

A. JOSEPH DeNUCCI  
AUDITOR

# The Commonwealth of Massachusetts

## AUDITOR OF THE COMMONWEALTH

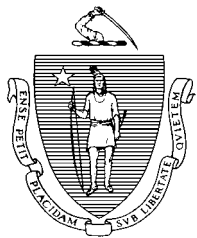
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NO. 2009-0009-17O

**INDEPENDENT STATE AUDITOR'S REPORT  
RELATIVE TO THE EXECUTIVE OFFICE OF  
TRANSPORTATION AND PUBLIC WORKS ROAD  
FLAGGER & POLICE DETAIL REGULATIONS  
AND COST REPORT ISSUED UNDER CHAPTER 86  
OF THE ACTS OF 2008, SECTION 10**

**OFFICIAL AUDIT  
REPORT  
MARCH 24, 2009**



# The Commonwealth of Massachusetts

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March 24, 2009

The Honorable James E. Timilty  
The Honorable Michael A. Costello  
Chairmen  
Joint Committee on Public Safety and Homeland Security  
State House  
Boston, MA 02133

Dear Chairmen Timilty and Costello,

In response to your requests for analysis, study and a report on the cost savings of the use of civilian flagmen, I am pleased to transmit the Independent State Auditor's Report Relative to the Executive Office of Transportation and Public Works Road Flagger and Police Detail Regulations and Cost Report issued under Section 10 of Chapter 86 of the Acts of 2008.

In your letters, you both expressed concerns and requested that we review the level of cost benefit to the Commonwealth as well as the potential impact on public safety by replacing police officers with road flaggers on construction details.

Let me say at the outset that pursuant to the new law and regulations, cost savings can be achieved. However, our analysis found that the Executive Office of Transportation and Public Works (EOTPW) estimated annual cost savings projections of \$5.7 to 7.2 million are overstated.

It is also important to understand that under these new regulations the awarding authority has control over the number of traffic control personnel working in a construction zone and that this decision making process is what will generate cost savings. In fact, the majority of any savings to be realized, as demonstrated in our analysis of the specifics contained in EOTPW's Cost Report, will come from either reducing the number of police officers from worksites or eliminating and replacing them with traffic control devices such as barriers and traffic signals. Only 11% of EOTPW's estimated savings would be realized by replacing police officers with flaggers.

Our findings that EOTPW has overestimated its cost savings include:

- Our review of EOTPW's cost estimates found errors in the savings estimates in several projects. EOTPW created a "One Week Snapshot Summary Period," which was during the peak construction season, to examine savings and then multiplied these savings over the course of a year. EOTPW calculated an estimate of \$157,632 for one week and used this to project annual savings of between \$5.7 and \$7.2 million for a year. We found errors in the "One Week Snapshot" resulting in \$18,980 less in savings, which equates to a projection of \$685,000 to \$850,000 less (12%) over the course of a year.
- EOTPW's underestimate of the total cost that will be paid to companies that employ civilian flaggers, which would reduce or eliminate savings related to replacing police with flaggers. EOTPW's Cost Report considers only the flagger's prevailing wage rate, which includes a base wage rate plus certain fringe benefits under the Massachusetts Prevailing Wage Laws. EOTPW's analysis does not include employer related costs such as taxes and insurance premiums, which are mandatory expenses a company will incur when it hires paid employees to perform services. EOTPW's analysis does not account for any overhead expenses nor a profit margin for the contractor. Based on industry research, these factors add costs of 7% to 25% over the prevailing wage rate.
- EOTPW did not consider certain safety factors (the proximity of schools, pedestrians, playgrounds, and high volume traffic, for example) as required by 701 CMR 704(5) when analyzing projects and projecting its cost savings estimate, which may have required additional personnel, including police details. As a result of this omission, EOTPW's projected savings could be overstated.

Concerning public safety, there would be an impact. EOTPW's cost report analyzed 208 construction projects. In most cases, when reviewed and reconfigured, the result was a reduction in personnel. Only 10% of the projects would be manned solely by police officers and a combination of police officers and flaggers would be used on 56%. The remaining 34% would be flaggers only or traffic control devices. Based on this reconfiguration, we estimate that 177 police officers would be eliminated from state-funded projects per day or 885 police officers per week.

As part of our review we also looked at the potential cost impact of implementing these regulations in cities and towns and found the following:

- Estimating the potential future cost savings to cities and towns will be difficult, with many municipal officials believing that savings that impact municipal budgets will not be significant.

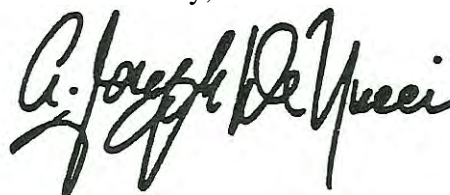
- Factors that are relevant to these conclusions include the fact that utility companies pay a significant amount of the cost of police details, the existence of significant traffic management and safety issues that necessitate police presence, and collective bargaining and local ordinances that require police officers to perform detail work.
- Another concern is that cities and towns are paid a 10% administrative fee on police details when they are the awarding authority. In the 35 cities and towns we surveyed, these fees can range from \$40,000 for smaller municipalities to hundreds of thousands of dollars for larger ones. Municipalities would lose some of these fees under the implementation of these new regulations at the local level.

Relative to public safety in cities and towns, many mayors, police chiefs and other public officials expressed serious concerns about compromising public safety, particularly for minimal savings. They stress that police details play a significant role in augmenting regular police patrols, which in many instances are insufficient. According to several public officials and police chiefs, paid police details have dramatically increased police presence in their respective communities by a factor of two to three times the average daily uniform police staffing. Furthermore, we reviewed data showing that detail police officers have, in numerous instances, been able to assist in crime prevention, apprehend criminals and fugitives, and assist in medical emergency situations.

In conclusion these new regulations will produce cost savings through efficiencies, but, according to our review, not to the extent estimated by EOTPW and largely not because of the use of flaggers, but rather due to a reduction in man-hours and by replacing personnel with traffic control devices. Finally, the reduction of an estimated 885 police officers, on average, per week on state-funded construction projects, has the potential to compromise public safety. While I fully appreciate the efforts of Governor Patrick, especially during these difficult financial times, to maximize the efficient use of highway funds while preserving public and worker safety, it is equally important that the Legislature and general public fully consider the ramifications of the recent changes.

I hope that this report satisfactorily responds to your concerns. Should you have any questions or comments, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "A. Joseph DeNucci". The signature is stylized with a large, looped "A" and a cursive "DeNucci".

A. JOSEPH DeNUCCI  
Auditor of the Commonwealth

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## INTRODUCTION

In response to written requests of the Senate and House Chairmen of the Joint Committee on Public Safety and Homeland Security in July 2008, the Office of the State Auditor (OSA) has conducted a review and cost analysis to determine the potential savings and the impact on public safety relative to the utilization of flaggers instead of police details on state funded roadway construction projects in the Commonwealth. Chapter 86 of the Acts of 2008, An Act Financing Improvements to the Commonwealth's Transportation System, which was signed on April 17, 2008, contains a provision in Section 10, authorizing the Secretary of Transportation and Public Works to promulgate regulations on the use of police details, and alternative personnel as appropriate, at public works projects throughout the Commonwealth. Section 10 also required the Secretary to examine, among other issues, the actual cost savings from the utilization of flaggers in lieu of police officers on public works details.

The Executive Office of Transportation and Public Works (EOTPW) issued regulations, 701 Code of Massachusetts Regulations (CMR) 7.00 et al, which became effective on October 3, 2008. These regulations call for the development of revised comprehensive Construction Zone Safety Plans for each public works project, which take into account the basic safety measures to be employed by considering road design, construction zone length, traffic volume and pedestrian traffic. These plans will determine what traffic control measures are necessary, which may include police, flaggers, traffic control devices or any combination thereof. In addition, and as required by Section 10, EOTPW has prepared a cost report and analysis (Cost Report) which estimates that MassHighway could save between \$5.7 and \$7.2 million on an annual basis with the implementation of the provisions of 701 CMR 7.00.

We conducted a review of the Cost Report to evaluate these cost savings estimates. We also considered as part of our review, the potential adverse effects of any such changes on public safety. Further, although these regulations authorize, but do not require full implementation of these traffic control changes in cities and towns, we performed work to determine the potential fiscal and public safety impact, if such regulations were to be implemented in municipalities across the Commonwealth.

### ***SUMMARY***

Based on our analysis, EOTPW's estimated annual cost savings projections of between \$5.7 and \$7.2 million by replacing police details with flaggers and other traffic control devices are overstated.

Only 11% of EOTPW's estimated savings would be realized by replacing police officers with flaggers. This is based on our study of contracts which reveals it is a reduction of overall man-hours, whether police or civilian, which accounts for \$4.4 to \$5.6 million of our revised, adjustment downward of EOTPW's estimated savings of between \$5,015,000 to \$6,350,000.

Quantifiable issues with EOTPW's estimated cost savings that our review found included:

- Approximately 89% of the estimated cost savings under EOTPW's newly adopted regulations is not the result of using flaggers in lieu of police officers, but rather the result of revised traffic control plans which would allow a contract-awarding authority to use a lesser number of man-hours at some construction sites, according to MassHighway workpapers.
- EOTPW's underestimation of the total cost that will be paid to companies that employ civilian flaggers, which would reduce or eliminate savings as they relate to the use of police versus flaggers. EOTPW's Cost Report considers only the flagger's prevailing wage rate, which includes a base wage rate plus certain fringe benefits under the Massachusetts Prevailing Wage Laws. EOTPW's analysis does not include employer related costs such as taxes and insurance premiums, which are mandatory expenses a company will incur when it hires paid employees to perform services. Further, EOTPW's analysis does not account for any overhead expenses nor a profit margin for the contractor. Based on industry research, these factors add costs of 7% to 25% over the prevailing wage.



- Our review of EOTPW's cost estimates found errors in the savings estimates in several projects. EOTPW created a "One Week Snapshot Summary Period" to examine savings and then multiplied these savings over the course of a 36 to 45 week construction period. EOTPW calculated an estimate of \$157,632 for one week and between \$5.7 and \$7.2 million for a year. We calculated errors in the "One Week Snapshot" resulting in \$18,980 less in savings, which translates to \$685,000 to \$850,000 less over the same period.

Other issues our review found which are important and may result in overestimated cost savings and redirections in public safety are:

- EOTPW did not consider certain safety factors (e.g. the proximity of schools, pedestrians, playgrounds, businesses, for example) as required by 701 CMR 704(5) when analyzing projects, which may have required additional personnel, including police details. As a result of this omission, EOTPW's projected savings could be overstated.
- There would be some impact on public safety. EOTPW's cost report analyzed 208 construction projects. In most cases, when reviewed and reconfigured, the result was a reduction in personnel. Based on this reconfiguration, we estimate that 177 police officers would be eliminated from state-funded projects per day or 885 police officers per week.

Cost savings will be generated immediately for certain projects when, in compliance with the new regulations, revised Construction Zone Safety Plans are completed, and it is determined by the awarding authority that public safety would not be compromised by using traffic control devices, such as barriers, automatic traffic signals, and/or other traffic devices and it is determined that police details can be reduced or that flaggers and/or police details are not needed at all, and that traffic control devices, such as barriers, automated traffic signals and/or other traffic devices, are sufficient to protect workers and ensure public safety. These savings, which we estimate account for 89% of EOTPW's projected savings, are unrelated to the debate over police details versus civilian flaggers.

It should also be noted that EOTPW's preliminary estimates, and our assessment of the Commonwealth's savings projections, will be impacted by other factors. According to EOTPW, initial year savings will be reduced because ongoing construction projects and their respective detail status will not be modified to reduce police staffing. Furthermore, EOTPW does not, at least in the

near-term; intend to combine flaggers and police officers at the same construction sites for those projects that commence after the effective date of these regulations. Also, it should be noted that the process of certifying flagging companies that will provide certified civilian flaggers to construction companies is currently ongoing, and it remains unclear whether sufficient flaggers will be available at the onset of the construction season. Conversely, EOTPW's projected savings could increase by virtue of accelerated road and bridge construction brought about by increased state capital outlays and by increased federal funding.

Providing an estimate of the potential for future cost savings to cities and towns will be extremely difficult. However, based on the information we obtained from municipal officials, we believe any savings that impact municipal budgets will not be significant, particularly in most urban communities. This conclusion is based on several factors including the fact that utility companies perform a significant number of the local projects and reimburse communities for local police detail work. Further, traffic management and safety issues become more prevalent with congested roadways, increased pedestrian traffic, school zones, churches and playgrounds, thereby increasing the need for police officers and/or flaggers and not just traffic control devices. Finally, collective bargaining agreements and local ordinances exist in many communities, which would prohibit the shift to flaggers unless these restrictions were eliminated.

Another concern is that cities and towns are paid a 10% administrative fee on all private police details. In the 35 cities and towns we surveyed, these fees can range from \$40,000 for smaller municipalities to hundreds of thousands of dollars for larger ones. Municipalities would lose some of these fees under the new regulations.

Specifically related to public safety concerns in cities and towns, many mayors, police chiefs and other public officials expressed serious concerns about compromising public safety, particularly for minimal savings. They stress that police details play a significant role in augmenting regular police patrols, which in many instances are insufficient. According to several public officials and police chiefs, paid police details have significantly increased police presence in their respective communities by a factor of two to three times the average daily uniform police staffing. Furthermore, police officials have indicated and provided data to us showing that detail police officers have in numerous instances been able to assist in crime prevention, apprehend criminals and fugitives, and assist in medical emergency situations. We have included a representative sampling of these police related actions as part of this report (see Appendix D).

The detailed information that supports our conclusions is contained in the Review Results section of this report.

### ***Background***

Chapter 86 of the Acts of 2008, An Act Financing Improvements to the Commonwealth's Transportation System, signed on April 17, 2008, authorizes the Executive Office of Transportation and Public Works (EOTPW) to promulgate regulations and recommend guidelines for the use of police details at public works sites.

The regulations are required to categorize projects, including roadways, bridges, intersections, railroads and any other similar projects into tiers, which are to be utilized to determine whether to use police details or alternative personnel and/or traffic control devices, taking into consideration public safety and to ensure the safety of workers on construction sites. The regulations must also take into account traffic patterns, roadway design, criminal and civil offenses committed in the area and proximity to schools, playgrounds and other youth activity locations.

The Road Flaggers and Police Details on Public Works Projects' regulations, 701 CMR, 7.00, et al, were issued and became effective on October 3, 2008. In accordance with the requirements of Chapter 86, the regulations require the development of revised Construction Zone Safety Plans (CZSP) that must be prepared in consultation with local and state law enforcement. These plans will determine the necessary traffic control measures and may include police officers, flaggers, traffic control devices or any combination thereof. The awarding authority will make final determinations of the necessary measures, which in most state projects will be the Massachusetts Highway Department.

As part of the development and implementation of CZSP's, the regulations also establish a three-tiered system for determining whether police officers or flaggers are needed:

- **High Speed Roads** – Provides for the use of police details, but allows for the use of civilian flaggers when the traffic flow has been separated from the construction zone using continuous, connected barriers. High-speed roads include both divided and undivided public roads with a legal speed limit greater than or equal to 45 mph.
- **Low-Traffic, High-Speed Roads** – For high-speed roads with a maximum volume of 4,000 vehicles per day, there is a presumption that civilian flaggers will be used unless the CZSP recommends otherwise for public safety reasons.
- **Low-Speed Roads** - For low-speed roads including divided and undivided public roads with a legal speed limit less than 45 mph, there is a presumption that civilian flaggers will be used unless the CZSP recommends otherwise for public safety reasons.

The use of civilian flaggers will occur mainly on projects where the state is the awarding authority, including state projects on local roads. For municipal public works projects, where the awarding authority is a city or town, Chapter 86 limits the ability of the state to mandate the use of civilian flaggers where there is a local ordinance or collective bargaining agreement to the contrary. Furthermore, the regulations authorize, but do not require, municipalities to utilize civilian flaggers.

Chapter 86 also requires the Secretary of EOTPW to examine the actual cost savings from the utilization of alternative personnel and/or traffic control devices in lieu of police details. The Cost Report, which was issued on September 9, 2008, concluded that the Commonwealth would realize annual cost savings of between \$5.7 and \$7.2 million through lower hourly rates for road flaggers, efficient use of road flaggers and police details on public works projects, and through greater control over the administration of the traffic management plan resulting in the expanded use of traffic control devices such as barriers and signage.

### ***Scope of Work***

As requested, the Office of the State Auditor conducted a review to evaluate the cost savings estimate prepared by EOTPW pursuant to Chapter 86 of the Acts of 2008, Section 10, which permits the utilization of flaggers instead of police details on certain state public construction projects. We also reviewed the public safety impact of such changes and assessed the potential impact of implementation in cities and towns throughout the Commonwealth. To accomplish these objectives, we:

- Reviewed laws and regulations relating to police details and prevailing wage requirements.
- Met with officials from the Executive Office of Transportation and Public Works and the Executive Office of Labor and Workforce Development.
- Analyzed the Executive Office of Transportation and Public Works Road Flaggers & Police Detail Cost Report & Analysis dated September 9, 2008.
- Analyzed the 208 MassHighway project work-papers that supported EOTPW's conclusion that the adoption of these regulations will save the Commonwealth between \$5.7 and \$7.2 million.
- Conducted a survey of 35 cities and towns to accumulate historical cost data on police details as well as police detail requirements and policies.
- Interviewed municipal officials to gain an understanding of their position and concerns relative to replacing police details with flaggers.
- Reviewed materials presented and submitted by various parties as part of the regulatory process.

## REVIEW RESULTS

### ***EOTPW's Road Flaggers & Police Detail Cost Report & Analysis***

On October 3, 2008, EOTPW adopted 701 CMR Section 7.00 et al., the purpose of which is “to ensure the safety of pedestrians, motorists, bicyclists, and workers on, or near Public Works Projects and **to reduce overall costs through the effective use of Traffic Control Devices, Road Flaggers, and Police Details and through the efficient expenditure of public funds.**”

[Emphasis Added] In support of its efforts to promote the efficient expenditure of public funds with a combination of traffic control devices, road flaggers and police details, EOTPW published a report entitled Road Flaggers & Police Detail Cost Report & Analysis (“Cost Report”), dated September 9, 2008 (updated October 31, 2008). Based on our review of EOTPW’s Cost Report, as well as meetings we held with representatives of EOTPW and other interested parties, we have concerns with some of the conclusions reached by EOTPW, particularly as they relate to Sections III and IV of the Cost Report.

Section III deals specifically with wage rates for flaggers and police details, while Section IV reviews existing state highway project police detail costs and reconfigures these projects based on revised traffic plans to arrive at an estimated cost savings.

### ***Wage Rates for Flaggers and Police Details***

Section III of EOTPW’s Cost Report provides an analysis of police detail rates in 308 cities and towns and compares those rates to the prevailing wage rates for flaggers/signals in those Districts, as provided to EOTPW by the Executive Office of Labor and Workforce Development (EOLWD). Based upon that analysis, EOTPW concluded, on average, “*Current police hourly rates are 13.01% higher than flaggers’ rates*” (see: Table 1.1, Table 2 and Attachment D to the Cost Report) (Appendix E). Furthermore, the Cost Report in Table 2 indicates that the average percent savings would be even

greater than the 13.01% reflected in Table 2, if the prevailing wage rates for apprentice road flaggers were used. That average percent savings ranges from a high of 32.48%, if an apprentice at Step 1 is used; to an average percent savings range of 17.88% if an apprentice at Step 4 is used. Because EOTPW indicated to us that they do not intend to utilize apprentice flaggers in the foreseeable future, nor is it clear how these flaggers would and could be utilized, our analysis did not take into consideration the effect that any apprentice rates would have.

It is our opinion that the wage differential that EOTPW uses in its Cost Report under Section III is incomplete and overstated, when compared to the actual cost the Commonwealth will incur to reimburse companies that will need to hire civilian (non-government) flaggers as a substitute for police details. EOTPW has indicated to us that contractors will be required to provide the necessary flagging services on a project, either through its own employees or by hiring a subcontractor that will supply the necessary flagging personnel.

Flaggers' hourly rates, as used in EOTPW's Cost Report, do not reflect the actual cost the Commonwealth will incur in hiring a company that employs or contracts for civilian flaggers. Rather, EOTPW's cost analysis is based upon the prevailing wage rate that a company would have to pay a flagger. A flagger's prevailing wage rate includes a base wage rate plus certain fringe benefits under the Massachusetts Prevailing Wage Laws. EOTPW's analysis does not include employer related costs (i.e. taxes and insurance premiums), which are mandatory expenses a company will incur when it employs individuals to perform services for pay. Nor does it allow for any overhead expenses, such as administrative cost, that a company will incur in meeting an employer's responsibilities that are required by federal and state laws. Finally, built into any competitive bidding process by a company doing business with the Commonwealth, or a subcontractor hired by such a company, would obviously be a profit margin as part of its proposal.

According to industry representatives that we spoke to, the combination of these factors could increase the cost to the Commonwealth by 7% to 25% over the prevailing wage rate. The EOTPW Cost Report does not account for taxes, insurance premiums, or a company's/subcontractor profit margin and other miscellaneous expenses. In fact, EOTPW acknowledges in its Executive Summary section of its Cost Report that there are "several factors which may reduce cost savings for the use of alternative personnel," which according to EOTPW "could not be accurately quantified." Some of these factors identified by EOTPW include flagger training and certification, overtime cost, additional insurance requirements and workers compensation.

### ***Flaggers' Rates***

Pages 3 and 4 of EOTPW's Cost Report examine the prevailing wage for Flaggers in four Zones, which, according to EOTPW, represent different geographical areas of the Commonwealth.

#### **Comparison of Current Flagger Prevailing Wage Rates in Selected Zones to Current Police Detail Rates in Same Zones**

| Zone | Location              | Base Wages (\$18.50)<br>(6/01/08 to 12/01/09) | Police Detail<br>Rates | Differential |
|------|-----------------------|---|------------------------|--------------|
| 1    | Boston                | \$34.85                                       | \$37.00                | \$2.15       |
| 2    | Abington <sup>1</sup> | \$33.45                                       | \$40.00                | \$6.55       |
| 3    | Agawam                | \$31.83                                       | \$42.40                | \$10.57      |
| 4    | Adams                 | \$31.70                                       | \$32.00                | \$.30        |

Whether or not there are any savings in any of the above four communities is fully dependent upon whether any employer-related taxes, insurance costs, and other expenses referred to above are made part of the EOTPW's "cost savings analysis." If one is to assume that companies employed by the Commonwealth to work on public works projects are required to pay these taxes and expenses, and would include a margin for profit in any bid, then it is not unreasonable to assume that these

<sup>1</sup> According to a footnote in EOTPW's Cost Report, there is no rate information for the Town of Abington. EOTPW used the police detail rate from Rockland, a neighboring community, which is in the same wage zone as Abington.



companies would have to be compensated by the Commonwealth for the amount they would incur over and above the prevailing wages they pay to civilian flaggers. Consequently, the Commonwealth would not realize the savings differentials that are reflected above in Zones 1 and 4 and any savings in Zones 2 and 3 would be considerably less, if not totally eliminated.

Based upon our conversations with several contractors who have done public works projects for MassHighway in the past, contractors typically bill the Commonwealth anywhere between 7% to 25% above the prevailing wage rate to satisfy these employer related charges. The following table below incorporates this 7% to 25% range to demonstrate the effects it would have on EOTPW's cost savings differential estimates.

**Revised Table to Reflect Employer Related Charges  
Added to Flaggers' Prevailing Wage Rates in Selected Zones**

| Zone | Location              | Flaggers<br>Rate | (Adjusted Cost)<br>(7%-25%) | Police Rate | Differential | Adjusted<br>Differential |
|------|-----------------------|------------------|-----------------------------|-------------|--------------|--------------------------|
| 1    | Boston                | \$34.85          | (\$37.29-\$43.56)           | \$37.00     | \$2.15       | (-\$0.29/\$6.56)         |
| 2    | Abington <sup>2</sup> | \$33.45          | (\$35.79-\$41.81)           | \$40.00     | \$6.55       | (\$4.21/\$1.81)          |
| 3    | Agawam                | \$31.83          | (\$34.06-\$39.79)           | \$42.40     | \$10.57      | (\$8.34/\$2.61)          |
| 4    | Adams                 | \$31.70          | (\$33.92-\$39.63)           | \$32.00     | \$0.30       | (-\$1.92/\$7.63)         |

The following analysis is an example of the impact that these additional costs would have if EOTPW used in its calculation of estimated savings a 7% to 25% premium to the prevailing wage rate to compensate employers for those costs that employers are expected to incur.

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<sup>2</sup> According to a footnote in EOTPW's Cost Report, there is no rate information for the Town of Abington. EOTPW used the police detail rate from Rockland, a neighboring community, which is in the same wage zone as Abington.

| Contract # 53234                                   |             |                 |                        |
|--|-------------|-----------------|------------------------|
| Actual Cost for Detail (7/14/08 to 7/18/08)        |             |                 |                        |
| 7/14/08  | 5 policemen | (40 hrs.)       | \$1,400.00             |
| 7/15/08  | 6 policemen | (48 hrs.)       | \$1,680.00             |
| 7/16/08  | 5 policemen | (40 hrs)        | \$1,400.00             |
| 7/17/08  | 5 policemen | (40 hrs         | \$1,400.00             |
| 7/18/08  | 5 policemen | (40 hrs)        | <u>\$1,400.00</u>      |
| Actual Total                                       |             | <u>208 hrs.</u> | <u>\$7,280.00</u>      |
| Anticipated Cost for Flaggers (7/14/08 to 7/18/08) |             |                 |                        |
| 7/14/08  | 5 Flaggers  | (40 hrs.)       | \$1,226.80             |
| 7/15/08  | 6 Flaggers  | (48 hrs.)       | \$1,472.16             |
| 7/16/08  | 5 Flaggers  | (40 hrs)        | \$1,226.80             |
| 7/17/08  | 5 Flaggers  | (40 hrs         | \$1,226.80             |
| 7/18/08  | 5 Flaggers  | (40 hrs)        | <u>\$1,226.80</u>      |
| Actual Total                                       |             | <u>208 hrs.</u> | <u>\$6,379.36</u>      |
| <b>Savings</b>                                     |             |                 | <u><b>\$900.64</b></u> |

It should be noted that the savings are calculated by using only the prevailing wage rate and not any of the other expenses that we have identified in this flaggers' rate section of our report. If these additional expenses, which were estimated by us to be 7 to 25% above the prevailing wage rate, were used, then the savings attributable to this contract would be lower. Based on our calculations, the cost of replacing the police details with flaggers under this contract would range between \$6,826 to \$7,974 thereby reducing EOTPW's estimated savings under this contract to a range between \$454 and (\$694).

### ***Cost Savings Estimates***

Section IV of EOTPW's Cost Report contains a District Study Cost Analysis "District Cost Report" conducted by MassHighway which reviewed a series of active projects in each MassHighway district to demonstrate that the use of a combination of traffic control devices, flaggers and police details would have resulted in cost savings, if the recently adopted regulations had been in effect at the time

these projects were initiated. This section of EOTPW's District Cost Report concludes that the use of a combination of traffic control devices, flaggers and police details would have saved the Commonwealth approximately \$157,632 for the one week period reviewed, which, on an annualized basis, EOTPW projected would have saved the Commonwealth between \$5,700,000 to \$7,200,000.

According to representatives of EOTPW, Attachment D to the Cost Report and the related work papers provided to us by EOTPW did not take into consideration any safety factors such as schools, pedestrians, playgrounds and high volume traffic at a particular site, which, if considered, may have required additional personnel including police details. 701 CMR 7.04 (5), promulgated by EOTPW to allow for the use of civilian flaggers, requires an awarding authority to complete a Construction Zone Safety Plan that "shall take into account particular aspects of the public road such as Average Daily Traffic (ADT), traffic patterns, roadway design proximity to security sensitive areas such as airports and seaports, proximity to schools, hospitals, playgrounds and other youth activity locations..." As a result of EOTPW not considering these safety related issues, as required by 701 CMR 704(5), EOTPW's projected savings could be overstated, especially if some of these sites would have required a police detail and/or flaggers instead of traffic control devices.

Furthermore, we believe that there are significant mathematical computation errors in EOTPW's Cost Report that resulted in EOTPW overstating the EOTPW's projected savings of \$157,632 in its "One-Week Snapshot Summary" (see Appendix F). Based on our review of the workpapers provided to us by EOTPW, EOTPW's cost savings estimate is overstated by \$18,980, which on an annualized basis amounts to a range between \$685,000 to \$850,000. These errors have the affect of reducing EOTPW's annual projected cost savings from a range between \$5,700,000 to \$7,200,000 to a range between \$5,015,000 to \$6,350,000. Below is our recalculation of the contracts that are not accurately reported in EOTPW's Cost Report:

| District/Contract          | Contract Adjustment | EOTPW's Project Savings | Estimated OSA's Calculation | Estimated Adjustment |
|----------------------------|---------------------|-------------------------|-----------------------------|----------------------|
| District 1                 |                     | \$6,309                 | \$6,309                     | -                    |
| District 2                 |                     | \$10,257                | \$2,548                     | (\$7,709)            |
| Contract 53919             | (\$4,000)           |                         |                             |                      |
| Contract 52343             | (\$2,556)           |                         |                             |                      |
| Contract 53831             | <u>(\$1,153)</u>    |                         |                             |                      |
| Total                      |                     | <u>(\$7,709)</u>        |                             |                      |
| Adjusted Projected Savings |                     | <u>\$2,548</u>          |                             |                      |
| District 3                 |                     | \$33,512                | \$35,012                    | \$1,500              |
| Contract 51421             | (\$400)             |                         |                             |                      |
| Contract 52244             | <u>\$1,900</u>      |                         |                             |                      |
| Total                      |                     | <u>\$1,500</u>          |                             |                      |
| Adjusted Projected Savings |                     | <u>\$35,012</u>         |                             |                      |
| District 4                 |                     | \$68,042                | \$67,067                    | (\$975)              |
| Contract 37102             | <u>(\$975)</u>      |                         |                             |                      |
| Total                      |                     | <u>(\$975)</u>          |                             |                      |
| Adjusted Projected Savings |                     | <u>67,067</u>           |                             |                      |
| District 5                 |                     | \$39,508                | \$27,712                    | (\$11,796)           |
| Contract 53366             | <u>(\$11,796)</u>   | <u>(\$11,796)</u>       |                             |                      |
| Adjusted Projected Savings |                     | <u>\$27,712</u>         |                             |                      |
| Totals                     |                     | <u>\$157,628</u>        | <u>\$138,648</u>            | <u>(\$18,980)</u>    |

As a result of these errors, EOTPW overstated the estimated annual cost savings from the adoption of these new regulations by 12%.

Section II, Part C of EOTPW's Cost Detail Report also provides additional illustrations to support EOTPW's conclusion that the utilization of traffic control devices and/or flaggers will provide savings to the Commonwealth. Table 3 (see Appendix G) is a chart that identifies, as of May 30,

2008, 388 active MassHighway contracts and applies the standards set forth in the newly adopted flagger regulations. Table 3 indicates that of the 388 public works projects reviewed, 117 (30% of 388) projects would now use a combination of flaggers and police and 23 (5.9% of 388) projects would now only use flaggers. However, according to EOTPW's representatives, EOTPW does not intend to alter current detail staffing for any ongoing projects; nor, in the near term, does EOTPW intend to combine flaggers and police officers at the same construction sites on projects that commence after the effective date of these regulations. We believe that this approach by EOTPW will have a significant effect on potential cost savings, if any, that EOTPW will derive under the newly enacted regulations.

Consequently, based on EOTPW's own representations to the OSA, only 23 of the 388 public works projects reviewed would, in the near term, provide any savings to the Commonwealth through the use of flaggers instead of police.

In addition to EOTPW's comprehensive review of the cost differential associated with flagger's rates and police detail rates, the MassHighway undertook an extensive review of its "Work Zone Safety Guidelines for Massachusetts Municipalities and Contractors and the Standards, Details and Drawings for the Development of Traffic Management Plans" (Traffic Management Plans). As indicated in EOTPW's Cost Report, these Traffic Management Plans are used by design professionals, field staff and for traffic control training for the state police and provide the basic safety setup for various construction zones and cover such areas as road design, construction zone length, traffic volume, pedestrian traffic and lane closures. As stated by EOTPW, it is these revised documents that provide guidance for the correct placement of traffic control devices (i.e., flaggers, police details and other devices) throughout construction zones.

Table 5 of EOTPW's Cost Detail Report (see Appendix G), which is the cornerstone of EOTPW's estimated savings calculations, indicates that of the 208 projects reviewed in its "One Week Snapshot Summary" some 48 projects (or 23% of the projects reviewed) would no longer require the use of flaggers or police details, but rather, alternative traffic control devices, such as barriers and automated traffic signals, would be deemed sufficient from a public safety perspective. In addition, according to MassHighway's workpapers, many of the projects contained in EOTPW's One Week Snapshot Summary could realize savings by reducing the number of actual man hours that some of these state funded public works projects will require on a going forward basis under these revised Traffic Control Plans.

According to our analysis, we estimate that the cost savings in all five Districts are primarily due to this reduction in the number of man-hours spent at the construction sites and not because civilian flaggers would replace police details. We calculated the number of man-hours reduced at each project in these Districts and then determined the approximate savings attributed to the reduction in hours by using a detail rate that was representative for those districts. The results, on a district-by-district basis, are as follows:

| District | Reduction in Hours | Estimated Detail Rate | Estimated Savings from Reduction | Estimated Savings Using Flaggers |
|----------|--------------------|-----------------------|----------------------------------|----------------------------------|
| 1        | 96                 | \$35.75               | \$3,440                          | \$2,869                          |
| 2        | 92                 | \$40.00               | \$3,680                          | (\$1,132)                        |
| 3        | 704.5              | \$42.15               | \$29,685                         | \$5,234                          |
| 4        | 1,578              | \$39.69               | \$62,631                         | 4,436                            |
| 5        | <u>616</u>         | \$39.50               | <u>\$24,339</u>                  | <u>\$3,282</u>                   |
| Total    | <u>3,086.5</u>     | \$39.71               | <u>\$123,775</u>                 | <u>\$14,689</u>                  |

Accordingly, and considering our finding that EOTPW's estimated cost savings are overstated and need to be reduced by \$18,980, we estimate that approximately 89% (\$124,000/139,000) of the cost savings under EOTPW's newly adopted regulations is not the result of using flaggers in lieu of policemen; but rather the result of the revised traffic control plans which according to MassHighway's workpapers would have allowed an awarding authority to use a lesser number of man-hours at some of these construction sites. The remaining \$14,689 (11%) can then be attributable to substituting flaggers for policemen. On an annualized basis, of our revised estimated cost savings of between \$5,015,000 and \$6,350,000, approximately \$4,463,000 to \$5,651,000 are not the result of using flaggers; but rather, can be directly attributable to fewer man-hours used. EOTPW's estimated annual cost savings by using flaggers, instead of police officers, is between \$615,000 to \$750,000.

To illustrate this point, we have included in this report three examples that support our conclusion that it is the reduction of man-hours at a construction site, and not the substitution of flaggers with police details, that the Commonwealth will derive most of its cost savings.

The first example deals with a state funded project where, under the revised Traffic Control Plans, the awarding authority could replace, based on the One Week Snapshot Summary, a total of 24 police details and replace them with only 10 flaggers for the same period. The second example demonstrates going from a police detail to a combination of flaggers and police details. Under this example, of the 17 police details that worked on this project during the One Week Snapshot Summary, a total of 11 police details would be eliminated using EOTPW's revised project configuration. Under EOTPW's revised configuration for this project, six police details and six flaggers would be used rather than the 17 police details that were actually used. The third example illustrates going from 10 police details to having neither police details nor flaggers. Each project

shows a significant reduction in the number of man hours worked and we have assumed that under each example alternative traffic control devices, such as barriers, automated traffic signals or other traffic control devices, were used to augment the number of flaggers and/or policemen and to satisfy any public safety concerns.

| Example 1   |             |                 |                          |
|---|-------------|-----------------|--------------------------|
| Contract # 51236  |             |                 |                          |
| Actual Cost for Detail (7/14/08 to 7/18/08)               |             |                 |                          |
| 7/14/08   | 4 policemen | (32 hrs.)       | \$1,216.00               |
| 7/15/08   | 5 policemen | (40 hrs.)       | \$1,520.00               |
| 7/16/08   | 5 policemen | (40 hrs)        | \$1,520.00               |
| 7/17/08   | 5 policemen | (40 hrs         | \$1,520.00               |
| 7/18/08   | 5 policemen | (42 hrs)        | <u>\$1,634.00</u>        |
| Actual Total  |             | <u>194 hrs.</u> | <u>\$7,410.00</u>        |
| Anticipated Cost for Police/Flaggers (7/14/08 to 7/18/08) |             |                 |                          |
| Cost for Flaggers   |             |                 |                          |
| 7/14/08   | 0 flaggers  | (0 hrs.)        | \$000.00                 |
| 7/15/08   | 2 flaggers  | (16 hrs.)       | \$556.20                 |
| 7/16/08   | 3 flaggers  | (24 hrs.)       | \$835.80                 |
| 7/17/08   | 3 flaggers  | (24 hrs.)       | \$835.80                 |
| 7/18/08   | 2 flaggers  | (16 hrs.)       | <u>\$556.20</u>          |
| Projected Totals  |             | <u>80 hrs</u>   | <u>\$2,784.00</u>        |
| <b>Savings</b>  |             |                 | <b><u>\$4,626.00</u></b> |

Of the projected \$4,626 in savings that EOTPW has estimated in Contract #51236, nearly all of it will be derived by the reduction in manpower hours. A total of 114 less hours (112 regular rate plus 2 hours overtime rate) at a savings of \$38 per hour (regular rate) and \$57.00 per hour overtime rate results in a savings of \$4,370. Savings attributed to using flaggers, in lieu of police officers, is \$256 (detail rate \$38.00 less flagger's rate \$34.80 (\$3.20) times 80 hours equals \$256).



**Example 2**  
**Contract #54399**  
**Actual Cost for Detail (7/14/08-7/18/09)**

|               |             |                    |                    |
|---------------|-------------|--------------------|--------------------|
| 7/14/08       | 4 policemen | (56 hrs) incl. O/T | \$2,436.00         |
| 7/15/08       | 5 policemen | (70 hrs) incl. O/T | \$3,675.00         |
| 7/16/08       | 5 policemen | (70 hrs) incl. O/T | \$3,675.00         |
| 7/17/08       | 3 policemen | (27 hrs) incl. O/T | <u>\$1,228.50</u>  |
| 7/18/08       |             | <u>-0-</u>         |                    |
| Actual Totals |             | <u>223 hrs</u>     | <u>\$11,014.50</u> |

**Anticipated Cost for Police/Flaggers (7/14/08 to 7/18/08)**  
**Cost for Flaggers**

|                  |             |                    |                          |
|------------------|-------------|--------------------|--------------------------|
| 7/14/08          | 2 policemen | (28 hrs) incl. O/T | \$1,428.00               |
|                  | 1 flagger   | (14 hrs) incl. O/T | \$652.80                 |
| 7/15/08          | 2 policemen | (28 hrs) incl. O/T | \$1,428.00               |
|                  | 1 flagger   | (14 hrs) incl. O/T | \$652.80                 |
| 7/16/08          | 2 policemen | (28 hrs) incl. O/T | \$1,428.00               |
|                  | 1 flagger   | (14 hrs) incl. O/T | \$652.80                 |
| 7/17/08          | 3 flaggers  | (21.5 hrs)         | \$864.00                 |
| 7/18/08          |             | <u>-0-</u>         | <u>-0-</u>               |
| Projected Totals |             | <u>147.5 hrs</u>   | <u>\$7,106.40</u>        |
| <b>Savings</b>   |             |                    | <u><b>\$3,908.10</b></u> |

Of the projected \$3,908.10 in savings that EOTPW has estimated in Contract #54399, nearly all of it will be derived by the reduction in manpower hours. A total of 75.5 less hours would have been worked at this site at a combined savings of \$49.40 an hour (combination of regular hourly rate and overtime rate) an hour resulting in estimated savings of \$3,729.70. Savings attributable to using flaggers, in lieu of police officers is \$178.40 (detail rate \$49.40 less average flagger's rate \$46.62 (\$2.78) times 63.5 hours equals \$176.53). (The difference is a result of rounding to the nearest penny.)

**Example 3**  
**Contract #52241**  
**Actual Cost for Detail (7/14/08-7/18/08)**

|               |                               |                |
|---------------|-------------------------------|----------------|
| 7/14/08       | 2 policemen (16 hrs)          | \$560          |
| 7/15/08       | 2 policemen (16 hrs)          | \$560          |
| 7/16/08       | 2 policemen (16 hrs)          | \$560          |
| 7/17/08       | 2 policemen (16 hrs)          | \$560          |
| 7/18/08       | 2 policemen ( <u>16 hrs</u> ) | \$560          |
| Actual Totals | <u>80 hrs</u>                 | <u>\$2,800</u> |

**Anticipated Cost for Police/Flaggers (7/14/08 to 7/18/08)**  
**Cost for Flaggers**

|                |      |                       |
|----------------|------|-----------------------|
| 7/14/08        | None | -                     |
| 7/15/08        | None | -                     |
| 7/16/08        | None | -                     |
| 7/17/08        | None | -                     |
| 7/18/08        | None | -                     |
| <b>Savings</b> |      | <b><u>\$2,800</u></b> |

Of the projected \$2,800 in a weekly savings that EOTPW has estimated in Contract #52241, all of it will be derived by the reduction in manpower hours. A total of 80 less hours would have been worked at this site at a savings of \$35.00 an hour resulting in estimated savings of \$3,729.70.

These three examples are illustrative of the kinds of savings the Commonwealth can anticipate with the adoption of the revised Traffic Control Plans developed by MassHighway. Of these three examples over 90% of the savings can be attributable to the reduction of manpower hours and not through a substitution of police officers with flaggers.

***Additional Consideration Related to the Use of Civilian Flaggers. Potential Drain on the Unemployment Insurance Trust Fund***

According to data released by the Massachusetts Division of Unemployment Assistance (DUA), construction companies have the highest rate of unemployment claimants (December 2007 data). Historically, the construction industry is inherently cyclical as well as seasonal. As such, construction workers are more likely to file unemployment claims with the DUA than other types of industries such as financial services, legal, or healthcare companies.

According to a representative of DUA, construction companies typically pay into the Unemployment Insurance Trust Fund at rates between the minimum rate of 6.95% to a maximum rate of 10.86% on the first \$14,000 that an employee earns during a calendar year. Consequently, the minimum/maximum amount that any employer would pay into the Unemployment Insurance Trust Fund per employee would be between \$973 and \$1,520 a year. However, assuming the employee only worked 40 weeks; earned \$24,000 during that calendar year (average of \$600 a week) and was laid off by the company, that person might be eligible to collect approximately \$300 a week in unemployment benefits for a maximum period of 39 weeks. Assuming again that this employee is rehired by the same construction company when the construction season commences again in the following year, it is reasonable to assume that he/she collected a minimum of \$300 a week for 12 weeks, or a total expense to the Unemployment Insurance Trust Insurance Fund of \$3,600. Consequently, any flagger that falls within this hypothetical example would receive subsidized benefits of approximately \$2,000 to \$2,600 (depending upon the employer's contribution rate). These subsidized benefits are paid out of the Unemployment Insurance Trust Fund into which all "for profit" businesses must pay into.

***Municipal Police Issues and Concerns With 701 CMR Section 7.00.***

In addition to our review of the Cost Detail Report conducted by EOTPW, we also solicited responses from a number of city and town officials to understand the impact that paid police details have on their respective community. While it is difficult to calculate the net effects that the use of additional traffic control devices and/or flaggers will have on individual communities, it is clear that there will be a reduction in the number of police details that will be used by MassHighway, and other state agencies, on public works projects. EOTPW has sought to demonstrate that the use of a combination of traffic control devices, flaggers and/or policemen would generate substantial savings that the Commonwealth might not otherwise realize if only police details were used. On the other

hand, public officials, local police unions, several trade unions and some local police departments have argued that EOTPW's actions will be at the expense of public safety. To support their contention about public safety, these groups have stated their case by highlighting instances where policemen on details were first responders to traffic accidents, home invasions, domestic abuse cases and other criminal activities. Critics of EOTPW's actions also refer to the advantages of having police on detail such as (i) increased police presence in that community, (ii) their specialized training in law enforcement and medical emergencies, (iii) the sophisticated communication systems available to them, and (iv) overall police powers that are at their disposal, all of which will not be present when you replace police officers with flaggers on public works projects. As noted in the Summary Section of this report, several public officials and police chiefs have expressed concerns to us about the reduction of the number of paid police details and the effects that this reduction would have on public safety. These public officials and police officers have indicated to us that paid police details increase police presence in their respective community by a factor of 2 to 3 times. For example, a typical community might have twelve to fourteen police officers performing regular patrol duty on any given weekday, paid police details may increase the number of police officers in uniform by another twenty-four to forty-two, bring the total number of police officers in uniform in that given community to between thirty-six to fifty-six. This increased police presence is a benefit to the community many times, at no additional cost to that community. Therefore, having these paid police details can be of substantial value to these communities.

Obviously, these are public safety issues and cannot be easily quantifiable. However, neither should these matters be ignored when weighing the benefits of having police details. Examples of some of the actual police actions that police on paid details have encountered have been included as Appendix D to this report.

In addition, as part of its review of the flagger/police detail issue, we conducted a survey of various cities and towns to obtain information about the amount of monies that are spent on police details, (see Appendix C). For purposes of this survey, paid details included details on state-paid, locally paid and privately paid details, including private functions where a police presence is warranted. Our survey included a sampling of approximately 35 (or about 10%) of the 351 cities and towns across the various districts in the Commonwealth. As expected, cities such as Boston, Springfield, Cambridge and Worcester were at the high end of the spectrum in paid police details; while towns such as Agawam, Wayland, Southbridge and Danvers were at the lower end of the spectrum.

Trying to quantify the impact that the newly enacted regulations will have on any community is difficult to accomplish. Obviously, the value of state awarded contracts on state controlled highways will vary from year to year, and therefore, to actually gauge the annual impact that these regulations will have on a particular city or town would be highly speculative. However, based upon the data that OSA received, it appears that state-awarded public works projects could easily amount to between 1% and 6% of the average amount paid to policemen for details in a given community.

Example 1 - The City of Chicopee reported to the OSA that the cost of paid details for FY 08 totaled \$1,081,439. Of that, cost paid by Verizon, NStar and private functions amounted to \$433,066. Another \$591,920 was for details initiated by the City of Chicopee and the remaining \$56,452 for a single public works project conducted for a state agency. In other words, 5% of the police details performed in the City of Chicopee were derived from state public works projects in FY 08.

Example 2. – The City of Holyoke reported to the OSA that the cost of paid details in FY 08 totaled \$847,561, with \$606,193 coming from private details and another \$215,623 coming from details initiated by the City of Holyoke. The remaining \$25,745 was derived from public works projects

initiated by MassHighway. In other words, 3% of the police details performed in the City of Holyoke were derived from state public works projects in FY 08.

Example 3 - The City of Newton reported to the OSA that the cost of paid details in FY 08 totaled \$2,530,760, of which \$2,223,508 was from private details and other \$298,958 coming from details initiated by the City of Newton. The remaining \$8,294 was derived from public works projects initiated by state agencies. In other words, less than 1% of the police details performed in the City of Newton were derived from state public works projects in FY 08.

Example 4 – The City of Medford reported to the OSA that the cost of paid details in FY 08 totaled \$1,268,087, of which \$906,366 was from private details and other \$301,321 coming from details initiated by the City of Medford. The remaining \$60,400 was derived from public works projects initiated by state agencies. In other words, 4.7% of the police details performed in the City of Medford were derived from state public works projects in FY 08.

## **EXECUTIVE OFFICE OF TRANSPORTATION AND PUBLIC WORKS RESPONSE**

Prior to the release of our report on the Executive Office of Transportation and Public Work's (EOTPW) Road Flagger & Police Detail Regulations and Cost Report, the Office of the State Auditor (OSA) provided EOTPW with a draft copy of our report and requested their written comments so that OSA could review those comments and incorporate them in our final report where appropriate. In addition, we amended our draft audit report where appropriate to address certain EOTPW concerns. The following is a summary of EOTPW's 11 comments and our responses thereto.

### **AUDITEE'S COMMENT #1**

The OSA report dramatically underscores the most significant reform provided by the Act and 701 CMR §7.00 (the "Regulations"). The Act provides that "the awarding authority to determine the appropriate traffic control measures," . . . It is important from the perspective of public safety and accountability to taxpayers that the awarding authority has the ability to manage not only the number of personnel, but their activities and productivity on the work site. While many assigned detail officers perform their duties with professionalism, many others have often requested unnecessary additional detail officers, largely because there was no fiscal incentive on the part of the assigning officers to preserve state-appropriated funds.

Additionally, MassHighway... revised each traffic management plan to reflect the appropriate number of safety personnel needed on construction projects... These plans also ensure the overall safety of drivers, pedestrians, bicyclists and workers in the construction zone.

### **AUDITOR'S REPLY**

The OSA acknowledges that the ability of the awarding authority "to determine the appropriate traffic control measures" is a significant change in law. In fact, it is this authority, coupled with the revisions to the traffic management plans that are the basis for nearly 90% of the cost report's projected savings. Whereas the EOTPW cost report and the public debate on this issue focus significantly on the police officers vs. flaggers question, the audit, in the interest of accuracy and perspective, simply highlights that the great majority of any savings to be realized will be as a result of a reduction in safety personnel at work sites, and not due to the salary differential between police officers and flaggers.

**AUDITEE'S COMMENT #2**

The OSA report notes that “our analysis estimates savings of \$615,000 to \$750,000” are based on replacing police officers with flaggers. This statement does not account for mandatory minimum hour provisions, mandatory supervisor officers, and increased cost from cruiser fees.

**AUDITOR'S REPLY**

On page 6 of EOTPW's cost report, it states that police and flaggers are subject to similar mandatory minimum hours provisions. Not only does EOTPW not mention flaggers being paid only for actual hours worked, it does not quantify any significant savings due to differences in the labor provisions. Similarly, EOTPW's report does not quantify any significant savings due to supervisor or cruiser fees. Regarding the issue of supervisors, the EOTPW report does not address the costs that will be borne by MassHighway for civilian supervisors or MassHighway employees that perform this function.

**AUDITEE'S COMMENT #3**

The OSA report provides that “flaggers’ hourly rates, as used in EOTPW's Cost Report, do not reflect the actual cost the Commonwealth will incur in hiring a company that employs or contracts with civilian flaggers. While (EOTPW) believes the prevailing wage information used represents an upper value, it acknowledges that several factors which may reduce the overall cost savings for the use of alternative personnel could not be quantified.

**AUDITOR'S REPLY**

In fact, while EOTPW acknowledges additional costs relative to hiring/contracting for flaggers, they do not reduce their cost savings claims. To the extent the EOTPW fails to include such well-established costs as overhead, profit, and workers' compensation, its claims of savings by replacing police officers with flaggers are incomplete and premature. Contractor and subcontractor costs associated with hiring flaggers will be passed through to EOTPW; its cost report does not factor in these established costs.

**AUDITEE'S COMMENT #4**

The OSA report provides that there would be some impact on public safety. In EOTPW's analysis of 208 construction projects, most cases, when reviewed and reconfigured result in a reduction in personnel. The OSA report estimates that 177 police officers would be eliminated from state-funded projects per day or 885 police officers per week.

This statement is misleading. (EOTPW) has revised its management plans in accordance with national standards; furthermore, road flaggers will be well-trained in flagging, work zone safety and first aid. There is no data to suggest there would be a public safety impact to construction zones.



**AUDITOR'S REPLY**

The OSA does not question the process used to revise the traffic management “plates”, nor do we suggest that there is not an appropriate role for well-trained flaggers in certain circumstances. However, this office was specifically requested by the co-chairs of the Legislature’s Public Safety and Homeland Security committee to assess the impact of the proposed changes on public safety. The EOTPW report does not discuss in any informative manner the dramatic reduction in personnel at work sites; this is information the Legislature and public should be in possession of.

**AUDITEE'S COMMENT #5**

The OSA report provides that “... according to EOTPW’s representatives, EOTPW does not intend to alter current detail staffing for any ongoing projects nor, in the near term, does EOTPW intend to combine flaggers and police officers at the same construction sites on projects that commence after the effective date of these regulations.” (OSA Report, p. 16).

This statement is inaccurate. EOTPW reserves the right to amend ongoing contracts to use flaggers, and will combine police officers and flaggers at worksites on new contracts.

**AUDITOR'S REPLY**

Due to implementation concerns regarding the contentious use of flaggers, EOTPW officials stated to OSA staff unequivocally that (1) ongoing contracts would not be amended to use flaggers, and (2) for the time being, they would not mix flaggers and police officers at the same worksite. Our comments are based wholly on EOTPW's own statements. It should be noted that the cost savings claimed by EOTPW are based in part on taking these steps.

**AUDITEE'S COMMENT #6**

The OSA report notes because EOTPW indicated to us that they do not intend to utilize apprentice flaggers in the foreseeable future, nor is it clear how these flaggers would or could be utilized, our analysis did not take into consideration the effect that any apprentice rates would have.” (OSA Report, p. 10).

This information is inaccurate. MassHighway cannot charge in-house employees performing flagging functions at apprentice rates. MassHighway employees are not subject to the prevailing wage. Contractors, however, can and do employ apprentice labor. Apprentice labor is present on many construction projects and provides both contractors and the Commonwealth with the opportunity to realize significant cost savings in performing traffic control and other functions. If an apprentice is certified as a road flagger, they will be paid at the reduced apprentice laborer wage dependent on their “apprentice step” (steps 1 through 4).

**AUDITOR'S REPLY**

Again, our comment is based on statements made to us by EOTPW officials. While OSA does not dispute that an apprentice flagger is paid at a lower wage, EOTPW's savings claims in this area provide no information relative to how apprentice flaggers can and will be utilized. According to the provisions of the flaggers statewide contract cited by EOTPW's cost report, apprentices are fully-benefited employees, may only work with at least one flagger, for each additional apprentice 3 flaggers must first be utilized, and finally, the use of apprentices "will not result in the displacement" of full flaggers. None of these factors are addressed by EOTPW; as stated earlier, contractors' costs will be passed on to MassHighway.

**AUDITEE'S COMMENT #7**

The OSA report cites examples of police details performing "police functions" while on detail but does not address issues related to a police officer leaving the construction zone. Furthermore, state highway funds should not be the funding source for supplementing police budgets, as worthy as that may be.

**AUDITOR'S REPLY**

EOTPW's report does not quantify any appreciable cost impact due to police leaving, however temporarily, a construction zone. Many of the "police functions" discussed in our report take place at the actual work site while stopping vehicles.

The fact of the matter is that police are able to perform additional functions beyond those of a flagger, and are on police duty while at the worksite. EOTPW has provided no evidence to demonstrate that additional police, beyond those needed for work zone safety, have been utilized at sites.

**AUDITEE'S COMMENT #8**

The OSA report should be revised to address the cost savings realized by MassHighway and other state agencies through the use of trained and certified in-house employees performing traffic control functions. For example, the Massachusetts Water Resources Authority (MWRA) was certified by MassHighway on November 14, 2008, pursuant to 701 C.M.R. § 7.07(2), to train its employees to perform road flagging functions. This will result in substantial savings to the MWRA when performing its core mission. Additionally, in accordance with the regulation and guidelines, MassHighway has performed routine maintenance work throughout its district offices using those in its own workforce who have been trained as road flaggers. This has resulted in savings to MassHighway (this information was shared with your office on January 27, 2009).

**AUDITOR'S REPLY**

MassHighway provided OSA with information suggesting \$10,000-\$12,000 in savings during the first three months of the new policies. These savings occurred when MassHighway employees served as flaggers instead of police officers, at a lower hourly rate. However, MassHighway includes no training costs in its financial analysis, nor does it include the non-detail hours that they would still be paying the MassHighway flagger.

Our audit focused on the cost analysis contained in EOTPW's report, which compares private flaggers with police officers. Furthermore, recent public comments by MassHighway indicate "less than 10% of flaggers on upcoming projects will be MassHighway employees" (Commissioner Luisa Paiewonsky, 3/7/09 Boston Herald).

**AUDITEE'S COMMENT #9**

The OSA report should be revised to address the cost savings to the Commonwealth realized through the public bidding process. While the report takes into consideration the maximum costs associated with a contractor bidding on a flagger item, it does not address the actual responses and received bids for roadway flagging. Additionally, the OSA report does not acknowledge that contractors with employees trained and certified as flaggers can use these employees not only to provide traffic control services when needed, but also to perform other functions on the construction site. This can be accomplished because road flaggers are classified as laborers. Contractors with employees certified as road flaggers will save money when using these traffic control personnel efficiently and effectively.

**AUDITOR'S REPLY**

EOTPW has not provided the OSA with any evidence of cost savings realized through the public bidding process for flagging companies. Information in EOTPW's report relative to flaggers performing other functions on behalf of the contractor does not substantiate savings. It remains unclear as to how a flagger working for a subcontractor flagging company will perform non-flagging responsibilities for a contractor. Additionally, if a flagger employee of a contractor or subcontractor is performing significant duties as a laborer, it is likely that they will be paid at a laborer's rate. Finally, EOTPW has not demonstrated to us that cost savings of a contractor will be passed on to MassHighway.

**AUDITEE'S COMMENT #10**

The OSA report should be revised to address cost impacts to the Commonwealth resulting from delay claims and work stoppage issues resulting from police details failing to report as scheduled. The EOTPW cost report cited many instances in its district study where police details did not report as scheduled but were nevertheless compensated in accordance with their

collective bargaining agreements. The Act and the Regulations now provide the awarding authority with the authority to implement alternative plans when police details arrive late, leave early, or otherwise fail to comply with their responsibilities as traffic control personnel.

**AUDITOR'S REPLY**

While EOTPW's report cites examples of details not reporting as scheduled, they provide no evidence of any financial impact, and particularly, no evidence that a police officer was paid (pursuant to a collective bargaining agreement) after not reporting. We are not aware of contract language that would allow such a practice, and if this practice was allowed, it reflects poorly on the oversight of the highway project management.

**AUDITEE'S COMMENT #11**

The OSA report notes that "cities and towns are paid a 10% administrative fee on all private details...(which) can range from \$40,000 for smaller municipalities to hundreds of thousands of dollars for larger ones." (OSA Report, p.4).

This statement is inaccurate and potentially misleading. MassHighway is exempt from this 10% fee. The Regulation has zero impact on whether a community collects this 10% administrative fee on private projects when they have a by-law or ordinance or collective bargaining agreement in place which conflicts with the Regulations. Utility companies which are not performing work under contract or permit by MassHighway will continue to be required to pay this fee. It is very important to note that the Regulations only apply to "public work contracts." Private construction projects will continue to follow whatever local rules are in place. Also absent from the OSA Report is the likely savings to cities and towns when they are the awarding authority if they choose to follow the Regulations (absent contrary local laws or collective bargaining agreements).

**AUDITOR'S REPLY**

This discussion is contained in the audit section addressing local impact, and specifically, what would happen if cities and towns adopted the State regulations. If local contractors and utility companies were to use flaggers, cities and towns would lose the administrative fees.

Our report clearly states "private details," we do not state that MassHighway pays that 10% fee.

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**APPENDIX A****Letters from Chairman Michael A. Costello and Chairman James E. Timilty of the Joint  
Committee on Public Safety and Homeland Security**

COMMONWEALTH OF MASSACHUSETTS  
MASSACHUSETTS SENATE  
STATE HOUSE, BOSTON 02133-1053

SENATOR JAMES E. TIMILTY  
BRISTOL AND NORFOLK  
ROOM 518, STATE HOUSE  
TEL. (617) 722-1222  
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July 9, 2008

COMMITTEES:  
Public Safety and Homeland Security- Chair  
Tourism, Arts & Cultural Development - Vice-Chair  
Community Development & Small Business  
Transportation  
Elder Affairs  
Economic Development and Emerging Technologies

Auditor A. Joseph DeNucci  
State House, Room 230  
Boston, MA 02133

Dear Mr. Auditor,

I am writing to you in my capacity as the Senate Chairman of the Joint Committee on Public Safety and Homeland Security, in reference to the issue of police details, to respectfully request that your office conduct an investigation and produce a report on any potential cost savings that may be associated with the utilization of non-public safety personnel, commonly referred to as "flagmen".

As you know, in promulgating the rules and regulations mandated by Chapter 86 of the Acts of 2008, a full cost analysis is required to properly compare police details with those costs associated with the use of flagmen.

When discussing the utilization of flagmen, my primary concern will always be the safety of our roadways. Despite the difficult economic outlook facing the Commonwealth, I am always hesitant to sacrifice public safety in the interest of fiscal reform. If the primary motivation for considering the use of flagmen is one of cost savings, I think it is imperative that, as legislators, we are properly empowered with concrete, reliable data that clearly outlines the cost benefit of enacting such reform.

Over the past few months, I have seen conflicting reports as to the actual costs associated with implementing the transportation reform package, specifically as it pertains to the anticipated hourly wages of the proposed flagmen, versus that of the costs routinely attributed to police details.

For example, the prevailing wage in the greater Boston area for flagmen is approximately \$37.45 per hour. The average hourly rate for a police detail has been listed in numerous surveys between \$37 and \$38 per hour. If this data is accurate, I find it difficult to see significant cost benefit to the Commonwealth.

The police officers that we will be removing from our streets not only provide a significant level of safety and order in our cities and towns, with respect to roadway construction and traffic, but these officers are often the first to respond to major incidents in the vicinity of their details. A few months ago there was a commuter rail accident near my district where the first public safety officer to arrive on scene happen to be police officers working a nearby detail. This story is not the exception, but instead commonplace. I can not imagine non-public safety personnel, such as flagmen, would be compelled to respond to such an incident.

I understand that our transportation infrastructure is in dire need of reform and investment, but to effectuate such change by moving forward on a policy that would jeopardize the safety and well being of our citizens, for what seems to be negligible savings to the tax payers, is unjustifiable.

As Auditor of the Commonwealth your office is uniquely capable of undertaking a thorough analysis of the cost associated with police details versus flagmen. I am hopeful that your impartial report will provide us with the necessary data to make a responsible judgment as to whether or not the cost benefit will truly outweigh the interest of public safety.

Thank you, in advance, for your consideration of my request. If you should wish to discuss this issue further, please do not hesitate to contact my office.

With every good wish,

A handwritten signature in black ink, appearing to read 'J. Timilty', with a stylized flourish at the end.

**James E. Timilty**  
Bristol and Norfolk



REPRESENTATIVE  
MICHAEL A. COSTELLO  
CHAIRMAN  
ROOM 167, STATE HOUSE  
TEL. (617) 722-2230

*The Commonwealth of Massachusetts*  
JOINT COMMITTEE ON PUBLIC SAFETY AND HOMELAND SECURITY  
STATE HOUSE, BOSTON 02133-1054

SENATOR  
JAMES E. TIMILTY  
CHAIRMAN  
ROOM 518, STATE HOUSE  
TEL. (617) 722-1222

July 16, 2008

Dear Auditor DeNucci:

As Chairman of the Joint Committee on Public Safety and Homeland Security, I am writing to request a study be performed by the Auditor's office to report on the true cost of police details. This cost analysis would supplement the provisions in the recent transportation bond bill (Chapter 86 of the Acts of 2008) mandating full reporting and assessment of the costs of police details.

In the transportation bond bill, language is included that instructs the Administration to promulgate rules and regulations for the potential use of "flaggers" versus police details on public works projects. The Secretary of Transportation, as directed by language in the bond bill, shall examine the actual cost savings of using flaggers. The current numbers available on cost savings are inconsistent and vary widely depending on which source is providing the data.

Boston Police Patrolmen's Association has quoted the prevailing wage in the greater Boston area for a flagger as \$37.45 per hour, and the average state police detail prevailing wage for the same area at \$37-\$38.00 per hour. If these numbers are accurate, it appears that switching to flaggers will not result in substantial cost savings to the Commonwealth.

An investigation by the Auditor's office on the actual costs and actual savings between use of police details and flaggers would be helpful in determining whether or not the switch from police details to flaggers is fiscally responsible and retains efforts to protect and ensure the safety of the citizens of the Commonwealth. We respectfully request that your office conduct an analysis and prepare a report on the questions of cost delineated in sections 10 and 11 in Chapter 86 of the Acts of 2008, as well as any other cost analyses you and your office deem to be relevant.

Thank you in advance for your consideration.

Respectfully,

A handwritten signature in dark ink, appearing to read "Michael A. Costello".

Chairman Michael A. Costello  
Joint Committee on Public Safety and Homeland Security

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## APPENDIX B

### An Excerpt from Chapter 86 of the Acts of 2008 – Section 10

#### Chapter 86 of the Acts of 2008

**SECTION 10.** Notwithstanding any general or special law or rule or regulation to the contrary, the secretary of transportation and public works, in consultation with the secretary of public safety may promulgate regulations and recommend guidelines for the use of police details at public works sites. The regulations and guidelines shall consider categorizing public works projects, including roadways, bridges, intersections, railroads and any other similar project components, into tiers and recommend which tiers shall require the utilization of police details during work hours. The regulations shall also take into account traffic patterns, roadway design, criminal and civil offenses committed in the area and proximity to schools, playgrounds and other youth activity locations. The secretaries may also make recommendations on the use of alternative personnel is appropriate for various tiers of public works projects. In promulgating the rules and regulations hereunder, the secretary shall examine the actual costs savings from the utilization of alternative personnel.

Notwithstanding any provision of this section to the contrary, the regulations and guidelines promulgated hereunder shall ensure that the awarding authority of the public works contract has the authority to determine the appropriate traffic control measures; provided, however, that when a municipality is the awarding authority, the traffic control measures shall be consistent with the ordinances or by laws of the municipality wherein the public works project is being undertaken and the measures shall not affect any applicable provisions of a collective bargaining agreement under chapter 150E of the General Laws.

The regulations and guidelines shall require the inclusion of a “construction zone safety plan” in each public works contract which shall require the use of personnel to ensure the safety of workers on construction sites. The plan shall include the number of construction zone safety personnel required to be on site daily and the procedures to be followed in the case the designated personnel who fail to arrive at the work site as agreed.

These regulations shall be promulgated and forwarded to the chairs of the senate and house committees on ways and means and the senate and house chairs of the joint committee on transportation within 90 days after the effective date of this act.



## APPENDIX C

### Office of the State Auditor's Survey Report from Selective Cities and Towns on Paid Police Details for Fiscal Years 2006, 2007 and 2008 and Administrative Fees Received by these Communities During the Same Period

| Municipality      | L.O. * | C.B.A.** | Flagmen on Details? | Average Hourly Detail Salary | Year    | Amount paid in Details | Municipal Detail Costs | Detail Costs Reimbursed | Year    | Administrative Fees Rec'd | Cruiser Fee |
|-------------------|--------|----------|---------------------|------------------------------|---------|------------------------|------------------------|-------------------------|---------|---------------------------|-------------|
| <b>Agawam</b>     |        | Yes      | No                  | \$45.88                      | FY 2006 | \$413,529.21           |                        |                         | FY 2006 | \$31,735.65               |             |
|                   |        |          |                     |                              | FY 2007 | \$418,900.95           |                        |                         | FY 2007 | \$34,323.31               |             |
|                   |        |          |                     |                              | FY 2008 | \$457,319.40           | \$26,889.66            | \$482,056.67            | FY 2008 | \$41,332.04               |             |
| <b>Arlington</b>  |        | Yes      |                     | \$40.00                      | FY 2006 | \$909,935.00           |                        |                         | FY 2006 | \$73,852.00               |             |
|                   |        |          |                     |                              | FY 2007 | \$1,059,373.00         |                        |                         | FY 2007 | \$72,017.00               |             |
|                   |        |          |                     |                              | FY 2008 | \$782,427.00           | N/A                    | N/A                     | FY 2008 | \$71,208.00               |             |
| <b>Barnstable</b> |        | Yes      |                     | \$40.00                      | FY 2006 | \$988,617.20           |                        |                         | FY 2006 | \$71,090.40               |             |
|                   |        |          |                     |                              | FY 2007 | \$917,413.30           |                        |                         | FY 2007 | \$59,532.20               |             |
|                   |        |          |                     |                              | FY 2008 | still open             |                        |                         | FY 2008 | still open                |             |
| <b>Beverly</b>    | No     | Yes      |                     | \$48.00                      | FY 2006 | \$1,071,167.00         |                        |                         | FY 2006 | \$66,380.00               |             |
|                   |        |          |                     |                              | FY 2007 | \$1,245,329.00         |                        |                         | FY 2007 | \$75,754.00               |             |
|                   |        |          |                     |                              | FY 2008 | \$901,207.00           | \$223,761.00           | 677,446.00              | FY 2008 | \$78,262.00               |             |
| <b>Boston</b>     | Yes    | Yes      |                     | \$42.50                      | FY 2006 | \$28,757,681.00        |                        |                         | FY 2006 | \$2,128,697.00            |             |
|                   |        |          |                     |                              | FY 2007 | \$31,588,056.00        |                        |                         | FY 2007 | \$2,705,737.00            |             |
|                   |        |          |                     |                              | FY 2008 | \$30,712,130.00        | \$71,981.00            | \$30,640,149.00         | FY 2008 | \$3,065,084.00            |             |
| <b>Brockton</b>   | Yes    | Yes      |                     | \$35.00                      | FY 2006 | \$1,562,605.10         |                        |                         | FY 2006 | \$93,265.73               |             |
|                   |        |          |                     |                              | FY 2007 | \$1,688,950.33         |                        |                         | FY 2007 | \$125,342.82              |             |
|                   |        |          |                     |                              | FY 2008 | \$1,188,816.36         | \$341,857.05           | \$889,731.45            | FY 2008 | \$71,350.27               |             |

| Municipality     | L.O. * | C.B.A.** | Flagmen on Details? | Average Hourly Detail Salary | Year    | Amount paid in Details | Municipal Detail Costs | Detail Costs Reimbursed | Year    | Administrative Fees Rec'd | Cruiser Fee |
|------------------|--------|----------|---------------------|------------------------------|---------|------------------------|------------------------|-------------------------|---------|---------------------------|-------------|
| <b>Brookline</b> | yes    | yes      |                     | \$40.00                      | FY 2006 | \$1,501,769.00         |                        |                         | FY 2006 | \$127,884.00              |             |
|                  |        |          |                     |                              | FY 2007 | \$2,469,324.00         |                        |                         | FY 2007 | \$136,933.00              |             |
|                  |        |          |                     |                              | FY 2008 | \$2,832,286.00         | \$157,724.00           | \$2,674,562.00          | FY 2008 | \$152,873.00              |             |
|                  |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Cambridge</b> |        |          |                     | \$40.00                      | FY 2006 | \$5,106,231.00         |                        |                         | FY 2006 | \$451,652.00              |             |
|                  |        |          |                     |                              | FY 2007 | \$5,568,675.00         |                        |                         | FY 2007 | \$430,641.00              |             |
|                  |        |          |                     |                              | FY 2008 | \$5,782,592.00         | \$885,540.00           | \$4,897,052.00          | FY 2008 | \$417,689.00              |             |
|                  |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Chelsea</b>   | Yes    | Yes      | No                  | \$35.00                      | FY 2006 | \$699,281.00           |                        |                         | FY 2006 | \$42,055.00               |             |
|                  |        |          |                     |                              | FY 2007 | \$880,817.00           |                        |                         | FY 2007 | \$49,987.00               |             |
|                  |        |          |                     |                              | FY 2008 | \$791,069.00           | \$169,645.00           | \$621,424.00            | FY 2008 | \$64,793.00               |             |
|                  |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Chicopee</b>  |        | Yes      |                     | \$37.58                      | FY 2006 | \$731,304.25           |                        |                         | FY 2006 | \$59,688.70               |             |
|                  |        |          |                     |                              | FY 2007 | \$528,040.90           |                        |                         | FY 2007 | \$45,310.31               |             |
|                  |        |          |                     |                              | FY 2008 | \$1,081,439.80         | \$591,920.14           | \$489,519.66            | FY 2008 | \$97,627.78               |             |
|                  |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Danvers</b>   | No     | No       |                     | \$42.00                      | FY 2006 | \$449,299.00           |                        |                         | FY 2006 | \$31,392.00               |             |
|                  |        |          |                     |                              | FY 2007 | \$694,026.00           |                        |                         | FY 2007 | \$46,779.00               |             |
|                  |        |          |                     |                              | FY 2008 | \$570,600.00           | \$111,934.00           | \$458,661.00            | FY 2008 | \$44,021.00               |             |
|                  |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Everett</b>   | Yes    | Yes      |                     | \$42.00                      | FY 2006 | \$1,725,065.08         |                        |                         | FY 2006 | \$93,597.94               |             |
|                  |        |          |                     |                              | FY 2007 | \$1,712,918.37         |                        |                         | FY 2007 | \$80,018.42               |             |
|                  |        |          |                     |                              | FY 2008 | \$1,958,358.55         | \$361,496.50           | 1,596,862.05            | FY 2008 | \$94,888.66               |             |

| Municipality       | L.O. * | C.B.A.** | Flagmen on Details? | Average Hourly Detail Salary | Year    | Amount paid in Details | Municipal Detail Costs | Detail Costs Reimbursed | Year    | Administrative Fees Rec'd | Cruiser Fee |
|--------------------|--------|----------|---------------------|------------------------------|---------|------------------------|------------------------|-------------------------|---------|---------------------------|-------------|
| <b>Framingham</b>  |        | No       |                     | \$46.00                      | FY 2006 | \$1,442,765.00         |                        |                         | FY 2006 | \$181,395.00              |             |
|                    |        |          |                     |                              | FY 2007 | \$1,791,373.00         |                        |                         | FY 2007 | \$131,088.00              |             |
|                    |        |          |                     |                              | FY 2008 | \$1,676,369.00         | 575,625.00             | 1,082,579.00            | FY 2008 | \$90,505.00               |             |
|                    |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Holyoke</b>     |        | No       | No                  | \$34.00                      | FY 2006 | \$828,323.00           |                        |                         | FY 2006 | \$0.00                    |             |
|                    |        |          |                     |                              | FY 2007 | \$810,861.00           |                        |                         | FY 2007 | \$0.00                    |             |
|                    |        |          |                     |                              | FY 2008 | \$847,561.00           | \$215,623.00           | 631,938.00              | FY 2008 | \$0.00                    |             |
|                    |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Lynn</b>        | Yes    | Yes      |                     | \$36.00                      | FY 2006 | \$1,189,411.00         |                        |                         | FY 2006 | \$32,738.00               |             |
|                    |        |          |                     |                              | FY 2007 | \$1,186,491.00         |                        |                         | FY 2007 | \$100,464.00              |             |
|                    |        |          |                     |                              | FY 2008 | 1,393,666.00           | \$126,473.00           | \$1,267,193.00          | FY 2008 | \$104,645.00              |             |
|                    |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Marlborough</b> | No     | No       | No                  | \$54.52                      | FY 2006 | \$469,286.52           |                        |                         | FY 2006 | \$24,484.19               |             |
|                    |        |          |                     |                              | FY 2007 | \$506,720.16           |                        |                         | FY 2007 | \$48,891.59               |             |
|                    |        |          |                     |                              | FY 2008 | \$815,919.52           |                        |                         | FY 2008 | \$69,184.19               |             |
|                    |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Medford</b>     | No     | No       | No                  | \$40.00                      | FY 2006 | \$1,335,368.00         |                        |                         | FY 2006 | \$133,536.80              |             |
|                    |        |          |                     |                              | FY 2007 | \$1,220,209.00         |                        |                         | FY 2007 | \$122,020.90              |             |
|                    |        |          |                     |                              | FY 2008 | \$1,268,087.00         | \$361,721.00           | 906,366.00              | FY 2008 | \$90,636.00               |             |
|                    |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
|                    |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
|                    |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Milford</b>     | Yes    |          |                     | \$42.33                      | FY 2006 | \$460,352.00           |                        |                         | FY 2006 | \$31,786.00               |             |
|                    |        |          |                     |                              | FY 2007 | \$750,504.00           |                        |                         | FY 2007 | \$63,215.00               |             |
|                    |        |          |                     |                              | FY 2008 | \$673,577.00           |                        |                         | FY 2008 | \$65,104.00               |             |
|                    |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Natick</b>      |        | Yes      |                     | \$38.00                      | FY 2006 | \$578,896.00           |                        |                         | FY 2006 | \$49,915.20               |             |
|                    |        |          |                     |                              | FY 2007 | \$569,928.00           |                        |                         | FY 2007 | \$37,058.80               |             |
|                    |        |          |                     |                              | FY 2008 | \$636,964.00           | \$148,292.00           | 488,672.00              | FY 2008 | \$48,867.20               |             |

| Municipality      | L.O. * | C.B.A.** | Flagmen on Details? | Average Hourly Detail Salary | Year    | Amount paid in Details | Municipal Detail Costs       | Detail Costs Reimbursed | Year    | Administrative Fees Rec'd | Cruiser Fee |
|-------------------|--------|----------|---------------------|------------------------------|---------|------------------------|------------------------------|-------------------------|---------|---------------------------|-------------|
| <b>Newton</b>     |        | Yes      |                     | \$40.00                      | FY 2006 | \$1,943,056.41         |                              |                         | FY 2006 | \$180,491.86              |             |
|                   |        |          |                     |                              | FY 2007 | \$2,602,391.68         |                              |                         | FY 2007 | \$233,672.08              |             |
|                   |        |          |                     |                              | FY 2008 | \$2,530,759.87         | \$150,082.05                 | N/A                     | FY 2008 | \$223,180.21              |             |
| <b>Peabody</b>    |        | Yes      |                     | \$38.00                      | FY 2006 | \$751,268.00           |                              |                         | FY 2006 | \$5,412.00                |             |
|                   |        |          |                     |                              | FY 2007 | \$704,356.00           |                              |                         | FY 2007 | \$45,886.00               |             |
|                   |        |          |                     |                              | FY 2008 | \$688,856.00           | \$125,231.00                 | \$563,625.00            | FY 2008 | \$46,445.00               |             |
| <b>Plymouth</b>   | Yes    | No       | No                  | \$39.68                      | FY 2006 | unavailable            |                              |                         | FY 2006 | \$35,736.00               |             |
|                   |        |          |                     |                              | FY 2007 | \$840,080.00           |                              |                         | FY 2007 | \$52,432.00               |             |
|                   |        |          |                     |                              | FY 2008 | \$952,560.00           | \$952,560.00                 | \$761,841.00            | FY 2008 | \$76,184.00               |             |
| <b>Quincy</b>     | Yes    | Yes      |                     | \$39.00                      | FY 2006 | \$2,353,930.00         |                              |                         | FY 2006 | \$235,393.00              |             |
|                   |        |          |                     |                              | FY 2007 | \$2,107,083.00         |                              |                         | FY 2007 | \$210,708.30              |             |
|                   |        |          |                     |                              | FY 2008 | \$2,888,043.00         | \$16,991.06                  | \$2,871,051.94          | FY2008  | \$288,804.30              |             |
| <b>Revere</b>     | No     | No       | No                  | \$38.00                      | FY 2006 | 1,303,178.74 *         | *does not include Admin. Fee |                         | FY 2006 | \$104,270.63              |             |
|                   |        |          |                     |                              | FY 2007 | 2,062,513.25 *         |                              |                         | FY 2007 | \$90,120.62               |             |
|                   |        |          |                     |                              | FY 2008 | 1,615,901.06 *         | \$161,590.11                 | \$1,454,310.95          | FY 2008 | \$104,672.70              |             |
| <b>Saugus</b>     |        | yes      |                     | \$42.00                      | FY 2006 | \$640,150.00           |                              |                         | FY 2006 | \$47,200.00               | \$5,500.00  |
|                   |        |          |                     |                              | FY 2007 | \$995,750.00           |                              |                         | FY 2007 | \$76,250.00               | \$14,500.00 |
|                   |        |          |                     |                              | FY 2008 | \$1,032,200.00         | \$97,500.00                  | \$1,051,250.00          | FY 2008 | \$73,500.00               | \$11,800.00 |
| <b>Somerville</b> | Yes    | Yes      |                     | \$40.00                      | FY 2006 | \$1,482,717.00         |                              |                         | FY 2006 | \$114,219.28              |             |
|                   |        |          |                     |                              | FY 2007 | \$1,591,029.85         |                              |                         | FY 2007 | \$122,434.06              |             |
|                   |        |          |                     |                              | FY 2008 | \$2,036,796.10         | \$250,000.00                 | 1,786,796.10            | FY 2008 | \$114,591.02              |             |

| Municipality       | L.O. * | C.B.A.** | Flagmen on Details? | Average Hourly Detail Salary | Year    | Amount paid in Details | Municipal Detail Costs | Detail Costs Reimbursed | Year    | Administrative Fees Rec'd | Cruiser Fee |
|--------------------|--------|----------|---------------------|------------------------------|---------|------------------------|------------------------|-------------------------|---------|---------------------------|-------------|
| <b>Southbridge</b> | Yes    | Yes      |                     | \$41.00                      | FY 2006 | \$470,000.00           |                        |                         | FY 2006 | 5-10%                     |             |
|                    |        |          |                     |                              | FY 2007 | \$420,000.00           |                        |                         | FY 2007 | 10%                       |             |
|                    |        |          |                     |                              | FY 2008 | \$450,000.00           | \$150,000.00           | \$300,000.00            | FY 2008 |                           |             |
| <b>Springfield</b> |        | Yes      |                     | \$38.82                      | FY 2006 | \$3,096,801.60         |                        |                         | FY 2006 | \$247,744.00              |             |
|                    |        |          |                     |                              | FY 2007 | \$3,456,095.07         |                        |                         | FY 2007 | \$276,488.00              |             |
|                    |        |          |                     |                              | FY 2008 | \$4,853,977.61         | N/A                    | N/A                     | FY 2008 | \$388,318.00              |             |
| <b>Tewksbury</b>   | Yes    |          |                     | \$40.00                      | FY 2006 | \$1,558,854.00         |                        |                         | FY 2006 | \$67,024.00               |             |
|                    |        |          |                     |                              | FY 2007 | \$1,786,300.00         |                        |                         | FY 2007 | \$73,992.00               |             |
|                    |        |          |                     |                              | FY 2008 | \$1,205,246.00         | \$800,716.00           | 404,530.00              | FY 2008 | \$40,453.00               |             |
| <b>Waltham</b>     | Yes    | Yes      |                     | \$39.00                      | FY 2006 | \$1,517,330.00         |                        |                         | FY 2006 | \$90,818.00               |             |
|                    |        |          |                     |                              | FY 2007 | \$1,889,975.00         |                        |                         | FY 2007 | \$150,158.00              |             |
|                    |        |          |                     |                              | FY 2008 | \$2,092,865.00         | \$115,057.00           | 1,977,808.00            | FY 2008 | \$142,498.00              |             |
| <b>Watertown</b>   |        |          | No                  | \$38.00                      | FY 2006 | \$520,221.00           |                        |                         | FY 2006 | \$41,801.00               |             |
|                    |        |          |                     |                              | FY 2007 | \$631,640.00           |                        |                         | FY 2007 | \$49,405.00               |             |
|                    |        |          |                     |                              | FY 2008 | \$557,516.00           | Cannot provide         | Cannot provide          | FY 2008 | \$48,618.00               |             |
| <b>Wayland</b>     |        | yes      |                     | \$42.00                      | FY 2006 | Not available          |                        |                         | FY 2006 | Not available             |             |
|                    |        |          |                     |                              | FY 2007 | \$340,405.00           |                        |                         | FY 2007 | \$34,040.54               |             |
|                    |        |          |                     |                              | FY 2008 | \$298,156.79           | \$26,921.96            | \$271,234.83            | FY 2008 | \$27,123.48               |             |

| Municipality     | L.O. * | C.B.A.** | Flagmen on Details? | Average Hourly Detail Salary | Year    | Amount paid in Details | Municipal Detail Costs | Detail Costs Reimbursed | Year    | Administrative Fees Rec'd | Cruiser Fee |
|------------------|--------|----------|---------------------|------------------------------|---------|------------------------|------------------------|-------------------------|---------|---------------------------|-------------|
| <b>Westfield</b> | Yes    | Yes      |                     | \$41.00                      | FY 2006 | \$573,532.40           |                        |                         | FY 2006 | \$12,293.68               |             |
|                  |        |          |                     |                              | FY 2007 | \$774,432.44           |                        |                         | FY 2007 | \$18,994.24               |             |
|                  |        |          |                     |                              | FY 2008 | \$778,706.35           | \$387,765.50           | 390,940.85              | FY 2008 | \$19,791.55               |             |
|                  |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Weston</b>    |        | Yes      |                     | \$44.00                      | FY 2006 | \$421,093.00           |                        |                         | FY 2006 | No                        |             |
|                  |        |          |                     |                              | FY 2007 | \$449,465.00           |                        |                         | FY 2007 | No                        |             |
|                  |        |          |                     |                              | FY 2008 | \$780,252.00           | N/A                    | N/A                     | FY 2008 | No                        |             |
|                  |        |          |                     |                              |         |                        |                        |                         |         |                           |             |
| <b>Worcester</b> | No     | No       | No                  | \$40.52                      | FY 2006 | \$6,236,716.56         |                        |                         | FY 2006 | \$413,069.67              |             |
|                  |        |          |                     |                              | FY 2007 | \$6,322,468.13         |                        |                         | FY 2007 | \$437,976.93              |             |
|                  |        |          |                     |                              | FY 2008 | \$6,098,759.35         | \$1,119,785.82         | \$4,978,973.53          | FY 2008 | \$447,935.75              |             |

\*Local Ordinance

\*\*Collective Bargaining Agreement

## APPENDIX D

### Selected Examples of Police Actions Associated with Police Details

During the course of our review of EOTPW, the Office of the State Auditor reviewed numerous police reports that identified police related activities involving police officers while on paid police details. Below are selected examples of those reports and are intended to provide a representative sample of the types of activities that police officers attended to while working a paid police detail. It should also be noted that many of the incidents reviewed by us involved motor vehicle violations, such as speeding, erratic driving behavior and failing to obey police instructions. The examples cited below, in most cases, highlight more serious incidences where police officers were able to intervene in life saving situations, apprehending known felons with outstanding warrants, mediating domestic violence situations and taking into custody murder and rape suspects.

**Example # 1 – Apprehending a Suspected Rapist.** A police officer, completing a paid detail, responded and assisted in the capture of a person suspected to have been involved in a rape case in Salem, Ma.

**Example #2 Attending to a Heart Attack Victim.** Two police officers on a paid detail responded to a medical emergency involving a man who had suffered a heart attack. The officers were able to administer CPR, utilize a defibrillator from the patrol car and resuscitate the heart attack victim. By virtue of their intervention, the victim survived.

**Example #3 - Arrest of a Suspected Burglar.** A police officer on detail responded to a radio dispatch transmission about a house break-in in progress. This officer assisted other police officers in creating a perimeter around the area in question. Shortly after the police officer arrived he noticed a person meeting the description of the suspect and began questioning the suspect. After confirming the identity of the suspect, the police officer arrested the person who was charged with a felony of Breaking and Entering during the daytime.

**Example #4 - Apprehending a Suspected Stalker.** Two police officers in the process of completing a paid detail were instrumental in apprehending a suspicious male who was causing fear and concerns to a female runner. The female runner believed she was being stalked by this individual and feared for her safety. The female runner indicated that the suspect had repeatedly followed and harassed her during her afternoon jog. A description of the male was posted. Later,

the female runner notified police of another encounter with the suspect. The police officer responded and was able to assist another police officer in arresting the suspect.

**Example #5 - Assisted in Finding a Missing Child.** A hysterical mother reported that her 2-year old daughter was missing. A detail police officer responded to the missing person alert and the little girl was found shortly thereafter in a wooded area near her home.

**Example #6 - Averting a Potential Propane Explosion.** A detail police officer reported that a gasoline truck had slid on an icy roadway and was in danger of flipping over and causing a potential propane gas explosion. The police officer quickly closed the immediate area and called the local fire department. The vehicle was successfully removed from the site and the police officer resumed his detail.

**Example #7 - Arrest of Robber of a Local Drug Store.** Two police officers working a paid detail responded to a dispatch report of a robbery at a local pharmacy. Both officers assisted in arresting the suspect involved in the robbery within minutes of the actual robbery.

**Example #8 - Rape Case and Arrest of the Suspected Rapist.** A number of police officers while on paid detail responded to a Boston Police dispatcher notification with respect to a rape of a child. Responding to this call, police officers were able to secure the perimeter of the crime scene and the assailant was arrested.

**Example #9 - Arrest of a Fleeing Fugitive.** A police officer on detail, near a courthouse where a subject was being arraigned, received notification that the subject had fled the courthouse and was fleeing in his direction. The police officer was able to confront the subject and detain him.

**Example #10 - Medical Emergency Situation Involving Attempted Suicide.** A police officer on detail interrupted a man attempting to commit suicide by hanging.

**Example #11 - Arrest of a Suspect for Larceny and Drug Possession.** A police officer on detail was able to stop a motor vehicle driven by a person known to him to be wanted for larceny in a nearby town. A later search of police records revealed the operator had numerous warrants outstanding and a further search of the vehicle found to have illegal narcotics.



**Example #12 - Arrest of Alleged Drug Dealer.** As a result of a routine motor vehicle violation, a detail police officer was able to arrest a motorist who was in possession of a large amount of narcotics.

**Example #13 - Arrest of a Felon with Outstanding Warrants.** A police officer working a detail at a local restaurant received information from the Bellingham Dispatcher that the New Hampshire Police were looking for a suspect with active warrants for multiply felony accounts of assaults on a minor child. The officer, on detail, noticed that a person fitting the description of the suspect was working at this detail site and began monitoring the suspect. After confirming the suspects identity, the officer, together with another police officer, arrested the suspect and the suspect was transported to New Hampshire for arraignment.

**Example #14 - Arrest of a Homicide Suspect.** A detail police officer responded to a report of a possible homicide. A juvenile allegedly shot a victim while the victim was in a car. Responding to this incident, the police officer on detail and other responding police officers were able to arrest the assailant within a relatively short period of time.

**Example #15 - Medical Emergency Situation Involving an Arrest of a Suspect for Attempted Murder.** A police officer working a traffic detail heard a “loud bang type noise” emitting from what he believed to be a small green colored vehicle traveling extremely slow. Upon investigating this incident, the police officer observed that a passenger in the car had been shot and another individual had just exited the vehicle. The police officer ordered the suspect to stop; however, this command was ignored by the suspect. Upon radioing a description of the suspect to the responding police officer, the suspect was apprehended and arrested.

**Example #16 - Arrest of a Suspect Wanted for Murder and Attempted Murder.** Two police officers on detail heard a police dispatcher report to be on the lookout for a suspect wanted on one count of murder and one count of attempted murder. This suspect, who was known to the police, had recently passed the police detail and the police officers were able to give information to other police officers as to his possible whereabouts. Because of the attentiveness of these two police officers, the suspect was located within a few hours and taken into custody.

**Example #17 - Domestic Violence Situation Involving Physical Harm with a Dangerous Weapon.** A police detail responded to a dispatcher report about a possible domestic violence

situation. A husband and wife had an argument and the husband had threatened his wife during the domestic dispute. The assailant had a large knife and had cut his wrists. The detail police officer arrived at the scene to assist other police officers at the scene and ended up assisting in the negotiations with the husband. Through the intervention of the detailed police officer, he was able to calm the assailant and was able to distract him long enough so that non-lethal force could be used to subdue him.

**Example #18 - Assisted in Evacuation of Local School after Reports of a Gas Explosion and Fire Near School Area.** Several detail police officers responded to an emergency situation at a local school where there was a report of a gas explosion and fire next to the school. The police officers were able to take control of the situation and safely and orderly evacuate the student from the immediate area.

**Example #19 - Medical Emergency Situation.** A police officer working a road detail was notified of a person needing medical attention in a house near the site of the detail. The person had suffered a heart attack and the police officer assisted the victim until the ambulance arrived.

**Example #20 - School Related Violence and Potential Physical Harm to a Teacher.** A detail police officer responded to an incident at a local elementary school involving a 10-year emotionally distraught boy. The boy was in the process of attacking a female teacher near a busy intersection. The police officer was able to subdue the young boy, calm him down and prevent any physical harm to either the boy or the female teacher.

**Example #21 - House Fire.** A police officer during his construction detail received a report from a passerby of smoke coming from a residence not far from the construction zone. The police officer was able to radio the information and direct the police and fire personnel to the location of the fire, which was quickly extinguished.

**Example #22 - Underage Drinking Party Involving a Large Group of Youths.** While on a traffic control detail at a local event, a police officer noticed a large group of youths coming to and going from a nearby parking lot. While observing the group's conduct, the police officer became suspicious and reported it to other police officers on the same detail. Several police officers then investigated the situation and discovered a large underage drinking operation that was being operated out of the parking area.

**Example #23 - Arrest of Three Persons Suspected of Armed Bank Robbery.** Several police officers on detail assisted in the capture of three individuals involved in the robbery of a downtown bank. An observant citizen called the local police department and reported that there was a bank robbery in progress and then followed the suspected theft's vehicle and informing police of its whereabouts while they were fleeing. With the assistance of the detail police officers, the suspects were cornered and captured without any further incident.

**Example #24 - Child in Distress.** A police officer while on detail received a call that there was a medical emergency nearby. A young child had swallowed a piece of candy and it was lodged in her throat. When the police officer arrived the child was choking, so the police officer removed the obstruction from the child's throat, cleared the child's airway and radioed for an EMT.

## APPENDIX E

### Table 1.1, Table 2 and Attachment D to EOTPW's Road Flagger & Police Detail Cost Report and Analysis

TABLE 1.1  
Police Detail Rates

| Zone | Effective Date on File | 6/19/2008 | 6/19/2009 | 6/19/2010 |
|------|------------------------|-----------|-----------|-----------|
| 1    | Boston                 | \$37.00   | NA        | NA        |
| 2    | Abington <sup>3</sup>  | \$40.00   | NA        | NA        |
| 3    | Agawam                 | \$42.40   | NA        | NA        |
| 4    | Adams                  | \$32.00   | NA        | NA        |

TABLE 2

#### Base Road Flagger and Base Police Detail – Rate Comparison

|                            |         |
|----------------------------|---------|
| Average Police Detail Rate | \$38.43 |
| Average Road Flagger Rate  | \$33.09 |
| Average Percent Savings    | 13.01%  |

<sup>3</sup> There is no rate information available for Abington. Its neighbor, Rockland, is in the same wage zone as established by the Department of Occupational Safety.

## Attachment D

| Police & Flagger Dates and Rates |                      |           |             |              |                |                 |                    |  |  |
|----------------------------------|----------------------|-----------|-------------|--------------|----------------|-----------------|--------------------|--|--|
| Dist                             | City or Town         | Date      | Police Rate | Flagger Rate | Dollar Savings | Percent Savings | Police Rate Source | Supplemental Information                                     |  |
| 5                                | Abington             |           |             |              |                |                 |                    |  |  |
| 4                                | Acton                | 7/1/2006  | \$39.00     | \$33.45      | \$5.55         | 14.23%          | On File            |  |  |
| 5                                | Acushnet             | 6/19/2008 | \$37.00     | \$33.45      | \$3.55         | 9.59%           | MCOPA              | Union has contract specifying detail officers and streets    |  |
| 1                                | Adams                | 6/19/2008 | \$32.00     | \$31.70      | \$0.30         | 0.94%           | MCOPA              | No by-law  |  |
| 2                                | Agawam               | 6/19/2008 | \$42.40     | \$31.83      | \$10.57        | 24.93%          | MCOPA              | No by-law  |  |
| 1                                | Afford               | 6/19/2008 | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED  |  |
| 4                                | Amesbury             | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | CITY/TOWN          |  |  |
| 2                                | Amherst              | 7/1/2006  | \$41.87     | \$31.83      | \$10.04        | 23.98%          | CITY/TOWN          |  |  |
| 4                                | Andover              | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOPA              | OT pay equals time and half. Supervisors paid extra.         |  |
| 5                                | Aquinnish (Gay Head) | 7/1/2006  | \$37.00     | \$33.45      | \$3.55         | 9.59%           | CITY/TOWN          | No by-law, policy to use police details since 1978           |  |
| 4                                | Arlington            | 7/1/2006  | \$42.25     | \$34.85      | \$7.40         | 17.51%          | On File            |  |  |
| 3                                | Ashburnham           | 6/19/2008 | \$41.87     | \$33.45      | \$8.42         | 20.11%          | MCOPA              | No by-law  |  |
| 3                                | Ashby                | 7/1/2006  | \$37.00     | \$33.45      | \$3.55         | 9.59%           | On File            |  |  |
| 1                                | Ashfield             | 7/1/2006  | \$37.00     | \$31.70      | \$5.30         | 14.32%          | On File            |  |  |
| 3                                | Ashtand              |           |             |              |                |                 |                    |  |  |
| 2                                | Athol                | 1/4/2007  | \$35.00     | \$33.45      | \$1.55         | 4.43%           | CITY/TOWN          |  |  |
| 5                                | Attleboro            | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOPA              | No by-law  |  |
| 3                                | Auburn               | 7/1/2006  | \$37.00     | \$33.45      | \$3.55         | 9.59%           | On File            |  |  |
| 5                                | Avon                 | 6/19/2008 | \$36.18     | \$33.45      | \$2.73         | 7.56%           | MCOPA              | No by-law  |  |
| 3                                | Ayer                 | 6/19/2008 | \$43.96     | \$33.45      | \$10.51        | 23.91%          | MCOPA              | No by-law  |  |
| 5                                | Barnstable           | 7/1/2006  | \$40.00     | \$33.45      | \$6.55         | 16.38%          | On File            |  |  |
| 2                                | Barre                | 7/1/2006  | \$35.00     | \$33.45      | \$1.55         | 4.43%           | CITY/TOWN          | Paid time and a half on Sundays, Holidays, & increased risk. |  |
| 1                                | Becket               | 6/19/2008 | \$33.00     | \$31.70      | \$1.30         | 3.94%           | MCOPA              | Yes (town by-law)  |  |
| 4                                | Bedford              | 6/19/2008 | \$41.00     | \$33.45      | \$7.55         | 18.41%          | MCOPA              | No by-law  |  |
| 2                                | Belcher town         | 9/26/2006 | \$36.00     | \$33.45      | \$2.55         | 7.08%           | MCOPA              | 4 and 8 hr minimums. Over 8 billed at \$54.                  |  |
| 3                                | Bellingham           | 6/19/2008 | \$34.01     | \$31.83      | \$2.18         | 6.41%           | MCOPA              | No by-law  |  |
| 4                                | Belmont              | 6/19/2008 | \$39.25     | \$34.85      | \$4.40         | 11.21%          | MCOPA              | No by-law (\$39.25 outside, \$37.75 inside)                  |  |
| 5                                | Berkley              | 6/19/2008 | \$36.00     | \$33.45      | \$2.55         | 7.08%           | MCOPA              | No by-law  |  |
| 3                                | Berlin               | 6/19/2008 | \$47.00     | \$33.45      | \$13.55        | 28.83%          | MCOPA              | No by-law  |  |
| 2                                | Bernardston          | 7/1/2006  | \$37.00     | \$31.83      | \$5.17         | 13.97%          | CITY/TOWN          | Cruiser=Extra, 1.5 rate on Saturdays, 2x rate on Sunday      |  |
| 4                                | Beverly              | 7/1/2008  | \$48.00     | \$33.45      | \$14.55        | 30.31%          | CITY/TOWN          |  |  |
| 4                                | Billerica            | 6/19/2008 | \$43.00     | \$33.45      | \$9.55         | 22.21%          | MCOPA              | CBA does have requirements                                   |  |
| 3                                | Blackstone           | 6/19/2008 | \$35.00     | \$33.45      | \$1.55         | 4.43%           | MCOPA              | No by-law  |  |

| Dist | City or Town    | Date      | Police Rate | Flaggar Rate | Dollar Savings | Percent Savings | Police Rate Source | Supplemental Information   |
|------|-----------------|-----------|-------------|--------------|----------------|-----------------|--------------------|--|
| 1    | Blandford       | 6/19/2008 | \$40.00     | \$31.83      | \$8.17         | 20.43%          | CITY/TOWN          | STATE POLICE USED  |
| 3    | Bolton          | 7/1/2006  | \$35.00     | \$33.45      | \$1.55         | 4.43%           | On File            |  |
| 4    | Boston          | 6/19/2008 | \$37.00     | \$34.85      | \$2.15         | 5.81%           | CITY/TOWN          | Yes (city ordinance)   |
| 4    | Boston Univ. PD | 7/1/2008  | \$48.00     | \$33.45      | \$14.55        | 30.31%          | On File            |  |
| 1    | Bourne          | 7/1/2006  | \$37.53     | \$33.45      | \$4.08         | 10.87%          | On File            |  |
| 3    | Boxborough      | 6/19/2008 | \$42.64     | \$33.45      | \$9.19         | 21.55%          | MCOPA              | No by-law  |
| 4    | Boxford         | 6/19/2008 | \$44.00     | \$33.45      | \$10.55        | 23.98%          | CITY/TOWN          | No by-law  |
| 3    | Boylston        | 6/19/2008 | \$42.00     | \$33.45      | \$8.55         | 20.36%          | MCOPA              | No by-law  |
| 4    | Braintree       | 6/19/2008 | \$40.00     | \$34.85      | \$5.15         | 12.88%          | MCOPA              | No by-law (Management decision)                                    |
| 5    | Brewster        | 6/19/2008 | \$39.03     | \$33.45      | \$5.58         | 14.30%          | MCOPA              | No by-law  |
| 5    | Bridgewater     | 6/19/2008 | \$36.00     | \$33.45      | \$2.55         | 7.08%           | MCOPA              | No by-law  |
| 2    | Brimfield       |           |             | \$31.83      |                |                 |                    |  |
| 5    | Brookline       |           |             | \$33.45      |                |                 |                    |  |
| 3    | Brookfield      |           |             | \$33.45      |                |                 |                    |  |
| 4    | Brookline       | 6/19/2008 | \$40.00     | \$34.85      | \$5.15         | 12.88%          | CITY/TOWN          |  |
| 1    | Buckland        | 7/1/2006  | \$40.00     | \$31.70      | \$8.30         | 20.75%          | On File            | STATE POLICE USED  |
| 4    | Burlington      | 6/19/2008 | \$40.00     | \$34.85      | \$5.15         | 12.88%          | MCOPA              | Yes (town by-law)  |
| 4    | Cambridge       | 6/19/2008 | \$40.00     | \$34.85      | \$5.15         | 12.88%          | CITY/TOWN          |  |
| 4    | Canton          | 6/19/2008 | \$44.70     | \$33.45      | \$11.25        | 25.17%          | CITY/TOWN          |  |
| 4    | Carlisle        |           |             | \$33.45      |                |                 |                    |  |
| 5    | Carver          | 6/19/2008 | \$29.00     | \$33.45      | (\$4.45)       | -15.34%         | MCOPA              |  |
| 1    | Charlton        | 7/1/2006  | \$40.00     | \$31.70      | \$8.30         | 20.75%          | On File            | STATE POLICE USED  |
| 3    | Charlton        | 6/19/2008 | \$35.00     | \$33.45      | \$1.55         | 4.43%           | MCOPA              | Standing order. Traffic control at constr. done by Police          |
| 5    | Chatham         |           |             | \$33.45      |                |                 |                    |  |
| 4    | Chelmsford      | 6/19/2008 | \$50.10     | \$33.45      | \$16.65        | 33.23%          | CITY/TOWN          | Yes (town by-law)  |
| 4    | Chelsea         | 6/19/2008 | \$35.00     | \$34.85      | \$0.15         | 0.43%           | CITY/TOWN          |  |
| 1    | Cheshire        | 6/19/2008 | \$35.00     | \$31.70      | \$3.30         | 9.43%           | CITY/TOWN          |  |
| 1    | Cheshire        | 6/19/2008 | \$40.00     | \$31.83      | \$8.17         | 20.43%          | CITY/TOWN          | STATE POLICE USED  |
| 1    | Chesterfield    | 7/1/2006  | \$35.00     | \$31.70      | \$3.30         | 9.43%           | CITY/TOWN          |  |
| 2    | Chilmark        | 6/19/2008 | \$37.58     | \$31.83      | \$5.75         | 15.30%          | CITY/TOWN          | Chief has additional rules (i.e., discret. resched. if over 4 hrs) |
| 5    | Chilmark        | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOPA              | No by-law  |
| 4    | Clarksburg      | 6/19/2008 | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED  |
| 3    | Clinton         | 8/1/2006  | \$39.00     | \$33.45      | \$5.55         | 14.23%          | On File            |  |
| 5    | Cohasset        | 7/1/2006  | \$40.00     | \$33.45      | \$6.55         | 16.38%          | On File            |  |
| 1    | Colrain         | 7/1/2006  | \$40.00     | \$31.83      | \$8.17         | 20.43%          | On File            |  |
| 4    | Concord         | 6/19/2008 | \$45.62     | \$33.45      | \$12.17        | 26.68%          | CITY/TOWN          |  |

| Dist | City or Town     | Date      | Police Rate | Flagger Rate | Dollar Savings | Percent Savings | Police Rate Source | Supplemental Information   |
|------|------------------|-----------|-------------|--------------|----------------|-----------------|--------------------|--|
| 1    | Conway           | 7/1/2006  | \$32.00     | \$31.83      | \$0.17         | 0.53%           | On File            |  |
| 1    | Cumington        | 7/1/2006  | \$37.00     | \$31.70      | \$5.30         | 14.32%          | On File            |  |
| 1    | Dalton           | 7/2/2006  | \$35.00     | \$31.70      | \$3.30         | 9.43%           | MHD                |  |
| 4    | Danvers          | 6/19/2008 | \$42.00     | \$33.45      | \$8.55         | 20.36%          | MCOPA              | No by-law (Police have agreement w/ town)                          |
| 5    | Dartmouth        | 6/19/2008 | \$34.00     | \$33.45      | \$0.55         | 1.62%           | MCOPA              | No by-law (clause in CBA)  |
| 4    | Dedham           | 6/19/2008 | \$39.00     | \$34.85      | \$4.15         | 10.64%          | CITY/TOWN          |  |
| 2    | Deerfield        | 7/1/2006  | \$32.00     | \$31.83      | \$0.17         | 0.53%           | CITY/TOWN          | Additional \$5/mr for cruiser                                      |
| 5    | Dennis           | 6/19/2008 | \$41.00     | \$33.45      | \$7.55         | 18.41%          | MCOPA              | No by-law  |
| 5    | Dighton          | 6/1/2008  |             | \$33.45      |                |                 |                    |  |
| 3    | Douglas          | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.39%          | MCOPA              | No by-law  |
| 4    | Dover            | 7/1/2008  | \$41.00     | \$33.45      | \$7.55         | 18.41%          | MCOPA              | No by-law  |
| 4    | Dracut           | 7/1/2006  | \$42.64     | \$33.45      | \$9.19         | 21.55%          | CITY/TOWN          | MCOPA indicated \$44.35  |
| 3    | Dudley           | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOPA              | Adopted Traffic Regulation   |
| 3    | Dunstable        | 6/19/2008 | \$42.00     | \$33.45      | \$8.55         | 20.36%          | MCOPA              | Yes (town by-law)  |
| 5    | Duxbury          | 7/1/2006  | \$34.50     | \$33.45      | \$1.05         | 3.04%           | On File            |  |
| 5    | East Bridgewater | 6/19/2008 | \$38.00     | \$33.45      | \$4.55         | 11.97%          | MCOPA              | No by-law  |
| 3    | East Brookfield  | 7/1/2006  | \$39.00     | \$33.45      | \$5.55         | 14.23%          | On File            |  |
| 2    | East Longmeadow  | 7/1/2006  | \$36.51     | \$31.83      | \$4.68         | 12.82%          | On File            |  |
| 5    | Eastham          |           |             | \$33.45      |                |                 |                    |  |
| 2    | Easthampton      | 7/1/2007  | \$39.52     | \$31.83      | \$7.69         | 19.46%          | CITY/TOWN          | City Depts charged Patrol Rate (\$33). Specific roads req. details |
| 5    | Easton           | 7/1/2006  | \$40.24     | \$33.45      | \$6.79         | 16.87%          | On File            |  |
| 5    | Edgartown        | 7/2/2006  | \$37.00     | \$33.45      | \$3.55         | 9.59%           | On File            |  |
| 1    | Egremont         | 7/3/2006  | \$30.00     | \$31.70      | (\$1.70)       | -5.67%          | On File            |  |
| 2    | Erving           | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOPA              | No by-law. Town has 4 hr. & 8 hr. min (OT after 8 = \$40)          |
| 5    | Essex            | 7/1/2008  | \$41.00     | \$33.45      | \$7.55         | 18.41%          | CITY/TOWN          |  |
| 4    | Everett          | 7/1/2008  | \$42.00     | \$34.85      | \$7.15         | 17.02%          | CITY/TOWN          |  |
| 5    | Fairhaven        | 6/19/2008 | \$34.00     | \$33.45      | \$0.55         | 1.62%           | MCOPA              | Contract: only Fairhaven police perform details                    |
| 5    | Fall River       | 7/1/2006  | \$40.00     | \$33.45      | \$6.55         | 16.38%          | On File            |  |
| 5    | Falmouth         | 7/1/2006  | \$38.00     | \$33.45      | \$4.55         | 11.97%          | On File            |  |
| 3    | Fitchburg        | 7/1/2006  | \$32.00     | \$33.45      | (\$1.45)       | -4.53%          | On File            |  |
| 1    | Florida          | 6/19/2008 | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED  |
| 5    | Foxborough       | 6/19/2008 | \$41.00     | \$33.45      | \$7.55         | 18.41%          | MCOPA              | Yes (town by-law)  |
| 4    | Framingham       | 6/19/2008 | \$38.00     | \$33.45      | \$4.55         | 11.97%          | MCOPA              | No by-law  |
| 3    | Franklin         | 6/19/2008 | \$38.00     | \$33.45      | \$4.55         | 11.97%          | MCOPA              | No by-law (discretion of chief)                                    |
| 5    | Freelown         | 6/19/2008 | \$36.00     | \$33.45      | \$2.55         | 7.08%           | MCOPA              | Yes (town by-law)  |
| 3    | Gardner          | 6/19/2008 | \$39.50     | \$33.45      | \$6.05         | 15.32%          | MCOPA              | Contract: details addressed  |

| Dist | City or Town     | Date       | Police Rate | Flagger Rate | Dollar Savings | Percent Savings | Police Rate Source | Supplemental Information                                       |
|------|------------------|------------|-------------|--------------|----------------|-----------------|--------------------|--|
| 4    | Georgetown       | 7/1/2008   | \$41.00     | \$33.45      | \$7.55         | 18.41%          | MCOPA              | No by-law  |
| 2    | Gill             | 6/19/2008  | \$40.00     | \$31.83      | \$8.17         | 20.43%          | MCOPA              | No by-law. Has 4hr min. after 6hr pay for 8.                   |
| 4    | Gloucester       | 7/1/2008   | \$40.00     | \$33.45      | \$6.55         | 16.38%          | CITY/TOWN          |  |
| 1    | Goshen           | 6/19/2008  | \$37.00     | \$31.70      | \$5.30         | 14.32%          | MCOPA              | Yes (town by-law)  |
| 5    | Gosnold          | 8/29/2008  | \$24.00     | \$33.45      | (\$9.45)       | -39.38%         | On File            |  |
| 3    | Grafton          | 6/19/2008  | \$38.98     | \$33.45      | \$5.53         | 9.55%           | MCOPA              | No by-law  |
| 2    | Granby           | 7/1/2008   | \$38.00     | \$31.83      | \$6.17         | 16.24%          | MCOPA              | 4 hr min/Add. 4 hr min if unpaid lunch. Sun/Holiday 1.5x (Yes) |
| 1    | Granville        | 7/1/2008   | \$34.99     | \$31.83      | \$3.16         | 9.03%           | On File            |  |
| 1    | Great Barrington | 7/1/2008   | \$35.85     | \$31.70      | \$4.15         | 11.58%          | On File            |  |
| 2    | Greenfield       | 8/1/2008   | \$36.00     | \$31.83      | \$4.17         | 11.58%          | CITY/TOWN          | 4hr & 8hr min. Requires min 2 officers.                        |
| 3    | Groton           | 6/1/2008   |             | \$33.45      |                |                 |                    |  |
| 4    | Groveland        | 7/1/2008   | \$41.00     | \$33.45      | \$7.55         | 18.41%          | CITY/TOWN          |  |
| 2    | Hadley           | 7/1/2008   | \$35.00     | \$31.83      | \$3.17         | 9.06%           | CITY/TOWN          |  |
| 5    | Halifax          | 7/1/2008   | \$36.89     | \$33.45      | \$3.44         | 9.33%           | On File            |  |
| 4    | Hamilton         | 6/19/2008  | \$53.50     | \$33.45      | \$20.05        | 37.48%          | MCOPA              |  |
| 2    | Hampton          | 6/1/2008   | \$40.90     | \$31.83      | \$9.07         | 22.18%          | CITY/TOWN          | No by-law  |
| 1    | Hancock          | 6/19/2008  | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED  |
| 5    | Hanover          | 7/1/2008   | \$39.00     | \$33.45      | \$5.55         | 14.23%          | MCOPA              |  |
| 5    | Hanson           | 6/1/2008   |             | \$33.45      |                |                 |                    |  |
| 2    | Hardwick         | 1/12/2004  | \$32.00     | \$33.45      | (\$1.45)       | -4.53%          | CITY/TOWN          | 4hr min.   |
| 3    | Harvard          | 6/1/2008   |             | \$33.45      |                |                 |                    |  |
| 5    | Harwich          | 6/19/2008  | \$38.00     | \$33.45      | \$4.55         | 11.97%          | MCOPA              |  |
| 2    | Hatfield         | 7/1/2008   | \$35.00     | \$31.83      | \$3.17         | 9.06%           | CITY/TOWN          | 4hr min.   |
| 4    | Haverhill        | 6/19/2008  | \$38.00     | \$33.45      | \$4.55         | 11.97%          | CITY/TOWN          |  |
| 1    | Hawley           | 6/19/2008  | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED  |
| 1    | Heath            | 6/19/2008  | \$40.00     | \$31.70      | \$8.30         | 20.75%          | On File            | STATE POLICE USED  |
| 5    | Hingham          | 6/19/2008  | \$39.70     | \$33.45      | \$6.25         | 15.74%          | MCOPA              |  |
| 1    | Hinsdale         | 6/19/2008  | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED  |
| 4    | Holbrook         | 6/19/2008  | \$42.00     | \$33.45      | \$8.55         | 20.36%          | MCOPA              | 15 streets require Police Details                              |
| 3    | Holden           | 6/19/2008  | \$37.00     | \$33.45      | \$3.55         | 9.59%           | MCOPA              | No by-law  |
| 2    | Holland          | 12/20/2005 | \$32.50     | \$31.83      | \$0.67         | 2.06%           | CITY/TOWN          | Command personnel are \$37.50                                  |
| 3    | Holliston        | 6/19/2008  | \$42.00     | \$33.45      | \$8.55         | 20.36%          | MCOPA              | Yes (town by-law)  |
| 2    | Holyoke          | 5/1/2007   | \$34.00     | \$31.83      | \$2.17         | 6.38%           | CITY/TOWN          | \$51 Sat/Holidays, \$68 Sun., \$68 certain holidays (Xmas)     |
| 3    | Hopedale         | 7/1/2008   | \$38.50     | \$33.45      | \$5.05         | 13.12%          | On File            |  |
| 3    | Hopkinton        | 7/1/2008   | \$43.00     | \$33.45      | \$9.55         | 22.21%          | MCOPA              | No by-law  |
| 3    | Hubbardston      | 6/19/2008  | \$36.00     | \$33.45      | \$2.55         | 7.08%           | MCOPA              | No by-law  |



| Dist | City or Town | Date       | Police Rate | Flagger Rate | Dollar Savings | Percent Savings | Police Rate Source | Supplemental Information   |
|------|--------------|------------|-------------|--------------|----------------|-----------------|--------------------|--|
| 3    | Hudson       | 6/1/2008   | \$38.00     | \$33.45      | \$4.55         | 11.97%          | MCOPA              | No by-law  |
| 5    | Hull         | 6/1/2008   | \$42.72     | \$33.45      | \$9.27         | 21.70%          | MCOPA              | No by-law  |
| 1    | Huntington   | 7/1/2006   | \$30.00     | \$31.83      | (\$1.83)       | -6.10%          | On File            |  |
| 4    | Ipswich      | 7/1/2008   | \$44.58     | \$33.45      | \$11.13        | 24.97%          | CITY/TOWN          | No by-law [MCOPA - \$43.28]  |
| 5    | Kingsion     | 6/1/2008   | \$33.45     | \$33.45      |                |                 |                    |  |
| 5    | Lakeville    | 7/1/2006   | \$34.00     | \$33.45      | \$0.55         | 1.62%           | On File            |  |
| 3    | Lancaster    | 7/1/2006   | \$37.00     | \$33.45      | \$3.55         | 9.59%           | On File            |  |
| 1    | Lanesborough | 6/1/2008   | \$35.00     | \$31.70      | \$3.30         | 9.43%           | CITY/TOWN          |  |
| 4    | Lawrence     | 7/1/2008   | \$37.50     | \$33.45      | \$4.05         | 10.80%          | CITY/TOWN          |  |
| 1    | Lee          | 6/1/2008   | \$35.00     | \$31.70      | \$3.30         | 9.43%           | MCOPA              | No by-law  |
| 3    | Leicester    | 6/1/2008   | \$43.00     | \$33.45      | \$9.55         | 22.21%          | MCOPA              | No by-law  |
| 1    | Lenox        | 7/1/2006   | \$33.00     | \$31.70      | \$1.30         | 3.94%           | On File            |  |
| 3    | Leominster   | 6/1/2008   | \$33.45     | \$33.45      |                |                 |                    |  |
| 2    | Leverett     | 7/1/2006   | \$35.00     | \$31.83      | \$3.17         | 9.09%           | On File            |  |
| 4    | Lexington    | 6/1/2008   | \$42.00     | \$33.45      | \$8.55         | 20.36%          | MCOPA              | No by-law  |
| 2    | Leyden       | 6/1/2008   |             | \$31.83      |                |                 |                    |  |
| 4    | Lincoln      | 6/1/2008   | \$43.45     | \$33.45      | \$10.00        | 23.01%          | MCOPA              | No by-law  |
| 3    | Littleton    | 6/1/2008   | \$42.00     | \$33.45      | \$8.55         | 20.36%          | MCOPA              | No by-law  |
| 2    | Longmeadow   | 7/1/2008   | \$41.07     | \$31.83      | \$9.24         | 22.50%          | CITY/TOWN          |  |
| 4    | Lowell       | 6/1/2008   | \$40.00     | \$33.45      | \$6.55         | 16.38%          | CITY/TOWN          |  |
| 2    | Ludlow       | 11/15/2007 | \$41.53     | \$31.83      | \$9.70         | 23.36%          | CITY/TOWN          |  |
| 3    | Lunenburg    | 6/1/2008   | \$38.00     | \$33.45      | \$4.55         | 11.97%          | MCOPA              | No by-law  |
| 4    | Lynn         | 6/1/2008   | \$36.00     | \$33.45      | \$2.55         | 7.08%           | CITY/TOWN          |  |
| 4    | Lynnfield    | 7/1/2008   | \$45.07     | \$33.45      | \$11.62        | 25.78%          | CITY/TOWN          |  |
| 4    | Malden       | 7/1/2008   | \$38.00     | \$34.85      | \$3.15         | 8.29%           | CITY/TOWN          | City ordinance requiring Police Details [MCOPA - \$44.00]          |
| 4    | Manchester   | 7/1/2006   | \$40.00     | \$33.45      | \$6.55         | 16.38%          | On File            |  |
| 5    | Mansfield    | 7/1/2006   | \$35.43     | \$33.45      | \$1.98         | 5.59%           | On File            |  |
| 4    | Marblehead   | 6/1/2008   | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOPA              | No by-law  |
| 5    | Marion       | 7/1/2006   | \$36.00     | \$33.45      | \$2.55         | 7.08%           | On File            |  |
| 3    | Marlborough  | 7/1/2006   | \$31.99     | \$33.45      | (\$1.46)       | -4.56%          | On File            |  |
| 5    | Marshfield   | 7/1/2006   | \$38.96     | \$33.45      | \$5.51         | 14.14%          | On File            |  |
| 5    | Mashpee      | 6/1/2008   | \$33.45     | \$33.45      |                |                 |                    |  |
| 5    | Matapoisett  | 7/1/2006   | \$37.00     | \$33.45      | \$3.55         | 9.59%           | On File            |  |
| 3    | Maynard      | 6/1/2008   | \$45.18     | \$33.45      | \$11.73        | 25.96%          | MCOPA              | No by-law. Traffic Rules/Order section: officers to direct traffic |
| 3    | Medfield     | 6/1/2008   | \$40.00     | \$34.85      | \$5.15         | 12.88%          | MCOPA              | No by-law (City has extensive detail policy)                       |

| Dist | City or Town     | Date      | Police Rate | Flagger Rate | Dollar Savings | Percent Savings | Police Rate Source | Supplemental Information                                       |
|------|------------------|-----------|-------------|--------------|----------------|-----------------|--------------------|--|
| 3    | Medway           | 7/1/2008  | \$46.20     | \$33.45      | \$11.35        | 24.57%          | CITY/TOWN          | Details required on non-city const. jobs. [MCOA - \$43.00]     |
| 4    | Melrose          | 7/1/2008  | \$37.00     | \$33.45      | \$3.55         | 9.59%           | On File            |  |
| 3    | Mendon           | 7/1/2008  | \$37.00     | \$33.45      | \$3.55         | 9.59%           | On File            |  |
| 4    | Merrimac         | 6/19/2008 | \$36.00     | \$33.45      | \$2.55         | 7.08%           | MCOA               | No by-law  |
| 4    | Methuen          | 7/1/2008  | \$40.00     | \$33.45      | \$6.55         | 16.38%          | CITY/TOWN          |  |
| 5    | Middleborough    | 6/19/2008 | \$32.00     | \$33.45      | (\$1.45)       | -4.53%          | MCOA               | Yes (town by-law)  |
| 1    | Middlefield      | 6/19/2008 | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED  |
| 4    | Middleton        | 7/1/2008  | \$38.00     | \$33.45      | \$4.55         | 11.97%          | CITY/TOWN          | No by-law [MCOA - \$42.00]                                     |
| 3    | Millis           | 7/1/2008  | \$38.99     | \$33.45      | \$5.54         | 14.21%          | On File            |  |
| 3    | Millbury         | 7/1/2008  | \$37.00     | \$33.45      | \$3.55         | 9.59%           | On File            |  |
| 3    | Millis           | 7/1/2008  | \$45.50     | \$33.45      | \$12.05        | 26.48%          | MCOA               | Yes (town by-law)(addresses ability of chief to assign police) |
| 3    | Millville        | 7/1/2008  | \$36.00     | \$33.45      | \$2.55         | 7.08%           | On File            |  |
| 4    | Milton           | 7/1/2008  | \$42.90     | \$34.85      | \$8.05         | 18.76%          | CITY/TOWN          |  |
| 1    | Monroe           | 6/19/2008 | \$40.00     | \$31.83      | \$8.17         | 20.43%          | On File            | STATE POLICE USED  |
| 2    | Monson           | 7/1/2008  | \$39.00     | \$31.83      | \$7.17         | 18.38%          | CITY/TOWN          | Increase to \$40 on 6-30-2009                                  |
| 2    | Montague         | 6/19/2008 | \$42.00     | \$31.83      | \$10.17        | 24.21%          | MCOA               | Yes (town by-law)(only Police/Fire can direct traffic)         |
| 1    | Monterey         | 7/1/2008  | \$30.00     | \$31.70      | (\$1.70)       | -5.67%          | On File            |  |
| 1    | Montgomery       | 6/19/2008 | \$30.00     | \$31.83      | (\$1.83)       | -6.10%          | MCOA               | No by-law  |
| 1    | Mount Washington | 6/19/2008 | \$40.00     | \$31.70      | \$8.30         | 20.75%          | On File            | STATE POLICE USED  |
| 4    | Nahant           | 7/1/2008  | \$35.00     | \$33.45      | \$1.55         | 4.43%           | On File            | No by-law [MCOA indicated rate of \$45/hr]                     |
| 5    | Nantucket        | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOA               | No by-law  |
| 3    | Natick           | 7/1/2008  | \$42.00     | \$33.45      | \$8.55         | 20.36%          | CITY/TOWN          |  |
| 4    | Needham          | 7/1/2008  | \$40.00     | \$33.45      | \$6.55         | 16.38%          | CITY/TOWN          | STATE POLICE USED  |
| 1    | New Ashford      | 6/19/2008 | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          |  |
| 5    | New Bedford      | 7/1/2008  | \$34.00     | \$33.45      | \$0.55         | 1.62%           | On File            |  |
| 2    | New Braintree    | 6/19/2008 | \$42.00     | \$33.45      | \$8.55         | 20.36%          | MCOA               | No by-law  |
| 1    | New Marlborough  | 6/19/2008 | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED  |
| 2    | New Salem        | 7/1/2008  | \$39.00     | \$31.83      | \$7.17         | 18.38%          | On File            |  |
| 4    | Newbury          | 6/19/2008 | \$37.00     | \$33.45      | \$3.55         | 9.59%           | MCOA               | No by-law  |
| 4    | Newburyport      | 6/19/2008 | \$43.00     | \$33.45      | \$9.55         | 22.21%          | MCOA               | No by-law (Contractually based)                                |
| 4    | Newton           | 7/1/2008  | \$40.00     | \$34.85      | \$5.15         | 12.88%          | On File            |  |
| 5    | Norfolk          | 6/19/2008 | \$42.52     | \$33.45      | \$9.07         | 21.33%          | MCOA               | No by-law  |
| 1    | North Adams      | 6/19/2008 | \$35.20     | \$31.70      | \$3.50         | 9.94%           | CITY/TOWN          |  |
| 4    | North Andover    | 7/1/2008  | \$43.00     | \$33.45      | \$9.55         | 22.21%          | CITY/TOWN          |  |
| 5    | North Attleboro  | 7/1/2008  | \$38.04     | \$33.45      | \$4.59         | 12.07%          | On File            |  |
| 3    | North Brookfield | 7/1/2008  | \$36.00     | \$33.45      | \$2.55         | 7.08%           | On File            |  |

| Dist | City or Town  | Date      | Police Rate | Flagger Rate | Dollar Savings | Percent Savings | Police Rate Source | Supplemental Information                                       |
|------|---------------|-----------|-------------|--------------|----------------|-----------------|--------------------|--|
| 4    | North Reading | 7/1/2008  | \$48.80     | \$33.45      | \$15.35        | 31.45%          | CITY/TOWN          |  |
| 2    | Northampton   | 6/19/2008 | \$35.00     | \$31.83      | \$3.17         | 9.08%           | MCOPA              | No city ordinance, \$42.00 for supervisor                      |
| 3    | Northborough  | 6/19/2008 | \$39.00     | \$33.45      | \$5.55         | 14.23%          | MCOPA              | No by-law  |
| 3    | Northbridge   | 6/19/2008 | \$43.00     | \$33.45      | \$9.55         | 22.21%          | MCOPA              | No by-law  |
| 2    | Northfield    | 7/1/2006  | \$37.00     | \$31.83      | \$5.17         | 13.97%          | CITY/TOWN          |  |
| 5    | Norton        | 7/1/2006  | \$24.00     | \$33.45      | (\$9.45)       | -39.38%         | On File            |  |
| 5    | Norwell       | 6/1/2008  |             | \$33.45      |                |                 |                    |  |
| 5    | Norwood       | 6/19/2008 | \$40.44     | \$33.45      | \$6.99         | 17.28%          | MCOPA              | No by-law  |
| 5    | Oak Bluffs    | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOPA              | Selectman rule/reg that details be used (chief discretion, if) |
| 3    | Oakham        | 7/1/2006  | \$36.00     | \$33.45      | \$2.55         | 7.08%           | MCOPA              |  |
| 2    | Orange        | 6/20/2008 | \$34.00     | \$33.45      | \$0.55         | 1.62%           | CITY/TOWN          | 4hr min.   |
| 5    | Oxgangs       | 6/19/2008 | \$41.00     | \$33.45      | \$7.55         | 18.41%          | MCOPA              | Yes by-law (only applicable to Water Department Constr.)       |
| 3    | Oxford        | 7/1/2006  | \$39.00     | \$33.45      | \$5.55         | 14.23%          | On File            |  |
| 2    | Palmer        | 6/19/2008 | \$41.24     | \$31.83      | \$9.41         | 22.82%          | MCOPA              | No by-law  |
| 3    | Paxton        | 7/1/2006  | \$38.00     | \$33.45      | \$4.55         | 11.97%          | On File            |  |
| 4    | Peabody       | 6/19/2008 | \$41.80     | \$33.45      | \$8.35         | 19.98%          | CITY/TOWN          |  |
| 2    | Pelham        | 6/1/2008  |             | \$31.83      |                |                 |                    |  |
| 5    | Pembroke      | 7/1/2006  | \$37.37     | \$33.45      | \$3.92         | 10.49%          | On File            |  |
| 3    | Pepperell     | 6/19/2008 | \$37.55     | \$33.45      | \$4.10         | 10.92%          | MCOPA              | No by-law (\$37.55 municipal v. \$45.53 private)               |
| 1    | Peru          | 6/19/2006 | \$37.00     | \$31.70      | \$5.30         | 14.32%          | On File            |  |
| 2    | Petersham     | 6/19/2008 | \$35.00     | \$33.45      | \$1.55         | 4.43%           | MCOPA              | No by-law, 4hr min.  |
| 2    | Phillipston   | 6/19/2008 | \$35.00     | \$33.45      | \$1.55         | 4.43%           | MCOPA              | No by-law  |
| 1    | Pittsfield    | 6/19/2006 | \$38.50     | \$31.70      | \$6.80         | 17.66%          | On File            |  |
| 1    | Plainfield    | 6/19/2008 | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED  |
| 5    | Plainville    | 7/1/2006  | \$39.66     | \$33.45      | \$6.21         | 15.68%          | On File            |  |
| 5    | Plymouth      | 6/19/2008 | \$38.00     | \$33.45      | \$4.55         | 11.97%          | MCOPA              | No by-law  |
| 5    | Plympton      | 6/19/2008 | \$36.00     | \$33.45      | \$2.55         | 7.08%           | MCOPA              | No by-law  |
| 3    | Princeton     | 7/1/2006  | \$36.00     | \$33.45      | \$2.55         | 7.08%           | On File            |  |
| 5    | Provincetown  | 7/1/2006  | \$36.00     | \$33.45      | \$2.55         | 7.08%           | On File            |  |
| 4    | Quincy        | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 12.88%          | CITY/TOWN          |  |
| 4    | Randolph      | 6/1/2008  |             | \$33.45      |                |                 |                    |  |
| 5    | Raynham       | 6/19/2008 | \$37.44     | \$33.45      | \$3.99         | 10.66%          | MCOPA              | No by-law (contract requires details)                          |
| 4    | Reading       | 7/1/2008  | \$41.00     | \$33.45      | \$7.55         | 15.00%          | MCOPA              | No by-law (included in all contracts) [MCOPA - \$42.00]        |
| 5    | Rehoboth      | 7/1/2006  | \$40.00     | \$33.45      | \$6.55         | 16.38%          | On File            |  |
| 4    | Revere        | 6/19/2008 | \$37.00     | \$33.45      | \$2.15         | 5.81%           | CITY/TOWN          |  |
| 1    | Richmond      | 7/1/2006  | \$28.00     | \$31.70      | (\$3.70)       | -13.21%         | On File            |  |

| Dist | City or Town | Date      | Police Rate | Date     | Flagger Rate | Dollar Savings | Percent Savings | Police Rate Source | Supplemental Information                                      |
|------|--------------|-----------|-------------|----------|--------------|----------------|-----------------|--------------------|---|
| 5    | Rochester    | 6/19/2008 | \$37.00     | 6/1/2008 | \$33.45      | \$3.55         | 9.59%           | MCOPA              | No by-law   |
| 5    | Rockland     | 6/19/2008 | \$40.00     | 6/1/2008 | \$33.45      | \$6.55         | 16.38%          | MCOPA              | No by-law (contract requires details if criteria met)         |
| 4    | Rockport     | 7/1/2006  | \$38.15     | 6/1/2008 | \$33.45      | \$4.70         | 12.32%          | On File            |   |
| 1    | Rowe         | 6/19/2008 | \$40.00     | 6/1/2008 | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED   |
| 4    | Rowley       | 6/19/2008 | \$40.00     | 6/1/2008 | \$33.45      | \$6.55         | 16.38%          | MCOPA              | No by-law   |
| 2    | Royalston    |           |             | 6/1/2008 | \$33.45      |                |                 |                    |   |
| 1    | Russell      | 7/1/2006  | \$32.00     | 6/1/2008 | \$31.83      | \$0.17         | 0.53%           | On File            |   |
| 3    | Rutland      | 7/1/2008  | \$38.00     | 6/1/2008 | \$33.45      | \$4.55         | 11.97%          | MCOPA              | No by-law   |
| 4    | Salem        | 6/19/2008 | \$40.00     | 6/1/2008 | \$33.45      | \$6.55         | 16.38%          | CITY/TOWN          |   |
| 4    | Salisbury    | 7/1/2006  | \$36.00     | 6/1/2008 | \$33.45      | \$2.55         | 7.08%           | On File            |   |
| 1    | Sandisfield  | 7/1/2006  | \$35.00     | 6/1/2008 | \$31.70      | \$3.30         | 9.43%           | On File            |   |
| 5    | Sandwich     | 7/1/2008  | \$40.00     | 6/1/2008 | \$33.45      | \$6.55         | 16.38%          | MCOPA              |   |
| 4    | Saugus       | 7/1/2008  | \$42.00     | 6/1/2008 | \$33.45      | \$8.55         | 20.36%          | MCOPA              | Yes (town by-law, requires details on main streets)           |
| 1    | Savoy        | 7/1/2006  | \$28.00     | 6/1/2008 | \$31.70      | (\$3.70)       | 13.21%          | On File            | Yes (town by-law)   |
| 5    | Scituate     | 6/19/2008 | \$41.00     | 6/1/2008 | \$33.45      | \$7.55         | 18.41%          | MCOPA              | Traffic Regs require traffic to be directed by police         |
| 5    | Seekonk      | 7/1/2006  | \$35.00     | 6/1/2008 | \$33.45      | \$1.55         | 4.43%           | On File            |   |
| 5    | Sharon       | 7/1/2006  | \$38.72     | 6/1/2008 | \$33.45      | \$5.27         | 13.61%          | On File            |   |
| 1    | Sheffield    | 6/19/2008 | \$35.00     | 6/1/2008 | \$31.70      | \$3.30         | 9.43%           | MCOPA              | No by-law (Town Admin/Chief identify roads requiring details) |
| 1    | Shelburne    | 7/1/2006  | \$37.00     | 6/1/2008 | \$31.83      | \$5.17         | 13.97%          | On File            |   |
| 3    | Sherborn     | 6/19/2008 | \$43.79     | 6/1/2008 | \$33.45      | \$10.34        | 23.61%          | MCOPA              | No by-law   |
| 3    | Shirley      | 6/19/2008 | \$42.57     | 6/1/2008 | \$33.45      | \$9.12         | 21.42%          | MCOPA              | No by-law   |
| 3    | Shrewsbury   |           |             | 6/1/2008 | \$33.45      |                |                 |                    |   |
| 2    | Shutesbury   | 7/1/2006  | \$38.00     | 6/1/2008 | \$31.83      | \$6.17         | 16.24%          | On File            |   |
| 5    | Somerset     | 6/19/2008 | \$37.00     | 6/1/2008 | \$33.45      | \$3.55         | 9.59%           | CITY/TOWN          | No by-law [MCOPA - \$28.00 town v. \$37.00 private]           |
| 4    | Somerville   | 6/19/2008 | \$44.00     | 6/1/2008 | \$34.85      | \$9.15         | 20.80%          | CITY/TOWN          |   |
| 2    | South Hadley | 1/7/2006  | \$35.00     | 6/1/2008 | \$31.83      | \$3.17         | 9.06%           | CITY/TOWN          |   |
| 2    | Southampton  | 7/1/2006  | \$34.00     | 6/1/2008 | \$31.83      | \$2.17         | 6.35%           | CITY/TOWN          |   |
| 3    | Southborough | 6/19/2008 | \$37.00     | 6/1/2008 | \$33.45      | \$3.55         | 9.59%           | MCOPA              | No by-law   |
| 3    | Southbridge  | 7/1/2006  | \$33.88     | 6/1/2008 | \$33.45      | \$0.43         | 1.27%           | On File            |   |
| 2    | Southwick    | 6/19/2008 | \$39.00     | 6/1/2008 | \$31.83      | \$7.17         | 18.38%          | MCOPA              | No by-law. Cruiser rate = \$20/hr                             |
| 3    | Spencer      | 7/1/2006  | \$35.00     | 6/1/2008 | \$33.45      | \$1.55         | 4.43%           | On File            |   |
| 2    | Springfield  | 6/1/2007  | \$38.84     | 6/1/2008 | \$31.83      | \$7.01         | 18.05%          | CITY/TOWN          |   |
| 3    | Stearling    | 7/1/2006  | \$37.00     | 6/1/2008 | \$33.45      | \$3.55         | 9.59%           | On File            |   |
| 1    | Stockbridge  | 7/1/2006  | \$35.00     | 6/1/2008 | \$31.70      | \$3.30         | 9.43%           | On File            |   |
| 4    | Stonham      | 6/19/2008 | \$42.00     | 6/1/2008 | \$34.85      | \$7.15         | 17.02%          | MCOPA              | Yes (town requires officers at construction sites)            |
| 5    | Stoughton    | 7/1/2006  | \$37.00     | 6/1/2008 | \$33.45      | \$3.55         | 9.59%           | On File            |   |

| Dist | City or Town  | Date      | Police Rate | Flagger Rate | Dollar Savings | Percent Savings | Police Rate Source | Supplemental Information  |
|------|---------------|-----------|-------------|--------------|----------------|-----------------|--------------------|---|
| 3    | Stow          | 7/1/2008  | \$42.00     | \$33.45      | \$8.55         | 20.36%          | MCOPA              | No by-law (Town has Traffic Rules/Orders requiring details)     |
| 3    | Sturbridge    | 6/19/2008 | \$40.98     | \$33.45      | \$7.53         | 18.37%          | MCOPA              |   |
| 4    | Sudbury       | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOPA              |   |
| 2    | Sunderland    | 7/1/2006  | \$35.00     | \$31.83      | \$3.17         | 9.08%           | On File            |   |
| 3    | Sutton        | 7/1/2006  | \$40.00     | \$33.45      | \$6.55         | 16.38%          | On File            |   |
| 4    | Swampscott    | 7/1/2008  | \$35.00     | \$33.45      | \$1.55         | 4.43%           | CITY/TOWN          |   |
| 5    | Swansea       | 7/1/2006  | \$34.00     | \$33.45      | \$0.55         | 1.62%           | On File            |   |
| 5    | Taunton       | 6/19/2008 | \$43.86     | \$33.45      | \$10.41        | 23.73%          | MCOPA              | No by-law (CBA requires officers)                               |
| 2    | Templeton     | 6/1/2007  | \$35.00     | \$33.45      | \$1.55         | 4.43%           | CITY/TOWN          | 4 hr. min. 2hr increments thereafter (increase to \$36 F. 2010) |
| 4    | Tewksbury     | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOPA              | Yes (town by-law)   |
| 5    | Tisbury       | 6/1/2008  |             | \$33.45      |                |                 |                    |   |
| 1    | Tolland       | 7/1/2006  | \$35.00     | \$31.83      | \$3.17         | 9.06%           | On File            |   |
| 4    | Topsfield     | 7/1/2008  | \$48.00     | \$33.45      | \$14.55        | 30.31%          | CITY/TOWN          | No by-law (MCOPA - \$50.00)                                     |
| 3    | Townsend      | 7/1/2006  | \$42.15     | \$33.45      | \$8.70         | 20.64%          | On File            |   |
| 5    | Truro         | 7/1/2008  | \$40.00     | \$33.45      | \$6.55         | 16.38%          | On File            |   |
| 4    | Tyngsborough  | 7/1/2008  | \$43.67     | \$33.45      | \$10.22        | 23.40%          | CITY/TOWN          |   |
| 1    | Tyringham     | 7/1/2006  | \$33.00     | \$31.70      | \$1.30         | 3.94%           | On File            |   |
| 3    | Upton         | 7/1/2006  | \$37.00     | \$33.45      | \$3.55         | 9.59%           | On File            |   |
| 3    | Uxbridge      | 7/1/2006  | \$32.00     | \$33.45      | (\$1.45)       | -4.53%          | On File            |   |
| 4    | Wakefield     | 7/1/2006  | \$38.00     | \$34.85      | \$3.15         | 8.29%           | On File            |   |
| 2    | Wales         | 6/1/2008  |             | \$31.83      |                |                 |                    |   |
| 5    | Walpole       | 6/19/2008 | \$43.58     | \$33.45      | \$10.13        | 23.24%          | MCOPA              | No by-law   |
| 4    | Walham        | 6/19/2008 | \$39.00     | \$34.85      | \$4.15         | 10.64%          | MCOPA              | Yes-city has "language" requiring constr. details on pub. ways  |
| 2    | Ware          | 7/1/2008  | \$37.00     | \$31.83      | \$5.17         | 13.97%          | MCOPA              | No by-law 4hr min.  |
| 5    | Wareham       | 7/1/2006  | \$40.00     | \$33.45      | \$6.55         | 16.38%          | On File            |   |
| 2    | Warren        | 7/1/2006  | \$37.00     | \$33.45      | \$3.55         | 9.59%           | CITY/TOWN          |   |
| 2    | Warwick       | 7/1/2006  | \$28.00     | \$33.45      | (\$5.45)       | -19.46%         | On File            |   |
| 1    | Washington    | 6/19/2008 | \$40.00     | \$31.70      | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED   |
| 4    | Watertown     | 6/19/2008 | \$38.00     | \$34.85      | \$3.15         | 8.29%           | MCOPA              | No by-law   |
| 4    | Wayland       | 6/19/2008 | \$42.00     | \$33.45      | \$8.55         | 20.36%          | CITY/TOWN          | No by-law (MCOPA - \$40.00)                                     |
| 3    | Webster       | 7/1/2006  | \$40.00     | \$33.45      | \$6.55         | 16.38%          | On File            |   |
| 4    | Wellesley     | 7/1/2008  | \$36.00     | \$33.45      | \$2.55         | 7.08%           | CITY/TOWN          | No by-law (MCOPA indicated rate of \$39.40/hr)                  |
| 5    | Wellesley     | 6/19/2008 | \$40.00     | \$33.45      | \$6.55         | 16.38%          | MCOPA              | No by-law   |
| 2    | Wendell       | 7/1/2006  | \$36.00     | \$31.83      | \$4.17         | 11.58%          | On File            |   |
| 4    | Wenham        | 6/19/2008 | \$52.00     | \$33.45      | \$18.55        | 35.67%          | CITY/TOWN          |   |
| 2    | West Boylston | 6/19/2008 | \$35.00     | \$33.45      | \$1.55         | 4.43%           | MCOPA              | No by-law   |

| Dist            | City or Town     | Date       | Police Rate    | Flagger Rate   | Dollar Savings | Percent Savings | Police Rate Source | Supplemental Information                             |
|-----------------|------------------|------------|----------------|----------------|----------------|-----------------|--------------------|--|
| 5               | West Bridgewater | 6/19/2008  | \$40.00        | \$33.45        | \$6.55         | 16.38%          | MCOPA              | Yes (\$40 rate applies only M-F)                     |
| 2               | West Brookfield  | 7/1/2008   | \$42.00        | \$33.45        | \$8.55         | 20.36%          | MCOPA              | No by-law  |
| 4               | West Newbury     | 6/19/2008  | \$40.00        | \$33.45        | \$6.55         | 16.38%          | MCOPA              | No by-law (CBA requires officers)                    |
| 2               | West Springfield | 6/8/2007   | \$33.00        | \$31.83        | \$1.17         | 3.55%           | CITY/TOWN          |  |
| 1               | West Stockbridge | 7/1/2008   | \$36.70        | \$31.70        | \$4.00         | 11.20%          | On File            |  |
| 5               | West Tisbury     | 6/1/2008   |                | \$33.45        |                |                 |                    |  |
| 2               | Westborough      | 7/1/2008   | \$36.00        | \$33.45        | \$2.55         | 7.08%           | On File            |  |
| 2               | Westfield        | 7/1/2008   | \$37.00        | \$31.83        | \$5.17         | 13.97%          | CITY/TOWN          | Likeley increased to \$38 (7/1/2008)                 |
| 4               | Westford         | 7/1/2008   | \$48.00        | \$33.45        | \$14.55        | 30.31%          | On File            |  |
| 2               | Westhampton      | 6/19/2008  | \$30.00        | \$31.83        | (\$1.83)       | -6.10%          | MCOPA              | 4hr min.   |
| 3               | Westminster      | 6/19/2008  | \$37.00        | \$33.45        | \$3.55         | 9.59%           | MCOPA              | Yes (town by-law)                                    |
| 4               | Weston           | 6/19/2008  | \$42.50        | \$33.45        | \$9.05         | 21.29%          | MCOPA              | No by-law  |
| 5               | Westport         | 6/19/2008  | \$38.00        | \$33.45        | \$4.55         | 11.97%          | MCOPA              | Yes (town by-law)                                    |
| 4               | Westwood         | 6/19/2008  | \$39.14        | \$33.45        | \$5.69         | 14.54%          | CITY/TOWN          |  |
| 4               | Weymouth         | 6/19/2008  | \$39.00        | \$34.85        | \$4.15         | 10.64%          | CITY/TOWN          |  |
| 2               | Whately          | 7/1/2008   | \$32.00        | \$31.83        | \$0.17         | 0.53%           | CITY/TOWN          | 4 hr min. \$2/hr cruiser charge.                     |
| 5               | Whitman          | 7/1/2008   | \$38.00        | \$33.45        | \$4.55         | 11.97%          | On File            |  |
| 2               | Wilbraham        | 8/1/2008   | \$41.17        | \$31.83        | \$9.34         | 22.69%          | CITY/TOWN          | 4hr min.   |
| 1               | Williamsburg     | 6/19/2008  | \$36.00        | \$31.83        | \$7.17         | 18.38%          | MCOPA              | No by-law  |
| 1               | Williamstown     | 6/19/2008  | \$32.00        | \$31.70        | \$0.30         | 0.94%           | MCOPA              | No by-law  |
| 4               | Wilmington       | 6/19/2008  | \$40.00        | \$33.45        | \$6.55         | 16.38%          | CITY/TOWN          |  |
| 2               | Winchendon       | 6/19/2008  | \$37.01        | \$33.45        | \$3.56         | 9.62%           | MCOPA              | No by-law (discretion of chief)                      |
| 4               | Winchester       | 6/19/2008  | \$45.90        | \$34.85        | \$11.05        | 24.07%          | CITY/TOWN          | No by-law [MCOPA - \$37.62 town vs. \$45.08 outside] |
| 1               | Windsor          | 6/19/2008  | \$40.00        | \$31.70        | \$8.30         | 20.75%          | CITY/TOWN          | STATE POLICE USED                                    |
| 4               | Winthrop         | 6/19/2008  | \$36.00        | \$34.85        | \$3.15         | 8.28%           | CITY/TOWN          |  |
| 4               | Woburn           | 11/20/2007 | \$32.00        | \$34.85        | (\$2.85)       | -8.91%          | On File            |  |
| 3               | Worcester        | 7/1/2008   | \$40.52        | \$33.45        | \$7.07         | 17.45%          | On File            |  |
| 1               | Worthington      | 7/1/2008   | \$36.00        | \$31.70        | \$5.30         | 9.43%           | On File            |  |
| 5               | Wrentham         | 6/19/2008  | \$42.00        | \$33.45        | \$8.55         | 20.36%          | MCOPA              | No by-law  |
| 5               | Yarmouth         | 6/19/2008  | \$40.00        | \$33.45        | \$6.55         | 16.38%          | MCOPA              | No by-law  |
| <b>AVERAGES</b> |                  |            | <b>\$38.43</b> | <b>\$33.09</b> | <b>\$5.35</b>  | <b>13.01%</b>   |                    |  |

Max savings - Hamilton \$20.05  
Min savings - Chelsea \$.15

## APPENDIX F

## Attachment H to EOTPW's Road Flagger Police Detail Cost Report and Analysis

| One Week Cost Comparison of Details Worked Against |                        |  |          |                                     |  |   |                              |                            |  |
|--|------------------------|--|----------|-------------------------------------|--|---|------------------------------|----------------------------|--|
| Using the Revised Rates to Determine Numbers       |                        |  |          |                                     |  |   |                              |                            |  |
| Cont. #  | Total Cost for Details | Total Cost if Revised Details/Flaggers Were Used | Savings  | Number of Details That Did Not Show | Number of Details That Did Not Show/Remain for Full Duration of Detail | Number of Details That Charged More Than Actual Hours Worked (Min. Billing) | Legal Speed <45 m.p.h. (Y/N) | Municipal (M) or State (S) |  |
| <b>District 1</b>                                  |                        |  |          |                                     |  |   |                              |                            |  |
| 51463  | 1,600.00               | 1,226.80   | 373.20   | 0                                   | 0  | 0   | N                            | S                          |  |
| 51847  | 2,800.00               | 2,800.00   | 0.00     | 0                                   | 0  | 0   | N                            | S                          |  |
| 52241  | 2,800.00               | 0.00   | 2,800.00 | 0                                   | 0  | 0   | Y                            | M                          |  |
| 52584  | 7,280.00               | 6,379.36   | 900.64   | 0                                   | 0  | 0   | Y                            | M                          |  |
| 53408  | 320.00                 | 245.36   | 74.64    | 0                                   | 0  | 0   | N                            | S                          |  |
| 53517  | 1,280.00               | 490.72   | 789.28   | 0                                   | 0  | 0   | Y                            | S                          |  |
| 53759  | 5,696.00               | 4,539.16   | 1,156.84 | 0                                   | 0  | 0   | Y                            | M                          |  |
| 53763  | 1,440.00               | 1,226.80   | 213.20   | 0                                   | 0  | 0   | Y                            | M                          |  |
| <b>District 2</b>                                  |                        |  |          |                                     |  |   |                              |                            |  |
| 58182  | \$3,484.25             | \$3,484.25                                       | \$0.00   | 0                                   | 0  | 0   | Y                            | M                          |  |
| 41067  | \$1,920.00             | \$1,474.72                                       | \$445.28 | 2                                   | 0  | 0   | Y & N                        | M                          |  |
| 42616  | \$656.00               | \$514.72   | \$141.28 | 0                                   | 0  | 0   | N                            | M                          |  |
| 42714  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | N                            | S                          |  |
| 42940  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | Y                            | M                          |  |
| 43312  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | Y                            | M                          |  |
| 43327  | \$304.00               | \$167.04   | \$136.96 | 0                                   | 0  | 2   | Y                            | M                          |  |
| 45417  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | N                            | S                          |  |
| 45713  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | Y                            | M                          |  |
| 45861  | \$5,040.00             | \$5,011.20                                       | \$28.80  | 0                                   | 0  | 0   | Y                            | M                          |  |
| 49428  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | N                            | S                          |  |
| 49437  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | Y                            | S                          |  |
| 49521  | \$5,600.00             | \$5,147.20                                       | \$452.80 | 0                                   | 0  | 0   | N                            | M                          |  |
| 49909  | \$1,640.00             | \$1,544.16                                       | \$95.84  | 0                                   | 0  | 0   | Y                            | M                          |  |
| 50432  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | Y                            | S                          |  |
| 51534  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | Y                            | M                          |  |
| 51512  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | N                            | M                          |  |
| 51613  | \$0.00                 | \$0.00   | \$0.00   | 0                                   | 0  | 0   | Y                            | M                          |  |

| Cont. #  | Total Cost for Details | Total Cost if Revised Details/Flippers Were Used | Savings    | Number of Details That Did Not Show | Number of Details That Did Not Show That Duration of Detail | Number of Details That Charged More Than Actual Hours Worked (Min. Billing) | Legal Speed <45 m.p.h. (Y/N) | Municipal (M) or State (S) |
|----------|------------------------|--|------------|-------------------------------------|---|---|------------------------------|----------------------------|
| 51823    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 51773    | \$2,072.00             | \$1,948.80                                       | \$123.20   | 0                                   | 0   | 0   | Y                            | M                          |
| 52147    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | N                            | M                          |
| 52155    | \$5,928.00             | \$5,147.20                                       | \$780.80   | 1                                   | 0   | 0   | Y                            | M                          |
| 52343    | \$852.00               | \$852.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 52350    | \$2,300.00             | \$2,764.00                                       | \$16.00    | 0                                   | 0   | 0   | N                            | M                          |
| 52349    | \$297.50               | \$297.50   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 52748    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 52793    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 52902    | \$1,605.53             | \$1,375.13                                       | \$230.51   | 0                                   | 0   | 2   | N                            | M                          |
| 52976    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 53293    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | N                            | S                          |
| 53414    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 53472    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | S                          |
| 53558    | \$3,040.00             | \$0.00   | \$3,040.00 | 0                                   | 0   | 0   | Y                            | S                          |
| 53646    | \$320.00               | \$320.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 53729    | \$560.00               | \$514.72   | \$45.28    | 0                                   | 0   | 0   | Y                            | M                          |
| 53831    | \$1,420.00             | \$1,286.80                                       | \$133.20   | 0                                   | 0   | 0   | N                            | M                          |
| 53919    | \$3,520.00             | \$3,200.00                                       | \$4,320.00 | 0                                   | 0   | 0   | Y                            | M                          |
| 53932    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 53951    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 54022    | \$1,383.80             | \$1,125.95                                       | \$257.75   | 0                                   | 0   | 0   | Y                            | M                          |
| Disals 5 |                        |  |            |                                     |   |   |                              |                            |
| 54025    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M/S                        |
| 54172    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 54140    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 52302    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |
| 54001    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M/S                        |
| 54057    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0   | 0   | N                            | S                          |
| 54471    | \$1,600.00             | \$1,220.00                                       | \$380.00   | 0                                   | 0   | 2   | Y                            | M                          |
| 54435    | \$304.00               | \$304.00   | \$0.00     | 0                                   | 0   | 0   | Y                            | M                          |



| Cont. # | Total Cost for Details | Total Cost if Revised Details/Flags Were Used | Savings    | Number of Details That Did Not Show/That Did Not Show/Flam for Full Duration of Detail | Number of Details That Charged More Than Actual Hours Worked (Min. Billing) | Legal Speed <45 m.p.h. or State (S) | Municipal (M) |
|---------|------------------------|---|------------|--|---|-------------------------------------|---------------|
| 34574   | \$1,831.50             | \$1,831.50                                    | \$0.00     | 0  | 0   | Y                                   | M             |
| 34612   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | Y                                   | M             |
| 34633   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | Y                                   | M             |
| 34637   | \$1,216.00             | \$1,216.00                                    | \$0.00     | 0  | 0   | N                                   | M             |
| 34644   | \$2,526.11             | \$2,350.00                                    | \$476.11   | 0  | 0   | Y                                   | S             |
| 34663   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | Y                                   | M             |
| 34615   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | N                                   | S             |
| 34722   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | Y                                   | M             |
| 34832   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | Y                                   | M             |
| 34832   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | N                                   | S             |
| 34875   | \$1,976.00             | \$974.40                                      | \$1,001.60 | 0  | 0   | N                                   | S             |
| 34782   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | N                                   | S             |
| 34803   | \$1,896.00             | \$1,896.00                                    | \$0.00     | 0  | 0   | N                                   | S             |
| 34823   | \$2,120.00             | \$1,892.00                                    | \$228.00   | 0  | 0   | N                                   | S             |
| 34810   | \$3,771.68             | \$1,113.60                                    | \$2,658.08 | 0  | 0   | Y                                   | S             |
| 34830   | \$1,216.00             | \$1,044.00                                    | \$172.00   | 0  | 0   | Y                                   | S             |
| 34831   | \$3,520.00             | \$3,520.00                                    | \$0.00     | 0  | 0   | Y                                   | M             |
| 34755   | \$3,539.27             | \$2,736.89                                    | \$1,102.38 | 0  | 0   | Y                                   | M             |
| 34833   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | Y                                   | M/S           |
| 34564   | \$1,258.00             | \$1,113.60                                    | \$142.40   | 0  | 0   | Y                                   | M             |
| 34833   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | Y                                   | M             |
| 34839   | \$2,714.84             | \$2,593.28                                    | \$121.56   | 0  | 0   | Y                                   | M             |
| 34821   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | Y                                   | M             |
| 34805   | \$1,284.16             | \$278.40                                      | \$1,005.76 | 0  | 0   | Y                                   | M             |
| 34838   | \$7,410.00             | \$4,826.00                                    | \$4,826.00 | 1  | 1   | N                                   | M             |
| 34835   | \$4,256.00             | \$1,392.00                                    | \$2,864.00 | 1  | 1   | N                                   | M             |
| 34832   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | Y                                   | M             |
| 34832   | \$1,952.00             | \$1,752.00                                    | \$200.00   | 0  | 0   | N                                   | S             |
| 34811   | \$3,640.00             | \$6,840.00                                    | \$0.00     | 0  | 0   | N                                   | M             |
| 34811   | \$0.00                 | \$0.00  | \$0.00     | 0  | 0   | N                                   | M             |
| 34808   | \$572.00               | \$556.80                                      | \$115.20   | 0  | 0   | Y                                   | M             |

| Cont. #  | Total Cost for Details | Total Cost if Revised Details/Flaggers Were Used | Savings    | Number of Details That Did Not Show | Number of Details That Did Not Show/Remain for Full Duration of Detail | Number of Details That Charged More Than Actual Hours Worked (Min. Billing) | Legal Speed <45 m.p.h. (Y/N) | Municipal (M) or State (S) |
|----------|------------------------|--|------------|-------------------------------------|--|---|------------------------------|----------------------------|
| 52244    | \$11,000.00            | \$11,000.00                                      | \$0.00     | 0                                   | 0  | 0   | N                            | S                          |
| 52503    | \$496.00               | \$344.00   | \$152.00   | 0                                   | 0  | 0   | N                            | M                          |
| 52597    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0  | 0   | Y                            | M                          |
| 53146    | \$11,750.56            | \$9,849.72                                       | \$1,900.84 | 0                                   | 2  | 15  | N                            | M                          |
| 53347    | \$3,312.00             | \$3,312.00                                       | \$0.00     | 0                                   | 0  | 0   | N                            | M                          |
| 53500    | \$6,340.00             | \$6,498.00                                       | \$342.00   | 1                                   | 1  | 0   | Y                            | M                          |
| 53567    | \$560.00               | \$560.00   | \$0.00     | 0                                   | 0  | 0   | Y                            | M                          |
| 53667    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0  | 0   | N                            | M                          |
| 53915    | \$3,419.00             | \$2,078.00                                       | \$1,340.00 | 0                                   | 0  | 0   | N                            | M                          |
| 53925    | \$16,324.00            | \$16,324.00                                      | \$0.00     | 0                                   | 0  | 0   | N                            | S                          |
| 53993    | \$640.00               | \$640.00   | \$0.00     | 0                                   | 0  | 0   | N                            | S                          |
| 54045    | \$2,101.82             | \$1,660.80                                       | \$441.12   | 0                                   | 0  | 0   | Y                            | M                          |
| 54050    | \$1,824.00             | \$0.00   | \$1,824.00 | 0                                   | 0  | 0   | Y                            | M                          |
| 54106    | \$5,328.00             | \$2,576.00                                       | \$2,752.00 | 1                                   | 0  | 0   | Y                            | M                          |
| 54311    | \$1,216.00             | \$1,216.00                                       | \$0.00     | 0                                   | 0  | 0   | N                            | M                          |
| 54564    | \$1,280.00             | \$0.00   | \$1,280.00 | 0                                   | 0  | 4   | N                            | S                          |
| 54590    | \$5,784.96             | \$3,058.56                                       | \$2,726.40 | 0                                   | 0  | 0   | N                            | S                          |
| 54599    | \$1,014.50             | \$7,106.40                                       | \$3,908.10 | 0                                   | 0  | 1   | N                            | M                          |
| 54611    | \$2,512.00             | \$904.80   | \$1,607.20 | 0                                   | 0  | 2   | N                            | M                          |
| 54637    | \$429.00               | \$332.80   | \$46.20    | 0                                   | 0  | 0   | Y                            | M                          |
| Detail 4 |                        |  |            |                                     |  |   |                              |                            |
| 53128    | \$912.40               | \$1,113.60                                       | -\$201.80  | 0                                   | 0  | 3   | N                            | M                          |
| 53205    | \$2,553.60             | \$2,092.40                                       | \$461.20   | 1                                   | 0  | 6   | Y                            | M                          |
| 54052    | \$2,664.00             | \$2,072.00                                       | \$592.00   | 0                                   | 0  | 1   | N                            | M                          |
| 54551    | \$7,988.38             | \$1,222.40                                       | \$6,745.98 | 0                                   | 0  | 2   | N                            | M                          |
| 54538    | \$4,364.00             | \$2,785.60                                       | \$1,598.40 | 1                                   | 0  | 2   | Y                            | M                          |
| 54639    | \$1,600.00             | \$1,528.00                                       | \$72.00    | 0                                   | 0  | 0   | N                            | M                          |
| 56037    | \$0.00                 | \$0.00   | \$0.00     | 0                                   | 0  | 0   | Y                            | M                          |
| 57102    | \$12,454.43            | \$3,781.80                                       | \$8,672.63 | 1                                   | 0  | 0   | N                            | M                          |
| 58540    | \$2,960.00             | \$3,056.00                                       | -\$96.00   | 0                                   | 0  | 0   | N                            | M                          |
| 58716    | \$5,149.00             | \$4,576.00                                       | \$573.00   | 0                                   | 0  | 1   | Y                            | M                          |

| Cont. # | Total Cost for Details | Total Cost if Revised Details/Flaggers Were Used | Savings     | Number of Details That Did Not Show | Number of Details That Did Not Show/Remain for Full Duration of Detail | Number of Details That Charged More Than Actual Hours Worked (Min. Billing) | Legal Speed <45 m.p.h. (Y/N) | Municipal (M) or State (S) |
|---------|------------------------|--|-------------|-------------------------------------|--|---|------------------------------|----------------------------|
| 38976   | \$640.00               | \$640.00   | \$0.00      | 0                                   | 0  | 0   | Y                            | M                          |
| 41213   | \$1,760.00             | \$0.00   | \$1,760.00  | 0                                   | 0  | 0   | N                            | M                          |
| 41551   | \$3,040.00             | \$3,040.00                                       | \$0.00      | 0                                   | 0  | 0   | Y                            | S                          |
| 41591   | \$1,520.00             | \$1,140.00                                       | \$380.00    | 0                                   | 0  | 0   | Y                            | S                          |
| 42420   | \$2,800.00             | \$1,750.00                                       | \$1,050.00  | 0                                   | 0  | 10  | N                            | M                          |
| 43244   | \$1,600.00             | \$0.00   | \$1,600.00  | 0                                   | 0  | 0   | N                            | M                          |
| 43304   | \$3,784.00             | \$6,194.00                                       | -\$2,340.00 | 0                                   | 0  | 0   | N                            | M                          |
| 43390   | \$15,540.00            | \$12,026.40                                      | \$3,513.60  | 1                                   | 8  | 4   | Y                            | M                          |
| 43762   | \$1,500.00             | \$1,845.00                                       | -\$345.00   | 0                                   | 0  | 10  | M                            | M                          |
| 43871   | \$5,160.00             | \$3,984.60                                       | \$1,175.40  | 0                                   | 0  | 0   | Y                            | M                          |
| 44006   | \$6,908.00             | \$9,124.00                                       | -\$2,216.00 | 0                                   | 0  | 0   | N                            | M                          |
| 44240   | \$480.00               | \$0.00   | \$480.00    | 0                                   | 0  | 4   | N                            | M                          |
| 45142   | \$2,236.00             | \$2,731.20                                       | -\$495.20   | 1                                   | 1  | 0   | N                            | M                          |
| 45304   | \$1,600.00             | \$0.00   | \$1,600.00  | 0                                   | 0  | 0   | Y                            | M                          |
| 45523   | \$2,784.00             | \$2,432.00                                       | \$352.00    | 1                                   | 0  | 0   | N                            | M                          |
| 48016   | \$3,253.25             | \$3,037.20                                       | \$216.05    | 0                                   | 0  | 0   | N                            | M                          |
| 48686   | \$0.00                 | \$0.00   | \$0.00      | 0                                   | 0  | 0   | N                            | M                          |
| 48771   | \$9,672.00             | \$7,176.00                                       | \$2,496.00  | 0                                   | 0  | 0   | N                            | M                          |
| 49211   | \$0.00                 | \$0.00   | \$0.00      | 0                                   | 0  | 0   | N                            | M                          |
| 50153   | \$5,440.00             | \$4,899.60                                       | \$540.40    | 1                                   | 0  | 0   | N                            | S                          |
| 51369   | \$320.00               | \$320.00   | \$0.00      | 0                                   | 0  | 0   | Y                            | M                          |
| 51419   | \$160.00               | \$160.00   | \$0.00      | 0                                   | 0  | 0   | Y                            | M                          |
| 51420   | \$320.00               | \$640.00   | -\$320.00   | 0                                   | 0  | 0   | N                            | M                          |
| 51620   | \$4,368.00             | \$0.00   | \$4,368.00  | 0                                   | 0  | 0   | Y                            | S                          |
| 51752   | \$13,200.00            | \$11,000.00                                      | \$2,200.00  | 5                                   | 0  | 0   | N                            | M                          |
| 51849   | \$3,940.00             | \$360.00   | \$3,580.00  | 0                                   | 0  | 0   | N                            | M                          |
| 52513   | \$320.00               | \$0.00   | \$320.00    | 0                                   | 0  | 0   | Y                            | M                          |
| 52504   | \$688.00               | \$688.00   | \$0.00      | 0                                   | 0  | 0   | Y                            | M                          |
| 52759   | \$6,720.00             | \$5,120.00                                       | \$1,600.00  | 0                                   | 0  | 0   | N                            | M                          |
| 52789   | \$5,140.00             | \$2,784.00                                       | \$2,356.00  | 0                                   | 0  | 0   | N                            | M                          |
| 52740   | \$320.00               | \$320.00   | \$0.00      | 0                                   | 0  | 0   | N                            | M                          |

| Cont. #    | Total Cost for Details | Total Cost if Revised Details/Flaggers Were Used | Savings     | Number of Details That Did Not Show | Number of Details That Did Not Show/Remain for Full Duration of Detail | Number of Details That Charged More Than Actual Hours Worked (Min. Billing) | Legal Speed <45 m.p.h. (Y/N) | Municipal (M) or State (S) |
|------------|------------------------|--|-------------|-------------------------------------|--|---|------------------------------|----------------------------|
| 52371      | \$4,060.00             | \$5,240.00                                       | \$820.00    | 1                                   | 0  | 0   | Y                            | M                          |
| 52809      | \$6,836.00             | \$3,340.80                                       | \$3,195.20  | 0                                   | 0  | 1   | N                            | M                          |
| 52939      | \$304.00               | \$0.00   | \$304.00    | 0                                   | 0  | 0   | N                            | M                          |
| 53222      | \$2,036.00             | \$1,856.00                                       | \$380.00    | 1                                   | 0  | 3   | N                            | M                          |
| 53479      | \$6,715.00             | \$0.00   | \$6,715.00  | 1                                   | 1  | 1   | N                            | M                          |
| 53481      | \$4,400.00             | \$4,400.00                                       | \$0.00      | 0                                   | 2  | 0   | Y                            | M                          |
| 53591      | \$3,042.00             | \$3,201.60                                       | \$2,840.00  | 0                                   | 0  | 0   | N                            | M                          |
| 53646      | \$1,865.44             | \$0.00   | \$1,865.44  | 0                                   | 0  | 0   | N                            | M                          |
| 53788      | \$288.00               | \$0.00   | \$288.00    | 0                                   | 0  | 0   | N                            | M                          |
| 53920      | \$1,920.00             | \$1,113.60                                       | \$406.40    | 0                                   | 0  | 0   | Y                            | S                          |
| 54045      | \$2,100.00             | \$2,100.00                                       | \$0.00      | 1                                   | 0  | 0   | N                            | M                          |
| 54031      | \$1,720.00             | \$1,720.00                                       | \$0.00      | 0                                   | 0  | 0   | Y                            | S                          |
| 54039      | \$7,900.00             | \$5,700.00                                       | \$1,900.00  | 0                                   | 0  | 0   | N                            | M                          |
| 54166      | \$1,104.00             | \$1,104.00                                       | \$0.00      | 0                                   | 0  | 0   | N                            | M                          |
| 54171      | \$3,210.00             | \$1,113.60                                       | \$2,096.40  | 0                                   | 0  | 0   | N                            | M                          |
| 54172      | \$394.00               | \$0.00   | \$394.00    | 0                                   | 0  | 0   | N                            | M                          |
| 54173      | \$3,728.00             | \$0.00   | \$3,728.00  | 0                                   | 0  | 0   | Y                            | M                          |
| 54413      | \$1,440.00             | \$1,329.20                                       | \$110.80    | 0                                   | 0  | 4   | N                            | M                          |
| 54415      | \$640.00               | \$0.00   | \$640.00    | 0                                   | 0  | 2   | Y                            | M                          |
| 54455      | \$1,920.00             | \$760.00   | \$1,160.00  | 0                                   | 0  | 0   | N                            | M                          |
| 54547      | \$860.00               | \$930.00   | \$0.00      | 0                                   | 0  | 0   | Y                            | S                          |
| Area A     | \$0.00                 | \$0.00   | \$0.00      | 0                                   | 0  | 0   | N                            | M                          |
| Paint Crew | \$0.00                 | \$1,600.00                                       | -\$1,600.00 | 0                                   | 0  | 0   | N                            | M                          |
| Detail 5   |                        |  |             |                                     |  |   |                              |                            |
| 94510      | \$1,320.00             | \$0.00   | \$1,320.00  | 0                                   | 0  | 0   | Y                            | M                          |
| 97523      | \$3,760.00             | \$3,760.00                                       | \$0.00      | 0                                   | 0  | 0   | N                            | S                          |
| 97551      | \$828.43               | \$0.00   | \$828.43    | 0                                   | 0  | 0   | Y                            | M                          |
| 98552      | \$320.00               | \$156.60   | \$163.40    | 0                                   | 0  | 1   | Y                            | M                          |
| 98825      | \$828.20               | \$0.00   | \$828.20    | 0                                   | 0  | 0   | Y                            | M                          |
| 99359      | \$160.00               | \$139.20   | \$20.80     | 0                                   | 0  | 1   | Y                            | M                          |
| 40944      | \$640.00               | \$640.00   | \$0.00      | 0                                   | 0  | 3   | N                            | S                          |

| Cont. #       | Total Cost for Details | Total Cost if Revised Details/Flaggers Were Used | Savings             | Number of Details That Did Not Show | Number of Details That Did Not Show/Remain for Full Duration of Detail | Number of Details That Charged More Than Actual Hours Worked (Min. Billing) | Legal Speed <45 m.p.h. (Y/N) | Municipal (M) or State (S) |
|---------------|------------------------|--|---------------------|-------------------------------------|--|---|------------------------------|----------------------------|
| 42333         | \$3,200.00             | \$3,200.00                                       | \$0.00              | 0                                   | 0  | 0   | N                            | S                          |
| 42332         | \$2,880.00             | \$2,240.00                                       | \$640.00            | 0                                   | 0  | 0   | N                            | S                          |
| 42497         | \$3,636.00             | \$3,116.00                                       | \$520.00            | 0                                   | 2  | 2   | N                            | S                          |
| 42232         | \$5,520.00             | \$6,160.00                                       | -\$640.00           | 0                                   | 0  | 7   | M                            | S                          |
| 42395         | \$1,600.00             | \$1,392.00                                       | \$208.00            | 0                                   | 0  | 0   | N                            | S                          |
| 42263         | \$2,000.00             | \$1,680.00                                       | \$320.00            | 0                                   | 0  | 0   | Y                            | M                          |
| 42675         | \$5,543.27             | \$5,298.01                                       | \$245.26            | 0                                   | 0  | 0   | Y                            | M                          |
| 42429         | \$0.00                 | \$0.00   | \$0.00              | 0                                   | 0  | 0   | Y                            | M                          |
| 42747         | \$7,020.00             | \$6,107.00                                       | \$912.80            | 1                                   | 7  | 0   | N                            | S                          |
| 50501         | \$6,320.00             | \$5,984.00                                       | \$336.00            | 0                                   | 0  | 0   | N                            | S                          |
| 51231         | \$1,760.00             | \$1,600.00                                       | \$160.00            | 0                                   | 0  | 0   | Y                            | M                          |
| 51675         | \$6,337.77             | \$6,337.77                                       | \$0.00              | 0                                   | 0  | 0   | Y                            | M                          |
| 51734         | \$4,883.00             | \$4,071.60                                       | \$811.40            | 0                                   | 0  | 0   | Y                            | M                          |
| 51785         | \$1,881.50             | \$0.00   | \$1,881.50          | 0                                   | 0  | 0   | Y                            | M                          |
| 51603         | \$3,040.00             | \$1,520.00                                       | \$1,520.00          | 0                                   | 0  | 0   | N                            | S                          |
| 52215         | \$6,550.00             | \$1,750.00                                       | \$4,800.00          | 0                                   | 0  | 0   | N                            | M                          |
| 52378         | \$864.00               | \$864.00   | \$0.00              | 0                                   | 0  | 0   | Y                            | M                          |
| 52397         | \$5,148.00             | \$2,844.00                                       | \$2,503.20          | 0                                   | 0  | 0   | N                            | S                          |
| 53001         | \$11,630.00            | \$6,380.00                                       | \$5,250.00          | 0                                   | 0  | 1   | N                            | S                          |
| 53073         | \$2,300.00             | \$0.00   | \$2,300.00          | 0                                   | 0  | 0   | Y                            | M                          |
| 53076         | \$5,608.00             | \$2,784.00                                       | \$2,824.00          | 0                                   | 0  | 0   | Y                            | M                          |
| 53366         | \$22,130.00            | \$10,440.00                                      | \$11,690.00         | 0                                   | 0  | 0   | N                            | S                          |
| 53629         | \$640.00               | \$640.00   | \$0.00              | 0                                   | 0  | 0   | Y                            | M                          |
| 53765         | \$4,340.00             | \$4,214.30                                       | \$125.70            | 0                                   | 0  | 0   | Y                            | M                          |
| 53865         | \$453.24               | \$278.40   | \$174.84            | 0                                   | 0  | 0   | Y                            | M                          |
| 54038         | \$1,700.31             | \$1,086.20                                       | \$604.11            | 0                                   | 0  | 0   | N                            | S                          |
| 54098         | \$2,880.00             | \$2,340.00                                       | \$540.00            | 0                                   | 0  | 9   | Y                            | M                          |
| 54209         | \$3,040.00             | \$2,784.00                                       | \$256.00            | 0                                   | 0  | 0   | Y                            | M                          |
| 54406         | \$840.00               | \$640.00   | \$200.00            | 0                                   | 0  | 0   | Y                            | M                          |
| 54609         | \$2,800.00             | \$2,784.00                                       | \$16.00             | 0                                   | 0  | 0   | Y                            | M                          |
| <b>Totals</b> | <b>\$548,047.95</b>    | <b>\$394,593.82</b>                              | <b>\$157,652.04</b> | <b>24</b>                           | <b>28</b>  | <b>112</b>  |                              |                            |

|  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|
| Summary of All Projects  |  |  |  |  |  |  |  |  |  |
| 208 Projects   |  |  |  |  |  |  |  |  |  |
| 48 did not require details   |  |  |  |  |  |  |  |  |  |
| Actual Costs = \$548,047.95  |  |  |  |  |  |  |  |  |  |
| Plat Costs = \$394,593.32  |  |  |  |  |  |  |  |  |  |
| Savings = \$157,652.04   |  |  |  |  |  |  |  |  |  |
| Percent Savings = 28.7%  |  |  |  |  |  |  |  |  |  |
| 24 Requested Details did not show up   |  |  |  |  |  |  |  |  |  |
| 26 Details either showed up late or left early (did not work entire requested shift) |  |  |  |  |  |  |  |  |  |
| 117 Details were paid more than hours worked due to minimum hours clauses            |  |  |  |  |  |  |  |  |  |

## APPENDIX G

### Selective Tables from EOTPW's Road Flaggers & Police Detail Cost Report and Analysis

TABLE 3

#### Projects Using Flaggers by District

| District | Total<br>Active Contracts | Projects that would now<br>use Flaggers* | Projects that<br>would now<br>ONLY use Flaggers |
|----------|---------------------------|--|---|
| 1        | 28                        | 9  | -   |
| 2        | 57                        | 19                                       | -   |
| 3        | 59                        | 24                                       | 11  |
| 4        | 148                       | 39                                       | -   |
| 5        | <u>96</u>                 | <u>26</u>                                | <u>12</u>                                       |
| Totals   | <u>388</u>                | <u>117</u>                               | <u>23</u>                                       |

\* Average Number of Projects That Could Now Use Road Flaggers 30.15%

TABLE 4

#### Analysis of Active Contracts

| District | Average Police<br>Detail Cost by<br>District | Average Flagger<br>Cost by District | Dollar<br>Savings | Percent<br>Savings |
|----------|--|-------------------------------------|-------------------|--------------------|
| 1        | \$36.27                                      | \$31.76                             | \$4.51            | 12.43%             |
| 2        | \$36.78                                      | \$32.25                             | \$4.53            | 12.31%             |
| 3        | \$38.80                                      | \$33.45                             | \$5.35            | 13.78%             |
| 4        | \$41.09                                      | \$33.86                             | \$7.23            | 17.60%             |
| 5        | <u>\$37.79</u>                               | <u>\$33.45</u>                      | <u>\$4.34</u>     | <u>11.48%</u>      |
|          | <u>\$38.15</u>                               | <u>\$32.95</u>                      | <u>\$5.17</u>     | <u>13.52%</u>      |

**TABLE 5\***  
**One Week Snapshot Summary**

|  | District 1  | District 2  | District 3   | District 4   | District 5   | Totals       |
|--|-------------|-------------|--------------|--------------|--------------|--------------|
| Total Projects Evaluated                 | 8           | 40          | 59           | 64           | 37           | 208          |
| Projects Not Requiring Traffic Personnel | 0           | 21          | 21           | 5            | 1            | 48           |
| Active Police Detail Cost                | \$23,218.00 | \$42,443.18 | \$139,233.50 | \$205,601.50 | \$137,551.77 | \$548,047.95 |
| Projected Costs Using Revised Plates     | \$16,908.20 | \$36,195.39 | \$105,820.55 | \$137,628.60 | \$98,041.08, | \$394,593.82 |
| Potential Savings                        | \$6,309.80  | \$10,257.70 | \$33,512.95  | \$68,042.10  | \$39,509.49  | \$157,632.04 |
| Percent Savings                          | 27.20%      | 24.20%      | 24.10%       | 33.10%       | 28.70%       | 28.76%       |

\*Note: EOTPW's District 2 calculation is overstated by \$4,010, of which substantially all of it can be attributable to the error in computing the savings in Contract #53919. EOTPW calculated the savings under Contract #53919 to be \$4,320 rather than the actual savings of \$320. As reported in Attachment H in the Cost Report, Contract #53919 is:

|  |         |
|--|---------|
| Total Cost of Details                          | \$3,520 |
| Total Cost if Revised Detail/Flaggers Was Used | \$3,200 |
| Savings Shown in Report                        | \$4,320 |
| Actual Savings                                 | \$320   |
| Difference                                     | \$4,000 |