

**CITY OF HAMILTON  
PERFORMANCE AUDIT REPORT 2013-19  
GPS/AVL SYSTEMS PERFORMANCE REVIEW**

**MANAGEMENT RESPONSES**

	Recommendations - This first set of recommendations deals with suggested steps which should be implemented in order that management can utilize the GPS/AVL systems to more effectively and efficiently manage staff and work activities and potentially improve productivity and save costs.			
		<b>MANAGEMENT RESPONSES</b>		
	<b>RECOMMENDATIONS</b>	<b>PLANNING &amp; ECONOMIC DEVELOPMENT BUILDING &amp; MLE</b>	<b>PUBLIC WORKS ROADS &amp; WATER</b>	<b>CORPORATE SERVICES (IT) AVL INITIATIVE GROUP</b>
1	That standardized procedures be developed by service areas utilizing the GPS/AVL systems to ensure that all supporting documentation including scheduling and subsequent data entry of work performed be developed and enforced to enable the matching of reported tasks completed to the tracking of the vehicles' travel paths. (Public Works – Roads & Water; Planning and Economic Development – Building & MLE)	<p><u>Building</u> - Difficult/Not Applicable. Inspectors performing inspections usually input the data within 24 hours. Dates/times of inspection notes <u>will not</u> correlate with the location of the vehicle.</p> <p><u>MLE</u> - MLE Officers carry large caseloads and case priorities are adjusted for public safety and investigation purposes. Vehicle travel paths are irregular and based on investigations needs and availability of accused and witnesses.</p>	Agree, where work is assigned. However, for emergency response, it may not be possible to assign tasks due to severity and duration. Event is not readily known so cannot confirm what response will be.	N/A

**CITY OF HAMILTON  
PERFORMANCE AUDIT REPORT 2013-19  
GPS/AVL SYSTEMS PERFORMANCE REVIEW  
MANAGEMENT RESPONSES**

	RECOMMENDATIONS	MANAGEMENT RESPONSES		
		PLANNING & ECONOMIC DEVELOPMENT BUILDING & MLE	PUBLIC WORKS ROADS & WATER	CORPORATE SERVICES (IT) AVL INITIATIVE GROUP
2	That work/task completion data be entered into the supporting systems on an as completed daily basis to ensure reflection of current status. (Public Works – Roads & Water; Planning and Economic Development – Building & MLE)	<p><u>Building</u> - Workloads prevent same day entry. Information is typically entered the following morning.</p> <p><u>MLE</u> - Workloads priorities and often high volumes prevent same day entry. i.e.: Vital Services. In most cases information is entered within 48hrs.</p>	Same day entry is not viable. Ensuring accurate data will be a requirement.	N/A
3	That data be entered into the appropriate fields of the supporting systems rather than general text fields in a Comments area to enable the extraction of information for improved analysis by management. (Planning and Economic Development – MLE)	<u>MLE</u> - Information entered as part of officer notes.	N/A	N/A

**CITY OF HAMILTON  
PERFORMANCE AUDIT REPORT 2013-19  
GPS/AVL SYSTEMS PERFORMANCE REVIEW  
MANAGEMENT RESPONSES**

	RECOMMENDATIONS	MANAGEMENT RESPONSES		
		PLANNING & ECONOMIC DEVELOPMENT BUILDING & MLE	PUBLIC WORKS ROADS & WATER	CORPORATE SERVICES (IT) AVL INITIATIVE GROUP
4	<p>That a process to regularly track the assignment of vehicles to specific individuals be developed. The ability to manage the appropriate movement of staff is predicated on the assurance that the individual that is assumed to be driving a particular vehicle is actually using the identified vehicle. (Public Works – Roads &amp; Water; Planning and Economic Development – Building &amp; MLE)</p>	<p><u>Building</u> - Difficult. We expect and anticipate that inspectors doing joint projects travel together to save fuel – one vehicle will not be moving.</p> <p>Vehicles are scheduled for regular servicing and staff use other vacationing inspector vehicles. This is a regular occurrence</p> <p><u>MLE</u> - Staff assigned to specific vehicles unless down for maintenance. Also, staff as part of their daily routine, note the vehicle number in the notebook.</p> <p>Exception is the summer student program where students use whatever vehicle is available.</p>	<p>Agree. The assignment of vehicles with personnel will be tracked.</p>	<p>N/A</p>

**CITY OF HAMILTON  
PERFORMANCE AUDIT REPORT 2013-19  
GPS/AVL SYSTEMS PERFORMANCE REVIEW  
MANAGEMENT RESPONSES**

	RECOMMENDATIONS	MANAGEMENT RESPONSES		
		PLANNING & ECONOMIC DEVELOPMENT BUILDING & MLE	PUBLIC WORKS ROADS & WATER	CORPORATE SERVICES (IT) AVL INITIATIVE GROUP
5	That, upon completion of the above recommendations, user training be conducted to ensure that staff are aware of and comply with the new procedures. (Public Works – Roads & Water; Planning and Economic Development – Building & MLE)	<p><u>Building</u> - In house training to be completed following the completion of the procedures.</p> <p><u>MLE</u> - Monthly training and information meeting notes that the above mentioned procedure was explained to staff.</p> <p>This process has already been used successfully in the event of a red-light ticket being issued to an assigned vehicle.</p>	Agreed. Training and evaluation protocols will be developed.	N/A
6	That the Roads Division analyze the idling exception reports provided through Interfleet to identify opportunities to reduce the amount of idling in excess of 5 minutes (especially instances in excess of 30 minutes) to potentially reduce fleet fuel costs and to ensure compliance with the City's Idling Bylaw. (Public Works – Roads)	N/A	<u>Roads</u> - Upon completion of the RFP, the process will be reviewed.	N/A

**CITY OF HAMILTON  
PERFORMANCE AUDIT REPORT 2013-19  
GPS/AVL SYSTEMS PERFORMANCE REVIEW  
MANAGEMENT RESPONSES**

	RECOMMENDATIONS	MANAGEMENT RESPONSES		
		PLANNING & ECONOMIC DEVELOPMENT BUILDING & MLE	PUBLIC WORKS ROADS & WATER	CORPORATE SERVICES (IT) AVL INITIATIVE GROUP
	The next set of recommendations will identify some additional opportunities to improve the capabilities within the existing GPS/AVL systems or to be considered during the search for a replacement system for the current corporate Trackforce solution to better serve the City's operating departments.			
7	That the ability to track idling times and locations be incorporated into the new corporate GPS/AVL system. An analysis of results obtained could lead to a decrease in the cost of fuel and enable compliance with the City of Hamilton's Idling By-law. (Corporate Services (IT) – AVL Initiative Group)	N/A	N/A	Information Technology has included this as a functional requirement in the 2014 Request for Proposal for AVL software. Outlined below are the specific sections of the RFP that include this requirement.  RFP Reference: 2.1.1.7 to collect idle time as telematic input 4.1.5.6 idle report generation 4.1.6.1 ability to generate alerts based on idle times

**CITY OF HAMILTON  
PERFORMANCE AUDIT REPORT 2013-19  
GPS/AVL SYSTEMS PERFORMANCE REVIEW  
MANAGEMENT RESPONSES**

	RECOMMENDATIONS	MANAGEMENT RESPONSES		
		PLANNING & ECONOMIC DEVELOPMENT BUILDING & MLE	PUBLIC WORKS ROADS & WATER	CORPORATE SERVICES (IT) AVL INITIATIVE GROUP
8	That the Geofence capabilities be considered. Such a function would alert a supervisor whenever a vehicle traveled outside its assigned area or the boundaries of the City of Hamilton. (Corporate Services (IT) – AVL Initiative Group)	N/A	N/A	Information Technology has included this as a functional requirement in the 2014 Request for Proposal for AVL software. Outlined below are the specific sections of the RFP that include this requirement.  RFP Reference: 4.1.6.1 system generated alerts from GIS data sets (Geofencing)

**CITY OF HAMILTON  
PERFORMANCE AUDIT REPORT 2013-19  
GPS/AVL SYSTEMS PERFORMANCE REVIEW  
MANAGEMENT RESPONSES**

	RECOMMENDATIONS	MANAGEMENT RESPONSES		
		PLANNING & ECONOMIC DEVELOPMENT BUILDING & MLE	PUBLIC WORKS ROADS & WATER	CORPORATE SERVICES (IT) AVL INITIATIVE GROUP
9	That signals be implemented whenever a vehicle has not moved from a location for an extended period of time. This would provide management a tool to assess the appropriateness of the length of stay at a location based on the work that is being assigned or being performed. It may alert a supervisor to a safety issue with the driver that needs to be addressed or may identify situations in which the GPS/AVL unit has ceased to operate and requires repairs. (Corporate Services (IT) – AVL Initiative Group)	N/A	N/A	Information Technology has included this as a functional requirement in the 2014 Request for Proposal for AVL software. Outlined below are the specific sections of the RFP that include this requirement.  RFP Reference: 4.1.5.4 - stop report 4.1.10.1 - define what Work Alone safety security measures/features are incorporated

**CITY OF HAMILTON  
PERFORMANCE AUDIT REPORT 2013-19  
GPS/AVL SYSTEMS PERFORMANCE REVIEW  
MANAGEMENT RESPONSES**

	RECOMMENDATIONS	MANAGEMENT RESPONSES		
		PLANNING & ECONOMIC DEVELOPMENT BUILDING & MLE	PUBLIC WORKS ROADS & WATER	CORPORATE SERVICES (IT) AVL INITIATIVE GROUP
10	That appropriate telemetric capabilities be implemented in order that data collected be analyzed on a regular basis to improve the management of the operations or reduce costs. Telemetrics involve the electronic determination of status (e.g. plow up or down) or measurement of a quantity (e.g. amount of salt distributed over a particular area). (Corporate Services (IT) – AVL Initiative Group)	N/A	N/A	Information Technology has included this as a functional requirement in the 2014 Request for Proposal for AVL software. Outlined below are the specific sections of the RFP that include this requirement.  RFP Reference: 2.1.1.5 - info on available inputs 2.1.1.6 - basic capture parameters 2.1.1.7 - additional telematics 2.1.1.8 - salt spreader controls
11	That the GPS/AVL data collected related to the locations of vehicles be reported on a streetview map to allow for the visualization of the tracking of a vehicle's travel path. Such data should be readily available for the printing of mappings. (Public Works – Roads & Water; Planning and Economic Development – Building & MLE)	<u>Building</u> - We support this recommendation.  <u>MLE</u> – Agree.	Agreed.	N/A



**CITY OF HAMILTON  
PERFORMANCE AUDIT REPORT 2013-19  
GPS/AVL SYSTEMS PERFORMANCE REVIEW  
MANAGEMENT RESPONSES**

	RECOMMENDATIONS	MANAGEMENT RESPONSES		
		PLANNING & ECONOMIC DEVELOPMENT BUILDING & MLE	PUBLIC WORKS ROADS & WATER	CORPORATE SERVICES (IT) AVL INITIATIVE GROUP
12	That integration between the AMANDA & Hansen systems and the GPS/AVL system be implemented such that the locations where work was reported as having been performed in the AMANDA & Hansen systems appear on the mappings produced. (Planning and Economic Development – MLE)	<p><u>Building</u> - Difficult/Not Applicable. Inspectors performing inspections usually input the data within 24 hours. Dates/times of inspection notes <u>will not</u> correlate with the location of the vehicle.</p> <p><u>MLE</u> - Current technologies do not support one and/or the other. Staff is in the process of evaluating the Amanda system to determine if provides the appropriate level of support.</p> <p>Also, given the nature of the work, officer may be in another area while discussing another location case on the telephone.</p>	N/A	N/A