Freight Plan Implementation

Bay County TPO

West Florida Regional Planning Council

DRMP

Purpose

To build on the adopted Regional Freight Network Plan by evaluating needs on high priority regional freight corridors

Bay County TPO

West Florida Regional Planning Council

DRMP

Background

- The *Regional Freight Network Plan* (also known as Highways of Commerce) was adopted in 2010
  - a high level analysis based on secondary data sources and input from freight stakeholders
- Evaluate the needs identified in the Regional Freight Network Plan
  - Detailed analysis supported by field observations
  - Investigate problem areas identified in the plan (freight bottlenecks, chokepoints, and other "hot spots")
  - Coordinate implementing through resurfacing and other near-term projects

Bay County TPO

West Florida Regional Planning Council

DRMP

Scope of Work

- Task 1: Agency Coordination on Upcoming Projects
- Task 2: Screening High Priority Regional Freight Corridors
- Task 3: Evaluate Needs and Refine Priority Improvement Needs
- Task 4: Research Potential Freight Project Funding
- Task 5: Report Production

Bay County TPO

West Florida Regional Planning Council

DRMP

Project Schedule

- Kick-off Meeting
  - July 14, 2011
- Local Officials Coordination – corridor selection
  - August – September 2011
- Field Screening and Data Collection
  - September -October, 2011
- Draft Reports Submitted
  - November 30, 2011
- Draft Report Presented to TPO
  - January 25, 2012
- Final Plan Presented to TPO
  - March, 2012

Bay County TPO

West Florida Regional Planning Council

DRMP

Corridor Selection

Based on:

- number of issues or hot spots within a corridor
- priority established in the Regional Freight Plan
- potential for improvements within five years
- consultation with TPO staff

- One corridor and five intersections screened within the TPO boundary

Bay County TPO

West Florida Regional Planning Council

DRMP

Corridors Screened

SR 22 (Wewa Highway)

from US 98 Business to Star Avenue

Four Intersections:

- **US 98 (15th Street) at Jenks Avenue and US 231**
- **US 231 at N. East Avenue**
- **US 231 at Transmitter Road**
- **SR 368 (23rd Street) and SR 390 (Beck Avenue)**

Bay County TPO

West Florida Regional Planning Council

DRMP

Evaluation Issues

- operations
- physical characteristics
- available right-of-way
- traffic counts and projections
- capacity and LOS
- congestion and delay
- signal timing and synchronization
- maneuverability
- railroad crossings
- signage

Bay County TPO

West Florida Regional Planning Council

DRMP

Evaluation Issues

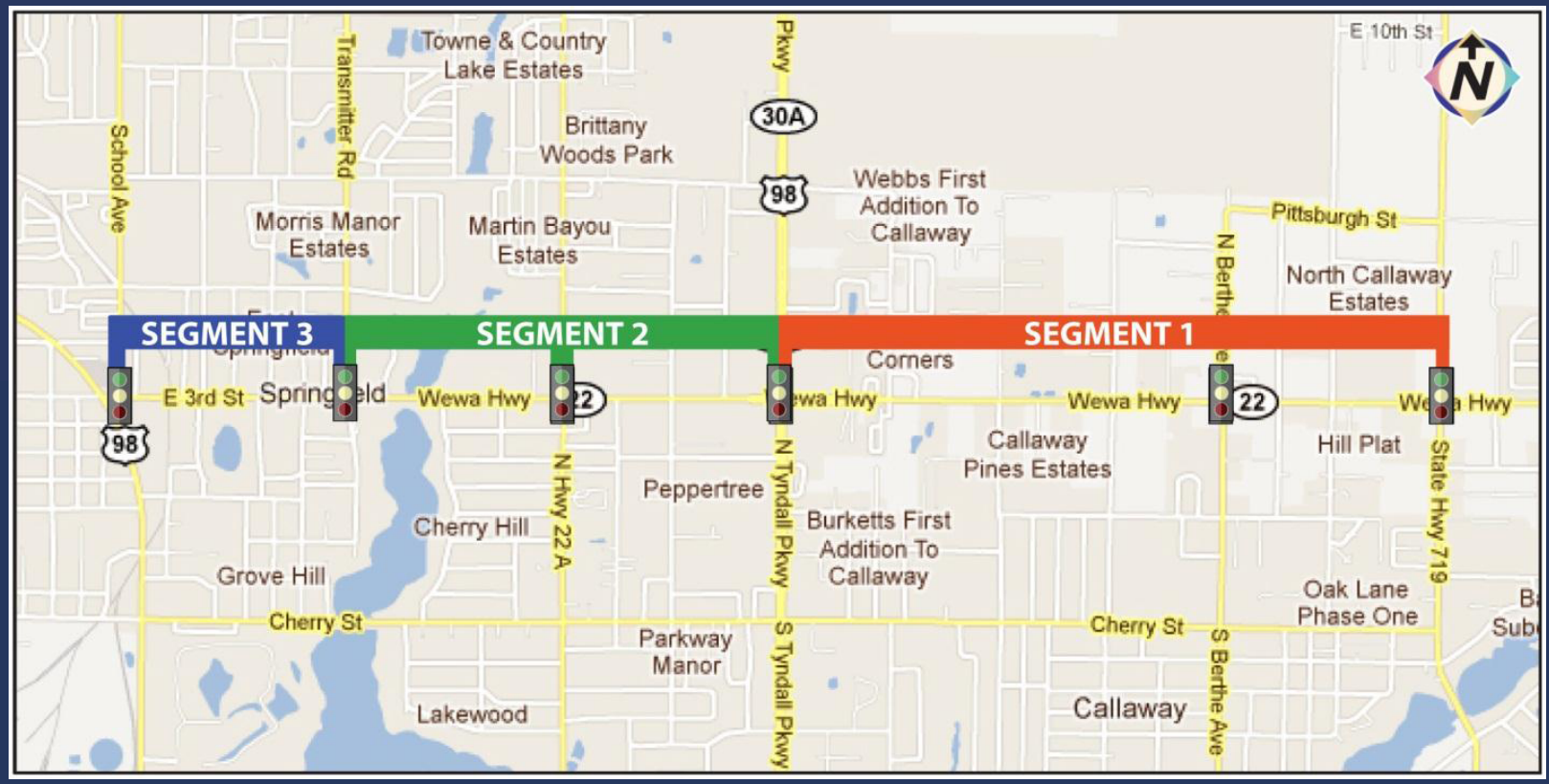
- Roadway Geometry
  - turning radii
  - sight lines
  - lane widths
  - grades
- Pavement Condition
  - Rutting
  - Heaving
  - Cracking
  - Curb or shoulder erosion
- Access Management
  - median openings and driveways
- Safety Conditions
  - crash data
  - railroad crossings
  - bicycle/pedestrian conflicts

Bay County TPO

West Florida Regional Planning Council

DRMP

SR 22 from Business 98 to Star Ave



Bay County TPO

West Florida Regional Planning Council

DRMP

SR 22 from Business 98 to Star Ave

Bay County TPO

West Florida Regional Planning Council

DRMP

SR 22 from Business 98 to Star Ave

West Florida Regional Planning Council

Bay County TPO

DRMP

SR 22 from Business 98 to Star Ave

- Rehabilitate the pavement along the entire corridor to eliminate the deep rutting at signalized intersections. (BA1)
- Extend the roadway pavement at the NE and NW corners of Transmitter Road during WPI 421640-1 RRR project to replace the current paved shoulder extensions. (BA2)

Bay County TPO

West Florida Regional Planning Council

DRMP

SR 22 from Business 98 to Star Ave

- Rehabilitate the intersection of US 98 Business and SR 22 using more rigid pavement materials that can support heavy trucks. (BA3)
- Reapply all pavement markings that are worn through to the pavement including stop bars, crosswalks, and lane dividers. (BA4)

Bay County TPO

West Florida Regional Planning Council

DRMP

SR 22 from Business 98 to Star Ave

Review and adjust Signal Timing

- Adjust the left-turn signal timing to a minimum of 20 seconds at US 98 Business and at Tyndall Parkway. Trucks take much longer to complete these maneuvers, especially when loaded.
- Increase the westbound SR 22 through and left-turn time at US 98 Business to help clear the queue after a train crossing, as well as the left-turn time from southbound US 98 Business to eastbound SR 22. (BA5)

Bay County TPO

West Florida Regional Planning Council

DRMP

SR 22 from Business 98 to Star Ave

- Conduct 72-hour vehicle classification counts along the corridor and truck turning movement counts at the following intersection:
  - US 98 Business
  - Transmitter Road
  - Tyndall Parkway
  - Star Avenue

Determine the actual number of large trucks using this corridor and their access point. Recommend classification counts on Cherry Street to determine the extent that this facility is used as an alternate truck route. (BA6)

Bay County TPO

West Florida Regional Planning Council

DRMP

SR 22 from Business 98 to Star Ave

- Use a WB-66 tractor-trailer combination as the design vehicle for the design on FDOT WPI 425803-1, 421640-1, and 430788-1 due to the recent trends in the trucking industry to longer trailers. (BA7)
- Determine the status of Cherry Street, which appears to be used as an alternative to SR 22. If this is a desired truck route, it should be signed to indicate its status. Otherwise truck travel on this route should be discouraged. (BA8)

Bay County TPO

West Florida Regional Planning Council

DRMP

SR 22 from Business 98 to Star Ave

The following safety improvements should be considered for the railroad crossing located east of Business 98 (BA9):

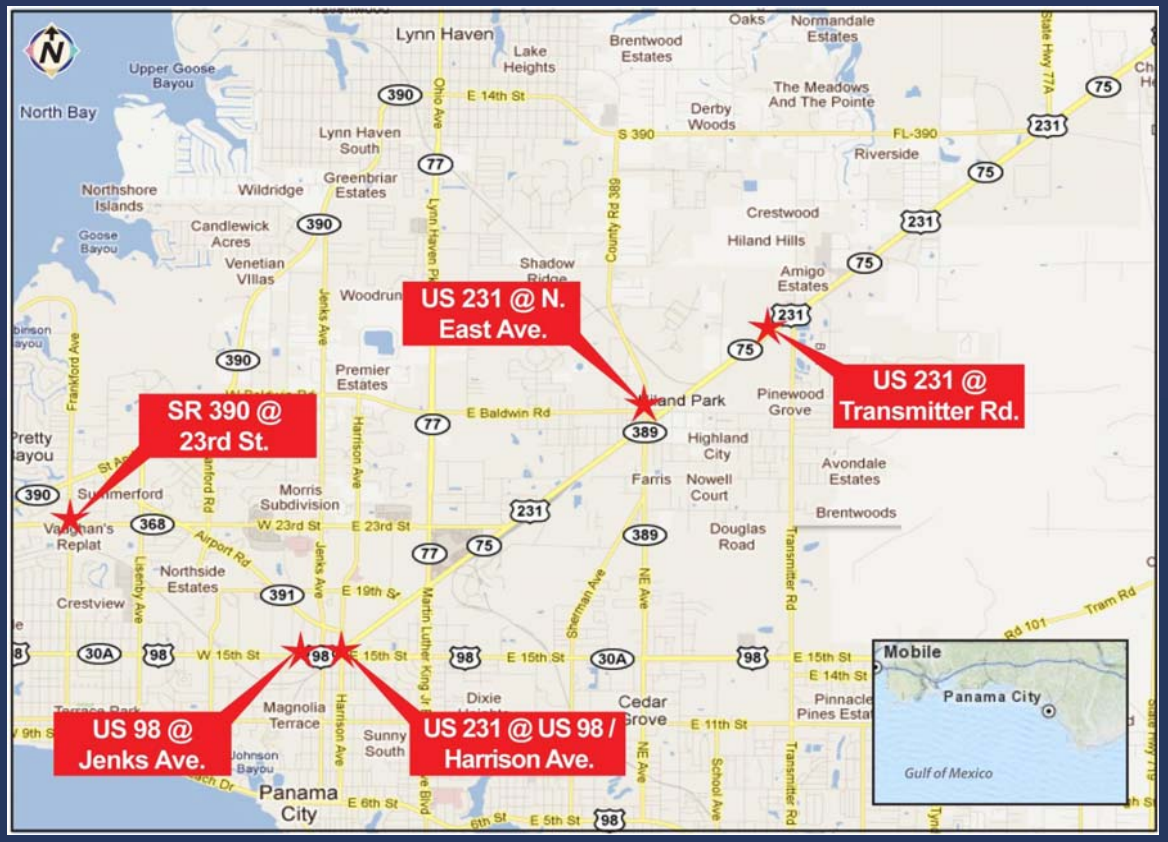
- Extend the length of the railroad crossing gates
- Add lane delineators or a concrete divider extending back from the crossing gate stop bar on both sides of the crossing

Bay County TPO

West Florida Regional Planning Council

DRMP

US 98 at Jenks Avenue and US 231



Bay County TPO

West Florida Regional Planning Council

DRMP

US 98 at Jenks Avenue and US 231

Bay County TPO

West Florida Regional Planning Council

DRMP

US 98 at Jenks Avenue and US 231

West Florida Regional Planning Council

Bay County TPO

DRMP

US 98 at Jenks Avenue and US 231

- Add a protected left-turn signal for vehicles turning left onto US 231 from EB US 98.
  - Or conduct a signal timing study to determine potential for protecting the left-turn movement by adjusting the timing and sequencing of the signals at US 98 and US 231 at Harrison Avenue. (BA16)
- Reconstruct and repave, at a minimum, the intersections at Jenks and Harrison Avenues using pavement materials that are resistant to rutting from the weight of heavy trucks. (BA17)

Bay County TPO

West Florida Regional Planning Council

DRMP

US 98 at Jenks Avenue and US 231

- Add ITS safety signage for trucks at the following locations (BA18):
  - Northbound Harrison Avenue at US 98,
  - Northbound Harrison Avenue to westbound US 98 left-turn lane,
  - Westbound US 98 to northbound Harrison Avenue right-turn lane,
  - Southbound Harrison at US 231, and
  - Southbound US 231 to southbound Harrison Avenue left-turn lane.

The signs should require all trucks to stop prior to the intersection when the railroad gates are down or about to change to the down position.

Bay County TPO

West Florida Regional Planning Council

DRMP

US 98 at Jenks Avenue and US 231

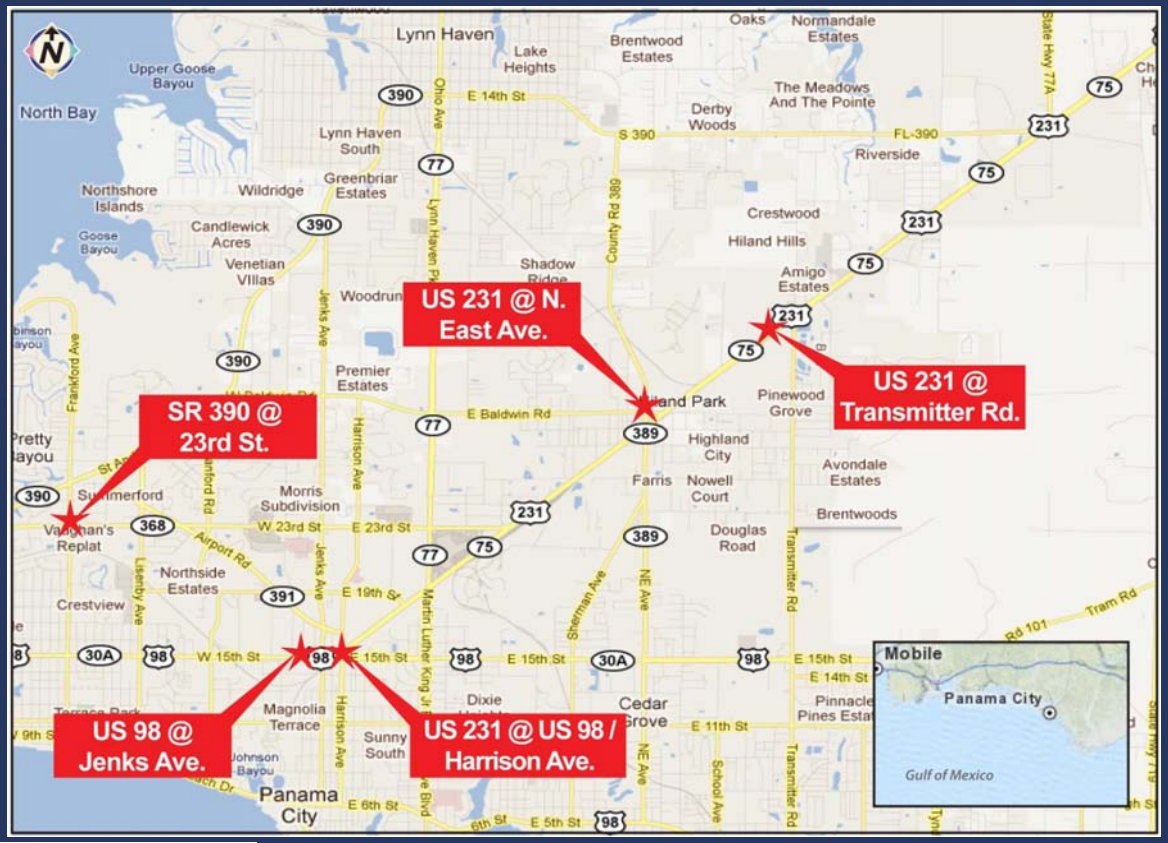
- Conduct/revise planning level study to add a flyover ramp from US 98 (15th Street) eastbound to US 231 northbound and a grade separation on US 231 southbound over Harrison Avenue and at Jenks Avenue. While this would be a high-cost solution due to construction costs and right-of-way acquisition costs, it would permit free-flow movement of vehicles between US 98 and US 231 and reduce delay to zero. (BA19)

Bay County TPO

West Florida Regional Planning Council

DRMP

US 231 at N. East Avenue



Bay County TPO

West Florida Regional Planning Council

DRMP

US 231 at N. East Avenue

West Florida Regional Planning Council

Bay County TPO

DRMP

US 231 at N. East Avenue

West Florida Regional Planning Council

Bay County TPO

DRMP

US 231 at N. East Avenue

- All traffic on Baldwin Road connecting to US 231 should be redirected to N. East Avenue to the signalized intersection at US 231. (BA20)
- Remove/close-off the intersection at Baldwin Road and US 231 or make it a right in/out only intersection. (BA21)
- Include a dedicated right-turn lane from southbound N. East Avenue to southbound US 231. (BA22)
- The acute geometry at the northeast corner should be modified by adding a dedicated right-turn lane with a long radius resulting in a flatter curve for trucks. (BA23)

Bay County TPO

West Florida Regional Planning Council

DRMP

US 231 at N. East Avenue

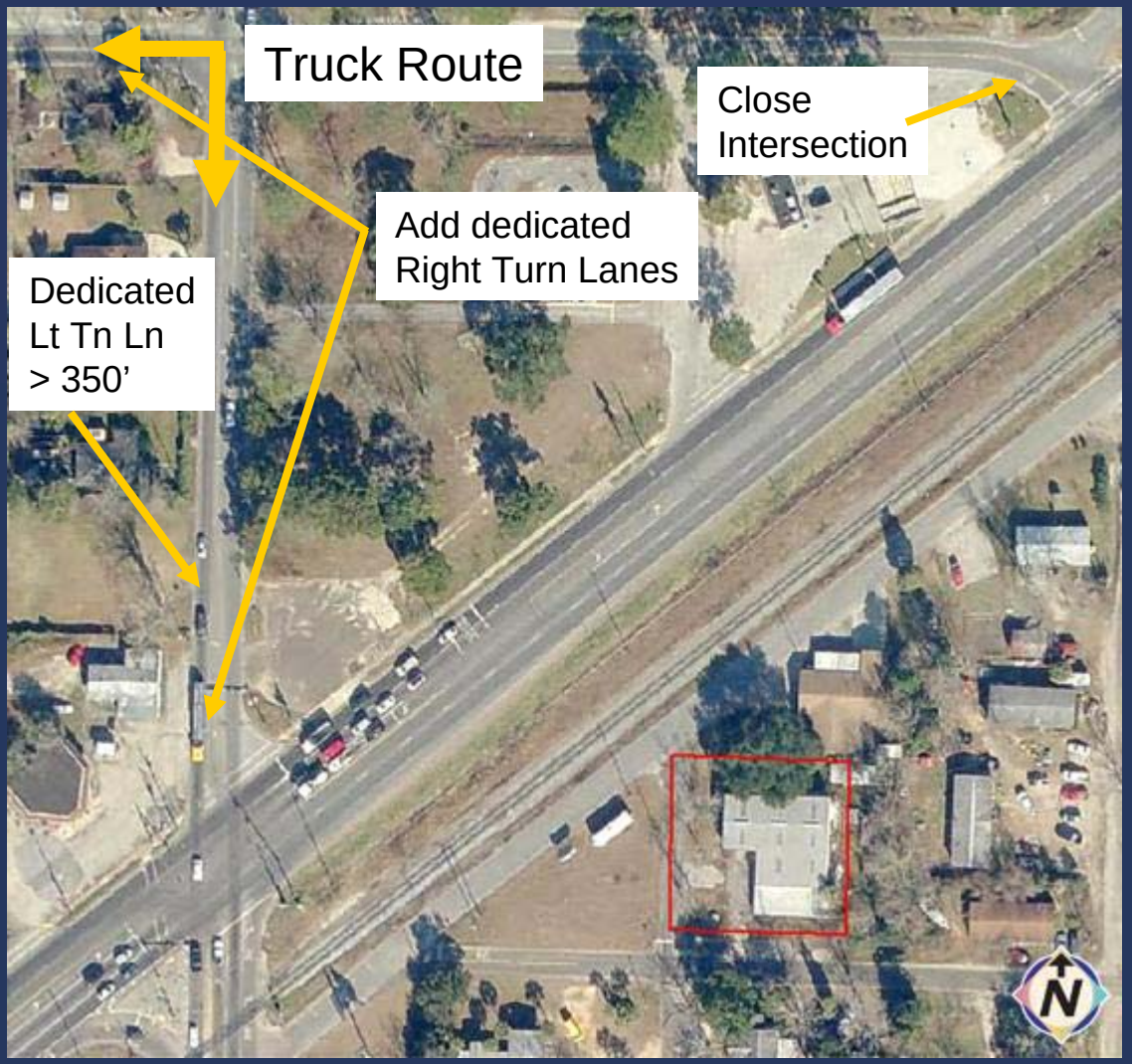
- Include a dedicated right-turn lane from eastbound Baldwin Road to southbound N. East Avenue that continues south as one of the two southbound lanes. (BA24)
- A dedicated left-turn lane on southbound N. East Avenue should extend back at least 350 feet. (BA25)

Bay County TPO

West Florida Regional Planning Council

DRMP

US 231 at N. East Avenue



West Florida Regional Planning Council

Bay County TPO

DRMP

US 231 at N. East Avenue

The following recommendations are minor in nature and can be accomplished at low cost:

- Extend the shoulder pavement at the northwest quadrant of US 231 and N. East Avenue. (BA26)
- Extend the pavement at the northeast corner of N. East Avenue and Lafayette Road. (BA27)
- Repaint all the pavement markings on N. East Avenue north of US 231. (BA28)

Bay County TPO

West Florida Regional Planning Council

DRMP

US 231 at Transmitter Road

DRMP

US 231 at Transmitter Road

West Florida Regional Planning Council

Bay County TPO

DRMP

US 231 at Transmitter Road

West Florida Regional Planning Council

Bay County TPO

DRMP

US 231 at Transmitter Road

- Complete minor pavement sealing to prevent further cracking. Extend the pavement at the northwest corner to prevent off-road rutting due to off-tracking. Consider scheduling a complete rehabilitation of the intersection within the next 2 to 3 years. (BA30)
- Consider a complete rehabilitation of the existing pavement markings. At a minimum, reapply pavement markings to northbound Transmitter Road. (BA31)

Bay County TPO

West Florida Regional Planning Council

DRMP

US 231 at Transmitter Road

- Replace strain pole mounted signals with mast arms. (BA32)
- Conduct vehicle classification counts followed by turning movement counts at all approaches. Recommend 72-hour class counts to determine peak truck travel times prior to conducting the turning movement counts. (BA33)

Bay County TPO

West Florida Regional Planning Council

DRMP

US 231 at Transmitter Road

- Review and adjust signal timing to permit longer green time for the US 231 through movement for trucks. Based on the classification counts, extend the protected green time for the left-turn lanes on US 231 to accommodate turning trucks. If possible with the existing equipment, consider signal progression only when a vehicle is present on the crossing approaches. (BA34)
- Consider ITS upgrades to this intersection that would include extended green and yellow time for trucks traveling on US 231. This would improve the flow of trucks and minimize delay caused by repeated stopping and restarting at intersections on this regional Highway of Commerce and improve air quality due to the reduction of diesel idling. (BA35)

Bay County TPO

West Florida Regional Planning Council

DRMP

US 231 at Transmitter Road

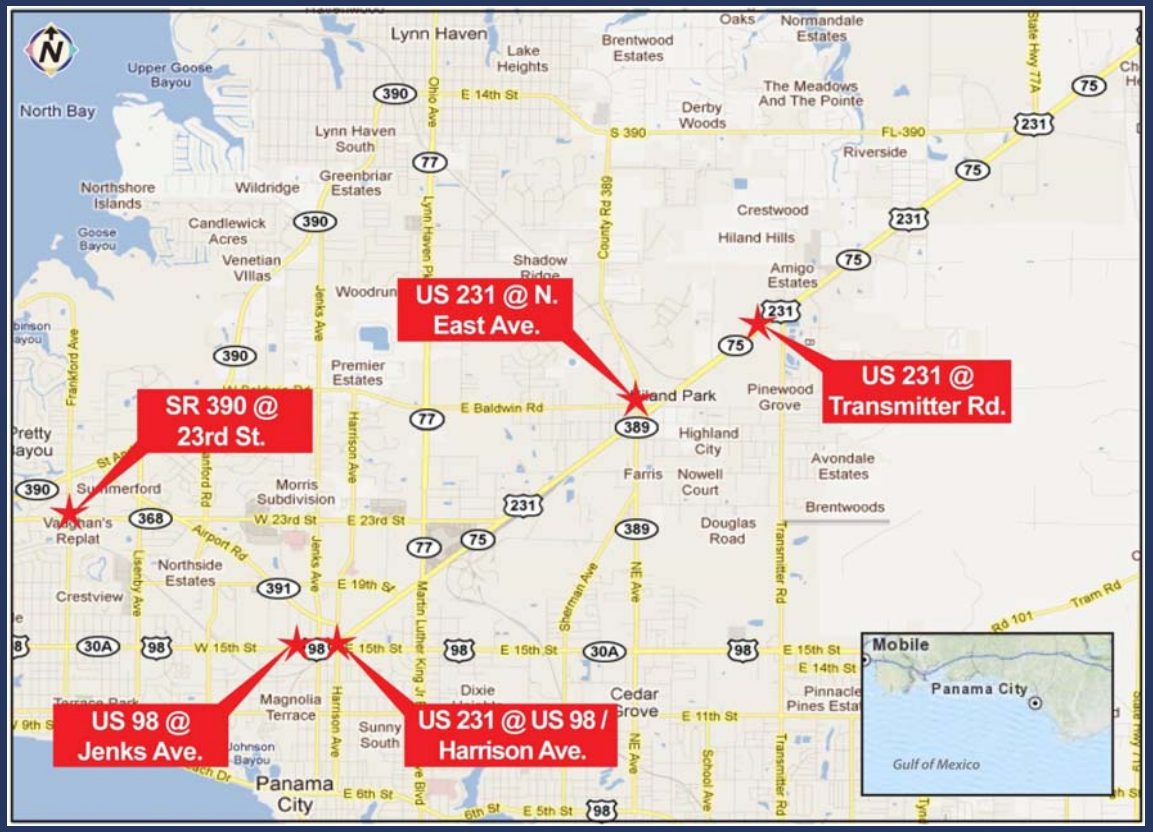
- Investigate adding a dedicated right-turn lane at the north approach on Transmitter Road. Include extending the existing merge lane into an acceleration lane on US 231 to give trucks additional room to reach a safe merging speed. (BA36)
- Add “Trucks Stop Here on Red” sign(s) on northbound Transmitter Road prior to the crossing gates. (BA37)
- Add “Trucks Do not Stop On Tracks” sign at the northbound signal stop bar. (BA38)

Bay County TPO

West Florida Regional Planning Council

DRMP

SR 368 (23rd Street) at Beck Avenue



Bay County TPO

West Florida Regional Planning Council

DRMP

SR 368 (23rd Street) at Beck Avenue

West Florida Regional Planning Council

Bay County TPO

DRMP

SR 368 (23rd Street) at Beck Avenue

West Florida Regional Planning Council

Bay County TPO

DRMP

SR 368 (23rd Street) at Beck Avenue

- During the Design for SR 390 6-Laning improvement, ensure that all turning movements are designed for WB-66 tractor trailers. All corner curbs must be mountable and median bull noses must be mountable or set back to accommodate turning trucks. (BA10)
- Conduct an engineering study to add a median (approximately 850 feet) along SR 368 (23rd Street) west of the intersection in order to construct a left-turn lane of approximately 600 feet to store vehicles waiting to turn left at SR 390. Driveways along this segment should be right turn in/out only. Add a westbound left-turn lane at the west end of the median to facilitate turns into the large parking lot on the south side of the road. (BA11)

Bay County TPO

West Florida Regional Planning Council

DRMP

SR 368 (23rd Street) at Beck Avenue

- Remove existing pavement and repave the surface along the SR 368 (23rd Street) intersection. Pavement composition should be able to withstand the weight of heavy trucks without developing rutting. (BA12)
- Consider adding a raised pedestrian refuge island at the northeast corner separating the right-turn lane from the northbound through lane. This will reduce the long crossing from 166 feet to 90 feet. (BA13)
- Add back plates behind traffic signals on SR 368 (23rd Street) to enhance visibility during low sun angle situations. (BA14)
- Consider adding “Truck Route” signs directing northbound through trucks to SR 390 (SIS). (BA15)

Bay County TPO

West Florida Regional Planning Council

DRMP

Questions/Comments

Bay County TPO

West Florida Regional Planning Council

DRMP