

The Future of Traffic Management

Auto Flaggers Yay or Nay?



By: Donald "Don" Clifton
Alachua County Public Works,
Road Superintendent



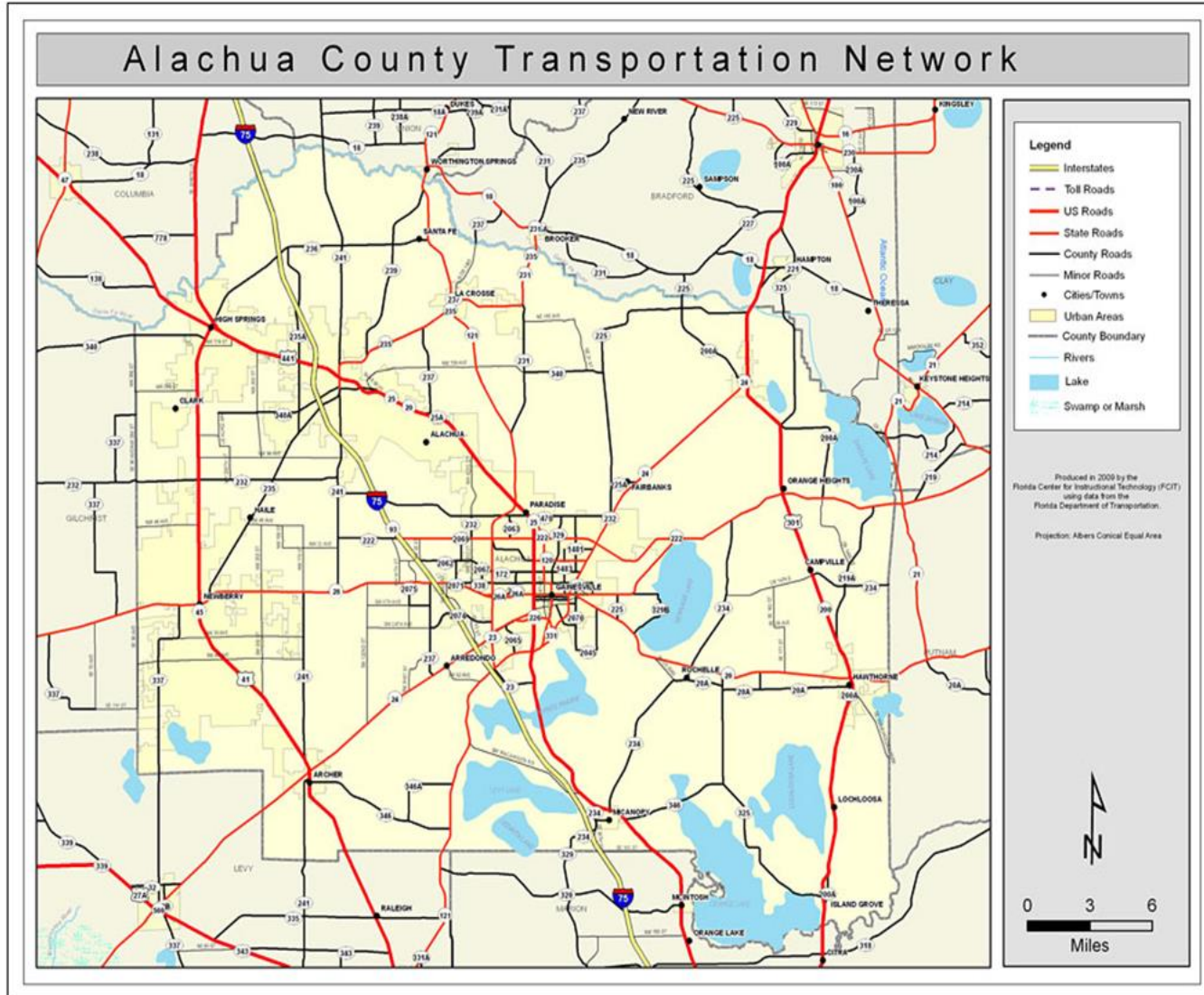
Alachua County Public Works Department

Ramon Gavarrete P.E
PW Director

Brian Kauffman, P.E.
Assistant PW Director

7 Divisions

- Real Property
- Development Review
- Construction Inspection
- Surveying
- Engineering
- Fleet Maintenance
- Road & Bridge
 - 690 Paved Road Miles (centerline)
 - 79 Positions



Definition & Purpose

- Automated safety devices designed to manage and traffic flow at construction zones and other roadwork sites by eliminating the need for human flaggers.
- Improved Safety: Removing staff from high-risk traffic situations and redeploy them to other essential task in the work zone.
- Consistency: Provides consistent and predictable traffic control reducing confusion among drivers. (No breaks needed).



VS



The Buy-In

- **Cost: Approximately \$29,000.00 per paired unit (2022/23 pricing).**
- **Reduce number of staff on projects. (79 positions 24 currently vacant)**
- **Low maintenance cost.**
- **Equipped with Digital Video Recording (DVR) devices.**
- **Powered by battery and solar energy (no motor).**
- **Operating range 1 mile with a clear line of sight. Less with obstructions such as curves or hills.**

Controls

Wireless Video System



Video Monitoring



Intrusion Alarm



Handheld Remote

Our First Project

- CR 235 Totaling 10 miles of tree trimming, operating with 3-4 personal.
- Setting up and trimming up to 1 mile in a shift. This includes under brush and canopy trimming.
- Annual Average Daily Traffic: 4300 (2023)



Implementation and Operation

- One set is deployed with one pick up truck. (*no CDL*)
- Still require to set up MOT/TTC devices. (FDOT standards)
- Certified staff in Basic MOT/TTC training.
- Ensuring a clear sight line between units and controller.





Benefits Staff Found



- Enhanced safety for road crews and traveling public.
- Time saved during set up & break down of work zone.
- Less staff to operate projects.
- No midday breaks (continuous operations) and limited rotation of staff required.



Lessons Learned The First Week

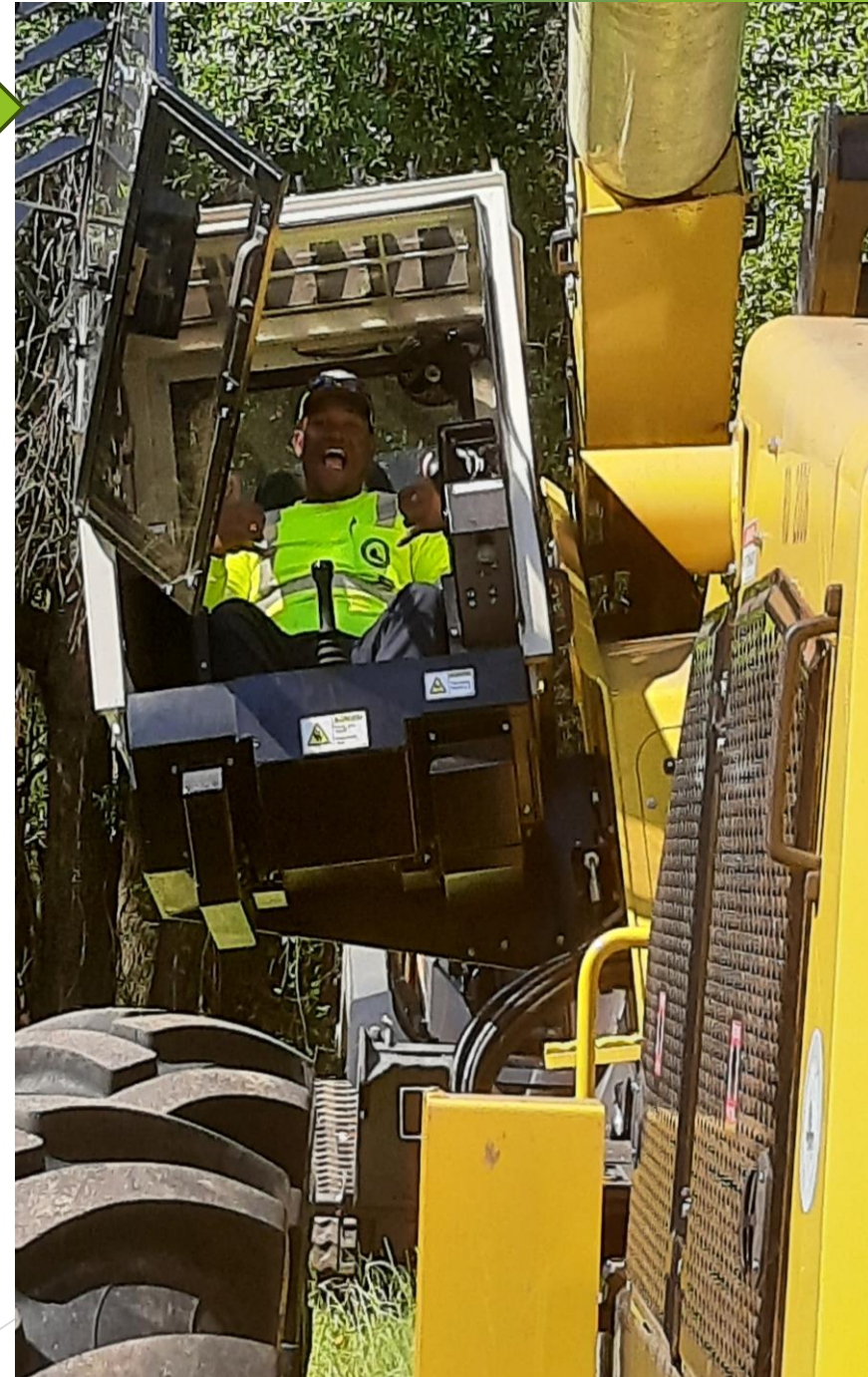
- Don't set the Unit to close to the white line. Both units hit within the first week of use (mirrors and trailers).
- Cars going around the Auto Flaggers while traffic was stopped.
- Don't push the limits of distance. 1 Mile of straight away with controller mid way. (.50 - .75 mile on curves/hills) Currently investigating the use of larger antennas.
- Remember what button controls which unit!



Moving Forward



- Moved units back 1 feet has resolved the impact issues with mirrors and trailers.
- Setting up Cone Corrals assisted in preventing traffic jumping the line and slowed traffic while passing by Auto Flaggers.
- Marking distance/location of Auto Flagger for the next section set up. (take out the guessing game)
- More training was completed to insure knowledge of controls.
- Keeping units in the open as the power source, needs constant charging. “Lot of power draw in a shift”



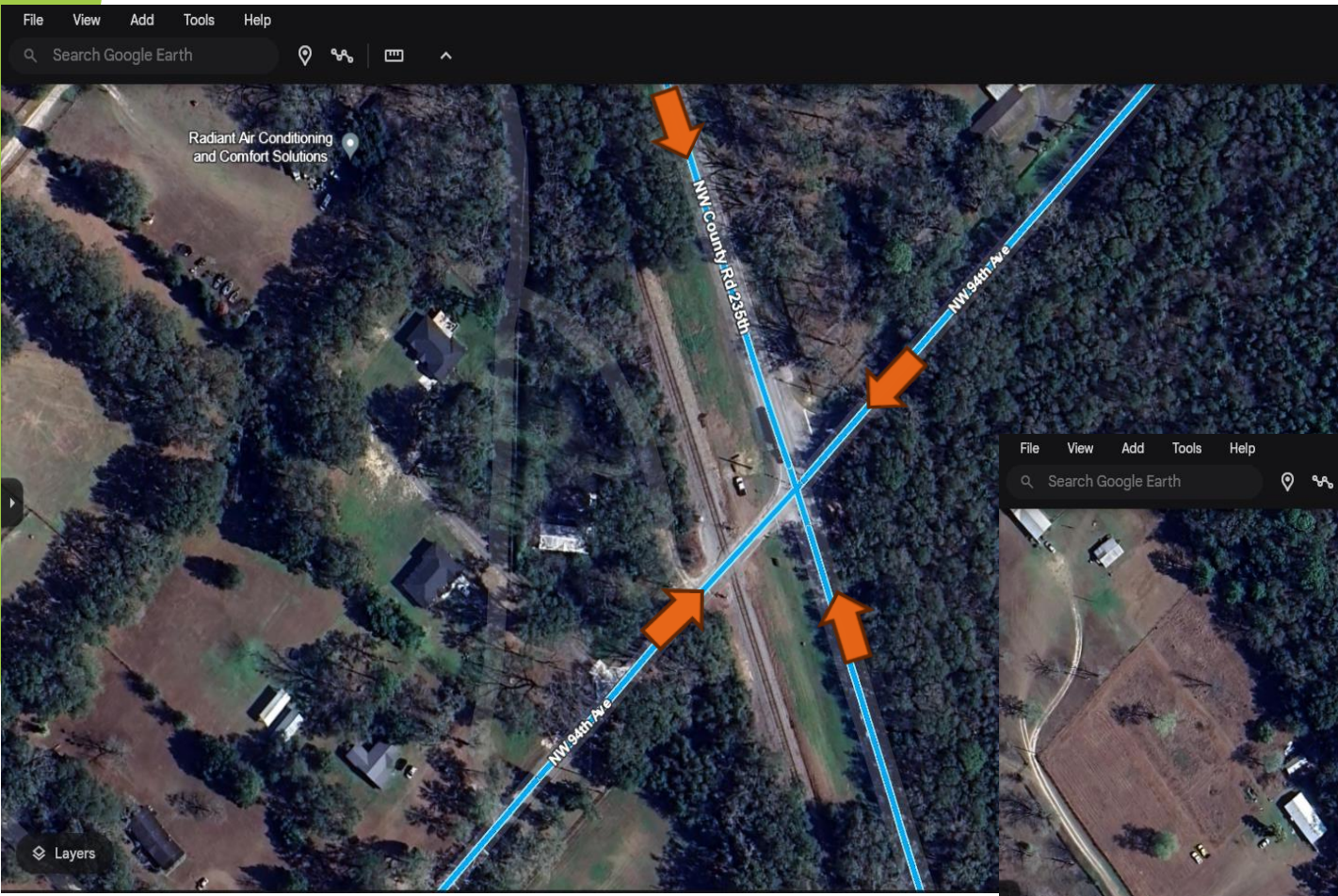


OBEY THE LIGHT!!

4-Way Intersections

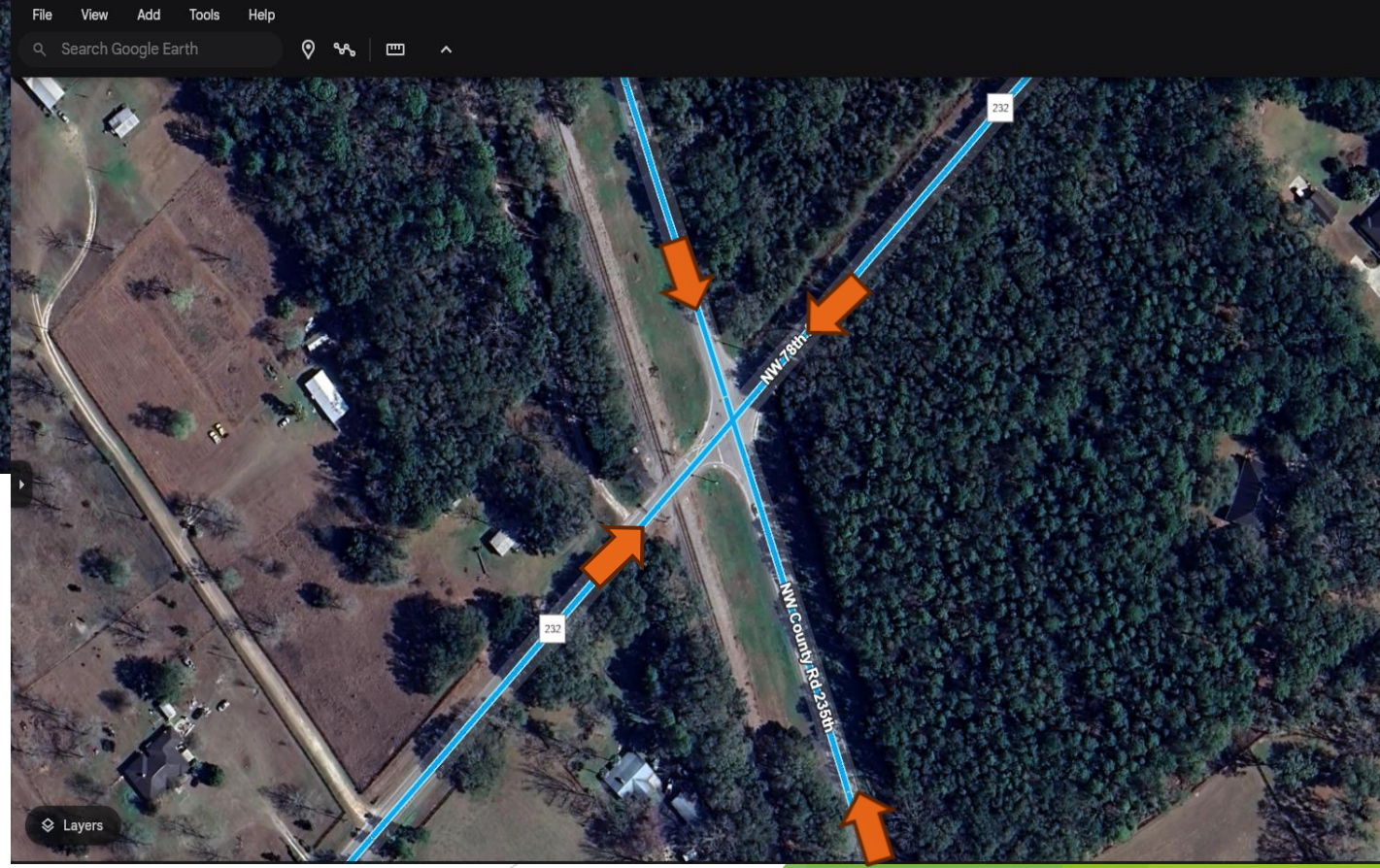
- CR 235 @ NW 78th Ave & NW 94th Ave
- 1 additional staff member was needed to run 2 sets of Auto Flaggers.
- MOT/TTC set up time extended due to additional signage being applied.
- Clear communication and patience is needed.
- Keep Calm & Think

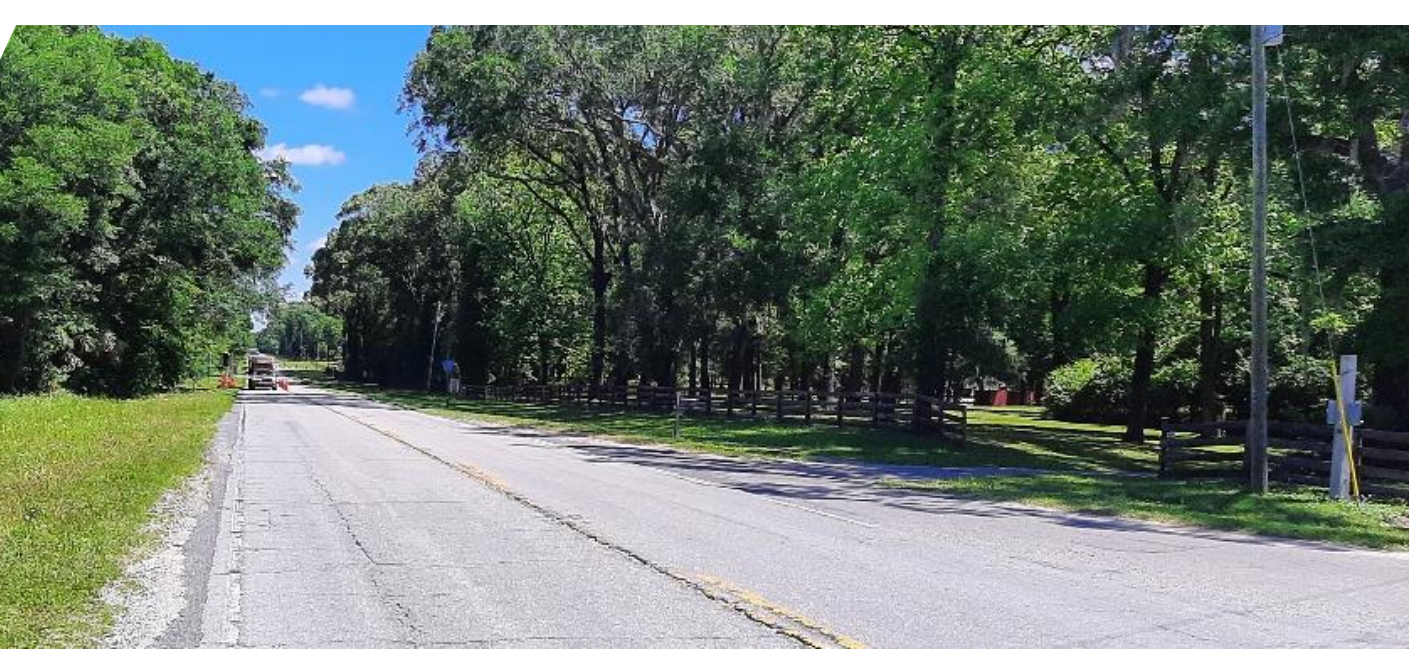


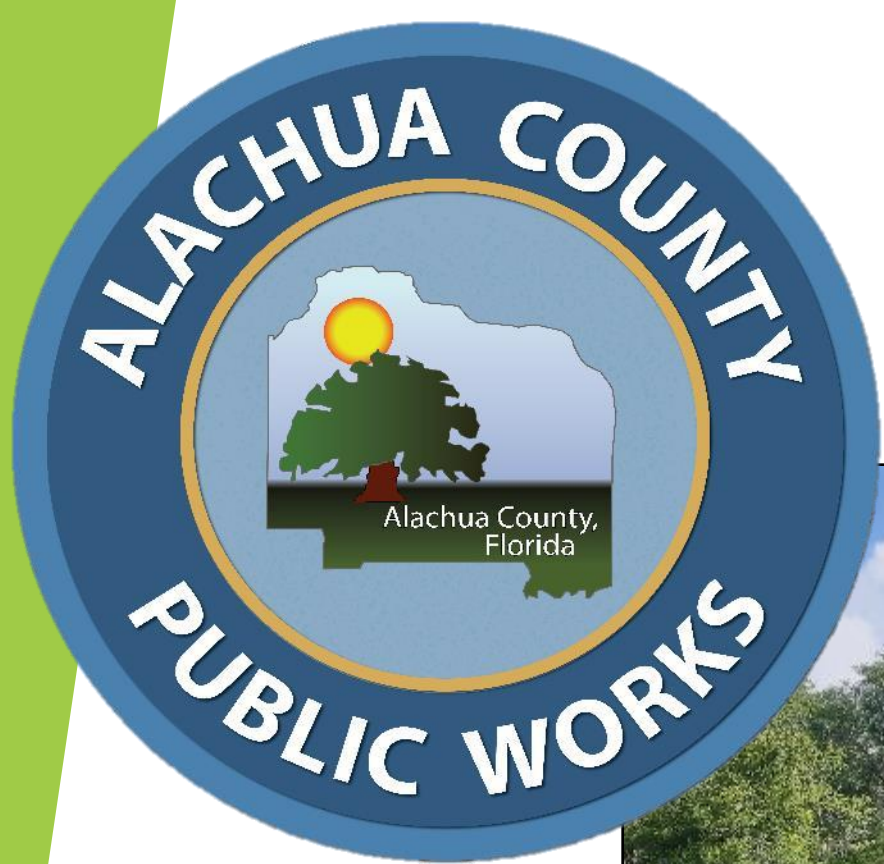


NW 94th AVE

NW 78th AVE







Auto Flaggers, Yay!



What We Learned

- Supervisors and staff appreciate time and personal savings that Auto Flaggers bring to their Units.
- The ability to run MOT/TTC for the full duration of the work shift.
- Easy to transport.
- Ease to set up and control.
- Alerts when unauthorized traffic enters work zone.
- Improves safety and limits stress on employees (rain, heat).

Questions??

