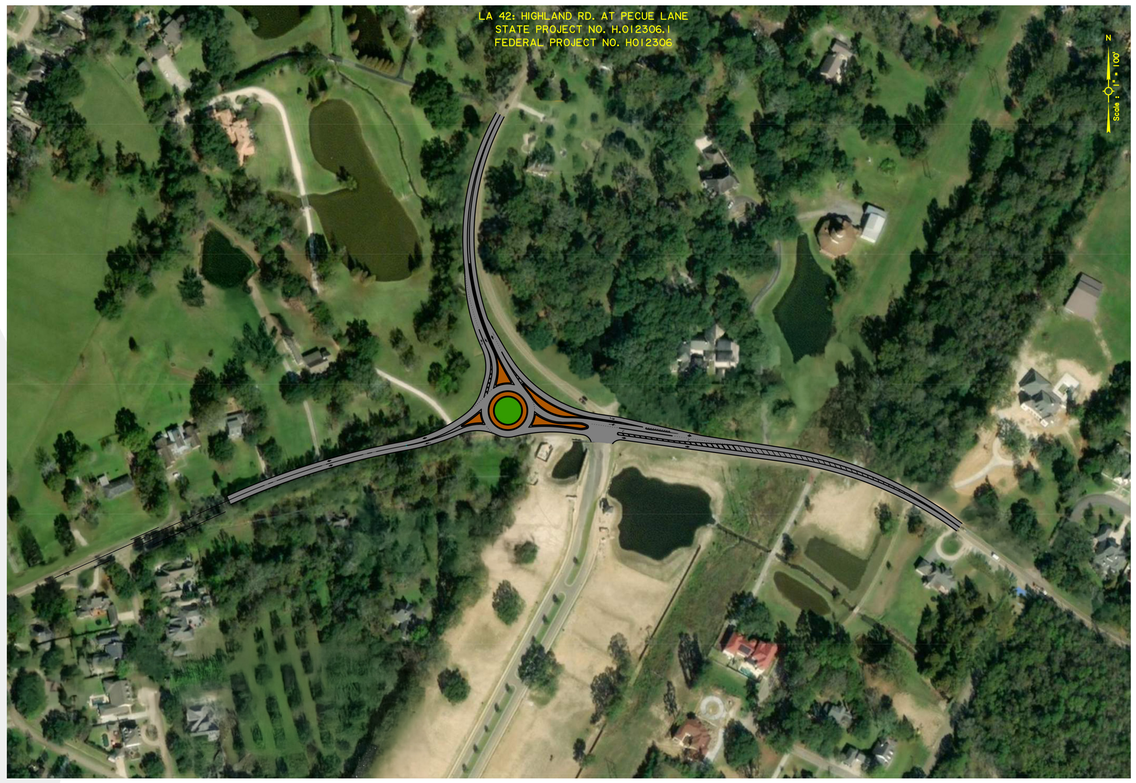
HIGHLAND ROAD AT PECUE LANE

BUILD ALTERNATIVES ANALYZED

Layout adopted from Stage 0 Feasibility Study, LA 42 Highland Road at Pecue Lane (May 2019)



Layout adopted from Stage 0 Feasibility Study, LA 42 Highland Road at Pecue Lane (May 2019)

TRAFFIC SIGNAL

In 2019, LADOTD conducted a feasibility study for the intersection of Highland Road and Pecue Lane. The study identified three alternatives:

- No Build Condition
- Signalized Intersection
- Single-Lane, Three-Legged Roundabout

In 2024, the MOVEBR program engaged T. Baker Smith, LLC and its traffic consultant, Vectura Consulting, to re-analyze this intersection with these three alternatives. The analysis was completed to incorporate the traffic growth anticipated from the construction and opening of the Pecue Interchange at Interstate 10.

2024 Operational Analysis Results

No Build Conditions (Current and 2035):

- The operational analysis of the existing (current) condition indicated that the intersection experiences congestion. The intersection approaches operate with Level of Service (LOS) E and F.
- Expectedly, the No Build 2035 operational analysis indicated that the congestion is expected to worsen significantly given the projected growth in traffic volume. The intersection approaches would expect to operate with a LOS of E and F.

Signalized Intersection Alternative:

- The signalized intersection is expected to improve operations. The Signalized Intersection Build (2035) operational analysis indicates the signalized intersection would cause all movements to improve to a LOS B.
- The practical analysis indicated that the signalized intersection would operate below capacity through 2028 during peak traffic hours.

Roundabout Alternative:

- The proposed roundabout is expected to significantly improve operations. The Roundabout Build (2035) operational analysis indicates the roundabout would cause all movements to improve to a LOS A (where the No Build scenario indicated multiple movements reaching a failing LOS F and the signalized intersection indicated multiple movements at LOS B).
- The practical analysis indicated that the roundabout would operate below capacity through 2042 during peak traffic hours.

ROUNDABOUT

Traffic Grading Scale

Level of Service A:
Description: Free flow of traffic with no restrictions on speed or maneuverability.
Conditions: Drivers experience minimal delays and high levels of comfort.

Level of Service B:
Description: Reasonably free flow with slight restrictions on maneuverability.
Conditions: Minor delays, but drivers still have a high level of comfort.

Level of Service C:
Description: Stable flow, but maneuverability is noticeably restricted.
Conditions: Moderate delays, and drivers need to be more attentive.

Level of Service D:
Description: Approaching unstable flow with significant restrictions on maneuverability.
Conditions: Increased delays and reduced comfort for drivers.

Level of Service E:
Description: Unstable flow, operating at or near capacity.
Conditions: High levels of delay and frustration, with frequent stops and starts.

Level of Service F:
Description: Forced or breakdown flow, where demand exceeds capacity.
Conditions: Severe congestion, long delays, and very low speeds

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