

SHROYER ROAD TRAFFIC STUDY
CITIZEN COMMENTS AND OAKWOOD RESPONSES

April 8, 2016

Over the last few months, the city of Oakwood studied the Shroyer Road corridor between Dorothy Lane and Dellwood Avenue. The study was conducted by CMT Engineers in furtherance of longstanding goals and objectives in the Oakwood Comprehensive Plan, and in response to a citizen petition expressing concerns about roadway and pedestrian safety. This section of Shroyer Road between Dorothy Lane and Dellwood Avenue is roughly one mile long and is on the eastern edge of Oakwood, adjacent to the Kettering/Oakwood corporation line.

The purpose of the study was to identify countermeasures to improve the safety performance of Shroyer Road for all transportation modes (e.g., vehicle, pedestrian, bicycle) by reducing all crash types. The study proposed implementing a *Road Diet* concept reducing the vehicle lanes on Shroyer Road from four to three. The 3-lane section would include single through lanes in each direction, exclusive left turn lanes at intersections, a bike lane on both sides of the street between the roadway and the adjacent curb, raised center medians with grass, and two mid-block pedestrian crossings along the one mile length.

The city of Oakwood conducted public meetings on February 23, 2016 and March 3, 2016 to: 1) explain the findings of the safety study; 2) discuss how the proposed countermeasure would impact users of the Shroyer Road corridor; and, 3) receive public input. The meetings were announced via letter mailed on February 4, 2016 to all property owners and tenants along the one mile Shroyer corridor. This included about 200 mailings. They were also announced via a February 9, 2016 press release. About 30 residents/property owners attended the February 23 meeting and about 20 attended the March 3 meeting.

Almost all attendees had comments about the current conditions on Shroyer, and on the proposed *Road Diet* countermeasure. At both meetings, a majority of the attendees appeared to support the *Road Diet* concept. While recognizing that there are pros and cons, it appears that most citizens agree that the pros outweigh the cons.

In addition to verbal comments at the meetings, citizens were encouraged to submit written comments. Oakwood received written comments from 27 citizens. In reviewing the comments, 18 generally favored the proposed safety improvements and 9 opposed it.

The following is a compilation of the concerns expressed at the public meetings and those provided in writing. After each concern is a response (*italicized text*) from the city of Oakwood.

1. Since RTA buses will periodically stop traffic for loading and unloading, how will the city ensure that stop times are minimized?

Response: Oakwood staff met with RTA staff to discuss this issue. The section of Shroyer Road in Oakwood currently includes seven bus stop locations in the northbound direction and eight in the southbound direction. Based on low ridership numbers and the short distances between bus stops, RTA has agreed to eliminate two stops in each direction. The greatest impact of RTA buses will be experienced when the bus travels through the area during the peak am and pm traffic periods. Based on extensive traffic counts, the worst conditions will occur on weekdays, once in the morning and once in the afternoon. The worst case condition will occur one time daily in the southbound direction on a weekday afternoon during the peak traffic period. Vehicles that form behind the RTA bus may result in queue lengths up to 1,000 feet. It would take approximately 3.5 minutes to travel Shroyer Road in Oakwood during this worst case time period – the travel time assumes bus loading/unloading activity at 4 of the designated bus stop locations. Current travel time through this corridor during that time period is about 1.7 minutes.

2. How will the city ensure that emergency vehicles can negotiate the corridor in traffic, given the proposed single vehicle lane configuration?

Response: Emergency vehicles from the city of Oakwood will travel to and from emergency locations around Shroyer Road via the closest side street and not north and south on Shroyer Road. Regardless of the origin and destination of the emergency vehicles, Far Hills Avenue (SR48) provides a more direct route than Shroyer Road, even in the current 4-lane configuration. For emergencies on Shroyer Road, it is expected that motorists will either move quickly to a side street or will keep right to permit emergency vehicles to pass. In extreme cases, emergency vehicles could drive onto and across the raised center medians. Mounting of the raised medians by emergency vehicles is expected to be rare. Emergency vehicles from other jurisdictions that are traveling through Oakwood will likely use Far Hills Avenue (SR48) or Wilmington Pike to reach their destinations, most likely hospitals in the region.

3. How will the City prevent cars from using the bike lanes to get around slow-moving vehicles?

Response: The proposed design with 11.5 foot travel lanes and adjacent five foot bike lanes will not provide sufficient space for drivers to comfortably pass slower vehicles.

4. How much vehicle traffic is expected to divert to the adjacent residential plats after the raised medians are built, due to the elimination of left turns to and from some driveways?

Response: U-turns movements will be permitted at the unsignalized intersections along Shroyer. It is anticipated that most drivers will make the U-turn rather than travel through adjacent residential neighborhoods. All of the adjacent residential neighborhoods are densely populated, and have 25 mph speed limits and on-street parking. It is anticipated that most drivers will find detours through the residential neighborhoods to be much more cumbersome and time consuming than making U-turns on Shroyer Road.

5. Why can't the city improve safety by just reducing the speed limit and increasing police enforcement?

Response: The city already performs extensive traffic enforcement along Shroyer Road, and will continue to do so in the future. Over the last four years, nearly 15% of the total traffic citations written by the Oakwood Public Safety Department were for vehicles on Shroyer. Traffic studies have shown that simply lowering a speed limit and increasing police presence is not an effective or efficient method of speed control. A roadway design that reduces pavement width, particularly in the case of Shroyer Road, is a more effective tool to reduce operating speeds.

6. Given the number of vehicles that use Shroyer Road, is it really safe to have designated bike lanes on both sides of the street?

Response: Yes. Providing dedicated bike lanes on both sides of the street creates a safer environment for a cyclist than not having bike lanes. The inclusion of bike lanes in roadway design is a national trend that is expected to continue in the decades ahead. Bike lanes will also enhance pedestrian safety by increasing the lateral distance of vehicles from the existing north/south sidewalks.

7. Will the proposed 3-lane roadway plan make it more difficult for vehicles to turn onto Shroyer from side streets or from exiting private driveways?

Response: During the am and pm peak traffic periods, it will likely take longer to find a gap allowing the right or left turn onto Shroyer Road, either from a cross street or from driveways. Drivers may need to wait a few more seconds for an opening during heavy traffic periods, but it will be a safer movement. Finding an acceptable gap for the 3-lane configuration will occur given the expected lower speeds on Shroyer Road, and the single lane approaches. Also, sight lines towards approaching vehicles will be improved with the addition of the bicycle lanes, which will move vehicles five feet towards the center of the roadway.

8. Will the reduction to a single lane in each direction make it even more difficult to back out of driveways onto Shroyer Road?

Response: No. The difficulty in backing out of driveways is most pronounced during the am and pm peak traffic periods. During the majority of the non-peak traffic periods, this is not an issue. The difficulty in backing out of driveways exists under the current 4-lane design, particularly given the degree to which vehicles weave back and forth between the two lanes. The 3-lane configuration will result in a larger number of vehicles in platoons, and fewer perceived opportunities to back out into the roadway. However, with the second lane removed, the gaps between platoons will provide a much safer entry onto Shroyer Road. Drivers may need to wait a few more seconds for an opening during heavy traffic periods, but it will be a much safer movement.

9. How will the level of service for traffic be impacted during peak traffic periods?

Response: Roadway levels of service (LOS) are considered acceptable for values of LOS D or better for local roadways. Based on extensive traffic counts, the Shroyer Road Traffic Study predicts that the level of service for traffic on the side street approaches will be impacted at the most critical intersections within the study area as shown below:

CROSS STREET	Existing Condition (4 lane section)		Proposed Condition (3-lane section)	
	DELAY (SEC)	LOS	DELAY (SEC)	LOS
Claranna Ave	19.3	C	30.5	D
Wiltshire Blvd	23.6	C	32.8	D
Greenmount Blvd	14.1	B	21.0	C

10. How will delivery trucks or moving vans access certain mid-block properties if they cannot park in the roadway?

Response: Delivery trucks or moving vans will need to park on adjacent cross streets, in driveways, or in alleys behind properties.

11. Why can't pedestrian safety be improved by just building some crosswalks or assigning crossing guards during certain time periods?

Response: Under the current roadway configuration, a pedestrian wishing to cross Shroyer Road must travel across four consecutive lanes of traffic, two in each direction. There exists no center raised median for a refuge island, nor is there space to construct one given the constraints of the 4-lane roadway section. Reducing the number of travel lanes improves pedestrian safety by reducing the effective crossing distance.

12. How will city vehicles access the areas for maintenance purposes (e.g., lawn mowing, utility repairs) if there is no extra lane in which to park?

Response: For lawn mowing and any other landscape maintenance, city vehicles will park on side streets and will take small equipment onto the raised medians. Depressed curbs will be built on the north and south ends of each raised center median to provide access. Utility line repairs will be addressed on a case by case basis. Certain conditions may exist, from time to time, when a roadway detour will be required. An example is a water main break at a mid-block location.

13. How will northbound Shroyer Road traffic access the Tudor Day Spa parking lot at Dellwood and Shroyer if a raised center median is built north of Dellwood?

Response: This is an issue that will be decided during the detailed design phase of the project. The two options are as follows:

- Design the raised center median at this location so that the northbound left turn movement into the parking lot is maintained as it exists under the current roadway configuration.
- Require that northbound traffic turn left onto Dellwood Avenue, right onto Acorn Drive, and right into the parking lot. Advance signage alerting drivers of this movement could be considered, if needed.

14. Why not just install one or two traffic signals along the corridor to slow traffic and provide safer pedestrian crossings?

Response: Installation of traffic signals are not proposed for two primary reasons:

- None of the intersections along this portion of Shroyer Road have traffic conditions that meet any of the nine traffic signal warrants described in the Ohio Manual of Uniform Traffic Control Devices (OMUTCD). The OMUTCD clearly states that "a traffic control signal should not be installed unless one or more of the factors (warrants) are met".
- Traffic studies have shown that traffic signals are not effective in addressing roadway speed concerns.

15. Will the single lane design result in more rear end crashes, either from cars slowing to make right turns, or just because of the heavier traffic in one lane?

Response: The "traffic calming" effect of the 3-lane roadway section will reduce the 85th percentile speed on Shroyer Road. Also, the roadway topography, in the current configuration and in the proposed 3-lane configuration, provides adequate sight lines in both directions. These factors taken together mitigate the likelihood of increased rear end crashes.

16. Why not just establish the 3-lane concept with roadway striping where the center is a two-way left-turn lane?

Response: Studies have shown that safety performance is better with raised medians versus two-way left-turn lanes (TWLTL). The raised median concept creates a greater "traffic calming" effect than the TWLTL concept. This will result in a more significant reduction in the 85th percentile speed and a safer roadway for vehicles, pedestrians, and cyclists.

17. Will the project include aesthetic treatments (e.g., plantings or trees) in the raised center median?

Response: The project will include building the raised medians, placing topsoil and planting grass. Conduits under the roadway and between the islands are included in the project to provide for future installation of irrigation lines and electrical circuits. Future improvements will likely include tree plantings and perhaps other decorative landscaping in the raised medians.

18. Will the mid-block crossings be included in the project?

Response: Yes. Improving pedestrian safety is a very important component of the proposed changes to Shroyer Road. The project includes enhanced mid-block crosswalks at two locations. The enhanced mid-block crosswalks are proposed to improve safety for pedestrians at the higher volume crossings of Shroyer Road. One location is between Telford Avenue and Aberdeen Avenue, and will primarily benefit students walking to and from school. The other location is between Wonderly Avenue and Orchard Drive, and will likely be used mostly to access Orchardly Park, Oakwood's most popular and heavily used neighborhood park. The mid-block crosswalks will create a condition where pedestrians need only consider one lane of traffic at a time, versus the current four lanes. Also, the pedestrian refuge island will increase the number of crossing opportunities because pedestrians will only need to consider one direction of traffic at a time.