

Route 58 Arterial Management Plan Figure 19 Intersection #41: US 58 and US 1 Mecklenburg County

Recommendation: Realign US 1 north-east of existing intersection and reconfigure intersection of US 58 and US 1 to Continuous Green-T (CGT). Construct median between the eastbound and westbound lanes on US 58.

ROW Impacts: CGT is within existing ROW. Although VDOT owns some land east of existing US 58 alignment, the realignment may require additional ROW on the east side of US 58.

Improvement Type: Safety, Travel Time Preservation

Traffic Operations & Safety:

Traffic Operations

Reduced delay times for vehicles traveling westbound on US 58 from northbound US 1

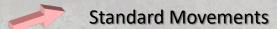
Improved sight distance for all

Safety

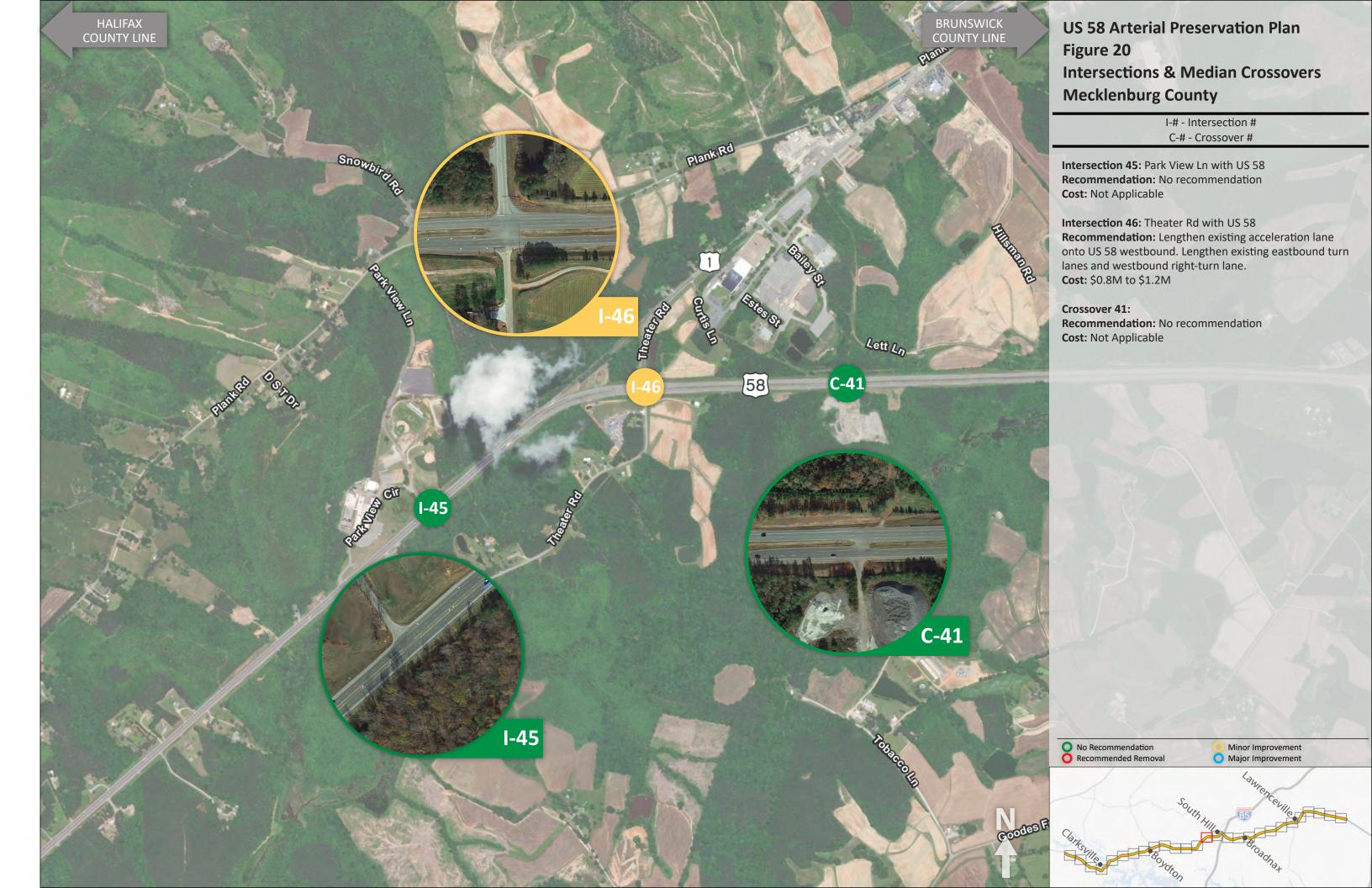
movements at the intersection. Reduced risk of angle crashes due to CGT and improved sight

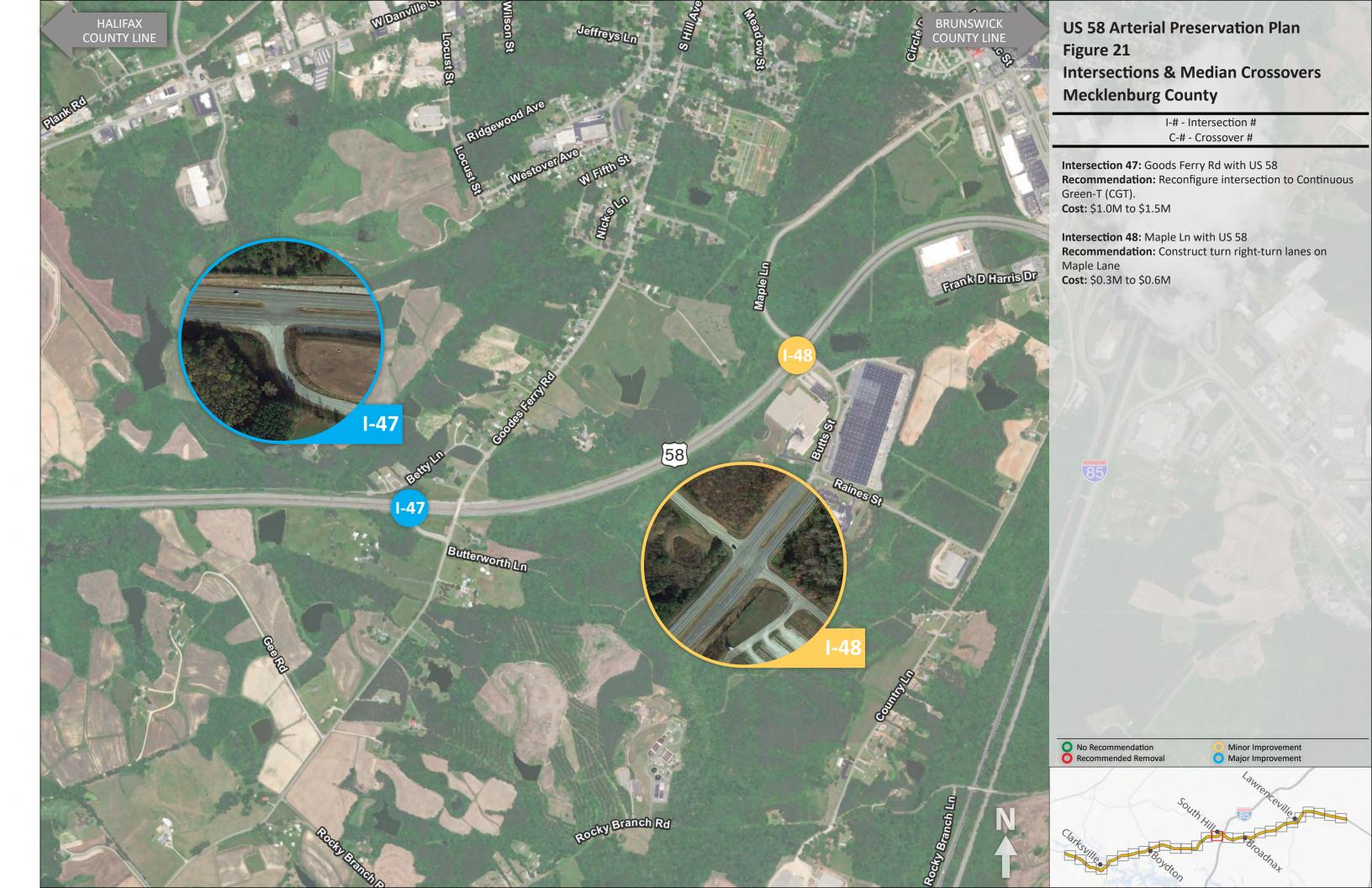
distance.

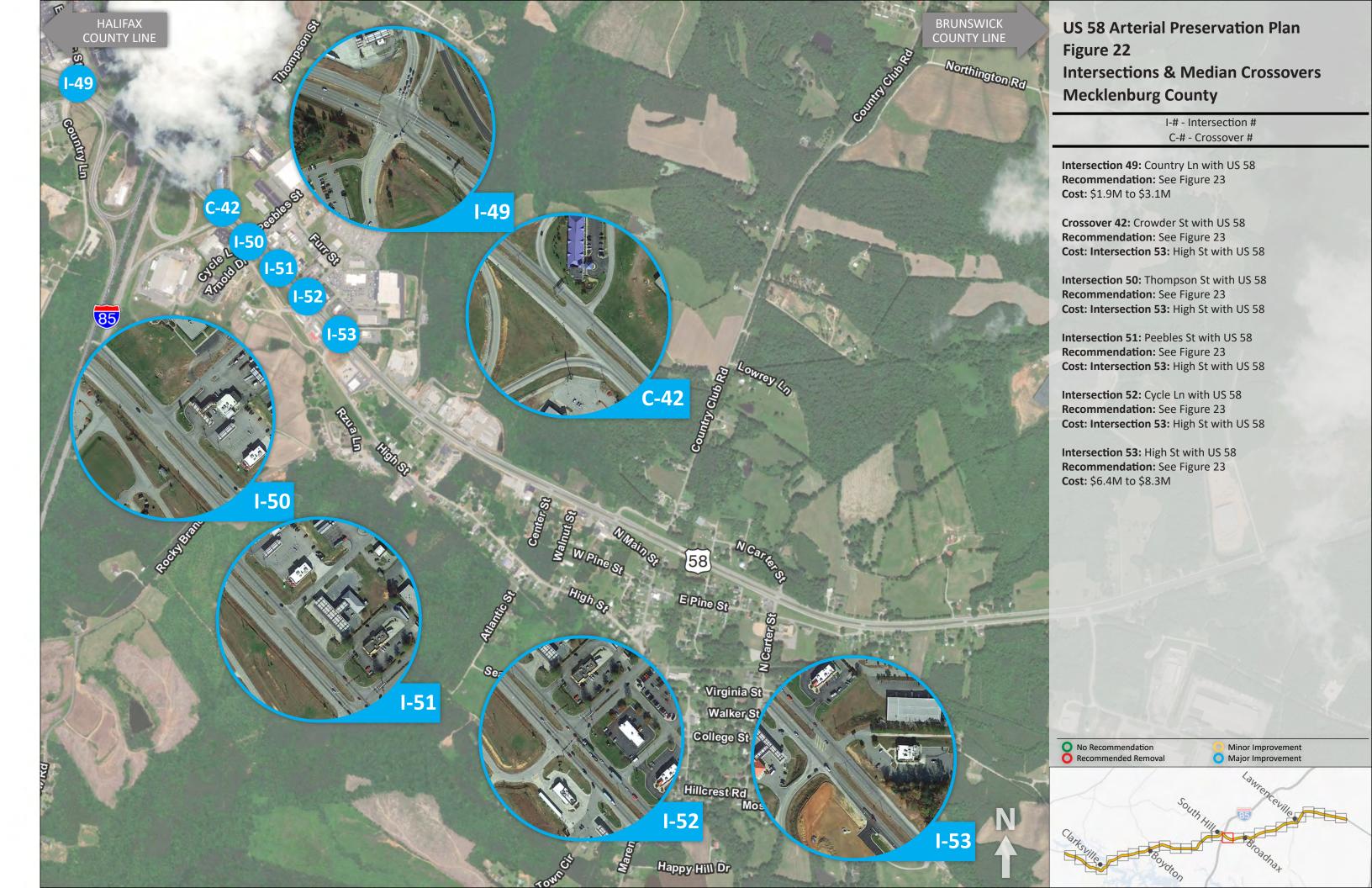
Cost: \$6.9M to \$9.7M



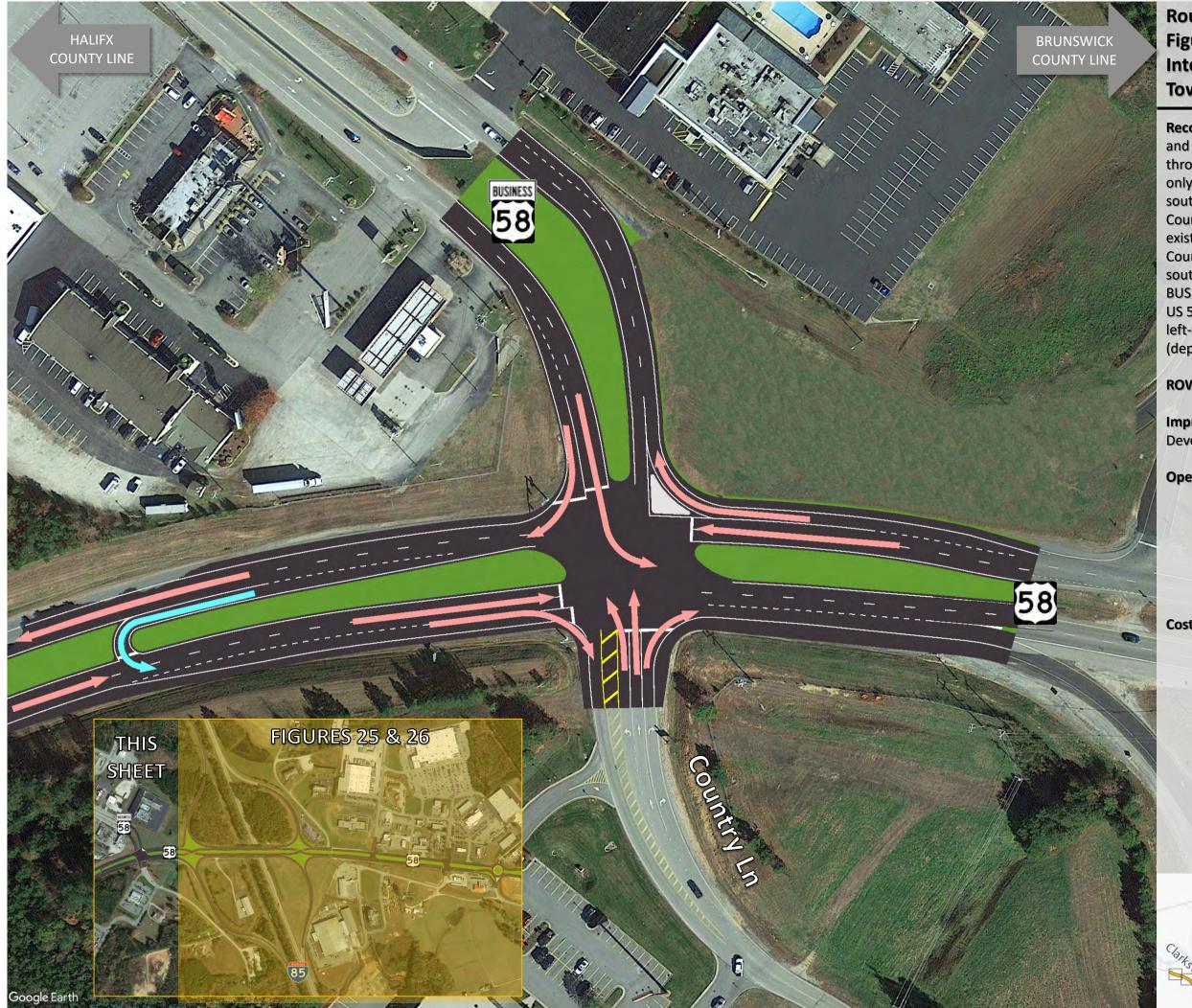












Route 58 Arterial Management Plan Figure 24 Intersection #49: US 58 with Country

Intersection #49: US 58 with Country Ln
Town of South Hill

Recommendation: Reconfigure the existing intersection and traffic signal to a three-phase signal. Permit only through and right-turn movements on US 58. Permit only left and right-turn movements from US 58 BUS southbound onto US 58 and full movements from Country Ln northbound. Construct U-turn area west of existing intersection to permit movements destined to Country Ln from US 58 westbound or US 58 BUS southbound. Remove existing I-85 off ramp onto US 58 BUS and construct continuous flow right-turn lane from US 58 westbound onto US 58 BUS. Eastbound US 58 left-turns to be managed at Maple Lane or interchange (depending on interchange configuration).

ROW Impacts: All improvements are within the ROW

Improvement Type: Congestion Mitigation, Economic Development, Safety, Travel Time Preservation

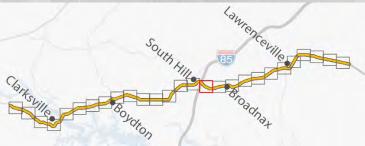
Operations:

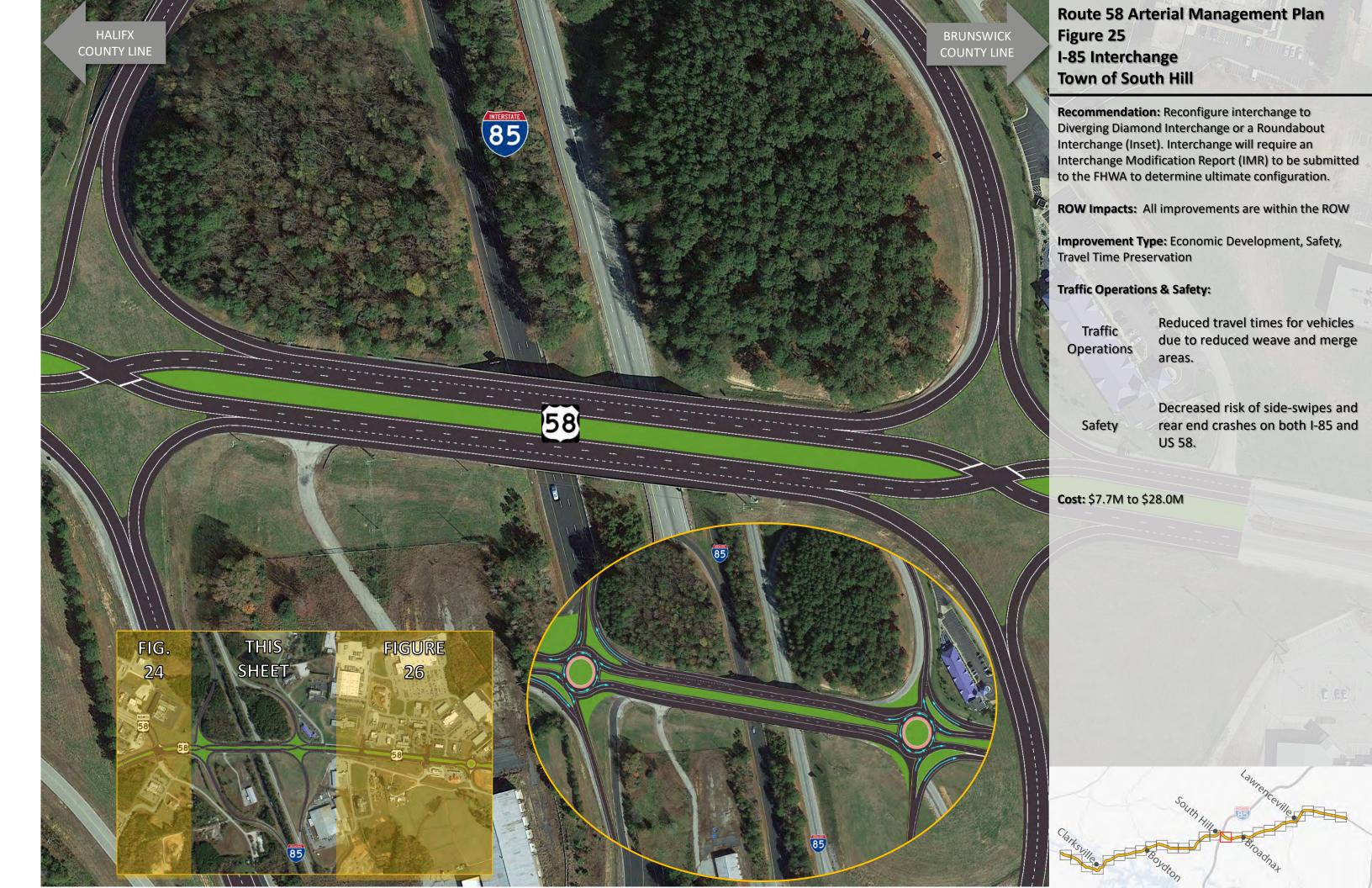
2040 Future Delay (sec - LOS)	No Build	Build
AM	24.6-C	17.4-C
PM	30.4-C	20.4-C

Cost: \$1.9M to \$3.1M



Standard Movements
Re-routed Movements







Route 58 Arterial Management Plan Figure 26 US 58 Eastern Corporate Limits Town of South Hill

Interim Recommendation: Reconfigure Thompson St intersection to right-in/right-out only, improve storage length of eastbound US 58 left-turn lane onto Peebles St, reconfigure Crowder St intersection to right-in/right-out only, reconfigure Cycle Lane to a two-phase signal, and construct a roundabout at the intersection of High St. Construct inter-parcel connections to maintain access between Thompson St and Peebles St, and between Cycle Ln and High St. Town maintained streets should be investigated further to determine pavement condition and capacity improvements to maintain efficient traffic flow.

Long-term Recommendation: As development occurs, additional improvements will be needed at the intersection of Peebles St and US 58. These improvements may require reviews and approvals by district, state, and FHWA officials. The roundabout at High St will need to be reconfigured to remove northbound left and thru movements to maintain capacity of the corridor.

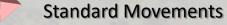
ROW Impacts: All improvements on US 58 are within the ROW. Inter-parcel connections and Town maintained street improvement may require significant ROW acquisition.

Improvement Type: Economic Development, Safety, Travel Time Preservation

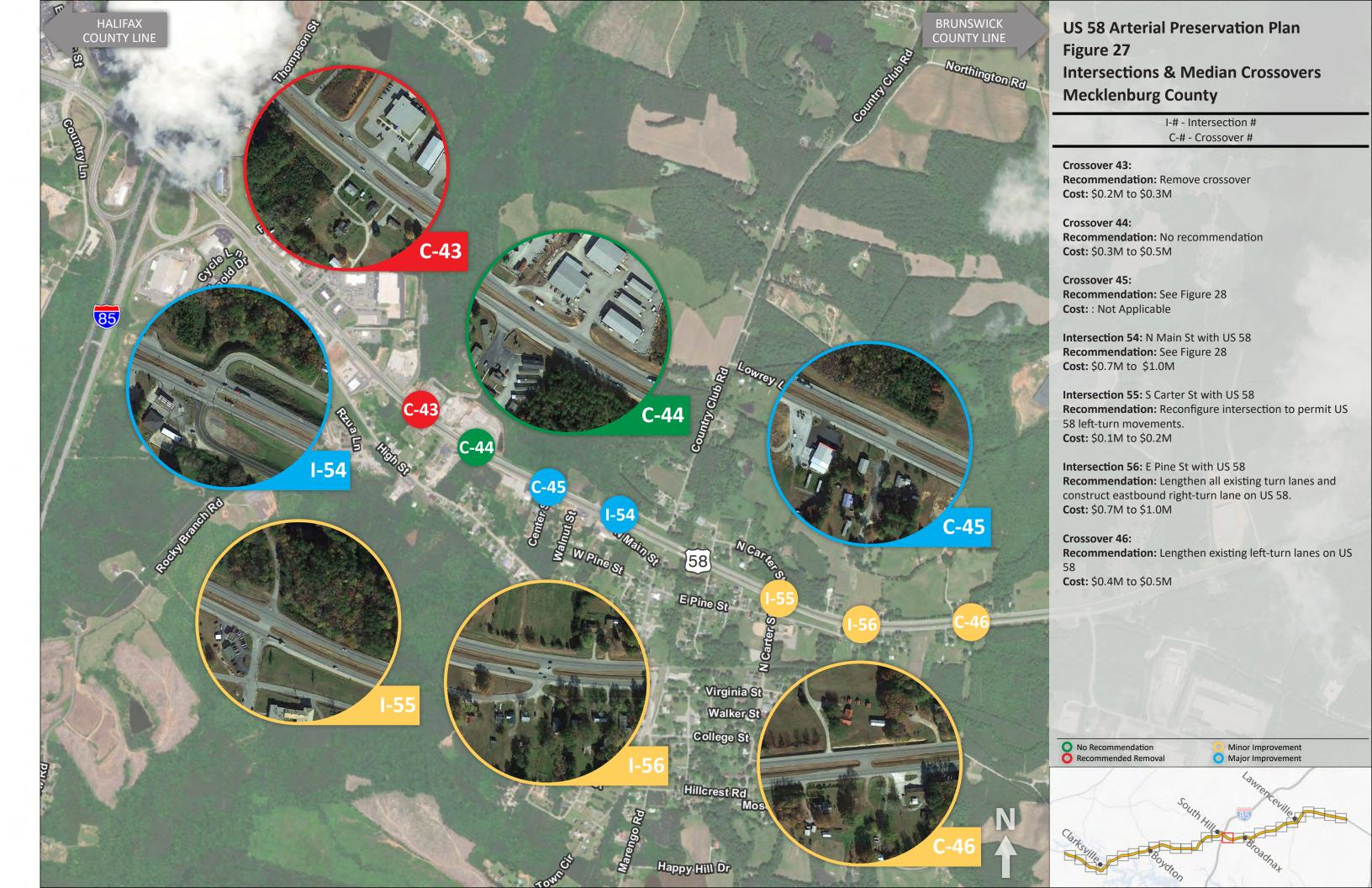
Traffic Operations:

2040 Travel Times (min)	Fastbound US 58		Westbound US 58	
Condition	No Build	Build	No Build	Build
AM	1:02	0:54	1:02	0:58
PM	1:32	1:17	1:38	1:26

US 58 Improvements: \$6.4M to \$8.3M Town Street Improvements: \$1.6M to \$10.0M









Route 58 Arterial Management Plan Figure 28

Intersection #54: N Main St with US 58 **Mecklenburg County**

Recommendation: Reconfigure the existing intersection and traffic signal to a two-phase signal. Permit only through and right-turn movements on US 58. Permit only right-turn movements from Country Club Rd onto US 58 and full movements from northbound N Main St to US 58. Reconfigure Crossover #45 to U-turn area for vehicles destined eastbound US 58 or the Town of LaCrosse. Eastbound US 58 vehicles destined to Country Club Road can use existing Crossover #46.

ROW Impacts: All improvements are within the ROW

Improvement Type: Safety, Travel Time Preservation

Traffic Operations & Safety:

Traffic Operations Reduced delay times for vehicles traveling on US 58 and N Main St.

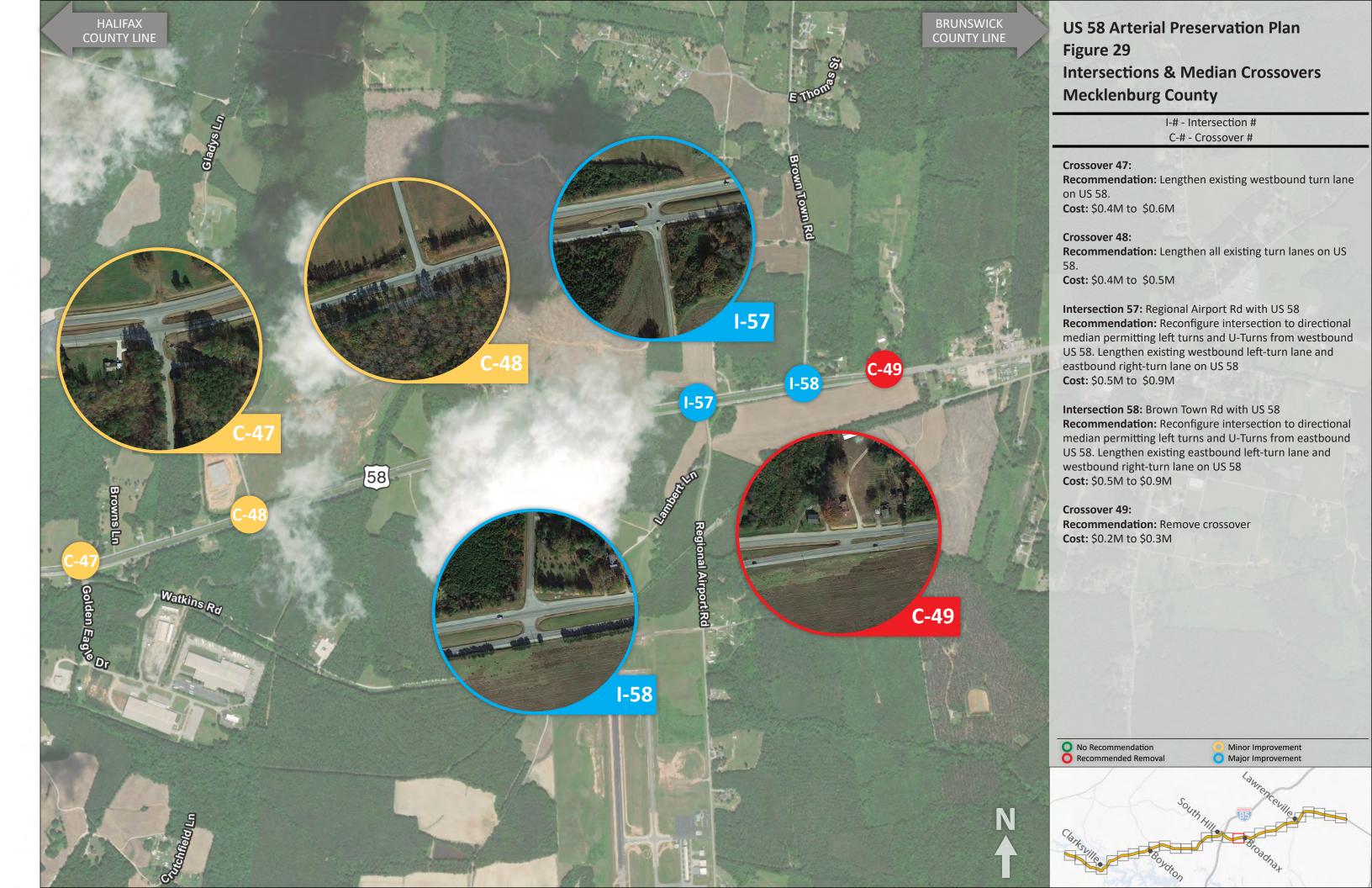
Significant reduction in risk of angle crashes and reduced risk of rear end crashes.

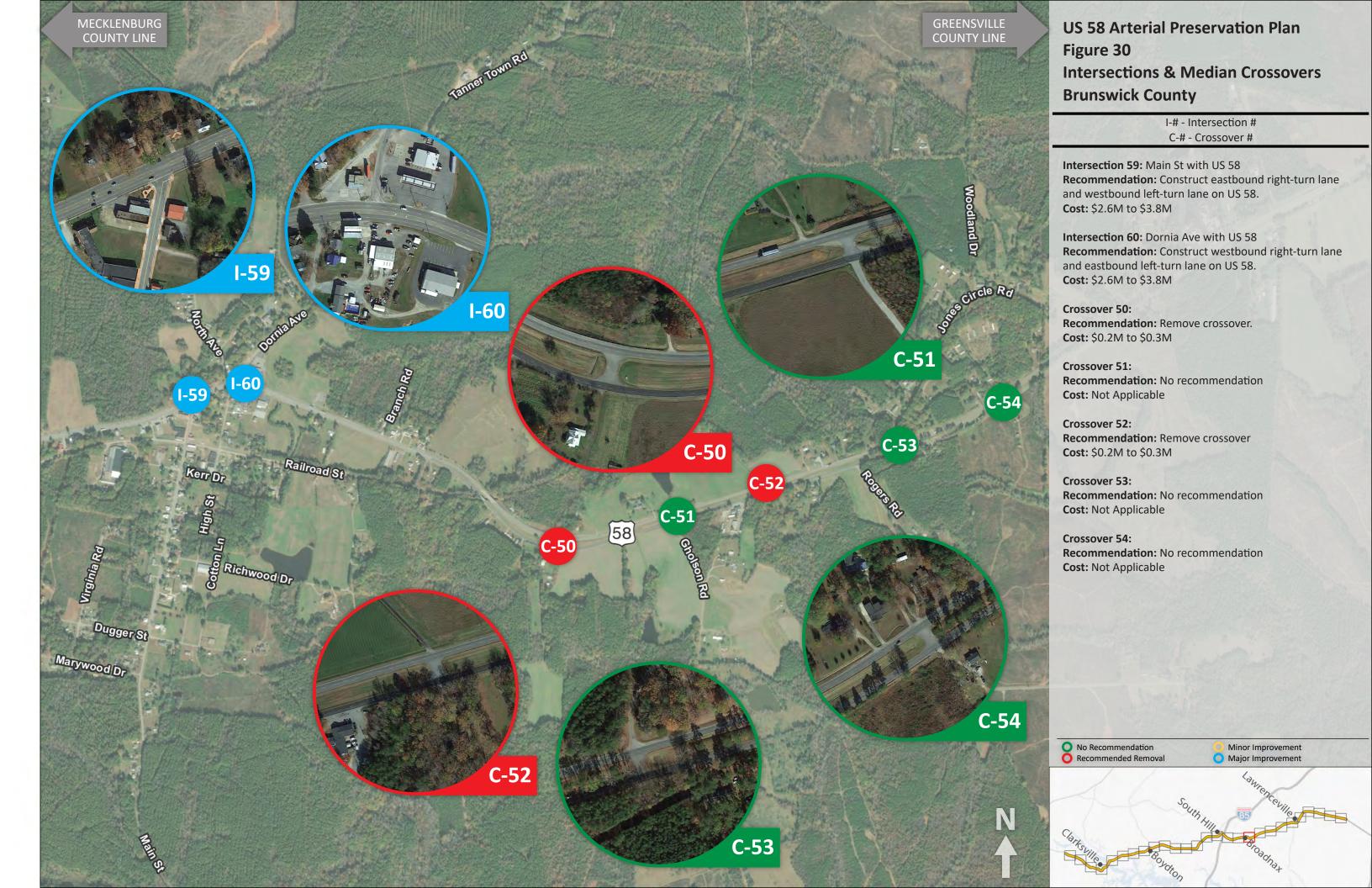
Cost: \$0.7M to \$1.1M

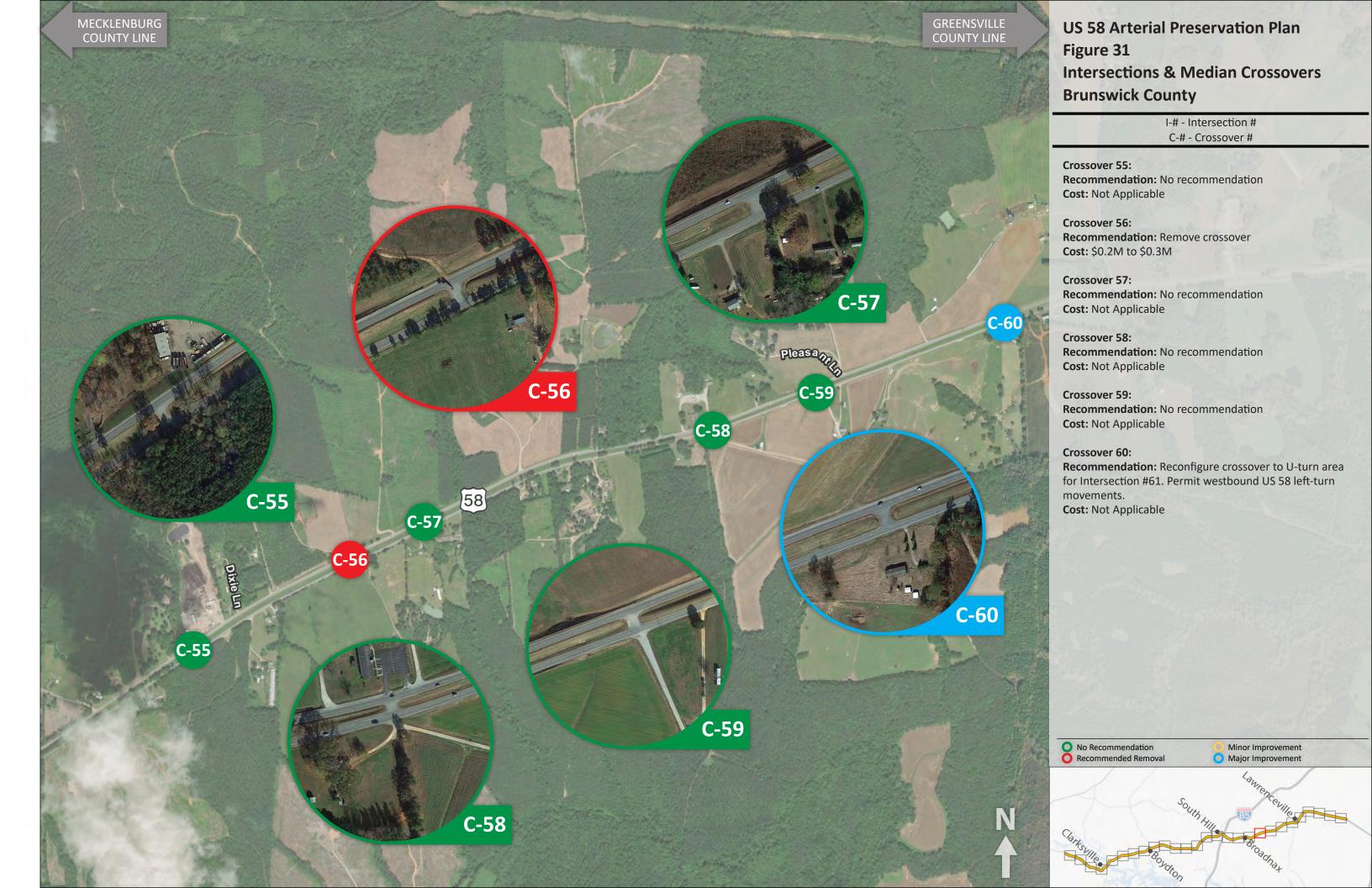


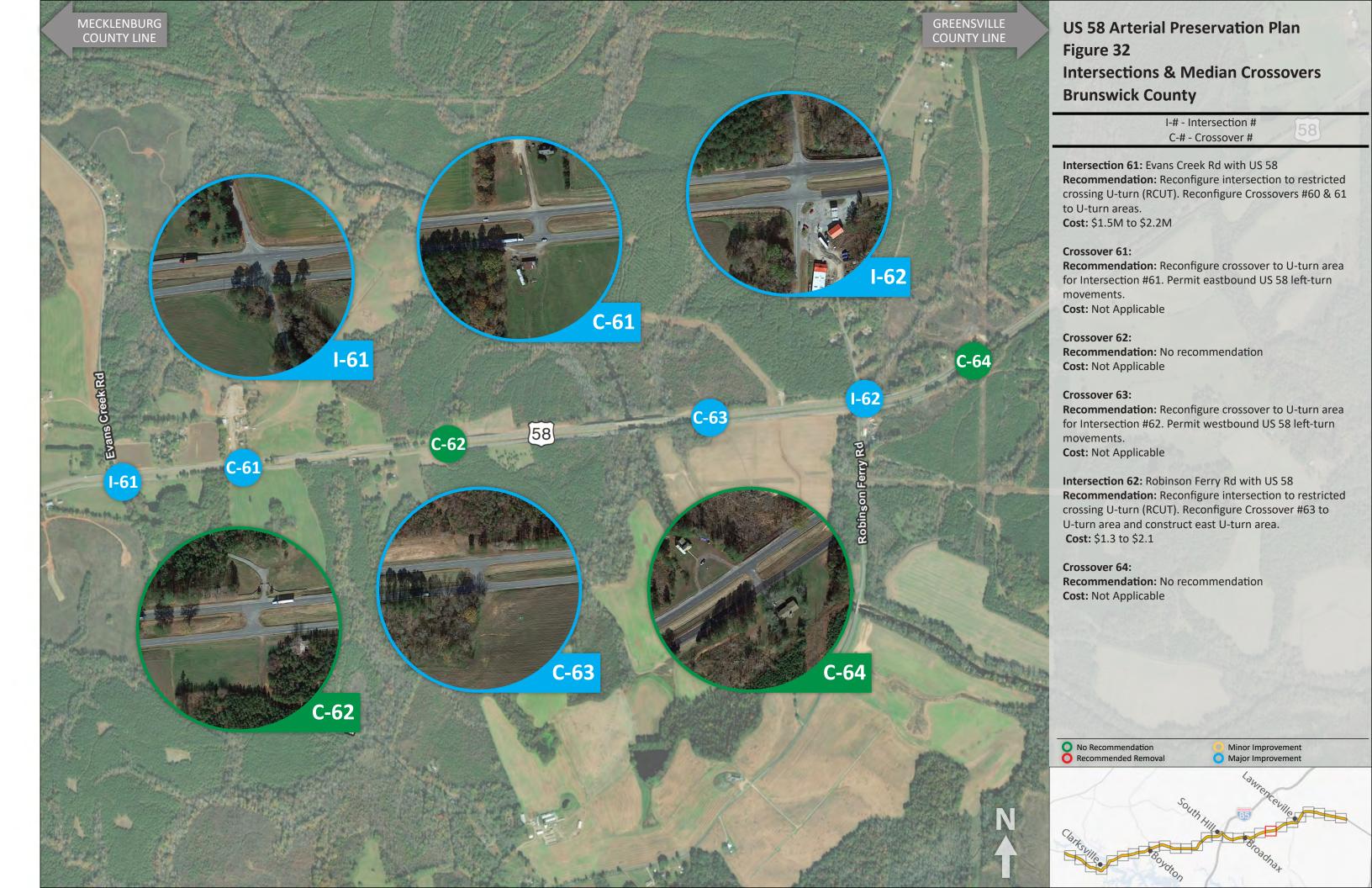
Standard Movements

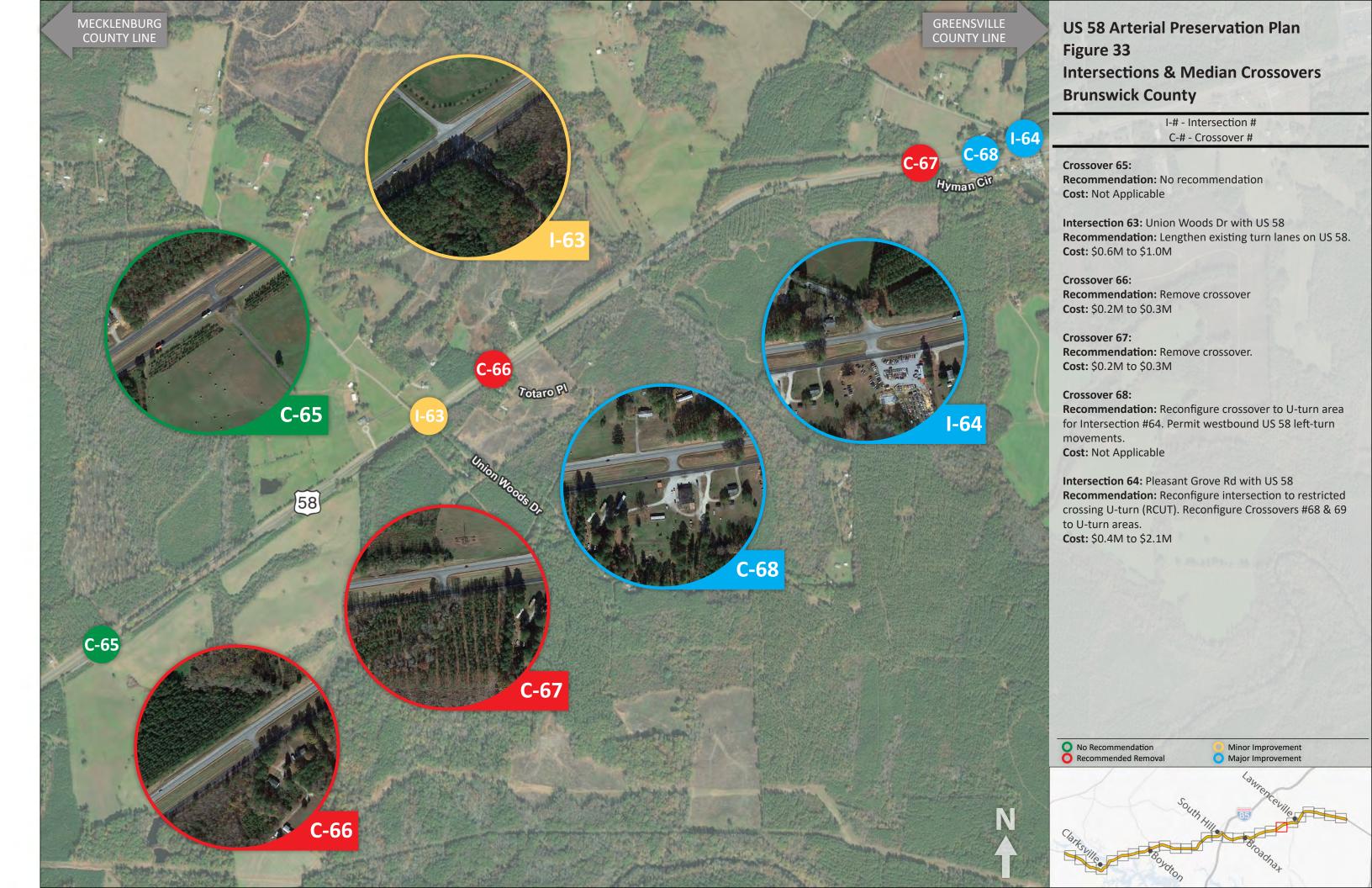
Re-routed Movements

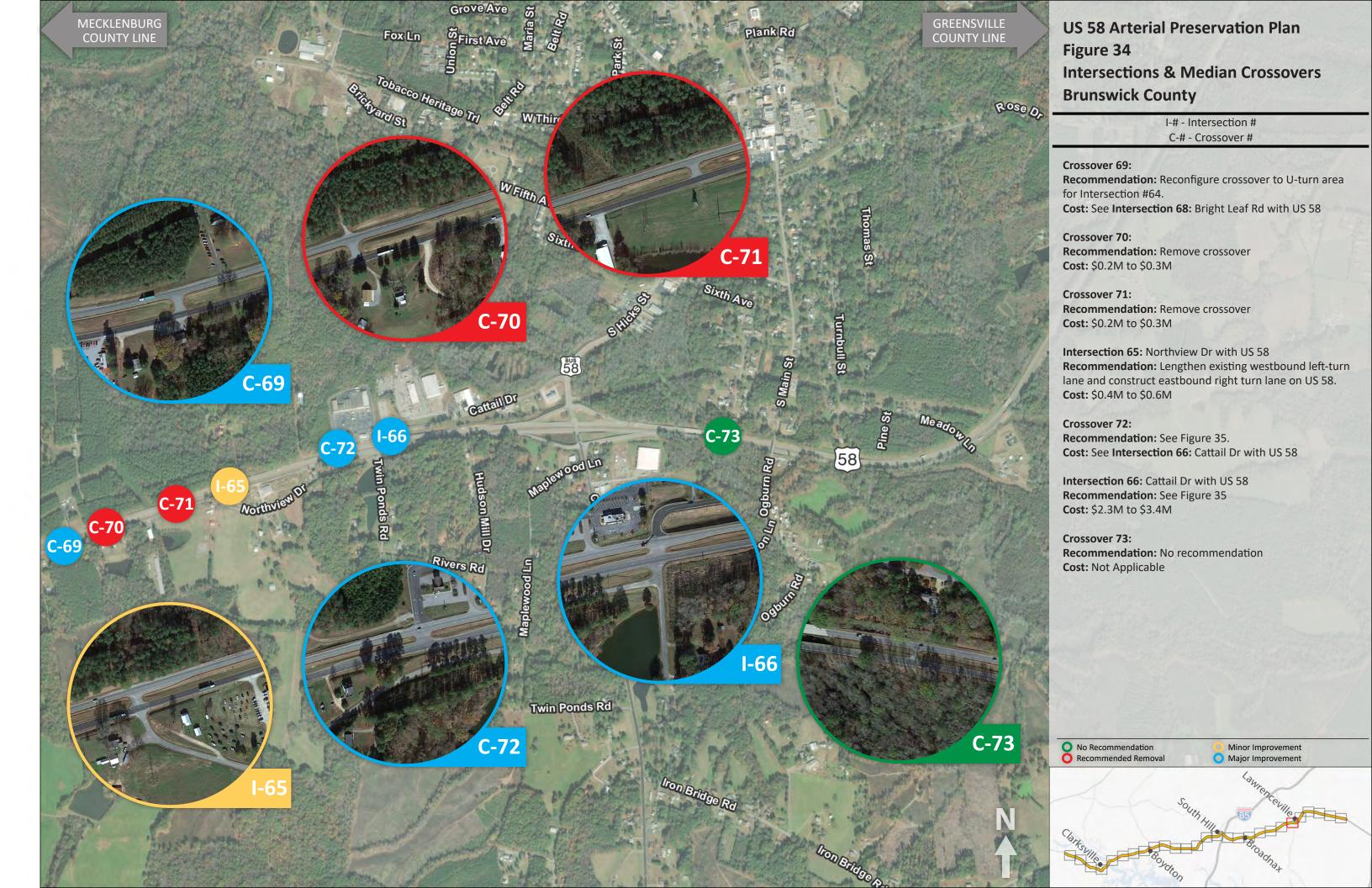














Route 58 Arterial Management Plan Figure 35

Intersection #66: US 58 and Cattail Dr **Brunswick County**

Recommendation: Reconfigure Crossover #72 with US 58 to a Continuous Green-T (CGT). Close north leg of Cattail Dr and permit right-in/right-out for the south leg. Improve Route 46/US 58 Interchange by extending westbound accelerations lanes and eastbound deceleration lanes.

ROW Impacts: Proposed interparcel connection may require ROW acquisition.

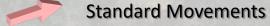
Improvement Type: Safety

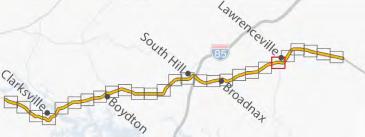
Traffic Operations & Safety:

Traffic Operations Reduced delay for vehicles entering and exiting Brunswick Square. Longer merge area for **Route 46 Interchange permits** merging at higher safer speeds

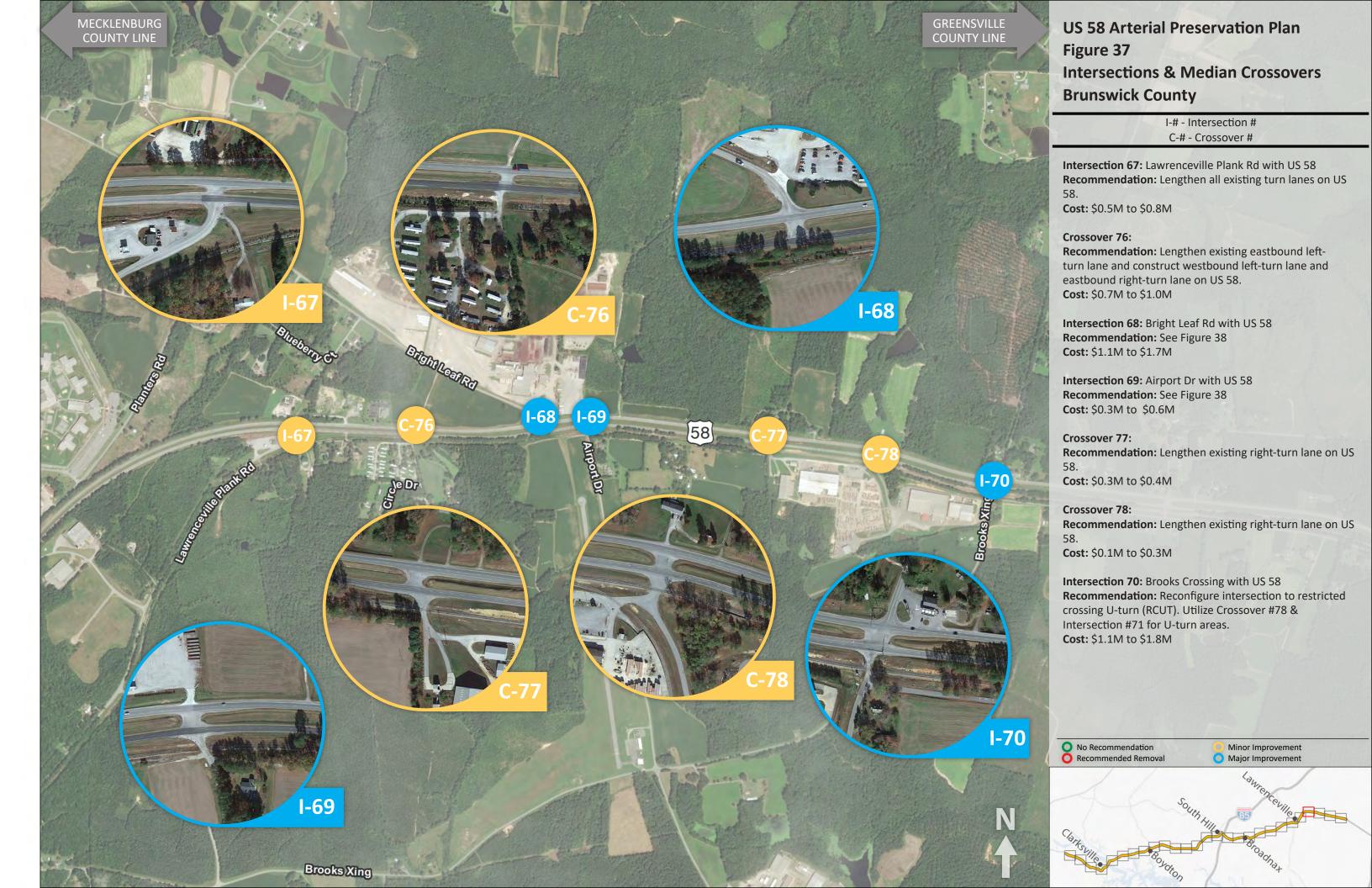
Reduced risk of angle crashes and conflicts with the Route 46 influence area. Longer acceleration and deceleration lanes at the Route 46 interchange reduces the risk of rear end and sideswipe crashes

Cost: \$2.3M to \$3.4M











Route 58 Arterial Management Plan Figure 38

Intersection #68: US 58 and Bright Leaf Rd Intersection #69: US 58 and Airport Dr Brunswick County

Recommendation: Reconfigure intersection of Bright Leaf Rd with US 58 to a Continuous Green-T (CGT). Construct U-turn area west of main intersection to permit movements from Bright Leaf Rd or US 58 westbound to Airport Dr. Reconfigure the intersection of Airport Dr with US 58 to right-in/right-out. Construct U-turn area east of Airport Dr to permit movements from Airport Drive to Bright Leaf Rd or US 58 westbound. A restricted crossing U-turn (RCUT) alternative is also applicable for this location.

ROW Impacts: Most improvements are within the ROW. The extended eastbound right-turn lane may have little to no ROW impacts.

Improvement Type: Safety

Traffic Operations & Safety:

Traffic Operations

Reduced delay for vehicles exiting Bright Leaf Rd and Airport Drive.

Safety

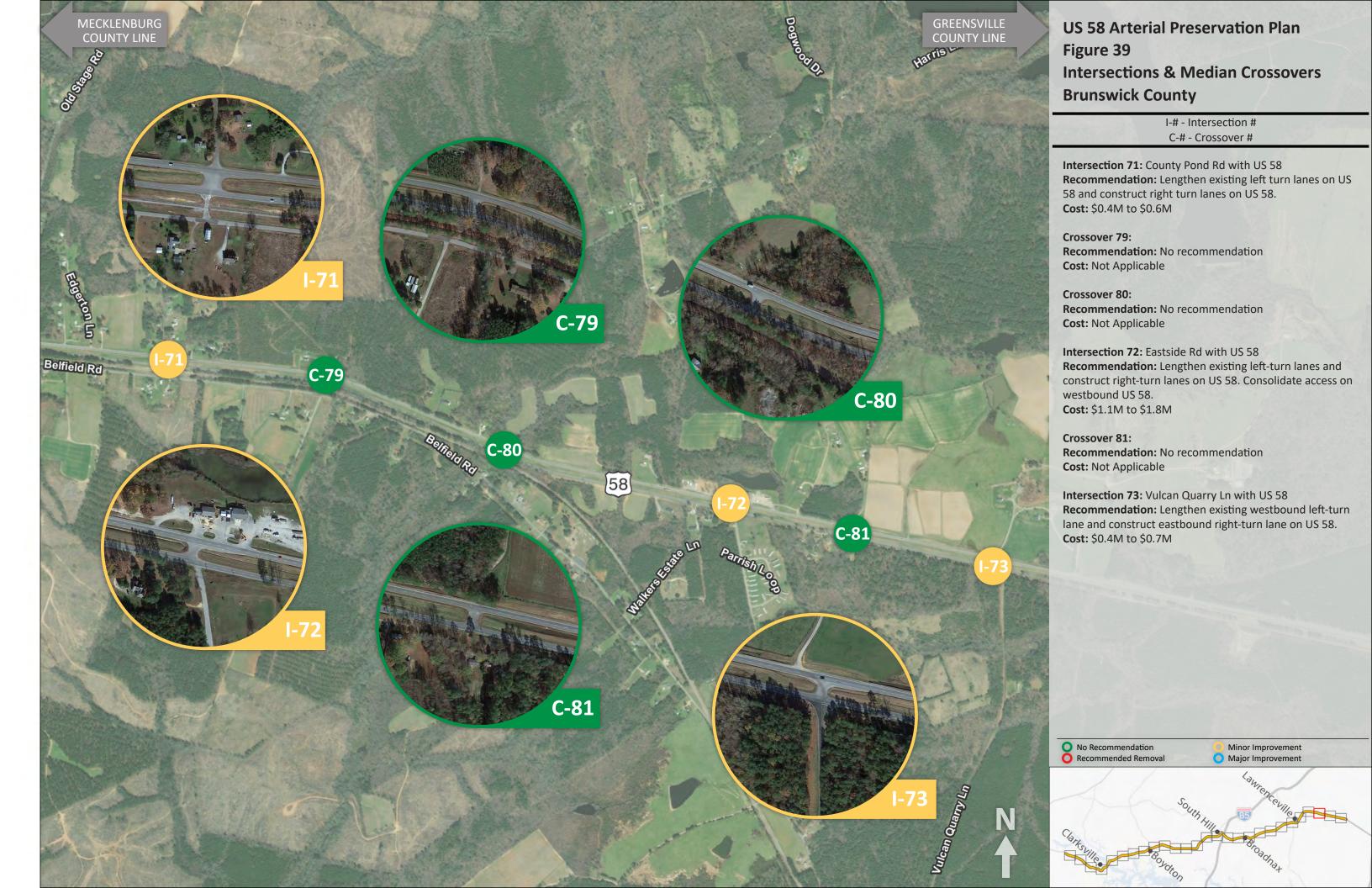
Reduced risk of angle crashes at both the intersections of Bright Leaf Rd and Airport Dr with US 58. Increased sight-distance for turning vehicles. Eliminates trucks stopped in the median blocking traffic.

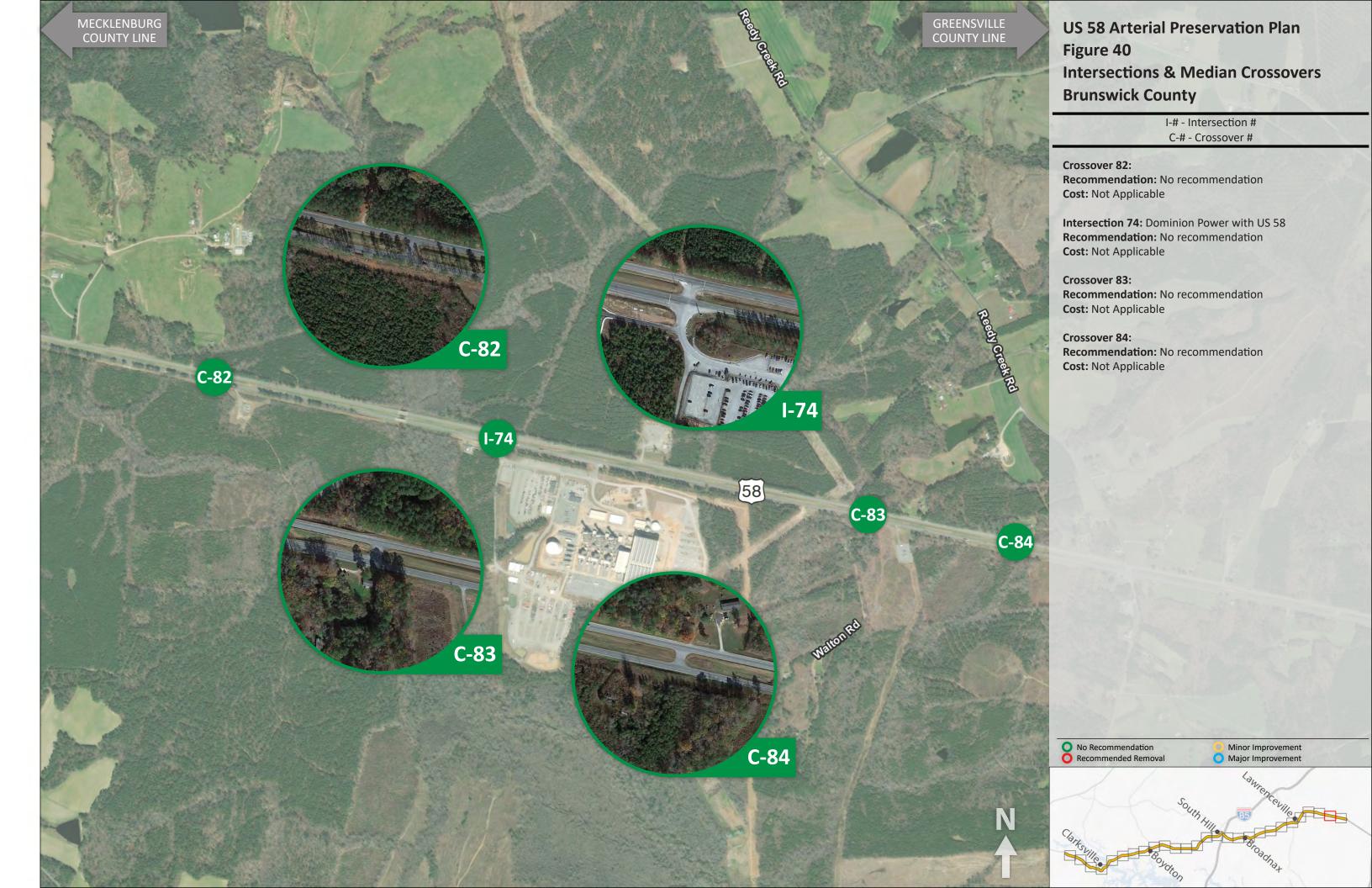
Cost: \$1.4M to \$2.3M

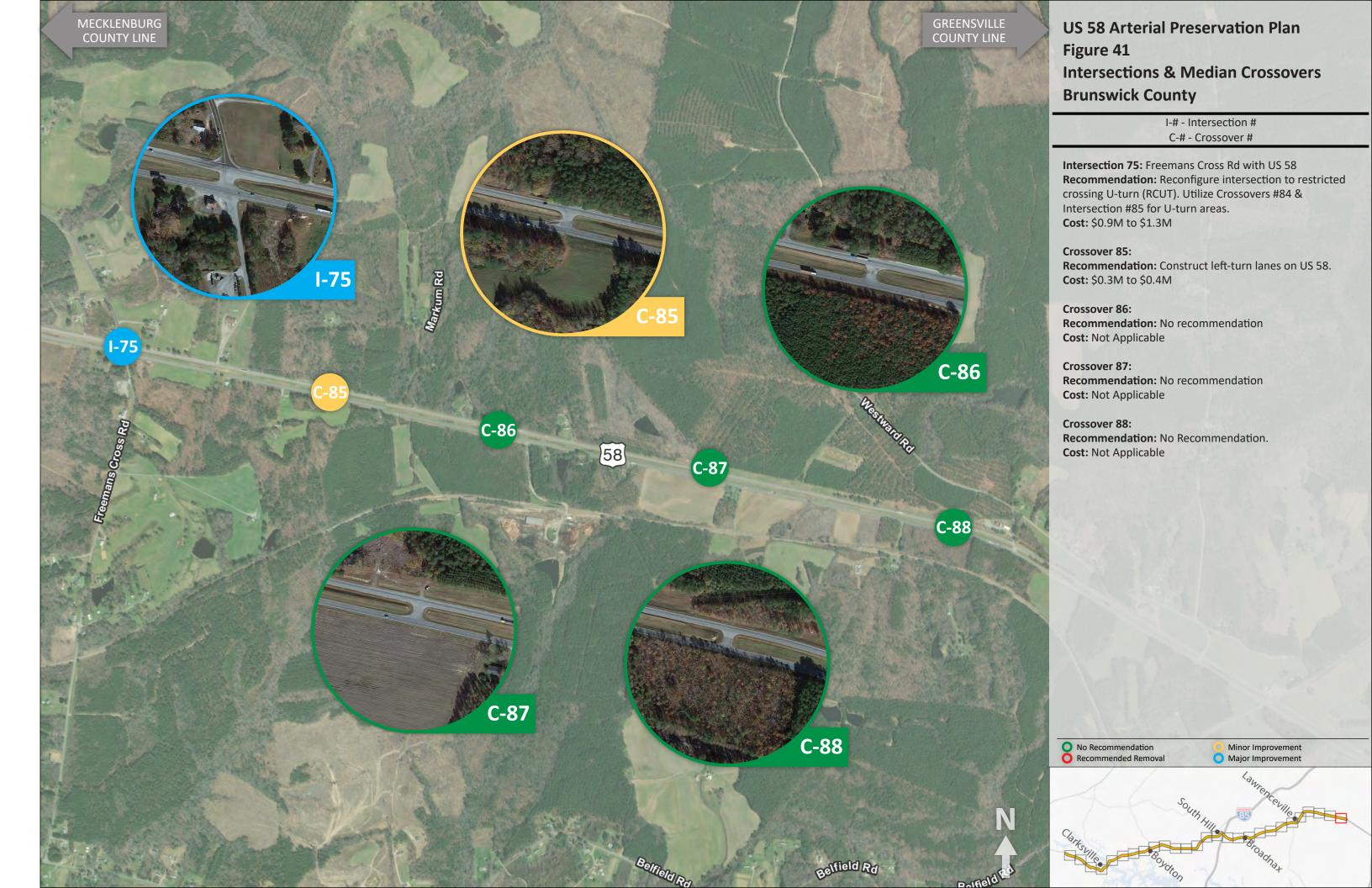


Standard Movements

Re-routed Movements







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