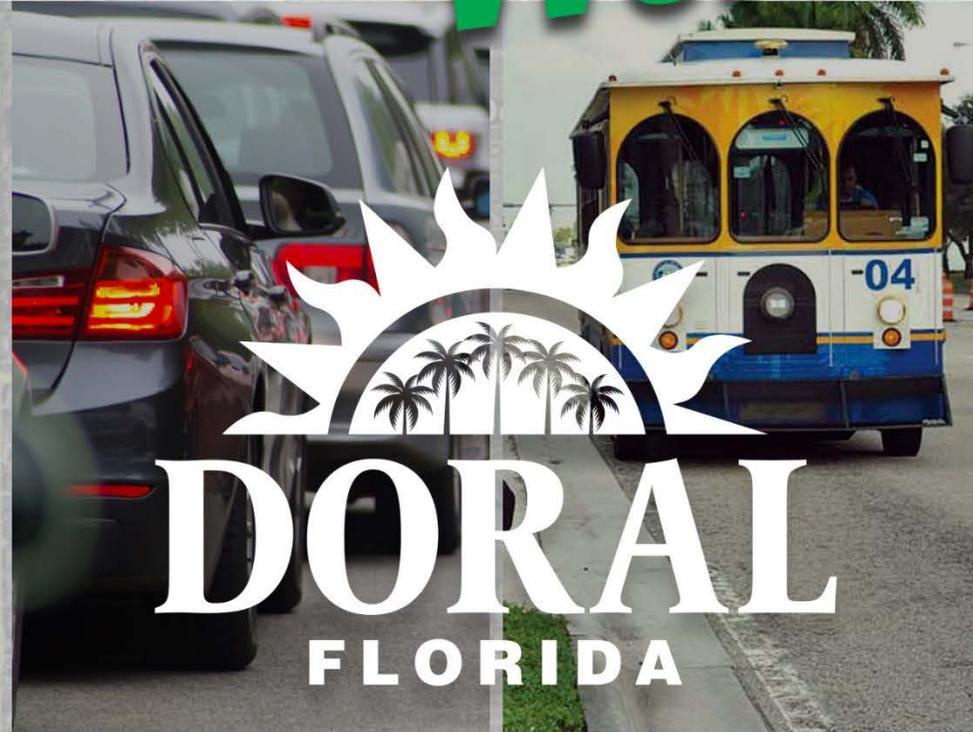


# TRANSPORTATION MASTER PLAN

## Workshop



May 16, 2017



# AGENDA

- 1 Introduction
- 2 What's The Problem
- 3 Our Story, Doral
- 4 How Does The Problem Apply To You
- 5 The Master Plan UPDATE
- 6 Discussion

# INTRODUCTION



**THE  
CORRADINO GROUP**

*Engineers • Planners • Program Managers • Environmental Scientists*

# What's The Problem

- Keeping Pace With Growth
- Providing Efficient and Effective Infrastructure so People Can Move
- Providing alternative options to the car



# What's The Solution



- **UPDATE THE MASTER PLAN**
  - **Scope of Services**
    - **Task 1 – Public Involvement**
    - **Task 2 – Data Collection / Analysis**
    - **Task 3 – Plan Development**
    - **Task 4 – Funding**
    - **Task 5 – Final Report**
  - **Review and recommend projects**
  - **Prioritize for the CIP**

# Our Story – DORAL



DEMOGRAPHICS Yesterday & Today

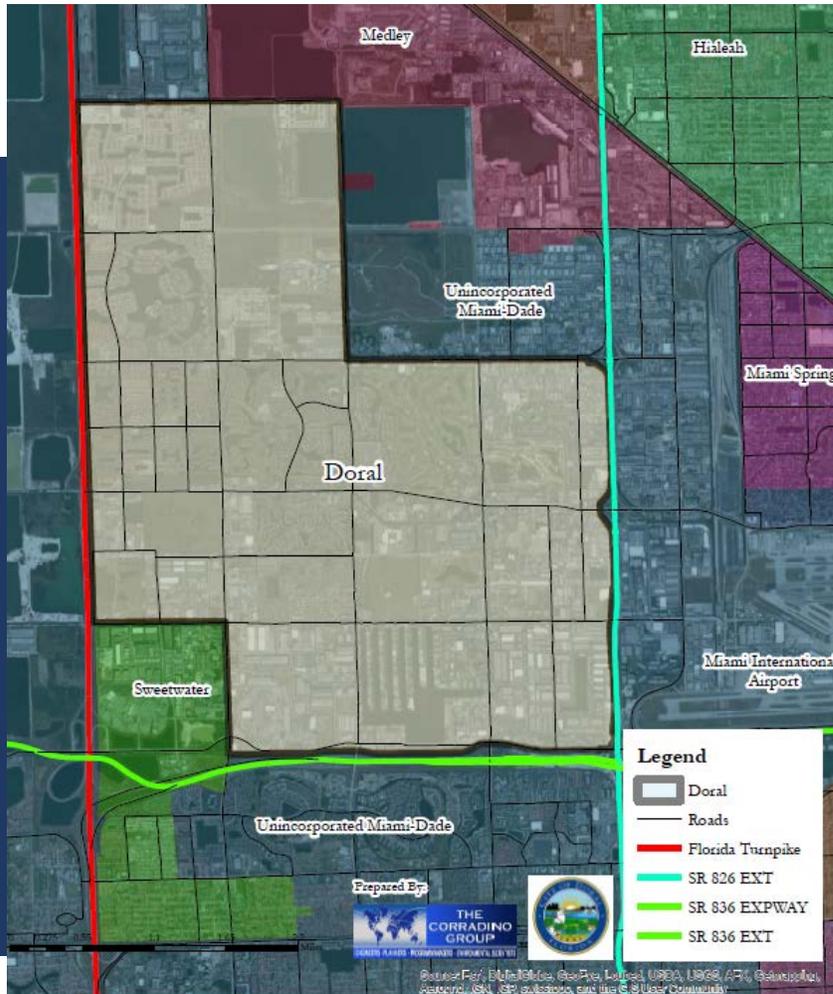
LAND USE

TRANSPORTATION

THE PLANS Transportation | Conditions

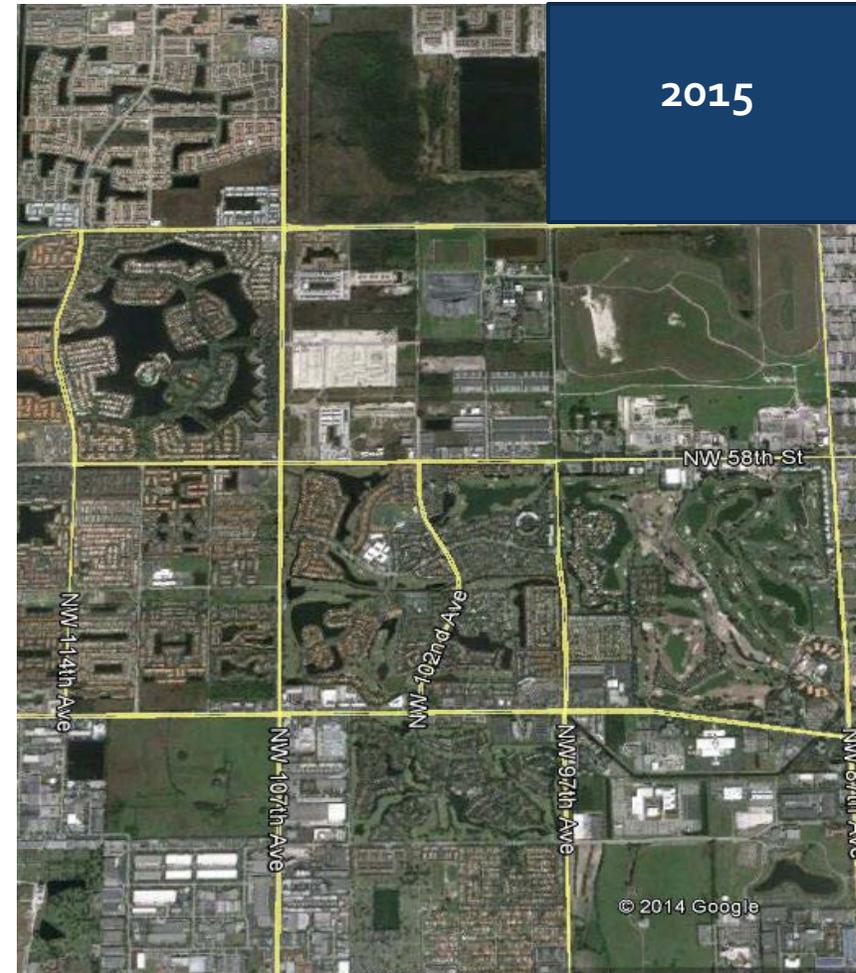


# Doral Demographics



- ✓ 50,000+ People
- ✓ 15 Sq. Miles
- ✓ 81% of all Households are Families
- ✓ Median Age: 32.4
- ✓ Jobs in Doral: 77,612
- ✓ Resident Workforce: 19,621
- ✓ 91 % Multi-Lingual
- ✓ 97% High School Education

# Explosion of Growth



# Development Patterns



Commercial - 1994



Commercial - 2015



Industrial - 1994



Industrial - 2015



# Compared to Miami-Dade County

## Doral has...



Higher Median Household Income

**\$70,157**

vs. Miami-Dade's \$41,420

Higher Percentage of

**YOUTHS**

under 18-years old



Lower Percentage of

**ELDERLY**

population

Higher Percentage of Households with at least 1 automobile

**97.6%**

vs. Miami-Dade's 88.4%



Lower

**POVERTY**

Rate

# Business

**#1** Tile District in USA | Home to the Miami Free Zone

Over **100** Multinational Companies | Over **50** Banking & Financial Institutions

Over **2,600** Trade and Logistics Companies

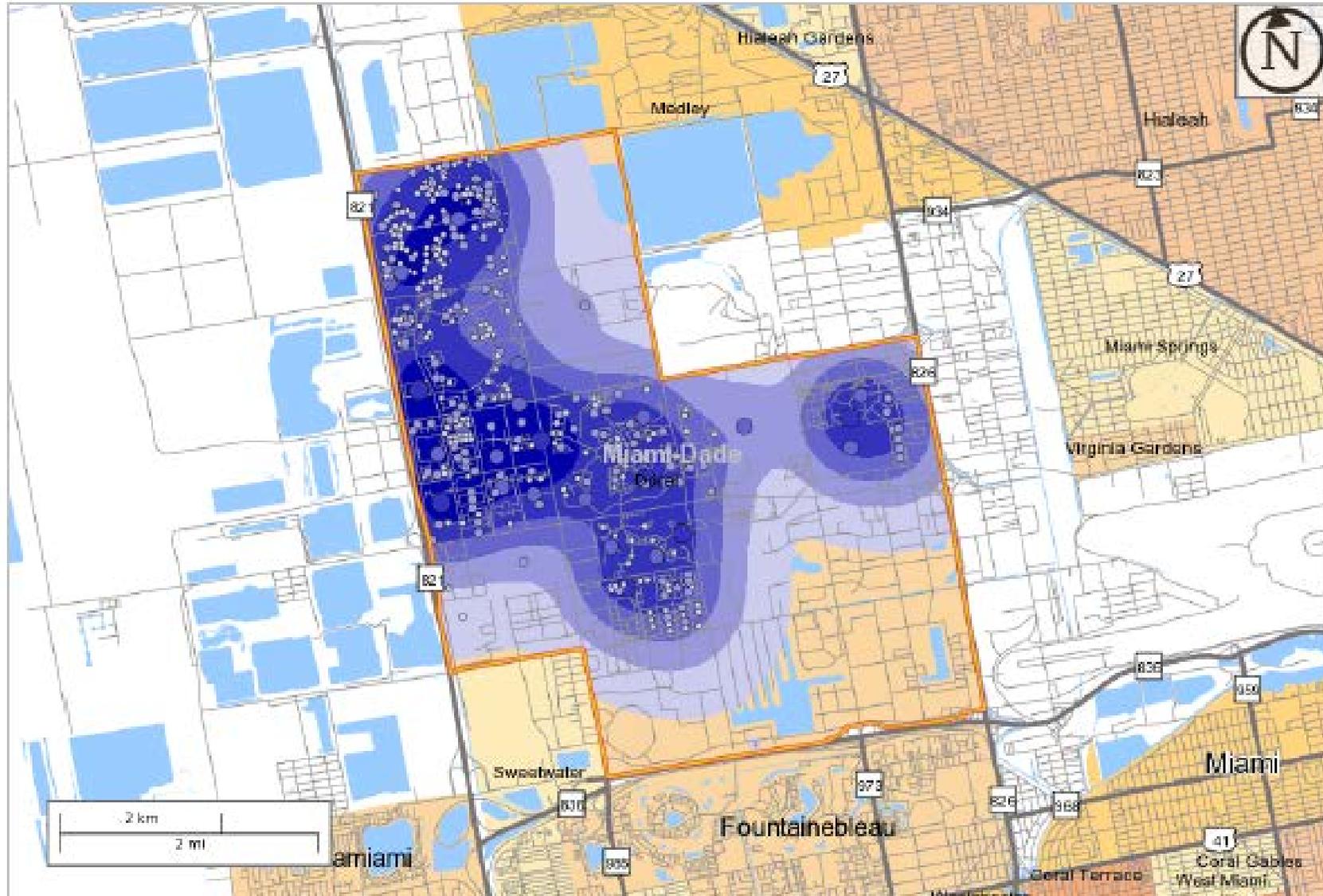


The Miami Herald

The logo for The Miami Herald, featuring the name in a classic, blackletter-style serif font.

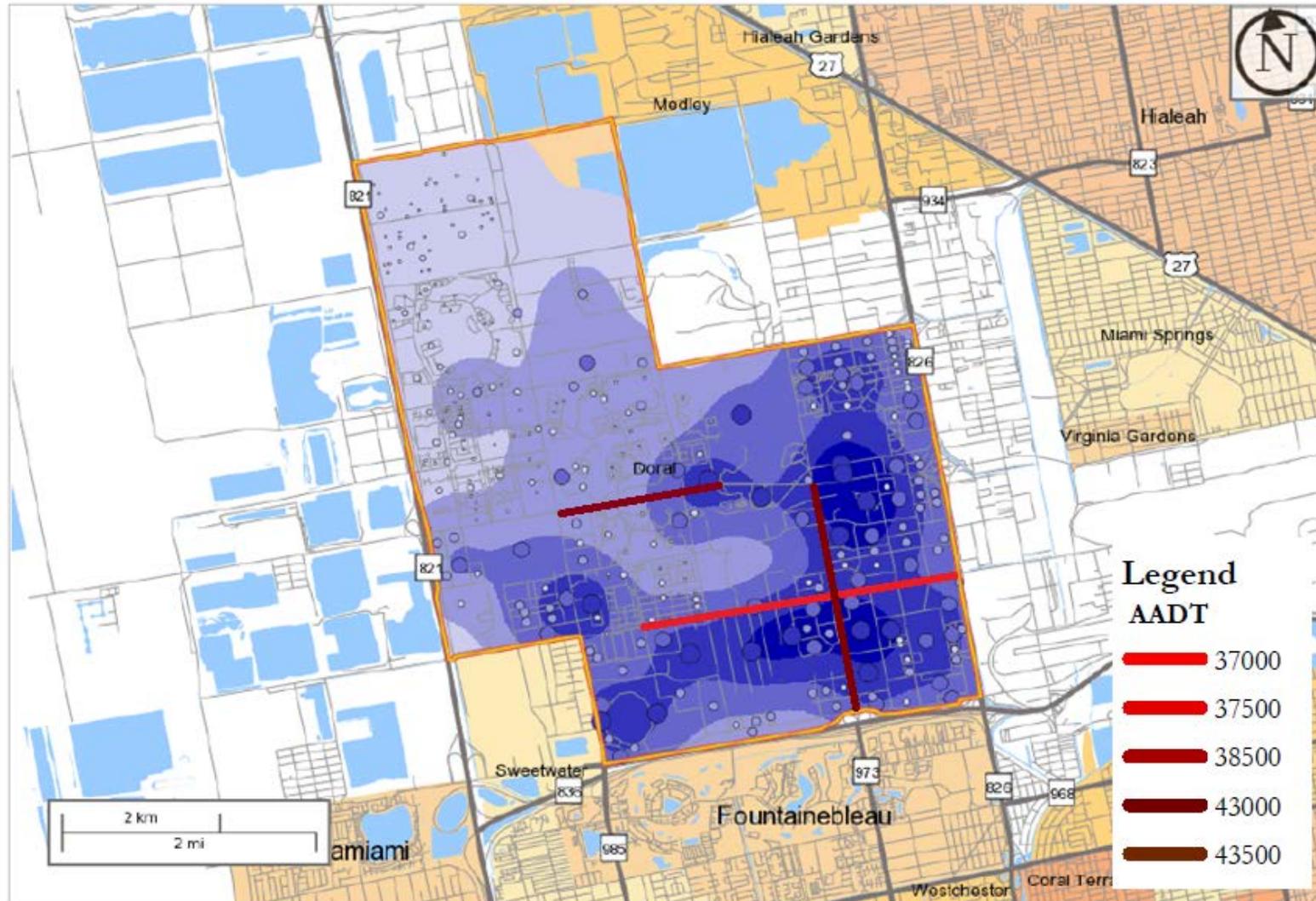


# Doral's Resident Worker Population



# Traffic and Areas of Employment

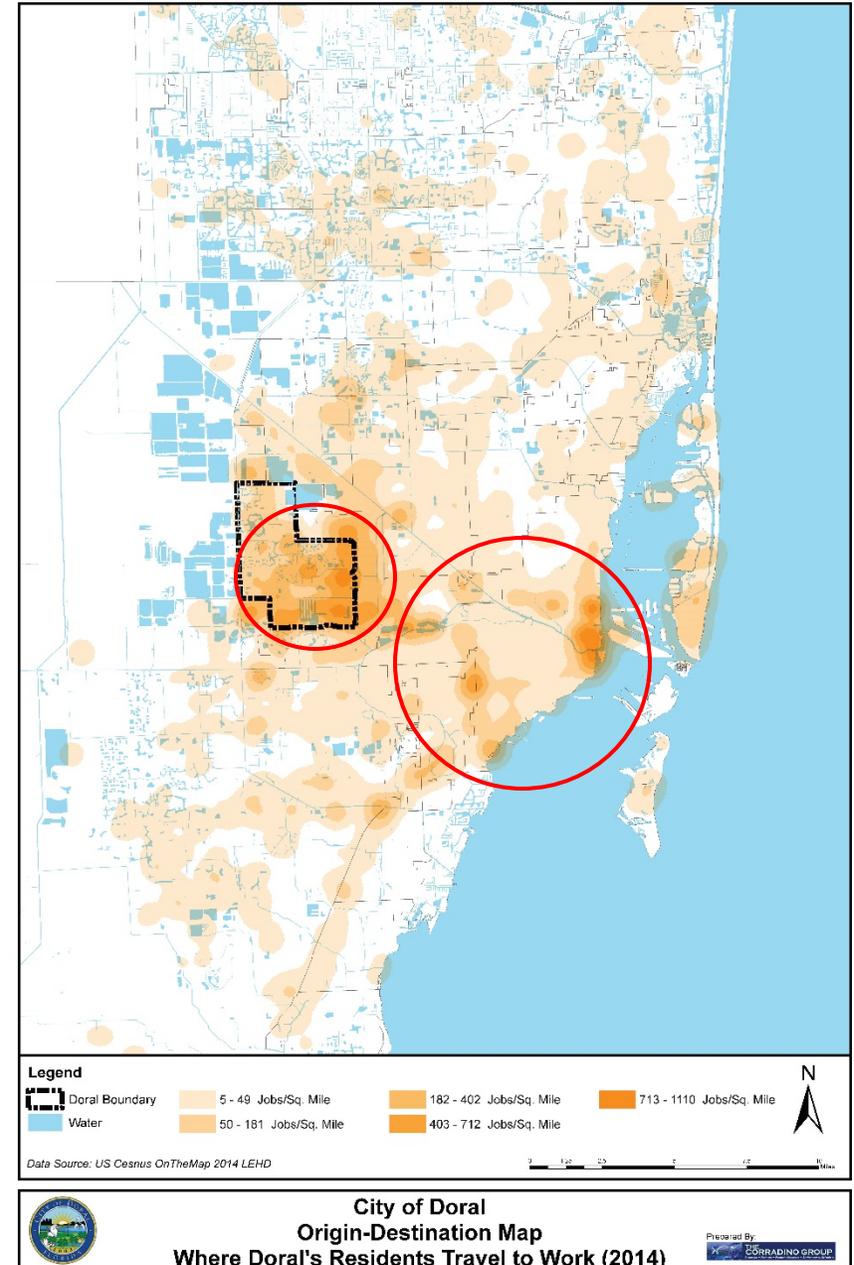
Darker – Higher Job Density



# People Living in Doral Work...

In:

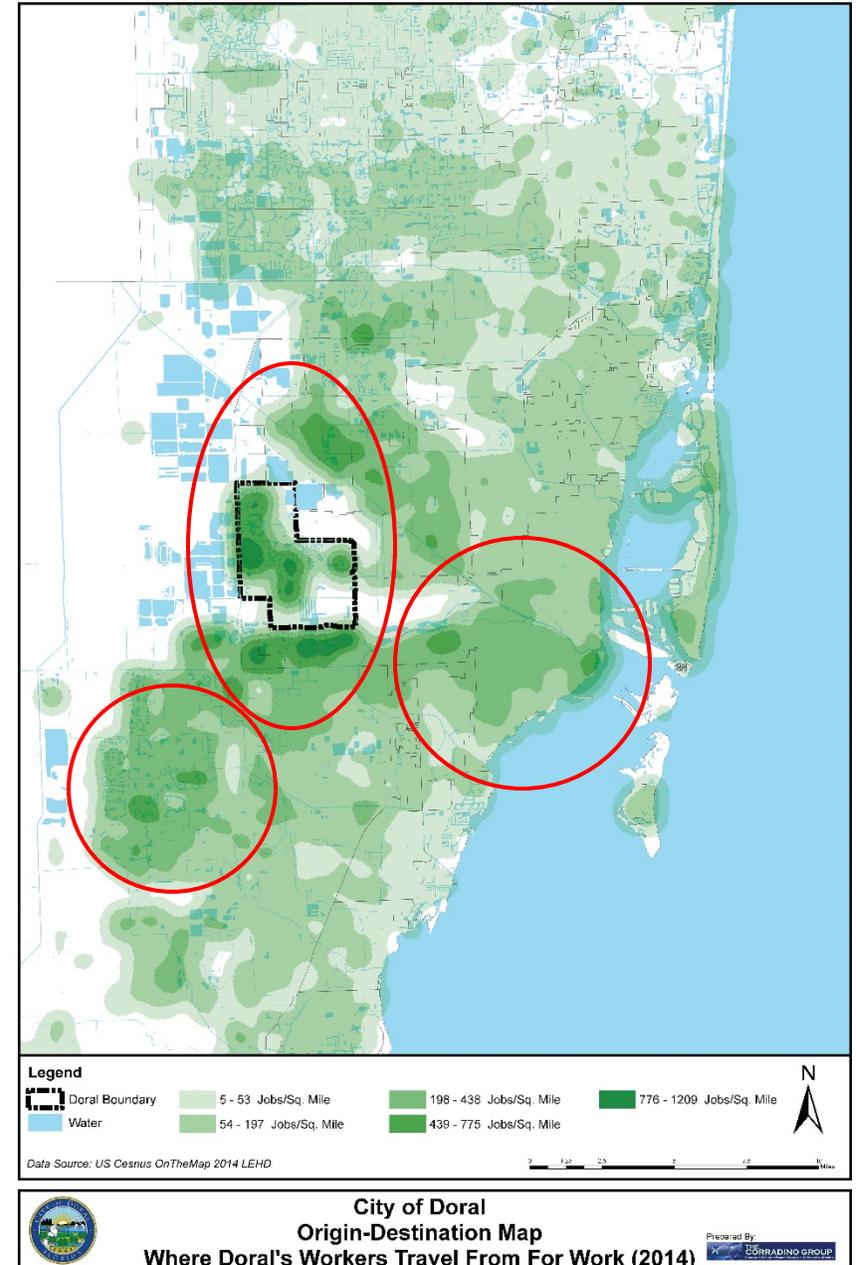
- Doral
  - Coral Gables
  - Coconut Grove
  - Miami
  - Miami Beach
- 
- What regional transit is there to travel to work?



# People Working in Doral Live...

In:

- Doral
  - West Kendall
  - Sweetwater
  - Hialeah
  - Miami
  - Miami Beach
  - Miami Lakes
- 
- What regional or intercity transit is there to travel to work in Doral?



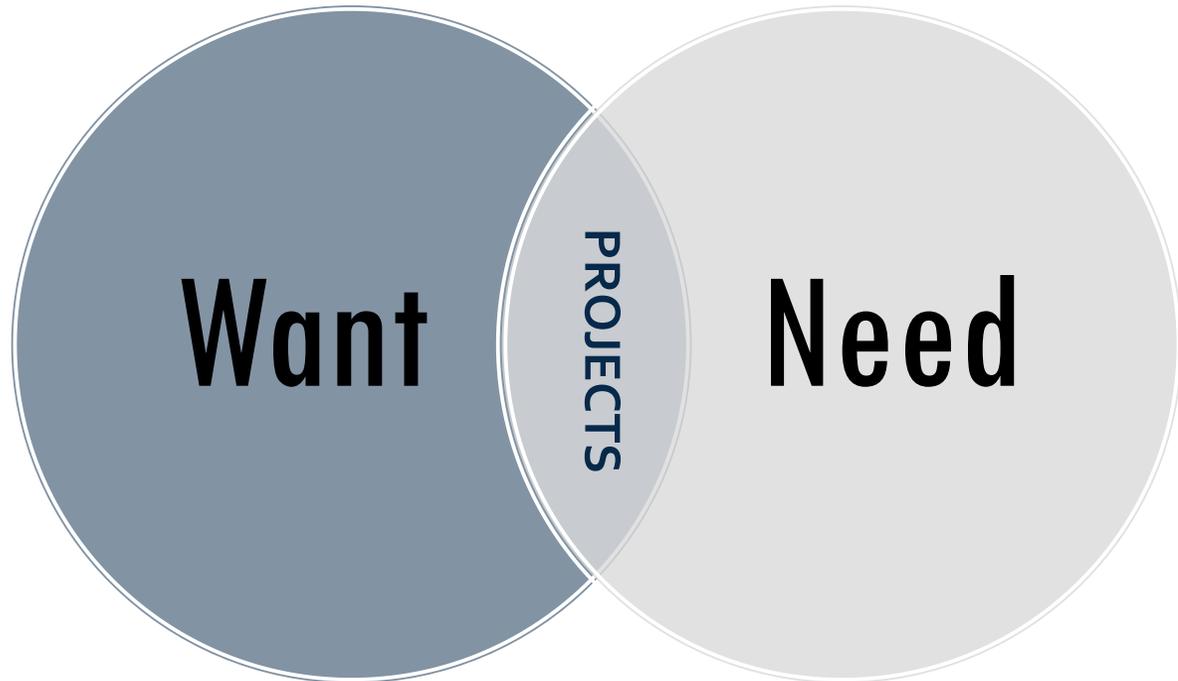
An aerial photograph of a golf course, showing a clubhouse and several residential buildings in the background. The image is overlaid with a semi-transparent blue filter. A dark blue circle is positioned on the left side of the image, containing white text.

**Doral is a  
YOUNG  
AFFLUENT  
MOBILE  
community**

# Mobility Plan Philosophy

Why We Have Been Successful

This is the balance between the ART and SCIENCE of Transportation Planning



## the **ART**

figuring out what you want

## the **SCIENCE**

figuring out what you need

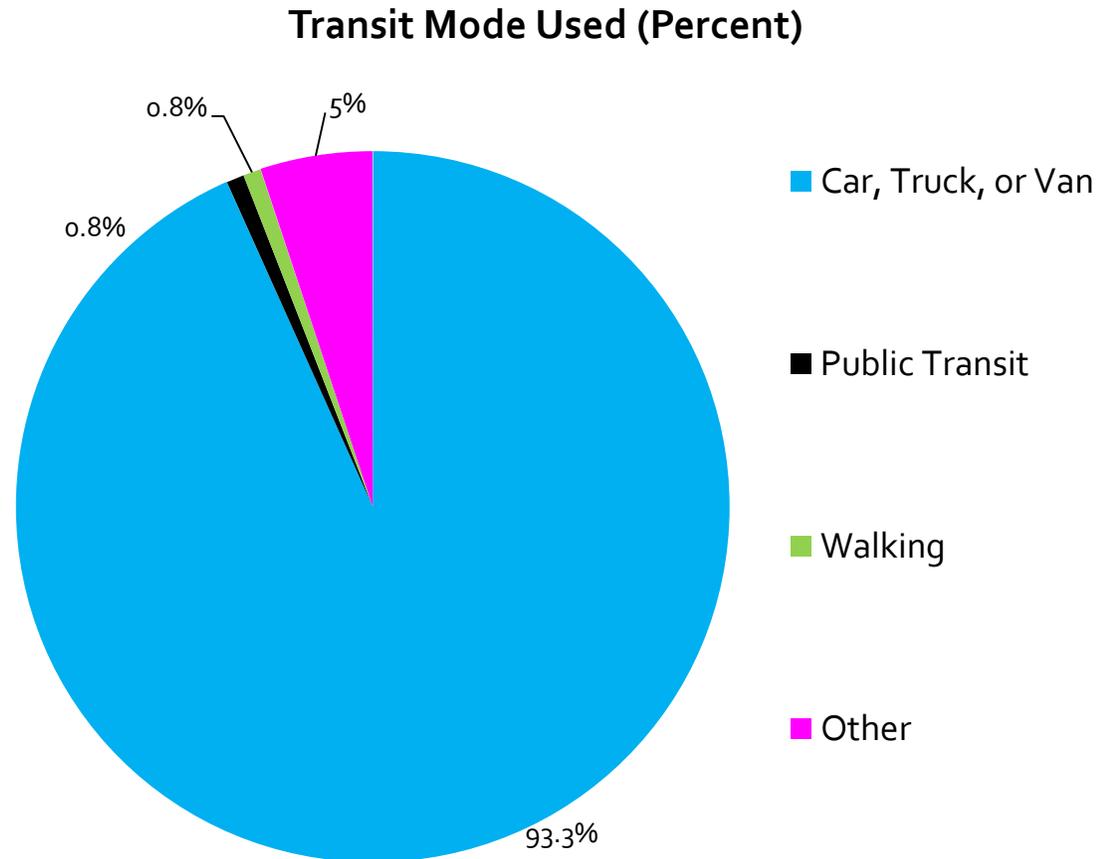
## the **NEXUS**

...of the two should be your projects

# Doral Transportation Master Plan Update

## Focus Primarily On:

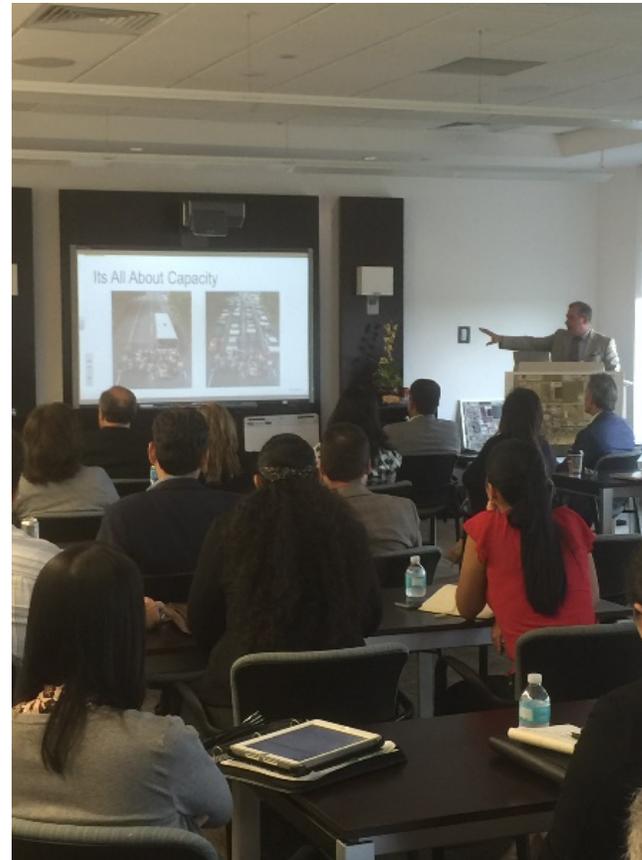
- Roadways
- Corridors
- Transit
- Bike/Ped



*Data Source: American Community Survey, US Census (2012)*

# Public Involvement

- Stakeholders Meetings
- Workshops
  - April
  - September
  - May
- Intergovernmental Coordination



*Make Doral Better!*

## *Join the Transportation Master Plan Workshop*



*Be part of planning Doral's future through the Transportation Master Plan. We need your ideas, your imagination, your experience as we work to build the City's future with the Transportation Master Plan.*

*Join us to discuss Doral's transportation network on:*

**Thursday, April 21, 2016**

**6-8 P.M.**

City of Doral Government Center  
8401 NW 53 Terrace  
Third Floor Training Room  
Doral, FL 33166

For further information contact:  
Public Works Department  
(305) 593-6740  
publicworks@cityofdoral.com

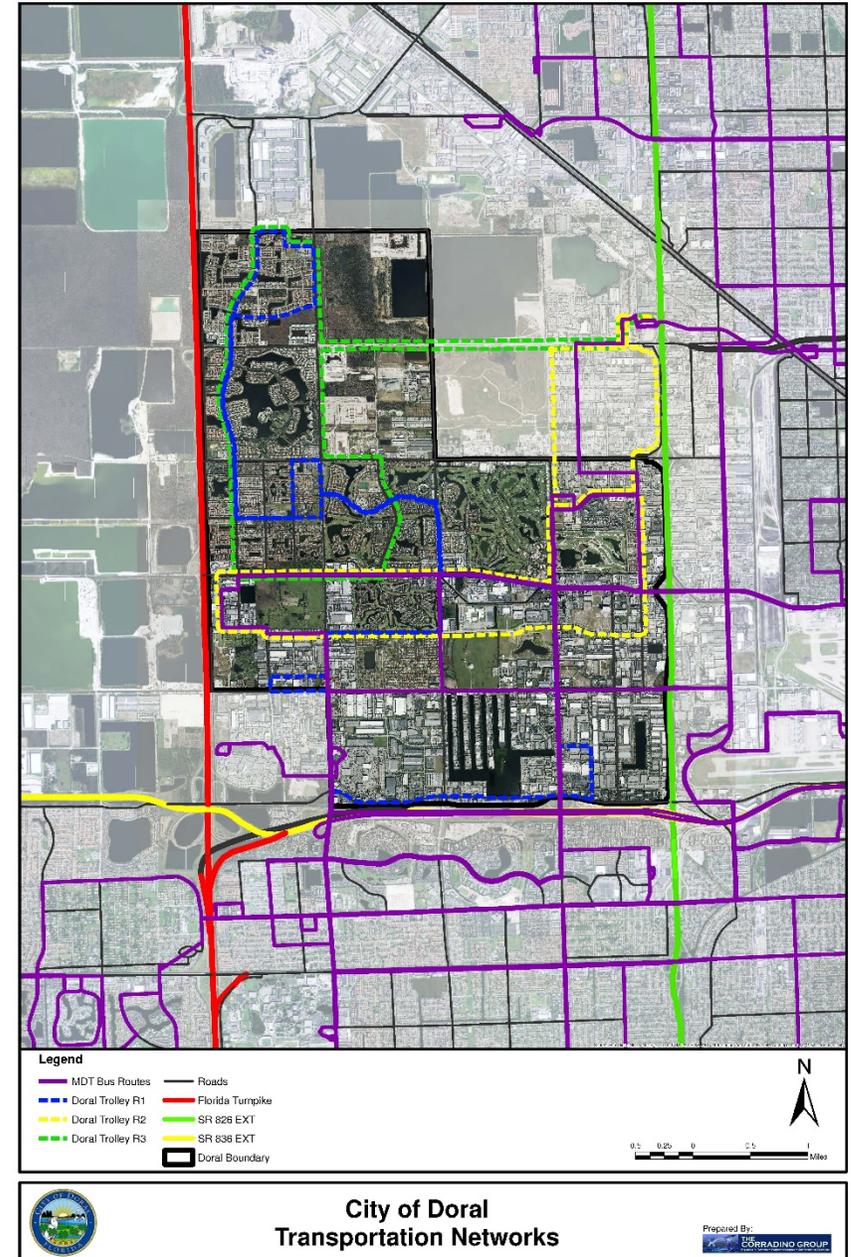
*Sitting in traffic is when you will regret not attending this workshop.*

# Findings and Recommendations

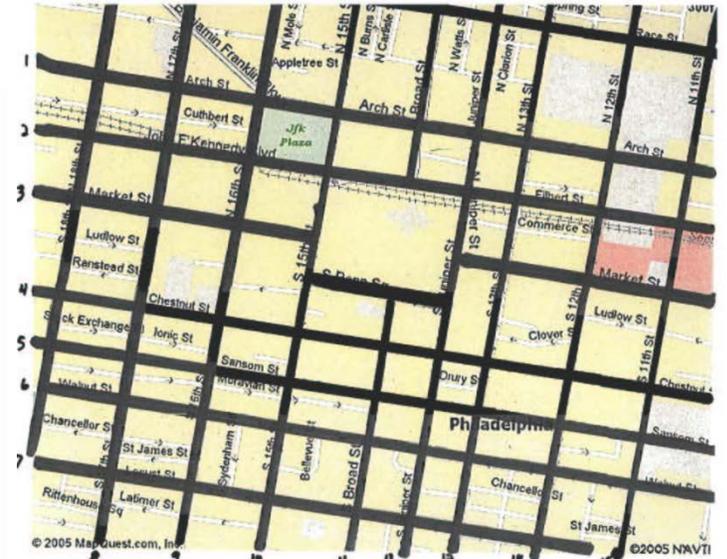
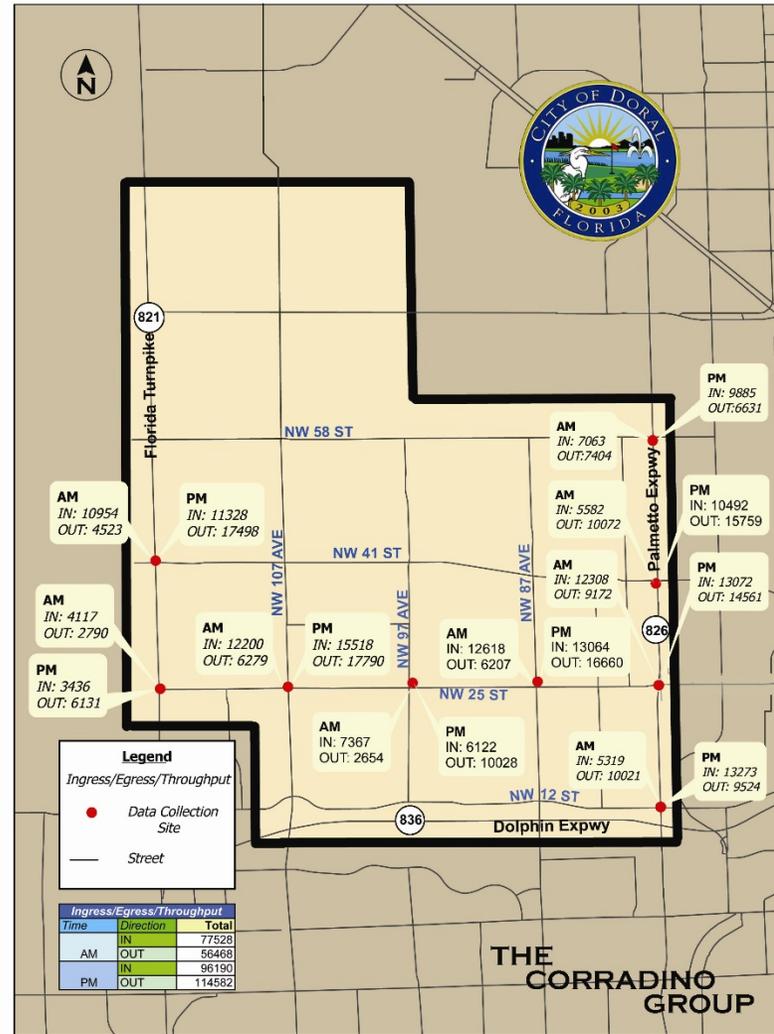
- Roadway
- Transit
- Pedestrian
- Bicycling
- Policies
  
- Prioritization

# Transportation Network

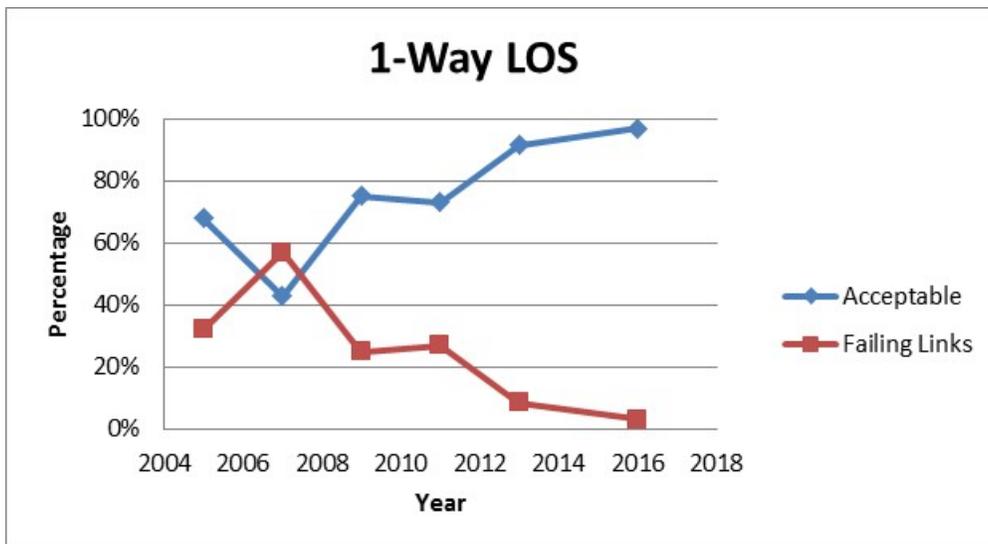
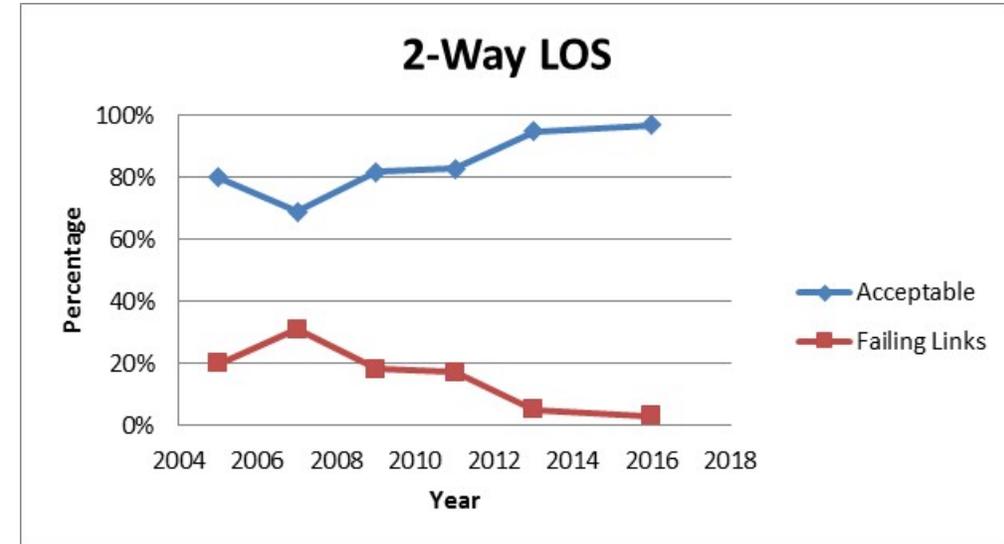
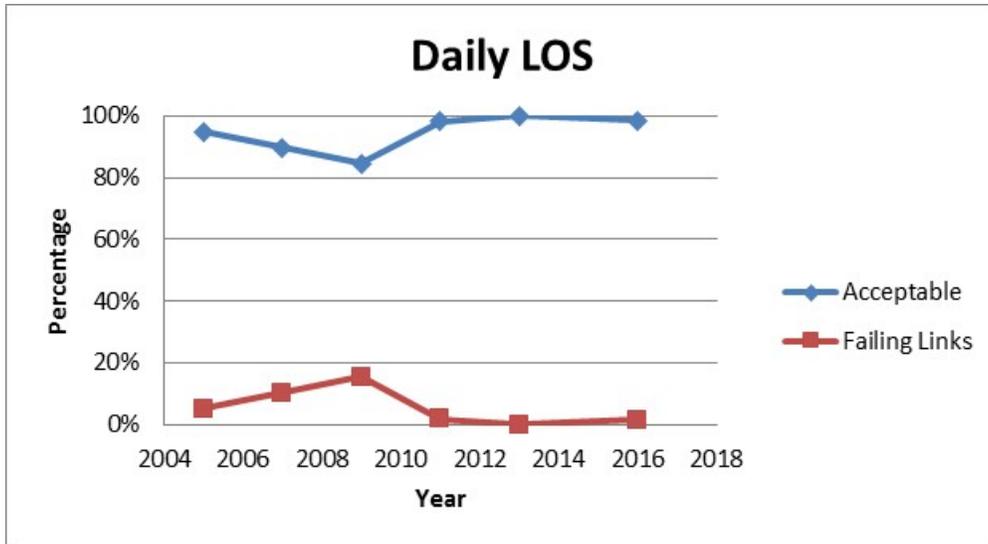
- Approximately 204 miles of roads
  - 4 categories - State, County, City and Private Roads - means that Doral coordinate with multiple jurisdictions to effect changes
- Florida Turnpike (SR 821)
- Palmetto Expressway (SR 826)
- Dolphin Expressway (SR 836)
- Multiple MDT Routes and proximity to Palmetto Station in Medley
- Doral Trolley serves as internal Circulator
- Developing Bicycle Network
- Adjacent to Miami International Airport



# Capacity Is The Issue



# Historical Roadway LOS



These lines represent the number of roadway links that are meeting level of service, and how many are not.

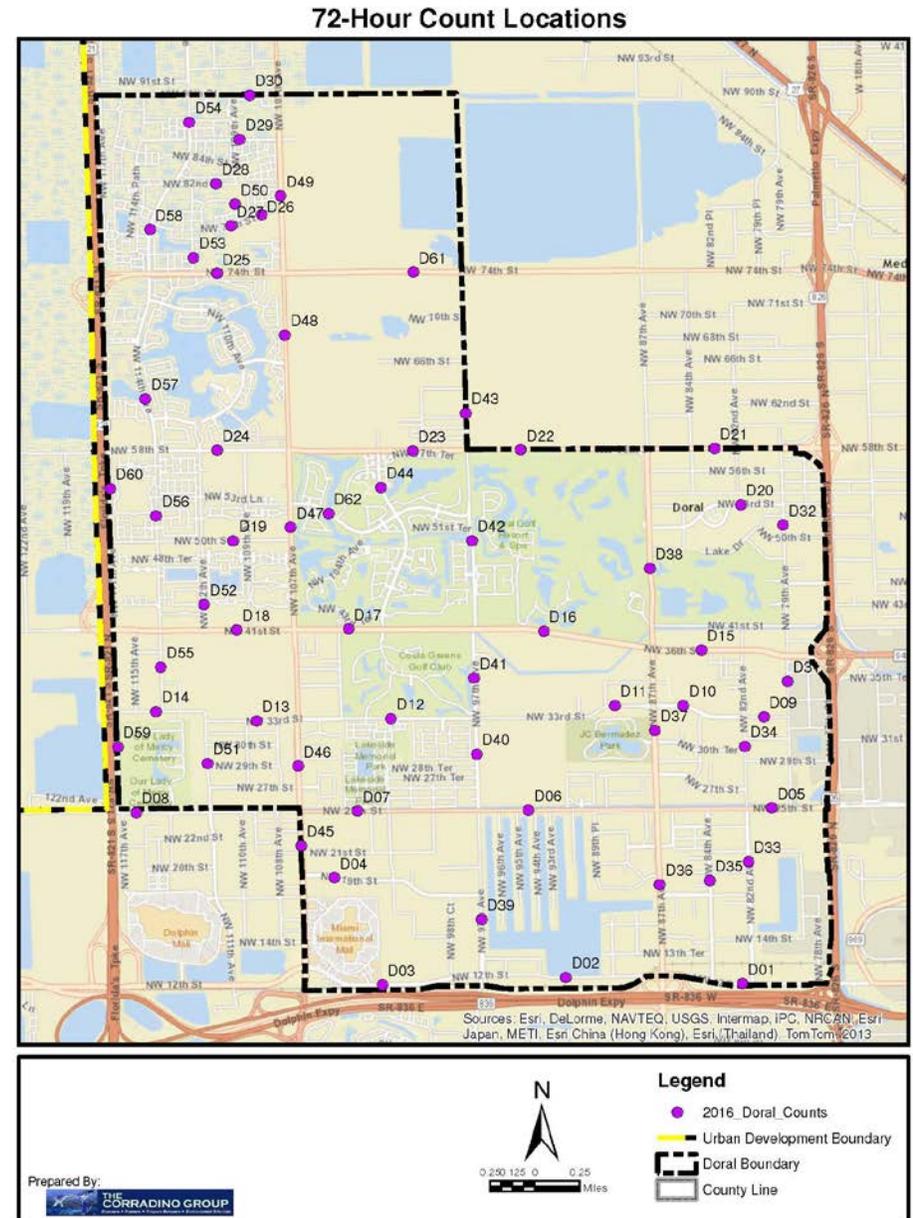
Overall, the various linkages have improved due to the City's efforts.

# Data Collection

62 Traffic Counts  
Locations

Review of Previous  
Studies

Projections based on  
existing



# Prior Master Plan LOS

## TODAY

Doral Master Plan (DMP-2)  
LOS WORKSHEET

East-West Corridors: Existing Condition (2005)												
Link	ROADWAY			Jurisdiction / Functional Classification	Configuration (No. of Lanes)	LOS Standard	DAILY			PEAK Hr. (Two-way)		
	NAME	FROM	TO				AADT	LOS Threshold	LOS	K <sub>100</sub> (%)	Peak Hr. Volume	LOS
	1	2	3	4	5	6	7	8	9	10	11	12
1	NW 74 St	NW 117 Ave	NW 107 Ave	Non-State	4	32,900	3,000	D	C	9.5	385	C
2	NW 83 St	NW 117 Ave	NW 107 Ave	Non-State	4	32,900	15,000	D	C	9.5	1,575	C
3		NW 107 Ave	NW 97 Ave	Non-State	4	32,900	16,000	D	C	9.5	1,740	C
4		NW 97 Ave	NW 87 Ave	Non-State	4	32,900	35,000	D	E+20	9.5	3,325	E+20
5		NW 87 Ave	SR 826	Non-State	4	32,900	32,000	D	E	9.5	3,040	E
6	NW 41 St	NW 117 Ave	NW 107 Ave	Class II - SPA	6-Divided	51,800	42,000	D	D	9.5	3,890	D
7		NW 107 Ave	NW 97 Ave	Class II - SPA	6-Divided	51,800	44,000	D	D	9.5	4,180	D
8		NW 97 Ave	NW 87 Ave	Class II - SPA	6-Divided	51,800	54,000	D	E+20	9.5	5,130	E+20
9		NW 87 Ave	SR 826	Class II - SPA	6-Divided	51,800	38,000	E	C	9.5	3,795	C
10	NW 25 St	NW 117 Ave	NW 107 Ave	Non-State	4	32,900	16,000	D	C	9.5	1,530	C
11		NW 107 Ave	NW 97 Ave	Non-State	4	32,900	35,000	D	E+20	9.5	3,325	E+20
12		NW 97 Ave	NW 87 Ave	Non-State	4	32,900	52,000	D	F	9.5	4,940	F
13		NW 87 Ave	SR 826	Non-State	4	32,900	46,000	D	F	9.5	4,370	F
14	NW 12 St	NW 107 Ave	NW 97 Ave	Non-State	4	32,900	24,000	D	D	9.5	2,280	D
15		NW 97 Ave	NW 87 Ave	Non-State	4	32,900	26,000	D	D	9.5	2,470	D
16		NW 87 Ave	SR 826	Non-State	4	32,900	36,000	D	E+20	9.5	3,420	E+20

Notes: 1 Roadway Name

## TOMORROW

Doral Master Plan (DMP-5)  
LOS WORKSHEET

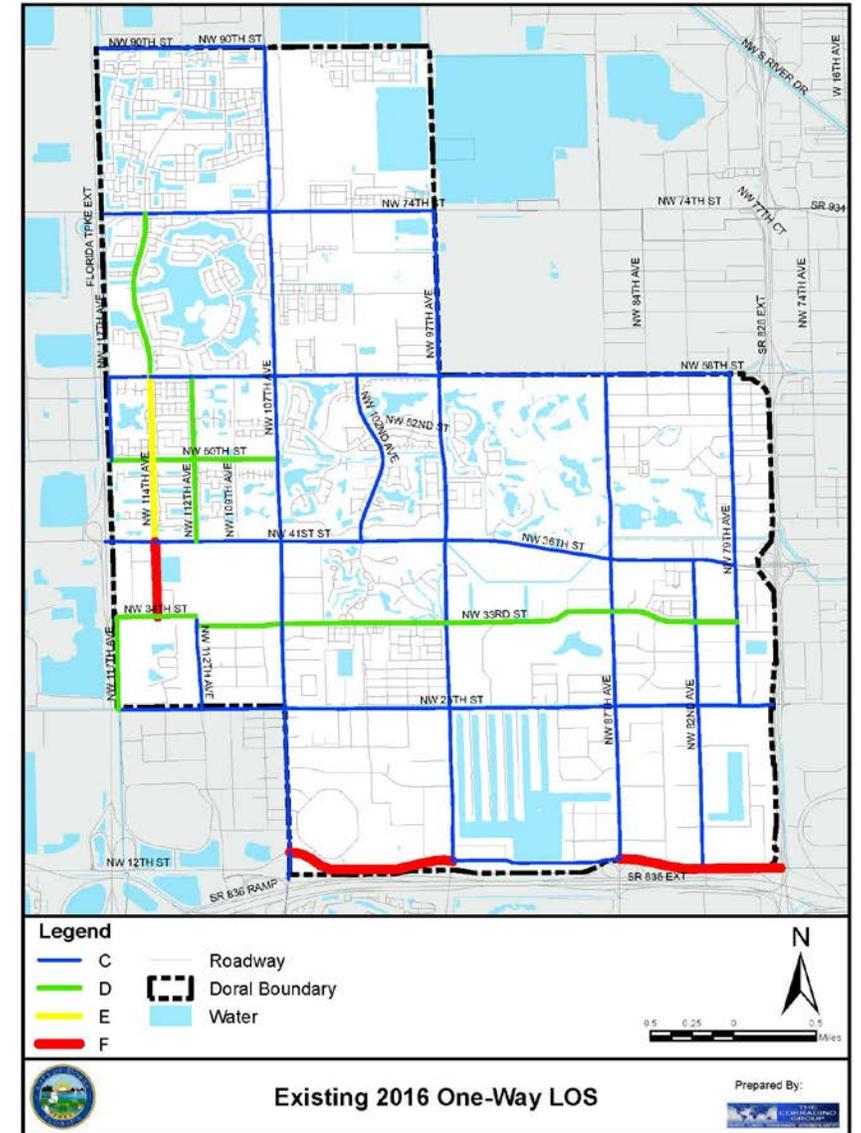
East-West Corridors: 2030 Condition												
Link	ROADWAY			Jurisdiction / Functional Classification	Configuration (No. of Lanes)	LOS Standard	DAILY			PEAK Hr. (Two-way)		
	NAME	FROM	TO				AADT	LOS Threshold	LOS	K <sub>100</sub> (%)	Peak Hr. Volume	LOS
	1	2	3	4	5	6	7	8	9	10	11	12
1	NW 74 St	NW 117 Ave	NW 107 Ave	SUMA	4	32,900	39,000	E	E+20	9.5	3,705	E+20
2	NW 83 St	NW 117 Ave	NW 107 Ave	Non-State	4	32,900	34,000	D	C	9.5	3,285	C
3		NW 107 Ave	NW 97 Ave	Non-State	4	32,900	36,000	D	E+20	9.5	3,420	E+20
4		NW 97 Ave	NW 87 Ave	Non-State	4	32,900	48,000	D	F	9.5	4,560	F
5		NW 87 Ave	SR 826	Non-State	4	32,900	40,000	D	F	9.5	3,800	F
6	NW 41 St	NW 117 Ave	NW 107 Ave	Class II - SPA	6-Divided	51,800	41,000	D	D	9.5	3,895	D
7		NW 107 Ave	NW 97 Ave	Class II - SPA	6-Divided	51,800	58,000	D	E+20	9.5	5,510	E+20
8		NW 97 Ave	NW 87 Ave	Class II - SPA	6-Divided	51,800	70,000	D	F	9.5	6,650	F
9		NW 87 Ave	SR 826	Class II - SPA	6-Divided	51,800	48,000	D	C	9.5	4,370	C
10	NW 25 St	NW 117 Ave	NW 107 Ave	SUMA	4	32,900	32,000	E	E	9.5	3,040	E
11		NW 107 Ave	NW 97 Ave	SUMA	4	32,900	41,000	E	F	9.5	3,895	F
12		NW 97 Ave	NW 87 Ave	SUMA	4	32,900	67,000	E	F	9.5	6,385	F
13		NW 87 Ave	SR 826	SUMA	4	32,900	66,000	E	F	9.5	6,270	F
14	NW 12 St	NW 107 Ave	NW 97 Ave	Non-State	4	32,900	34,000	D	E+20	9.5	3,230	E+20
15		NW 97 Ave	NW 87 Ave	Non-State	4	32,900	35,000	D	E+20	9.5	3,325	E+20
16		NW 87 Ave	SR 826	Non-State	4	32,900	41,000	D	F	9.5	3,895	F

Notes: 1 Roadway Name

# Roadway LOS - 2016

## Counts and Projections:

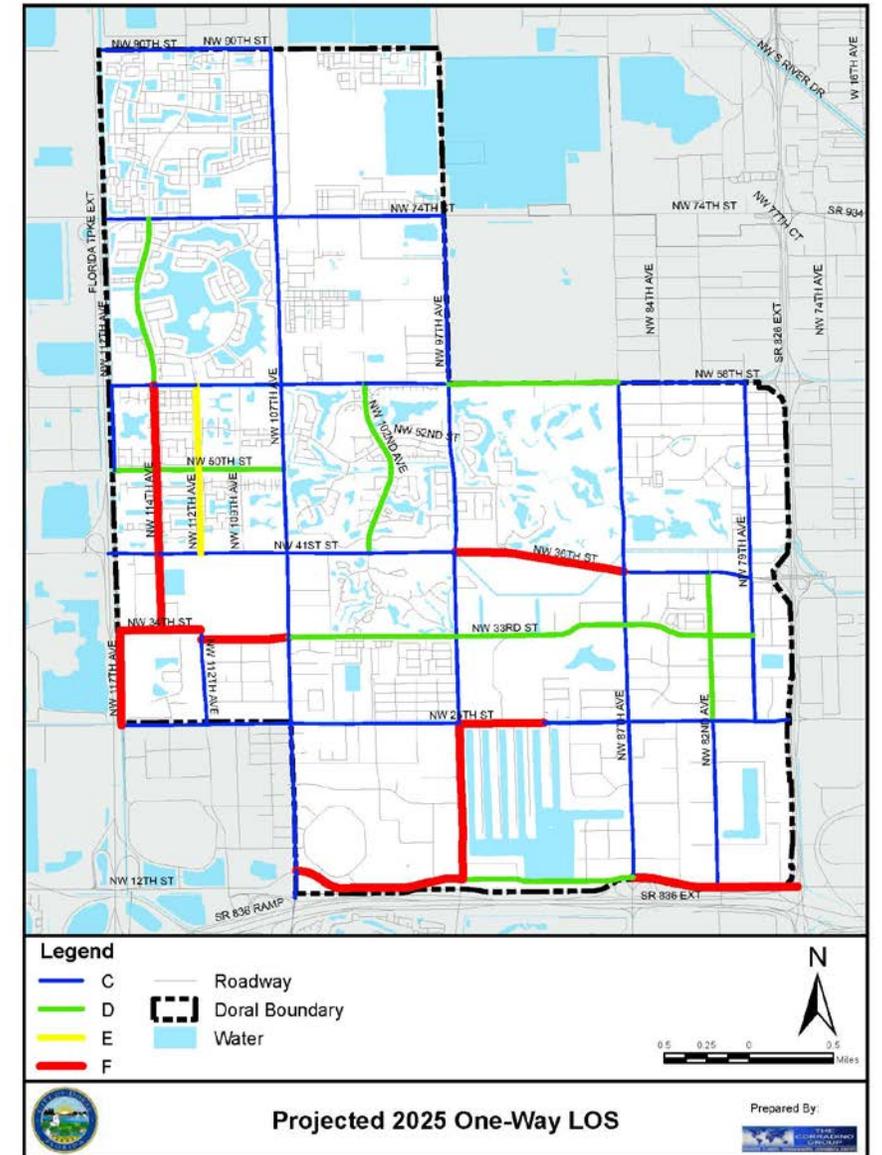
- Failing LOS in 2016
  - NW 12<sup>th</sup> Street between NW 79<sup>th</sup> Avenue and NW 87<sup>th</sup> Avenue (Pk Hr Pk Dir.)
  - NW 12<sup>th</sup> Street between NW 97<sup>th</sup> Avenue and NW 107<sup>th</sup> Avenue (Pk Hr Pk Dir.)
  - NW 114<sup>th</sup> Avenue between NW 34<sup>th</sup> Street and NW 58<sup>th</sup> Street (AADT, Pk Hr Bidir., Pk Hr Pk Dir.)



# Roadway LOS - 2025

## Counts and Projections:

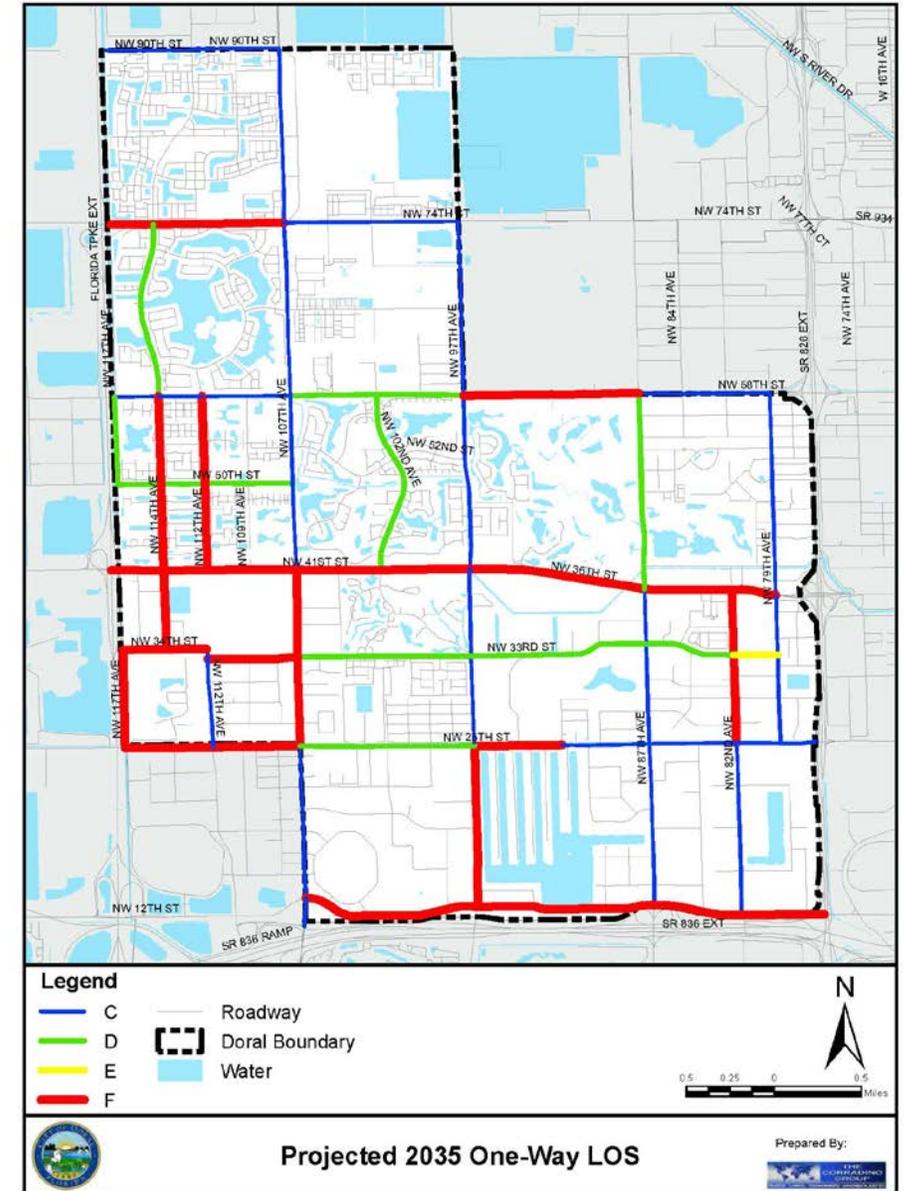
- Failing LOS in 2025
- NW 12<sup>th</sup> Street between NW 79<sup>th</sup> Avenue and NW 87<sup>th</sup> Avenue (Pk Hr Pk Dir.)
- NW 12<sup>th</sup> Street between NW 97<sup>th</sup> Avenue and NW 107<sup>th</sup> Avenue (Pk Hr Pk Dir.)
- NW 25<sup>th</sup> Street between NW 79<sup>th</sup> Avenue and NW 87<sup>th</sup> Avenue (AADT)
- NW 33<sup>rd</sup> Street between NW 107<sup>th</sup> Avenue and NW 114<sup>th</sup> Avenue (Pk Hr Pk Dir.)
- NW 34<sup>th</sup> Street between NW 114<sup>th</sup> Avenue and NW 117<sup>th</sup> Avenue (Pk Hr Pk Dir.)
- NW 36<sup>th</sup> Street between NW 79<sup>th</sup> Avenue and NW 87<sup>th</sup> Avenue (AADT)
- NW 36<sup>th</sup> Street/NW 41<sup>st</sup> Street between NW 87<sup>th</sup> Avenue and NW 97<sup>th</sup> Avenue (AADT, Pk Hr Pk Dir.)
- NW 97<sup>th</sup> Avenue from NW 12<sup>th</sup> Street to NW 25<sup>th</sup> Street (Pk Hr Pk Dir.)
- NW 107<sup>th</sup> Avenue from NW 25<sup>th</sup> Street to NW 41<sup>st</sup> Street (AADT)
- NW 112<sup>th</sup> Street between NW 41<sup>st</sup> Street to NW 58<sup>th</sup> Street (Pk Hr Pk Dir.)
- NW 114<sup>th</sup> Avenue between NW 34<sup>th</sup> Street and NW 58<sup>th</sup> Street (AADT, Pk Hr Bidir., Pk Hr Pk Dir.)
- NW 117<sup>th</sup> Avenue between NW 25<sup>th</sup> Street and NW 41<sup>st</sup> Street (Pk Hr Pk Dir.)



# Roadway LOS - 2035

## Counts and Projections:

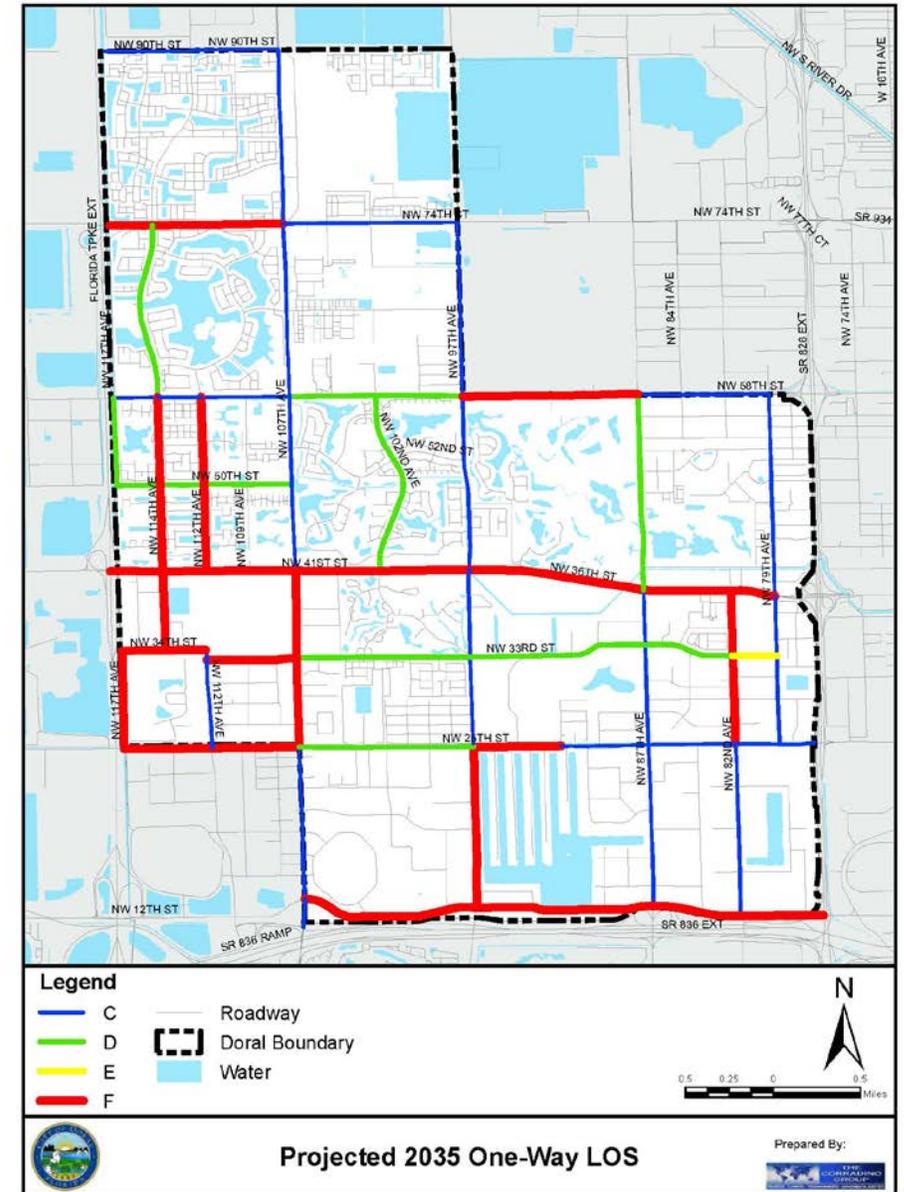
- Failing LOS in 2035
  - NW 12<sup>th</sup> Street between NW 79<sup>th</sup> Avenue and NW 87<sup>th</sup> Avenue (Pk Hr Pk Dir.)
  - NW 12<sup>th</sup> Street between NW 87<sup>th</sup> Avenue and NW 107<sup>th</sup> Avenue (AADT, Pk Hr Pk Dir.)
  - NW 25<sup>th</sup> Street between NW 79<sup>th</sup> Avenue and NW 87<sup>th</sup> Avenue (AADT)
  - NW 25<sup>th</sup> Street between NW 87<sup>th</sup> Avenue and NW 97<sup>th</sup> Avenue (AADT, Pk Hr Pk Dir.)
  - NW 25<sup>th</sup> Street between NW 114<sup>th</sup> Avenue and NW 117<sup>th</sup> Avenue (AADT, Pk Hr Pk Dir.)
  - NW 33<sup>rd</sup> Street between NW 79<sup>th</sup> Avenue and NW 87<sup>th</sup> Avenue (Pk Hr. Pk Dir.)
  - NW 33<sup>rd</sup> Street between NW 107<sup>th</sup> Avenue and NW 114<sup>th</sup> Avenue (AADT, Pk Hr Bidir., Pk Hr Pk Dir.)
  - NW 34<sup>th</sup> Street between NW 114<sup>th</sup> Avenue and NW 117<sup>th</sup> Avenue (AADT, Pk Hr Bidir., Pk Hr Pk Dir.)
  - NW 36<sup>th</sup> Street/NW 41<sup>st</sup> Street between NW 79<sup>th</sup> Avenue and NW 97<sup>th</sup> Avenue (AADT, Pk Hr Bidir., Pk Hr Pk Dir.)



# Roadway LOS -2035 (Cont.)

## Counts and Projections:

- Failing LOS in 2035
- NW 41<sup>st</sup> Street between NW 97<sup>th</sup> Avenue and NW 107<sup>th</sup> Avenue (AADT, Pk Hr. Pk Dir.)
- NW 58<sup>th</sup> Street between NW 87<sup>th</sup> Avenue and NW 97<sup>th</sup> Avenue (AADT, Pk Hr. Pk Dir.)
- NW 74<sup>th</sup> Street between NW 107<sup>th</sup> Avenue and NW 114<sup>th</sup> Avenue (Pk Hr Pk Dir.)
- NW 87<sup>th</sup> Avenue between NW 25<sup>th</sup> Street and NW 41<sup>st</sup> Street (Pk Hr Bidir., Pk Hr. Pk Dir.)
- NW 97<sup>th</sup> Avenue from NW 12<sup>th</sup> Street to NW 25<sup>th</sup> Street (AADT, Pk Hr Bidir., Pk Hr Pk Dir.)
- NW 107<sup>th</sup> Avenue from NW 25<sup>th</sup> Street to NW 41<sup>st</sup> Street (AADT, Pk Hr Pk Dir.)
- NW 112<sup>th</sup> Street between NW 41<sup>st</sup> Street to NW 58<sup>th</sup> Street (Pk Hr Bidir., Pk Hr Pk Dir.)
- NW 114<sup>th</sup> Avenue between NW 34<sup>th</sup> Street and NW 58<sup>th</sup> Street (AADT, Pk Hr Bidir., Pk Hr Pk Dir.)
- NW 117<sup>th</sup> Avenue between NW 25<sup>th</sup> Street and NW 41<sup>st</sup> Street (AADT, Pk Hr Bidir., Pk Hr Pk Dir.)



# Intersection LOS

30 intersections analyzed

Recommended improvements for 26 intersections based on expected future needs

Intersection		Proposed Improvements
No.	Name	
1	NW 12th Street & NW 107th Avenue	ADD WBR TURN LANE, SIGNAL OPTIMIZATION
2	NW 12th Street & NW 97th Avenue (Off /On Ramps)	ADD WBR / NBR TURN LANES. ALSO PROVIDE ACCESS TO SB 97 AVENUE FROM 12 ST.
3	NW 12th Street & NW 87th Avenue	ADD NBL TURN LANE, ADD SBR TURN LANE, SIGNAL OPTIMIZATION
4	NW 12th Street & NW 82nd Avenue	CONNECT TO SB 82ND AVENUE
5	NW 25th Street & NW 117th Avenue	SPLIT PHASE REMOVAL / REALIGNMENT, SIGNAL OPTIMIZATION
6	NW 25th Street & NW 107th Avenue	ADD SBR TURN LANE, SIGNAL OPTIMIZATION
7	NW 25th Street & NW 97th Avenue	ADD NBR / SBR / EBR / WBR TURN LANES
9	NW 25th Street & NW 82nd Avenue	ADD SBR / EBR / WBR TURN LANES, SIGNAL OPTIMIZATION
10	NW 25th Street & NW 79th Avenue	REMOVE SPLIT PHASE BY CHANGING THE SB APPROACH TO TWO LEFTS, ONE THRU, AND ONE RIGHT TURN LANE, ADD EBR TURN LANE, SIGNAL OPTIMIZATION
11	NW 33rd Street & NW 107th Avenue	REMOVE SPLIT PHASE EB/WB, SIGNAL OPTIMIZATION
12	NW 33rd Street & NW 97th Avenue	ADD NBR TURN LANE, SIGNAL OPTIMIZATION
13	NW 33rd Street & NW 87th Avenue	ADD EBR AND WBR TURN LANES, SIGNAL OPTIMIZATION
16	NW 41st Street & NW 115th Avenue	ADD DUAL LEFT NB TURN LANES, SIGNAL OPTIMIZATION
17	NW 41st Street & NW 114th Avenue	ADD EBR AND WBR TURN LANES, SIGNAL OPTIMIZATION
18	NW 41st Street & NW 107th Avenue	REMOVE SPLIT PHASE, SIGNAL OPTIMIZATION
19	NW 41st Street & NW 102nd Avenue	REMOVE SPLIT PHASE, SIGNAL OPTIMIZATION
20	NW 36th Street & NW 87th Avenue	ADD SBR AND WBR TURN LANES, SIGNAL OPTIMIZATION
21	NW 36th Street & NW 82nd Avenue	ADD SBR / NBR / EBR / WBR TURN LANES, SIGNAL OPTIMIZATION
22	NW 36th Street & NW 79th Avenue	SPLIT PHASE REMOVAL, ADD EB THRU LANE, ADD SBR / WBR TURN LANES, SIGNAL OPTIMIZATION
23	NW 58th Street & NW 114th Avenue	ADD EBR / WBR TURN LANES
24	NW 58th Street & NW 107th Avenue	ADD SBR / NBR / EBR / WBR TURN LANES, SIGNAL OPTIMIZATION
25	NW 58th Street & NW 97th Avenue	REMOVE SPLIT PHASE. ADD NBR / SBR / WBR / EBR TURN LANES, SIGNAL OPTIMIZATION
26	NW 58th Street & NW 87th Avenue	ADD NBR / WBR / EBR TURN LANES, SIGNAL OPTIMIZATION
28	NW 74th Street & NW 114th Avenue	ADD NBR TURN LANE, ADD SBR TURN LANE, ADD EBR TURN LANE, AND ADD WBR TURN LANE.
29	NW 74th Street & NW 107th Avenue	ADD SBR / EBR / WBR TURN LANES, SIGNAL OPTIMIZATION
30	NW 74th Street & NW 97th Avenue	SIGNALIZE

# | Roadway Projects

- ROADWAY Projects
  - Concentrate on completion of grid
  - Capacity
  - Safety
- Includes:
  - New roadways
  - Intersection improvements
    - Operations
    - Design
  - Widening only of newer roadways (i.e. 2 to 4 lane for NW 97<sup>th</sup> Avenue), but generally no widening for established roadways
- But, additional capacity to reduce congestion will have to be addressed via other modes of transportation

# | We Must Use Our Roads Differently

## **CAPACITY**

## **PEOPLE/HR.**

Cars (2 Lanes)

1,600

Bus Lane

2,500

Light Rail

5,000

Heavy Rail

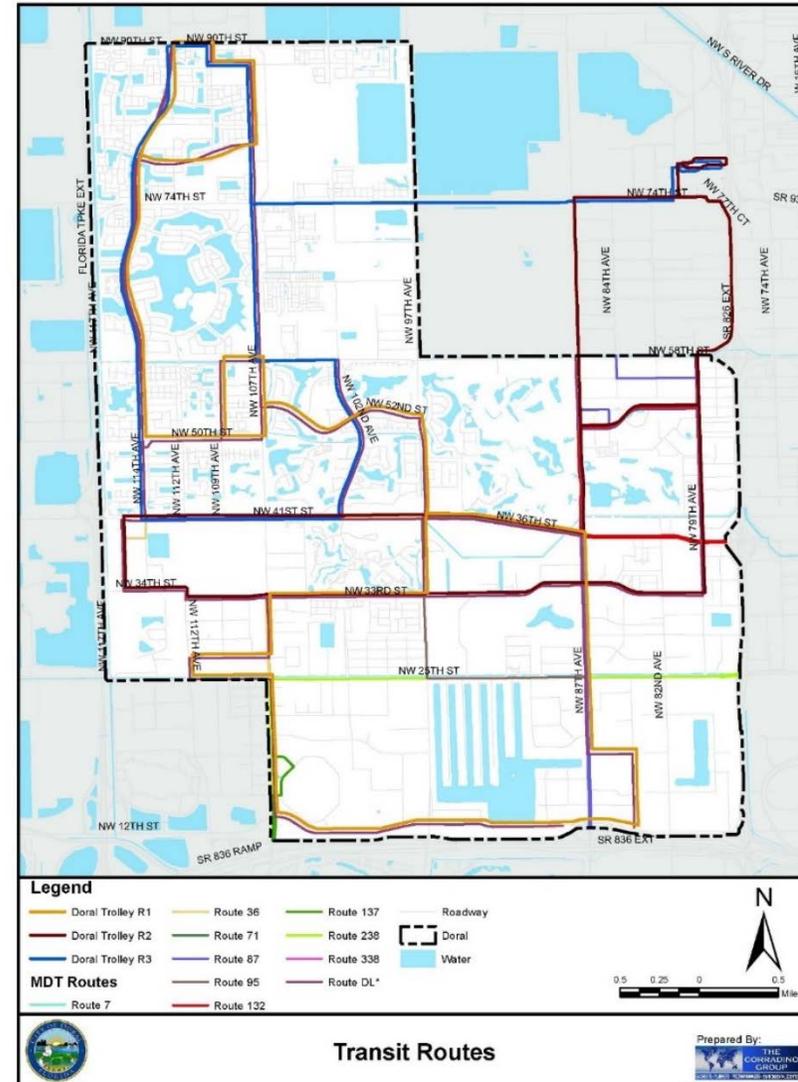
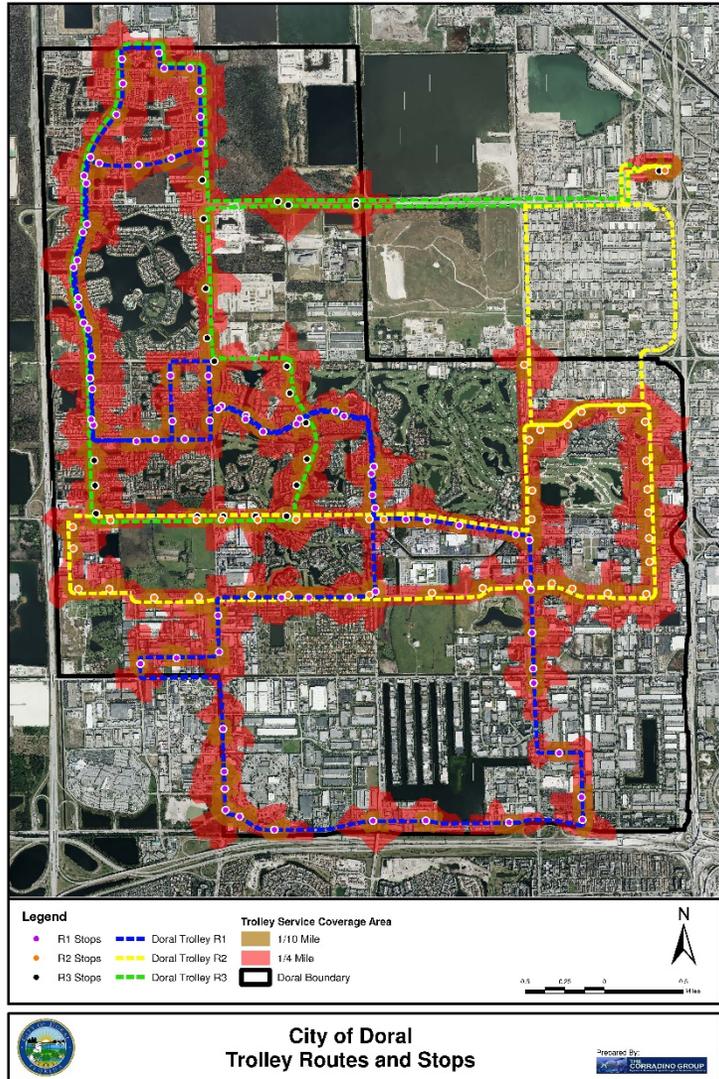
6,500



# Its All About Capacity



# Public Transit – Transit Accessibility



# Public Transit – Transit Accessibility

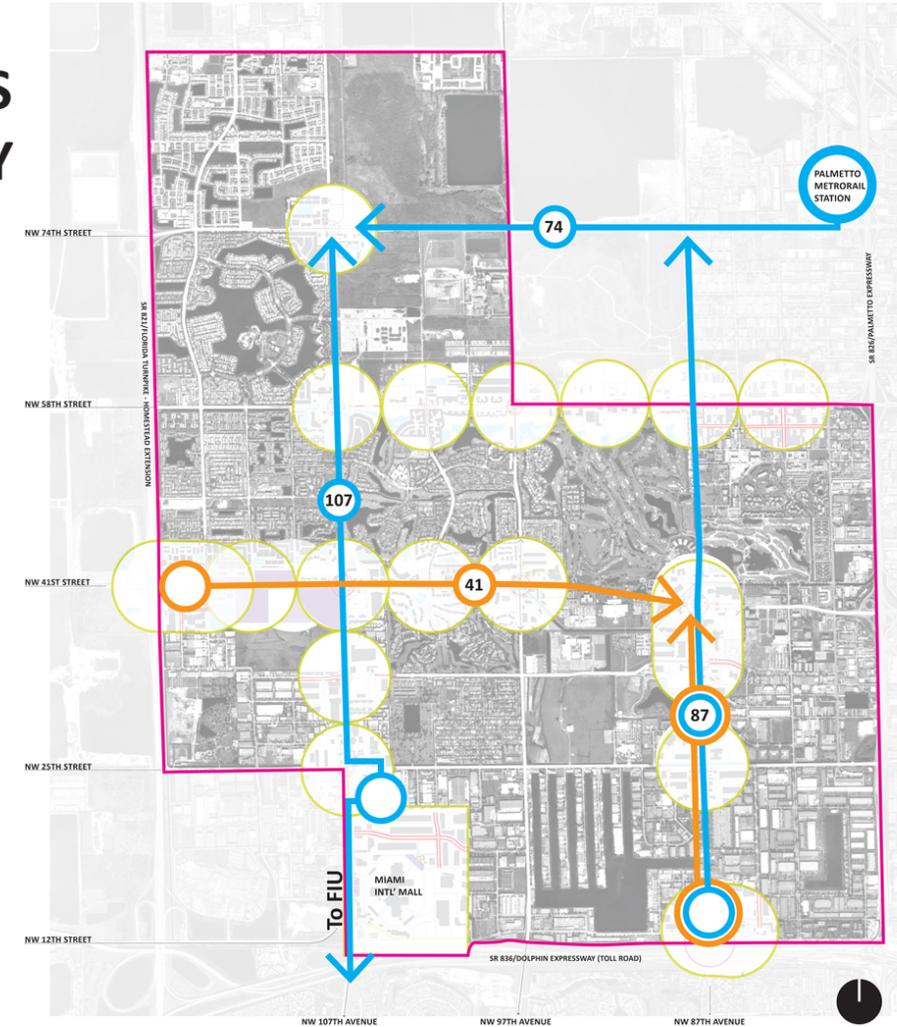
- Projects
  - New routes – FIU
    - Current Trolley Expansion Study
      - 3 options
      - Relieve Traffic on NW 107<sup>th</sup> Avenue
  - Review of options for Metrorail/other regional mass transit (Bus, CSX, Metrorail extension).
  - Doral Passport Program
  - Dolphin Pak and Ride
  - First and Last Mile programs/projects

PROPOSED

## EXPRESS TROLLEY ROUTES

DORAL TMP

- CITY LIMIT
- LUNCH TROLLEY
- 41 LUNCH ROUTE # 1
- 87 LUNCH ROUTE # 2
- EXPRESS
- 107 EXPRESS
- 87 EXPRESS TO PALMETTO
- 74 EXPRESS TO PALMETTO



PREPARED BY THE CORRADINO GROUP

# Pedestrian Projects

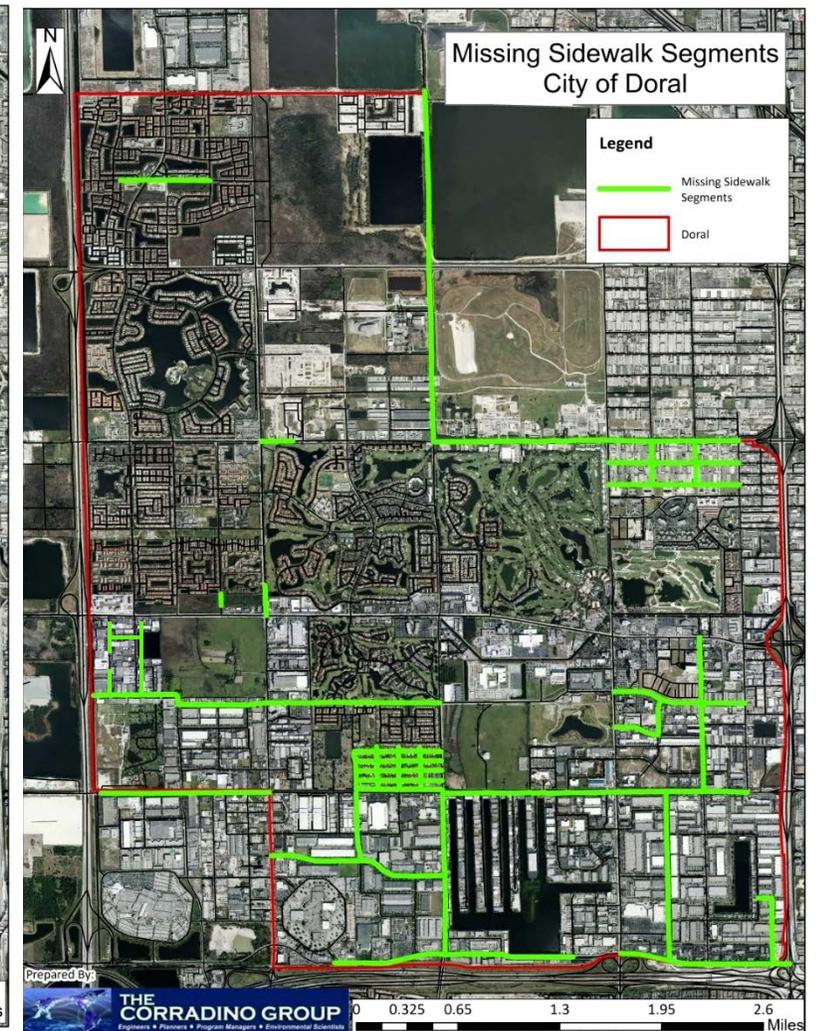
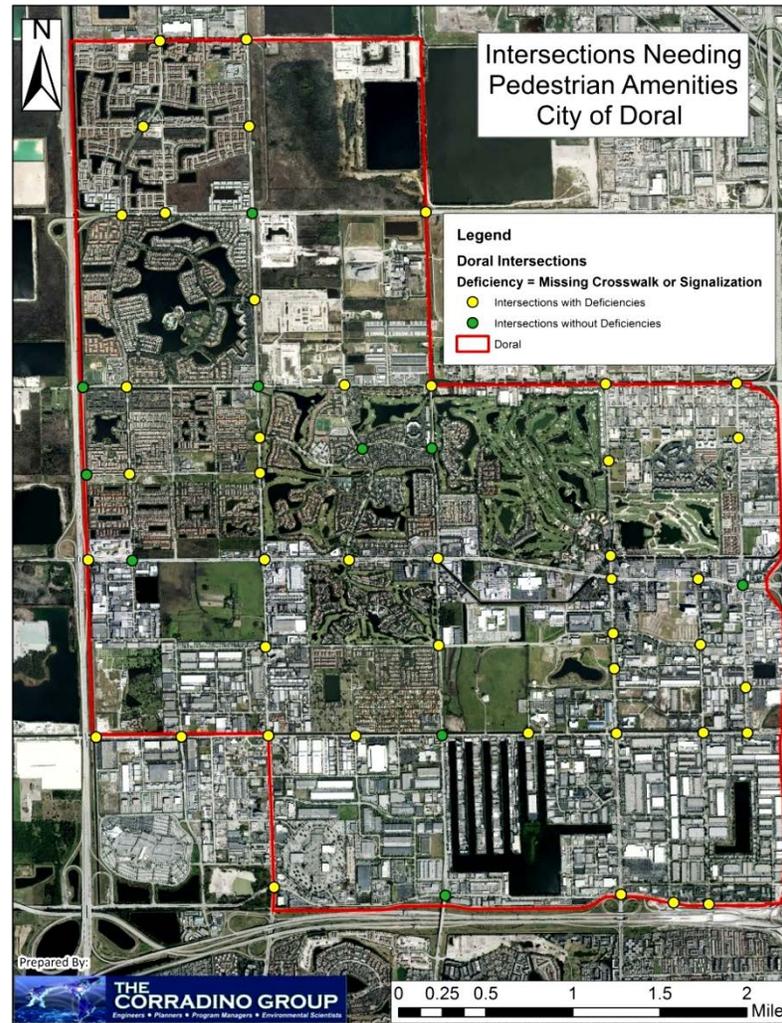
Pedestrian projects for most cities are similar:

1. Complete the Grid
2. Maintain the Grid
3. Enhance the crossings

City has already identified existing sidewalks and missing segments through the Transit Mobility Plan.

These have been included in the Master Plan and include:

1. Sidewalk infill
2. Pedestrian signals
3. Pedestrian islands
4. Various mid-block crossings



# Bicycling Projects

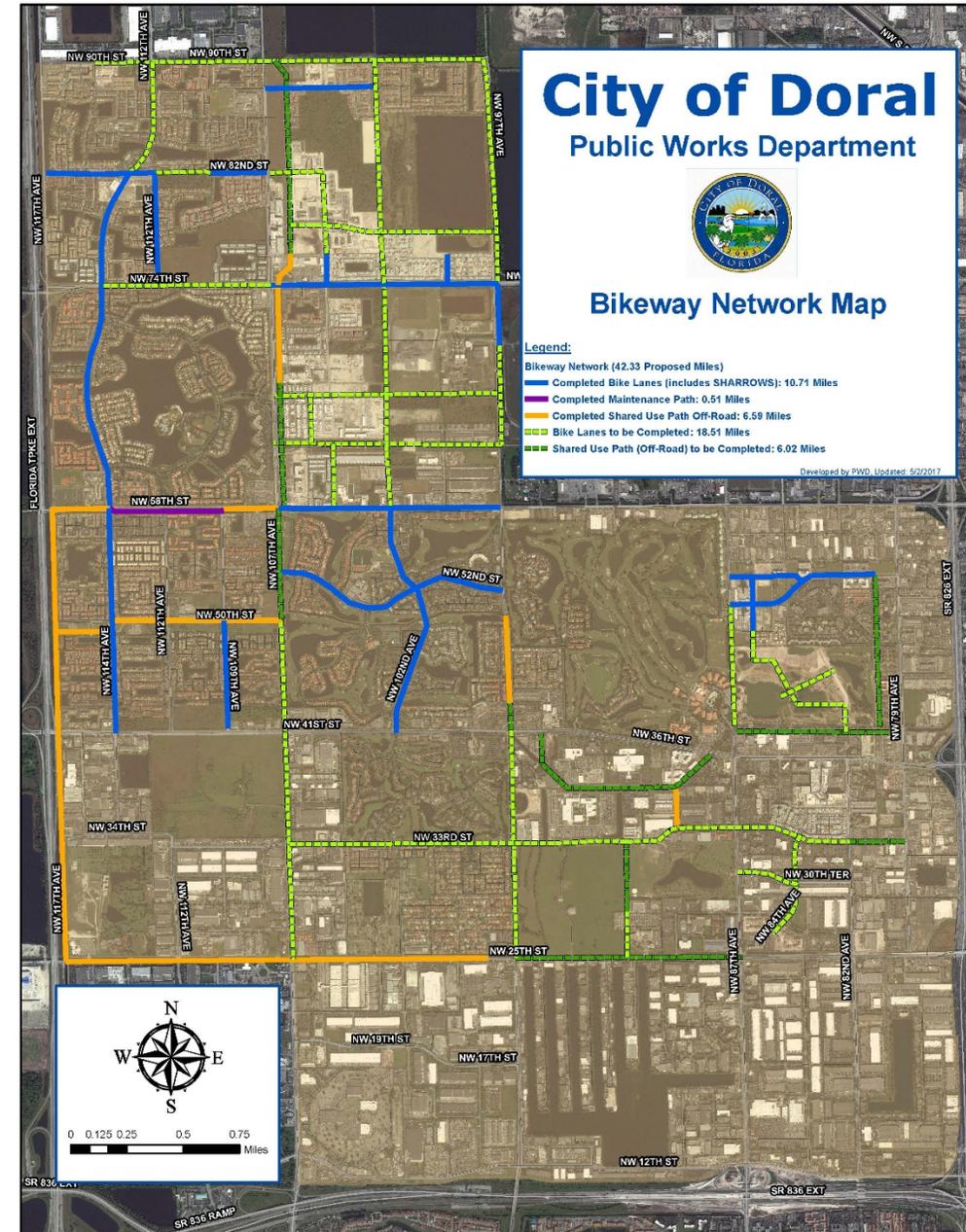
Long range planning for bicycling includes:

1. Figuring out what the grid should be
  1. Access
  2. Safety
  3. Age
2. Comparing against existing infrastructure
3. Filling in the gaps
4. Enhancing the bicycling experience

City has already identified existing sidewalks and missing segments through the Transit Mobility Plan.

These have been included in the Master Plan and include:

1. Bicycle paths (Bike Lanes, etc.)
2. Bicycle racks
3. Policies and programs



# Policy

## Travel Demand Management Policies

Managed Lanes  
Alternative  
Transit/Carpooling Incentives

## Linking of Land Development and Transit Policies

Regional Intermodal Hub  
development (MDT)  
Preservation of Pedestrian  
Pathways During and Post  
Construction  
Parking ordinance revisions

## Support for Regional Transportation Policies

Managed Lanes  
Allocation of MDX  
Resources to Transit  
Improvement of connections  
in regional system

# Vision Zero

## What is Vision Zero?

- Road Traffic Safety Project
- Goal: Reduce fatalities and serious injuries to **Zero**.
- Very successful nationally and internationally
- South Florida – One of most dangerous in nation for pedestrians/bicyclist

## How does this get done?

- Regular and frequent monitoring
- Safety reviews and redesign
- Education
- Enforcement (Yield, Stops, etc.)
- Changing roadway speeds

## Doral by the Numbers:

1/1/2016-12/31/2016

Vehicular Crashes: **1,654**  
2 Fatalities  
4 "Incapacitating" injuries

19 Bicyclists hit  
4 Pedestrians hit

Data Source: Signal Four

1/1/2012-12/31/2015

Vehicular Crashes: **7,617**  
4 Fatalities  
32 "Incapacitating" injuries  
(including 7 pedestrians, 1 bicyclist)

40 Bicyclists hit  
62 Pedestrians hit

Data Source: Signal Four



# Prioritization

- Evaluated based on factors and funding availability (grant funded programs were prioritized):
  1. Ease of Implementation
  2. Efficiency
  3. Effectiveness
  4. Promotes Safety
  5. Promotes Flow
  6. Maintains/Enhances City Character; and
  7. Reduces Traffic Intrusion.
- Resulting scores allowed for ranking in four Tiers:
  - Tier I 0 to 5 years
  - Tier II 5 to 10 years
  - Tier III 10 to 15 years
  - Tier IV 15 to 20 years

# Tier I

No.	Project	Type	Location	From	To	Description
	<b>Tier I</b>					
1	Repair Sidewalks	Pedestrian	Various	Various	Various	Repair or replace damaged, uneven or cracked sidewalks
2	One Stop Personal Mobility Information Center	Policy/Multimodal	N/A	N/A	N/A	Develop a mobile app to offer access to public transit information, ride-sharing and carpooling, and bicycling and pedestrian routes.
3	Infill Sidewalks	Pedestrian	Various	Various	Various	Prioritization of these sidewalk improvements should be based on proximity to residential areas, schools, parks, and bus or trolley stops, and then to existing businesses. Primarily, the purpose is to create a cohesive, connected walking network; thus, in some cases, the need for sidewalks can be bundled with a bicycle path to develop a shared use off-road path.
4	Complete Streets Design Guidelines	Policy/Multimodal	N/A	N/A	N/A	Develop new City regulations for implementing complete streets concepts that will foster design and redevelopment of all streets to improve mobility for all users.
5	Multiple Intersection Safety Studies	Vehicular	Various	Various	Various	Safety Studies are necessary at intersections with high crash rates to determine changes that may be needed
6	Doral Boulevard Corridor Safety Study	Vehicular, Pedestrian	Doral Boulevard	NW 97th Avenue	NW 87th Avenue	The purpose of this project is to evaluate safety on the NW 36 <sup>th</sup> /NW 41 <sup>st</sup> Streets corridor between NW 87 <sup>th</sup> Avenue and NW 97 <sup>th</sup> Avenue for both vehicles and pedestrians crossing the road.
7	Complete Bicycling Network	Bicycling	Various	Various	Various	Work to implement the remaining facilities, through ROW acquisition, design and construction.
8	Update City of Doral Bicycle Master Plan	Bicycling	N/A	N/A	N/A	Revise the City's Bicycle Master Plan in light of the plan's age and need to account for new bicycle network needs.

# Tier I

9	Transit Development Plan	Transit	N/A	N/A	N/A	Ensure the efficiency and effectiveness of the Doral Trolley by establishing new routes in response to future growth of the City.
10	Pedestrian Safety Improvements at Intersections	Pedestrian	Various	Various	Various	44 locations have been noted with need for improvement. Each intersection should undergo an individual pedestrian safety evaluation to explore the number of crashes, operational characteristics, signal timing, geometry, etc. .
11	Pedestrian Bridge at NW 41st Street	Pedestrian	NW 41st Street	NW 117th Avenue	N/A	Construct a pedestrian bridge over NW 41st Street to connect the multi-use path where it is currently bi-sected by the roadway
12	Bicycling Safety and Education Programs	Bicycling	N/A	N/A	N/A	Develop a bicycle/driver educational pamphlet, work to educate the public on bicycle and driver safety.
13	NW 74th Street Bike Lane Conversion	Bicycling	NW 74th Street	NW 97th Avenue	NW 107th Avenue	Convert the current bike lane to a multi-use path.
14	Doral Boulevard Safety Study	Vehicular	Doral Boulevard	NW 97th Avenue	NW 98th Avenue	A safety study should be conducted on this corridor to determine the cause of crashes and possible remediating actions which can be undertaken
15	Flyover Ramp to HEFT	Vehicular	HEFT	NW 41st Street	NW 25th Street	To connect the existing NW 25th Street viaduct to NW 41st Street
16	Extend NW 117th Avenue over NW 41st Street	Vehicular	NW 117th Avenue	NW 41st Street	N/A	Northbound connection of NW 117th Street above-grade fly-over crossing NW 41st Street

# Tier I

17	Intersection Operational Improvements	Vehicular	Various	Various	Various	An analysis of various intersections within the City indicated unacceptable levels of service for specific intersections.
18	Bus Stop Amenities Improvements	Transit	Various	Various	Various	38 shelters and 25 benches are needed. In addition, bicycle racks should be installed at major hubs, including bicycle rental stations
19	Pedestrian Islands	Pedestrian	Various	Various	Various	Provide pedestrian safety islands at 31 identified locations
20	Convert Streets to One-Way Pair	Vehicular	NW 112th & 114th Avenues	Doral Boulevard	NW 58th Street	Convert NW 112th and NW 114th from two-way streets to a one-way pairing to improve traffic flow.
21	Support MDT Palmetto Station Redevelopment/ Development of Palmetto Intermodal Center	Transit	Palmetto Station	N/A	N/A	Work with MDT to lend support either politically or financially to such an effort.
22	Support MDT Development of Dolphin Mall Station Park and Ride/Transit Hub	Transit	Dolphin Mall	N/A	N/A	Work with MDT to lend support either politically or financially to such an effort.
23	Intersection Improvements	Vehicular	NW 12th Street	NW 107th Avenue	N/A	Add westbound right turn lane and signal optimization.
24	Intersection Improvements	Vehicular	NW 25th Street	NW 82nd Avenue	N/A	Add southbound, eastbound and westbound turn lanes; signal optimization.

# Tier I

25	Intersection Improvements	Vehicular	NW 41st Street	NW 114th Avenue	N/A	Add eastbound and westbound right turn lanes; signal optimization.
26	Intersection Improvements	Vehicular	NW 41st Street	NW 107th Avenue	N/A	Remove split phase; signal optimization
27	Intersection Improvements	Vehicular	NW 36th Street	NW 79th Avenue	N/A	Split phase removal, add eastbound thru lane, add southbound and westbound right turn lanes; signal optimization.
28	Intersection Improvements	Vehicular	NW 58th Street	NW 107th Avenue	N/A	Add southbound, eastbound, northbound and westbound right turn lanes; signal optimization.
29	Intersection Improvements	Vehicular	NW 74th Street	NW 114th Avenue	N/A	Add northbound right turn lane, add southbound right turn lane, add eastbound right turn lane and add westbound right turn lane.
30	Doral Trolley Passport Program	Transit	N/A	N/A	N/A	Incentivize fare reductions, either in parking costs or through lower boarding fares
31	Fill In Gaps in Network	Vehicular	NW 112th Avenue	NW 41st Street	NW 33rd Street	Fill gaps in the existing roadway infrastructure to complete the network
32	Pedestrian Mid-Block Crossings	Pedestrian	Various	Various	Various	Construct safe and convenient crossings at high volume mid-block locations

# Tier II

Tier II						
1	Bicycle Connections to Miami-Dade System	Bicycling	Various	Various	Various	work with the County and neighboring municipalities to ensure continuous connections to regional pathways to the south, east, and north of the City.
2	Fill In Gaps in Network	Vehicular	NW 14th Street	NW 84th Avenue	NW 82nd Avenue	Fill gaps in the existing roadway infrastructure to complete the network
3	Fill In Gaps in Network	Vehicular	NW 17th Street	NW 84th Avenue	NW 82nd Avenue	Fill gaps in the existing roadway infrastructure to complete the network
4	Fill In Gaps in Network	Vehicular	NW 21st Street	NW 84th Avenue	NW 82nd Avenue	Fill gaps in the existing roadway infrastructure to complete the network
5	Fill In Gaps in Network	Vehicular	NW 14th Street	NW 98th Court	NW 97th Avenue	Fill gaps in the existing roadway infrastructure to complete the network
6	MDT Operational Analysis	Transit	N/A	N/A	N/A	Encourage MDT to conduct an operational analysis and gain efficiency in its system.
7	Streetscape Improvements	Pedestrian	Various	Various	Various	The implementation of shading and rest areas along pedestrian paths is essential toward improving walkability.
8	Bicycle Signalization Program	Bicycling	Various	Various	Various	Bicycle signalization separates the bicyclist from vehicular traffic, allows them to pass or turn safely in an intersection, and reduces the level of vehicular-bicycle conflict in a manner similar to left-turn lane signalization.

# Tier II

9	Extend NW 117th Avenue	Vehicular	NW 117th Avenue	NW 74th Street	NW 58th Street	Fill gaps in the existing roadway infrastructure to connect the westernmost north/south corridor.
10	Fill In Gaps in Network	Vehicular	NW 84th Avenue	NW 54th Street	NW 53rd Terrace	Fill gaps in the existing roadway infrastructure to complete the network
11	Fill In Gaps in Network	Vehicular	NW 82nd Avenue	NW 54th Street	NW 53 Terrace	Fill gaps in the existing roadway infrastructure to complete the network
12	Extend Metrorail to/from Palmetto Station	Transit	N/A	N/A	N/A	Evaluate metrorail routing options for ridership, cost, operations and maintenance, capital, and timing, and select preferred option.
13	Trolley Lunch Route Pilot Program	Transit	N/A	N/A	N/A	Increase trolley service frequency during the workweek lunch hour
14	Trolley Route Extension to FIU	Transit	N/A	N/A	N/A	Increase trolley service to FIU campus
15	Intersection Improvements	Vehicular	NW 25th Street	NW 117th Avenue	N/A	Split phase removal/realignment and signal optimization.
16	Intersection Improvements	Vehicular	NW 25th Street	NW 107th Avenue	N/A	Add southbound right turn lane and signal optimization.

# Tier II

17	Intersection Improvements	Vehicular	NW 25th Street	NW 79th Avenue	N/A	Remove split phase by changing the southbound approach to two lefts, one thru and one right turn lane. Add eastbound turn lane and signal optimization.
18	Intersection Improvements	Vehicular	NW 33rd Street	NW 107th Avenue	N/A	Remove split phase eastbound/westbound and signal optimization.
19	Intersection Improvements	Vehicular	NW 33rd Street	NW 97th Avenue	N/A	Add northbound right turn lane and signal optimization
20	Intersection Improvements	Vehicular	NW 33rd Street	NW 87th Avenue	N/A	Add eastbound and westbound right turn lanes; signal optimization.
21	Intersection Improvements	Vehicular	NW 36th Street	NW 87th Avenue	N/A	Add southbound and westbound turn lanes and signal optimization
22	Intersection Improvements	Vehicular	NW 58th Street	NW 97th Avenue	N/A	Remove split phase, add northbound, southbound, westbound, and eastbound right turn lanes, and signal optimization
23	Intersection Improvements	Vehicular	NW 74th Street	NW 107th Avenue	N/A	Add southbound, eastbound and westbound turn lanes; signal optimization.

# Tier III

Tier III						
1	Bicycle Rental Program	Bicycling	Various	Various	Various	Contact several bikeshare system providers to assess the feasibility of creating a system in Doral
2	Bluetooth and Connected Vehicle Technology	Vehicular	Various	Various	Various	Provide for the installation of Bluetooth receptors and Connected Vehicle signal technology along the major corridors, including intersections as needed.
3	Construct a Turbolane	Vehicular	NW 41st Street	at NW 109th Avenue	N/A	This project will install a turbolane on the intersection to facilitate flow-through traffic.
4	Install "Do No Block the Box" signs at Intersections	Vehicular	Various	Various	Various	Designation of program at specific intersections, with the addition of signage and roadway marking to denote effort to avoid vehicles blocking the box.
5	Doral Trolley Sunday Service	Transit	N/A	N/A	N/A	Develop Sunday service route options. Evaluate the capital, operations and maintenance costs. Evaluate headways, buses needed, and potential ridership. Select the service to be provided and test it for a period of 3 months.
6	Express Route to Miami International Airport/Miami Intermodal Center	Transit	N/A	N/A	N/A	Increase the mobility to the current Miami-Dade County regional hub.
7	Support City-Edge Park-and-Ride Facilities	Transit	TBD	TBD	TBD	Explore options for providing park-and-ride lots, intermodal transfer centers at the edges of the city.
8	Eastern Connection to Miami International Mall	Pedestrian, Bicycling	NW 19th Street	NW 102nd Avenue	N/A	Create a path to provide a less-circuitous route to the Mall, and a viable alternative when driving to the mall.

# Tier III

9	Install Bicycle Racks & Lockers	Bicycling	Various	Various	Various	Locations are to be determined based on proximity of bicycling facilities and pntial usage
10	Intersection Improvements	Vehicular	NW 12th Street	NW 87th Avenue	N/A	Add northbound left turn lane, add southbound right turn lane and signal optimization.
11	Intersection Improvements	Vehicular	NW 12th Street	NW 82nd Avenue	N/A	Connect to southbound 82nd Avenue
12	Intersection Improvements	Vehicular	NW 25th Street	NW 97th Avenue	N/A	Add northbound, southbound, eastbound and westbound right turn lanes.
13	Intersection Improvements	Vehicular	NW 41st Street	NW 115th Avenue	N/A	Add dual left northbound turn lanes and signal optimization.
14	Intersection Improvements	Vehicular	NW 41st Street	NW 102nd Avenue	N/A	Remove split phase and signal optimization.
15	Intersection Improvements	Vehicular	NW 36th Street	NW 82nd Avenue	N/A	Add southbound, northbound, eastbound and westbound right turn lanes and signal optimization.
16	Intersection Improvements	Vehicular	NW 58th Street	NW 114th Avenue	N/A	Add eastbound and westbound right turn lanes; signal optimization.
17	Intersection Improvements	Vehicular	NW 58th Street	NW 87th Avenue	N/A	Add northbound, eastbound and westbound right turn lanes and signal optimization.

# Tier IV

Tier IV						
1	New roadways for "White Course" development	Vehicular	NW 41st Street	NW 87th Avenue	NW 79th Avenue	Future redevelopment of the golf course located between NW 41st Street, NW 48 <sup>th</sup> Street, NW 87 <sup>th</sup> Avenue and NW 79 <sup>th</sup> Avenue will necessitate new roadways for internal circulation.
2	Complete the grid for Sections 17 & 8	Vehicular	Section 17 & 8	N/A	N/A	Future development in the north of the City will necessitate new roadways to complete the grid.
3	Signal Priority for Buses/Trolleys	Transit	Various	Various	Various	Conduct a study to evaluate on-time performance, ridership, and rider in-transit time. Improvement options include installing technology at traffic signals and transponders on the buses/trolleys.
4	Traffic Monitoring Control Center	Vehicular, Transit	TBD	TBD	TBD	Construct a traffic monitoring control center to monitor city roads
5	Off-road Bicycle Path Maintenance and Rest Area Development	Bicycling	Various	Various	Various	Rest areas should be developed along existing shared-use, off-road paths at approximately every 0.5 miles.
6	Citywide On-Street Parking Study	Vehicular	N/A	N/A	N/A	Conduct assessment of on available on-street parking and associated policies in the City of Doral.

# Tier IV

7	Roadway widening improvements	Vehicular	Various	Various	Various	An analysis of various roadways and future growth within the City indicated unacceptable levels of service for specific segments.
8	Widen NW 90th Street	Vehicular	NW 90th Street	NW107th Avenue	NW 97th Avenue	Widen an existing roadway to support future growth and development along this roadway
9	Intersection Improvements	Vehicular	NW 12th Street	NW 97th Avenue	Off Ramp	Add westbound and northbound right turn lanes and also provide access to southbound 97th Avenue from 12th Street.
10	Intersection Improvements	Vehicular	NW 12th Street	NW 97th Avenue	On Ramp	Add westbound and northbound right turn lanes and also provide access to southbound 97th Avenue from 12th Street.
11	Intersection Improvements	Vehicular	NW 7th Street	NW 97th Avenue	N/A	Signalize intersection.

# Questions/Comments

For further information or comments  
contact:

City of Doral Public Works Department  
8401 NW 53rd Terrace, 2nd Floor  
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**THANK  
YOU**



**THE  
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