Fleet Optimization Matrix – Executive Report

CITY OF WEST ALLIS – PUBLIC WORKS DEPARTMENT | AUGUST 2016

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Attached, please find the Schenck Fleet Optimization Matrix – Executive Report. Comments provided by Jim Leu, Fleet Services Superintendent, and Linda Huske, Safety and Training Coordinator, are identified in bold print with brackets.

August 23, 2016

Dave Wepking
Assistant Director of Public Works
City of West Allis – Public Works Department
6300 W. McGeoch Avenue
West Allis, WI 53219

Dear Dave,

Thank you for the opportunity to consult with you and your team as we explore opportunities to improve your transportation operations within the West Allis Department of Public Works (DPW). The purpose of this assessment process is to identify and target critical transportation functions for possible changes that can lead DPW toward excellence and optimum efficiency in your transportation functions. Since you are a governmental agency, profit is not an applicable consideration however the stewardship of how you use public funds certainly is. Although the unique nature of the DPW operations along with the variety of types of equipment and your past data tracking systems present limitations on optimizing your resources, we will identify inefficiencies that could represent substantial savings in both time and expense.

In general, our overall impression of your transportation functions within the DPW is that they were past needs that have simply evolved into certain functions/processes used to meet today's demands. There is no strategic planning or formal operating procedures that describe performance expectations or accountability. All of the mechanics interviewed took pride in being able to perform the job they were assigned and were all particularly proud of the fact that they could creatively solve and even fabricate equipment solutions in house to meet any and all challenges presented. Everyone was admirably focused short term on doing a good job to service the transportation needs of the other divisions with the DPW and is evident by interviews conducted of the other divisions. You have invested in excellent employees and I'm sure that this has allowed you to have the success you have had. Unfortunately, in this response there is very little attention given to cost or time. You are not operating at optimum efficiency. To do this we will look at several "out of the box" ideas on how you could improve.

From a performance standpoint the employees are aware of the requirements in their job description and during the course of the year all employees have two performance evaluations. We discuss performance goals at this time and if needed I will discuss during the course of the year,

In management, good decisions are based on good data. There is not good historical data. Vehicle repair and performance data is entered in the City's financial software, SunGard. The data analysis and reporting capabilities of this software, as currently implemented, are insufficient for proper fleet management, in our opinion. The available reports are not typically used other than for sporadic exception reporting. For the purposes of this assessment, we found the format was not in a usable or suitable format when first reviewed. The reports were very cumbersome to access, download and sort. For this assessment we sorted approximately 42,000 work orders in just the "parts and labor" file; all data extremes on both the low and high sides were purged to capture relevant historical vehicle performance and repair data. These reports were used for this assessment; however, they often did not agree with management's separate set of data and/or identify common historical trends which should be normally expected.

[We agree there definitely needs to be a fleet software upgrade. The problem Schenck ran into is that their methods of data retrieval did not blend with our fleet system or our financial system. This caused Schenck to retrieve and, unfortunately, use inaccurate data for this report.]

We did discover the current system's data entry process is very manually driven and concerns over the accuracy of the data became evident. Some of the larger discrepancies discovered in our analysis of the data records included:

- Unit 41: 43,266 miles in 2015 on only 76 gallons of fuel
- Unit 43: 128,764 miles in 2015 on only 350 gallons of fuel
- Unit 202: $116,170 in part charges in 2015 with only 946 miles
- Unit 1860: $4,559,999 in part charge in 2014

[Even though they indicate this data was removed (see below), it should be noted that had they asked for verification of any of the data, we would have been able to obtain it for them through our fleet data system. No inquiries were made to us. The accurate data for the equipment is as follows:

Unit 41: pickup truck has 1,995 for mileage and 263 gallons
Unit 43: pickup truck has 2,631 for mileage and 349 gallons
Unit 202: stake bed lift gate truck had $875.00 in repairs and 946 for mileage
Unit 1860: electrical aerial truck had $6,335.00 in parts]

Based on the data provided no one had noticed these errors. Fortunately, they were obviously data entry errors and were removed from our analysis along with hundreds of other entries that were obviously unreliable. However, the fact that these errors were not discovered led us to believe that perhaps nobody is using these reports, thus the data in these reports. The result is someone is spending a significant amount of time entering this data which is not being utilized by DPW. This data entry energy needs to be redirected to a data base that can be used.

This is identified as one of the major opportunities for improvement during this assessment. **It is impossible to effectively manage without access to the accurate data.** Benchmarks typically useful to compare performance and even generate forecasts for capacity requirements were not as reliable.

In summary, current utilization of information systems is inadequate for productive and efficient fleet operation and maintenance due to the following:

1. Information is entered in numerous locations
2. Information entry seems sporadic
3. Numerous data entry errors were found indicating the data is not being reviewed
4. Scope of data entry is limited
5. The ability to pull useful information retrieval from what is entered is poor

[I would agree with the auditor if we knew the data he used was correct would validate the findings within this report. The current software, HTE (SunGard), does not entirely encompass all of the fleet's operations that will be shown in the audit.]

There is widespread belief among interviewees that the capabilities of the current system to support the Fleet Division is inadequate and the internal support to implement a dedicated fleet management system would be lacking. However, it is unclear whether the information gaps could be addressed by greater utilization of capabilities of the current system or if a totally new fleet management software is necessary. Both the SunGard vendor along with the West Allis IT department have the capability to write custom reports for data extraction.

[This is an excellent point brought up by the auditor. We talked to our software vendor and there are no modules that can be added or turned on to aid in the fleet package. I checked with our IT Department. This is something they may be able to help with. IT would have to write their own program. It may be more cost effective to purchase a new municipal software system. The SunGard software, as you will hear again and again, is outdated. This system is over 11 years old.]

There are several maintenance software programs that can be purchased or a specific IT development effort could be initiated to create the necessary reports. An internal suggestion was an "Enterprise Asset Management Software" program called AssetWorks. This program is designed for a fleet such as West Allis' with many different types of specialty equipment

and includes program features geared toward governmental agencies. Other fleet management software systems include Dossier Systems and TMW, both commonly used in the commercial transportation arena. Both of these vendors also include some type of specialization for governmental or recycling/refuse entities. One commonality Schenck has discovered with governmental agencies with their own fleet divisions are they typically have insufficient maintenance software mainly due to cost and budget constraints. The decision process with the implementation of a new fleet management software system would be:

1. Identify your needs and wants
2. Integrate software with other current systems
3. RFP for the cost and choose the best product within those parameters

Please note, a lack of information systems acumen among Fleet Division staff would be a significant impediment to either improving utilization of the current system or implementing a new fleet management system. We recommend that a separate IT project be conducted to identify the key parameters necessary for new fleet management software and or the time and effort necessary to complete an internal development on the current system.

[The auditor is correct. We would definitely have our IT Department, Finance and Inventory involved to make the right software upgrade.]

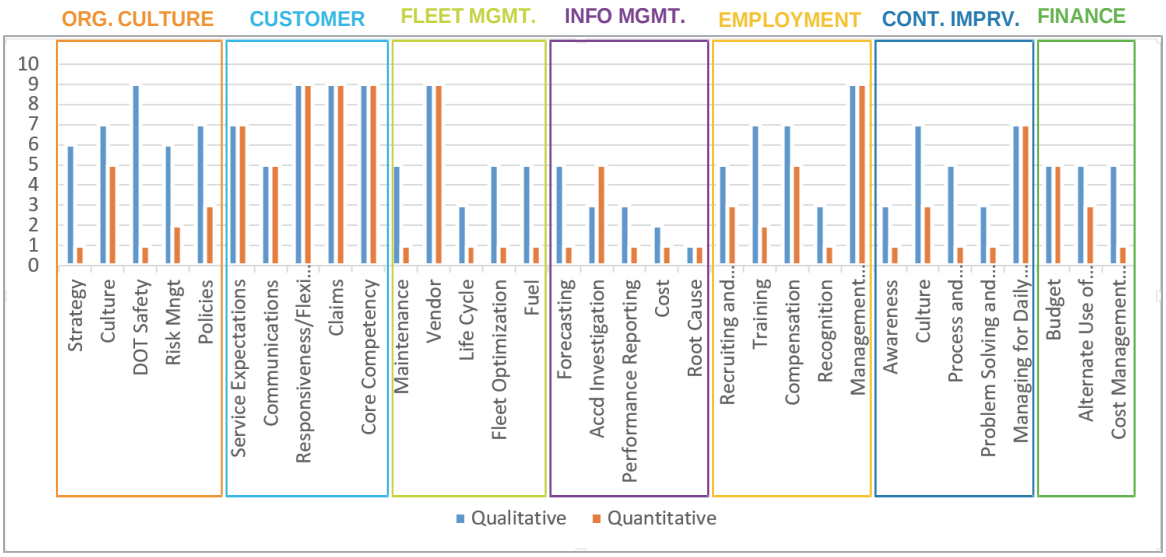
During this assessment, DPW was evaluated in seven core operational areas we have called **foundations**. Within these foundations we then assessed specific **attributes** that are critical to the support and or effectiveness of these foundations. The foundations and attributes are as follows:

Foundations	Attributes
Organizational Culture	▶ Strategy ▶ Culture ▶ DOT Safety ▶ Risk Management ▶ Policies
Policies Customer Relations	▶ Service Expectations ▶ Communications ▶ Responsiveness/Flexibility ▶ Claims ▶ Core Competency
Fleet (Vehicle) Management	▶ Maintenance ▶ Vendors ▶ Life Cycle ▶ Fleet Optimization (Utilization) ▶ Fuel
Information Management	▶ Forecasting ▶ Accident Investigation ▶ Performance Reporting ▶ Cost Management ▶ Root Cause Support
Employment Management	▶ Recruiting and Retention ▶ Training ▶ Compensation ▶ Rewards and Recognition

	▶ Management Interaction
Continuous Improvement	▶ Awareness ▶ Culture ▶ Process and Productivity Improvement ▶ Problem Solving ▶ Managing for Daily Improvement
Finance Management	▶ Budget ▶ Alternate Use of Capital ▶ Cost Management

Each of these attributes were rated both qualitatively and quantitatively. You were asked to rate DPW on how you thought DPW was performing (qualitatively) on a scale of one to nine (one being not good and nine being world class). During the assessment we assigned a quantitative score based on the available data and observations made during the process. On the surface, we consider a significant difference between and qualitative and quantitative measures as the first indication of a potential opportunity for improvement. This allowed us to focus on these areas more quickly.

BELOW IS THE OVERALL SCORING:



ASSESSMENT OBSERVATIONS

Below is a brief summary of the issues we discovered during this assessment, some being more serious and costly than others. In the next section of this report we will dwell on the more significant and costly issues identified.

ORGANIZATIONAL CULTURE (FOUNDATION AVERAGE – QUALITATIVE = 7; QUANTITATIVE = 2.4)	
Strategy	No stated strategy or vision other than to perform a good job
Culture	Relatively good employee culture but all verbal, not documented
[The City has a mission and vision statement; no division has their own.]	
DOT Safety	Minor accidents were high relative to national benchmarks **(58 accidents per million miles versus an industry standard of 3.7 per million miles – 20 out of 28 were preventative)**. High risk area. CDL driver pre-employment drug testing did not meet the DOT standards.

[The auditor used an incorrect comparison. The auditor graded DPW against Over The Road Transportation Standards. DPW should be graded against Municipal Standards due to the type of equipment being used, purpose of the equipment and tasks being performed.]

Risk Management	Training was rare and not mandatory except for harassment classes. Mandatory OSHA training has not been done. Safety Committee reviewed all accident but occasionally (2 out of 14 accidents in 2015) ruled "no fault" on preventable accidents. Several drivers have experienced multiple accidents with no progressive discipline.

[These are areas that our HR Safety Coordinator handles and currently they are up to date with all training for DPW.]

Policies	No written performance expectations in policies. No performance accountability or procedures training.

[As stated earlier, employees know their job description; performance evaluations are evaluated twice a year.]

CUSTOMER RELATIONS (FOUNDATION AVERAGE – QUALITATIVE = 8.2; QUANTITATIVE = 8.2)

We agree with you on your perception of your level of service to the other city departments. **Your service is exceptional! Your unwritten mission is to provide the best possible service at the most efficient use of city resources and f**unds. The only down side to your service is that it is done with little regard for efficiency other than to stay within the budget.

[We appreciate the kind words. Our employees take a tremendous amount of pride in the job they do and it shows with the quality of work performed. We shop for the best price on parts for every repair.]

FLEET (VEHICLE) MGMT. (FOUNDATION AVERAGE – QUALITATIVE = 5.4; QUANTITATIVE = 2.6)

Maintenance	Cost per mile for trucks is over $.80/mile overall. National transportation benchmarks are $.10/mile. Even similar PTO equipped fleets will run as high as $.49/mile. This is purely a high level indicator but it does indicate a potential problem. We will pursue this in detail later in this report. Admittedly this indicator has several unique circumstances that must be considered. Mechanic ASE certification is at 63% versus a national average 50%. This is a huge factor when considering quality of work.

[Excellent point for the mileage if we were a Transportation Company--but we are not. A municipality is graded differently due to the use and type of equipment used. We have refuse trucks, aerial trucks and sewer trucks--just to name a few. When this equipment is working it is stationary or moving very slow. They use fuel but don't put on the miles. Unfortunately we are graded incorrectly.]

Vendors	The Fleet division rarely uses outside vendors and when they are used, a good partnership has been cultivated. Considering DPW's possible excess-capacity environment, vendors are not needed. In some cases outside vendors may be able to provide a positive ROI.

[If we can handle the repair and not outsource it, we are saving money. Some repairs are outsourced when warranted.]

Life Cycle	There is no intentional life cycle plan. Life cycle planning is targeted at retiring vehicles after the cost of repairs exceeds the cost to replace them. This process is dependent upon good data and forecasting. Neither of which is feasible with the present capabilities. In theory, the targeted life cycle provides the ability to project required maintenance capacity and expenses. Presently this is done intuitively based on historical needs. This is a significant deficiency.

[We have a one-year, five-year and a ten-year equipment projection. The vendor is correct. We are very limited with our software package. This is not a true fleet package. We base replacement on time, miles, condition and

the available funds to replace the equipment. Costs of repairs are reviewed and discussed and are all part of the replacement process. Due to financial challenges, equipment rotation has been pushed back and extended; you work within your budget.]

Fleet Optimization	**Given DPW's unique equipment needs, their limited geographic range and the specialization requirements for many of their vehicles, traditional utilization benchmarks are not applicable. For example, it is not uncommon for vehicles similar to DPW's to run 50K-150K miles per year. The best utilized vehicles at DPW may run 9,000 miles with an average of only 3,800 miles per vehicle**. Rather than use traditional benchmarks however, Fleet's own mileage records identify several vehicle which have minimal miles when compared to their own vehicles. Observations, interviews along data indicate these underutilized vehicles represent excess vehicles. We will pursue this later in the report.

[As noted above, the limited mileage, range and different bench marks unfortunately aren't used in much of the following report as they should.]

Even though there is insufficient data to prove, the fact Fleet was able to function for much of 2015 with being down two mechanics, little overtime, and little outsourcing indicates they also may have excess manpower.

[Two mechanics down and no overtime. The auditor never inquired about outstanding repair orders or our back log of PM work to be done for the Department of Public Works and the Fire Department. One position, as mentioned, was due to a long term sick issue and therefore could not be used.]

Fuel	DPW's average MPG is 3.56. Given the combination of large and small vehicles, it is reasonable to expect a MPG in excess of 8 MPG fleet wide. This will be addressed later in this report**. Please note the auditor's fuel economy cart on page 17.**

INFORMATION MANAGEMENT (FOUNDATION AVERAGE – QUALITATIVE = 2.8; QUANTITATIVE = 1.8)

Organizational IT support for DPW is non-existent. This is a huge improvement opportunity. DPW will never be able to optimize until relevant vehicle data is collected and formatted into a usable format. Data from Finance for this assessment was not formatted to be usable unless it could be screened and sorted into pertinent fields.

[IT has given us the support needed for the software that is available for our use at this time. The auditor had trouble pulling information into their system from the SunGard system and unfortunately that caused data errors.]

EMPLOYMENT MANAGEMENT (FOUNDATION AVERAGE – QUALITATIVE = 6.2; QUANTITATIVE = 4.0)

Recruiting and Retention	**Management has personally created a positive work environment which tends to minimize the effect of the opportunities listed in this foundation. Recent changes in retirement benefits (ACT 10) have reduced one of the most significant historical employee benefits.**
Training	There is no active internal training programs for either skill or safety improvements. Mechanics have not been trained on performance expectations. Outside ASE certification is encouraged and supported.

[Since we are not associated with OE Manufactures, training has its challenges. We do have to increase training as possible for our technicians. That is an ongoing challenge that I am working on with our vendors as the equipment and technology changes. Safety has been handled by our HR Department and is up to date.]

Compensation	**Pay is lower than experienced mechanic positions on the open job market. Unless this is corrected it will affect the ability to attract qualified mechanics in the future. Undoubtedly it was a factor in the difficulty in hiring your most recent mechanic position.**

Rewards and Recognition	Other than a rarely used annual meeting recognition there is no formal rewards or even recognition for good performance.

[I have handled recognition individually and in group settings. This is an improvement from past practice. I wish to expand in this area.]

Management Interaction	**Good interaction and open door policy**

CONTINUOUS IMPROVEMENT (FOUNDATION AVERAGE – QUALITATIVE = 3.8; QUANTITATIVE = 2.6)	
Awareness	Management has begun the process to get trained in LEAN practices. Implementation of any CI principles has not been initiated.
Culture	Nobody is aware of what is meant by continuous improvement.

[These are programs and processes that are going to grow within the city.]

Process & Productivity Improvement	Other than good work ethics, this is nonexistent.

[I would have valued the auditor's opinion in this matter to see where the deficiencies may be. We work very well with what we have. The department has been requesting a work order system that would allow an increase in efficiency for scheduling, employee performance review, equipment data, etc.]

Problem Solving	Everyone is very proud of their creative solutions but those are not a result of any CI effort or training. There are no systematic problem solving methods used.

[We are very fortunate to have employees that fix problems every day and they are very good at it. A municipality has one of the most unique equipment fleets in the industry. That being said, other than basic repairs such as brakes or suspension, very seldom do we run into the same repair where one could design a problem-solving process.]

Managing for Daily Improvement	Same as above. This attribute represents huge potential savings (>20%) and will be addressed later in this report.

FINANCE MANAGEMENT (FOUNDATION AVERAGE – QUALITATIVE = 5; QUANTITATIVE = 3)	
Budget	DPW lives by a traditional budget which has little change from previous years (historical in nature). In-depth analysis into budget variances from year to year may or may not be reviewed due to data restrictions.

[We are open for all avenues to improve our budgeting process. This will be a united process.]

Alternate Use of Capital	There are no formal ROI justification done for new capital expenditure. All new equipment is based on requests from the departments it serves and budget allowance.

[There are in-depth discussions with division heads, equipment operators, the Assistant Director, Director of DPW and our Purchasing Department. This has been the standard procedure for the last 36 plus years. We welcome changing procedures and methods to make things more efficient.]

Cost Management	Even though the annual budget is met, the costs of doing business at DPW is substantially higher than would be normally expected.

[I would have welcomed discussion in this area because it appears we were graded by Transportation Standards.]

As you can see, there are substantial improvement opportunities in six of the seven foundation topics but significant opportunities are available in the Organizational Culture, Fleet (Vehicle) Management, Information Management, Employment Management and Continuous Improvement foundations.

OPPORTUNITIES IDENTIFIED WITH SIGNIFICANT POTENTIAL FOR IMPROVEMENTS:

1. SAFETY PROGRAMS

- West Allis is not subject to the Federal Motor Carrier Safety Regulations except that all drivers of vehicles with a GVWR/GCWR of over 26,000 lbs. must have a valid current CDL license and must be subject to all of the DOT's Alcohol and Drug Testing requirements**.**

  After speaking to the city's HR department, it was discovered that the required pre-employment testing done for all West Allis CDL drivers was a standard city employee testing procedure (10 panel) and **did not meet the DOT testing procedures as listed in CFR 40 & 382.301.** Ironically, the Aurora random testing program used in your department was administered and filed correctly. In the future, DOT pre-employment test procedures must be used for all CDL licensed drivers. Although the risk of enforcement by DOT is low, the possibility of a lawsuit is high if an incident were to take place. The result would be a plaintiff's lawyer easily showing **your drivers were not qualified to drive.**

  [This has been reviewed by the City of West Allis. It was confirmed by our testing agency, Aurora Health Care, we are in compliance for all drug/alcohol screening for the Department for DOT and Non-DOT testing.]

  There were 28 accidents/incidents recorded for 2015 which when using the 481,947 miles driven by all divisions, translates to **58 accidents per million miles. National transportation benchmarks show that 3.7 accidents per million miles are normal.** Your accident rate is 156% higher than expected. Out of these 28 accidents, **eight of these drivers have had more than ten accidents during their career with the city including four whom have more than twenty.**

  [The statement was made that DPW had 28 accidents in 2015 with 481,947 miles driven. We are judged against National Transportation Benchmarks which is incorrect. There is no regard for the type of equipment driven or the conditions asked by the employee. Accidents reviewed above include preventable and non-preventable accidents within the totals outlined. Example: If a patron backed into a City vehicle that accident is charged to the driver/employee who was involved in the accident. This is wrong information and this was brought to their attention. Schenck disagreed with us. HR addressed this statement with Schenck at the time of the audit.]

  Your safety committee is reviewing all of these accidents and does appropriately counsel and suspend repeat offenders; however, progressive discipline is rarely moving past counseling and a suspension. A small accident is a large accident that did not quite happen. In industry, **several of these drivers would be disqualified as a driver unless they receive mandatory defensive driving training.** Usually those with more than three preventable accidents of any value in any three year period would be terminated. This is a serious safety risk. Drivers who are lacking sufficient skills to avoid minor accidents will not be prepared to avoid the large accident someday.

  [The first review of accidents is done at the departmental level, not with the safety committee. At the departmental level is where drivers are counseled and where discipline would originate. Drivers have been given refresher training when deemed necessary and required by the Assistant Director of Public Works. The Departmental Safety Committee and the City's Executive Safety Committee meets quarterly and reviews all accidents.]

  Incidentally, five accidents on or after 12/28/15 are still pending action by the safety committee. This is way too long to be effective in preventing a repeat accident. The other function of a safety committee in addition to the preventable determination is to conduct a root cause analysis and take prompt action to correct the cause of this accident before there is a repeat. There is no evidence of any root cause analysis or corrective action.

[The accidents that are noted occurred on or after 12-28-15. They were reviewed by the Department and action was taken for each accident, as needed, regarding disciplinary action. The Assistant Director of Public Works and the Safety and Training Coordinator were not available to attend at the January 2016 Executive Safety Committee meeting to review their findings and was held until the next scheduled Executive Safety Committee meeting upon their return for the report summary. This information was then presented to the Executive Safety Committee (which meets quarterly) at the April 2016 meeting. The auditor was provided a copy of the same report presented to the Executive Safety Committee.]

- Your workplace safety programs are also weak. There was only one mandatory training session in 2015 on harassment. One mechanic attended a fire extinguisher class but none of the other employees attended additional training. OSHA has over 40 mandatory training programs. Eleven of these have mandatory training, none of which were have been offered.

[I would like the auditor to explain and clarify his opinion that "your workplace safety programs are also weak". The auditor did not mention what he was looking for, nor did he ask for specific programs. We do not fall under the OSHA requirements; we are governed by the Department of Safety and Professional Services (DSPS). We follow any of the OSHA standards that DSPS has adopted that relates to the public sector. In addition, the City has a robust safety program. On the most recent Risk Assessment performed by our insurance company we were given a 92+ rating and received an award for our safety programs.]

- There were a few policies which generally were "canned" templates designed simply to meet policy requirements. There are no performance or accountability expectations and progressive discipline was not described. A policy which is well written will function as the script from which work is conducted and the "conditions for employment." If not followed, continued employment could be in jeopardy. Crisper productivity and accountability can be implemented with a rewrite and associated training on the new productivity standards.

[The auditor's statement that policies are canned is not correct. Policies and procedures in the City are reviewed by the Human Resources Department and City Attorney's office before being implemented. A number of departments are used to insure information in policies is current and applicable. In addition, our insurance carrier (CVMIC) often asks for copies of our policies and procedures so they can be shared with other CVMIC members.]

2. VEHICLE MAINTENANCE AND UTILIZATION

- Vehicle maintenance and utilization is the foundation that has the most potential savings. If we applied a high maintenance, hard use, PTO operation's performance to DPW's 2015 results, the total maintenance cost would have been $187,600 [481,000 miles @ $.39/mi] compared to Fleet's 2015 actual maintenance costs of $380,908. Although it isn't realistic that all of the difference could be saved, it represents **a potential savings of $293,411 per year.** 2015 totals include 8,271 hours of labor and $156,369 in parts. Your Class 7 trucks had 39% of your total part costs (Unit #1013 @ $22K and Unit #1008 @ $14K) but only has 15% of your total fleet vehicles

[Schenck stated that this is the area for the most potential savings. The information that is documented is for hard use transportation equipment, not a municipal fleet. Their statement that it represents "a potential savings of $293,411 per year" isn't realistic. They are using inaccurate data. For example, truck 1013, they have listed as having a total cost of parts and labor $22,000 for 2015. We checked our fleet data and we show $7,565 from a turbo, tires, and leaf springs. Truck 1008 they showed at $14,000 for parts and labor. We show $7,695 from air bags, tires, and injector work. Schenck did not bother to verify this data or communicate with staff. Unfortunately, they chose to generate this report and send it with flawed information in lieu of any verification or reasoning. There should have been a discussion on this data.]

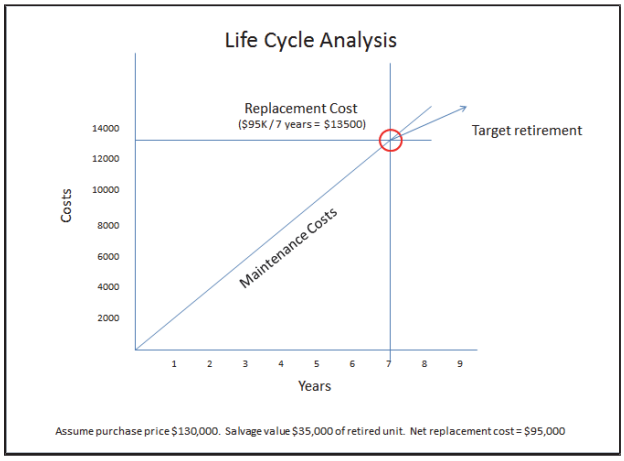
- There is a significant difference between the mechanic hours available (2,000 hours / mechanic x 10 mechanics = 20,000 hours) versus the 8,271 hours which were recorded on your work orders (source of this data). **There are over 11,000 mechanic hours that are unaccounted in 2015.** 57% of your maintenance cost is for labor. If we use a high CPM projection of $.50/mi for 2016 and projecting the miles and vehicles will be similar, we estimate your 2016 maintenance

costs to be ≈ $240,000. If 57% of this cost is for labor then your labor allocation would be 5,483 hours. This translates to 3 full time mechanics needed. If we include an additional full time mechanic for servicing the fire equipment (no data) and the present mechanic for the small engine repair, you will still have 5 extra mechanics on paper. During the initial interview process, we learned that due to a difficult hiring process, your mechanic staffing was short 1 full time person all of 2015 and you had another mechanic off for several months for workers comp. **Your service did not suffer!** Based on data in the "parts and labor" file, it appears that you have excess mechanics – **do not replace the recent retired mechanic and let attrition eliminate one additional mechanic slot. This will save $150,000/year plus benefits and with good management you will not experience serious service failures.**

[Department of Public Works representatives and a member of the Finance Department met with the Schenck representatives on August 23, 2016 to discuss various issues regarding the data that was used, in particular, this issue was brought to their attention. It was communicated specifically by DPW and our Finance Department of the selected labor data that was used within the work order system in lieu of the payroll data as provided. Schenck lists over 11,000 unaccounted mechanic hours for 2015. That is equivalent to over 5 mechanics being off for a year. Would that not make a reputable company re-evaluate the data and inquire to ask questions? Common sense would raise a red flag that something is not right. They did not inquire about vacation time, sick time, lead person time, weekly generator testing and daily building lock up time, shuttling trucks, parts pick up, emergency plow operations, etc. that does not require a specific work order documentation nor do we have the capability to do so at this time. We indicated all of our labor hours are logged on a timecard for each employee on a daily basis. Designated work orders keep track of specific time for specific tasks. A sample was provided. Every person in the Fleet Division works 8 hours per day providing maintenance or working on a specialized task. Instead of reviewing the information from our payroll system as communicated from SunGard, the consultant took the hours logged within the work order system for those repairs only and not from payroll. As discussed before, using this software does not allow us to log in time for intermittent repairs or keep track of the off time for each employee. The only area in which complete employee time is kept is within the payroll system. The comment about having 5 extra mechanics on paper, being down 2 mechanics and the service did not suffer is incorrect. We are behind on our PM's and repairs. We had to send out WA's front line ladder for repairs due to being short on staff. That repair took the local dealer 6 weeks to repair. The comment of $150,000 a year plus benefits is incorrect for one mechanic.]

- The foundation for any maintenance program is a strategic life cycle plan. A vehicle's life cycle is determined when the projected repair costs exceed the net replacement cost. Typically this is between 5-7 years (10-12 years for refuse). This is a delicate balance to optimize the salvage value while still preventing large repair expenses associated with keeping the vehicle too long.

[Schenck touches on equipment life cycle balance--5-7 years on all equipment except refuse--which they state should be 10-12 <u>years</u>. The City does not have unlimited funds to roll this equipment at that pace out of our fleet. We move front line equipment into our pool fleet for reserves as needed when certain vehicles may be down. That consists of trucks to pull mower trailers, brush trucks, refuse yard trucks, shoring tow unit, crew van for the tar crews, just to name a few. I asked what the tax paying resident would say as he sees good 5-year old equipment going to auction and then looks at their own high-mile, worn out vehicle in their driveway. The auditor's response was to just show them the data.]



The records for the historical parts and labor cost for vehicles at DPW did not follow the expected aging trends – the data produced were straight line graphs. Unreliable data and unusual demands for repairs more than likely explain the unusual cost trends. As a vehicle ages we expect to see incremental increases in repair costs. Rather than use the above life calculations, for this assessment we identified low utilization vehicles as excess equipment then selected high maintenance vehicles as retirement candidates regardless of age. Note, the average age of the trucks in the present West Allis fleet is 11 years (Class 8 refuse – 9 years; Class 8 – 14 years; Class 7 – 10 years; Class 4 – 10 years; Class 3 – 17 years; Class 2 pickups – 7.5 years; Class 1 cars/SUV – 7.6 years).

- The average nationwide annual mileage for refuse trucks is 25,000 miles being used 5 days a week @ 9-10 hours per day. DPW's average miles per truck per year is only 4,225. This is only a 17% utilization rate using the national refuse average. **Conduct a utilization study to explore how to increase their utilization.** This might include consolidation of routes, more driver hours or extra shifts, less trucks, single driver operation, etc.

- The average life cycle for refuse trucks is 10-12 years with a 2-3 extra year flex to optimize salvage value. A purchase price of a refuse truck can easily exceed $200K but will hold a high salvage value (maybe $90K) after 10 years if the market can be found. In the DPW fleet:
  - Units 854 and 855 are both at 10 and 11 years respectively and Units 815, 813, 812, 811 and 810 are all long overdue.
    - Unit 855 is running at over $4.97 per mile ($1.37 is DPW's refuse average) and should be retired.
    - Units 813 and 812 are both high cost vehicles at $4.16/mi and $6.67/mi respectively @ 996 and 994 miles per year.
    - All three of these trucks are used as spares or unintended use duty (i.e. picking up brush). **Units 855, 813 and 812 had 833, 996, and 944 miles in 2015 respectively. DPW cannot afford to have expensive specialty vehicle sitting idle. Sell them and NO DO NOT REPLACE THEM. These vehicles costed $13,632 in 2015 – eliminate at least that expense.**
  - The average miles per truck for the Class 8 vehicles were only 1,910 miles for the whole year. Some of these vehicles are specialty vehicles that are necessary but cannot be used for much else. However when we consider that similar trucks in industry would be running 30-50K per year, this poor utilization is an indicator of excess trucks. Units 2831, 1496, 1030, 905 and 864 all had less than 1,000 miles @322, 448, 461, 637, 975 respectively. **If we retire Units 2120, 1853 and 864 we would eliminate half of the entire maintenance costs ($43,232) for Class 8 vehicles in 2015. DO NOT REPLACE THEM.**

[A quote from Schenck states that the records for the historical parts and labor cost for vehicles at DPW did not follow the expected aging trends--the data produced were straight line graphs. Unreliable data and unusual demands for repairs more than likely explain the unusual cost trends. The West Allis fleet is an average of 11 years old. Schenck states the average nationwide annual mileage for a refuse truck is 25,000 miles being used 5 days a week for 9-10 hours a day. This is not a municipal fleet. This is an automated front or side load vehicle,

such as Advance Disposal, that runs commercial routes--not a municipal refuse fleet. Therefore, the numbers of 17% usage is way off base and unusable. A one-person truck is not plausible for rear loading vehicles. This is all a textbook formula by a person that never saw a municipal refuse crew in operation. They list a packer resale price up to $90,000 after ten years. We researched and the very best we could find was a unit for $65,000. Most refuse packers were between $20,000 and $40,000. Remember, that is list price, so you can be assured the actual sale price was less. You also have to have the market. Our condition with plowing and exposure to salt will not allow for top price. Schenck lists 810, 811, 812, 813, 815, 854, and 855 to all be replaced. They did not ask, but 810, 811, 812 and 855 were all scheduled to be replaced. In 2 years 854 is budgeted for replacement. We can't touch 813 and 815 due to lack of funds. Schenck makes a mention to sell these refuse trucks but yet they have no concern for the use of these vehicles and how they provide other services for yard waste collection, brush collection and bulk collections. Several times in the course of a year we have been out of trucks with no backups remaining due to various non-routine maintenance issues.

Schenck lists the following to sell: 2831 (vacuum sweeper), 1496 (jet truck), 1030 (tow truck), 905 (water tanker truck), 864 (yard container hook truck), 2120 (catch basin hydro unit, transmission replacement for $5,500), 1853 (bucket truck, boom and hose repairs). There was no conversation about the use of the units and the role they play within our fleet.]

- Class 7 average age of 10 years is comparable to expected lifecycle—maybe a little high. They are averaging 4,200 miles per year and averaged 3.2 mpg. They should be averaging 20-30K per year and have a mpg of between 5-12 mpg. The average repair cost for Class 7 vehicles was $1.27 cpm versus norm of $.08-.10/mi. Repair costs are excessive and fuel mileage is at least 4 mpg lower than expected. If repairs and mileage were normal for your fleet you would **save $32K in fuel and over $100K in repairs. Three vehicles exceeded $3.00 per mile (Units 1008, 1013 and 2833) and should be replaced. Place idle limiters on all of these vehicles.**

[Schenck said our class 7 trucks are close with our life cycle but light on the mileage. Schenck feels we should put 20,000-30,000 miles on per year. They have no idea how much driving a person would have to do in this city to produce that amount. Again, we are not a delivery/transportation company for transit; we go to a job site and use the piece of equipment for hauling, etc. That equates to 75 to 100 miles, 5 days a week. Our med rigs only put 15,000 miles a year on them. All of the class 7 information is incorrect. The $32,000 in fuel and over $100,000 in repairs are fictitious numbers that are not defined where they were obtained. Once again, they don't know the truck or its use or if the numbers they used are correct or request clarification.]

- Class 4 vehicles are small light duty trucks (large pickups). They are averaging only 3,400 miles per year (national norm 20K) and their fuel mileage averages 8.9 mpg (national norm 7-12 mpg). Unit 214 ran 257 miles in 2015. Unit 207 is high maintenance at $1.64 cpm. You spent $6,500 on Unit 214 for only 257 miles ($25/mi). **Retire Units 207 and 214 and DO NOT REPLACE THEM.**

[The mileage is right in line for our pool fleet; the expenses listed are not correct. 207 will be refitted to our new stake bed truck to save money.]

- Class 3 vehicles are the oldest of your fleet at an average of 17 years and are averaging only 2,100 miles per year and 7.8 mpg. Units 1860, 220, 202, 200, 118, 110, 107, 101, 87, and 1 all averaged less than 800 miles for the year – Units 118, 107 and 101 averaged less than 300 miles. In 2015 you spent $8,500 to maintain these vehicles for only 5,800 miles total. Obviously for this class vehicle, the repair costs are not as significant as the larger trucks therefore if you have a specialty vehicle that is rarely used it would be better to keep it than purchase a new on. **Retire and do not replace Units 1860, 220, 202, 200, 118, 110, 107, 101, 87 and 1 unless an ROI justifies keeping them.** Save $8,500 per year in maintenance costs.

[Schenck said sell vehicles 1860, 220, 202, 200, 118, 110, 107, 101, 87, and vehicle 1. 1860 is the bucket truck which has been scheduled to be replaced with a new aerial truck. Vehicle 220 and 200 are fleet service trucks when vehicles are either disabled on the street or work site. They do go out at the same time and are needed. 202 is our stake truck that I have plans to change with truck 206 over to a stake truck and get rid of 202 and not replace. Vehicles 118 and 107 are smaller pool dump trucks that our Water Division uses to haul fire hydrants and 107 have been auctioned off. Vehicle 110 is the Water Division crew van that is scheduled to be replacing

van 87 in the pool fleet which will be sold. Schenck never asked about the status or plans for any of these vehicles during any meeting.]

- Class 2 vehicles are averaging 4,100 miles per year and 8.62 mpg. These are small to medium duty pickups; they should be averaging up to 22 mpg. By improving the mpg on these vehicles even up to 17 mpg you would save $15,000 per year. Initiate a fuel savings program and place idle limiters on these vehicles. Get rid of Unit 44 and do not replace it.

[Schenck said we are averaging 4,100 miles a year and they should be averaging 22 mpg. With a F250 pickup performing mostly all city driving and routinely stopping it would be difficult to get 22 mpg in the city for mileage. You won't--it simply will not happen. Ford's new EcoBoost will only get 12 to 16 in the city; 22 MPG is optimal highway mileage. It is hard for any pickup to get that kind of mileage given the amount of stops we make within the city. $15,000 savings in fuel is an inaccurate number that is not obtainable.]

- Class 1 (cars and SUVs) are averaging 4,300 miles per year and only 15 mpg. You have two 13 year old vehicles **(Units 49 and 177) both of which are cost significant repair costs ($3,263 and $1,246 in 2015). Replace them.**

[Schenck said we are only averaging 4,300 miles per year and only 15mpg. That's usually within the normal range for city driving for these types of vehicles. They state units 177 and 49 have cost us $3,263 and $1,246 in 2015. Truck 49 is our line striper truck and 177 was an office car only used once a day to run to City Hall and back for mail collection pick-up for the Health Department and DPW. We sold 177 online and utilized an available vehicle to cut costs. Once again they didn't ask what function these vehicles provide or the plan we had for them in the future. The cost amounts are also incorrect. They should be $1,702 for truck 49.]

- In theory, once we identify a reasonable maintenance cost trend per vehicle, we can then forecast the need for maintenance and the necessary capacity to deliver the expected repairs. In addition, with reliable parts history per vehicle we could begin predictive maintenance by using a probability of failure factor. Spec'ing the vehicles to reduce component failure is a common practice but we need to know what parts are high frequency failures. Your present operating procedures and records do not allow you to be this progressive but this should be a reasonable goal for future years.

[Schenck states that in theory, once we identify reasonable cost trends per vehicle, we can forecast our trends. That sounds good but that thought will only work well if you have a fleet of similar vehicles. In our case it wouldn't work because we have different year, class, vehicles and types. We have very few vehicles that are the same model, let alone the same year, so we cannot develop a trend for repairs simply due to the vast collection of vehicles we need to provide services. We do identify and implement specific specifications for various equipment to reduce common component failures and to increase the vehicle's life cycle. This consideration is standard for a municipal fleet when purchasing any piece of equipment.]

- In the maintenance business there are two Key Performance Indicators that help measure shop productivity – unscheduled work and vehicle down time.
  - Unscheduled maintenance is undesirable. If a truck is properly serviced during regular preventive maintenance intervals it should be rare that it will require repairs in between these intervals.
    - Fleet uses a PM intervals based on gallons of fuel purchased. (i.e. PM every 300 gallons for refuse trucks, 240 gallons for Class 8 large trucks, etc.). According by this schedule and the truck fuel purchases, Fleet should have performed 579 PMs during 2015. A standard PM should not take more than 3 hours and if we assume an average parts charge per PM at $200, the total parts and labor cost of a PM would be approximately $275 per PM [3 x $25/hr. + 200]. At 579 PMs Fleet should have spent $160K on PMs in 2015. The maintenance expense was $383,305. When comparing projected to actual an extra $223K in maintenance was spent.

[Unscheduled maintenance is undesirable. That is correct. Here is the problem with the statement about maintenance costs, intervals and the amount of time. Schenck didn't take into consideration what I had communicated to them. Our PM is done on our equipment once a year. It is a YEARLY PM. Schenck is looking at our oil service schedule. That is what the fuel, time or mileage readings are for. They are incorrect with the comment about only three hours for a PM. Our PMs can last several days due to the fact that we take the wheels off, change all the different fluids (which may be up to 7, 8, or 9 different types). Then depending what

we find for repairs, it may even take longer. Our oil service will only take 1 hour for a light vehicle and up to 3 plus hours for the Fire Department ladder truck. Schenck's PM count is inaccurate because he is using over-the-road fleet schedules and not providing a proper comparison to equipment type. The dollar numbers have nothing listed for repairs because that is what is done on a yearly PM. The expenses are incorrect because they just list the cost of an oil change not a full PM like we perform. Remember, this is also inaccurate data that is being used as they have stated and also was identified to them. We also are running a fleet that has an average age of 11 years, not their model over-the-road fleet number of 5 to 7 years old. The newer the fleet, the less repairs you will have. The older the fleet gets, the more we will spend on the repairs. It appears they are applying the numbers they want to get the answers they want at the time they want.]

- Not all of the above $223K was unplanned. The transportation industry averages $.10 per mile for truck repairs. Hard use vehicles equipped with a power take-off (PTO) might run at $.39/mi. At 481K miles the benchmark repairs using a hard use vehicle would be $187K.

[This is a municipal fleet. We transport to the job site, run the truck, do the job then drive back to the Municipal Yard. That is why we have low miles and higher fuel cost per vehicle. We are not in the transportation business where a company makes money with the more miles they drive. We try to keep our mileage low to conserve fuel, maintenance costs and engine hours on the unit. We have a totally different fleet operation and work objectives.]

- It is estimated that you are spending **$50,000+ per year on undesirable unscheduled "quick fix" work.** This work that will interrupt a mechanic's normal work. One mechanic interviewed estimated that he spends about 10-20% of his time on quick fixes. Another mechanic said he spends about 1.5 hours per day or about 20% of his time as well. If we assume that every mechanic spends 20% of his time on these unscheduled repairs, Fleet is wasting 3,600 hours per year [(2,000 x .20) x 9 mechanics]. This is not counting the half hour lost each time a mechanic has to restart the original job. At $25 per hour this is a $90,000 waste.

[The comment about spending an additional $50,000 a year on unscheduled "just quick fix" repairs is inaccurate. The quick fixes will vary from day to day. A quick fix can be a broken J-bolt on a cart lift which happens due to day-to-day use. That repair takes 5-10 minutes to fix. Head light or taillight out, jump start, new brooms on a leaf rake due to normal wear--no day is the same. They assume 20% x 9 mechanics every day out of the year. Not all personnel are involved with that type of repair. Unfortunately, Schenk forgot about (as mentioned earlier) vacation time, sick time, injury time off, lead person time, generator testing once a week for 5 hours, salt spreader set ups, snow emergencies, etc. This inaccuracy was communicated to them directly where their assumption was our work order system within our financial software was tracking all labor expense. We indicated we used timecards and identified our daily time for each day accordingly. We have instituted a procedure to minimize interruption of the work staff with other departments requiring fleet services to either call and/or schedule an appointment or place a work order within SunGard in lieu of just dropping by the Fleet Services Division unannounced with a concern, i.e. public works divisions, ambulances, fire engines, etc.]

- There were a large number of repair jobs in process at any given time. This was supported by interviewees as generally being the case. Reasons given included, waiting for parts and getting pulled off one job to take care of a "quick fix" job. Fleet's average **downtime** on every vehicle repaired is **1.81 days** out of a sample of 2,100 work events (removing excessive downtimes from the average). An average downtime for vehicle repairs should be between 1-2 days. There were 383 vehicle with down time over two days and 168 vehicles down for over a week. All of the mechanics admitted that they often have 3-4 trucks in the process of repair. They stated that the two reasons for the downtime was the above "quick fixes" or **waiting for parts**. Long downtimes are usually waiting for parts. When we consider how expensive these vehicles are, the lost time of a broken down vehicle can be huge. In the transportation business it is estimated that it costs the carrier up to $6,000 per day and some of your vehicles are more expensive than industry might have. Fleet does not have the lost revenue aspect but no doubt you have added extra vehicles to use during the wait time. In Lean terms, these high levels of Work in Process (WIP) are a red flag. For the Fleet Division, high WIP is a significant contributor to long repair in process times, as supported by the data, and poor flow as witnessed by interviewee's desire for a larger work place. Interestingly, long repair in process times have not resulted in customer dissatisfaction, presumably because there is enough spare equipment to cover the customer Division's needs.

[Fleet is listed as having an average vehicle down time of 1.81 days. It is noted that an average down time should be between 1-2 days. According to that, it appears we fall within that average. Schenck states that waiting for parts is a large problem for our fleet. That is correct; especially when you have such a diverse vehicle fleet we can't supply every possible part within our Inventory. We are working with inventory to correct some issues, and hoping a software program and designated vendors will help. A bar code system would stream line both fleet and inventory work and help assist with our down time. Having an iPad for the technician to pull up the piece of equipment and check the parts needed and having it sent directly to inventory and/or the designated vendor to be ordered would be helpful. Unfortunately, Schenck refers back to Transportation Standards again. Unfortunately, Schenck's numbers aren't valid.]

- After talking to several mechanics, the parts issue seemed to be extreme. Interviewees reported having the right parts and supplies on hand for PM work, but repair parts inventory and procurement seems to be a factor contributing to long repair times and high levels of WIP. One interviewee reported it's not uncommon for repair parts to be at a dealer 20 minutes away, but taking all day to get the part because it is collected on a once daily parts run.
- The parts room does not stock critical parts and the responsiveness to get parts is slow. Inventory control and management is a science now with modern parts tracking and bar coding. Your parts room is still working with systems used in the mid-1960s – it is in desperate need of an upgrade. **We recommend that an inventory project be initiated to upgrade the parts room and solve the extended down time for repairs.**

[There have been positive changes in our Inventory Division after the audit was completed to aide in the locating and delivery of parts.]

- Note that alternate fuels have proven to be applicable for city vehicles, even refuse vehicles. Natural gas vehicles will require a $1-2M investment in a fueling station and the vehicles will cost an additional $20K-$30K per vehicle. However they may deliver a 40% reduction in fuel consumption. In your fleet that would save about $86,000 per year. Assuming a $2M increase in purchase prices and a $2M fueling station. It would take a 46 year payback. The City of Milwaukee received a grant and has some NG vehicles in operation. Apparently the board was very involved. Although it cannot be cost justified it may be at least exploring with Milwaukee. Hybrid vehicles actually may have a better ROI.

[A note on alternate fuels. Unfortunately this statement is true. At this time, with fuel prices staying low and the City's financial position, alternate fueled vehicles would not be cost effective at this time.]

3. INFORMATION MANAGEMENT

- As discussed on page one of this report, the major hurdle preventing the Fleet Division from optimizing your fleet in several areas (utilization, down time, parts inventory, PMs, fuel mileage and spec'ing) is the need for improved ability to utilize data to make decisions. There is widespread belief among interviewees that the capabilities of the current system to support the Fleet Division are inadequate, and there is support to implement a dedicated fleet management system. Management's suggestion, **AssetWorks**, looks as good as any. It is unclear whether the information gaps could be addressed by greater utilization of capabilities of the current system. The current system vendor does have capability to write custom reports, and the West Allis IT department has capability to write reports as well. The challenge with any software program is to enter data correctly and to learn how to use all of its features that apply. In the assessor's opinion, a lack of information systems acumen among Fleet Division staff would be a significant impediment to either improving utilization of the current system or implementing a new fleet management system. Improved data utilization enabling good management control could deliver analysis that could save Fleet 20%-30% of your total costs every year. Based on your maintenance costs in 2015, a potential of $100,000 per year in savings is available however it may require additional administrative support.

[Schenck highlights in this area fleet software deficiencies. An upgrade in this area would be a welcome addition. There is a lot of manual data entry performed by the Fleet Services clerk, that would benefit. As far as the 20% and $100,000 savings, I would have to have those numbers verified by a qualified outside source.]

Other fleet management software systems include Dossier Systems and TMW, both commonly used in the commercial transportation arena. Both of this vendors also include some type of specialization for governmental or recycling/refuse entities. The key with the a new fleet management software system would be figuring out the needs and wants of the system, integration of the software with other current systems along with the system cost and pick the best product in those parameters. **We recommend that a separate IT project be conducted to identify the key parameters necessary for a new fleet management software and or the time and effort necessary to complete an internal development on the current system.**

[Very good comments, and noted.]

4. EMPLOYEE MANAGEMENT

- Everyone appeared to thoroughly enjoy working for Fleet and recognized the value of their team relationships. With no turnover events in 2015, there is not much to critique. The only concern expressed by all of those interviewed was the affect that Act 10 had on their retirement.
- The most significant opportunity in employee management was the rarity of employee training. The only training that any of them could remember was a harassment class that was mandatory and not particularly enlightening. There has not been any internal performance related training. Performance was not tracked sufficiently to determine if there was a training need. However, all were encouraged to work on and receive their ASE certifications. Seven out of eleven mechanics are certified, which is a large percentage.
- Compensation was average when combined with better than average benefits received, resulting in a more than competitive overall compensation package. Mechanics are hard to find and it may be necessary to offer additional incentives such as a sign on bonus to attract top quality mechanics. Performance bonuses and some form of activity based pay tied directly to quality and productivity could raise take home pay to an attractive level with a Fleet payback in improved productivity.
- A glaring deficiency in your employee relations is the almost total disregard for any form of recognition or reward. Everyone appreciates personal recognition for a job well done or particularly an extra effort. None of those interviewed could recall the last time they were recognized by management. There is an annual opportunity to be recognized for a special effort but it is rarely used. This would be so easy and inexpensive and will always deliver a positive effect.

[Schenck states that everyone appears to thoroughly enjoy working for the Fleet Division. There is a mention of Act 10, as there was earlier, and the effects it is having on the employees. It is tough for the employees to keep a 100% good attitude when there is no pay increase, a benefit decrease and the feeling that things are even going to get a lot worse. These are extremely qualified people that have invested many years of service to the City and, at this stage in their life, are regressing. That is a very unsettling feeling for everyone. Attitudes and production go hand in hand. The Fleet Division has an extremely talented work force. Training is mentioned. We have $3,500 in a training budget and, as of this time, there is approximately $900 left in the account. So, as you can see, training does take place. I would like more in the future, and as I mentioned earlier, I am working with vendors to accomplish this. 7 out of 8 mechanics are ASE certified. That is an extremely high number and shows the drive of the mechanics. A deficiency noted was employee recognition. I hand out the good job, nice work, thanks all day long to my guys. I have had all my employees in the break room for different recognitions throughout the years. The reward system that is in place is geared for ideas to save the City money and provides opportunities for additional compensation.]

5. CONTINUOUS IMPROVEMENT / OPERATIONS MANAGEMENT

Physical work space

- The physical work place is hindering productivity. Numerous interviewees expressed the desire for a “more modern” or “larger” facility. However, when questioned further about how a more modern facility would help them, none could state specific reasons. Most interviewees cited insufficient room to work, a lack of bays and issues moving equipment through the facility as the reasons for needing a larger facility.
- Traffic flow into the oil & lube area and maintenance bays is restricted, requiring operators to make sharp right angle turns with large vehicles. This requires moving vehicles around wasting time and breaking up work flow.
- In the assessor’s observations, a lack of work place organization is hindering productivity and raising potential safety concerns. There was an extremely high level of clutter present in most of the Fleet Division’s work areas. Division

employees are accustomed to this, and don't seem to see it as a hindrance.

- Numerous safety issues were observed, such as steel bars hanging out the back of a pickup truck into an aisle way, tripping hazards in work areas. Again, Division employees have adapted and have learned to look out for safety issues, as evidenced by a low incident rate. However, this may present a greater risk for new employees. Also, there was some indication that minor injuries not requiring immediate medical attention are not getting reported.
- Most work areas had unusually high levels of dust and dirt, as compared to other similar work places.
- Lighting was insufficient in some areas.
- There were some specific positive aspects of workplace organization present:
    - Marked aisle ways in the truck bays
    - Tire chocks to prevent loaders from parking in aisle way; chocks are brightly painted for visibility
    - Tool boards present in some areas
    - Color coded fluid containers; on a negative note, there was no color code chart present in the area
- No interviewees recognize lack of work place organization, cleanliness, or lighting as a detriment, even when specifically asked.
- In the assessor's opinion, the lack of workplace organization, cleanliness, and safety concerns may be a detriment to hiring mechanics from private industry.

[Schenck mentions the needs for facility improvements such as a facility with more room, more repair bays, a more efficient design (traffic flow) and layout. Any improvement would be a welcome plus to efficiency and employee morale. There was a comment about a safety issue of metal bars hanging out the back of a truck. Those are our Water Division trucks with their water keys in the back end. No water keys are protruding in any walkways within the Water Division but are extended outside the rear bed area by 1-2 feet. They are a necessary tool used daily for shutting off/on water valves.]

Fabrication Area

- The fabrication area seems to be a particular source of pride for the Fleet Division. Fabrication employees are highly skilled, creative, and motivated workers.
- In terms of clutter, organization, potential safety concerns and poor material flow, the fabrication area is among the worst of the Fleet Division areas. Compared to most commercial fabrication shops, the workplace is extremely unconducive to productivity. It is a testament to the resourcefulness and personal safety consciousness of fab area employees that they are able to function at all.
- Hindrances to productivity do not seem to be a concern, as there are no measures of productivity for the fabrication area, and workers in the area have adapted to the way it is.
- There is certainly not a lack of local commercial fabrication shops where this work could potentially be contracted. In the assessor's opinion, there are distinct advantages to maintaining in-house fabrication capability, however that may not always the best option. All fabrication jobs should be subjected to an ROI analysis.

[As noted by the assessor, the fabrication shop is a very high source of pride for the Fleet Division. The fabrication employees are highly skilled, creative and motivated. The fab shop is a tremendous asset for the City. There is a mention of clutter and productivity. There is not job repetition in the fab shop to generate set completion times. We have such a different variety of work and repairs that would not be possible. Schenck is comparing this to a commercial job shop where they build the same thing over and over. We are not a job shop fabricating one item. As far as ROI analysis, before the ROI is completed the fabricator has the job completed to repair the unit or extend the service life of a unit.]

Fleet Tools

- There appeared to be three main locations for Fleet tools.
    1. The secure tool shop holds several lockers containing specialty tools used for specific tasks or specific vehicles. These are all stacked in their plastic containers without any sort of labeling or organization. There doesn't appear to be an inventory list for this tool shop.
    2. The area reserved for larger tool equipment has no organization. Accessing a tool requires shifting, moving, and

unstacking other items depending on where it is located within the area. A number of these items are covered in the filth of use, having not been cleaned before being returned to storage.

3. The quantity of tools in the small engine shop seemed excessive given the number of equipment pieces that were being serviced during our observation. This was supported by the clutter and subsequent grime that was observed around and even concealing some of the tools.

[Schenck makes comments about tool storage. We work with the room that we have given the limited space we have for the necessary equipment we need and vehicles that are larger and more complex than many years ago. Given the variety of maintenance functions performed within the small engine shop, a variety of tools are required to be used for various small engines, i.e. push and riding lawn mowers, chainsaws, forklifts, stampers and string trimmers. Hydraulic hose repair is also designated in this area as well. All of the main repair bays are already designated. Light vehicles are also scheduled within this area for routine maintenance. There is a lift for small engine repairs and used extensively during the spring and summer months. Cars and light trucks also get repaired when space availability permits. The small engine shop is also home to our hydraulic hose manufacturing facility as well.]

Metrics

- No operational metrics were observed or described by interviewees.
- Without relevant operational metrics in place, there is no objective way to judge the productivity and efficiency of an operation, and no incentives to improve it. It is analogous to playing a game without keeping score.

[Schenck stated we have no way to judge productivity. This is something that is based more off of an over-the-road fleet where the mechanics work on the same type of equipment all of the time. With our mixed fleet, it is very hard to generate something like that when you have a diverse fleet of vehicles/equipment (street sweepers, refuse/recycling packers, fire engines, ambulances, etc.) in lieu of having standard delivery fleet equipment.]

Scheduling

- Shop Lead does all scheduling for the Fleet Division. He maintains a balance between PM's and repair work. The Lead Man maintains the schedule in his head and with personal notes. No systematized scheduling tools are utilized (i.e. computerized scheduling system, Excel spreadsheet, visual scheduling boards).

[The Fleet Division would welcome any software to allow for improved communications between city departments using a fleet software system that would easily keep track of historical data for part use, vendor information, frequency of repairs, part and labor expense, preventative maintenance, order/inventory reference part numbers, etc.]

6. FINANCE

► Similar to other governmental agencies or divisions of governmental agencies Fleet is strictly working off of a budget prepared using historical data with some minor, if any, inflation measures. Fleet is very resourceful at utilization of the resources and funds provided to them which was evident through interviewees' comments and pride in their work. The issue at hand is that the annual budget is prepared using this historical data which has no productivity measures in place to verify if the data is on par with industry norms. Based on the quantitative data collected in comparison with industry analysis and trends the total repairs and maintenance costs for Fleet are 20-30% higher than baseline. By using this data year after year in budget calculations the annual budget starts to become inflated until funds are pulled back from certain divisions.

The one root cause of this inflation of budget amounts stems from inefficiencies. An inefficient fleet management system impairs management's ability to manage the productivity of workers, predicative maintenance costs and with other measurements on real time basis to assist in leaning out actual expenses to meet budget. More use of a quality fleet management system will not only assist in the daily operations but also in the annual budget requirements.

Secondly, Fleet does not have a formalized return on investment calculation and standards when it comes to large capital

improvements. This calculation would assist in providing details for additional budget funds or retaining allocated budget funds for capital expenditures which may necessary during the budgeting process. Again data to make these necessary calculations would be entered and tracked in an appropriate fleet management system.

Finally, looking over the annual budgets provided by management for the Fleet Division we are drawn to the line item "rentals." In our conversations we determined this amount was a charge back amount for the vehicles owned by the Fleet Division however used by the other divisions of DPW. This amount is added to the budget as a credit (expense offset) to the Fleet Division. The concern with this amount is how it is calculated. This amount is communicated to Fleet during the budget process but the question should be is it an accurate number. Normally in industry this rental amount is based on fair-market-value (FMV) rent of a similar piece of equipment if it was to be rented from a third-party. This FMV rent is based on type and age of the equipment rented. Based on this amount staying relatively consistent from year to year there seems to be minimal involvement in this calculation (no consideration to new equipment added etc.). There is an opportunity for the Fleet Division in obtaining this calculation or at least determine how the rental charge back is calculated to determine if this is a reasonable amount or if the other divisions are using the equipment on the Fleet Division's cost.

[Schenck mentions the budget being based off of historical data, which is true, but also input on the needs of equipment and information on the direction of the City. Schenck is comparing us with outside industry norms, which we are not. Take the 20-30% higher number and throw it out the window. Earlier, Schenck could not get a base line with their data. Until we are compared as a municipal fleet, these numbers are flawed. There is mention of return on investment when it comes to large capital improvements. We would like some explanation on that. There is mention of equipment rental rates. The base line was generated years back. Finance was looking into that to verify that it is the equipment expense, fuel, repairs, overhead, etc. We use the previous year's figures and add inflation. DPW would be open to explore options in this area.]

A NOTE:
The recommendations have also been addressed in a separate document.

RECOMMENDATION SUMMARY

1. **Correct your pre-employment drug testing process** to immediately begin using the DOT's Part 382.301 and Part 40 procedures.

   [This has been reviewed by the City of West Allis. It was confirmed by our testing agency, Aurora Health Care, we are in compliance for all drug/alcohol screening for the Department for DOT and Non-DOT testing.]

2. Establish strict accident performance standards and **conduct mandatory defensive driving training annually. Drivers with multiple accidents must be reassigned to non-driving positions.** Schedule ride-alongs in the progressive disciplinary process.

   [The first review of accidents is done at the departmental level. This is when drivers are counseled and where discipline would originate. Drivers have been given refresher training when necessary and required by Assistant Director of Public Works.]

3. Implement effective OSHA compliance program including pertinent programs and mandatory training.

   [We are not covered by OSHA; we are covered by the Department of Safety and Professional Services (DSPS). DSPS has adopted many of the OSHA standards which we follow. It should be noted the City has a robust safety program and on the most recent Risk Assessment audit done by our insurance company we were awarded a 92+ rating and given an award for our programs.]

4. **Draft new policies and procedures which specifically list performance expectations as well as rewards and consequences. Train everyone on the "conditions for employment."** This will establish accountability and crispness in your management control process.

   [Conditions of employment are covered in each new hire orientation.]

5. Develop and implement a plan to make better use of information to improve fleet management. This plan should include:
   - Identification of information gaps

[By today's standards our current fleet management software is extremely poor. There is not a true fleet management function in or available for this system. Basic equipment data is available but is extremely cumbersome and difficult to retrieve. That being said, we have researched various fleet data packages on the market and found some very good systems. Before we would go in that direction we will check with our IT Department. IT is currently developing BP Logix software. There may be an option to use this system. Our IT Department should have some information in the near future.]

   - Develop robust processes for collection and entry of data

[This is something that may be coming with a new fleet management package. This would integrate with inventory, our fuel system, and our repair system. This would speed up the entry and increase the accuracy of the necessary data for fleet management.]

   - Developing a deeper understanding of the capabilities of the current systems

[I would welcome the opportunity for in-depth training with our current system. IT may be a solid resource for some more insight. We are fortunate to have staff that is extremely talented in the operation of the HTE SunGard systems to aid with information gathering. HTE is a financial system.]

   - Identify methods to improve data utilization using existing tools, i.e. Excel

[Excel spread sheets are currently being used to monitor equipment purchases and equipment rotation schedules.]

   - Investigate fleet management software as a potential replacement for existing systems

[We are in total agreement with you; however, this is a decision that needs to be made with all involved. This would have to work with our Finance Department, inventory and fuel system. As mentioned before, our IT Department may have an option for us. We will research all avenues for the right blend for all.]

   - In the assessor's opinion, to merely implement new software without a complete information plan would not result in improvements for the Division.

[We are in agreement. As mentioned, we would involve all divisions such as IT, Finance, Inventory, Fleet, and Administration to make the right decisions not just for the present but to carry us into the future.]

6. Establish a life cycle plan and begin to catch up.

[There has always been a life cycle plan for the DPW Fleet. We do a yearly, a 5 year, and a 10 year replacement schedule every year. The majority is manually driven, nonetheless there is and has been a system in place. One has to look back and realize there have been financial challenges for the City of West Allis for many years. That being said, we have had to push back equipment replacement through the years to accommodate the finances available. To say Catch Up sounds easy if the funds are available. Equipment costs go up 3% to 5% per year. We have been close to a zero increase for many years. The equipment purchased 10 to 15 years ago has gone up 50% to 75%. Unfortunately we have to be selective on the equipment that we purchase.]

Retire the 19 vehicles listed above and do not replace them. Replace the other 5 listed.

[Unfortunately I wish we could accommodate, but some of the units are equipment used for critical city services such as snow plowing and refuse collection, catch basin and sewer cleaning, and water maintenance. Other units are designated or scheduled to go during the fleet audit. Four pieces of equipment listed to be replaced have not met our replacement criteria for some time. One unit has been disposed of due to lack of use. Unfortunately the vehicle list was generated without any conversation about the type, use, or position in the fleet. I would supply equipment status information on our main report.]

Purchase new vehicles specifically targeted with universal components and longevity.

[We agree with the auditor. We have and will always try to maintain uniformity, simplicity and quality in the fleet. It keeps the inventory down and decreases the repair times and expenses of the equipment.]

Install idle limiters on all vehicles as soon as possible to improve MPG.

[That's a good point and I have looked at idle limiters. Our newer class 8 heavy trucks have the ability to have their ECM's reconfigured to shut down. Our light vehicles I can't touch because they only have one battery. Our equipment, whether it's a class 8 or small SUV, run their warning lights almost all of time. The battery would die. The other item to think about is weather. They all have to run for heat. We have a fair amount of dead battery service calls now because the vehicles are being shut down. Our service call count would definitely go up. The real efficiency shows up for over the road fleets where their units idle for hours at truck stops.]

7. **Reduce unscheduled repairs to only "safety defects" or major breakdown situations.**

[The technicians in Fleet Services strive every day to fix everything right the first time. While doing a repair the equipment is looked over for any additional needed repairs to prevent excess down time and major break down situations. Due to the complexity of our equipment, repairs will be needed; however, we strive to keep them to a minimum.]

Create a "quick fix" bay during times when drivers are coming and going to catch necessary repairs as needed.

[A quick fix bay would be a great addition to the fleet facility. However our shop is not designed properly for a quick fix bay. We have one bay per tech with just two extra stalls. The technicians work outside in the summer and in the main garage in the winter due to lack of space. The auditor should have been aware of our space limitations.]

Redesign the PM program into a time period rather than fuel consumption.

[That would work well if we didn't have such a diverse fleet. Due to the different types of equipment we have, we need more than one system. Our sewer cleaning equipment run very hard and use a fair amount of fuel yet they are stationary when working. This equipment demands an oil service sooner than a piece of equipment that idles for the same amount of time. The auditor was confused with what an oil service is and what our major PM (preventive maintenance) is.

We do a PM once a year as the auditor wants; however, we do our oil services in between which is based off of either engine hours, fuel consumption or vehicle time since the last oil service. During our oil service we write up any concerns that need to be addressed.]

View an unscheduled repair as a PM failure.

[As stated earlier, our PM's are done once a year. Unfortunately the auditor has us confused with a transportation company that performs a PM once a month. We don't have the proper facility or enough staff to perform a vehicle PM more than once a year.]

Place priority into the PM program and minimize having your mechanics interrupted.

[We totally agree. With an aging fleet and the effects of road salt we have to pull the tech off the PM to handle another priority such as a repair to our Fire Department fleet.]

8. **Down time of vehicles in process of repair must be reduced.** There needs to be an urgency to deliver requested parts within a specific time period (i.e. if not in stock it will be found and delivered with 2 hours).

[Reducing down time is our goal for every repair. We face the challenges of a diverse and unique fleet that consist of a variety of different type of light vehicles, construction and emergency vehicles. We have catch basin equipment, a tar kettle, a line striper, wood chippers, refuse trucks, aerial trucks, front end loaders just to name a few and that's not counting the Fire Department's fleet that we maintain. That being said, we can't afford to stock all the parts that we may need so we rely on vendors. That means parts have to be shipped in. When we can, we will send someone out to pick the part up or have the part shipped via priority. Upgrading our inventory system could be a plus. Bar coding may streamline things. Our Inventory Division is down to two employees which can create challenges for us and all other divisions.]

Conduct an inventory system assessment.

[That may be a step in the right direction to analyze the operation and flow. There may be new procedures and methods that could be implemented along with the added technology of bar coding to streamline the operation.]

9. **Increase your vehicle utilization!** Schedule drivers on staggered shifts to utilize equipment more effectively. Utilize underutilized but necessary equipment intentionally on alternate duty; keep the wheels rolling.

[Third shift has been part of the DPW for many years. Our Streets Division does leaf collection, street sweeping, line striping, plowing, salting and some road construction on high traffic areas at night. Work schedules are directed by the division superintendents not by the Fleet Division. For us to move people to a different shift just to use the equipment may not be the most efficient use of staffing. The Department of Public Works has performed work during other shifts depending on the urgency and practicality of the work being done, i.e. street sweeping, line stripping, leaf collection, snow plowing and salting, water maintenance, sewer and storm repair, etc. It was suggested to collect refuse and recycling during second or third shift but there is the issue of having the refuse/recycling processors open and various noise issues.]

10. **Reduce excess mechanic capacity by not replacing a fabrication slot and continue to let attrition eliminate one additional slot.** The recommendations in this study plus good management will reduce the need for maintenance accordingly.

[This sounds good on paper; however, the reality is we are behind on 93 PM's for DPW and 31 PM's for the Fire Department. Any reduction in staff would degrade our ability to keep the Fire Department and DPW equipment operational. Unfortunately, the auditor graded the fleet staffing to transportation fleet staffing standards. Municipal fleet staffing standards are much different due to the unusual, unique and aged equipment a fleet maintains.]

11. **Design an intentional recognition and reward program.** Ensure that a manger notices and personally thanks employees on good work and especially performance above the norm.

[I like the idea of that. I have contacted other municipal fleet managers to see what they have implemented. I was very surprised to find out that the majority don't have anything in place. The others do what I have done which is to personally say thank you for a job well done, congratulate them on their anniversary, have a shop meeting to showcase their accomplishments in front of everyone or bring in doughnuts to say thank you. I am open for other ideas.]

12. **Focus on process improvements** designed to reduce out of service times for repairs, and reduce the number of jobs in process. Factors to improve may include:
    - Assessment of procurement and inventory management systems and processes
    - Analysis of critical spare parts
    - Scheduling methods
    - Implement metrics for time out of service

[As mentioned earlier, inventory has a direct impact on the efficiency of the Fleet Repair Division as well as all city divisions. Installing a fleet and inventory management software may be helpful in managing the equipment parts needed for the fleet. Obviously the longer it takes to get the parts the longer the equipment is down and causes inefficiencies in the repair shop due to lack of space. Anytime you can save on inventory is a plus. We have a good relationship with the local vendors as well as the local OEM manufactures which helps keep our inventory lower.

We would definitely welcome a new software package to enhance our ability to schedule our daily, monthly and yearly work load. A new software package could give us the information needed to implement metrics for equipment out of service.]

13. **Assess the layout of the entire facility** to identify opportunities to improve flow.

[Our facility is grossly outdated. We are working in a building that was built in the early 1940's. The work bays are misaligned with the doorways and are very small for today's equipment. We only have one bay per technician with only 2 spare bays for the whole shop. Equipment has to be pulled out of a bay if we are waiting on parts so the technician has a bay to work in. In the winter we have to work in the main garage area where vehicles are traveling, in the summer we do a lot of our work outside in the alley because the repair garage bays are ~~is~~ full. Our lube rack is too small for our vehicles and also requires a 90 degree turn that requires a small turning radius. The maintenance tech has to move a variety of Electrical and Building and Sign Division's vehicles out of the way to pull in larger equipment. Our tire shop is too small and misaligned for the size of our vehicles either for Public Works or the Fire Department. Parked vehicles have to be moved out of the way to be worked on outside within the garage floor requiring equipment to be transferred to the vehicle. There is a tremendous amount of time lost due to the inefficient layout of the shop. Challenges like this needed to be taken in consideration during the grading process of the fleet audit and to have interest to observe our employees performing these tasks. Improper shop layout is a definitely a major factor with some of the negative feedback.]

14. **Implement performance metrics** for the Fleet Division.

[We would welcome the ability to measure the performance of the Fleet Division. This would give us a chance to analyze the operating performance of the shop and with accurate data you can make the right decisions to improve operating performance. This would be greatly enhanced with a different fleet software package.]

15. Consider **flexing some mechanics work schedules** to enable some PM's to be done in non-core hours.

[That's a good point. We have to look at staffing with the Fleet Division, down 2 employees, and the Inventory Division, which only has 2 people total. We would be stretched too thin at this time. There is a chance we may have a hard time retaining the technicians we have if this system were to be implemented. There are options that may be there down the road; however, I would need to discuss this with my supervisors.]

16. If the Fleet Department is to maintain in-house fabrication capabilities, it is strongly recommended that the **layout and organization of the Fab area be improved** to commercial standards. In the assessor's opinion, this can be done within the existing facility.

[We have reorganized the fabrication area already. We had a retirement which changed the configuration. Things are in very good shape and very well organized. We will not meet nor have we ever met commercial standards because we are not a commercial job shop.]

17. While the lack of **workplace organization** is a significant hindrance to productivity, the amount of time and effort necessary to make a significant improvement would be substantial.

[The bottom line is we need a new facility. We have done what we can do with what we have.]

18. **Develop a more comprehensive Preventive Maintenance system**, including evaluation of critical spare part needs.

[We are in agreement. If there is a better way to perform our PM program we would welcome the opportunity to inspect and implement. We do what the facility and staffing allow us to do at this time. As mentioned earlier, we would welcome a new updated software program to enhance our ability to manage and match the inventory to the equipment.]

19. Implement a **standardized return-on-investment (ROI) calculation** and metrics to assist in providing detail on necessary capital expenditures and why or why not they fall into the current budget cycle.

[The majority of the equipment purchased is for the replacement of existing equipment that has proven itself through need and use. An ROI for any new type of equipment to the fleet would be a very good tool to justify the purchase. This is a process that the user divisions would need to be involved with to justify their need.]

20. Work with all other divisions/department necessary to **determine how the rental charge back is being calculated** and if the other divisions are being charged accordingly. Determine if the Fleet Division can take ownership of this annual calculation.

[We are interested in refining this process. We have used a baseline from the previous years and made adjustments. I made an inquiry to our Finance Department to verify all of the components used for the calculation. We will take that information and the equipment data and make the necessary adjustments.]

21. Use recommendations above to help **make the annual budget a future/predictive** looking process with efficiencies instead of historical in nature.

[We welcome the opportunity to improve our budgeting methods. The use of actual fleet software designed for municipal use would give us the accurate data to make the right decisions. As stated several times in the audit, bad data makes for the wrong information and wrong decisions. We shall see what the future brings.]

Your mission is to deliver excellent service to your departments as efficiently as possible. Repeating historical trends and procedures simply compounds past inefficiencies. Change can be difficult but very rewarding. For DPW, profitability is not a concern but good stewardship of city funds is. In business, waste is anything the customer is not willing to pay for. At DPW, the waste identified represents huge savings for the city. There is no doubt that it will require crisper performance expectations and standards followed by solid management control and accountability. We are proposing that DPW significantly change the way you are doing business and strive for creative out of the box solutions to historically wasteful practices. All of your employees are proud of their ingenuity. Apply that same zeal to a world class department and you all will be proud.

All of us at Schenck are excited to watch this process develop over the next few months.

Feel free to call or e-mail anytime if you have any questions or need help with solutions.

Sincerely,

Doug Bengson
Manager – Operations Consulting

Jeff Simon, MBA
Consultant

Paul Westberg, CPA
Tax Manager

Appendix

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