



# Access 540 Project

## Proposed Interchange at the Triangle Expressway and Old Holly Springs- Apex Road

Public Meeting

December 11, 2014  
4:00PM – 7:00PM

Apex Community Center

December 11, 2014

# Information in this Slideshow

- Project Purpose
- Project Description
- Existing Conditions
- Known Constraints of Project Area
- Interchange Alternatives
- Environmental Impacts
- Right of Way Process
- Next Steps

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# Project Purpose

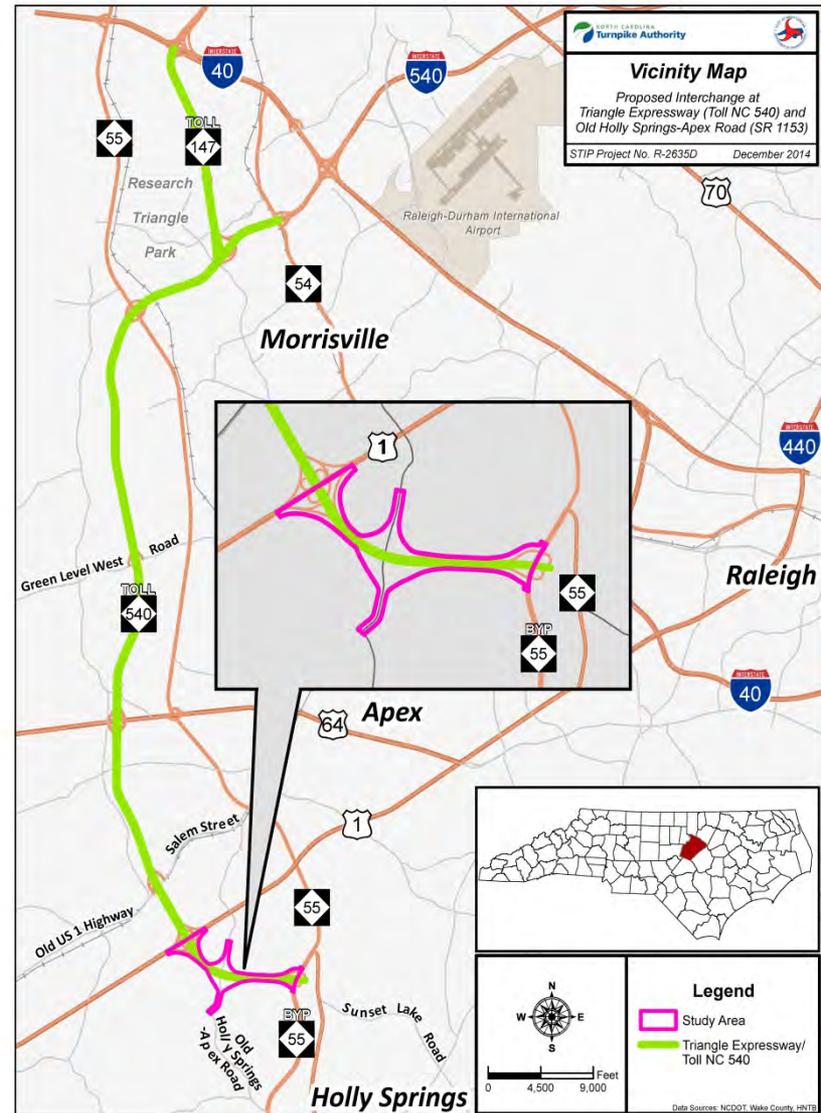
To improve accessibility and north-south connectivity within southern Apex by providing a direct local link between the Triangle Expressway and Old Holly Springs-Apex Road.



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# Project Description

- New Interchange at the Triangle Expressway (Toll NC 540) and Old Holly Springs-Apex Road (SR 1153)
- Auxiliary lanes proposed for the Triangle Expressway between the NC 55 Bypass and US 1 (1.5 miles)



# Existing Conditions

## Triangle Expressway at Old Holly Springs-Apex Road



The Old Holly Springs-Apex Road overpass was designed and constructed to allow an interchange to be added in this location.

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# Existing Conditions

Triangle Expressway  
Southbound



Triangle Expressway  
Northbound



The outside shoulders of the Triangle Expressway were built for a future conversion to auxiliary lanes.

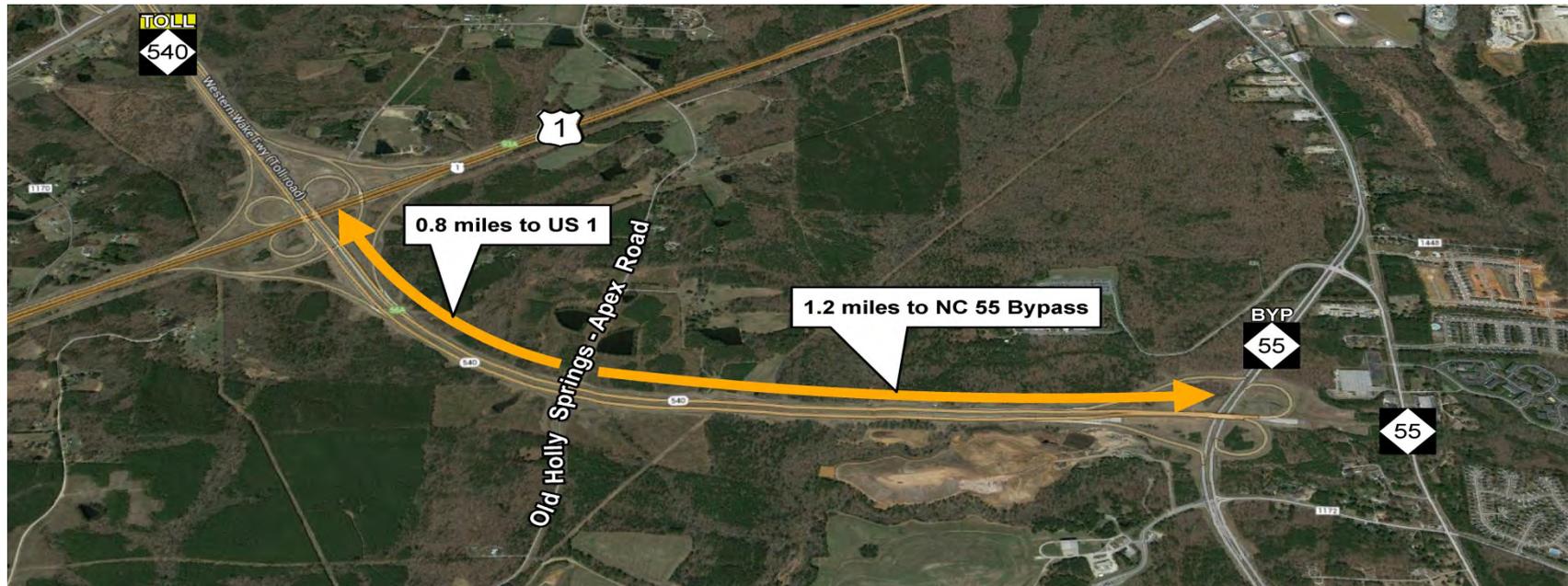
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# Known Constraints of Project Area

- Interchange Spacing
  - 1 mile between interchanges is desirable
- Highway 55 Landfill
- Natural Resources
  - Wetlands and Streams
- Communications Tower
- Utilities
  - Gas, Fiber Optic, and Electric

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# Known Constraints of Project Area



Interchange Spacing  
1 mile in urban areas is desirable

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# Known Constraints of Project Area



Highway 55 Landfill

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# Known Constraints of Project Area



Wetlands and Streams

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# Known Constraints of Project Area



Communications Tower

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# Known Constraints of Project Area



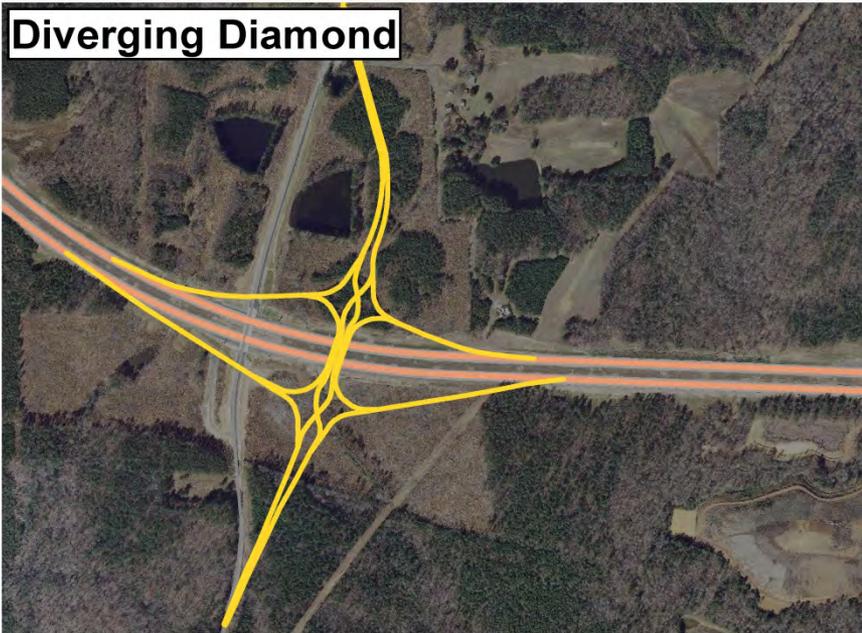
Utilities

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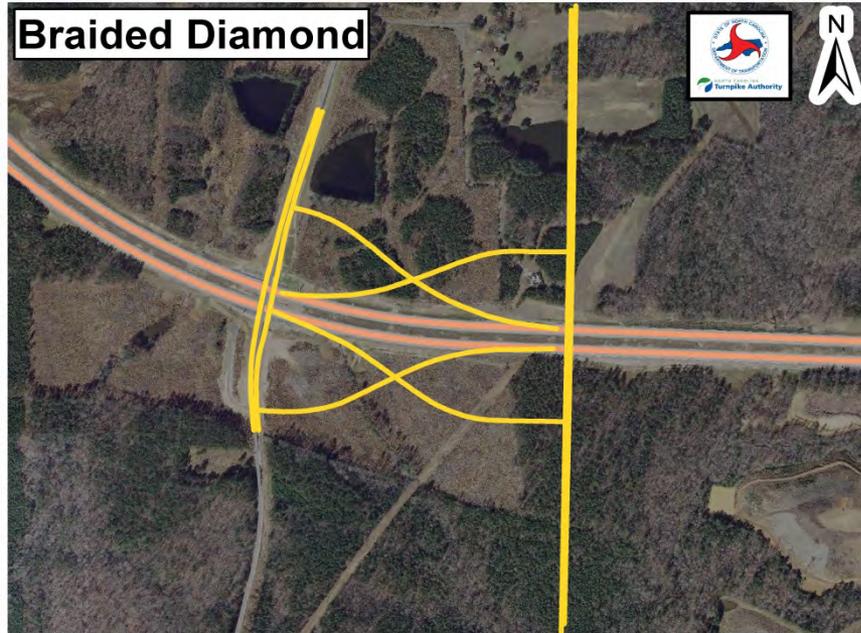
# Interchange Alternatives

- Diverging Diamond
- Braided Diamond
- Single Trumpet
- Partial Cloverleaf
  - Two design options (Option A and Option B)

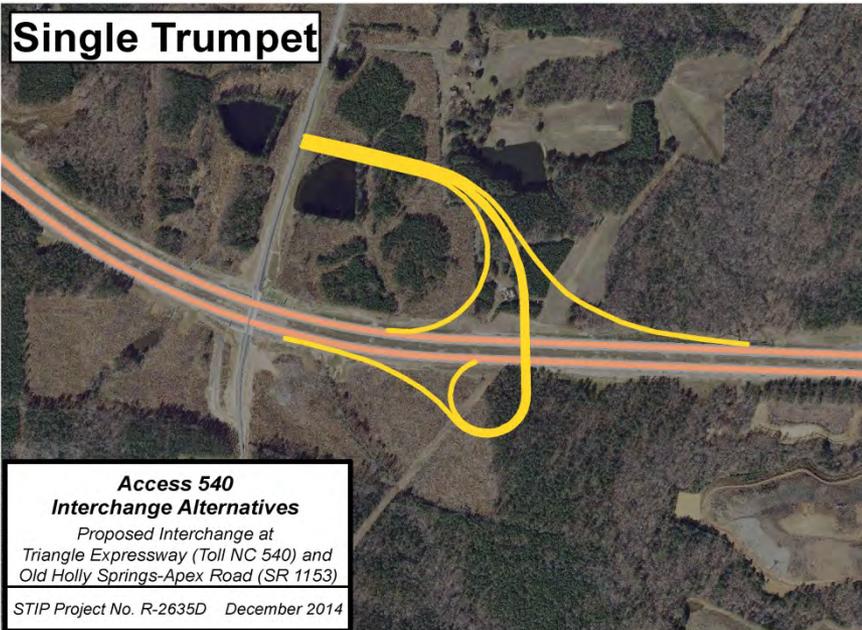
**Diverging Diamond**



**Braided Diamond**

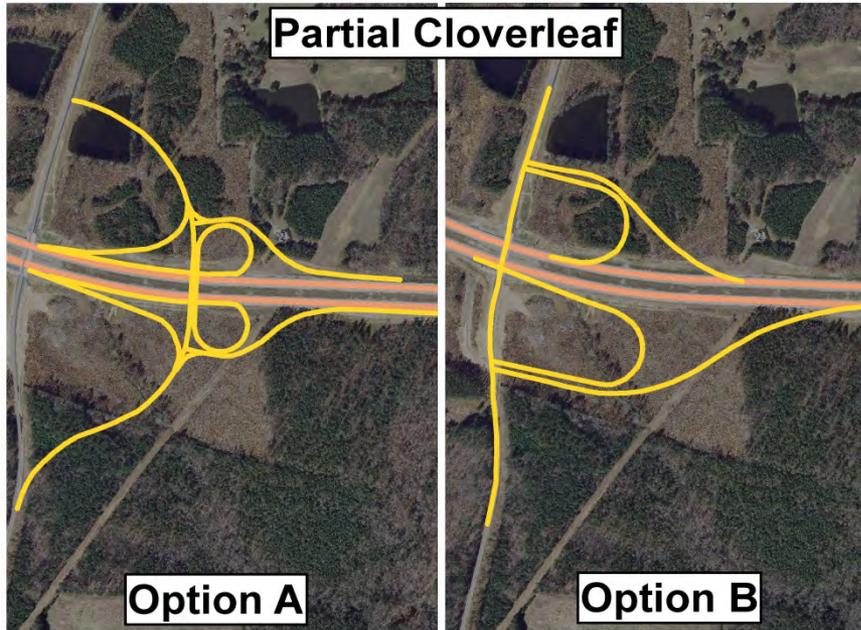


**Single Trumpet**



**Access 540  
Interchange Alternatives**  
Proposed Interchange at  
Triangle Expressway (Toll NC 540) and  
Old Holly Springs-Apex Road (SR 1153)  
STIP Project No. R-2635D December 2014

**Partial Cloverleaf**



**Option A**

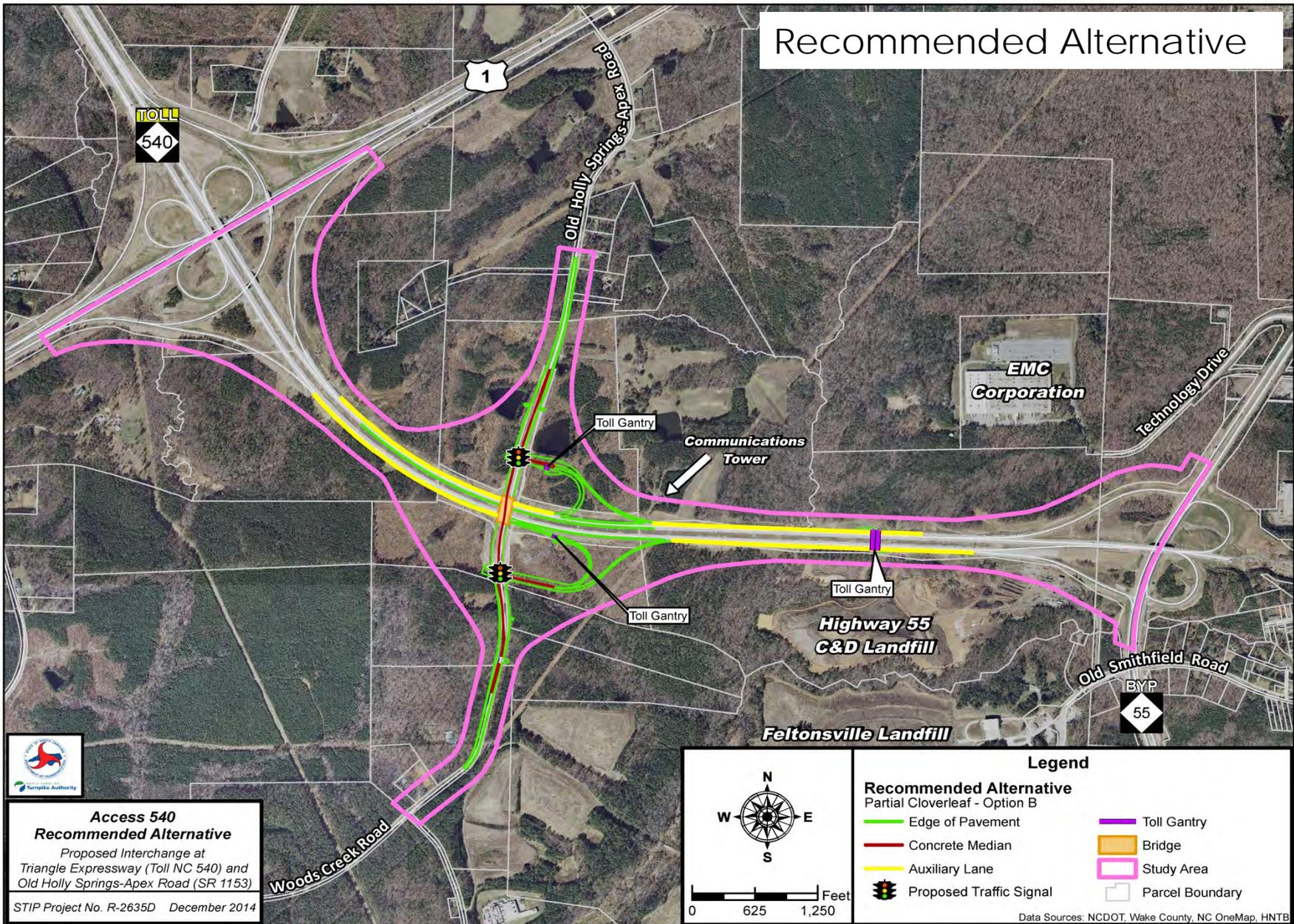
**Option B**

# Recommended Alternative

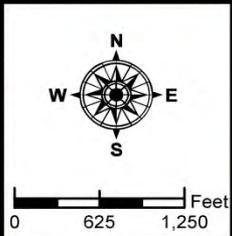
- Partial Cloverleaf Interchange (Option B)
  - The benefits of this alternative are:
    - Maximizes interchange spacing
    - Avoids relocating the communications tower
    - Has only a minor encroachment into the landfill
    - Minimizes right-of-way acquisition by utilizing the existing Old Holly Springs-Apex Road alignment

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# Recommended Alternative



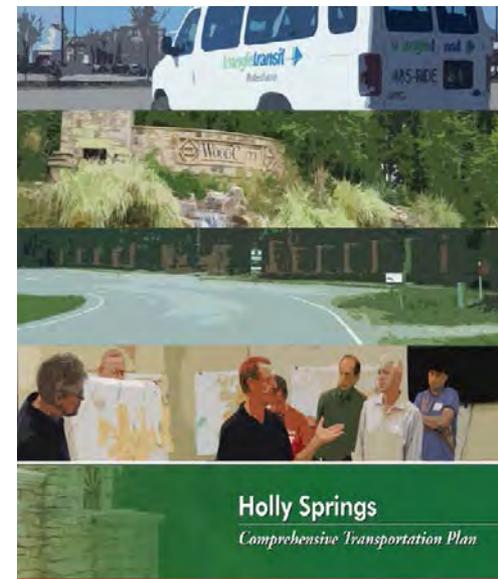
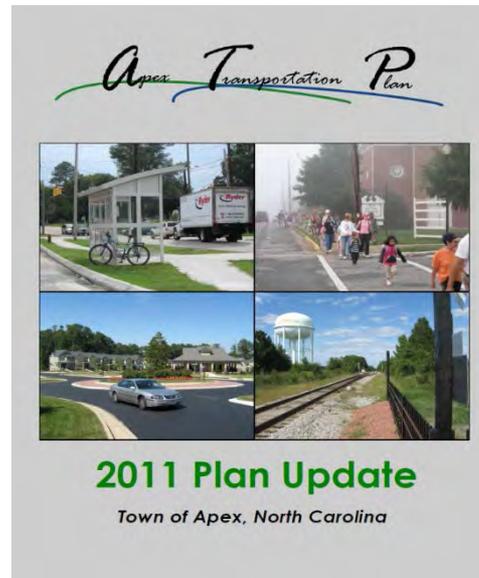
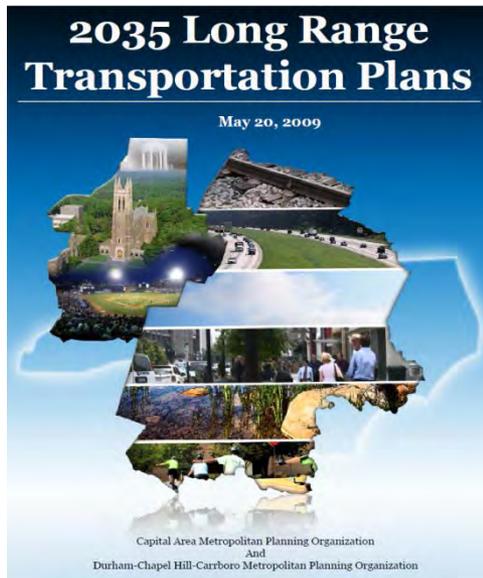
**Access 540**  
**Recommended Alternative**  
 Proposed Interchange at  
 Triangle Expressway (Toll NC 540) and  
 Old Holly Springs-Apex Road (SR 1153)  
 STIP Project No. R-2635D December 2014



Legend	
<b>Recommended Alternative</b>	
Partial Cloverleaf - Option B	
	Edge of Pavement
	Concrete Median
	Auxiliary Lane
	Proposed Traffic Signal
	Toll Gantry
	Bridge
	Study Area
	Parcel Boundary

Data Sources: NCDOT, Wake County, NC OneMap, HNTB

# The Recommended Alternative is also consistent with local transportation plans



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# Impacts Associated with the Recommended Alternative

- Human Environment
  - Minor property acquisition
  - No residential or business relocations
  - No traffic noise impacts
  - No adverse air quality impacts
  - No cultural resource impacts
  
- Natural Environment
  - Wetland and Stream Impacts
  - No effects on federally protected plant and animal species
  - No floodplain impacts

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# Maps on Display Today

## Interim Design

(this shows what will be built with the initial construction)



## Ultimate Design

(this shows full build out based on future development trends)



# Other Project Features

- Aesthetics

Bridges, walls, toll gantries and major sign structures are anticipated to have aesthetic treatments similar to those on the Triangle Expressway. Landscaping consistent with the Triangle Expressway will also be provided.

- Tolling

Toll gantries will be added to the interchange ramps to allow all-electronic toll collection.

- Cost

The estimated cost of the Access 540 project is \$31million. This includes construction, utility modifications, environmental mitigation and right-of-way acquisition.

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# Right-of-Way Process

- If affected, you will be contacted by a Right-of-Way Agent
- An appraisal will be made based on current market value at the property's highest and best use
- Owners and tenants will be treated equally
- Owner's rights will be explained clearly
- Just compensation will be paid for property
- Relocation advisory assistance will be provided

# Next Steps

- Review and evaluate comments
- February 2015 – Complete Environmental Document
- May 2015 – Open Construction Bids
- June to December 2015 - Secure Funding and Permits
- 2018 - Open to Traffic

Note: Schedule is preliminary and subject to change

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# January 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12 <b>Comments Due</b>	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

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*Thank you*

for attending the Access 540 public meeting and taking part in NCDOT's transportation planning process

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