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REST AREA/ROADSIDE PARK ADMINISTRATION, USE AND OPERATIONS

Research Project

Prepared for Michigan Department of Transportation

by Louis F. Twardzik and Theodore Haskell

Department of Park and Recreation Resources
Michigan State University

June 1985

1985 July

MICHIGAN STATE UNIVERSITY

DEPARTMENT OF PARK AND RECREATION RESOURCES
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Director
Department of Transportation

February 12, 1986

Mr. James P. Pitz, Director
Michigan Department of Transportation
Transportation Building
425 W. Ottawa
PO Box 30050
Lansing, MI 48909

Dear Mr. Pitz:

It is our pleasure to submit the final report of the research project HPR Planning Study, "Rest Area/Roadside Park Administration Use and Operations".

The draft report has been reviewed by both Michigan Department of Transportation and U.S. Department of Transportation officials and is considered acceptable as evidence of satisfactory conduct and documentation of the work. Publication of the final report has been authorized by U.S. Department of Transportation.

It is our understanding that this is the first time a study has been made of a state system of roadside areas. We found the work both challenging and interesting and appreciated the opportunity to engage in this kind of research.

The cooperation we received from MDOT personnel was outstanding. This applies to central office and field staff. We especially commend Mr. J.W. Bastian, Supervisor, Roadside Development and his staff along with Ross Wolfe, Supervisor, Environmental Unit, for their assistance throughout the project.

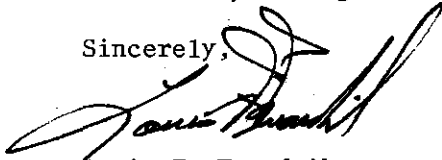
Adding to the uniqueness of this work was the contractual agreement wherein both Michigan State University and the Michigan Department of Transportation contributed financially to the project.

We hope you and your staff find this work useful in your continuing efforts to provide the public with safe and enjoyable travel.

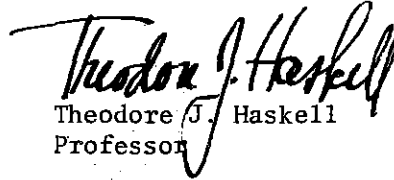
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James P. Pitz
February 12, 1986

The findings of this study lay a foundation for immediate improvements to the MDOT Roadside park system. However, the work has also opened the way to realizing further benefits if the same patterns of study, particularly those relating to user-expectations and economic impacts, could be continued over time. We would appreciate the opportunity to work with your organization in future projects.

Sincerely,



Louis F. Twardzik
Professor



Theodore J. Haskell
Professor

ENCLOSURE

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EXECUTIVE SUMMARY

Rest Area/Roadside Park Administration, Use and Operations

Research Project

THE PROJECT

The one-year project was funded jointly by the Michigan Department of Transportation and Michigan State University to review the organization, methods, and procedures by which Michigan's 217 roadside areas provide services to the traveling public and to address the assumption that these services contribute significantly to the state's tourism industry. Project cost: \$24,320.00.

The methodology included field study of 52 selected locations - rest areas, roadside parks, scenic areas, and tourist information centers - in various regions of the state. The areas were reviewed by the principals during the summer and fall 1984.

Additional data were developed from three other sources: the MDOT Survey, 24,000 interviews of travelers at five rest areas; the County Officials Survey, mail questionnaires sent to all 83 Michigan counties; and the National Survey of State Systems, mail questionnaires from the 50 states.

The attached findings, which are concluding assessments, are presented as the Executive Summary.

SUMMARY STATEMENT

The roadside areas administered by MDOT are adequately maintained and operated.

To achieve higher standards and to develop more fully the potential of the system, its separate components should be integrated into a new functional organization with new styles of management and supervision.

The new regional project manager for parks and tourism is considered the key to the entire system. The integration of roadside services and visitor information services should provide a more efficient and more visible service.

MDOT priority for distributing maintenance funds places highways and bridges above maintenance of roadside areas. Assuming that this priority continues, MDOT should develop new sources of revenue to achieve high quality roadside area operations and maintenance.

Due to the foresight of early highway and roadside planners and to the quality of the state's natural resource base, the potential for an expanding roadside service system is bright. There are, however, continuing conflicting social uses that are causing widespread public concern and that need to be addressed and resolved.

Collectively, this system of linear parks attracts 40 million visits annually. Since the majority are out-of-state tourists, the parks and visitor information centers are often the first welcome they receive, and these areas serve them on a greater scale than any other public or private system. The contribution of these roadside parks and visitor information services to the tourist industry in Michigan has not heretofore been well recognized, but is obviously substantial.

CONCLUDING ASSESSMENT

The following concluding assessments express the general findings of the study.

1. The quality of maintenance varies throughout the districts. Maintenance of grounds and buildings is adequate by general park facility standards. People using roadside rest areas expect a higher level of cleanliness, that is, freedom from odors and litter in the buildings and picnic grounds, because they are not always "dressed for the playground." Maintenance standards, procedures, and supervision must reflect a commitment to providing a safe and enjoyable experience for the visitor. The key to ensuring quality maintenance seems to be a combination of professional supervisory expertise along with interested local employees. District managers should have the freedom to have the work accomplished by state, county, or private contractor under the supervision of professionals with background in park development, vegetative management, and visitor information services.

2. Research done in the course of this study clearly indicates a demand for new and changing services by the traveling public. Preferences expressed ranged from a desire for campgrounds to restaurants. However, the more practical solution is to be found in services normally associated with vending machines. Coin-operated equipment supplies a variety of beverages, snacks, and small convenience items for the traveler. Providing such services in the freeway rest areas should not threaten local economies. Concessionaires of the highest possible quality should be engaged. Malfunctioning devices can result in aberrant and dangerous behavior by tired travelers.

3. Telephones are recognized as one of the most critical services provided to travelers by these areas. There is a general need for more telephones throughout the system. In view of the deregulation of communication systems, these telephones represent a source of substantial new revenues to MDOT. The various telephone companies should be contacted in an effort to determine which can provide the best service and greatest return to the state.

4. Travel information centers should be empowered to sell Michigan postcards, Michigan posters, and appropriate state agency publications.

5. New sources of revenue from vending machines, telephones, and publications should be earmarked to improve the roadside rest area system. One possibility is to develop a program to plant wild flowers, which would enhance the public's perception of MDOT's interest in natural beauty and its contribution to the state tourism program.

6. Since MDOT draws its authority from the basic highway legislation and yet provides open space for recreational use, a problem has developed regarding its legal authority to control the use of the land for recreation purposes, such as camping. Additional legislation may be necessary to fix responsibility and authority for offering or restricting such use.

7. Travel counselors were courteous, attentive, and helpful. While the quality of services in the travel information centers is acceptable, there is a great disparity between those services and others provided to visitors throughout the system.

8. The MDOT research agency should design a new research program for users of roadside areas. The program should highlight user preference, should be systematic, and should be part of a continual evaluation.

9. Certain areas need to be redesigned, especially in terms of access, egress, and sign systems. A new logo should be developed for approaches to roadside areas and should replace the current pole and panel.

10. All roadside rest areas attract both travel and domestic garbage. The goals of the entire system can be compromised if garbage collection is not efficient. District project managers need to give high priority to the contracting of garbage collection. Standards for garbage containers vary throughout the system.

11. Travel counselors are currently provided uniforms and training programs. Maintenance and operating personnel, including rest room attendants, should be recognized as such by the public through an identifiable uniform. Some items can also serve as functional equipment, such as safety helmets.

12. Some of the most attractive Great Lakes beaches in Michigan are administered by MDOT, especially in the U.P. The particular value of these resources should be recognized. MDOT should establish another classification of roadside areas, Scenic Shoreline, and administer them as such.

13. The era of rustic, heavy, wooden construction in parks is past. Design techniques can continue to enhance the outdoor setting, but wooden parking barriers should be replaced by curbs and gutters where appropriate.

14. State legislation provides one percent of highway construction funds for nonmotorized traffic. A major program to pave the shoulders of the state's two- and four-lane highways would enlarge recreation travel opportunities for hikers and bicyclists. New plans and designs also should consider the possibility of purchase or lease of additional right-of-way for horseback riding, ORVs, and snowmobiles.

15. Park design should recognize such standard practices as earth berms, vegetation, and distance from highway noise to enhance the recreation experience of visiting a roadside area.

16. Picnic areas and toilet facilities are generally clean and adequately maintained. This record is exceptional in view of the high volume of use. Extra maintenance workers should be scheduled for busy periods.

17. Police presence is a comfort to travelers. It also deters certain types of crime and behavior. MDOT should establish such a presence through the system by developing a relationship with state and local police authorities, including desk space with appropriate signs and insignia as in the Dundee TIC.

18. The social conflicts that have developed over the use of roadside parks throughout the state by homosexuals will not be resolved easily. MDOT will have to concentrate on intensive maintenance. New design and additional lighting to discourage overt homosexual activity and to eliminate the objectionable graffiti and related damage to minimize the effect of this activity on the traveling public.

19. Prostitution also exists in many of the roadside areas, especially involving truckers. In contrast to homosexual activity among consenting adults, prostitution should be easier to control. MDOT is empowered to call on state and local police to resolve the problem.

20. The survey of highway roadside areas in 50 states, with 43 responding, indicates that 95 percent of such areas are administered by state agencies; 44 percent are also maintained by state agencies. Forty percent allow concessions, 60 percent do not, but 18 percent are planning to use concessionaires.

21. The survey of the 83 counties in Michigan (with a return rate of 80 percent) indicates: 95 percent contract maintenance as part of a package; 55 percent subcontract jobs; and 40 percent use seasonals. Almost all replies were positive about the present system.

22. More than 24,000 personal interviews at five roadside areas - Grand Ledge, New Buffalo, Houghton Lake, Ann Arbor, and Bay City - indicate the following: 53 percent believed better maintenance would improve rest areas; 34.5 percent asked for vending machines; 3.1 percent wanted more internal security; 1.3 percent were interested in restaurants being added; and .8 percent wanted better information.

23. Few state buildings are used by as many people from as many parts of the country as are those in the travel information centers and roadside parks of Michigan. The architectural design reflects on the entire state and should be the most attractive possible.

24. The overall aesthetic potential of the system is high. The maintenance of turf and flower beds is adequate, but the care of trees and shrubs has been neglected. There is a lack of standardization in use of paint. The traditional dark brown is depressing and should be discontinued. The existing alternatives of light green and sand colors are good and should be adopted statewide.

25. Information islands are the one area of service that is often not adequate in quality. The structures frequently shows evidence of wear and neglect; bricks are missing; the information panels often are fogged, making the message unreadable; the messages are of mixed quality, sometimes badly faded. The outdoor information function of the entire system needs restructuring in terms of kind of information, types of presentation, and responsibility of information.

26. The entire system of roadside areas should be evaluated automatically every five years by external authorities. Study of segments of the system and its function, however, should be on-going as management recognizes a need for more information or resolution of conflicts.

27. Although it serves more people than any park system in the state, the roadside network of 217 areas does not receive the public recognition it deserves. MDOT should keep the Michigan taxpayer advised of the system and its functions, as well as make it an important part of the Department of Commerce's various welcoming messages to out-of-state tourists.

28. The trend toward decentralization of management in MDOT suggests the need for professional expertise in park management and tourism in positions of responsibility at the district level. Such project managers would oversee and coordinate planning, operations, and evaluation of the system as well as supervise increasing numbers of contractors.

29. MDOT operates the most highly used park system in Michigan, serving approximately 40 million people a year. This represents a significant contribution to the tourism industry and to the economic development and diversity of the state. These social and economic contributions should warrant a high priority for the roadside development and rest area program within MDOT. The need to provide efficient services, accurate information, and visitor amenities requires professional level management of the system's land and recreation resources. In the same sense that civil engineering brought Michigan a coordinated and unified highway system, the professional approach to land and recreation management is needed to assure the effective delivery of services to such great numbers of the traveling public.

The present delivery system is fragmented and spread throughout parts of the Bureau of Administration and the Bureau of Highways. To meet the continually increasing demand for present and new areas and services, a new Bureau of Roadside parks and Visitor Information Services should be established within MDOT.

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Rest Area/Roadside Park Administration Use and Operation Project

I. Introduction

In late fall 1983, Jack Burton, supervisor of Roadside Development, Michigan Department of Transportation, contacted the Department of Park and Recreation Resources, Michigan State University, about a review and assessment project of the roadside areas in Michigan. A proposal was prepared by Professors Louis F. Twardzik and Theodore Haskell for consideration by Mr. Burton and MDOT staff. The purpose of the study was to review, assess, and make recommendations concerning the use, condition, management, and organization of selected highway rest areas administered by MDOT. The 12-month project began on June 29, 1984.

The costs of the project, including salaries and institutional support, have been shared between the Michigan Department of Transportation and the Cooperative Extension Service of Michigan State University.

II. Background to the Study

The MDOT program of roadside services for travelers originated with the recognition that the department serves people (motorists) and does not simply provide roadways on which vehicles travel.¹ Since the early 1920s the program, which started with a few roadside tables, has expanded steadily. Today the system has 217 separate facilities, including travel information centers, expressway rest areas, roadside parks, roadside table sites, and some of the most spectacular scenic views in Michigan.

The purpose of this study is to review the organization, methods, and procedures by which Michigan's 217 roadside areas provide services to the traveling public and to address the assumption that these services contribute significantly to the state's tourism.

Michigan is considered a pioneer in providing roadside facilities. The earliest were limited to a few picnic tables and stoves by the side of the road in 1919. Some years later the table sites were expanded, and toilets and drinking water were added.

During the years when the parks system was evolving, freeways were built, and a need for safety rest stops on these limited access highways became critical. The first were developed in the early 1960s.²

In contrast to Michigan's systematic approach, the authors have personal experience in other states where the so-called "rest areas" consisted of several tons of crushed rock, a 50-gallon drum for litter, and a concrete picnic table or two. Some of these were located close to or virtually on the shoulder of the highway, providing a bare minimum opportunity to move the car off the road.

Before 1960, Michigan roadside parks consisted of 3 - 5 acres with minor landscaping. The modern rest areas may include 20 - 25 acres with extensive landscaping, including turf, ground cover, ornamental shrubs, flower beds, and shade trees. A major challenge has been to fund the maintenance of these newer areas. Work has been done in improving design and using low maintenance materials that do not require frequent cleaning and repainting. In addition, better maintenance equipment, such as mowers, edgers, and power washers, as well as materials such as fertilizers, herbicides, cleaning materials, and improved paints provide for greater efficiency.

III. Methodology

A. Review of MDOT Historical and Background Materials.

These materials included several historical papers, departmental organizational charts, a series of district work maps giving sketch maps and rest area inventory reports for the areas included in the survey, a large series of maps of roadside parks, and several reports by MDOT

staff regarding possible improvements to the system.

The reference materials included the following: "A Report on Roadside Parks and Picnic Tables, Maintenance Division, Michigan State Highway Department" (1942), "Roadside Parks along Michigan's Trunklines" (E.C. Eckert, Chief Forester, 5th Annual Conference on Roadside Development, Ohio State University, February 1946), "History of Roadside Development in Michigan" (E.C. Eckert, chief forester, Michigan State Highway Department, March 1956), "Our Roadside Development Costs Justified" (remarks by George M. Foster, deputy commissioner, Michigan State Highway Department, 15th short course on Roadside Development, Columbus, Ohio, October 1, 1956), "Tourist Roadside Park Expansion Program" (September 1957, no author), "Rest Areas and Scenic Highways" (E.C. Eckert, September 1962), a compilation of Michigan's safety rest area surveys, no author or publication information but assumed to be MDOT, 1969), "Rest Area Size Average", (July 1965, no author), "Specifications for Roadside Parks" (no date, no author, MDOT), "Expressway Rest Areas - The Evolution of a Park System" (J.E. Burton, supervisor Roadside Development, Michigan Forestry and Park Association, February 1971), "Rest Area Modernization Program" (no author, July 1973, apparently MDOT), "Roadside Development in Michigan" (1975, no author, historical survey), and "Michigan's Rest Area Program" (August 1983, no author, MDOT).

B. Field Review and Analysis of Selected Sites.

The department met with the review team and prepared a selected list of 5 sites, which incorporated 7 Travel Information Centers (TIC), 13 expressway rest areas, 23 roadside parks on two-lane state roads, and 8 scenic areas.

This sampling technique yielded sites that are geographically representative of each of the 8 work districts established by the MDOT. Each of the areas has a geographical name, many have dedicated names, and there is an operational code of a letter and a three-digit number which served to identify the areas. When the final list was approved, these were plotted on a large state map, and field trips were planned to cover each area in an efficient routing method.

When dealing with a large number of very similar areas, it is essential to record data on-site so that subsequent analysis is not dependent on memory. Accordingly, a three-part mutually supporting approach was developed: (1) a check-sheet, (2) a series of 35 mm slides including both overview and detailed pictures, and (3) a professional perception record involving the more subjective elements of the park and its appearance and use. Observations were made on tape recorders and transcribed for further analysis. In addition, interviews were held with MDOT staff, field supervisors and district foresters, and employees working on the sites in many cases, including travel counselors at the Travel Information Centers, state level maintenance crews, district maintenance crews and supervisors, county supervisors and employees, and employees engaged in maintaining the rest rooms, grass, shrub, and flower areas. Some of these included Youth Corps crews that were used in some county operations.

The travel scheduled at intervals through July, August, September, and early October 1984 covered nearly 3,000 miles in all sections of Michigan and offered the opportunity to view and speak with a wide range of travelers.

This travel was done by automobile, which allowed the consultants to view the signing techniques on both interstate and trunkline highways.

On some trips the consultants were accompanied by MDOT roadside development staff on others by graduate research assistants.

Field reviews were made of selected sights in other states, and various observations were made of roadside safety rest areas and some wayside parks in Ohio, West Virginia, Virginia, North Carolina, and Indiana. A special emphasis of these additional observations was to contrast and supplement the basic Michigan study and connect with the national survey of state agencies (see section E below).

C. User Survey by MDOT Personnel.

For some years MDOT has conducted systematic research of rest area users. In 1984 the survey team cooperated in developing the questionnaire which was designed to obtain more detailed information regarding the users that is their satisfactions with the services and facilities offered by the rest areas in addition to the basic data on origin, destination, and number of passengers gathered previously.

The survey was conducted at five rest areas: Grand Ledge, New Buffalo, Houghton Lake, Ann Arbor, and Bay City. A total of 41,383 vehicles passed through the area during the study period; 24,495 interviews were collected, or 59% of the total. These cities are part of the MDOT on-going annual survey program. The survey was monitored by the consultants and direct observations were made of the team in operation at two locations, but overall supervision of data collection was done by MDOT personnel. A summary of the results of the questionnaires was furnished by MDOT.

D. Roadside Facility Survey.

This survey of county officials perceptions of roadside areas was based on recommendations and input from MDOT personnel and the faculty members of the Department of Park and Recreation Resources at MSU. The

questionnaire was divided into three sections: (1) organization/ administration (2) management and operations and (3) function and purpose of roadside facilities. The questions were aimed at providing quantifiable responses for comparison purposes, as well as open-ended questions designed to solicit information on the particular county situation and to generate opinions and ideas. In total, 140 responses were solicited in the 13-page questionnaire.

The survey was mailed November 5, 1984, to to county road commissions in 61 counties in Michigan contracting with MDOT for roadside park maintenance. The return rate was 80%.

E. National Roadside Facility Survey.

The purpose of this survey was to gain information on the management and administration of maintenance contracts for roadside facilities in all 50 states to be compared with the situation in Michigan. The questionnaire was developed by Leon Watson, graduate research assistant, based on recommendations and input from MDOT personnel and faculty members of the PRR Department, MSU. The questionnaire had three sections (1) organization/administration (2) management and operations and (3) function and purpose of roadside facilities. As in the county officials surveys questions sought both quantifiable and open-ended responses. A total of 49 responses was solicited in the 8-page questionnaire. The survey was mailed on November 25 to 49 states (Michigan was analyzed separately). The return rate was 84 percent.

F. Personal Interviews.

Interviews were held with MDOT staff regarding background, observations, attitudes, and their professional perceptions of the developing situation in Michigan regarding the potential of the highway

system and its roadside safety rest areas to aid the state tourism industry.

G. Organizational Analysis.

The organizational analysis reviewed departmental policies, purposes, goals and objectives, organizational structure, and reporting procedure with particular emphasis on the roadside development program. Included were the methods and procedures by which administration, planning, operations, and evaluation were carried out.

IV. Situation in Michigan Today

A. The Original Role of the MDOT Roadside Area and Park Program.

According to various sources, the roadside park and rest area program began in the 1920's. The first land was purchased in 1925, and the first table was placed in Ionia County in 1929. The first roadside park designed and completely developed to provide a safe and enjoyable traveling experience was at a site on US 16 east of Lansing on the Red Cedar River. This was a sharp break with the idea of traditional highway use for moving vehicles and recognized that the highway department had a responsibility to the people and the quality of their traveling experience. In 1930 a roadside tree planting program was initiated to provide shade on the state highways and act as a wind break, reducing the discomfort of sun and blowing dust and snow to the traveler. In 1935 the first Travel Information Center was opened in New Buffalo.³

Prior to 1937, roadside park maintenance was handled by county road commission employees, including the care of the newly planted trees. Recognizing the need for professionally supervised and trained tree workers, the department set up a system of district foresters to oversee plantings, and tree crews of professionally trained workers responsible to the district foresters began the maintenance of these areas.

In 1957 a departmental report noted: "It is believed our department will avoid many complicating problems by limiting our services to those available in present park areas. Should the sale of food and gasoline be included in the parks it would tend to deprive established local businesses of this source of revenue." This apparently was the date this policy was established.

The report continued: "It is extremely important we depart from our present practice of having park areas serviced by road maintenance workmen; rather a full time caretaker should be assigned during the tourist season."⁴

A milestone in the development in the MDOT roadside park program was the amendment to Act 352 of the Public Acts of 1925, which authorized the state highway commissioner to secure property from the owners for proper construction, improvement landscaping, or maintenance, including development, construction, and maintenance adjacent to such highways, roadside springs, parking spaces, and information lodges, in the interest of the beneficial use of such highway by the traveling public.⁵ Before this legislation was passed there was discussion between the State Highway and the Conservation Department about the purpose of Highway Department rest areas as they related to parks administered by the Department of Conservation. "The matter was resolved on the strength of our assurance that the roadside parking area would in no way compete with state park facilities. On the basis of this understanding we agreed to preface the words 'roadside park' with the word 'tourist' to convey the type of use intended for our parking areas. In the same talk Mr. Eckert commented that our "roadside parking areas include only those accommodations which cater to the safety, comfort and welfare of the motoring public. They are in a sense refuse areas where motorists may

stop and refresh themselves during periods of extended driving between distant points."⁶

In summary, the original role visualized by the pioneer engineers and foresters of the highway department was to create "areas of refuge" for the safety, comfort, and enjoyment of the traveling public. Over the years more and more locations were established. In addition, where the highways allowed scenic views of rolling countryside and particularly fine views of lakeshore, the facilities were expanded to accommodate the increasing demand by the traveling public. As the interstate system was developed, the concept was extended to put rest areas along these highways. With the increased speeds possible and the lack of ability to leave the highway at will, the provision of safety rest areas at reasonable distances became even more critical. Although there were improvements in the quality of the facilities -- from pit toilets and wells to modern plumbing and hot and cold running water -- the basic purpose of the program remains virtually the same. Only the means of providing the services and their safe and efficient operation continue to change as technology improves.

B. Emerging Conflicts

As patterns of work and leisure have changed, conflicts have emerged in the administration of this roadside development program. For example, tourism is becoming a force for economic development in Michigan, yet there is a lack of recognition of the critical role of MDOT parks, rest areas, and Travel Information Centers in this industry. Program administrators are faced simultaneously with increasing needs of the traveling public and reduced funding. Changes have taken place in MDOT personnel and departmental structure. Not only are experienced foresters and roadside development supervisors retiring, but also the internal

structure of the department has altered in recent years in a way that has diminished the ability of the professionals to manage the areas and achieve the maximum benefit from investment already made in roadside facilities by the people of Michigan.

In addition, changes in national and state highway program priorities have affected operation and maintenance of roadside facilities. On the one hand, such facilities and structures are considered desirable, as evidenced by funding programs for capital improvements; on the other hand, there have been constraints on monies available for roadside development in competition with other needs in maintaining the nation's transportation system. Federal legislation as early as 1933 provided that not less than one percent of federal highway funds be allocated to roadside work.

Some of the problems are user-oriented: littering, vandalism, graffiti (both benign and obnoxious), use of roadside areas by homosexuals and prostitutes; heavy use of certain areas by truckers; heavy use of telephones by business people; and adverse effects on grass and other plant materials due to extremely heavy foot traffic in some areas.

Training and turnover of maintenance workers is a problem, especially when high use is made of seasonals. Equipment is needed to increase worker productivity, for example, power-washers in rest rooms and vestibule areas and aerators to help relieve soil compaction.

Finally, the roadside development organization has been affected by the retirement of skilled technical workers and supervisory personnel.

C. Increasing Role of MDOT

The original concept for locating roadside rest areas -- for driver safety, comfort, and enjoyment -- meant spacing the sites approximately

every 25-35 miles. When the concept was applied to freeways, an effort was made to locate areas at the approach to major cities so the traveler could stop for helpful information or telephone ahead for business or recreation reasons. An emerging problem today is the use of these areas near cities by truckers, who pause there before making their run into town in the early morning. The original parking areas were not designed for today's large over-the-road trucks.

One change in user preference involves meals and food. The original designs that provided drinking water and tables assumed that travelers would bring picnic lunches. When the first turnpikes and toll roads were built, it became obvious that it was not only more convenient to the public but also economically advantageous to the toll road operators to provide food and gasoline. These facilities are common on turnpikes and toll roads throughout the east and midwest. In Michigan, clusters of fast food establishments have grown up around the major interchanges, responding to the need of the traveler without a picnic basket. It has been necessary to consider the interests of both local restaurant operators, who depend partly on travelers' business, and of those traveling late at night or who prefer only a snack or drink that does not require leaving the freeway very long. Snacks also serve a safety function by offsetting driver fatigue without undue delay. Several states are pioneering the use of vending machines in roadside rest areas.

V. Analysis and Recommendations

A. Field Review Analysis and Recommendations

1. Maintenance

The quality of maintenance varies throughout the districts, but for grounds and buildings it is adequate by general park facility standards. People using roadside rest areas expect a high standard of

cleanliness, that is freedom from odors and litter in the buildings and picnic grounds, because they are not always "dressed for the playground." Maintenance standards, procedures, and supervision must reflect the commitment to providing a safe and enjoyable visit. The key to quality maintenance seems to be a combination of professional supervisory expertise along with interested local employees. District managers should have the freedom to have the work accomplished by state, county, or private contractors under the supervision of the professionals who have background in park development, vegetative management, and visitor information services.

Contracting and Subcontracting

The roadside areas are maintained in part by state highway department employees operating from the district garages with some people reporting to several cities, by contract with county road commissions, and by contract with private firms. In some cases work is contracted to the county and then sublet to one or more private businesses. The county officials' survey examined this issue in some depth and found on the basis of experience that some counties prefer to subcontract (55 percent) and other preferred to do the work with their own county employees.

More private contracting would relieve MDOT staff from the pressure of personnel management. Such contracting increases the need for a standardized maintenance plan and specifications, as well as frequent inspections to ensure that contractors deliver the required services. The U.S. Army Corps of Engineers has developed a videotape to illustrate contract specifications and to train maintenance workers; a similar system could be used in Michigan.

We were told that a set of maintenance standards is being developed jointly by the Travel Information Centers (TIC), the managers who are responsible for these buildings and the surrounding area, and the district foresters who coordinate the maintenance of the area.

The following maintenance concerns are summarized from the work sheets developed for this project.

a. Turf Maintenance

Soil compaction is a major problem and was noted in a number of heavily used areas, particularly where pedestrian traffic from the parking lot to the rest rooms puts a very high stress on sod and other plant materials. Examples are Novi, Clarkston, Austin Blair, Scott Falls, Oscoda, and Belleville.

Mapped or contour mowing is a technique whereby selected portions of the site are cut and the balance is allowed to grow with natural plant materials. Use of these patterns reduces mowing costs. Wild flower plantings can thrive in unmowed areas. Examples of mapped or contour mowing are found in Grand Ledge, South Haven, Oshtemo, Jackson Seney, Scott Falls, Michigamme, Republic, Hyde, Gros Cap, St. Ignace, Petoskey, Bay City, Skegemog, Belleville, Ann Arbor, Howell, and Houghton Lake.

Weed control is now handled largely by mowing only. To obtain high quality turf, a weed spraying program should be scheduled in some areas. Turf maintenance standards are grouped by a series of cultural practices, that is, mowing, fertilizing, weed control, aerating, and disease and insect control. The combination of these has created "A" turf conditions at Iron Mountain TIC (A Plus), Menominee, St. Ignace, Mackinac, Bay City, Dundee, Ann Arbor, and Clare. "B" conditions exist at Canyon Falls, Fumee, St. Ignace,

Mackinac Straits, Petoskey, Aus Gres, and Traverse City. "C" turf is found at Republic, Hyde, Oscoda, Skegemog, Belleville, Arcadia, Houghton, Grayling, Cooley Bridge, Mesick, and Red Cedar.

b. Litter control

Litter control involves a combination of small and strategically located large waste containers. Supplementary pick up is made by the staff. The waste containers are emptied into large dumpsters at many of the TICs and rest areas, including Novi, Clarkston, Grand Ledge, Grand Rapids, New Buffalo, Austin Blair, Cooley Bridge, Mesick, St. Ignace, and Mackinac. Some of the dumpsters have tops, others do not. Most of the dumpsters and containers are attractively painted, and most have plastic bags for easy removal of the waste. In Tioga it was observed that 55 gallon drums have been cut down by one-third to make it easier for workers to dump them into the trucks. Fumee Creek Park uses 30-gallon barrels. There were no outside containers at Iron Mountain TIC because the area was just opened.

In many cases extra mess has been caused by people rummaging in the containers to salvage beer cans and bottles. In a number of areas there are contracts for the pickup of litter and garbage from the site.

Roadside areas attract both travel and domestic garbage and other rubbish. The goals of the entire system can be compromised if garbage collection is not efficient. District project managers need to give a high priority to the contracting of garbage collection, an item which favors contracting because of the greater efficiency of large packer-trucks and the dumpster units. Disposal of trash and garbage is a severe problem in certain areas, but many

large contracting firms have established their own dump sites, which offer substantial cost savings in travel time compared with state or county employees taking small loads large distances to a local landfill.

Belleville, Dundee, and Mackinac TIC were noted for their attractive stone aggregate containers. Wooden slat baskets are effectively used at the Clare TIC.

c. Trees and Shrubs

In many cases the areas were designed to make use of existing large trees. In other situations landscape architects designed the entire site with a combination of shade and ornamental trees and a variety of shrub plantings. Regular inspection of trees and shrubs is necessary to maintain the safety and attractiveness of the areas.

Significant deadwood was noted at Clarkston, Inlay City, Jonesville, Austin Blair, Munising, Tioga, Houghton Lake, and Thompson. The department trims dead wood and storm damage with an aerial tower truck. Such trimming is ordinarily scheduled in the fall, but a better plan would be to arrange early spring inspection and trimming so the area would be safe during the high use summer periods from the breakage of limbs that died during the winter. Soil compaction also causes the upper limbs of otherwise healthy trees to die. This condition called "stag heading", was noted at Novi, Woodland, Canyon Falls, Gros Cap, Oscoda, Mackinac Straits, Dundee, and Grayling. This is also symptomatic of grade changes.

Insect and disease symptoms were noted at Clarkston, New Buffalo, Cambridge Junction, Republic, Red Cedar, and Ann Arbor.

Trees, particularly newly planted ones, often are damaged by equipment during mowing operations. This was noted at Novi, Clarkston, Forester, Woodland, Grand Rapids, South Haven, Bay City, Jonesville, Cambridge Junction, Sault Ste. Marie, Canyon Falls, Menominee, Dundee, Belleville, Howell, and Clare. Such damage can be reduced by applying a complete weed killer in a circle around the tree or mulching this area with a heavy layer of wood chips designed to reduce grass and weed growth.

Dead trees were observed at Thompson and St. Ignace. These are a potential hazard to park users. In many places, the original vistas of the scenic areas have grown over, and people no longer have the benefit of the long sweeping views visualized by the designers.

d. Lighting

Lighting is provided in the travel information centers and highway rest areas. Roadside parks and scenic areas have none. On the whole, lighting and fixtures were well maintained. A few of the light standards needed repainting, but the functional lighting should be adequate. Very little vandalism was observed. Systematic inspection and scheduled repainting in a preventive maintenance program should continue this high standard.

e. Surfaces

Walks, drives, and parking areas were generally in satisfactory repair, although patched in a number of areas, but oil spills were noted at Clarkston, Novi, New Buffalo, Petoskey, and Arcadia. These affect the appearance of the areas and might be cleaned up effectively with power-washers and a suitable detergent.

f. Stoves

Rusty stoves were common in many of the parks, but in others it was evident they had been wire brushed and repainted. In a few areas the stoves had been neglected so long that the grates and side panels had completely rusted through. These were noted at Clarkston, Imlay City, Grand Rapids, South Haven, Hyde, Dundee, and Belleville. Stoves were damaged at Scott Falls, Republic, Cooley Bridge, and Jonesville.

g. Picnic Tables

Historically, MDOT tables have been refinished and varnished annually and part of the maintenance program was the pick-up of tables. They were taken to a maintenance area at the state or county garage, sanded down to remove initials and other carvings, and revarnished in preparation for the next season. Many tables are now painted instead of varnished, which is feasible for a number of reasons. The paint may be less expensive, less expensive to apply, or simply longer lasting than the traditional varnish. Considering the amount of exposed wood and wooden furniture in the roadside areas, including tables, benches, signs, and parking barriers, it might be well to make a systematic inquiry and prepare a guide for deciding whether to paint, varnish, or stain.

MDOT staff should consider psychological factors that deter vandalism. For example, varnished surface gives less contrast to the lettering scratched into a table which is less satisfactory to the vandal.

In a number of parks tables have been permanently anchored to prevent them from being moved around. On river banks or lake shores anchoring prevents them from being thrown into the water.

There is a danger that when tables are anchored to trees with a length of chain or highway cable, over time the tree may be girdled. A better solution is to bury the anchor beneath the table and fasten it with a short length of chain or cable. Replacement of parking barriers by curb and gutter and use of concrete supports for picnic tables reduce maintenance costs in the long run and in many cases give a more modern appearance to the facility.

h. Vandalism

The most common vandalism observed was graffiti. Carving on tables is the most common, noted at Novi, Clarkston, Forester, Grand Ledge, New Buffalo, Munising, Scott Falls, Oshtemo, Tioga, Bay City, Oscoda, Red Cedar, Ann Arbor, and Clare. Vandals attempted to burn a rest room at Harvey. There have been break-ins at Imlay City, and broken tables were observed at Woodland, Grand Rapids, and Belleville. Metal panels had been installed in the mens room at Grayling, Oshtemo, Oscoda, and Coldwater, which prevents breaking holes through the partitions. Graffiti can also be more easily removed from the polished metal surface. In the roadside parks there is a substantial amount of graffiti in the rest rooms and to a lesser extent on some of the outdoor furnishings. Local maintenance people can reduce the impact of such graffiti by repainting the surfaces as often as several times a week. For this method to be effective, matching paint must be used. Homosexual graffiti was found at South Haven, Jonesville, Oshtemo, michigame, Hyde (considerable), Mackinac Straits, Petosky, Oscoda, Cooley Bridge (considerable), and Red Cedar.

Damage to rest rooms and other wooden structures by porcupines, woodchucks, or other chewing animals was noted at Austin Blair and

Munising. Bark has been peeled off birch trees at Michigamme, Tioga Creek, and Mackinac Straits. Bullet holes were observed in one of the informational signs by Cooley Bridge.

i. Fences

The fences ranged from chain link, to farm wire, wooden post and rail. There are also barrier posts to delimit the driveways, white painted posts and reflectors were effectively used to guide travelers off the highway.

Posts were tipped out of the ground and broken in a number of areas. Sometimes this damage is caused by snow plows when the line of posts has been obscured by drifts, and tall marking stakes should be installed in late fall to guide the operators. The fence was cut in one location in Cambridge Junction, broken down behind the men's room at Austin Blair, and broken down in Jackson, suggesting homosexual activity. Regular inspection of fence lines should take place, and timely repairs should be scheduled.

j. Buildings

Maintenance of buildings is particularly critical. People may tolerate a small amount of grounds litter, disease or insect damage in plant materials, some stag heading in the trees, or lack of paint on some of the furniture, but they will be extremely sensitive to dirty and littered rest rooms and the presence of odors. Timely maintenance is essential, and extra help should be scheduled for areas known to have extremely heavy use at peak times. A check-off schedule should be established and posted in all rest rooms. Frequency would vary with observed use of rooms or building.

A power washer using modern detergent could be effectively used to clean many of the terrazzo and other floors, particularly in rest rooms. According to our information, such a power washer can be made available from Lansing to people in the districts. Sufficient machines should be available to ensure that the day-to-day litter does not become "old dirt". There may be a problem with drainage if floors are washed with lots of water. Building designs should allow for such drainage.

We observed innovative building designs in several parks, including double rest rooms at Sault Ste. Marie, which allows maximum facilities in peak periods and the closure of one during slack seasons. One structure combined rest room and changing rooms for the beaches at Au Gres and Thompson; a fiberglass roof for better interior lighting was used at Fume Creek and Michigamme; and a solar panel was used at Bay City. There were also handicapper bars in the rest room at Michigamme. Upgrading is needed at many facilities to accommodate the handicapped.

While the travel information centers and many of the rest areas have been designed with service rooms to store supplies and tools within the building, many of the roadside parks lack such structures. In some cases the county contract personnel or private contractors, or the state maintenance workers simply bring the necessary tools and equipment into the area on a truck, use it, and take it away. In other cases, small tool sheds have been built or are brought in by truck, but seldom are they in keeping with the overall design of the area. Service support structures should be part of the original design and installed along with other facilities. These should be coordinated to ensure a uniform

appearance of MDOT facilities while supplying security for tools and supplies left on site.

There is a lack of standardization in color of paint. The traditional dark brown can be depressing if used extensively and should be used in combination with other colors. The currently available alternatives of light green, beige, sand, and salmon are good and should be adopted.

Information items were often in need of maintenance. The structures frequently showed wear and neglect; bricks were missing; information panels often fogged, making the message unreadable, and the messages are of mixed quality. Some quite properly relate to general state information, while others do an excellent job of presenting local tourist attractions, yet there is a lack of local information in many areas. The materials themselves are often badly faded. Regular inspection is needed to ensure that the displays remain attractive and legible. The outdoor information function of the entire system needs restructuring in terms of the kind of information, types of presentation, and responsibility for the information.

k. Specialized Equipment

Specialized maintenance equipment can be very effective but requires coordination between units on a district or even a statewide basis. For example, for small bits of litter - cigarette butts, bottle caps, soft drink can pull rings - it is not effective to pick up by hand or attempt to keep large paved areas cleaned with hand brooms, yet, the cost of suitable sweepers may be excessive if limited to use in one facility. One solution is the "travel-crew" approach, by which power sweepers, specialized

mowers, aerating machines, vacuum cleaners, and power washers can be moved on a schedule throughout the district. The rest area coordinator trucks now function in this way.

Maintenance of large and complicated equipment such as heating, air conditioning, water treatment, and pump units is presently coordinated statewide. We understand that the record for getting such items back into service is good. A plan for preventive maintenance, including scheduled inspections, timely replacement of worn parts, and adequate lubrication, is essential.

Problems with irrigation systems include the maintenance of the pump and the various plumbing fittings. According to workers in the field, many of the larger areas have irrigation systems, but some do not work or not very well. In some cases the problem is limited capacity of the water supply, such that sprinkling the grass might not leave enough to run the bathroom plumbing or provide drinking water for visitors. This is a design problem. Many attendants said they prefer a garden hose with sprinkler care for the turf and flower plantings around the building.

In preparing maintenance plans, it is important to plan on an annual basis. Calendars can be coordinated to schedule preseason, active season, and postseason maintenance effectively. Minor repairs often can be taken care of immediately, but major repairs may have to be deferred until the peak season is past. In preparing for the active season, it is important to bring sufficient workers on the job early enough so that facilities are ready to operate when the visitors arrive.

2. Design and Development

The preservation of scenic attractions, including access to

shorelines and scenic vistas has been a role of government for many years. Some of the finest beach sites in Michigan are under the jurisdiction of the MDOT. These are available through the foresight of engineers and foresters, who in many cases saw to it that the normal highway right-of-way was widened to extend to the waters edge. In other cases, additional scenic land was purchased so that travelers could leave the busy road and enjoy the view.

a. Vistas

Many of the roadside parks and scenic areas were laid out to give visitors the benefit of spectacular vistas, but over the years continued growth of plant materials has tended to obscure or completely cover them. The easiest way to correct this situation is regular inspection and trimming or removal where necessary. A more difficult situation exists when the encroaching materials are on private land, and it may be necessary to negotiate with owners to allow trimming. Work should be supervised by a professional forester or arborist/landscape architect.

b. Rest Areas and Travel Information Areas

The larger rest areas and travel information centers are more spaciouly and carefully designed. Despite intense use, the areas are better maintained, perhaps because they are newer and benefit from past design experience, as well as enjoy a larger staff at the travel information centers.

Certain areas need to be redesigned, especially in terms of access, egress, and sign systems. A new logo should be developed for approaches to roadside areas and should replace the current pole and panel. MDOT should use a sign at all MDOT's facilities with uniform colors, logo, and text that identifies MDOT as the agency.

providing the park. These signs should show all MDOT facilities provided in the state and have a "You are here" marker.

Travelers must be notified sufficiently in advance to enable them to make a safe exit from the traffic stream. Signing is important in guiding travelers. Signs must be uniform, so that they are easily recognizable, and to give notice of an approaching roadside area, they must be highly visible. This not only relates to the color chosen, but to the size and position relative to the rest area. Advance distances will vary depending on the class of road involved.

In many areas white painted barrier posts are effectively used along entrance drives, in some cases supplemented by reflectors to aid the traveler stopping at night.

The design and color coordination of roadside park and rest area structures requires close integration to ensure that colors are compatible with the situation and are used according to plan. An effective control of graffiti is prompt repainting so that others are not tempted to add remarks, yet maintenance personnel must have access to the necessary paint. It follows that standard formulas should be used so that the colors used in repainting will match the original. There also must be regular inspection by management to ensure that the designed color combination has not been varied due to availability of paint or personal preference.

c. Signs

Naming parks for distinguished former employees is apparently a long standing policy. While the employees are undoubtedly honored by such recognition of their service to MDOT, great care must be

taken to ensure that the plaques and related information are handled concisely and uniformly.

While many people have given thought to informational and directional signs, the work can be wasted if the placement is poor, if the intended viewers cannot see the signs as they enter the roadside area, leave their cars, and proceed to the rest room or picnic area. In a number of instances signs regarding "picnicking", "no pets in picnic area," dog runs, and others could be seen only from the truck and trailer parking lot.

A related problem deals with sign policy. Although designs are apparently determined and followed for major signs, such as those naming the park, the smaller ones within the park are so varied that they quite obviously have been left to the choice of individual maintenance people. These choices are not always in the best interests of a unified and harmonious design.

Supplying travelers with fresh, clean water has been a major service of highway rest areas from the very beginning. While the wells and pumps have given way in many areas to modern running water, modern wash basins, and drinking fountains, many people still travel with water containers. Recognizing this need, many of the buildings have jug-filling taps installed outside, but they are located in unusual places. Unless travelers are assisted through proper signing in finding these taps, they may be forced to fill their jugs a cup at a time in the rest room or give up entirely.

d. Scenic Shorelines

Some of the most attractive Great Lakes beaches in Michigan are administered by the MDOT, especially in the Upper Peninsula. The particular value of these resources should be recognized. MDOT

should establish another classification of roadside areas, Scenic Shoreline, and administer them as such.

e. Floral Plantings

Floral plantings add a great sense of life and color to a well-designed rest area. Effective use of floral plantings is closely related to availability of full-time maintenance workers. For such operations to be successful there is a need to combine design of plantings, choice of species and varieties, and diligent ongoing care. Planting and care of flower beds is apparently provided in a variety of ways. Some are funded by MDOT, others by contributions from local citizens, service clubs, or other groups. Finally, while the materials may be donated and planted by volunteers, local maintenance workers must have the ability and enthusiasm to care for the flowers and plants. A successful plan might be to require flower plantings to be designed by MDOT landscape architects and possibly maintained through cooperative work by local garden clubs in a similar manner as the rare bird nest box, "Homes for Wildlife" project.

In areas separate from intensive use wild flowers can offer definite benefits, providing a succession of color through the season yet without the intensive maintenance of formal flower beds. Leaving areas unmowed not only allows wild flowers to flourish but also eliminates the need for intensive turf maintenance.

The original designs usually specify the location and species of trees, shrubs, and flower beds to be used in roadside areas. There is a danger that the high degree of autonomy observed in the management of some areas by state, district offices, and county contractors may mean that the plant materials will not be placed as

designed and/or will not be replaced with the specified types. With the best of intentions, a local attendant may replace a dying juniper with a locally obtained evergreen that will mature into a different sort of plant than originally visualized.

To ensure a uniformly high quality appearance throughout the state, it is essential that the responsibility for plantings be assigned to the District Project Manager for roadside areas working under the guidelines of and in close cooperation with the design office of the Roadside Design Division in Lansing.

f. Pets

Many travelers are accompanied by pets which need exercise along and if not controlled these can create a problem with droppings in the picnic areas and along the walkways. A positive method of control has been to designate areas as "dog-runs." The most effective seem to be those located along the back property line, where a long thin strip is designated, rather than a small circular or enclosed area.

g. Exercise

Just as pets need to run, people can reduce fatigue by stretching their legs and having a brief moment of active or passive recreation. Providing nature trails such as that in the Cascade rest area near Grand Rapids is one way to meet this need. There also are advantages in providing similar areas for the handicapped, the elderly, or the very young, who also might welcome an opportunity to exercise but need a stable surface to walk on.

h. Designs

Many original facilities have been maintained through years of repair and repainting - parking barriers, well houses, drinking

fountains, benches, and signs. Many were designed in the "rustic" era of roadside development. Even though the department has moved vigorously toward more modern design, many original structures still remain, requiring higher maintenance costs than would be necessary if they were replaced with a more modern design. An example is parking curbs and gutters instead of barriers.

Many of the "rustic designs" are beginning to deteriorate, as at Cooley Bridge and Mackinac Straits, whereas newer designs incorporating more permanent materials might prove more economical in the long run.

i. Erosion

Severe erosion exists or is developing in certain parks. Gully erosion is most noticeable, but sheet erosion eventually can be just as damaging. Regular inspection by trained professionals is necessary to identify trouble spots and provide for timely correction. U.S. Soil Conservation Service information and professional services are available throughout the state.

j. Non-Motorized Traffic

State legislation provides one percent of highway construction funds for nonmotorized traffic. A major program to pave the shoulders of the state's two and four lane highways would enlarge recreation travel opportunities for hikers and bicyclists. New plans and designs should also consider the possibility of additional right-of-way for horseback riding, ORV's, and snowmobiles.

Consideration should be given to special designation of certain areas as scenic or roadside recreation areas. For example, the 20-mile stretch of highway near L'Anse could be designated the

Henry Ford Scenic Highway and tie in with the Ford Forestry Center.

k. Noise Control

People stop at roadside areas for rest and relief from the noise of the highway. Ideally, rest areas should be designed to minimize exposure to the nearby heavy traffic, but some are still far from quiet. Belleville exemplifies the use of earth berms, which are the most effective method of shielding areas from traffic noise. These are often supplemented with a variety of deciduous or evergreen plantings which tend to screen visibly as well as audibly. Park design should recognize such standard practices as earth berms, vegetation, and distance from highway noise to enhance the recreation experience of visiting the roadside area.

3. Finance

In the past, the roadside areas, as part of the roadside maintenance program, have been funded entirely with public monies. In recent years of budget austerity these funds have not kept pace with increasing needs and inflation. The traditional cost-cutting strategies by which maintenance funds and staffing levels are reduced can reach such a point that services to the traveling public are significantly diminished. An alternative to reducing costs is to increase revenues, and three sources that should be explored are concessions, telephone operations, and contributions by local groups, particularly in providing and maintaining flowers.

Because the system as operated by MDOT serves such a wide cross-section of Michigan residence and highway users, it has been most effective to fund operations from the general fund or from an allocation of a highway tax such as the gas and weight taxes. Considering the impact of MDOT's services on the tourism industry,

perhaps some portion of the tourism related sales tax could be used for operation and maintenance.

New sources of revenue from vending machines, telephones, publications, special taxes, and contributions from public and private nonprofit organizations should be earmarked to improve the roadside rest area system. One possibility is to develop a program to seed and naturalize wild flowers. This would enhance the public's perception of MDOTs interest in natural beauty and its contribution to state tourism.

a. Budget Administration

When a budget is adopted it is essential that there be a system of authorizations and approvals set up for the various phases of the operation. It is also essential that the district roadside project manager, as technical supervisor, be in a position to review and authorize all related operations in these areas. It is important that maintenance be recognized as a major contributor to the well-being of the traveler and that the roadside areas play an important role in the safe use of the highways by the traveling public. Given the importance of maintenance, top management should send regular statements stressing the value of well-maintained tourist facilities to the traveling public. Such a statement should be sent each spring to the various maintenance agencies and posted as an expression of department policy in the appropriate places.

The entire system should be evaluated automatically every five years by external authorities. The study of segments of the system and their function should be on-going as management recognizes a need for more information or the resolution of conflicts.

Any public agency should have a procedure for systematically planning to achieve its goals using the results of previous operations. The department does not have a unified evaluation system that would compare the needs of users with their level of satisfaction, that would compare the schedule of development and improvement with actual construction; that would compare the planned schedule for providing visitor information services and conducting maintenance operations with actual services rendered, the work done, the results achieved, and the costs associated with each area of effort.

Such a systematic approach would show the significance of the roadside development program to the safety and enjoyment of the traveling public; it would establish the value of traveler satisfaction to the tourism industry and hence Michigan's economic future; and it would relate the significance of the program to the MDOT's goals in meeting the needs of the traveling public.

4. Policy Issues

While tourism has been an important part of the Michigan economy for many years, it has become increasingly significant with the building of the interstate highway system and, in recent years, the recognition that Michigan must broaden its economic base. Tourism offers employment in many parts of the state where the manufacturing sector has ceased to provide regular income. Travel is the major component of tourism and the highway system has a major role to play. The Department of Transportation has assumed the responsibility not only for moving vehicles from point to point within the state, but also for providing additional services that make travel safe and enjoyable. Roads have been located to offer scenic routes, and department policy

recognizes the need for a system of roadside areas which provide rest rooms, safe drinking water, and an opportunity to relax from the rigors of the highway in pleasant surroundings. In addition, the travel information centers provide information and offer experienced counselors to aid travelers in planning their trips.

With the coming of the interstate system, the travel patterns set by the original turnpikes and toll roads intensified. These throughways designed for travel at higher speeds and for longer stretches not only increased the danger of driver fatigue but also created the problem of "highway hypnosis." The limited access highway does not offer the tired driver a chance to park by the roadside, which creates hazards and should be used only in emergency. The Michigan approach, a system of roadside areas at intervals of approximately 35 miles and at the entries to major metropolitan areas, provides the travelers with a chance to rest and prepare for visits on business or pleasure to the cities. The visitor information services at such rest areas provide an additional safety factor by eliminating much uncertainty and stress.

As part of this more dynamic traffic pattern we find that more and more travelers are driving both day and night. While many of the local communities close during the night, travelers are assured of access to the highway rest areas should they need them.

An additional safety factor involves the ability of travelers to anticipate the roadside area ahead and enter it in a manner safe to both the traveler and other traffic. While information centers and rest areas have been designed with fast moving traffic in mind, many of the roadside parks were designed in a more leisurely time. They should be reassessed in terms of proper distance for signing, and entrances

should be marked so drivers may safely leave the highway. The situation is especially critical in times of poor visibility, whether due to rain storms, fog, or heavy snowfall. Because of the significant costs associated with traffic accidents, many which are born by the general population through medical and automobile insurance costs as well as emotional trauma, to the extent that the roadside area program reduces the numbers and severity of accidents, nonusers benefit along with travelers.

a. Roadside Users and Nonusers

Just as the population at large is constantly changing, so do the characteristics of the traveling public and the mix of vehicles, including various types of RV's, trailer-drawn boats, and snowmobiles. These changes of vehicles and roadside area users and their preferences will affect every phase of the operation. Information from regular user surveys should be analyzed to improve the planning, design, and redesign of facilities. For example, if it becomes desirable to install vending machines in rest areas, provisions should be made without displacing visitor information services or some other feature.

User needs will vary dramatically on a geographical basis. For example, roadside areas in southern Michigan are affected by the delivery of goods to market as well as by large football game crowds in the fall. This is comparable to travel movement to the north; which witnesses the migration of hunters in the fall and fishermen at various times of the year.

User expectations vary widely according to season, geographical location, and social preference. The wide range of users served by the system results from time to time in conflicts between groups

and resolving them is always difficult. One of the most serious has been the increasing use of roadside areas by homosexuals and prostitutes, which has severely limited the quality of services to the general public.

Throughout the United States, certain localities have developed a reputation for unsocial behavior - prostitution, mugging, rape, or other criminal activity that the population becomes fearful. Parks often are the site for this behavior and cease to function in their intended recreational use. Local people generally have the option to avoiding such parks, but this is not the case of roadside areas. It is essential that the public continue to have access to the entire system and with the full confidence that they will not be exposed to covert homosexual activity or prostitution. The social conflicts that have developed over the use of roadside parks throughout the state by homosexuals will not be resolved easily. MDOT will have to concentrate on intensive maintenance, new design and additional lighting to discourage this activity and to eliminate the objectionable graffiti and other related damage which threatens the public confidence in the entire system.

Prostitution also exists in many of the roadside areas, especially involving truckers. In contrast to covert homosexual behavior among consenting adults, prostitution should be easier to control. MDOT is empowered to call on state and local police to resolve the problem.

Police presence not only is a comfort to travelers but also deters certain types of crime and behavior. MDOT should establish

such a presence throughout the system by developing a relationship with state and local police authorities, including desk space with appropriate signs and insignia as in the Dundee TIC.

The movement of travelers from one area of the state to another and the ease with which they can enter and leave the highway to participate in local recreational activity - camping, golfing, fishing, hunting - affects the private sector that provides support services to visitors. This includes the operators of motels, bed and breakfasts, grocery stores, camping areas, gas stations, gift shops - the entire spectrum of tourism-related businesses in Michigan communities. An awareness of the changing user-profile is important to the purpose of the roadside program, and a regular effort must be made to assess these needs. Accordingly, the development of our roadside areas will never be completed because there will be a constant need for revision, redesign, and improvement to accommodate the traveler and make a positive contribution to the Michigan tourism industry.

The MDOT research section should design a new research program for users of roadside areas. The program should highlight user preference, should be systematic, and should be part of a continual evaluation program.

b. Legal Authorization

Recognizing the policy established years ago that highway parks would not duplicate the facilities of the state parks, there remains the problem that MDOT does not have the legal power to prohibit camping in roadside areas.

Since MDOT draws its authority from the basic highway legislation and yet provides open space for roadside recreational

use, a problem has developed regarding its legal ability to control the use of the land for recreational purposes such as camping. Additional legislation may be necessary to fix responsibility and authority for offering or restricting such use. A driver may take a short nap in a vehicle or on a blanket in the picnic area without seriously inconveniencing anyone else, but for a group to establish a camp site in the wooded area or even on the hard surface of the parking lot creates a number of problems. The areas are not designed for a safe and effective use by campers. Conflicts undoubtedly would result. If it is decided that the public interest requires such expanded use, then certain areas should be redesigned to permit it safely.

c. Services

In the years when Michigan developed the present system, the goal was to provide quality areas, including rest rooms, safe drinking water, picnic spots, and various sorts of visitor information. Michigan is considered a leader in this field. The state's facilities rank in the top five (see page). The social and economic benefits associated with successful operation of this system are such that the MDOT should strive to be the best in the country. Michigan deserves and needs such recognition. The quality, number, and systematic location of facilities make it outstanding, and the public relations and promotion benefits of being Number 1 have great potential for the tourism industry and therefore great economic significance to the state.

Visitor information services are extremely important to Michigan's image as a vacation destination, and it is essential that the visitor information be of uniformly high quality

throughout the system. Except for travel information centers, where counselors are on duty, there are serious deficiencies in the content and quality of presentation of the information provided at the travel information centers, rest areas, and bulletin boards of the roadside parks. Because of seasonal variations and the changing travel patterns of the public, MDOT should experiment with different hours of operation in the travel information centers. While it may seem economical to shut down certain of these during the winter the benefits are questionable in terms of loss of service to the traveling public for whom the centers were developed. For example, there is winter sports traffic, hunters in fall and winter, increasing numbers of travelers to view the fall color. In some areas flowering trees and orchards create spring attraction. Any system of selective closing should be based on an understanding of traffic flow at various times of the year. While commercial traffic moves year-round, at certain times in certain parts of Michigan recreational travel is a dominant use of the highway system. An important point to remember is that roadside areas are intended as "harbors of refuge" and should be kept open during the winter. If roads continue to function during the snow season, then so should the roadside areas which service those using the roads.

Communications are as vitally important to travelers as is information. The need for them to communicate with people either at origin or destination has been recognized by rest area designers, and telephones have been installed in increasing numbers. Many of the rest areas have weather information available by radio when a button is pressed. Often these devices do not work

properly or have been so damaged they do not work at all. Considering the original investment in the weather system and the obvious cost of maintaining the units, the system should be reevaluated in terms of user benefit compared with cost, and especially in terms of the weather information available to the public through car radios.

An interesting communication device observed at the Dundee Travel Information Center was a "hot line" to the state police. This was activated by hand pressure and eliminated the need for dialing.

Telephones have been recognized as one of the most important and popular services provided at these areas. People were observed waiting in line on a number of occasions as others made a series of calls relating to their business or pleasure travel. There is a general need for more units throughout the system. In view of industry deregulation, these telephones represent a source of substantial new revenues to MDOT. Various telephone companies should be contacted in an effort to determine which can provide the best service at the greatest return to the state.

Research done in the course of this study clearly indicates a demand for new and changing services by the traveling public. Preferences expressed ranged from campgrounds to restaurants. The more practical solution to the latter is to be found in vending machines. Coin-operated equipment supplies a variety of beverages, snacks, and small convenience items for the traveler. Providing such services in the freeway rest areas should not threaten local economies. Concessionaires of the highest possible quality should be engaged. Malfunctioning devices can result in aberrant and

dangerous behavior from tired travelers. The response from the MDOT roadside area user survey ranked vending machines among the top three items that would improve services. This equipment is increasingly used in other states, such as Indiana and West Virginia. A park maintenance attendant in Indiana advised that the state will operate its vending machine program, whereas in other states the commission on the handicapped or the commission on the blind conducts the operation and receives the revenues rather than the department of transportation.

d. Operations and Maintenance

The importance of these services places a heavy responsibility on the MDOT to be both efficient and effective in operating the roadside areas. They are presently operated and maintained under a variety of arrangements, including state force account, contracting, and subcontracting. The key to effective operations, regardless of the administration method, lies in supervision. The planning of work, the control of waste and inefficiencies, and the inspection to see that work is done according to standards should be the responsibility of an experienced and competent staff with sufficient authority to ensure that program objectives are achieved.

As the present organization developed, changes have left gaps in the essential linkages between parts of the system. For example, the operation of TIC's is handled jointly by the Bureau of Administration and the Bureau of Highways, with the district forester acting as liaison between the maintenance workers in the districts and the information specialists in the TIC's. Another significant gap exists between the district foresters and those

doing the actual maintenance in the roadside areas. Given the importance of the areas to travelers and tourism, reorganization is required to provide greater authority and accountability for these services. The traditional pyramid organization may no longer be adequate, and some type of "project" or "program" orientation may be necessary.

Use of MDOT facilities by local residents was observed in a number of locations, particularly at the high quality beach and shoreline area on Lake Superior just east of Marquette. When local government fails to provide park facilities for picnickers, residents are likely to use these areas as parks. In some cases this use includes the dumping of household garbage and other rubbish.

Parks, scenic areas, and various roadside sites have been acquired over the years for a variety of reasons. While the mission of the MDOT park system is to serve the traveling public, it might be well to review certain parks which appear to be used largely if not exclusively by local residents in contrast to highway travelers. This is not to say that some sites may not be well suited to provide a distinct service. The question is which agency of government and ultimately which body of taxpayers should pay for the operation and maintenance of the facilities. It may be advisable to cede certain parks to county or local governments rather than continue to carry them as a part of the MDOT system. Examples might be Rotary Park near Petoskey and the roadside park immediately south of Traverse City.

A related problem of considerable economic significance is created by travelers and local people bringing household garbage

and rubbish to the rest areas for dumping. Apparently, many people choose to deposit their weekend rubbish in this way rather than dispose of it in their vacation area. In addition, local citizens often use the trash containers and dumpsters in roadside parks. Examination of the rubbish indicates a distinct difference between "traveler litter" and "household garbage." This creates an enforcement problem. Yet, there is a trade-off between the cost of picking up these materials if it were scattered along the road rather than deposited at the rest area. In many rest areas large dumpster units have had to be installed in addition to the 55-gallon barrels and smaller waste containers.

e. Organization

A major problem is the fragmentation of the design, operations, and maintenance functions involved in providing roadside services. This may have resulted from historical policy decisions or from the accumulation of small uncoordinated structural changes within MDOT.

For example, at Michigamme Park we observed a design change in a roadside parking area under the authority of the district engineer without prior consultation or clearance by the Lansing design office. It is essential that coordination exist so that long-range planning will not be violated or that efforts not be wasted in changing something scheduled for a different treatment.

A massive shift in organization may be necessary in order to more effectively mobilize and coordinate resources toward the goal of meeting the needs of the traveling public. Recently under consideration is decentralization of MDOT operations to the district level in contrast to the traditional hierarchical pattern of the present bureaus. A solution could be a project or

program organization that would cut across district lines. In each district there should be a roadside project manager with professional expertise in park management and tourism to oversee and coordinate planning, operations, and evaluation of the system as well as supervise increasing numbers of contractors. The activities of these managers would be coordinated by a general project manager at a divisional or perhaps bureau level within MDOT. This would help provide a coordinated image and identity to the entire network and would ensure uniform quality standards. Management at the district level is required because only closely interested supervision by professionals trained in visitor services and vegetation management will be able to guarantee that MDOT meets its important goals. The coordinating manager would ensure steady cooperation and exchange of ideas among districts. Whether these various positions should be given budgetary control or a sign-off on project approval is a policy matter to be worked out in consideration of other departmental policies.

Job descriptions for the position of district manager should include a background of education and experience commensurate with these new contemporary job responsibilities. This would include far more course work in vegetation management, including control of insects and diseases, some marketing, some communications, and strong skills in interpersonal relations, which is perhaps one of the most critical.

At the TIC's, managers seem to take a leadership role not only in terms of visitor information but also in overall maintenance of the building and surrounding area. In many other areas workers are only part time, and even where there are full-time workers the

supervisors visit periodically rather than being constantly available. Good maintenance is directly related to the ability and enthusiasm of the supervisor. Hence, in-service training for supervisory people should be on-going. Sessions should be held annually and in various sections of the state so that supervisory personnel may learn from one in other and from observation of other facilities.

The New Buffalo TIC illustrates the problem of split responsibility. In theory, the manager of the TIC has authority over the staff inside and takes care of the grounds surrounding the building. The technical maintenance of the remainder of the site, which in the case of a TIC may represent many acres, is under a district forester, who supervises roadside areas in a 9-county area in southwest Michigan. In practice, daily maintenance of the grounds may be handled informally by the TIC manager talking with the maintenance people, who are likely to do both building and grounds.

There are various kinds of workers and levels of experience available to handle maintenance work. Pay ranges widely and creates different job expectations. Attitudes as to what is "well done" will vary substantially. At one end of the continuum are full-time equipment operators from the various district garages, ranging through full- and part-time county road commission workers, to the various Youth Corps programs that are state and federally subsidized. Annual orientation seminars include the of briefing of travel counselors at certain times of the year about various regional and statewide events and recreational attractions, such as maple syrup festivals, the Cherry Festival, Greenfield Village, and

Auto World. Special bulletins could be posted in the TIC's, and briefing of counselors would enable them to give information to travelers. Conversation with workers in some areas indicates they do not receive much instruction on the job. Some TIC's are well organized, but in many cases the workers are given only verbal directions and are expected to learn from the example of others or by asking questions when the supervisor visits. A written maintenance plan or manual of procedures gives personnel something to refer to after the supervisor has gone. Such a manual, well illustrated, also would ensure some uniformity throughout the system.

Travel counselors are currently provided with uniforms and training programs. Maintenance and operating personnel, including rest room attendants, should be recognized as such by the public through an identifiable uniform. Some items can also service as functional equipment, such as safety helmets, but the public relations aspect is important, and uniformed attendants are also known to control vandalism. Uniforms were noted in several of the areas visited by the study team and were found to be effective. A decision must be made relative to full-time workers as compared with seasonals, since uniforms are generally considered to be a fringe benefit, which benefits are more likely to apply to full-time employees. Rest room attendants should be classified above casual seasonal labor but perhaps not as high as an equipment operator.

Another area requiring attention is crew labor. Operators who handle specialized equipment such as aerial towers, hydraulic sprayers, and power washers can be sent to areas on a scheduled

basis, or special services also can be obtained on contract. Until recently, forestry crews of skilled workers operated under the direct supervision of the district forester and provided highly skilled services on a demand basis. Retirements have left some districts without operators qualified to run specialized equipment. The more recent policy of gathering all district workers into a large pool has required the district forester to compete for their services with other maintenance functions in the vicinity. Both systems - centralized and decentralized special crews - have advantages and disadvantages. All alternatives should be considered in priority assignment of workers and equipment.

5. Employee Attitudes: General Observations and Implications

A concern was expressed by central management about the variety of district management methods, standards, and procedures. To meet the demands placed upon it, any organization must successfully perform two functions: (1) it must sustain itself, and (2) it must accomplish the mission assigned to it. Employee attitudes are critical in both cases.

General observations of employee attitudes were based on the review team's perceptions from conversations and discussions with a wide range of personnel. These included conversations with the central management group involving design, maintenance, and visitor information services; field supervisors at the state and county levels, and a gamut of workers including state, county, contract, Youth Corps, and volunteers. 52 workers were contacted.

Attitudes ranged from neutral to positive in terms of, expressed interest and the work being done to meet the needs of the traveling public. The negative attitudes that had been expected from preliminary discussions were not apparent in the field. Observation of the

areas for equipment and visitor information materials were neat and orderly.

Youth Corps workers were observed on several occasions working in the areas or taking a break at the roadside parks, which are part of their overall road commission work. They manifested a sense of purpose, interest in their work, and usually good humor. The supervisors of these crews should be credited with establishing such favorable attitudes. Work done by these young people is of the most basic kind, such as litter pick-up, rest room cleaning, and some painting and repair. They seemed to be purposeful and glad to have the job.

Another group of temporary workers with a sense of enthusiasm were the "Red Coats," members of the SELLS program developed in the Upper Peninsula. These workers are older residents of the area who distribute visitor information materials at roadside parks and other public places, such as shopping malls. They are distinguished by red shirts and "ranger hats." Those we spoke with included one man in his fifth year of service. As local residents they can give detailed first-hand information about their counties to travelers.

Clarkston

The work schedule is posted on the board by the foreman.

Imlay City

Seasonal maintenance workers are hired at \$4.00 and are not given much instruction. They take care of three roadside parks and would like to do a good job. Don Cone, with three months' service, was interviewed. He hoped for a full-time job.

Grand Ledge

Workers see the foreman once a day, and supplies are delivered to them.

South Haven

Harry Rouse, 17 years' service, said they do all their own work here.

New Buffalo, TIC

The morale here seemed to be good, according to John Cape, District Forester, and Cathy Felicia, travel counselor, and with Betsy Brandt and Guy Dawson, apparently maintenance people. Flowers were raised in a small plastic-covered greenhouse, in addition to those purchased with departmental funds. A number of Youth Corps workers were employed.

Oshtemo-Kalamazoo

Some of their problems could be solved if they could hook up to city water and sewer system. There is difficulty with the drain field and dry well. In the winter, one full-time person is shared between Oshtemo and Galesburg, who in snow times is involved in plowing until the road is opened. Early on, one lane should be plowed through the center to open it and not wait until all road lanes are cleared. A pass-through lane plowed through the rest areas would make them usable when most needed.

Jonesville

Don Finkbiner, Maintenance Superintendent for Hillsdale County Highway Commission, was interviewed. Youth Corps are used in the parks. Finkbiner comments: "If you can't maintain them, shut them down. No use in offering people a mess."

Jackson Park

Wendall Kinch, a full-time worker, was interviewed. The park is operated by Jackson County. Carl Horning, Rest Area Coordinator, drives a large, specially equipped truck throughout the district. Don Wiltse is the District Special Crew Superintendent. Maintenance services of the MDOT Bureau of Administration take care of the display materials inside the cases. Maintenance takes care of the travel information plaza.

Republic

Maintenance is contracted to Marquette County and subcontracted to private firms six hours a day. There is a need for maintenance plan specifications if contract bidding is to be used.

Fumee Creek

Youth Corps workers and others need better tools if they are going to work on heavier improvements, such as moving rocks, for which they should have heavy work gloves and larger tools such as crowbars or wrecking bar. At Hyde and Thompson Parks "Red Coats" (SELLS Program) were on duty. Clarence Jaynes, in his fifth year, feels traffic is down from 1983. The "Red Coats" seem to enjoy their work and feel enthusiastic about the Upper Peninsula and its recreational offerings.

Mackinac TIC

The reservation service is the most popular, according to Sue Mavronicles, Manager.

Oscoda County

The contact was Keven Becker. The area is checked each day by a crew which takes care of two smaller parks. There is heavy use by groups from the local Air Force Base.

Cooley Bridge

Two MDOT people who were passing through, who said that the county picks up the garbage. The MDOT Forestry Unit working out of Cadillac also does some.

Dundee TIC

Veronica Schroeter commented on the TIC training sessions and noted that the Travel Bureau of the Michigan Department of Commerce wanted to operate the centers.

The county does the snow removal work and works on the picnic tables here. There is a free reservation service. During the Michigan Week Program free apples and cookies were provided to travelers. There is also a State Police sign and sub-post. Schroeter felt that flowers added a good bit to the program. They needed \$250 and received \$100; she bought the roses herself.

Ann Arbor

Eddie Scott is probably the most motivated worker encountered and recounted how he fertilized the grass with fertilizer he "brought from home," and worked to keep it up. He has 15-16 years of service.

Houghton Lake

Craig Barrett, Roscommon County Road Commission, was interviewed. There is no manual to help them with their work. He commented that the rest area jobs are obtained through union seniority and are preferred to working out on the highway.

Clare TIC

Two men from Structural Maintenance Section were contacted. Richard Phaner works out of the State Secondary Complex in Lansing for wells and sanitary arrangements covering the whole state. They feel that a tie-in with the City could offer several advantages in maintenance of sewer lines and sanitary facilities. The present problem at Clare is screening the rubbish. There is need for a manual to include maintenance plans and procedures. There is a strong need for designers to coordinate with maintenance crews: "They should work one year on operating and maintenance." There should be a rest area attendant.

They feel that the Kalamazoo district uses bottom-of-the-barrel workers in contrast to Roscommon and West Branch. County contracts work better than state, because state workers tend to be moved around more. North of Clare are many counties on contract. The work seems better there, perhaps because the worker knows the area.

There has been attrition of forestry crews and equipment. The difference between state and county road workers seems to be greater identification of the latter with the local people over the long run. The job status seems to be different, and there may be a difference in supervisorx style between certain county road commissions and the engineers running the districts.

Some observations made out of state are relevant here. In Virginia, those in charge of rest areas must hold a certificate for operation of sewage treatment plants. These plants ordinarily serve both the northbound and southbound units of a pair. Workers must have at least two years' seniority to even be given the job, which favors experienced and career-oriented workers. Virginia also has uniforms for the maintenance staff.

6. Visitor Information Services

The recreation experience does not begin when the traveler arrives at the summer cottage or resort, but with planning the trip and leaving home. There is a need for additional publications about major Michigan highways, with pictures and descriptions of outstanding roadside recreation areas. Many people do not realize these areas contain more

than the rest room, picnic tables, and water, whereas there also may be nature trails, beaches, wild flower plantings, rare bird nesting boxes, and features of historical significance. The experienced Michigan traveler may become aware of these things over time, but the new visitor may benefit from only a portion of the recreation experience potentially available.

The present coverage at the various notice boards and information islands seems to be haphazard rather than systematic. For example, some, but not all, feature county maps and local events. State and national forest campgrounds might be as attractive to campers as are the state parks, yet only the latter seem to be featured. Another issue is whether both public and private campgrounds should be promoted as part of the state information system. There is an opportunity here for a more integrated approach to information services, featuring not only public but also private sector attractions and services.

For example, many visitors to Michigan are interested in tours of the automobile plants in Lansing and elsewhere. These tours were offered for many years in both Lansing and Flint but recently have been cancelled. Fisher Body plant in Lansing still offers a tour but requires one week's notice for reservations. Other companies such as Kellogg at Battle Creek, also sponsored industrial tours. Such information should be integrated into the delivery system for visitors.

Each fall the sweep of color attracts many visitors within Michigan and from out of state. The season is long, beginning in the north in the Keweenaw Peninsula and sweeping majestically south. It is

important that time sequences and geographic areas be identified and integrated into the visitor information program.

Information islands are designed to supply travelers with important written and graphic materials. Two major problems exist with these information units. (1) Many of them are poorly maintained. A fogging of the plastic surfaces was observed in many areas. Whether this results from sun and weathering or from a cleaning material that reacts with the plastic, much of the information on the inside is difficult to read. (2) There is a wide variety of effectiveness in the choice of materials assembled. In some areas treatment is very well done, in others marginal at best. A state map was common, but county maps were observed in only a few areas. Many counties face the problem of guiding tourists from the expressways into the intriguing byways of their area.

While the parks are designed with a central theme and appropriate standards for various levels of facility, there is a lack of a comparable central operations policy and procedure. Observation indicates a wide range of approaches. There may be too much autonomy in the maintenance standards of the various areas. Again, there is a trade-off between control and coordination and the desire to save money through employment of seasonal workers and the use of contracting and subcontracting services. If standardized services are indeed a goal that should be obtained anywhere in the system, then there is a need for a coordinated approach to operations.

Delivery of information is a primary opportunity and responsibility. Many of the roadside areas had excellent information, but in many of the rest areas and roadside parks it was only adequate but uninspired. The TIC's not only provide information but also are

staffed by counselors and undoubtedly are more useful than are simple bulletin boards. However, TIC's cannot handle the whole job. There is a need for an integrated system involving marketing and promotion people at the state level, roadside development managers and design persons, county and local chambers of commerce, and the maintenance workers themselves. It is the latter who must preserve the visitor materials from weather and vandalism and ensure that the information is both relevant and up to date.

At Gros Cap there was a breakdown in distribution of information. Space was being used for "Yes! Michigan" materials instead of local data, which indicates a lack of coordination in the selection and distribution of materials. While it is undoubtedly good to involve local people in choosing local materials, there also are advantages to professional preparation of such materials and enough coordination at the state level to assure unifying quality to the information displays. For example, a state map in the display cases supplies this unity. In Baraga County effective information about local emergency services was listed on side board units attached to the ends of the basic display case. This is a much more useful and relevant use of these side boards than as a device to honor former employees with their personal history as is being used in some counties.

Obtaining overnight accommodations is a primary concern for the traveler. A recent service developed by the TIC's provides free reservation service by telephone. This is very helpful to those who may know their destination city but have no idea of available motels there.

The existing system tends to be a patchwork of incremental innovations, whereas the state of the art has progressed to the point

(Figure 1)

| Maintenance Evaluation Work Sheet | | D.O.T. STUDY | | AREA: No. () | | | |
|---|--------|--------------|---|-----------------|---|----|---------|
| Department Park and Recreation Resources | | DATE: | | TIME: a. | | | |
| Michigan State University | | DAY: | | P. | | | |
| East Lansing Inspector () | | WEATHER: | | ATTENDANCE: H M | | | |
| COMPONENTS | RATING | | | | | | COMMENT |
| | S | AA | A | BA | I | NA | |
| 1. TURF CARE | | | | | | | |
| Mowing | | | | | | | |
| Trimming | | | | | | | |
| Irrigation | | | | | | | |
| Weed control | | | | | | | |
| Disease | | | | | | | |
| Insect | | | | | | | |
| 2. LITTER CONTROL | | | | | | | |
| General Area Condition | | | | | | | |
| Waste Containers (Adequate #?) | | | | | | | |
| Waste Containers Condition | | | | | | | |
| 3. TREES AND SHRUBS | | | | | | | |
| Removals | | | | | | | |
| Pruning | | | | | | | |
| Disease | | | | | | | |
| Insect | | | | | | | |
| Watering | | | | | | | |
| Repairs () routine () minor | | | | | | | |
| () major () hazard | | | | | | | |
| 4. LIGHTING | | | | | | | |
| Repairs () routine () minor | | | | | | | |
| () major () hazard | | | | | | | |
| 5. SURFACES | | | | | | | |
| Roads and Parking | | | | | | | |
| Walks | | | | | | | |
| Tables | | | | | | | |
| Benches | | | | | | | |
| Stoves | | | | | | | |
| Repairs () routine () minor | | | | | | | |
| () major () hazard | | | | | | | |
| 6. VANDALISM | | | | | | | |
| Graffiti (lack of graffiti is superior) | | | | | | | |
| Damage (lack of damage is superior) | | | | | | | |
| 7. SIGNS | | | | | | | |
| Informational | | | | | | | |
| Directional | | | | | | | |
| Repairs () routine () minor | | | | | | | |
| () major () hazard | | | | | | | |
| 8. FLORAL PLANTINGS: General | | | | | | | |
| Watering | | | | | | | |
| Disease | | | | | | | |
| Insect | | | | | | | |
| 9. FENCES AND RAILINGS | | | | | | | |
| 10. BUILDINGS(s) | | | | | | | |
| General | | | | | | | |
| Restrooms | | | | | | | |
| Work room | | | | | | | |
| Storage | | | | | | | |
| 11. PERSONNEL CONTACT (See Interview #) | | | | | | | |

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at which substantial improvement might be made by an integrated approach. The service provided by the Mackinac TIC handled as many as 100 reservations per day in 1984 and a total of 2,500 request in 1983. These were not limited to motel rooms but also included restaurant and theater reservations.

Considering the goal of a safe and enjoyable recreational experience, the assurance given to travelers by the visible presence of the Michigan State Police could have a powerful positive effect. In the Dundee TIC a state police insignia was prominently displayed. There was also direct communication access to nearby state police. A cooperative arrangement with law enforcement agencies might include desk space or an office for offices. Officers would not be stationed there full time, but their patrols in cars on a scheduled or random basis could reinforce their presence and reassure travelers.

B. Analysis of Maintenance Evaluations

During the field inspections each site was scored according to ten maintenance. These were divided into sub-categories (see figure 1). The ratings were converted to a numerical score for each major category. Litter control and building maintenance scores were weighted to reflect high importance attached to these areas. Where a function or facility was not provided, for example, no lighting or flowers in roadside parks or scenic areas, no points were given.

Estimated worker hours and average daily traffic counts from MDOT were added to the data base.

The data was then compiled and various reports were printed comparing and contrasting maintenance scores of the various facilities. Table I and Table II are sorted alphabetically and show detailed maintenance scores of the categories, and summary maintenance scores respectively. Tables III

and IV are sorted by maintenance scores in descending order, and also reflect both detailed and summary scores.

Generally, the more developed areas, TIC's and Rest Areas scored higher. This is a reflection of more modern design and materials as well as more experience and continuity of both managers and maintenance workers.

Table V shows the distribution of above and below average sites according to agencies maintaining the sites. Table VI shows the distribution of above and below average sites according to district. Differences here reflect the type of roadside area predominating in the districts. With such a wide distribution and relatively few sites qualitative judgment of sites between districts is difficult to compare.

Table VII shows average maintenance scores of the four classes of roadside areas according to the agency maintaining. Each class shows Horticulture related score, surfaces and building score and total maintenance score. In the rest areas, the county maintenance has a slight advantage over the state and contract maintenance. In the roadside parks, scores are very close with state maintenance in host related areas, slightly better, but the contrast slightly higher overall. In scenic areas, county maintenance is slightly higher than contract maintenance and substantially higher than the state.

In virtually all comparisons the range of scores making up the average for a given category greatly exceeded the differences between categories and agencies. Therefore, regardless of whether state, county, or contract crews perform this maintenance, good supervision in the field is essential if the MDOT goal of providing top level facilities and services is to be achieved.

TABLE I

MOET STUDY 1984: DETAILED MAINTENANCE SCORES

Page 1

| NAME/PARK | ID | CRT | INT | TD | LD | TS | LS | BF | VN | SS | FP | FR | SD | MNTD | EST | TRAFFIC/DA |
|----------------------------|-------|-----------|-----------------------|----|----|----|----|----|----|----|----|-------|----|------|-----|------------|
| ANN ARBOR | R-317 | REST AREA | COUNTY, HASHTENAW | 19 | 18 | 16 | 04 | 18 | 08 | 10 | 12 | 03 | 24 | 102 | 08 | 32500 |
| ARCADIA (ABANDONED?) | | | | | | | | | | | | | | 000 | | |
| ARCADIA, EDW. JACKSON | S-316 | SCENIC | COUNTY-GENZIE | 11 | 18 | 11 | 00 | 10 | 06 | 08 | 00 | 03 | 08 | 077 | 01 | 1000 |
| AU GRES: PAUL D. SULLIVAN | P-428 | ROADSIDE | COUNTY, IOSCO | 12 | 14 | 10 | 00 | 16 | 08 | 10 | 00 | 02 | 14 | 086 | 04 | 2500 |
| AU TRAIN | S-231 | SCENIC | STATE | 00 | 18 | 13 | 00 | 09 | 08 | 08 | 00 | ?? | 16 | 072 | .25 | 1800 |
| AUSTIN SLAIR | P-806 | ROADSIDE | STATE | 14 | 20 | 14 | 00 | 14 | 08 | 10 | 00 | 02 | 12 | 094 | 04 | 10600 |
| BAY CITY-SB | R-605 | REST AREA | STATE | 10 | 18 | 09 | 04 | 25 | 07 | 11 | 10 | 04 | 30 | 128 | 08 | 22000 |
| BELLEVILLE | R-711 | REST AREA | COUNTY, WAYNE | 13 | 18 | 16 | 04 | 17 | 06 | 10 | 07 | 02 | 12 | 105 | 08 | 68100 |
| BICYCLE PARK, H. JOHNSON | ?? | SPECIAL | ? | 14 | 22 | 15 | 00 | 08 | 08 | 10 | 00 | 00 | 06 | 083 | | |
| CAMBRIDGE JUNCTION | P-899 | ROADSIDE | COUNTY, LENAEE | 16 | 24 | 10 | 00 | 15 | 06 | 05 | 00 | 02 | 12 | 090 | 02 | 3700 |
| CANYON FALLS, A. MARSH | P-127 | ROADSIDE | STATE | 11 | 16 | 12 | 00 | 11 | 05 | 12 | 00 | 03 | 16 | 086 | | |
| CLARE T.I.C. | R-301 | T.I.C. | STATE | 14 | 18 | 11 | 04 | 22 | 07 | 10 | 04 | 04 | 24 | 118 | 15 | 15000 |
| CLARKSTON | R-904 | REST AREA | STATE | 11 | 22 | 14 | 04 | 11 | 08 | 08 | 08 | 04 | 22 | 112 | 06 | 25700 |
| CODDLEY BRIDGE, VANWAGONER | P-321 | ROADSIDE | COUNTY, MANISTEE | 10 | 18 | 09 | 00 | 14 | 04 | 06 | 00 | 03 | 12 | 076 | 09 | 1900 |
| DUNDEE T.I.C. | R-822 | T.I.C. | STATE | 13 | 24 | 11 | 04 | 17 | 05 | 11 | 13 | 04 | 30 | 132 | 12 | 16800 |
| FORESTER | S-623 | SCENIC | COUNTY, SAHILAC | 12 | 18 | 12 | 00 | 15 | 07 | 09 | 00 | 04 | 08 | 085 | 01 | 1500 |
| FUMEE CREEK | P-110 | ROADSIDE | CONTRACT, '84 | 13 | 22 | 14 | 00 | 17 | 07 | 08 | 00 | 00 | 16 | 097 | 02 | 6400 |
| GRAND RAPIDS WB | R-304 | REST AREA | CONTRACTOR '83 '84 | 14 | 16 | 15 | 04 | 15 | 06 | 10 | 00 | 03 | 22 | 105 | 08 | 13400 |
| GRANDLEDGE | R-825 | REST AREA | STATE | 14 | 18 | 15 | 17 | 04 | 07 | 09 | 09 | 02 | 24 | 119 | 08 | 17500 |
| GRAYLING NB | R-403 | REST AREA | COUNTY, CRAWFORD | 12 | 22 | 09 | 04 | 22 | 08 | 11 | 00 | 03 | 24 | 115 | 04 | 13600 |
| GROS CAP, RUBIN | P-219 | ROADSIDE | STATE | 10 | 16 | 12 | 00 | 13 | 08 | 11 | 00 | 03 | 20 | 093 | 06 | 3200 |
| HARVEY | S-121 | SCENIC | CONTRACT, CHOCOLAY TP | 09 | 18 | 12 | 00 | 11 | 06 | 10 | 00 | 03 | 16 | 085 | | |
| HOUGHTON LAKE NB | R-401 | REST AREA | COUNTY, ROSCOMMON | 15 | 24 | 14 | 03 | 22 | 08 | 10 | 00 | 03 | 28 | 127 | 08 | 9217 |
| HOWELL NB | R-813 | REST AREA | STATE | 12 | 18 | 14 | 04 | 18 | 08 | 12 | 07 | 03 | 16 | 112 | 08 | 22700 |
| HYDE: RAY DURFEE | P-204 | ROADSIDE | CONTRACT, '83, '84 | 10 | 18 | 13 | 00 | 13 | 04 | 11 | 00 | 04 | 20 | 093 | 04 | 6000 |
| INLAY CITY | P-606 | ROADSIDE | COUNTY, LAPEER | 14 | 24 | 10 | 0 | 16 | 08 | 10 | 0 | 04 | 20 | 106 | 04 | 8100 |
| IRON MOUNTAIN | R-1XX | T.I.C. | STATE | 20 | 14 | 18 | 02 | 16 | 10 | 08 | 00 | 04-32 | | 124 | | |
| JACKSON, GRASS LAKE | R-318 | REST AREA | COUNTY, JACKSON | 15 | 20 | 18 | 04 | 18 | 08 | 08 | 06 | 03 | 24 | 124 | 08 | 26500 |
| JONESVILLE | P-808 | ROADSIDE | COUNTY, HILLSDALE | 08 | 18 | 14 | 00 | 17 | 04 | 10 | 00 | 03 | 12 | 086 | 02 | 4350 |
| MACKINAC STRAITS PK. | P-410 | ROADSIDE | COUNTY, CHEBOYGAN | 10 | 20 | 10 | 00 | 14 | 08 | 10 | 00 | 00 | 28 | 100 | 08 | 1900 |
| MACKINAC T.I.C. | R-409 | T.I.C. | STATE | 15 | 24 | 12 | 04 | 25 | 10 | 12 | 07 | 03 | 32 | 144 | 12 | 2500 |
| MENOMINEE | R-116 | T.I.C. | STATE | 17 | 20 | 15 | 04 | 15 | 10 | 11 | 09 | 04 | 30 | 135 | 08 | 18800 |
| MESICK, SLABLE | S-326 | SCENIC | CONTRACT, '83, '84 | 10 | 18 | 10 | 00 | 13 | 06 | 07 | 00 | 02 | 00 | 066 | 01 | 1700 |
| MICHIGAMME | P-123 | ROADSIDE | CONTRACT '83, '84 | 12 | 18 | 13 | 00 | 16 | 06 | 11 | 00 | 03 | 22 | 101 | 06 | 3700 |
| MUNISING, 6ND ISL HARBOR | S-241 | SCENIC | COUNTY, ALGER | 10 | 18 | 12 | 00 | 11 | 06 | 11 | 00 | 03 | 12 | 083 | .5 | 3400 |
| NEW BUFFALO, A.W. FERGUSON | R-707 | T.I.C. | STATE | 14 | 18 | 16 | 04 | 17 | 04 | 11 | 12 | 03 | 28 | 127 | 08 | 16000 |
| NOVI SB | R-905 | REST AREA | STATE | 11 | 18 | 20 | 04 | 14 | 07 | 12 | 10 | 03 | 26 | 125 | 08 | 68400 |
| OSCODA | P-427 | ROADSIDE | COUNTY: IOSCO | 10 | 16 | 11 | 00 | 13 | 06 | 09 | 00 | 02 | 08 | 075 | 08 | 18800 |
| OSHTENO-KALAMAZOO NB | R-705 | REST AREA | STATE | 13 | 18 | 09 | 04 | 15 | 07 | 11 | 00 | 02 | 18 | 097 | 08 | 27100 |
| PETOSKY, ROTARY PK. | P-424 | ROADSIDE | COUNTY CONTRACT 2/WK | 11 | 22 | 10 | 00 | 14 | 08 | 10 | 00 | 03 | 12 | 090 | 01 | 6200 |
| RED CEDAR, RALPH W. BONNER | P-802 | ROADSIDE | STATE | 11 | 18 | 12 | 00 | 16 | 07 | 09 | 00 | 03 | 14 | 090 | 02 | 7700 |
| REPUBLIC | P-118 | ROADSIDE | CONTRACT, '83, '84 | 13 | 22 | 12 | 00 | 10 | 08 | 09 | 00 | 02 | 24 | 100 | 06 | 2300 |
| SAULT STE. MARIE, ERICKSON | R-237 | T.I.C. | STATE | 11 | 22 | 16 | 04 | 19 | 10 | 10 | 11 | 03 | 32 | 138 | 14 | 3500 |
| SCOTT FALLS, H.J. RATHFOOT | P-232 | ROADSIDE | COUNTY, ALGER | 10 | 20 | 11 | 00 | 12 | 05 | 10 | 00 | 03 | 12 | 083 | 03 | 1800 |
| SENEY, CED BAUER | P-239 | ROADSIDE | CONTRACT, '83, '84 | 11 | 20 | 11 | 00 | 12 | 07 | 09 | 00 | 03 | 12 | 085 | 04 | 3400 |
| SKEGEMOG LAKE | S-322 | SCENIC | COUNTY, KALKASKA | 11 | 18 | 13 | 00 | 13 | 08 | 12 | 00 | 03 | 00 | 078 | 01 | 5500 |
| SOUTH HAVEN SB | R-720 | REST AREA | STATE | 13 | 14 | 10 | 03 | 12 | 06 | 11 | 00 | 02 | 12 | 083 | 04 | 7500 |
| ST. IGNACE | R-238 | REST AREA | STATE | 13 | 20 | 13 | 04 | 24 | 08 | 12 | 00 | 00 | 32 | 126 | 08 | 3500 |
| ST. IGNACE-SCENIC OVRLOOK | S-222 | SCENIC | STATE | 10 | 18 | 13 | 00 | 08 | 06 | 00 | 00 | 02 | 00 | 059 | .25 | 3800 |
| THOMPSON, FRANK F. ROGERS | P-208 | ROADSIDE | CONTRACT, '83, '84 | 11 | 14 | 11 | 00 | 15 | 05 | 10 | 00 | 04 | 26 | 096 | 08 | 2600 |

TABLE I

MOOT STUDY 1994: DETAILED MAINTENANCE SCORES

04-16-1995 17:17:07

Page 2

| WHERPAR | ID | CAT | MNT | TC | LD | TS | LG | SF | UN | SS | FP | FR | SD | WNTD | EST | TRAFFIC/DA |
|---------------------------|-------|----------|----------------------|----|----|----|----|----|----|----|----|----|----|------|-----|------------|
| TIGON CREEK | P-105 | ROADSIDE | STATE | 11 | 22 | 10 | 00 | 16 | 05 | 11 | 00 | 03 | 16 | 094 | 02 | 2000 |
| TRAVERSE CITY | P-313 | ROADSIDE | COUNTY,GRND TRAVERSE | 11 | 24 | 12 | 00 | 12 | 07 | 10 | 00 | 03 | 12 | 091 | 01 | 12000 |
| HOBBLAND,FRED RUSSELL PK. | P-719 | ROADSIDE | STATE | 12 | 18 | 06 | 00 | 16 | 04 | 00 | 02 | 02 | 10 | 070 | 02 | 2100 |

TOTAL

WNTSCR# 5,199.00
 Printed 63 of the 63 records.

NOTES:

- WORI: Includes turf, trees and shrubs, and floral plantings
 Superior=65-59; Above average=58-46; Average=45-33; Below average=32-20
- SURF&BLD: Includes roads, walks, parking areas, litter, building maintenance
 Superior=100-90; Above average=89-70; Average=69-50; Below average=49-30
- WNTSCR: Includes total weighted scores of all categories
 Superior=200-180; Above av.=179-140; Average=139-100; Below av.=99-60

TABLE 11
POST STUDY 1984: SUMMARY OF MAINTENANCE SCORES

| NAME/PARK | ID | CAT | CNT | TRAFFIC/DA | EST | RTMWSOR | 61BLDSCR | MNTSC |
|----------------------------|-------|-----------|-----------------------|------------|-----|---------|----------|-------|
| ANN ARBOR | R-817 | REST AREA | COUNTY, WASHTENAW | 32500 | 08 | 47 | 73 | 132 |
| ARCADIA (ABANDONED?) | | | | | | | | 000 |
| ARCADIA, EDW. JACKSON | S-316 | SCENIC | COUNTY-BENZIE | 1000 | 01 | 22 | 39 | 077 |
| AU GRES: PAUL D. SULLIVAN | P-428 | ROADSIDE | COUNTY, IOSCO | 2500 | 04 | 22 | 46 | 086 |
| AU TRAIN | S-231 | SCENIC | STATE | 1800 | .25 | 13 | 43 | 072 |
| AUSTIN BLAIR | P-906 | ROADSIDE | STATE | 10600 | 04 | 28 | 48 | 094 |
| BAY CITY-SB | R-605 | REST AREA | STATE | 22000 | 08 | 29 | 77 | 128 |
| BELLEVILLE | R-911 | REST AREA | COUNTY, WAYNE | 68100 | 08 | 36 | 49 | 105 |
| BICYCLE PARK, H. JOHNSON | ?? | SPECIAL | ? | | | 29 | 36 | 083 |
| CAMBRIDGE JUNCTION | P-909 | ROADSIDE | COUNTY, LENAHEE | 3700 | 02 | 26 | 53 | 090 |
| CANYON FALLS, A. MARUSH | P-127 | ROADSIDE | STATE | | | 23 | 46 | 086 |
| CLARE T.I.C. | R-391 | T.I.C. | STATE | 15000 | 15 | 29 | 68 | 118 |
| CLARKSTON | R-904 | REST AREA | STATE | 25700 | 06 | 33 | 59 | 112 |
| COOLEY BRIDGE, VANWAGONER | P-321 | ROADSIDE | COUNTY, MANISTEE | 1900 | 09 | 19 | 47 | 076 |
| DUNDEE T.I.C. | R-822 | T.I.C. | STATE | 14800 | 12 | 37 | 75 | 132 |
| FORESTER | S-623 | SCENIC | COUNTY, SANILAC | 1500 | 01 | 24 | 45 | 085 |
| FUMEE CREEK | P-110 | ROADSIDE | CONTRACT, '84 | 6400 | 02 | 27 | 55 | 097 |
| GRAND RAPIDS WB | R-504 | REST AREA | CONTRACTOR '83 '84 | 13400 | 08 | 29 | 56 | 105 |
| GRANLEDGE | R-825 | REST AREA | STATE | 17500 | 08 | 38 | 48 | 119 |
| GRAYLING NB | R-403 | REST AREA | COUNTY, CRAWFORD | 13600 | 04 | 21 | 71 | 115 |
| GRGS CAP, RUBIN | P-219 | ROADSIDE | STATE | 3200 | 08 | 22 | 52 | 093 |
| HARVEY | S-121 | SCENIC | CONTRACT, CHOCOLAY TP | | | 21 | 48 | 085 |
| HOUGHTON LAKE NB | R-401 | REST AREA | COUNTY, ROSCOMMON | 9217 | 08 | 29 | 77 | 127 |
| HOWELL WB | R-813 | REST AREA | STATE | 22700 | 08 | 33 | 55 | 112 |
| HYDE: RAY DURFEE | P-204 | ROADSIDE | CONTRACT, '83, '84 | 6000 | 04 | 23 | 55 | 093 |
| INLAY CITY | P-606 | ROADSIDE | COUNTY, LAPEER | 8100 | 04 | 24 | 64 | 106 |
| IRON MOUNTAIN | R-1XX | T.I.C. | STATE | | | 38 | 66 | 124 |
| JACKSON, GRASS LAKE | R-818 | REST AREA | COUNTY, JACKSON | 26500 | 08 | 39 | 65 | 124 |
| JONESVILLE, | P-808 | ROADSIDE | COUNTY, HILLSDALE | 4350 | 02 | 22 | 50 | 086 |
| MACKINAC STRAITS PK. | P-410 | ROADSIDE | COUNTY, CHEBOYGAN | 1900 | 08 | 20 | 62 | 100 |
| MACKINAC T.I.C. | R-409 | T.I.C. | STATE | 2500 | 12 | 34 | 84 | 144 |
| MENOMINEE | R-116 | T.I.C. | STATE | 18800 | 08 | 41 | 69 | 135 |
| MESICK, SLABLE | S-326 | SCENIC | CONTRACT, '83, '84 | 1700 | 01 | 20 | 33 | 066 |
| MICHIGAMME | P-123 | ROADSIDE | CONTRACT '83, '84 | 3700 | 06 | 25 | 59 | 101 |
| MUNISING, 6ND ISL HARBOR | S-241 | SCENIC | COUNTY, ALGER | 3400 | .5 | 22 | 44 | 083 |
| NEW BUFFALO, A.W. FERGUSON | R-707 | T.I.C. | STATE | 16000 | 08 | 42 | 66 | 127 |
| NOVI EB | R-905 | REST AREA | STATE | 66400 | 08 | 41 | 61 | 125 |
| OSCODA | P-427 | ROADSIDE | COUNTY: IOSCO | 18900 | 08 | 21 | 39 | 075 |
| OSHTENO-KALAMAZOO WB | R-705 | REST AREA | STATE | 27100 | 08 | 22 | 53 | 097 |
| PETOSKY, ROTARY PK. | P-424 | ROADSIDE | COUNTY CONTRACT 2/WK | 6200 | 01 | 21 | 51 | 090 |
| RED CEDAR, RALPH W. BONNER | P-802 | ROADSIDE | STATE | 7700 | 02 | 23 | 51 | 090 |
| REPUBLIC | P-118 | ROADSIDE | CONTRACT, '83, '84 | 2300 | 06 | 25 | 58 | 100 |
| SAULT STE. MARIE, ERICKSON | R-237 | T.I.C. | STATE | 3500 | 14 | 38 | 76 | 136 |
| SCOTT FALLS, H.J. RATHFOOT | P-232 | ROADSIDE | COUNTY, ALGER | 1800 | 03 | 21 | 47 | 083 |
| SENEY, CED BAUER | P-239 | ROADSIDE | CONTRACT, '83, '84 | 3400 | 04 | 22 | 47 | 085 |
| SKEGEMOG LAKE | S-322 | SCENIC | COUNTY, KALKASKA | 5500 | 01 | 24 | 34 | 078 |
| SOUTH HAVEN SB | R-720 | REST AREA | STATE | 7500 | 04 | 23 | 40 | 083 |
| ST IGNACE | R-238 | REST AREA | STATE | 3500 | 08 | 26 | 76 | 126 |
| ST. IGNACE-SCENIC DVRLKOK | S-222 | SCENIC | STATE | 3800 | .25 | 23 | 28 | 059 |
| THOMPSON, FRANK F. ROGERS | P-208 | ROADSIDE | CONTRACT, '83, '84 | 2600 | 08 | 22 | 59 | 096 |

TABLE II
MDOT STUDY 1984: SUMMARY OF MAINTENANCE SCORES

09-18-1985 AT 10:42

Page 2

| NAME/PARK | ID | CAT | MNT | TRAFFIC/CA | EST | MTNSCR | ESTDSCR | MNTSC |
|----------------------------|-------|----------|------------------------|------------|-----|--------|---------|-------|
| TIGEA CREEK | P-105 | ROADSIDE | STATE | 2000 | 01 | 01 | 07 | 094 |
| TRAVERSE CITY | P-313 | ROADSIDE | COUNTY, GRAND TRAVERSE | 12000 | 01 | 23 | 01 | 091 |
| WOODLAND, FRED RUSSELL PK. | P-710 | ROADSIDE | STATE | 2100 | 02 | 20 | 0c | 070 |

TOTAL

MNTSCR# 5,198.00
 Printed 53 of the 63 records.

NOTES:

MORT: Includes turf, trees and shrubs, and floral plantings

Superior=65-59; Above average=58-46; Average=45-33; Below average=32-20

SURF&BLD: Includes roads, walks, parking areas; litter, building maintenance

Superior=100-90; Above average=89-70; Average=69-50; Below average=49-30

MNTSCR: Includes total weighted scores of all categories

Superior=200-180; Above av.=179-140; Average=139-100; Below av.=99-60

TABLE III

MOOT STUDY 1984: DETAILED MAINTENANCE SCORES

Page 1

| NAME/PARK | ID | CAT | MNT | TC | LD | TS | LB | SF | VN | SB | FP | FR | SD | MNTSC | EST | TRAFFIC/84 |
|----------------------------|-------|-----------|------------------------|----|----|----|----|----|----|----|----|----|----|-------|-----|------------|
| MACKINAC T.I.C. | R-409 | T.I.C. | STATE | 15 | 24 | 12 | 04 | 25 | 10 | 12 | 07 | 03 | 32 | 144 | 12 | 2500 |
| SAULT STE. MARIE, ERICKSON | R-237 | T.I.C. | STATE | 11 | 22 | 16 | 04 | 19 | 10 | 10 | 11 | 03 | 32 | 138 | 14 | 3500 |
| MENOMINEE | R-116 | T.I.C. | STATE | 17 | 20 | 15 | 04 | 15 | 10 | 11 | 09 | 04 | 30 | 135 | 08 | 19800 |
| DUNDEE T.I.C. | R-822 | T.I.C. | STATE | 13 | 24 | 11 | 04 | 17 | 05 | 11 | 13 | 04 | 30 | 132 | 12 | 16800 |
| ANN ARBOR | R-817 | REST AREA | COUNTY, WASHTEANAM | 19 | 18 | 16 | 04 | 18 | 08 | 10 | 12 | 03 | 24 | 132 | 08 | 32500 |
| BAY CITY-SB | R-605 | REST AREA | STATE | 10 | 18 | 09 | 04 | 25 | 07 | 11 | 10 | 04 | 30 | 128 | 08 | 22000 |
| NEW BUFFALO, A.W. FERGUSON | R-707 | T.I.C. | STATE | 14 | 19 | 16 | 04 | 17 | 04 | 11 | 12 | 03 | 28 | 127 | 08 | 16000 |
| HOUGHTON LAKE NB | R-401 | REST AREA | COUNTY, ROSCOMMON | 15 | 24 | 14 | 03 | 22 | 08 | 10 | 00 | 03 | 29 | 127 | 08 | 9217 |
| ST IGNACE | R-238 | REST AREA | STATE | 13 | 20 | 13 | 04 | 24 | 08 | 12 | 00 | 00 | 32 | 126 | 08 | 3500 |
| NOVI EB | R-905 | REST AREA | STATE | 11 | 18 | 20 | 04 | 14 | 07 | 12 | 10 | 03 | 26 | 125 | 08 | 56400 |
| IRON MOUNTAIN | R-12X | T.I.C. | STATE | 20 | 14 | 18 | 02 | 16 | 10 | 08 | 00 | 04 | 32 | 124 | | |
| JACKSON, GRASS LAKE | R-818 | REST AREA | COUNTY, JACKSON | 15 | 20 | 18 | 04 | 18 | 08 | 08 | 06 | 03 | 24 | 124 | 08 | 26500 |
| GRANDLEDGE | R-825 | REST AREA | STATE | 14 | 18 | 15 | 17 | 04 | 07 | 09 | 09 | 02 | 24 | 119 | 08 | 17500 |
| CLARE T.I.C. | R-301 | T.I.C. | STATE | 14 | 18 | 11 | 04 | 22 | 07 | 10 | 04 | 04 | 24 | 118 | 15 | 15000 |
| BRAYLING NB | R-403 | REST AREA | COUNTY, CRAWFORD | 12 | 22 | 09 | 04 | 22 | 08 | 11 | 00 | 03 | 24 | 115 | 04 | 13600 |
| CLARKSTON | R-904 | REST AREA | STATE | 11 | 22 | 14 | 04 | 11 | 08 | 08 | 08 | 04 | 22 | 112 | 06 | 25700 |
| HOWELL NB | R-813 | REST AREA | STATE | 12 | 18 | 14 | 04 | 18 | 08 | 12 | 07 | 03 | 16 | 112 | 08 | 22700 |
| IMLAY CITY | P-606 | ROADSIDE | COUNTY, LAPEER | 14 | 24 | 10 | 0 | 16 | 08 | 10 | 0 | 04 | 20 | 106 | 04 | 6100 |
| GRAND RAPIDS NB | R-504 | REST AREA | CONTRACTOR '83 '84 | 14 | 16 | 15 | 04 | 15 | 06 | 10 | 00 | 03 | 22 | 105 | 08 | 13400 |
| BELLEVILLE | R-911 | REST AREA | COUNTY, WAYNE | 13 | 18 | 16 | 04 | 17 | 06 | 10 | 07 | 02 | 12 | 105 | 08 | 68100 |
| NICHICAMME | P-123 | ROADSIDE | CONTRACT '83, '84 | 12 | 18 | 13 | 00 | 16 | 06 | 11 | 00 | 03 | 22 | 101 | 04 | 3700 |
| REPUBLIC | P-118 | ROADSIDE | CONTRACT, '83, '84 | 13 | 22 | 12 | 00 | 10 | 08 | 09 | 00 | 02 | 24 | 100 | 06 | 2300 |
| MACKINAC STRAITS PK. | P-416 | ROADSIDE | COUNTY, CHEBOYGAN | 10 | 20 | 10 | 00 | 14 | 08 | 10 | 00 | 00 | 28 | 100 | 08 | 1900 |
| FUNSEE CREEK | P-110 | ROADSIDE | CONTRACT, '84 | 13 | 22 | 14 | 00 | 17 | 07 | 08 | 00 | 00 | 16 | 097 | 02 | 6400 |
| OSHTENO-KALAMAZOO NB | R-705 | REST AREA | STATE | 13 | 18 | 09 | 04 | 15 | 07 | 11 | 00 | 02 | 18 | 097 | 08 | 27100 |
| THOMPSON, FRANK F. ROGERS | P-208 | ROADSIDE | CONTRACT, '83, '84 | 11 | 14 | 11 | 00 | 15 | 05 | 10 | 00 | 04 | 26 | 096 | 08 | 2600 |
| AUSTIN BLAIR | P-806 | ROADSIDE | STATE | 14 | 20 | 14 | 00 | 14 | 08 | 10 | 00 | 02 | 12 | 094 | 04 | 10600 |
| TIGGA CREEK | P-125 | ROADSIDE | STATE | 11 | 22 | 10 | 00 | 16 | 05 | 11 | 00 | 03 | 16 | 094 | 02 | 2300 |
| HYDE: RAY BURFEE | P-204 | ROADSIDE | CONTRACT, '83, '84 | 10 | 18 | 13 | 00 | 13 | 04 | 11 | 00 | 04 | 20 | 093 | 04 | 6000 |
| GROS CAP, RUBIN | P-219 | ROADSIDE | STATE | 10 | 16 | 12 | 00 | 13 | 08 | 11 | 00 | 03 | 20 | 093 | 08 | 3200 |
| TRAVERSE CITY | P-313 | ROADSIDE | COUNTY, GRAND TRAVERSE | 11 | 24 | 12 | 00 | 12 | 07 | 10 | 00 | 03 | 12 | 091 | 01 | 12000 |
| CAMBRIDGE JUNCTION | P-809 | ROADSIDE | COUNTY, LENAWEE | 16 | 24 | 10 | 00 | 15 | 06 | 05 | 00 | 02 | 12 | 090 | 02 | 3700 |
| PETOSKY, ROTARY PK. | P-424 | ROADSIDE | COUNTY CONTRACT 2/WK | 11 | 22 | 10 | 00 | 14 | 08 | 10 | 00 | 03 | 12 | 090 | 01 | 6200 |
| RED CEDAR, RALPH W. BONNER | P-802 | ROADSIDE | STATE | 11 | 18 | 12 | 00 | 16 | 07 | 09 | 00 | 03 | 14 | 090 | 02 | 7700 |
| JONESVILLE, | P-808 | ROADSIDE | COUNTY, HILLSDALE | 08 | 18 | 14 | 00 | 17 | 04 | 10 | 00 | 03 | 12 | 086 | 02 | 4350 |
| CANYON FALLS, A. HARUSH | P-127 | ROADSIDE | STATE | 11 | 16 | 12 | 00 | 11 | 05 | 12 | 00 | 03 | 16 | 086 | | |
| AU GREG: PAUL D. SULLIVAN | P-428 | ROADSIDE | COUNTY, IOSCO | 12 | 14 | 10 | 00 | 16 | 08 | 10 | 00 | 02 | 14 | 086 | 04 | 2500 |
| FORESTER | S-623 | SCENIC | COUNTY, SANILAC | 12 | 18 | 12 | 00 | 15 | 07 | 09 | 00 | 04 | 08 | 085 | 01 | 1500 |
| HARVEY | S-121 | SCENIC | CONTRACT, CHOCOLAY TP | 09 | 18 | 12 | 00 | 11 | 06 | 10 | 00 | 03 | 16 | 085 | | |
| SENEY, CED BAUER | P-239 | ROADSIDE | CONTRACT, '83, '84 | 11 | 20 | 11 | 00 | 12 | 07 | 09 | 00 | 03 | 12 | 085 | 04 | 3400 |
| BICYCLE PARK, H. JOHNSON | ?? | SPECIAL | ? | 14 | 22 | 15 | 00 | 08 | 08 | 10 | 00 | 00 | 06 | 083 | | |
| MUNISING, 2ND ISL HARBOR | S-241 | SCENIC | COUNTY, ALGER | 10 | 18 | 12 | 00 | 11 | 06 | 11 | 00 | 03 | 12 | 083 | .5 | 3400 |
| SCOTT FALLS, H.J. RATHFOOT | P-232 | ROADSIDE | COUNTY, ALGER | 10 | 20 | 11 | 00 | 12 | 05 | 10 | 00 | 03 | 12 | 083 | 03 | 1800 |
| SOUTH HAVEN SB | R-720 | REST AREA | STATE | 13 | 14 | 10 | 03 | 12 | 06 | 11 | 00 | 02 | 12 | 083 | 04 | 7500 |
| SKEGEMOG LAKE | S-322 | SCENIC | COUNTY, KALKASKA | 11 | 18 | 13 | 00 | 13 | 08 | 12 | 00 | 03 | 00 | 078 | 01 | 5500 |
| ARCADIA, EDW. JACKSON | S-316 | SCENIC | COUNTY, BENZIE | 11 | 18 | 11 | 00 | 10 | 08 | 08 | 00 | 03 | 08 | 077 | 01 | 1000 |
| COOLEY BRIDGE, VANWAGONER | P-321 | ROADSIDE | COUNTY, MANISTEE | 10 | 18 | 09 | 00 | 14 | 04 | 06 | 00 | 03 | 12 | 076 | 09 | 1900 |
| OSCODA | P-427 | ROADSIDE | COUNTY: IOSCO | 10 | 16 | 11 | 00 | 13 | 06 | 09 | 00 | 02 | 08 | 075 | 08 | 18800 |
| AU TRAIN | S-231 | SCENIC | STATE | 00 | 18 | 13 | 00 | 09 | 08 | 08 | 00 | ?? | 16 | 072 | .25 | 1800 |
| WOODLAND, FRED RUSSELL PK. | P-710 | ROADSIDE | STATE | 12 | 18 | 06 | 00 | 16 | 04 | 00 | 02 | 02 | 10 | 070 | 02 | 2100 |

TABLE III

MOOT STUDY 1984: DETAILED MAINTENANCE SCORES

09-18-1985 AT 10:25

Page 2

| PARK/PARK | ID | CAT | MNT | TC | LC | TS | LG | SF | UN | EG | FP | FR | SD | MNTSC | EST | TRAFFIC/DA |
|---------------------------|-------|--------|--------------------|----|----|----|----|----|----|----|----|----|----|-------|-----|------------|
| MESICK. SLAGLE | S-326 | SCENIC | CONTRACT, '83, '84 | 10 | 12 | 10 | 00 | 13 | 06 | 07 | 00 | 02 | 00 | 066 | 01 | 1700 |
| ST. IGNACE-SCENIC OVRLOOK | S-222 | SCENIC | STATE | 10 | 18 | 13 | 00 | 08 | 08 | 00 | 00 | 02 | 00 | 059 | .25 | 3800 |
| ARCADIA (ABANDONED?) | | | | | | | | | | | | | | 000 | | |

TOTAL

MNTSCR# 5,196.00

Printed 53 of the 63 records.

NOTES:

MORT: Includes turf, trees and shrubs, and floral plantings

Superior=65-59; Above average=58-46; Average=45-33; Below average=32-20

SURF&BLD: Includes roads, walks, parking areas; litter, building maintenance

Superior=100-90; Above average=89-70; Average=69-50; Below average=49-30

MNTSCR: Includes total weighted scores of all categories

Superior=200-180; Above av.=179-140; Average=139-100; Below av.=99-60

TABLE IV
MDOT STUDY 1984: SUMMARY OF MAINTENANCE SCORES

| ROUTE | ID | CAT | MNT | TRAFFIC/DA | EST | MTMNSCR | 3&SLSGR | MNTEC |
|----------------------------|-------|-----------|-----------------------|------------|-----|---------|---------|-------|
| ANDOVER T.I.C. | R-409 | T.I.C. | STATE | 3500 | 12 | 34 | 84 | 144 |
| BAULT STE. MARIE, ERICKSON | R-237 | T.I.C. | STATE | 3500 | 14 | 38 | 76 | 138 |
| BENDHOLME | R-116 | T.I.C. | STATE | 18800 | 08 | 41 | 69 | 135 |
| BUNDEE P.I.C. | R-822 | T.I.C. | STATE | 16800 | 12 | 37 | 75 | 132 |
| BAY ARBOR | R-817 | REST AREA | COUNTY, WASHTENAW | 32500 | 08 | 47 | 73 | 132 |
| BAY CITY-88 | R-605 | REST AREA | STATE | 22000 | 08 | 29 | 77 | 128 |
| NEW BUFFALO, A.W. FERBUSCH | R-707 | T.I.C. | STATE | 16000 | 08 | 42 | 66 | 127 |
| BOUGHTON LAKE NB | R-401 | REST AREA | COUNTY, ROSCOMMON | 9217 | 08 | 29 | 77 | 127 |
| BT IDWAGE | R-238 | REST AREA | STATE | 3500 | 09 | 26 | 76 | 126 |
| NOBLE EE | R-905 | REST AREA | STATE | 66400 | 08 | 41 | 61 | 125 |
| IRON MOUNTAIN | R-1XX | T.I.C. | STATE | | | 38 | 66 | 124 |
| DAVIDSON, SPAGE LAKE | R-818 | REST AREA | COUNTY, JACKSON | 26500 | 08 | 39 | 65 | 124 |
| GRANDLEDGE | R-825 | REST AREA | STATE | 17500 | 08 | 38 | 48 | 119 |
| CLARE T.I.C. | R-501 | T.I.C. | STATE | 15000 | 15 | 29 | 68 | 118 |
| GRAYLING NB | R-403 | REST AREA | COUNTY, CRAWFORD | 13600 | 04 | 21 | 71 | 113 |
| CLARKSTON | R-904 | REST AREA | STATE | 25700 | 06 | 33 | 59 | 112 |
| HOWELL NB | R-813 | REST AREA | STATE | 22700 | 08 | 33 | 55 | 112 |
| INLAY CITY | P-606 | ROADSIDE | COUNTY, LAPEER | 8100 | 04 | 24 | 64 | 108 |
| GRAND RAPIDS NB | R-504 | REST AREA | CONTRACTOR '83 '84 | 13400 | 08 | 29 | 56 | 105 |
| SELLEVILLE | R-911 | REST AREA | COUNTY, WAYNE | 68100 | 08 | 36 | 49 | 105 |
| WICHITONNE | P-123 | ROADSIDE | CONTRACT '83, '84 | 3700 | 06 | 25 | 59 | 101 |
| REPUBLIC | P-118 | ROADSIDE | CONTRACT, '83, '84 | 2300 | 06 | 25 | 58 | 100 |
| WACKINAC STRAITS PK. | P-410 | ROADSIDE | COUNTY, CHEBOYGAN | 1900 | 08 | 20 | 62 | 100 |
| FUMEE CREEK | P-110 | ROADSIDE | CONTRACT, '84 | 6400 | 02 | 27 | 55 | 097 |
| DEWENTON-KALAMAZOO NB | R-705 | REST AREA | STATE | 27100 | 08 | 22 | 53 | 097 |
| THOMPSON, FRANK F. ROBERS | P-208 | ROADSIDE | CONTRACT, '83, '84 | 2600 | 08 | 22 | 59 | 096 |
| ALETON BLAIR | P-806 | ROADSIDE | STATE | 10600 | 04 | 28 | 48 | 094 |
| TIGEA CREEK | P-125 | ROADSIDE | STATE | 2300 | 02 | 21 | 57 | 094 |
| WIDEORAY DURFEE | P-204 | ROADSIDE | CONTRACT, '83, '84 | 6000 | 04 | 23 | 55 | 093 |
| GROS GAP, RUBIN | P-219 | ROADSIDE | STATE | 3200 | 08 | 22 | 52 | 093 |
| TRAVERSE CITY | P-313 | ROADSIDE | COUNTY, GRND TRAVERSE | 12000 | 01 | 23 | 51 | 091 |
| CAMBRIDGE JUNCTION | P-809 | ROADSIDE | COUNTY, LENAWEE | 3700 | 02 | 26 | 53 | 090 |
| PETOSKY, ROTARY PK. | P-424 | ROADSIDE | COUNTY CONTRACT 2/WK | 6200 | 01 | 21 | 51 | 090 |
| RED CEDAR, RALPH W. BONNER | P-802 | ROADSIDE | STATE | 7700 | 02 | 23 | 51 | 090 |
| JONESVILLE, | P-808 | ROADSIDE | COUNTY, HILLSDALE | 4350 | 02 | 22 | 50 | 086 |
| CANYON FALLS, A. MARUSH | P-127 | ROADSIDE | STATE | | | 23 | 46 | 086 |
| AD GREG, PAUL D. SULLIVAN | P-428 | ROADSIDE | COUNTY, IOSCO | 2500 | 04 | 22 | 46 | 086 |
| FORESTER | S-623 | SCENIC | COUNTY, SANILAC | 1500 | 01 | 24 | 45 | 085 |
| HARVEY | S-121 | SCENIC | CONTRACT, CHOCOLAY TP | | | 21 | 48 | 085 |
| SENEY, TED BAUER | P-239 | ROADSIDE | CONTRACT, '83, '84 | 3400 | 04 | 22 | 47 | 085 |
| BICYCLE PARK, H. JOHNSON | ?? | SPECIAL | ? | | | 29 | 36 | 083 |
| MINISTING, GND ISL HARBOR | S-241 | SCENIC | COUNTY, ALGER | 3400 | .5 | 22 | 44 | 083 |
| SCOTT FALLS, H.J. RATHFSOT | P-232 | ROADSIDE | COUNTY, ALGER | 1800 | 03 | 21 | 47 | 083 |
| SOUTH HAVEN SB | R-720 | REST AREA | STATE | 7500 | 04 | 23 | 40 | 083 |
| SKEGEMOS LAKE | S-322 | SCENIC | COUNTY, KALKASKA | 5500 | 01 | 24 | 34 | 078 |
| ARCADIA, EDW. JACKSON | S-316 | SCENIC | COUNTY-BENZIE | 1000 | 01 | 22 | 39 | 077 |
| DOBLEY BRIDGE, VANWAGONER | P-321 | ROADSIDE | COUNTY, MANISTEE | 1900 | 09 | 19 | 47 | 076 |
| OSCODA | P-427 | ROADSIDE | COUNTY: IOSCO | 18800 | 08 | 21 | 39 | 075 |
| AU TRAIN | S-231 | SCENIC | STATE | 1800 | .25 | 13 | 43 | 072 |
| WOODLAND, FRED RUSSELL PK. | P-710 | ROADSIDE | STATE | 2100 | 02 | 20 | 46 | 070 |

TABLE IV

MDOT STUDY 1984: SUMMARY OF MAINTENANCE SCORES

09-13-1985 AT 10:30

Page 2

| NAME/BOX | ID | CAF | MNT | TRAFFIC/DA EST | RTMNSCR | SMSLSSCR | MNTSC |
|---------------------------|-------|--------|--------------------|----------------|---------|----------|-------|
| MESICK, SLAGLE | 9-326 | SCENIC | CONTRACT, '83, '84 | 1700 | 91 20 | 33 | 000 |
| ST. IGNACE-SCENIC OVRLOOK | 9-222 | SCENIC | STATE | 3800 | .25 25 | 28 | 057 |
| ARCADIA (ABANDONED?) | | | | | | | 000 |

TOTAL

MNTSCR# 5,198.00
 Printed 53 of the 63 records.

NOTES:

HORT: Includes turf, trees and shrubs, and floral plantings

Superior=45-59; Above average=50-46; Average=45-33; Below average=32-20

SURF&BLD: Includes roads, walks, parking areas; litter, building maintenance

Superior=100-90; Above average=89-70; Average=69-50; Below average=49-30

MNTSCR: Includes total weighted scores of all categories

Superior=200-180; Above av.=179-140; Average=139-100; Below av.=99-60

TABLE V
 MDOT STUDY 1984
 ANALYSIS OF MAINTENANCE SCORES BY AGENCY MAINTAINING

| | ABOVE AVERAGE: CAT/MNT >100 MNTSCR | | | | BELOW AVERAGE: CAT/MNT <100 MNTSCR | | | |
|--------------|---------------------------------------|--------|---------|--------|---------------------------------------|--------|---------|--------|
| | STATE MNT | CO.MNT | PVT.MNT | TOTALS | STATE MNT | CO.MNT | PVT.MNT | TOTALS |
| T.I.C. | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 |
| REST AREAS | 5 | 5 | 1 | 11 | 2 | 0 | 0 | 2 |
| ROADSIDE PKG | 1 | 1 | 1 | 3 | 3 | 3 | 4 | 10 |
| SCENIC AREAS | 0 | 0 | 0 | 0 | 2 | 4 | 2 | 8 |
| TOTALS | 13 | 6 | 2 | 21 | 10 | 12 | 6 | 28 |

TABLE VI
 MDOT STUDY 1984
 ANALYSIS OF MAINTENANCE SCORES BY DISTRICT

| | ABOVE AVERAGE CAT/DISTRICT >100 MNTSCR | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | TOTAL |
| T.I.C. | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 7 |
| REST AREAS | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 4 | 3 | 11 |
| ROADSIDE PKG | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| SCENIC AREAS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTALS | 3 | 2 | 1 | 3 | 1 | 2 | 1 | 5 | 3 | 21 |

| | BELOW AVERAGE: CAT/MNT <100 MNTSCR | | | | | | | | | |
|--------------|---------------------------------------|---|---|---|---|---|---|---|---|-------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | TOTAL |
| T.I.C. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| REST AREAS | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| ROADSIDE PKG | 3 | 5 | 1 | 3 | 0 | 0 | 1 | 4 | 0 | 17 |
| SCENIC AREAS | 1 | 3 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 8 |
| TOTALS | 4 | 8 | 4 | 3 | 0 | 1 | 3 | 4 | 0 | 27 |

TABLE VII
 HDOT STUDY 1994:
 ANALYSIS OF MAINTENANCE SCORES BY CATEGORY/AGENCY

AVERAGE MAINTENANCE SCORES

| | T.I.C. | | | REST AREA | | | ROADSIDE | | | SCENIC | | |
|----------|--------|-----------|---------|-----------|-----------|---------|----------|-----------|---------|--------|-----------|---------|
| | HORT* | SURF&BLD* | MNTSCR* | HORT* | SURF&BLD* | MNTSCR* | HORT* | SURF&BLD* | MNTSCR* | HORT* | SURF&BLD* | MNTSCR* |
| STATE | 37 | 72 | 131 | 31 | 59 | 113 | 27 | 50 | 88 | 21 | 36 | 58 |
| COUNTY | 0 | 0 | 0 | 34 | 67 | 121 | 22 | 51 | 88 | 23 | 41 | 81 |
| CONTRACT | 0 | 0 | 0 | 29 | 56 | 105 | 24 | 50 | 95 | 21 | 41 | 76 |

TOTAL MAINTENANCE AREAS ANALYZED

| | |
|----------|----|
| STATE | 23 |
| COUNTY | 19 |
| CONTRACT | 9 |
| | 51 |

*NOTES:

HORT: Includes turf, trees and shrubs, and floral plantings

Superior=65-59; Above average=58-46; Average=45-33; Below average=32-20

SURF&BLD: Includes roads, walks, parking areas, litter, building maintenance

Superior=100-90; Above average=89-70; Average=69-50; Below average=49-30

MNTSCR: Includes total weighted scores of all categories

Superior=200-180; Above av.=179-140; Average=139-100; Below av.=99-60

C. Survey of Highway Users

In order to determine the needs and preferences of those travelers using Michigan's roadside areas, a state-wide personal interview user-survey was undertaken in 1984 by the Research Division of Michigan Department of Transportation.

Five sites -- 1 TIC, and 4 rest areas -- representing all parts of the state were selected. From July 5 - August 27, a team of interviewers spent one week at each of the sites conducting personal interviews. Surveys were conducted from Thursday through Wednesday at each site.

A total of 24,416 interviews were conducted: Ann Arbor, 4,925; Bay City, 6,376; Grand Ledge, 4,272; Houghton Lake, 3,038; New Buffalo, 5,805.

Interviews were held at the exit of each site with warning signs alerting motorists that a survey was in progress. Interviewers attempted to interview the driver of each vehicle until the backlog of vehicles became unmanageable. At that time, traffic was permitted to move freely until the backlog was cleared and the process of interviewing the driver of each vehicle resumed. Interviewers used official clothing (vests and hard hats) to designate their work as official MDOT surveys. The presence of several official MDOT vans also lent official credibility to their effort.

SUMMARY TABLE VIII

| | ANN ARBOR | BAY CITY | GRAND LEDGE | HOUGHTON LAKE | NEW BUFFALO |
|--|--------------|-------------|----------------|------------------|-----------------|
| MEAN # person/vehicle | 2.1 | 2.4 | 2.1 | 2.5 | 2.5 |
| Vehicle Type: | | | | | |
| Passenger Cars | 74% | 77% | 76% | 80% | 84% |
| Panel, Pickup, Other Single | 14% | 19% | 16% | 18% | 11% |
| Comb. Trucks | 12% | 4% | 8% | 2% | 4% |
| % Michigan Origins | 66% | 99% | 99% | 89% | 1% ^a |
| % Michigan Destinations | 91% | 99%* | 86% | 90%* | 98% |
| % Vacation Trips | 22% | 49% | 22% | 50% | 38% |
| % Trips 200 Miles | 70% | 85% | 26% | 86% | 50% |
| % Trips Incl. Overnight Stay | 29% | 60% | 32% | 69% | 47% |
| % Stopping for Rest or Restroom | 85% | 89% | 88% | 88% | 81% |
| % Stopping for Information | 2% | 0.5% | 24% | 49% | 60% |
| % Rating Site <u>Better</u> Than Other Michigan Sites | 43% | 58% | 24% | 49% | 60% |
| % Rating Site <u>Worse</u> Than Other Michigan Sites | 3% | 2% | 7% | 2% | 1% |
| % Rating Site <u>Better</u> Than Out-of-State Sites | 63% | 61% | 53% | 69% | 80% |
| % Regularly Use Michigan Sites On This Trip | 25% | 30% | 48% | 46% | 36% |
| SUGGESTED IMPROVEMENTS -- | | | | | |
| Better Maintenance | 52% | 67% | 56% | 44% | 31% |
| Add Vending Machines | 32% | 23% | 28% | 44% | 54% |
| Better Information Services | 7% | 2% | 3% | 4% | 2% |
| Increased Security | 5% | 4% | 8% | 1% | 4% |

*Possible error in print-out

^a72% from Illinois

Results

Table VIII illustrates both similarities and differences among five geographically separated, but more frequently used sites in the MDOT system. Mean number of persons per vehicle doesn't range markedly, but larger party size is linked to facilities which attract more vacation travelers. Most users at all sites arrive in passenger cars (74-84 percent) and least frequent use is by large trucks (2-12 percent). All sites except New Buffalo serve primarily Michigan residents and all serve travelers dominantly heading to a Michigan destination (86-99 percent). Vacation travel is a major purpose of trip for three sites (Bay County, Houghton Lake, and New Buffalo). These three locations also attract more people who plan to spend a night in Michigan on their trip and longer distance travelers, although Ann Arbor is also big in the latter category. Between 81 percent and 89 percent of visitors stop to use the rest rooms or simply to rest. Only the New Buffalo site attracts people interested in information and then only about 10 percent. With the exception of the Grand Ledge site, user rate at these sites is better than Michigan's other roadside facilities, but even Grand Ledge was ranked below average by only 7 percent of respondents. The majority of visitors at all five sites ranked Michigan ahead of out-of-state facilities, and it is especially noteworthy that 80 percent of the visitors at the out-of-state facilities, and it is especially noteworthy that 80 percent of the visitors at the out-of-state dominated New Buffalo site, rated Michigan's facilities as superior to those offered by other states.

Even though respondents gave Michigan's facilities high rankings, their responses suggest areas for improvement. Better maintenance was most frequently mentioned for all but the Houghton Lake and New Buffalo sites. Adding vending machines was next most frequently cited overall and was dominant at New Buffalo. This would suggest a ready market for such services but

response should be balanced against the potential negative impact on local businesses. Most visitors appear satisfied with the information services provided although their expectations in this instance may not have been very high. Also, Michigan needs to remain alert for opportunities to capture more of the travel dollar and this group of travelers is an especially high potential market since they are already on the road in Michigan. Finally, concern with security was not high, ranging from 1 percent at Houghton Lake, to 8 percent at Grand Ledge. However, even this small percentage of concern should be reason for some concern. Even a few instances of actual or perceived security threats can quickly create a major negative impact since travelers' most frequent source of travel information is other travelers and a negative security experience is far more likely to be talked about than a positive one. If the news media becomes involved, the situation can grow out of control very quickly.

D. Survey of Michigan County Road Officials

1. Introduction

This study was part of a contract agreement between the Michigan Department of Transportation and the Department of Park and Recreation Resources, Michigan State University. The primary purpose was to gain information on the management and administration of maintenance contracts held by many counties for roadside facilities. The sites of interest were highway rest areas, scenic turnoffs, roadside parks, and the grounds of the Travel Information Centers throughout the state. A second questionnaire, which expanded investigation of these issues and areas to the national level, is analyzed separately.

The questionnaire was developed by Leon Watson, based on recommendations and input from MDOT personnel and faculty members of the PRR department at MSU. The questionnaire was divided into three sections: (1) Organization/Administration, (2) Management and Operations, and (3) Function and Purpose of Roadside Facilities. These three sections contained questions aimed at providing quantifiable responses for comparison purposes, as well as open-ended questions designed to solicit information on the particular county situation and to generate opinions and ideas. In total, 140 responses were solicited in the 13-page questionnaire. (A sample is attached for reference, and the final data are presented using the questionnaire as a guide).

The survey was mailed on November 5, 1984, to the County Road Commissions in 61 Michigan counties. By November 30, 49 were returned;

12 counties did not respond. The return rate was 80 percent. The counties selected to receive the questionnaire were identified by MDOT as having contracts with them for the maintenance of the roadside facilities.

2. Data Analysis

The analysis of specific responses to questions is expressed here, first, as frequency and then, where appropriate, as mean or average values, ranges, and percent figures. Also indicated are data derived from content analysis of the responses to the open-ended questions.

The purpose of this type of data analysis is to provide specific data on the county level and to locate trends at the state level. When information is sought on the specific concerns of a particular responding county, that information can be found on the individual questionnaire. When looking for trends or for comparative purposes, refer to the written report or the data guides. This style of breakdown was designed to facilitate county-specific comparisons by policy makers and administrators.

3. Interpretation of the Data

Please refer to the data guides for the specific question, and to facilitate interpretation. The following report focuses on the main trends in the responses.

SECTION I - ORGANIZATION/ADMINISTRATION

Question 1

Three counties, Macomb, Shiawassee and Allegan indicated that the road commission was not under contract to MDOT: they did not complete the questionnaires. Counties which did not respond are listed at the end of the report.

Questions 2 and 3

Over 95 percent of the respondents indicated they were contracting for roadside facility maintenance as part of a package, and that they were generally satisfied with the contract.

Question 4

Approximately 55 percent of the counties were subcontracting out their jobs. The most common reasons for subcontracting out were: the availability of local subcontractors with proper equipment; it was cheaper for certain jobs; and the county workers were fully scheduled or had more important jobs to do.

The most common reasons for not subcontracting were: it was not necessary because county workers were available and could or should do the jobs; summer roadside facility work and its seasonal or intermittent quality fit in well with other county work responsibilities; the subcontractors were not dependable or did a poor job.

The most commonly subcontracted jobs were septic tank waste disposal and trash disposal. Three counties indicated they subcontracted the whole job out.

Question 5

More than 95 percent of the counties were satisfied with their subcontracting arrangements; the only problem indicated was substandard work. A suggestion for improvement included changing the bidding arrangements so that other deciding factors, such as reliability, could be included instead of just the lowest bid.

Question 6

The supervisory trends for overseeing the subcontracted workers is as follows: direct county level supervision predominating, 47 percent;

contractor supervision, 22 percent; MDOT district or state level supervision, 14 percent; and individual self-supervision, 11 percent.

SECTION II - MANAGEMENT AND OPERATIONS

Questions 1 and 2

Nearly every county indicated it knew the immediate MDOT supervisor, but some were confused due to recent retirements. More than 35 percent of the counties communicate on a weekly basis, almost 40 percent on a monthly basis. Ten counties (20 percent) indicated contact three or four times per year, seldom, or as needed.

Questions 3 and 4

Responses to these questions illustrate the specific county situation and are not for cooperative purposes.

Questions 5 and 6

Very few counties have or want management plans for their facilities. Most indicated they would be a waste of time for the scope of their operations.

Questions 7 and 8

Two-thirds of the counties do not have or use standards or guidelines to determine their operations. Those who have them indicated the standards came from MDOT or were developed from experience.

Question 9

The great majority (80 percent) of the counties do not feel MDOT needs to furnish management plans.

Questions 10 and 11

Few counties (14 percent) have operations manuals, and none felt they were needed.

Question 12

The individual county budgets varied greatly depending on the scope of operations. Many indicated they did not break down the budget for facilities operations and management or that it formed part of a total maintenance budget. The budget breakdown is as follows, with the percent figures averaged and the range of responses indicated.

% supervision/administration -- 7.0 percent average, range of 2 - 20 percent

% labor -- 42.5 percent average, range of 25 - 70 percent

% fringe -- 22.6 percent average, range of 2 - 48 percent

% equipment -- 19.9 percent average, range of 7.5 - 45 percent

% materials -- 10.7 percent average, range of 5 - 25 percent

% overhead -- 7.9 percent average, range of 2 - 20 percent

Most answered on apparently standardized figure of 7 percent or 7.5 percent.

Question 13

The average full-time worker's wage ranged from \$7.39 an hour to \$13.60, with an average of \$8.70. Part-time workers' salaries ranged from \$3.25 to \$6.00, with an average of \$4.53.

Question 14

The situation varied greatly from county to county, with some having full-time operations and others only part-time. Seasonal variations and park periods also affected the number of hours worked. The range was from 8 hours to 52 hours a week, with an average of 34 hours.

Question 15

Estimates on the relative time spent per task in roadside facilities indicated that the two most time-consuming jobs were turf care (40 percent) and building maintenance (29 percent). Combining turf with trees/shrub care totaled almost half the time estimated to be spent during work. Almost one-quarter of the time was spent on miscellaneous work, and approximately 6 percent of the time was spent talking to the public.

Question 16

The breakdown for mechanical repairs showed a dependence on MDOT crews for electrical, heating and plumbing, and (large-scale) facility repair. Small-scale repairs were generally done by the county. The sanitary systems were repaired largely by local contractors.

Question 17

Most counties maintain their sanitary systems on an as needed basis.

Question 18

In rating the job components, as one would expect, responses were generally "important" or "very important." The cleaning of toilets and stalls, mopping and sweeping, repairing vandalism, mowing, picking up litter, and general repair work were indicated as the most important. Those tasks generally regarded as unimportant or neutral were: watering and irrigation, tree and shrub pruning, tree and shrub planting and removal, talking to the public, and cleaning, sweeping, or shoveling walkways.

Question 19

Methods of selecting workers for the roadside facilities varied greatly. The preferred ways were availability, permanent assignment, seniority, and workers volunteering for the job.

Question 20

Most of the counties indicated they had no employee problems. Those mentioned included: male employees cleaning in women's rest rooms, lack of courtesy to the public, tardiness, and too much overtime or lack of responsibility when not under immediate supervision. Problems with subcontractor workers included the above and poor or inconsistent quality work. Also mentioned was a complaint that the public treats the county people as janitors, whereas they see themselves as professionals.

Question 21

Worker satisfaction was very high, with more than 60 percent of the workers regarded as liking or greatly liking the job; the remainder were neutral. Only one county had someone who disliked the job. The least appealing aspect was definitely cleaning the toilets. Picking up garbage, repairing after vandalism, problems with homosexuals, and other miscellaneous items followed. The most appealing parts of the job were: mowing, followed closely by job pride and working outdoors or landscaping. Independence (lack of direct supervision), public relations, overtime and/or good pay, and changing jobs or driving to the site were also mentioned.

Question 22

Relationships with unions or worker associations were good.

Questions 23 - 30

Seasonal or temporary workers were used in approximately half of the counties. More than 40 percent of the seasonal workers were Youth Corps, and an almost equal percentage were locally hired individuals. The primary reasons for using temporary or seasonal workers were savings on wages and as assistants during the heavy summer season. The temporary workers were trained on the job by the county facility supervisor or by MDOT. The supervisors were generally the employees at the county level, with some workers supervising themselves more than 80 percent of the workers were evaluated or checked up on daily.

SECTION III - FUNCTION AND PURPOSE OF ROADSIDE PARKS, REST AREAS, TRAVEL CENTERS, AND SCENIC TURN-OUTS

Question 1

These responses allowed for the general comparison of the diverse maintenance functions within MDOT. The last four options dealing with roadside facilities compare to the first four general maintenance options. Concerning the general maintenance options more than 80 percent received responses as "important", or "very important." Tourist information/info boards were regarded similarly by 62 percent; rest areas by 76 percent; roadside parks by 60 percent; and scenic turnouts by 38 percent. The latter were regarded as neutral by half the respondents. Very few negative responses were received.

Question 2

The great majority (87 percent) had never heard of the total highway concept.

Question 3

The great majority (80 percent) of the County Road Commissions wanted to maintain the roadside facilities. Five counties (Antrim,

Kent, Charlevoix, Marquette, and Mason) did not. Some had passed the responsibility to county park boards or other agencies, and some wanted direct state service. Lapeer County responded as neutral. The counties which did not answer the questionnaire may contain other road commission which do not want the contracts. The major reasons given for wanting to maintain the facilities were: complimentary peak seasons with snow removal in the winter, providing local employment, and coordination with other parks or road maintenance work for effective and efficient service.

Question 4

Generally, everyone liked the system, but several suggestions were made for improvement. (See the specific responses in the desired county.)

Question 5

As to the opening and closing of the facilities, opinions were very mixed. Most felt that roadside parks should be closed (68 percent). The rest areas should either all be open (42.5 percent) or some should be left open (47.5 percent). Opinions were fairly evenly split on the TIC's. Reasons cited for closing were low use in winter and cutting down on winter vandalism and to cut costs. Reasons for leaving the facilities open were to provide safety rest stops and to stimulate winter tourism. Related to this is the desire of the great majority (71.5 percent) to see the closings coordinated with local demand, hunting seasons, and so forth.

Question 6

The great majority (77 percent) do not favor allowing commissions in the roadside facilities. The main reasons were increased litter and mess, great potential for vandalism, and not seeing any need for

providing this service when private industry is doing so at exits or farther down the road.

Question 7

Most responses as to purpose were of the "provide safety rest stops, services, toilet, variety, but some were quite eloquent.

Questions 8 - 10

Approximately half the counties felt that the MDOT facilities contributed to their local economy. Only one county responded that tourism in general was not important to its economy. The great majority (84 percent) felt that the MDOT facilities were an important link in the statewide recreation industry.

Question 11

This question gauges the feelings of the counties as a provider of services for the general public. The major trends showed that most of the service components were regarded as important or very important. Components with primarily neutral responses were: providing grills; providing a recreational experience, providing clean walkways, providing areas for pets, providing displays on history, culture, geology, ecology, and so forth; providing tourist information; and providing emergency aid to motorists. Mixed neutral and negative responses were received as to providing a person to talk to the public and providing free coffee through local arrangements. Primarily negative responses were received for providing food and drink machines.

Question 12

The most difficult user problems involved messy or inconsiderate people and the leaving of household garbage. Some rest areas in metropolitan areas have problems with use of facilities for prostitution or homosexual contacts.

Question 13

Nearly all counties responded that the security for their facilities was provided by both county sheriff and state police. Usually, each of the two agencies patrolled trunk line facilities and responded to specific situations.

Questions 14-15

Most serious security problems were vandalism and some theft of equipment and picnic tables. Most respondents felt they had few security problems. Ways cited to improve security were to increase security patrols, close facilities in low season or at night, and to have an attendant on duty at night.

Question 16

Telephone service was regarded as adequate. Several U.P. counties do not have telephone service, and several mentioned moving the telephones inside the buildings for better protection from vandals and for better public use in cold weather.

Question 17

Almost everyone was positive about the present system. Some expressed concern over budget cuts and over facility expansion or upgrading.

LIST OF COUNTIES WHICH RESPONDED TO THE MDOT ROADSIDE SURVEY
November 5, 1985

| | | |
|----------------|-----------|-------------|
| Alcona | Hillsdale | Menominee |
| Allegan* | Houghton | Midland |
| Antrim | Huron | Missaukee |
| Arenac | Ionia | Monroe |
| Bay | Iosco | Montcalm |
| Benzie | Iron | Muskegon |
| Charlevoix | Kent | Oceana |
| Cheboygan | Keweenaw | Ogemaw |
| Chippewa | Lake | Ontonagon |
| Clare | Lapeer | Ottawa* |
| Clinton | Leelanau | Roscommon |
| Crawford | Luce | Sanilac |
| Dickinson | Macomb* | Schoolcraft |
| Emmett | Manistee | Shiawasee* |
| Genesee | Marquette | Tuscola |
| Gogebic | Mason | Washtenaw |
| Grand Traverse | Mecosta** | Wexford** |

* Indicates they do not have an MDOT contract

** Indicates they responded too late to be included in the analysis.

COUNTIES THAT DID NOT RESPOND

Alger
Alpena
Delta
Gladwin
Gratiot
Jackson
Newaygo
Otsego
Presque Isle
St. Clair

The remaining counties are MDOT direct service counties.

E. Survey of State Highway Department Officials

1. Introduction

This study was part of a contract agreement between the Michigan Department of Transportation and the Department of Park and Recreation Resources, Michigan State University. The primary purpose was to gain information on the management and administration of maintenance contracts for roadside facilities in all 50 states for comparative purposes with Michigan. Roadside facilities of interest were highway rest areas, scenic turnoffs, roadside parks, Travel Information Centers, and others identified by the individual state.

The questionnaire was developed by Leon Watson, based on recommendations and input from MDOT personnel and faculty members of the PRR Department at MSU. The questionnaire was divided into three sections: (1) Organization/Administration, (2) Management and Operations, and (3) Function and Purpose of Roadside Facilities. These three sections contained questions aimed at providing quantifiable responses for comparison purposes, as well as, open-ended questions designed to solicit information on the particular situation in each state and to generate opinions and ideas. In total, 49 responses were solicited in the 8-page questionnaire. (A sample is attached for reference, and the final data are presented using the questionnaire as a guide.)

The survey was mailed on November 25, 1984, to 49 states (Michigan was analyzed separately). By January 25, 1985, 42 were returned, 7 states did not respond. The return rate was 84 percent.

2. Data Analysis

The analysis of specific responses to questions is expressed here, first, as frequency, and then, where appropriate, as mean or average

values, ranges, and percent figures. Also indicated are data derived from content analysis of the responses to the open-ended questions.

The purpose of this type of analysis is to provide specific data on the state level and to locate trends on the national level. When information is sought on the specific concerns of a particular responding state, that information can be found on the individual questionnaire. When looking for trends or for comparative purposes, refer to the written report or the data guides. This style of breakdown was designed to facilitate state specific comparisons by policy makers and administrators.

3. Interpretation of the Data

Please refer to the data guides for specific question and to facilitate interpretation. The following report focuses on the main trends in the responses.

SECTION 1 - ORGANIZATION/ADMINISTRATION

Question 1

All the states responded that they had roadside facilities administered by a state level agency -- (38 or 95 percent), were administered by the various departments of roads, highways, or transportation. One state indicated the Department of Public Works and the Toll Road Authority, as the responsible agency. Eleven states said their Tourist Information Centers (TIC's) were administered by a separate department or agency, usually focused on tourism or economic development.

Question 2

Two main trends in contracting emerged: 17 states (44 percent) were maintained totally by state forces; 18 states (46 percent) were maintained by a combination of state force and private contracting.

The combination of some state, some district, and some county was shared by only 2 states (5 percent). In one state maintenance is entirely at the county level, and in another maintenance is entirely by private nonprofit forces.

Michigan's combination of state, county, and private arrangements appears to be unique. Three cautions should be noted. First, in some states, organizational structure is entirely decentralized, resulting in a regional approach without direct state level control. Second, several states do not have counties, a strong county structure, or are small operations. The resulting structures may then in reality be closer to the situation in Michigan than it appears. Third, some states have state officials at the county level. Also, because the administrators were not asked directly about county involvement, there may be more than was indicated.

Question 3

Subcontracting arrangements are almost evenly split: 22 states (55 percent) subcontract some jobs; 18 (45 percent) do not subcontract any jobs. The chief reasons for subcontracting were lack of manpower, personnel, or money (12 states, 57 percent); less costly (5 states, 24 percent) more convenient (2 states, 9.5 percent); and/or remote location of facilities (2 states, 9.5 percent.) The reasons cited for not subcontracting were more costly to (5 states) and prohibited by law.

The specific jobs for subcontracting were typically the full range of services (10 states), facility and janitorial (10), garbage disposal (6), landscaping/lawns (4), and water and sewage (2). There were also separate subcontracts for watering lawns, public relations, litter, heating, and electricity.

Question 4

More than 90 percent of the states are satisfied with subcontracting. The main reasons were perceptions that it is more economical and that subcontractors did as good or better jobs. Only two comments were made relative to improvement: get more subcontractors, and get tighter control or tighter contracts.

SECTION 2 - MANAGEMENT AND OPERATIONS

Question 1

The most common facility is the (safety) rest area, existing in 34 states. Many had a hierarchy of rest areas depending on level of construction and facility development. Travel information or welcome centers were mentioned 11 times, picnic stops/areas and table sites 10 times, and scenic turnouts, overlooks, or viewing areas 10 times. Six states mentioned roadside parks. Other facilities noted included campgrounds, safety parking areas, sanitary facilities, and health wells.

Question 2 - 4

These questions varied from state to state. Please see the state of particular interest.

Most states attached a flow diagram to their questionnaire. Responses to these questions illustrate the specific state situation and are not for comparative purposes.

Question 6

Funding for roadside facilities came largely from state funds. Unspecified or maintenance budget funds were used in 22 states (65 percent). State road or highway designated funds (some from gas tax, license fees, and so forth) were the source in 12 states (35 percent). A specific gas tax was mentioned 6 times. Vanity license plates,

turnpike fees, and a user tax were other forms of funding.

Question 7

The average worker's wage ranged from \$3.25 an hour in Mississippi to \$11.50 an hour in Alaska, with an average of \$6.99. Part-time workers' salaries ranged from \$4.25 to \$6.75, with an average of \$5.34.

Question 8

Seasonal variation, peak periods and type of facility affected the number of hours worked. The actual time on the job varied with the assignment. Some rest areas were reported to require up to 150 hours a week by a team of four in Connecticut, California, and Maryland. The lowest amount was 4 hours a week in Hawaii. Most states (22, or 79 percent) responded with 40 hours a week.

Question 9

Mechanical repairs were provided chiefly by state workers, whether on the state level or by district. Combinations of state worker and local contractor were very common, depending on cost effectiveness and availability of workers or equipment.

Question 10

In rating the job components. Responses were almost universally "very important" or "important". The cleaning of toilets and sinks, stocking, mopping and sweeping, and picking up of litter were the most highly rated components. Those jobs with the highest amounts of neutral or unimportant ratings were watering and irrigation, tree and shrub pruning, planting and removal, and talking to the public. Comparing the national to the Michigan county responses reveals a more positive tendency at the state as compared to the county level in Michigan.

Question 11

Lack of pride, initiative, or motivation, or a poor quality job were cited by states as main employee problems. Seven reported no problems; six reported their most difficult problem was work scheduling and problems associated with heavy facility use. Dealing with a messy, rude, or morally bad public was also cited, as were problems with employee turnover. Odd working hours and lack of employees were also mentioned.

Question 12

Seasonal or temporary workers were used in 25 states (58 percent), 18 states (42 percent) responded no. Seasonal workers often were hired into a specific facility and were not used system wide.

Question 13

The range of the percentage of seasonal workers at roadside facilities was from 5 to 95 percent, with an average of 18.8 percent (from 24 responses).

Question 14

Seasonal workers were overwhelmingly locally hired (20 states), 87 percent, followed by college students (4 states) 1, prisoners (3), and Youth Corps (2). One state each responded union, social service, senior citizens, and people working off fines. Some states hire from more than one of these categories.

Question 15

The vast majority of workers (86 percent), received on-the-job training. Workshops and training by the supervisors of the subcontracted job accounted for 7 percent each. Also mentioned was training for tourist center host/hostesses offered by local businesses.

SECTION 3 - FUNCTION AND PURPOSE OF FACILITIES

Question 1

These responses allowed for the general comparison of diverse maintenance functions normally part of a state department of transportation. The last four options dealing with roadside facilities can be compared to the first four general maintenance options. Regarding the general operations, more than 80 percent of responses were "important" or "very important." Rest areas received more than 90 percent positive responses, tourist information boards 72 percent, roadside parks 55 percent, and scenic turnouts 60 percent. The most neutrally regarded facilities were roadside parks (38 percent) and scenic turnouts (34 percent), few negative responses were received.

Question 2

Responses to the question on the patterns of openings and closings of facilities were mixed. The variety reflects different types of facilities and climactic or topographic variations. The majority of states keep most of their system operating all year, rest areas being the most common year-round facility. Roadside parks were open all year in 42 percent of the states, some were open in 33 percent, and non were open all year in 12.5 percent. For rest areas, all were open all year in 67.5 percent, some were open in 25 percent, and none in 7.5 percent. Travel Information Centers were open all year in 64 percent of the states, some were open in 19 percent and none in 17 percent.

Overwhelmingly, reasons cited for closing were low winter use, or high winter costs (66 percent). Other reasons mentioned were vandalism or prostitution and facilities not designed for winter use. Reasons cited for keeping the facilities open were to provide public safety and service, and equal winter and summer use patterns.

Comments on the system were mostly related to vandalism. Also mentioned were the need for more law enforcement, rehabilitation, and the over construction of some systems.

Question 3

This question tried to gauge the pattern of concessions at roadside facilities. The majority (60 percent) do not allow them, 40 percent do, and 18 percent are planning to install a concessions program. Several states had just allowed concessions to open. The trend is toward concessions in roadside facilities, usually drink machines. The reasons cited for not allowing concessions were: against the state law, anticipated problems with maintenance and security, not set up for concessions, and concessions not being a part of department objectives. The reasons for allowing concessions were mainly to search for additional revenues for the systems, public demand, and to provide jobs for the handicapped, elderly, or for work programs. California had concessions as a demonstration project in its system but recently removed them due to problems. Several states have handicappers, the blind, and similar groups running their concessions.

Question 4

More than 80 percent of the states felt that roadside facilities contributed to the state's economy. The reasons were: providing support for tourism (40 percent), creating a good state image (25 percent), traveler convenience (17 percent), more time stopped equals more money spent (11 percent), providing revenue through concessions (4 percent), and providing jobs (2 percent).

Question 5

This question gauges the feelings of states as providers of services for the general public. In general, most of the services were

regarded as "important" or "very important." Those which received primarily neutral responses were providing a recreation experience and providing free coffee through volunteers. About equal amounts of positive, neutral, and negative responses were received for providing a person to talk to the public and providing emergency aid. Primarily negative responses were received for providing food machines, drink machines, and grills.

SECTION 4 - FINAL COMMENTS

Question 1

Support for roadside facilities across the nation is generally strong. In 18 states (43 percent), they are considered to be very well supported, and in 14 states (33 percent), moderately supported. In 7 states (17 percent) the support was regarded as neutral. Only 3 states (7 percent) reported little or no support.

Question 2

The main negative pressures on the roadside facilities across the nation were: budget cuts (25 percent), restrictions in or loss of personnel (22 percent), competition for funds or low priority of roadside facilities (18 percent), lack of interest by supervisory staff and state government (7 percent), high costs of construction or repair (7 percent), security problems (4 percent), and legislative committee problems (3 percent). About 7 percent reported no problems or pressures.

Question 3

This question was designed to solicit information on alternative sources of funding for roadside facilities. The following is a list of sources other than budgeted funds:

- Funds for litter pick-up from vanity license plate sales.

- A private company runs information gazebos with 60 percent private, 40 percent state use, and pays a fee to do this.
- RV dump stations are funded by a \$1.00 fee on licensed RV's.
- Indiana subcontracts its work to handicapper workshops.
- Minnesota uses a non-profit, private organization called Green-Thumb in its comfort stations.
- Delaware has vending machines and provides free coffee.
- Maryland's TIC's are partially privately funded.
- California has an interesting variable state and private support system for many activities.
- Connecticut has vending machines operated by the organization for the blind, which pays for half the cost of trash removal.
- West Virginia uses the agency for the handicapped to provide facility maintenance; revenues from vending machines help fund the system; they have encouraged local civic groups to take over some facilities.

Hawaii has a user tax on its scenic turn-outs.

Question 4

Various comments received are noted below.

- Several states referred to problems with vandalism, homosexual activity, and waste dumping.
- Many states provide tourist brochures at the rest areas.
- Need for the more law enforcement was mentioned several times.
- Several states are trying to subcontract out for the first time.
- Rising costs are causing concern.
- Keeping an accurate accounting is a must.

MDOT NATIONAL SURVEY COMPARISON

While the main thrust of the National Level Survey with methods of roadside area operation and maintenance, a quantitative comparison of types of roadside areas shows Michigan to be in an extremely strong position. As table IX shows Michigan ranks 3rd in TIC's, 5th in Rest Areas, 5th in Roadside Parks, 4th in Scenic sites, and 6th in other facilities for an overall 5th place. Michigan is strongest in the more highly developed services offering rest rooms, travel information, and water, while many states offer only minimum parking and table services. Information obtained from the MDOT User Survey also indicates an appreciation for the quality of Michigan roadside areas.

TABLE IX
MDOT NATIONAL COMPARISONS

| | TICS | REST AREAS | ROADSIDES |
|-------------------|--|---|---|
| AVERAGE 43 STATES | 3.2 | 50 | 41 |
| <u>MICHIGAN</u> | 11 | 66 | 100 |
| TOP 9 (20%) | MINNESOTA (29) TEXAS (17) <u>MICHIGAN</u> (11) VIRGINIA (9) MISSISSIPPI (9) ALABAMA (8) ARKANSAS (8) OHIO (7) WEST VIRGINIA (7) | TEXAS (101) CALIFORNIA (91) LOUISIANA (90) FLORIDA (77) <u>MICHIGAN</u> (66) COLORADO (51) OHIO (45) MINNESOTA (44) NORTH DAKOTA (44) | WISCONSIN (202) MASSACHUSETTS (200) OHIO (142) MAINE (101) <u>MICHIGAN</u> (100) MINNESOTA (85) GEORGIA (75) MISSOURI (7) MARYLAND (70) |
| | SCENIC | OTHER* | TOTAL |
| AVERAGE 43 STATES | 11.5 | 14.7 | 101 |
| <u>MICHIGAN</u> | 40 | 42 | 259 |
| TOP 9 (20%) | MINNESOTA (160) CALIFORNIA (86) WISCONSIN (53) <u>MICHIGAN</u> (40) HAWAII (33) MISSOURI (31) NEW HAMPSHIRE (30) WASHINGTON (29) COLORADO (22) | NEW YORK (300) NEW HAMPSHIRE (234) KANSAS (191) NEW MEXICO (65) CONNECTICUT (50) <u>MICHIGAN</u> (42) ILLINOIS (18) VIRGINIA (15) TENNESSEE (8) | NEW YORK (343) MINNESOTA (318) WISCONSIN (286) NEW HAMPSHIRE (280) <u>MICHIGAN</u> (259) MASSACHUSETTS (205) OHIO (194) KANSAS (191) CALIFORNIA (177) |

*OTHER: WIDE VARIATION, PICNIC AREAS, TABLE SITES, PARKING AND SCENIC MIXED, TURNPIKE PLAZAS, WEIGHT STATIONS.

LIST OF STATES RESPONDING

1. Alabama
2. Alaska
3. Arkansas
4. California
5. Colorado
6. Connecticut
7. Delaware
8. Georgia
9. Hawaii
10. Idaho
11. Illinois
12. Indiana
13. Iowa
14. Kansas
15. Louisiana
16. Maine
17. Maryland
18. Massachusetts
19. Minnesota
20. Mississippi
21. Missouri
22. Montana
23. Nebraska
24. Nevada
25. New Hampshire
26. New Jersey
27. New Mexico
28. New York
29. North Carolina
30. North Dakota
31. Ohio
32. Oklahoma
33. Oregon
34. Pennsylvania
35. South Carolina
36. South Dakota
37. Utah
38. Virginia
39. Washington
40. West Virginia
41. Wisconsin
42. Wyoming

STATES NOT RESPONDING

1. Arizona
2. Florida
3. Kentucky
4. Rhode Island
5. Tennessee
6. Texas
7. Vermont
8. Michigan
not sent out

LIST OF STATES WHICH ENCLOSED DETAILED INFORMATION

1. COLORADO - Facility list.
2. IDAHO - Facility map.
3. KANSAS - Rest area maintenance policy.
4. LOUISIANA - Book on policy and procedure for landscaping and scenic enhancement.
5. MAINE - Facilities list.
6. NEBRASKA - State map.
7. NEW JERSEY - Complete roadside facility manual with specifications on operations.
8. NEW MEXICO - Travel and facilities map.
9. NORTH CAROLINA - Nice rest area system brochure and facility list.
10. OHIO - Facilities list.
11. OKLAHOMA - State map with locations.
12. OREGON - Facility list.
13. UTAH - Handbook for caretakers of rest areas, maps of all rest areas, and so forth.
14. VIRGINIA - Map of state and facility listings.
15. WASHINGTON - Facility list.
16. WEST VIRGINIA - Facility list and map.
17. WISCONSIN - List of all facilities.
18. WYOMING - Brochure with map of facilities.

VI. MDOT Concluding Statement

The 256 parks and areas that make up Michigan's highway roadside system of tourist rest areas are, on balance, providing acceptable service to the traveling public. However, these approximately 40 million users per year continually emphasize the need to maintain clean restrooms during peak use, along with a few new services, including those normally provided by vending machines.

The Department of Transportation however, is not keeping abreast of the increasing demand and heavy use of the areas by tourists, and thereby not fully contributing to the state's commitment to develop a strong tourism industry as a means of diversifying its economic base. In a few years, this shortness of commitment by MDOT to their roadside area services will result in a lower standard of service to travelers. In the process, the image that the state is attempting to develop for Michigan as one that welcomes travelers, will not be well served.

A most important problem facing MDOT is the erosion of interest by the district offices in the management of these areas as high quality public service areas. This is accentuated by the loss of professionally qualified personnel. Employing only professionally qualified district supervisors was the hallmark of the early state highway leaders who established these tourism rest areas in the 1930's. This is the key to MDOT's management problems in its roadside area program: in every district office a professional park and resource person should be in charge of the roadside programs.

It is also recommended that a high level reorganization of the Department take place. Combining several separate units within MDOT and establishing them as a new Bureau of Roadside Parks and Visitor

Information Services will provide a more effective management system of these services.

If MDOT assigns sufficient priority to traveler safety and tourism development its system of roadside parks, rest areas, travel information centers, scenic turnouts and beaches, can become one of the most attractive and useful linear parks system in this or any other state. This can be established by following the few recommended organizational changes. The changes can take place with little extra cost and minimum disruption to the existing system.

There are several opportunities to generate income from the users of the roadside tourist system. These additional revenues would result in additional services and projects including a program of seeding wildflowers throughout the state highway system.

The problems relating to homosexual activity are more pervasive throughout the state than are those of heterosexual prostitution, and as a result they are more pronounced in the media. Part of this is due to the prominence of those involved and their recent public disclosures by police.

MDOT has an obligation to make these areas safe for public use, in public perception as well as in fact. One important operational change would be to increase lighting in and around the rest room areas. Occasional pass-through patrols by state police, county sheriffs and township police during the evening hours would provide a positive signal to the public at large, would tend to discourage crime, vandalism and other anti-social behavior, and would help restore public confidence in

the system. This police presence would compliment the more intensive management by the restructured district park management and tourism project manager.

Another important change in operational policy would be to assure the winter business and recreation travelers that if roads are open, to traffic so are roadside rest areas and visitor information centers.

Visitor information is a primary goal of the agency and it is adequately provided in the 11 Visitor Information Centers. This does not, however, carry over uniformly to the other areas within the system. This is largely a matter of better coordination of information programs throughout MDOT.

A final reason for the importance of these organizational and operational changes, at both the districts and central levels, is that the original concept of quality roadside parks-hallmark of the Michigan system-is no longer without competition. States throughout the nation, have belatedly recognized the tourism potential of these areas and are developing new and attractive systems of roadside areas with innovative visitor marketing and services. A program of planned and coordinated traveller services, backed up by systematic research and evaluation will insure that Michigan continues in its leadership role.

VII. Appendices

A. County Level Survey

INSTRUCTIONS

This survey is specifically focused on the maintenance and operations of the roadside facilities under your jurisdiction. Please respond to each question in ink or by typewriter. If the question does not apply in your situation, write in N/A or a dash (-). We have left plenty of room for your comments, so please feel free to tell us your experience!

YOUR NAME _____

YOUR POSITION _____

YOUR COUNTY _____

I. ORGANIZATION/ADMINISTRATION

1. MDOT has indicated that you have a maintenance contract with them. Does this include the roadside facilities?

Yes 46 94% No 3 6%

If no, who is responsible for them in your county?

IMPORTANT: If you are not responsible, please give this questionnaire to the administrator in charge.

-
2. Is responsibility for maintenance of MDOT roadside facilities part of a package contract for all services (i.e., included with road and bridge maintenance, etc.?).

Yes 42 95.5% No 2 4.5%

3. Are you generally satisfied with your current MDOT roadside facility contract?

Yes 42 95.5% No 2 4.5%

What would you change? _____

4. Arrangements for the maintenance of the MDOT roadside facilities is often complicated. Some counties operate and maintain the facilities with county people doing all the jobs (from grass cutting to snow removal), and some counties are subcontracting all or part of the jobs. We need to know your situation.

a. Are you subcontracting out any jobs?

Yes 25 55.5% No 20 44.5%

b. Why or why not, (prices, manpower)?

c. Please list the specific jobs for which you are subcontracting, what and to whom.

5. Are you satisfied with your current subcontracts?

Yes 27 96.5% No 1 4.5%

a. Why or why not? _____

b. What would you change? _____

6. When you utilize subcontract arrangements who has the immediate responsibility for making sure the job is done on a day-to-day basis?

- a. The individual worker 4 11%
 - b. The supervisor to whom the contract was awarded (if different from above) 8 22%
 - c. The county level personnel who authorized the sub-contract? 17 47.2%
 - d. MDOT personnel in the district _____
 - e. MDOT personnel at the state level > 5 14%
 - f. Others 2 5.5%
- Be specific please _____
-
-

II. MANAGEMENT AND OPERATIONS

1. Who are you immediately responsible to in MDOT for your roadside facilities maintenance?

Name _____

Position (if known) _____

- a) How often do you talk to this person about your management and operations?

| | | |
|---------------------|-----------|-------|
| Daily | <u>2</u> | 4.1% |
| Weekly | <u>17</u> | 35.1% |
| Monthly | <u>19</u> | 39.1% |
| 3 or 4 times a year | <u>8</u> | 16.6% |
| Never | <u>0</u> | 0.0% |
| As needed | <u>1</u> | 2.0% |
| Seldom | <u>1</u> | 2.0% |

2. What is the title and level of the person in MDOT directly responsible for administering the MDOT roadside parks, scenic turnouts and rest areas under your jurisdiction?

Title _____

Level _____

3. How many MDOT roadside facilities are you responsible for? _____

- a. Please list them or attach a list.

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

4. How are you organized for the maintenance of the roadside facilities (i.e., who is directly responsible to whom? You may draw or attach a flow diagram).

5. Do you have a written management plan for all of the roadside facilities under your jurisdiction? (This could include the type of work schedules, a system for evaluation, etc.).

Yes 4 9% No 40 91%

a. Do you have a management plan for some of the areas?

Yes 2 5% No 39 95%

b. Which ones? _____

6. Do you feel a written management plan is a good idea for your areas?

Yes 7 17% No 34 83%

Why or why not? _____

7. Do you have any written standards or guidelines for use in determining the work to be done at the MDOT roadside facilities?

Yes 14 32% No 30 68%

If you have them where did they come from? _____

8. Do you use standards to determine your daily operations?

Yes 14 32% No 30 68%

Why or why not? _____

9. Do you feel you need MDOT to furnish a management plan including these guidelines or standards?

Yes 8 20% No 32 80%

10. Do you have operations manuals which indicate procedures for specific jobs, such as grass cutting or shrub trimming?

Have 2 4.5% Have and use 4 9.5% Don't have 36 86%

a. If you have them are they adequate?

Yes 6 100% No _____

11. Do you need manuals for specific jobs?

Yes 0 No 41 100%

Which kind(s) do you need? _____

12. What is the total annual budget set aside for the operation and maintenance of the roadside facilities in your jurisdiction? _____

How is the budget broken down? (Percent estimate).

| | | | |
|------------------------------|--------------|-------------|------------|
| % Supervision/administration | <u>7.0%</u> | % Equipment | <u>20%</u> |
| % Labor | <u>42.5%</u> | % Materials | <u>10%</u> |
| % Fringe benefits on labor | <u>22.5%</u> | % Overhead | <u>8%</u> |
| | | | 100% |

13. How much does the average worker at the roadside facilities earn per hour?

| | | | |
|--------------------|--------------|--------------------|-------------|
| Full time? Avg. \$ | <u>8.70</u> | Part time? Avg. \$ | <u>4.53</u> |
| Low | <u>7.39</u> | Low | <u>3.25</u> |
| High | <u>13.60</u> | High | <u>6.00</u> |

14. How many hours does the worker spend on maintenance of the roadside facilities per week? Avg. 33.6 hours

Low 8
High 52

15. Please estimate the relative percentages of the amount of time the worker spends on the following components?

| | |
|---|---------------------------|
| 1) Turf care | <u>40%</u> |
| 2) Trees and shrubs | <u>9%</u> |
| 3) Building maintenance | <u>23%</u> |
| 4) Talking to the public | <u>6%</u> |
| 5) Misc., other work (litter control, etc) | <u>24%</u> <u>100%</u> |

16. Who does your mechanical repairs (local contractor, MDOT crew, county, etc.)?

Sanitary system Local cont. 45%, MDOT 25%, County 25%

Electric Local cont. 27%, MDOT 55%, County 16.5%

Heating, plumbing Local cont. 25%, MDOT 56%, County 19%

Facility repair (windows, roof, etc.) Local cont. 16%, MDOT 33%, County 50%

Other MDOT 37.5%, County 62.5%

a. Is there a more effective way of providing this service? Please tell us.

17. Several roadside parks have sanitary systems which need regular maintenance: (septic pumping, etc.). Please tell us about your maintenance program, how the system is maintained, and any problems?
-
-
-

18. Please rate the following job components as you feel they relate to keeping the rest areas functioning as they should.

| | Very Unimpor- tant | Unimpor- tant | Neutral | Impor- tant | Very Impor- tant |
|--|--------------------------|------------------|---------|----------------|------------------------|
| a. Mowing | | | 1 2.5% | 15 37.5% | 24 60% |
| b. Trimming grass | | 1 2.5% | 6 15% | 19 49% | 13 33% |
| c. Weed control | | 3 7.5% | 7 17.5% | 17 42.5% | 13 32.5% |
| d. Picking up litter | | | | 13 31% | 29 69% |
| e. Emptying waste containers (outside) | | | | 15 36% | 27 64% |
| f. Watering and irrigation | 6 18% | 4 12% | 17 50% | 5 15% | 2 6% |
| g. Tree and scrub pruning | 5 14% | 4 11% | 10 28% | 15 54% | 2 5.5% |
| h. Tree and shrub planting & removal | 3 9% | 8 23.5% | 15 44% | 5 18% | 3 9% |
| i. Cleaning/sweeping/shoveling walks | 1 3% | 3 8% | 7 18.5% | 16 42% | 10 27% |
| j. Cleaning picnic tables/benches | | | 5 13% | 27 69% | 7 18% |
| k. General repair work (outside) | | | 3 8% | 28 78% | 5 14% |
| l. Repairing after vandalism | | | | 19 56% | 15 44% |
| m. General building repair work (inside) | | | | 29 78% | 8 21% |
| n. Cleaning windows/sign boards/ mirrors | | | 5 14% | 22 63% | 8 23% |
| o. Mopping and sweeping (inside) | | | 2 6% | 17 47% | 17 47% |
| p. Stocking paper products, etc. | | | 2 5.5% | 12 33% | 22 61% |
| q. Cleaning toilets and stalls | | | | 9 23% | 30 77% |
| r. Cleaning sinks | | | 4 13% | 7 23% | 19 63% |
| s. Talking to the public | 2 6% | 5 15% | 12 34% | 13 37% | 5 14% |
| t. Cleaning parking areas | 1 3% | 1 3% | 1 3% | 26 70% | 8 22% |
| u. Maintaining drinking water supply | | | 2 5.5% | 9 25% | 26 70% |
| v. Maintaining the sanitary (septic) system | | | 1 3% | 7 18% | 29 78% |
| w. Other, be specific please | | | | | |

19. How are the workers selected for their position or specific job at the roadside facilities?

| | | |
|--|----|-----|
| a. Availability | 16 | 27% |
| b. Schedule rotation | 3 | 5% |
| c. Worker is assigned permanently to an area | 14 | 23% |
| d. Sub-contracted | 3 | 5% |
| e. Workers volunteer, or prefer this job | 6 | 10% |
| f. Workers who do not function well elsewhere are assigned to roadside areas | 2 | 3% |
| g. Seniority | 10 | 16% |
| h. Other ways of selecting the workers for roadside areas | 6 | 10% |

Please elaborate:

| SUMMER WORKER TEMPORARY HELP | CONTRACTOR CHOICE | ROTATION | JOB ATTITUDE |
|---------------------------------|----------------------|----------|-----------------|
| 3 50% | 1 16% | 1 16% | 1 16% |

20. What is your most difficult roadside facility employee problem? _____

21. How do you think the average worker at the roadside facility feels about his/her job in general?

| | | |
|--------------------------|----|-------|
| a. Hates it | -- | |
| b. Dislikes it | 1 | 2.5% |
| c. Neutral | 13 | 32.5% |
| d. Likes it | 18 | 45% |
| e. Likes it a great deal | 8 | 20% |

What specifically is the least appealing part of the job?

| CLEAN TOILETS | PUBLIC COMPLAINTS | SHOVEL WALKS | PICK-UP GARBAGE | REPAIR AFTER VANDALISM | HOMOSEXUALS | MANUAL LABOR |
|------------------|----------------------|-----------------|--------------------|---------------------------|-------------|-----------------|
| 21 64% | 1 3% | 1 3% | 4 12% | 3 9% | 2 6% | 1 3% |

What specifically is the most appealing part of the job?

| MOWING | PUBLIC RELATIONS | JOB PRIDE | OUTDOOR WORK LANDSCAPING | OVERTIME OR GOOD PAY | DRIVE TO SIRE CHANGE IN WORK | FREEDOM IN DEPENDENT W |
|-----------|---------------------|--------------|-----------------------------|-------------------------|---------------------------------|---------------------------|
| 10 29% | 4 12% | 7 20.5% | 5 14.5% | 2 6% | 2 6% | 4 12% |

22. Please comment on your relationship to the unions (problems, good points).

23. Do you hire seasonal or temporary workers for work in the roadside facilities?
IMPORTANT: A seasonal worker is someone hired in for the season who is not a regular employee (not a regular employee assigned to the job during the summer season).

Yes 20 49% No 21 51%

24. What positions are they used in? _____

25. What percentage of the workers at the roadside facilities are seasonal or temporary workers?

Summer _____ % Winter _____ %

26. Who are the seasonal or temporary workers?

| | | |
|---------------------------|-----------|------------|
| Youth Corps | <u>12</u> | <u>44%</u> |
| Locally hired individuals | <u>11</u> | <u>41%</u> |
| Social Service workers | <u>2</u> | <u>7%</u> |
| Others, please elaborate | <u>2</u> | <u>7%</u> |

27. Why do you use seasonals or temporary workers? _____

28. How are the seasonals or temporary workers trained? _____

ON JOB 9 56%

MDOT 7 44%

29. Who supervises them (evaluates them, checks up on performance, etc.)?

Position(s): _____

30. At what intervals are the seasonals or temporary workers checked up on, or evaluated?

| | | |
|-----------------|-----------|-------------|
| Daily | <u>20</u> | <u>91%</u> |
| Weekly | <u>1</u> | <u>4.5%</u> |
| Monthly | | |
| No set interval | <u>1</u> | <u>4.5%</u> |
| Other intervals | | |

III. FUNCTION AND PURPOSE OF ROADSIDE PARKS, REST AREAS, TRAVEL CENTERS AND SCENIC TURN-OUTS.

1. Please rate the following contract areas.

| | Very Unimpor- tant | Unimpor- tant | Neutral | Impor- tant | Very Impor- tant |
|---|--------------------------|------------------|---------|----------------|------------------------|
| a. Pavement and shoulder maintenance | ___ | ___ | 2 5% | 14 37% | 25 66% |
| b. Bridge maintenance | ___ | ___ | 4 10.5% | 13 34% | 21 55% |
| c. Roadside maintenance/ mowing/spraying | ___ | ___ | 5 13% | 25 64% | 9 23% |
| d. Highway signing (direction information, etc.) | ___ | ___ | 5 13% | 16 41% | 20 49% |
| e. Tourist information/info boards- displays | 2 5.5% | 2 5.5% | 10 27% | 17 46% | 6 16% |
| f. Rest areas | ___ | ___ | 9 24% | 19 50% | 10 26% |
| g. MDOT roadside parks | 1 3% | 1 3% | 13 34% | 16 42% | 7 18% |
| h. MDOT scenic turn-outs | 1 3% | 3 8% | 19 51% | 10 27% | 4 11% |

2. Are you familiar with the "total highway" concept?

Yes 5 13% No 34 87%

If yes, what does it mean to you? _____

3. Do you or your county want to maintain the MDOT roadside facilities?

Yes 33 80% No 5 12% Neutral 3 8%

Why or why not? ANTRIM
KENT
CHARLEVOIX
MARQUETTE
MASON
LAPEER COUNTY

4. The present MDOT system of administration involves maintenance by the state, by county, or by subcontracts to private concerns. Do you feel the system can be improved? How?

5. Do you feel MDOT roadside facilities should be open all year round?

| | | | |
|----------------|---------------------|------------------|----------------------|
| Roadside parks | Yes <u>3</u> 7% | No <u>28</u> 68% | Some <u>10</u> 24% |
| Rest areas | Yes <u>17</u> 42.5% | No <u>4</u> 10% | Some <u>19</u> 47.5% |
| T.I.C.'s | Yes <u>9</u> 28% | No <u>11</u> 34% | Some <u>12</u> 38% |

a. Why or why not? _____

b. Do you have any comments on the current system? (Close, open earlier, etc.?)

c. Should the opening and closing of these facilities be coordinated with local demand (special events, hunting season, snowmobiles, color, etc.)?

Yes 30 71.5% No 12 28.5%

6. Do you favor allowing concessions (such as pop machines, etc.) in the roadside facilities?

Yes 8 23% No 27 77%

Why or why not? _____

7. Why do you feel the MDOT roadside facilities exist? _____

8. Do you feel that the MDOT roadside facilities contribute to the economy of your area?

Yes 23 53%

No 20 47%

How? _____

9. Do you feel that tourism in general contributes to the economy of your area?

Yes 41 98%

No 1 2%

How? _____

10. Do you feel that the roadside facilities are an important link in the overall state-wide recreation industry?

Yes 36 84%

No 7 16%

Why? _____

11. Please rate the following service components:

| | Very Unimportant | | Unimportant | | Neutral | | Important | | Very Important | |
|--|------------------|-------|-------------|-------|---------|-------|-----------|-------|----------------|-------|
| a. Providing a safety rest stop | | | | | 1 | 2% | 22 | 50% | 21 | 48% |
| b. Providing restroom facilities and drinking water | | | | | 2 | 5% | 19 | 45% | 21 | 50% |
| c. Providing an area for walking around and stretching | | | | | 10 | 23% | 25 | 58% | 8 | 19% |
| d. Providing clean walkways all year around | 2 | 5% | 7 | 17% | 10 | 24% | 14 | 33% | 9 | 21% |
| e. Providing carefully maintained buildings | | | 1 | 2% | 5 | 12% | 28 | 67% | 8 | 19% |
| f. Providing a litter-free environment | | | | | 6 | 14% | 28 | 64% | 10 | 23% |
| g. Providing for trash hauling at dumpsters or barrels | | | 4 | 9% | 5 | 12% | 19 | 45% | 14 | 33% |
| h. Providing for security at the rest areas | | | 5 | 12% | 13 | 32% | 10 | 24% | 13 | 32% |
| i. Providing carefully maintained grounds (shrubs, grass) | | | 3 | 7% | 7 | 18% | 29 | 67% | 4 | 9% |
| j. Providing a "recreational experience" | 8 | 19% | 8 | 19% | 19 | 45% | 3 | 7% | 4 | 9% |
| k. Providing a "good image of the state" | | | 5 | 12.5% | 5 | 12.5% | 17 | 42.5% | 13 | 32.5% |
| l. Providing free coffee through local arrangements | 10 | 25% | 13 | 32.5% | 12 | 30% | 4 | 10% | 1 | 2.5% |
| m. Providing food machines | 16 | 39% | 15 | 36.5% | 8 | 26% | 2 | 6.5% | | |
| n. Providing drink machines | 16 | 40% | 15 | 37.5% | 5 | 12.5% | 3 | 7.5% | 1 | 2.5% |
| o. Providing areas for pets | 3 | 7% | 4 | 10% | 14 | 34% | 18 | 44% | 2 | 5% |
| p. Providing a telephone | 2 | 5% | | | 4 | 10% | 16 | 41% | 19 | 49% |
| q. Providing picnic areas | 1 | 2.5% | 2 | 4.5% | 7 | 16% | 26 | 59% | 7 | 16% |
| r. Providing grills | 6 | 14% | 2 | 5% | 13 | 30% | 17 | 39.5% | 5 | 11.5% |
| s. Providing maps or bulletin board for directions | 1 | 2.5% | 1 | 2.5% | 6 | 14.5% | 20 | 49% | 13 | 31.5% |
| t. Providing displays or points of interest for the tourist | 2 | 5% | 3 | 7% | 10 | 24% | 19 | 45% | 8 | 19% |
| u. Providing displays on the history, culture, geology, ecology of the state | 4 | 10% | 5 | 12% | 17 | 41.5% | 11 | 27% | 4 | 10% |
| v. Providing tourist information on specific local attractions | 2 | 5% | 2 | 5% | 15 | 37.5% | 15 | 37.5% | 6 | 15% |
| w. Providing a person to talk to the public | 9 | 22.5% | 11 | 27.5% | 14 | 35% | 5 | 12.5% | 1 | 2.5% |
| x. Providing emergency aid for motorists | 2 | 5% | 12 | 27% | 17 | 35% | 8 | 18% | 5 | 11% |
| y. Additional services? What? | | | | | | | | | | |

12. What are the most difficult problems you have with the people who use the facilities? _____

13. Who is responsible for security and law enforcement at the roadside areas under your jurisdiction?

| | | |
|-----------------|-------------|-------|
| Local police | <u>9</u> | 10.5% |
| County sheriff | <u>40</u> | 47% |
| State police | <u>35</u> | 41% |
| Private guard | <u> </u> | |
| Other (explain) | <u>1</u> | 1% |

Comments _____

14. What is(are) your most serious security problem(s)?

15. What do you recommend to improve security at your roadside areas?

16. Please comment on the quality of telephone service at your roadside facilities.

17. Please add any additional comments you may have regarding state roadside facility administration, maintenance and management. _____

Please be assured that we greatly appreciate your effort on this project. We know that this has taken a lot of your time but your response will contribute directly to better understanding of the situation. From this MDOT can respond with better informed policy and seek to meet your needs and improve the efficiency of the system. For feedback please contact Jay Bastian at the MDOT Lansing office.

HOPEFULLY, THIS QUESTIONNAIRE WAS A CHALLENGING EXPERIENCE. YOUR RESPONSES
WILL BE CAREFULLY CONSIDERED.

Thank you.

Louis F. Twardzik, Professor

Theodore J. Haskell, Professor

Leon Watson, Research Assistant

Department of Park and Recreation Resources
Michigan State University

VII. Appendices

B. National Level Survey

INSTRUCTIONS

This survey is specifically focused on the maintenance and operations of the roadside facilities under your jurisdiction. Please respond to each question in ink or by typewriter. If the question does not apply in your situation, write in N/A or a dash (-). We have left plenty of room for your comments, so please feel free to tell us your experience!

YOUR NAME _____

YOUR POSITION _____

YOUR ADDRESS _____

YOUR STATE _____

I. ORGANIZATION/ADMINISTRATION

1. Do you have roadside facilities maintained by state level government in your state?

Yes (42), 100% No (0)

- a. If yes, who is responsible for them in your state?

Dept. of Transportation of Highways (38), 95%. Others: DPW (1)

Toll Roads Authority (2), 5%. Several other states (11) said
the Travel Information Centers were separate.

IMPORTANT: We are interested in the organization, maintenance and operations of your roadside facilities. If you are not responsible, please give this questionnaire to the administrator in charge.

-
2. In Michigan, some counties operate and maintain the facilities with county people doing all the jobs (from grass cutting to snow removal), and some counties are subcontracting all or part of the jobs. In addition, facilities in some counties are directly maintained by the state.

- a. How does your state arrange for the maintenance of the facilities?

Totally by State Force (17), 43.5%; Totally County Force (1), 2.5%

State and County Force (2), 5%

State and Private Force (18), 46%

Totally Private (1), 2.5%

3. Do you subcontract out any jobs?

Yes (22), 55%

No (18), 45%

(If no skip to Section II)

a. Why or why not, (prices, manpower)?

No Law prohibits (1), costs less to use state force (2), %. Yes Lack of manpower or personnel by the state (12), 57%; less costly to subcontract (5), 24%; better service/more convenient to subcontract (2), 9.5%; remote locations (2), 9.5%.

b. Please list the specific jobs for which you typically subcontract and to whom.

Full range (10)

Garbage disposal (6)

Facilities (10)

Septic service (2)

Lawn/landscape/water (5)

Litter (1)

Public relations (1)

Heating/electric (2)

4. Are you satisfied with your current subcontracts?

Yes (19), %

No (2), %

a. Why or why not? More economical (5), good or better quality of work (4), on time service (1), gives regular employees a break (1).

b. What would you change? Nothing (8), better contracts/control (1), get more subcontractors (1).

II. TYPE AND SIZE OF MANAGEMENT AND OPERATIONS

1. How are your state roadside facilities classified ("rest areas", "picnic spots", "safety stops", etc.)?

(Safety) Rest Areas (34)

Roadside Parks (6)

View areas, scenic turnouts or

Campgrounds (1), Safety parking areas (4)

overlooks (14), TICS or Welcome Centers (11), Safety parking areas (4)

Picnic areas/stops/table sites (10), Healthwells (1), Sanitary facilities (1)

2. How many roadside facilities are there in your state?

Please list them or attach a list according to the various types of units.

See specific state of interest

3. What is the title and level of the person directly responsible for administering the roadside parks, scenic turnouts and areas, etc. under your jurisdiction?

Title See individual state
Level _____
Address _____

4. How are you organized for the maintenance of the roadside facilities (i.e., who is directly responsible to whom? You may draw or attach a flow diagram).

See specific state of interest.

5. Do you have operations manuals which indicate procedures for specific jobs, such as grass cutting or shrub trimming?

Have (11), 28% Have and use (11), 28% Don't have (17), 43.5%

- a. If you have them are they adequate?

Yes (14), 64% No (8), 36%

6. How are your roadside facilities funded? _____

State funds unspecified or Maintenance Budget (22), 65%

State road funds (12), 35%; State general fund (1); Gas tax funds (6);

Vanity license plates (2); Turnpike fees (1); User tax (1).

7. How much does the average worker at the roadside facilities earn per hour?

Full time? \$6.99 avg.

Part time? \$5.34 avg.

8. How many hours does the worker spend on maintenance of the roadside facilities per week? See report - mode was 40 hrs.

9. Who does your mechanical repairs (local contractor, state/regional crew, county, etc.)?

| | Dis. or State Reg. crew level | Local Contract | Local con & state crew | County crew |
|---------------------------------------|----------------------------------|-------------------|---------------------------|----------------|
| Sanitary system | (11) 27% (8) 19% | (9) 22% | (12) 29% | (1) 2% |
| Electric | (13) 31% (10) 24% | (8) 19% | (11) 26% | |
| Heating, plumbing | (11) 26% (9) 21% | (9) 21% | (13) 31% | |
| Facility repair (windows, roof, etc.) | (10) 27% (10) 27% | (4) 15% | (12) 32% | (1) 3% |
| Other | | | | |

10. Please rate the following job components as you feel they relate to keeping the rest areas functioning as they should.

| | Very Unimpor- tant | Unimpor- tant | Neutral | Impor- tant | Very Impor- tant |
|--|--------------------------|------------------|-----------|----------------|------------------------|
| a. Mowing | | | (3) 7% | (24) 58% | (14) 34% |
| b. Trimming grass | | (4) 9% | (6) 14% | (25) 58% | (8) 19% |
| c. Weed control | | (3) 7.5% | (5) 12.5% | (20) 50% | (12) 30% |
| d. Picking up litter | | | | (12) 28% | (30) 71% |
| e. Emptying waste containers (outside) | | | | (13) 33% | (27) 67% |
| f. Watering and irrigation | (1) 2% | (3) 7% | (23) 57% | (10) 24% | (5) 12% |
| g. Tree and scrub pruning | | (2) 6% | (15) 43% | (17) 49% | (1) 3% |
| h. Tree and shrub planting & removal | (2) 5% | | (13) 33% | (21) 54% | (3) 8% |
| i. Cleaning/sweeping/shoveling walks | | (1) 3% | (3) 7% | (16) 38% | (21) 51% |
| j. Cleaning picnic tables/benches | | | (3) 7% | (16) 41% | (20) 51% |
| k. General repair work (outside) | | | (2) 5% | (26) 65% | (12) 30% |
| l. Repairing after vandalism | | | | (17) 43% | (22) 56% |
| m. General building repair work (inside) | | | (2) 5% | (19) 50% | (17) 45% |
| n. Cleaning windows/sign boards/ mirrors | | | | (21) 55% | (17) 45% |
| o. Mopping and sweeping (inside) | | | | (10) 26% | (29) 74% |
| p. Stocking paper products, etc. | | | (1) 2% | (10) 25% | (29) 73% |
| q. Cleaning toilets and stalls | | | | (6) 15% | (33) 85% |
| r. Cleaning sinks | | | (2) 5% | (7) 17% | (31) 78% |
| s. Talking to the public | | | (14) 37% | (16) 42% | (8) 21% |
| t. Cleaning parking areas | | (1) 3% | (6) 18% | (20) 59% | (7) 20% |
| u. Maintaining drinking water supply | | | (2) 5% | (10) 27% | (25) 67% |
| v. Maintaining the sanitary (septic) system | | | | (7) 18% | (31) 82% |
| w. Other, be specific please | | | | | (1) 100% |

11. What is your most difficult roadside facility employee problem? _____

Lack of pride, initiative, motivation or quality job (15) 37.5%; scheduling prob. (6) 15%; problems with heavy use or traffic (6) 15%; dealing with messy or morally bad public (5) 12.5%; attrition/employment turnover (4) 10%; no problems (7) 17.5%; low status job (1) 2.5%; odd work hours (1) 2.5%; not enough employees (1) 2.5%.

12. Do you hire seasonal or temporary workers for work in the roadside facilities?
 IMPORTANT: A seasonal worker is someone hired in for the season who is not a regular employee (not a regular employee assigned to the job during the summer season).

Yes (25) 58% No (18) 42%

13. What percentage of the workers at the roadside facilities are seasonal or temporary workers? See individual state.

Summer 32.6 % Winter 31 %
 Range 5% to 95% Range 10% to 64%

14. Who are the seasonal or temporary workers?

| | | | | | | | |
|---------------------------|------------------|-------------------------|---------------|----------------|---------------------|--|--|
| Youth Corps | <u>(2)</u> | <u>8.7%</u> | | | | | |
| Locally hired individuals | <u>(20)</u> | <u>87%</u> | | | | | |
| Social Service workers | <u>(1)</u> | <u>4%</u> | | | | | |
| Others, please elaborate | <u>Prisoners</u> | <u>college students</u> | <u>unions</u> | <u>seniors</u> | <u>paying fines</u> | | |
| | <u>(3)</u> | <u>(4)</u> | <u>(1)</u> | <u>(1)</u> | <u>(1)</u> | | |

15. How are the seasonals or temporary workers trained? _____

OJT (25) 86%; training workshops (2) 7%; contractor (2) 7%.

III. FUNCTION AND PURPOSE OF ROADSIDE PARKS, REST AREAS, TRAVEL CENTERS AND SCENIC TURN-OUTS.

1. Please rate the following contract areas.

| | <u>Very Unimpor- tant</u> | <u>Unimpor- tant</u> | <u>Neutral</u> | <u>Impor- tant</u> | <u>Very Impor- tant</u> |
|---|-------------------------------|--------------------------|-----------------|------------------------|---------------------------------|
| a. Pavement and shoulder maintenance | _____ | _____ | <u>(1)</u> 3% | <u>(17)</u> 47% | <u>(18)</u> 50% |
| b. Bridge maintenance | <u>(1)</u> 3% | _____ | <u>(2)</u> 6% | <u>(14)</u> 39% | <u>(15)</u> 47% |
| c. Roadside maintenance/ mowing/spraying | _____ | <u>(1)</u> 3% | <u>(5)</u> 14% | <u>(16)</u> 45% | <u>(13)</u> 37% |
| d. Highway signing (direction information, etc.) | _____ | <u>(1)</u> 3% | <u>(5)</u> 14% | <u>(9)</u> 26% | <u>(20)</u> 57% |
| e. Tourist information/info boards- displays | _____ | <u>(1)</u> 3% | <u>(9)</u> 25% | <u>(17)</u> 47% | <u>(9)</u> 25% |
| f. Rest areas | <u>(1)</u> 3% | _____ | <u>(2)</u> 6% | <u>(18)</u> 53% | <u>(13)</u> 38% |
| g. Roadside parks | <u>(2)</u> 7% | _____ | <u>(11)</u> 38% | <u>(12)</u> 41% | <u>(4)</u> 14% |
| h. Scenic turn-outs | <u>(2)</u> 6% | _____ | <u>(11)</u> 34% | <u>(14)</u> 44% | <u>(5)</u> 16% |
| i. Other, what? <u>Waysides</u> | _____ | _____ | <u>(1)</u> 33% | _____ | <u>(2)</u> 66% |
| j. Other, what? <u>Picnic areas</u> | _____ | _____ | <u>(1)</u> 100% | _____ | _____ |

2. Are your roadside facilities open all year round?

| | | | |
|---------------------------|-----------------------|---------------------|----------------------|
| Roadside parks | Yes <u>(13)</u> 42% | No <u>(3)</u> 12.5% | Some <u>(8)</u> 33% |
| Rest areas | Yes <u>(27)</u> 67.5% | No <u>(3)</u> 7.5% | Some <u>(10)</u> 25% |
| Travel Info Centers | Yes <u>(23)</u> 64% | No <u>(6)</u> 17% | Some <u>(7)</u> 19% |
| Others | Waysides (1) | | |
| | Picnic (2) | (2) | (2) |
| Please name <u>Scenic</u> | Yes _____ | No _____ | Some _____ |
| | turnouts (3) | | |
| Others | | | |
| Please name _____ | Yes _____ | No _____ | Some _____ |

a. Why or why not? NOT OPEN Low winter use or high winter costs (16) 66%;
vandalism/prostitution (1) 5%; facilities not designed for winter (3) 16%.
OPEN Equal winter/summer use (1) 25%; keep open for public safety and service
(3) 75%.

b. Do you have any comments on the current system? (Problems, etc.?)

Vandalism (8); need more law enforcement (1); system needs rehab (3);
system is too big or overconstructed (2).

3. Do you allow concessions (such as pop machines, etc.) in the roadside facilities?

Yes (15) 40% No (23) 60% Planning on it (7) 18%

Why or why not? WHY NOT Security probs (4); maintenance probs (4);
against fed or state law (9); not part of objectives of facilities (2),
not set up for it (2). WHY YES Public demand (2); provide jobs for handi-
capped (3); help fund the system (1).

4. Do you feel that the roadside facilities contribute to the economy of your state?

Yes (24) 80% No (4) 13% Neutral (2) 7%

How? Provide support for tourism (21) 40%; create good state image (13) 25%;
traveler convenience (9) 17%; more time stopped equals more money spent
(6) 11.5%; provide revenue through vending (2) 4%; provide jobs (1) 2%.

5. Please rate the following service components:

| | <u>Very Unimportant</u> | <u>Unimportant</u> | <u>Neutral</u> | <u>Important</u> | <u>Very Important</u> |
|--|-------------------------|--------------------|----------------|------------------|-----------------------|
| a. Providing a safety rest stop | _____ | _____ | _____ | (17) 45% | (21) 55% |
| b. Providing restroom facilities and drinking water | _____ | _____ | _____ | (14) 37% | (24) 63% |
| c. Providing an area for walking around and stretching | _____ | _____ | (2) 6% | (26) 70% | (9) 24% |
| d. Providing clean walkways all year around | _____ | (1) 2% | (3) 7% | (19) 51% | (16) 41% |
| e. Providing carefully maintained buildings | _____ | _____ | _____ | (15) 41% | (22) 59% |
| f. Providing a litter-free environment | _____ | _____ | _____ | (21) 56% | (16) 43% |
| g. Providing for trash hauling at dumpsters or barrels | _____ | _____ | (4) 10% | (17) 43% | (18) 46% |
| h. Providing for security at the rest areas | _____ | (1) 2% | (7) 18% | (18) 46% | (13) 33% |
| i. Providing carefully maintained grounds (shrubs, grass) | _____ | (1) 2% | (6) 15% | (27) 67% | (6) 15% |
| j. Providing a "recreational experience" | (4) 10% | (8) 20% | (19) 50% | (4) 10% | (5) 13% |
| k. Providing a "good image of the state" | _____ | (2) 4% | (3) 7% | (10) 25% | (25) 63% |
| l. Providing free coffee through local arrangements | (5) 13% | (11) 29% | (19) 50% | (2) 5% | (1) 3% |
| m. Providing food machines | (9) 24% | (15) 39% | (12) 32% | (1) 3% | (1) 3% |
| n. Providing drink machines | (8) 20% | (14) 36% | (12) 31% | (4) 10% | (1) 2% |
| o. Providing areas for pets | (1) 3% | (3) 8% | (10) 27% | (20) 45% | (1) 3% |
| p. Providing a telephone | _____ | _____ | (5) 13% | (16) 42% | (17) 45% |
| q. Providing picnic areas | _____ | (2) 6% | (7) 19% | (20) 54% | (8) 22% |
| r. Providing grills | (4) 12% | (9) 26% | (8) 23% | (11) 32% | (2) 6% |
| s. Providing maps or bulletin board for directions | _____ | _____ | (4) 10% | (23) 59% | (12) 31% |
| t. Providing displays or points of interest for the tourist | (1) 3% | _____ | (3) 8% | (24) 65% | (9) 24% |
| u. Providing displays on the history, culture, geology, ecology of the state | (1) 2% | (1) 2% | (17) 18% | (18) 46% | (2) 5% |
| v. Providing tourist information on specific local attractions | (1) 3% | (2) 5% | (11) 27% | (20) 50% | (6) 15% |
| w. Providing a person to talk to the public | (2) 5% | (6) 16% | (12) 32% | (12) 32% | (6) 16% |
| x. Providing emergency aid for motorists | (1) 3% | (5) 14% | (13) 37% | (10) 29% | (6) 17% |
| y. Additional services? What? | Small zoo | | | | (1) |
| | Weather information | | | | (2) |
| | Trailer sanitation | | | | (1) |

IV. FINAL COMMENTS

1. How would you describe the level of support within your state government for roadside facility development.

No support(1) 2% Little support(2) 5% Neutral(7) 17% Moderately supported (14) 33% Very well supported (18) 43%

2. Michigan's roadside facility system has recently experienced several pressures stemming from budget cutbacks and loss of personnel. What are the main negative pressures on your system.

Budget cutbacks (15) 25%; restrictions on/or loss of personnel (13) 22%; competition for funds or low priority given to facilities (11) 18%; adequate or no pressures (7) 12%; lack of interest by supervisory staff in state government (4) 7%; high costs of construction/repair (4) 7%; security problems (4) 7%; legislative committees (2) 3%.

3. Do you have any interesting or different source of funding for roadside facilities in your state? If so, please let us know what it is and how it works.

See report

4. Please add any additional comments you may have regarding your state roadside facility administration, maintenance and management.

See report

Please be assured that we greatly appreciate your effort on this project. We know that this has taken a lot of your time but your response will contribute directly to better understanding of the national situation.

For feedback, please contact:

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For information on conducting surveys of this kind, please contact:

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Thank you.

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