

# **MAINTENANCE CONDITION OF KENTUCKY HIGHWAYS**



## **Statewide Maintenance Rating Program - FY 2010**

**Division of Maintenance  
Operations and Pavement Management Branch  
January 2010**





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## **2010 MAINTENANCE RATING PROGRAM REPORT**

### **EXECUTIVE SUMMARY**

#### **Introduction**

The Kentucky Transportation Cabinet (KYTC) has surveyed the state's roadside conditions in order to estimate the needs for routine maintenance. The 2010 Maintenance Rating Program (MRP) inspections were completed statewide during summer 2009. The purpose of this report is to provide the results of the inspections and assess the current condition of the highway infrastructure maintenance activities. The report is broken into two parts – a statewide report used for higher level analysis; and individual district reports used on a local level for management decisions.

#### **Background**

The KYTC Maintenance Rating Program (MRP) is a systematic measurement process that uses annual performance measurements of highway infrastructure data to support planning and management decisions regarding maintenance activities and resources. Data collected from the MRP is used in conjunction with the cabinet's Operations Management System (OMS) to calculate the maintenance budget for each of the twelve highway districts.

#### **Target for Sustained Performance**

The target performance level score was set at 80 (service level B-good) for each highway district and for the statewide score for all highways. The target serves as a benchmark for districts to help identify best practices among high performers and opportunities for improvement. The statewide target may be increased in the future as the districts reach higher levels of performance.

It is generally recognized that the level of service provided on the four road types for all features will not be the same. Interstate highways with higher traffic volumes and higher speed limits need to be maintained at a higher level of service than Rural Secondary roads. It is the responsibility of each district to set target values for every feature for each of the four road types to achieve the target score of 80.

**Results**

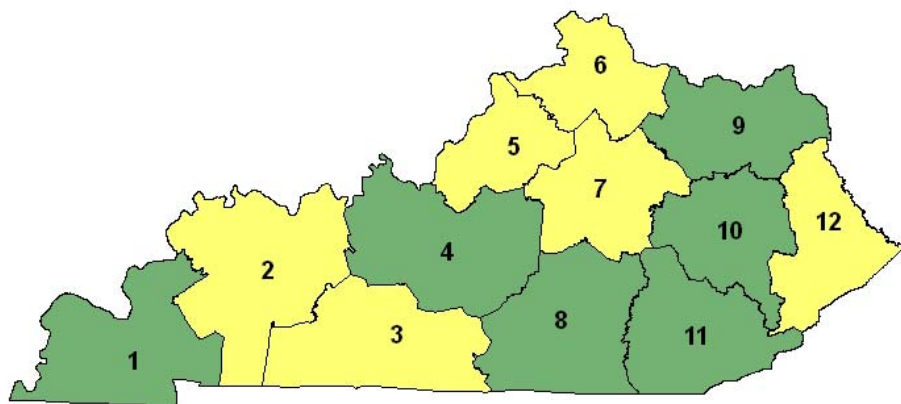
The MRP score is based on a 100 point scale. The statewide weighted scores determined from data collected during Fiscal Year 2010 are shown on Table 1: Statewide Maintenance Levels of Service.

**Table 1: Statewide Maintenance Levels of Service**

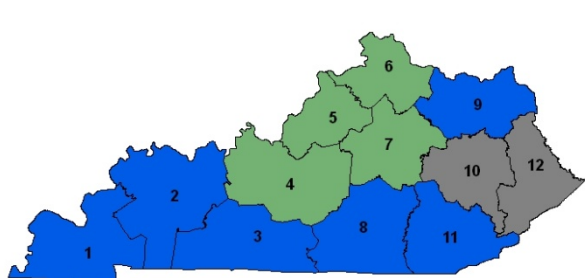
| <b>Statewide Scores FY 10</b> |       |          |
|-------------------------------|-------|----------|
| Classification                | Score | Grade    |
| Interstates                   | 89.0  | <b>B</b> |
| National Highway System       | 87.0  | <b>B</b> |
| State Primary and Secondary   | 81.9  | <b>B</b> |
| Rural Secondary               | 73.9  | <b>C</b> |
| All Roads                     | 79.7  | <b>C</b> |

The total statewide weighted score for FY '10 is 79.7. This represents a slight decrease from the FY '09 score of 80.9 and falls just below the target level of service. The highest performing roadway system for FY '10 was Interstate. The Interstate system received a score of 89.0 (a slight decrease from the FY '09 score of 90.3). The Rural Secondary System once again had the lowest statewide score (73.9). This represents a decrease from the FY '09 score of 76.9.

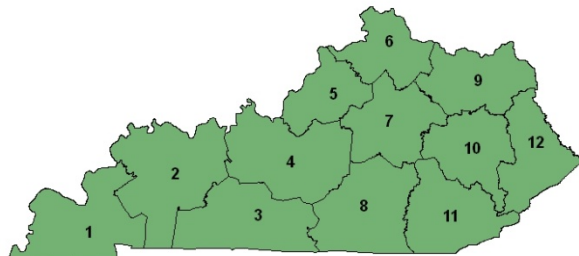
The district levels of service determined from data collected during Fiscal Year 2010 are shown on Figure 1: District Maintenance Levels of Service. District one was the highest overall performing district (84.4). Districts seven and three received the lowest overall scores of 73.8 and 74.6 respectively.



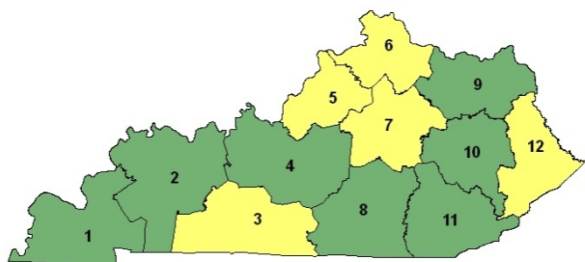
ALL ROADS



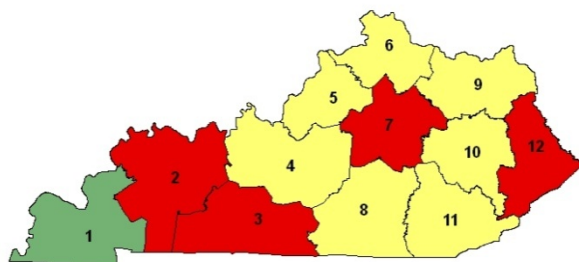
INTERSTATES



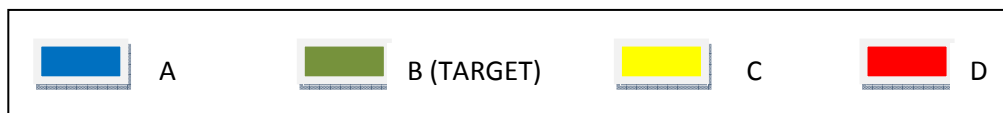
NATIONAL HIGHWAY SYSTEM



STATE PRIMARY AND SECONDARY



RURAL SECONDARY



**Figure 1: District Maintenance Levels of Service**

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The overall statewide weighted scores for each maintenance feature inspected as part of the Maintenance Rating Program are shown on Table 2: Statewide Maintenance Feature Scores. Features with failing scores included shoulder drop off and ditches. Vertical clearance, pavement drop off, and warning and regulatory signs scored close to the fail threshold.

**Table 2: Statewide Maintenance Feature Scores**

| <b>Feature Description</b>       | <b>Overall Score</b> |
|----------------------------------|----------------------|
| Rideability                      | 73.7                 |
| Appearance                       | 90.9                 |
| Vertical Clearance               | 71.6                 |
| Visual Obstructions              | 91.3                 |
| Fencing                          | 72.1                 |
| Guardrail Specifications         | 75.4                 |
| Guardrail Damage                 | 82.4                 |
| Attenuators                      | 87.5                 |
| Potholes                         | 74.2                 |
| Rutting                          | 82.7                 |
| Pavement Drop Off                | 71.3                 |
| Shoulder Drop Off                | 69.9                 |
| High Shoulder                    | 87.0                 |
| Shoulder Potholes                | 72.6                 |
| Drains                           | 74.8                 |
| Ditches                          | 69.9                 |
| Curb and Gutter                  | 78.6                 |
| White Stripe                     | 92.5                 |
| Yellow Stripe                    | 90.4                 |
| Guide Signs                      | 83.7                 |
| Guide Sign Assemblies            | 85.3                 |
| Warning and Reg. Signs           | 71.8                 |
| Warning and Reg. Sign Assemblies | 81.9                 |

The overall district weighted scores for each maintenance feature inspected for the Maintenance Rating Program are shown on Table 3: District Maintenance Feature Scores. Districts will be able to request reimbursement for up to \$100,000 per feature to correct failing MRP features (below 70). Features not eligible for additional funding are those impacted by resurfacing (appearance, rideability, rutting, and pavement potholes).

**TABLE 3 - DISTRICT MAINTENANCE FEATURE SCORES**  
All State Roads - Fiscal Year 2010

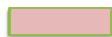
| District:                       | 1    | 2    | 3     | 4     | 5     | 6    | 7     | 8    | 9    | 10   | 11   | 12   |
|---------------------------------|------|------|-------|-------|-------|------|-------|------|------|------|------|------|
| Rideability Index               | 74.8 | 74.0 | 78.1  | 74.4  | 71.0  | 70.4 | 73.5  | 77.5 | 76.3 | 68.7 | 70.1 | 71.9 |
| Appearance                      | 99.1 | 92.2 | 82.2  | 84.3  | 94.3  | 89.8 | 85.1  | 97.9 | 94.7 | 92.5 | 87.6 | 92.3 |
| Vertical Clearance              | 86.6 | 91.6 | 59.7  | 77.8  | 84.7  | 77.9 | 69.3  | 72.3 | 66.6 | 47.7 | 63.1 | 40.6 |
| Visual Obstructions             | 97.6 | 95.2 | 82.7  | 97.3  | 96.2  | 81.1 | 83.8  | 89.1 | 95.3 | 83.7 | 89.9 | 98.4 |
| Fencing                         | 92.1 | 79.2 | 94.2  | 86.2  | 100.0 | 92.4 | 100.0 | 40.7 | 91.6 | 63.2 | 90.5 | 92.2 |
| Guardrail Out of Specifications | 96.9 | 92.2 | 88.7  | 63.6  | 69.7  | 67.3 | 83.0  | 61.3 | 76.3 | 87.7 | 71.4 | 78.8 |
| Guardrail Damaged               | 96.5 | 90.2 | 75.1  | 74.7  | 75.9  | 73.9 | 78.9  | 85.0 | 78.4 | 89.2 | 81.5 | 87.4 |
| Attenuators/Rail Ends Damaged   | 97.9 | 86.2 | 74.8  | 82.8  | 90.7  | 87.8 | 77.2  | 91.0 | 88.4 | 84.0 | 78.3 | 94.8 |
| Pavement Potholes               | 90.2 | 59.1 | 87.8  | 80.2  | 47.9  | 72.6 | 72.9  | 83.6 | 79.6 | 81.6 | 78.6 | 47.6 |
| Rutting                         | 81.7 | 84.8 | 84.5  | 92.2  | 50.1  | N/A  | 79.9  | 92.6 | 90.8 | 89.6 | 80.6 | 71.3 |
| Pavement Dropoff                | 72.4 | 58.4 | 78.7  | 70.9  | 62.8  | 64.8 | 91.3  | 91.5 | 55.5 | 67.2 | 82.6 | 58.0 |
| Shoulder Dropoff                | 77.0 | 81.4 | 45.8  | 74.0  | 55.7  | 73.6 | 62.9  | 64.6 | 78.3 | 77.6 | 78.5 | 63.5 |
| High Shoulder                   | 96.1 | 94.4 | 74.0  | 90.2  | 93.1  | 92.8 | 78.7  | 97.4 | 77.4 | 81.6 | 78.3 | 82.6 |
| Shoulder Potholes               | 84.4 | 67.2 | 49.9  | 77.2  | 31.8  | 76.4 | 75.8  | 87.1 | 80.6 | 92.4 | 63.7 | 80.6 |
| Drains                          | 85.1 | 61.4 | 63.9  | 71.7  | 75.5  | 77.0 | 84.5  | 72.1 | 81.0 | 74.8 | 82.9 | 77.2 |
| Ditches                         | 75.9 | 63.8 | 49.5  | 86.6  | 91.6  | 73.5 | 77.7  | 60.7 | 63.3 | 66.9 | 74.7 | 56.7 |
| Curbs and Gutters               | N/A  | N/A  | 41.2  | N/A   | 47.0  | 79.0 | 86.7  | N/A  | N/A  | N/A  | N/A  | 97.7 |
| White Striping                  | 93.0 | 96.2 | 100.0 | 100.0 | 94.4  | N/A  | N/A   | 91.1 | 84.2 | 93.4 | 89.1 | 79.0 |
| Yellow Striping                 | 95.2 | 97.4 | 98.1  | 95.0  | 98.0  | N/A  | N/A   | 98.1 | 83.7 | 82.5 | 79.6 | 64.7 |
| Guide Sign Faces                | 85.7 | 68.9 | 95.0  | 96.5  | 80.4  | 72.1 | 74.8  | 88.4 | 80.5 | 83.3 | 97.1 | 94.3 |
| Guide Sign Assemblies           | 73.2 | 68.5 | 77.6  | 93.0  | 93.5  | 81.1 | 79.3  | 96.1 | 98.5 | 97.3 | 98.2 | 96.3 |
| Warning/Reg Sign Faces          | 72.2 | 67.6 | 67.6  | 75.5  | 53.5  | 68.7 | 29.1  | 82.0 | 74.7 | 87.4 | 94.4 | 91.4 |
| W/R Sign Assemblies             | 86.1 | 78.4 | 57.9  | 91.8  | 88.6  | 78.4 | 61.1  | 85.7 | 99.5 | 96.2 | 93.8 | 85.0 |



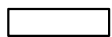
Strength - A feature scored at 90 or higher across the district.



Within Acceptable Limits - A feature scored between 70 and 90 points across the district.



Failing - A feature scored below 70 across the district.

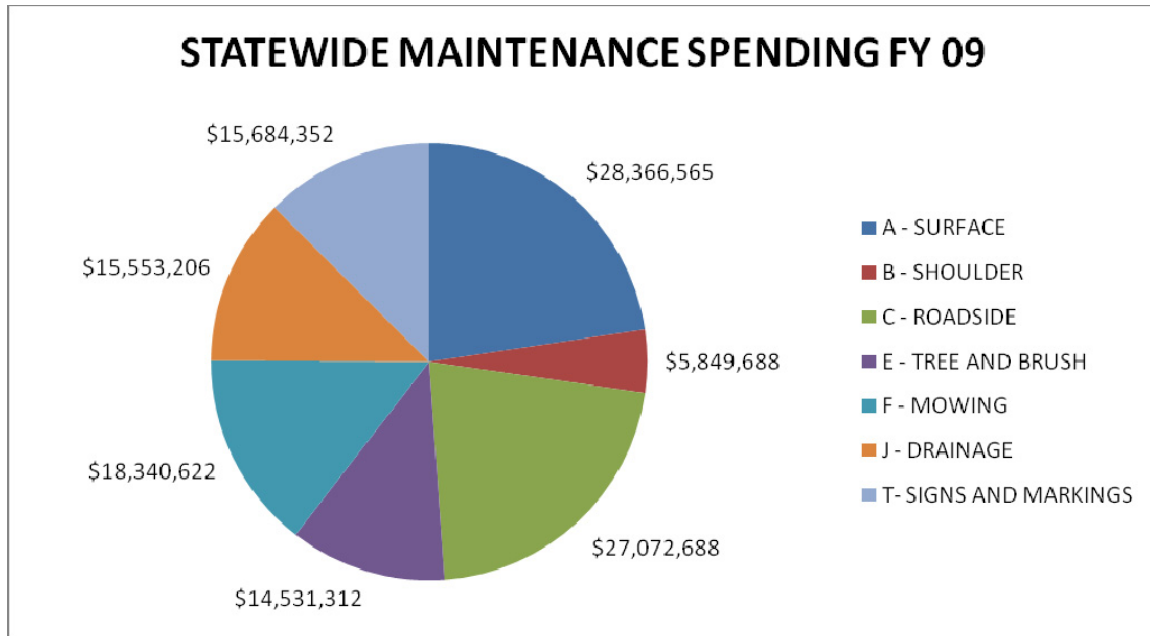


Features did not have a sample size large enough to produce statistically valid data

\*Some values may appear to be shaded incorrectly due to rounding

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The costs for routine maintenance, obtained through both EMARS and OMS, are shown in Figure 2: Maintenance Spending. Only activities that impact features inspected by the MRP were included in the summary. For a complete list of activities included refer to Appendix V.



**Figure 2: Maintenance Spending**

Districts were allotted extra money for failing Maintenance Rating Program features beginning with the FY '08 MRP Report scores. Districts received \$100,000 per low scoring feature (in FY '09 budgets) in an effort to improve maintenance service provided. This money was an upfront allotment that was not tracked to ensure it was used to address issues noted in the report. Districts received a total allotment of \$4.7 million for FY '09 budgets. Table 2: Statewide Scores by Year compares the overall weighted scores from FY '08 (used to determine FY '09 allotments) to FY '10 scores (impacted by FY '09 budget). The level of service provided dropped across all roadway classification systems during this time.

**Table 4: Statewide Scores by Year**

| Statewide Scores Comparison |       |       |
|-----------------------------|-------|-------|
| Classification              | FY 08 | FY 10 |
| Interstates                 | 90.0  | 89.0  |
| National Highway System     | 90.3  | 87.0  |
| State Primary and Secondary | 82.0  | 81.9  |
| Rural Secondary             | 77.5  | 73.9  |
| All Roads                   | 81.7  | 79.7  |

## A. GOALS AND REQUIREMENTS

### **Assess the maintenance activities of the Kentucky Transportation Cabinet.**

The MRP allows the cabinet to assess the effectiveness of infrastructure maintenance activities and compare the outcomes to customer expectations.

### **Make informed policy and management decisions.**

The results of the MRP provide guidance for investment decisions and resource allocation. In addition, the MRP findings also offer a means to assess effectiveness of prior decisions and resource allocations. MRP findings also reveal where additional resources are needed to bring performance to targeted levels.

The MRP supports the cabinet goal of delivering a consistent level of customer service across the state by providing the necessary data to identify differences in performance across districts, road types, and roadway features. The results of the MRP demonstrate how each district is performing in comparison to targeted levels in specific categories. The MRP can thereby help district management determine how district resources should be allocated to achieve a consistent level of service. The MRP can also help district and cabinet management formulate the budget request necessary to achieve targeted levels of performance.

Similarly, the MRP communicates targeted performance levels, along with the policy and budget decisions that drive them, to policy makers as well as citizens. The MRP thus aids the Commonwealth's Executive and Legislative branches in determining acceptable levels of performance for their constituents.

The MRP is designed to support "management by fact" at all levels and provides a means to identify best practices among the districts by identifying districts exceeding target levels. These practices can then be shared with districts that may be falling short of their goals.

### **Promote alignment with the Transportation Cabinet's Strategic Plan.**

The Maintenance Rating Program is vital to two of the cabinet's four strategic goals. These goals are as follows:

*Strategic Goal Number 1: "Ensure Mobility & Access"* to preserve the transportation system infrastructure.

*Strategic Goal Number 3: "Continually Improve Organizational Performance"* of Operational and Support Processes.

The MRP is a direct assessment tool for maintenance activities related to infrastructure preservation, as defined in *Strategic Goal Number 1*. The MRP is also the principal

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performance measure for assessing maintenance process improvement, thereby facilitating *Strategic Goal Number 3*.

### **Provide Data for GASB-34.**

MRP data can be used to satisfy the Governmental Accounting Standards Board Statement 34 (GASB-34) condition of highway assets requirement. This requirement obligates state governments to report all capital assets, including infrastructure, in a *statement of net assets* and to report depreciation expense associated with these assets. Infrastructure assets are not required to be depreciated if (1) the government manages the assets using an asset management system that has certain defined characteristics and (2) the government can document that the assets are being preserved approximately at (or above) a condition level established and disclosed by the government.

KYTC's Operations Management System (OMS) satisfies the first requirement listed above. The MRP fulfills the second requirement.



## **B. METHODOLOGY**

### **Sampling and Data Collection**

Data is collected during one wave each year, July through October.

For this wave, between 300 and 400 roadway segments are randomly selected in each district among the following four road types:

**Interstates** - Those routes designated as part of the Eisenhower National System of Interstate and Defense Highways. These include three north-south interstates (I-65, I-71, I-75); two east-west interstates (I-24 and I-64); and smaller loop routes in Louisville Metro and Northern Kentucky.

**Other NHS** - Non-interstate routes that are part of the National Highway System. This category includes most of the state's parkways and major US routes. Some state routes (roads designated with a "KY" prefix) are also components of this system.

**Other SP/Sec** - State Primary and Secondary roads include all "KY" routes which do not carry an NHS or Rural Secondary designation.

**Rural Secondary** – The system of roads in Kentucky that are usually considered “farm to market” roads.

Each roadway segment is 500 feet in length and includes all adjacent right-of-way. Three-person teams from each district inspect the selected roadway segments and complete the MRP data form for each segment. The MRP data form splits performance measures into five main categories: roadway general, pavement, shoulders, drainage, and traffic. The following are some of the inspected features: general aesthetics, visual obstructions, potholes, rutting, drop off, ditches, and guide sign faces. These measures are then used in the calculation of statewide and district MRP scores.

### **IMS Website**

The MRP IMS website is now available at <http://kytcgis.ky.gov/mrp/viewer.htm>. This website is a mapping tool that allows all districts to print custom maps of MRP sections each year.

### **Quality Assurance**

The Field Data Collection Manual was revised in May 2006 to reflect the recording changes for some features. The training manual contains an introduction of the Maintenance Rating Program and its purposes, as well as definitions and guidelines for recording measurements and observations on the inspection form. Additionally, the manual establishes safety procedures for both the inspection team and the public. This manual along with a training power point presentation is available on the website: <http://transportation.ky.gov/maintenance/>

Statewide training was available prior to the summer 2009 data collection to ensure new employees are properly trained and to address any additional questions regarding the program. All districts requested and received training with the exception of districts three and eight.

A quality assurance procedure was established to assess the accuracy of MRP data collection, and indirectly, the consistency of training. Two teams from the central office in Frankfort re-inspected approximately 10% of the segments surveyed in each district. The results of the quality assurance inspections will be compared to that of the original inspections and will be used to determine additional needs for training of the field data collection teams.

A committee of stakeholders, including Maintenance and Traffic Engineers in the MRP will periodically meet to review the data collection procedures, features and weight factors to make further improvements to align the MRP with the Strategic Goals of the cabinet.

## **C. ANALYSIS**

The inspection results for each of the sample sets were analyzed using Microsoft Excel. Most of the information reported is statistical summaries of the data. Rideability indices were provided by the Pavement Management Branch within the Division of Maintenance. Each road type score was weighted according to the proportion of centerline miles for each of the four road types to produce district and statewide road type totals and a state total score. Spending data was taken from OMS and EMARS according to fiscal year. Spending data from the previous fiscal year is paired with MRP data collected during the current fiscal year.

Each of the roadway features measured was evaluated and given an "importance weight" with respect to the other features so that the sum of all weights is 100. These importance weights were determined through a consensus of approximately 100 key KYTC managers and staff. They are based on the customer requirements identified and prioritized in the 1998 Voice of the Customer research conducted by the cabinet. These requirements include safety, protection of the infrastructure, comfort and convenience, and aesthetics.

The targeted confidence levels and intervals are based on the size of the samples. The target confidence interval for the smallest sample, road type by district, is set as 90% +/- 5%. District totals and road type totals have a confidence interval of 95% +/- 5%, while the statewide total target confidence interval is set as 99% +/- 3%. For a feature where the number of occurrences is less than nineteen in the sample segments, no data is reported, as the data may lack statistical validity.

If no data was present for a particular feature in a district, the scores were adjusted for missing values so that the potential value remained 100. This allows for calculation of overall district and road type scores in the absence of specific feature data.



## **APPENDIX I**

### **Statewide Scores**

Appendix I charts show the MRP score by road type for each feature measured. Boxes are color coded according to scores:

Green – a strength, score at 90 or higher

Yellow – within acceptable limits, score between 70 and 90

Red – failing, score below 70

In some cases, a score of "N/A" is listed. In these instances, there were not enough occurrences in order to achieve the desired confidence level. This may be due to the absence of a particular feature in the sample segments (such as guardrail, curb, etc.). It also may indicate that inspection crews were unable to measure certain items due to safety concerns (as with striping on interstates).



## Statewide Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 86.8        | 83.2                    | 74.8                        | 70.1            | 73.7        |
| Appearance                       | 95.4        | 96.0                    | 93.3                        | 87.4            | 90.9        |
| Vertical Clearance               | 97.6        | 95.7                    | 75.5                        | 61.9            | 71.6        |
| Visual Obstructions              | 98.0        | 98.8                    | 92.2                        | 88.6            | 91.3        |
| Fencing                          | 98.6        | 80.9                    | 84.6                        | 40.4            | 72.1        |
| Guardrail Specifications         | 90.9        | 81.5                    | 74.5                        | 65.6            | 75.4        |
| Guardrail Damage                 | 83.9        | 87.3                    | 80.9                        | 82.1            | 82.4        |
| Attenuators                      | 95.8        | 86.8                    | 89.2                        | 75.4            | 87.5        |
| Potholes                         | 58.1        | 75.6                    | 77.4                        | 71.6            | 74.2        |
| Rutting                          | 91.3        | 86.6                    | 81.5                        | 82.7            | 82.7        |
| Pavement Drop Off                | 95.2        | 90.8                    | 77.3                        | 60.4            | 71.3        |
| Shoulder Drop Off                | 84.8        | 85.4                    | 73.2                        | 63.0            | 69.9        |
| High Shoulder                    | 97.5        | 90.0                    | 87.8                        | 85.1            | 87.0        |
| Shoulder Potholes                | 73.5        | 63.6                    | 72.1                        | 74.5            | 72.6        |
| Drains                           | 89.0        | 85.7                    | 78.5                        | 68.7            | 74.8        |
| Ditches                          | 93.2        | 81.1                    | 73.8                        | 62.7            | 69.9        |
| Curb and Gutter                  | N/A         | 85.9                    | 77.0                        | N/A             | 78.6        |
| White Stripe                     | N/A         | 91.6                    | 93.3                        | 88.2            | 92.5        |
| Yellow Stripe                    | N/A         | 97.1                    | 92.1                        | 87.5            | 90.4        |
| Guide Signs                      | 91.0        | 90.2                    | 88.3                        | 75.0            | 83.7        |
| Guide Sign Assemblies            | 97.9        | 93.1                    | 87.0                        | 79.2            | 85.3        |
| Warning and Reg. Signs           | 83.6        | 79.9                    | 75.3                        | 66.2            | 71.8        |
| Warning and Reg. Sign Assemblies | 90.1        | 89.6                    | 87.2                        | 73.1            | 81.9        |
| <b>Total Score</b>               | <b>89.0</b> | <b>87.0</b>             | <b>81.9</b>                 | <b>73.9</b>     | <b>79.7</b> |

## District One Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 85.6        | 80.7                    | 74.5                        | 73.6            | 74.8        |
| Appearance                       | 100.0       | 100.0                   | 98.0                        | 100.0           | 99.1        |
| Vertical Clearance               | 97.3        | 95.7                    | 89.2                        | 82.2            | 86.6        |
| Visual Obstructions              | 91.9        | 100.0                   | 98.0                        | 97.0            | 97.6        |
| Fencing                          | 100.0       | 92.9                    | N/A                         | N/A             | 92.1        |
| Guardrail Specifications         | N/A         | 100.0                   | N/A                         | N/A             | 96.9        |
| Guardrail Damage                 | N/A         | 100.0                   | N/A                         | N/A             | 96.5        |
| Attenuators                      | N/A         | N/A                     | N/A                         | N/A             | 97.9        |
| Potholes                         | 93.4        | 89.1                    | 92.6                        | 87.7            | 90.2        |
| Rutting                          | 73.7        | 89.9                    | 79.4                        | 83.3            | 81.7        |
| Pavement Drop Off                | 78.9        | 72.1                    | 80.4                        | 64.4            | 72.4        |
| Shoulder Drop Off                | 97.4        | 95.6                    | 87.1                        | 63.4            | 77.0        |
| High Shoulder                    | 100.0       | 95.7                    | 96.0                        | 96.1            | 96.1        |
| Shoulder Potholes                | 93.4        | 67.4                    | 80.4                        | 90.2            | 84.4        |
| Drains                           | 90.0        | 89.1                    | 84.1                        | 85.3            | 85.1        |
| Ditches                          | 94.7        | 92.3                    | 74.7                        | 73.7            | 75.9        |
| Curb and Gutter                  | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| White Stripe                     | N/A         | 100.0                   | 92.6                        | N/A             | 93.0        |
| Yellow Stripe                    | N/A         | 100.0                   | 96.9                        | 92.8            | 95.2        |
| Guide Signs                      | 100.0       | 91.8                    | 87.6                        | 82.2            | 85.7        |
| Guide Sign Assemblies            | N/A         | 91.2                    | 56.4                        | 86.7            | 73.2        |
| Warning and Reg. Signs           | N/A         | 57.1                    | 72.2                        | 74.4            | 72.2        |
| Warning and Reg. Sign Assemblies | N/A         | 88.2                    | 85.7                        | N/A             | 86.1        |
| <b>Total Score</b>               | <b>90.5</b> | <b>89.3</b>             | <b>84.9</b>                 | <b>82.7</b>     | <b>84.4</b> |



## District Two Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 88.5        | 82.2                    | 75.0                        | 71.0            | 74.0        |
| Appearance                       | 100.0       | 96.7                    | 94.6                        | 88.7            | 92.2        |
| Vertical Clearance               | 100.0       | 96.7                    | 97.9                        | 83.8            | 91.6        |
| Visual Obstructions              | 100.0       | 98.9                    | 98.9                        | 90.4            | 95.2        |
| Fencing                          | 100.0       | 66.1                    | N/A                         | N/A             | 79.2        |
| Guardrail Specifications         | N/A         | 89.5                    | N/A                         | N/A             | 92.2        |
| Guardrail Damage                 | N/A         | 86.8                    | N/A                         | N/A             | 90.2        |
| Attenuators                      | N/A         | 92.3                    | N/A                         | N/A             | 86.2        |
| Potholes                         | 93.1        | 50.5                    | 68.4                        | 50.5            | 59.1        |
| Rutting                          | 100.0       | 100.0                   | 84.2                        | 82.1            | 84.8        |
| Pavement Drop Off                | 86.1        | 92.2                    | 67.4                        | 41.5            | 58.4        |
| Shoulder Drop Off                | 100.0       | 95.6                    | 85.3                        | 74.0            | 81.4        |
| High Shoulder                    | 100.0       | 80.2                    | 97.9                        | 93.4            | 94.4        |
| Shoulder Potholes                | 65.3        | 61.5                    | 68.4                        | 67.0            | 67.2        |
| Drains                           | N/A         | 87.8                    | 56.9                        | 60.5            | 61.4        |
| Ditches                          | 100.0       | 87.4                    | 72.1                        | 49.5            | 63.8        |
| Curb and Gutter                  | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| White Stripe                     | N/A         | 93.1                    | 96.8                        | N/A             | 96.2        |
| Yellow Stripe                    | N/A         | 100.0                   | 100.0                       | 94.1            | 97.4        |
| Guide Signs                      | N/A         | 79.3                    | 83.8                        | 50.9            | 68.9        |
| Guide Sign Assemblies            | N/A         | 100.0                   | 72.1                        | 58.3            | 68.5        |
| Warning and Reg. Signs           | N/A         | 85.4                    | 75.3                        | 55.9            | 67.6        |
| Warning and Reg. Sign Assemblies | N/A         | 88.9                    | 88.9                        | 65.2            | 78.4        |
| <b>Total Score</b>               | <b>94.4</b> | <b>86.9</b>             | <b>82.5</b>                 | <b>69.8</b>     | <b>77.8</b> |

### District Three Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 91.5        | 85.7                    | 79.1                        | 75.8            | 78.1        |
| Appearance                       | 100.0       | 93.1                    | 87.3                        | 76.0            | 82.2        |
| Vertical Clearance               | 97.1        | 94.8                    | 55.0                        | 57.7            | 59.7        |
| Visual Obstructions              | 100.0       | 100.0                   | 85.3                        | 77.7            | 82.7        |
| Fencing                          | 100.0       | 96.1                    | N/A                         | N/A             | 94.2        |
| Guardrail Specifications         | N/A         | 79.2                    | N/A                         | N/A             | 88.7        |
| Guardrail Damage                 | N/A         | 79.2                    | N/A                         | N/A             | 75.1        |
| Attenuators                      | N/A         | 80.0                    | N/A                         | N/A             | 74.8        |
| Potholes                         | 77.9        | 69.8                    | 87.7                        | 90.4            | 87.8        |
| Rutting                          | 97.1        | 82.8                    | 80.4                        | 87.5            | 84.5        |
| Pavement Drop Off                | 100.0       | 83.9                    | 88.9                        | 68.9            | 78.7        |
| Shoulder Drop Off                | 97.1        | 58.2                    | 48.5                        | 39.8            | 45.8        |
| High Shoulder                    | 94.1        | 89.3                    | 74.0                        | 71.3            | 74.0        |
| Shoulder Potholes                | 77.9        | 39.7                    | 53.4                        | 47.1            | 49.9        |
| Drains                           | 92.3        | 81.6                    | 75.0                        | 51.6            | 63.9        |
| Ditches                          | 97.1        | 46.3                    | 60.6                        | 38.8            | 49.5        |
| Curb and Gutter                  | N/A         | N/A                     | N/A                         | N/A             | 41.2        |
| White Stripe                     | N/A         | 100.0                   | 100.0                       | N/A             | 100.0       |
| Yellow Stripe                    | N/A         | 100.0                   | 98.9                        | 97.2            | 98.1        |
| Guide Signs                      | 100.0       | 87.0                    | 89.7                        | 100.0           | 95.0        |
| Guide Sign Assemblies            | 100.0       | 67.7                    | 86.0                        | N/A             | 77.6        |
| Warning and Reg. Signs           | N/A         | 84.6                    | 77.8                        | 57.3            | 67.6        |
| Warning and Reg. Sign Assemblies | N/A         | 95.3                    | 79.5                        | 35.7            | 57.9        |
| <b>Total Score</b>               | <b>93.4</b> | <b>82.7</b>             | <b>79.4</b>                 | <b>68.3</b>     | <b>74.6</b> |

## District Four Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 87.1        | 80.7                    | 75.5                        | 72.2            | 74.4        |
| Appearance                       | 66.7        | 72.2                    | 87.5                        | 82.7            | 84.3        |
| Vertical Clearance               | 94.9        | 94.4                    | 81.7                        | 71.8            | 77.8        |
| Visual Obstructions              | 97.4        | 98.6                    | 99.0                        | 95.5            | 97.3        |
| Fencing                          | 83.8        | 96.3                    | N/A                         | N/A             | 86.2        |
| Guardrail Specifications         | N/A         | 81.0                    | N/A                         | N/A             | 63.6        |
| Guardrail Damage                 | N/A         | 92.9                    | N/A                         | N/A             | 74.7        |
| Attenuators                      | N/A         | 100.0                   | N/A                         | N/A             | 82.8        |
| Potholes                         | 62.5        | 61.8                    | 83.2                        | 79.5            | 80.2        |
| Rutting                          | 85.0        | 90.3                    | 89.4                        | 95.5            | 92.2        |
| Pavement Drop Off                | 100.0       | 95.8                    | 76.9                        | 61.8            | 70.9        |
| Shoulder Drop Off                | 79.5        | 73.6                    | 76.0                        | 71.8            | 74.0        |
| High Shoulder                    | 100.0       | 97.2                    | 90.4                        | 89.1            | 90.2        |
| Shoulder Potholes                | 75.0        | 65.3                    | 76.0                        | 79.5            | 77.2        |
| Drains                           | N/A         | 77.3                    | 82.8                        | 60.4            | 71.7        |
| Ditches                          | 91.2        | 66.2                    | 88.9                        | 86.0            | 86.6        |
| Curb and Gutter                  | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| White Stripe                     | N/A         | 100.0                   | 100.0                       | N/A             | 100.0       |
| Yellow Stripe                    | N/A         | 100.0                   | 96.4                        | 93.2            | 95.0        |
| Guide Signs                      | N/A         | 97.0                    | 100.0                       | N/A             | 96.5        |
| Guide Sign Assemblies            | N/A         | 91.5                    | 94.6                        | N/A             | 93.0        |
| Warning and Reg. Signs           | N/A         | 100.0                   | 72.7                        | N/A             | 75.5        |
| Warning and Reg. Sign Assemblies | N/A         | N/A                     | 92.6                        | N/A             | 91.8        |
| <b>Total Score</b>               | <b>83.3</b> | <b>87.1</b>             | <b>86.1</b>                 | <b>79.5</b>     | <b>83.4</b> |

## District Five Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 83.6        | 71.7                    | 73.7                        | 64.4            | 71.0        |
| Appearance                       | 100.0       | 95.0                    | 98.0                        | 88.2            | 94.3        |
| Vertical Clearance               | 95.0        | 90.0                    | 87.3                        | 78.4            | 84.7        |
| Visual Obstructions              | 97.5        | 100.0                   | 98.0                        | 93.1            | 96.2        |
| Fencing                          | 100.0       | N/A                     | N/A                         | N/A             | 100.0       |
| Guardrail Specifications         | 90.9        | N/A                     | 65.2                        | N/A             | 69.7        |
| Guardrail Damage                 | 86.4        | N/A                     | 73.9                        | N/A             | 75.9        |
| Attenuators                      | N/A         | N/A                     | 89.5                        | N/A             | 90.7        |
| Potholes                         | 43.8        | 50.0                    | 46.1                        | 51.0            | 47.9        |
| Rutting                          | 87.5        | 80.0                    | 50.0                        | 37.3            | 50.1        |
| Pavement Drop Off                | 97.5        | 90.0                    | 61.8                        | 52.0            | 62.8        |
| Shoulder Drop Off                | 57.5        | 85.0                    | 55.9                        | 52.0            | 55.7        |
| High Shoulder                    | 100.0       | 100.0                   | 90.2                        | 94.1            | 93.1        |
| Shoulder Potholes                | 68.8        | 50.0                    | 26.5                        | 26.5            | 31.8        |
| Drains                           | N/A         | N/A                     | 79.4                        | 68.3            | 75.5        |
| Ditches                          | 94.7        | N/A                     | 92.0                        | 90.1            | 91.6        |
| Curb and Gutter                  | N/A         | N/A                     | N/A                         | N/A             | 47.0        |
| White Stripe                     | N/A         | N/A                     | 97.8                        | 90.0            | 94.4        |
| Yellow Stripe                    | N/A         | N/A                     | 100.0                       | 95.3            | 98.0        |
| Guide Signs                      | 87.1        | N/A                     | 93.3                        | 62.3            | 80.4        |
| Guide Sign Assemblies            | N/A         | N/A                     | 97.0                        | 88.6            | 93.5        |
| Warning and Reg. Signs           | N/A         | 71.4                    | 56.5                        | 46.0            | 53.5        |
| Warning and Reg. Sign Assemblies | N/A         | N/A                     | 87.8                        | 87.8            | 88.6        |
| <b>Total Score</b>               | <b>86.5</b> | <b>82.9</b>             | <b>76.8</b>                 | <b>70.3</b>     | <b>75.4</b> |

## District Six Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 82.1        | 83.0                    | 69.3                        | 69.1            | 70.4        |
| Appearance                       | 87.5        | 100.0                   | 92.7                        | 85.4            | 89.8        |
| Vertical Clearance               | 100.0       | 96.2                    | 80.2                        | 69.8            | 77.9        |
| Visual Obstructions              | 97.5        | 96.2                    | 80.9                        | 77.7            | 81.1        |
| Fencing                          | 100.0       | N/A                     | N/A                         | N/A             | 92.4        |
| Guardrail Specifications         | 87.0        | N/A                     | 63.2                        | N/A             | 67.3        |
| Guardrail Damage                 | 78.3        | N/A                     | 73.7                        | N/A             | 73.9        |
| Attenuators                      | N/A         | N/A                     | N/A                         | N/A             | 87.8        |
| Potholes                         | 31.3        | 71.2                    | 76.6                        | 74.0            | 72.6        |
| Rutting                          | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| Pavement Drop Off                | 94.9        | 69.2                    | 69.6                        | 53.1            | 64.8        |
| Shoulder Drop Off                | 87.2        | 88.5                    | 72.5                        | 71.9            | 73.6        |
| High Shoulder                    | 87.2        | 84.6                    | 94.7                        | 91.7            | 92.8        |
| Shoulder Potholes                | 50.0        | 71.2                    | 74.0                        | 84.4            | 76.4        |
| Drains                           | 70.2        | 84.1                    | 85.5                        | 66.0            | 77.0        |
| Ditches                          | 97.1        | N/A                     | 77.0                        | 64.1            | 73.5        |
| Curb and Gutter                  | N/A         | 70.0                    | 80.0                        | N/A             | 79.0        |
| White Stripe                     | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| Yellow Stripe                    | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| Guide Signs                      | 100.0       | 81.3                    | 74.5                        | 63.6            | 72.1        |
| Guide Sign Assemblies            | 100.0       | N/A                     | 84.0                        | 73.9            | 81.1        |
| Warning and Reg. Signs           | N/A         | N/A                     | 72.4                        | 62.5            | 68.7        |
| Warning and Reg. Sign Assemblies | N/A         | N/A                     | 90.0                        | 61.4            | 78.4        |
| <b>Total Score</b>               | <b>83.8</b> | <b>84.3</b>             | <b>78.1</b>                 | <b>70.8</b>     | <b>76.0</b> |

### District Seven Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 89.7        | 81.5                    | 75.4                        | 67.7            | 73.5        |
| Appearance                       | 97.5        | 93.8                    | 86.3                        | 80.2            | 85.1        |
| Vertical Clearance               | 100.0       | 96.9                    | 70.6                        | 57.5            | 69.3        |
| Visual Obstructions              | 100.0       | 96.9                    | 85.0                        | 77.4            | 83.8        |
| Fencing                          | 100.0       | N/A                     | N/A                         | N/A             | 100.0       |
| Guardrail Specifications         | N/A         | 81.8                    | N/A                         | N/A             | 83.0        |
| Guardrail Damage                 | N/A         | 81.8                    | N/A                         | N/A             | 78.9        |
| Attenuators                      | N/A         | N/A                     | N/A                         | N/A             | 77.2        |
| Potholes                         | 31.3        | 80.5                    | 73.0                        | 76.4            | 72.9        |
| Rutting                          | 97.5        | 79.7                    | 78.4                        | 79.2            | 79.9        |
| Pavement Drop Off                | 100.0       | 98.4                    | 91.1                        | 88.7            | 91.3        |
| Shoulder Drop Off                | 97.5        | 85.9                    | 72.3                        | 43.4            | 62.9        |
| High Shoulder                    | 100.0       | 89.1                    | 79.4                        | 72.6            | 78.7        |
| Shoulder Potholes                | 68.8        | 68.8                    | 75.5                        | 78.8            | 75.8        |
| Drains                           | 97.9        | 85.1                    | 85.7                        | 81.3            | 84.5        |
| Ditches                          | 94.9        | 87.3                    | 79.5                        | 71.3            | 77.7        |
| Curb and Gutter                  | N/A         | N/A                     | N/A                         | N/A             | 86.7        |
| White Stripe                     | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| Yellow Stripe                    | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| Guide Signs                      | 79.3        | 85.2                    | 75.0                        | N/A             | 74.8        |
| Guide Sign Assemblies            | N/A         | N/A                     | N/A                         | N/A             | 79.3        |
| Warning and Reg. Signs           | N/A         | 50.9                    | 33.3                        | 19.2            | 29.1        |
| Warning and Reg. Sign Assemblies | N/A         | 60.0                    | 44.4                        | 78.6            | 61.1        |
| <b>Total Score</b>               | <b>89.7</b> | <b>82.4</b>             | <b>73.7</b>                 | <b>69.4</b>     | <b>73.8</b> |

## District Eight Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 88.4        | 83.8                    | 78.4                        | 75.3            | 77.5        |
| Appearance                       | 100.0       | 100.0                   | 96.0                        | 99.0            | 97.9        |
| Vertical Clearance               | 86.1        | 96.6                    | 81.8                        | 59.2            | 72.3        |
| Visual Obstructions              | 97.2        | 98.9                    | 89.8                        | 86.4            | 89.1        |
| Fencing                          | 96.7        | 68.8                    | N/A                         | 31.6            | 40.7        |
| Guardrail Specifications         | 100.0       | 62.8                    | 60.9                        | N/A             | 61.3        |
| Guardrail Damage                 | 84.0        | 83.7                    | 87.0                        | N/A             | 85.0        |
| Attenuators                      | N/A         | 82.4                    | N/A                         | N/A             | 91.0        |
| Potholes                         | 100.0       | 88.6                    | 82.3                        | 83.3            | 83.6        |
| Rutting                          | 100.0       | 94.3                    | 88.9                        | 95.2            | 92.6        |
| Pavement Drop Off                | 100.0       | 97.7                    | 90.9                        | 90.5            | 91.5        |
| Shoulder Drop Off                | 97.2        | 89.7                    | 67.7                        | 56.2            | 64.6        |
| High Shoulder                    | 100.0       | 100.0                   | 97.0                        | 97.1            | 97.4        |
| Shoulder Potholes                | 93.1        | 71.6                    | 92.4                        | 85.7            | 87.1        |
| Drains                           | N/A         | 92.7                    | 79.2                        | 61.8            | 72.1        |
| Ditches                          | 85.7        | 84.5                    | 70.0                        | 47.6            | 60.7        |
| Curb and Gutter                  | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| White Stripe                     | N/A         | 95.3                    | 93.1                        | N/A             | 91.1        |
| Yellow Stripe                    | N/A         | 100.0                   | 100.0                       | 96.1            | 98.1        |
| Guide Signs                      | N/A         | 97.4                    | 90.0                        | 85.2            | 88.4        |
| Guide Sign Assemblies            | N/A         | 95.2                    | 91.7                        | 100.0           | 96.1        |
| Warning and Reg. Signs           | N/A         | 85.7                    | 86.0                        | 77.8            | 82.0        |
| Warning and Reg. Sign Assemblies | N/A         | 86.0                    | 92.5                        | 80.0            | 85.7        |
| <b>Total Score</b>               | <b>94.6</b> | <b>89.5</b>             | <b>85.8</b>                 | <b>79.3</b>     | <b>83.3</b> |

## District Nine Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 91.2        | 85.4                    | 77.2                        | 72.0            | 76.3        |
| Appearance                       | 100.0       | 100.0                   | 95.7                        | 91.8            | 94.7        |
| Vertical Clearance               | 100.0       | 98.3                    | 76.1                        | 45.9            | 66.6        |
| Visual Obstructions              | 100.0       | 100.0                   | 93.5                        | 95.9            | 95.3        |
| Fencing                          | 97.4        | 86.7                    | N/A                         | N/A             | 91.6        |
| Guardrail Specifications         | 96.6        | 67.7                    | 77.8                        | N/A             | 76.3        |
| Guardrail Damage                 | 79.3        | 100.0                   | 74.1                        | N/A             | 78.4        |
| Attenuators                      | N/A         | 100.0                   | N/A                         | N/A             | 88.4        |
| Potholes                         | 88.1        | 87.5                    | 83.9                        | 72.2            | 79.6        |
| Rutting                          | 97.6        | 86.7                    | 89.2                        | 92.9            | 90.8        |
| Pavement Drop Off                | 90.2        | 96.7                    | 67.7                        | 29.6            | 55.5        |
| Shoulder Drop Off                | 97.6        | 86.7                    | 73.9                        | 79.6            | 78.3        |
| High Shoulder                    | 100.0       | 84.7                    | 77.2                        | 74.0            | 77.4        |
| Shoulder Potholes                | 94.0        | 70.8                    | 73.1                        | 89.9            | 80.6        |
| Drains                           | 95.3        | 88.0                    | 86.3                        | 72.1            | 81.0        |
| Ditches                          | 76.5        | 81.1                    | 60.9                        | 61.1            | 63.3        |
| Curb and Gutter                  | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| White Stripe                     | N/A         | 95.0                    | 81.5                        | N/A             | 84.2        |
| Yellow Stripe                    | N/A         | 94.9                    | 84.3                        | 80.6            | 83.7        |
| Guide Signs                      | N/A         | 95.1                    | 76.3                        | 81.8            | 80.5        |
| Guide Sign Assemblies            | N/A         | N/A                     | 100.0                       | N/A             | 98.5        |
| Warning and Reg. Signs           | N/A         | 65.9                    | 83.1                        | 66.7            | 74.7        |
| Warning and Reg. Sign Assemblies | N/A         | N/A                     | 100.0                       | N/A             | 99.5        |
| <b>Total Score</b>               | <b>93.8</b> | <b>88.9</b>             | <b>82.0</b>                 | <b>74.1</b>     | <b>80.2</b> |



## District Ten Scores

| Feature Description              | INTERSTATE | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | N/A        | 85.7                    | 73.8                        | 59.6            | 68.7        |
| Appearance                       | N/A        | 100.0                   | 98.0                        | 84.8            | 92.5        |
| Vertical Clearance               | N/A        | 91.0                    | 49.5                        | 37.3            | 47.7        |
| Visual Obstructions              | N/A        | 99.0                    | 84.0                        | 80.4            | 83.7        |
| Fencing                          | N/A        | 47.5                    | N/A                         | N/A             | 63.2        |
| Guardrail Specifications         | N/A        | 82.1                    | 89.3                        | N/A             | 87.7        |
| Guardrail Damage                 | N/A        | 88.1                    | 89.3                        | N/A             | 89.2        |
| Attenuators                      | N/A        | 82.1                    | 84.6                        | N/A             | 84.0        |
| Potholes                         | N/A        | 87.5                    | 92.5                        | 68.1            | 81.6        |
| Rutting                          | N/A        | 94.0                    | 91.0                        | 87.3            | 89.6        |
| Pavement Drop Off                | N/A        | 97.0                    | 76.0                        | 51.5            | 67.2        |
| Shoulder Drop Off                | N/A        | 82.7                    | 80.0                        | 74.0            | 77.6        |
| High Shoulder                    | N/A        | 97.0                    | 83.0                        | 77.0            | 81.6        |
| Shoulder Potholes                | N/A        | 75.0                    | 97.5                        | 90.2            | 92.4        |
| Drains                           | N/A        | 73.3                    | 81.8                        | 67.1            | 74.8        |
| Ditches                          | N/A        | 72.1                    | 69.1                        | 63.4            | 66.9        |
| Curb and Gutter                  | N/A        | N/A                     | N/A                         | N/A             | N/A         |
| White Stripe                     | N/A        | 100.0                   | 92.7                        | N/A             | 93.4        |
| Yellow Stripe                    | N/A        | 100.0                   | 83.2                        | 78.3            | 82.5        |
| Guide Signs                      | N/A        | 93.4                    | 95.1                        | 68.0            | 83.3        |
| Guide Sign Assemblies            | N/A        | 100.0                   | 100.0                       | N/A             | 97.3        |
| Warning and Reg. Signs           | N/A        | 100.0                   | 96.7                        | 74.5            | 87.4        |
| Warning and Reg. Sign Assemblies | N/A        | 100.0                   | 97.5                        | 93.9            | 96.2        |
| <b>Total Score</b>               | <b>N/A</b> | <b>89.7</b>             | <b>85.5</b>                 | <b>72.4</b>     | <b>80.9</b> |

## District Eleven Scores

| Feature Description              | INTERSTATE  | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|-------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | 93.9        | 84.1                    | 69.1                        | 67.4            | 70.1        |
| Appearance                       | 100.0       | 94.4                    | 88.5                        | 84.8            | 87.6        |
| Vertical Clearance               | 100.0       | 95.8                    | 67.7                        | 50.0            | 63.1        |
| Visual Obstructions              | 100.0       | 98.6                    | 89.9                        | 87.7            | 89.9        |
| Fencing                          | 100.0       | 88.6                    | N/A                         | N/A             | 90.5        |
| Guardrail Specifications         | N/A         | 82.1                    | 69.0                        | N/A             | 71.4        |
| Guardrail Damage                 | N/A         | 89.7                    | 79.3                        | N/A             | 81.5        |
| Attenuators                      | N/A         | 84.6                    | N/A                         | N/A             | 78.3        |
| Potholes                         | 100.0       | 72.2                    | 74.7                        | 83.5            | 78.6        |
| Rutting                          | 100.0       | 77.8                    | 81.8                        | 79.2            | 80.6        |
| Pavement Drop Off                | 100.0       | 81.9                    | 87.9                        | 76.4            | 82.6        |
| Shoulder Drop Off                | 92.9        | 93.1                    | 80.6                        | 72.6            | 78.5        |
| High Shoulder                    | 100.0       | 79.2                    | 75.8                        | 80.2            | 78.3        |
| Shoulder Potholes                | 100.0       | 30.6                    | 59.6                        | 74.1            | 63.7        |
| Drains                           | N/A         | N/A                     | 80.0                        | 85.7            | 82.9        |
| Ditches                          | 96.3        | 95.2                    | 76.3                        | 68.0            | 74.7        |
| Curb and Gutter                  | N/A         | N/A                     | N/A                         | N/A             | N/A         |
| White Stripe                     | N/A         | 90.7                    | 88.1                        | N/A             | 89.1        |
| Yellow Stripe                    | N/A         | 100.0                   | 81.9                        | 72.7            | 79.6        |
| Guide Signs                      | N/A         | 80.0                    | 100.0                       | N/A             | 97.1        |
| Guide Sign Assemblies            | N/A         | 87.9                    | 100.0                       | N/A             | 98.2        |
| Warning and Reg. Signs           | N/A         | 77.8                    | 92.5                        | 100.0           | 94.4        |
| Warning and Reg. Sign Assemblies | N/A         | 100.0                   | 96.0                        | 90.0            | 93.8        |
| <b>Total Score</b>               | <b>96.6</b> | <b>85.7</b>             | <b>81.7</b>                 | <b>78.8</b>     | <b>81.2</b> |

## District Twelve Scores

| Feature Description              | INTERSTATE | NATIONAL HIGHWAY SYSTEM | STATE PRIMARY AND SECONDARY | RURAL SECONDARY | ALL ROADS   |
|----------------------------------|------------|-------------------------|-----------------------------|-----------------|-------------|
| Rideability                      | N/A        | 86.1                    | 75.7                        | 63.8            | 71.9        |
| Appearance                       | N/A        | 99.1                    | 99.0                        | 83.8            | 92.3        |
| Vertical Clearance               | N/A        | 96.3                    | 42.7                        | 20.7            | 40.6        |
| Visual Obstructions              | N/A        | 98.1                    | 96.9                        | 100.0           | 98.4        |
| Fencing                          | N/A        | 91.4                    | N/A                         | N/A             | 92.2        |
| Guardrail Specifications         | N/A        | 85.2                    | 90.9                        | 65.2            | 78.8        |
| Guardrail Damage                 | N/A        | 78.7                    | 90.9                        | 87.0            | 87.4        |
| Attenuators                      | N/A        | 77.3                    | 100.0                       | N/A             | 94.8        |
| Potholes                         | N/A        | 83.8                    | 58.3                        | 25.7            | 47.6        |
| Rutting                          | N/A        | 72.2                    | 75.0                        | 67.6            | 71.3        |
| Pavement Drop Off                | N/A        | 94.4                    | 70.5                        | 34.2            | 58.0        |
| Shoulder Drop Off                | N/A        | 78.7                    | 63.5                        | 58.6            | 63.5        |
| High Shoulder                    | N/A        | 91.7                    | 87.4                        | 75.2            | 82.6        |
| Shoulder Potholes                | N/A        | 79.2                    | 84.4                        | 77.5            | 80.6        |
| Drains                           | N/A        | 89.7                    | 74.7                        | 75.6            | 77.2        |
| Ditches                          | N/A        | 77.0                    | 58.2                        | 48.6            | 56.7        |
| Curb and Gutter                  | N/A        | 97.1                    | N/A                         | N/A             | 97.7        |
| White Stripe                     | N/A        | 63.9                    | 83.5                        | N/A             | 79.0        |
| Yellow Stripe                    | N/A        | 83.3                    | 67.0                        | 56.5            | 64.7        |
| Guide Signs                      | N/A        | 100.0                   | 95.3                        | N/A             | 94.3        |
| Guide Sign Assemblies            | N/A        | 100.0                   | 96.7                        | N/A             | 96.3        |
| Warning and Reg. Signs           | N/A        | 96.6                    | 87.3                        | 93.8            | 91.4        |
| Warning and Reg. Sign Assemblies | N/A        | 97.8                    | 89.1                        | 76.9            | 85.0        |
| <b>Total Score</b>               | <b>N/A</b> | <b>87.5</b>             | <b>79.9</b>                 | <b>66.2</b>     | <b>75.6</b> |



## **APPENDIX II**

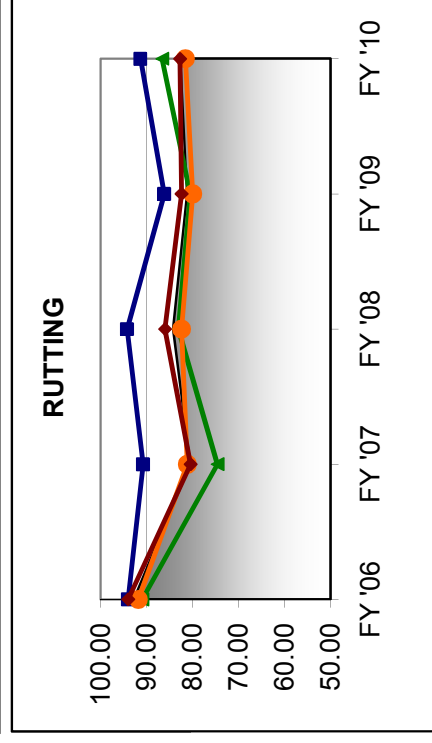
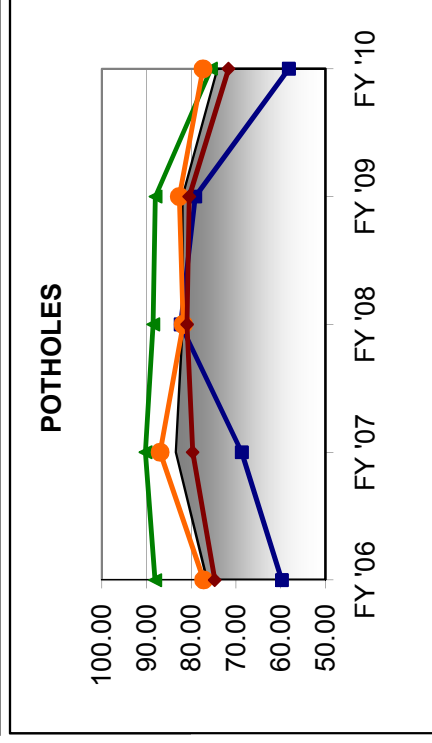
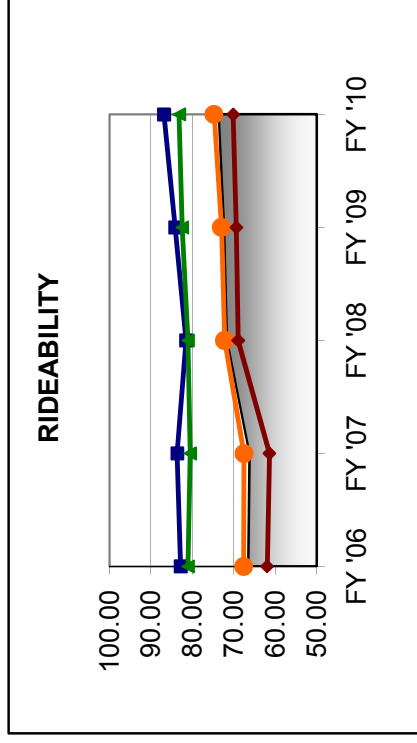
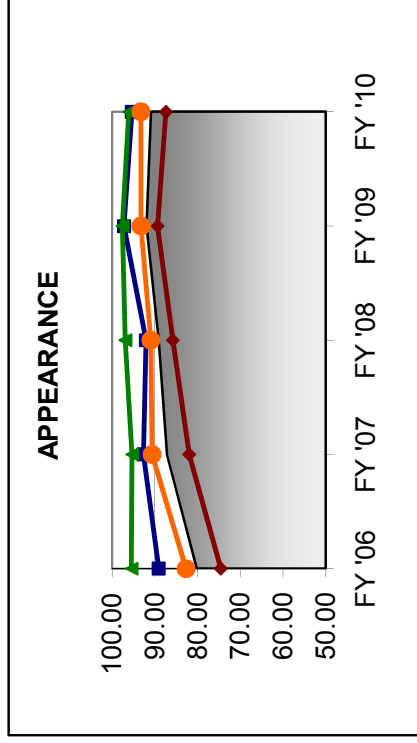
### **Statewide Scores by Element Type**

Appendix II is a graphical representation of historical scores on a statewide basis. Scores for the current and previous four years are represented in the graphs for each of the four road types. The gray shaded area represents the weighted average of all roads for the given feature. This weighting is based on the number of miles present for each road type. For this reason, the shaded area may not appear to be a true average of the individual lines. In general, the weighted average will tend to gravitate toward the RS and Other SP/SS scores as these have the majority of centerline miles.

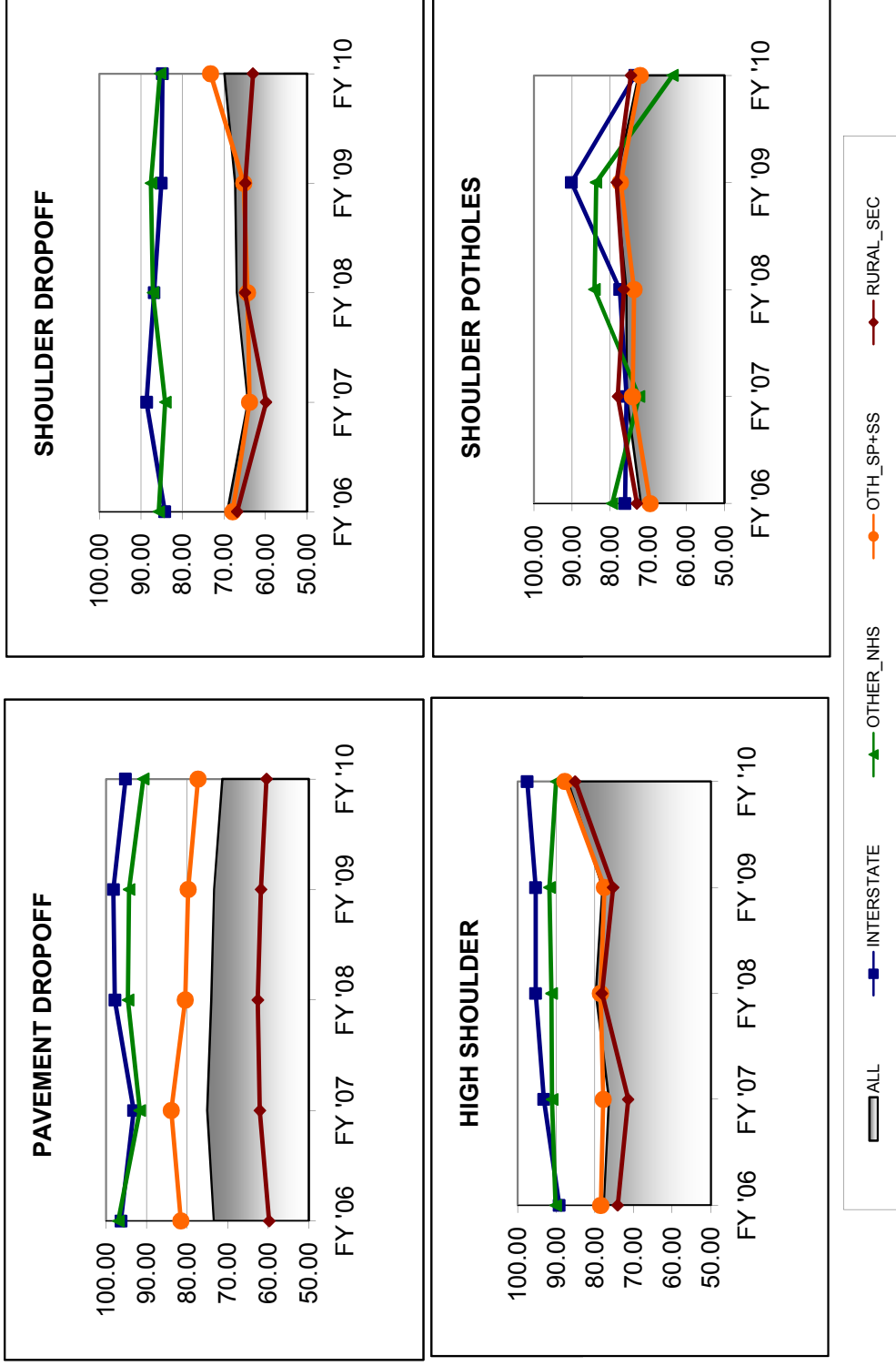
In some instances, there may be insufficient data available to analyze a specific road type. In these cases, individual lines may be broken or may not appear at all. Where possible, the overall average score is still displayed.



## GENERAL APPEARANCE / SURFACE

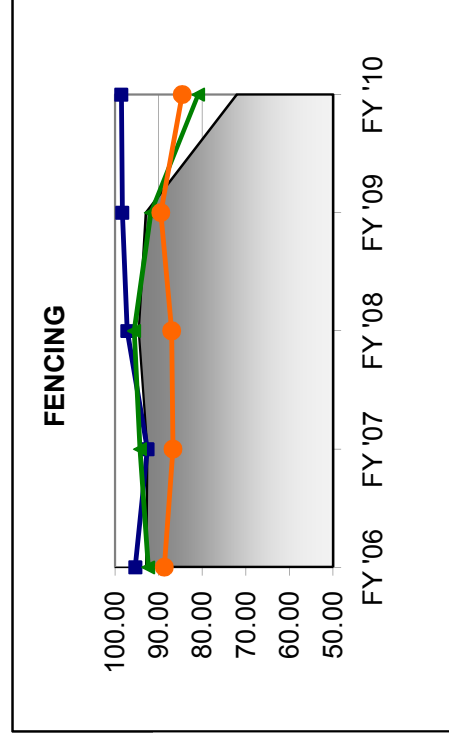
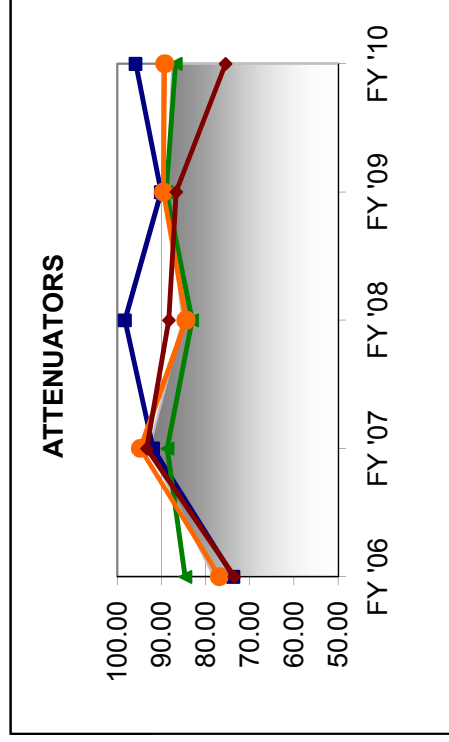
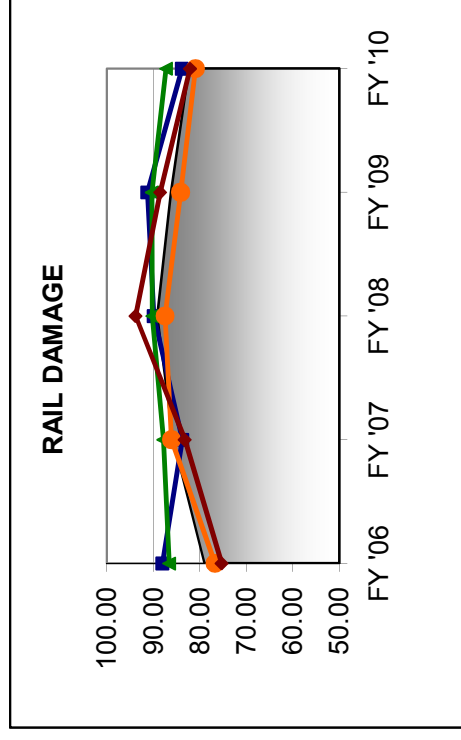
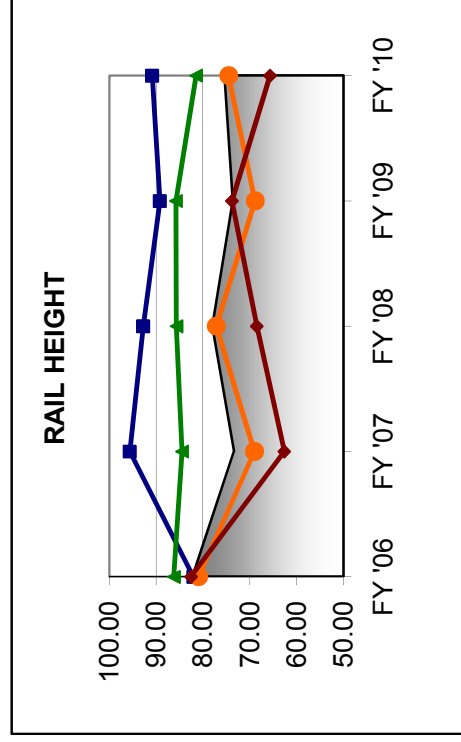


## SHOULDERS

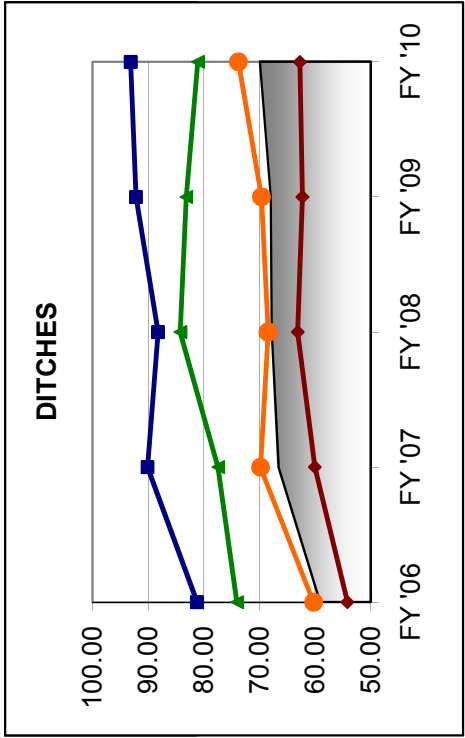
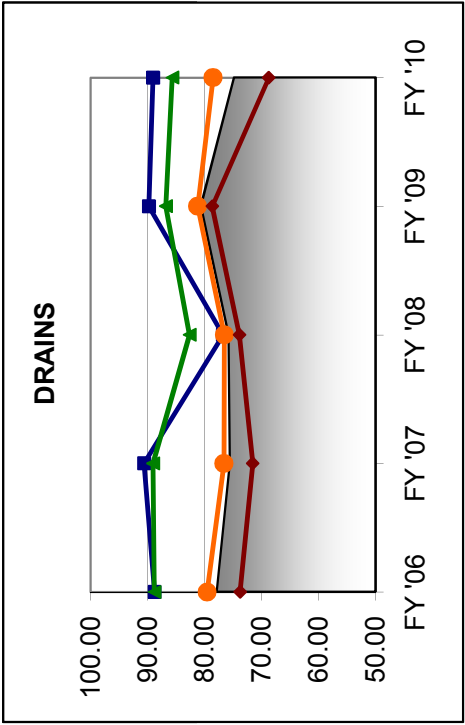
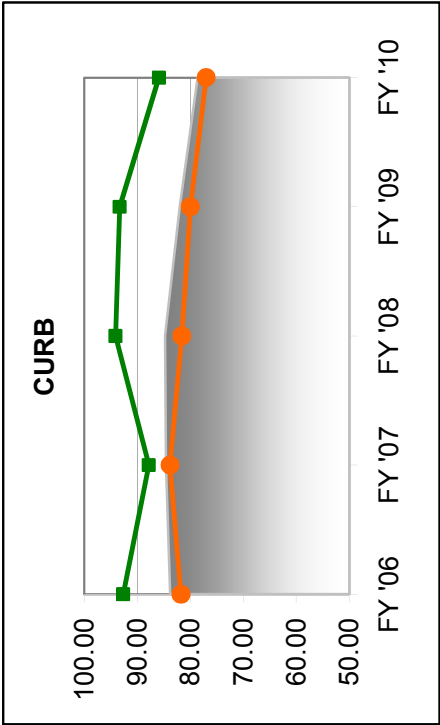




## ROADSIDE

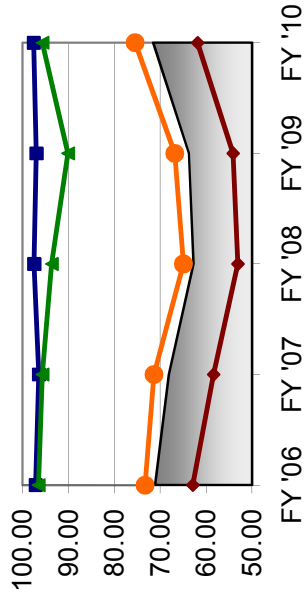


DRAINAGE

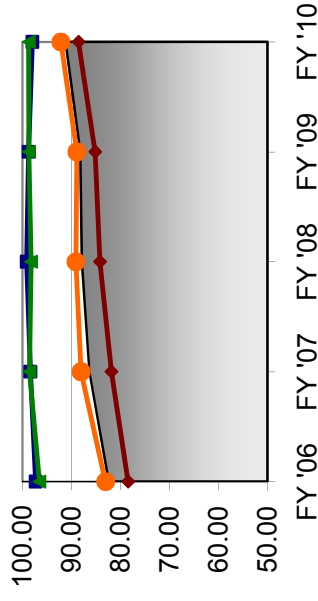


# TREE AND BRUSH / TRAFFIC MARKINGS

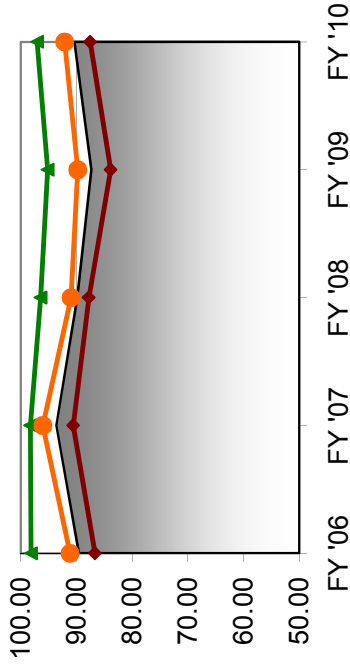
## VERTICAL CLEARANCE



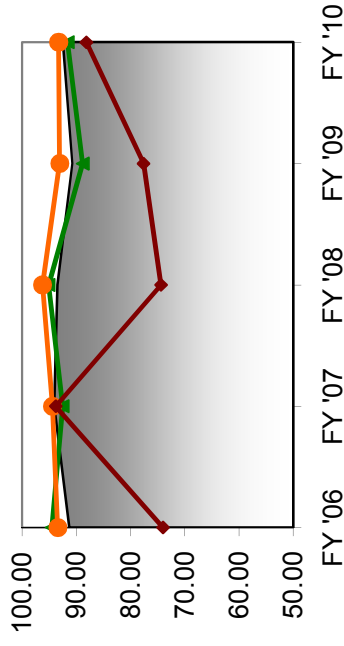
## VISUAL OBSTRUCTIONS



## YELLOW STRIPE

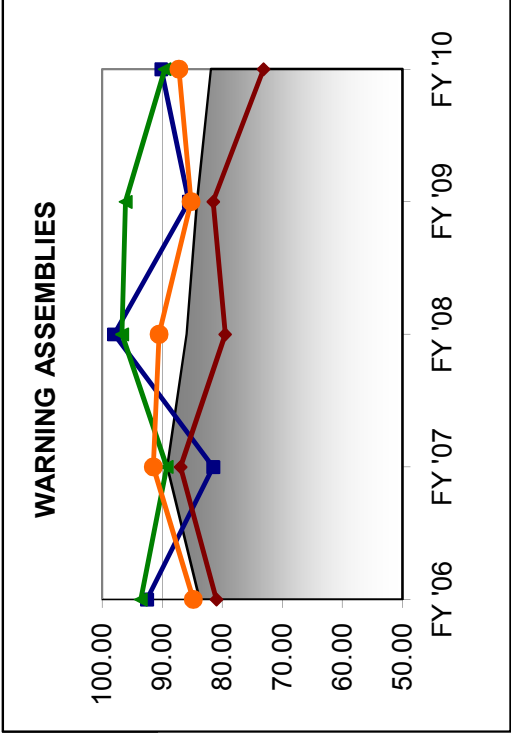
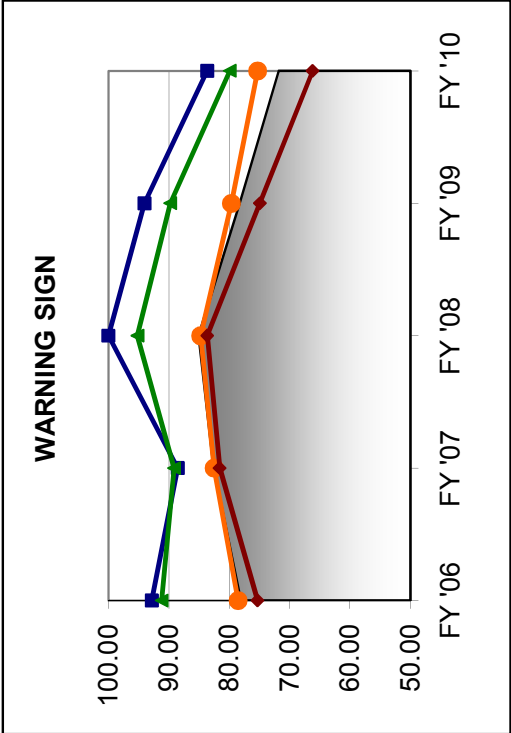
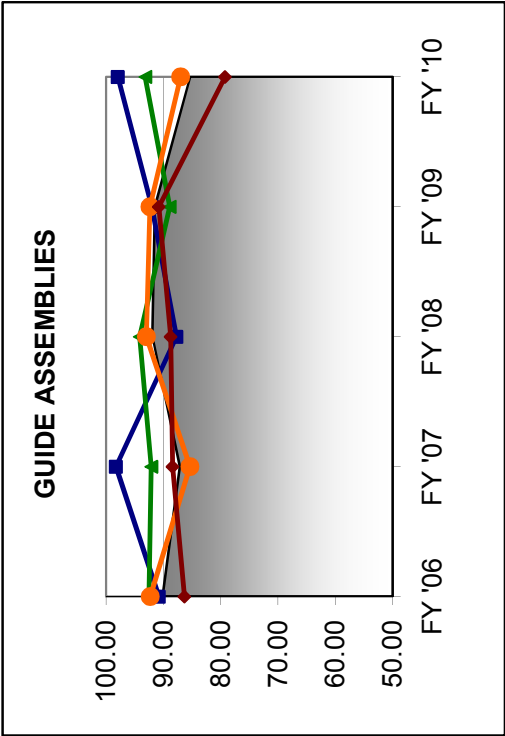
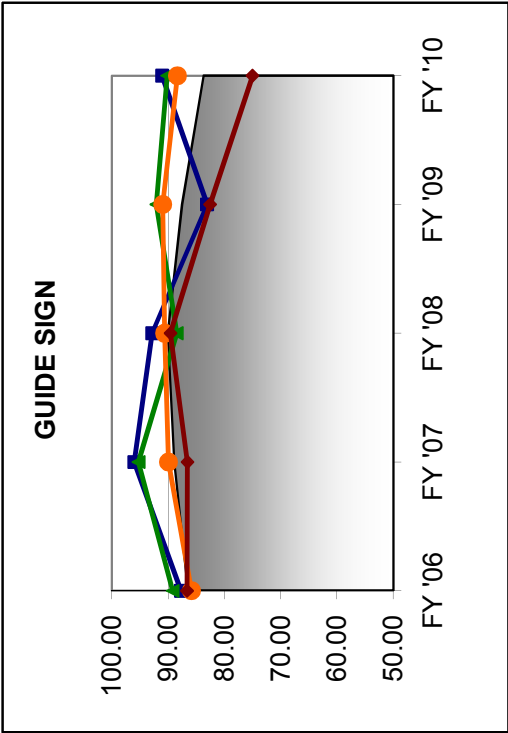


## WHITE STRIPE



ALL INTERSTATE OTH\_SP+SS RURAL\_SEC

# TRAFFIC SIGNS



## **APPENDIX III**

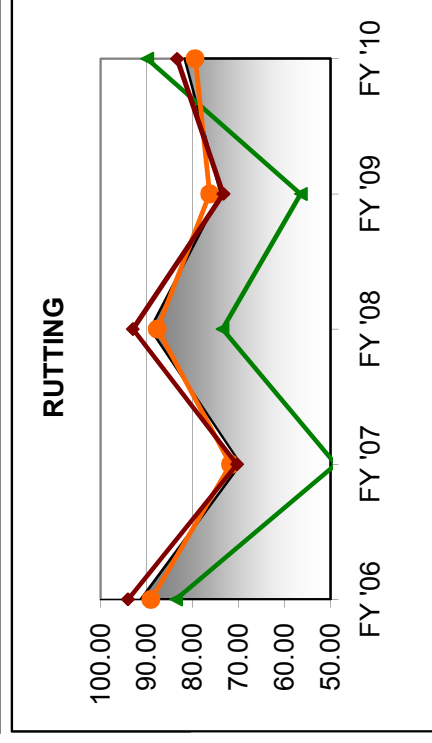
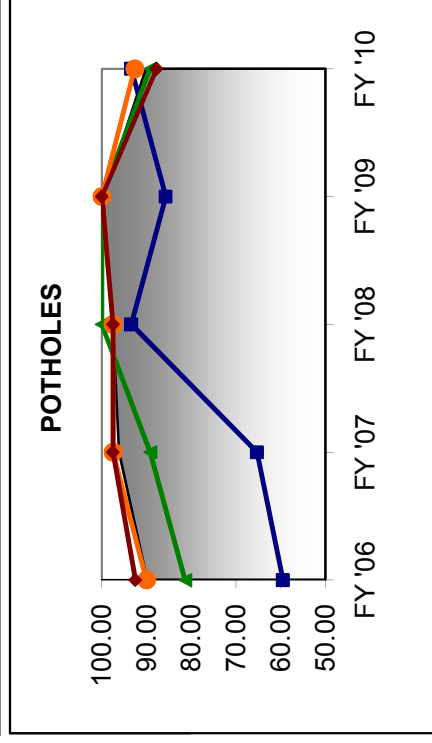
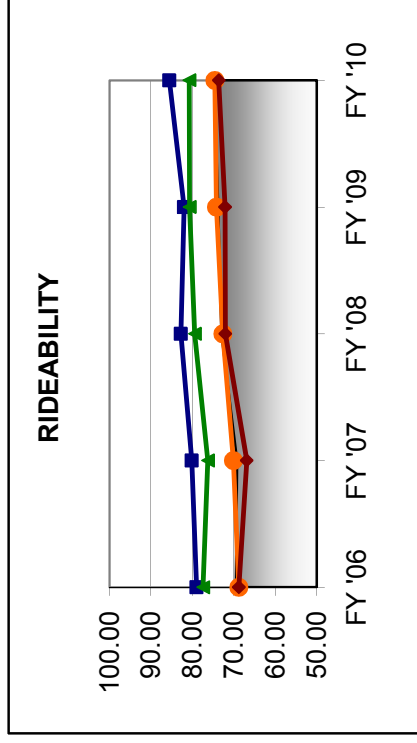
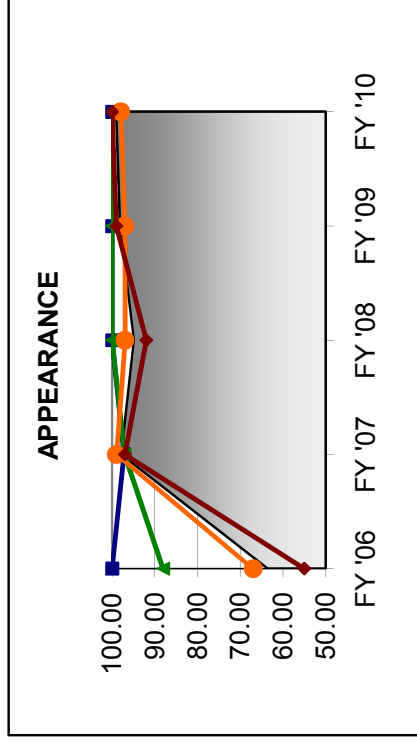
### **District Scores by Element Type**

Similar to Appendix II, the District Scores by Element Type have scores for the current and previous four years represented in the graphs for each of the four road types. The gray shaded area represents the weighted average of all roads for the given feature.

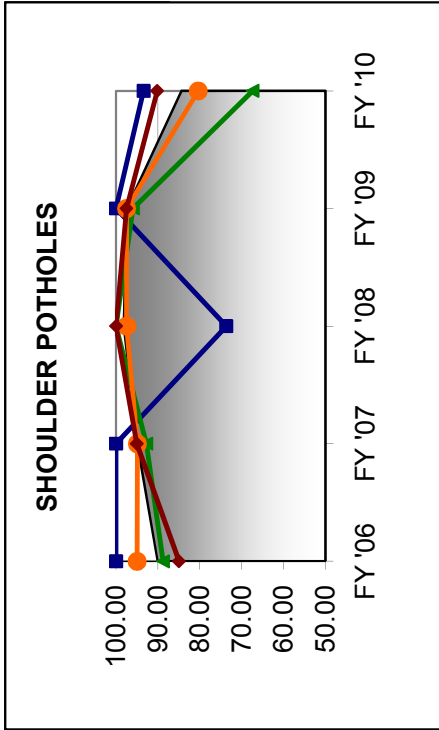
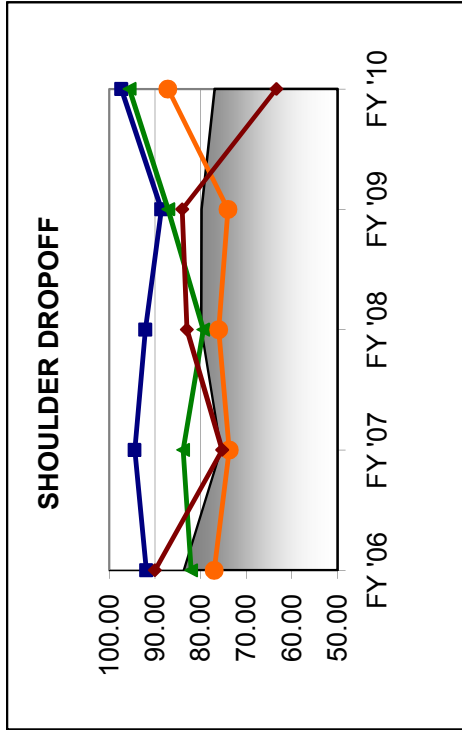
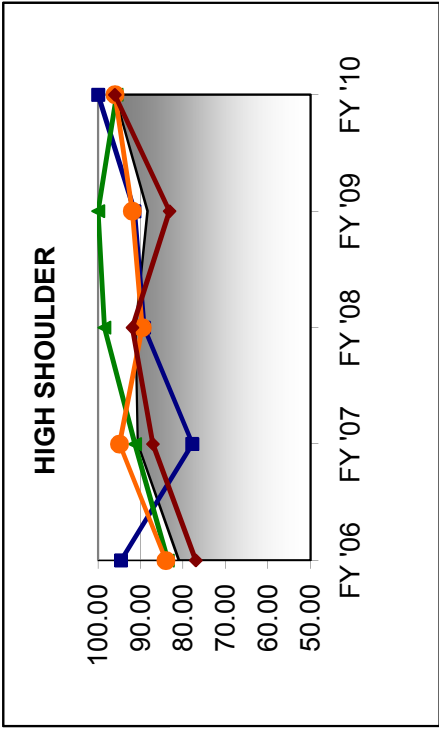
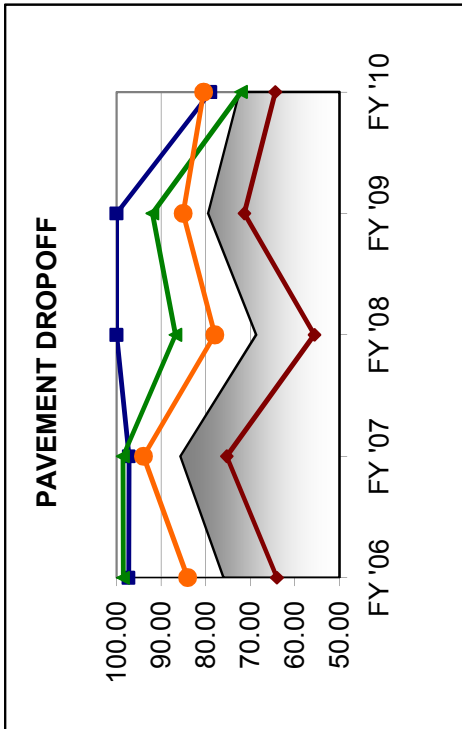
Due to the much smaller sample size in district evaluations, there are many more instances where there was insufficient data for analysis. These graphs are still shown, but will be marked accordingly. In some cases, the line representing a specific road type may be missing or broken due to insufficient data for a specific year or road type, but the district-wide average for all road types is still shown where possible.



## GENERAL APPEARANCE / SURFACE



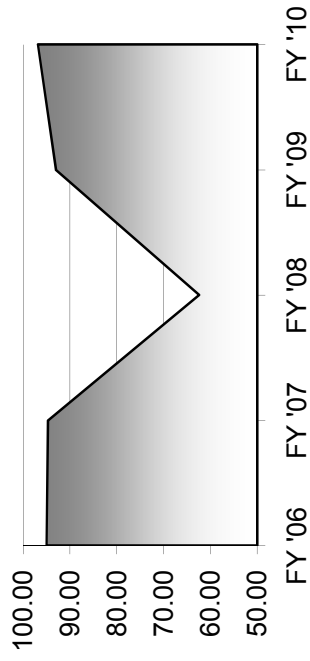
## SHOULDERS



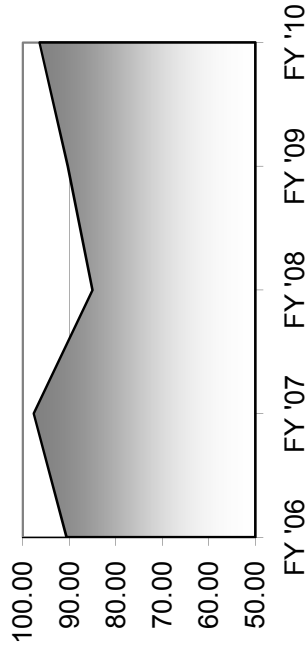


## ROADSIDE

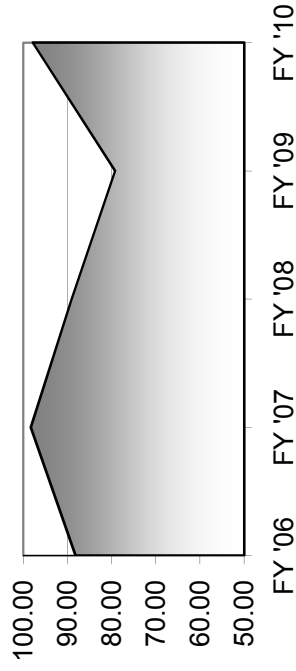
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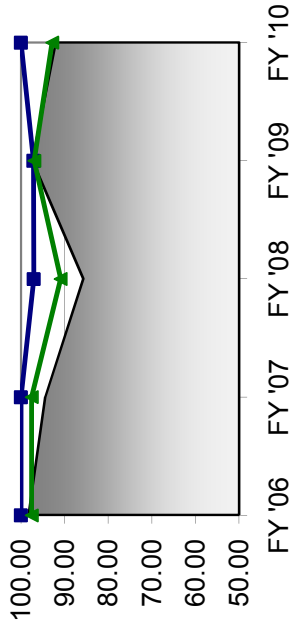
### RAIL DAMAGE



### ATTENUATORS

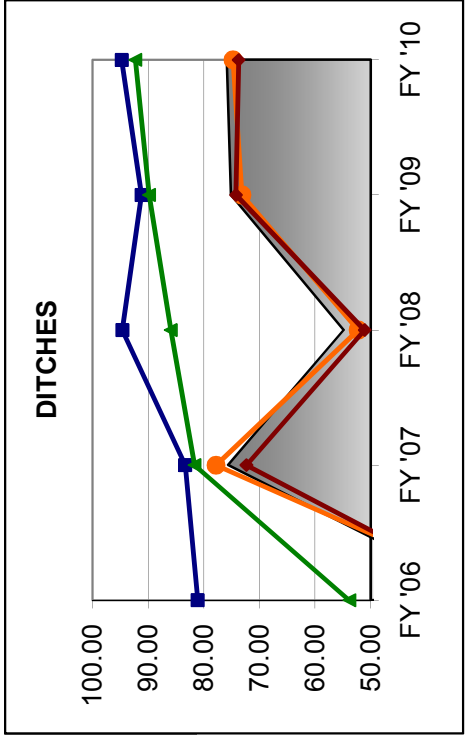
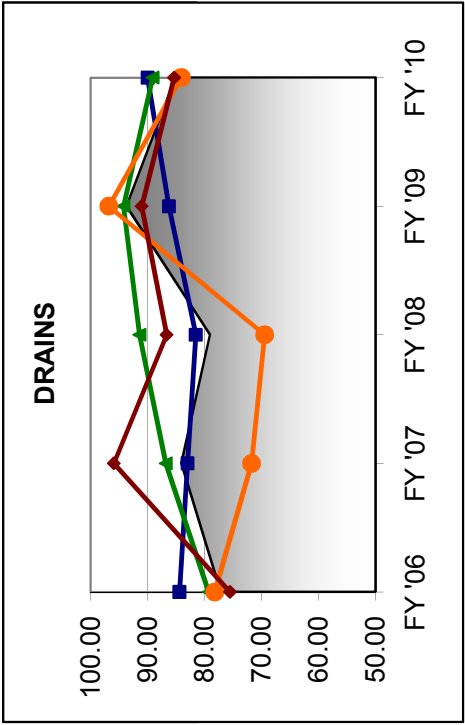
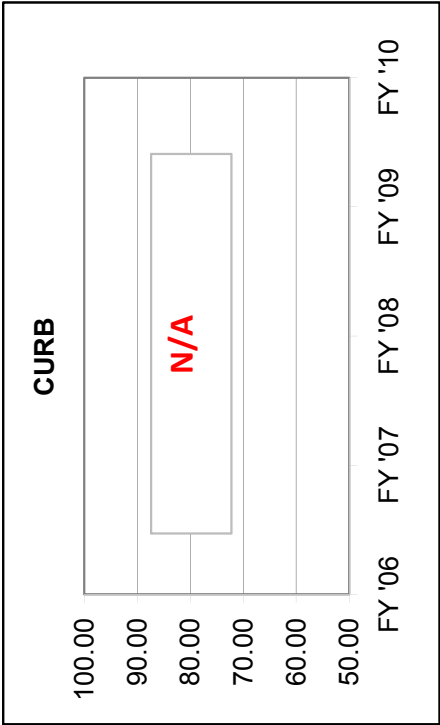


### FENCING

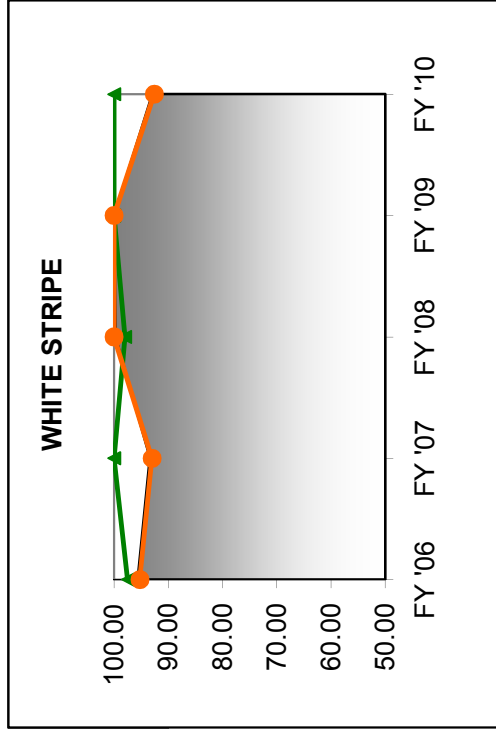
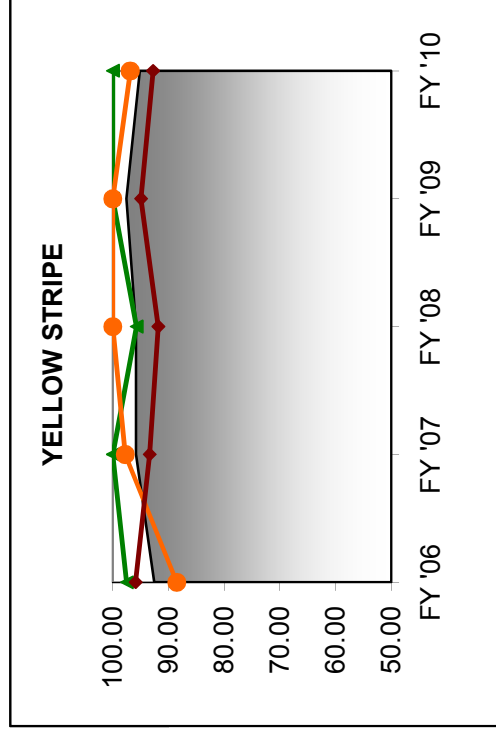
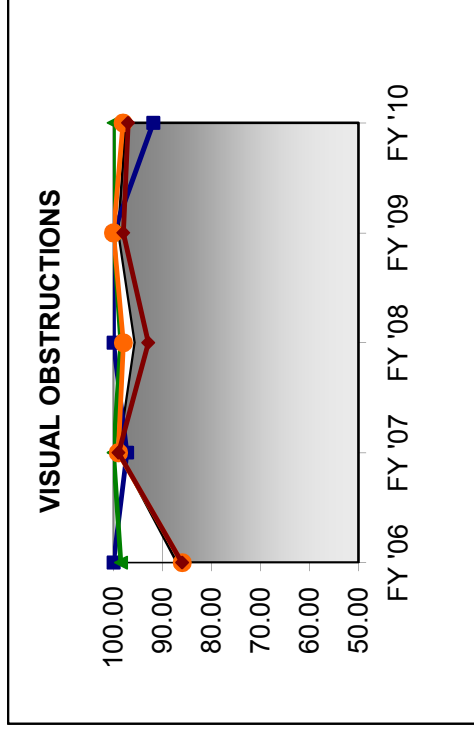
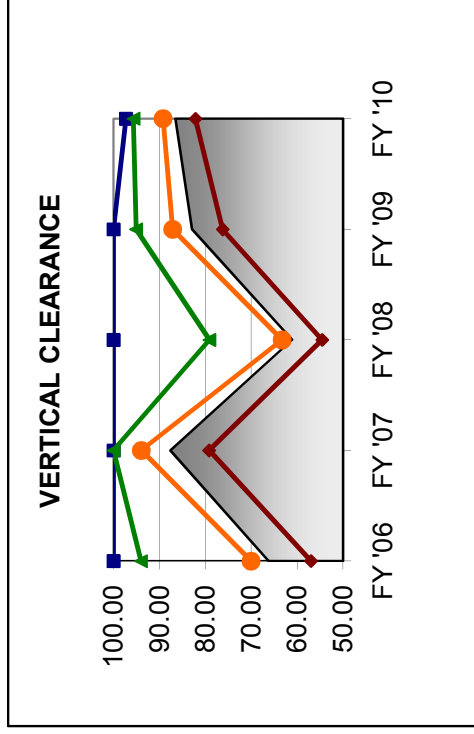


ALL INTERSTATE OTHER\_NHS RURAL\_SEC

# DRAINAGE

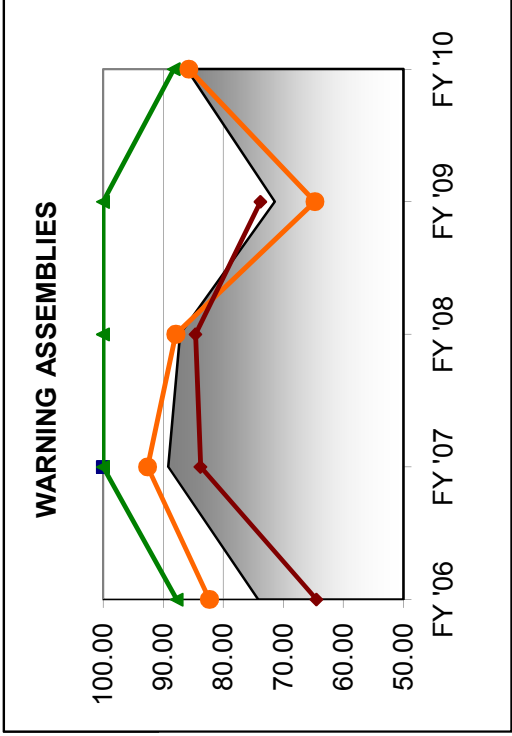
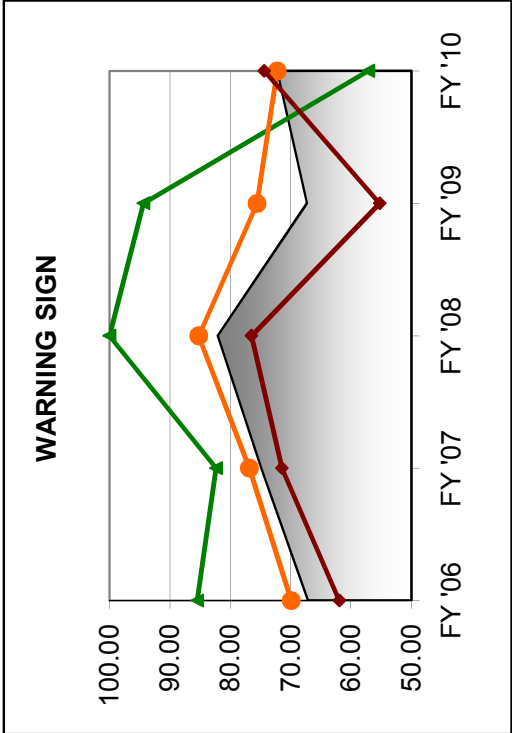
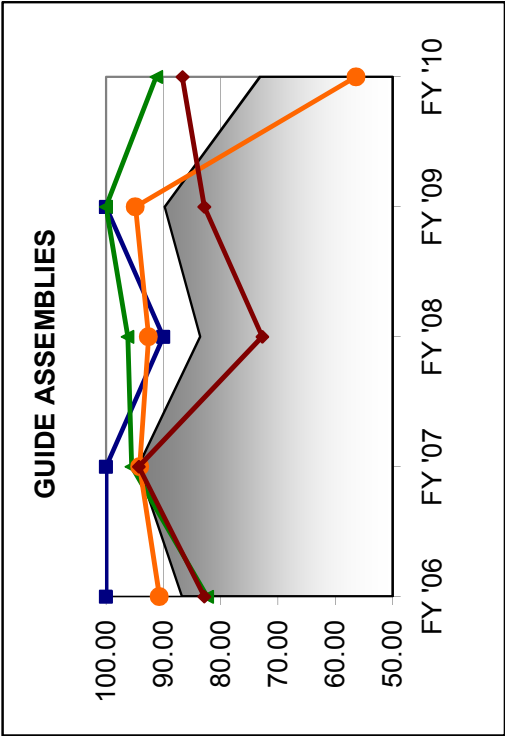
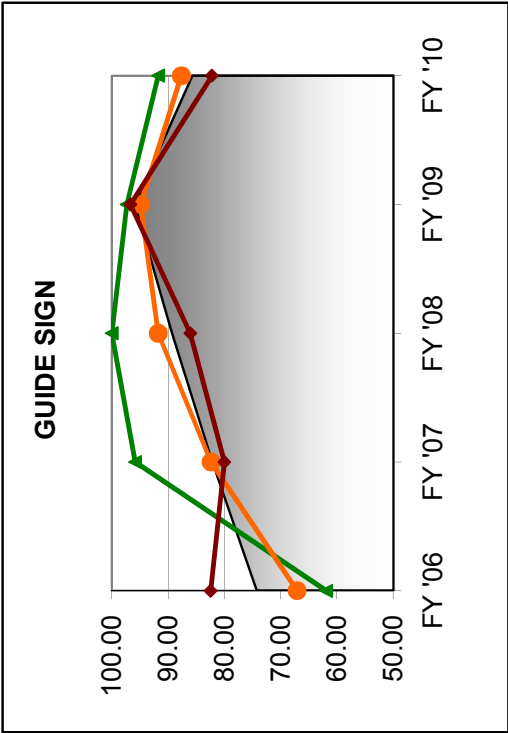


## TREE AND BRUSH / TRAFFIC MARKINGS

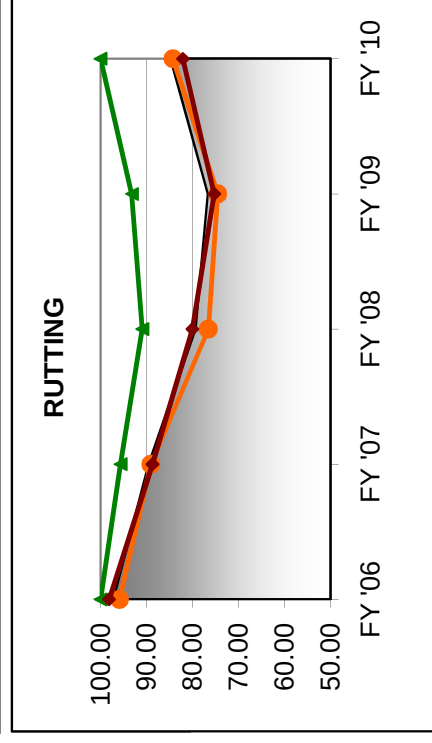
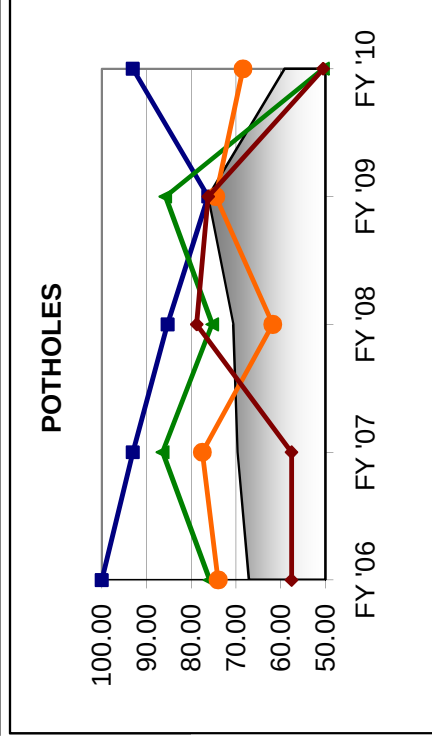
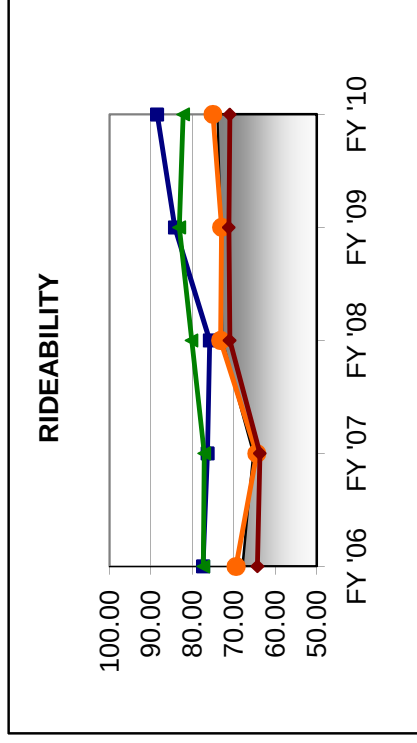
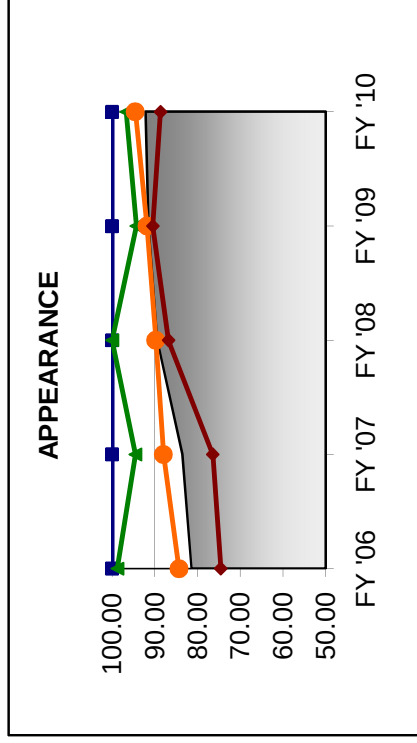


ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

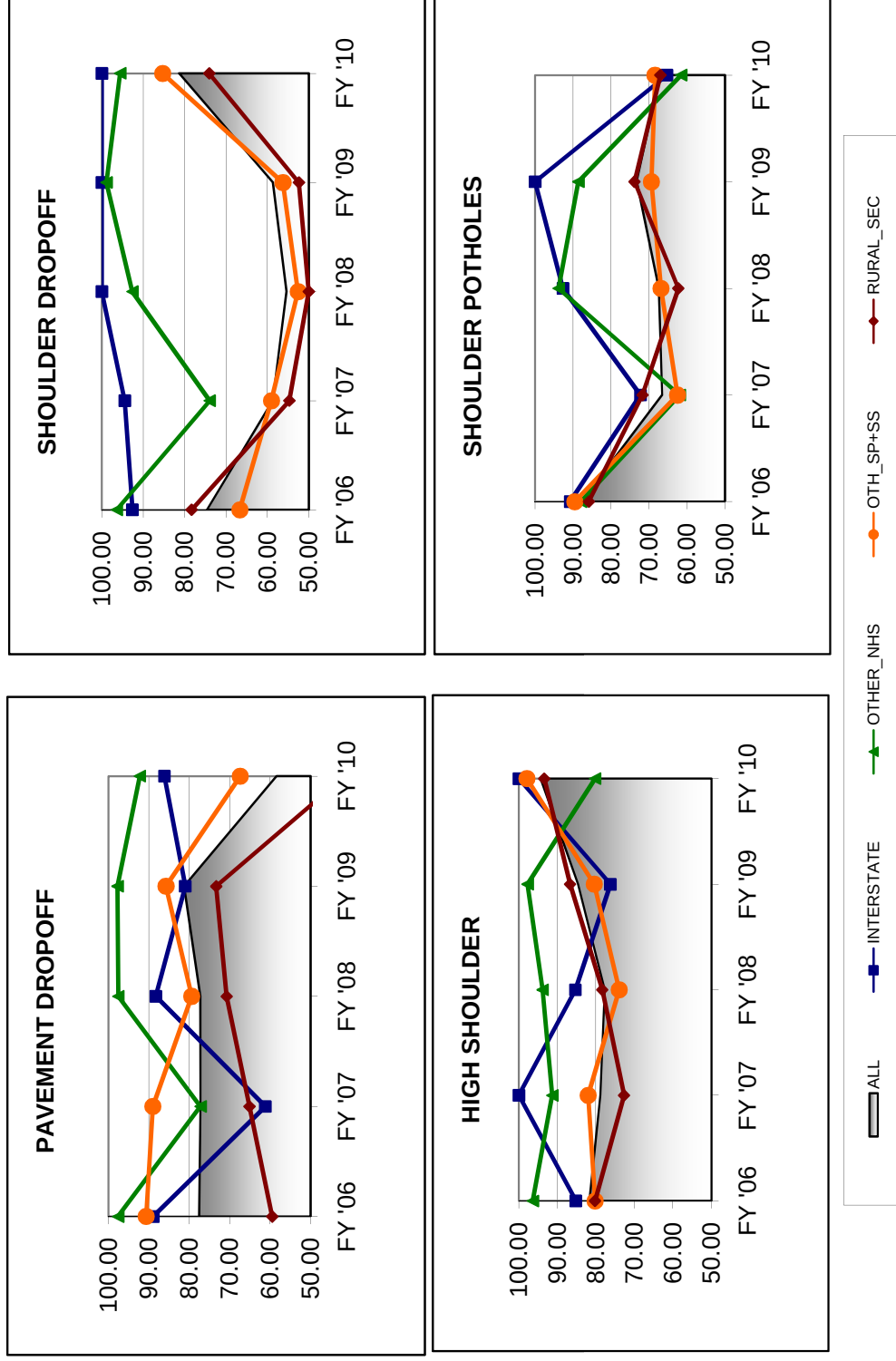
# TRAFFIC SIGNS



## GENERAL APPEARANCE / SURFACE

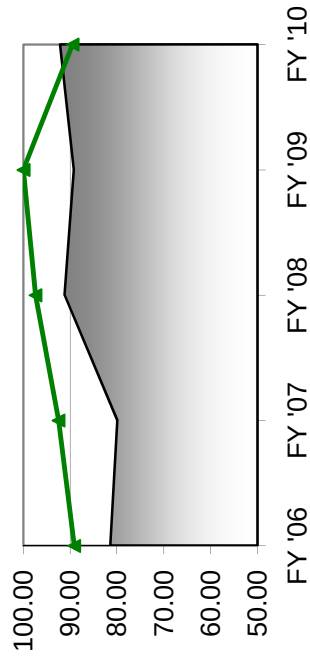


## SHOULDERS

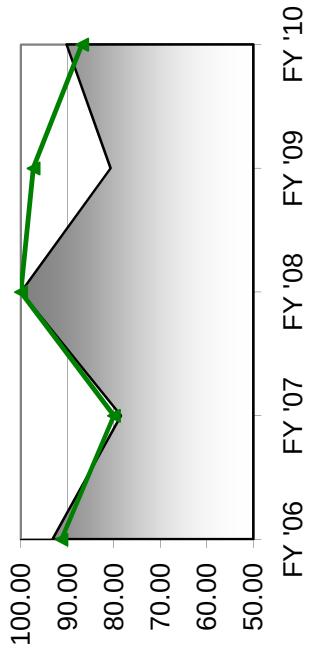


## ROADSIDE

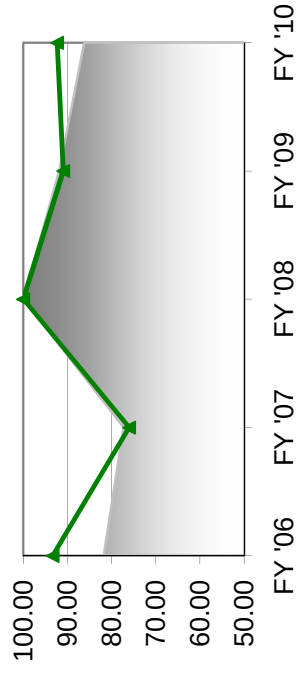
### RAIL HEIGHT



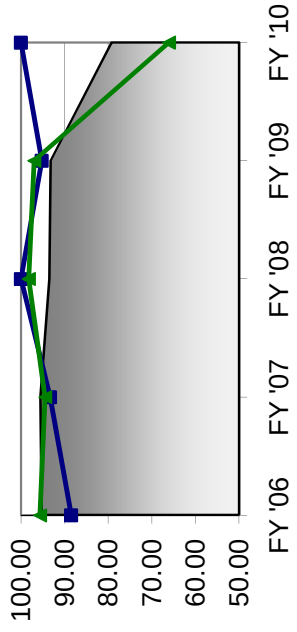
### RAIL DAMAGE



### ATTENUATORS

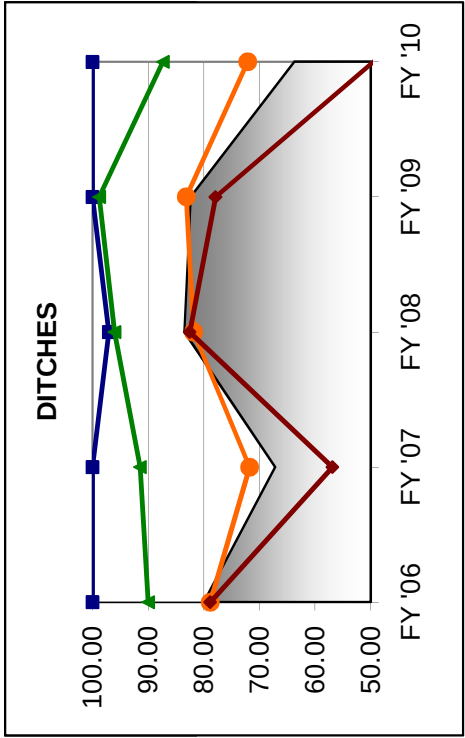
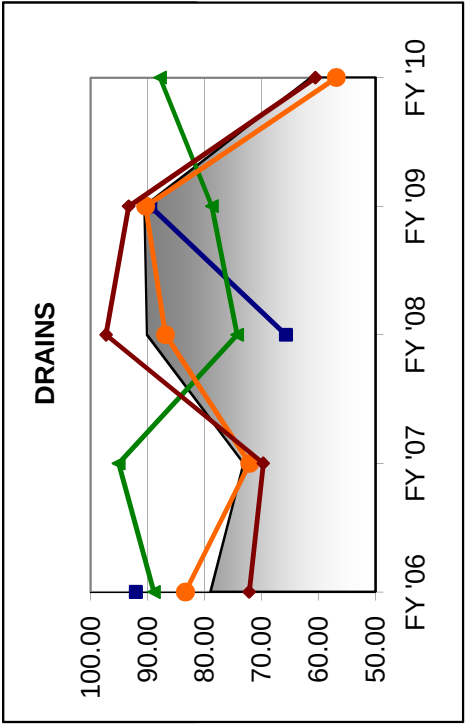
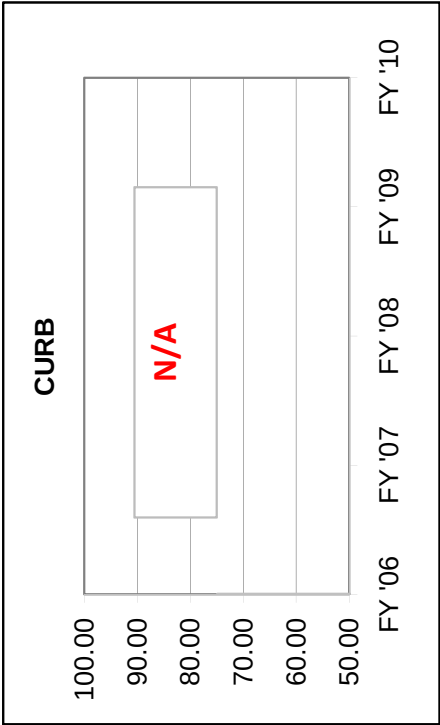


### FENCING



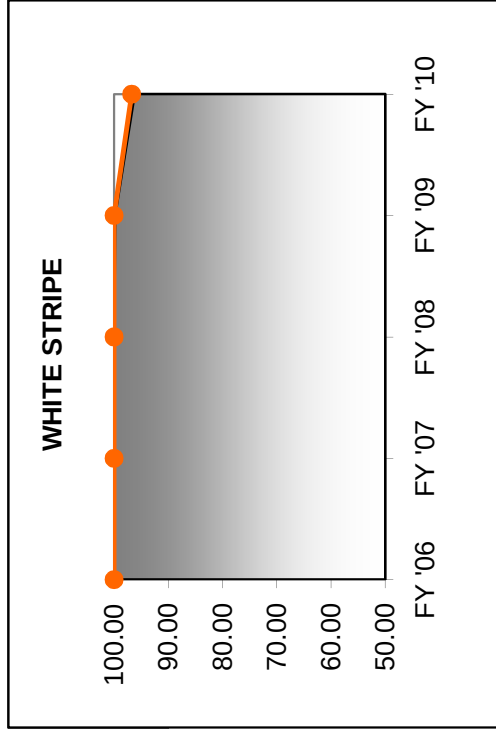
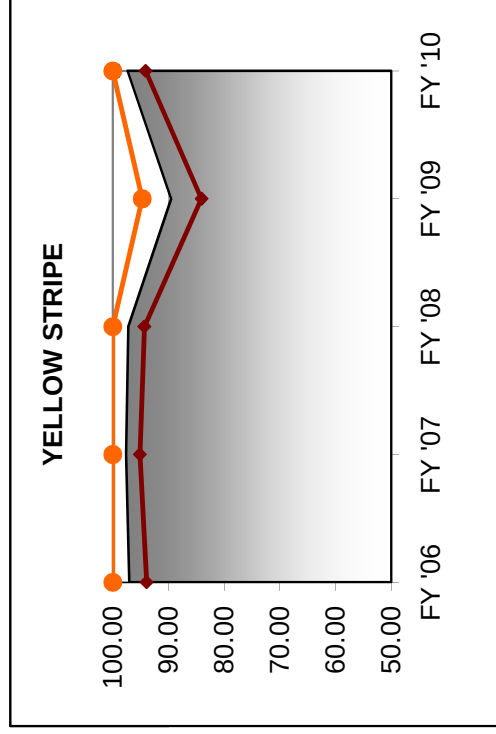
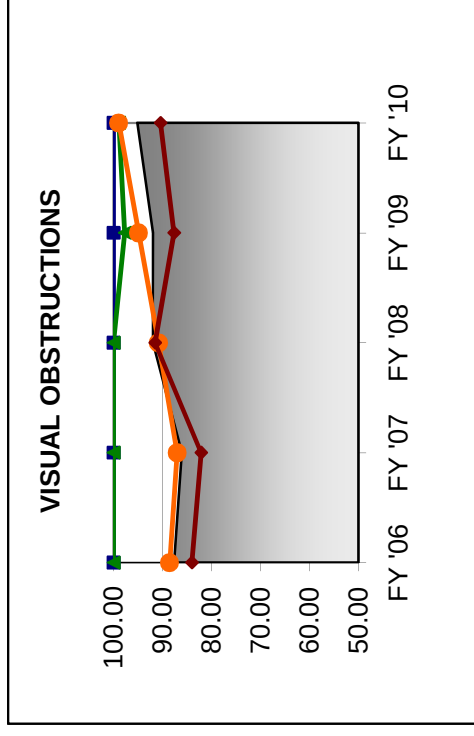
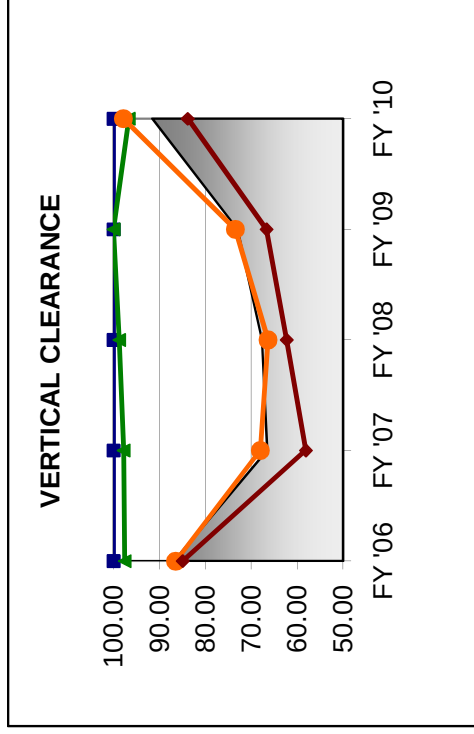
ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

# DRAINAGE



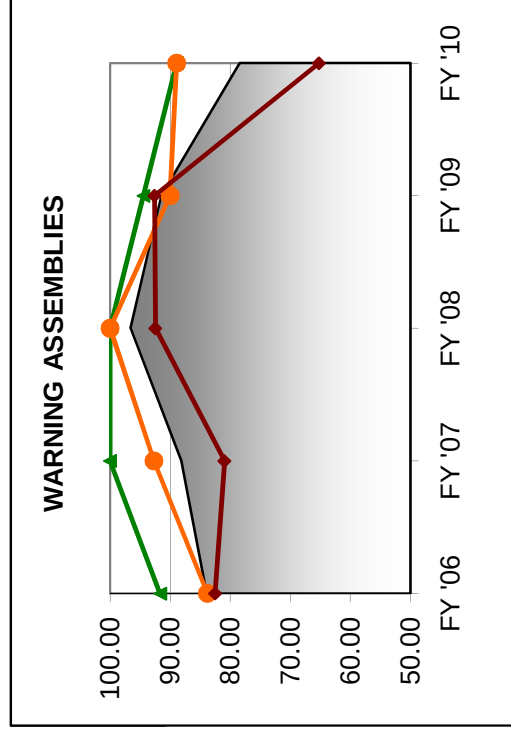
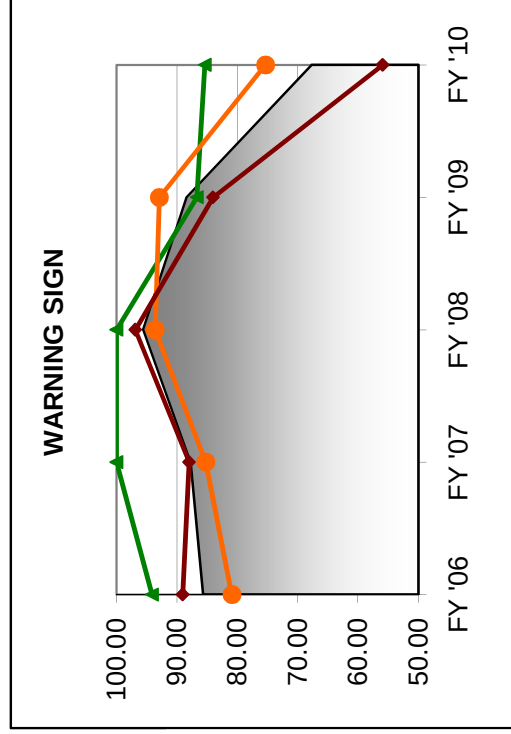
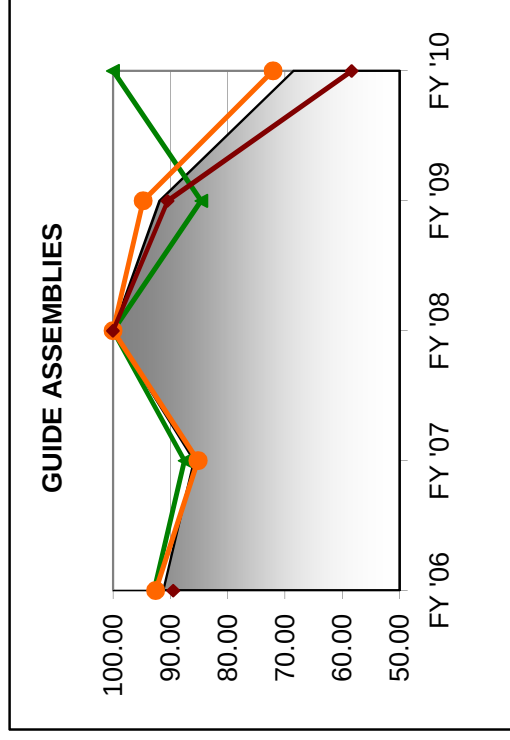
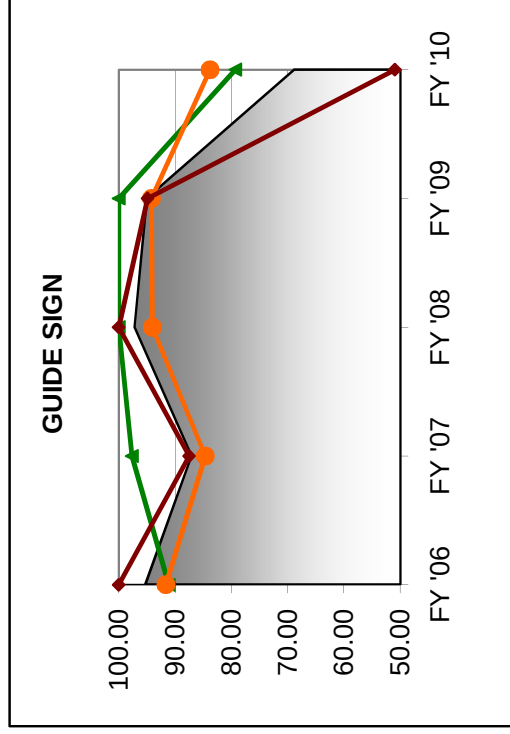


## TREE AND BRUSH / TRAFFIC MARKINGS

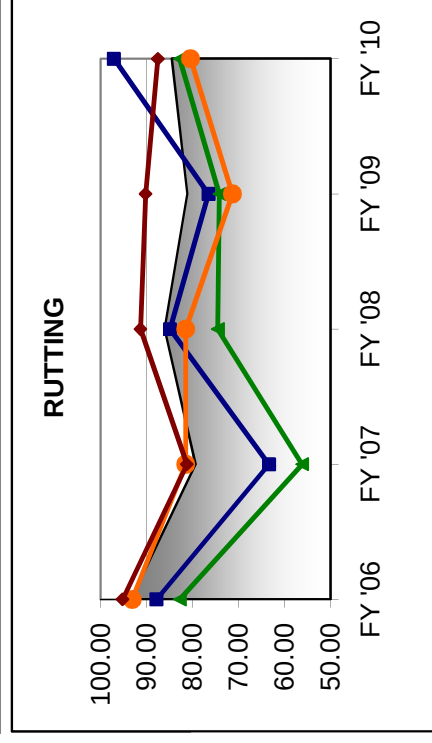
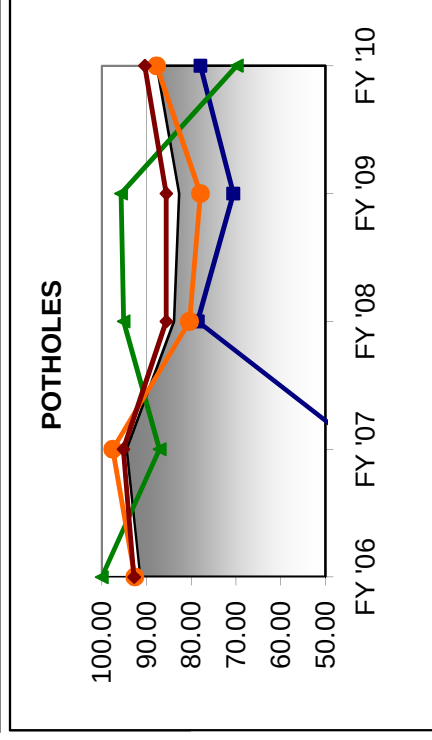
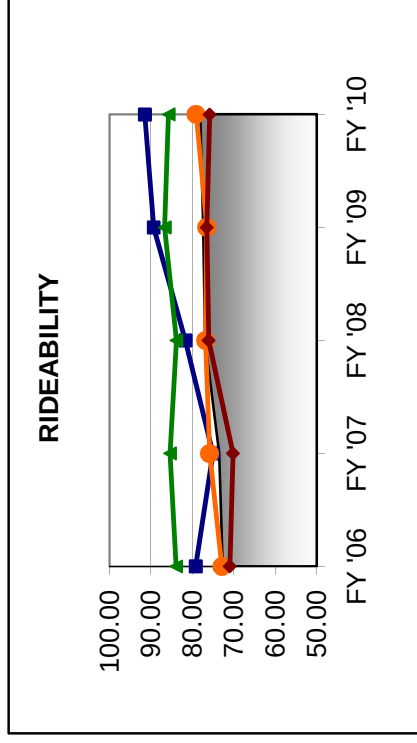
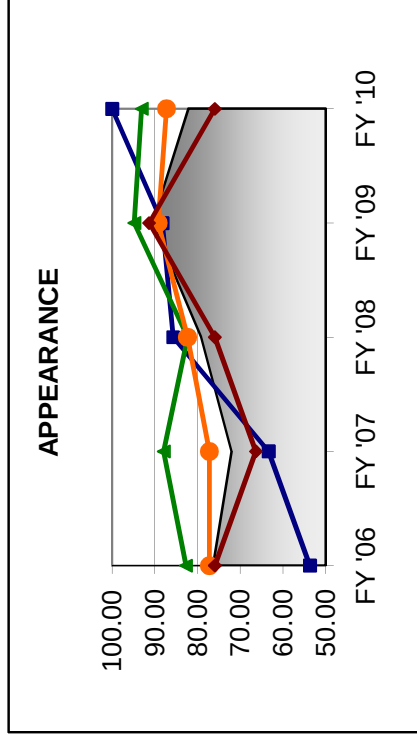


ALL INTERSTATE OTHER\_NHS RURAL\_SEC

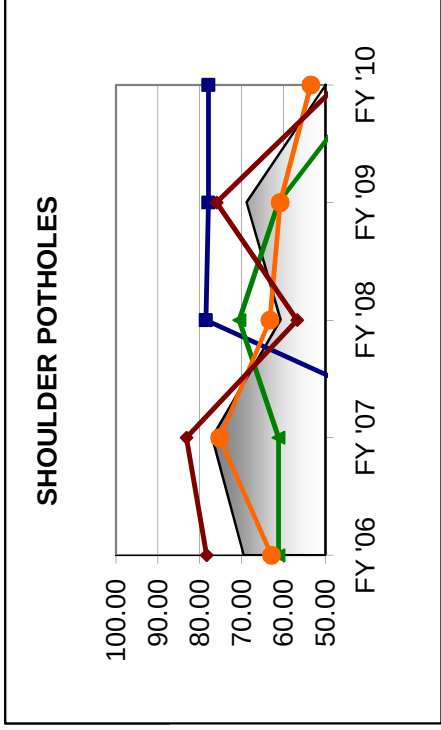
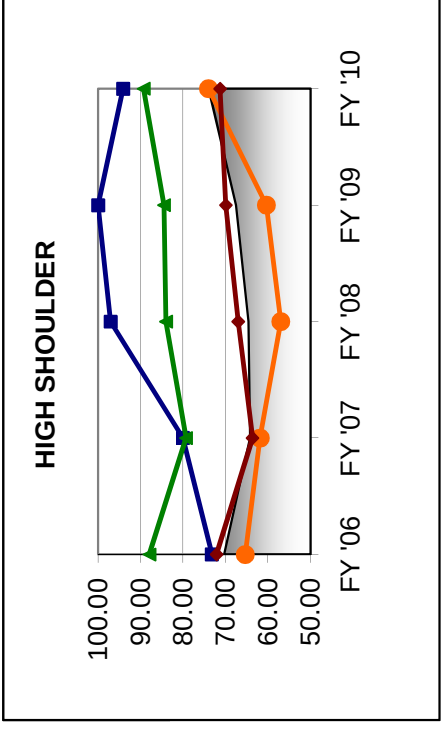
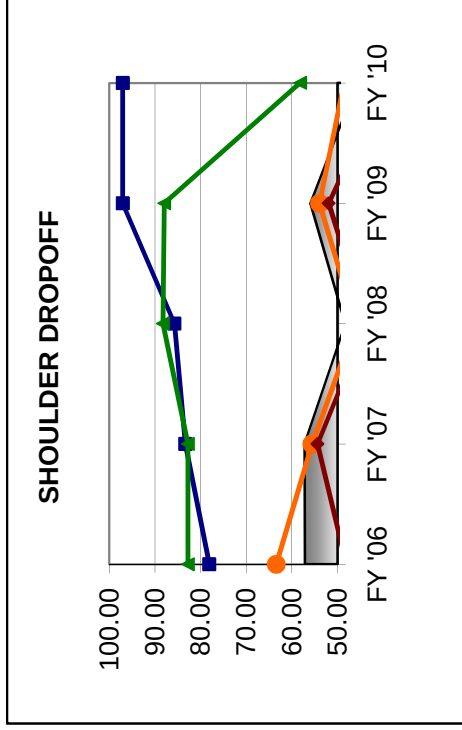
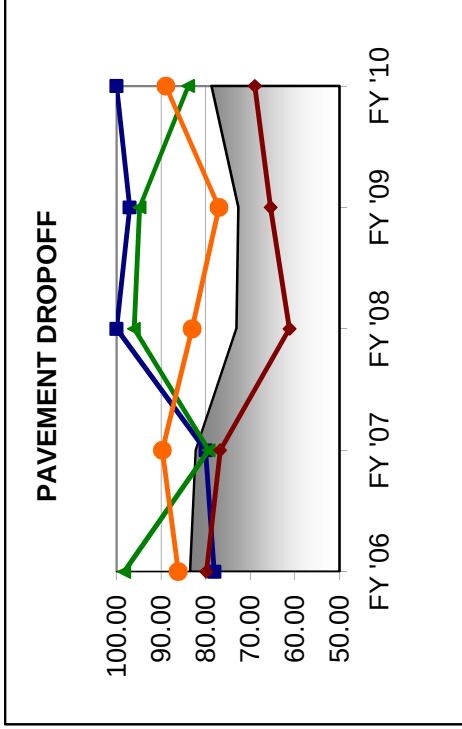
# TRAFFIC SIGNS



## GENERAL APPEARANCE / SURFACE

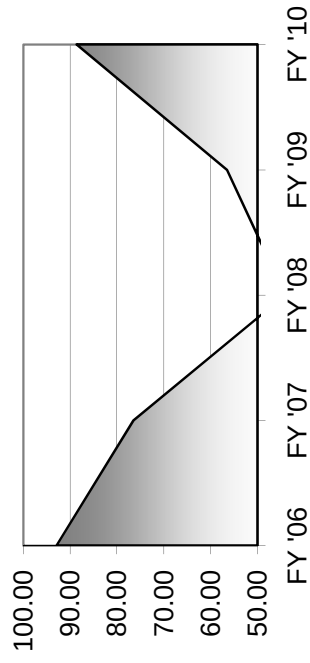


## SHOULDERS

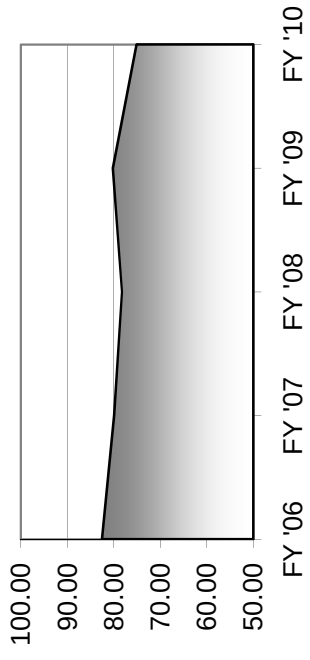


## ROADSIDE

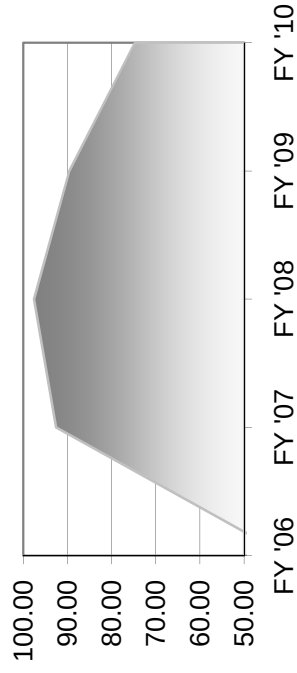
### RAIL HEIGHT



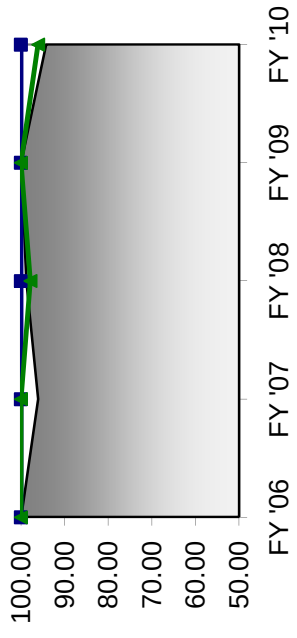
### RAIL DAMAGE



### ATTENUATORS

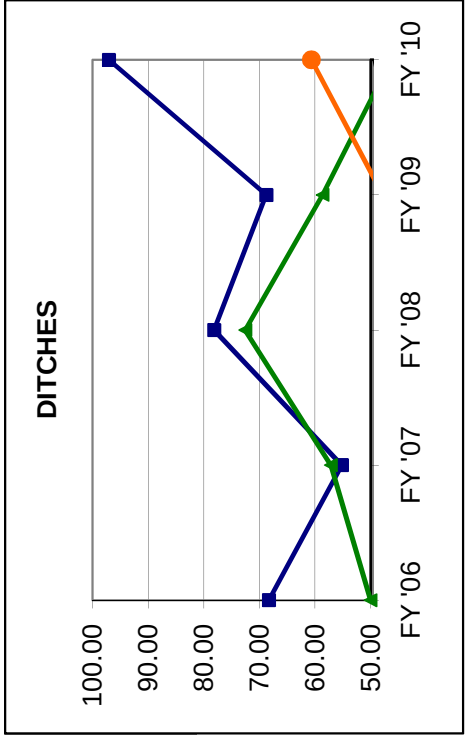
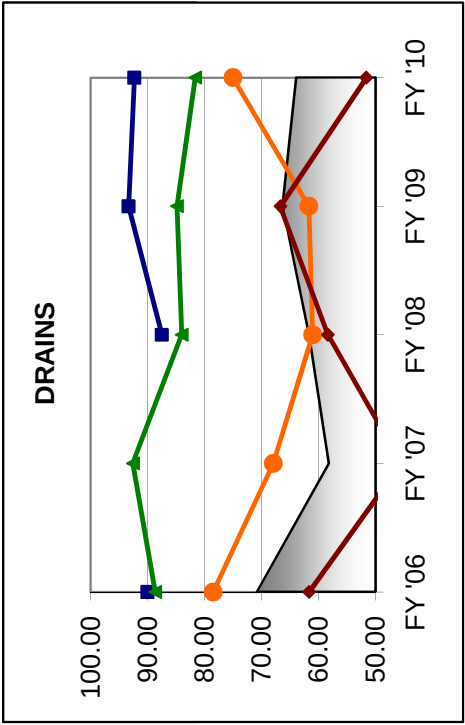
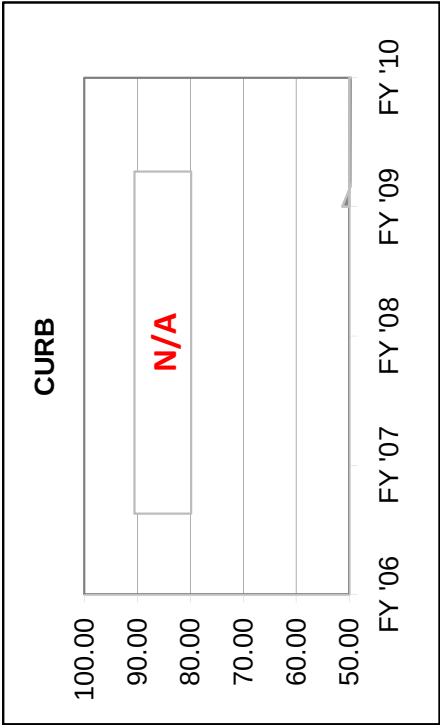


### FENCING

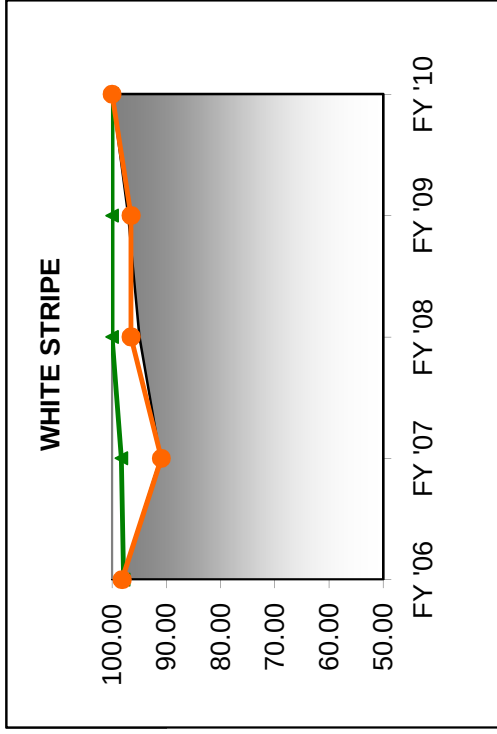
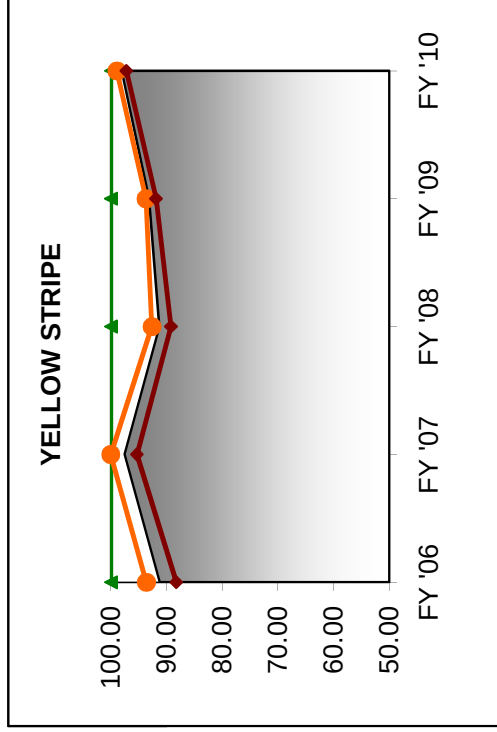
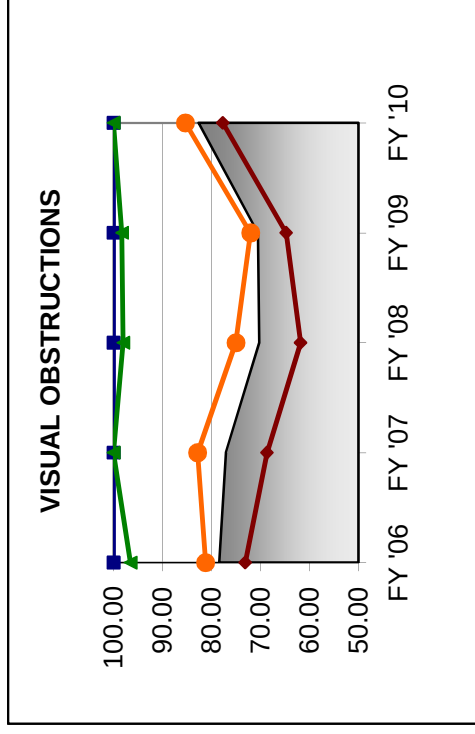
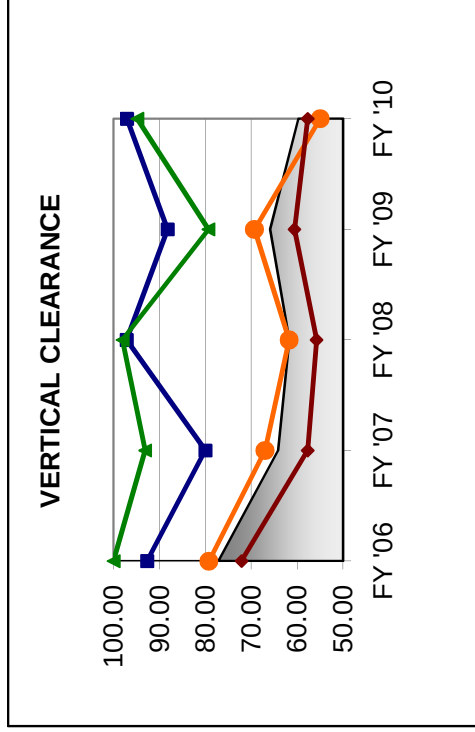


ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

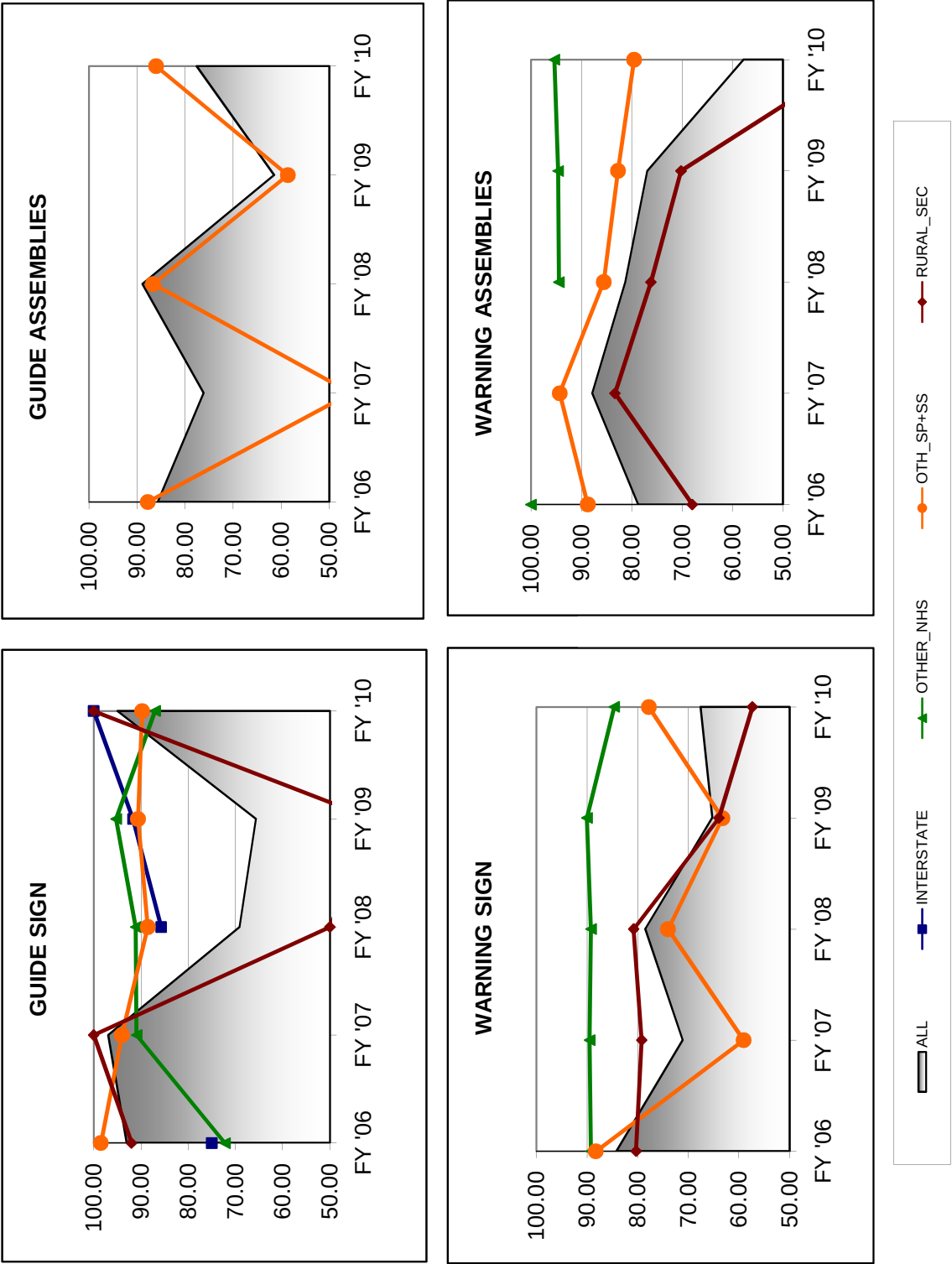
# DRAINAGE



# TREE AND BRUSH / TRAFFIC MARKINGS

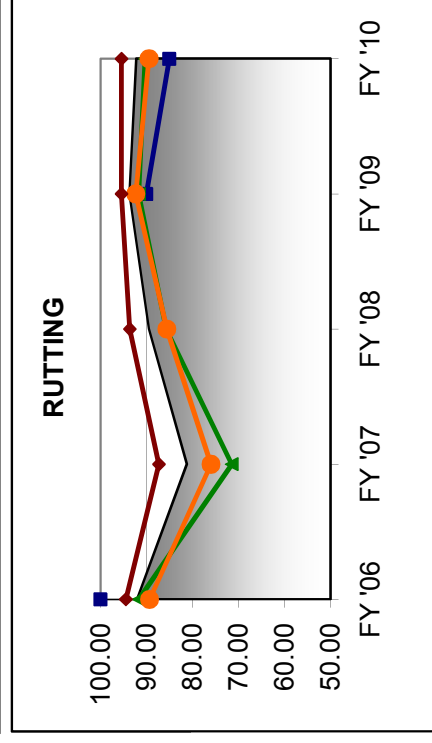
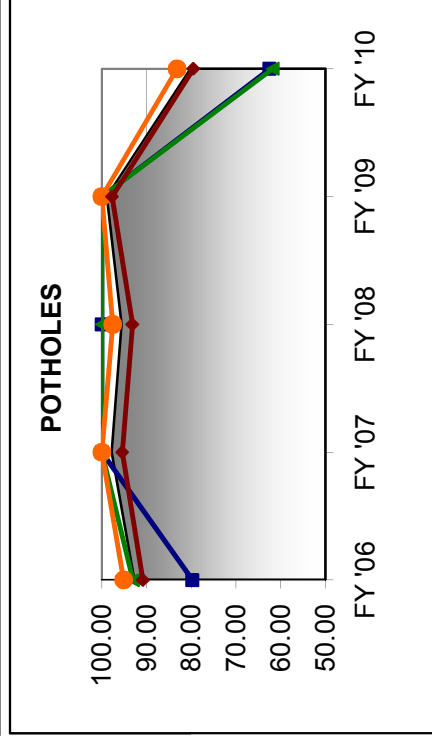
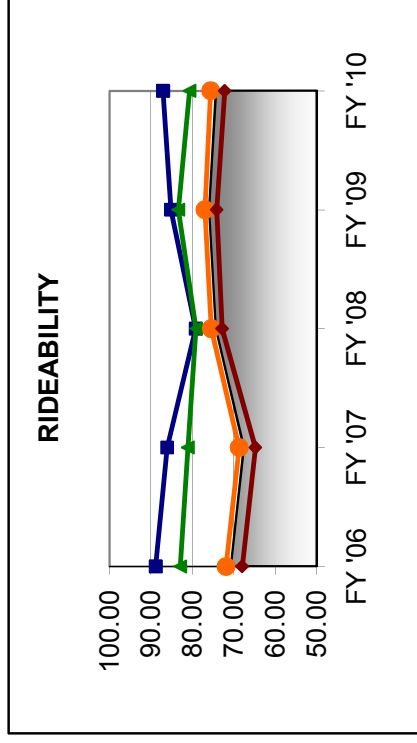
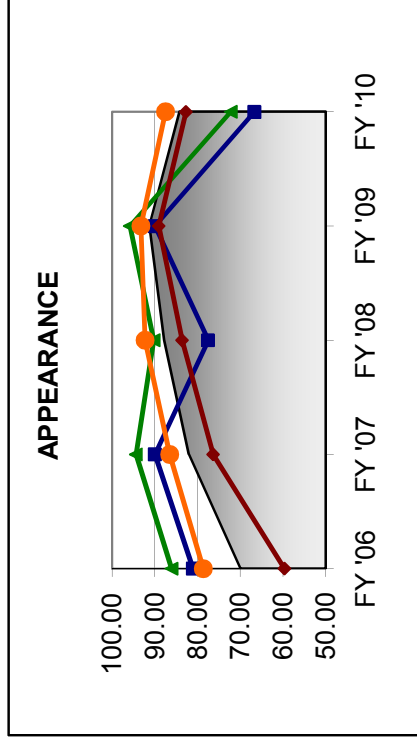


# TRAFFIC SIGNS

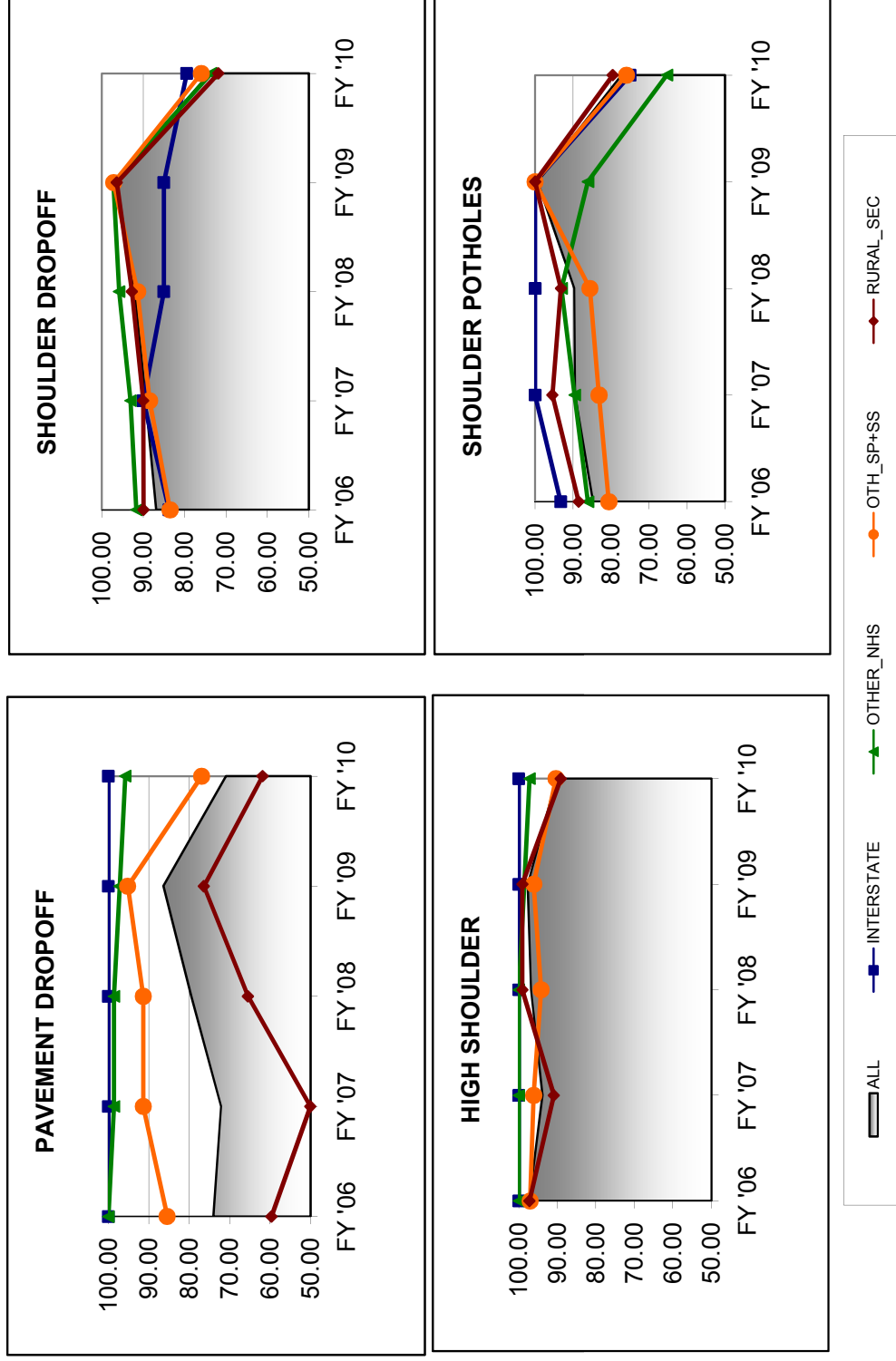




## GENERAL APPEARANCE / SURFACE

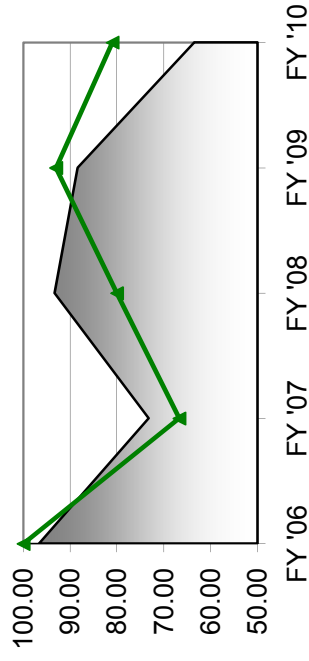


## SHOULDERS

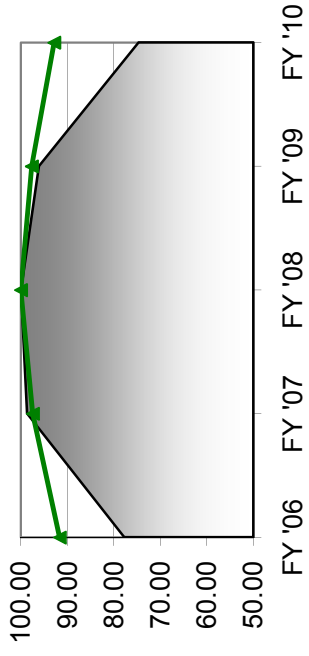


## ROADSIDE

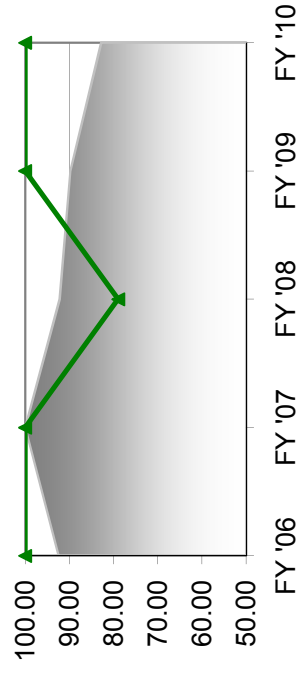
### RAIL HEIGHT



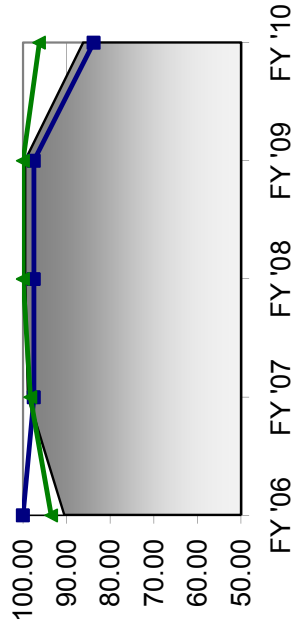
### RAIL DAMAGE



### ATTENUATORS

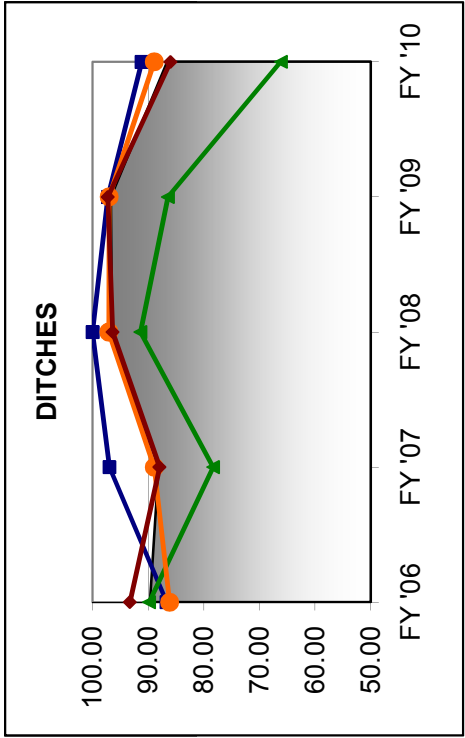
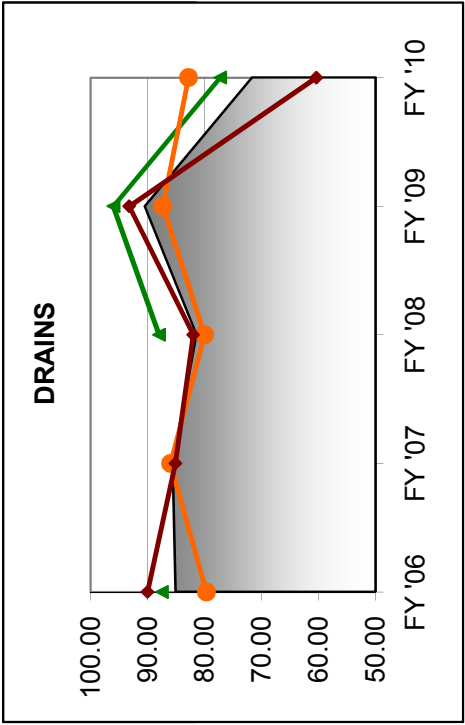
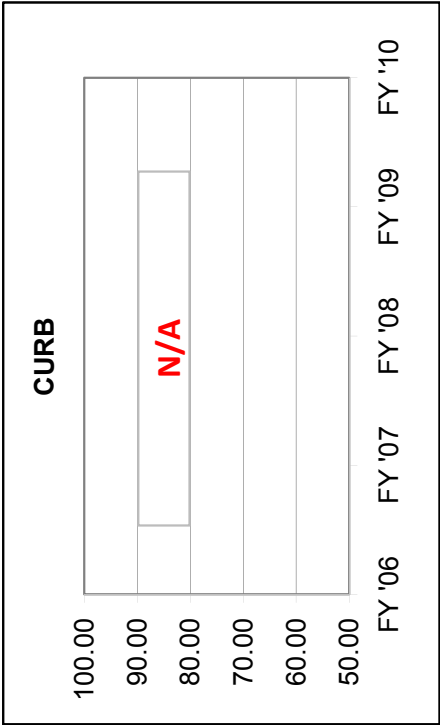


### FENCING

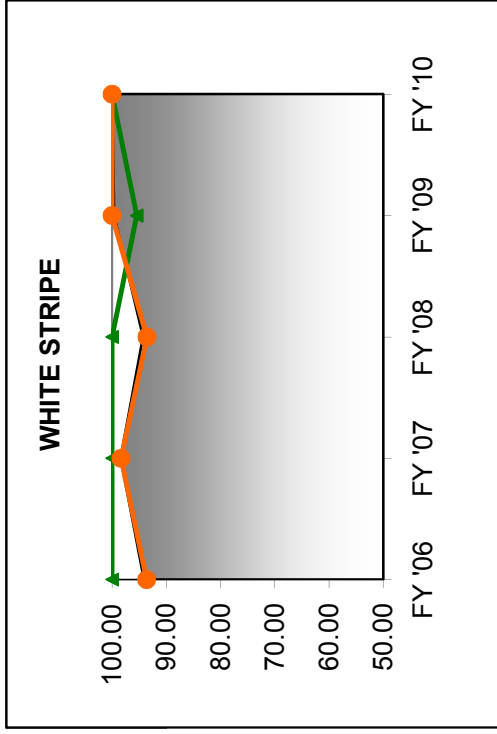
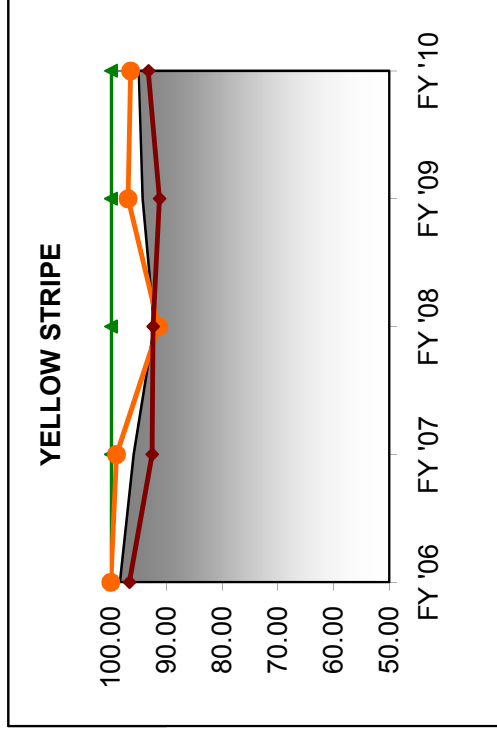
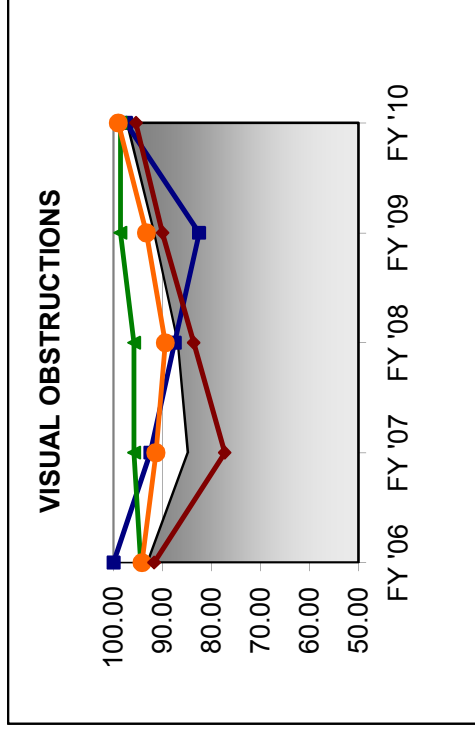
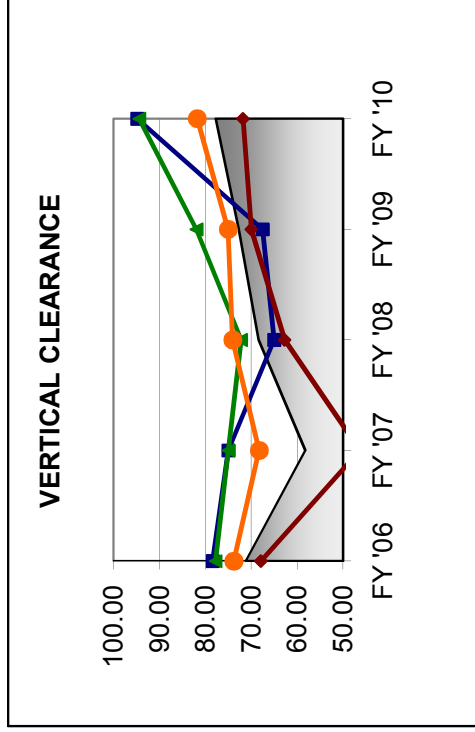


ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

# DRAINAGE

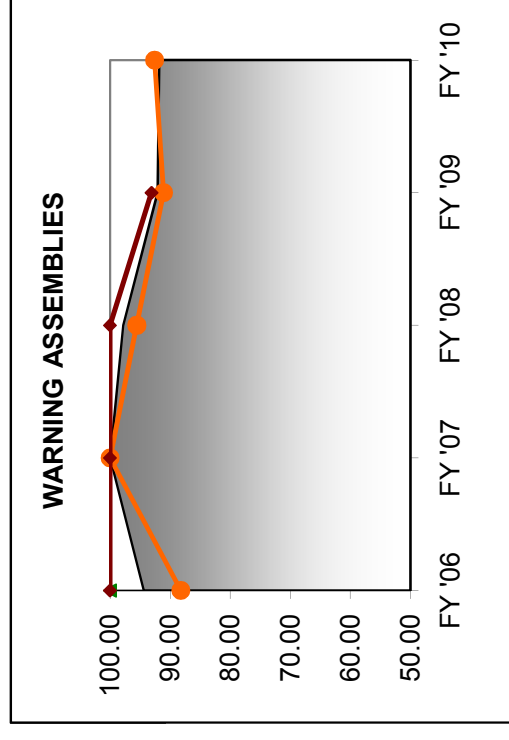
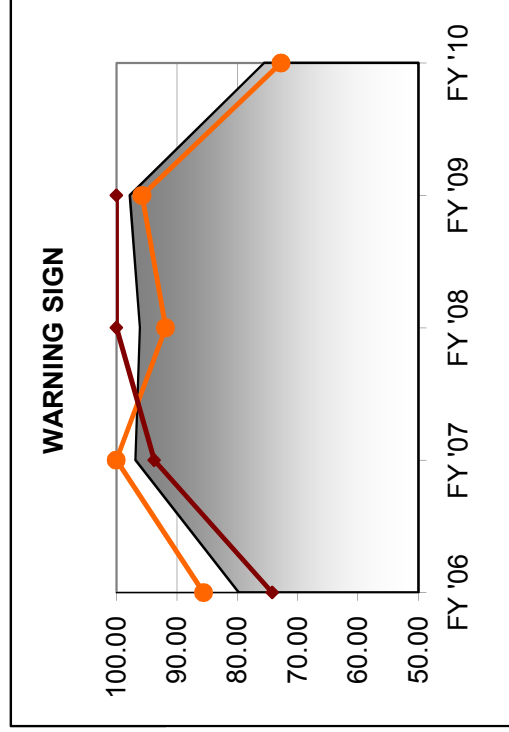
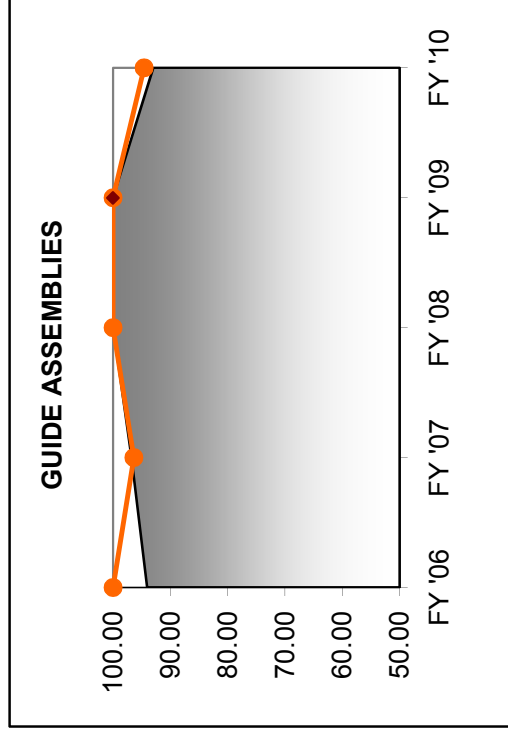
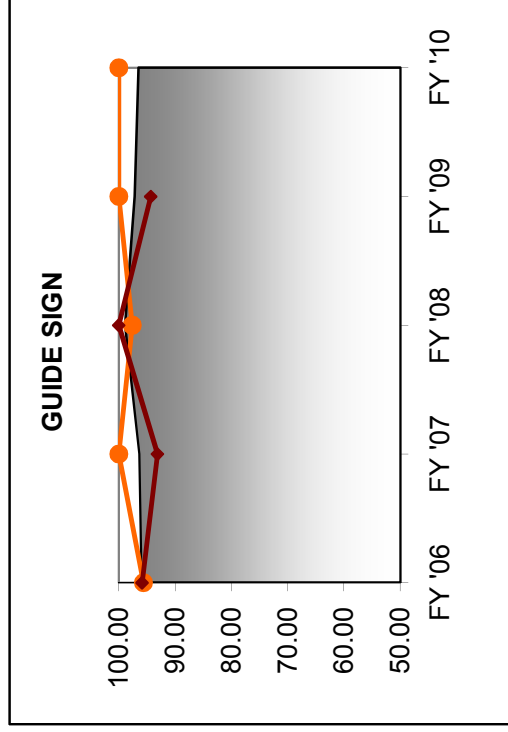


# TREE AND BRUSH / TRAFFIC MARKINGS

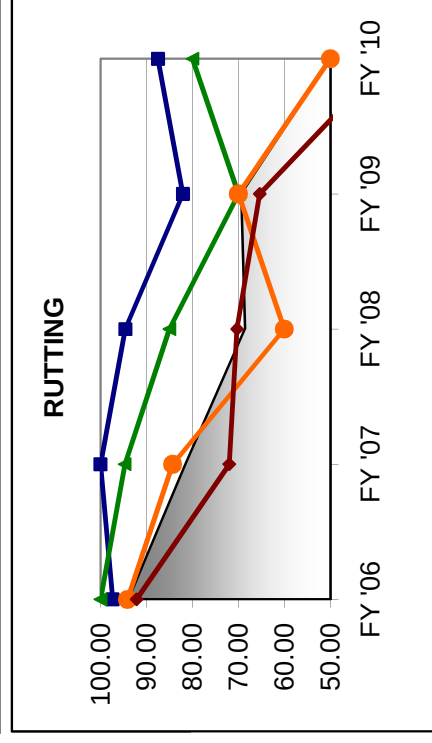
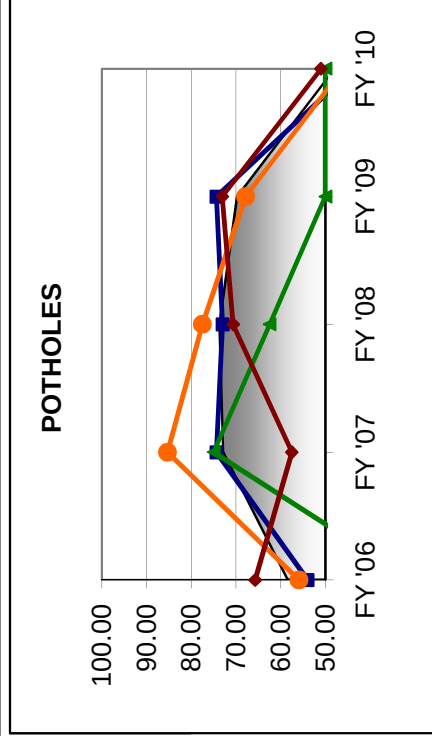
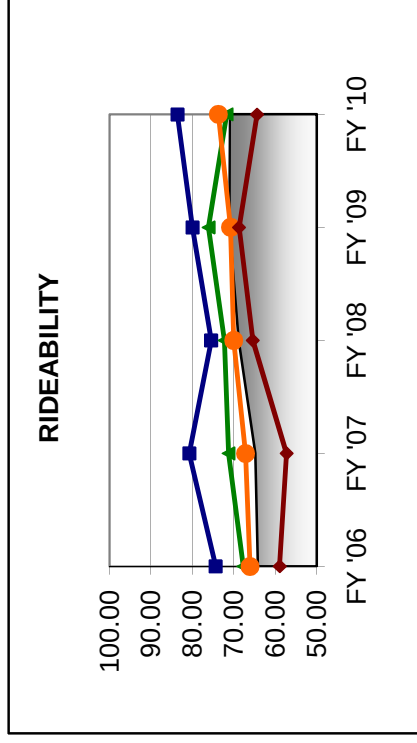
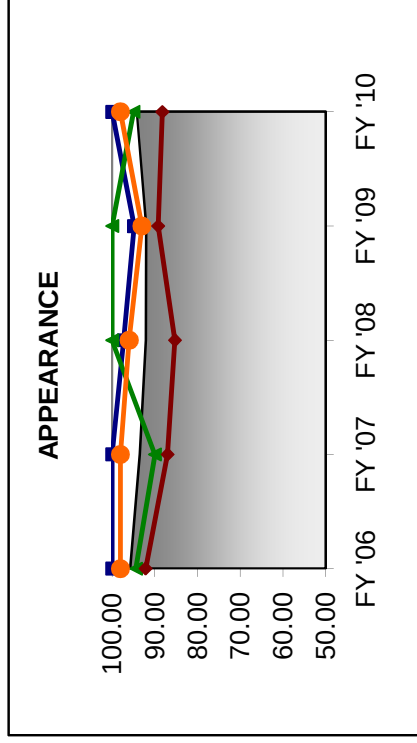


ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

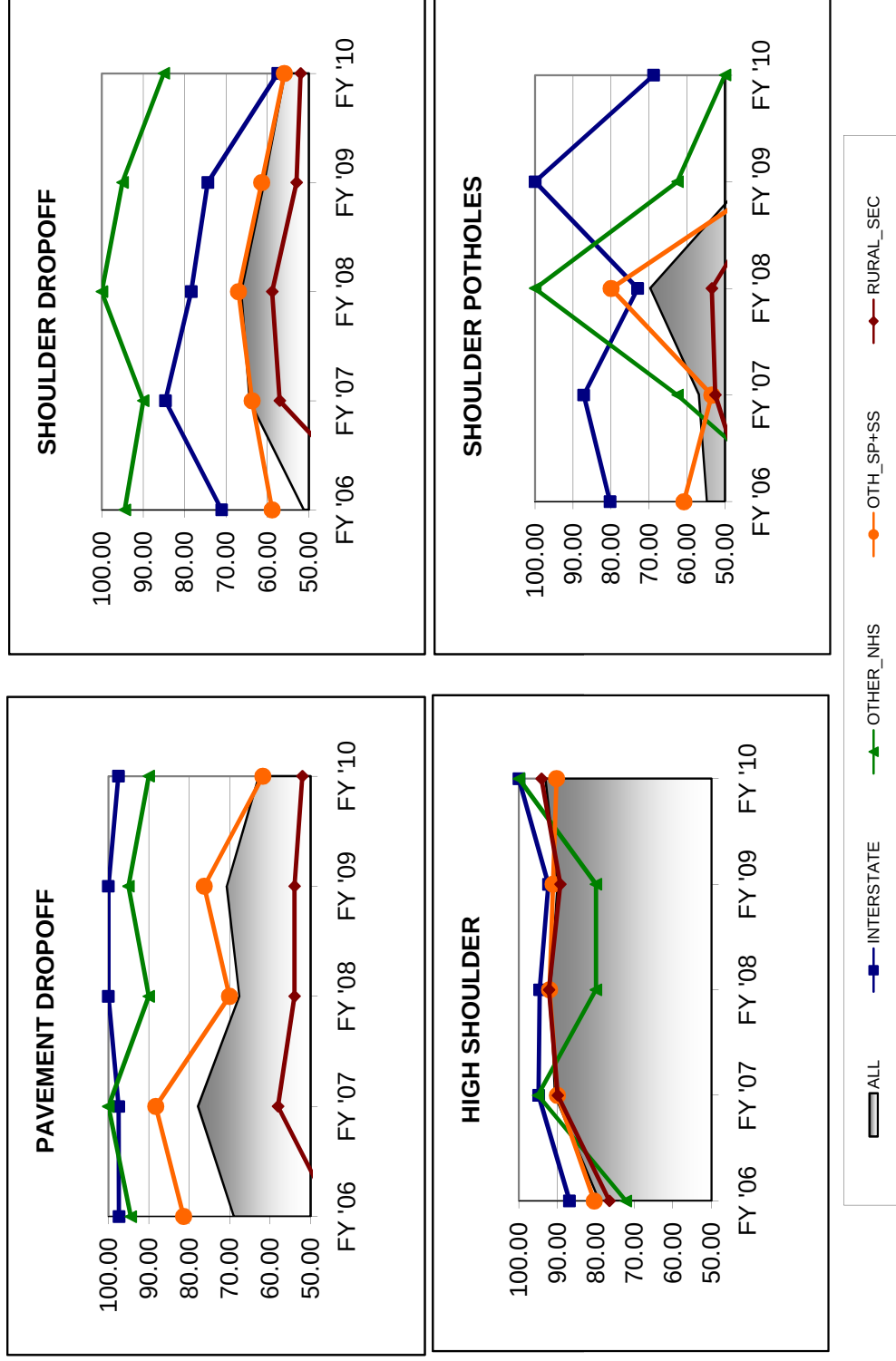
## TRAFFIC SIGNS



## GENERAL APPEARANCE / SURFACE

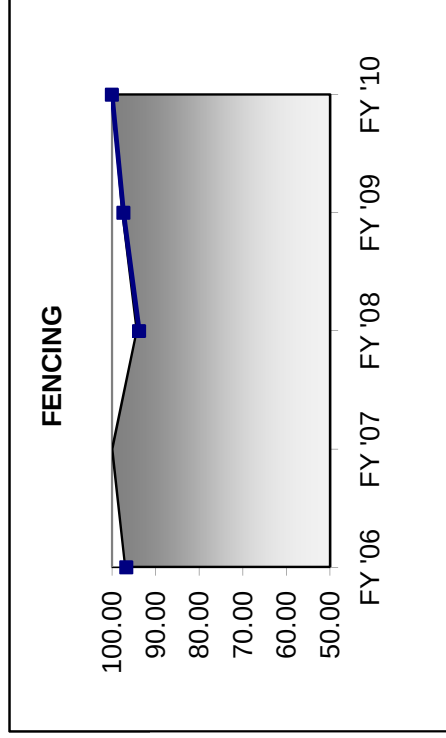
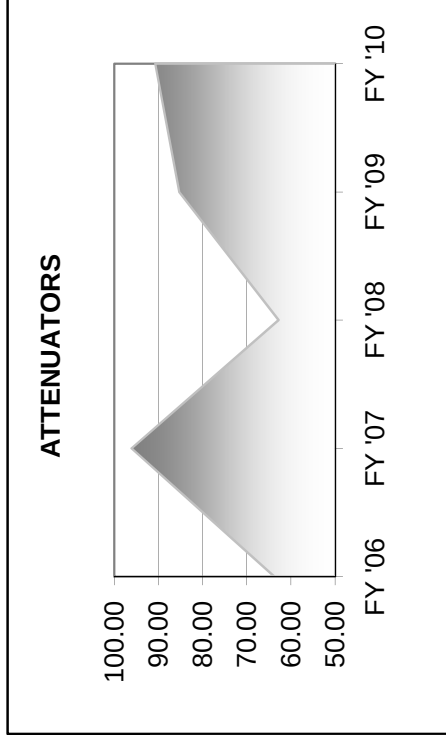
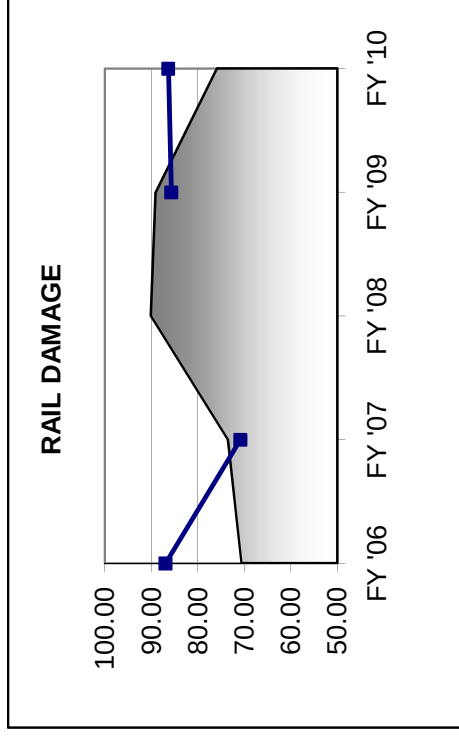
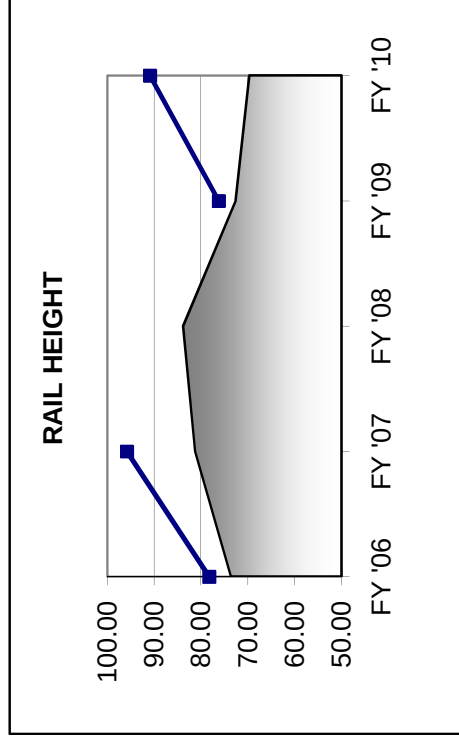


## SHOULDERS

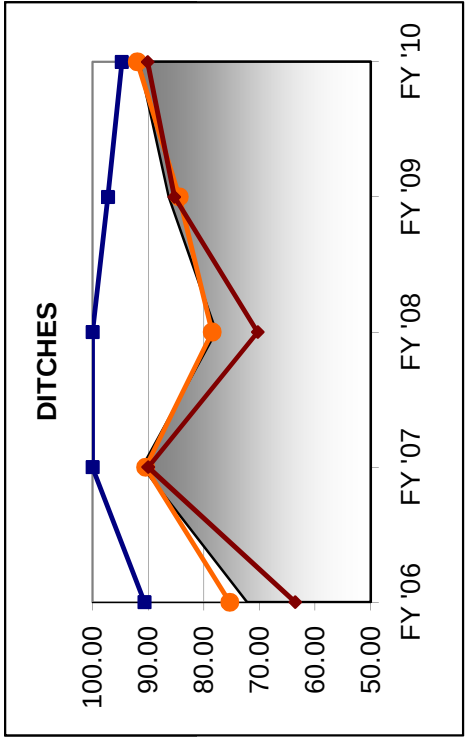
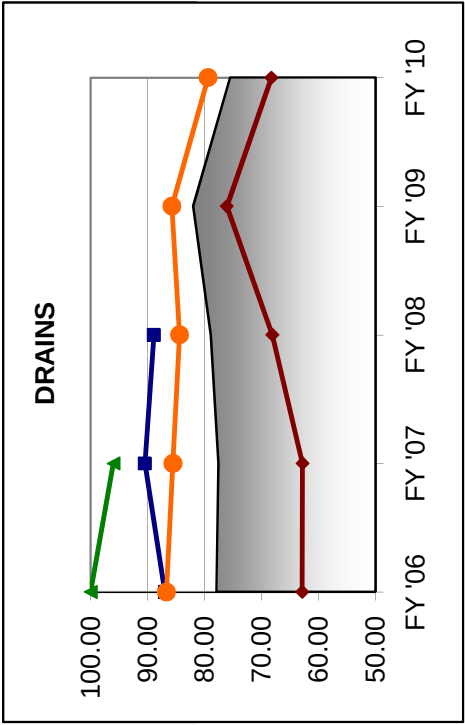
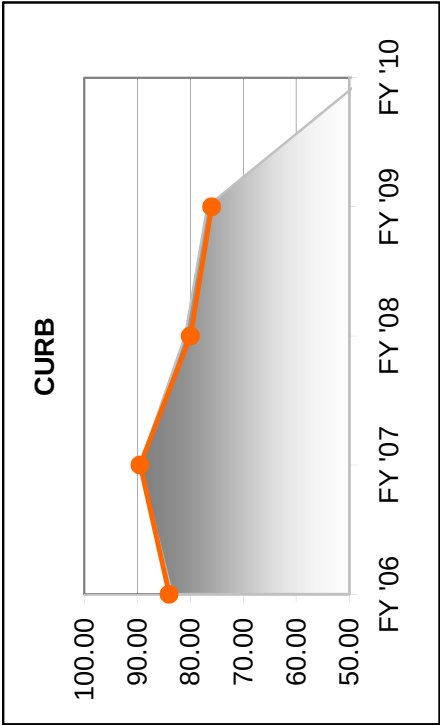




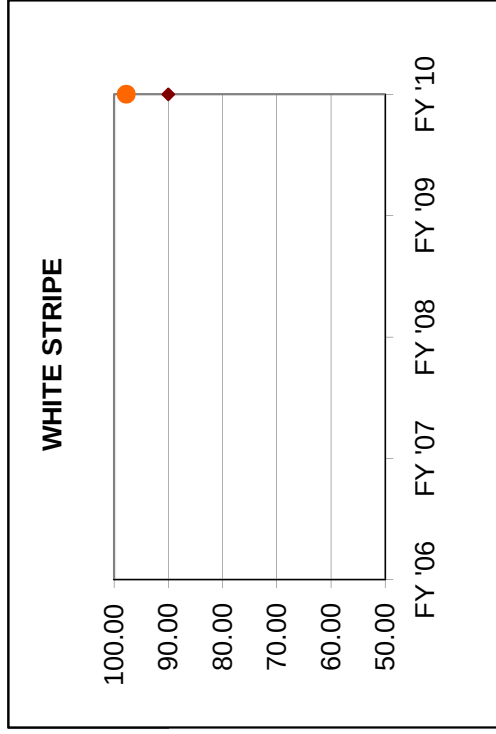
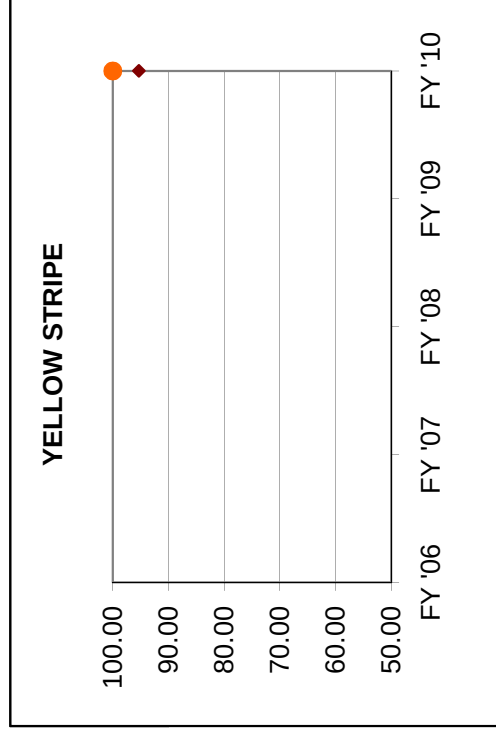
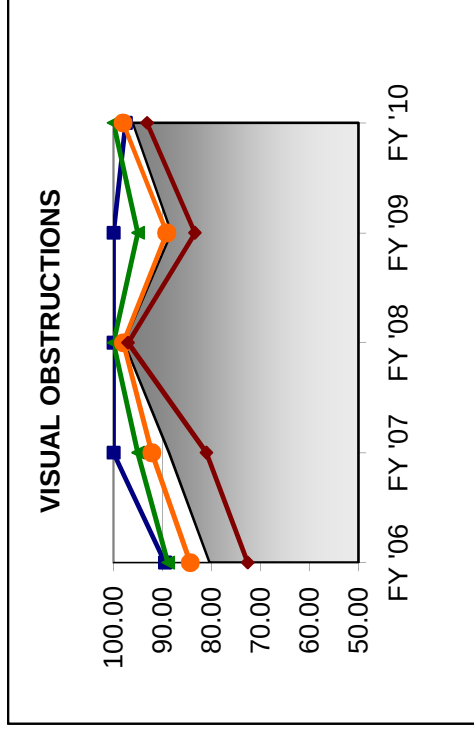
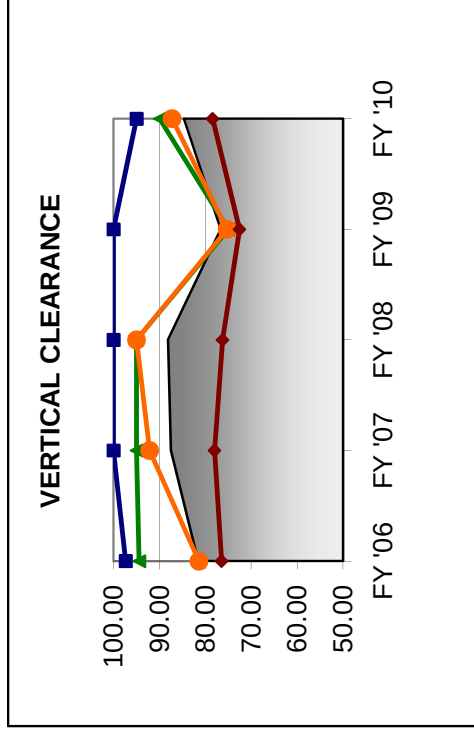
## ROADSIDE



# DRAINAGE

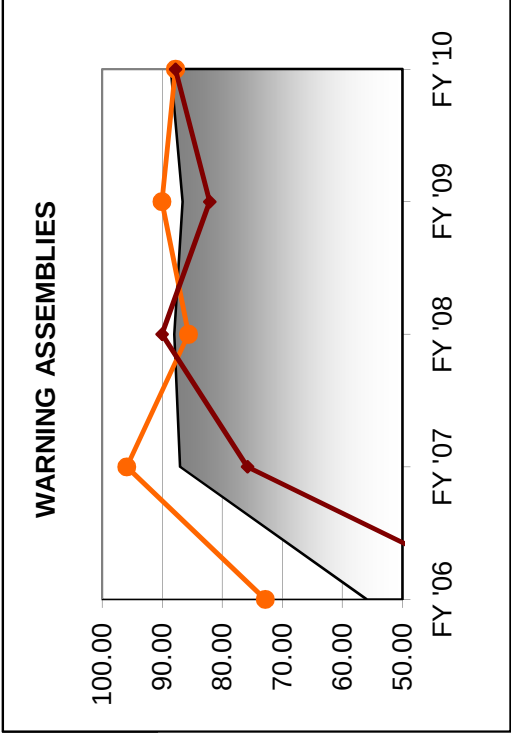
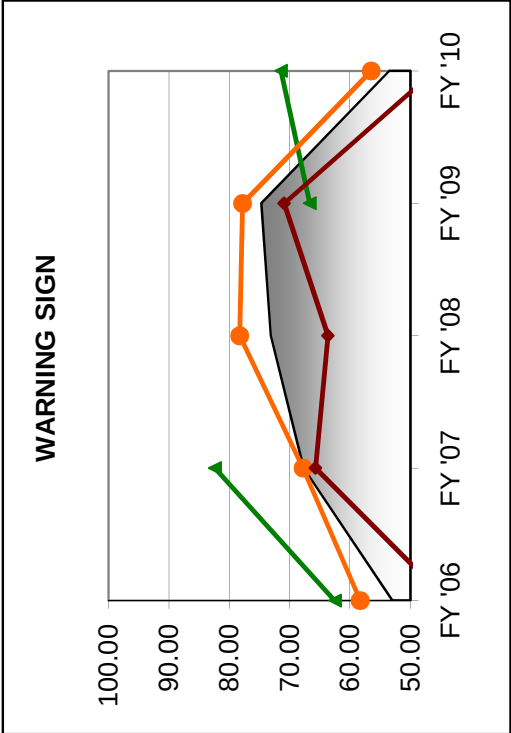
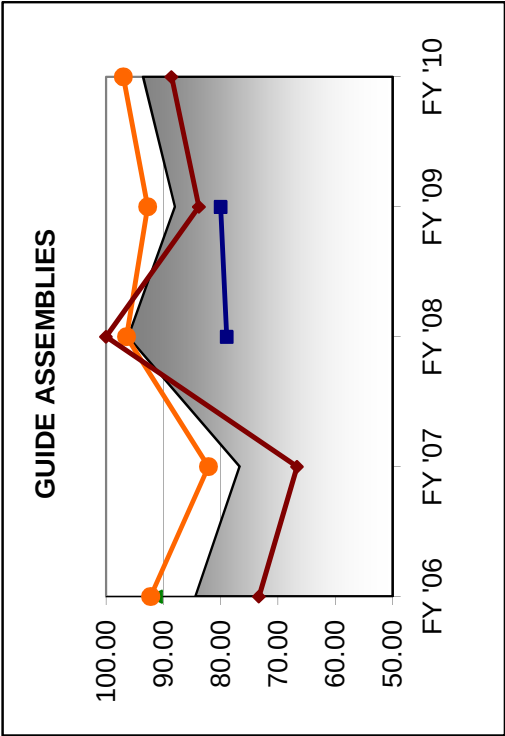
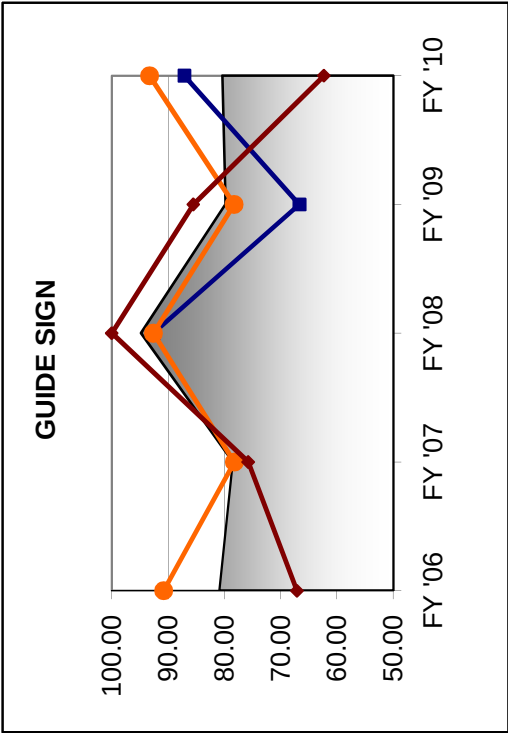


## TREE AND BRUSH / TRAFFIC MARKINGS

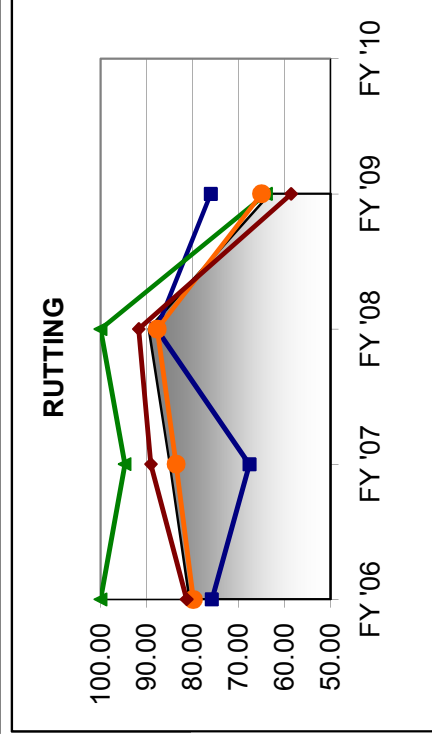
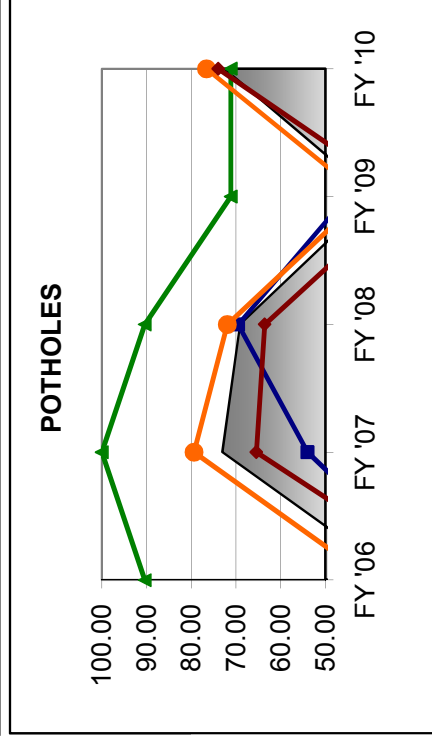
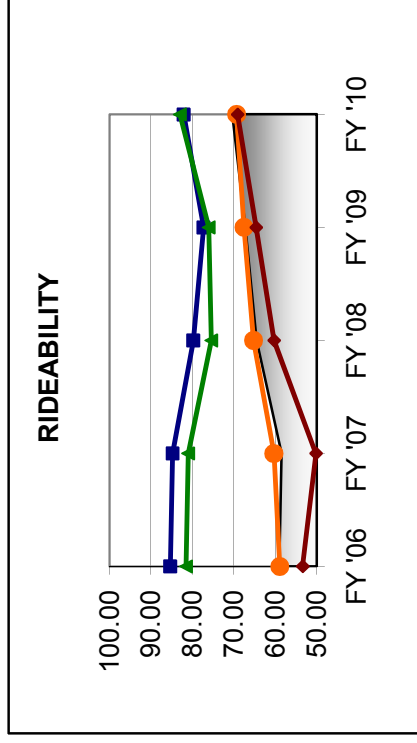
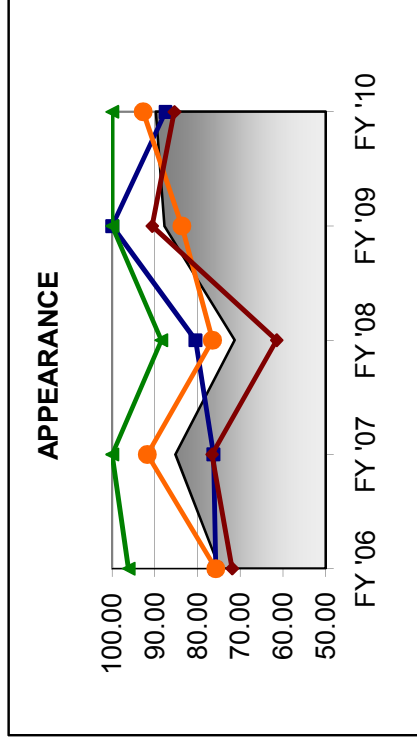


ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

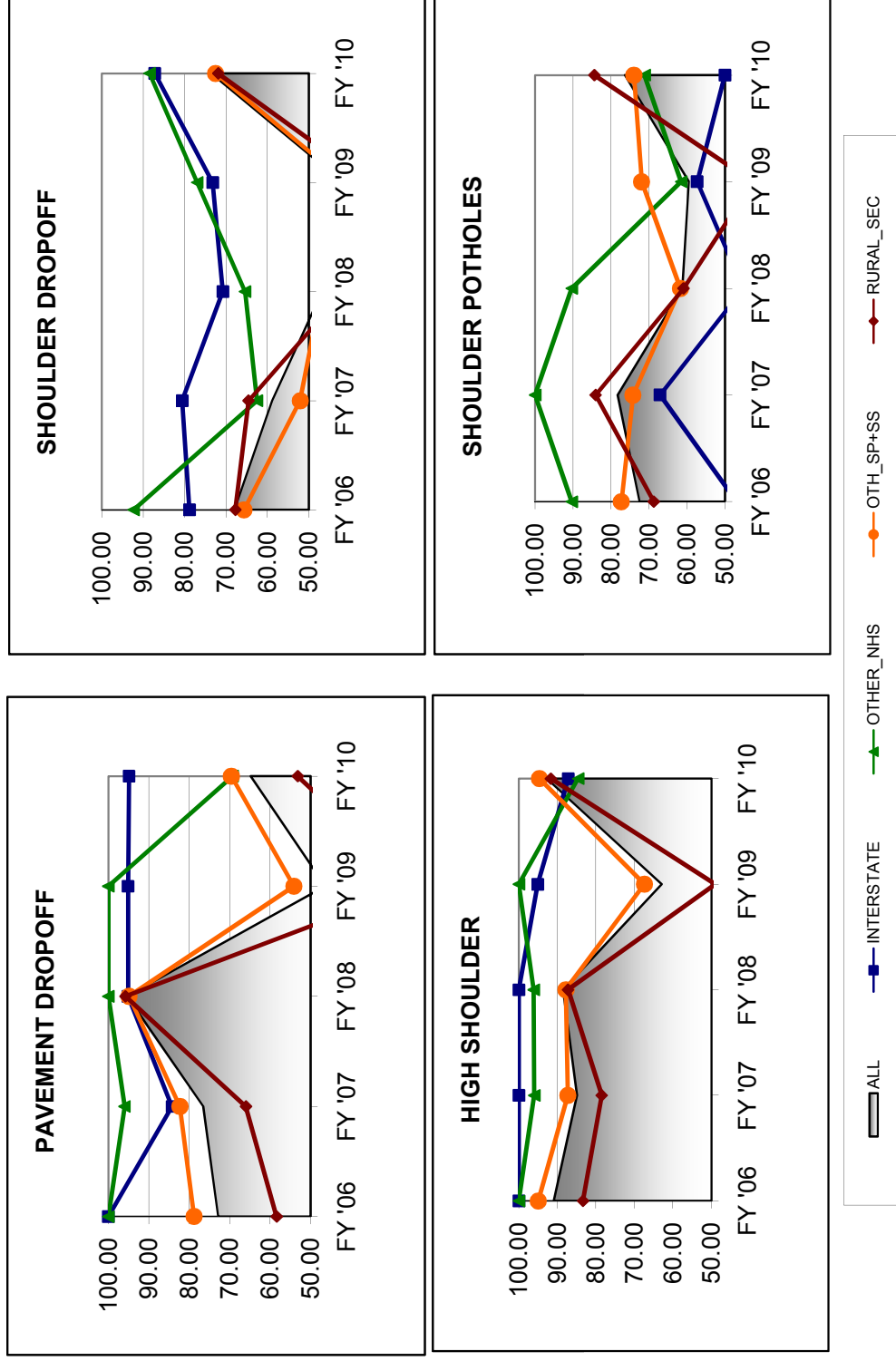
# TRAFFIC SIGNS



## GENERAL APPEARANCE / SURFACE

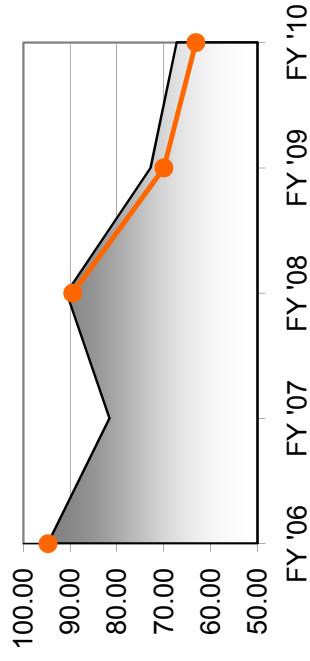


## SHOULDERS

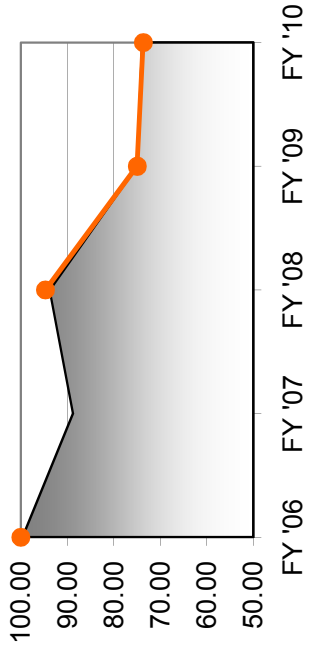


## ROADSIDE

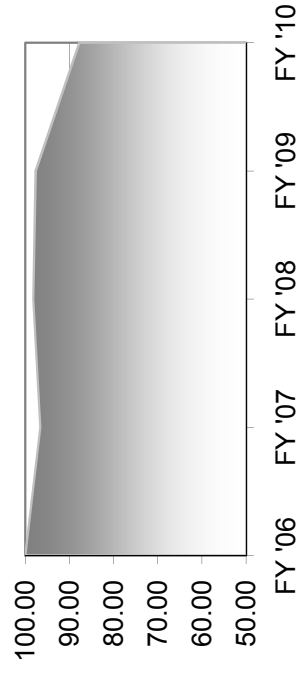
### RAIL HEIGHT



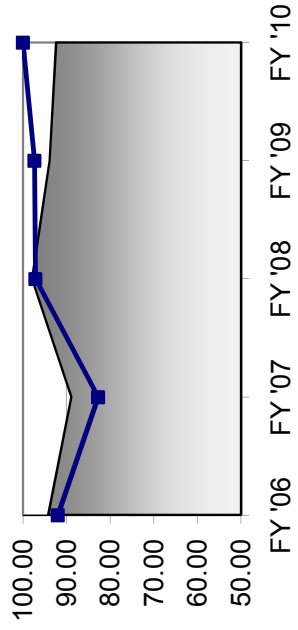
### RAIL DAMAGE



### ATTENUATORS

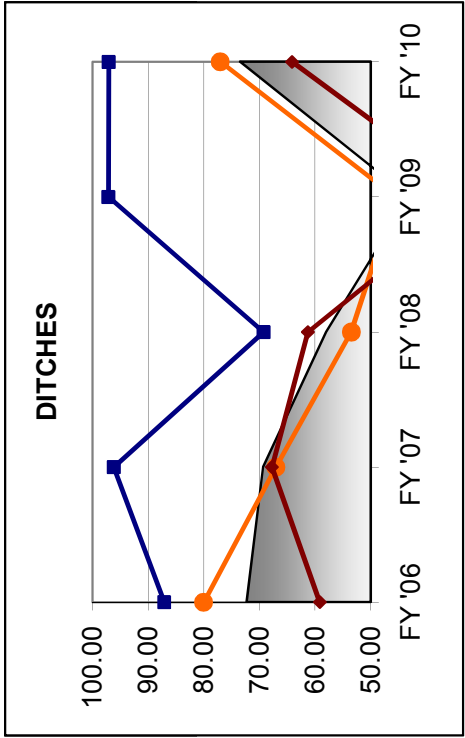
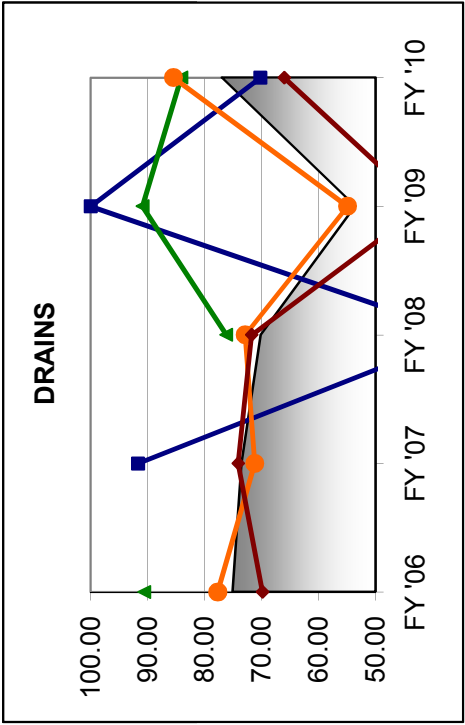
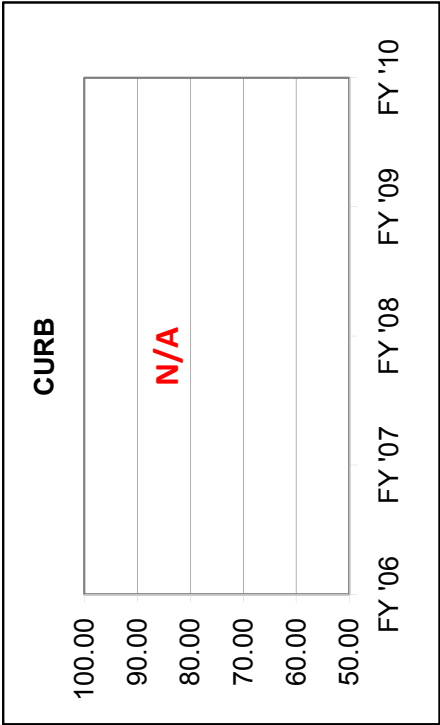


### FENCING



ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

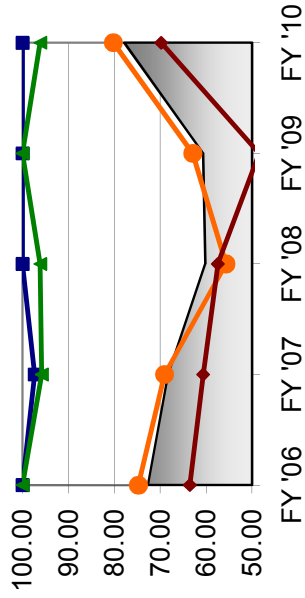
# DRAINAGE



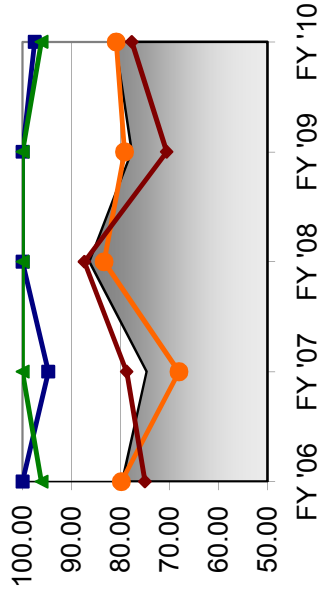


# TREE AND BRUSH / TRAFFIC MARKINGS

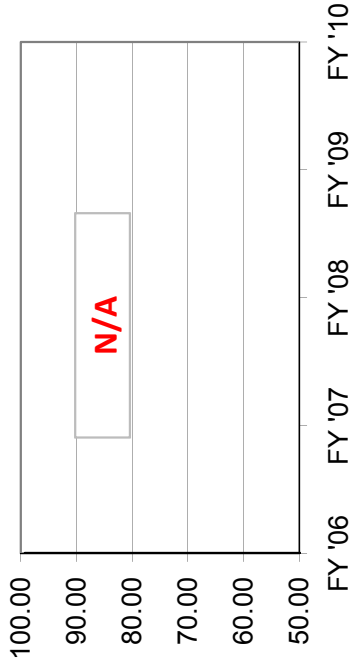
VERTICAL CLEARANCE



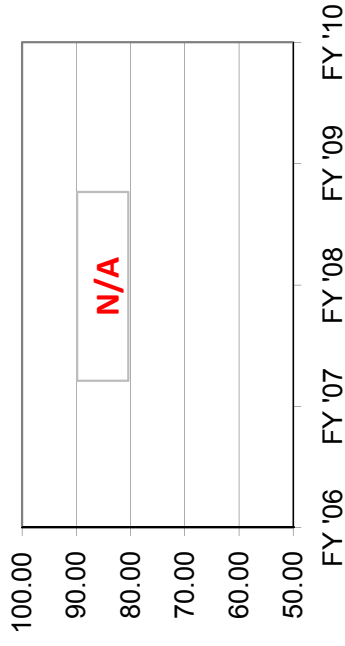
VISUAL OBSTRUCTIONS



YELLOW STRIPE

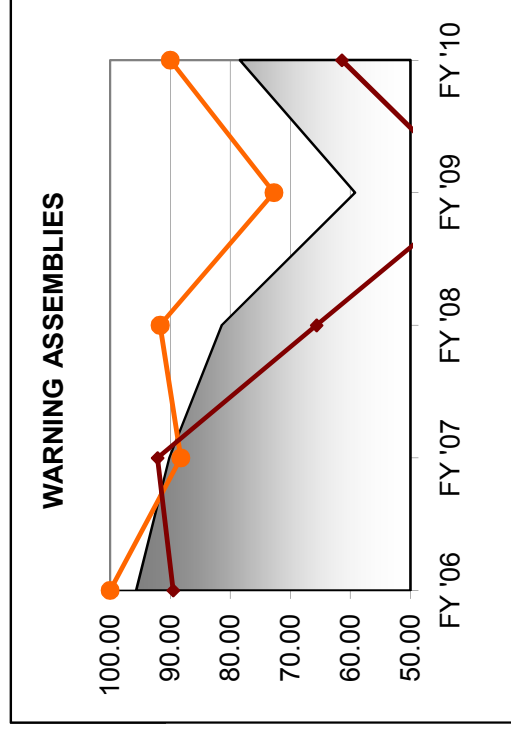
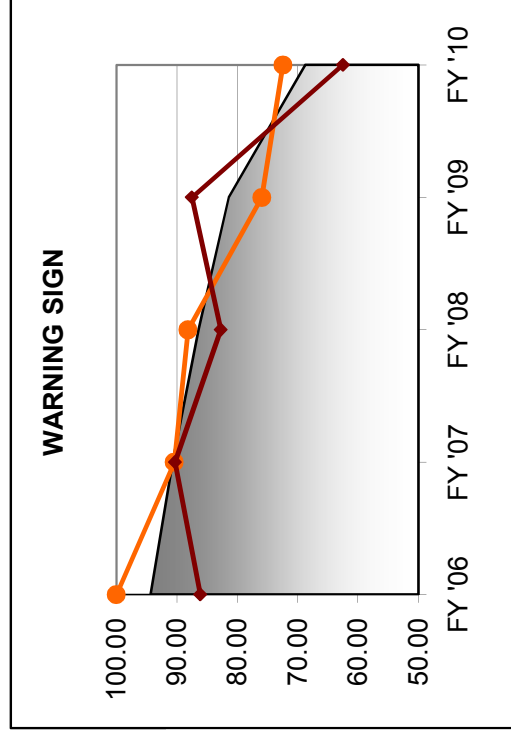
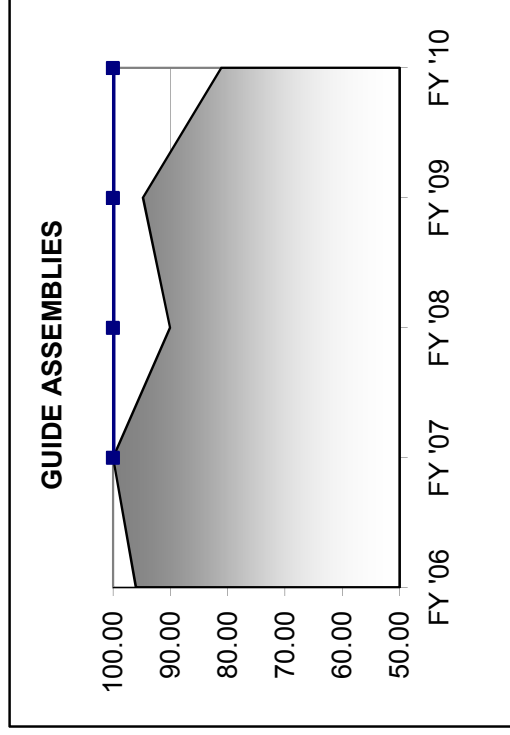
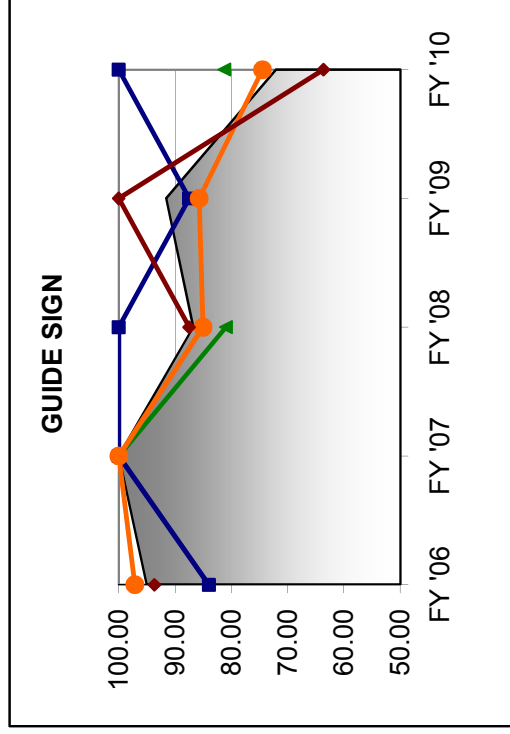


WHITE STRIPE

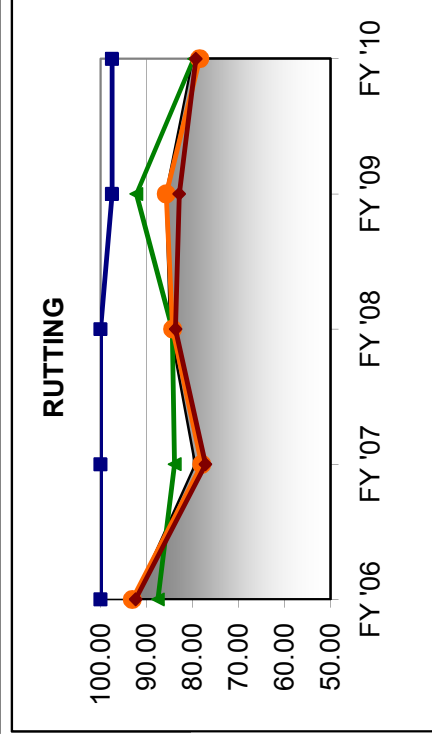
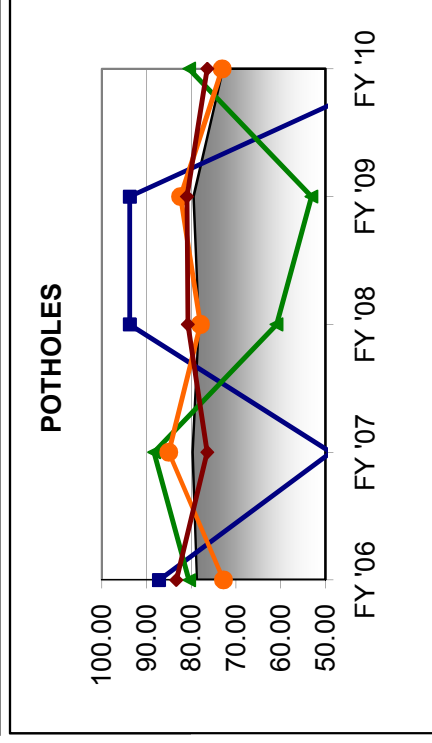
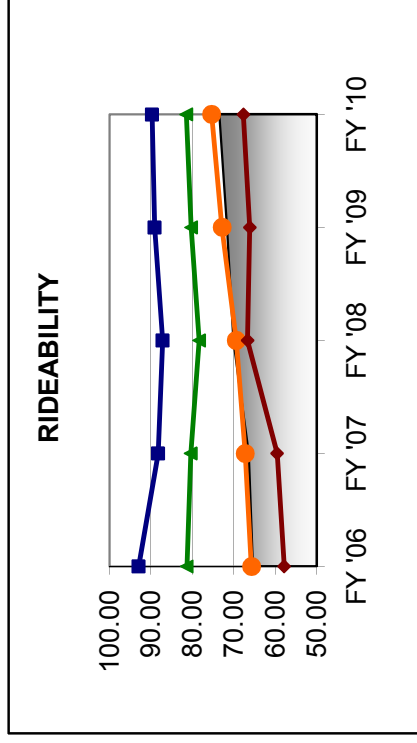
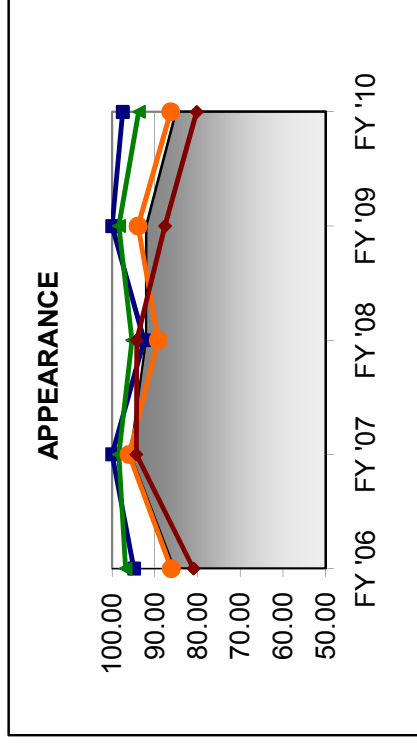


ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

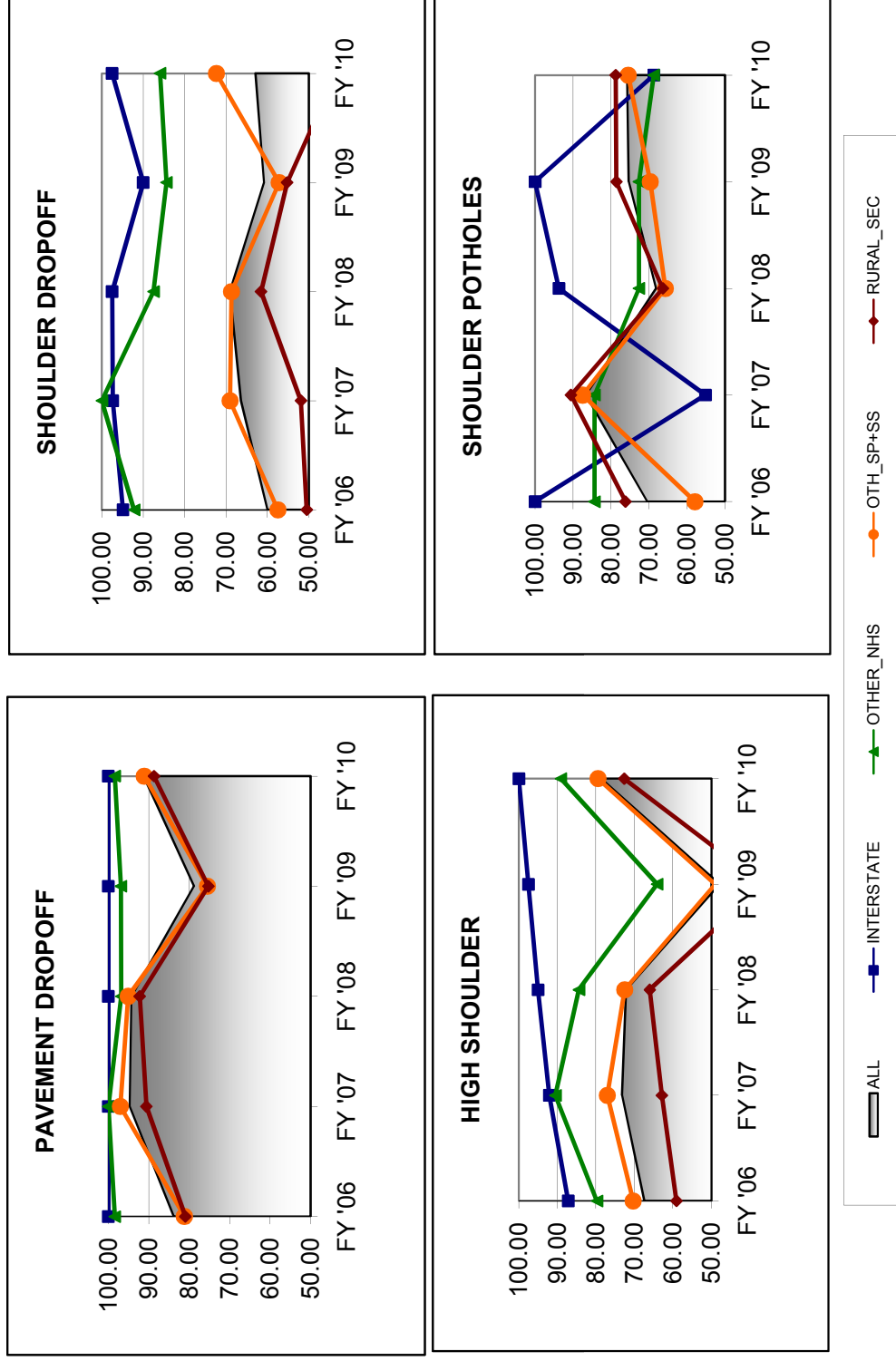
# TRAFFIC SIGNS



## GENERAL APPEARANCE / SURFACE

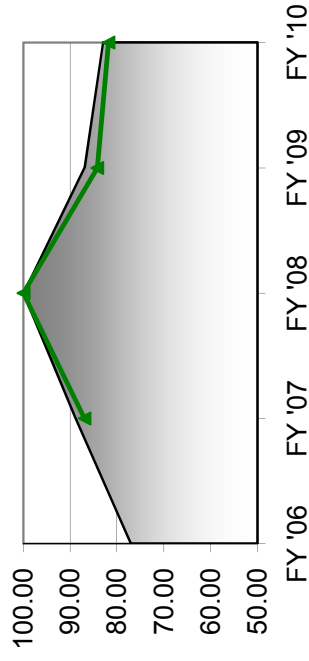


## SHOULDERS

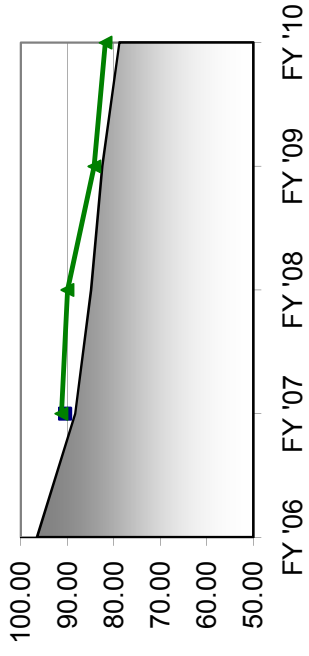


## ROADSIDE

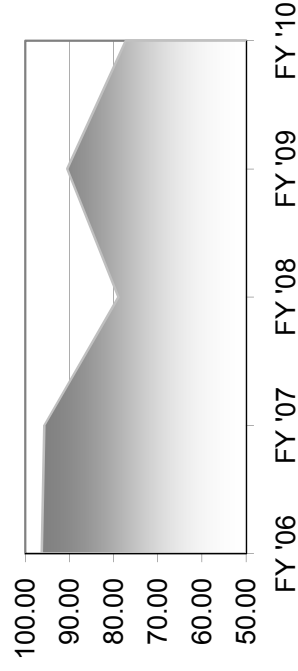
### RAIL HEIGHT



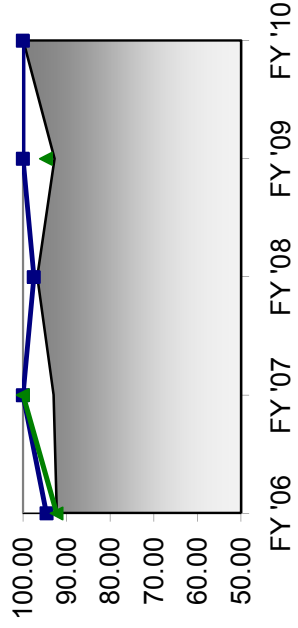
### RAIL DAMAGE



### ATTENUATORS

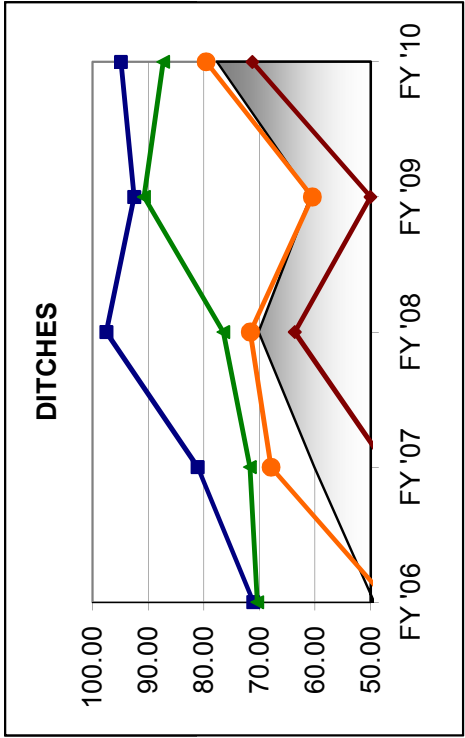
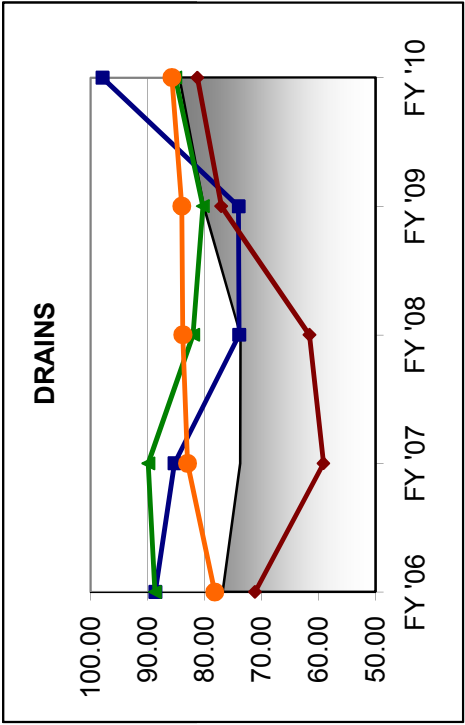
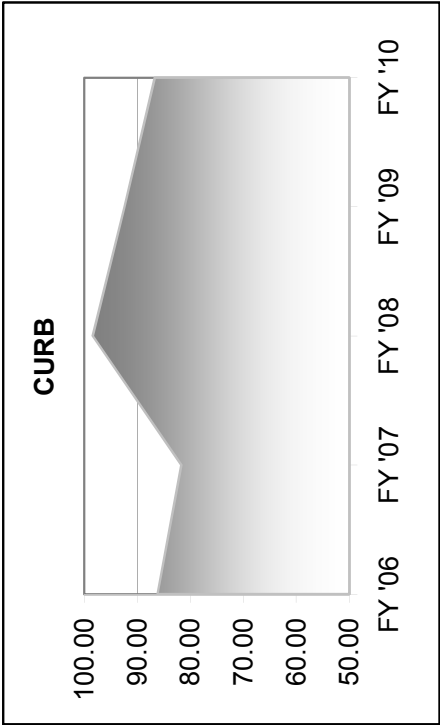


### FENCING

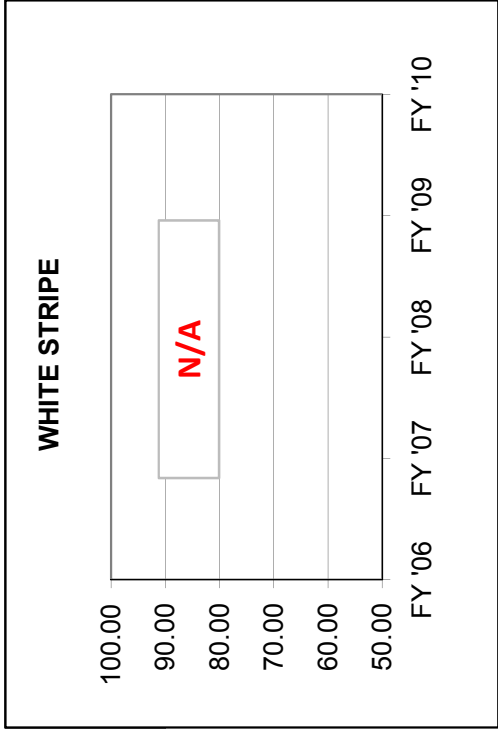
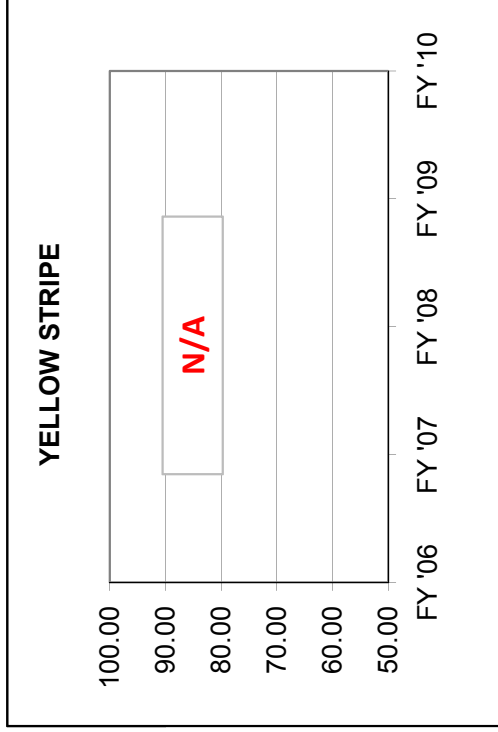
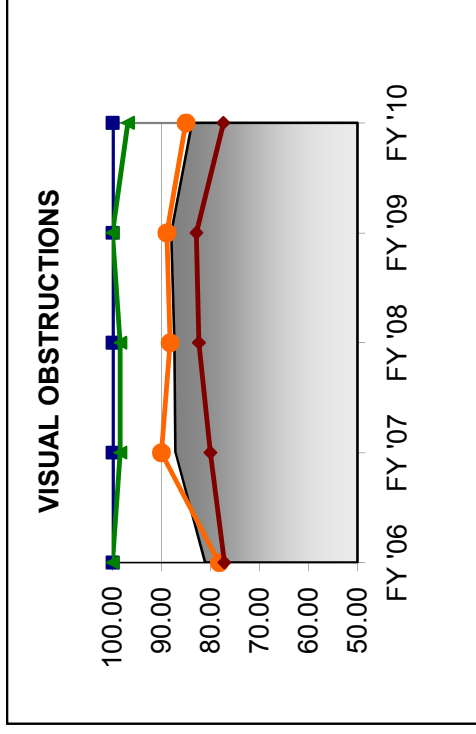
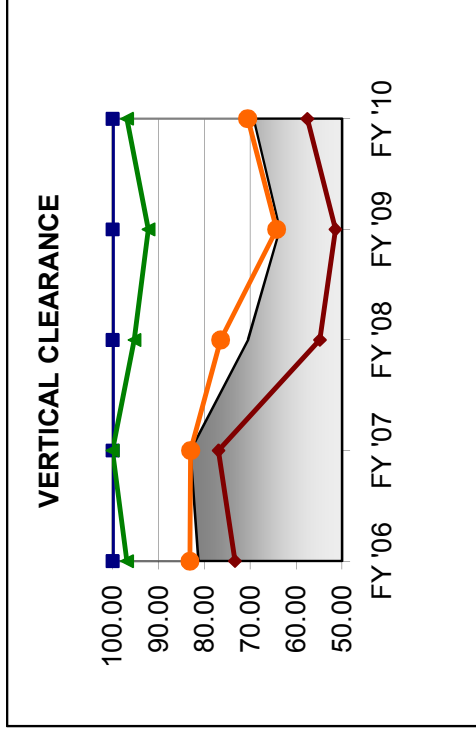


ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

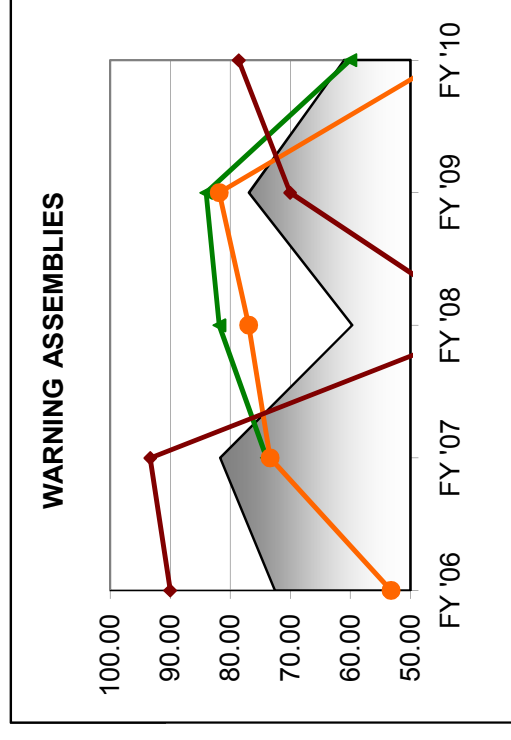
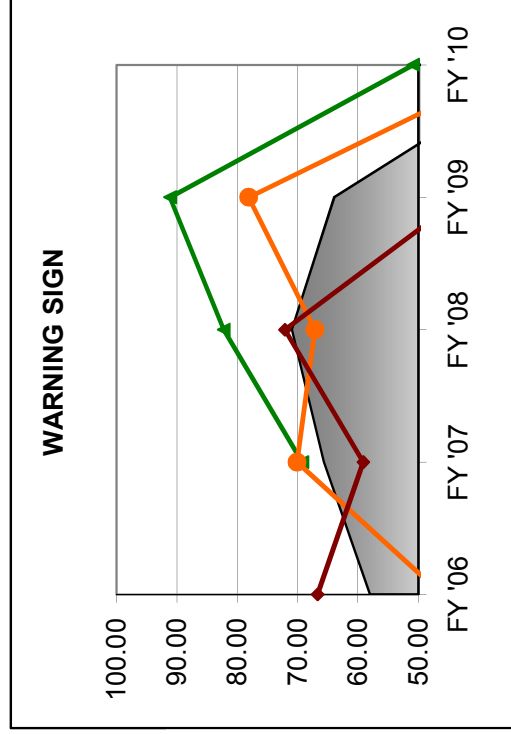
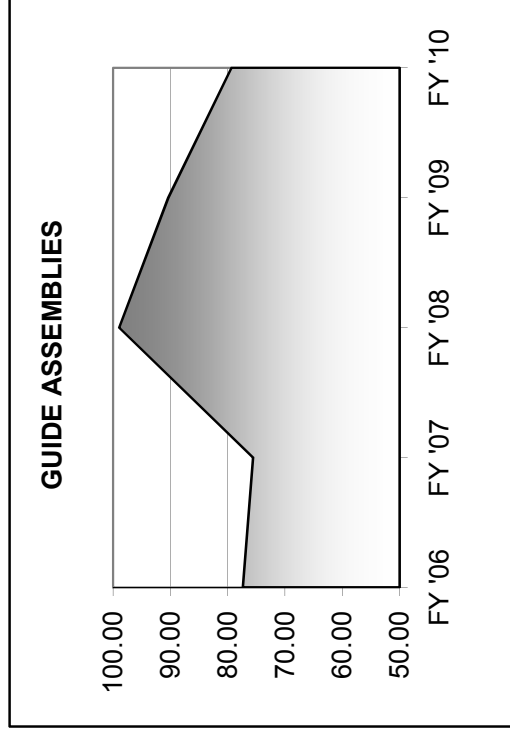
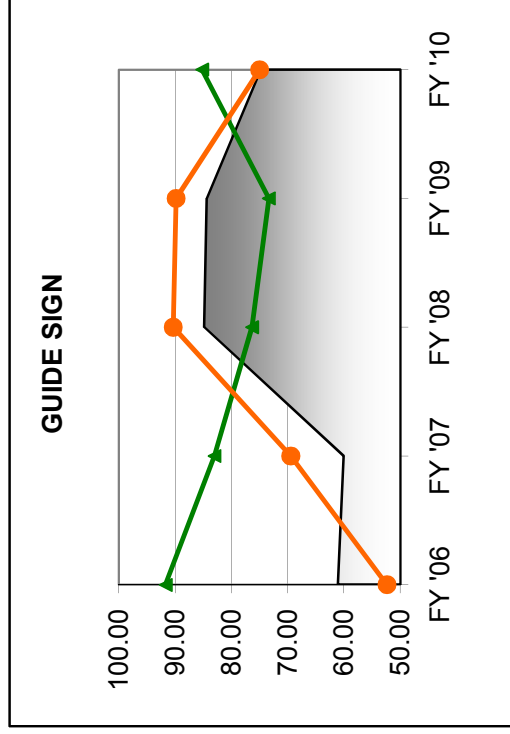
# DRAINAGE



# TREE AND BRUSH / TRAFFIC MARKINGS

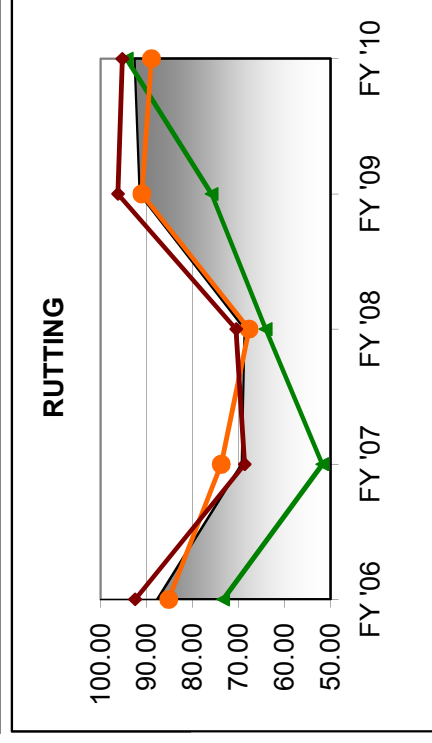
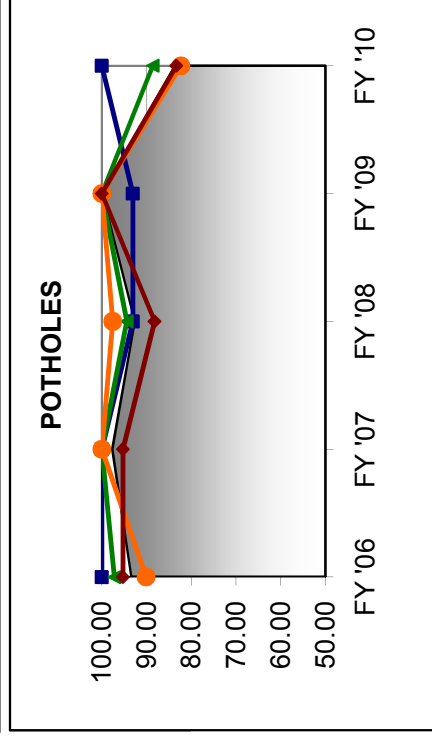
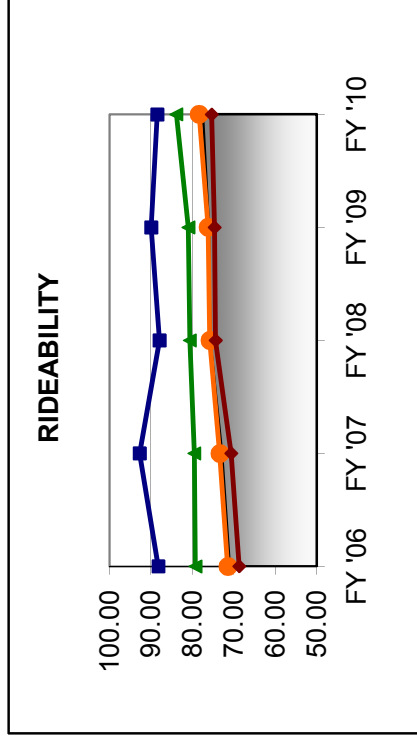
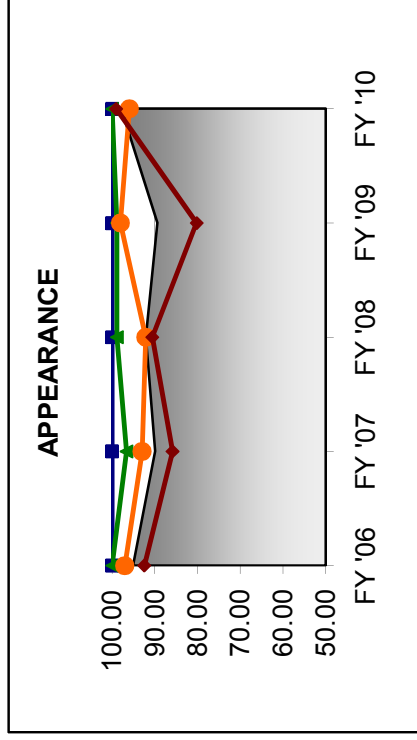


# TRAFFIC SIGNS

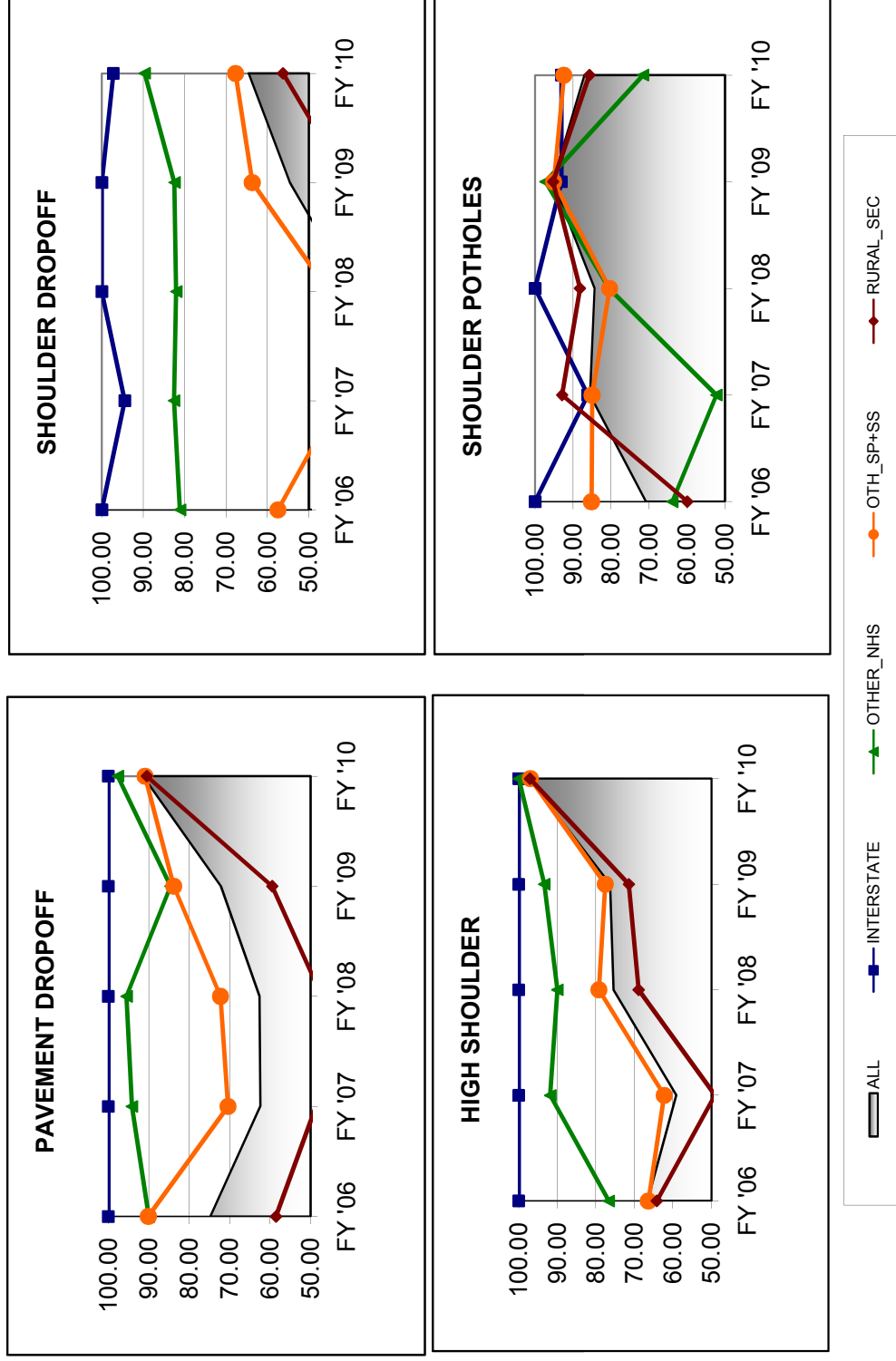




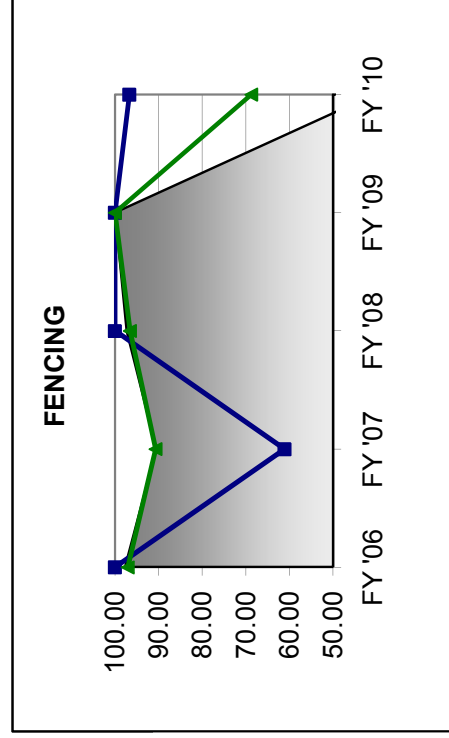
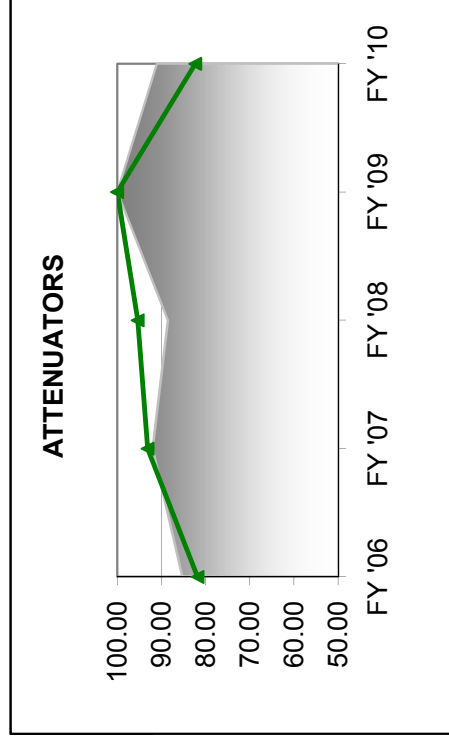
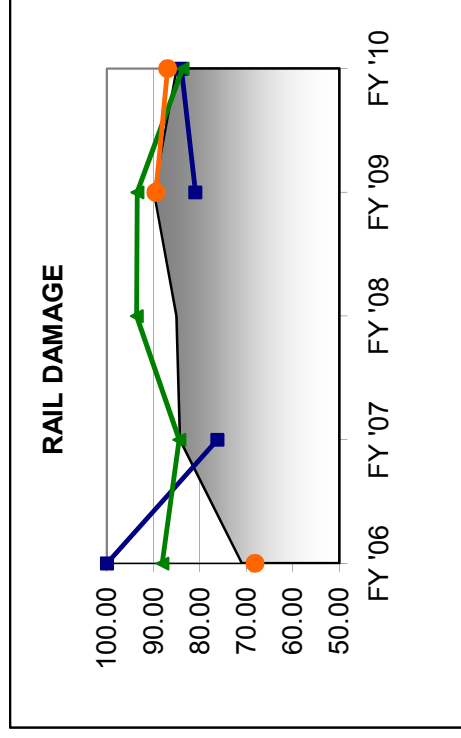
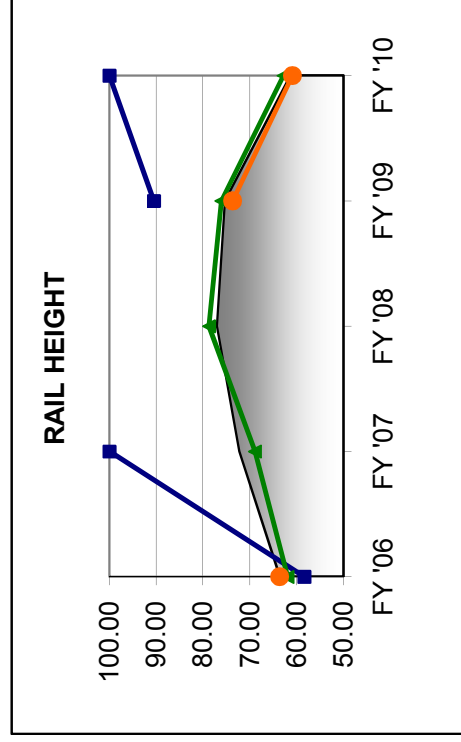
## GENERAL APPEARANCE / SURFACE



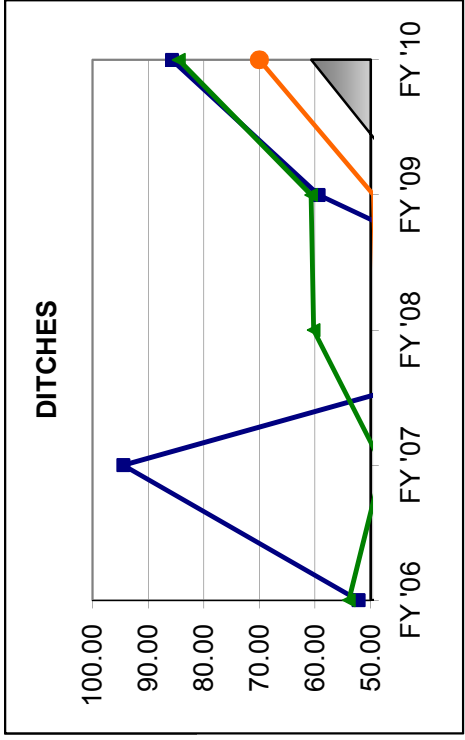
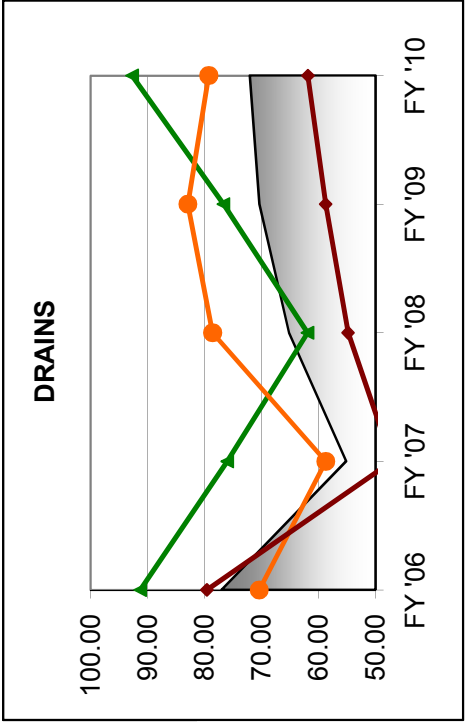
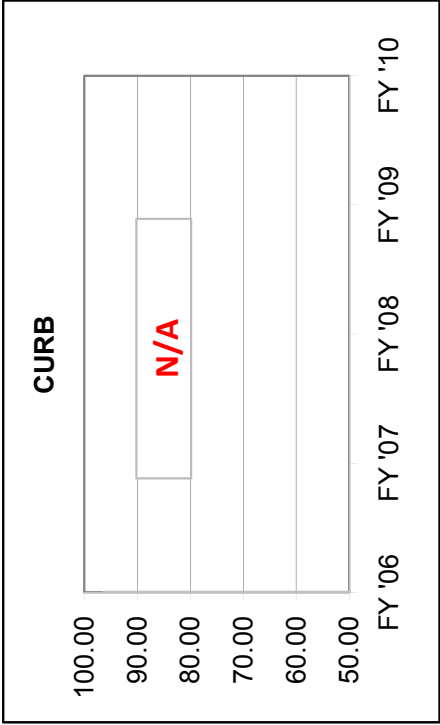
## SHOULDERS



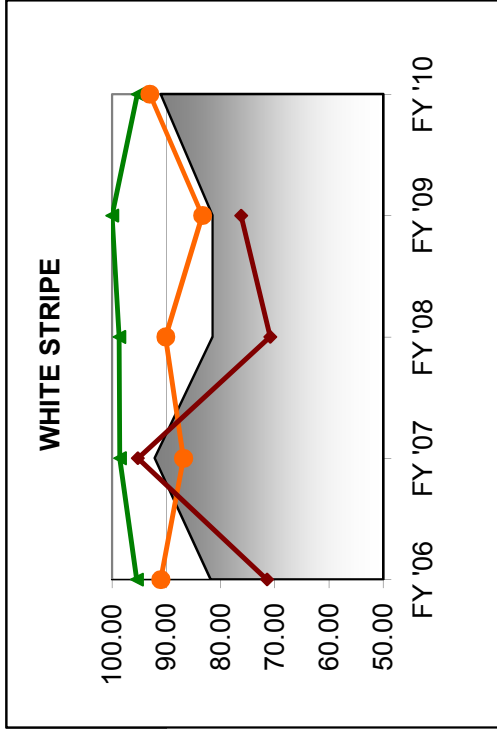
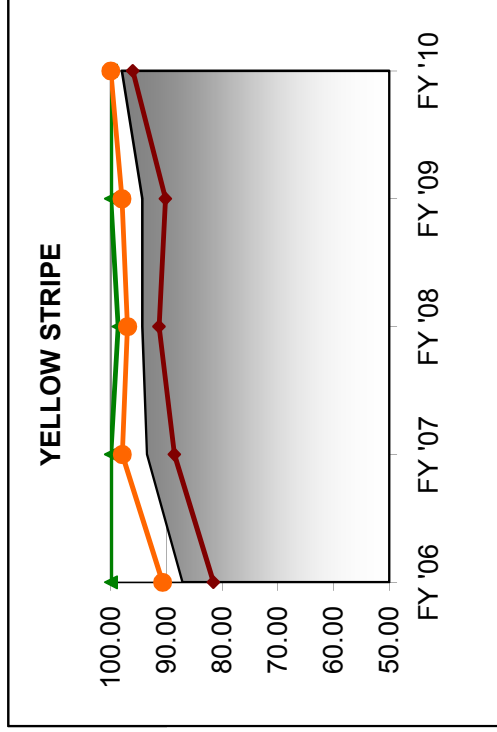
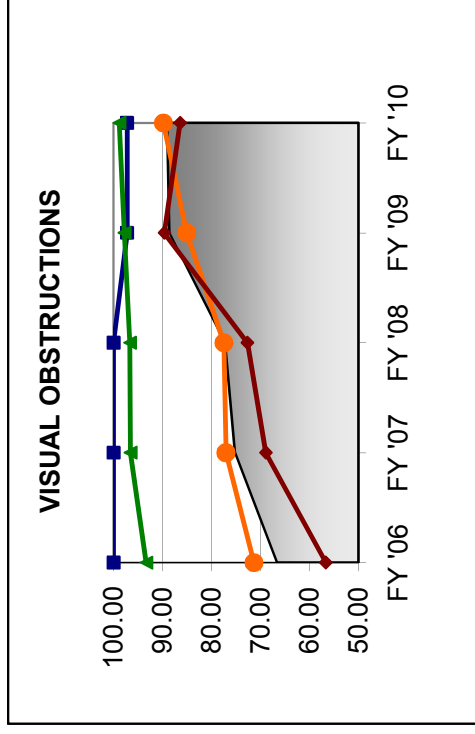
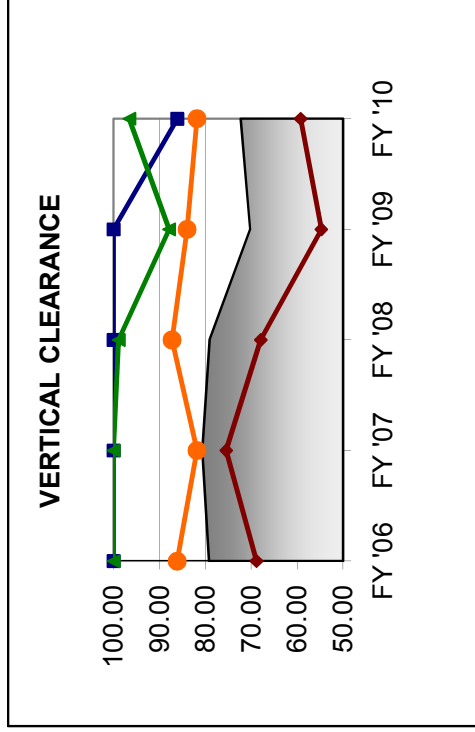
## ROADSIDE



# DRAINAGE

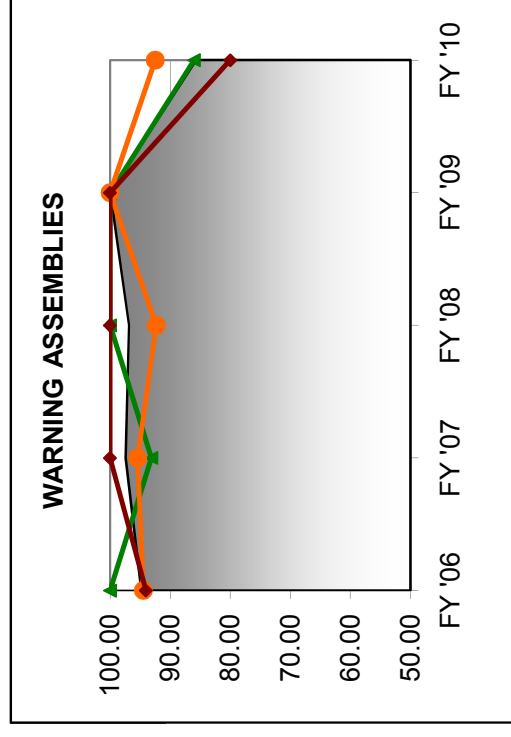
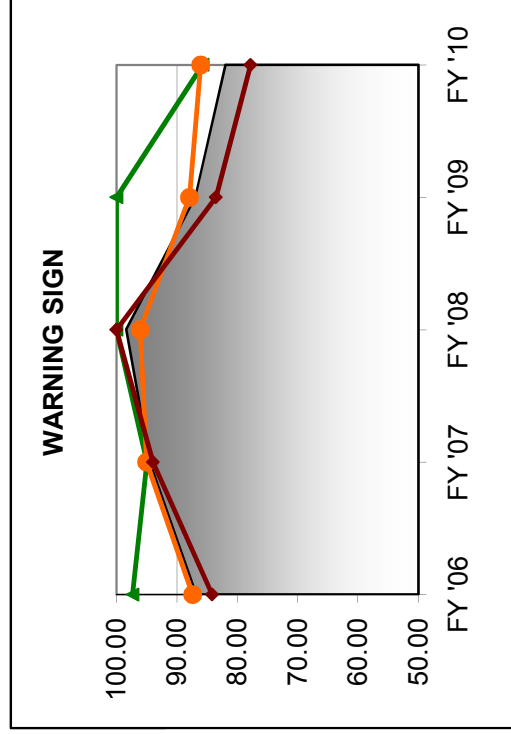
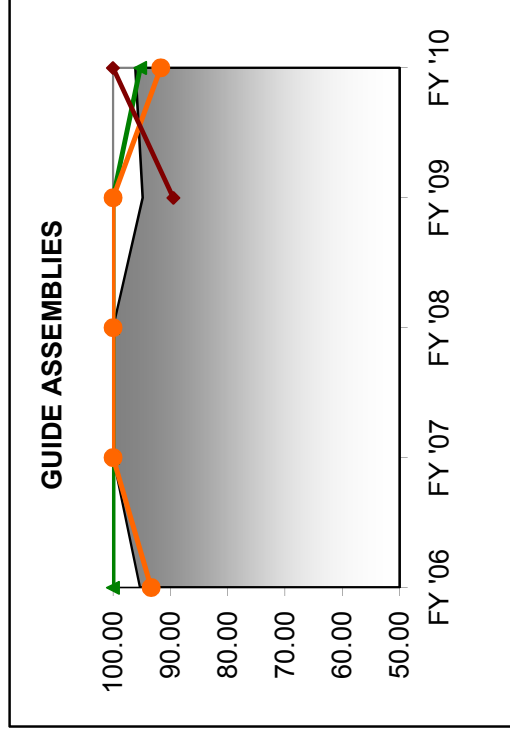
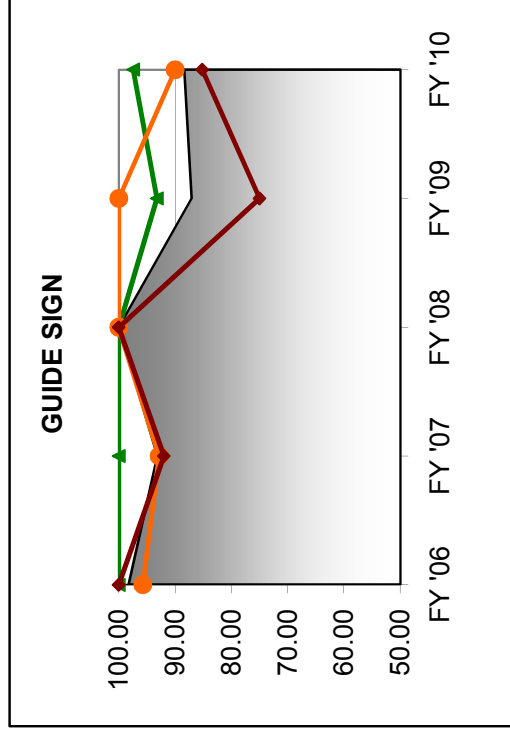


# TREE AND BRUSH / TRAFFIC MARKINGS



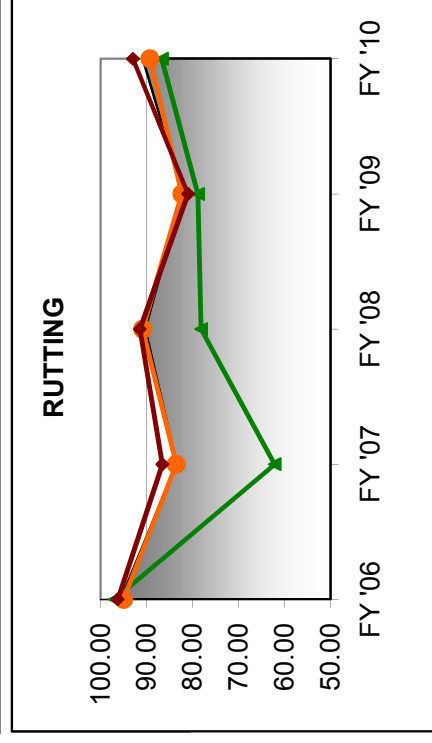
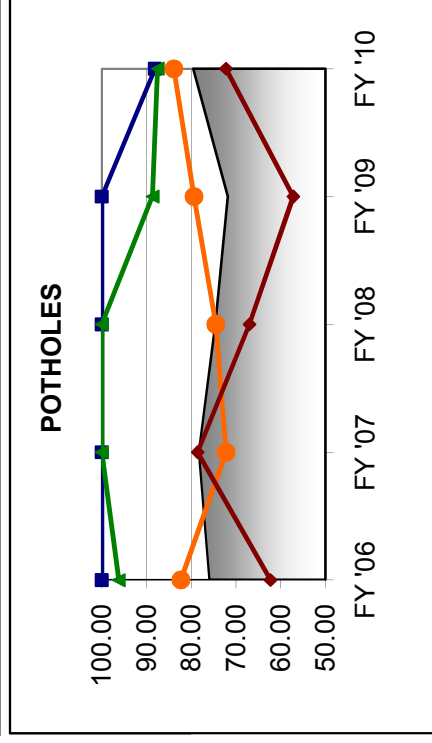
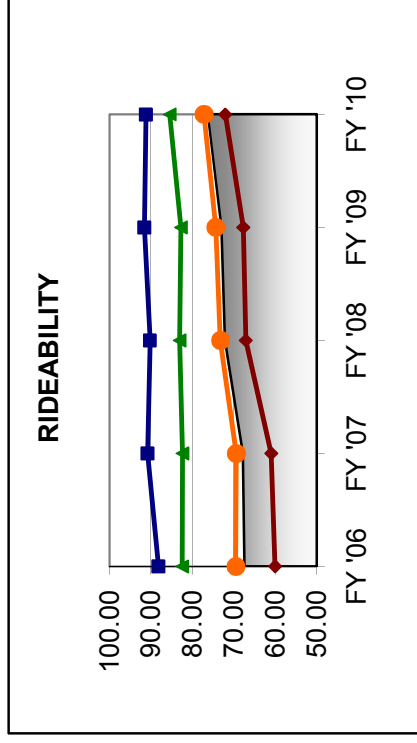
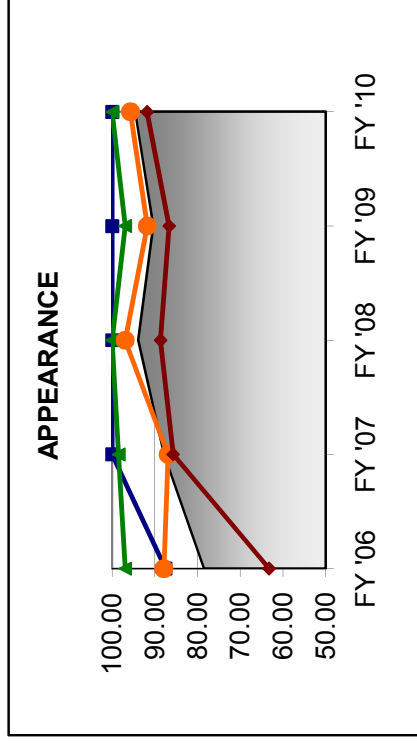
ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

# TRAFFIC SIGNS

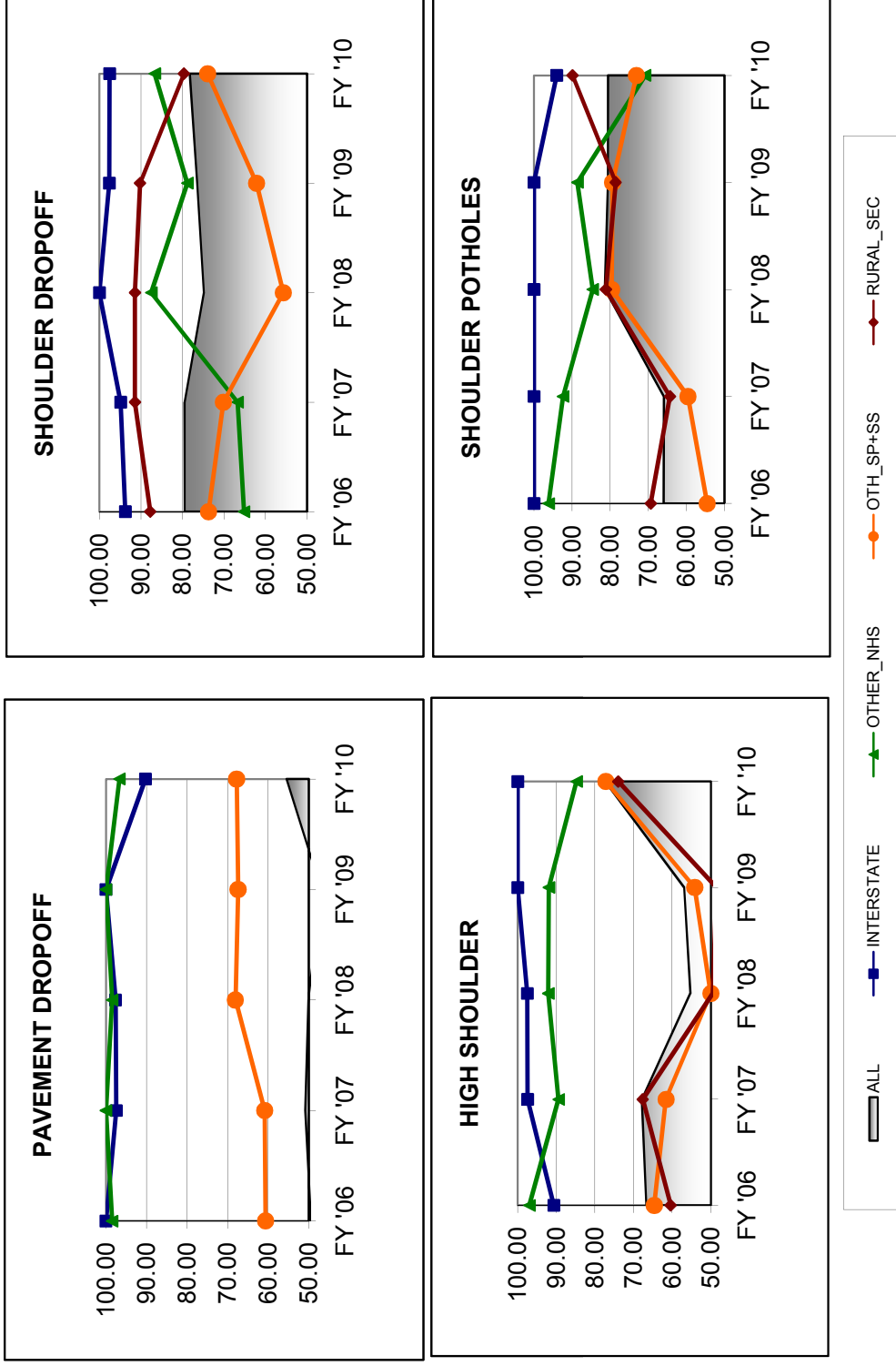


ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

## GENERAL APPEARANCE / SURFACE

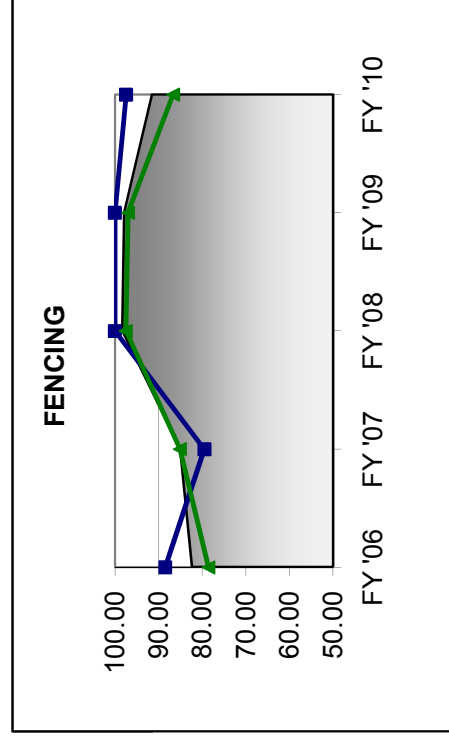
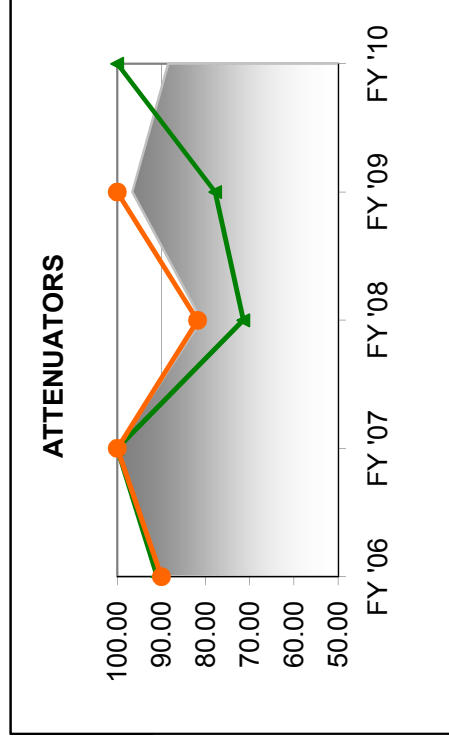
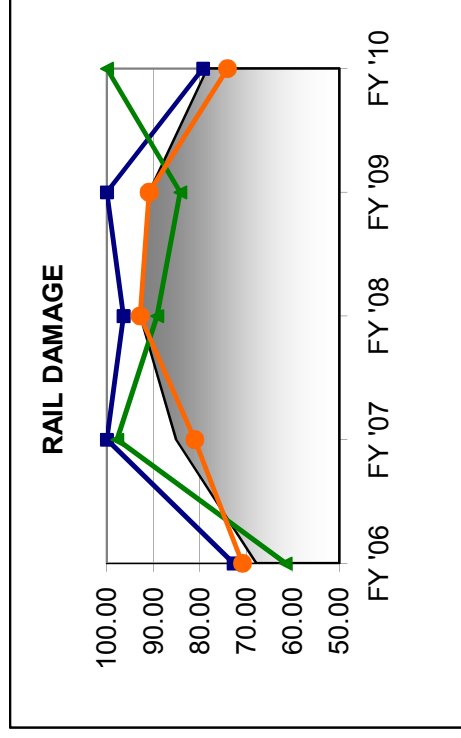
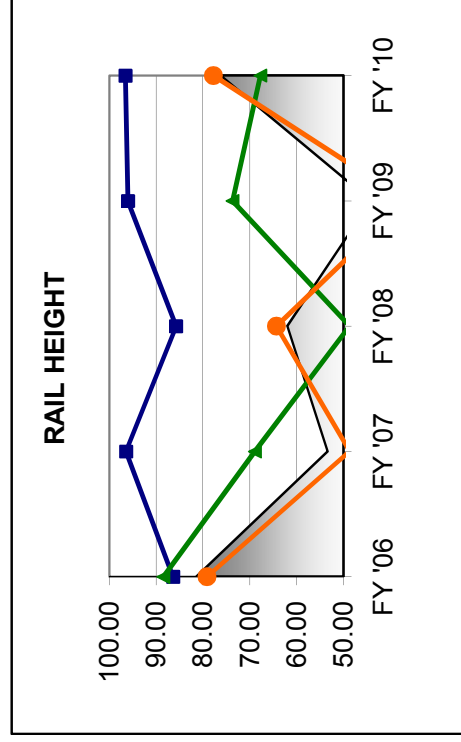


## SHOULDERS

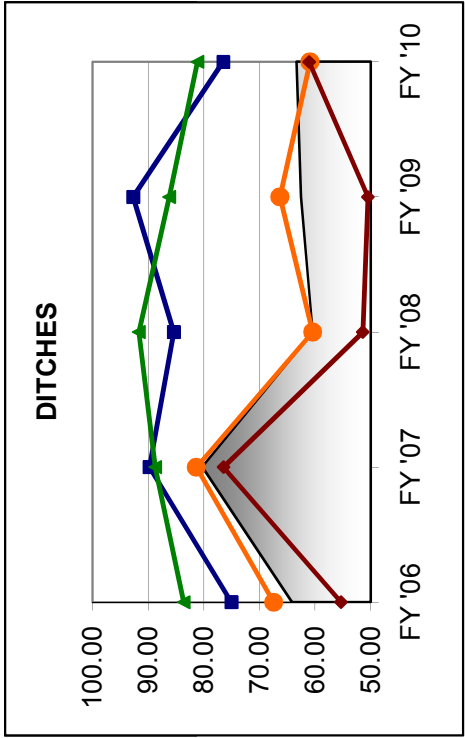
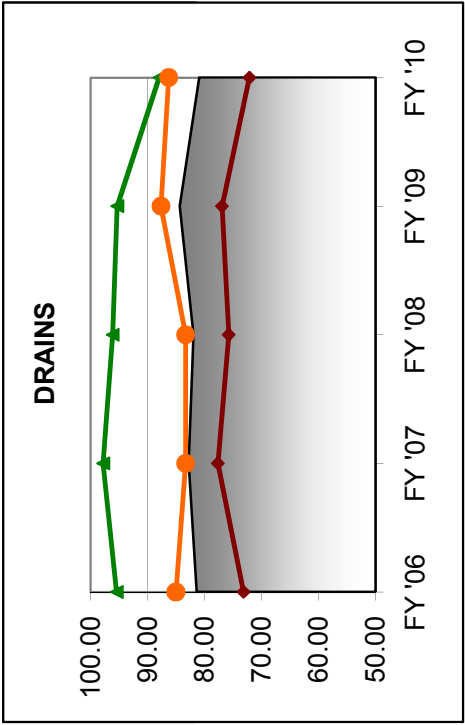
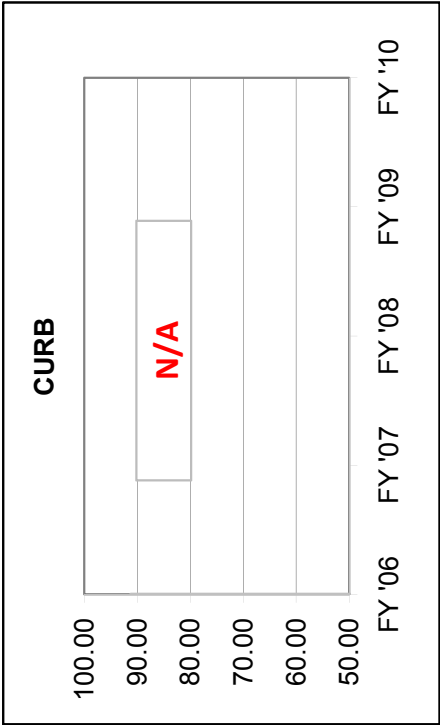




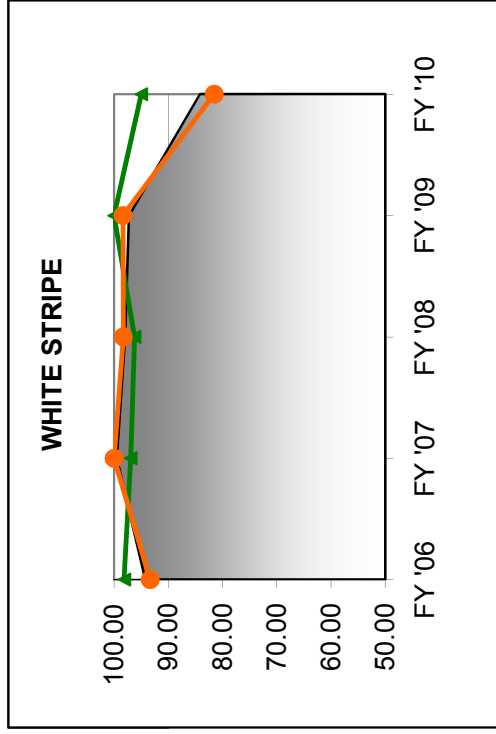
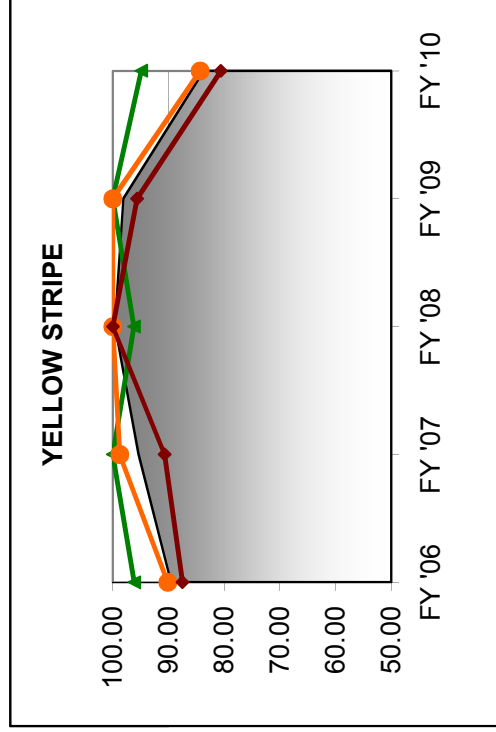
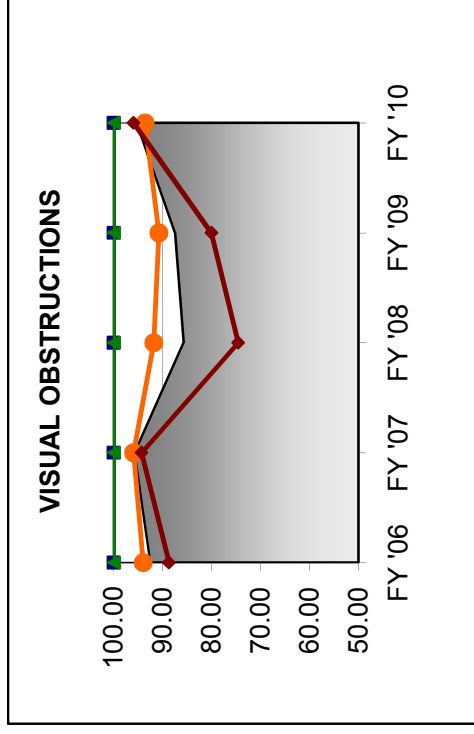
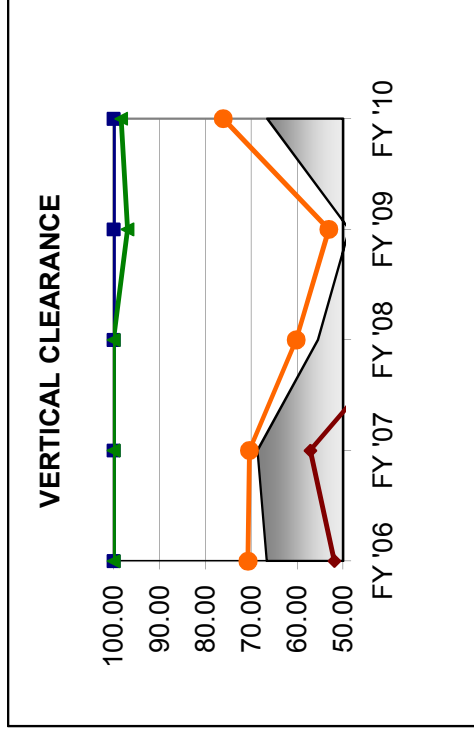
## ROADSIDE



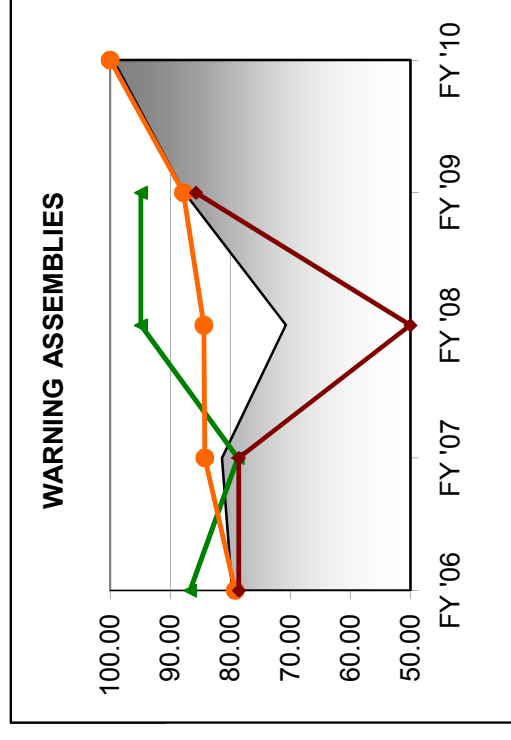
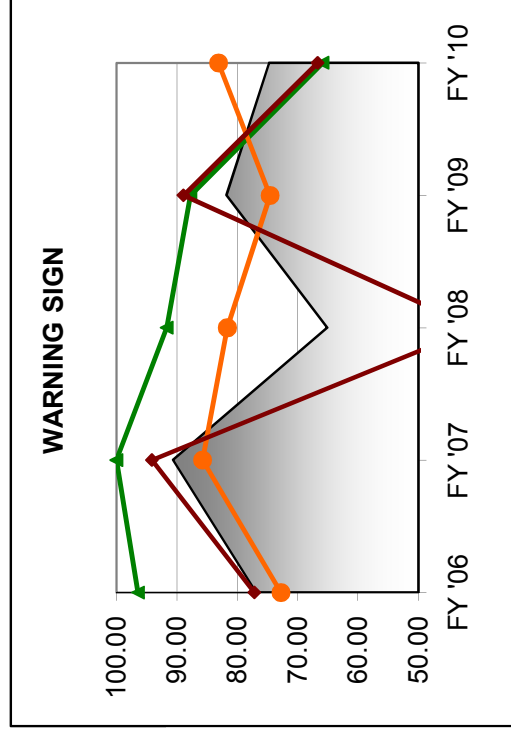
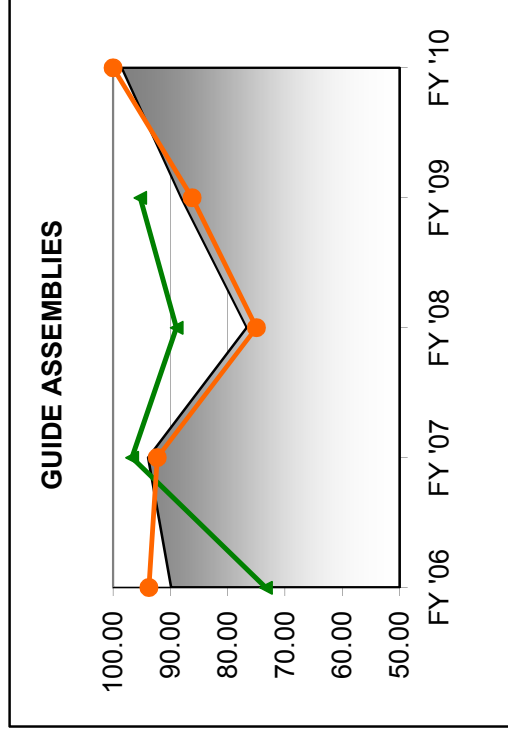
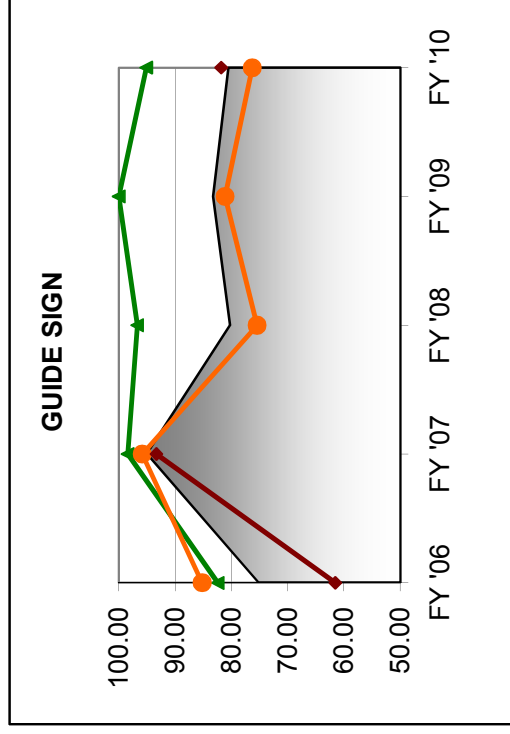
# DRAINAGE



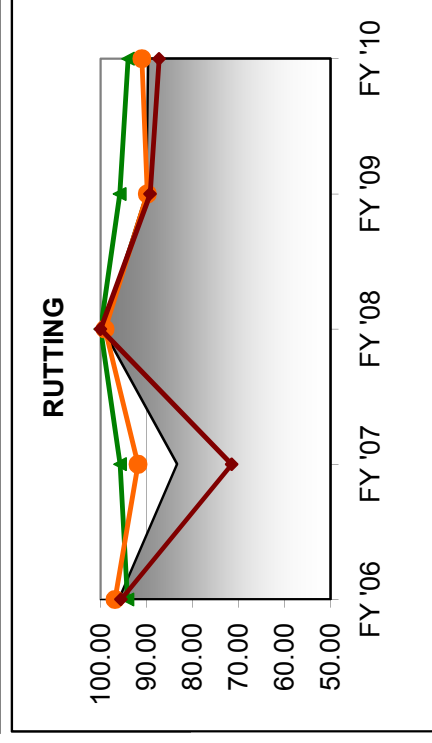
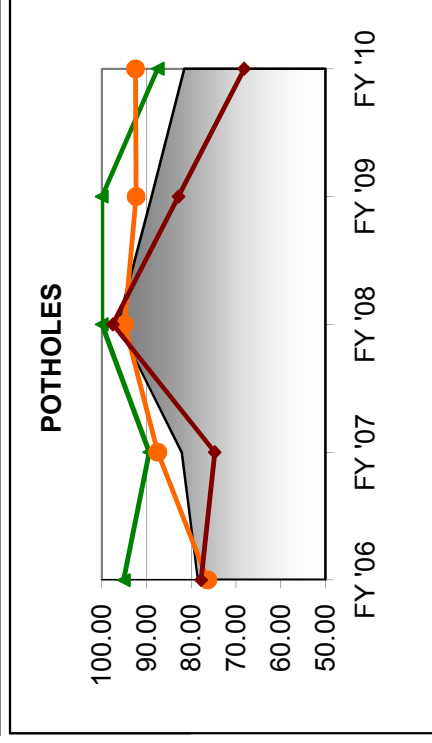
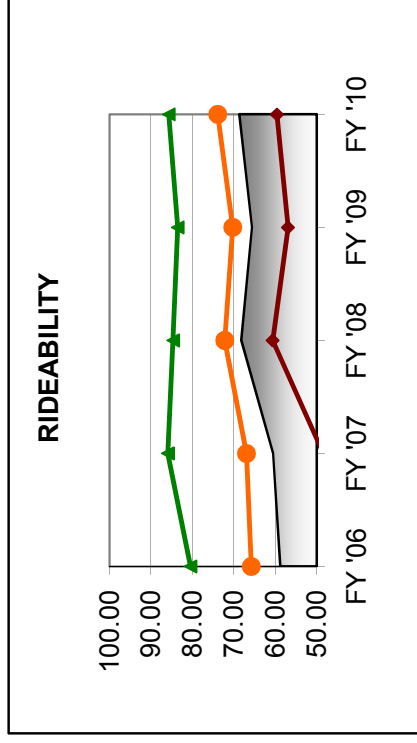
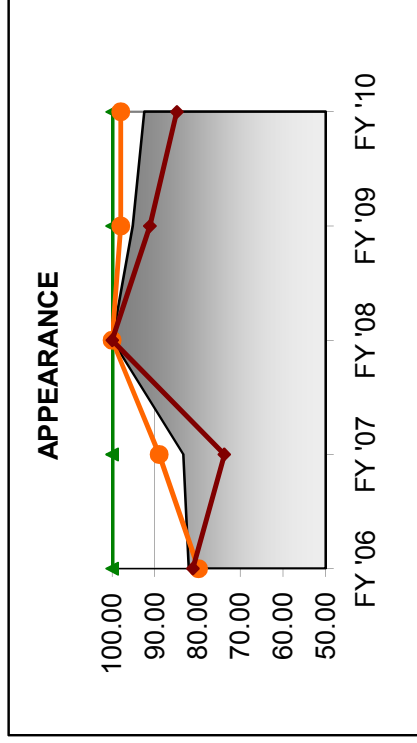
## TREE AND BRUSH / TRAFFIC MARKINGS



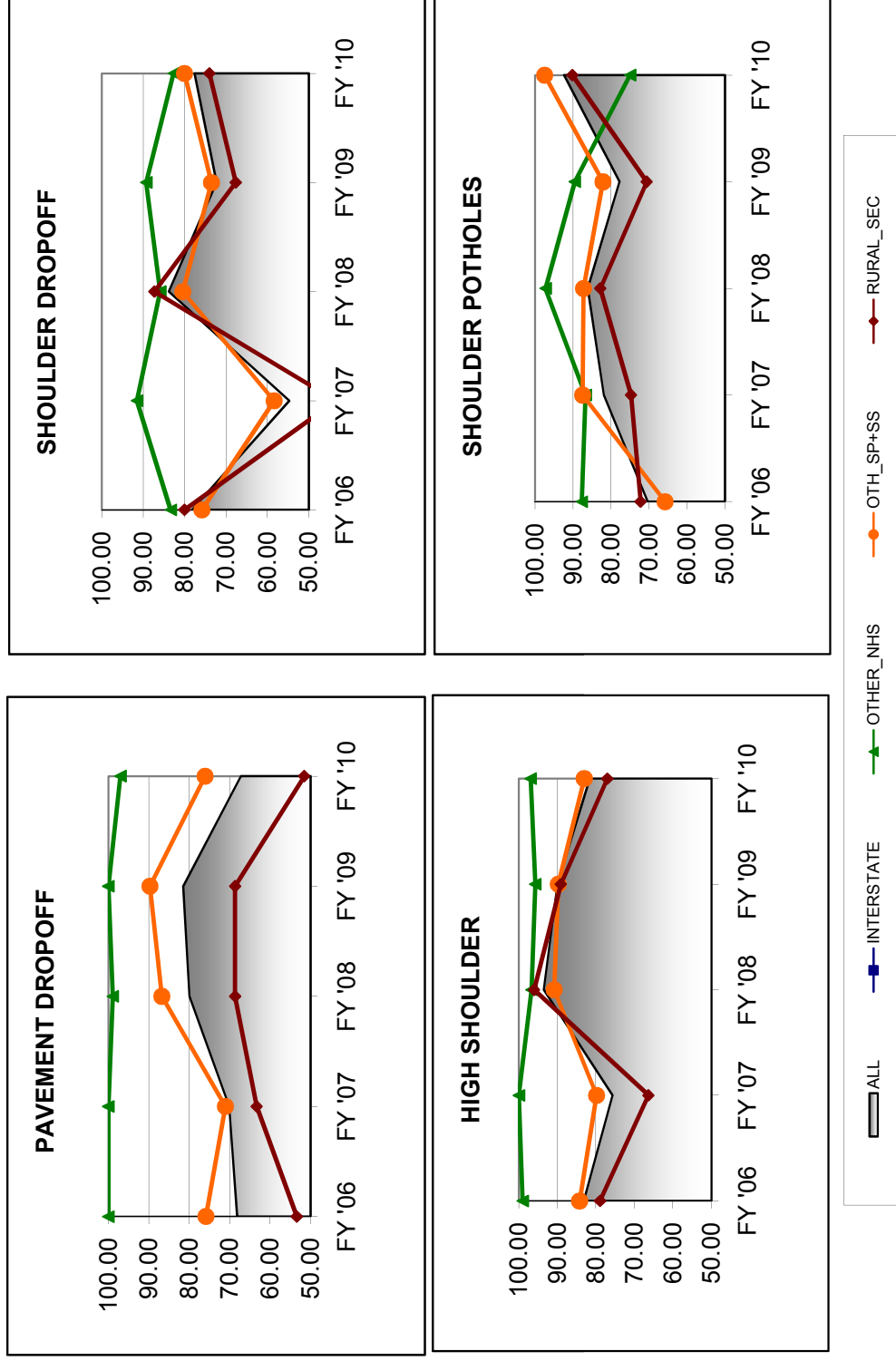
## TRAFFIC SIGNS



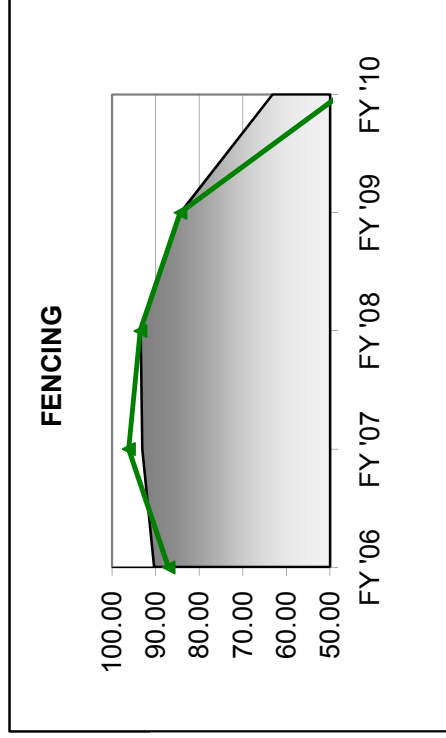
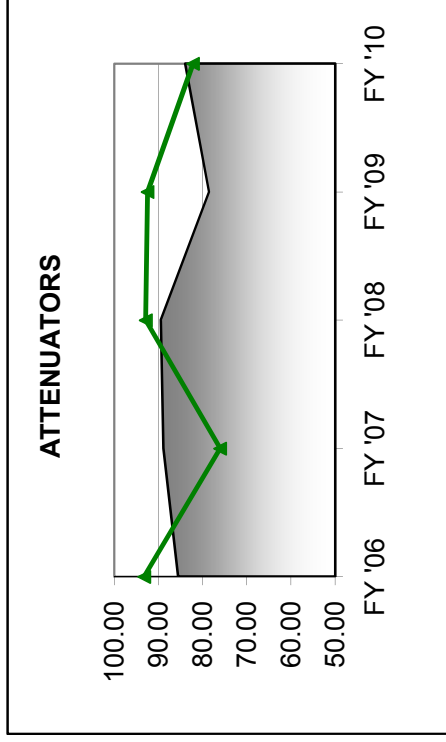
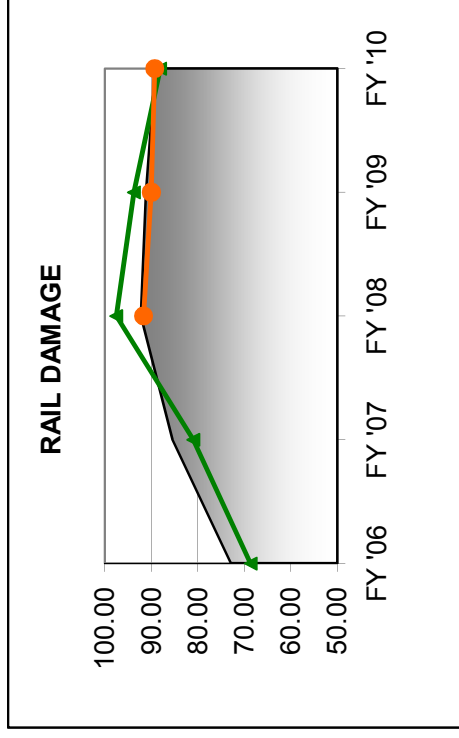
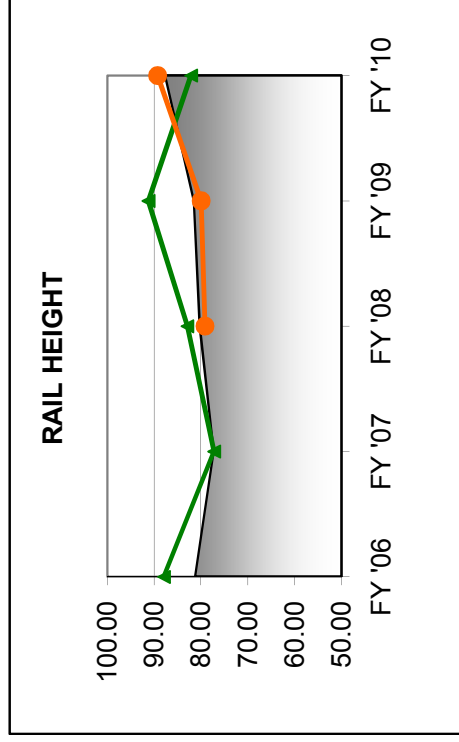
## GENERAL APPEARANCE / SURFACE



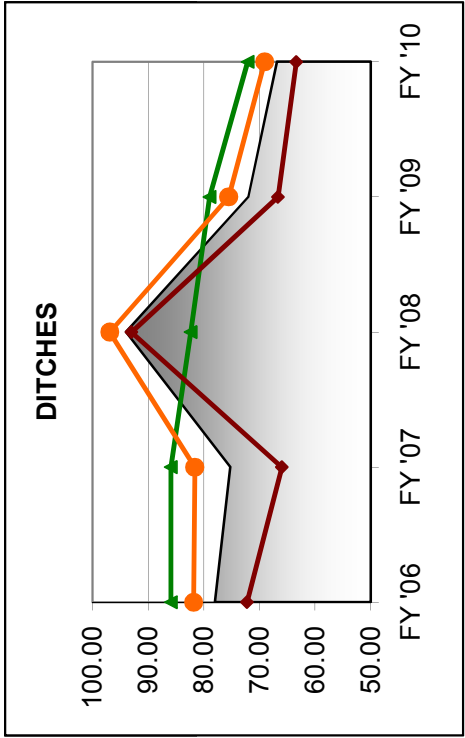
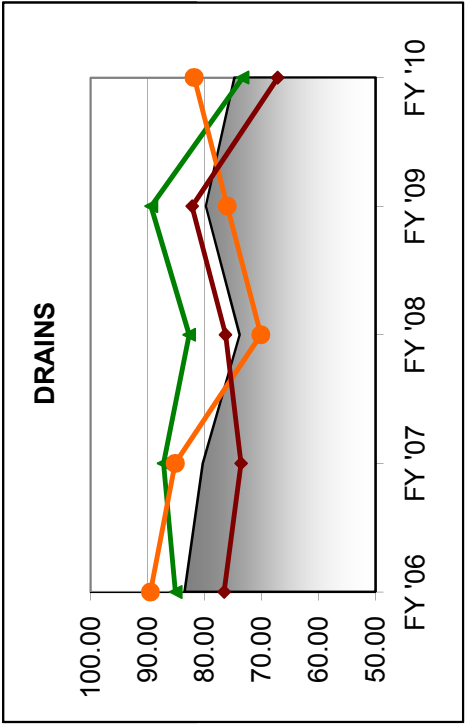
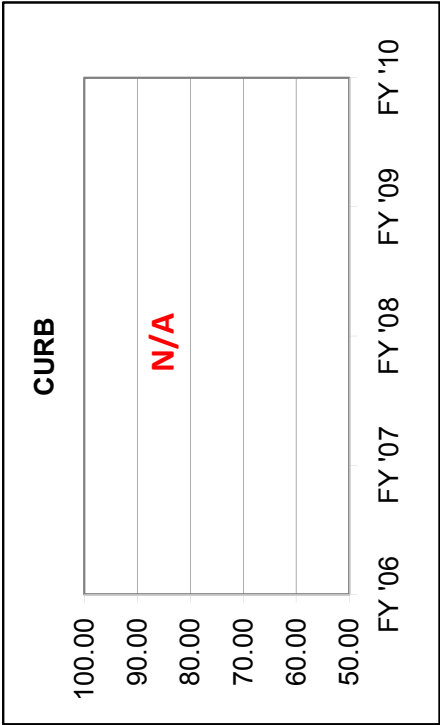
## SHOULDERS



## ROADSIDE



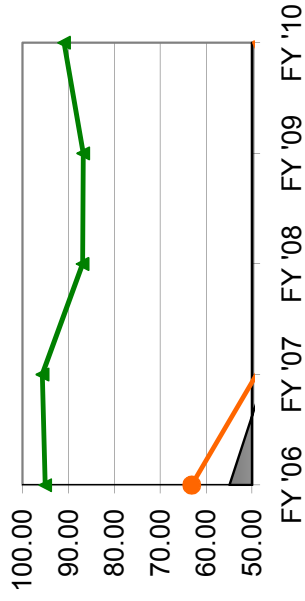
# DRAINAGE



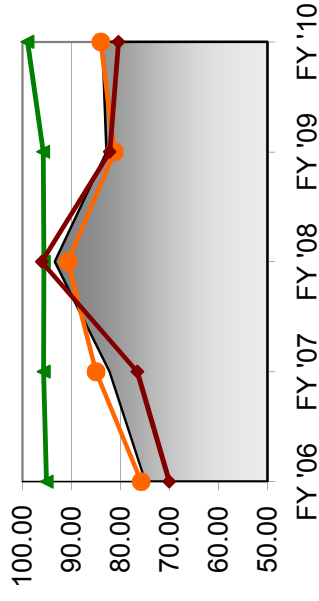


# TREE AND BRUSH / TRAFFIC MARKINGS

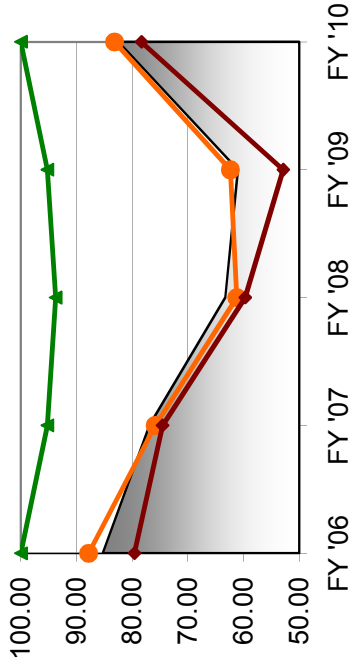
## VERTICAL CLEARANCE



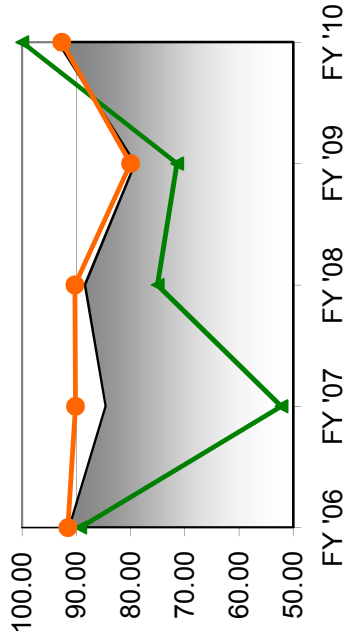
## VISUAL OBSTRUCTIONS



## YELLOW STRIPE

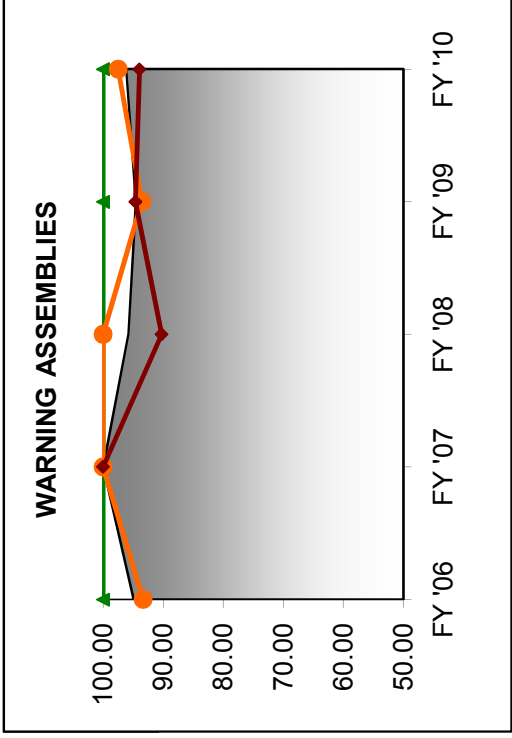
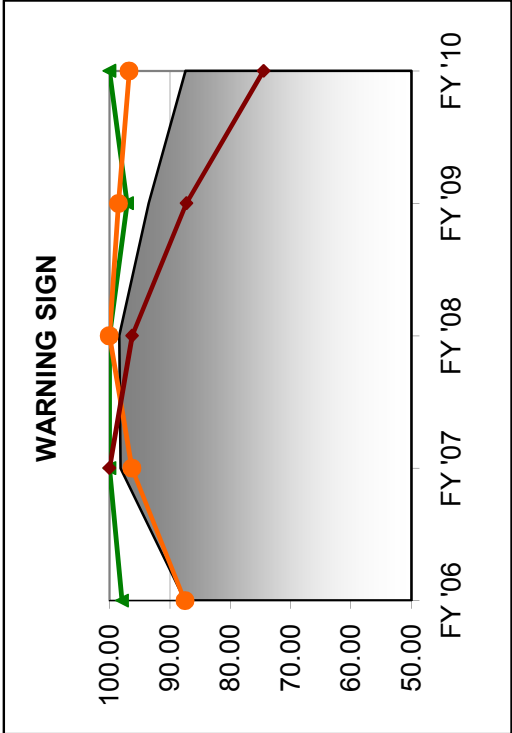
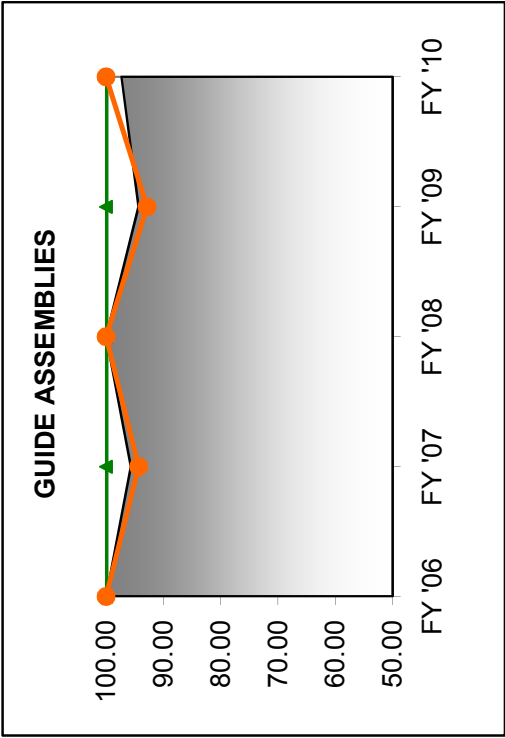
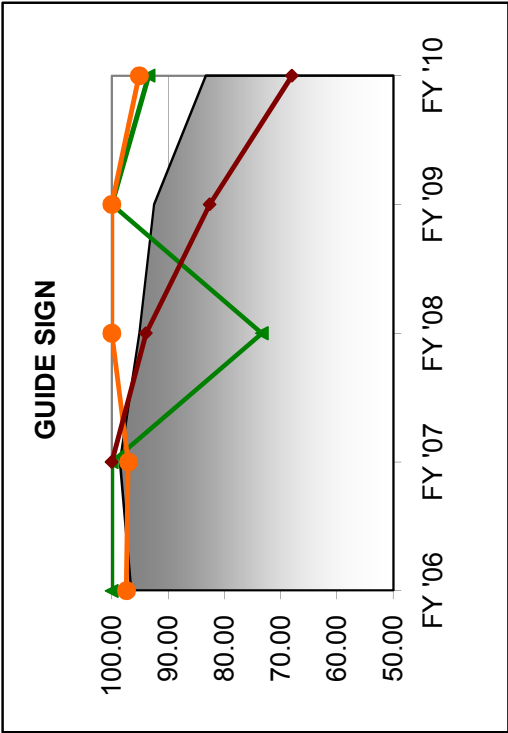


## WHITE STRIPE

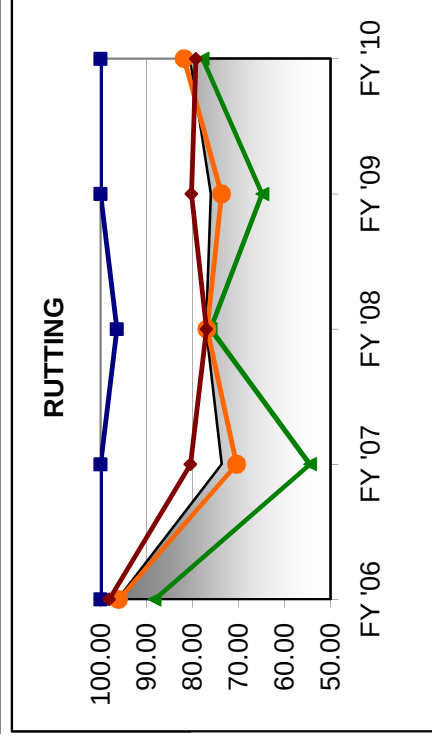
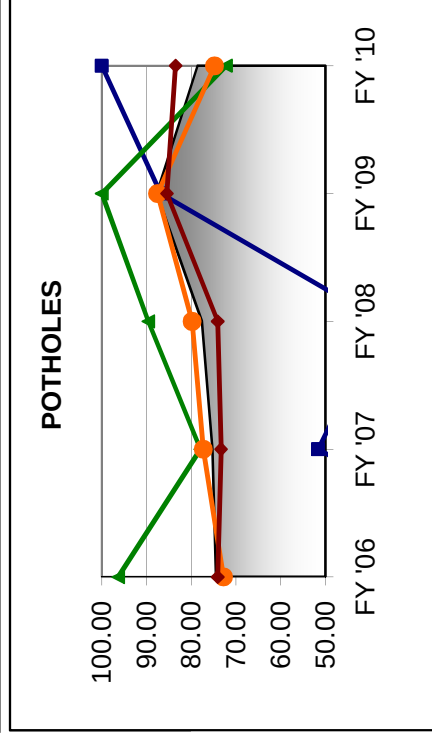
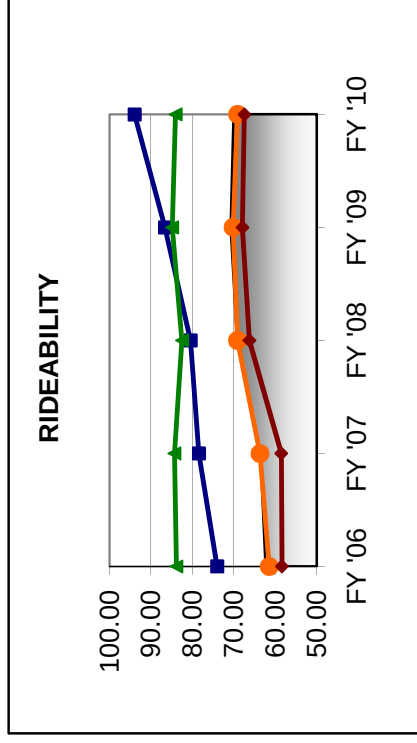
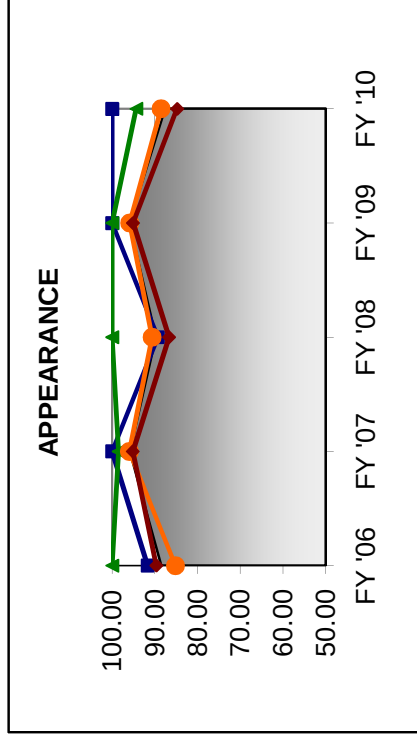


ALL INTERSTATE OTHER\_NHS OTH\_SP+SS RURAL\_SEC

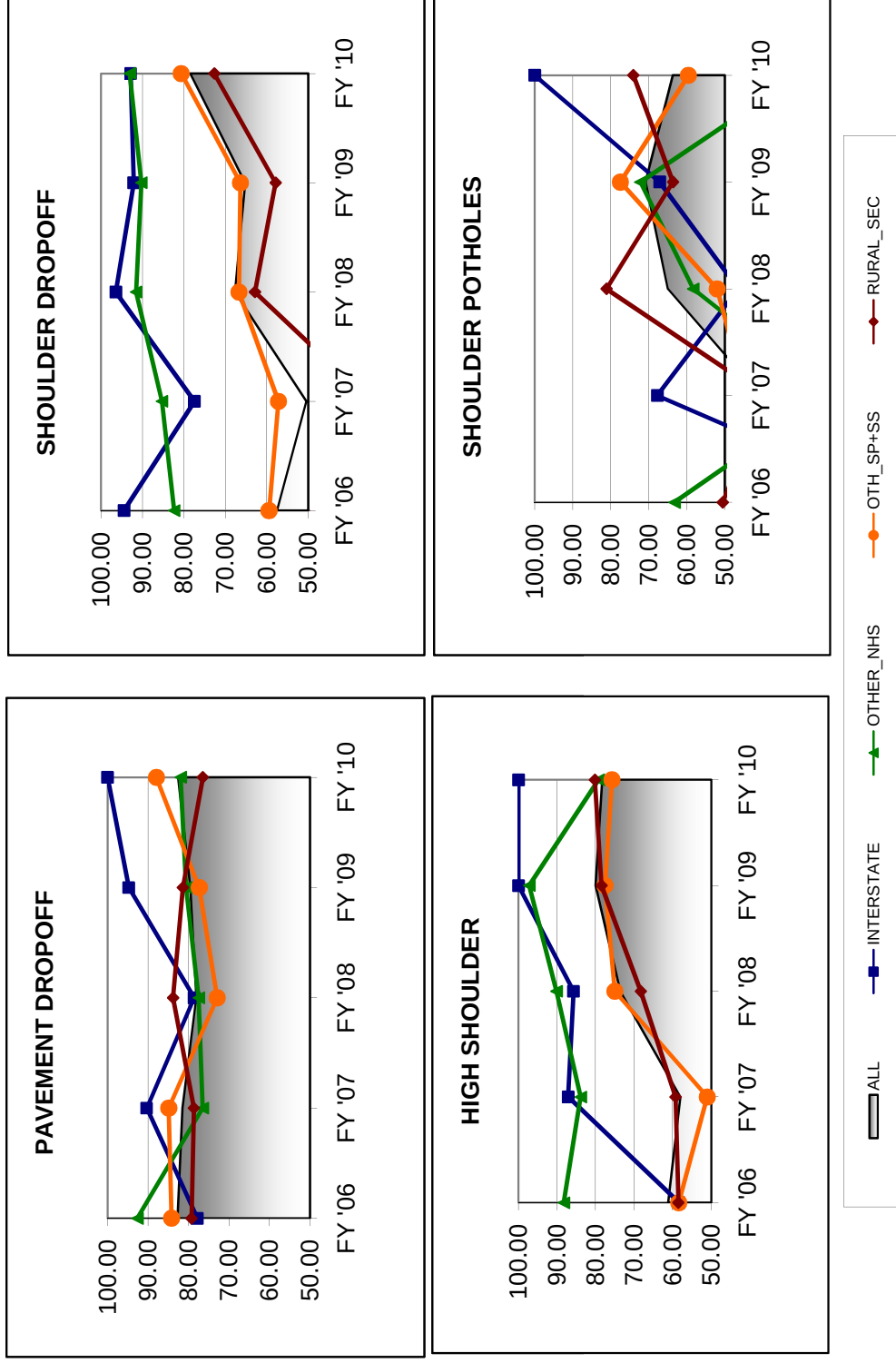
# TRAFFIC SIGNS



## GENERAL APPEARANCE / SURFACE

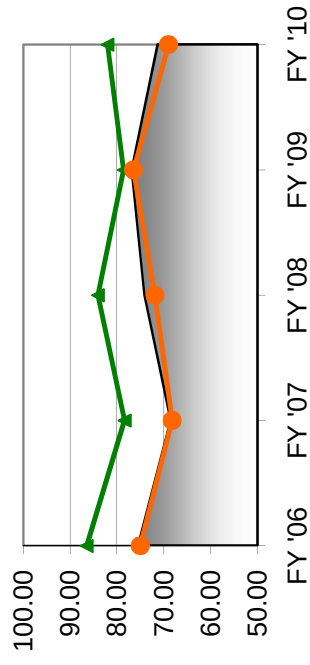


## SHOULDERS

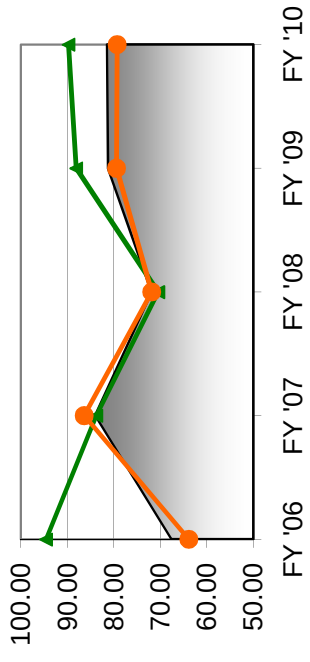


## ROADSIDE

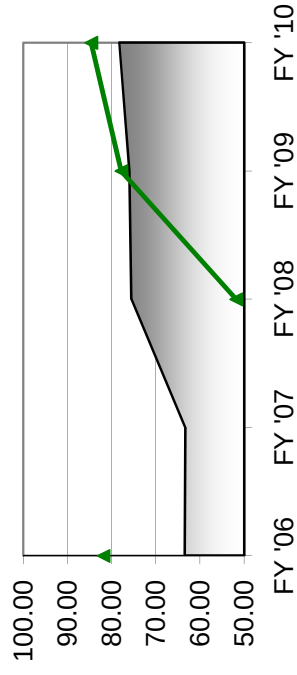
### RAIL HEIGHT



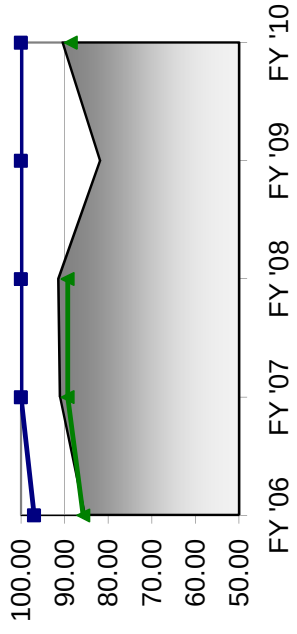
### RAIL DAMAGE



### ATTENUATORS



### FENCING



ALL

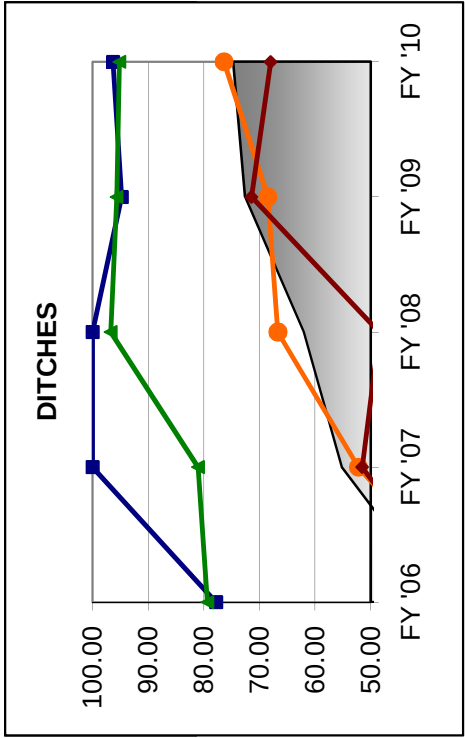
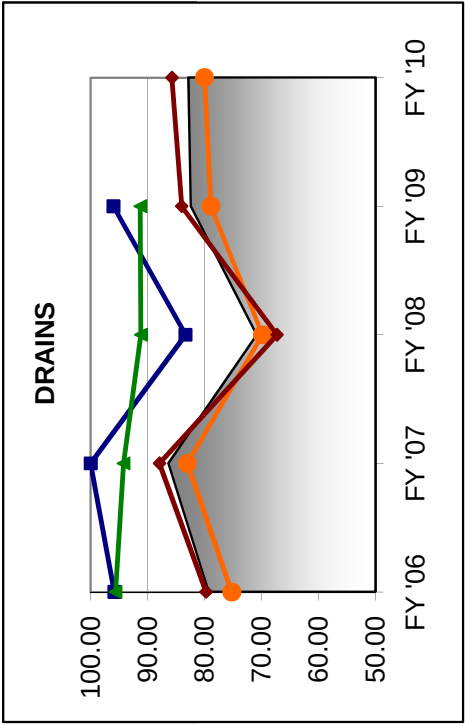
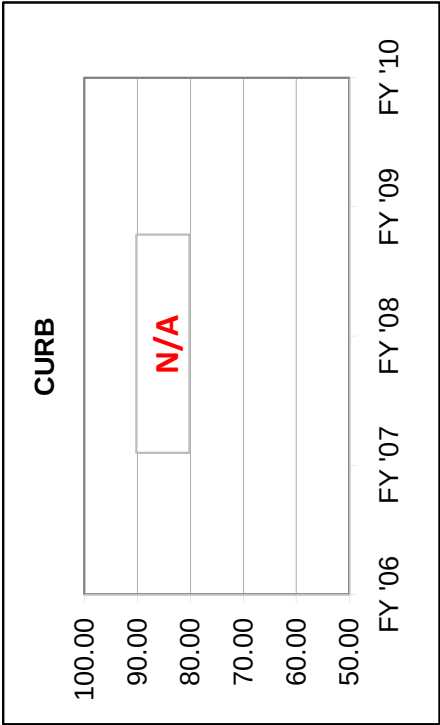
INTERSTATE

OTHER\_NHS

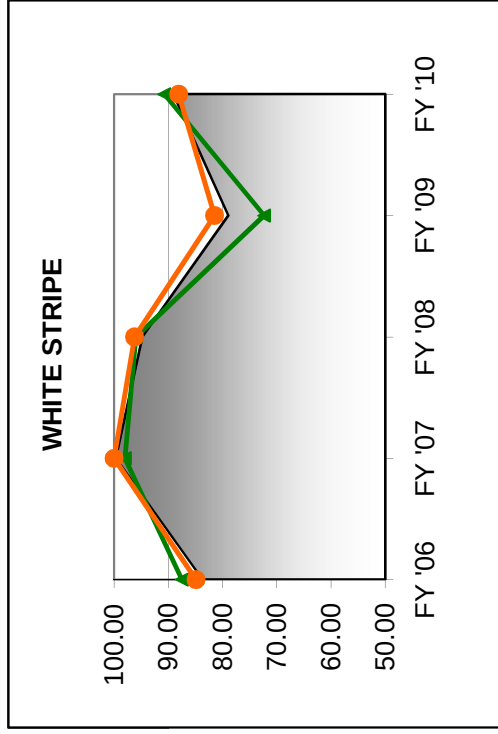
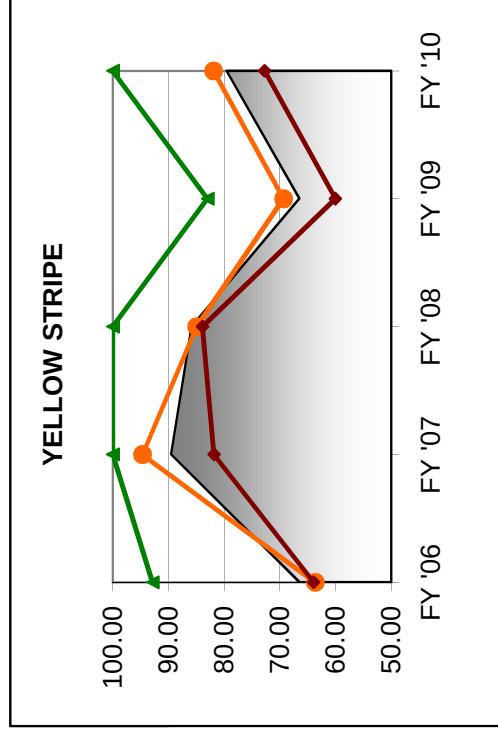
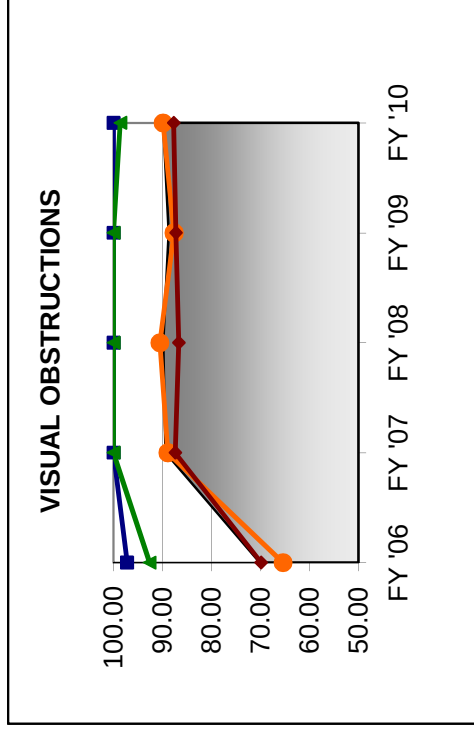
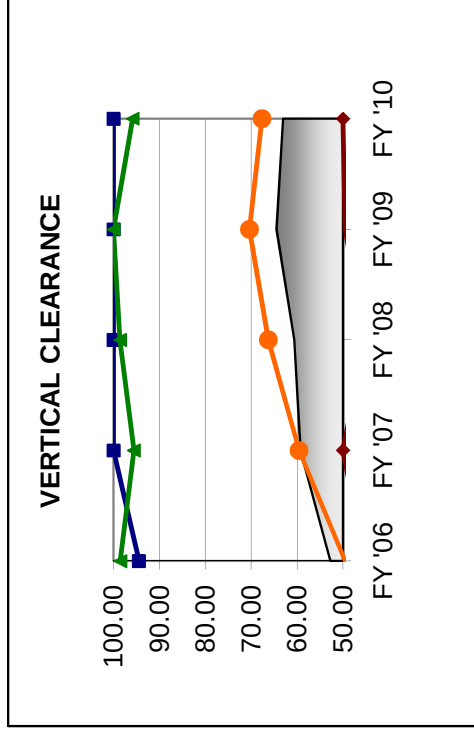
OTH\_SP+SS

RURAL\_SEC

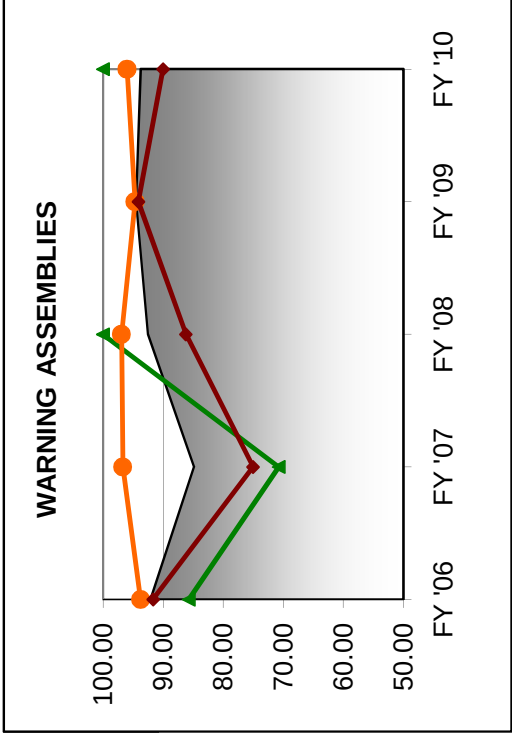
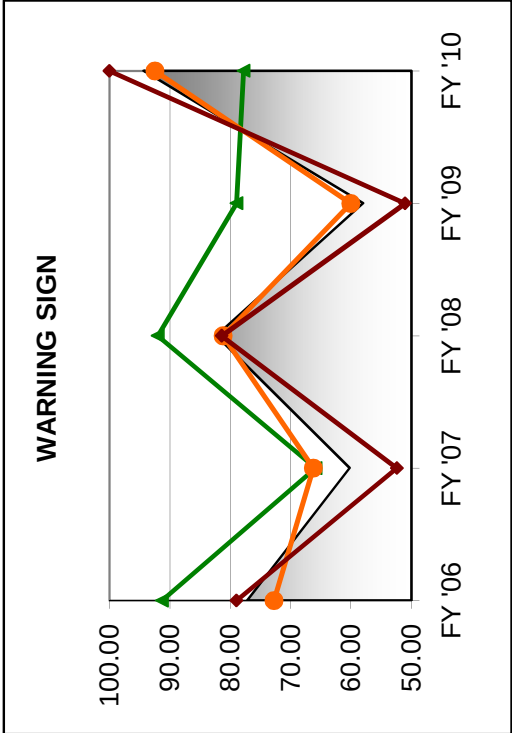
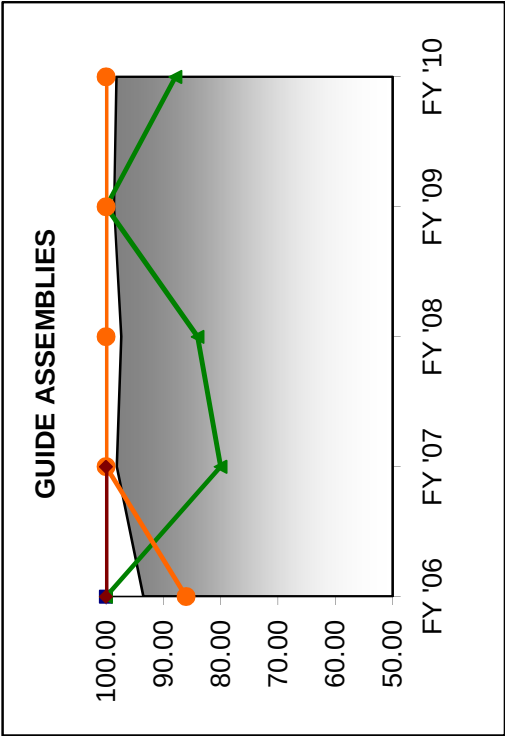
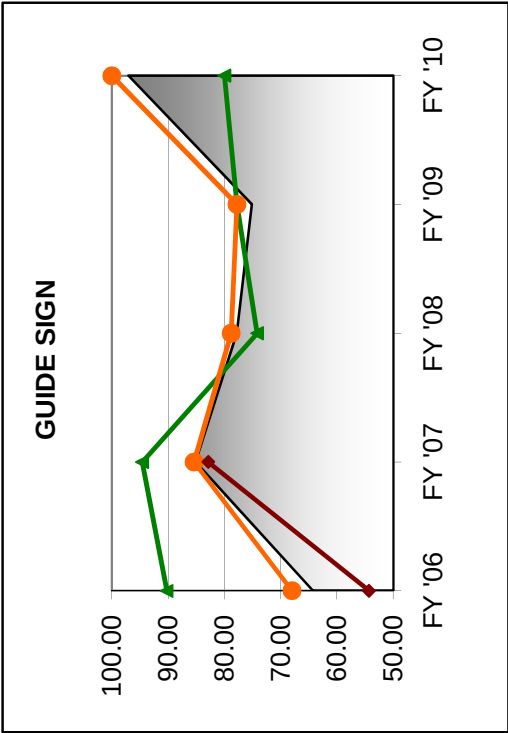
# DRAINAGE



## TREE AND BRUSH / TRAFFIC MARKINGS

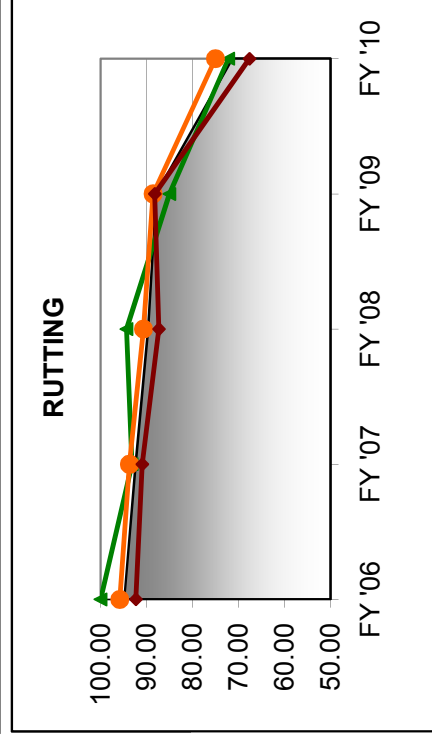
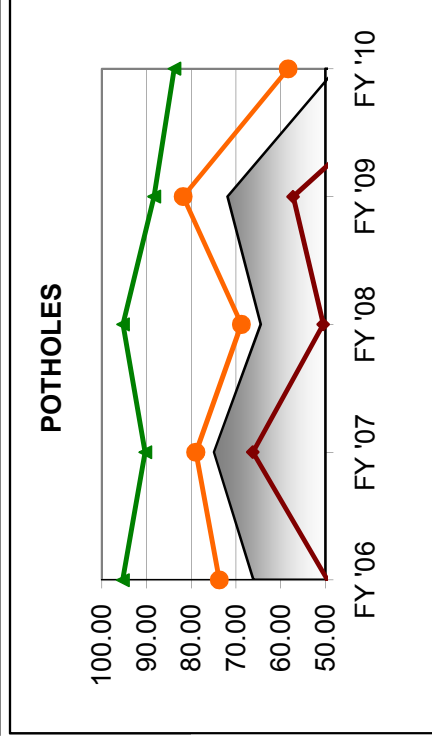
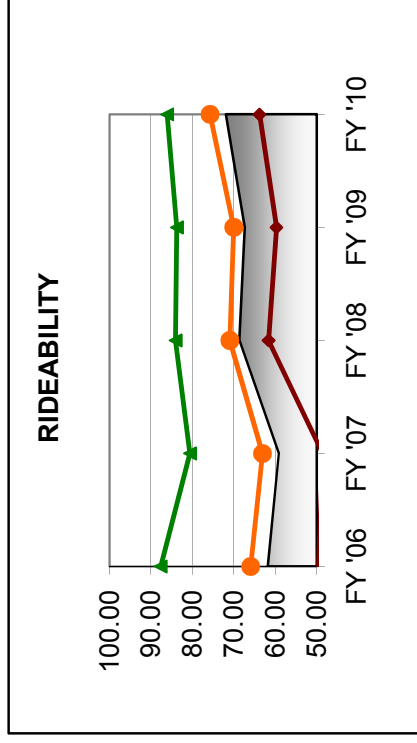
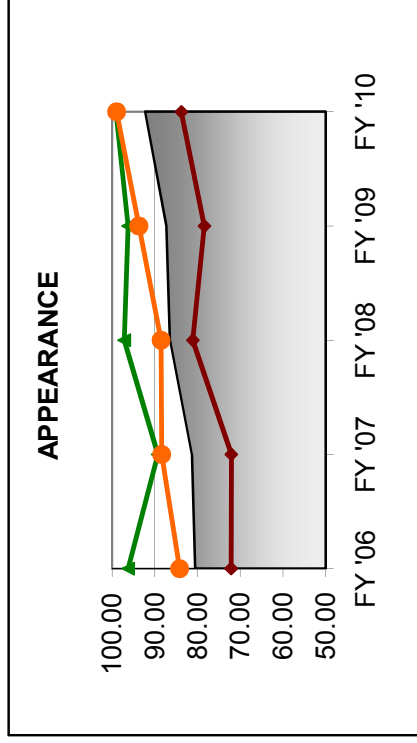


# TRAFFIC SIGNS

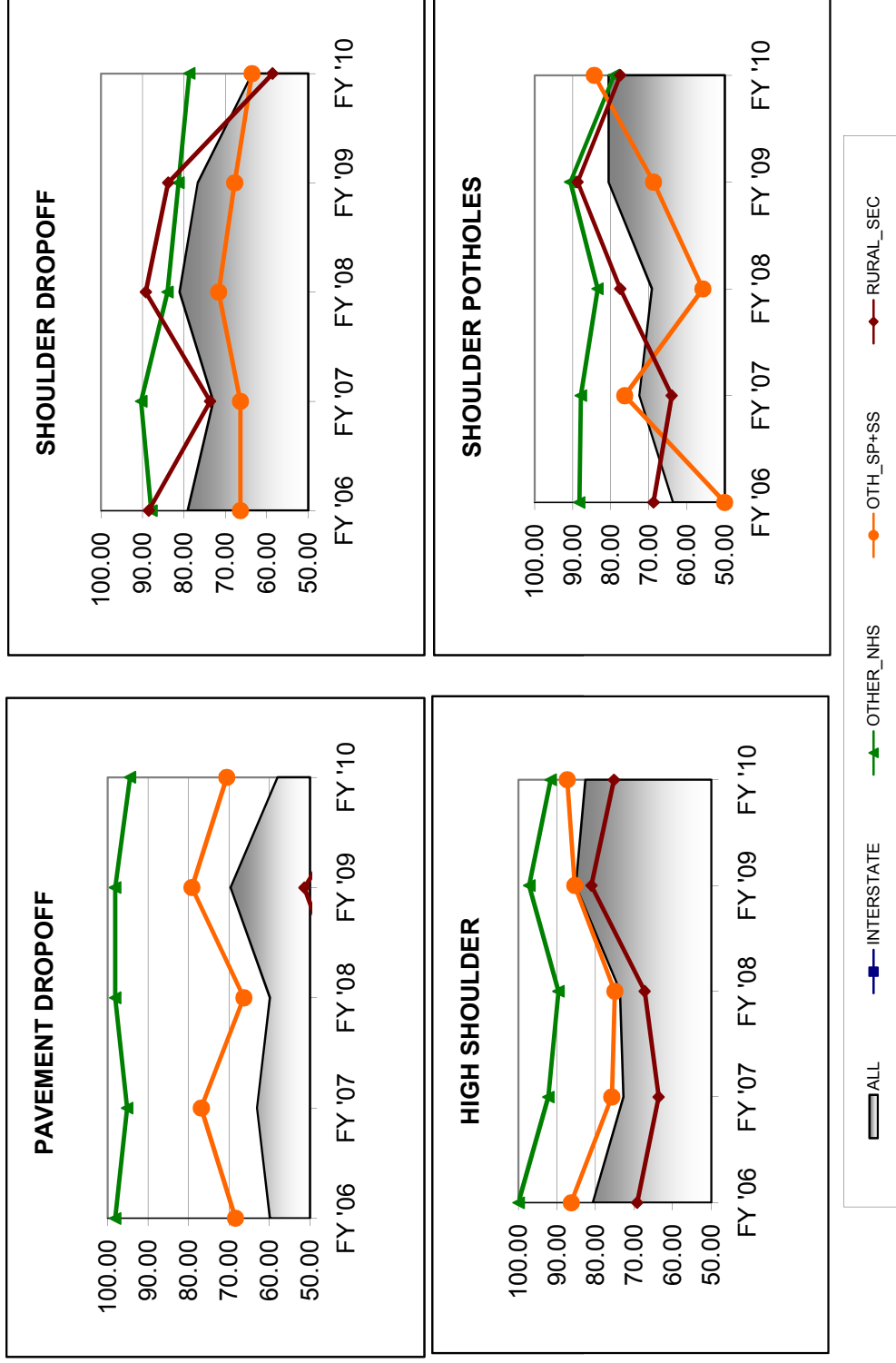




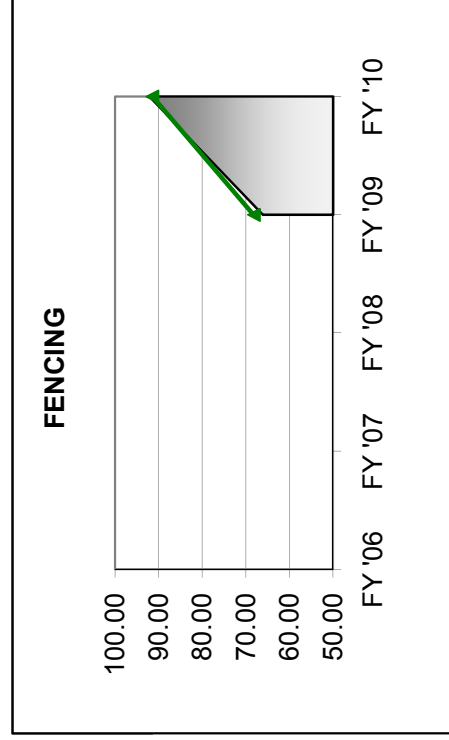
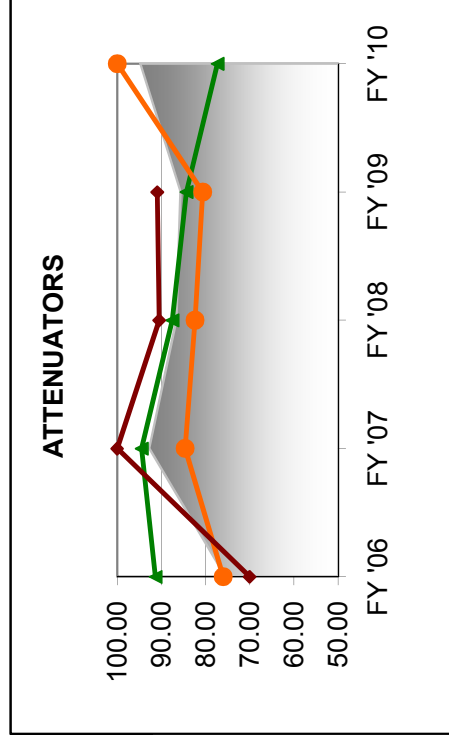
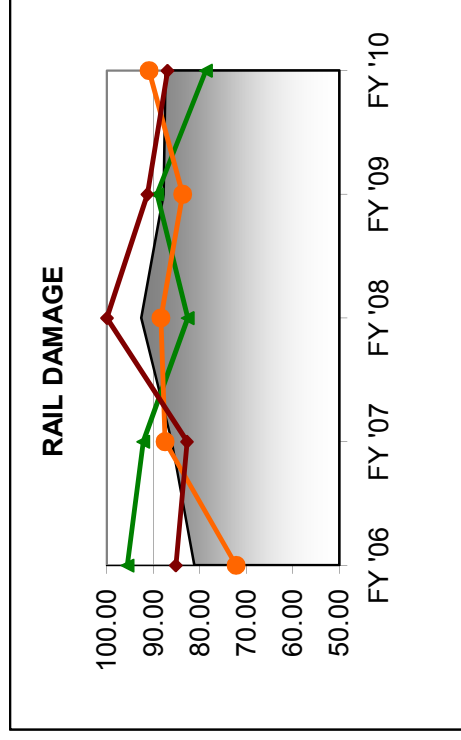
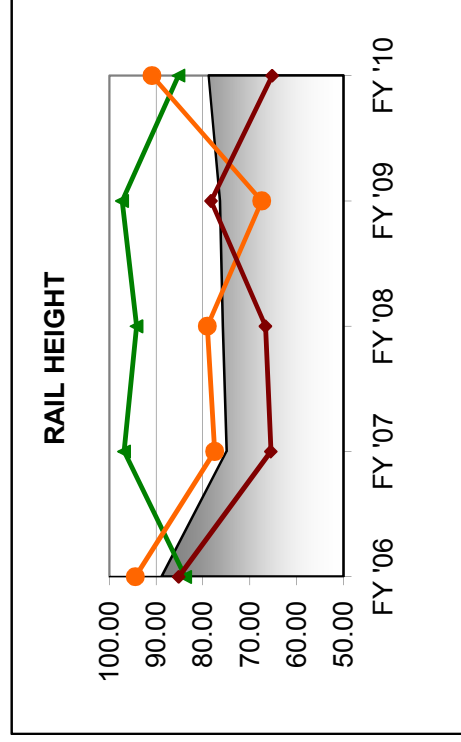
## GENERAL APPEARANCE / SURFACE



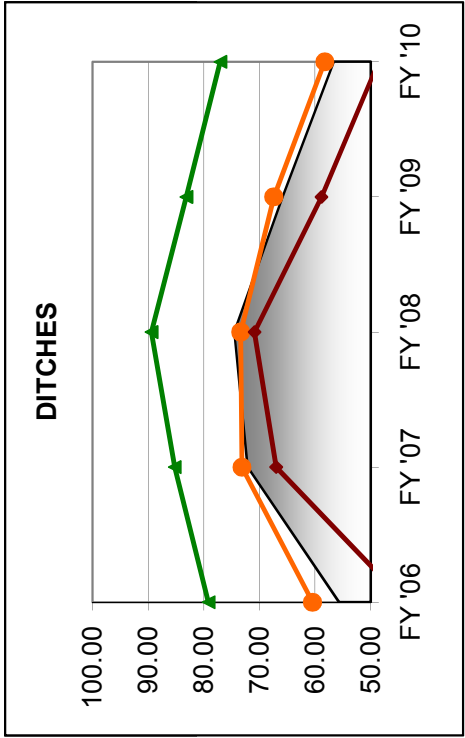
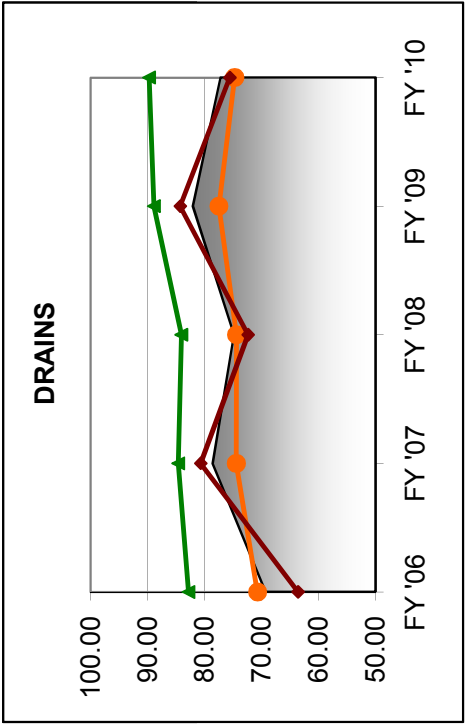
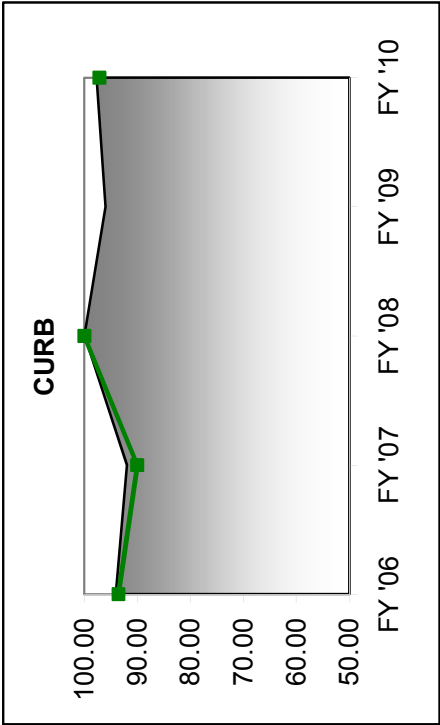
## SHOULDERS



## ROADSIDE

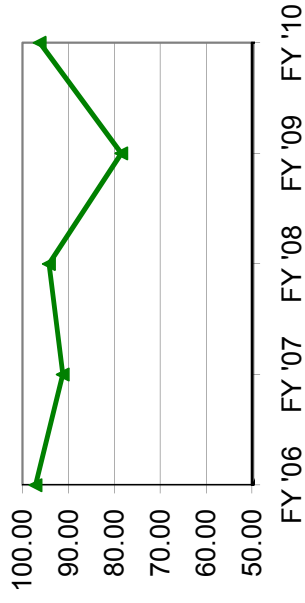


# DRAINAGE

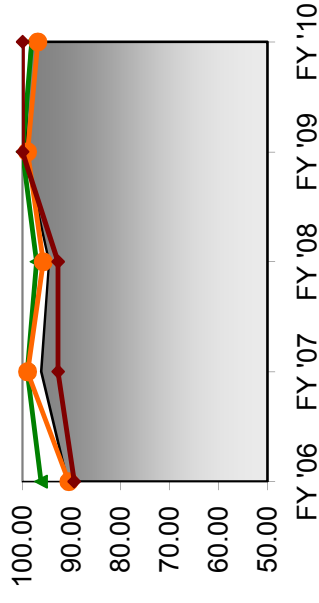


## TREE AND BRUSH / TRAFFIC MARKINGS

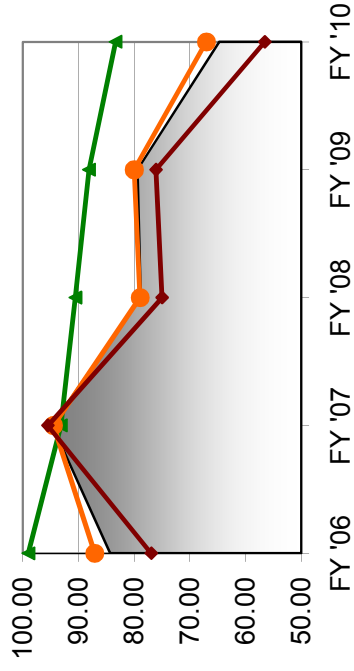
VERTICAL CLEARANCE



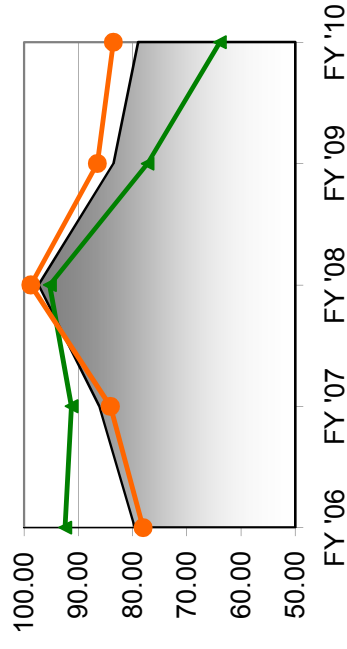
VISUAL OBSTRUCTIONS



YELLOW STRIPE

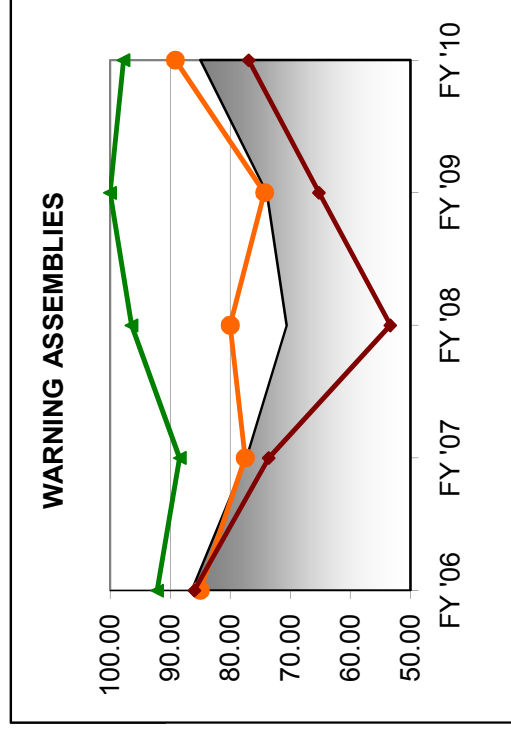
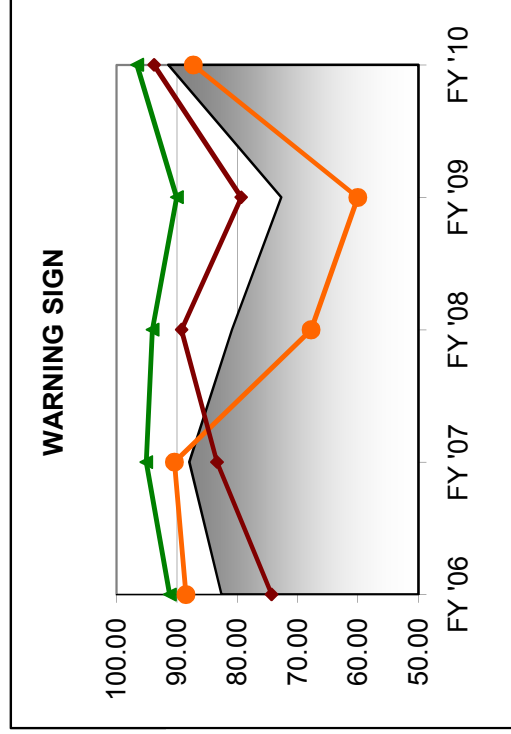
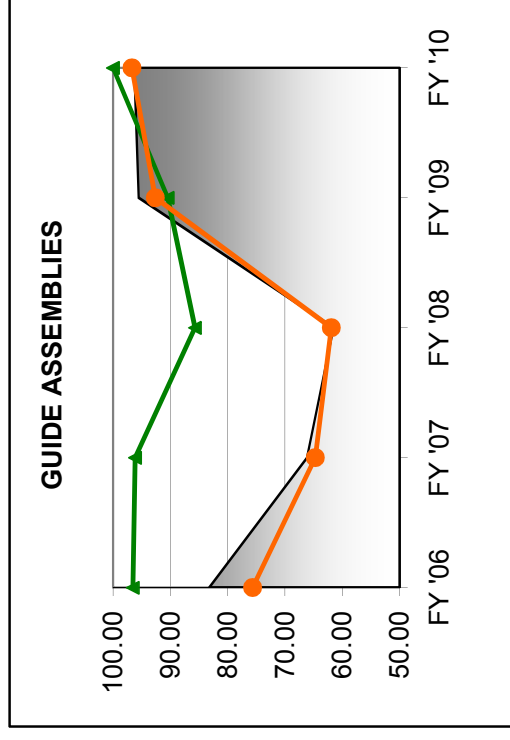
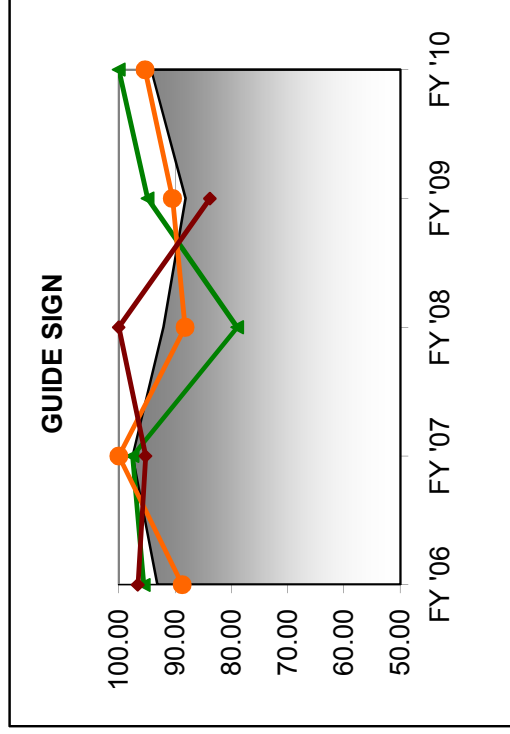


WHITE STRIPE



ALL INTERSTATE OTH\_SP+SS RURAL\_SEC

# TRAFFIC SIGNS



## **APPENDIX IV**

### **Total Scores by Road Type**

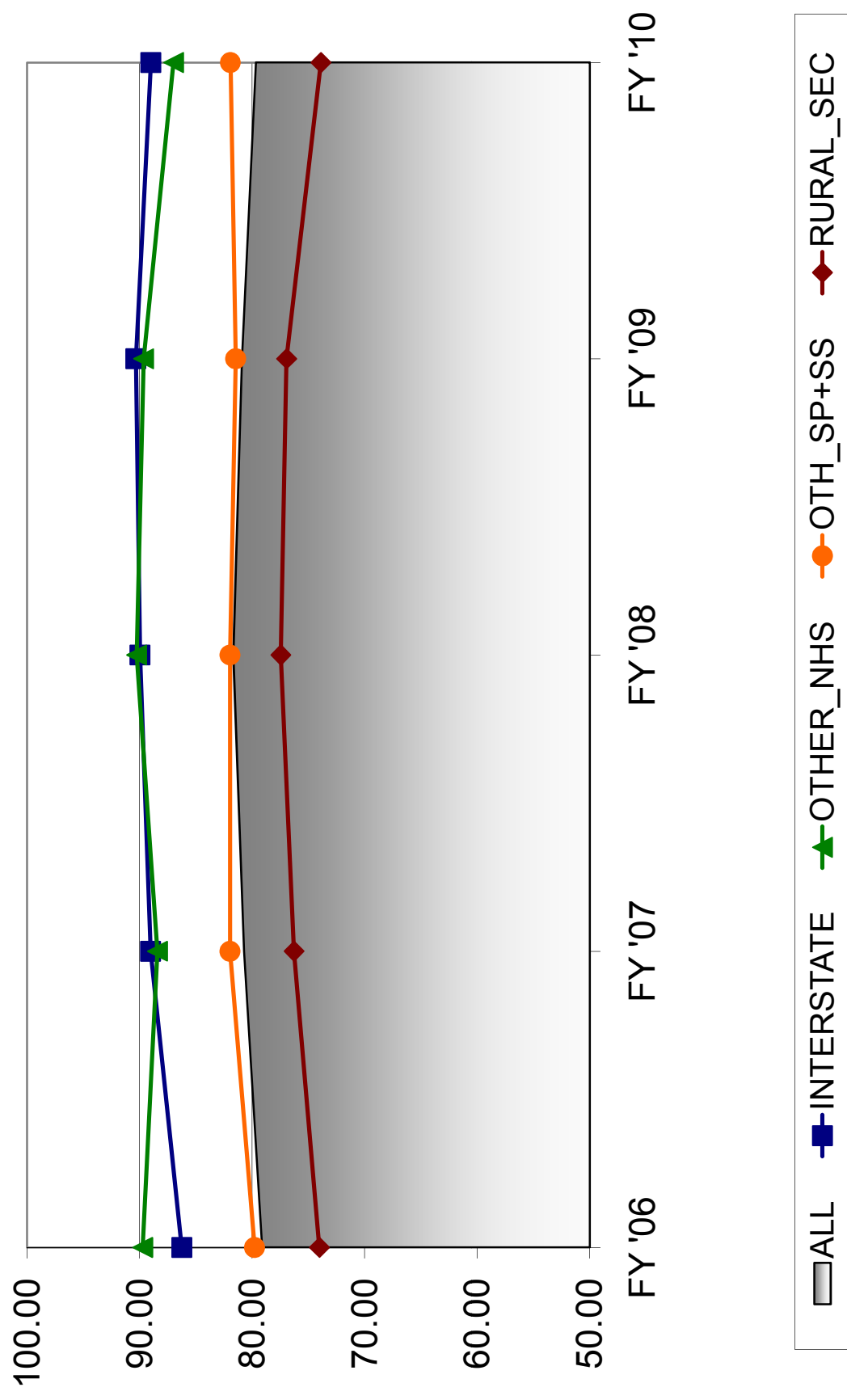
The graphs in Appendix IV illustrate the total MRP scores for each district and statewide. These are the combined scores for all roadway features. Included are the most recent MRP data and historical data for all previous four years.

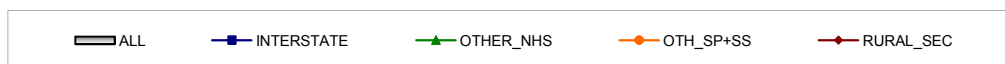
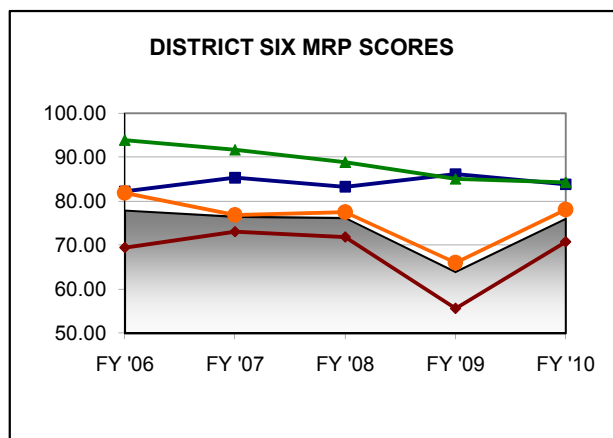
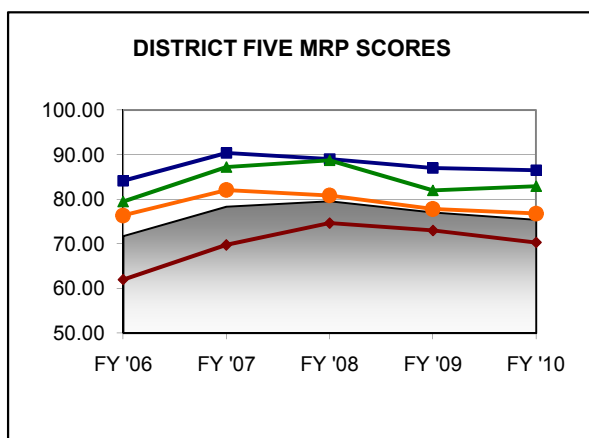
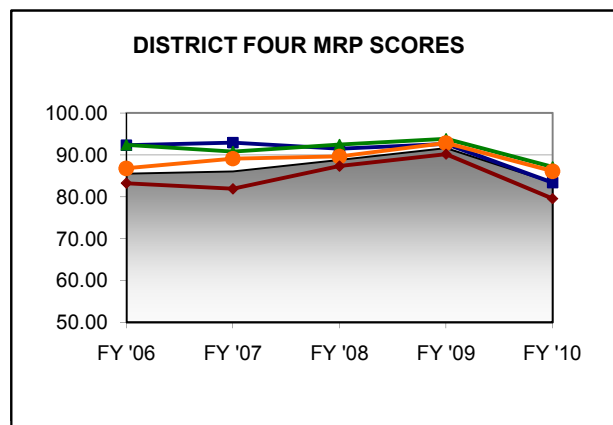
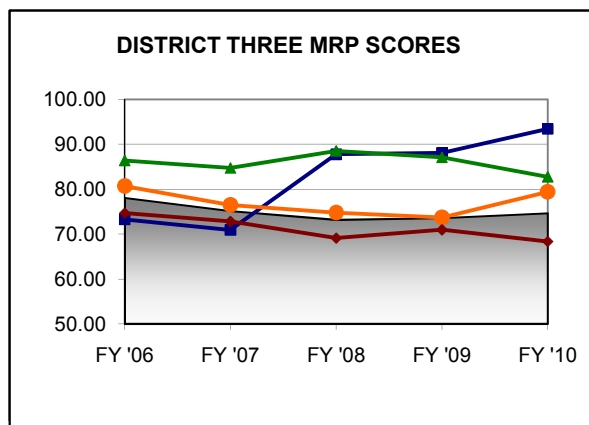
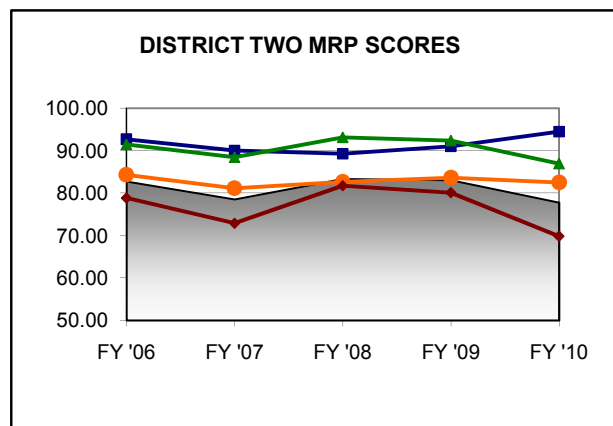
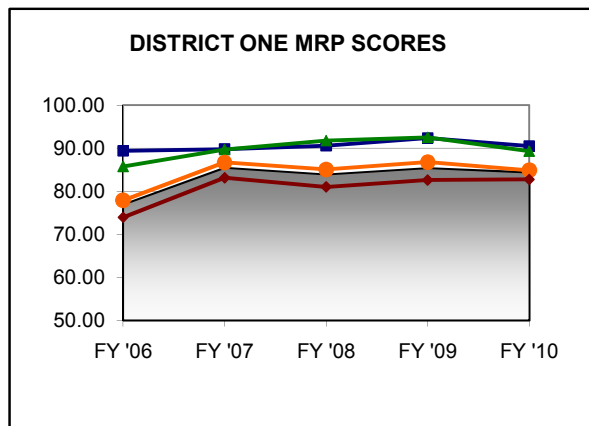
As in previous graphs, the four road types are represented by colored lines, while the overall weighted average is shown as a gray shaded area.

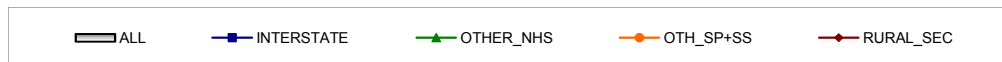
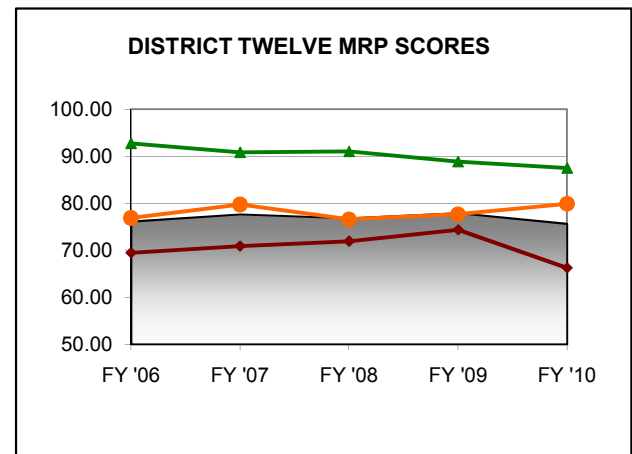
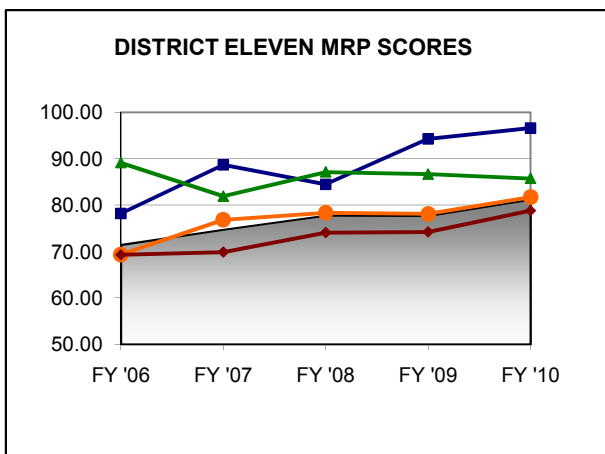
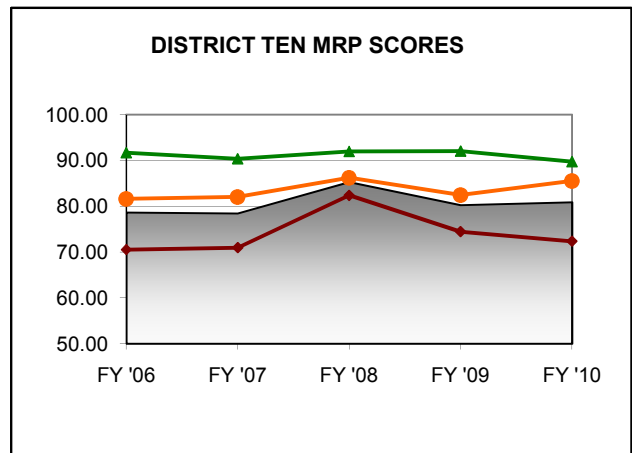
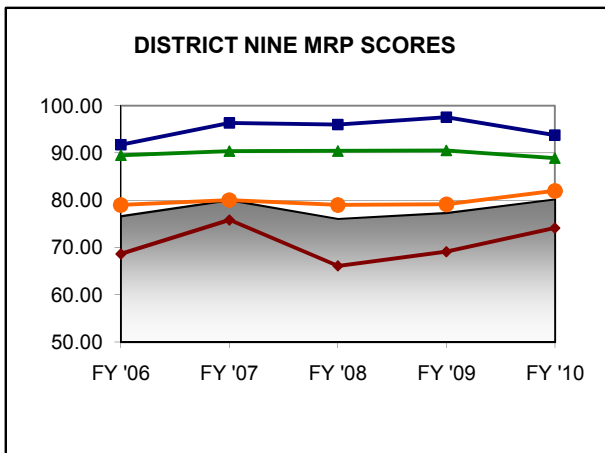
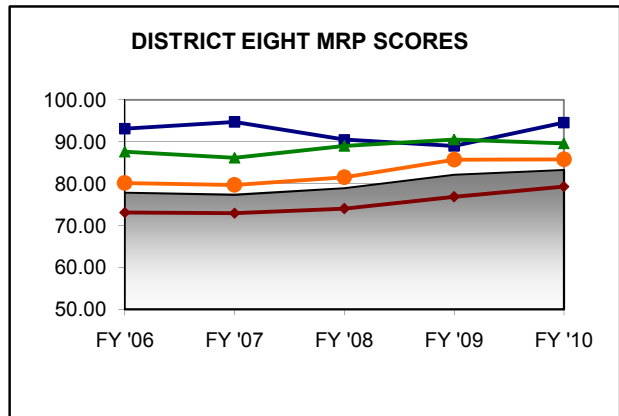
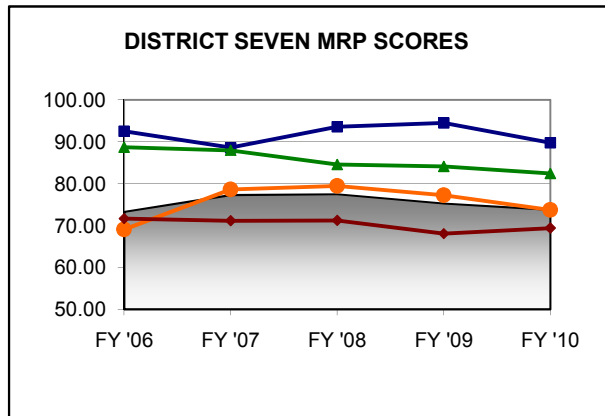




# STATEWIDE MRP TOTALS









## **APPENDIX V**

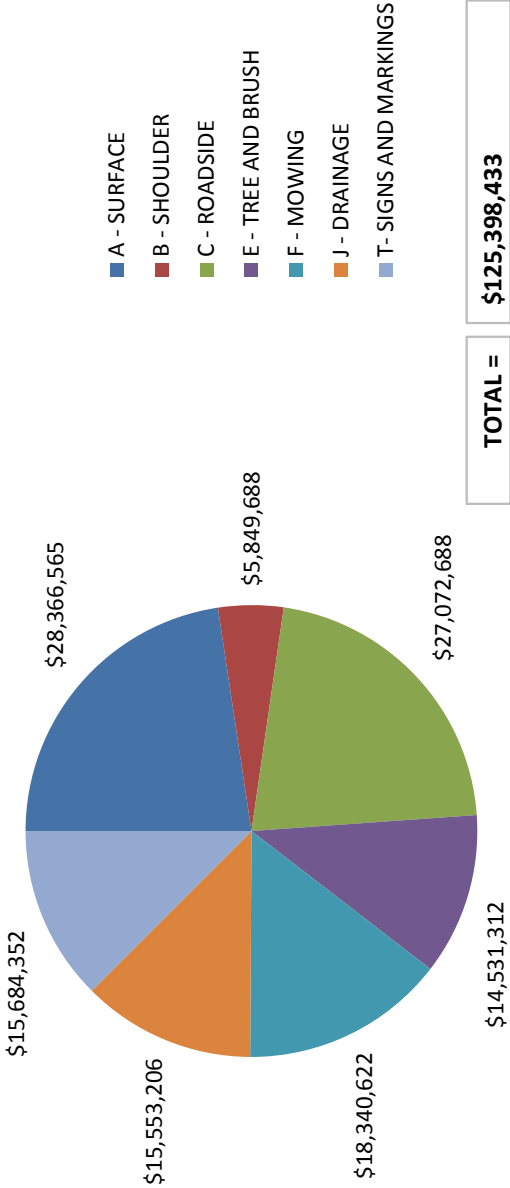
### **Activity Spending**

Appendix V tables and graphs are a summary of previous fiscal year district spending impacting current MRP scores. Spending is pulled from a combination of OMS and EMARS reports in order to include state force and contract spending.

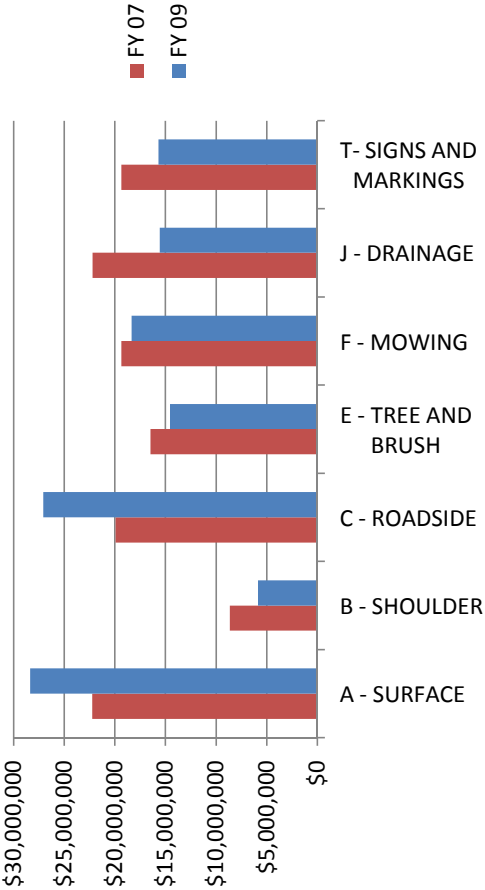
Appendix V also contains a complete list of activities that impact features inspected by the MRP.



STATEWIDE MAINTENANCE SPENDING FY 09



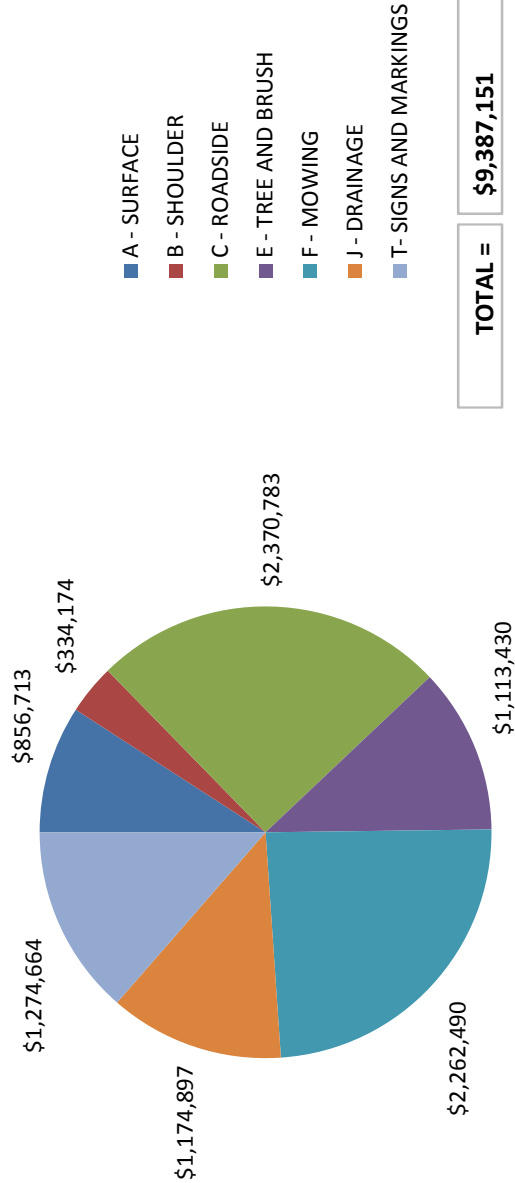
Statewide Maintenance Spending



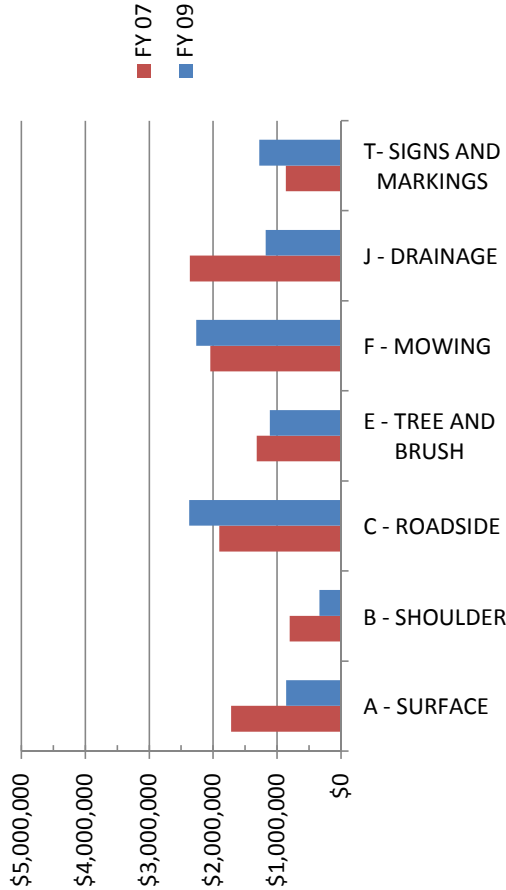
Statewide Scores Comparison

| Classification              | FY 08 | FY 10 |
|-----------------------------|-------|-------|
| Interstates                 | 90.0  | 89.0  |
| National Highway System     | 90.3  | 87.0  |
| State Primary and Secondary | 82.0  | 81.9  |
| Rural Secondary             | 77.5  | 73.9  |
| All Roads                   | 81.7  | 79.7  |

DISTRICT ONE MAINTENANCE SPENDING FY 09



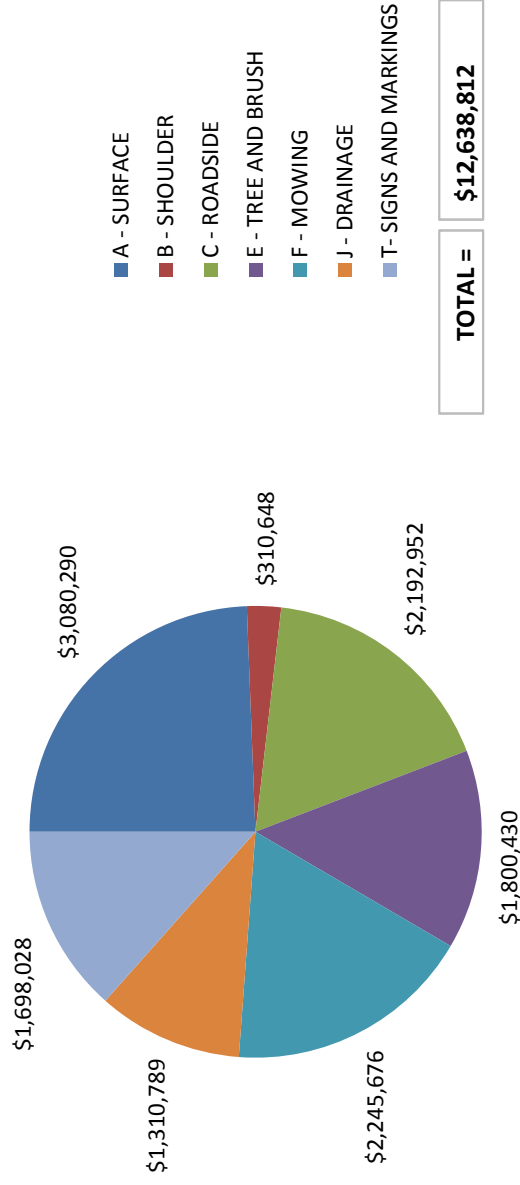
District One Maintenance Spending



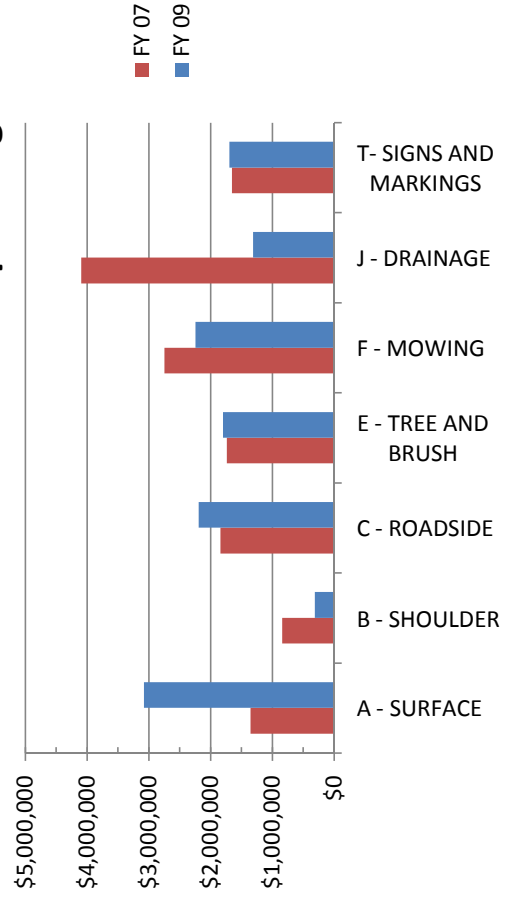
| District One Scores Comparison |       |       |
|--------------------------------|-------|-------|
| Classification                 | FY 08 | FY 10 |
| Interstates                    | 90.6  | 90.5  |
| National Highway System        | 91.8  | 89.3  |
| State Primary and Secondary    | 85.0  | 84.9  |
| Rural Secondary                | 81.0  | 82.7  |
| All Roads                      | 83.9  | 84.4  |



## DISTRICT TWO MAINTENANCE SPENDING FY 09

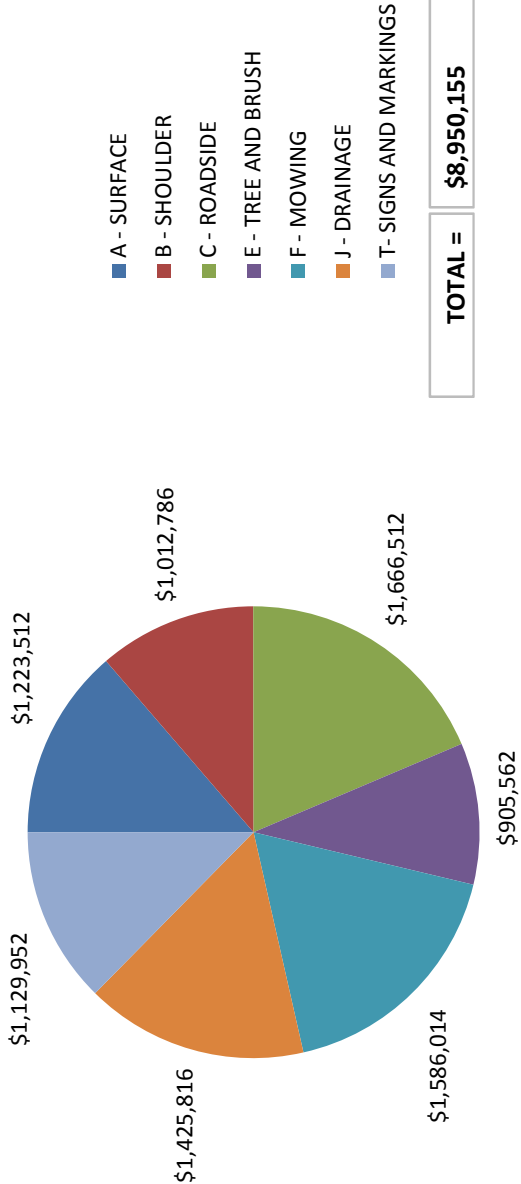


## District Two Maintenance Spending

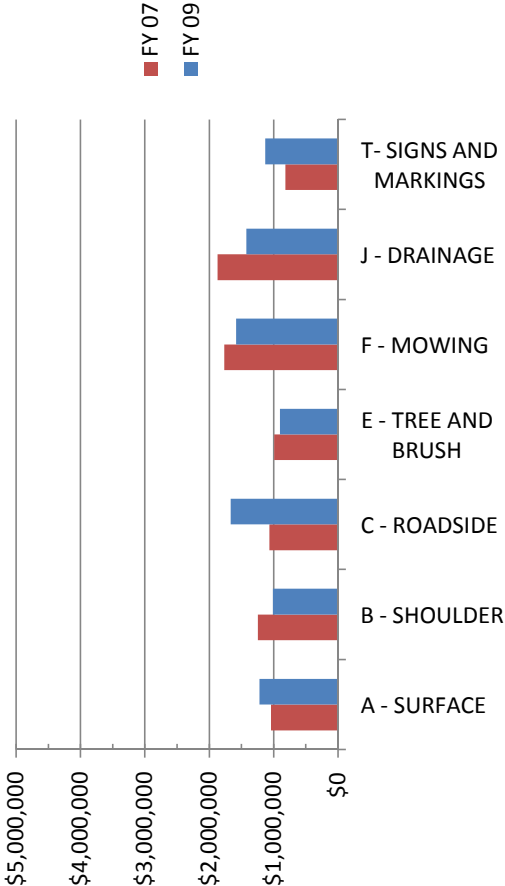


| District Two Scores Comparison |       |       |  |
|--------------------------------|-------|-------|--|
| Classification                 | FY 08 | FY 10 |  |
| Interstates                    | 89.3  | 94.4  |  |
| National Highway System        | 93.1  | 86.9  |  |
| State Primary and Secondary    | 82.7  | 82.5  |  |
| Rural Secondary                | 81.8  | 69.8  |  |
| All Roads                      | 83.3  | 77.8  |  |

DISTRICT THREE MAINTENANCE SPENDING FY 09

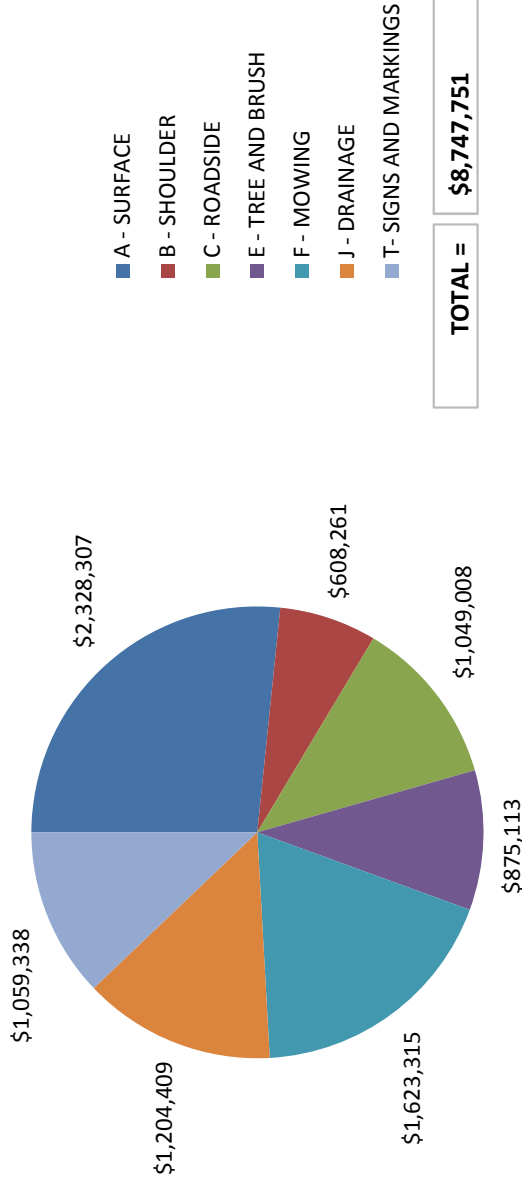


District Three Maintenance Spending

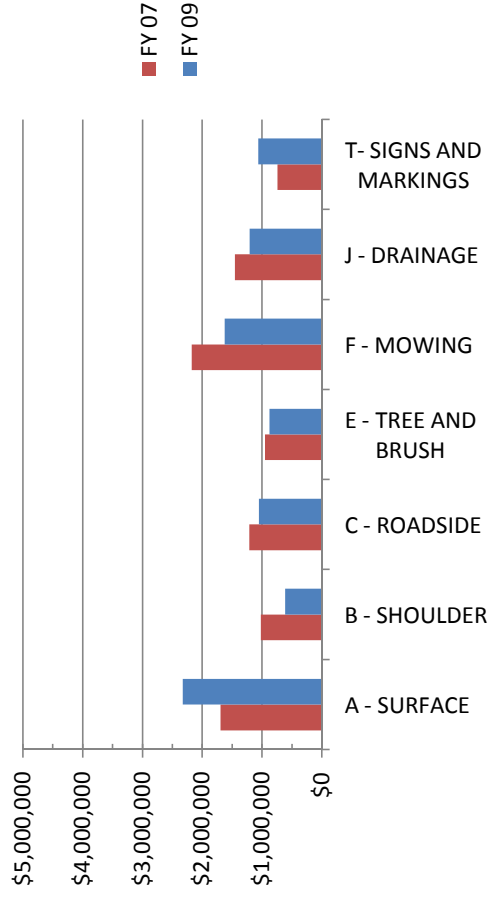


| District Three Scores Comparison |       |       |
|----------------------------------|-------|-------|
| Classification                   | FY 08 | FY 10 |
| Interstates                      | 87.7  | 93.4  |
| National Highway System          | 88.5  | 82.7  |
| State Primary and Secondary      | 74.7  | 79.4  |
| Rural Secondary                  | 69.1  | 68.3  |
| All Roads                        | 73.2  | 74.6  |

## DISTRICT FOUR MAINTENANCE SPENDING FY 09

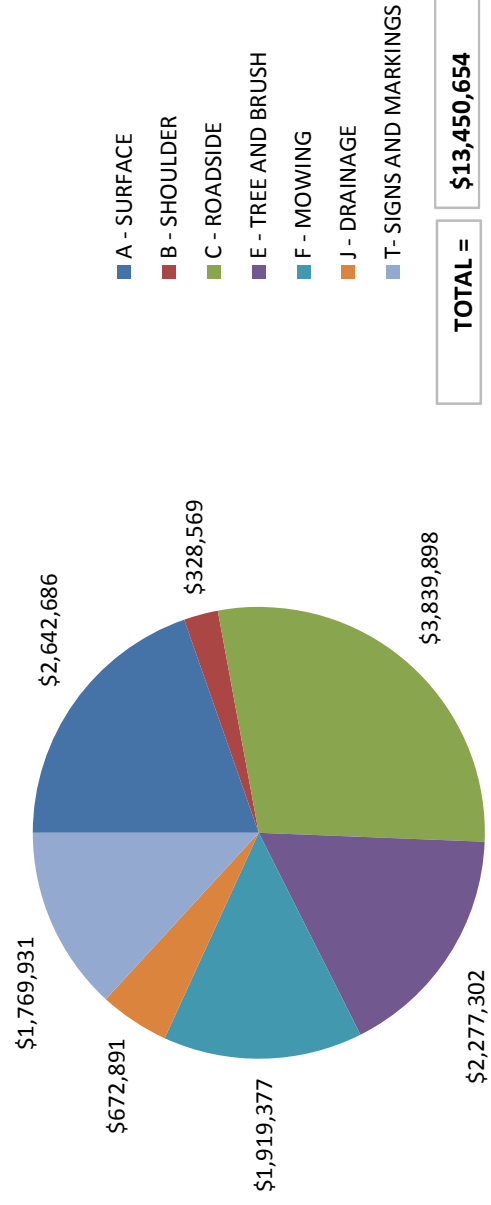


## District Four Maintenance Spending

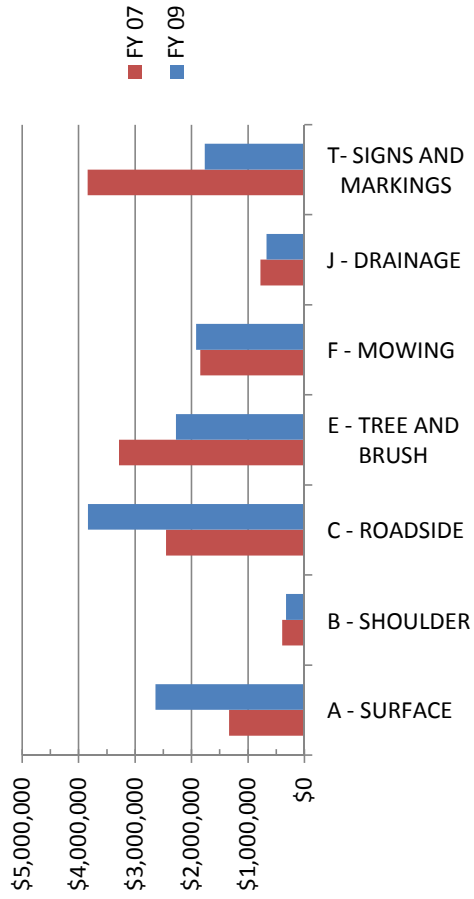


| District Four Scores Comparison |       |       |
|---------------------------------|-------|-------|
| Classification                  | FY 08 | FY 10 |
| Interstates                     | 91.4  | 83.3  |
| National Highway System         | 92.4  | 87.1  |
| State Primary and Secondary     | 89.6  | 86.1  |
| Rural Secondary                 | 87.3  | 79.5  |
| All Roads                       | 88.8  | 83.4  |

DISTRICT FIVE MAINTENANCE SPENDING FY 09

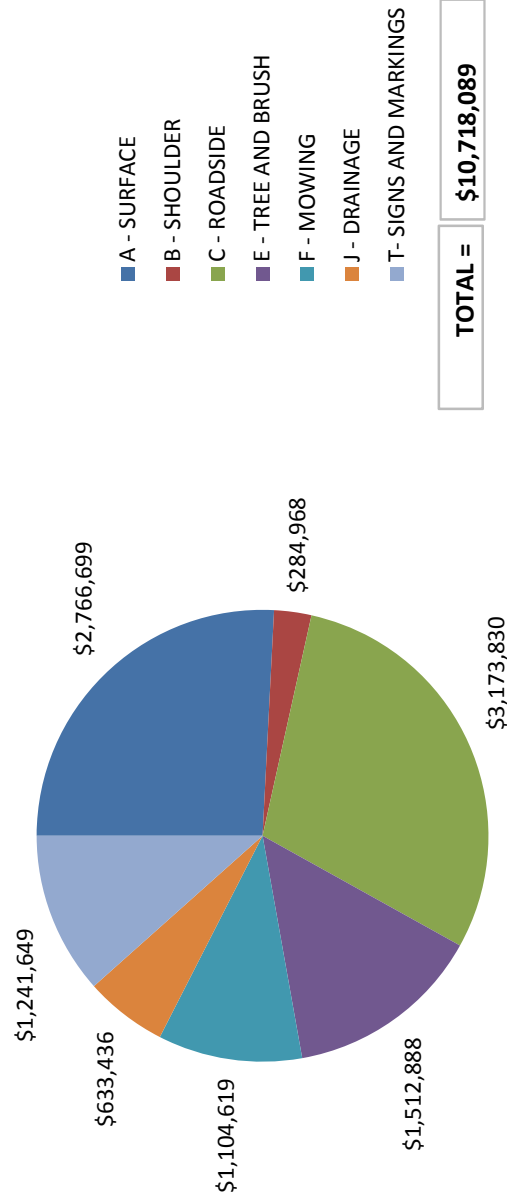


District Five Maintenance Spending

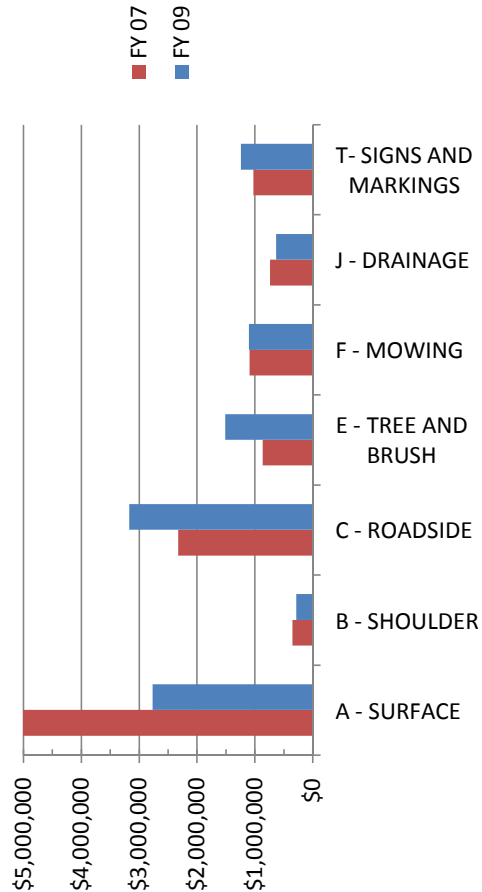


| District Five Scores Comparison |       |       |  |
|---------------------------------|-------|-------|--|
| Classification                  | FY 08 | FY 10 |  |
| Interstates                     | 89.0  | 86.5  |  |
| National Highway System         | 88.7  | 82.9  |  |
| State Primary and Secondary     | 80.8  | 76.8  |  |
| Rural Secondary                 | 74.7  | 70.3  |  |
| All Roads                       | 79.6  | 75.4  |  |

DISTRICT SIX MAINTENANCE SPENDING FY 09

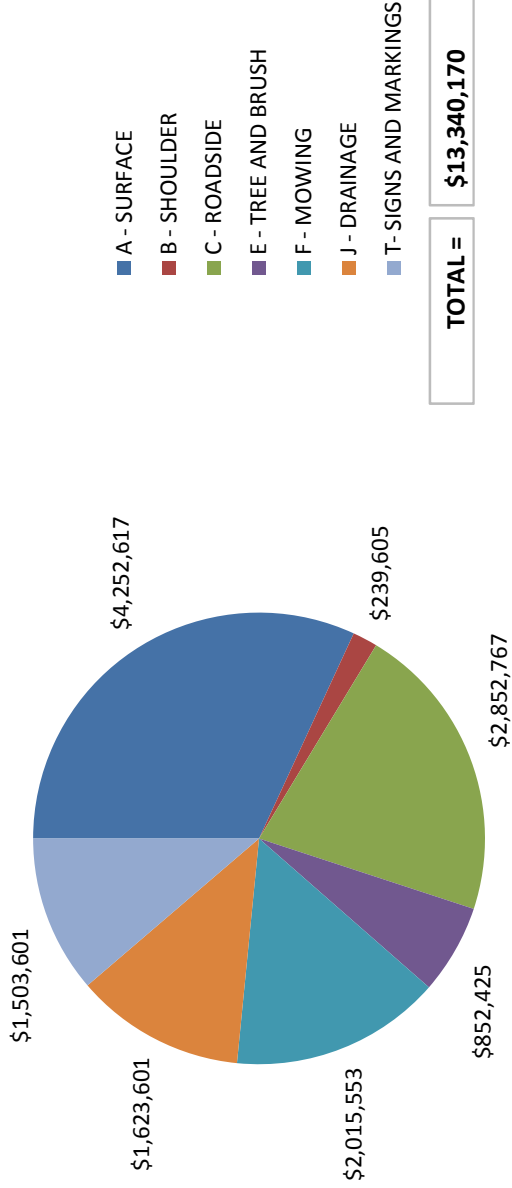


District Six Maintenance Spending

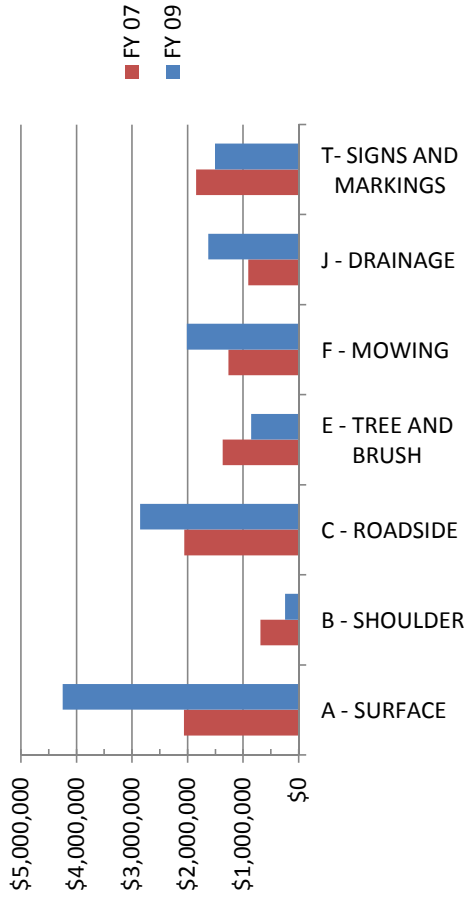


| District Six Scores Comparison |       |       |  |
|--------------------------------|-------|-------|--|
| Classification                 | FY 08 | FY 10 |  |
| Interstates                    | 83.3  | 83.8  |  |
| National Highway System        | 88.9  | 84.3  |  |
| State Primary and Secondary    | 77.5  | 78.1  |  |
| Rural Secondary                | 71.9  | 70.8  |  |
| All Roads                      | 76.2  | 76.0  |  |

# DISTRICT SEVEN MAINTENANCE SPENDING FY 09



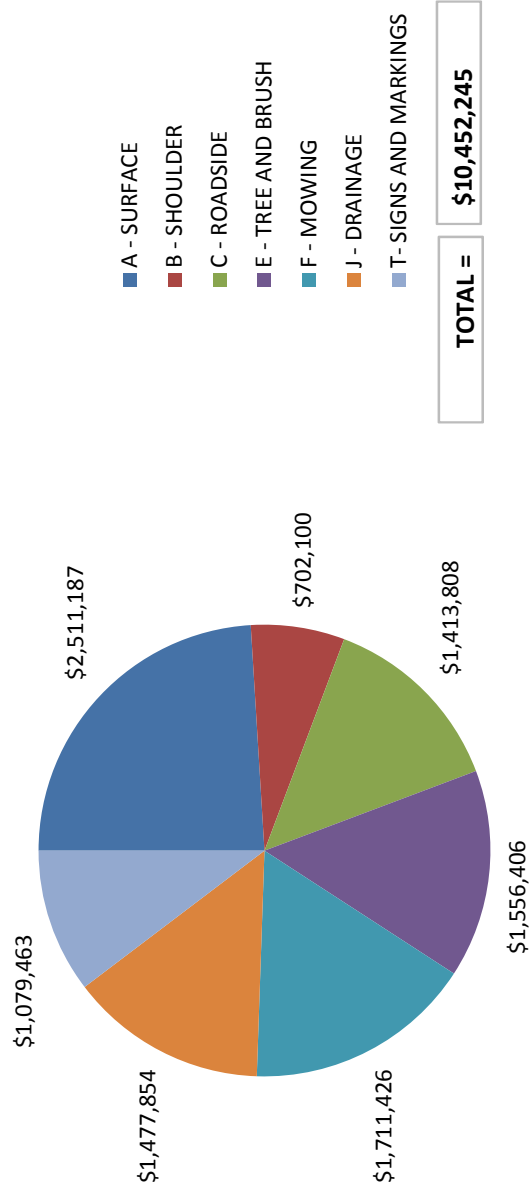
## District Seven Maintenance Spending



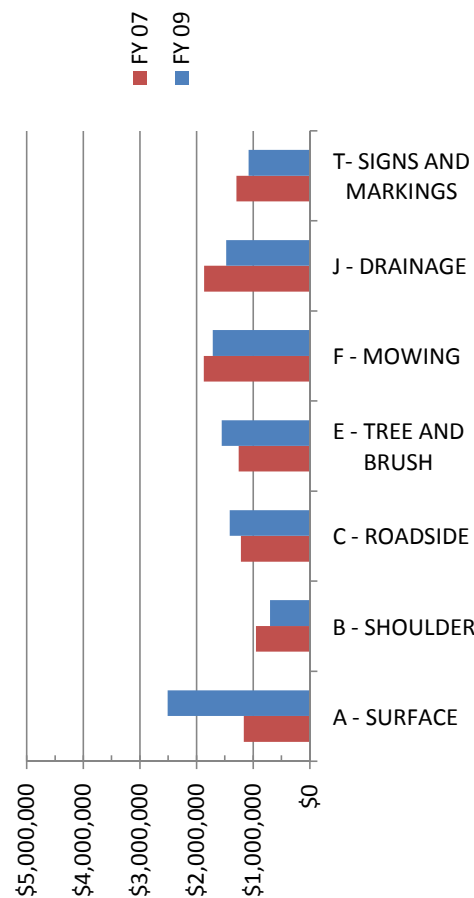
## District Seven Scores Comparison

| Classification              | FY 08 | FY 10 |
|-----------------------------|-------|-------|
| Interstates                 | 93.6  | 89.7  |
| National Highway System     | 84.6  | 82.4  |
| State Primary and Secondary | 79.5  | 73.7  |
| Rural Secondary             | 71.2  | 69.4  |
| All Roads                   | 76.2  | 73.8  |

DISTRICT EIGHT MAINTENANCE SPENDING FY 09



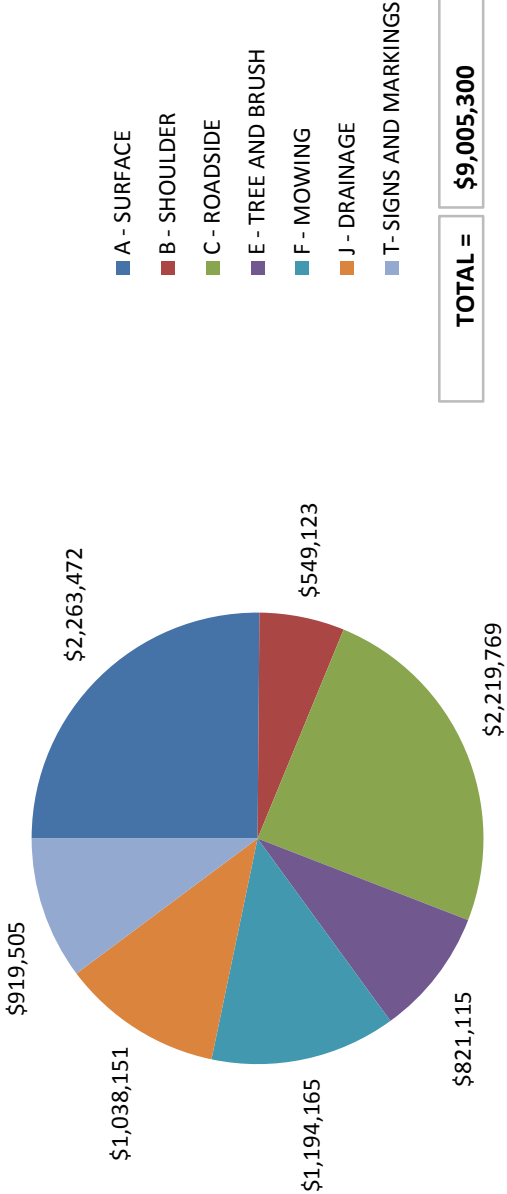
District Eight Maintenance Spending



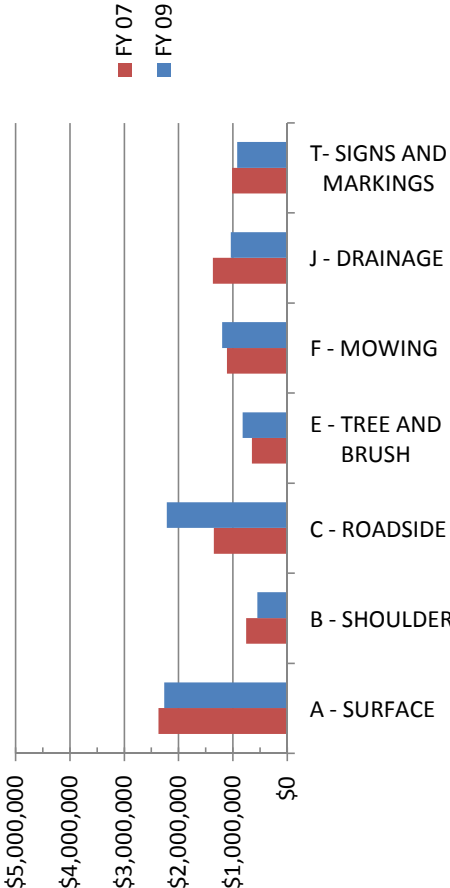
District Eight Scores Comparison

| Classification              | FY 08 | FY 10 |
|-----------------------------|-------|-------|
| Interstates                 | 90.5  | 94.6  |
| National Highway System     | 89.0  | 89.5  |
| State Primary and Secondary | 81.5  | 85.8  |
| Rural Secondary             | 74.0  | 79.3  |
| All Roads                   | 78.9  | 83.3  |

DISTRICT NINE MAINTENANCE SPENDING FY 09



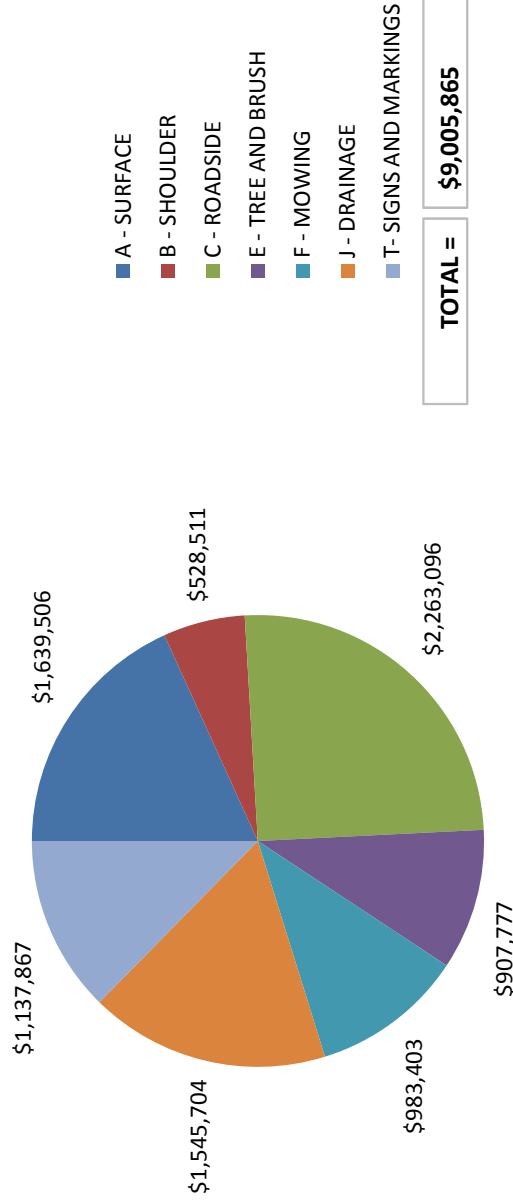
District Nine Maintenance Spending



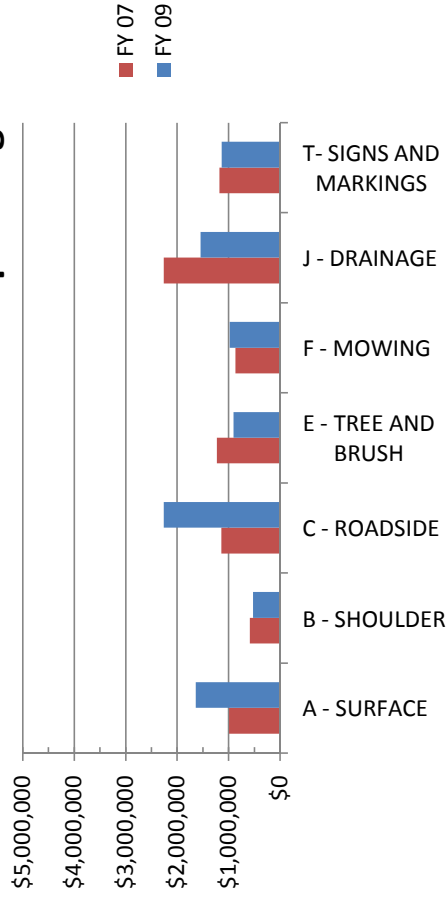
| District Nine Scores Comparison |       |       |
|---------------------------------|-------|-------|
| Classification                  | FY 08 | FY 10 |
| Interstates                     | 96.0  | 93.8  |
| National Highway System         | 90.4  | 88.9  |
| State Primary and Secondary     | 79.0  | 82.0  |
| Rural Secondary                 | 66.1  | 74.1  |
| All Roads                       | 76.1  | 80.2  |



# DISTRICT TEN MAINTENANCE SPENDING FY 09

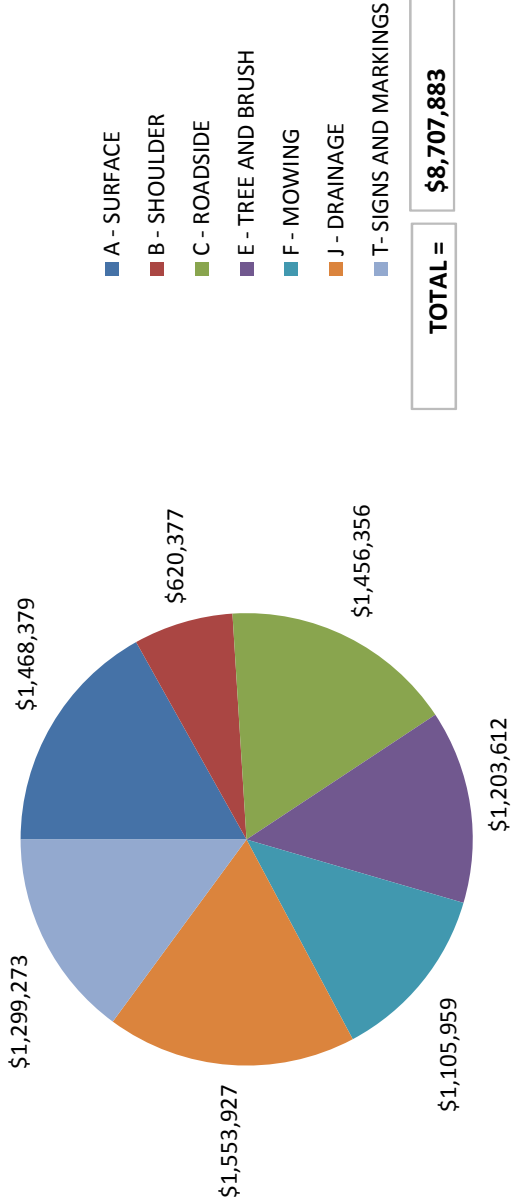


## District Ten Maintenance Spending

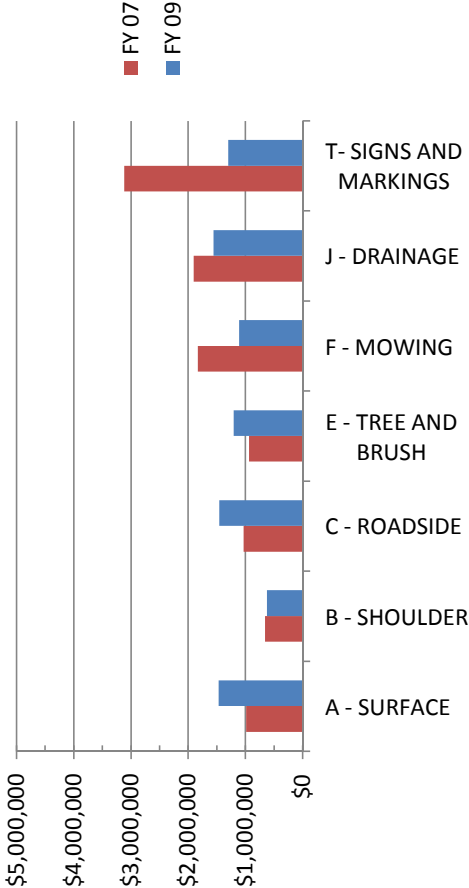


| District Ten Scores Comparison |       |       |
|--------------------------------|-------|-------|
| Classification                 | FY 08 | FY 10 |
| Interstates                    |       |       |
| National Highway System        | 91.9  | 89.7  |
| State Primary and Secondary    | 86.2  | 85.5  |
| Rural Secondary                | 82.4  | 72.4  |
| All Roads                      | 85.3  | 80.9  |

DISTRICT ELEVEN MAINTENANCE SPENDING FY 09

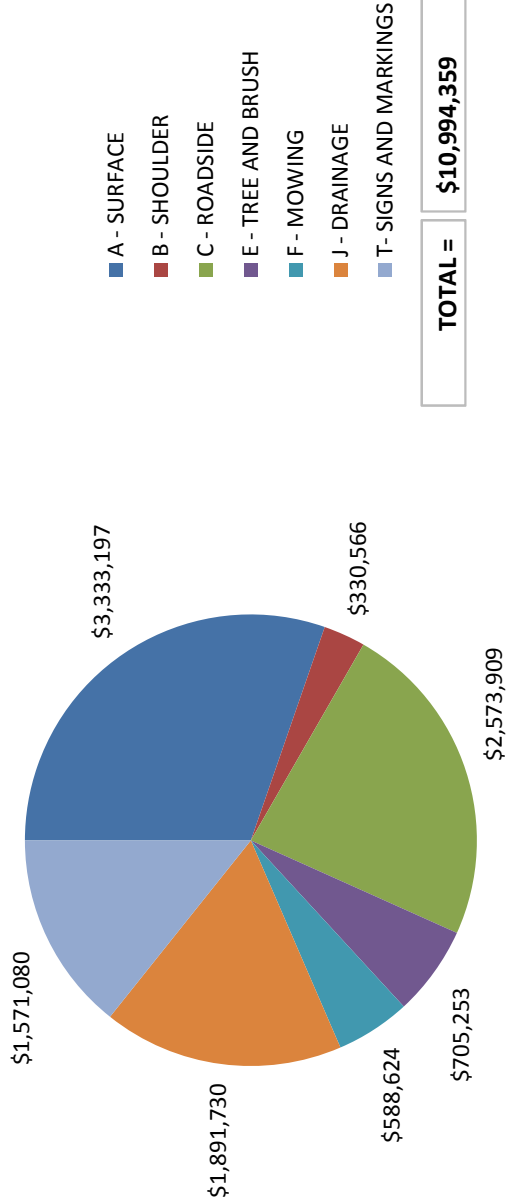


District Eleven Maintenance Spending

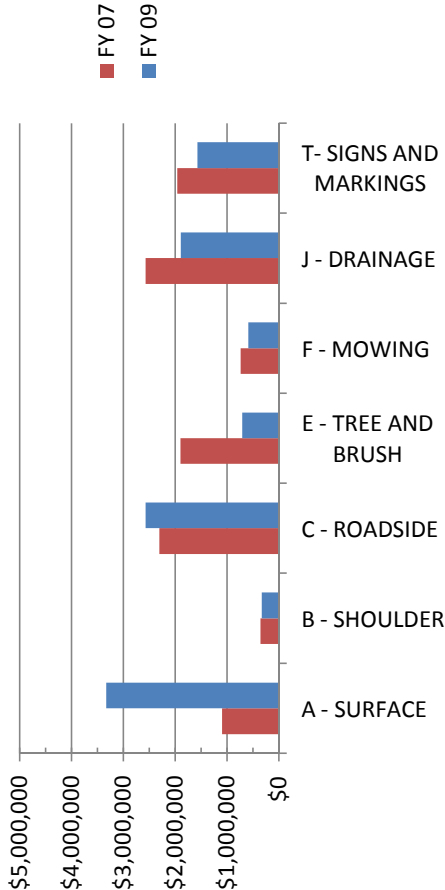


| District Eleven Scores Comparison |       |       |
|-----------------------------------|-------|-------|
| Classification                    | FY 08 | FY 10 |
| Interstates                       | 84.5  | 96.6  |
| National Highway System           | 87.1  | 85.7  |
| State Primary and Secondary       | 78.4  | 81.7  |
| Rural Secondary                   | 74.1  | 78.8  |
| All Roads                         | 77.7  | 81.2  |

DISTRICT TWELVE MAINTENANCE SPENDING FY 09



District Twelve Maintenance Spending



| District Twelve Scores Comparison |  |       |       |
|-----------------------------------|--|-------|-------|
| Classification                    |  | FY 08 | FY 10 |
| Interstates                       |  |       |       |
| National Highway System           |  | 91.0  | 87.5  |
| State Primary and Secondary       |  | 76.6  | 79.9  |
| Rural Secondary                   |  | 71.9  | 66.2  |
| All Roads                         |  | 76.8  | 75.6  |



| ACTIVITY                               | Roadway |  |   | Rideability | Appearance | Vertical Clearance | Visual Obstructions | Fencing | Guardrail Out of Specifications | Guardrail Damage | Attenuators/Rail Ends | Pavement | Potholes | Rutting |
|----------------------------------------|---------|--|---|-------------|------------|--------------------|---------------------|---------|---------------------------------|------------------|-----------------------|----------|----------|---------|
|                                        |         |  |   |             |            |                    |                     |         |                                 |                  |                       |          |          |         |
| A010 SUR-POT HOLE PATCH (tons)         |         |  | x | x           |            |                    |                     |         |                                 |                  |                       |          | x        |         |
| A020 MACHINE PATCH (tons)              |         |  | x | x           |            |                    |                     |         |                                 |                  |                       |          | x        | x       |
| A030 SURF-ABNORM REP (tons)            |         |  | x | x           |            |                    |                     |         |                                 |                  |                       |          | x        | x       |
| A040 SURF-REPAIR PCC (sq. ft.)         |         |  | x | x           |            |                    |                     |         |                                 |                  |                       |          | x        |         |
| A050 SURFACE-SPOT SEAL COAT (tons)     |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| A140 TOTAL CONTRA PATCH (tons)         |         |  | x | x           |            |                    |                     |         |                                 |                  |                       |          | x        |         |
| A150 VENDOR AIDED PATCH (tons)         |         |  | x | x           |            |                    |                     |         |                                 |                  |                       |          | x        |         |
| A710 MILLING-STATE MACH (sq. yds.)     |         |  | x | x           |            |                    |                     |         |                                 |                  |                       |          |          | x       |
| A720 MILLING-VENDOR (sq. yds.)         |         |  | x | x           |            |                    |                     |         |                                 |                  |                       |          |          | x       |
| B010 SHR-POT HOLE HOT (tons)           |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B040 SHOULDER-SEAL COAT (tons)         |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B020 SHR-MACH PATCH HOT (tons)         |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B050 SHR - ABNORM REP (tons)           |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B110 WEDG PAVE SHR HOT (tons)          |         |  |   |             |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B120 BIT EDGE SHDL (tons)              |         |  |   |             |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B130 GRADE SHRS-GRASS (Ln. Mile)       |         |  |   |             |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B140 SHR TBM MAINT (tons)              |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B150 CONTRA SHLD MAINT (tons)          |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B210 GRADE SHOULDERS (miles)           |         |  |   |             |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B220 GRADE SHR ADD MAT (tons)          |         |  |   |             |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B230 GRADE SHLD UNDR GR (linear foot)  |         |  |   |             |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B540 EDGE UNPAVED SHDLS (tons)         |         |  |   |             |            |                    |                     |         |                                 |                  |                       |          |          |         |
| B990 MISC SHR MAINT (hours)            |         |  |   |             |            |                    |                     |         |                                 |                  |                       |          |          |         |
| C010 ROCK FALLS AND DEBRIS (hours)     |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| C020 SLIDES/SINKHOLES & DEBRIS (hours) |         |  | x | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| C100 LITTER CLNUP EX (hours)           |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| C110 LITTER CLEANUP (hours)            |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| C130 DEAD ANIMAL (hours)               |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| C140 SWEEP (hours)                     |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| C150 CONT-MECH SWEEP (miles)           |         |  |   | x           |            |                    |                     |         |                                 |                  |                       |          |          |         |
| C190 CRASH CUSHIONS (each)             |         |  |   |             |            |                    |                     |         |                                 |                  |                       |          |          |         |
| C200 REPAIR FENCES (linear foot)       |         |  |   |             |            |                    |                     | x       |                                 |                  | x                     |          |          |         |
| C300 REP ST BM GRL (linear foot)       |         |  |   |             |            |                    |                     |         | x                               |                  |                       | x        |          |         |

| ACTIVITY                                    | Roadway General |            |                    |                     |         |                                 |                  |                       |          |          | Pavement |  |  |  |  |  |  |  |  |  |
|---------------------------------------------|-----------------|------------|--------------------|---------------------|---------|---------------------------------|------------------|-----------------------|----------|----------|----------|--|--|--|--|--|--|--|--|--|
|                                             | Rideability     | Appearance | Vertical Clearance | Visual Obstructions | Fencing | Guardrail Out of Specifications | Guardrail Damage | Attenuators/Rail Ends | Pavement | Potholes | Rutting  |  |  |  |  |  |  |  |  |  |
| C330 REP GR END TR (each)                   |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| C390 CNTRCT GRAIL (hours)                   |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| C400 CNTRCT GRAIL EN (hours)                |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| E010 TREE&BRUSH RMVL (hours)                |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| E020 GRADER                                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| E030 CONTR TREE-BRSH (hours)                |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| E110 TREE&SHRUB MNT (hours)                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| E290 HERB GRAIL (miles)                     |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| E300 SPOT SPRAY HERB (acres)                |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| E310 MECH SPRAY OF H (acres)                |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| F050 SLOPE MOWING (hours)                   |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| F080 MOWER SUPPORT (hours)                  |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| F090 HAND TRIM/LAWN MOW (hours)             |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| F310 MOW-STATE FORCE (acres)                |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| F320 MOW-CONTRACT (hours)                   |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| J010 HAND CLN CULVRT (each)                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| J020 MACH CLN CULVRT (each)                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| J030 RPR CULV/PIPE (each)                   |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| J070 PVT ENT MAINT (each)                   |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| J110 SLOPE PROTECT (tons)                   |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| J150 CONTRACT DRNGE (hours)                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| J210 DITCH W/ GRADE (miles)                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| J230 SPT DCH BOOM EQ (miles)                |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| J310 PAV/ ROCK DTCH (linear foot)           |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| J320 CLN DRAIN CHNL (hours)                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T010 CONTRACT 4" YELLOW STRIP (linear foot) |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T020 S.F. 4" YELLOW STRIPING (linear foot)  |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T030 S.F. 4" WHITE STRIPING (linear foot)   |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T040 HAND PVMT MARK (hours)                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T050 HAND PVMT PAINT (hours)                |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T060 RAISED PVMT MRK (each)                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T110 PNT LNE&EDG LNE (miles)                |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T200 PLCMNT SHT SIG (each)                  |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T210 RPLC SIGN & DEL (each)                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T240 SIGN MNT (each)                        |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |
| T250 MNT PANEL SIGNS (each)                 |                 |            |                    |                     |         |                                 |                  |                       |          |          |          |  |  |  |  |  |  |  |  |  |

| ACTIVITY                               | Shoulders                     |                             |               |                   | Drainage            |         |                 |         | Traffic                   |                            |             |                       | Warning Sign Assemblies |                         |  |  |  |
|----------------------------------------|-------------------------------|-----------------------------|---------------|-------------------|---------------------|---------|-----------------|---------|---------------------------|----------------------------|-------------|-----------------------|-------------------------|-------------------------|--|--|--|
|                                        | Pavement Drop-Off to Shoulder | Shoulder Drop-Off to Ground | High Shoulder | Shoulder Potholes | Drainage Structures | Ditches | Curb and Gutter | Traffic | White Stripe Reflectivity | Yellow Stripe Reflectivity | Guide Signs | Guide Sign Assemblies | Warning Signs           | Warning Sign Assemblies |  |  |  |
| A010 SUR-POT HOLE PATCH (tons)         |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| A020 MACHINE PATCH (tons)              |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| A030 SURF-ABNORM REP (tons)            |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| A040 SURF-REPAIR PCC (sq. ft.)         |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| A050 SURFACE-SPOT SEAL COAT (tons)     |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| A140 TOTAL CONTRA PATCH (tons)         |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| A150 VENDOR AIDED PATCH (tons)         |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| A710 MILLING-STATE MACH (sq. yds.)     |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| A720 MILLING-VENDOR (sq. yds.)         |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B010 SHR-POT HOLE HOT (tons)           |                               |                             |               | x                 |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B040 SHOULDER-SEAL COAT (tons)         |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B020 SHR-MACH PATCH HOT (tons)         | x                             | x                           |               | x                 |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B050 SHR - ABNORM REP (tons)           | x                             | x                           |               | x                 |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B110 WEDG PAVE SHR HOT (tons)          | x                             |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B120 BIT EDGE SHDL (tons)              | x                             |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B130 GRADE SHRS-GRASS (Ln. Mile)       |                               |                             | x             |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B140 SHR TBM MAINT (tons)              | x                             | x                           |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B150 CONTRA SHLD MAINT (tons)          | x                             | x                           | x             | x                 |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B210 GRADE SHOULDERS (miles)           | x                             | x                           | x             |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B220 GRADE SHR ADD MAT (tons)          | x                             | x                           | x             |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B230 GRADE SHLD UNDR GR (linear foot)  | x                             |                             | x             |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B540 EDGE UNPAVED SHDLS (tons)         | x                             |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| B990 MISC SHR MAINT (hours)            | x                             | x                           | x             | x                 |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C010 ROCK FALLS AND DEBRIS (hours)     |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C020 SLIDES/SINKHOLES & DEBRIS (hours) |                               | x                           |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C100 LITTER CLNUP EX (hours)           |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C110 LITTER CLEANUP (hours)            |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C130 DEAD ANIMAL (hours)               |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C140 SWEEP (hours)                     |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C150 CONT-MECH SWEEP (miles)           |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C190 CRASH CUSHIONS (each)             |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C200 REPAIR FENCES (linear foot)       |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C300 REP ST BM GRL (linear foot)       |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |

| ACTIVITY                                    | Shoulders                     |                             |               |                   | Drainage            |         |                 |         | Traffic                   |                            |             |                       | Warning Sign Assemblies |                         |  |  |  |
|---------------------------------------------|-------------------------------|-----------------------------|---------------|-------------------|---------------------|---------|-----------------|---------|---------------------------|----------------------------|-------------|-----------------------|-------------------------|-------------------------|--|--|--|
|                                             | Pavement Drop-Off to Shoulder | Shoulder Drop-Off to Ground | High Shoulder | Shoulder Potholes | Drainage Structures | Ditches | Curb and Gutter | Traffic | White Stripe Reflectivity | Yellow Stripe Reflectivity | Guide Signs | Guide Sign Assemblies | Warning Signs           | Warning Sign Assemblies |  |  |  |
| C330 REP GR END TR (each)                   |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C390 CNTRCT GRAIL (hours)                   |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| C400 CNTRCT GRAILEN (hours)                 |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| E010 TREE&BRUSH RMVL (hours)                |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| E020 GRADER                                 |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| E030 CONTR TREE-BRSH (hours)                |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| E110 TREE&SHRUB MNT (hours)                 |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| E290 HERB GRAIL (miles)                     |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| E300 SPOT SPRAY HERB (acres)                |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| E310 MECH SPRAY OF H (acres)                |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| F050 SLOPE MOWING (hours)                   |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| F080 MOWER SUPPORT (hours)                  |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| F090 HAND TRIM/LAWN MOW (hours)             |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| F310 MOW-STATE FORCE (acres)                |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| F320 MOW-CONTRACT (hours)                   |                               |                             |               |                   |                     |         |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| J010 HAND CLN CULVRT (each)                 |                               |                             |               |                   | X                   | X       |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| J020 MACH CLN CULVRT (each)                 |                               |                             |               |                   | X                   | X       |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| J030 RPR CULV/PIPE (each)                   |                               |                             |               |                   | X                   | X       |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| J070 PVT ENT MAINT (each)                   |                               |                             |               |                   | X                   | X       |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| J110 SLOPE PROTECT (tons)                   |                               |                             |               |                   |                     | X       |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| J150 CONTRACT DRNGE (hours)                 |                               |                             |               |                   | X                   | X       | X               |         |                           |                            |             |                       |                         |                         |  |  |  |
| J210 DITCH W/ GRADE (miles)                 |                               |                             |               |                   |                     | X       | X               |         |                           |                            |             |                       |                         |                         |  |  |  |
| J230 SPT DCH BOOM EQ (miles)                |                               |                             |               |                   | X                   | X       |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| J310 PAV/ ROCK DTCH (linear foot)           |                               |                             |               |                   |                     | X       |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| J320 CLN DRAIN CHNL (hours)                 |                               |                             |               |                   | X                   | X       |                 |         |                           |                            |             |                       |                         |                         |  |  |  |
| T010 CONTRACT 4" YELLOW STRIP (linear foot) |                               |                             |               |                   |                     |         |                 |         |                           | X                          |             |                       |                         |                         |  |  |  |
| T020 S.F. 4" YELLOW STRIPING (linear foot)  |                               |                             |               |                   |                     |         |                 |         |                           | X                          |             |                       |                         |                         |  |  |  |
| T030 S.F. 4" WHITE STRIPING (linear foot)   |                               |                             |               |                   |                     |         |                 |         | X                         |                            |             |                       |                         |                         |  |  |  |
| T040 HAND PVMT MARK (hours)                 |                               |                             |               |                   |                     |         |                 |         | X                         | X                          |             |                       |                         |                         |  |  |  |
| T050 HAND PVMT PAINT (hours)                |                               |                             |               |                   |                     |         |                 |         | X                         | X                          |             |                       |                         |                         |  |  |  |
| T060 RAISED PVMT MRK (each)                 |                               |                             |               |                   |                     |         |                 |         | X                         | X                          |             |                       |                         |                         |  |  |  |
| T110 PNT LNE&EDG LNE (miles)                |                               |                             |               |                   |                     |         |                 |         | X                         | X                          |             |                       |                         |                         |  |  |  |
| T200 PLCMNT SHT SIG (each)                  |                               |                             |               |                   |                     |         |                 |         | X                         | X                          |             |                       |                         |                         |  |  |  |
| T210 RPLC SIGN & DEL (each)                 |                               |                             |               |                   |                     |         |                 |         |                           |                            | X           | X                     | X                       | X                       |  |  |  |
| T240 SIGN MNT (each)                        |                               |                             |               |                   |                     |         |                 |         |                           |                            | X           | X                     | X                       | X                       |  |  |  |
| T250 MNT PANEL SIGNS (each)                 |                               |                             |               |                   |                     |         |                 |         |                           |                            | X           | X                     | X                       | X                       |  |  |  |



## **APPENDIX VI**

### **Inspection Features**

Appendix VI includes an example of the current inspection form used in data collection.

The table in Appendix VI explains the data collection of each inspection feature of the Maintenance Rating Program and how that data is converted into scoring for the report.



Inspection Date: \_\_\_\_\_

**Maintenance  
Rating Program**  
Inspection Form

Evaluation Team: \_\_\_\_\_

**01-0001**

Wave 19 Summer 2009

|                           |                                          |                       |                               |                           |
|---------------------------|------------------------------------------|-----------------------|-------------------------------|---------------------------|
| <b>District 01</b>        | County:<br><b>LIVINGSTON</b>             | Route:<br><b>I-24</b> | Mile Point:<br><b>030.563</b> | Dir: <b>E</b>             |
| Number of Lanes: <b>4</b> | Surface: <b>AC</b>                       | AADT: <b>28500</b>    | Median: <b>Earth</b>          | Shoulder: <b>AC</b>       |
| Lane Width: <b>12</b>     | Category: <b>Interstates/Expressways</b> |                       | Median Width: <b>48</b>       | Shoulder Width: <b>10</b> |

|                                                                                                                                                 |                                          |                                          |                          |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|--------------------------|-------|
| r1 - General Aesthetics (Grass, Vegetation, Litter & Surface) <b>1=Excellent 2=Good 3=Acceptable 4=Poor 5=Unacceptable</b>                      |                                          |                                          |                          |       |
| r2 - Is there roadway or shoulder with less than 15' vertical clearance?                                                                        | (2)                                      | Y                                        | N                        |       |
| r3 - Are there visual obstructions of intersections, curves or signs, etc.?                                                                     | (3)                                      | Y                                        | N                        |       |
| r4 - Is there right-of-way fencing?                                                                                                             | (4)                                      | Y                                        | N                        |       |
| r5 - Is there fence not providing a positive barrier?                                                                                           | (5)                                      | Y                                        | N                        |       |
| r6 - Is there guardrail?                                                                                                                        | (6)                                      | Y                                        | N                        |       |
| r7 - Is there guardrail outside height specifications (25" to 29")?                                                                             | (7)                                      | Y                                        | N                        |       |
| r8 - Is there guardrail with post or accident damage?                                                                                           | (8)                                      | Y                                        | N                        |       |
| r9 - Number of guardrail attenuators/rail ends                                                                                                  | (9)                                      |                                          |                          | _____ |
| r10 - Number of attenuators/rail ends damaged                                                                                                   | (10)                                     |                                          |                          | _____ |
| p1 - Number of pavement potholes 6" long, 6" wide and 1" deep or larger ( <i>maximum = 20</i> )                                                 | (11)                                     |                                          |                          | _____ |
| p2 - Rutting - Outside wheel path at 0 feet ( <b>circle one</b> )                                                                               |                                          | Greater than ¼"                          | Less than or equal to ¼" |       |
| p3 - Rutting - Outside wheel path at 100 feet ( <b>circle one</b> )                                                                             |                                          | Greater than ¼"                          | Less than or equal to ¼" |       |
| s1 - Is there pavement dropoff to shoulder greater than or equal to 1.5"?                                                                       | (14)                                     | Y                                        | N                        |       |
| s2 - Is there shoulder dropoff to ground greater than or equal to 3.0"?                                                                         | (15)                                     | Y                                        | N                        |       |
| s3 - Is there high shoulder?                                                                                                                    | (16)                                     | Y                                        | N                        |       |
| s4 - Number of shoulder potholes 6" x 6" x 1" or larger ( <i>maximum = 20</i> )                                                                 | (17)                                     |                                          |                          | _____ |
| d1 - Number of drainage structures ( <i>do not include entrance pipes</i> )                                                                     | (18)                                     |                                          |                          | _____ |
| d2 - Number of drainage structures with 25% or greater flow inhibited                                                                           | (19)                                     |                                          |                          | _____ |
| d3 - Are there ditches?                                                                                                                         | (20)                                     | Y                                        | N                        |       |
| d4 - Are there ditches with flow inhibited? ( <i>include any blocked entrance pipes here</i> )                                                  | (21)                                     | Y                                        | N                        |       |
| d5 - Are there curbs and gutters?                                                                                                               | (22)                                     | Y                                        | N                        |       |
| d6 - Are there curbs and gutters with flow inhibited?                                                                                           | (23)                                     | Y                                        | N                        |       |
| Striping reflectivity measurements taken 10 paces apart (Priorities: 1=Edge Line, 2=Center Line, 3=Skip Line)                                   |                                          |                                          |                          |       |
| t1 - White reading #1 <b>(24)</b> _____                                                                                                         | t2 - White reading #2 <b>(25)</b> _____  | t3 - White reading #3 <b>(26)</b> _____  |                          |       |
| t4 - Yellow reading #1 <b>(27)</b> _____                                                                                                        | t5 - Yellow reading #3 <b>(28)</b> _____ | t6 - Yellow reading #3 <b>(29)</b> _____ |                          |       |
| t7 - Number of guide signs                                                                                                                      | (30)                                     |                                          |                          | _____ |
| t8 - Number of guide signs not conforming with sign face specifications ( <i>damaged sign face, faded, vandalized, etc</i> )                    | (31)                                     |                                          |                          | _____ |
| t9 - Number of guide sign assemblies                                                                                                            | (32)                                     |                                          |                          | _____ |
| t10 - Number of guide sign assemblies not conforming with specifications                                                                        | (33)                                     |                                          |                          | _____ |
| t11 - Number of warning and regulatory signs                                                                                                    | (34)                                     |                                          |                          | _____ |
| t12 - Number of warning and regulatory signs not conforming with sign face specifications ( <i>damaged sign face, faded, vandalized, etc.</i> ) | (35)                                     |                                          |                          | _____ |
| t13 - Number of warning and regulatory sign assemblies                                                                                          | (36)                                     |                                          |                          | _____ |
| t14 - Number of warning and regulatory sign assemblies not conforming with specifications                                                       | (37)                                     |                                          |                          | _____ |

Comments:

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### Explanation and Score Equivalence of Inspection Features

| Inspection Features                    | Explanation                                                                                                                                                                                                                  | Score           | MRP Score      |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|
| International Roughness Index          | A measure that indicates smoothness and ride quality for the highway user.<br>Note: Weighting used in sampling scheme may create variances between the MRP rideability indices and those reported for the entire population. | 51 or less      | 90 +           |
|                                        |                                                                                                                                                                                                                              | 52 - 90         | 80 – 89.9      |
|                                        |                                                                                                                                                                                                                              | 91-129          | 70 – 79.9      |
|                                        |                                                                                                                                                                                                                              | 130 – 167       | 60 – 69.9      |
|                                        |                                                                                                                                                                                                                              | 168+            | 59.9 and below |
| Appearance                             | The general visual character (height of grass, litter, unsightly patching, etc.) of the roadway and roadside as it would be seen by the public.                                                                              | 100% acceptable | 100            |
|                                        |                                                                                                                                                                                                                              | 80%             | 80             |
|                                        |                                                                                                                                                                                                                              | 60%             | 60             |
| Vertical Clearance                     | Roadways and shoulders are free of any canopy (trees or other vegetation) or other obstructions for a minimum height of 15 feet.                                                                                             | 0% obstructed   | 100            |
|                                        |                                                                                                                                                                                                                              | 20%             | 80             |
|                                        |                                                                                                                                                                                                                              | 40%             | 60             |
| Visual Obstructions                    | Vegetation, structures, signage etc. cause horizontal or vertical visual obstructions of intersections, curves, signs, oncoming lanes, etc.                                                                                  | 0% obstructed   | 100            |
|                                        |                                                                                                                                                                                                                              | 20%             | 80             |
|                                        |                                                                                                                                                                                                                              | 40%             | 60             |
| Fencing Providing Effective Barriers   | Fencing provides an effective barrier on limited access highways (Interstate, Parkways, or other highways) to deny access to people or animals. Segments with no fencing are not included in the sample.                     | 100% effective  | 100            |
|                                        |                                                                                                                                                                                                                              | 80%             | 80             |
|                                        |                                                                                                                                                                                                                              | 60%             | 60             |
| Guardrail Within Height Specifications | The height is at least 25 inches and not more than 29 inches.                                                                                                                                                                | 100% in spec    | 100            |
|                                        |                                                                                                                                                                                                                              | 80%             | 80             |
|                                        |                                                                                                                                                                                                                              | 60%             | 60             |
| Guardrail Fully Functional             | Guardrails have not been damaged due to vehicular hits or other factors.                                                                                                                                                     | 100% in spec    | 100            |
|                                        |                                                                                                                                                                                                                              | 80%             | 80             |
|                                        |                                                                                                                                                                                                                              | 60%             | 60             |

| <b>Inspection Features</b>           | <b>Explanation</b>                                                                                                                                                                                                                              | <b>Score</b>                      | <b>MRP Score</b> |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------|
| Attenuators/End Treatments Undamaged | Attenuators / End Treatments have not been damaged due to vehicular hits or other factors.                                                                                                                                                      | 100% undamaged                    | 100              |
|                                      |                                                                                                                                                                                                                                                 | 80%                               | 80               |
|                                      |                                                                                                                                                                                                                                                 | 60%                               | 60               |
| Pavement Potholes                    | A bowl shaped hole of various sizes in the pavement surface. The surface may have broken into small pieces due to cracking or localized disintegration and the material removed by traffic. A pothole has a minimum size of 6"x6"x1".           | 0 failed sections                 | 100              |
|                                      |                                                                                                                                                                                                                                                 | 10%                               | 75               |
|                                      |                                                                                                                                                                                                                                                 | 20%                               | 50               |
|                                      |                                                                                                                                                                                                                                                 | 40%                               | 0                |
| Rutting                              | A surface depression of pavement in the wheel paths. Ruts may be more noticeable after a rainfall when wheel paths are full with water.                                                                                                         | 0% have ruts larger than ¼"       | 100              |
|                                      |                                                                                                                                                                                                                                                 | 20%                               | 80               |
|                                      |                                                                                                                                                                                                                                                 | 40%                               | 60               |
| Pavement Drop-off to Shoulder        | Occurs whenever there is a decrease in elevation between the traffic lane and the shoulder. It may be due to consolidation, displacement or settlement of underlying material.                                                                  | 0% have drop-off larger than 1.5" | 100              |
|                                      |                                                                                                                                                                                                                                                 | 20%                               | 80               |
|                                      |                                                                                                                                                                                                                                                 | 40%                               | 60               |
| Shoulder Drop-off to Ground          | An elevation difference between the improved shoulder and adjacent ground at the outside edge of the shoulder. It could be due to consolidation of material, erosion, run off or other factors.                                                 | 0% have drop-off larger than 3"   | 100              |
|                                      |                                                                                                                                                                                                                                                 | 20%                               | 80               |
|                                      |                                                                                                                                                                                                                                                 | 40%                               | 60               |
| High Shoulder                        | The opposite of pavement drop-off to shoulder. Frost heave, swelling soils or other factors can cause it. High shoulder creates ponding of water on pavement.                                                                                   | 0% unacceptable                   | 100              |
|                                      |                                                                                                                                                                                                                                                 | 20%                               | 80               |
|                                      |                                                                                                                                                                                                                                                 | 40%                               | 60               |
| Shoulder Potholes                    | A bowl shaped hole or depression in the shoulder surface. The surface may have broken into small pieces due to the cracking or localized disintegration and the material removed by traffic. A shoulder pothole has a minimum size of 6"x6"x1". | 0% failed sections                | 100              |
|                                      |                                                                                                                                                                                                                                                 | 10%                               | 75               |
|                                      |                                                                                                                                                                                                                                                 | 20%                               | 50               |
|                                      |                                                                                                                                                                                                                                                 | 40%                               | 0                |

| <b>Inspection Features</b>   | <b>Explanation</b>                                                                                                                                                                                                                                        | <b>Score</b>    | <b>MRP Score</b> |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|
| Drainage Structures          | Drainage structures like pipes and culverts that are free of any degree of obstruction and are in good working order. Drainage structures obstructed more than 25% fail.                                                                                  | 100% acceptable | 100              |
|                              |                                                                                                                                                                                                                                                           | 80%             | 80               |
|                              |                                                                                                                                                                                                                                                           | 60%             | 60               |
| Ditches                      | Ditches on the side of the road with water flow not obstructed by dirt, rock, debris, or other items or by structural damage.                                                                                                                             | 0% blockage     | 100              |
|                              |                                                                                                                                                                                                                                                           | 20%             | 80               |
|                              |                                                                                                                                                                                                                                                           | 40%             | 60               |
| Curbs and Gutters            | Curbs and gutters with water flow not obstructed by blockage or damage.                                                                                                                                                                                   | 0% blockage     | 100              |
|                              |                                                                                                                                                                                                                                                           | 20%             | 80               |
|                              |                                                                                                                                                                                                                                                           | 40%             | 60               |
| White Striping Reflectivity  | Measures night reflectivity of striping that provides positive guidance to motorists. Measurements equal to or exceeding 125 from retro-reflectometer pass.                                                                                               | 100% acceptable | 100              |
|                              |                                                                                                                                                                                                                                                           | 80%             | 80               |
|                              |                                                                                                                                                                                                                                                           | 60%             | 60               |
| Yellow Striping Reflectivity | Measures night reflectivity of striping that provides positive guidance to motorists. Measurements equal to or exceeding 80 from retro-reflectometer pass.                                                                                                | 100% acceptable | 100              |
|                              |                                                                                                                                                                                                                                                           | 80%             | 80               |
|                              |                                                                                                                                                                                                                                                           | 60%             | 60               |
| Guide Sign Faces             | Includes route markers (cardinal directions, route numbers, arrows), distance/destination signs, and directions signs. (Green, brown or blue backgrounds). The standard is no visible defects that detract from effectiveness under nighttime conditions. | 100% in spec    | 100              |
|                              |                                                                                                                                                                                                                                                           | 90%             | 80               |
|                              |                                                                                                                                                                                                                                                           | 80%             | 60               |
| Guide Sign Assemblies        | Guide signs mounted according to specifications including: not leaning more than 22.5 degrees in either direction, no bolts or rivets missing, not turned more than 45 degrees from the line of sight, etc.                                               | 100% in spec    | 100              |
|                              |                                                                                                                                                                                                                                                           | 90%             | 80               |
|                              |                                                                                                                                                                                                                                                           | 80%             | 60               |

| <b>Inspection Features</b>                               | <b>Explanation</b>                                                                                                                                                                                                                                      | <b>Score</b> | <b>MRP Score</b> |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------|
| Warning and Regulatory Sign Faces Meeting Specifications | No visible defects that detract from sign face effectiveness under nighttime conditions. Includes red and white backgrounds (STOP, WRONG WAY, DO NOT ENTER, speed limit, etc.) and yellow backgrounds (STOP AHEAD, curve warning signs, chevrons, etc). | 100% in spec | 100              |
|                                                          |                                                                                                                                                                                                                                                         | 90%          | 80               |
|                                                          |                                                                                                                                                                                                                                                         | 80%          | 60               |
| Warning and Regulatory Sign Assemblies                   | Warning and regulatory signs mounted according to specifications, including: not leaning more than 22.5 degrees in any direction, no bolts or rivets missing, not turned more than 45 degrees from the line of sight, etc.                              | 100% in spec | 100              |
|                                                          |                                                                                                                                                                                                                                                         | 90%          | 80               |
|                                                          |                                                                                                                                                                                                                                                         | 80%          | 60               |

Note: Scores for features were calculated only in segments where features were present at least nineteen times to give statistically valid results. If the feature occurred less than nineteen times, "N/A" was entered. However, it was still used for calculating weighted totals such as District Totals (including all road types), Road Type Totals (including all districts), and State Totals (including all road types and all districts).