

City of Syracuse  
Department of Public Works

Street Repair Division

Material Cost and

Operations Management

May 1st, 2014, to November 31st, 2014



**Submitted to:**

**Syracuse Common Council**

**Mayor Stephanie A. Miner**

**April 7<sup>th</sup> 2015**

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City of Syracuse Auditor

## **Introduction:**

On August 25, 2014, the Office of the City Auditor opened a formal review of the City's Asphalt Plant with a specific focus on operations and costs. This includes reviewing asphalt production records, financial budget records of reconstruction projects, contracts for raw material vendors and audio recordings of interviews. The data analyzed during this review are documents and records of operations and procedures that took place at the DPW street repair division. This review is intended to cover calendar year 2014, during the paving season between April and November.

This review was undertaken by the City Auditors Office with the cooperation of the Department of Public Works. The main focus is to address the hazardous conditions of the inner city's transportation ways and the growing need of investing in Syracuse's infrastructure. This review is a comprehensive assessment of the internal controls at Syracuse's DPW street repair division. The required *Standards for the Professional Practice of Internal Auditing*, as circulated by the Institute of Internal Auditors, have been practiced throughout the audit reporting procedures. These standards necessitate that the audit must plan and perform to attain a reasonable foundation for the judgments and conclusions regarding the function under examination.

The management of the City of Syracuse, New York, is responsible for establishing, maintaining and complying with the internal control structure and for compliance with applicable laws, regulations and contracts. Our office completed a street evaluation and a tour reviewing applicable internal controls and compliance with required laws and regulations necessary to satisfy the audit objectives. **Every government operation/department is responsible for maintaining proper legible financial statements supporting department activities. Furthermore, management is responsible for making sure qualified personnel have the proper skills/training to perform the occupation assigned.**

The decision to perform an audit review was related to the idea of optimizing the city's asphalt plant, also the city's overall design, keeping future construction projects and economic influences in attention. The DPW allocates (as stated in the 2013-2014 annual budget) \$3.7million of its overall budget to the street repair division, this only allows for a minimal road restoration, when there are several city roads that required repair. Considering the fact that Syracuse's economic potential is growing, we need a sound reliable road infrastructure to allow for the City's growth.

This report is intended solely for the information of the Mayor and the Common Council of the City of Syracuse, New York. However, this report is a matter of public record and its distribution is not limited.

## **Scope**

Review material contracts, material financial records, production records and operations management. Observe operations and procedures of the asphalt plant and paving crews.

## **Objective**

To increase the mileage of city roads repaired during one paving season. Bring more awareness to the increasing need to reconstruct Syracuse's roads.

## Condition

The current condition of the Syracuse's asphalt plant is operational, manned with roughly 30 labor personnel. They pave in the summer months and maintain roads through the rest of the year by means of spot work. In the 2013-2014 fiscal years commenced with the street repair division receiving an adopted budget of \$3,719,687. This budget allows the "Street Repair Division" to complete approximately 3.0-5.0 miles of single lane roads per paving season; Syracuse has 409 miles of single lane roads. The City's ability to advance into a sound infrastructure plan is being diminished anywhere from 10 to 15 miles of roads per year.

The fiscal year 2013-2014 was one of the worst years ever with several water main breaks costing over a million dollars in repairs. It is necessary that Syracuse explore all opportunities and makes a larger financial commitment to its street reconstruction, thus lowering the expenses associated with entire street recon due to an economy of scale. Furthermore, lowering of recon expenses will create an opportunity for innovation within the City. For example, resources can be used on City beautification, more research on the flow of Syracuse's traffic to redesigning areas with high traffic volumes and diversified transportation ways.

## Summary

As the Syracuse City Auditor, my goal is to increase the manufacturing capabilities at Syracuse's asphalt plant. During the data assembly phase of the examination, our office arranged conference meetings with the "Street Repair Division's" upper management; followed by request for several documents, classified as, Audit Evidence. In doing so, audio notes were recorded and collected and asphalt production and financial records were also received. Throughout the data assessment phase, a reconciliation of the material usage data and the material expense data was completed.

When we analyzed the production records my staff noticed that there were missing production records to support the financial records showing asphalt production. The financial paper work and excel documents submitted, displayed impreciseness and discrepancies. The financial documentation submitted for review was unofficial. It contained incomplete expense sections and informal data formatting. There were inaccurately expensed material amounts, along with missing financial records; once these items were identified as missing, they were requested and received at a later date. In conclusion, some street costs totals we found were not consistent where the "Daily Truck Cycle Reports" didn't match the financial statements.

## Material Suppliers

The City of Syracuse is currently contracted with three companies to obtain its materials necessary to produce asphalt mixes. The plant currently has formulas for five different mixes for circumstances raging from "daily-street" repair to entire street reconstruction. The asphalt plant does not store all necessary materials for all five formulas; special orders are made for specific materials to be delivered prior to street operations when needed. The following are the company's and prices under contract with the city for raw street materials:

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**Raw Asphalt Materials**

1.) **T H Kinsella**, Fayetteville, NY 13066 – Aggregates

A.) #1A CRUSHED STONE - \$11.50 per ton

Actual Cost - \$14.47 per ton (per contract, there could be additional delivery cost for fuel cost fluctuations)

B.) #1 CRUSHED STONE - \$11.00 per ton

Actual Cost - \$13.96 per ton (per contract, there could be additional delivery cost for fuel cost fluctuations)

C.) #2 CRUSHED STONE - \$11.00 per ton (special order)

Actual Cost - \$13.70 per ton (per contract, there could be additional delivery cost for fuel cost fluctuations)

D.) LIMESTONE SCREENINGS - \$8.75 per ton

Actual Cost - \$11.65 per ton (per contract, there could be additional delivery cost for fuel cost fluctuations)

2.) **Vitale Ready Mix Concrete Inc.**, Auburn, NY 13021– Sand

A.) BEACH SAND – DELIVERED -\$15.50 per cubic yard

Actual Cost - \$11.50 per ton (see conversation chart ref.)

3.) **Suit-Kote Corp.**, Cortland, NY 13045 - Cement & Emulsions

A.) PG 58-28 ASPALT CEMENT - \$562 per ton

Actual Cost - \$635 per ton (extra cost inflation)

\*(Asphalt Mix Formulas Available Upon Request)\*

**Road Reconstruction Evaluation**

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During the audit review phase-our office charted the “Daily Customer Sales Reports,” which displays the amount of tonnage ordered for a specific recon project for that day. Furthermore, we randomly chose a recon project and its stated total material cost to be reconciled against the “Daily Customer Sales Reports.” In the course of calculations our staff found the following fluctuating balances:

	<b>Total Recon Cost</b>
<u>5/28/2014 – 7/11/2014</u>	
<b>E. Fayette St.</b> - Reported Material Cost - \$78,998	<u>\$142,960</u>
Actual Material Cost - \$75,873 – <b>53.07% of total</b>	
Overstated - <b>\$3,125 Material</b>	
<u>7/18/2014 -8/19/2014</u>	
<b>Forest Hill Drive</b> - Reported Material Cost - \$43,655	<u>\$107,043</u>
Actual Material Cost - \$44,704 – <b>41.76% of total</b>	
Understated - <b>\$1,049 Material</b>	
<u>10/7/2014 – 10/21/2014</u>	
<b>Hiawatha Blvd.</b> - Reported Material Cost - \$107,950	*no disclosure*
Actual Material Cost - \$106,541 - *incomplete data*	
Overstated - <b>\$1,409 Material</b>	
<u>7/8/2014 – 8/1/2014</u>	
<b>Lexington St.</b> - Reported Material Cost - \$53,690	<u>\$103,759</u>
Actual Materials Cost - \$52,515 - <b>50.61% of total</b>	
Overstated - <b>\$1,175 Material</b>	
<u>6/27/2014 – 7/24/2014</u>	
<b>Oneida St.</b> - Reported Material Cost - \$32,010	<u>\$72,760</u>
Actual Materials Cost - \$31,177- <b>42.85% of total</b>	
Overstated - <b>\$833 Immaterial</b>	
<u>8/1/2014 – 9/16/2014</u>	
<b>South Ave.</b> - Reported Material Cost - \$141,765	<u>\$277,838</u>
Actual Materials Cost - \$150,018 - <b>54% of total</b>	
Understated - <b>\$8,253 Material</b>	
<u>9/6/2014 – 9/18/2014</u>	
<b>Valley Dr.</b> - Reported Material Cost - \$83,214	<u>\$174,791</u>
Actual Material Cost - \$84,002 – <b>48.06% of total</b>	
Understated - <b>\$787 Immaterial</b>	
<u>8/20/2014 – 9/9/2014</u>	
<b>Velasko Rd.</b> - Reported Material Cost - \$31,664	<u>\$66,266</u>
Actual Materials Cost - \$31,849 – <b>48.06% of total</b>	
Understated - <b>\$185 Immaterial</b>	
<u>6/16/2014 – 7/19/2014</u>	
<b>Westcott St.</b> - Reported Material Cost - \$30,487	<u>\$65,284</u>
Actual Materials Cost - \$30,996 – <b>47.48% of total</b>	
Overstated - <b>\$509 Immaterial</b>	
<u>5/9/2014 – 6/6/2014</u>	

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**Erie Blvd. E.** - Reported Material Cost - \$83,872 \$363,075  
Actual Material Cost - \$134,574 - **37% of total**  
Understated - **\$50,702 Material**

**10/4/2014 – 10/11/2014**

**\*\*McCarthy Ave.** - Reported Material Cost - \$13,657 \$37,754  
Actual Materials Produced Cost - \* production documentation not provided\*  
Overstated - \*production documentation not provided\*

## Summary of Results

The imbalances and deficiencies uncovered in our findings illustrate inadequate management practices at the “Street Repair Division.” The projects marked with more than \$1,000 variance reflect material overstatements and material understatements. The projects marked with less than \$1,000 represent immaterial over or understatements; all together there are 6 recon projects with a variance greater than \$1000, out of 11 projects. We combined the material miscounts reported and got a total of \$5,709 in *overstated* and \$60,004 in *understated*. The city’s current infrastructure is in a problematic state, lacking funds. Syracuse can’t afford to allow resources to become unaccounted for.

The overstated amounts don’t seem to be material, although when you consider that the amount equals roughly 90 tons of asphalt between 3 projects, the miscounts become questionable. Our findings for Erie Blvd. E. had the most significant fluctuation; its total project cost was reported at \$363,075. During the assessment phase we configured the reported total, revealing further inaccuracies. On **10/10/2014**, our office received production reports, but no financial records confirming, 2192.72 tons of asphalt produced for Erie Blvd. E., throughout the month of May, until its completion.

This project required two different mixes: (mix consist of raw materials stated previously)

- *1055.42 tons of 6-B Binder X 60.46/ton*
- *1137.30 tons of 8-B Top X 62.22/ton*

Throughout these calculations, my office computed the tonnage into an “actual material cost” of \$134,574 for Erie Blvd. East. On **1/22/2015**, after a request for financial documents supporting Erie Blvd East, we received documents reporting the material cost at \$83,872. Making note of this discrepancy we continued the assessment in search for an accurate audit trail. This is a control weakness, asserting failure to properly record expensed assets.

Through further analysis, in the financials submitted on **1/22/15**, we noticed an “actual paving cost” reported at \$127,688 for Erie Blvd. E. This amount was formulated from numbers calculated by an unusual excel formula, were the variables used to create this total were undefined. Continuing, we checked the financial records submitted on **11/10/14** that also displayed an “actual paving cost” for Erie Blvd. E. at \$173,880. Our analytical procedures uncovered inconsistent parallel behaviors, confirming that these financial numbers are misrepresented.

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In a search of supporting evidence for Erie Blvd E., my staff formulated a percentage for average materials use per recon job, which is "48.11%." When applied to Erie Blvd East's reported total cost of \$363,075; the material cost for Erie Blvd. E. would be \$174,675.38, on average. The actual material cost from the production records has a percentage of 37%, below average. In discovering these statistics we discovered that McCarthy Ave. had a closely related percentage of 36.12%, with no production records to support the reported expenses. These below average material percentages are dubious and are in need of further explanation.

In my opinion, there isn't enough authentic data to support the numbers reported for material expense on Erie Blvd. E. and McCarthy Ave. These misstatements are material to the audit and misstating the true cost for Erie Blvd. E. and McCarthy Ave. Material reconstruction cost cannot be determined until official numbers are submitted to our office and/or a formal explanation is presented with supporting evidence.

### **Audit Opinion**

We have examined and evaluated the adequacy and effectiveness of internal controls for material expenses and operations management that may have affected street reconstruction from May, 2014 through November, 2014. We used audit methods and procedures appropriate to the circumstances. Our examination included daily production records and financial records presenting material expenses. We received misrepresented unofficial financial records, along with missing production data.

In our opinion, the street repairs division's financial statements do not conform to GAAP regulations. In addition, the financial records provided by the street repair division seem to be inaccurate. Although this may occur by error, it is often an indication of incorrect record keeping. **Our office is issuing an adverse opinion**; the street repair division must correct its financial statements and have it re-audited. As consumers, investors, lenders and other requesting parties will generally not accept them.

Our recommendation to the Department of Public Works-Street Repair Division is to correct their internal control weakness. During the evaluation there seemed to be a deficiency in accounting operations leading to unacceptable documentation. This is an issue that needs to be resolved through training or additional staff over sight. Lastly, in assuring that the issue gets resolved, our office recommends a manufacturing statement be submitted to the City Auditors office for review, prior to all recon projects in future paving seasons.