

What Improvements Are Planned for This Corridor?



What Else Can Be Done to Reduce Congestion?

Although CMP strategies are focused on reducing traffic congestion, they are more than just roadway improvements and adding new lanes. In fact, well-planned CMP strategies can include multiple modes of transportation and often produce low-cost projects that can be completed in a short timeframe. In addition to the improvements shown on the map above, strategies that may help address congestion along this corridor if pursued by the MPO and its transportation partner agencies include:

- Consider upgrading non-motorized crossing facilities on the west side of the Livingston Rd intersection to improve safety conditions and accommodate additional greenway crossings in the future without affecting traffic conditions
- Consider expanding traffic signaling capabilities through technology and communications improvements to optimize turning movements during peak periods at Livingston Rd
- Evaluate the feasibility of adding capacity and additional turn lanes to Orange Blossom Dr to serve as an alternative route for accessing Airport-Pulling Rd and Livingston Rd
- Provide funding assistance for promoting existing car/vanpool awareness and app availability
- Evaluate the feasibility of a new interchange at Vanderbilt Beach Rd and I-75
- Advance the displaced-left design concept from the Transportation Systems Performance Report Action Plan or evaluate other innovative intersection solutions at Vanderbilt Beach Rd and Livingston Rd to accommodate additional traffic volumes once the Vanderbilt Beach Rd Extension Project is completed

What Can I Do to Help Reduce Congestion?

Common strategies that people can use to help with congestion include:

- Changing your trips to less busy time periods when possible
- Checking for alternate routes based on traffic conditions
- Using transit when possible
- Walking or biking for short trips
- Joining or starting a carpool with nearby coworkers or commuters
- Taking advantage of flex schedule or telecommuting opportunities if offered by your employer
- Practicing safe driving techniques to avoid crash incidents

How Do I Get Involved?

If you want to learn more about the Collier MPO's efforts to improve our transportation system, please visit our website: www.colliermpo.org

We want to hear your feedback!



Transit Routes Available:



COLLIER METROPOLITAN PLANNING ORGANIZATION

Fall 2022



Collier County's Congestion Hotspots

CR 862 / Vanderbilt Beach Rd

(From CR 31 / Airport-Pulling Rd to CR 881 / Livingston Rd)



What is Congestion Management?

Congestion management describes all of the activities used to help reduce the negative impacts of traffic congestion and improve roadway performance in urban areas.

Transportation planning agencies, such as the Collier MPO, follow a detailed Congestion Management Process (CMP) when making decisions about the best ways to address traffic congestion in specific areas, and eventually how improvement strategies should be prioritized for available funding.

Once a congestion reduction strategy or policy decision has been implemented, the CMP then evaluates its effectiveness using measurable data to determine if the intended outcome was achieved or if other solutions may be needed.

Why is the MPO Evaluating Hotspot Corridors?

As a part of the ongoing effort to reduce congestion on Collier County roadways, the MPO regularly identifies corridors with high levels of recurring traffic congestion. This usually occurs every two years when the MPO's Transportation System Performance (TSP) Report is updated. This process consists of traffic data analysis and forecasting that is based on other MPO planning efforts such as the Long Range Transportation Plan (LRTP).

The corridor featured in this fact sheet was identified in the most recent TSP Report as having unmet needs related to safety, congestion, or other causes that are not likely to be addressed by currently planned improvements. The MPO is now evaluating it in greater detail to develop potential improvement strategies and better understand which strategies could be the most effective based on current conditions.



Collier County's Congestion Hotspots

CR 862 / Vanderbilt Beach Rd (From CR 31 / Airport-Pulling Rd to CR 881 / Livingston Rd)

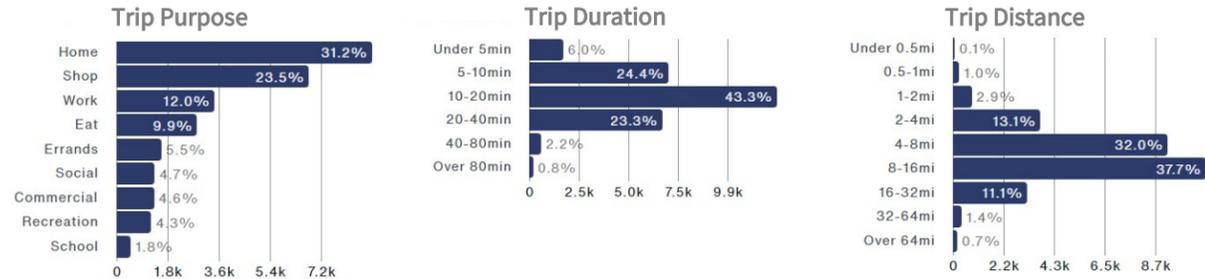


Quick Facts

Corridor Length: 1.01 Miles
Number of Major Intersections: 2
Number of Daily Trips (Avg. Weekday): ~29k

~3 min
 Avg. Daily Duration of Bottleneck Conditions

~2k
 Annual Vehicle Hours of Delay



Corridor Challenges

- Commuter Traffic:** This corridor experiences surges in commuter traffic in the morning and afternoon, especially in the eastbound direction during the PM peak period, which is likely worsened by vehicles trying to access the I-75 interchanges and creating a burden on turning capacity at the Livingston Road intersection.
- Potential Bicycle & Pedestrian Conflicts:** As future connections and improvements are made to the greenway along Livingston Rd, the crossing at this corridor could experience increased activity that could lead to safety problems without adequate investments in facility upgrades.

Where is Congestion Usually the Worst?



Direction
Eastbound

Location
Approaching Livingston Rd

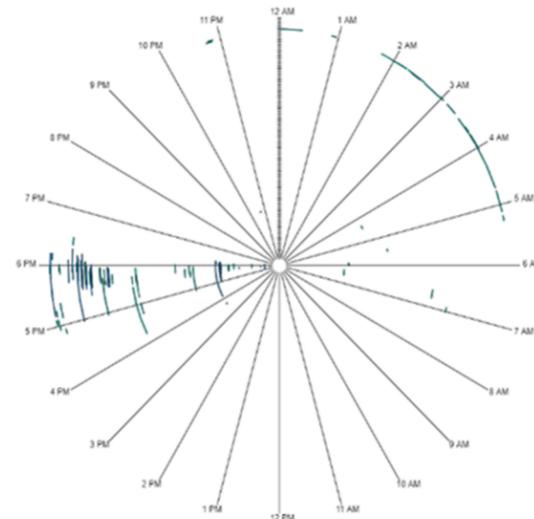
Time
5-6 PM

Corridor Opportunities

- Lack of Development Density:** The combination of natural areas, parks, golf courses, and undeveloped land north of this corridor do not currently contribute to the significant worsening of congestion levels.

Bottleneck Occurrences

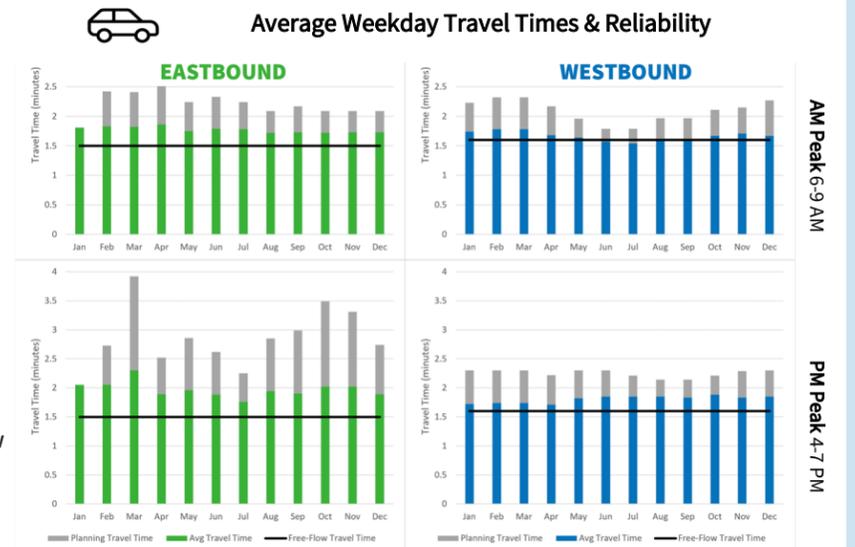
Each line in this graph represents a traffic bottleneck during 2021 in the eastbound direction at Livingston Rd. The length of the line shows how long it lasted. The line placement shows the time of day throughout the year, with January 1 at the center of the circle and December 31 at the outside edge. Bottlenecks at this location occurred more often during the PM peak period between 5 and 6 PM. Note that the overnight bottleneck conditions occurring 2 and 5 AM towards the end of the year are likely related to planned maintenance or construction activity.



Vanderbilt Beach Rd at Livingston Rd – Facing West

Congestion Throughout the Year...

The seasonal patterns of congestion occurring along this corridor can be seen in the longer travel times from roughly September to May, which coincides with school activity and may be worsened by seasonal visitors at the beginning and end of the year combined with commuting patterns. Not only is congestion worse due to seasonal patterns, but delay is also more unpredictable. The grey lines on these graphs show the amount of additional time needed for “planning ahead” to arrive on time, which also increases during the same months. A similar, although less pronounced, pattern is shown below by the higher monthly delay costs. Expressed in terms of relative costs, months with higher delay costs are shown as red and orange where lower delay costs are shown as shades of green.



Estimated Traffic Delay Costs

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	\$	\$\$	\$\$	\$								
2021	\$\$	\$\$	\$\$	\$	\$	\$	\$	\$	\$	\$	\$	\$\$
2020	\$\$\$\$	\$\$\$\$	\$\$	\$	\$	\$	\$	\$	\$	\$	\$	\$\$
2019	\$	\$	\$	\$	\$	\$	\$	\$\$\$	\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$

Data Sources: All data shown or referenced on these two pages is from 2021 unless otherwise noted. Information related to congestion, delay, travel times, travel speeds, and bottleneck conditions is from RITIS HERE data. Information related to trip characteristics is from Replica.



Congestion Throughout the Day...

Recurring congestion patterns vary during the average weekday based on time period. Typically, roadway activity is higher in the morning and evening during what are known as the peak periods. The graph on the right shows how average travel speeds change throughout the day along this corridor that has a posted speed limit of 45 MPH. Although speeds drop most severely during the PM peak period in the eastbound direction, they remain relatively more stable in the westbound direction throughout the day. As shown in the circular graph to the left, most bottlenecks occur roughly between 5 and 6 PM in the eastbound direction. Trip purposes also change throughout the day. Work trips are most common in the morning and home trips in evening. Shopping trips are the second most common purpose throughout the day.

