

13. SHORT TERM RECOMMENDATIONS

The recommendations of the Dixie Highway Corridor Study are divided into short term, mid-term and long term recommendations. Short term recommendations are focused on enhancing the operation of the existing signal system with improvements that are easily and quickly implemented and relatively inexpensive. The mid-term recommendations are aimed at significantly improving the operation of the traffic signal system, adding new technologies to improve safety, and laying the groundwork for policy or management changes that would help improve travel time and are recommended for implementation within five years based on considerations of time and cost. The long term recommendations primarily involve capital projects (spot improvements) to address specific problem locations in the corridor. These improvements, which will require preliminary work, are recommended for implementation within ten years. The study recommendations are expected to reduce overall travel time through the corridor by 20-40%.

All costs provided in the following sections represent estimates for construction cost only.

The short term recommendations are focused on optimizing the operation of the existing signal system. Specifically, they call for correcting a number of traffic signal operational problems that contribute to traffic delay and for instituting a new timing plan, designed to move traffic more efficiently.

During the course of this study, KYTC responded to 90% of the recommendations to correct problems related to signal maintenance and implemented the recommended plan for signal timing. The maintenance problems that remain to be addressed involve signal phasing issues. Implementation of the remaining short term recommendations would further optimize operation of the existing signal system.

SIGNAL INVENTORY

Recommendations were developed based on a review of signal timing and phasing at each intersection and also a detailed inventory. The inventory involved a comprehensive review of signal placement, locations and types of controllers, detector locations, interconnect, equipment conditions, and other information affecting signal operation. The inventory resulted in the identification of a variety of problems that reduced the efficiency of signal operation and contributed to traffic delays. Most of the identified problems were maintenance issues that could be addressed at relatively low cost.

For example, there were many loop detectors and pedestrian pushbuttons that were malfunctioning and causing unnecessary calls to be placed to the controllers, impeding the efficient progression of traffic through the system on Dixie Highway. The interconnect at many of the intersections was also not connected to the controllers. In addition, because the clocks and sometimes even the dates in the controllers were not synchronized with one another, it was virtually impossible for the controllers to be coordinated.

Below is a list of short term improvements that have been recommended for the existing system. These improvements, along with a new timing plan were recommended to improve the

progression through the corridor and reduce the delay experienced by motorists when compared to the conditions existing prior to the Study.

- **INTERCONNECT**

Several intersections were found that were not a part of the interconnected system. These intersections should be added to the traffic signal system. These intersections include:

- Pike & Main Street
- I-75 Northbound Ramp in Covington
- I-75 Southbound Ramp in Covington
- Montague/Western Avenue
- Buttermilk Pike/Huckleberry Lane
- Turfway Road
- Signal System 3 –*Comment: if the list below is system 3, what is the list above?*
 - Arlington
 - Covington Catholic
 - Sleepy Hollow
 - Ashwood
 - St. John’s
 - I-75 NB Ramp
 - St. Joseph’s
 - St. James
 - Kyles
 - Forside
 - Orchard
 - I-75 SB Ramp

- **MASTER CONTROLLER**

The two signal systems had associated problems with their master controllers. All masters should be set up to synchronize the local clocks several times a day.

- System 3 – no master
- System 2 – modem hit by lightning

- **PRETIMED INTERSECTIONS**

An intersection was found to operate as pretimed.

- Montague/Western
 - Loops detector amplifiers were found in the controller cabinet. Loop detectors should be installed on the side streets and the intersection operated as semi-actuated.

- **“ODD” PHASING**

Several intersections were found with “odd” phasings. Each intersection is controlled by a 170 controller. These intersections should be changed to operate as a standard quad eight phase. *(These intersections do not work with the standard intersection phasing in the standard order.)*

- Montague/Western
 - Phase 2 (North-South through) green is followed by Phase 6 (Southbound “Western Avenue”) green which is followed by Phase 4 (Eastbound Montague) green.
- Dudley/Summit
 - Phase 3 is used as a lagging movement for the NB & SB left turns. The left turns could be split to Phases 1 & 5 and they could be leading phases. Two load switches and two loop detector amplifiers would need to be added to the cabinet.

- Kenton Lands Road
 - Lead-Lag N-S Left Turns. Phase 3 SB LT is a lag and Phase 5 NB LT is a lead. OL-A is the NB through movement. OL-A= 5+6+7. OL-B is the SB through movement. OL-B= 3+6+7. Phase 7 is a phantom phase. Phase 7 only “calls” if phase 3 (the lagging NB LT) is skipped. Phase 7 is set for “Coord Max”. See TransLink Table 8. Phase 6 is the only coordinated phase. See TransLink Table 7. Phase 6 is the only startup phase. See TransLink Table 1. “Exclusive phases” = 3, 4, 7. Phase 2 is the only “Double Entry” phase. See TransLink Table 10.
- Montgomery Drive
 - Lead-Lag N-S Left Turns. Phase 3 SB LT is a lag and Phase 5 NB LT is a lead. OL-A is the NB through movement. OL-A= 5+6+7. OL-B is the SB through movement. OL-B= 3+6+7. Phase 7 is a phantom phase. Phase 7 only “calls” if phase 3 (the lagging NB LT) is skipped. Phase 7 is set for “Coord Max”. See TransLink Table 8. Phase 6 is the only coordinated phase. See TransLink Table 7. Phase 6 is the only startup phase. See TransLink Table 1. “Exclusive phases” = 3, 4, 7. Phase 2 is the only “Double Entry” phase. See TransLink Table 10.
- PEDESTRIAN SIGNALS/PHASING

Several intersections were found to have pedestrian hardware and phasing problems. These issues should be rectified to ensure the safety of the pedestrians and the efficient operation of the traffic signal.

 - Montague/Western
 - Only the phase 2 pedestrian movement was on recall.
 - St. James
 - One of the phase 4 pedestrian push buttons was placing a constant call to the controller.
 - Sleepy Hollow
 - Phase 6 was not programmed as a pedestrian phase on TransLink Table 1. Phase 6 has pedestrian signal heads and push buttons.
 - The Pedestrian push button on the southeast corner did not place a call to the controller.
 - One of the phase 4 pedestrian push buttons was placing a constant call to the controller.
 - Kyles Lane
 - The Pedestrian push button on the southeast corner did not place a call to the controller.
 - Orchard
 - The northeast corner “Don’t Walk” lamp was out.

- I-75 SB Ramp in Fort Mitchell
 - The controller was set for “Max Recall” on phases 2 & 6 but not for “pedestrian recall.” If the signal remains uncoordinated the “pedestrian recall” should be set “ON.”
 - I-75 NB Ramp in Fort Mitchell
 - The controller was set for “Max Recall” on phases 2 & 6 but not for “pedestrian recall.” If the signal remains uncoordinated the “pedestrian recall” should be set “ON.”
 - Winding Way/Crestview Hills
 - The Phase 4 pedestrian push buttons were not operational.
 - Kenton Lands
 - The Phase 2 & 6 pedestrian times were not equal. The crosswalk distance is almost the same.
 - Commonwealth
 - Phase 8 pedestrian push buttons were not operational.
 - Bartlett/May
 - Pedestrian signal heads should be installed to prevent pedestrians from being confused by overlap indications.
- **EMERGENCY PREEMPTION SETTINGS**

Several intersections were found with emergency preemption settings in TransLink Table 3, but no emergency preemption hardware.

 - Arlington Road
 - I-75 SB Ramp in Fort Mitchell
 - I-75 NB Ramp in Fort Mitchell
 - Highland
 - **FALSE CALLING LOOP DETECTORS**

Several intersections were found where the loop detectors were false calling. This causes the traffic signal to provide green time to the side street when no cars are present.

 - St. Joseph
 - The phase 4 loop detector amplifier indicates a “fault” has occurred on the loop and is placing a constant call to the controller. Upon closer inspection it was found that the “loop lead-in” cables for phases 4 & 8 are not connected to the detector input rack.
 - Kyles Lane
 - One of the phase 1 (SB LT) loop detector amplifiers was stuck on call. The amplifier that was stuck on call is believed to be located in the Westbound Kyles “Right Turn Only” lane. This information could not be confirmed.
 - The Phase 2 and Phase 6 loop detector amplifiers indicated that “faults” had occurred on the loops and are placing constant calls to the controller. These amplifiers will only be active during “Free” operation.
 - Fortside
 - The phase 4 loop detector amplifier was stuck on call.
 - Orchard
 - The phase 4 west approach loop detector amplifier was stuck on call. The West approach loop wire was broken at the curb line.

- I-75 SB Ramp in Fort Mitchell
 - Vehicles in the “Northbound through” left lane were being detected by the video detector for phase 5 causing false calls on phase 5.
- Buttermilk Pike
 - Northbound left turn right lane loop was not detecting vehicles.
- Arcadia
 - Phase 8 loop detector amplifier was stuck on call. The phase 8 loop was milled out of the pavement on the west approach.
- Turkeyfoot/Hudson
 - Phase 4 loop detector was stuck on call.
- Rosemont/Crestview Hills Mall
 - Phase 1 loop detector was stuck on call
- Garvey/McAlpin
 - Phase 3 loop detector was stuck on call
- **DETECTOR DELAY SETTINGS**

Several intersections were found where a detector delay was set for one or more of the phases. Delays are sometimes used to allow right turning vehicles to turn without having to call the side street green.

 - Covington Catholic Entrance
 - This intersection had a 5 second delay set on the Phase 4 detector input.
 - Kyles Lane
 - No detector “delay time” (TransLink Table 4 Part 1) was set in the controller for phase 1.
 - Carran
 - Phase 4 had a 5 second delay.
- **YELLOW LOCK ISSUES**

Several intersections were found where the yellow lock was set for one or more phases. This setting places a locking call on the phase anytime the phase in question is not green. The reasoning behind the settings for these intersections could not be identified.

 - St. James
 - Phase 2 was set for Yellow Lock.
 - I-75 SB Ramp in Fort Mitchell
 - The phase 5 (Northbound Left Turn) was programmed for “Yellow Lock” on TransLink Table 1. The Left Turn movement “calls” often when it is not needed.
 - Edgewood
 - Phase 4 was set for Yellow Lock.
- **COORDINATION ISSUES**

Several intersections were found where the coordinated phase was not the NB and SB movements on Dixie Highway. The reasoning for these settings could not be determined.

 - St. James
 - Phase 2 was the coordinated phase.
 - Sleepy Hollow
 - Only phase 2 was programmed to be the “coordinated phase” on TransLink Table 7. Phases 2 & 6 are the North South thru movements.

- Commonwealth
 - Phase 1 & Phase 6 are coordinated phases. Phase 2 has no detectors and is on vehicle and pedestrian recall.
- LEFT TURN TRAP

Several intersections were found where a left turn trap is possible. This is an unsafe condition where the left turning traffic believes that the opposing traffic has a red light when they do not.

 - Kyles Lane
 - The “LTT” value was set to “0” on TransLink Table 10. Northbound left turn traffic to the private driveways at the intersection will see a Left Turn Trap Yellow if phase 1 is called and phase 4 is skipped. Phase 4 will likely be skipped in the “off peak” periods because when the signal is in “Free” every vehicle that passes over the Southbound Left Turn Loop or the Westbound Right Turn loop will place a call to the controller.
 - Bartlett/May
 - A “Left Turn Trap” occurs on every controller cycle. N-S traffic attempting to make a left turn into the private drives located directly across from the side streets will see a yellow clearance when the opposing traffic has a green. This is a “Left Turn Trap”. One possible solution is to install “No Left Turn” signs to prevent left turns into the private drives. If this solution is not politically acceptable, then phase 2 & OLA and OLB must “clear” together before servicing phase 4 or phase 8 and their associated overlaps. This could be done in the “command box” or by setting a “phantom phase.”
 - Turfway/Main/Rose
 - A “Left Turn Trap” was possible on every cycle. If the controller were to go from phases 2 & 6 green (Northbound & Southbound Dixie Highway) to phase 2 & 5 (Northbound Dixie & NB protected left turn) a “Left Turn Trap” will occur for Southbound Dixie Highway Left Turn traffic attempting to enter Rose Drive. To prevent this from occurring the “LTT” function on TransLink Table 10 of the controller timing should be set for code “1” (code “1” puts a demand on opposing cross street phase when demand is placed on the left turn).
- DETECTOR LOCATIONS

One intersection was found where the detectors were improperly located.

 - I-75 SB Ramp in Fort Mitchell
 - Phase 4 is set for “No Memory.” Vehicles on the phase 4 off ramp are able to stop in front of the loop detectors. This could be a problem in “off peak” periods. Possibly set phase 4 on “Yellow Lock” since both “off ramp lanes” must turn left.

- **LAGGING LEFT TURNS**

Several intersections were found where the left turn phase lags after the through movement. The use of lagging lefts is a personal preference, however, it can cause a small amount of lost time every cycle as left turning vehicles have difficulty discerning if the opposing traffic will stop.

- Expressway Shopping Center
- Buttermilk Pike – NB & SB Lefts
- Hallam – SB Left
- Commonwealth – Lead Lag NB SB Lefts (protected) – could change to permissive/protected

- **MISCELLANEOUS**

- Buttermilk Pike
 - The timing chart indicates OLA is a phase 4 overlap. Unable to confirm if OLA is being used at this time.
- Kenton Lands Road
 - Phase 6 was set for max recall. See TransLink Table 2.
 - The Command Box has values set
 - Phase 1 was set for min recall.
- Montgomery Drive
 - The Command Box has values set
- Hallam
 - Phase 4 is set for min recall.
- Bartlett/May
 - The signal heads for OLA and OLB should be “optically programmable”. The overlap green indications can easily be misunderstood as traffic approaches the Phase 2 red signal heads.
- Bartlett/May
 - Additional heads and detectors should be installed for the private drives opposite the side streets. Left turn traffic from these private drives must “run the signal red” if opposing traffic does not “call” the signal.
- Garvey/McAlpin
 - Additional heads and detectors should be installed for the private drives opposite the side streets. Left turn traffic from these private drives must “run the signal red” if opposing traffic does not “call” the signal.
- Cave Run
 - Phase 4 and Phase 5 are on min recall. However, the LTT is not set to “On” in TransLink Table 10. Without this setting, removing the phase 4 recall will result in a left turn trap for the SB left turn traffic when Phase 5 is called.

- **ALL INTERSECTIONS**

- Consider using a very short background cycle length at night or placing low volume intersections on flash at night. Most intersections do not have a “delay” set on the detectors. When the signal is in “Free” operation at night every vehicle detection (Right Turn on Red) will cycle the controller. Programming the controllers to “Rest in Walk” for the main street would also help prevent this from occurring. “No Coord Ped Recall” on TransLink Table 6 is set to “on.” By setting this “off” all the

- pedestrian push buttons on the main street phases could be eliminated (resulting in less maintenance).
- Update WAPITI software to the latest Revision at all intersections.

RESULTS OF SIGNAL INVENTORY

The inventory was provided to the Kentucky Transportation Cabinet on May 10, 2004. On October 29, 2004, KYTC District 6 provided information on their response to the recommended signal improvements and reported on which issues had been addressed and which had not. On December 17, 2004, KYTC provided the following explanation on the work completed in response to the signal inventory recommendations (correspondence provided in *Dixie Highway Corridor Study: Public Involvement & Modeling Documentation*).

- **INTERCONNECT**
 - Turfway has been interconnected to provide a clock update
 - Dixie 3 Master has been installed and interconnect installed to St. James Avenue and Covington Catholic
 - TBC installed at I-75 ramps and Western/Montague
 - I-75 NB/I-75 SB ramps - TBC is installed. See also General Notes Response (GNR)
 - Covington Catholic - IC repaired
 - Ashwood - IC repaired
 - Fortside - IC repaired, loop amp repaired
 - I-75 SB Ramp - IC repaired
 - I-75 NB Ramp - IC repaired
 - Buttermilk - IC and loop repaired
 - Turfway/Main/Rose - LTT corrected, IC connected for clock re-sync, this intersection is in PM peak system operation. Other time of day cycle lengths are too short to handle the long ped clearances required at this intersection.
- **MASTER CONTROLLER**
 - Dixie 2 Master at Winding Way is installed and operating.
 - Master and phone drop for Montague/Western are being considered as future upgrade.
 - St. Joseph - Master has been moved to SB on ramp. Loop and Conflict Monitor have been repaired.
- **PRETIMED INTERSECTIONS**
 - Montague/Western
 - Semi-actuated operation is being considered as future upgrade.
- **“ODD” PHASING**
 - Montague/Western
 - Western/Montague - Phase rotation is due to pedestrian and sight distance concerns.
 - Dudley/Summit
 - Phase rotation due to green band width. This points to a general comment. The original system timing considered all three daytime peaks, not just

two. In order to get two-way progression, left turn phases are placed at different points in the cycle length at different intersections to maximize the green band. Unless a Time/Space diagram is constructed, changes in phase rotation are ill-advised.

- Kenton Lands Road
 - The phantom phase is here to guarantee green band width even when left-turn phases are skipped. The separate lead, lag phases are also for green band width. Phase 3 had to be re-assigned because of NEMA phase ring logic. Although the programming is not standard and is complicated, in the absence of a Noon peak analysis and a Time/Space diagram, we believe the existing programming is the better solution.
- Montgomery Drive
 - The phantom phase is here to guarantee green band width even when left-turn phases are skipped. The separate lead, lag phases are also for green band width. Phase 3 had to be re-assigned because of NEMA phase ring logic. Although the programming is not standard and is complicated, in the absence of a Noon peak analysis and a Time/Space diagram, we believe the existing programming is the better solution.
- PEDESTRIAN SIGNALS/PHASING
 - Montague/Western
 - Only the phase 2 pedestrian movement was on recall.
 - St. James
 - St. James - IC repaired, ped button repaired
 - Sleepy Hollow
 - Ped buttons repaired, Phase 6 timing corrected.
 - Kyles Lane
 - ped button repaired
 - Winding Way/Crestview Hills
 - Hardware was repaired as recommended. Currently both side streets are being rebuilt as part of CHM renovation, system operation is spotty due to construction.
 - Erlanger Town Center
 - Ped buttons repaired
 - Commonwealth
 - Ped buttons repaired.
 - Bartlett/May
 - This signal will be rebuilt in 2005. Ped signals and programmable heads will be added. Access management will first be tried to address the driveway issues.
- EMERGENCY PREEMPTION SETTINGS
 - Arlington Road
 - Arlington - Interconnect (IC) is operational. Emergency Vehicle Preemption (EVP) has been removed.
 - Highland - Fire Station pre-emption works

- **FALSE CALLING LOOP DETECTORS**
 - St. Joseph
 - Loop and Conflict Monitor have been repaired.
 - Kyles Lane
 - Left turn loops repaired. Left Turn Type (LTT) corrected.
 - Buttermilk Pike
 - loop repaired
 - Arcadia
 - Loop has been repaired.
 - Turkeyfoot/Hudson
 - Turkeyfoot - Phase 4 loop amp repaired.
 - Rosemont/Crestview Hills Mall
 - Hardware was repaired as recommended. Currently both side streets are being rebuilt as part of CHM renovation, system operation is spotty due to construction.
 - Garvey/McAlpin
 - Loop amp was repaired.

- **YELLOW LOCK ISSUES**
 - St. James
 - Phase 2 yellow lock removed.
 - Edgewood
 - Due to number of inexperienced drivers, protected only LT phasing and Yellow Lock will stay.

- **COORDINATION ISSUES**
 - St. James
 - Phase 2 was the coordinated phase.
 - Sleepy Hollow
 - Phase 6 timing corrected
 - Commonwealth
 - Phase rotation due to green band width. Protected-only movements due to sight distance concerns.

- **LEFT TURN TRAP**
 - Kyles Lane
 - Left Turn Type (LTT) corrected
 - Turfway/Main/Rose
 - LTT corrected, IC connected for clock re-sync, this intersection is in PM peak system operation. Other time of day cycle lengths are too short to handle the long ped clearances required at this intersection.

- **LAGGING LEFT TURNS**
 - Buttermilk - Phase rotation is due to wider green band for progression
 - Commonwealth - Phase rotation due to green band width. Protected-only movements due to sight distance concerns.

- MISCELLANEOUS
 - Hallam
 - Phase 4 removed from min recall.
 - Bartlett/May
 - This signal will be rebuilt in 2005. Ped signals and programmable heads will be added. Access management will first be tried to address the driveway issues.
 - Garvey/McAlpin
 - Access Management will be attempted to address driveway issues. Loop amp was repaired.
 - Cave Run
 - Cave Run - Recall phases removed. LTT corrected.
 - Beechwood
 - Agree that LT lane is needed.
 - EB I-275 Ramp
 - No need. SB LT permissive at this location is against KYTC policy, because this move is opposed by 3 through lanes.
 - Eastern
 - Table 6 corrected.
- ALL INTERSECTIONS
 - Older versions of WAPITI software have been revised to newer versions. We do not have the latest version at all intersections. The latest versions have no bearing on the base signal operations, the latest versions have changes related to features that we do not use.
 - Routine maintenance has been improved.
 - Placing signals on flash at night is against current KYTC policy.

The following recommendations have not been implemented.

- The intersection of Dixie Highway and Western/Montague should be converted to semi-actuated. This signal currently operates as pre-timed. Several complaints have been received via the internet survey regarding lost time at this intersection.
- The intersections of Dixie Highway with Kenton Lands Road and Montgomery should be reviewed further. The current phasing is very unusual and complex. The Kentucky Transportation Cabinet explains that this phasing is to guarantee adequate green time for Dixie Highway. Once the review of the progression on Dixie Highway is complete and adequate signal timing is implemented, this should no longer be of concern. Maintaining the complex phasing could work against the overall coordination on Dixie Highway. Resolution of this issue should be a high priority.

SHORT TERM SIGNAL TIMING IMPROVEMENTS

The existing timing was evaluated and an existing model was created. For the short term signal timing recommendations, the existing phasing was used, and only changed the existing cycles and splits. This made the implementation of the new timing much easier.

These plans were generated for the AM and PM Peak Hours. The timing plans were provided to the Kentucky Transportation Cabinet on October 27, 2004. Following their implementation, several more travel time studies were conducted. The results of these travel time studies were compared to the original travel time studies to determine the level of improvement. Please see the Capacity Analysis Section (Section 10) of this report for more information regarding the level of improvement experienced as a result of the short term signal timing recommendations.

Following the implementation of the short term signal timing recommendations, several comments were received from the web site questionnaire, as well as telephone calls and emails. Several of the comments are in conflict with other comments. Where problems were identified, the comment was passed onto KYTC. Copies of the comments are provided in the *Dixie Highway Corridor Study: Public Involvement & Modeling Documentation*. The following is a collated list of comments received following the implementation of the short term signal timing recommendations:

Dixie Highway (General)

- The road surface seems rough and most of the corridor from I-275 to Florence is too narrow.
- Need more turn lanes through Erlanger and Elsmere.
- It's a little better. The morning bottleneck in Ft. Mitchell is better and the evening bottleneck through the Erlanger business district is better. [Suggestion:] The lights need to stay green longer during the peak AM and PM times. It's reasonable to trade a couple more minutes turning from a side street for several minutes less at red lights on Dixie. I-75 is nearly useless and should have had more lanes added when they rebuilt it.
- Actually yes, I have noticed an improvement in flow. Ah, the panacea, it won't happen. We cannot have it all. We cannot have smooth unabated flow on Dixie Hwy without a wait on side streets—a good trade off.
- It has been a little better, it seems. I think the road is getting a lot of extra traffic due to the Turkeyfoot project. Once that is done, I think Dixie will be a little better during rush hour. It is still bad though, there is no denying it.
- The side streets have to wait so long for the light to change green that many people are running red lights. The same applies to left turn lanes. Some people think the lights are not working correctly and others know it is a very long wait so rather than just sitting there, they go through the red light.
- Yes, better flow.

Cave Run Dr. – Dixie Highway

- It has been easier (less wait) to get from Cave Run Dr. onto Dixie Highway.

Commonwealth Ave. – Dixie Highway

- I've especially noticed less congestion at this intersection.
- I feel that traffic is flowing better. I feel that I am not sitting in traffic as long as I used to.
- The traffic light here usually creates the worst amount of traffic. It gets bad around the Shell gas station and fast food places as well with everybody wanting to turn in and out. [Suggestion:] I think the only way to make it better is to add a dedicated left turn lane for both directions.

- Bottleneck between Boone county and Commonwealth Rd. going north.
- I have noticed much heavier congestion on my way home around 5:30 p.m. Traffic seems to be backed up much more than usual.

Construction Entrance to Crestview Mall – Dixie Highway

- The traffic light going north on Dixie Hwy by the construction entrance at Dillard’s seems to give a left turn light whether anyone is turning left or not, thus holding up southbound traffic on Dixie Hwy.
- No, the lights are not synchronized to keep traffic flowing. The light at the construction entrance to the mall has not worked properly for weeks.

Dixie Highway from I-75 Northbound Ramp

- This light changes with being activated. It is a waste of time, gas, etc. for this to occur. This should be a “tripper” light.

Dixie Highway onto I-75 Southbound Ramp

- This light was working automatically whether there was a car or not. This, again, should be a “tripper” light so that southbound vehicles stopped here don’t need to wait for nonexistent cars.

Dudley Pike – Dixie Highway

- I’ve especially noticed less congestion at this intersection.
- Slight improvement although still long waits on Dudley Rd. Also, has anyone thought about the increased traffic once the newly completed Crestview Hills Mall is opened?

Hallam Ave. – Dixie Highway

- I feel that traffic is flowing better. I feel that I am not sitting in traffic as long as I used to.

Highland Ave. – Dixie Highway

- The backup on traffic on Highland Ave. in Ft. Mitchell during rush hour has increased significantly (especially between 7:40 and 8:00 a.m.). It now takes an additional 10 – 15 minutes just to go up Highland Ave.
- Traffic backs up on Highland Ave. The red light is too long, especially for people turning left. [Suggestion:] Add a right-turn-on-red lane.
- Not better. All of the cars turning left out of Highland Ave. from Blessed Sacrament School along with the new stop sign on Highland Ave (which has only complicated a bad situation) are very poorly thought out. Blessed Sacrament School cannot filter all of the cars that want to turn left onto Highland Ave. They have a traffic light by the church, but too many cars are turning onto Highland Ave. and it takes way too long to get out. It takes a half hour to get my kids to Beechwood School when it should only be 5 minutes. Try it sometime at 7:50 a.m., any day of the week.
- This light seems longer. Turning left from Highland Ave. to Dixie Hwy takes forever! It’s even worse when I’m turning right, only to be stuck behind someone in front of me turning left. Is it possible to make a right-only lane there? I think the street is wide enough. There have been times when I’m waiting to turn left, and although there are no cars in either direction on Dixie Hwy, I am still stuck there. Is there anyway to fix that?

- The improvements are backing up traffic on Highland Ave., especially in the mornings. 15 – 30 minute delays are typical to get on to Dixie Hwy. The flow on Dixie Hwy needs to be improved so we can get to I-75 in a timely manner.

Hilton Dr. – Dixie Highway

- The signal coming out of Hilton Dr. is too short. At 2:45 p.m. the wait at the light has traffic backed up for at least 20 minutes. If there were to be an emergency, emergency vehicles would be hampered in their attempt to access and leave Hilton Dr.

Kenton Lands Rd. – Dixie Highway

- I have noticed much heavier congestion on my way home around 5:30 p.m. Traffic seems to be backed up much more than usual.

Kyles Ln. – Dixie Highway

- The left turn signal onto Kyles Ln. should be longer between the times of 4:00 and 6:00 p.m.

McAlpin Ave & Garvey Ave. – Dixie Highway

- Traffic here remains a big problem. Traffic is commonly backed up from this intersection all the way back to Commonwealth Ave. Nine times out of ten that I drive down Dixie Hwy, I am stopped at that light. Often I am stopped when there are few or no cars waiting at the side streets. [Suggestion:] I think one way to ease some of the congestion would be to allow right turn on red with caution from the side streets onto Dixie Hwy, and thus increase the amount of “green light time” for Dixie Hwy through traffic. The best solution would be to make McAlpin and Garvey meet so they both operate off the same traffic signal.
- The railroad crossing at Garvey does not allow traffic to flow well.

Orphanage Rd. – Dixie Highway

- I have noticed a vast improvement. It used to be a terrible wait from this intersection until you passed Beechwood Rd.

Sleepy Hollow Rd. – Dixie Highway

- Vehicles here need a right turn arrow to tell them when they can safely stop and turn right on red onto Dixie Hwy. They don't have a way of knowing how long southbound Dixie traffic remains stopped (waiting for the light that permits northbound Dixie traffic to turn onto Sleepy Hollow Rd.). The “regulars” have become emboldened into assuming they can flow from Sleepy Hollow Rd. onto southbound Dixie while barely slowing down. This problem is magnified by the fact that they are generally merging directly into the middle (passing) lane to get into position to turn left onto Kyles Ln.

St. Joseph Ln. – Dixie Highway

- This light should always be a “tripper” light and not change any more frequently than it does now. Unless the light has changed too recently, once the light has been “tripped” by a car, it would seem to do no harm for the light to change right away. I think the amount of time this light is green is appropriate.

Turkeyfoot Rd. – Dixie Highway

- No improvements during the morning rush hour (7 – 8 a.m.). Cars are crawling close to a stand-still between Turkeyfoot Rd. and Expressway Plaza, going northbound.

After these changes were implemented, several travel time studies were conducted and compared these studies to those performed before the changes took place. (Please see the Travel Time Studies Section-Section 7 of this report.) As a result of the improvements implemented thus far in response to the short-term recommendations, significant reductions in travel time were achieved in a number of locations.

The travel time reductions are presented here. The travel time reductions represent improvements realized following the implementation of the recommendations meant to address the maintenance issues and the implementation of the changes in signal timing. For the PM Peak Hour, travel times for southbound traffic were reduced most significantly between Rosemont Drive and Dudley Road (58%) and between Beechwood Road and Expressway Plaza (51%). During the PM Peak Hour for northbound traffic, travel reductions greater than 50% were measured for segments from approximately Parkside Drive to Turfway Road (61%), Montgomery Drive to Kenton Lands Road, (71%), and Arcadia Avenue to Buttermilk Pike (58%). Similar travel time reductions can also be expected for some segments for traffic during the AM Peak Hour. Based on available data, it would be reasonable to expect an overall decrease in travel time for the length of the corridor of approximately 10%.