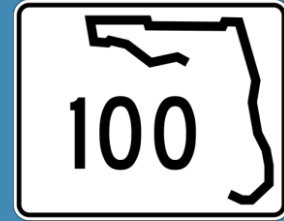


Intersection Safety Improvements for SR 100 at East End Rd. Putnam County, FL



Florida Department of Transportation - District Two



Location Map



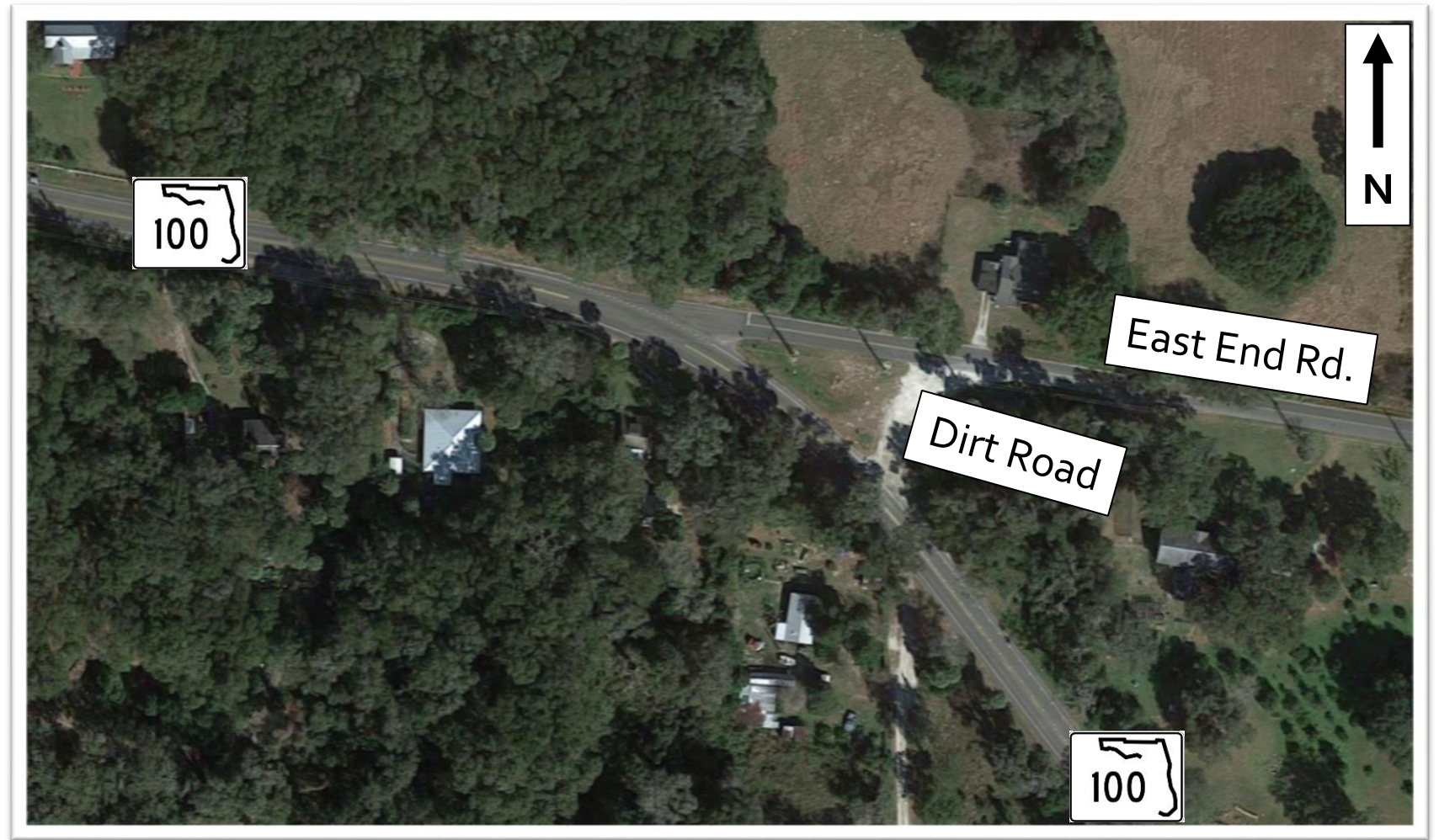
Purpose of Study

- History of Severe Crashes
 - 2008-2014 Crash Data
 - 15 Crashes (9 Injury Crashes and 1 Fatal Crash)
 - 2015-Present
 - 6 Crashes (3 Injury Crashes and 1 Fatal Crash)

Safety Study

- Existing Conditions
- Traffic Data
- Speed Survey
- Crash Analysis
- Proposed Alternatives

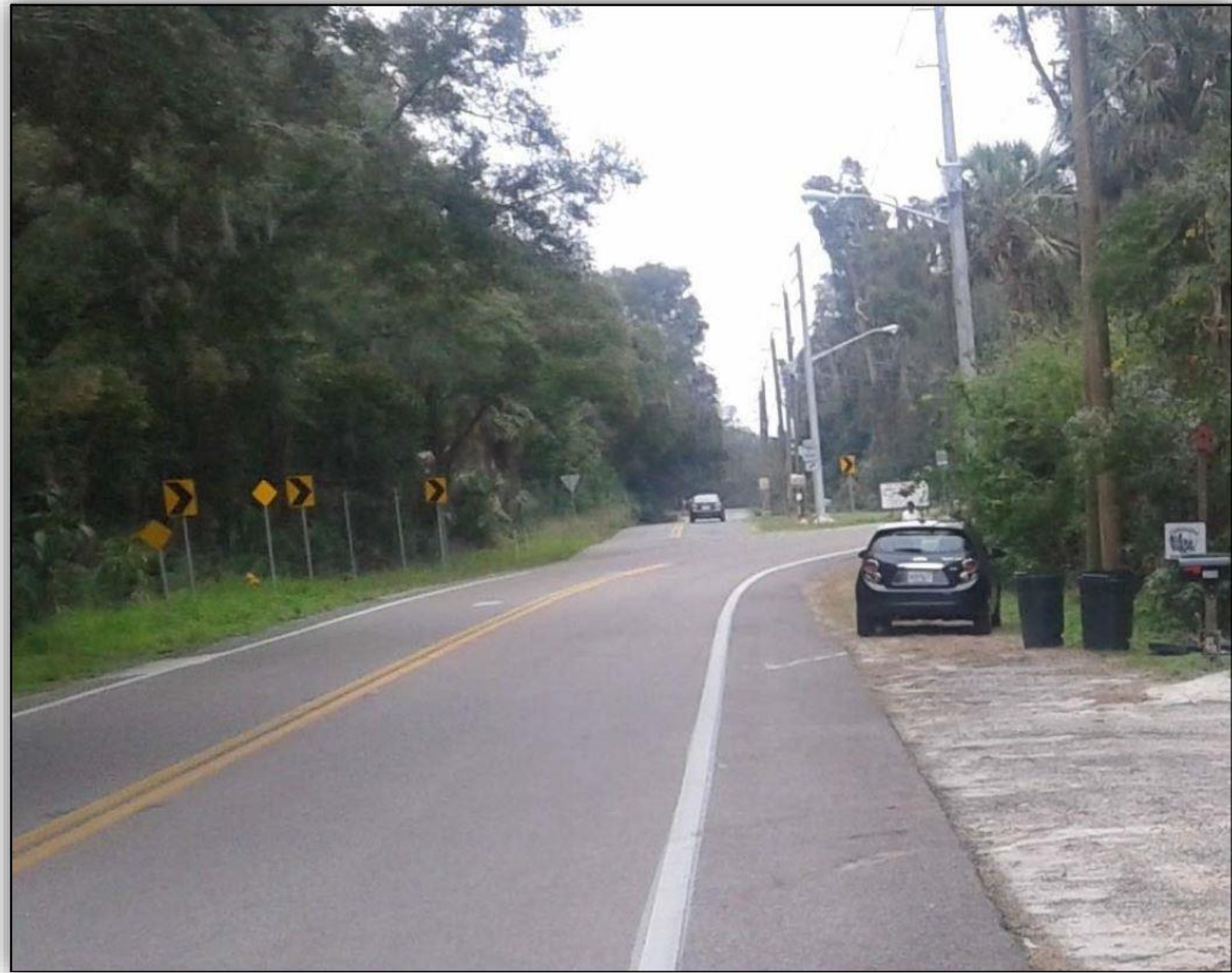
Existing Conditions



SR 100 Looking Eastbound/Southbound



Existing
Conditions



SR 100 Looking Westbound/Northbound



Existing
Conditions



East End Rd. Looking Westbound



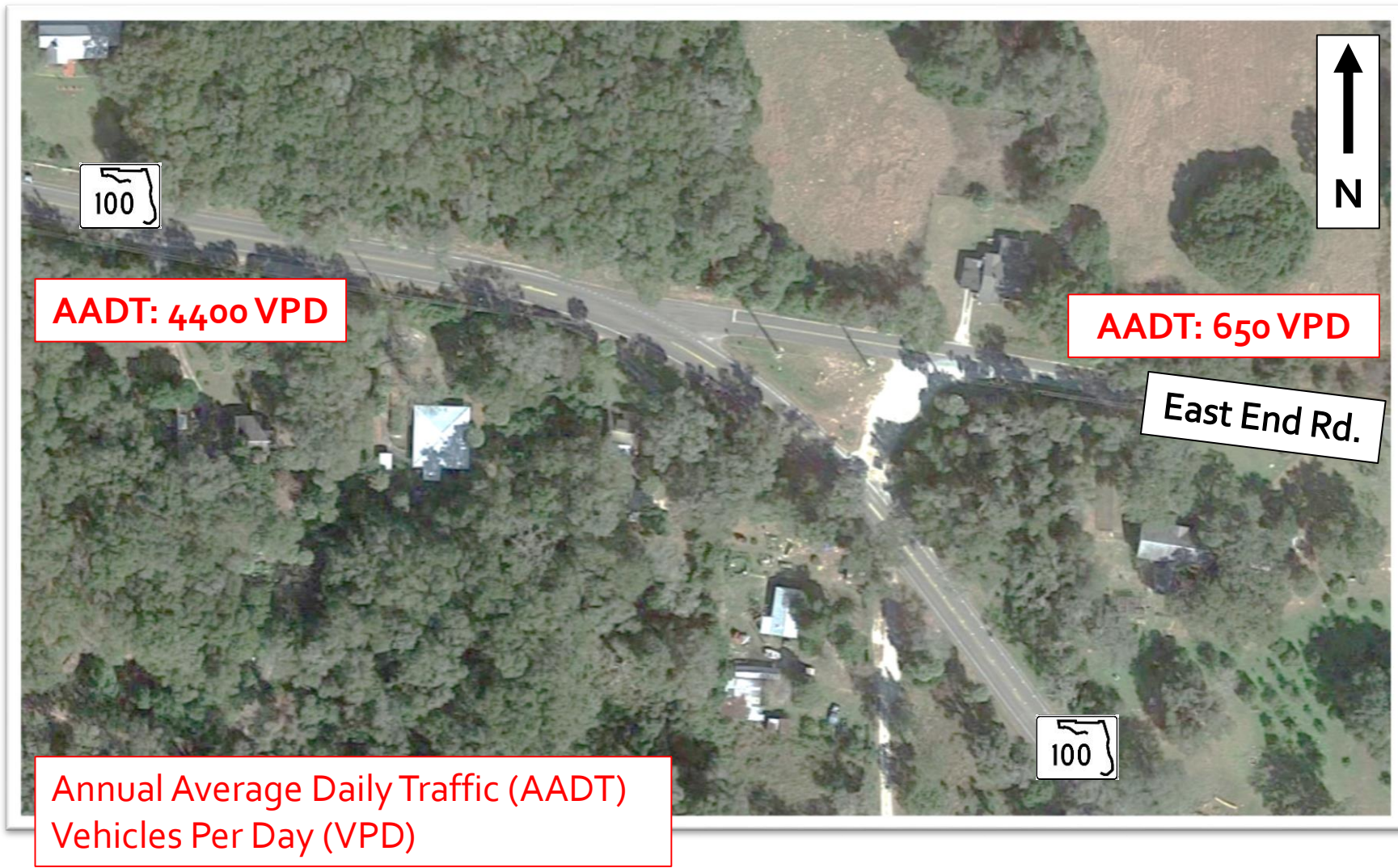
Existing
Conditions



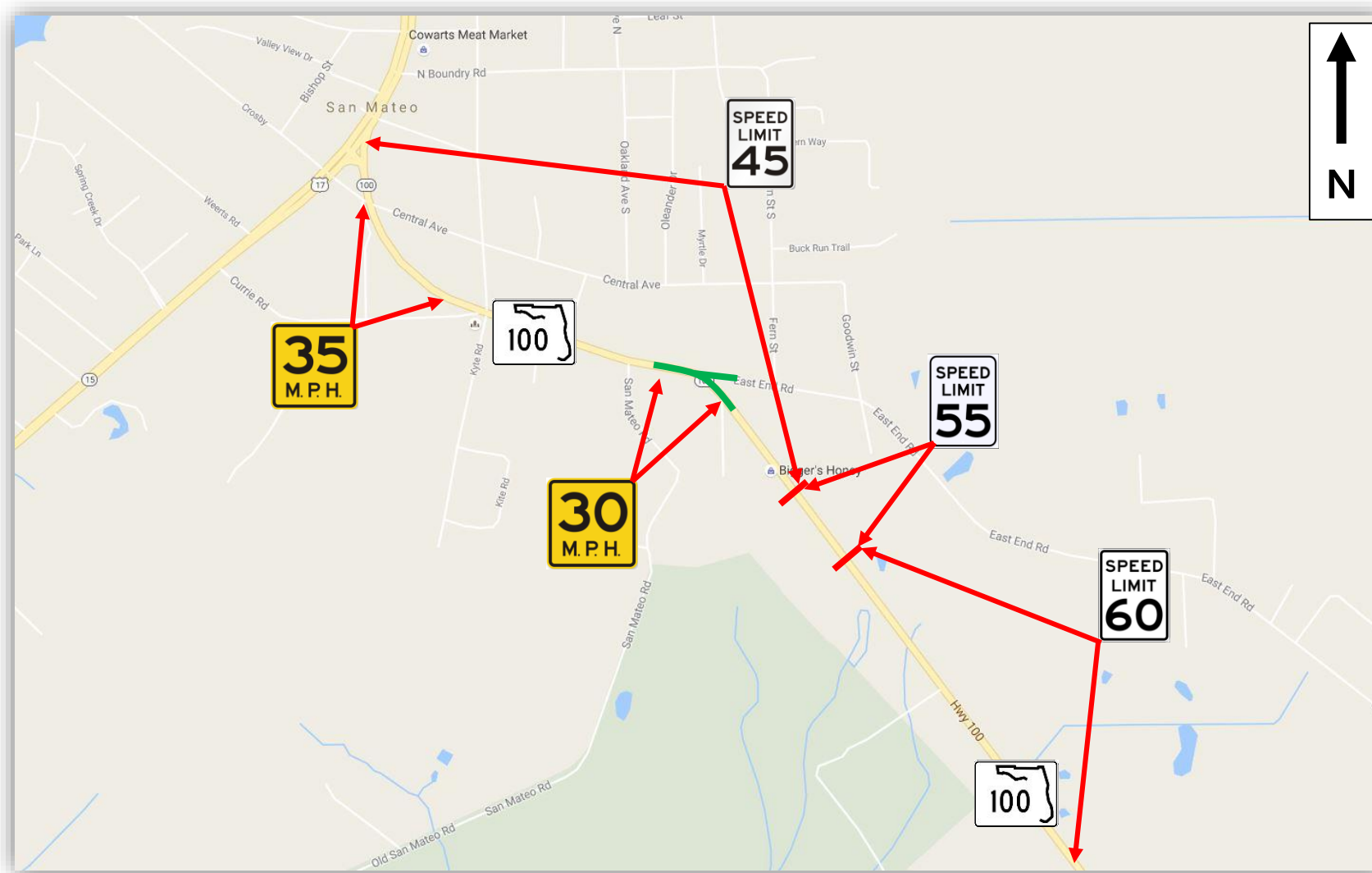
Existing Conditions

- SR 100
 - 2-12' Lanes
 - 5' Paved Shoulders
 - 45 mph Speed Limit
 - Horizontal Curve
- East End Rd
 - 2-10' Lanes
 - 30 mph Speed Limit
 - Yield Condition at SR 100

Peak Hour Traffic Data



Existing Speed Limits



Speed Survey

- Speed Limit = 45 mph
- Advisory Curve Speed = 30 mph
- 85th Percentile Speed within Curve = 48 mph
- 85th Percentile Speed entering Curve = 53 mph

Crash Analysis



Construct T-Intersection

Proposed
Alternative
#1



Construct T-Intersection

Proposed
Alternative
#1



Proposed Alternative #1

Construct T-Intersection

Safety/Benefits:

- Provides dedicated left turn onto East End Rd.
- Provides dedicated right turn onto East End Rd.
- Proper sight distance provided
- Proper clear zone provided
- Appropriate lighting provided
- Eliminates yield condition from East End Rd.
- Corrected superelevation (cross slope)

Proposed Alternative #1

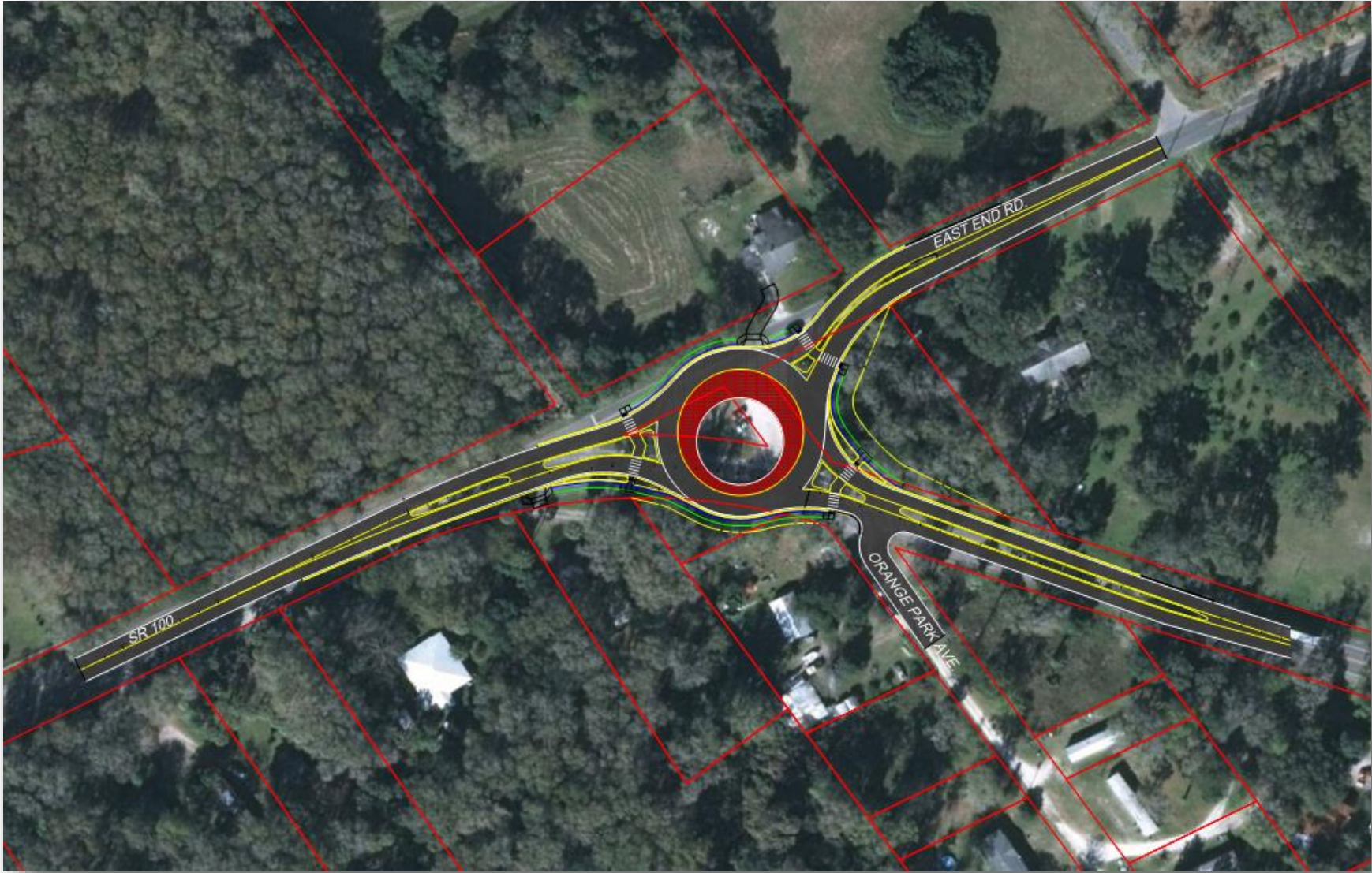
Construct T-Intersection

Concerns:

- Intersection connection on high side of fully superelevated curve
 - Adds stop condition on East End Rd.
 - Right-of-way needed (14 parcels)
 - Driveway impacts (1 location)
 - Limited speed control mitigation
 - Lighting pollution with residential
-
- **Estimated Construction Cost = \$2,087,000**

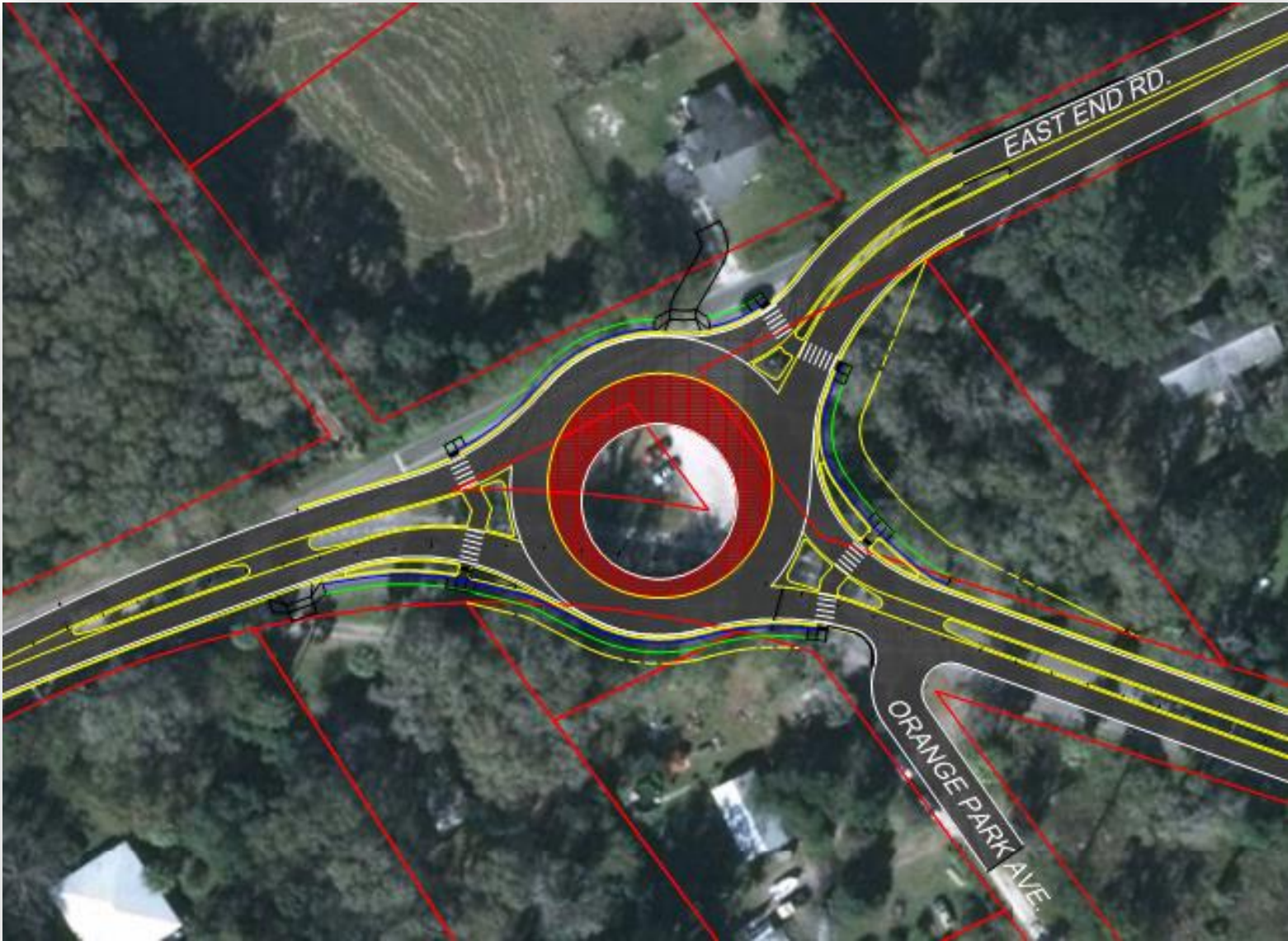
Construct Roundabout

Proposed
Alternative
#2



Construct Roundabout

Proposed
Alternative
#2



Construct Roundabout

Proposed Alternative #2

Safety/Benefits:

- Geometry reduces speed through intersection
- Yield condition provided for all movements
- Proper sight distance provided
- Accommodations for bike and pedestrians
- Appropriate lighting provided
- Accommodates large vehicles in all movements
- Eliminates superelevation
- Provides Landscaping
- Reduces conflict points
- Can experience 80% reduction in severe (injury/fatal) crashes and 46% reduction in overall crashes

Construct Roundabout

Proposed Alternative #2

Concerns:

- Non-traditional intersection
 - Driver expectancy/education
 - Right-of-way needed (3 Total Parcels)
 - Driveway impacts (2 Locations)
 - Lighting pollution with residential
-
- **Estimated Construction Cost = \$2,225,000**

Minor Enhancements

Proposed
Alternative
#3



Minor Enhancements

Proposed
Alternative
#3



Minor Enhancements

Proposed Alternative #3

Safety/Benefits:

- Proper sight distance provided
- Appropriate lighting provided
- Superelevation corrected
- By-pass right turn provided

Minor Enhancements

Concerns:

- Yield Condition remains on East End Rd.
- Right-of-way needed (3 Total Parcels)
- Driveway impacts (1 Locations)
- Limited speed control mitigation
- Intersection connection on high side of fully superelevated curve
- Lighting pollution with residential
- Improvements identified as mid-term solutions (with future traffic this may not be a long term solution)

Proposed
Alternative
#3

- Estimated Construction Cost = \$900,000

Questions/Comments?

