Chicago, Lake Shore Drive

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Traffic management concepts and tools have been a part of traffic engineering in the Chicago area for many years. However, it is only recently that these everyday operational techniques have been recognized as important elements in short-range transportation planning, and thus are being coordinated and incorporated into the overall plan of transportation improvements.

Chicago's most important recent construction project has been the reconstruction and relocation of Lake Shore Drive between Huron and Monroe Streets. The major portion of this project began in May 1984, and was scheduled for completion late 1986. The project consists of the complete reconstruction of Lake Shore Drive between Huron and Monroe Streets, including the elimination of the dangerous S-curve just south of the Chicago River. The reconstruction will also eliminate four intersections with signals, which will be replaced with a complicated ramping system, including a two-level bridge and roadway over the Chicago River north to Grand Avenue.

PLANNED DEVELOPMENT AND POLICY ISSUES

In the early planning for this project it was decided that the high volume of traffic crossing the Chicago River at this point (up to 90,000 vehicles per day) precluded the possibility of significantly reducing the number of traffic lanes. However, since this project was part of a larger project to provide new roadways serving the entire Illinois Central Air Rights Development and proposed Ogden Slip Development south and north of the Chicago River, including a new bridge across the river at Columbus Drive, it was possible to devise a detour routing plan that would make use of the newly constructed Columbus Drive Bridge for all of the southbound Lake Shore Drive traffic, while routing the northbound traffic on existing Lake Shore Drive. Although this allowed Lake Shore Drive to be constructed half at a time, it did require delaying the Lake Shore Drive reconstruction until the Columbus Drive Bridge had been completed.

TSM MEASURES

During the construction period, *all* southbound Lake Shore Drive traffic was detoured west on Ontario Street, south on Fairbanks Court and Columbus Drive (both made

one-way southbound) across the Chicago River, and back east on Monroe Street to Lake Shore Drive. Northbound traffic remained on Lake Shore Drive, using whichever half of the roadway was available at the time.

Before starting construction, planners met with transit agencies to work out any necessary bus route changes, to develop a program for encouraging the public to switch to mass transit, and to make any schedule changes that might make it easier for them to do so. They also met with Chicago Park District officials to insure adequate access at all times to the Monroe Street underground parking garage.

An intense towing program was instituted on Ontario Street. This was preceded by a warning ticket program one week before the detour went into effect, to alert motorists to the impending towing.

PLAN IMPLEMENTATION AND MANAGEMENT

Immediately before the detour went into effect, project planners met with the traffic patrol servicemen, the police, and the radio room personnel to make sure that everyone understood the extent of the detour plan and the need for good communication throughout this project.

Since that time, the officials involved discuss and review this project at the Mayor's Traffic Management Task Force weekly meetings and the bi-monthly meetings of the Chicago Area Transportation Study Traffic Operations Committee.

Key traffic monitoring stations on Columbus Drive, Lake Shore Drive, and Michigan Avenue are being kept in operation to keep track of traffic volume changes. In addition, traffic speed trial runs on both southbound and northbound Lake Shore Drive were conducted before the project began, so that adequate data would be available for comparison during construction.

CONSTRUCTION AND CONTRACTING ISSUES

Before construction began, meetings were set up with all three contractors and appropriate resident engineers, project engineers, police, and traffic personnel to make sure that everyone understood the contract provisions that covered installation and maintenance of the detour signs, markings, and barricades. These meetings were also used to set up direct communication links so that any problems or breakdowns could be immediately addressed and corrected.

A Lake Shore Drive Monitoring Task Force composed of all the project engineers and resident engineers, along with appropriate contractor representatives, met approximately once a month to monitor construction progress and resolve any problems.

PUBLIC INFORMATION

The public information campaign began with meetings with aldermen whose districts were affected by the project. These meetings were opportunities to discuss the proposed plan and possible sources of complaints.

Meetings were then held with residential and commercial building managers in the area to work out access problems caused by Lake Shore Drive congestion and/or the Columbus-Fairbanks one-way operation.

Motorists were alerted to the upcoming detour through a comprehensive media campaign. They were actively discouraged from using Lake Shore Drive, particularly during the peak periods. During the campaign, department staff sent information packets to the media, assisted with live broadcasts and interviews with knowledgeable city representatives, held special briefings for radio and TV personnel responsible for broadcasting the daily rush period traffic reports, and made full use of the facilities provided by the city's transportation media consultant, Central Transportation Bureau, Inc. The facilities included weekly bulletin updates, daily hotline information, and up-to-the-minute radio announcements of developing conditions.

Department staff members established a system for maintaining media contact so that the public could be informed of detour changes. And problems or questions by the media could be quickly and correctly answered. Department staff answered questions about project progress and construction problems, while the Central Transportation Bureau dealt with questions about immediate traffic conditions.

EFFECTIVENESS AND LESSONS LEARNED

The results of this effort were evident in the public acceptance of the detour and the relatively few traffic problems observed after the detour began. The initial 40 percent decrease in peak hour through traffic volumes was followed by slow increases in volume, so that by the end of the project, there was only 10 to 15 percent difference between before and after peak hour volumes. On a 24-hour basis, there has been no change in traffic, which ranges from 80,000 to 90,000 ADT. Traffic has increased on parallel arterial streets (Michigan, Clark, and LaSalle), particularly during the morning rush period.

Travel times through the detour area have not changed during the morning peak period. However, four minutes have been added to travel time during the evening peak. Traffic volume and travel speed data are still being collected, and further monitoring reports will be forthcoming.

This reconstruction taught Chicago officials two key lessons. First, it is important to adequately plan the various TSM and public information measures that must be taken before construction begins. Second, such projects absolutely need some sort of on-going interdisciplinary traffic management group that can meet regularly to resolve the inevitable problems that arise during any large construction project.