

May 17, 2004

To the Herman Goldstein Award Selection Committee:

I am pleased to nominate the Charlotte-Mecklenburg Police Department's Providence High School Traffic Plan for the 2004 Herman Goldstein Award.

This project exemplifies the application of the SARA Model to traffic issues that affect the safety and quality of life in a community. Officers in our department are taught to address traffic issues through the appropriate combination of education, engineering, and enforcement. In this project, the officer used all three elements to solve a problem that had existed for two years and had not been successfully addressed by traditional enforcement techniques.

I appreciate your consideration of this project for the Herman Goldstein Award.

Sincerely,

Darrel W. Stephens
Chief of Police

The Providence High School Traffic Plan Executive Summary

Scanning:

- Citizen complaints regarding student drivers around Providence High School
- Students making u-turns onto Hugh Forest Road to avoid traffic light at intersection; caused accidents and blocked residents trying to leave the neighborhood to get to work

Analysis:

- First hand observation by officers conformed dangerous traffic patterns
- Problem had persisted for two years; previous police response had been enforcement
- Providence High School administrators indicate that 1800 of 2400 students arrive at school by car

Response:

- Charlotte-Mecklenburg officers taught to address traffic problems by using 3E's: education, engineering, and enforcement
- Engineering used to add No U-Turn signage and redesign traffic patterns going into the school
- Education used in video for students and newsletters for parents
- Enforcement used after new traffic patterns in effect; repeated on a periodic basis

Assessment:

- Decrease in violations after initial round of citations; students following desired traffic patterns
- Accidents decreased by 71% in August-December 2003 as compared to same period in previous year

The Providence High School Traffic Plan

Scanning

Toward the end of September 2002, the Charlotte-Mecklenburg Police Department's Baker Two District began receiving complaints about a traffic issue related to Providence High School located at 1800 Pineville-Matthews Road. Pineville-Matthews Road is a four lane road that is heavily traveled by commuters during morning rush hours. The complaints centered on student drivers who were creating a dangerous situation at one of the intersections near the school at Pineville-Matthews Road and Hugh Forest Road. Residents reported that students were blocking the intersection of Pineville-Matthews Road and were turning onto Hugh Forest and making a u-turn in the road in order to avoid a traffic light at the intersection. The problem was most prevalent during the thirty minutes from 6:50 to 7:20 a.m. This traffic pattern blocked in residents of Hugh Forest Road who were trying to get out of their neighborhood to go to work and created a safety hazard for both the neighborhood and student drivers.

In June of 2002, the Baker Two District had created a Traffic Safety Task Force that was assigned the task of applying problem solving techniques to the traffic problems in the area. When the complaints about Hugh Forest Road surfaced, Officer William Irby was assigned the task of devising a solution to the problem.

Analysis

Officer Irby began his analysis by doing first hand observation of the problem. He and Officer R. M. Champion monitored the intersection for a week to understand the traffic patterns. They also used the department's helicopter to get an aerial view of the problem.

The officers found that the traffic problems were as bad as or worse than residents had reported. Students had the intersection blocked and in a continuous state of gridlock. Students coming down a street named Beverly Crest Boulevard were not waiting in the left turn lane to turn onto Pineville-Matthews Road but were either turning left from the straight lane or crossing Pineville-Matthews Road onto Hugh Forest Road, making a u-turn and then turning right back onto Pineville-Matthews Road. The gridlock and the traffic violations made this a dangerous intersection. Approximately 20 accidents had been reported in this block range. The accidents further impeded the traffic flow on a road which carried 3,000 to 5,000 vehicles during the 30-40 minutes each week day when the problem was most severe.

As he monitored the traffic patterns, Officer Irby used the opportunity to talk with neighborhood residents who expressed their growing frustration with the problem. The community had no alternatives as there was no alternate route in and out of their neighborhood. They were pleased by the police presence and the promise that the officers were working to devise a solution.

Officer Irby found that the complaints had begun as far back as 2000. At that time, officers had tried to solve the problem by directing traffic in person and overriding the existing traffic lights. While that provided relief when the officers were on the scene, it was a solution that was much too dependant on police resources and put a strain on limited manpower during hours when there were traffic problems all over the heavily populated district. Obviously the solution was short term as the problem was only addressed when officers were actually on the scene.

As he continued his analysis of the problem, Officer Irby approached the administrators of Providence High School to obtain some student data and see if they would be willing problem solving partners. Officer Irby found the school administrators to be very receptive to working with him. The told him that of the school's approximately 2400 students, only 600 rode the bus. This meant that approximately 1800 students arrived at the school by vehicle, either driving on their own or brought to school by parents. The traffic gridlock often caused students to be late to their first class. Students were also involved in traffic accidents, the majority of which were caused by their unsafe driving behavior. The administrators shared Officer Irby's concern that the traffic problems were being caused by a young student population of inexperienced drivers who, especially when carpooling, were easily distracted. Several local high schools had suffered the pain of student traffic fatalities within the last few years and Officer Irby was determined to find a solution to the problem before Providence High School experienced the same fate.

Officer Irby knew that he needed a long term solution to the problem if he was to achieve the goal of making the streets around Providence High School safer for students, neighborhood residents, and other rush hour commuters. Charlotte-Mecklenburg Police officers are taught that traffic problems should ideally be approached through application of the 3 E's: Education, Enforcement, and Engineering. As with crime problems, most traffic problems are not solved through enforcement alone. They require education of the motorists involved and, in many cases, changes in traffic signals, signage, or actual physical changes to an intersection. Officer Irby decided to put his training to work and devise a solution that combined all three elements.

Response

Officer Irby began devising a multi-faceted approach to the problem that incorporated enforcement, education, and engineering. He enlisted the help of Chip Gallup with the City's Department of Transportation to evaluate the problem and talk about possible solutions. Gallup came out to Pineville-Matthews Road during the early morning rush hour around the school and observed the traffic patterns and the accident problem first hand. Officer Irby asked him if the Department of Transportation could place No U-Turn signs on Hugh Forest Road so that police could take enforcement action against those students who made the improper turns. After evaluating the congestion problem and the unsafe movements, Gallup agreed that the signs would be posted on November 1, 2002. The U-turn in question was not in conjunction with a median but was on a straight street.

Since that was not a common way to use a No U-Turn sign, Officer Irby contacted the Police Attorney to be sure that, if the signage was installed, it could be enforced. The Attorney's Office felt that the enforcement would be valid and gave the green light for the signs to be installed.

Officer Irby knew that the prohibition on U-turns onto Hugh Forest road would not be sufficient to alleviate the congestion problem unless the traffic flow into Providence High School was redesigned as well. Irby worked with the Assistant Principal at Providence High School to redesign the way traffic entered the school. Irby and the principal got the Department of Transportation to agree to extend the cycle on a left turn light off of Pineville-Matthews Road going into the school. The light stayed green for 20-30 seconds, allowing approximately 20 cars to go through on each cycle. The Department of Transportation agreed to add an additional 10 seconds to the light cycle, enabling approximately ten additional cars to go through on each green turn arrow. The timing of the traffic light and the intersection of Pineville-Matthews Road and Hugh Forest Road was also evaluated and changed.

Officer Irby and the principal then decide to limit the way that vehicles could go in and out of the front entrance of the school. They blocked a traffic circle in front of the school and redesigned the traffic pattern so all vehicles had to come in at the first entrance to the school, drive straight through, and then exit from the second entrance. When the new traffic pattern was implemented, school administrators, wearing orange traffic vests, stationed themselves in front of the school and kept traffic flowing until parents and

students got used to the new system. An off-duty officer was hired temporarily to work the intersection with the left turn light.

Irby also looked at the traffic patterns for entering the school from the opposite direction. While traffic would also back up as commuters would approach the school, there were fewer options for a traffic engineering solution. Officer Irby and the principal devised a new way for traffic from that direction to move by having all vehicles enter through the student entrance and exit by the bus entrance. This new traffic pattern gave the vehicles a set pattern to travel and moved cars in and out of the school more safely and efficiently.

As the time drew nearer for the November 1 installation of the No U-Turn signs on Hugh Forest Road, Officer Irby decided that it was time to begin the educational component of his problem solving plan. Officer Irby and the School Resource Officer assigned to Providence High School made a video that was played during the school's morning announcement period. The video outlined the problems that were occurring between 6:50 and 7:20 a.m. on Pineville-Matthews Road. The officers talked about the installation of the No U-Turn signs on November 1 and made it clear that students would be issued traffic citations for any violations. The video made a plea to the students for voluntary compliance with the new signage. Information was also included in the PTA newsletter that was sent to parents so they would have the same awareness of the problem and the impending changes.

Once the No U-Turn signs were installed, Officer Irby waited two weeks to give the students an opportunity to adjust to the new traffic patterns. The Neighborhood Association for the Beverly Crest community had assisted the officers by trimming some trees to make the signs more visible. At the conclusion of the grace period, Officer Irby, again accompanied by Officer Champion, returned to the area around Hugh Forest Road to watch for violators. The officers positioned themselves out of sight and monitored the intersection. Conscious of the traffic flow issue during the school rush hour, the officers did not physically stop the violators as they were spotted. If they saw a violation, they took down the tag number, and wrote descriptions of the vehicle and the driver. After running the tags, they went to the school where the violators were called to the office to be issued their citations. An average of 10 citations a day was issued on four days the first week and two days the following week. After that the violations decreased as students altered their driving behavior or, in some cases, changed their route to school. One of the local television stations broadcast a story on the dangers of the intersection and the work that police had done to make commuting more safe for both students and neighborhood residents.

Assessment

The officers noted that the violations decreased as students adjusted to the changes and as word spread around the school that students were indeed being issued citations for violations. In December 2002, Officers Irby and Champion again positioned themselves

out of sight and noted that there were few violators to be cited. Most of the students had stopped using Beverly Crest Boulevard as a cut through and were waiting patiently on Pineville-Matthews Road. The reduction in cut-through traffic and unsafe u-turns significantly reduced the complaints from the Beverly Crest neighborhood and all but eliminated the problems.

There has been a decrease in traffic accidents in the area around Providence High School. In the period from August-December 2003, there was a 71% reduction in the number of traffic accidents on the section of Pineville-Matthews Road that includes Providence High School over the same period in 2002.

The solution requires some routine maintenance on the part of district officers, especially at the beginning of each new school year. The success of the project reaffirms that the community problem-oriented policing philosophy does apply to traffic problems as well as crime and quality of life concerns. It also demonstrates that the three-tiered approach of education, engineering, and enforcement is the appropriate way to achieve a long-term solution to a traffic problem. Enforcement alone is labor intensive and, all too often, addresses the problem only while a high level of police resources are concentrated in the problem area. The partnerships achieved through use of the Three E's are the key to making the streets of Charlotte safer for all who use them.

Agency and Officer Information

1. The project was adopted at the patrol district level with the lead being taken by the district's Traffic Safety Task Force
2. All Charlotte-Mecklenburg Police officers receive training in problem solving, both at the recruit and in-service training level.
3. Officers receive no additional incentives to engage in problem solving. Problem solving is a critical component of each officer's annual performance evaluation.
4. The officer drew upon his training in the use of education, engineering and enforcement to address traffic problems.
5. There were no problems identified with the problem solving model.
6. The primary resource was the time of Officers Irby and Champion; all resources were within the department's existing budget.

7. Project Contact Person:

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