



GERALD HOLMBERG
Director, Traffic

Sign, Signal Upgrading Underway

Early on a cold and blustery December morning in 1977 crews from the Oakland County Road Commission's Traffic Department scaled poles and strung a pre-assembled wiring harness across an intersection that carries 100,000 vehicles daily.

They removed existing signal lights and attached newer, larger ones to the harness. They connected the harness to wires that had previously been imbedded in the pavement and to a computerized controller.

Within a few short hours traffic at Southfield and 10 Mile Roads,

the most heavily travelled intersection on the county road system, was regulating itself—and the accident rate began to fall.

Months of preparation paid off. That preparation included detailed studies, applying for and justifying federal funding, a traffic engineer's innovative pre-assembly and testing of the system beforehand, and obtaining cooperation of Southfield police who served as old-fashioned traffic cops during on-site work.

Thus was established the first traffic-actuated signals on the Oakland County road system. The Traffic Department then turned its attention to obtaining necessary funds to install six more, to its programs to interconnect signals on other routes and to upgrade signs throughout the road system—in addition to its routine duties.

ACTUATED SIGNALS

Next to receive traffic-actuated signals, tentatively in the Spring of 1979, will be the intersections of:

- Greenfield and 10 Mile Road in Southfield and Oak Park.
- Southfield and 12 Mile Road in Southfield and Lathrup Village.
- Southfield and 13 Mile Road in Southfield and Beverly Hills.
- John R and 12 Mile Road in Madison Heights.
- Grand River and Novi Roads in Novi.
- Crooks and I-75 in Troy.

TRAFFIC SIGNAL INTERCONNECTS

The traffic signal interconnection project will involve 45 intersections on five county roads, as follows:

- Cooley Lake Road from Union Lake to Hospital Roads in West Bloomfield and Waterford Townships.
- Middlebelt from 9 Mile to Maple in Farmington Hills.
- Orchard Lake Road from Shiassee to Long Lake Road in Farmington, Farmington Hills, West Bloomfield Township and Orchard Lake Village.
- Big Beaver from Adams to Dequindre in Troy.
- Maple from Coolidge to Dequindre in Troy.

SIGN UPGRADING

The sign upgrading involves two projects totalling \$507,600 county-wide on the 2,450-mile road system.

Included are improved railroad crossing signs at 278 locations, new lane transition signs at 263 locations, other new signs at 2,095 locations and relocating of 1,040 signs.

SCHOOL CROSSINGS

Separately, the Traffic Department was involved in proposing and justifying a \$110,000 project of school speed limit signing at 52 locations and special "School" legend, crosswalk and stopbar markings on pavements at 116 school locations. That project was approved for federal funding in mid-1978 and contracts for it were let by the Michigan Department of State Highways and Transportation in August.

REGULAR FUNCTIONS

All the while, the department carried on its regular functions, which in 1977 included, according to Director Gerald Holmberg, a registered professional engineer:

- Fabricating 8,381 signs, installing 2,614, repairing 12,692.
- Designing and laying out construction signing and pavement marking for 131 county road improvement projects.
- Installing or repairing 44,434 feet of guardrail and 14,670 feet of fencing.
- Painting 2,723 pass miles of pavement, 877 crosswalks, 1,335 stopbars and 1,065 legends.
- Installing 31 new electrical signals, modernizing 59 and responding to 612 electrical signal trouble calls.

SAFETY IS HELPED

Incidentally, the 50th anniversary of the yellow "no passing" lines on pavements was observed in mid-1978. This warning "sign" is considered an important factor in the one-fifth reduction in traffic accident rates over the 50 years. Perhaps one of the most interesting pieces of equipment used by the Traffic Department is a truck-based painting rig that paints center, passing and edge stripes simultaneously.

Such painted stripes are renewed twice a year on 677 miles of paved county primary roads; once a year on 74 miles of paved county local roads; and the Road Commission is contracted by municipalities to paint a total of 454 miles of city and village streets.

Traffic Department

There are 670 electrical signals, flashers and other devices on the road system in Oakland County; plus 35,231 signs and thousands of miles of center lines, yellow "no passing" lines, white edge lines, other pavement markings and guard rails and fencing. These important motorists' aids and safety devices are the responsibility of the Road Commission's Traffic Department. It costs \$170,000 per year just to provide electricity to operate signals. The department engineers, fabricates, installs and maintains systems on county and state roads and assists cities. The department has 78 employees under Director Gerald Holmberg, who is a registered professional engineer, and has the third largest operating budget at \$2.4 million for 1978.

Driveways, Driveways

Take a guess at how many driveways were connected to the Oakland County Road system in 1977.

While you're guessing, keep in mind that the only known driveways are those for which the required permits were obtained from the Road Commission's Department of Permits and Special Uses for connection to the 2,450 mile county road system.

Did you guess 3,055? You're right if you did.

Almost half of those were added in Avon (808) and West Bloomfield (704) Townships, where new subdivision developments are occurring at the fastest pace. Large numbers were also added in Bloomfield (230), Waterford (320), Commerce (153), Highland (191) and Orion (181) Townships.

The department issued a total of 7,114 permits for all purposes during the year, including 1,578 for one-time travel with a greater than standard load weight, 1,377 for annual, above-standard load weights, 505 for underground activities, 239 for commercial approaches, 41 house moves and 37 parades.

Permits were also issued for and inspections accomplished on 6,500 lineal feet of asphalt paving overlay, 2,000 lineal feet of curbing, 7,667 lineal feet of road graveling and 20,682 lineal feet of shoulder gravel replaced by utility companies after construction activities.

A total of \$97,013 was collected in fees, reported Department Director James Dunleavy.

Meanwhile, the department's weighmaster division checked 3,271 vehicles and issued 214 tickets for violations, 175 formal warnings and 1,317 verbal warnings. The division's inspectors travelled a total of 144,437 miles, or the equivalent of 54 times over each mile of road, in carrying out its duties.

This department also biannually publishes a "Truck Operators' Map" which shows special situations on the county road system, such as reduced loading on bridges. The map graphically illustrates the roads suitable for "All-Weather" maximum loading and those which require reduced loading during the Spring frost melt.

Permits Department

To carry out its responsibility for safety and uniformity of special uses of the road system and rights of way, the Road Commission has assigned a department known as "Permits and Special Uses." Truckers know it well, because they come to it for permits and find themselves checked for conformance to laws by the department's weighmaster division. Two other categories of permits and enforcement activity are sizeable also. Commercial or private driveway connections to the road rights of way require permits and are inspected for conformance to standards. Construction on, above or below the road rights of way by others also require a Road Commission permit and inspection. Parades and similar uses are also regulated. The department employs 22 persons under Director James Dunleavy and has a budget of \$450,388 for 1978.

Subdivision Developers Add Mileage

By the end of 1978 subdivision street mileage on the Oakland County road system will total more than 1,000 miles and will be more than 40 percent of the total county road mileage.



JAMES DUNLEAVY
Director, Permits

Such streets are added by developers and at developers' cost, over which the Road Commission has control only of design and standards, said County Highway Engineer Paul Van Roekel.

During 1977 a total of 28.97 miles of new subdivision streets were added. Already in 1978 a total of 16 miles have been added and the pace indicates last year's total will be exceeded by year's end.

Avon and West Bloomfield Townships have experienced the most new subdivision street mileage, followed closely by Independence Township.