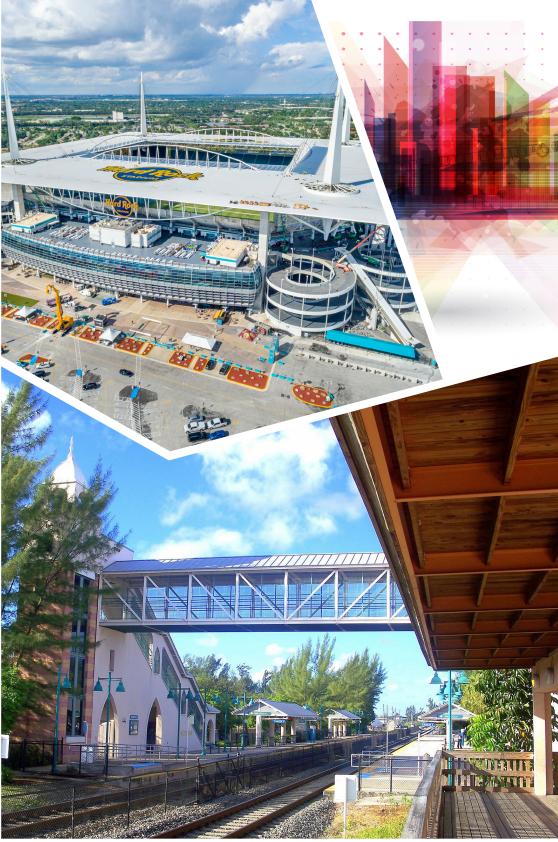


SMART PLAN/NORTH CORRIDOR LAND USE SCENARIO AND VISIONING PLANNING STUDY





FINAL REPORT | JUNE 2019 (Revised October, 2019)

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Prepared for Miami-Dade Transportation Planning Organization



Prepared by:

THE CORRADINO GROUP

FINAL REPORT | JUNE 2019 (Revised October, 2019)

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The Preparation of this report has been financed in part from the U.S. Department of Transportation (USDOT) through the Federal Highway Administration (FHWA) and/or the Federal Transit Administration (FTA), the State Planning and Research Program (Section 505 of Title 23, U.S. Code) and Miami-Dade County, Florida. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

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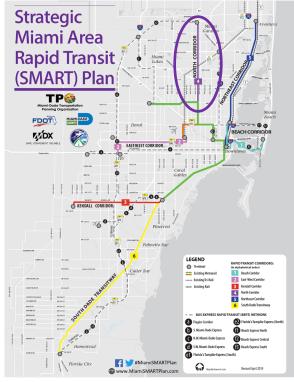
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SUMMARY

In February, 2016, the Miami-Dade County Transportation Planning Organization (TPO) set as its "highest priority" advancing rapid transit Corridors and transit-supportive projects for the county. In April, 2016, the TPO officially adopted the proposed Strategic Miami Area Rapid Transit (SMART) Plan to advance six rapid transit Corridors, along with a network of Bus Express Rapid Transit (BERT) service. To provide for the community to be included in the planning and visioning processes to select the best technology and land uses along each Corridor, three separate activities are occurring simultaneously:

- 1. Land Use Scenario and Visioning Planning Lead by the Miami-Dade TPO.
- 2. Economic Mobility Lead by the Miami-Dade TPO.
- Project Development & Environmental Studies (PD&Es) lead by the Miami-Dade Department of Transportation and Public Works (DTPW) or Florida Department of Transportation/District Six (FDOT), depending on the Corridor.



Source: Miami-Dade TPO

This report addresses the North Corridor, specifically, the development of a land use vision plus an assessment of the economic mobility the SMART Plan can provide to those who live and/or work in the Corridor

North Corridor Overview

Stretching approximately 13 miles from the Miami-Dade/Broward County Line to the Airport Expressway along NW 27th Avenue, the North Corridor will create an important transit link between North and Central Miami-Dade County, as well as South Broward County to the north. The area is centrally located and connected, with access to Florida's Turnpike, the Palmetto Expressway, the Gratigny Expressway, and the Airport Expressway. A grid pattern of streets roads makes up the surface network.

The Corridor will serve historically under-represented, low-income communities, providing the opportunity to better access to jobs, as well as provide a key regional mobility linkage for the area's job centers, stadium district, and higher education. Currently, the North Corridor is classified as an urban/suburban area. Residential uses account for 41.9% of all land, and most housing is classified as low-density. This area intersects with portions of Opa-Locka, Miami Gardens, and unincorporated Miami-Dade County. The County represents 53% of the land area, Miami Gardens represents 32%, and Opa-Locka represents 8%.

Currently, 31 assisted-living and affordable-housing developments are located within the North Corridor, accounting for 5,000 units. Assuming one unit is equal to one household, assisted and affordable housing represents approximately 15% of all North Corridor households.





Multifamily residential and the industrial sectors are seeing growth within the Corridor while the office market is limited and is primarily neighborhood-serving. Although the Corridor is not currently a regional retail destination, future redevelopment of the mall at Carol City indicates some potential for retail in the area, particularly near the emerging entertainment cluster at the northern end of the Corridor near Hard Rock Stadium. Otherwise, retail in the Corridor commands significantly lower rents than in the overall County. There may be additional opportunity for neighborhood retail as new residents accompany proposed development and move to the Corridor.

Over three dozen educational facilities are located within the North Corridor. One post office, the Miami Gardens City Hall, and the Opa-Locka City Hall are institutional land uses in the Corridor, along with two police stations, but there are no hospitals.

Several major institutions are located within the North Corridor. These include, but are not limited to, Miami Dade College North Campus, Miami Opa-Locka Executive Airport, Miami International Airport, and the Stadium.

Affordable Housing in North Corridor

The North Corridor faces a growing challenge of housing affordability that is widespread across the County, where the cost of living is increasing faster than income. Overall, the Greater Miami area ranks as the 7th least affordable large metropolitan area (more than 5 million people) in the world, trailing Hong Kong, Sidney, Los Angeles, London and Toronto. (*Source: Wendell Cox and Hugh Pavletich, 15th Annual Demographia International Housing Affordability Survey: 2019 Demographics, 2019*)

Housing affordability in the North Corridor is a problem with portions of Unincorporated Miami-Dade County, Opa-Locka and Miami Gardens having the greatest need as over 50% of household income is spent on housing. With a large portion of take-home income spent on household costs, access to discretionary income and upward mobility is a challenge.

Market Conditions and Recommendations

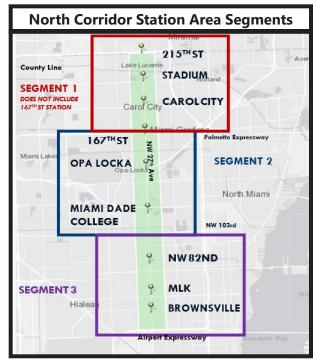
<u>Multifamily residential</u> is seeing growth in the Corridor, with over 1,200 new units projected to be delivered over the period 2018-2020. Though the overall flow of development is modest compared to the County, new market-rate development is planned in Miami Gardens at the northern end of the Corridor, for the first time in a decade. Newer development in the rest of the Corridor is driven by affordable housing, which has seen nearly 1,500 units delivered since 2010, the largest project of which was the Brownsville Transit Village. Affordable housing for seniors and families is expected to continue to be a source of new investment in the area.

The private <u>office market</u> in the Corridor is very limited and is primarily neighborhood-serving (including strip office or second floor commercial), or "back office" for industrial uses. The Corridor is unlikely to see near-term office development.

<u>The industrial sector</u> is seeing healthy growth given current trends, with nearly a million square feet under development in the Corridor, and another million square feet being developed nearby at the Amazon Opa-Locka airport facility. Development recommendations for the Corridor include:



- Segment 1: Entertainment District The northernmost section of the Corridor is anchored by the Calder Casino and Hard Rock Stadium at which the Miami Open Tennis Tournament is held. Just south of the Broward County border, this area exhibits the potential to be a regional draw, not only bringing daily commuters from Broward County, but attracting visitors, fans, and workers from the greater Miami area.
- Segment 2: Educational District Miami Dade College (MDC) is major institution along the Corridor and could support creating academic-oriented development, such as new housing and college-oriented retail and restaurants. The College's partnerships with tech firms, like Tesla, which currently works with Miami-Dade to recruit low-income and minority students who are underrepresented in the tech field, are important opportunities to expand workforce training, local resident hiring, and private firm/tech expansion in the Corridor.



Source: The Corradino Group, Inc.; HR + A Associates

Segment 3: Infill Residential District - The southernmost segment of the North Corridor presents a
compelling opportunity to connect to existing Metrorail stations as well as recently-developed transitoriented, multi-family residential buildings, such as the Brownsville Transit Village. Identifying key infill
sites at the publicly-owned parcels throughout the Corridor may be an opportunity to support mixedincome housing products that would add new residential population to support higher-quality retail
in an area that currently suffers from a paucity of quality grocery and restaurant options. Residential
buildings that offer a mix of market-rate and affordable units would draw into the area a population
that reflects a more diverse range of incomes, adding needed housing at a variety of price points and
slowly changing the perception of the community to incent future investment. Lastly, targeted publicrealm improvements would help transform the character of existing streets and blocks to accommodate
future TOD.

Land Use Scenarios and Growth Reallocation

The ultimate purpose of Land Use Scenario and Visioning Planning is to develop a Land Use Scenario Plan for the North Corridor. This will provide the technical basis for developing of transit-supportive land uses for the Corridor. The relationship between transit and land use plays a critical role for successful implementation and function of rapid transit investments.

Transit ridership forecasts for the North Corridor were based on 2040 Long Range Transportation Plan (LRTP) (Trend) plans for which the land use in the Corridor, and in station areas, was adjusted and generally made denser, to support fixed-guideway transit. Land use scenarios were paired with transit technologies being analyzed by the Florida Department of Transportation's Project Development & Environment Team, as follows:





- Lower Scenario Bus rapid transit (BRT)
- Medium Scenario At-grade heavy rail transit (HRT)
- High Scenario Elevated HRT
- Preferred Scenario Similar to the High scenario, using public input of two charettes.

Local land use plans for cities in the Corridor – Miami Gardens and Opa-Locka – plus the Miami-Dade plan for unincorporated areas, provide more growth in the Corridor and station areas than in the existing, adopted 2040 uses of the LRTP, but at differing levels. In every case, the land use decisions were made by careful analysis of appropriate changes conducted by the Corridor study land use planners.

One of the requirements for this analysis is that, while the Corridor and station areas would be made denser, the control totals, in terms of total households, population, and employment for Miami-Dade County in 2040, were to be held constant. So, for all scenarios, the total of each of these variables across the County is the same.

It also is important to note that the changes in the distribution of population and employment were accomplished by adjusting only the distribution of the growth between 2015 and 2040. The data for 2015 were not changed.

This Reallocation Process shifts growth in persons, households and jobs. The primary output of the process is a file of each analysis zone's 2040 population, households, and total employment. This file becomes the basis for travel demand modeling and ridership forecasting using Simplified Trips-on-Project Software (STOPS) and Southeast Florida Regional Planning Model/Version7 (SERPM7) models.

In summary, growth is reduced outside the station areas and Corridor. In this process, certain areas were designated for no reduction in growth on a case-by-case basis. Growth outside Miami-Dade County was not adjusted. Growth outside the Corridor and station areas was subject to reallocation.

Transit ridership analysis based on the land use scenarios produced year 2040 weekday linked project trips as follows:

- Low Scenario/Curbside BRT: 2,531 daily project trips.
- Medium Scenario/Metrorail At-Grade: 25,284 daily project trips.
- High Scenario/Metrorail Elevated: 29,910 daily project trips.
- Preferred Scenario/Metrorail Elevated: 28,569 daily project trips.

The preferred scenario was developed following public charrettes, discussed later in this report. It assumes higher growth in the Corridor than in the 2040 LRTP. Thus, there are no increases outside the Corridor.





Corridor Communication

At the core of each SMART Corridor initiative is a set of two charrettes – one at the early part of the analysis and the second after the selection of the Locally Preferred Alternative (LPA), by the TPO Governing Board. Efforts to encourage charrette attendance included use of the TPO's Facebook page and Website, flyer drop-offs at establishments along the Corridor, and USPS mailings to 1000 households and 250 businesses near the meeting sites.

The first charrette was designed to understand how the participants feel about their community and develop concepts of various levels of development. The attendees worked at tables noting on maps their concepts of land use developments in the Corridor to prepare for the land use visioning aspect of the project.

The second charrette was designed to understand what people want by considering the LPA alignment and station area locations to convert appropriate land use scenarios to development typology and to suggest regulatory changes and strategies.

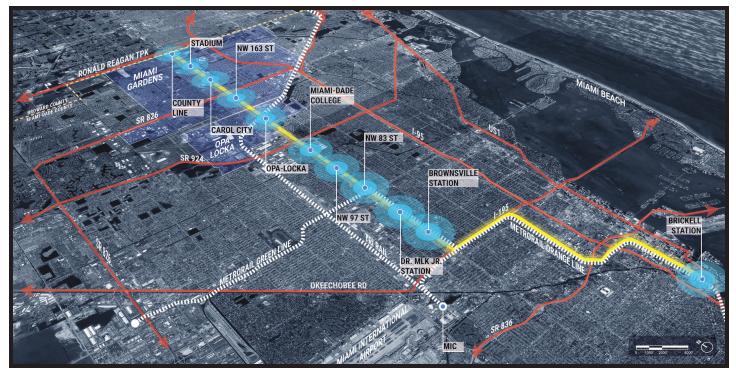
Meetings with the Study Advisory Committee (SAC) were held to provide project updates and essential technical and policy guidance on project issues. The SAC members were also briefed on any upcoming charrettes or results from previous charrettes. These SAC meetings were held in: October, 2017, (Appendix 5), to explain the land use visioning process; February, 2018, (Appendix 6) to review the land use refinements; June, 2018, (Appendix 7), to introduce the approach to "economic mobility" and further discuss progress on land use visioning; January, 2019 (Appendix 8), to review the LPA; and, June, 2019 (Appendix 9), to review the final land use visioning results and related policy implementation steps.

The Locally Preferred Transit Alternative and The Preferred Land Use Scenario

The TPO Board on December 6, 2018, selected an elevated fixed-guideway transit system as the Locally Preferred Alternative (LPA) in the North Corridor. Selecting the final technology required additional study of automated guideway transit, monorail and maglev, each of which is different from Metrorail. With that additional study completed, the TPO Governing Board, on October 31, 2019, adopted Metrorail/Heavy Rail Transit as the preferred technology.







Each LPA station area along the North Corridor was examined to provide a vision of the land uses that should be developed. Following public input at two charrettes, a preferred land use scenario was developed to align with the LPA and support the ridership projections. Also, concepts were prepared to optimize station area access by walking and bicycling.

Three concepts of future Corridor redevelopment around the proposed North Corridor station areas are depicted on the following page. While this is a land use study with the express purpose of depicting the issues closely associated with the practice of land use planning, including land use mixing, and the population and employment associated with each land use, typically expressed as dwelling units per acre and floor area ratio, depictions of the three typologies represent the potential zoning of the station areas. In summary, the land use quantities necessary to support the LPA can be accommodated in each typology or zoning scenario. Overall, the charrettes indicated a preference for Community Center typology. The recommendations in Section 8 of this report suggest a typology for each station area as a guide.







Land Use Implementation Steps for Local Governments

A primary focus of the SMART Plan is to determine the population and employment necessary to successfully implement the North Corridor Preferred Land Use Scenario. To do so, population and employment scenarios for each station area's development typology, selected with input from the Corridor community, were tested. It was determined that these scenarios will support the LPA from a land use perspective when policy changes to local government Comprehensive Plans in the following areas are made, as needed.

The Land Use Element of a Comprehensive Plan specifies minimum and maximum densities of residential, commercial and industrial uses. For transit station areas, individual zoning codes, or districts, can be developed to specify heights, floor-area ratios, lot coverage, block spacing and parking requirements.

Transportation Element policies should focus on supporting the land uses with multimodal Complete Streets recommendations to be considered as development and redevelopment occur. Integrating aspects of urban design, a pedestrian and bicycle friendly environment takes into consideration policies of block size and amenities enhancing safety or comfort. Critical to TODs are first-and-last-mile transportation modes; these policies should gear towards providing viable options to automobile use that integrate land use with connectivity and accessibility.

Housing Element policies should encourage a variety of housing unit-sizes and types, and, ultimately, foster a higher level of affordable housing in station areas. Housing policies should consider that affordability for most is contingent on both housing and transportation costs. As families have a tendency to shift costs, either by paying more for transportation when paying less for housing, and vice-versa, more effective affordable housing policies monitor and address tradeoffs between these two major costs.

Each of these characteristics and elements provide a foundation for policy recommendations for each station area.

Conclusion

After extensive data collection, analysis, and public engagement, it was determined with conservative adjustments to population and employment in the station areas, the North Corridor can support elevated heavy rail in a variety of zoning typologies.

As the application for Federal Transit Administration approval of the North Corridor Locally Preferred Alternative moves forward, applying this land use visioning process with newly-developed 2045 LRTP data will be critical: by supporting housing and economic development policies which will increase population employment in each station area; and, by making the required changes to the local governments' comprehensive plans to support the land use/zoning changes. Doing so will provide the best opportunity to present a viable project based on FTA's evaluation criteria.

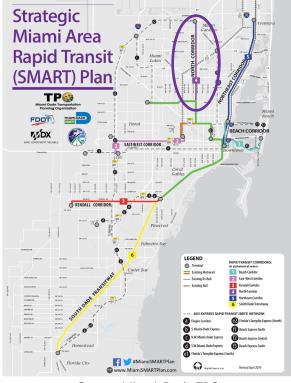
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1. INTRODUCTION

In February, 2016, the Miami-Dade County Transportation Planning Organization (TPO) set as its "highest priority" advancing rapid transit Corridors and transit-supportive projects for the county. In April, 2016, the TPO officially adopted the proposed Strategic Miami Area Rapid Transit (SMART) Plan to advance six rapid transit Corridors, along with a network of Bus Express Rapid Transit (BERT) service. To provide for the community to be included in the planning and visioning processes to select the best technology and land uses along each Corridor, three separate activities are occurring simultaneously:

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Source: Miami-Dade TPO

This report addresses the North Corridor, specifically, the development of a land use vision of the SMART Plan.

2. NORTH CORRIDOR OVERVIEW

2.1 Demographics

Stretching approximately 13 miles from the Miami-Dade/Broward County Line to the Airport Expressway along NW 27th Avenue, the North Corridor will create an important transit link between North and Central Miami-Dade County, as well as South Broward County to the north. The Corridor will serve historically under-represented, low-income communities, providing the opportunity to better access jobs, as well as provide a key regional mobility link for the area's job centers, stadium district, and higher education.

Transit-oriented development (TOD) at key nodes and station areas along the North Corridor will provide needed workforce, affordable, and market-rate housing units. TOD will expand economic activity of existing anchors, such as Miami Dade College and Hard Rock Stadium. Through focused planning and investments in the substantial vacant, underutilized and infill land parcels, station areas along the Corridor can be transformed. Additionally, placemaking and public-realm improvements can change the physical and design character of the Corridor from auto-centric to walkable and transit-friendly.

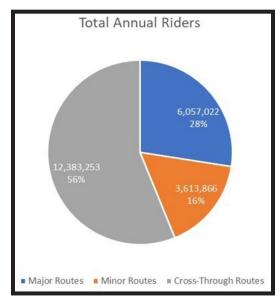
The predominantly African-American neighborhoods along the Corridor are home to residents who are historically low-income with high poverty rates and limited job opportunities. Though residents in the northern segment of the Corridor have slightly higher incomes than those in other parts of the Corridor, median incomes are still 8% lower than in Miami-Dade County as a whole. Although it does not host a major jobs center, employment in the Corridor has grown since 2010. There is a concentration of middle-income jobs in transportation and warehousing, in addition to retail trade and food services. However, nearly all residents who live within the Corridor commute to a job outside of it.

With this background, the Southeast Florida Regional Planning Model/Version 7 (SERPM7) forecasts that the North Corridor's population is expected to grow by 25% by 2040. Employment in the Corridor is expected to grow almost 40% by 2040. Transportation and warehousing are poised for significant growth given current e-commerce and delivery trends.

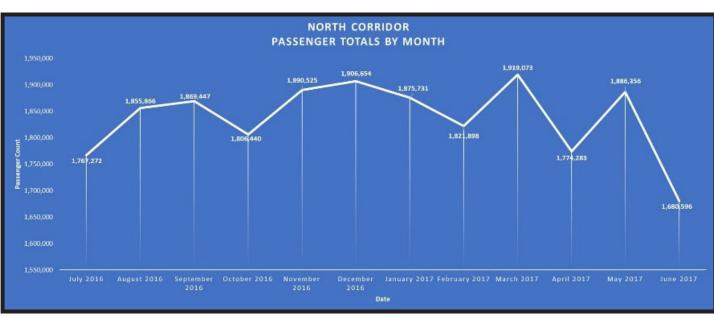
2.2 Transportation

The area is centrally located and connected, with access to Florida's Turnpike, the Palmetto Expressway, the Gratigny Expressway, and the Airport Expressway. A grid pattern of streets roads makes up the surface network.

There are 32 transit bus routes that serve the area, along with existing access to Metrorail, Amtrak and Greyhound Bus. Ridership has been trending down in the last few years. The total number of annual riders for all routes within the North Corridor was 22 million in 2016, which is down 8% from the prior year. The total number of annual riders for Major Routes within the Corridor was 6 million in 2016, down 6.5% from 2015. The total number of annual riders for Minor Routes within the North Corridor was 3.6 million in 2016, roughly 10% lower than in 2015.



Data Source: Miami-Dade transit



Source: Miami-Dade Department of Public Works and Transit

There are plans to construct a county-operated parkand-ride lot in the northernmost portion of the Corridor. Unity Station – at the intersection of NW 27th Avenue and NW 215th Street – is planned to be constructed on a 14-acre parcel located at the southwest quadrant of the intersection. The transit station will include bus bays, passenger shelters, and a park-and-ride lot; these facilities are meant to match the county's upcoming plans to enhance bus transit along NW 27th Avenue. Remaining space on the parcel is recommended to be designated Community Urban Center (CUC), which allows for moderate- to high-Intensity, mixed-use development (e.g. institutional, office, and retail that encourages pedestrian activity).



NW 27th Avenue is the main road in the Corridor. It was evaluated for its existing Level of Service. Most of the southern section of NW 27th Avenue (from 36th Street to 119th Street) shows low levels of congestion. The northern section (from 119th Street to 215th Street) is considered to be operating at Level of Service (LOS) C, an acceptable level of congestion. The middle section of 27th Avenue (from 46th Street to 103rd Street) has LOS D, or lower, and, therefore, has more congestion. Yet, even this is acceptable in an urban environment.



				Segment	AADT	LOS	AADT	LOS	AADT	LOS
Road	Road Station ID Intersection (Loc.)		From	То	24-Hour Combined	Grade	Combined Peak	Grade	Peak	Grade
NW 27th Avenue	158	36th Street (N)	36th Street	41st Street	33,933	С	2,758	С	1,545	С
NW 27th Avenue	157	41st Street (N)	41st Street	46th Street	33,505	С	2,530	С	1,608	С
NW 27th Avenue	156	54th Street (S)	46th Street	54th Street	33,144	E	2,463	D	1,536	D
NW 27th Avenue	155	62nd Street (N)	54th Street	75th Street	30,223	D	2,365	D	1,377	D
NW 27th Avenue	165	79th Street (S)	75th Street	87th Street	34,871	С	2,541	С	1,666	С
NW 27th Avenue	431	103rd Street (S)	87th Street	103rd Street	40,252	F	3,666	F	2,714	F
NW 27th Avenue	181	119th Street (S)	103rd Street	119th Street	46,410	С	3,491	С	2,218	С
NW 27th Avenue	180	119th Street (N)	119th Street	127th Street	42,430	С	3,419	С	1,937	С
NW 27th Avenue	182	Btw. Ali Baba (S)/SR 9 (N)	127th Street	151st Street	37,828	D	3,054	D	1,892	D
NW 27th Avenue	189	167th Street (S)	151st Street	167th Street	45,245	D	3,405	D	2,256	D
NW 27th Avenue	187	183rd Street (S)	167th Street	183rd Street	45,626	С	3,522	С	2,317	С
NW 27th Avenue	188	183rd Street (N)	183rd Street	199th Street	57,013	С	3,830	С	2,295	С
NW 27th Avenue	194	199th Street (N)	199th Street	203rd Street	54,801	С	3,652	С	2,073	С
NW 27th Avenue	193	215th Street (S)	203rd Street	215th Street	53,952	С	3,823	С	2,076	С
NW 27th Avenue	192	Riviera Boulevard (N)	215th Street	Miramar Pkwy (Broward)	61,113		4,230		2,343	

Roadway Level of Service in the North Corridor

2.3 Parking

Within the North Corridor, the County maintains one 65-space parking facility for the Dr. Martin Luther King Jr. Metrorail station and a 100-space facility at the Brownsville station. Street-side parking and shared parking (e.g. commercial or private property spaces) generally do not exist within the Corridor; no on-street parking is allowed on NW 27th Avenue. Generally, larger developments and civic facilities within the Corridor have adequate and ample on-site parking, but it is reserved for specific use by those properties only. As noted earlier, there are plans to construct a county-operated park-and-ride facility (called Unity Station) in the northernmost portion of the Corridor.

Source: FDOT

2.4 Housing Facilities

Currently, 31 assisted-living and affordable-housing developments are located within the North Corridor, accounting for 5,000 units. Assuming one unit is equal to one household, assisted and affordable housing represents approximately 15% of all North Corridor households. Over three dozen educational facilities are located within the North Corridor. One post office, the Miami Gardens City Hall, and the Opa-Locka City Hall are institutional land uses in the Corridor, along with two police stations, but there are no hospitals.

2.4.1 Brownsville Transit Village

Recent residential developments in the North Corridor that address TOD, as well as affordable housing, are the Brownsville Transit Village and Pelican Cove, each is described on the following pages.

Brownsville Transit Village is a joint-development project, initiated by Carlisle Development Group – the largest affordable housing developer in Florida. It was built directly next to the Brownsville Metrorail station, offering walking access to the boarding platform. The project, opened on November 1, 2012, consists of 490 affordable housing units, five mid-rise apartment buildings, townhomes, a parking garage, and ground-floor commercial units. The development has ample drop-off lanes/space, acting as a "kiss-and-ride" for the Brownsville Metro station.









Brownsville Transit Village has achieved LEED certification. The efficient plumbing fixtures, lighting, heating/ cooling, and insulation lower monthly utility bills to residents. Onsite community programs are available, and provide services such as literacy training, health and nutrition classes, and first-homebuyer seminars. Additional onsite facilities include a community center, computer lab, and an exercise room.

2.4.2 Pelican Cove

Pelican Cove is located near the intersection of NW 27th Avenue and Miami Gardens Drive. The development features 115 units in 3-story buildings. Built in 2016, Pelican Cove features amenities including a business center, fitness center, clubhouse, and pool. Income restrictions apply in renting units. The development is within walking distance of Calder Casino, Walmart Supercenter, Winn-Dixie, and the Hard Rock Stadium.









2.5 Other Major Establishments/Institutions Along The North



Miami Dade College-North Campus

Miami-Dade College-North Campus is located on 245 acres at 11380 NW 27th Avenue This was the college's first campus in 1960. It serves approximately 41,000 commuting students, offering traditional 4-year college bachelor's degrees.



Miami-Opa-Locka Executive Airport

Located at 14201 NW 42nd Avenue, Opa-Locka Executive Airport is designated as a reliever to Miami International Airport. The Executive Airport offers repair and maintenance services in addition to being home of the busiest U.S. Coast Guard Air and Sea Rescue Station. The airport has also leased 91 acres to Amazon for their largest fulfillment center in Miami-Dade County; opened in 2018, it provides an additional 1000 local jobs in the Corridor. This, in addition to the possibility that Bombardier Business Aircraft could relocate to the Opa-Locka Airport, provides an increase in business activity at this location.





Miami International Airport

Located at 2100 NW 42nd Avenue, Miami International Airport is the primary airport in the county. In 2016, Miami International was the 30th busiest airport in the world (12th in the United States) in terms of passenger traffic. No other airport in the United States handled more international cargo.



Hard Rock Stadium

Hard Rock Stadium, located in Miami Gardens, is home to the Miami Dolphins and University of Miami Hurricanes. In addition to regular season football contests, the stadium is used for concerts, NCAA Bowl Games and NFL Playoff Games. The Miami Open tennis tournament takes place at this location. The stadium was opened on August 16th, 1987 and has a capacity of 65,326 and 140 acres of parking space.



2.6 Non-residential Land Uses

Land uses in the Corridor include Commercial (13.6%), Institutional (10.6%), and Industrial (9.1%). They provide for about 23,000 jobs within the Corridor, primarily filled by employees living outside of the area. Fewer than 1,000 workers live and work in the Corridor. Commercial uses account for one-third of the employment in the Corridor, with one-sixth of the employment in industrial jobs. Employment in the Corridor is projected to increase from about 65,000 to almost 90,000 by 2040.

Source: U.S. Census on the map

2.7 Government-owned Parcels

There are 554 government-owned parcels in the North Corridor, many of which can be developed to support enhancing housing, jobs and the overall enrichment of the area.



2.8 Job/Household Ratios and Linkages

Job-to-household ratios (Job/Household) provide one metric by which to evaluate whether trips can be local. A very high Job/Household ratio indicates travel into the area to work places. Low Job/Household ratios (<1) generally indicate the need to travel outside of the area for work. Thirty-six percent of the Corridor has a jobs-to-household ratio \geq 1.0.

2.9 <u>Value</u>

The assessed value of properties within the North Corridor is \$4 billion. The 2016 assessed taxable value of Corridor parcels that are within three Community Redevelopment Areas (CRAs) (Miami Gardens, Opa-Locka, and NW 79th Street) are \$855 million; \$127 million; and approximately \$600 million. About 3,000 acres, or 35% of the Corridor, has a Building-to-Land Value ratio of 1.5 or less and could be considered land for future redevelopment.

A recent report of the Miami-Dade County Property Appraiser¹ (2019 Estimated Taxable Values by Taxing Authority at June 1, 2019) indicates that two communities with the greatest increase in the value of existing properties, between 2018 and 2019, are in the North Corridor -- Opa-Locka at +8.3 percent, and Miami Gardens at +6.7 percent. Those gains were even higher after factoring in new construction. Opa-Locka, for example, gained 29.8 percent. This positive sign may draw even more investment into the North Corridor as transit improvements are made.

2.10 Additional Considerations

The North Corridor has varying zoning conditions restricting height which place constraints on density. Additionally, building heights in certain areas of the North Corridor are constrained by two airport clear zones: one at Miami International Airport, and the other at Opa-Locka Executive Airport.

The Opa-Locka Mixed Use Overlay District (MXUOD) provides the opportunity for service-oriented retail and commercial uses and mixed-income housing within a pedestrian-friendly neighborhood with sustainable and environmentally-responsive buildings and infrastructure. The MXUOD includes both Residential/Commercial and Commercial/Industrial Mixed-use subareas, and allows for heights of 4 to 8 stories, though this is constrained at some locations by the airport clear zone Miami-Opa-Locka Executive Airport.

Within the Miami Garden's portion of the North Corridor, parcels immediately adjacent to NW 27th Avenue are zoned Entertainment Overlay (EO), allowing for 15 stories. Outside the overlay zone, however, the zoning generally provides for 2-3 stories of maximum height for the other parcels within the Corridor.

¹

The Dynamics of Housing Affordability in Miami-Dade County. Miami Dade County Public Housing and Community Development.

3. MARKET CONDITIONS

Multifamily residential is seeing growth, with over 1,200 new units projected to be delivered between 2018 and 2020. Though the overall flow of development is modest, compared to the County as a whole, new market-rate development is planned in Miami Gardens at the northern end of the Corridor, for the first time in a decade. Newer development in the rest of the Corridor is driven by affordable housing, which has seen nearly 1,500 units delivered since 2010, the largest project of which was the Brownsville Transit Village. Affordable housing for seniors and families is expected to continue to be a source of new investment in the area.

The private office market in the Corridor is very limited and is primarily neighborhood-serving (including strip office or second floor commercial), or "back office" for industrial uses. The Corridor is unlikely to see near-term office development.

The industrial sector is seeing healthy growth given current trends, with nearly a million square feet under development in the Corridor, and another million square feet being developed nearby at the Amazon facility at Opa-Locka Airport.

Although the Corridor is not currently a regional retail destination, future redevelopment of the mall at Carol City indicates some potential for retail in the area, particularly near the emerging entertainment cluster at the northern end of the Corridor near Hard Rock Stadium. Otherwise, retail in the Corridor commands significantly lower rents than in the overall County. There may be additional opportunity for neighborhood retail as new residents accompany proposed development and move to the Corridor.

3.1 Market Development Recommendations

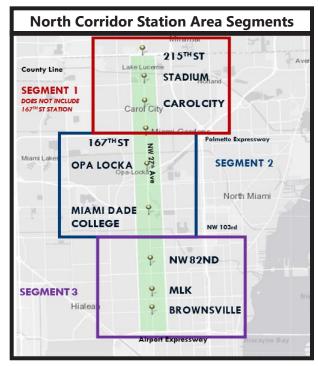
3.1.1 First-Mover-Sites

Given the length of the Corridor, and existing market challenges and constraints, development recommendations are targeted at key nodes to catalyze future investment along other segments of the Corridor and potential transit station areas.

The recommendations cited in this section are "first-mover" concepts that could spur longer-term revitalization and investment in the Corridor and leverage the area's urban scale, neighborhood context, nearby anchor institutions, major venues, and, importantly, market conditions. To facilitate new TOD, additional publicsector actions will be needed, such as: use of strategic development sites that are government-owned; updating zoning and land use regulations and guidelines; forming private/institutional partnerships; as well as establishing incentives and funding sources that address initial financial development gaps.

Segment 1: Entertainment District - The northernmost section of the Corridor is anchored by the Calder Casino and Hard Rock Stadium. Just south of the Broward County border, this area exhibits the potential to be a regional draw, not only bringing daily commuters from Broward County, but attracting visitors, fans, and workers from the greater Miami area.

In addition to residential and retail clusters adjacent to NW 27th Avenue, the district is broadly characterized by expansive parking lots and limited pedestrian facilities. Future development-related regulations should encourage a pedestrian-friendly street network and streetscape treatments, which could be conceived as part of a stadiumarea master plan. That plan could provide a land use vision for the area, develop an event-day access and parking strategy, and create an urban design focus for the district that ties together various uses, including adjacent residential neighborhoods, with future transit service.



Source: The Corradino Group, Inc.; HR + A Associates

This district presents an opportunity to leverage the existing and planned sports and casino venues for a new mixed-use entertainment district that would also support a retail/shopping cluster that includes a range of food and beverage options, as well as a hotel. A walkable, urban-style stadium district can create a year-round destination, as seen at Patriots Place in Foxborough, Massachusetts. Pedestrian-only walkways, lined with retail, entertainment, and dining, can serve as a "gateway" to the stadium, creating a distinct identity for it and enlivening the experience on gameday.

There are significant development opportunity sites in this district, including over 260 acres of currently vacant land, 210 acres of which are County-owned. In fact, based on the strength of development occurring in this area, without public-realm interventions, market forces will continue to advance the auto-oriented growth of the district. As an example, the Dolphins move of its training facility to team-owned land just west of Hard Rock Stadium is both an economic opportunity and a barrier to future Transit Oriented Development, as it consumes critically-located land.

A town center-style, walkable retail/restaurant cluster would activate the area on non-event days while providing ancillary amenities for fans and visitors to stay in the district before and after events. Based on the proximity of the district to Broward County, which contains a resident and work-force population with significant spending power, these uses would also attract a broader regional customer and visitor base. Finally, the creation of a walkable entertainment district would add value to the area, strengthening the existing and pipeline residential market that is already relatively strong compared to the rest of the Corridor.



Segment 2: Educational District - Miami Dade College (MDC) is the major public institution along the Corridor and could support academic-oriented development, such as new housing and college-oriented retail and restaurants. The College's partnerships with tech firms, like Tesla, which currently works with Miami-Dade to recruit low-income and minority students who are under-represented in the tech field, are important opportunities to expand workforce training, local resident hiring, and private firm/tech expansion in the Corridor.

Creating a campus-oriented development strategy around a potential MDC station is an important step in this effort. Should MDC's future mission include residential uses, a future campus development plan that supports a higher-density, pedestrian-friendly facility could include first-mover, mixed-use development fronting NW 27th Avenue. This development could feature college-oriented housing (e.g., modestly-sized rental units) and ground-floor retail anchored by college-oriented uses (e.g., bookstore, fitness facilities), making it more attractive to students and faculty. Mixed-use, academic-oriented developments, like the Hub at New Brunswick Station in New Jersey, offer retail, residential, and office amenities within 1.7 million square feet of mixed-use development, located proximate to the NJ Transit station.

Segment 3: Infill Residential District - The southernmost segment of the North Corridor presents a compelling opportunity to connect to existing Metrorail stations as well as recently-developed transit-oriented, multi-family residential buildings, such as the Brownsville Transit Village. Identifying key infill sites at the publicly-owned parcels throughout the Corridor may be an opportunity to support mixed-income housing products that would add new residential population. Increased growth will support higher quality retail in an area that currently suffers from a paucity of quality grocery and restaurant options. Residential buildings that offer a mix of market-rate and affordable units would draw into the area a population that reflects a more diverse range of incomes, adding needed housing at a variety of price points to incent future investment. Lastly, targeted public-realm improvements would help transform the character of existing streets and blocks to accommodate future TOD.

3.1.2. Supportive Public Policies

Transit is not a silver bullet for economic development. Instead, it must be coupled with placemaking and development policies and incentives to see desired growth. But, in car-oriented Miami-Dade County, transit oriented development often requires more than transit. Local and regional amenities and destinations are needed to make transit-adjacent neighborhoods attractive to new residents, workers, and visitors.

New development that conforms to the dense, walkable character of TOD should be accompanied by public improvements that transform the character of the area's roadways, sidewalks, and urban form. When combined with improved transit service, these infrastructure improvements would help reduce auto usage – thus potentially reducing parking requirements in station-adjacent developments – and increase use of improved transit service. Public improvements should be concentrated near first-mover sites to complement development and make these projects more financially viable. More information on transit station area improved access and connectivity is presented in Section 7.3 of this report. Development policy considerations are included in Section 7.5.





4. AFFORDABLE HOUSING IN NORTH CORRIDOR

Currently, the North Corridor is classified as an urban/suburban area. Residential uses account for 41.9% of all land, and most housing is classified as low-density. This area intersects with portions of Opa-Locka, Miami Gardens, and unincorporated Miami-Dade County. The County represents 53% of the land area, while Miami Gardens represents 32%.

These communities face a growing challenge of housing affordability that is widespread across the County, where the cost of living is increasing faster than income. To determine affordability for households within the North Corridor, *housing and transportation costs, combined* must be assessed to understand the challenges households are facing. There is often a tradeoff for many working families between paying a greater share of their income for housing or enduring long commutes with high transportation costs.

The largest municipalities in the Corridor (Miami-Gardens and Opa-Locka) have acknowledged housing affordability as a problem and stress the need to expand affordable housing opportunities through their annual neighborhood and housing plans. Along with the County, these Cities have made commitments to achieve greater affordability. Overall, the Greater Miami area ranks as the 7th least affordable large metropolitan area (more than 5 million people) in the world, trailing Hong Kong, Sidney, Los Angeles, London and Toronto. (Source: Wendell Cox and Hugh Pavletich, 15th Annual Demographia International Housing Affordability Survey : 2019 Demographics, 2019)

The U.S. Department of Housing and Urban Development's (HUD) Neighborhood Stabilization Plan (NSP) indicates a majority of the land in the North Corridor is classified High Priority. Opa-Locka has the greatest need for affordable housing within Miami-Dade County (Figure 1). With a large portion of take-home income spent on household costs, access to discretionary income and upward mobility is a challenge. As household expenses continue to rise, and residents are rent-burdened, Miami-Dade County, and its jurisdictions, have pledged to take action.

In 2019, Florida Governor Ron DeSantis and the Florida Department of Economic Opportunity (DEO) announced an agreement with the Florida Housing Finance Corporation (Florida Housing), to provide \$140 million for the construction of new affordable workforce housing to help address housing shortages. This funding is awarded by DEO's *Rebuild Florida* program and administered by Florida Housing. Through this agreement, the Rebuild Florida Workforce Housing Program will provide \$140 million to fund creating quality affordable-housing units. Florida Housing will launch a competitive application cycle, allowing housing developers and public housing authorities with experience in the development and management of rental properties to apply for funding. Local governments may partner with these entities to apply for funds.

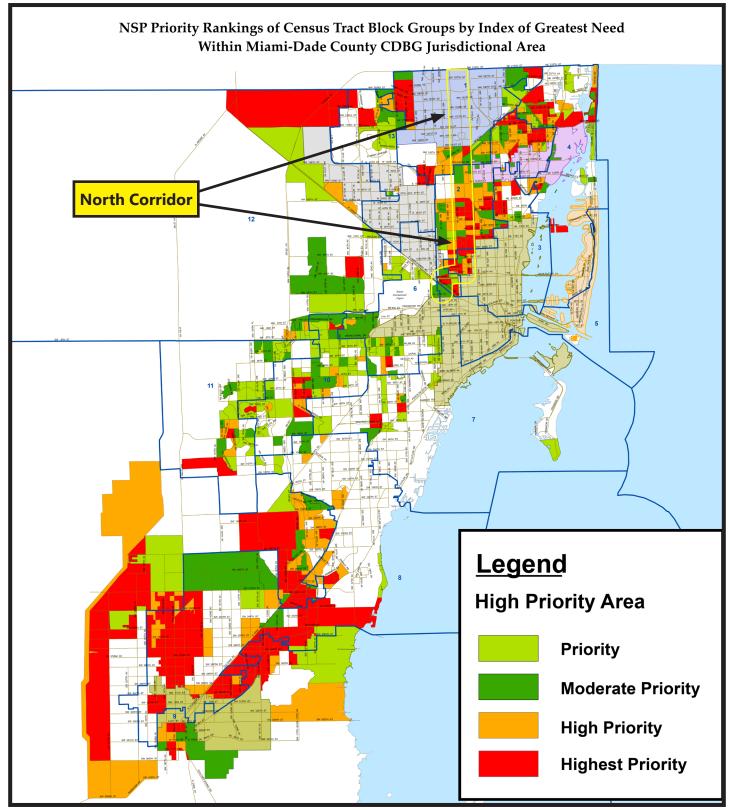
Any proposed developments must help address the unmet recovery needs in the federally-identified **mostimpacted and distressed areas**. All developments funded will be required to meet the following criteria:

- Green Building Standards
- Energy Efficiency Standards
- Accessibility and Visitability Standards
- Resiliency Standards





Figure 1



Source: Miami-Dade County



4.1 Relationship between Housing and Transportation

Housing and transportation are the highest expenses a household incurs. These costs are often directly correlated, which is why both are to be considered when determining housing affordability. Housing and transportation expenses account for 51% of the total income for U.S. households, on average. While the average U.S. household spends 19% on transportation costs alone, very-low income households can spend an average of 55%, or more, of their total income on transportation expenses.² This is likely due to lack of affordable housing options near job centers, which often causes very low and low-income households to move farther from their jobs resulting in higher vehicle miles traveled (VMT). So, in an area where most households earn \$50,000, or less, it is important to combine transit and affordable housing to enhance the overall economic opportunities available to low-income persons. There is an inverse relationship between access to transportation and housing costs. For every dollar a household saves on housing costs by moving to the suburbs, they spend 77 cents more on transportation and travel longer distances.³

4.2 Affordable Housing and Workforce Housing

Affordable housing prevents households from "over-spending" their income on housing costs and, ultimately, becoming Cost Burdened. Federal guidelines indicate that affordable housing is being provided in an area when households spend 30%, or more, on housing costs (rent/mortgage payment, maintenance, insurance, etc.). When a household spends more than 30% of its income on housing costs, it is considered Cost Burdened, and households spending more than 50% of their income are considered Severely Cost Burdened.

Figure 2 depicts the median percentage of income spent on housing by Census areas (block groups within the North Corridor). Most of the areas (those in yellow) have households that spend 40.01%-49.9% of their income on housing. Though just below what would be considered the Severely Cost Burdened level, this graphic indicates housing affordability in the North Corridor is a problem and pinpoints the greatest Cost Burdened areas -- in red (50% or over of income spent on housing). They are in portions of Unincorporated Miami-Dade County, Opa-Locka and Miami Gardens.

4.3 Trends in Affordability

Household median income in Miami-Dade County has been slowly increasing, but not nearly as fast as the price of housing. In 2016, the average household in Miami-Dade County earned \$44,224 per year, meaning most of the County can only "afford" to spend \$1,105 per month on housing costs (\$44,224 x .30)/12=\$1105/ month). The median rental price for a dwelling unit in Miami-Dade County is \$2,250, which means 60% of the average household income is spent on housing costs, twice the federal *affordable guideline*.⁴ High housing costs are a barrier to opportunities and negatively impact upward economic mobility, wealth creation, and workforce talent retention. Lack of affordable housing is "particularly crippling" to Miami-Dade's service sector workers, a large portion of the workforce, plus it is a major concern for younger workers in professional and cultural occupations, such as computer systems, life sciences, education and the arts.⁵

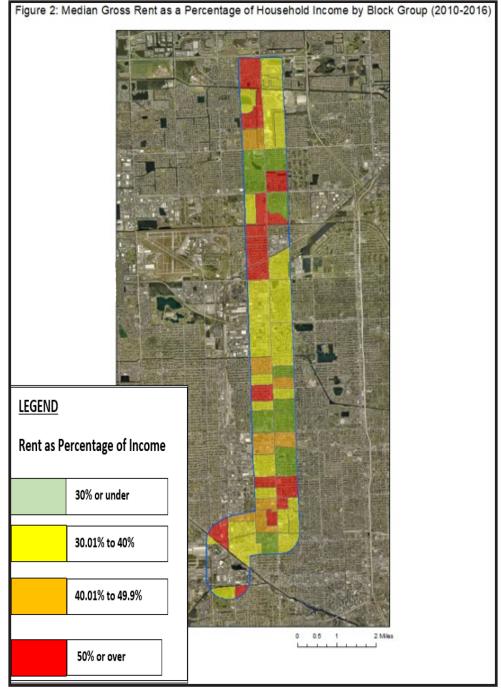
² Housing + Transportation Affordability Index, Center for TOD. 2004.

³ A Heavy Load: The Combined Housing and Transportation Cost Burdens of Working Families. The Center for Housing Policy.

⁴ As of September 2018.

⁵ The Dynamics of Housing Affordability in Miami-Dade County. Miami Dade County Public Housing and Community Development. 2017.





Source: U.S. Census American Community Survey

The average household size in Miami-Dade County is about 3 persons.⁶ It is forecast that by 2030, almost a quarter of all U.S. households looking to rent (or buy) are likely to prefer higher-density housing near transit.⁷ Additionally, the demographic groups that are increasing in size – smaller, older, and more ethnically diverse – are the same groups that have historically shown a preference for higher-density housing near transit. It is inevitable that, with worsening traffic congestion, commuting by car will become less appealing and, with a shift in household size, there will be a range of housing types and sizes available.

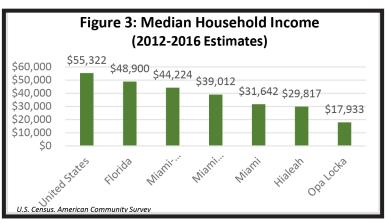
6 2012-2016 Estimates. Factfinder Census Data.

7 Why Transit-Oriented Development and Why Now? Reconnecting America, 2007.



4.4 Income and Affordability in the North Corridor

Households within the North Corridor are making well below the national, state and county averages for household income (Figure 3). Based on HUD's 30%-or-lower guideline for affordability, and household income levels, the average household in Miami Gardens should be spending under \$1,000 a month, but the average rent price for a 2-bedroom unit is \$1,485. The average household in Opa-Locka should be spending under \$450 a month, but the average rent for a 2-bedroom unit is \$1,526.⁸



Area Median Income (AMI) for U.S. cities is defined each year by HUD. AMI determines which income groups qualify for affordable housing financial support. According to the Miami-Dade County AMI income limits (Figure 4), the average two-person household in the North Corridor qualifies as a Very-Low Income or Low-Income household and is a candidate for affordable housing.

Figure 4: Miami-Dade County Income Limits (April 2018) (Courtesy of Miami-Dade Economic Advocacy)										
	< = 50.0%	50.01%-80.0%	80.01%-100.0%	100.01%-140.0%						
# Persons in										
the	Very Low	Low	Median	Moderate-Middle						
Household										
1	\$ 27,550.00	\$27,550.01 to \$44,100.00	\$44,100.01 to \$55,100.00	\$55,100.01 to \$77,100.00						
2	\$ 31,500.00	\$31,500.01 to \$50,400.00	\$50,400.01 to \$63,000.00	\$63,000.01 to \$88,200.00						
3	\$ 35,450.00	\$35,450.01 to \$56,700.00	\$56,700.01 to \$70,900.00	\$70,900.01 to \$99,260.00						
4	\$ 39,350.00	\$39,350.01 to \$62,950.00	\$62,950.01 to \$78,700.00	\$78,700.01 to \$110,180.00						
5	\$ 42,500.00	\$42,500.01 to \$68,000.00	\$68,000.01 to \$85,000.00	\$85,000.01 to \$119,000.00						
6	\$ 45,650.00	\$45,650.01 to \$73,050.00	\$73,050.01 to \$91,300.00	\$91,300.01 to \$127,820.00						
7	\$ 48,800.00	\$48,800.01to \$78,100.00	\$78,100.01 to \$97,600.00	\$97,600.01 to \$136,640.00						
8	\$ 51,950.00	\$51,950.01 to \$83,100.00	\$83,100.01 to \$103,900.00	\$103,900.01 to \$145,460.00						

8

4.5 Affordability and TOD

Transit Oriented Development (TOD) can achieve a balance of quality housing and affordable transportation by creating walkable environments through a mixture of housing, office space, plus retail and/or other commercial development located within a half-mile of quality public transportation. TOD is often incorporated into zoning codes to incentivize construction of affordable housing development. There are many benefits of TOD, including:⁹

- Improved access to jobs and economic opportunities for low-income people and working families;
- Expanded mobility choices that reduce dependence on the automobile, reduce transportation costs and free household income for other purposes;
- Increased transit ridership and revenue, as well as investments in communities;
- Added value potential created through increased and/or sustained property values; and
- Healthier and active lifestyles through lowered air pollution and gas emission rates.

In the proper setting, with the right amount of resources offered to a private developer, TOD establishes "unique opportunities to create housing in proximity to public transportation, and to address zoning, land use and financing issues that affordable-housing developers typically encounter when developing mixed-income projects."¹⁰

4.6 Affordable Housing through Zoning and Incentives

Neighborhoods near transit are the most likely to be zoned for higher densities. Cities like Washington D.C. and New York, with relatively scarce and desirable land, apply Mandatory Inclusionary Housing on all new development occurring in certain areas. Miami-Dade County attempted to move towards this approach in 2017, when it passed a Workforce Housing Development Program Ordinance (#16-138). It established a voluntary program that provides density bonuses, and other incentives, to create workforce housing in buildings with 20 or more dwelling units. Inclusionary zoning can be linked to Miami-Dade County's fixed-guideway Rapid Transit System Development Zone (RTZ). RTZ's establish the County's jurisdiction over planning, zoning, and building on land occupied by fixed guideways, stations, and surrounding areas. The RTZ structure works for TOD projects in the County because the entire permitting and zoning jurisdiction for county-owned properties surrounding the Metrorail system is under the control of the County instead of each individual city.

¹⁰ Better Coordination of Transportation and Housing Programs to Promote Affordable Housing Near Transit, U.S. Department of Transportation and the Federal Transit Administration, 2008.



⁹ Why Transit-Oriented Development and Why Now? Reconnecting America, 2007.

5. LAND USE ALTERNATIVES AND GROWTH REALLOCATION

Ridership forecasts for the North Corridor were based on the 2040 LRTP (Trend) plans for which the land use in the Corridor, and in station areas, was adjusted and generally made denser, to support fixed-guideway transit. Land use scenarios were paired with transit technologies being analyzed by the Florida Department of Transportation's Project Development & Environment Team, as follows:

- Lower Scenario Bus rapid transit (BRT)
- Medium Scenario At-grade heavy rail transit (HRT)
- High Scenario Elevated HRT
- Preferred Scenario Similar to the High scenario, using public input of two charettes.

Local land use plans for cities in the Corridor – Miami Gardens and Opa-Locka – plus the Miami-Dade plan for unincorporated areas, provide more growth in the Corridor and station areas than in the existing, adopted 2040 land uses, but at differing levels. The methods and rules for increasing the densities in the Corridor and station areas are explained in detail in the document in Appendix 3.¹¹ In every case, the land use decisions were made by careful analysis of appropriate changes conducted by the Corridor study land use planners.

One of the requirements for this analysis is that, while the Corridor and station areas would be made denser, the control totals, in terms of total households, population, and employment for Miami-Dade County in 2040, were held constant. So, for all scenarios, the total of each of these variables across the county is the same.

It also is important to note that the changes in the distribution of population and employment were accomplished by adjusting only the distribution of the <u>growth</u> between 2015 and 2040. The data for 2015 were not changed.

By maintaining constant the County population and employment totals, while places in the Corridor and station areas are made denser, the 2015-2040 growth for some places outside the Corridor must decrease. In this analysis, this is called Reallocation. The places are known as Micro-Analysis Zones (MAZs).

5.1 Method

The Reallocation process (Appendix 4) shifts growth in persons, households, and employment in MAZs and Traffic Analysis Districts outside the Corridor to MAZ's/ Traffic Analysis Districts in the Corridor. The process relies on a factor to be applied to the LRTP forecast of 2040 growth. A factor of 1.00 means there is no change in LRTP growth. A factor of 0.00 means that no growth is projected to occur between 2015 and 2040. Factors are calculated for each Traffic Analysis District and are applied to each MAZ inside each Traffic Analysis District. The growth changes for each Traffic Analysis District are normalized so that the sum of the reductions in growth outside the Corridor are equal to the sum of the growth increases inside the Corridor.

¹¹

SMART Plan/North Corridor—Distributing Population and Employment.



The formula for the growth reduction factor is:

Factor = (1/D2) x (original growth)/(Total Miami-Dade Growth) Revised 2040 data = Original data - Factor x (original growth) Where...

- D = Distance from the Corridor to each District outside the Corridor
- Original growth = (Pop40-Pop15) from the Southeast Florida Regional Planning Model/Version 7 (SERPM7) (or HH or EMP)
- Total Miami-Dade Growth = Sum of all growth for all MAZ's
- Original data = Pop40 (or HH40 or EMP40)

In summary, growth reduction factors are greater in Traffic Analysis Districts (TAD) near, but outside, the Corridor, and in more-dense Districts. Again, the factors are normalized so that within Miami-Dade County the 2040 control totals do not change.

The distance factor is derived from what are known as skims¹² in the highway network of the Southeast Florida Regional Planning Model/Version7 (SERPM7). The SERPM7 skims are based on Traffic Analysis Zones (TAZ's), but the process described above requires District-to-District skims. They are produced by taking the following steps:

- Begin with TAZ-to-TAZ distance skims from SERPM7.
- Condense to Districts as follows:
 - \checkmark Sum the skims from every TAZ in a District to every TAZ in the Corridor. Call this sum SS_p.
 - $\checkmark\,$ Count the number of TAZ-TAZ interchanges from every District to TAZ's in the Corridor. Call this sum C_{_{\rm D}}
 - ✓ Calculate the average District-Corridor skim, DD, for each District D, as $D_{D} = SS_{D}/C_{D}$

The primary output of the reallocation process is a file of each MAZ's 2040 population, households, and total employment. This file becomes the basis for travel demand modeling and ridership forecasting using STOPS and SERPM7 models.

In summary, growth is reduced for MAZ's outside the station areas and Corridor. In this process, certain MAZ's were designated for no reduction in growth on a case-by-case basis. Growth outside Miami-Dade County was not adjusted. Growth in MAZ's outside the planning Traffic Analysis Districts in the Corridor and station areas was subject to reallocation. The proportion of reallocation is inversely proportional to the square of the distance between the Corridor TADs and the TADs containing each MAZ.

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¹²

A highway skim provides travel time, distance, cost, or a combination thereof (called Generalized Costs) for each origin-destination zone-pair.

The reallocation process initially dealt with only total employment; however, after the initial reallocation, 2040 employment was estimated in 16 categories.¹³

The North Corridor comprises four transportation analysis Traffic Analysis Districts, each of which includes many MAZs. The change in the TAD-level 2015-2040 growth is illustrated in Table 1. More detailed information on the changes in growth, for each scenario, is presented in the following sections.

Low Scenario			Medium Scenario			High Scenario			Preferred Scenario			
District	Рор	Households	Emp	Рор	Households	Emp	Рор	Households	Emp	Рор	Households	Emp
3	(10,181)	(3,724)	1,536	(2,737)	(1,207)	7,772	4,598	1,294	15,079	5,078	1,164	16,741
7	2,798	256	4,004	8,027	2,276	9,275	12,720	3,848	13,747	11,397	3,312	10,662
9	2,853	539	3,729	6,245	1,542	7,364	9,607	2,534	11,534	5,613	1,359	13,510
14	(222)	(744)	(439)	2,141	26	1,953	4,294	727	5 <i>,</i> 073	789	(481)	1,176
Total	(4,752)	(3,673)	8,830	13,676	2,637	26,364	31,219	8,403	45,433	22,877	5,354	42,089

Table 1 - Change in 2015 - 2040 Growth in North Corridor Transit Corridors

5.1.1 Low Scenario

The data in Table 1 show that the Low-Growth scenario assumes smaller population growth in the Corridor Traffic Analysis Districts than in the 2040 LRTP, particularly in TADs 3 and 14. So, increased growth was placed in other TADs outside the Corridor, as well as in the Corridor, to maintain the overall county LRTP control totals. In the graphics that follow, green areas represent increased growth, red areas represent decreased growth (deeper red indicates more significant growth reduction), and a white color represents an area with neither an increase nor decrease, i.e., no change in growth. While TAD 14 is forecast to experience a small decrease in employment growth, overall employment in the Corridor increases by 8830. Figure 5 shows the changes in TAD population and Figure 6 shows the changes in MAZ population. Figures 7 and 8 show changes in TAD and MAZ employment, respectively.

¹³

The employment categories are reported by the U.S. is the Bureau of Economic analysis (BEA) and the Bureau of Labor Statistics. (BLS). The categories are: 1. Utilities, 2. Agriculture, 3. Construction Office Support, 4, Manufacturing, 5. Wholesale, 6. Transportation Activity, 7. Retail, 8. Professional Services, 9. Private School/Post-Secondary Education, 10. Health Services, 11. Personal Services, 12. Amusement, 13. Hotel, 14, Restaurant, 15. Government, 16. Public Education.



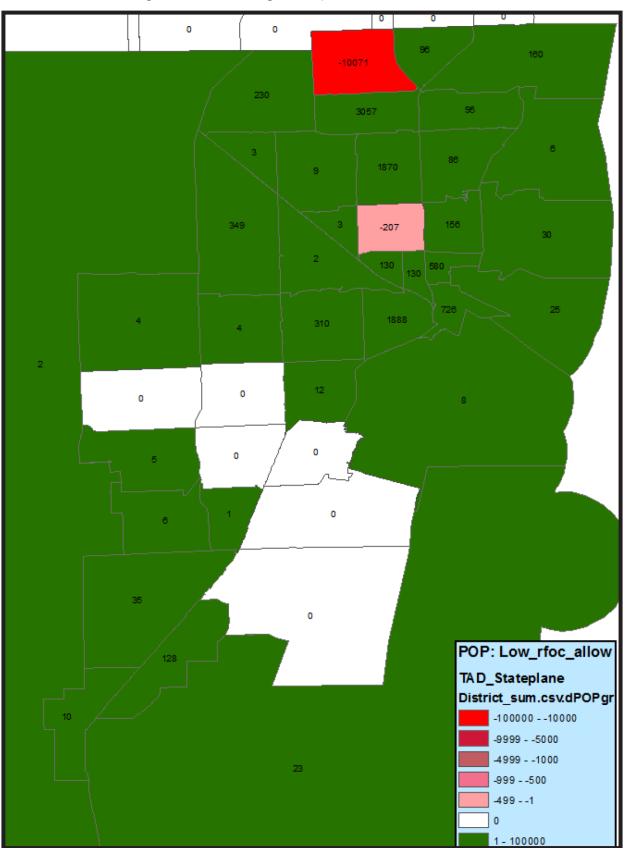
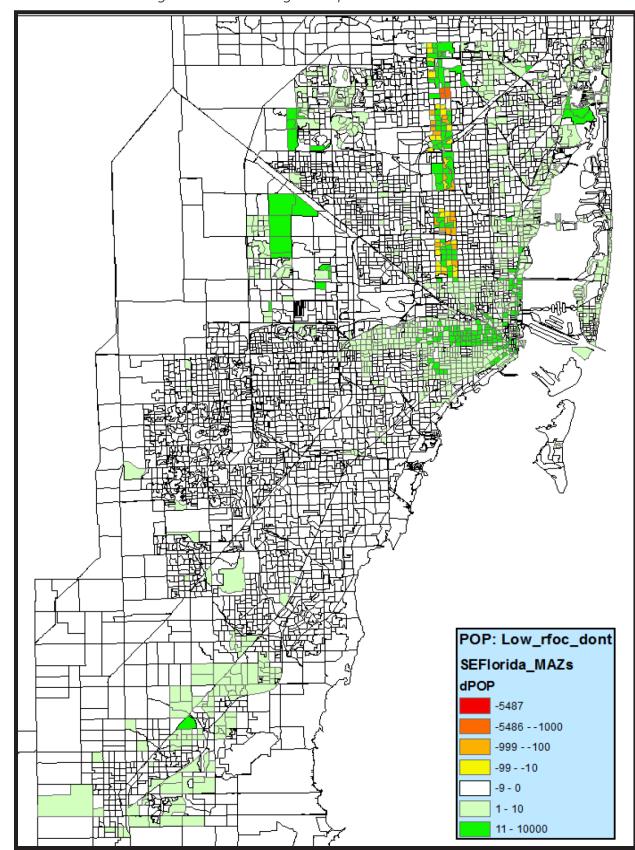


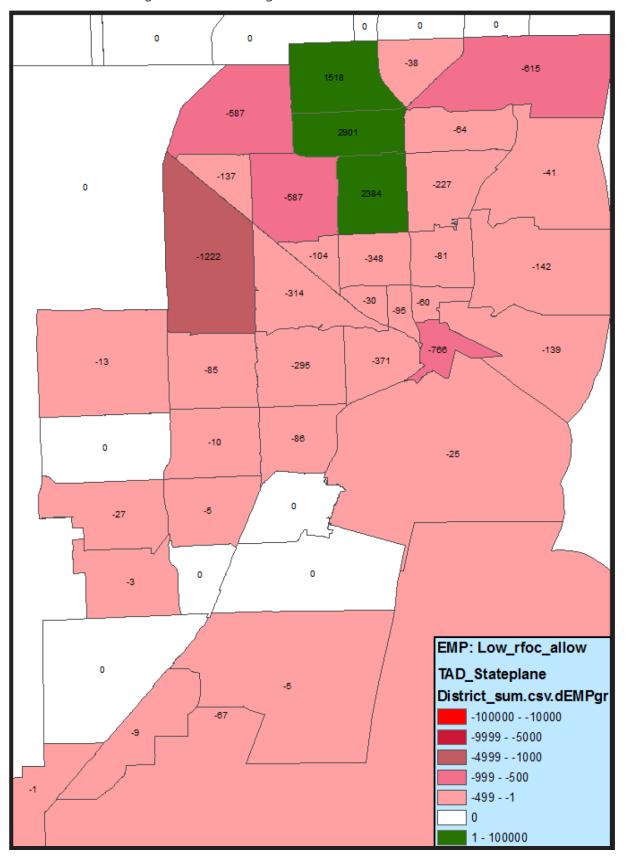
Figure 5: TAD Change in Pop Growth - Low Scenario



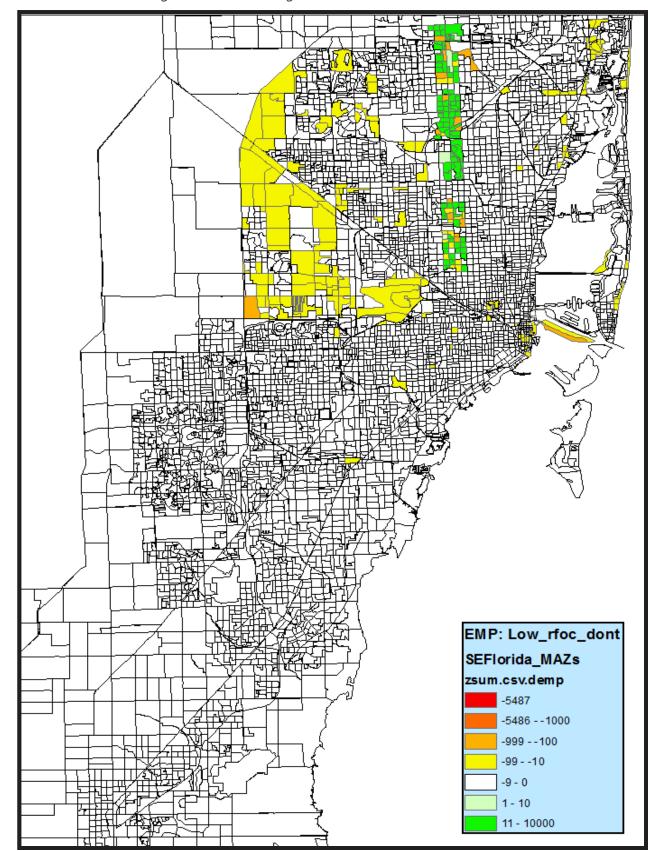








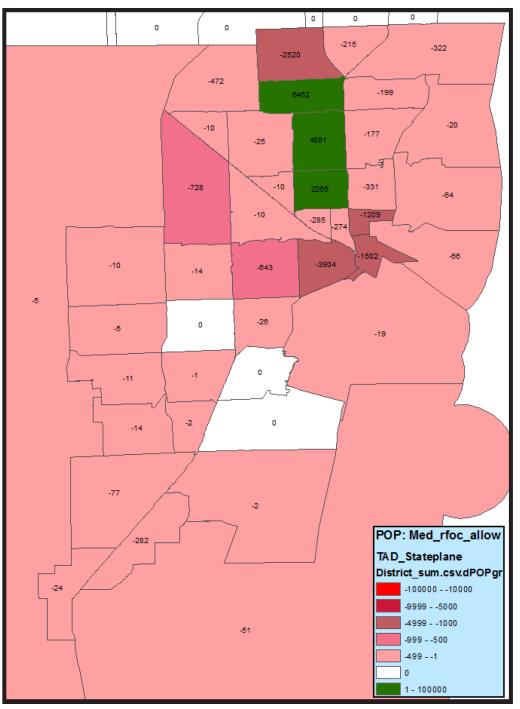




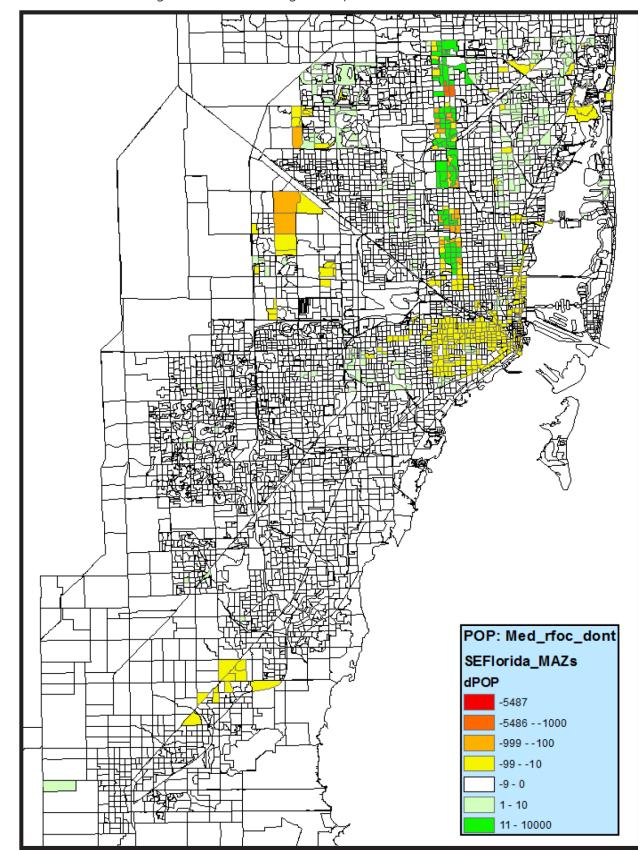


5.1.2 Medium Scenario

The Medium-Growth scenario assumes higher growth in the Corridor than in the 2040 LRTP Trend, as shown in Table 1. However, households and population growth in Traffic Analysis District 3 decrease moderately. In this case, the decrease in TAD 3 growth is compensated by increases in TADs 7, 9, and 14, so there are no increases outside the Corridor. Figures 9 and 10 illustrate changes in TAD and MAZ population, respectively. Figure 11 shows the changes in TAD employment and Figure 12 shows the changes in MAZ employment.











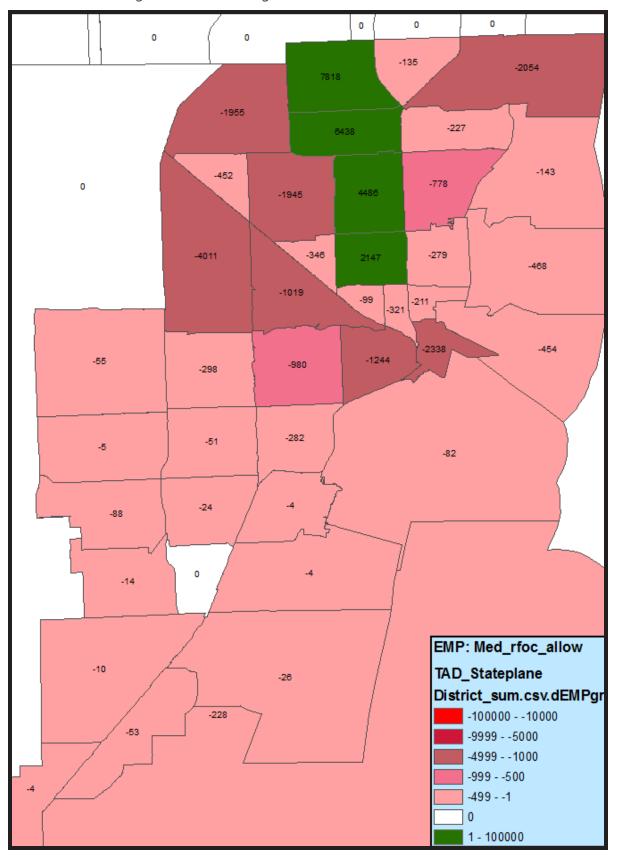


Figure 11: TAD Change in EMP Growth - Med Scenario

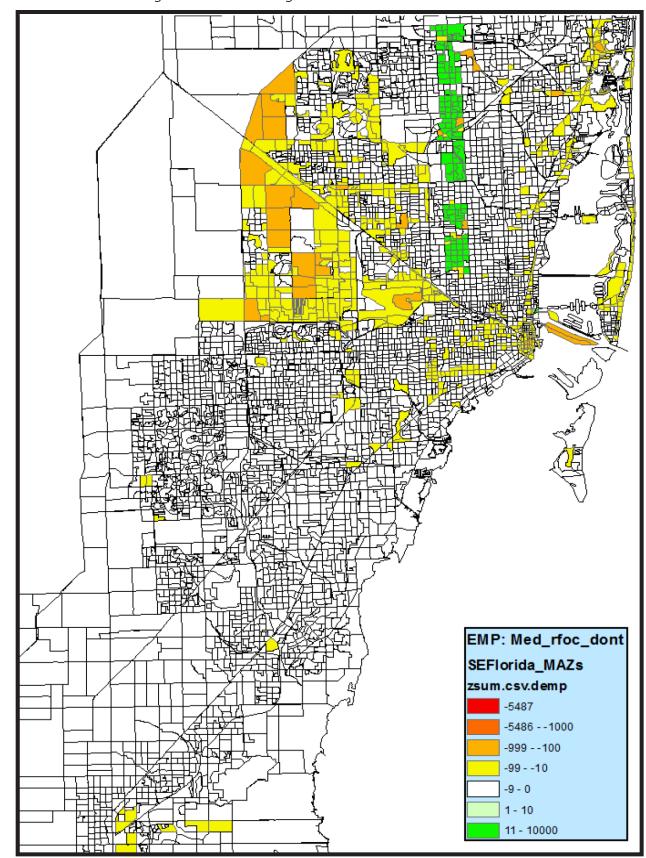


Figure 12: MAZ Change in EMP Growth - Med Scenario

5.1.3 High Scenario

The data in Table 1 indicate the High-Growth scenario has greater growth in all Traffic Analysis Districts in the Corridor than in the 2040 LRTP Trend. Thus, there are no increases outside the Corridor. Figure 13 shows the changes in TAD population and Figure 14 shows the changes in MAZ population. Figures 15 and 16 show the changes in TAD and MAZ employment, respectively.

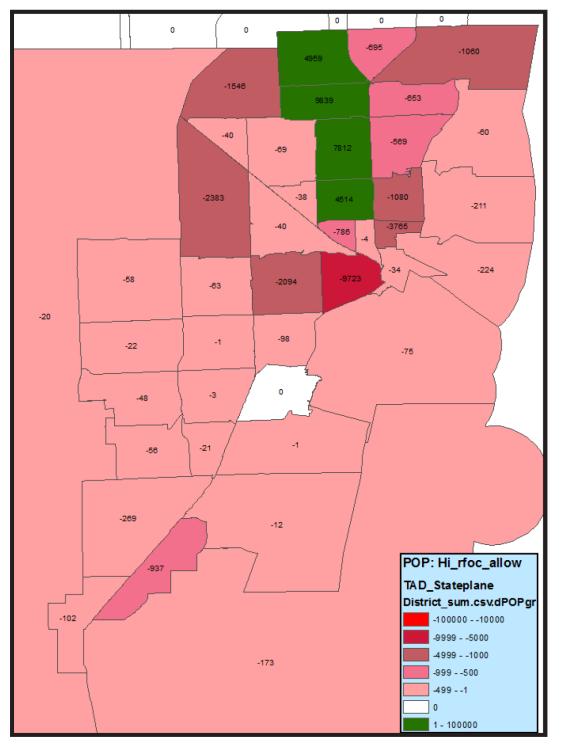
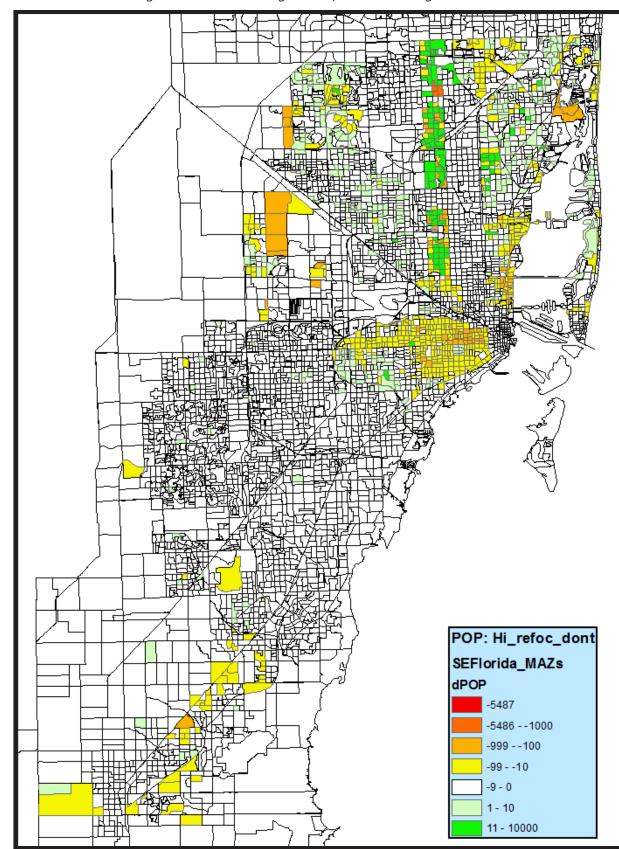
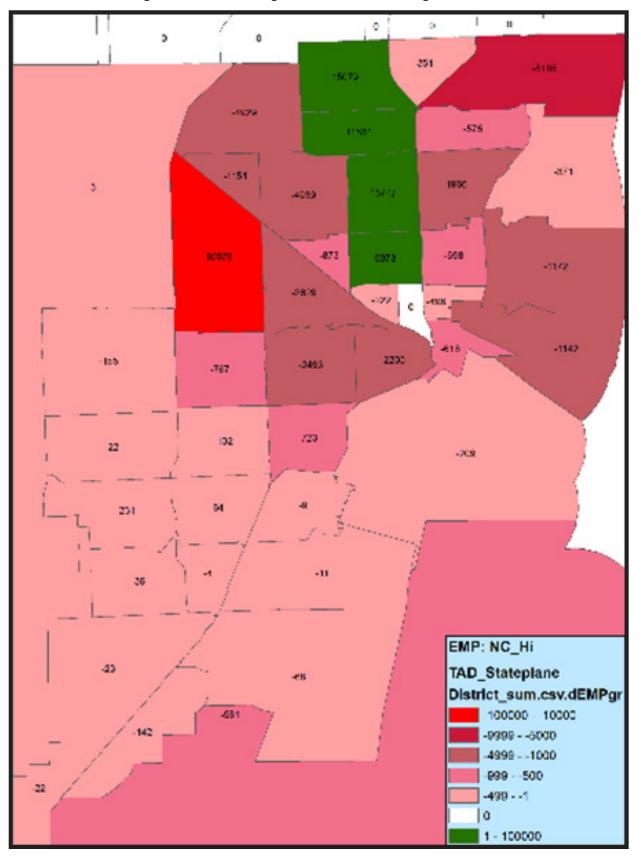


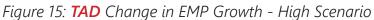
Figure 13: TAD Change in Pop Growth - High Scenario











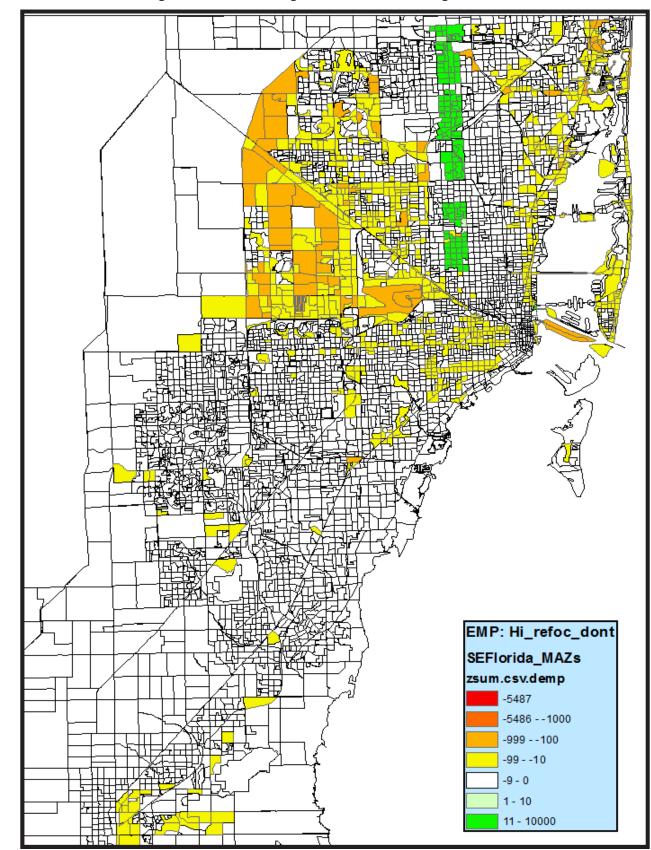


Figure 16: MAZ Change in EMP Growth - High Scenario



5.2 Ridership Analysis Based on Land Use Scenarios

The scenarios testing process produced year 2040 weekday linked project trips¹⁴ follows (Table 2):

- Low Scenario/Curbside BRT: 2,531 daily project trips.
- Medium Scenario/Metrorail At-Grade: 25,284 daily project trips.
- High Scenario/Metrorail Elevated: 29,910 daily project trips.

It is noteworthy that Metrorail (Orange and Green Lines, combined) averages 68,000 weekday unlinked trips (*Source: DTPW February 2018 Ridership Reports*).

Approximately one-third of the North Corridor High-Scenario ridership is forecast to be made by persons living in zero-car households. This is an indication of transit-dependent ridership. It reflects that 21% of all Corridor households currently have annual incomes below the poverty level. These data are taken into account by the Federal Transit Administration as part of a project's qualification for funding.

Table 2: Weekday Linked Project Trips								
	Year>>>	Low So	Low Scenario		Medium Scenario		High Scenario	
			Curb BRT		AG		Elevated	
	Alternative>>>		(Type 3)		Metrorail		Metrorail	
Purpose	Household Autos Owned		Build		Build		Build	
Home-Based Work								
	0-car	-	379		2,160		2,496	
	1-car		477		4,307		5,204	
	2+cars		643		5,694		6,874	
	Total		1,499		12,161		14,574	
Home-Base	d Other							
	0-car		254		4,595		5,140	
	1-car		277		2,382		2,851	
	2+cars		304		2,164		3,104	
	Total		835		9,141		11,095	
Non-Home-Based								
	0-car		62		2,193		2,449	
	1-car		59		548		723	
	2+cars		77		791		1,069	
	Total		198		3,532		4,241	
All Trip Pur	poses							
	0-car		694		8,948		10,085	
	1-car		813		7,237		8,778	
	2+cars		1,024		9,099		11,047	
	Total		2,531		25,284		29,910	

A linked passenger trip is a trip from origin to destination on the transit system. Even if a passenger must make several transfers during a one-way journey, the trip is counted as one linked trip on the system. Unlinked passenger trips count each boarding as a separate trip regardless of transfers.

5.3 Preferred Land Use Scenario

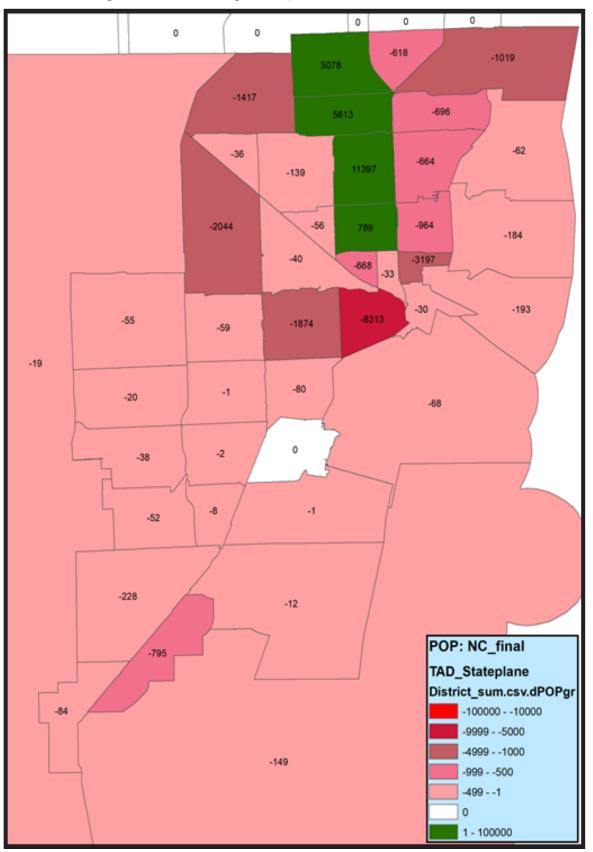
A Preferred Land Use Scenario was developed following public charrettes, discussed in the next section of the report. It assumes higher growth in all TADs in the Corridor than in the 2040 LRTP Trend. Thus, there are no increases outside the Corridor. This alternative is similar to the High-Growth scenario, discussed above. Tables 3 and 4 and Figures 17 and 18 show the changes in TAD population and in MAZ population, respectively. Figure 19 shows the changes in TAD employment and Figure 20 shows the changes in MAZ employment. These changes are associated with a population in the station areas of 124,500 (Table 3) and employment of 76,000 (Table 4).

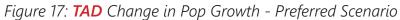
Table 3							
	NORTH CORRIDOR POPULATION BREAKDOWN						
Station Areas	2015	2040 TREND	LOW POP	MEDIUM POP	HIGH POP	HIGH DIFFERENCE (FROM 2040)	FINAL SCENARIO
County Line	3,864	4,436	8,874	11,732	14,591	10,155	12,000
Stadium	5,222	5,438	10,418	12,655	14,891	9,453	15,000
Carol City	10,772	32,463	13,057	15,561	18,066	-14,397	21,000
NW 163rd St.	7,028	9,336	9,263	10,788	12,317	2,981	10,000
Opa Locka	6,457	7,267	9,873	11,731	13,589	6,322	12,000
MDC	4,556	6,960	6,946	9,586	10,872	3,912	8,000
95	9,139	10,270	-	10,972	12,694	2,424	12,500
79/82	7,183	11,115	10,707	12,794	14,880	3,765	15,000
MLK	4,959	6,231	6,845	8,069	9,293	3,062	7,000
Brownsville	8,326	9,948	10,355	11,919	13,484	3,536	12,000
Grand Total	74,055	110,851	95,784	115,807	134,677	31,213	124,500

NORTH CORRIDOR EMPLOYMENT BREAKDOWN							
Station Areas	2015	2040	LOW EMP	MEDIUM EMP	HIGH EMP	FINAL SCENARIO	
County Line	286	764	1,670	2,727	4,033	6,000	
Stadium	1,839	4,570	4,663	7,354	10,680	10,000	
Carol City	2,572	3,955	5,444	7,829	10,482	12,000	
NW 163rd St.	1,824	3,459	3,945	5,637	7,631	4,000	
Opa Locka	2,568	3,516	7,237	9,558	12,265	16,000	
MDC	1,196	1,839	3,603	5,364	7,053	5,000	
95	729	1,176	-	5,671	7,605	4,500	
79/82	2,752	4,408	4,704	6,405	8,137	10,000	
MLK	2,554	3,694	2,871	4,122	5,786	4,000	
Brownsville	1,934	2,801	3,687	5,155	7,064	4,500	
Station Area Totals	18,254	30,182	37,824	59,822	80,736	76,000	
OUTSIDE STATION AREAS	57,466	57,466	57,466	57,466	57,466		
Corridor Totals	75,720	87,648	95,290	117,288	138,202		
Brickell			120,386	120,386	120,386		
Grand Totals			215,676	237,338	258,588		

Table 4







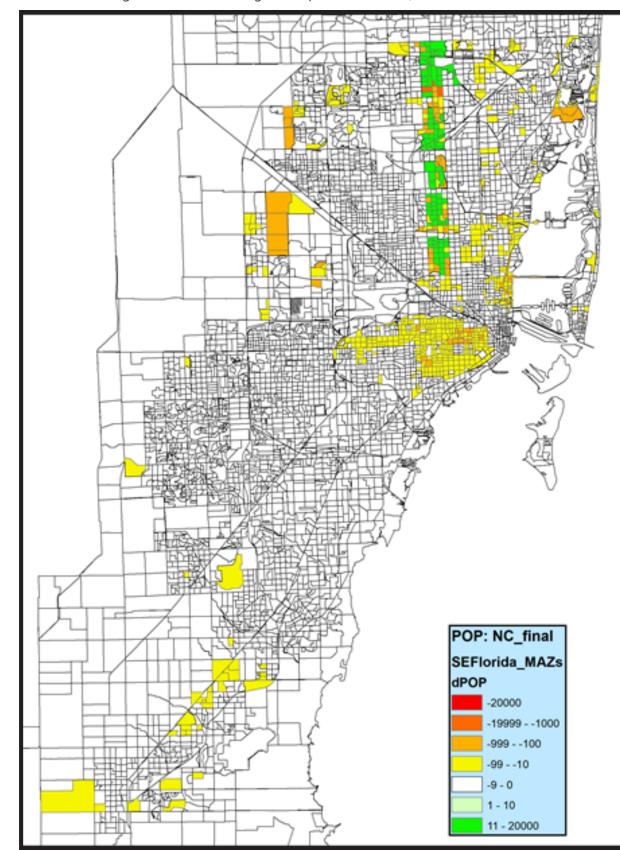
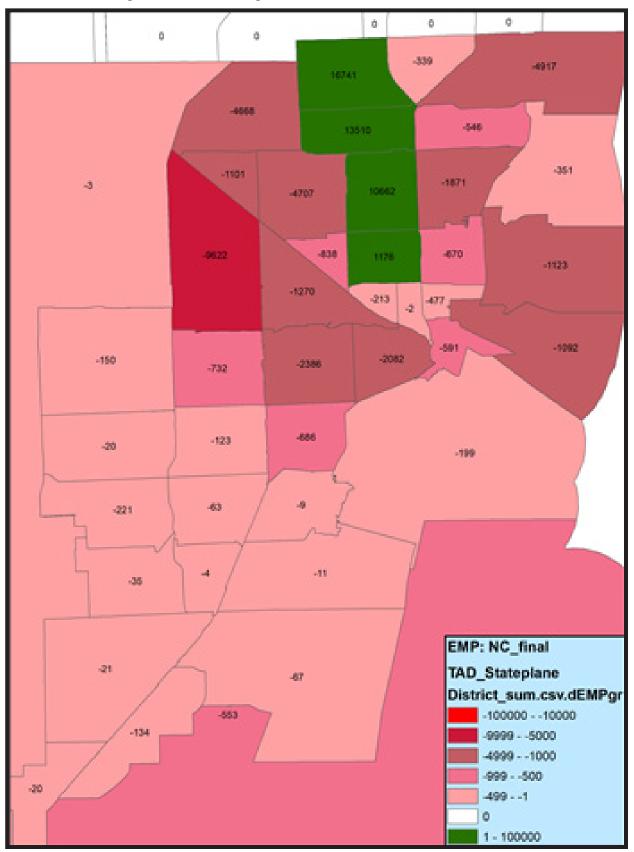


Figure 18: MAZ Change in Pop Growth - Preferred Scenario





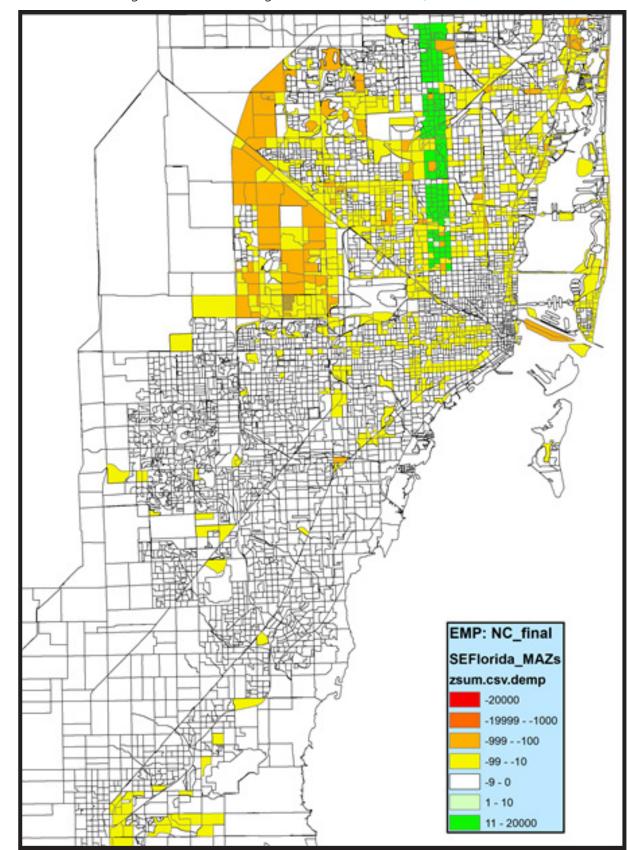
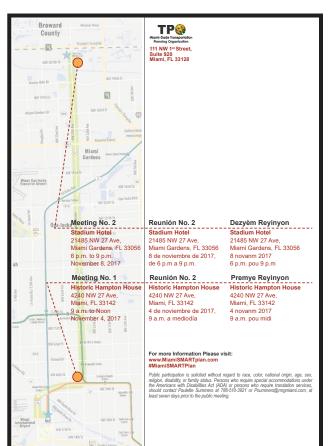


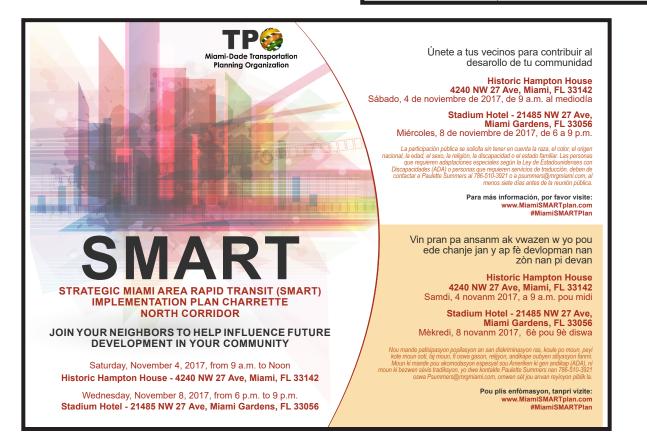
Figure 20: MAZ Change in EMP Growth - Preferred Scenario

6. CORRIDOR COMMUNICATION

Corridor communications involved two major components: 1) Two series of charrettes; and, 2) five Study Advisory Committee meetings. The charrettes are discussed first.

The first charrette series was held at the early part of the analysis – November 4th and 8th, 2017-- and the second after selection on December 6, 2018, of the Locally Preferred Alternative by the TPO Governing Board – February 23rd and 27th, 2019.





6.1 First Series of Charrettes (See Appendix 1 for complete report)

The Saturday, November 4, 2017, meeting was held between 9 am and Noon at the Historic Hampton House. The second charrette, November 8, 2017, was held at the Stadium Hotel at the north end of the Corridor from 6 pm to 9 pm. Members of the public in attendance numbered 15 and 33 at the first and second charrettes, respectively, excluding all staff working on the North Corridor project. Prior to the charrettes, meetings were held with stakeholders, who included:

- Commissioner Barbara Jordan, Miami-Dade County District 1
- Commissioner Jean Monestime, Miami-Dade County District 2
- Mayor Oliver Gilbert III, City of Miami Gardens
- Opa-Locka Community Redevelopment Agency
- City of Opa-Locka

They were briefed of the upcoming meetings and provided answers/responses to their questions/ comments.

A meeting with the Study Advisory Committee (SAC) was held before the charrettes, while stakeholder meetings were being held (Appendix 5). The intent of the SAC is to provide essential technical and policy guidance on project issues. They were also briefed on the upcoming charrettes and the efforts in preparing for them. One SAC suggestion was to participate in a radio "talk show" to accompany other elements of the outreach program. Such an interview was conducted with a TPO representative at station FM 105 (HOT 105). Other efforts to encourage attendance included use of the TPO's Facebook page and Website, flyer drop-offs at establishments along the Corridor, and two USPS mailings to 1000 households and 250 businesses near the meeting sites.

The following sessions were conducted at each charrette:

- Session 1: Introductory Presentation
- Session 2: Gain the Community's Perspective: A listening session
 - Goal: to understand how the participants feel about their community.
 - Done in large groups.
 - Discussed how they see the Corridor and issues important to them.
 - Recorded the most important issues to them on large table paper and prioritized them.



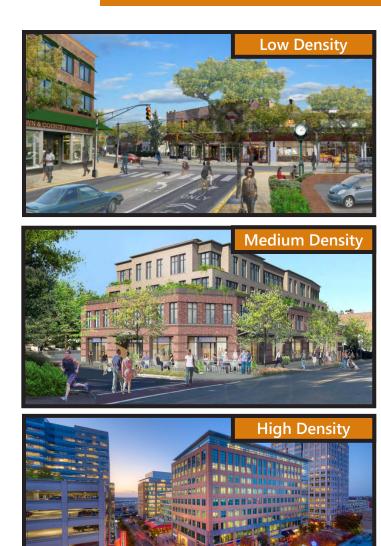


- - Session 3: Develop Concepts of Various Levels of Development
 - ✓ Goal: to locate land uses in the Corridor.
 - Attendees formed groups to discuss various levels of land development
 - Attendees defined what they like most and like least.
 - Existing condition
 - o Allowable land uses under current code
 - Future land uses as minimum requirement for each mode
 - Appropriate land uses Height, Mix of Uses, etc.
 - Session 4: Closing Presentation
 - ✓ Conducted visual preference survey on the options
 - ✓ Explained results
 - ✓ Presented overview of the next round of charrettes

During each charrette, the attendees worked at tables noting on maps their concepts of land use developments in the Corridor. Each meeting was videotaped. The public's input was summarized, in graphics like those to the right (Figure 21), to prepare for the land use visioning aspect of the project.



Figure 21: Example Mark-up by Citizens at the 1st Series of Charrettes



Also, in the first series of Charrettes, each participant was provided with a hand-held device (a "clicker") to participate in a Visual Preference Survey on the density of development. A set of 15 images was provided, and each attendee rated from 1 (low) to 9 (high) their preferences. The average scores for each density were as follows:

- Low 4.0
- Medium 6.4
- High 5.6

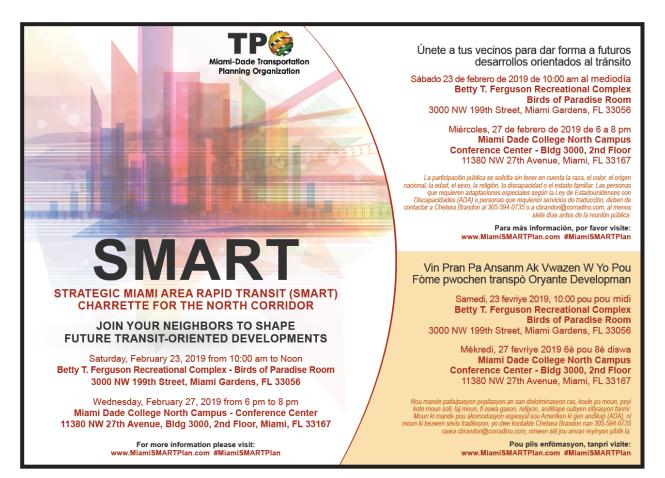
Charrette participants generally preferred the visuals for medium and high-density conditions. And through individual group discussions, common themes emerged. Generally, there was a notable desire for more entertainment/lifestyle amenities in the future with land uses changed to allow or encourage these amenities. "Medium" density was noted to be appropriate, and several "focal" areas for future development were noted. Specific stations for additional focus in the land use planning process included Opa-Locka, Miami Dade College - North Campus, Carol City (at NW 183rd Street), and 79th Street/82nd Street.

This input, and the follow-up work of the TPO, the consultant and the SAC at its meeting of January, 2019 (Appendix 6) were presented at the second series of charrettes in February, 2019.

6.2 Second Series of Charrettes (See Appendix 2 for complete report)

The second charrette series was held on Saturday, February 23rd, and Wednesday, Feb 27th, 2019. Efforts to encourage attendance included use of the TPO's Facebook page and Website, flyer drop-offs at establishments along the Corridor, and USPS mailings to 1000 households and 250 businesses near the meeting sites.





The Saturday meeting was at the Betty T. Ferguson Recreational Complex, at the north end of the Corridor. The second charrette was held at the Miami Dade College - North Campus, farther south. Members of the public in attendance numbered 16 and 55 at the first and second charrettes, respectively, excluding all staff and consultants working on the North Corridor project.

A meeting with the Study Advisory Committee (SAC) was held before the charrettes (Appendix 6). SAC members were also briefed on the upcoming charrettes and the efforts in preparing for them.

The agenda for each charrette follows. The presentation is available on Facebook Live: (https://www.facebook.com/miamidadetpo/videos/309651483081304/).

- 1. Open house/Welcome and Introductions
- 2. Conversation (Facebook Live)
 - Why are we here and what are we doing?
 - Land Use and Transportation: Why are they inseparable?
- 3. Scenarios (Facebook Live)
 - Transit Oriented Development
 - Typologies
- 4. The Preferred Scenario
 - Growth





- 5. Bringing it all Together
 - Economic Mobility / First Mile Last Mile
- 6. Studio
 - Polling exercise
 - Break out tables station area development
- 7. Closing Remarks

In moving through the agenda, the objective was to understand what people want by using the PLUS¹⁵ to convert appropriate land use scenarios to development typology¹⁶ and to suggest regulatory changes and strategies.

At the February 23rd charrette the following issues were presented by the attendees:

- 1. There is a need for better mass transit.
- 2. Residents feel land-locked because of traffic in the area associated with Hard Rock Stadium events.
- 3. A link to Broward County should be a priority; the North Corridor should be part of a regional transit system.
- 4. There can be no guideway transit without development and development cannot occur without water and sewer improvements.
- 5. What agency and funding source(s) will be used?
- 6. The application for this project must prove it can be maintained (clean, secure, adequate capacity).
- 7. Maintenance of the bus system, in terms of mechanical issues, cleanliness, and, especially, on-time performance, is also an issue.
- 8. The project must bring "quality" retail, "quality" employment, and "quality" affordable housing.
- 9. Concern was expressed about fares and wait times for the guideway system.
- 10. Protect the community.
- 11. Create first/last mile connections to stations from neighborhoods at the edge of the Corridor which have a very low impact on the community.
- 12. Interest in bicycle modes of first/last mile connectivity is not high because the area is considered too dangerous for bicycle use.
- 13. There was hesitation to place employment or population in areas that were already developed.



15 That transportation option, the social impacts, environmental impacts, and costs of which are most acceptable at the local jurisdiction level and then supported by the Federal Transportation Administration.

¹⁶ The classification of (usually physical) characteristics commonly found in buildings and urban places, such as intensity of development from natural or rural to highly urban.

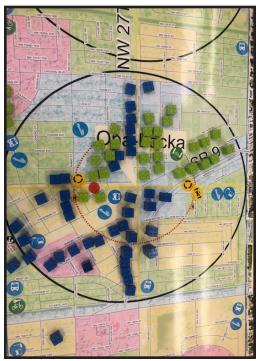
At the February 27th charrette the following issues were presented by the attendees:

- 1. Green space under the guideway would be preferred.
- 2. Concern was expressed that jobs accompanying the guideway transit system will not be "quality" jobs, nor will there be "quality" retail destinations.
- 3. The existing transit system is inadequate. The buses are antiquated, don't make schedule, take too long to reach destinations, and don't go where needed.
- 4. Concern that "eminent domain" may be a part of this project.
- 5. There was less emphasis, compared to that expressed at the February 23rd charrette, on first/last mile improvements to connect to the transit guideway, and more emphasis on jobs and housing needs.
- 6. Two residents, who have lived in the Corridor for many years, found it difficult to think about changing the character of their Corridor: they like their neighborhood as it is, just want to see homes improved. However, they said they could accept growth in other areas (not existing neighborhoods).
- 7. The Lego exercise illustrated greater need for development in the Opa-Locka station area.

North Corridor Charrette Trends and Findings of Lego Exercise

- Opa-Locka had similar growth patterns for both Charrettes
 - o Opa-Locka saw the most allocation of Lego blocks at both charrette events
 - o At the 2nd Charrette, every MAZ in Opa-Locka, except for one, had growth allocated
 - o Most employment was allocated to Opa-Locka station area for both Charrettes
- Both Charrettes elected for employment growth over population
 growth
- The 1st Charrette resulted in more FLM discussions.
 - o The 1st Charrette had over seven times FLM stickers than the 2nd charrette
 - o At the 1st Charrette, Freebees were the most common sticker used (18) followed by Roundabouts and Car Share (tied at 16)
 - o At the 2nd Charrette, Buses were the most common sticker (2) used
- The 2nd Charrette had more MAZs populated than the 1st Charrette, but still less than half were filled at both Charrettes











6.3 Study Advisory Committee Meetings (Appendices 5 through 9)

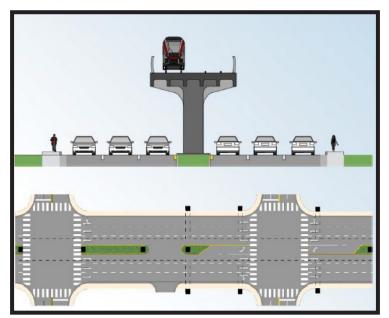
The Study Advisory Committee (SAC) provided technical and policy guidance on project issues. Five meetings were held between October, 2017, and June, 2019; contents of each meeting are included in Appendices 5 through 9.

- The October, 2017, meeting included details on the SMART land use visioning process as it related to the Project Development & Environmental (PD&E) Study being conducted by the Florida Department of Transportation (FDOT).
- The 2nd SAC meeting occurred in February, 2018. It covered an overview of the land use refinement and scenario development processes along with a review of the growth reallocation work.
- In June, 2018, the SAC reviewed the progress of the land use visioning process and how it could impact transit ridership of a North Corridor high-type transit system: Bus rapid transit (BRT); At-grade heavy rail transit (HRT); and, Elevated heavy rail transit. An update of FDOT's PD&E Study was also reviewed. Additionally, the concept of "economic mobility" and its linkage to the land use work was elaborated upon.
- The 4th SAC meeting occurred in January, 2019. By then the TPO Governing Board selected elevated fixed guideway as the Locally Preferred Alternative in December 2018. Further analysis of technologies that are alternatives to Metrorail automated guideway transit, monorail and maglev lead to a recommended LPA technology. At the October 2019 TPO Governing Board Meeting, Metrorail was selected as the preferred technology. The preferred land use scenario (PLUS), which had been developed to align with the elevated fixed-guideway system, was introduced to the SAC.
- In June, 2019, the SAC reviewed the final version of the preferred land use scenario and ridership projections associated with the elevated fixed-guideway system along the North Corridor.

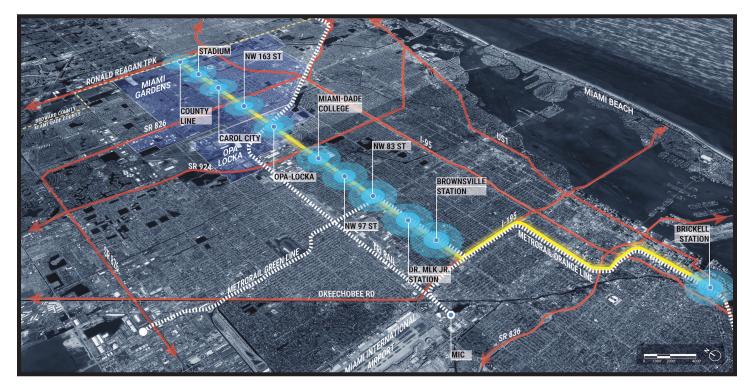


7. THE LOCALLY PREFERRED ALTERNATIVE

The TPO Governing Board on December 6, 2018, selected an elevated fixed-guideway transit system as the Locally Preferred Alternative (LPA) in the North Corridor. While the LPA established an "elevated" fixed-guideway system, selecting the final technology required additional study of automated guideway transit, monorail and maglev, each of which is different from Metrorail. With that additional study completed, the TPO Governing Board, on October 31, 2019, adopted Metrorail/Heavy Rail Transit as the preferred technology for the elevated system.



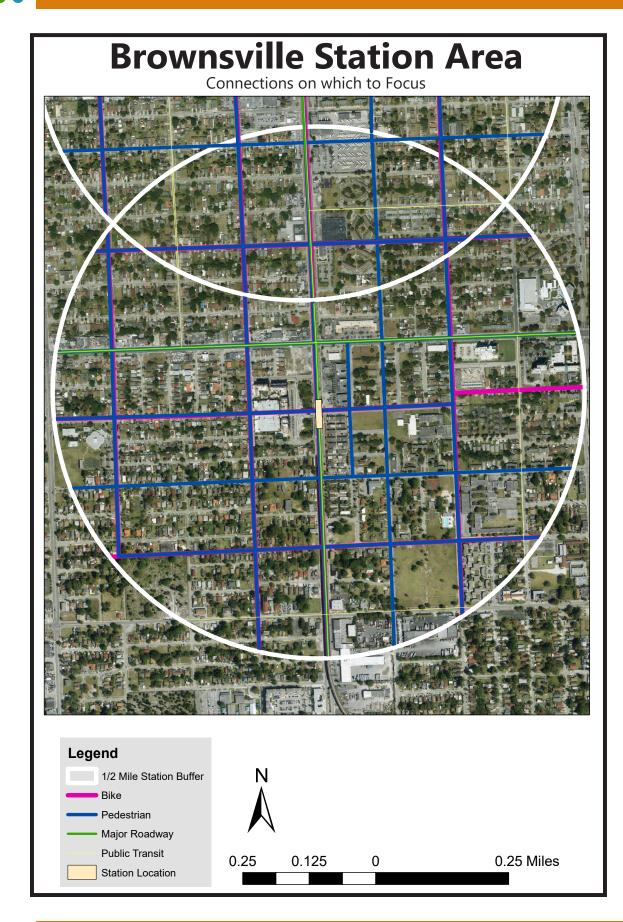
Source: Florida Department of Transportation



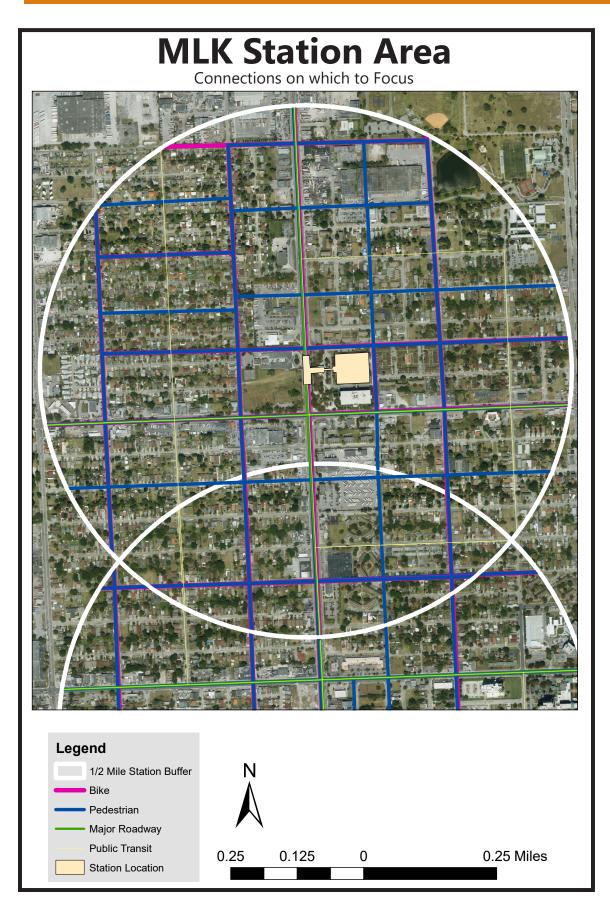
As described in the previous sections of this report, two versions of reallocated growth were developed, one following each series of charrettes. Using these data, and input from the 2nd series of charrettes, the Preferred Land Use Scenario (PLUS) was developed; it aligns with the LPA and supports the ridership projections shown in Table 5.

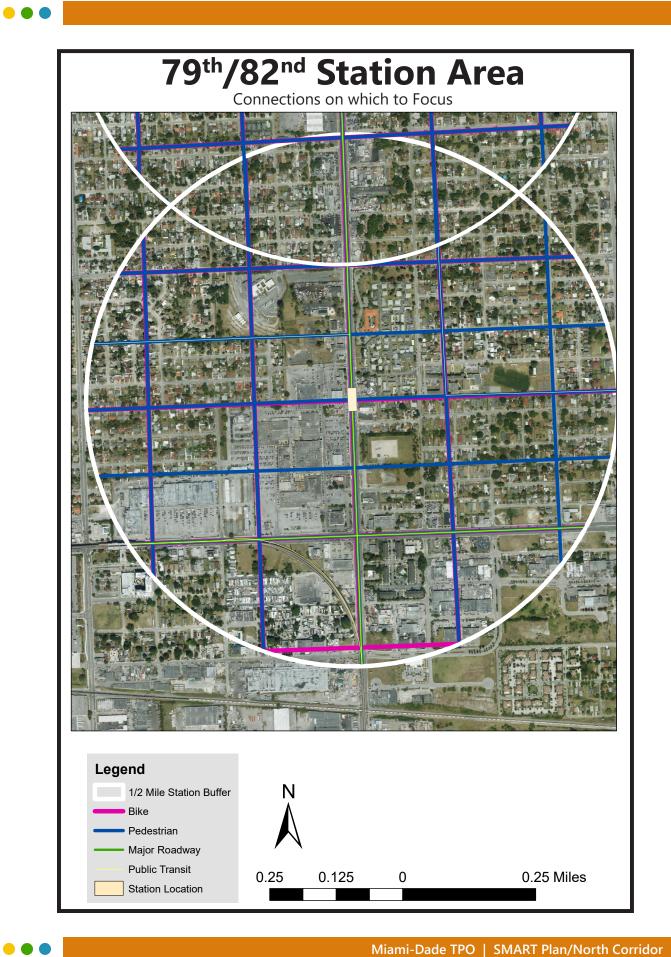
Table 5: Ridership Comparison			Post 1st	Post 2nd	
Purpose	Househol	d Autos Owned	Charrettes	Charrettes	
Home-Based Work					
	0-car		2,496	2,439	
	1-car		5,204	5,301	
	2+cars		6,874	6,676	
	Total		14,574	14,416	
Home-Based Other					
	0-car		5,140	4,475	
	1-car		2,851	2,892	
	2+cars		3,104	2,873	
	Total		11,095	10,240	
Non-Home-Based					
	0-car		2,449	2,148	
	1-car		723	769	
	2+cars		1,069	998	
	Total		4,241	3,915	
All Trip Purp	oses				
	0-car		10,085	9,062	
	1-car		8,778	8,961	
	2+cars		11,047	10,546	
	Total		29,910	28,569	

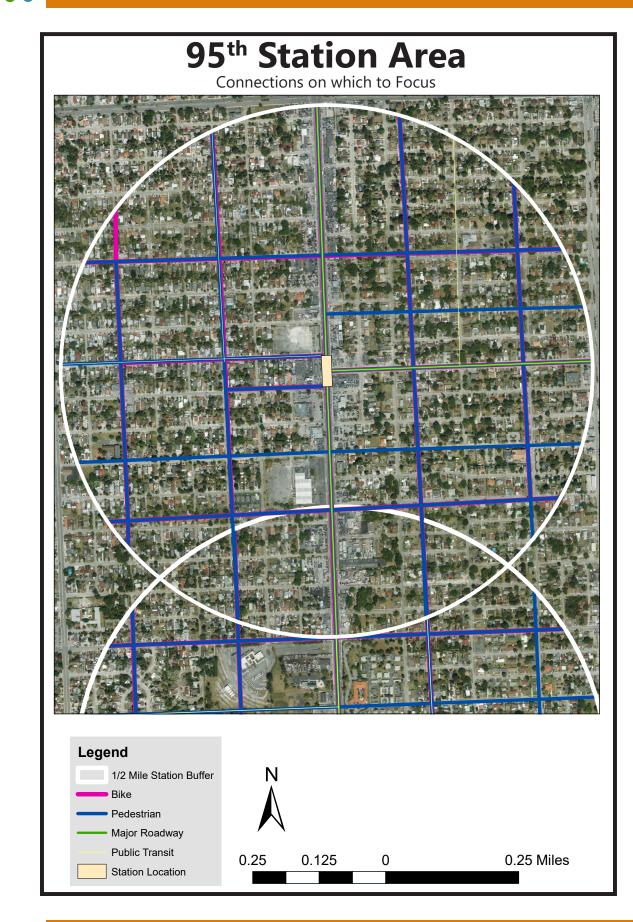
To support this ridership level, each station area must be part of a complete transportation network, focused on providing walking, biking, and roadway connections throughout the ½ mile station buffer. A conceptual design of each station area follows. It considers the preferred land use scenario (PLUS) and the communities located outside the buffer by providing a transportation network that allows for a greater level of connectivity to each station area.



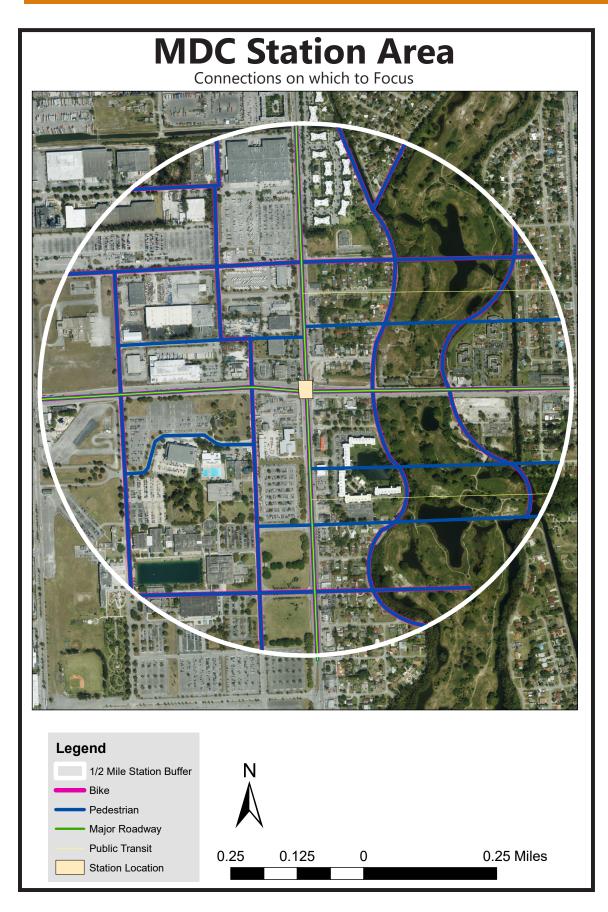


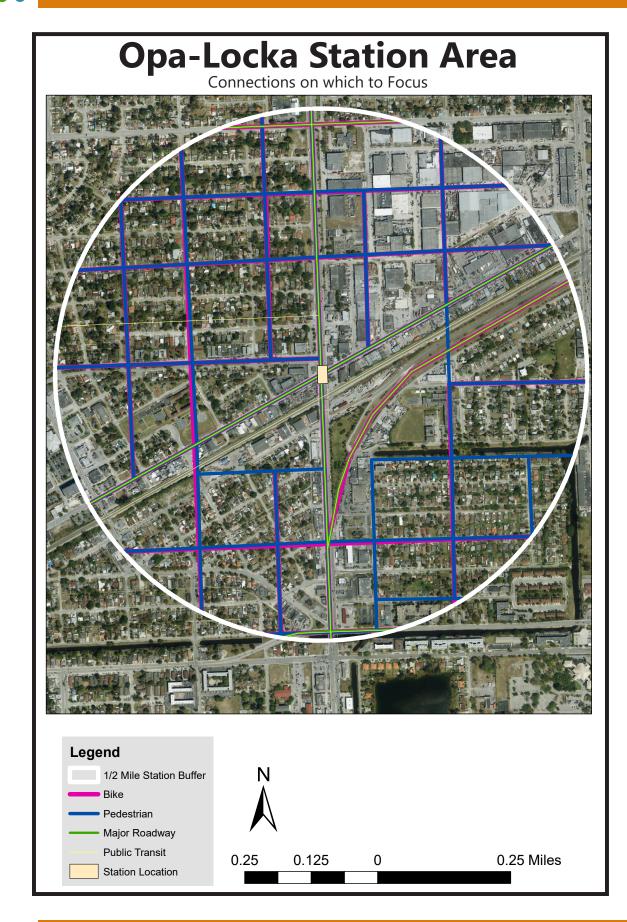


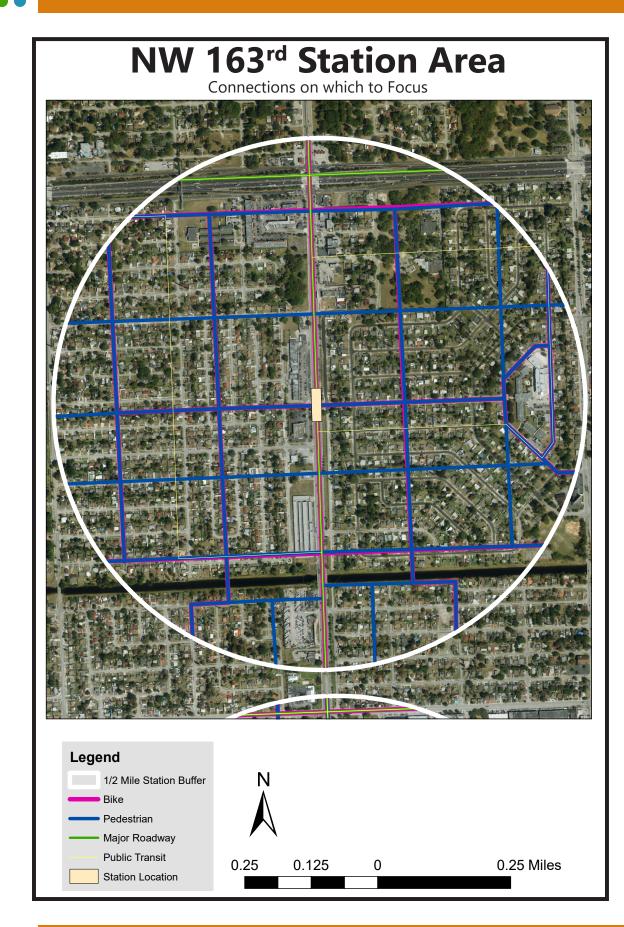




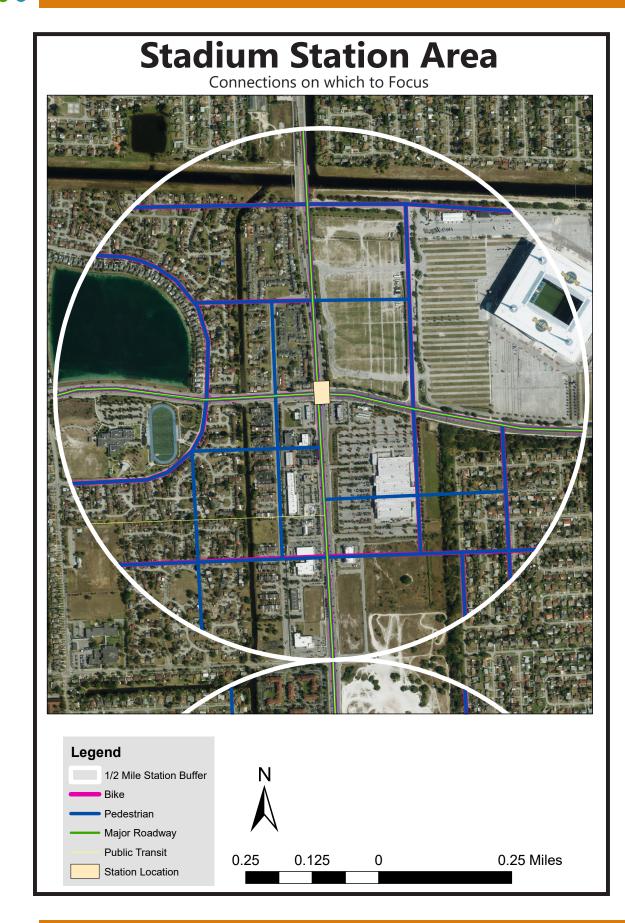
















7.1 Station Area Conceptual Design – Physical Characteristics

Lessons learned from the charrettes are that a station typology should:

- Be planned to serve the local community
- Have connected streets and pedestrian linkages
- Be designed so that walking between destinations is direct, and short
- Have wide and landscaped sidewalks
- Place mid-rise buildings at nodes or along arterials

Three concepts of future Corridor redevelopment around the proposed North Corridor station areas are depicted on the following page. While this is a land use study with the express purpose of depicting the issues closely associated with the practice of land use planning, including land use mixing, and the population and employment associated with each land use, typically expressed as dwelling units per acre and floor area ratio, depictions of the three typologies represent the potential zoning of the station areas. In summary, the land use quantities necessary to support the LPA can be accommodated in each typology or zoning scenario. Overall, the charrettes indicated a preference for Community Center typology. The recommendations in Section 8 of this report suggest a typology for each station area as a guide.





THE FUTURE

Community Center



THE FUTURE

Regional Center







8. POLICY RECOMMENDATION AND IMPLEMENTATION

Implementing land use policies will occur at two levels: 1.) Jurisdictions, which have Comprehensive Plan Responsibilities; and, 2.) Station Areas. In adopting the Preferred Land Use Scenario (PLUS), it is recommended that each community with responsibility for Comprehensive Plan preparation in the North Corridor, i.e., Miami-Gardens, Opa-Locka, and Miami-Dade County, commit to update its Comprehensive Plan within 12 months and its Land Development regulation amendments within 24 months.

An Interlocal Agreement governing each station should be adopted by the Miami Gardens and Opa-Locka governments, and Miami-Dade County to do the following:

- Adopt and commit to Station Area planning, including regulations to achieve target population and employment goals consistent with the North Corridor Land Use Scenario and Visioning Planning Study
- Adopt Comprehensive Plan regulations within an agreed-upon timeframe
- Adopt Land Use Regulations within an agreed-upon timeframe
- Provide First-and-Last Mile programs
- Secure funding, as appropriate

Detailed recommendations are provided in the remainder of this chapter.

8.1 Level 1: Comprehensive Plan Jurisdictions

8.1.1 Area Plans

Miami Gardens, Opa-Locka and Miami-Dade County, should develop and implement individual station area zoning plans consistent with the criteria cited in Section 7. Those station area plans should include the following elements based on adopted station typology:

- Land Use Categories
- Site and Building Design Considerations (such as height, setbacks, and building placement)
- Block Size and Density
- Public Spaces and Landscaping
- Parking
- Development Monitoring

These governments should provide unique and tailored land use densities and intensities, supportive of the PLUS, developed in accordance with land development codes that foster a compact, transit-oriented environment, with multimodal access throughout, and significant and impactful amounts of affordable housing.





8.1.1.1 Land Use Categories

Each government cited above should adopt in its Comprehensive Plan the following, using text and map amendments in the Land Use and Transportation Elements:

- 1. Preferred Land Use Scenario Alignment and Designated Station Areas: The North Corridor Preferred Land Use Scenario alignment and station locations should be identified on the Future Land Use map, specifically with land use amendments or overlays identified.
- 2. Unified Station Area Land Use Category: Each government cited above shall consider creating station area land use categories. These would be mixed-use in nature and would specify allowable-use districts, individual uses, densities, intensities, and individual zoning codes to implement such districts.
- 3. **Regulation of Station Areas:** Station areas should be regulated on an aggregate basis, not parcelby-parcel. This will allow flexibility in the development around general parameters of use, density, lot coverage, floor-area-ratio, height, parking, etc. In this sense, it may be best to implement station area overlays, or land use categories specifically tailored to the station areas. General, city-wide land use categories would be difficult to implement in the station areas unless they allowed significantly higher residential population, employment and design patterns, which is not the case. Simply modifying the existing land use categories would allow for this pattern of development outside of the station areas, which would not produce the desired result.
- 4. Mixed-Use: Each government cited above should implement a policy to encourage a mix of transitoriented uses within each station area. These should be vertically mixed in individual buildings, as well as horizontally mixed across the area, with more active retail, restaurant and entertainment uses on the first floor at street level.
- 5. General Mixed-Use Allocations: Local government shall seek to maximize support for the North Corridor PLUS by establishing desired goals for residential and non-residential uses, by station areas typology.

Mixed-Use Targets by Typology							
Residential Percentage	Nonresidential Percentage*						
35%	65%						
45%	55%						
Neighborhood 75% 25%							
	Residential Percentage 35% 45%						

*2012 FDOT TOD Guidelines

6. Appropriate Zoning Regulations or Land Development Codes: Each government cited above should create additional overlay districts for the station areas to implement the zoning that would be supportive of the Comprehensive Plan's new station area land uses. These would adopt appropriate heights, block areas, right-of-way widths, lot coverages, setbacks, etc.

8.1.1.2 Site and Building Design Considerations

- 1. Building Street Frontage: Each government cited above shall designate primary and secondary streets so that most buildings are oriented to primary streets to create a pedestrian-friendly environment. Primary entrances should be at the more-heavily traveled pedestrian route, or at a corner.
- 2. Building Heights: Local governments should adopt standards in their zoning codes to regulate height at the right-of-way line. In Regional-center station areas, heights should be greater than 4 stories. In Community-center station areas, heights should be greater than 3 stories. In Neighborhood centers, heights should be more than 2 stories. These can be coordinated with street types as specified in future Complete Street master planning.
- 3. Setbacks: Should be outside the public right-of-way so such areas do not interrupt pedestrian flow.
- 4. Lot Coverage Standards: Each government cited above shall adopt lot coverage standards in line with FDOT TOD guidelines per typology of specific station areas.

Gross Density Standards						
Typology	Lot Coverage*					
Regional	80% - 90%					
Community	80% - 90%					
Neighborhood	60% - 70%					

*2012 FDOT TOD Guidelines

- 5. Private-Sector Improvements: Local government shall require developers to provide the following onsite infrastructure improvements: water and wastewater systems, sidewalks, drainage and stormwater management, open space, safe and convenient multimodal circulation, and parking.
- 6. Site Design Coordination with Transportation: Each government cited above shall insure that all developments are planned and designed with consideration of all transit stops, bicycle, and pedestrian facilities, and other major transportation features near the site. Designs shall build upon and enhance these multimodal characteristics.
 - a. Bicycling Amenities: Developers shall be encouraged to incorporate locker rooms, and showers for cyclists who regularly commute to their facilities.
 - b. Rideshare Amenities: Ridesharing design aspects, such as kiss-and-ride facilities, should be incorporated into station design and larger developments, as appropriate.
 - c. Transit Amenities: As appropriate, and needed, site design shall consider bus bays and shelters, parking decks and lots, capable of servicing local first-and-last mile transit options connecting to the transit station.
 - d. Loading and Service Entrances: Primary loading and service areas should be placed away from major pedestrian Corridors and be on the interior of sites, whenever possible.



8.1.1.3 Block Size and Density

- 1. **Block Size Standards:** FDOT's TOD guidelines suggest that the blocks would optimally be between 300' and 500' in length in station areas.
- Transportation Grid and Block Sizes: As part of station area planning, local government should create a street-block overlay plan, to foster an interconnected block pattern that protects existing streets, yet provides that a well-defined, interconnected network is created over time. Blocks are to be easily walkable to maximize pedestrian and bicycle access to the transit station.
- 3. Density/Intensity Standards: Each government cited above should seek to maximize the efficiency of the North Corridor PLUS by establishing minimum-density standards for each station area that are varied according to typology, as follows:

Gross Density S	Standards
Typology	FAR*
Regional	4.0 - 6.0
Community	4.0 - 6.0
Neighborhood	1.5 - 2.0

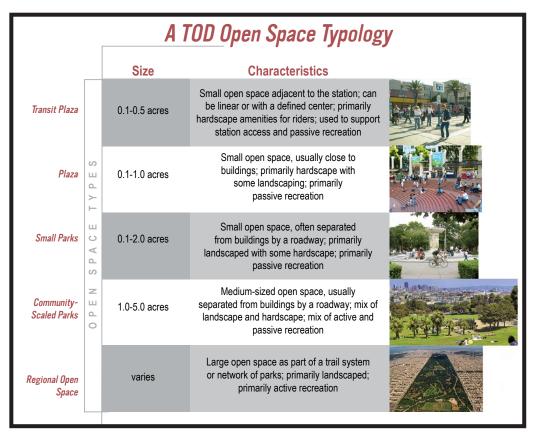
*2012 FDOT TOD Guidelines

- 4. Minimum Densities: Minimum densities should be established for the various land uses and subsequent zoning categories in each station area. The focus is to be on assigning the density that would support the PLUS. Maximums are not as important as minimums, which must be met for the area to be successful in achieving its goals.
- 5. Density Distribution within Station Areas: Residential and employment densities, FARs and heights, should be geographically placed, with the greatest in the core or along the Corridors, tapering to the least at the fringes and away from the Corridors or LPA station.

8.1.1.4 Public Spaces and Landscaping

- 1. **Open Space:** Station area design regulations should provide for parks and open space, as appropriate. The open space typologies shown below can be considered.
- 2. **Organization of Open Space:** Open spaces, utility Corridors and parking should be organized to reduce building and pavement footprints.
- 3. Integrate Public Open Space with Pedestrian Realm: A site's public spaces and landscaped areas should be emphasized to enhance the station area's pedestrian character and create opportunities for integrating public art.
- 4. Integrate Private Amenity Spaces with Public Realm: Where no ground floor retail exists, encourage enhanced community safety by locating private amenity spaces adjacent to the public streets and open spaces.
- 5. **Community Identity Design Standards:** Large building zones and/or landscape amenity panels should be organized to provide landscape features and trees, consistent with local character.
- Shared-space Design: Station area regulations should consider opportunities and methods to support roadway "shared space" such as, but not limited to, the (re)design of appropriate rights-of-way to best accommodate festivals, parades, open-air markets, and other events that encourage social interaction, safety education, and community-building.





Source: Reconnecting America and the Center for Transit-Oriented Development

8.1.1.5 Parking

- General Parking Standards: Standards should limit parking and, therefore, incentivize transit. In Regional and Community station areas, FDOT suggests the maximum residential parking should be one (1) space per residential unit and one (1) space per 1000 sf of non-residential space. In Neighborhood centers, it is suggested that maximum residential parking be 1.5 spaces per residential unit, and two (2) spaces per 1000 sf of non-residential space.
- 2. **Shared Parking:** Each government cited above should employ shared-parking or parking-reduction techniques to enhance transit ridership and incentivize multimodality.
- 3. **Centralized Parking Locations:** Local government shall provide parking garages, if necessary, at a few key locations, that are incorporated into primary uses, screened to be indistinguishable from the remainder of the built environment, and provide linkages to the bicycle, pedestrian and transit systems.
- 4. **Payment-in-Lieu-of-Parking:** Local governments should consider allowing for payments-in-lieu-of-parking programs to encourage development of centralized parking locations.
- 5. Loading Zones: Each government cited above shall provide that services to buildings occur off secondary or tertiary streets or alleyways.
- 6. **Siting:** Development standards should place parking in the rear of buildings along arterials and collector roadways within the station area, providing that buildings front the sidewalks and public rights-of-way.
- 7. **On-Street Parking:** Local governments shall provide on-street parking in a highly visible, convenient manner for certain uses, such as retail, civic or entertainment. Limited, short-term parking for residential and retail uses should contribute to the activity on the street. On-street parking should be designed to act as a buffer for pedestrians on most local streets.
- 8. Surface Parking: Surface lot parking should be discouraged.



8.1.1.6 Development Monitoring

- Monitor Changes: To provide a mixture of preferred land uses within North Corridor station areas, each government cited above shall monitor changes, over time, in the density and intensity of development in each station area, and in each individual development, by tracking the number of residential units and jobs, and the percentage composition of land uses, including the density, intensity, ratio of jobsto-housing, typical lot coverage, typical heights, etc. Data presented in the local government's mostrecent evaluation and appraisal of the Comprehensive Plan, land use analyses, and/or market analyses shall serve as the baseline. Monitoring shall be ongoing.
- Job Creation and Economic Development: Local government shall acknowledge that to implement the North Corridor PLUS, there is a quantifiable need for population increases, job creation, capital investment, and economic development in the station areas. The result of those investments will strengthen and diversify the community's economy.
- 3. Jobs-to-Housing Ratio: Each government cited above should establish a preferred jobs-to-housing ratio to maintain appropriate mixes of use in station areas, as specified by the TPO's North Corridor Land Use Scenario and Visioning Planning Study.
- 4. **Residential Housing:** Each government cited above should plan for a diverse mix of housing types, as well as ownership and pricing options.
- 5. Affordable and Workforce Housing: Affordable and workforce housing should be heavily prioritized at 25% more than the surrounding community.
- Encouraging Development in the Station Areas: Local government shall use the results of the monitoring program to consider whether changes in Comprehensive Plan policies and land development regulations are needed. Such changes should be considered on a regular basis and related to performance in achieving stated goals.

8.1.2 Transportation

Transportation Elements establish the requirements for mobility in the local government Comprehensive Plan. They must provide a variety of integrated travel modes, such as transit, bicycling, walking and motoring. The Transportation Element should contain policies that support population and employment density and intensity and improve access to transit.

8.1.2.1 Multimodal Transportation Development

- 1. Level-of-Service Standards: Each government cited above shall adopt the following transportation mobility levels of service (LOS) for travel by:
 - Walking
 - Bicycling
 - Transit
 - Roadway
 - Parking
- 2. **Modal prioritization:** Local government should prioritize transportation users beginning with pedestrians, followed by people bicycling, riders of public transit and private shuttles, and motorists. Corridors providing primary access to the station should also receive the highest priority.



- 3. **Street Network:** Local government shall encourage and implement a street network overlay in its station areas and incorporate it into its land development codes. This street grid pattern, and individual rights-of-way should support land use, housing choice, and transportation choice objectives.
- 4. Access for People with Disabilities: Each government cited above shall eliminate barriers for people with disabilities in the station areas.
- 5. **Complete Streets Master Plan:** A Complete Streets Master Plan should be developed for each station area to create a context-sensitive, integrated, connected network of streets that are safe and accessible for all users. The network should provide dimensional standards for each section of the right-of-way, by mode, in each of the classifications in the street hierarchy.

The following provides additional recommendations by mode:

8.1.2.1.1 Walking

- 1. **Pedestrian Grid:** A defined pedestrian grid should be provided for each station area. Grid density and distance between connections shall be considered along with appropriate sidewalk widths based on adjacent land uses.
- 2. Clear Pedestrian Paths: Local government, through its Complete Streets planning, shall prioritize pedestrian circulation on primary and secondary Corridors. It should restrict intrusions into the pedestrian paths (seating, signage, bicycle racks, etc.) These amenities are to be setback outside the public right-of-way, so as not to encroach on the pedestrian path.
- 3. Crosswalks: Should minimize the walking distance and time to cross streets. Design techniques, such as bulb-outs, should be considered, where possible.
- 4. Mid-block Crossings: Each government cited above shall include mid-block crossings to encourage easier pedestrian access, where appropriate.
- 5. **Pedestrian Amenities:** Where appropriate, street trees should be in public rights-of-way, and spaced to provide a continuous shade canopy, and ample street furniture, including benches, trash cans and wayfinding facilities.
- 6. Public and Private Open Spaces: Parks and other open rights-of-way should be incorporated as vital components of the pedestrian grid.
- 7. Maintenance-of-Traffic Requirements: As areas undergo high levels of development and redevelopment, strict maintenance-of-traffic requirements should be applied to provide continuous pedestrian connectivity.

8.1.2.1.2 Bicycling

- 1. **Bicycle Grids:** A well-defined bicycle grid should be provided for each station area. Grid density and distance between bicycle facilities shall be optimally placed based on primary routes and locations of transportation generators. Consideration shall be given to riders of all abilities and ages.
- 2. **Bicycle Lanes:** Where needed, protected bicycle lanes should be provided along arterial and collector roadways, with sharrows on local roadways with speed limits of 20 mph or less.
- 3. **Bicycle Amenities:** Lockers and bicycle racks should be placed throughout station areas, with priority for placement at major transportation generators and at the station. Where appropriate, locker rooms and showers should be encouraged in station area developments.
- 4. **Bike-sharing Locations:** Each government cited above shall co-locate bicycle-sharing stations at all transit stations and major generators, and at key junctures in residential neighborhoods within the station area. Dock-less bicycle sharing shall be coordinated to determine appropriate parking areas.





8.1.2.1.3 Transit

- 1. Local Circulator Transit Service: Each station area's circulation plan shall consider local circulators. Technologies to consider include on-demand and fixed-route services, as well as micro-transit options as they become available.
- 2. Area of Service: Local circulators should prioritize connectivity within the station area but may provide feeder service in a 5-mile radius of the station.
- 3. Facilities: As part of the Complete Streets policies, local government shall require that transit facilities be incorporated into roadway design. These may include bus stops, shelters, transit pull-outs, preemptive signalization, etc.
- 4. Route Spacing: Transit routes serving the station area should be spaced no more than 1/2 mile apart.
- 5. Multimodality: All bus services should include bicycle racks.
- 6. **Station Area Design:** The station area should have well-designed access for motor vehicle passenger drop-offs and pick-ups of transit riders.

8.1.2.1.4 Roadways and Park-and-Ride

- 1. **Traffic Calming:** Each government cited above shall use traffic calming, in appropriate locations, to reduce dependence on the automobile, and improve conditions for non-motorized travelers in the station areas.
- 2. **Park-and-Ride:** Facilities shall be located within 500 feet of the station, with primary access from an arterial or collector roadway. Specific requirements should be included in the layout/design/location of park-and-ride facilities to provide traveler safety and security.

8.2.1.5 Parking

- 1. **Parking Standards:** Local governments should evaluate reduced-parking standards within its station areas to lessen the dependence on automobile travel and incentivize walking, cycling, transit use and ridesharing.
- 2. Parking Reduction for Affordable Housing: Local governments should adopt standards to allow reduced parking requirements for affordable housing.
- 3. Parking Access: Station area parking should prioritize access from secondary or service streets and not thru-Corridors, boulevards, or major avenues. Local standards should co-locate, minimize and screen entry points to parking, loading and service areas.
- 4. **Shared Parking:** Parking should be shared consistent with standards for urban, mixed-use, high-density station area development.

8.1.2.1.6 Coordinate Transportation Infrastructure with Development

- 1. **Ridesharing:** Each government cited above should develop policies that allow ridesharing to supplement transit.
- 2. **Compact Design:** Bicycling, walking, and transit use shall be enhanced by requiring all new development and redevelopment to establish, transit-oriented urban design elements, such as compact block grids, pedestrian-scaled street and building design, sidewalks to carry significant pedestrian traffic, and improved access to and through the station area.
- 3. **On-site Circulation:** Local government shall provide that its Land Development Code requires new development and redevelopment projects to provide safe and convenient on-site pedestrian circulation with features such as, but not limited to, sidewalks and crosswalks that connect buildings, transit stops, and parking areas.



- 4. **Connectivity with Adjacent Properties:** Development and redevelopment projects shall be encouraged to provide bicycle and pedestrian access to adjacent properties. Connectivity and stubouts for future connections shall be included in development and redevelopment plans.
- Multimodal Connectivity: Plans for new developments and redevelopment of residential and nonresidential sites shall show existing and proposed bicycle and pedestrian access to adjacent properties and transit stops.
- 6. Vehicle-Miles Traveled: Local government shall adopt policies that reduce the vehicle-miles traveled and provide for enhanced mobility options, in coordination with new land use policies that are supportive of the North Corridor PLUS. Also, Miami-Dade County should consider additional policies encouraging the location of schools within station areas to promote alternative transportation for school-generated traffic and reduce regional vehicle-miles traveled.
- 7. Coordination with the TPO: Local government shall coordinate with the TPO's plans for the North Corridor including the North Corridor Land Use Scenario and Visioning Planning Study, the 5-year Transportation Improvement Plan, and the 2045 Long Range Transportation Plan to provide planned transit investments are coordinated with supportive population and employment in the station areas.

8.1.3 Housing

The Housing Element of a Comprehensive Plan consists of principles that provide housing for all current and anticipated future residents of the jurisdiction in quality housing that enhances the character of local neighborhoods and station areas.

New policies within the Element should have provisions for adequate sites for future housing, including affordable and workforce housing, housing for low-income families, mobile homes, group-home facilities, and foster-care facilities, with supporting infrastructure and public facilities. The Federal Transit Administration's affordable housing thresholds in station areas are critical items in securing federal funding. Miami Dade County has an affordable housing crisis, where people are being pushed farther from their jobs to find housing, increasing their transportation costs. At the same time, studies have shown that people who live in station areas drive less and use transit more. So, construction of significant amounts of affordable housing in the station areas is critical.

8.1.3.1 Housing Typology

8.1.3.1.1 Housing Unit Types

- 1. **Diversity of Units:** Each government cited above shall incorporate policies, including density bonuses, and other techniques to encourage a diversity of housing unit types.
- 2. **Microunits:** Local government should consider allowing microunits within station areas. Microunits are generally no larger than 500 sq. ft. Such units should be limited to 10% of the overall development.
- 3. **Minimum Unit Size:** Local government should periodically evaluate minimum unit sizes in its station area regulations to determine the impact on the availability of affordable housing. Regulations should be amended, if needed, to enhance local housing availability and affordability.
- 4. **Monitor Housing Programs:** Local government shall regularly monitor in the station areas the percentage of workforce and affordable housing, and renter and owner-occupied unit rates.

8.1.3.1.2 Affordable Housing

- 1. Affordable Housing Goal: Each government cited above shall encourage affordable housing in the station areas, by requiring that a minimum of 25% of all new units be legally-binding, affordability-restricted units committed for target populations earning 60%, or less, of the Area Median Income (AMI).
- 2. Inclusionary Zoning Ordinance: Local government shall create housing implementation programs, consisting of incentives to encourage affordable housing in the station areas, and land use policies that support its development.
- 3. **Monitoring and Tracking:** Local government should maintain an inventory of publicly-owned property available for use as affordable housing and coordinate with Miami-Dade County.
- 4. Study Split of Affordable to Market-rate Housing: Local government shall study the impacts of various affordable housing/market-rate housing percentages. Studies have shown that higher affordable housing rates, as a percentage of allowable units, reduce vehicle-miles traveled.
- 5. **Distribution of Mixed-income Units:** Local government shall design mixed-income, affordable housing programs that provide the geographical distribution of affordable housing to discourage its over-concentration in a few areas.
- 6. **Financing:** Local government should review financial incentives to assist the private sector in the provision of affordable housing in station areas, including, but not limited to:
 - Decrease in property tax assessment
 - Tax increment financing (TIF)
 - Municipal land investment
 - Redistributed CRA funds
 - Application-fee reductions
 - Expediting processing of building permits for Affordable housing
 - Other financing incentives to create Affordable housing development

8.1.3.1.3 Workforce Housing

- 1. **Set-asides:** 10% of the housing stock built under mixed-income programs should be reserved, when possible, for workforce households (generally households with incomes between 60 to 120 percent of Area Median Income).
- 2. **Financing:** Financing for Workforce housing should be treated separately from Affordable housing programs. Local governments should review financial incentives to assist the private sector to provide workforce housing in station areas, including, but not limited to:
 - Decrease in property tax assessment
 - Tax increment financing (TIF)
 - Municipal land investment
 - Redistributed CRA funds
 - Application fee reductions
 - Expediting processing of building permits for Affordable and Workforce housing units.
 - Other financing that incentives Workforce housing development

8.1.3.1.4 Elderly Housing

1. Each government cited above should consider mandating 10% of the housing stock built under affordable housing programs be reserved for low-income seniors.





8.1.4 Miami-Dade County's Increased Density Ordinance

Article XXXIII(K) of Chapter 33 of the code of Miami-Dade County provides information on density, building height, and intensity within Standard Urban Centers. As stated in Sec. 33-284.81:

"The Comprehensive Development Master Plan (CDMP) contains directives to promote urban centers in places where mass transit, roadways, and highways are highly accessible. The CDMP provides for three types of urban centers: community (CUC), metropolitan (MUC) and regional (RUC). The area within the boundaries of an urban center is divided into three Sub-districts: Core, Center and Edge. The highest density and intensity within an urban center is to be allocated to Core Sub-districts, a mixed-use area adjacent to the transit station(s) or major transit stop(s). The densities and intensities shall then gradually decrease from the Core to the Center Sub-district where mixed-uses are still permitted and they further decrease to the Edge Sub-district which is characterized by single uses, including low density residential."

The SMART Plan's North Corridor is within the North Central Urban Area District. Maximum density and building height shall be in accordance with the Core Sub-District according to Sec. 33-284.84.1 A 1. Land outside of the station areas, but still within the corridor, may be placed into either the Center Sub-District or Edge Sub-District pending on location (Figure 22).

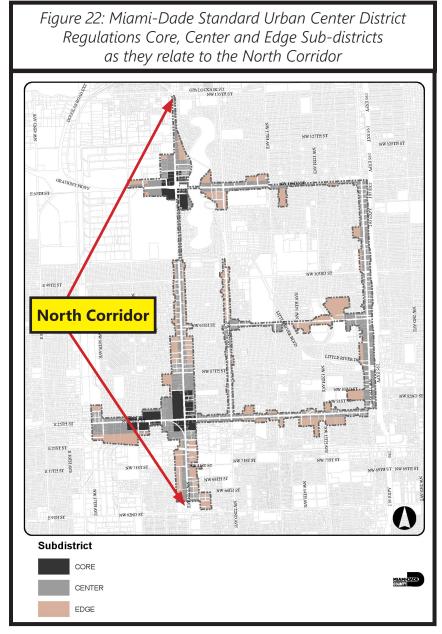


Table 7 shows the maximum density and minimum to maximum building height allowed in each Sub-District within the North Corridor for the following land uses: Residential Modified, Modified Live/Work, Mixed-Use Optional, Mixed Use Corridor, Mixed-Use Main Street, Mixed-Use Special, Mixed-Use Industrial, Special District (Market Place), Special District (Storeporch), Arts District, Market District, Industrial District, and Institutional.

		Table 7: DENSITY AND BUILDING HEIGHTS									
			Sub-	District							
	C	Core	Ce	enter	E	dge					
Urban Area District	Maximum Density	Minimum -Maximum Building Height	Maximum Density	Minimum -Maximum Building Height	Minimum Maximum -Maximum Density Building Height						
North Central Urban Area District	125 Units Per Acre	3-15 Stories	Within 1/2 Mile of the Corridor: 90 Units/Acre Otherwise: 60 Units Per Acre	Within 1/2 Mile of the Corridor: 2-12 Stories Otherwise: 2-8 Stories	60 Units Per Acre	8 Stories*					

* No minimum height but must meet the minimum floor-area ratio as shown in Table 11, below.

Table 8 shows the maximum density and minimum to maximum building height allowed in each Sub-District within the North Corridor for the Residential Land Use Category:

	Table 8: DENSITY AND BUILDING HEIGHTS FOR RESIDENTIAL LAND USES								
		Sub-District							
	(Core	Ce	enter	E	dge			
Urban Area District	Maximum Density	Minimum -Maximum Building Height	Maximum Density	Minimum -Maximum Building Height	Maximum Density	Minimum -Maximum Building Height			
North Central Urban Area District	N/A	N/A	60 Units/Acre	2-8 Stories	18 Units/ Acre	Maximum Height is 2 Stories **			

** 18 units per acre/Maximum Height: 2 stories (and 4 stories for properties located east of NE 26th Avenue and north of NE 195th Street to NE 202nd Street); except, for certain properties along the Oleta River, 6 units per acre/Maximum Height: 2 stories. See Note 1

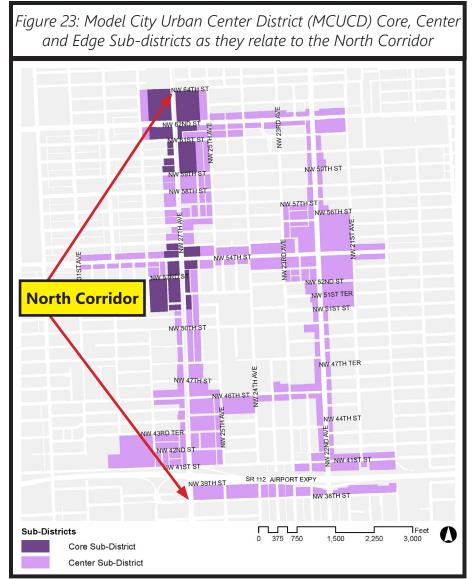
Note 1: 6 units per acre/2 stories applies to properties that are located: (a) along the Oleta River; (b) west of NE 26th Avenue and north of NE 195th Street; and (c) south of Miami Gardens Drive and west of NE 24th Avenue.

In addition to being consistent with the height ranges provided in the previous charts, each property shall be developed in accordance with the following minimum intensity standards shown in Table 9:

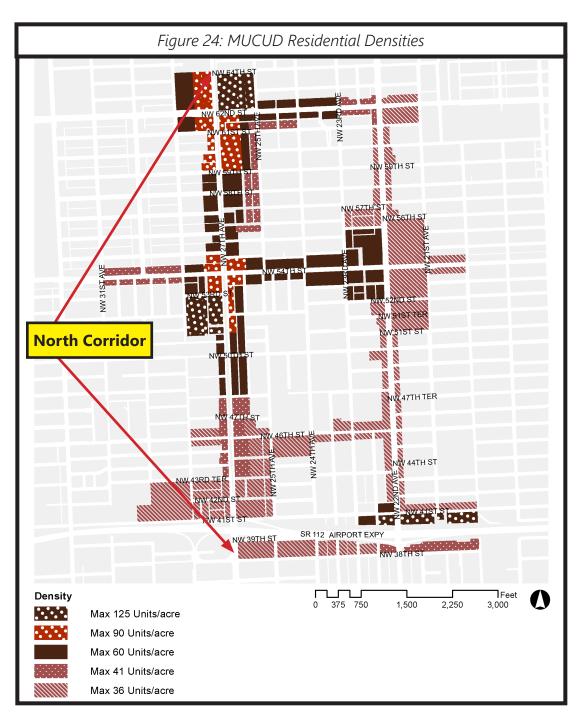
	Table 9				
	Sub-District				
	Core Center Edge				
Urban Area District			FAR of 1.7		
North Central Urban Area District	FAR of 1.5	FAR of 1.0			

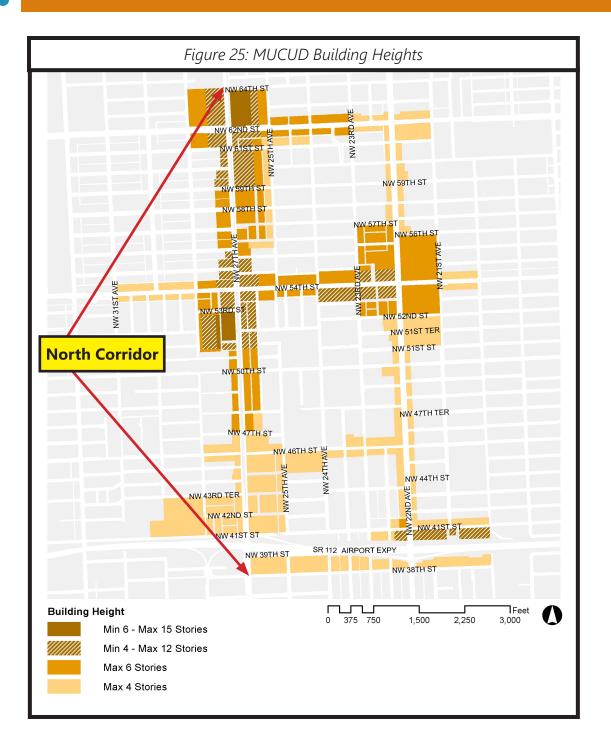
According to the County, properties designated Residential shall not be subject to these minimum intensity requirements. In addition, compatibility with single-family residential areas is important. When new development is proposed, the County will review applications to mitigate impacts of the proposed development on single-family residential areas.

In addition, the North Corridor also contains the Model City Urban Center District (MCUCD). Similar to the North Central Urban District, there is a Core, Center, and Edge sub-district as shown in Figure 23.



Within the MCUCD, there are regulations guiding density (Figure 24) and building height (Figure 25). These regulations are similar to the North Central Urban Area District but are unique to this area.





8.2 Level 2: Policy Considerations at Station Areas

As noted earlier in this report, transit is not a silver bullet for economic development. Instead, it must be coupled with placemaking and development policies and incentives to see desired development and growth. But, in car-oriented Miami-Dade County, transit-oriented development often requires more than transit. Local and regional amenities and destinations are needed to make transit-adjacent neighborhoods attractive to new residents, workers, and visitors.

New development that conforms to the dense, walkable character of TOD should be accompanied by public improvements that transform the character of the area's roadways, sidewalks, and urban form. When combined with improved transit service, these infrastructure improvements would help reduce auto usage – thus, potentially, reducing parking requirements in station-adjacent developments – and increase use of improved transit service. Public improvements should complement development and make these projects more financially viable.

Land use and transportation are closely linked; one cannot successfully be planned or implemented without close coordination with the other. The primary focus of the SMART Plan's Land Use Scenario and Visioning Planning work is to determine the population and employment necessary to successfully implement the North Corridor PLUS. Population and employment scenarios for each station area's development typology, selected with input from the Corridor community, indicate that, if implemented, these scenarios will support the PLUS from a land use perspective. Based on the differences between the currently-allowable population and employment in each station area, and the needed population and employment to support the PLUS, policy changes to local government Comprehensive Plans are suggested here. An implementation plan is also provided, listing steps to achieve the desired results.

To support the position that the North Corridor meets FTA's evaluation criteria for federal fixed-guideway transit investment, policies must be in place to allow for local land use and infrastructure to provide adequate capacity to reach population and employment targets. Complimentary economic development and housing policies were formulated for additional investment.

So, this chapter of the report suggests a regulatory land use policy framework that allows a transit-oriented environment to develop around the station areas. This framework is focused on key factors that impact land use:

- Population
- Employment
- Multimodal Transportation (Complete Streets)
- Parking
- Affordable/Workforce Housing
- Urban Design
- Economic Development



Implementing fixed-guideway transit requires collaboration among every level of government, (local, regional, state and federal). Local governments (cities and counties) are in charge of regulating land use -- their density, intensity and form. Local government's control land use through a state-mandated Comprehensive Plan. These plans have goals, objectives and policies in a variety of "elements", including land use, transportation, housing, and the like. General guidance is presented next to formulate elements of a Comprehensive Plan to increase population and employment in station areas in the North Corridor by allowing for, and incentivizing, increased development, and, consequently, boost ridership.

8.2.1 Recommended Land Use Scenarios to Support North Corridor PLUS

The Preferred Land Use Scenario (PLUS) for each station area is presented here. The projected population of the station areas has been converted into the number of dwelling units per acre, then measured against what each local government currently allows as a product of their land use policies. In terms of employment, the total number of jobs assigned to each station area is converted into the number of square feet needed to support that level of employment and compared to that which currently exists. This is done using U.S. Department of Energy statistics. Where additional units, acreage or square footage is needed to reach desired capacities, suggestions are made for policy changes to allow increased densities.

Using industry standards, the station areas in this Corridor are envisioned as compact centers of moderateto high-intensity and density development, comprised of a mix of uses occurring within 1/2 mile of the transit station itself. These station areas are characterized by well-defined streetscapes and an urban form that promotes walking to and from stations. Development within the station areas is seen to be concentrated around transit stations then to "step down" as the distance from the station increases.

8.2.2 Policy Guidance

Local governments can utilize several techniques to regulate and provide the basis for effective station area development. Comprehensive Plans, authorized by Chapter 163 of the Florida Statues, the authority to set forth the goals, objectives and policies for land use, transportation, housing and a host of other elements.

The *Land Use Element* of a Comprehensive Plan specifies minimum and maximum densities of residential, commercial and industrial uses. For transit station areas, individual zoning codes, or districts, can be developed to specify heights, floor-area ratios, lot coverage, block spacing and parking requirements.

Transportation Element policies focus on supporting the land uses with multimodal Complete Streets recommendations to be considered as development and redevelopment occur.

Housing Element policies should encourage a variety of housing unit-sizes and types, and, ultimately, foster a higher level of affordable housing in station areas. Housing policies should recognize that affordability is contingent on both housing and transportation costs. As families have a tendency to shift costs, either by paying more for transportation when paying less for housing, and vice-versa, effective affordable housing policies address trade-offs between these two costs.

Presented below for each of the various Comprehensive Plan elements, are policy suggestions to be adopted in some form by local governments. It is critical to assure that projected population and employment are met.





8.2.3 Land Use Element

The Future Land Use Element focuses on land use patterns, individual uses, allowed density and intensity, and the zoning districts that implement them. In station areas, the Land Use Element should encourage increased employment and residential density, to the levels reported earlier in this document, and to inform future zoning modifications to support urban design guidelines that allow those densities to fit a preferred typology. Local governments should seek to include strategies which encourage development in compliance with these recommendations.

Land Use Recommendation: LU#1 Adopt the Preferred Land Use Scenarios

Each local government with Comprehensive Plan authority (Miami Gardens, Opa-Locka and Miami-Dade County in unincorporated areas of the North Corridor) should identify the station areas within its boundaries, and:

- 1. Concentrate on creating areas of high population and employment densities and intensities to boost transit ridership, and lower the cost per rider, which are important metrics used by government agencies in the competitive process to fund projects.
- 2. Utilize several techniques to regulate and provide the basis for effective station area development.
- 3. Provide that the Land Use Element of a Comprehensive Plan specify minimum and maximum densities of residential, commercial and industrial uses. For transit station areas, individual zoning codes, or districts, can be developed to specify heights, floor-area ratios, lot coverage, block spacing and parking requirements.
- 4. Focus the Transportation Element on policies that support multimodal, Complete Streets recommendations to be considered as development and redevelopment occur. Pedestrian and bicycle-friendly environments take into consideration policies of block size and amenities enhancing safety and/or comfort. Critical to TODs are first-and-last-mile transportation modes; these policies should gear towards providing viable options to automobile use that integrate land use with connectivity and accessibility.
- 5. Encourage in the Housing Element a variety of housing unit-sizes and types, and, ultimately, foster a higher level of affordable housing in station areas.

Land Use Recommendation: LU#2 Residential Population and Housing-Unit Goals

Local government should seek to maximize the effectiveness of the North Corridor PLUS by adopting the recommended residential density targets (Dwelling/Units per Acre - DU/AC) cited below.

	Current Capaci	F	uture Requiremen	ts			
Station Area	Net Housing Acreage	Dwelling Units	DU/AC	Population	Dwelling Units	Typology	DU/AC
Brownsville	344	43,000	125	12,000	5,941	Neighborhood	19.6
MLK	283	35,375	125	7,000	3,465	Neighborhood	11.4
79th/82nd	226	28,250	125	15,000	7,426	Community	40.8
95th	359	44,875	125	12,500	6,188	Neighborhood	20.4
MDC	86	10,750	125	8,000	3,960	Neighborhood	13.1
Opa-Locka**	249	8,763	35	12,000	5,941	Community	32.6
NW 163rd*	396	19,800	50	8,600	4,257	Neighborhood	14
Carol City*	385	19,240	50	21,000	10,396	Regional	73.4
Stadium*	326	16,280	50	15,000	7,426	Community	40.8
County Line*	195	9,760	50	12,000	5,941	Neighborhood	19.6

Table 10: Recommended Residential Density Targets

Table 11: Comparison of Residential Density Targets

Comparison									
Station Area	Existing DU/AC	Future DU/AC	Change Needed?	Additional DU/AC Needed					
Brownsville	125	19.6	No	-					
MLK	125	11.4	No	-					
79th/82nd	125	40.8	No	-					
95th	125	20.4	No	-					
MDC	125	13.1	No	-					
Opa-Locka**	35	32.6	No**	-					
NW 163rd*	50	14	No*	-					
Carol City*	50	73.4	Yes*	23.5					
Stadium*	50	40.8	No*	-					
County Line*	50	19.6	No*	-					

*The comprehensive plan for Miami Gardens has three land use categories: Commerce, Neighborhood, and Preservation. Neighborhood and Commerce allow both residential and commercial uses. The current capacity of housing stock or FAR for employment is unable to be determined as both land uses could be entirely commercial or residential.

**The Opa-Locka Station Area has a total of 5 acres designated from the Miami Gardens comprehensive plan. Within these 5 acres, the current capacity of housing stock or FAR for employment is unable to be determined as both as both land uses could be entirely commercial or residential.

***Typology is based on the Comprehensive Plan designation of Regional Metropolitan Community Centers.



Land Use Recommendation: LU#3 Employment Goals

Local governments should seek to maximize the effectiveness of the North Corridor PLUS by adopting the employment targets stemming from the TPO North Corridor Preferred Land Use Scenario and Visioning Planning Study, as cited below in Floor Area Ratios (FARs).

	Current Capacity						Futu	e Requirements		
Station Area	Employment	Net sq ft	Typology***	Net Acreage	FAR****	Employment	Net Sq. Ft.	Typology***	Net Acreage	FAR****
Brownsville	2,467	2,538,738	Neighborhood	58	0.6	4,500	4,630,500	Neighborhood	106	1.1
MLK	4,224	4,345,987	Neighborhood	100	1.0	4,000	4,116,000	Neighborhood	94	0.9
79th/82nd	4,352	4,478,588	Community	103	0.5	10,000	10,290,000	Community	236	1.1
95th	1,826	1,879,163	Neighborhood	43	0.4	4,500	4,630,500	Neighborhood	106	1.1
MDC	8,432	8,676,859	Neighborhood	199	2.0	5,000	5,145,000	Neighborhood	118	1.2
Opa-Locka**	5,791	5,959,008	Community	137	0.6	16,000	16,464,000	Community	378	1.7
NW 163rd*	16,764	17,249,760	Neighborhood	396	3.9	3,480	3,580,920	Neighborhood	82	0.8
Carol City*	16,289	16,761,888	Regional	385	1.5	12,000	12,348,000	Regional	283	1.1
Stadium*	13,783	14,183,136	Community	326	1.5	10,000	10,290,000	Community	236	1.1
County Line*	8,263	8,502,912	Neighborhood	195	1.9	6,000	6,174,000	Neighborhood	142	1.4

Table 12: Floor Area Ratios to Support Employment Targets

Table 13: Comparison of Floor Area Ratio Targets								
Comparison								
Station Area	Existing	Future	Change	Additional				
Station Area	FAR	FAR	Needed?	FAR****				
Brownsville	0.6	1.1	Yes	0.5				
MLK	1.0	0.9	No	-				
79th/82nd	0.5	1.1	Yes	0.6				
95th	0.4	1.1	Yes	0.7				
MDC	2.0	1.2	No	-				
Opa-Locka**	0.6	1.7	Yes**	1.1				
NW 163rd*	3.9	0.8	No*	-				
Carol City*	1.5	1.1	No*	-				
Stadium*	1.5	1.1	No*	-				
County Line*	1.9	1.4	No*	-				

Table 13: Comparison of Floor Area Ratio Targets

It is important to note the Comprehensive Development Master Plan (CDMP) Land Use Element provides that Community Urban Centers are to be developed with a maximum residential density of 125 units per acre and a Floor Area Ratio of not less than 0.5 at the edge and greater than 1.5 in the core. More information on this can be found in section 8.4 of this report. Consistent with the above information, each station area is discussed next from south to north of the Corridor.

*The comprehensive plan for Miami Gardens has three land use categories: Commerce, Neighborhood, and Preservation. Neighborhood and Commerce allow both residential and commercial uses. The current capacity of housing stock or FAR for employment is unable to be determined as both land uses could be entirely commercial or residential.

**The Opa-Locka Station Area has a total of 5 acres designated from the Miami Gardens comprehensive plan. Within these 5 acres, the current capacity of housing stock or FAR for employment is unable to be determined as both as both land uses could be entirely commercial or residential.

*** FAR means Floor Area Ratio



Brownsville Station - According to the Miami-Dade County's Comprehensive Plan's Future Land Use Map, the Brownsville Station Area has 344 residential acres which allows for a maximum of 43,000 dwelling units based on the County's maximum of 125 dwelling units per acre (DU/AC). Under the preferred land use scenario, the projected target population for the Brownsville Station Area is 12,000 people and, therefore, approximately 5,941 dwelling units will be required, needing an additional 303 residential acres. The projected DU/AC will be 19.6, which is lower than what the County currently provides. Therefore, additional DU/AC is not required in the Brownsville Station Area.

Under today's land use designations, the Brownsville Station has 58 acres allocated for employment which allows for 2,467 jobs. The current commercial and industrial floor area ratio (FAR) is approximately 0.6 based on this information. In the projected land use scenario, the Brownsville Station Area will require 106 acres to support 4,500 jobs. The FAR required for employment will be 1.1, which is 0.5 FAR higher than currently exists. However, Brownsville station is within the Core subdistrict of the CDMP. The FAR of 1.1 does not meet the minimum FAR of 1.5 from the CDMP. Therefore, the use of land within Brownsville Station Area is recommended to provide, at a minimum, an additional 0.9 FAR.

With the projected DU/AC and FAR, the average height of a building within the station area can be between 3 and 4 stories to reach projected population and employment growth.

MLK Station - The MLK Station Area has 283 residential acres which allows for a maximum of 35,375 dwelling units based on the County's maximum of 125 dwelling units per acre (DU/AC). Under the preferred land use scenario, the projected target population for the MLK Station Area is 7,000 people and, therefore, approximately 3,465 dwelling units will be required, needing 303 additional residential acres. The projected DU/AC will be 19.6, which is lower than what the County currently provides. Therefore, land use changes within the MLK Station Area are not required to provide additional DU/AC.

Under today's land use designations, the MLK Station has 100 acres to be allocated for employment which allows for 4,224 jobs. The current commercial and industrial floor area ratio (FAR) is approximately 1.0 based on this information. In the projected land use scenario, the MLK Station Area will require 94 acres of land to support 4,000 jobs. The FAR required for employment will be 0.9, which is 0.1 FAR lower than what currently exists. However, MLK station is within the Core subdistrict of the CDMP. The FAR of 0.9 does not meet the minimum FAR of 1.5 from the CDMP. Therefore, the use of land within MLK Station Area is recommended to provide, at a minimum, an additional 0.6 FAR.

With the projected DU/AC and FAR, the average height of a building within the station area can be between 2 and 3 stories to reach projected population and employment growth.

79th/82nd Station - The 79th/82nd Station Area has 226 residential acres which allows for a maximum of 28,250 dwelling units based on the County's maximum of 125 dwelling units per acre (DU/AC). Under the preferred land use scenario, the projected target population for the 79th/82nd Station Area is 15,000 people and, therefore, approximately 7,426 dwelling units will be required, needing 182 residential acres. The projected DU/AC will be 40.8, which is lower than what the County currently provides. Therefore, land use changes within the 79th/82nd Station Area are not required to provide additional DU/AC.





Under today's land use designations, the 79th/82nd Station has 103 acres allocated for employment which allows for 4,352 jobs. The current commercial and industrial floor area ratio (FAR) is approximately 0.5 based on this information. In the projected land use scenario, the 79th/82nd Station Area will require 236 acres to support 10,000 jobs. The FAR required for employment will be 1.1, which is 0.6 FAR higher than what currently exists. Therefore, the use of land within 79th/82nd Station Area is recommended to provide, at a minimum, an additional 0.6 FAR.

With the projected DU/AC and FAR, the average height of a building within the station area can be around 3 stories to reach projected population and employment growth.

95th Station - The 95th Station Area has 359 residential acres which allows for a maximum 44,875 dwelling units based on the County's maximum of 125 dwelling units per acre (DU/AC). Under the preferred land use scenario, the projected target population for the 95th Station Area is 12,500 people and, therefore, approximately 6,188 dwelling units will be required, needing 303 residential acres. The projected DU/AC will be 20.4, which is lower than what the County currently provides. Therefore, the land use changes within the 95th Station Area are not required to provide additional DU/AC.

Under today's land use designations, the 95th Station has 43 acres allocated for employment which allows for 1,826 jobs. The current commercial and industrial floor area ratio (FAR) is approximately 0.4 based on this information. In the projected scenario, the 95th Station Area will require 106 acres to support 4,500 jobs. The FAR required for employment will be 1.1, which is 0.7 FAR higher than what currently exists. Therefore, the use of land within 95th Station Area is recommended to provide, at a minimum, an additional 0.7 FAR.

With the projected DU/AC and FAR, the average height of a building within the station area can be between 3 and 4 stories to reach projected population and employment growth.

MDC Station - The MDC Station Area has 86 acres of residential acreage which allows for a maximum of 10,750 dwelling units based on the County's maximum of 125 dwelling units per acre (DU/AC). Under the preferred land use scenario, the projected target population for the MDC Station Area is 8,000 people and, therefore, approximately 3,960 dwelling units will be required, needing 303 residential acres. The projected DU/AC will be 13.1, which is lower than what the County currently provides. Therefore, the land use changes within the MDC Station Area are not required to provide additional DU/AC.

Under today's land use designations, the MDC Station has 199 acres allocated for employment which allows for 8,432 jobs. The current commercial and industrial floor area ratio (FAR) is approximately 2.0 based on this information. In the projected land use scenario, the MDC Station Area will require 118 acres to support 5,000 jobs. The FAR required for employment will be 1.2, which is 0.8 FAR lower than what currently exists. Therefore, the use of land within MDC Station Area does not need additional FAR.

With the projected DU/AC and FAR, the average height of a building within the station area can be between 3 and 4 stories to reach projected population and employment growth.



Opa-Locka Station - The Opa-Locka Station Area has 249 acres of residential acreage which allows for a maximum of 8,763 dwelling units. This results in approximately 35.2 dwelling units per acre (DU/AC). Under the preferred land use scenario, the projected target population for the Opa-Locka Station Area is 12,000 people and, therefore, approximately 5,941 dwelling units will be required, needing 182 residential acres. The projected DU/AC will be 32.6, which is 4.6 DU/AC lower than the current average. Therefore, additional DU/AC are not needed within the Opa-Locka Station Area.

Under today's land use designations, the Opa-Locka Station has 137 acres allocated for employment which allows for 5,791 jobs. The current commercial and industrial floor area ratio (FAR) is approximately 0.6 based on this information. In the projected scenario, the Opa-Locka Station Area will require 378 acres to support 16,000 jobs. The FAR required for employment will be 1.7, which is 1.1 FAR higher than what currently exists. Therefore, the use of land within Opa-Locka Station Area is recommended to provide, at a minimum, an additional 1.1 FAR.

With the projected DU/AC and FAR, the average height of a building within the station area can be between 3 and 4 stories to reach projected population and employment growth.

It is important to note the Opa-Locka Station Area has a total of 5 acres designated from the Miami Gardens' comprehensive plan for which the current capacity of housing stock and FAR for employment cannot be properly estimated as the land could be entirely commercial, or entirely residential, based on the descriptions of the Neighborhood and Commerce land uses. The previous station area calculations used the designations as either all residential or all employment when calculating the respective categories.

NW 163rd Street Station - It is important to note that the NW 163rd St. Station Area current capacity of housing and FAR for employment cannot be properly estimated as the land could be entirely commercial, or entirely residential, based on the descriptions of the Neighborhood and Commerce land uses. However, the following calculations use the land designations as either all residential or all employment when calculating the respective categories.

According to the City of Miami Gardens' Comprehensive Plan's Future Land Use Map, under today's future land use designations, the NW 163rd Street Station Area has 396 residential acres which allows for a maximum of 19,800 dwelling units. This results in approximately 50.0 dwelling units per acre (DU/AC). Under the preferred land use scenario, the projected target population for the NW 163rd Street Station Area is 8,600 people and, therefore, approximately 4,257 dwelling units will be required, needing 303 residential acres. The projected DU/AC will be 14.0, which is 36.0 DU/AC lower than the current average. Therefore, additional DU/AC is not needed within the NW 163rd Street Station Area.

Under today's land use designations, the NW 163rd Street Station Area has 396 acres allocated for employment which allows for 16,764 jobs. The current commercial and industrial floor area ratio (FAR) is approximately 3.9 based on this information. In the projected scenario, the NW 163rd Street Station Area will require 82 acres to support 3,480 jobs. The FAR required for employment will be 0.8, which is 3.1 FAR lower than what currently exists. Therefore, additional FAR is not needed within the Station Area.

With the projected DU/AC and FAR, the average height of a building within the station area can be between 2 and 3 stories to reach projected population and employment growth.



Carol City Station - It is important to note the Carol City Station Area the current capacity of housing stock and FAR for employment cannot be properly estimated as the land could be entirely commercial, or entirely residential, based on the descriptions of the Neighborhood and Commerce land uses. However, the following calculations use the land designations as either all residential or all employment.

According to the City of Miami Gardens' Comprehensive Plan's Future Land Use Map, under today's future land use designations, the Carol City Station Area has residential 385 acres which allows for a maximum of 19,240 dwelling units. This results in approximately 50.0 dwelling units per acre (DU/AC). Under the Preferred scenario, the projected target population for the Carol City Station Area is 21,000 people and, therefore, approximately 10,396 dwelling units will be required, needing 141 residential acres. The projected DU/AC will be 73.4, which is 23.4 DU/AC higher than the current average. Therefore, land use changes within the Carol City Station Area are recommended to provide, at a minimum, an additional 23.4 DU/AC.

Under today's land use designations, the Carol City Station Area has 385 acres allocated for employment which allows for 16,289 jobs. The current commercial and industrial floor area ratio (FAR) is approximately 1.5 based on this information. In the projected scenario, the Carol City Station Area will require 283 acres to support 12,000 jobs. The FAR required for employment will be 1.1, which is 0.4 FAR lower than what currently exists. Therefore, land within Carol City Station Area does not need additional FAR.

With the projected DU/AC and FAR, the average height of a building within the station area can be between 4 and 5 stories to reach projected population and employment growth.

Stadium Station - The Stadium Station Area's the current capacity of housing stock and FAR for employment cannot be properly estimated as the land could be entirely commercial, or entirely residential, based on the descriptions of the Neighborhood and Commerce land uses. However, the following calculations use the land designations as either all residential or all employment.

According to the City of Miami Gardens' Comprehensive Plan's Future Land Use Map, under today's future land use designations, the Stadium Station Area has 326 acres of residential acreage which allows for a maximum of 16,280 dwelling units. This results in approximately 50.0 dwelling units per acre (DU/AC). Under the preferred land use scenario, the projected target population for the Stadium Station Area is 15,000 people and, therefore, approximately 7,426 dwelling units will be required, needing 182 residential acres. The projected DU/AC will be 40.8, which is 9.2 DU/AC lower than the current average. Therefore, land uses within the Stadium Station Area do not need additional DU/AC.

Under today's land use designations, the Stadium Station has 326 acres allocated for employment which allows for 13,783 jobs. The current commercial and industrial floor area ratio (FAR) is approximately 1.5 based on this information.

The Stadium Station Area is assigned a Community Typology which requires 223 acres to be allocated for employment. In the projected scenario, the Stadium Station Area will require 236 acres of land to support 10,000 jobs. The FAR required for employment will be 1.1, which is 0.4 FAR lower than what currently exists. Therefore, land within Stadium Station Area does need additional FAR.

With the projected DU/AC and FAR, the average height of a building within the station area can be around 3 stories to reach projected population and employment growth.



County Line Station - The current capacity of housing stock and FAR for employment cannot be properly estimated for County Line Station Area as the land could be entirely commercial, or entirely residential, based on the descriptions of the Neighborhood and Commerce land uses. However, the following calculations use the land designations as either all residential or all employment when calculating the respective categories.

The County Line Station Area has 195 residential acres which allows for a maximum of 9,760 dwelling units. This results in approximately 50.0 dwelling units per acre (DU/AC). Under the preferred land use scenario, the projected target population is 12,000 people and, therefore, approximately 5,941 dwelling units will be required, needing 303 residential acres. The projected DU/AC will be 19.6, which is 30.4 DU/AC lower than the current average. Therefore, use of land within the County Line Station Area does not need additional DU/AC.

Under today's land use designations, the County Line Station has 195 acres allocated for employment which allows for 8,263 jobs. The current commercial and industrial floor area ratio (FAR) is approximately 1.9 based on this information. In the projected scenario, the County Line Station Area will require 142 acres of land to support 6,000 jobs. The FAR required for employment will be 1.4, which is 0.5 FAR lower than what currently exists. Therefore, land within County Line Station Area does not need additional FAR.

With the projected DU/AC and FAR, the average height of a building within the station area can be between 4 and 5 stories to reach projected population and employment growth.

Conclusion

After extensive data collection, analysis, and public engagement, it was determined with conservative adjustments to population and employment in the station areas, the North Corridor can support elevated heavy rail in a variety of zoning typologies.

As the application for Federal Transit Administration approval of the North Corridor Locally Preferred Alternative moves forward, applying this land use visioning process with newly-developed 2045 LRTP data will be critical: by supporting housing and economic development policies which will increase population employment in each station area; and, by making the required changes to the local governments' comprehensive plans to support the land use/zoning changes. Doing so will provide the best opportunity to present a viable project based on FTA's evaluation criteria.