



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JOSH STEIN
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

March 5, 2025

Chanlin Wong, PE

Exult Engineering
P.O. Box 130
Wallace, NC 28466

RE: Approval of the Traffic Impact Analysis (TIA) associated with the proposed
Solserra Subdivision in Shallotte, Brunswick County, NC.

The NCDOT and Brunswick County staff have reviewed the analysis provided for the Solserra Subdivision TIA dated February 3, 2025. This development consists of:

Phase 1

- 351 dwelling units: Single Family Detached Housing (LUC 210)
- 36 dwelling units: Single Family Attached Housing (LUC 215)
Build Year: 2029

Phase 2

- 589 dwelling units: Single Family Detached Housing (LUC 210)
- 172 dwelling units: Single Family Attached Housing (LUC 215)
- 300 dwelling units: Multifamily Housing (Low-Rise) (LUC 220)
Build Year: 2033

Full Build

- 805 dwelling units: Single Family Detached Housing (LUC 210)
- 172 dwelling units: Single Family Attached Housing (LUC 215)
- 300 dwelling units: Multifamily Housing (Low-Rise) (LUC 220)
Build Year: 2035

Based on review of the analysis provided in the TIA report, the following improvements are required by the developer:

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DISTRICT 3 ENGINEER'S OFFICE
5911 OLEANDER DRIVE SUITE 101
WILMINGTON, NC 28403
04-11-03 COURIER

Telephone: 910-398-9100
Customer Service: 1-877-368-4968

Website: ncdot.gov

Location:
5911 OLEANDER DRIVE SUITE 101
WILMINGTON, NC 28403

Note: All references to turn lane storage lengths in this document are to be accompanied by appropriate deceleration and taper lengths in accordance with NCDOT standards.

US 17 (Ocean Highway) and SR 1136 (Red Bug Road) (existing signalized left-over)

- Phase 1
 - Construct an additional northbound right turn lane on Red Bug Road with 100 feet of full width storage.
 - Modify the signal plan to accommodate the above improvements.
- Phase 2
 - No further improvements are required.
- Full Build
 - No further improvements are required.

NC 130 (Holden Beach Road) and SR 1136 (Red Bug Road) (existing unsignalized intersection)

- Phase 1
 - Install a cluster traffic signal that will operate with the intersection of NC 130 (Holden Beach Road) and SR 1134 (Gray Bridge Road).
 - Construct a westbound right turn lane on Holden Beach Road with 100 feet of full width storage.
- Phase 2
 - No further improvements are required.
- Full Build
 - No further improvements are required.

NC 130 (Holden Beach Road) and SR 1134 (Gray Bridge Road) (existing signalized intersection)

- Phase 1
 - Modify signal timings and phasing related to installation of a cluster traffic signal at NC 130 (Holden Beach Road) and SR 1136 (Red Bug Road).
- Phase 2
 - Construct an exclusive eastbound right turn lane on Holden Beach Road with 200 feet of full width storage.
- Full Build
 - No further improvements are required.

SR 1134 (Gray Bridge Road) at San Rio Boulevard (existing unsignalized intersection)

- Phase 1
 - No improvements are required in this phase.
- Phase 2
 - Monitor for signalization and install a traffic signal if warranted.

- Full Build
 - Signalize the intersection if not warranted in Phase 2.

SR 1134 (Gray Bridge Road) at SR 1135 (Tar Landing Road) (existing unsignalized intersection)

- Phase 1
 - No improvements are required in this phase.
- Phase 2
 - Construct a southbound right turn lane on Gray Bridge Road with 125 feet of full width storage.
- Full Build
 - No further improvements are required.

SR 1134 (Gray Bridge Road) at SR 1132 (Shell Point Road) (existing unsignalized intersection)

- Phase 1
 - No improvements are required.
- Phase 2
 - No improvements are required.
- Full Build
 - No improvements are required.

SR 1134 (Gray Bridge Road) at Northern Tract Driveway (proposed unsignalized full movement driveway)

- Phase 2
 - Construct the Northern Tract Driveway (eastbound approach) with one ingress lane and one egress lane.
 - Provide stop control for the eastbound approach.
 - Provide an internal protected stem of 100 feet, as measured from the right-of-way line.
 - Construct a southbound right turn lane on Gray Bridge Road with 175 feet of full width storage.
- Full Build
 - No further improvements are required.

SR 1135 (Tar Landing Road) at Western Driveway (proposed unsignalized full movement driveway)

- Phase 2
 - Construct the southbound leg of the Western Driveway with one ingress lane and one egress lane.
 - Provide stop control for the southbound approach.
 - Provide an internal protected stem of 50 feet for the southbound approach, as measured from the right-of-way line.

- Full Build
 - Construct the northbound leg of the Western Driveway with one ingress lane and one egress lane.
 - Provide stop control for the northbound approach.
 - Provide an internal protected stem of 50 feet for the northbound approach, as measured from the right-of-way line.

SR 1135 (Tar Landing Road) at Central Driveway (proposed unsignalized full movement driveway)

- Phase 2
 - Construct the Central Driveway (southbound approach) with one ingress lane and one egress lane.
 - Provide stop control for the southbound approach.
 - Provide an internal protected stem of 50 feet, as measured from the right-of-way line.
- Full Build
 - No further improvements are required.

SR 1135 (Tar Landing Road) at Eastern Driveway (proposed unsignalized full movement driveway)

- Phase 2
 - Construct the southbound leg of the Eastern Driveway with one ingress lane and one egress lane.
 - Provide stop control for the southbound approach.
 - Provide an internal protected stem of 50 feet for the southbound approach, as measured from the right-of-way line.
- Full Build
 - Construct the northbound leg of the Eastern Driveway with one ingress lane and one egress lane.
 - Provide stop control for the northbound approach.
 - Provide an internal protected stem of 50 feet for the northbound approach, as measured from the right-of-way line.

SR 1134 (Gray Bridge Road) at Central Tract Driveway (proposed unsignalized full movement driveway)

- Full Build
 - Construct the Central Tract Driveway (eastbound approach) with one ingress lane and one egress lane.
 - Provide stop control for the eastbound approach.
 - Provide an internal protected stem of 50 feet, as measured from the right-of-way line.
 - Construct a southbound right turn lane on Gray Bridge Road with 50 feet of full width storage.

SR 1134 (Gray Bridge Road) at Southern Tract Driveway (proposed unsignalized full movement driveway)

- Full Build
 - Construct the Southern Tract Driveway (eastbound approach) with one ingress lane and one egress lane.
 - Provide stop control for the eastbound approach.
 - Provide an internal protected stem of 50 feet, as measured from the right-of-way line.

If changes are made to the proposed site driveways, land uses, land use intensity, or other study parameters, or if the build year studied in the report has passed, a revised Traffic Impact Analysis will be required for review by NCDOT. Any such changes will null and void this TIA approval.

The applicant is required to obtain all applicable Brunswick County and NCDOT permits for access to the road network. A copy of this TIA approval shall be included with any NCDOT driveway permit application. All applicable NCDOT and Brunswick County technical standards and policies shall apply.

Please contact me at 910-398-9100 with any questions regarding this approval.

Sincerely,



Benjamin T. Hughes, PE
District Engineer
Division 3, District 3

cc: Jon Roan, Deputy District Engineer, NCDOT
Frank Mike, Assistant District Engineer, NCDOT
Michael Bass, Assistant District Engineer, NCDOT
Stonewall Mathis, PE, Division Traffic Engineer, NCDOT
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