

# **I-95 at Central Boulevard Interchange PD&E**

## **FM No: 413265-1-22-01**

### **Status Review**

**Presentation to:**  
**Palm Beach Metropolitan Planning Organization**  
**and Advisory Committees**

TAC – July 6, 2016

BTPAC – July 7, 2016

CAC – July 13, 2016

MPO Board – July 21, 2016



# Agenda

- Study Progress
- Mainline Alternatives
- Interchange Alternatives
- Evaluation of Alternatives
- Recommendations



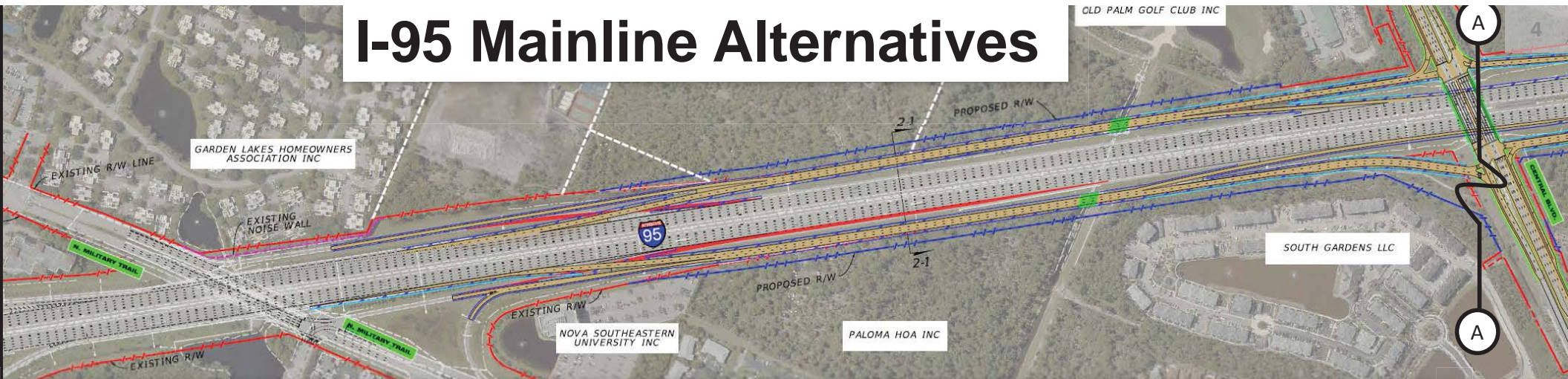
# Study Progress

- IJR Approved November 2015
- PD&E Commenced January 2015
- Meetings:
  - District Commissioner Palm Beach County – January 20, 2016
  - Northern Palm Beach County Chamber of Commerce Government Affairs Committee – February 12, 2016
  - Alternatives Public Workshop – February 18, 2016
  - Palm Beach Gardens City Commission - April 7, 2016
  - FHWA – Present Recommended Alternative – April 26, 2016
- Preliminary Engineering Report submitted May, 2016
- Public Hearing scheduled for September 28, 2016
- Refinement of Alternatives

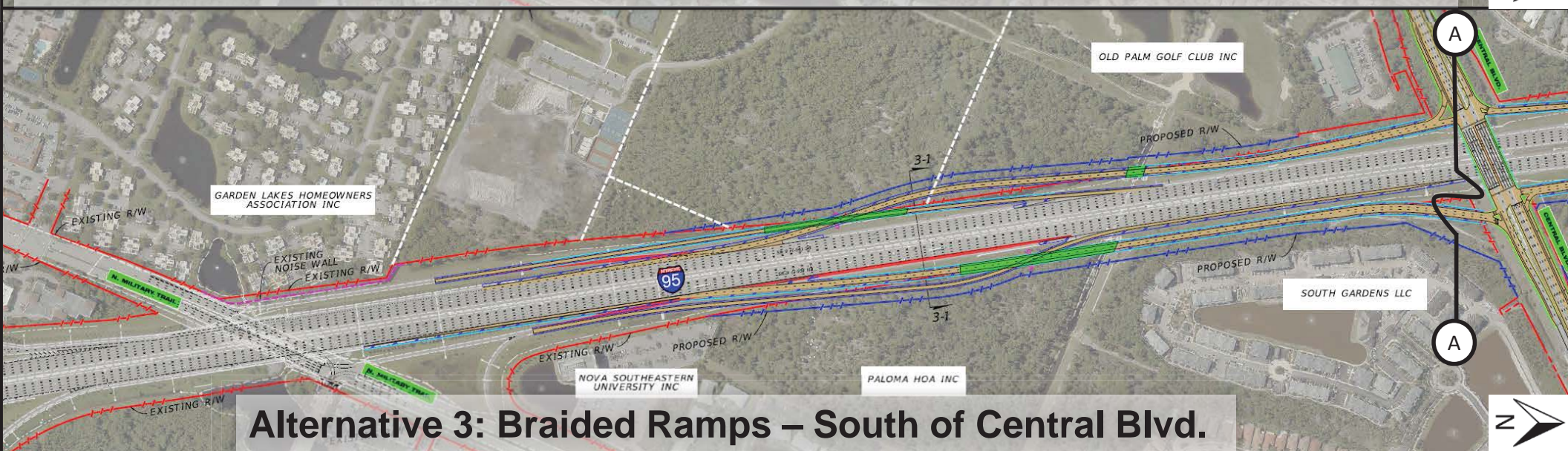




# I-95 Mainline Alternatives



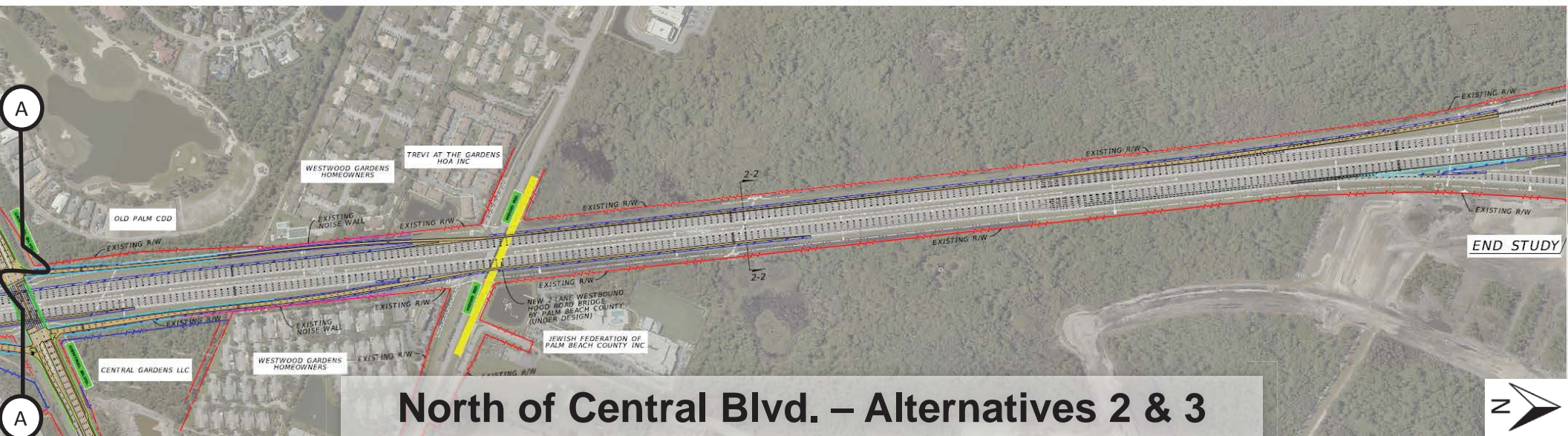
**Alternative 2: Collector Distributor (CD) Road Option – South of Central Blvd.**



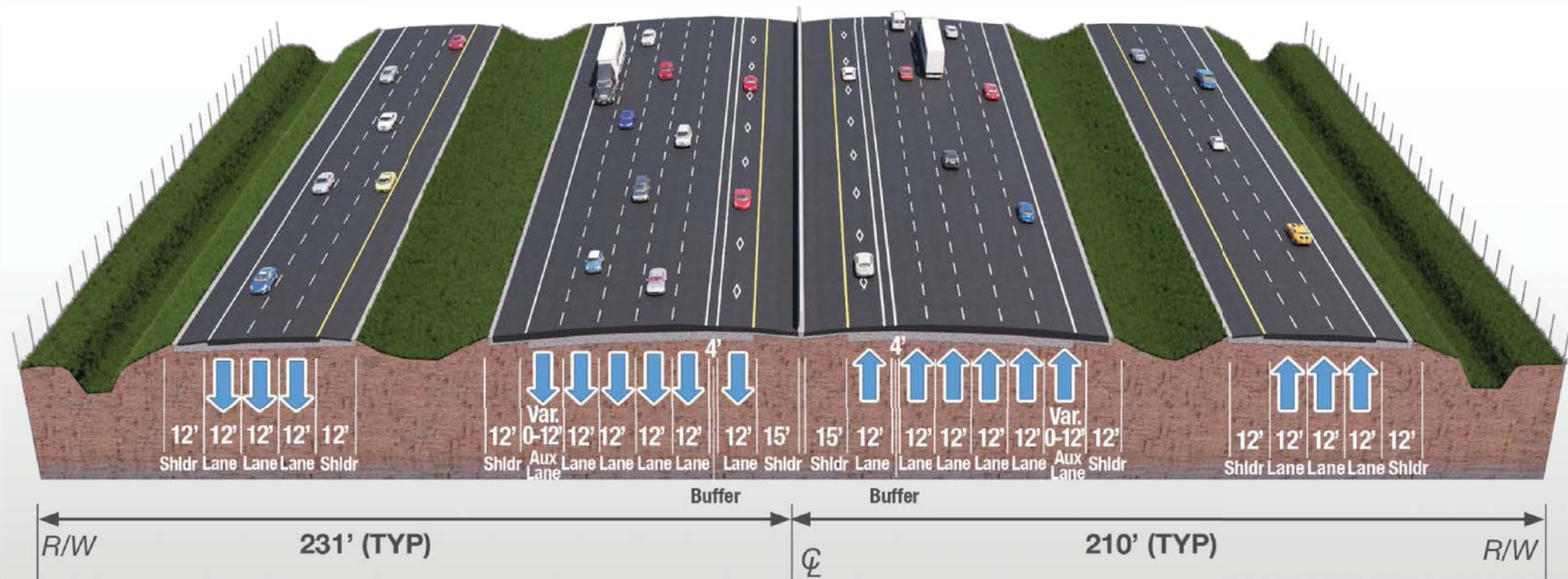
**Alternative 3: Braided Ramps – South of Central Blvd.**



# I-95 Mainline Alternatives



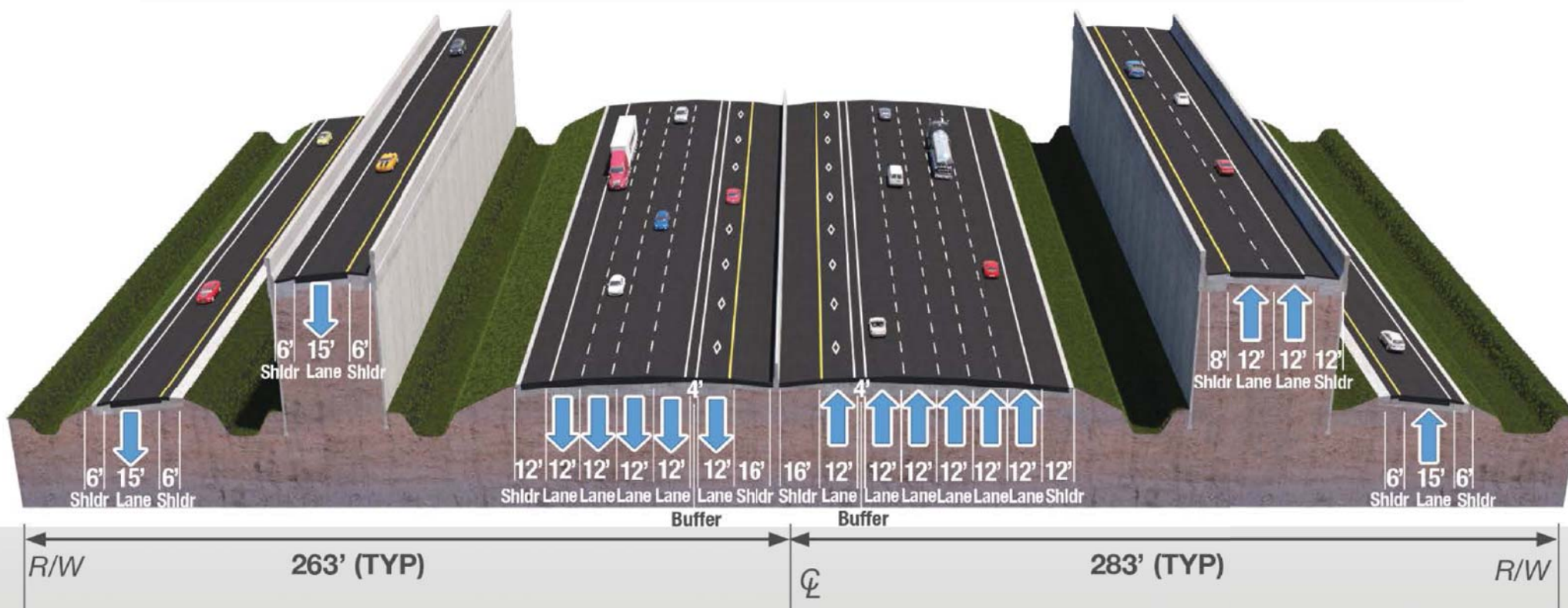
## Alternative 2: CD Road Option





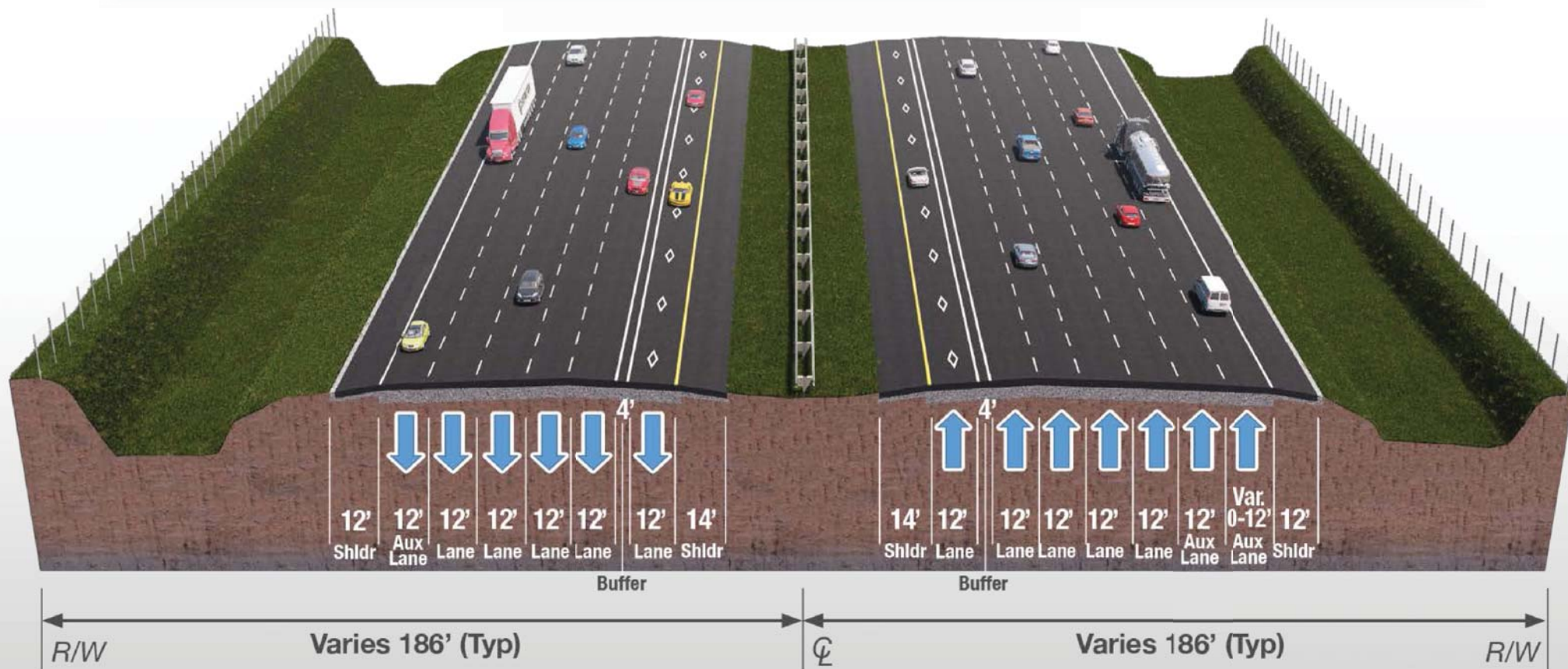
# Typical Sections: I-95 South of Central Boulevard

## Alternative 3: Braided Ramps



# Typical Section: I-95 North of Central Boulevard

## Alternatives 2 and 3

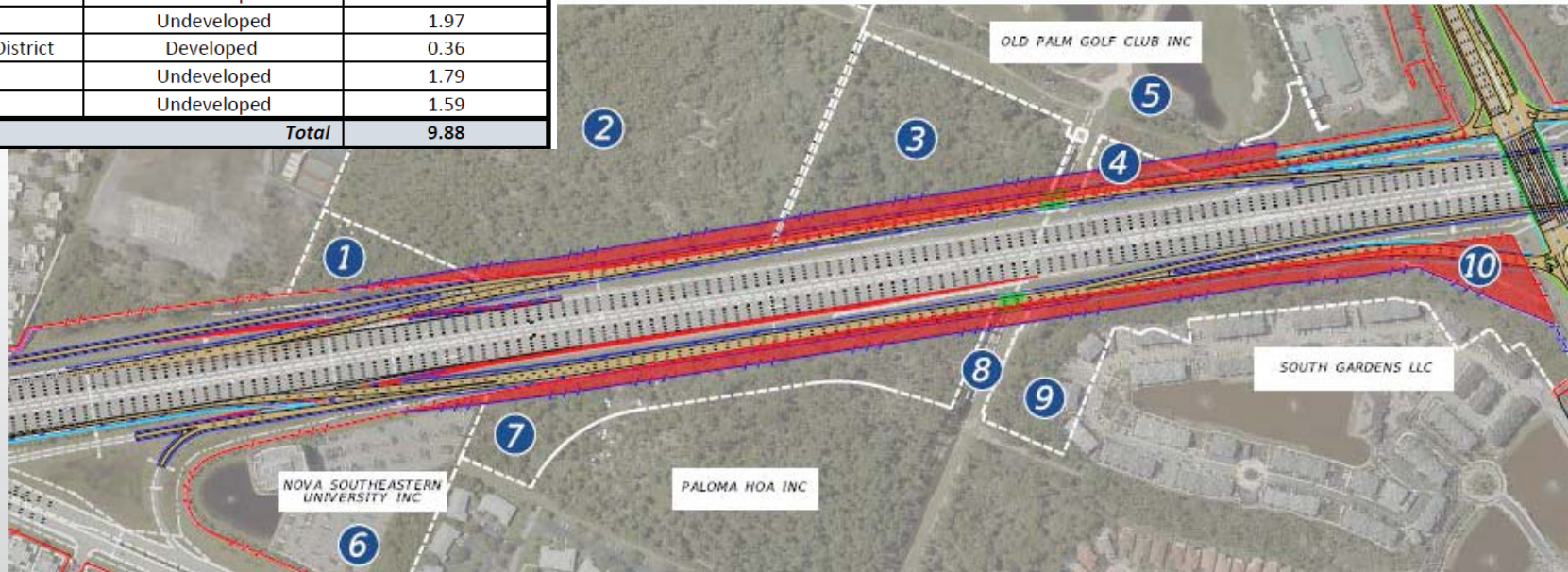




# Mainline R/W Impacts

## Alternative 2

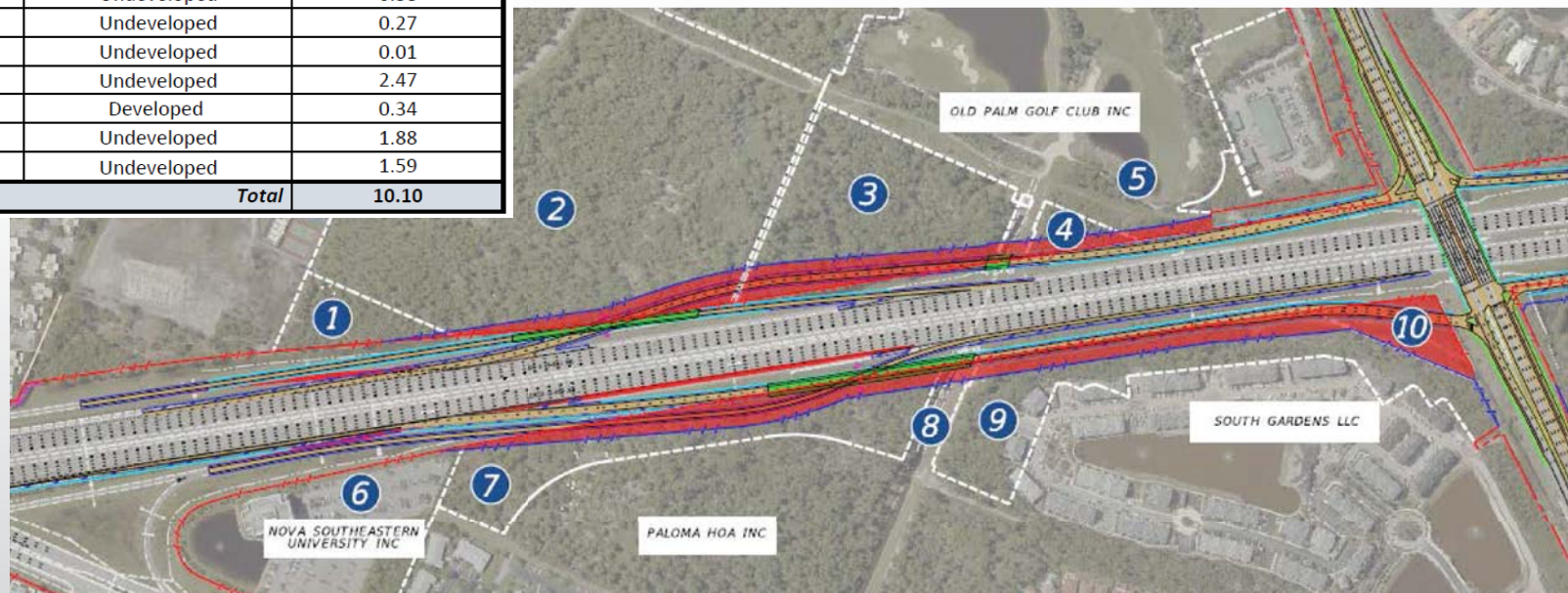
Alternative 2			
Parcel	Parcel Name	Developed/Undeveloped	R/W Impact (acres)
1	FDOT	Undeveloped	0.17
2	Palm Beach County	Undeveloped	1.33
3	Old Palm CDD	Undeveloped	1.50
4	Old Palm Golf Club Inc.	Undeveloped	0.54
5	Old Palm Golf Club Inc.	Undeveloped	0.54
6	Nova Southeastern University	Undeveloped	0.09
7	Paloma HOA Inc.	Undeveloped	1.97
8	North Palm County Improvements District	Developed	0.36
9	South Gardens LLC	Undeveloped	1.79
10	South Gardens LLC	Undeveloped	1.59
Total			9.88



# Mainline R/W Impacts

## Alternative 3

Alternative 3			
Parcel	Parcel Name	Developed/Undeveloped	R/W Impact (acres)
1	FDOT	Undeveloped	0.04
2	Palm Beach County	Undeveloped	1.33
3	Old Palm CDD	Undeveloped	1.79
4	Old Palm Golf Club Inc.	Undeveloped	0.38
5	Old Palm Golf Club Inc.	Undeveloped	0.27
6	Nova Southeastern University	Undeveloped	0.01
7	Paloma HOA Inc.	Undeveloped	2.47
8	North Palm County Improvements District	Developed	0.34
9	South Gardens LLC	Undeveloped	1.88
10	South Gardens LLC	Undeveloped	1.59
Total			10.10





# Recommendations

## I-95 Mainline Alternatives

### Alternative 2 – CD Road

- Shorter mainline weave distance
- Lower Ramp operating speeds on CD
- Anticipated to reach capacity in 2060
- Safety
  - Increased side swipe potential
- Lower Cost
- Similar R/W Impacts
- More Publically Acceptable Alternative

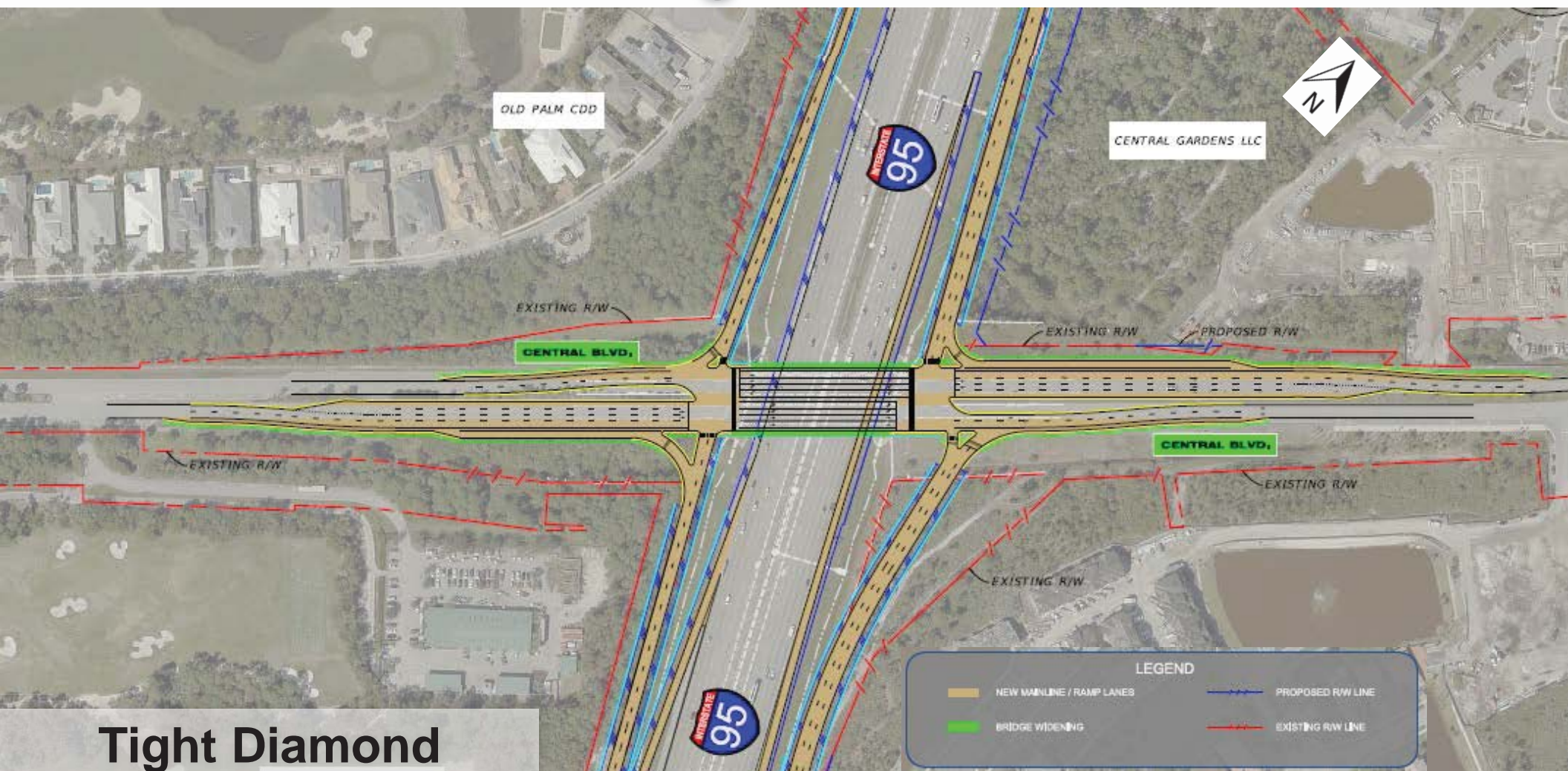
### Alternative 3 – Braided Ramps

- Longer mainline weave distance – 500 additional feet
- Higher operating speeds
- Higher Operational Life Expectancy
- Safety
  - Less Conflicts - Safer
- Higher Cost - ~\$13.5M more
- Similar R/W Impacts

**Recommendation:**  
**CD Road**



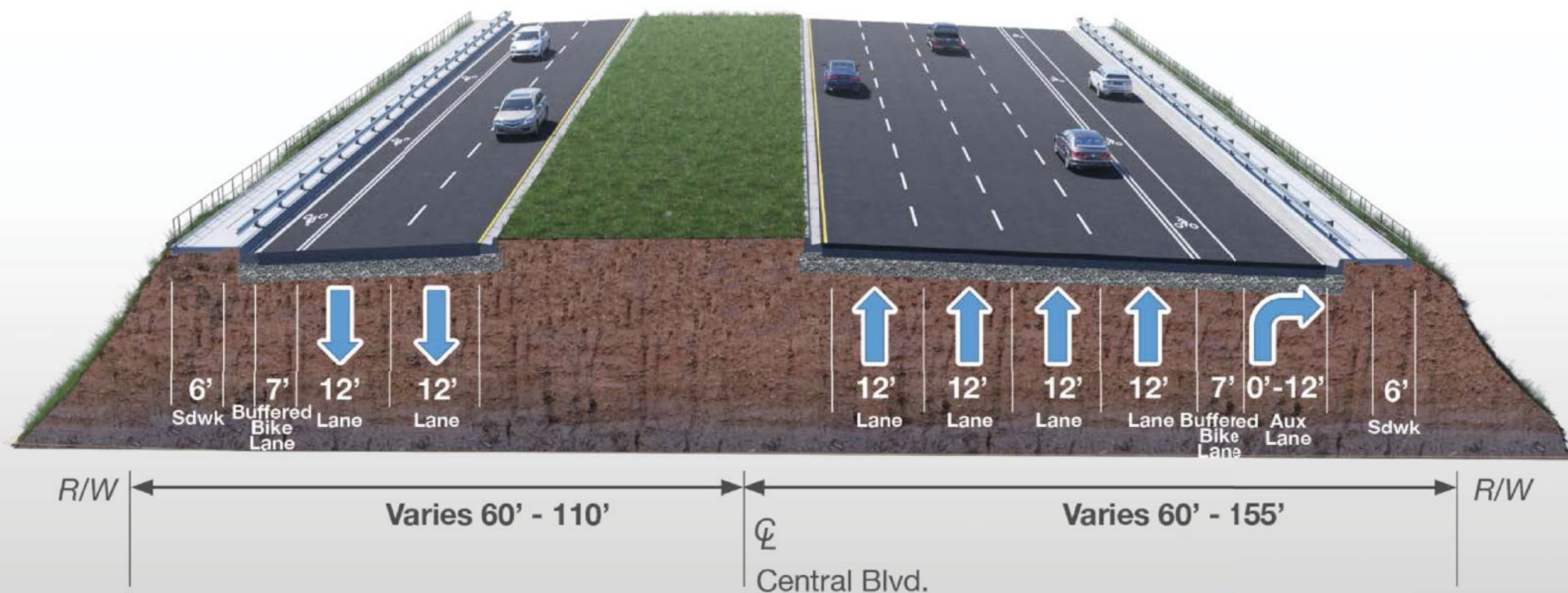
# Interchange Alternatives





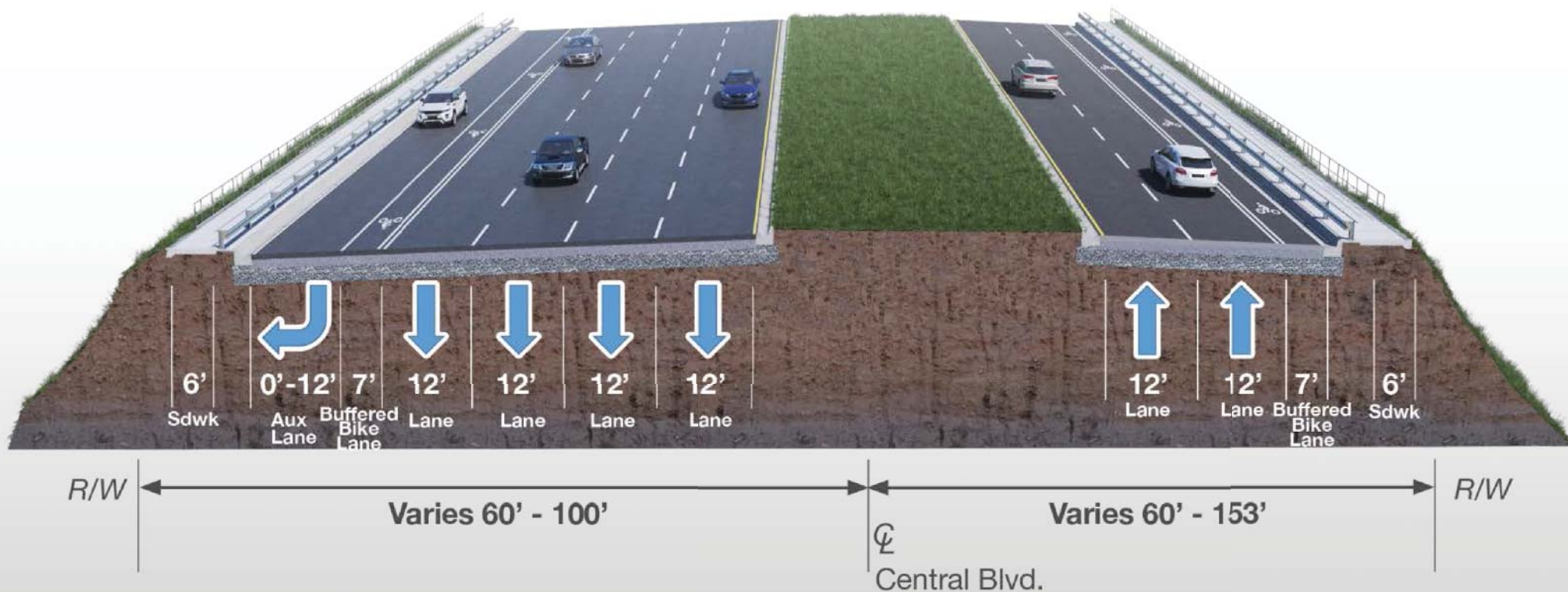
# Typical Sections: Central Boulevard

## Tight Diamond Urban Interchange – West of I-95



# Typical Sections: Central Boulevard

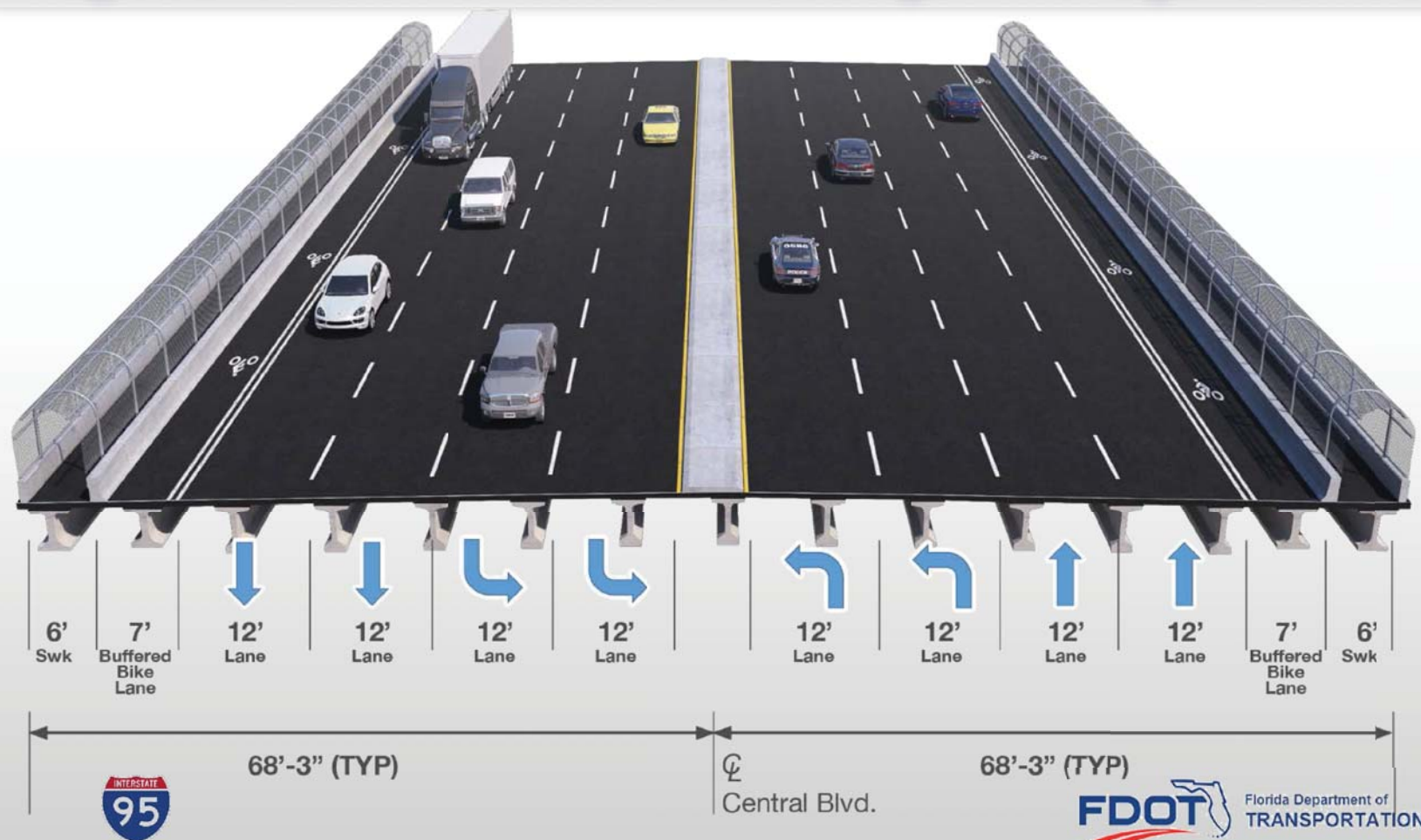
## Tight Diamond Urban Interchange – East of I-95



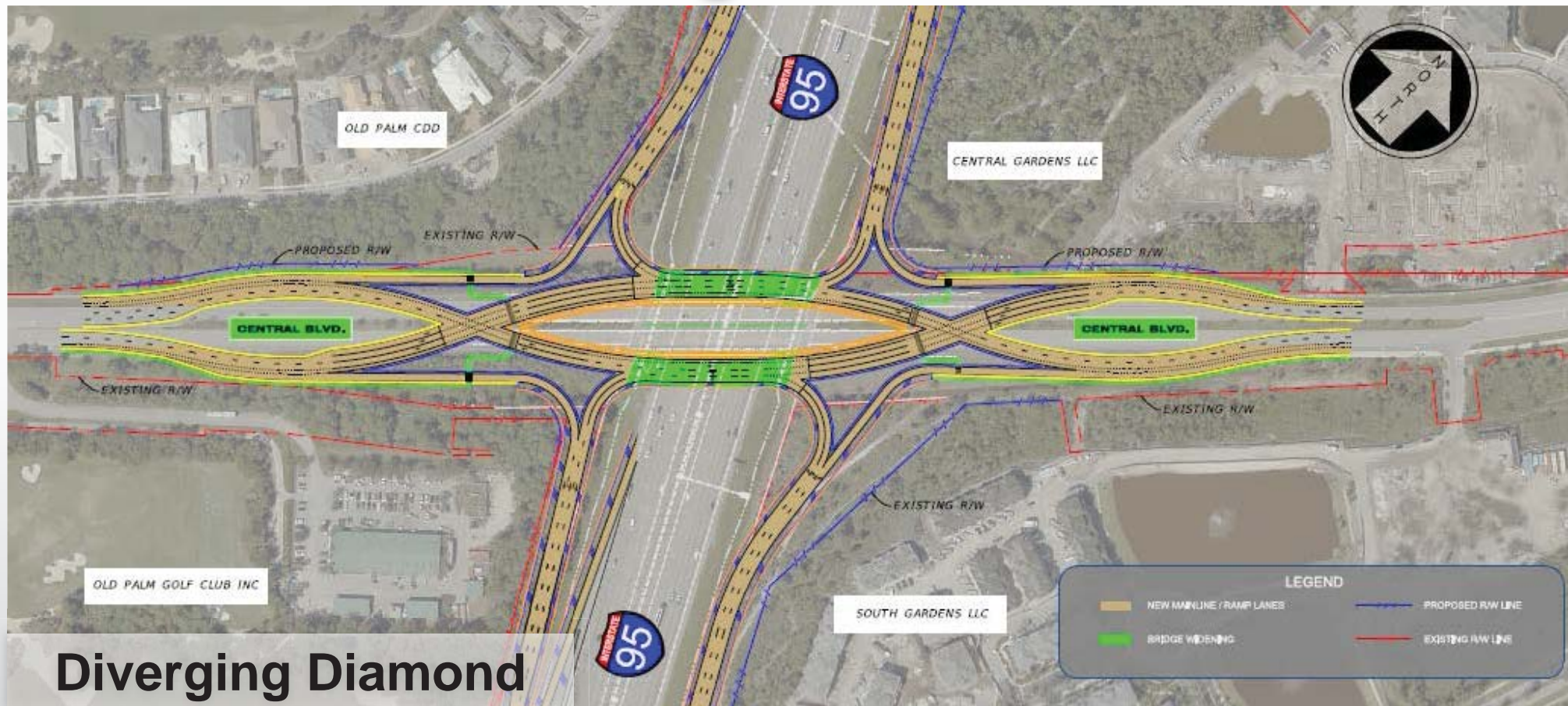


# Typical Sections: Central Boulevard

## Tight Diamond Urban Interchange – Bridge over I-95



# Interchange Alternatives



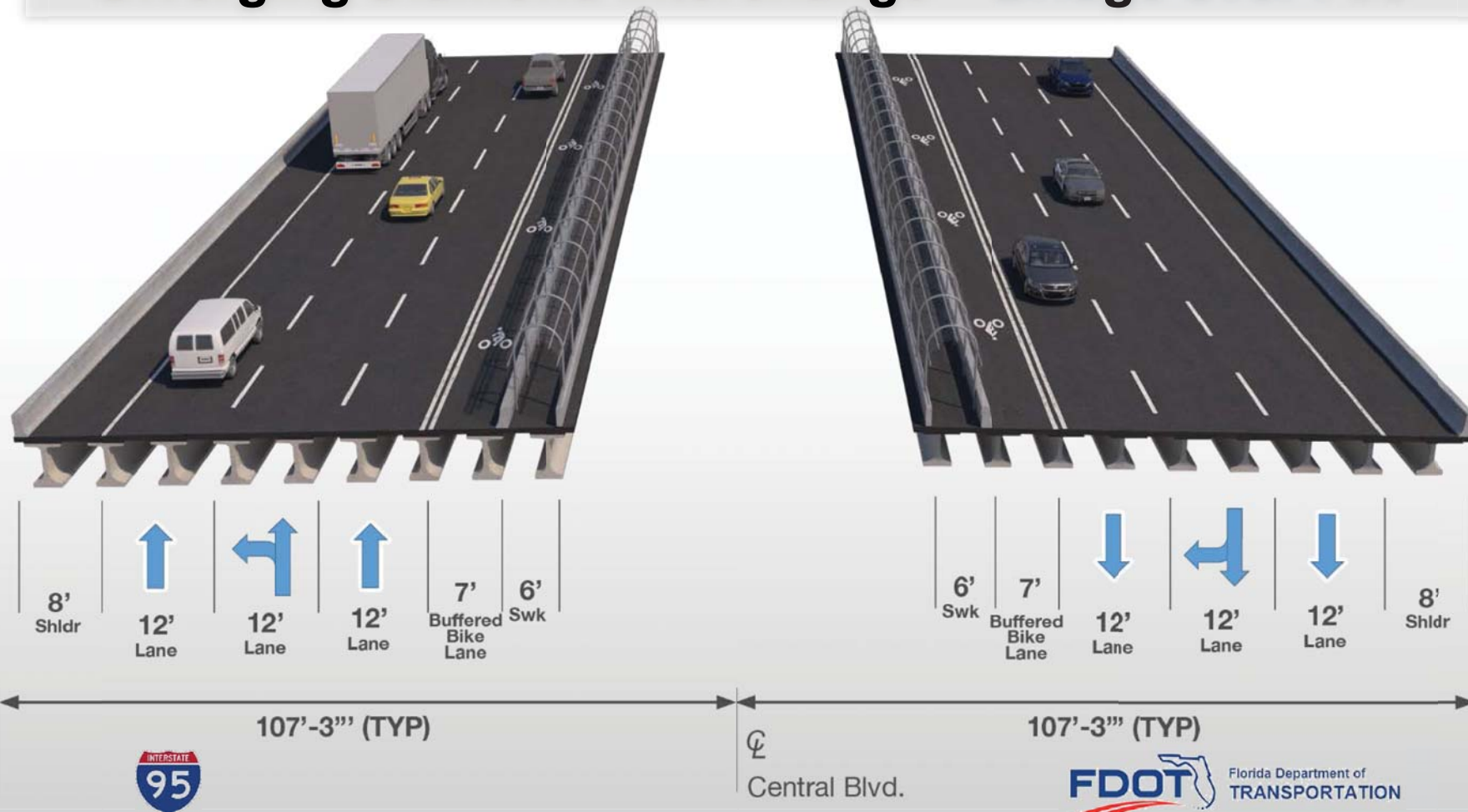
## Diverging Diamond





# Typical Sections: Central Boulevard

## Diverging Diamond Interchange – Bridge over I-95

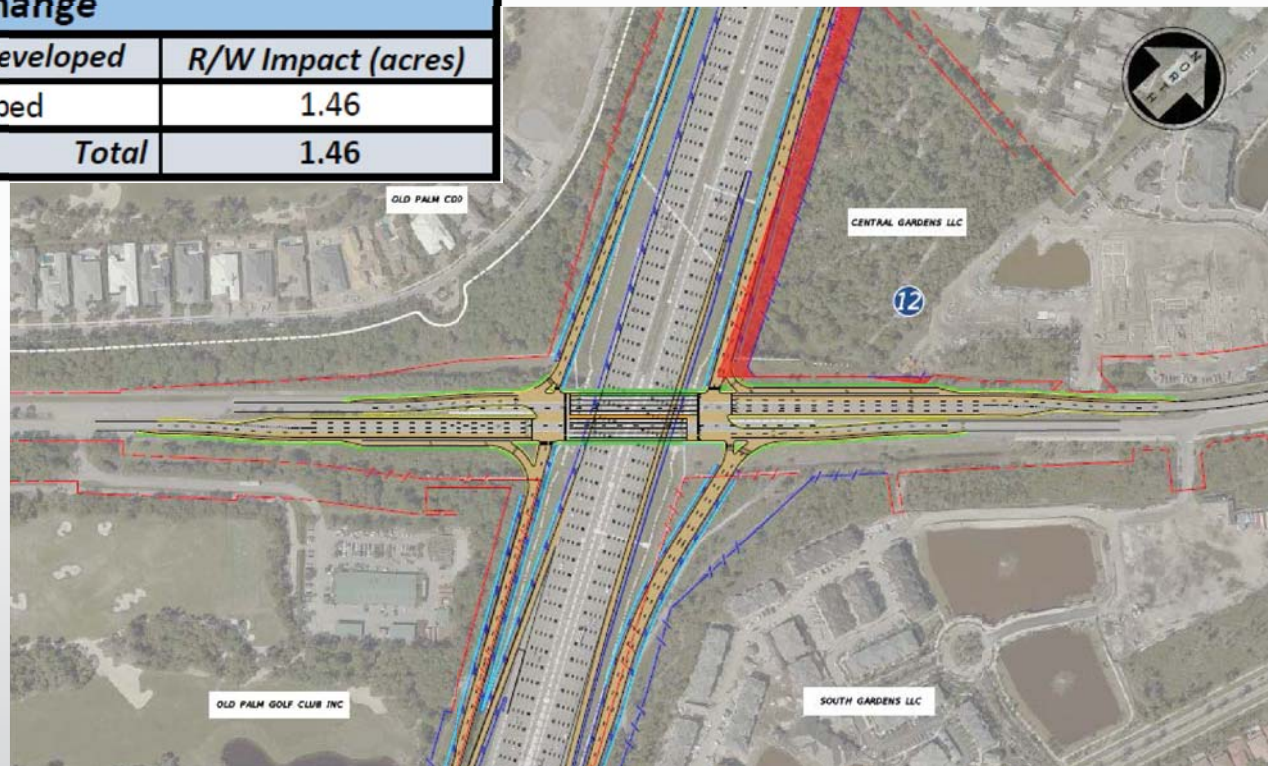


# Interchange R/W Impacts

## Tight Diamond

**Tight Diamond Interchange**

Parcel	Parcel Name	Developed/Undeveloped	R/W Impact (acres)
12	Central Gardens POA Inc.	Undeveloped	1.46
<b>Total</b>			<b>1.46</b>



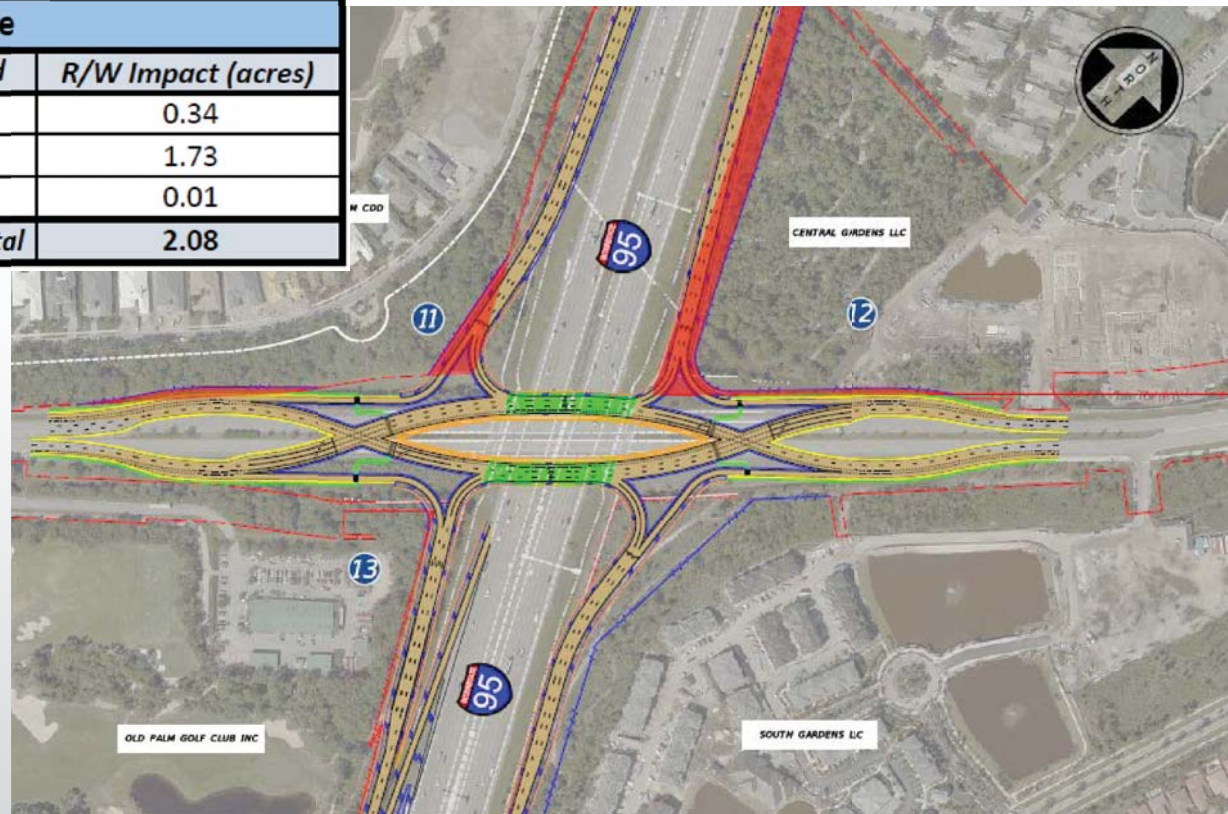


# Interchange R/W Impacts

## Diverging Diamond

**Diverging Diamond Interchange**

Parcel	Parcel Name	Developed/Undeveloped	R/W Impact (acres)
11	Old Palm CDD	Undeveloped	0.34
12	Central Gardens POA Inc.	Undeveloped	1.73
13	Old Palm CDD	Undeveloped	0.01
<b>Total</b>			<b>2.08</b>



# Recommendations

## Interchange Alternatives

### Tight Diamond Interchange

- Less Capacity – but meets design year demand
- Traditional Configuration – Easier for Drivers
- Traditional Pedestrian and Bicycle Movements
- Safety - More Conflict Points
- Lower Cost
- Less R/W Impacts
- More Publically Accepted Alternative

### Diverging Diamond Interchange

- Can Accommodate Higher Turning Movement Volumes
- Better Traffic Operations
- No Benefit in Non-Peak Hours
- Non-traditional Pedestrian and Bicycle Movements
- Safety - Less Conflicts - Safer
- Higher Cost - ~\$10M more
- More R/W Impacts – More Parcels

### Recommendation:

**Tight Diamond Interchange**





# Summary

## Mainline/Interchange Alternatives

Alternative	Total Cost	Total R/W
Alternative 2 (CD Road/TDUI)	\$33.9 Million	11.3 ac
Alternative 2A (CD Road/DDI)	\$43.7 Million	12.0 ac
Alternative 3 (Braided Ramp System/TDUI)	\$47.3 Million	11.6 ac
Alternative 3A (Braided Ramp System/DDI)	\$57.4 Million	12.2 ac

- Environmental Impacts Similar and Minimal
- Right of Way Impacts Similar (11.3 ac to 12.2 ac)
- Noise Impact Being Studied

**Recommendation: CD Road/Tight Diamond Interchange**



# Questions?

