



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

October 2, 2020

ORANGE COUNTY

Mr. Matthew Peach, PE
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606

Subject: Proposed Research Triangle Logistics Park
Located on SR 1223, Service Road and SR 1129, Davis Road
Review of TIA Supplement Dated September 21, 2020

Dear Mr. Peach,

NCDOT District, Division and Congestion Management Section staff have reviewed the above mentioned supplement. Based on the information provided, we offer the following comments.

General:

The TIA Supplement builds on the previous TIA dated June 4, 2020 and supplement dated August 5, 2020 and corresponds to a change in access scenario which restricts access to Davis Road to authorized emergency vehicles with routine site traffic access provided by one full movement access point on Old NC 86 at the existing service road south of the I-40 interchange. The development scope and timeline remain unchanged. Site trip generation and background traffic volumes remain the same with associated redistributions to reflect the change in access scenario.

Analysis Results and Mitigation Requirements:

Based on the information provided, and as a condition of the pending driveway permit, the applicant will be required to construct the following improvements to effectively mitigate the anticipated impacts of site traffic and ensure acceptable operation of the various intersections included in the study.

Old NC 86 and Waterstone Drive/Rippy Lane Intersection:

The analysis indicates that this intersection is expected to operate acceptably in the 2023 build scenario.

We concur with the TIA recommendation that no improvements are required.

Old NC 86 and I-40 Westbound Ramps Intersection:

We concur that, the intersection will operate acceptably in the future build scenario with no additional improvements necessary to mitigate impacts attributable to site traffic. Future improvements may be considered within the scope of the projects programmed in the current STIP if deemed to be warranted and needed.

Old NC 86 and I-40 Eastbound Ramps Intersection:

We concur with the recommendations in the TIA Supplement as listed below.

- Install a coordinated traffic signal
- Construct a second northbound thru-lane beginning just north of the Old NC 86/Service Road intersection and continuing northward, terminating as a left turn lane drop at the Old NC 86/ I-40 westbound ramps intersection.
- Construct an exclusive northbound right turn lane with 250' of full storage and appropriate deceleration taper with appropriate channelization and operating under yield control.

Old NC 86 and Service Road Intersection:

We concur with the TIAs Supplement recommendations as listed below.

- Install a coordinated traffic signal
- Construct an exclusive northbound left turn lane with 100' of full storage and appropriate transitions
- Construct and exclusive southbound right turn lane with appropriate deceleration taper.
- Construct and exclusive eastbound right turn lane with 300' of full storage and appropriate deceleration taper.

Old NC 86 and Davis Road Intersection:

We concur that, with restriction of the Davis Road access to emergency vehicles only, no improvements are necessary at this intersection to accommodate site traffic impacts.

Service Road and Site Driveway A,B,C Intersections:

We concur with the recommendation to construct each of these accesses as a two lane-two-way approach operated under stop sign control.

Each access will need to provide a minimum internal protected stem length of 100' and appropriate intersection geometry to accommodate commercial vehicles.

Davis Road and Site Driveway D intersections:

We concur that, with restriction of the Davis Road access to emergency vehicles only, no improvements are necessary at this intersection to accommodate site traffic.

The access shall provide appropriate gates, signage or similar controls to effectively restrict unauthorized vehicles.

Right of Way:

The TIA Supplement indicates that additional right of way on Old NC 86 will be needed to accommodate the recommended improvements.

No NCDOT funding is available for acquisition of right of way for the listed improvements. As a condition of the pending driveway permit and pursuant to NCDOT policy, the applicant is responsible for acquisition and dedication of all necessary right of way and easements for the project.

Cross Access and Connectivity:

We encourage the applicant to strategically evaluate and provide for cross connectivity with adjacent properties to support potential opportunities for enhanced access and improved distribution of traffic at the time that future development occurs in the area.

Multi-modal and Streetscape Enhancements:

Any locally stipulated multi-modal enhancements including but not limited to sidewalk, bike lanes, bus pull offs, lighting, landscaping etc. on State maintained routes are subject to NCDOT requirements and approval through the encroachment process.

General Requirements:

It is necessary to obtain an approved driveway permit and/or encroachment agreement(s) prior to performing work on the NCDOT right of way. As a condition of the permit, the permittee shall be responsible for design and construction of the above stipulated improvements in accordance with NCDOT requirements. An approved permit will be issued upon receipt of approved roadway and signal construction plans, inspection fee, and any necessary performance and indemnity bonds.

The applicant shall dedicate any additional right of way necessary to accommodate the required road improvements or future improvements as stipulated.

Intersection radii and geometry shall be designed to accommodate turning movements of the largest anticipated vehicle.

All pavement markings shall be long life thermoplastic. Pavement markers shall be installed if they previously existed on the roadway.

The permittee shall be responsible for the installation and relocation of any additional highway signs that may be necessary due to these improvements and shall comply with the requirements of the MUTCD.

Feel free to contact me if you have any questions.

Sincerely,

DocuSigned by:

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C. N. Edwards Jr., PE
District Engineer

Cc: W. R. Archer, III, PE, Division Engineer
D. M. McPherson, Division Traffic Engineer
Brian Thomas, PE, Regional Traffic Engineer
Doumit Ishak, PE, Congestion Management Regional Engineer
Orange County
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