal Year 1996
Library Expenditures/ capita	$17.34	$25.54	$25.39
Library Items/capita	2.4	2.56	1.64
Circulation/capita	5.19	2.77	3.11
Reference Questions/ capita	1.28	0.7	1.04
Library Visits/ capita	3.86	3.71	4.3
Program Attendance/capita	0.28	0.09	0.12

Source: North Miami Beach Library, 1996

Maintaining and improving the services provided by the Library remains a high priority for the City. In recent years the City has expanded the hours of operation and greatly enhanced the computer systems at the Library. In 1995 the Library completed a plan for the years 1996-2000 establishing goals, objectives, and policies for continuing to meet or exceed Florida's Standards for Public Libraries.

Intergovernmental Coordination Element

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VIII. Intergovernmental Element

Introduction

The purpose of this element is to assess the other elements in terms of key policies or programs that require interaction with another governmental agency. The analysis is intended to facilitate implementation of recommendations that are beyond the sole responsibility of North Miami Beach officials.

The matrix on the next page provides a summary inventory of these issues and the jurisdictions involved. The City's coordination with some of these agencies is informal, using the telephone and meetings when necessary.

The Analysis section concentrates upon those intergovernmental coordination items that are most important for implementation of this plan.

Intergovernmental Coordination Matrix

Existing Relationship of Each Agency In Matrix To City

Miami-Dade County

- Land Use: The City's Comprehensive Plan draws heavily from the data collected and analyzed by Miami-Dade County for their own Comprehensive Plan. Although the City maintains its own Future Land Use Map and amends it as appropriate to facilitate the planned development and redevelopment of the City, the County does review the amendments in terms of their potential consequences on County services and land use patterns.

- Annexation: Miami-Dade County has the ability to direct, if not control, annexations as it deems appropriate since the County Commission must approve annexations by majority vote. The City has investigated many potential annexations since 1993 and passed a resolution approving the annexation of those properties on the South side of NE 167 Street from NE 8 Avenue to I-95. However, the County adopted a moratorium on annexations and is attempting to develop a workable solution to what has become one of the most politically involved issues in the County.

- Traffic: Miami-Dade County's Traffic Engineer is, according to the Charter by which the County was established, responsible for all streets in the County, whether within a municipality or not. The County has taken the position however, that the responsibility for maintaining and reconstructing those roads lies with the City and that the charter only requires that modifications be approved by their traffic engineer. The issue to which this has the most relevance is street closure requests and the process of approving them. Miami-Dade

County has adopted, on a trial basis, an application procedure. The City believes the process is too cumbersome for a neighborhood to overcome. The City also believes the County has taken away its ability to develop solutions to what most neighborhoods believe is their biggest problem -- speeding and cut-through traffic.

- Housing: The City applies for federal Community Development Block Grant funding from the H.U.D. through the County's Community Development Department. The City rehabilitates dilapidated housing with such funds.
- Infrastructure: Many construction permits, whether for public or private work, require approval of various County agencies, including the Department of Environmental Resource Management (DERM), the Water and Sewer Authority (WASA), and the Public Works Department. All public infrastructure improvements, such as drainage projects, that the City constructs are reviewed as required.
- Coastal Management and Water Resources: The County oversees the coastal management and many of the water resource needs in the City. The City has very limited influence in these areas, but attempts to contribute to the conservation of resources as well as the safe management of population in the coastal area.
- Conservation: The City has supported and will continue to support the County's efforts to obtain what little natural land remains in the City. Until recently, the City has not specifically attempted to set aside land for conservation.
- Recreation: Shared facilities with the Miami-Dade County School Board.

Regional Planning Council:

- Staff coordination via meetings and City attendance at RPC meetings.

Water Management District:

- Review of certain kinds of permits.

Intergovernmental Coordination Matrix

	Miami-Dade County	South Florida Regional Planning Council	South Florida Water Management District	State	Federal	Private
Future Land Use	• Adjacent Land Use Designations • Annexation	• Consistency with Regional Plan		• DCA: conformance with Growth Management Act • Department of State, Division of Historic Resources: historic sites		
Traffic	• MPO and Public Works: Road Improvements • Transit: rapid rail line, bus system			• FDOT Improvements: Biscayne Bolevard • Miami Gardens Dr. • US-1 & S.R. 826 interchange		
Housing	• County H.U.D.: Housing and CDBG Programs			• Department of State:, Division of Historic Resources:historic sites		
Infrastructure	• Water & Sewer Dept. • DERM Drainage Review • Fire Department Review • Public Works: Solid Waste • Health Dep.: Septic Tanks		• Drainage Permit Review	• Department of Environmental Protection • FDOT Improvements	• Environmental Protection Agency • Corps of Engineers	• FPL • BellSouth • People's Gas • TCI
Coastal Management	• Office of Emergency Management: Evacuation Planning • Shoreline Review	• Consistency with hurricane plans	• Permit Review	• Natural Resources: Mangrove Permitting		
Conservation	• Marine Police: boat speeding and contamination			• Natural Resources: Mangrove Permitting	• FEMA: Flood Plain Protection	
Recreation	• Parks and Recreation Department: County Parks • School Board: School playfields & development			• Department of Children and Family • FCT, DEP • Universitiy System		

Note: The City of North Miami shares several blocks of common boundary with North Miami Beach. The land uses (existing and proposed) are compatible. Each City is provided an opprotunity to review and comment upon development plans for land in the other City which is adjacent or on the Biscayne Boulevard Corridor.

State

- DCA: frustrating since DCA reviewer for adoption does not agree with DCA reviewer for contract compliance (and related City-DCA meeting in Tallahassee).
- Historic Resources: none
- FDOT: See page 8.6
- DER: none
- DNR: none

Federal

- FEMA: monitoring of City development controls

Private

- Utility company coordination of plan reviews with City on all major construction projects.

Analysis

Future Land Use Element

Issue #1: The County Enclave

Description

The northwestern part of the City completely surrounds a sizable area of unincorporated Miami-Dade County. This enclave results in an inefficient delivery of municipal services to the northern part of the City and confusion as to responsibilities in the enclave.

Responsible Offices

City Manager, Attorney and Council working with County Attorney and Commissioners.

Analysis, Effectiveness and Recommendation

Since annexation is probably not feasible during the five-year planning period, the City will explore participation in the pilot program whereby City services are provided to enclave areas. A formal agreement of this nature is under discussion and proceeding effectively.

Traffic Element

Issue #1: Road Widening

Description

State officials plan to widen at least one arterial in North Miami Beach in order to achieve a higher future level of service. City officials feel that widening Biscayne Boulevard is important to the City's future welfare, particularly the Biscayne intersection with Miami Beach Boulevard/Sunny Isles Boulevard.

Responsible Offices

The City Council, City Manager and Public Works Department working with the Miami-Dade Public Works Department, Metropolitan Planning Organization and State DOT.

Analysis, Effectiveness and Recommendation

City officials should continue to work with County and State officials to maintain this project as high priority. The Director of Public Works has been maintaining an effective dialogue with several FDOT project chiefs. The City will continue to officially communicate with the MPO relative to ways to improve traffic flow on Miami Gardens Drive without the need for widening; its deletion from County plan shows effectiveness of coordination.

Housing Element

Issue #1: Housing Assistance Programs

Description

Reinstate the availability of housing rehabilitation funding from County and Federal agencies in order to successfully revitalize the Washington Park neighborhood. It is shown in the 1988 County Comprehensive Plan as a Conservation Area.

Responsible Offices

The City Planner working with County Department of Housing and Urban Development.

Analysis, Effectiveness and Recommendation

City officials should work more closely with County officials in order to assure continued revitalization assistance, particularly their low interest housing rehabilitation loan program. A formal request by the City will be initiated prior to 1990 to reinstate the eligibility or otherwise reactivate the rehab program in the Washington Park neighborhood.

Infrastructure

Issue #1: Water and Sewer Lines

Description

The City utilizes water from the County for some of its water supply. The City is about to initiate its first sanitary sewer collection system installation although WASD will continue to handle all treatment.

Responsible Offices

The City Manager and Public Utilities Department working with the Miami-Dade Water and Sewer Department.

Analysis, Effectiveness and Recommendation

Evolve a long-term City-County sewer collection system plan to assure adequate and coordinated service; maintain the water supply agreement. Formal agreements already exist. The City's proposed sewer installation was the subject of the most recent agreement and is proving effective.

Issue #2: Solid Waste

Description

The City relies upon the County to accept its trash and garbage at the transfer station and ultimately dispose of it. Although not a problem now or even in the foreseeable future, nevertheless this requires full coordination.

Responsible Offices

The City Department of Public Works working with the Miami-Dade Public Works Department.

Analysis, Effectiveness and Recommendation

The City should monitor the transfer facility capacity and generally assure themselves of the future ability to utilize the County transfer and disposal functions. The Public Works Director maintains such a dialogue with the County in addition to their formal agreement and it has proved effective.

Coastal Management

Issue #1: Access to Coastal Waters

Description

The City's only points of public access to the tributaries of Biscayne Bay are through County and State parks.

Responsible Offices

The City Manager working with the State Department of Natural Resources and the Miami-Dade Park and Recreation Department.

Analysis, Effectiveness and Recommendations

Work with County and State park officials to maintain and expand public access to these waters while also being sensitive to preserving mangroves and other natural shore lines. Do this by monitoring State and County park improvement programs, and then corresponding with public officials if satisfactory progress is not evident. There is currently little formal liaison i.e. ineffective.

Issue #2: Storm Evacuation

Description

North Miami Beach is an important hurricane evacuation corridor from the barrier island.

Responsible Office

City Manager and Police Chief working with the County Office of Emergency Management.

Analysis, Effectiveness and Recommendations

Continue to closely coordinate evacuation plans over the causeway plus related feeder streets and shelters, through review of County plans and meetings with County officials. Has proven effective thus far.

Issue #3: Marina Pollution

Description

Marinas need to be monitored to assure that there is no paint removal, sewage dumping or other pollution sources impacting the estuary.

Responsible Office

City Manager coordinating City enforcement agencies with Florida and Miami-Dade County Marine Patrols.

Analysis, Effectiveness and Recommendations

There is a need for periodic City reports to County agencies to determine any problems they have found; this has not occurred to date.

Recreation

Issue #1: Supplemental Recreation Facilities

Description

Although the City has extensive park facilities, it also counts upon school grounds and several County parks for supplemental facilities particularly waterfront facilities. It is important that these facilities remain available.

Responsible Offices

City Park and Recreation Department working with Miami-Dade Park and Recreation Department and Miami-Dade County School Board.

Analysis, Effectiveness and Recommendation

Maintain liaison with County park officials to assure complimentary nearby facilities. Consider a joint use agreement with school officials for use of the school grounds. Neither has occurred to date.

South Florida Regional Planning Council Policy Plan

There are three provisions in the SFRPC plan that have special significance for North Miami Beach.

Traffic

The regional plan recommends a level of service of at least D during peak hours in Miami-Dade County. This poses a problem for North Miami Beach relative to N.E. 6th Avenue, I-95 and State 826 (none of which the State plans to widen further). However, the SFRPC plan allows for a "Special Transportation Area" with unique characteristics; level of service E is sanctioned therein. The City will explore this designation in concert with Regional Planning Council, and State and County officials; the latter also recognize that even E is not possible on some urban arterials.

Septic Tanks

The plan recommends that an area served by septic tanks and with lot sizes averaging 15,000 square feet or smaller should be served by sanitary sewers. Most of the City's lots are smaller than this. Although the plan does not require that existing houses on lots below this figure be sewered, it does suggest the long-range desirability of so doing.

Recycling

The Infrastructure Element contains Policy 1.1.7 recognizing the need for solid waste recycling.

Capital Improvement Element

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IX. Capital Improvement Element

Introduction

The purpose of this element is to summarize the capital improvement expenditure implications of any city public facility improvements recommended for implementation during the five years following completion of this plan (1998-2003) and provide a preliminary review of the ability to fund those improvements.

The Capital Improvements Plan (CIP), which includes costs, priorities, and funding sources, is found in Volume III of this Comprehensive Plan. The CIP is coordinated and produced by the City's Administrative Services Department. It is the result of cost and priority input from all City Departments. That input is prioritized on a City wide basis by a CIP Committee prior to presentation to the City Council. The CIP Committee includes representatives from the Community Development Department, Finance Department, Administrative Services Department, and City Manager's Office. The CIP is updated annually. Any capital improvement item which is not identified in the CIP can not be included in the City's annual budget. Similarly, any item which is inconsistent with or unsupported by the Goals, Objectives, and Policies in Volume One of this Comprehensive Plan can not be included in the CIP.

Inventory

Needs From Other Elements

Each element within Volume Two of this plan contains Goals, Policies, and Objectives which describe the approach the City intends to take in meeting the various needs and desires of the City, its residents, and its businesses. Implementation of the policies in order to obtain the stated objectives is dependent upon numerous factors, including funding availability, market forces, and adjustments to the City's outlook regarding its needs and desires.

The City uses a neighborhood approach as a framework for its Capital Improvement Plan. However, following is a summary of the capital improvement implications of each Comprehensive Plan Element. Supporting data and analysis is found through Comprehensive Plan Volume Two. Volume One contains the City's Goals, Objectives Policies.

Land Use Element

The Land Use Element contains a description of each neighborhood and mentions the most prevalent components within each neighborhood's improvement plan. The Land Use Element also contains four redevelopment areas (Highland Village,

University Park, Allen Park, and S.R. 826) where major capital improvement expenditures may be desirable.

Transportation Element

Items in the Transportation Element which are likely to have Capital Improvement Plan implications for the City include the proposed mini-bus system, the redevelopment of S.R. 826, the proposed bike path on the north/east side of Snake Creek Canal, and traffic calming measures within the residential areas of many neighborhoods.

Housing Element

First, the City's housing rehabilitation programs are included within the Capital Improvement Plan. Second, the establishment of a Housing Authority may have CIP implications in the future. Finally, the City has considered the possibility of CIP expenditures through grant funding to preserve historic structures. One of the City's oldest structures is a privately-owned, tenant-occupied house which was built with coral in the late 1920s. The house is within the newly redeveloped Government Center neighborhood.

Infrastructure Element

A large portion of the City's Capital Improvement expenditures consists of constructing, replacing, and maintaining infrastructure. These needs include sanitary sewer, storm sewer, roadways, sidewalks, water mains, fire hydrant, etc. The Capital Improvement Planning process is used to coordinate the infrastructure construction plans with other capital improvement items so that a neighborhood benefits from a major public investment when the construction occurs. The schedule and priorities for providing and replacing infrastructure are fully developed by the Public Services Department in accordance with the Policies in the Infrastructure Element.

Conservation Element

Three items within the Conservation Element have Capital Improvement Plan implications. First, the continued provision of sanitary sewers to replace septic systems will result in ground water quality benefits. Second, the development of a mini-bus system will result in air quality benefits. Third, the City's desire to acquire environmentally sensitive lands for preservation and passive recreation will require a funding source. Providing for passive recreational opportunities adjacent to Snake Creek Canal and connecting the Canal's greenway corridor to Diefenbach Park and the North Miami Beach Tennis Center is included in the Conservation Element.

Coastal Management Element

The Coastal Management Element includes a description of drainage projects within the Coastal Zone. The entire City is also within the Biscayne Bay Surface Water Improvement and Management (SWIM) Study area, which has resulted in past

funding of drainage projects. The acquisition of environmental lands in the Coastal area and increased access to waterways are also possibilities with CIP implications.

Recreation, Open Space and Educational Facilities Element

The Recreation, Open Space and Educational Facilities Element describes a number of priorities with Capital Improvement Plan implications. The acquisition of additional park space is mentioned along with the need for playing fields and a tennis court. The expansion of the Library and upgrading, maintenance, and replacement of recreational facilities throughout the City is included in the Capital Improvement Plan. Expanding the existing Bicycle path by constructing a 2.5 mile linear path along the north side of Snake Creek Canal from Miami Gardens Drive to West Dixie Highway, implementing improvements to the existing bike path, and constructing additional linear paths to form loops to various recreational areas within the City are included in the Recreation Element.

Intergovernmental Coordination Element

Projects with CIP implications that are likely to require extensive intergovernmental coordination include the proposed mini-bus project, annexation, redevelopment of the State Road 826 Corridor, and many of the infrastructure improvements that involve coordination with other agencies. Intergovernmental coordination often can assist the City in identifying funding sources.

The sources of the cost estimates included in the Capital Improvement Plan found in Volume III are the City department heads based upon in-house or consultant technical studies.

Other Considerations

Public Education

Two public schools are located within the City limits: the Greynolds Park Elementary School which serves the northeastern part of the City and the Fulford Elementary School which serves the southeast.

Public Health

No County or State public health facilities are located in North Miami Beach.

Financial Resources

The following constitute the principal potential financial sources for funding capital improvements:

Property or Ad Valorem Taxes
This is the source for over one quarter of the City's General Fund revenues. This source has grown as development continues to occur. It is the largest single source.

Federal Government
Earmarked Grants, as available, for transportation related infrastructure such as bicycle paths.

Fees and Licenses
The next largest source is dominated by the fees for sanitation pickup, although occupational licenses and building permit fees are also important. Recreation and other user fees are included herein. This category provides about 20 percent of the General Fund revenues.

Stormwater Utility Fees
A source of funds for capital improvement projects related to water quality and drainage which the City now has is the Stormwater Utility Funds.

Transfers From Other Funds
Another 20 percent of the General Fund revenues are utility taxes and franchise fees that go into a sinking fund for debt retirement.

Intergovernmental Revenues
This category is primarily sales tax revenues transferred from the State as well as other State funding. This provides about 16 percent of the General Fund revenues.

Miscellaneous
The remaining one quarter of the General Fund comes from a variety of services, fines, interest charges from other funds, etc.

Enterprise Funds
The City operates two such self-sustaining funds, one for water and one for sewers. Although water and sewer bonds have been used as a revenue source in the past, currently all capital improvements are financed by current revenues. These revenue sources are primarily water and sewer service charges plus "in-plant and fire flow" water fees that are in effect tie-in fees for new development. This is the City's only impact fee.

Other Potential Sources
Additional municipal sources include special assessments and general fund bonds (see subsequent discussion of this). The principal realistic State source is the DEP grant program for park improvements and a State library assistance

program. All relevant Federal funds now flow through the County or State (e.g. HUD CDBG funds for infrastructure) rather than to cities of less than 50,000.

Analysis

City Policies and Practices

Since North Miami Beach is an almost fully developed City with many facilities provided by the County, the policies relative to municipal improvements are largely geared to replacement and minor improvements more than major new facilities or a need for additional capacity.

The Public Services Department is responsible for the maintenance or improvement of many City facilities. All of the City Departments work with the Administrative Services Department and with the City Manager and City Council in determining improvement needs, including their timing and location, and then build this into the operating or utility budgets. The Recreation Director works with the Public Works Director in determining needed park improvements/renovations. In order to better serve the City's needs, a Public Services Building is being planned for constructiuon adjacent to City Hall.

Fiscal Implications of Deficiencies

The Inventory section above summarizes the municipal public facility needs cited in the plan. If deficiencies occur, the Capital Improvement Plan will be amended accordingly.

Based upon the Future Land Use Element, first priority will be given to the infrastructure improvements because they are part of an on-going program that will benefit both the environment and the neighborhoods.

Costs Estimates

Cost estimates are noted in the CIP and are based upon department head or City consultant studies.

The Future Land Use Plan itself does not have any direct capital project implications because of the minor nature of the changes.

Public Education and Health Care Facility Implications

The redevelopment of University Park is planned to include rehabilitation of the vacant university for use as a high school focusing on biomedical and biotechnical education. This project may have large CIP implications related to Public Education and Health Care Facility improvements.

Land Use Plan Implications

The major thrust of the land use plan is to a) preserve the character of the fully developed residential neighborhoods b) protect the environment and c) redevelop a number of areas. Therefore, the capital project impact is primarily the emphasis on infrastructure improvements to improve neighborhood quality of life, improve the environment and encourage redevelopment.

Fiscal Assessment

As shown by Table 9.1, General Fund revenues and expenditures are expected to continue to modestly increase as is the ad valorem tax base.

No change is expected in the basic water and sewer revenue stream of about $11,000,000 from service charges. "In-plant and fire flow" connection fees vary slightly based upon actual annual construction patterns.

General fund bonds can not have interest rates in excess of 6 percent (by City Charter) and require voter approval.

The increases in operating costs as a result of this capital improvement program are calculated by each department in their support documents for the CIP.

Table 9.1: Tax Base, Revenue, and Expenditure Projections

Fiscal Year	Revenues	Expenditures	Tax Base	Tax Revenues
1996 (Actual)	$27,777,012	$27,898,594	$1,020,168,188	$7,940,356
1997	$29,165,863	$29,143,524	$1,040,571,552	$8,337,374
1998	$30,624,156	$30,600,700	$1,061,382,983	$8,754,242
1999	$32,155,364	$32,130,735	$1,082,610,642	$9,191,955
2000	$33,763,132	$33,737,272	$1,104,262,855	$9,651,552
2001	$35,451,288	$35,424,135	$1,126,348,112	$10,134,130
2002	$37,223,853	$37,195,342	$1,148,875,075	$10,640,836

Source: City of North Miami Beach Finance Department, 1997.

The following tables show the retirement schedules for the City's only outstanding bond issues. It is important to remember that the water system serves a much larger area than the City limits.

Table 9.2: Water Revenue Bonds 1967 Series

	Principal	Interest	Total
1997	$515,000	$25,750	$540,750

Source: City of North Miami Beach Finance Department, 1997.

Table 9.3: Water Revenue Bonds 1970 Series

	Principal	Interest	Total
1997	$170,000	$96,670	$266,670
1998	$740,000	$86,980	$826,980
1999	$800,000	$44,800	$844,800
Total	**$1,710,000**	**$228,450**	**$1,938,450**

Source: City of North Miami Beach Finance Department, 1997.

Table 9.4: Stormwater Loan 1996 Series

	Principal	Interest	Total
1997	$120,000	$96,000	$216,000
1998	$120,000	$91,200	$211,200
1999	$120,000	$86,400	$206,400
2000	$120,000	$81,600	$201,600
2001-Thereafter	*$1,920,000*	*$652,800*	*$2,572,800*
Total	**$2,400,000**	**$1,008,000**	**$3,408,000**

Source: City of North Miami Beach Finance Department, 1997.

Table 9.5: Capital Improvement Bonds 1993 Series

	Principal	Interest	Total
1997	$140,000	$48,915	$188,915
1998	$145,000	$43,595	$188,595
1999	$150,000	$37,795	$187,795
2000	$160,000	$31,495	$191,495
2001-Thereafter	*$520,000*	*$49,960*	*$569,960*
Total	**$1,115,000**	**$211,760**	**$1,326,760**

Source: City of North Miami Beach Finance Department, 1997.

Table 9.6: General Obligation Bonds 1994 Series

	Principal	Interest	Total
1997	$195,000	$778,623	$973,623
1998	$205,000	$768,817	$973,817
1999	$215,000	$758,102	$973,102
2000	$225,000	$746,550	$971,550
2001-Thereafter	*$11,975,000*	*$11,094,154*	*$23,069,154*
Total	**$12,620,000**	**$13,367,623**	**$25,987,623**

Source: City of North Miami Beach Finance Department, 1997.