

**Council Meeting: February 23, 2010****SUBJECT: Transmittal of the FY 2006/2007 Performance Results Audits for Public Works Programs: 217 – Concrete Maintenance and 218 – Street Tree Services****BACKGROUND**

The Program Performance Audit Division in the Department of Finance verifies that the performance information published in Sunnyvale's budget is accurate.

Attached are two audit reports for programs within the Department of Public Works. The Concrete Maintenance and Street Trees programs operate with a combined total of 17 employees and report 83 results (see table below).

<b>Program</b>	<b>Title</b>	<b># Staff</b>	<b># of Measures and Datapoints</b>	<b># of Activities</b>	<b>Total Results</b>
217	Concrete Maintenance	6	17	21	38
218	Street Trees Services	11	21	24	45
	<b>Total:</b>	<b>17</b>	<b>38</b>	<b>45</b>	<b>83</b>

Performance results audits test both the accuracy and the integrity of performance reporting systems within a program. Auditors first review the workflow to determine whether performance information is being captured in the most efficient manner. Then, the documentation is tested for accuracy.

Concrete Maintenance (Program 217) installs and maintains the city's curb, gutter, and sidewalk concrete. The main cause of damage to these areas of concrete is from the encroachment of tree roots. Staff in Program 217 will grind and replace the damaged sections of concrete to ensure the City has a functioning drainage system, and pedestrian walkways are free of tripping hazards. The program also ensures that the City's sidewalks comply to American with Disability Act (ADA) guidelines. All other street related concrete is maintained by staff in Pavement Operations (Program 118).

The Street Tree Services (Program 218) maintains approximately 37,000 trees planted alongside City roads. Maintenance includes: planting, pruning, watering, and the removal of trees. Trees located within the street medians are not maintained by this program. Median trees are maintained by the Roadside and Median Right-Of-Way Services (Program 216). City trees planted in other areas are maintained by other City programs.

These two audits produced similar results. Auditors could not verify the accuracy of reported results due to issues with the documentation and calculation techniques used by the programs.

Reported results could not be verified in Concrete Maintenance as the numbers in the various tracking systems did not agree with one another. Also, product totals could not be reconciled back to the original service documents. The program has the infrastructure to track and report results, but needs to reorganize how it uses its current tools.

Reported results for Street Tree Services could not be verified due to labeling and filing issues with the paper documents. There are also structural issues with the tree management software that need to be resolved. Auditors could not reconcile the paper documents to the electronic records, and the electronic records were not current. The program needs to reorganize its paper filing systems. It also needs to upgrade to a less cumbersome version of the tree management software.

The audits make several recommendations to strengthen the integrity and accuracy of the current reporting systems. Management has accepted all of the recommendations and implementation is underway.

### **EXISTING POLICY**

The Fiscal Sub-element of the General Plan includes the following policies:

- Long Range Goal – VII: To ensure accuracy and policy consistency in City processes and reporting through regular financial and performance audits of programs.
- Internal Control – G.2.5: Performance audits will be conducted regularly on a schedule set by Council to verify that the performance data reported by each department is complete, valid, and accurate.

Per Council policy, performance results audits are performed on all operating programs over an eight year period.

### **DISCUSSION**

The audits transmitted today are indicative of issues seen throughout the City that affect the quality of information reported in the budget:

- Sunnyvale's budget structure is too large and complex to administer accurately;
- The City's software infrastructure is inadequate. Staff are managing large amounts of operational information in Excel;

- The IT Department does not have the resources to help all 93 City programs design and implement customized reporting systems;
- Program staff without measurement or software expertise are designing information systems and calculation methodologies to report results;
- There are too many systems tracking the same information:
- The existence of multiple tracking systems compromises the accuracy of each system as updating rarely occurs in all the systems.

Restructuring efforts are already underway to address the complexity of Sunnyvale's entire budget reporting structure.

### **FISCAL IMPACT**

Costs associated with preparation of these audit reports were included in the City of Sunnyvale's operating budget in Program 745 — Program Performance Audits.

### **PUBLIC CONTACT**

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, in the Council Chambers lobby, in the Office of the City Clerk, at the Library, Senior Center, Community Center, and Department of Public Safety; posting the agenda and report on the City's Web site; and making the report available at the Library and the Office of the City Clerk.

### **ALTERNATIVES**

1. Receive the audit report and concur with management's acceptance of recommendations.
2. Receive the audit report and direct staff to hold a study session to discuss the audit findings and recommendations.
3. Receive the audit report and give alternative direction regarding specific recommendations.

### **RECOMMENDATION**

Staff recommends Alternative 1, receive the audit report and concur with management's acceptance of recommendations.

Reviewed by:

Mary J. Bradley, Director of Finance  
Prepared by: Sue English, Finance Department

Reviewed by:

Marvin Rose, Director of Public Works

Approved by:

Gary Luebbers  
City Manager

**Attachments**

- A. City of Sunnyvale FY 2006/2007 Performance Results Audit, Department of Public Works, Program 217 — Concrete Maintenance
- B. City of Sunnyvale FY 2006/2007 Performance Results Audit, Department of Public Works, Program 218 — Street Tree Services

**City of Sunnyvale**  
**FY 2006/2007**  
**Performance Results Audit**



***Department of Public Works***

***Program 217***  
***Concrete Maintenance***

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**Auditor:** Sue English, Sr. Internal Auditor  
Department of Finance, City of Sunnyvale

**Field Work Start Date:** November 19, 2008

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### **AUDIT OBJECTIVE**

The goal of a performance results audit is to ensure that budgetary and management decisions are based upon valid and complete performance information. This is accomplished by evaluating the following components of a program's performance reporting system:

- **Accuracy:** Auditor count or calculations are within  $\pm 3.0$  percent for program measures and within  $\pm 5.0$  percent for activity product counts.
- **Language:** Measure/Product text accurately represents the numbers portrayed in the reported result.
- **Documentation/Data Integrity:** Documentation systems are complete and data accurately reflects a program's operations. Each measure should have a Standard Operating Procedures (SOP) document describing data sources and calculation methodologies.
- **Integration:** Data collection systems are automated and integrated into the operational workflow of the organization whenever possible.

The evaluation is performed through staff interviews, documentation review, and by recalculating the reported results. The audit considers the year-end report to the City Manager as final. Handwritten corrections in the year-end report are acceptable.

### **AUDIT SCOPE**

The City of Sunnyvale uses performance-based budgeting — a method in which the General Plan's goals are directly supported and accomplished by specific programs. Performance-based budgeting quantifies both performance and expenditures; it also presents the interrelation between the two. This interrelation is called “performance results” and is the focus of this audit.

To quantify performance, each program's function is defined by a program performance statement. The program performance statement provides the purpose of the program and how this purpose will be achieved. Performance measures are the benchmarks and data points are the statistics that provide context for the measures.

To quantify expenditures, each program is separated into service delivery plans (SDPs), which are separated further into activities [also referred to as organizational cost accounts (OCAs) or charge codes]. They are the “place” where all work hours, direct expenditures, and units of production (products) are charged.

The auditor reviewed the FY 2006/2007 performance results as reported by *Program 217 – Concrete Maintenance*. The program's reporting structure consists of nine (9) performance measures, eight (8) data points, and twenty-one (21) activities.

**PROGRAM BACKGROUND**

Program 217 — Concrete Maintenance is part of the Fleet/Trees and Landscaping Division in the Department of Public Works. Located within the City’s Corporation Yard at 221 Commercial Street, the program maintains the City’s curb, gutter, and sidewalk concrete to ensure proper drainage and safe pedestrian walkways. Street concrete is maintained by Program 118– Pavement Operations.

Sidewalk, curb, and gutter concrete can be displaced or damaged by tree roots. All damaged concrete is replaced within 5 years but displaced sidewalks can pose an immediate tripping hazard for pedestrians. Severe sidewalk displacements (over an inch) are ramped with an asphalt patch within a day of a reported “trip and fall” incident or within three days if no accidents have occurred at the site. Displacements under an inch are milled to level within 30 days of discovery. To protect the concrete, the program will also prune encroaching tree roots and/or will install root barriers to divert root growth.

Reporting to the Urban Landscape Supervisor, the program operates with six staff members (two senior workers and four crew members). The program operates with a small crew because concrete replacement is contracted out to a local construction firm. However, city staff still performs most of the demolition and removal tasks before the concrete is replaced.

The program was originally a service delivery plan within the Roadside and Median Right-of-Way Services Program (215). It became an independent program in FY 04-05. Table 1 below summarizes hours and operating expenditures for the past six years.

**Table 1: Hours and Expenditures**

PROGRAM 217 - HOURS AND EXPENDITURES								
	FY 02-03*	FY 03-04*	FY 04-05	FY 05-06	FY 06-07	FY 07-08	Change from FY 02-03	% Change from FY 02-03
<b>OPERATING EXPENDITURES</b>	\$ 1,091,697	\$ 1,008,232	\$ 1,067,228	\$ 1,102,006	\$ 873,395	\$ 1,256,538	\$ 164,841	15%
<b>% Change from Previous Year</b>		(8%)	6%	3%	(21%)	44%		
<b>HOURS WORKED**</b>	11,857	11,604	12,868	11,803	12,134	11,608	(249)	(2%)
<b>% Change from Previous Year</b>		(2%)	11%	(8%)	3%	(4%)		

\*This program functioned as Service Delivery Plan 3 in the Roadside and Median Right-of-Way Services Program (Program 215) during fiscal years 2002-2003 and 2003-2004.

Table 1 gives a false impression that spending increased by 44% in FY 07-08. The cost fluctuations from FY 05-06 to FY 07-08 were caused by spending construction services funds budgeted in FY 06-07 in FY 07-08.<sup>1</sup> Table 2 shows that operating costs other than construction services decreased in FY 2007-2008 by \$19,473. Construction services costs were budgeted at \$442,525 for both FY 06-07 and FY 07-08. When

<sup>1</sup> See RTC 07-347 for budget modification details.

combined, the total budgeted amount for the two years is \$885,050. The program spent \$870,297, or \$14,753 less than the budgeted amount for the two fiscal years.

**Table 2: Expenditures by Type**

<b>PROGRAM 217 - CONCRETE MAINTENANCE</b>							
<b>Expenditures by Type</b>							
	<b>FY 2006-2007</b>		<b>FY 2007-2008</b>		<b>Change</b>	<b>Change w/o Const. Svs.</b>	
Salaries & Benefits							
Regular	\$ 525,326.49	60%	\$ 505,576.11	40%	\$ (19,750.38)	\$(19,750.38)	
Casual/Seasonal	23,509.99	3%	6,628.75	1%	(16,881.24)	(16,881.24)	
Contract Personnel	452.54	0%	1,761.70	0%	1,309.16	1,309.16	
Construction Services	233,840.13	27%	636,456.48	51%	402,616.35		
Purchased Goods & Services	19,276.01	2%	34,896.02	3%	15,620.01	15,620.01	
Miscellaneous Expenditures	3,317.75	0%	1,756.18	0%	(1,561.57)	(1,561.57)	
Internal Service Charges	67,671.85	8%	69,462.85	6%	1,791.00	1,791.00	
<b>Total</b>	<b>\$ 873,394.76</b>	<b>100%</b>	<b>\$ 1,256,538.09</b>	<b>100%</b>	<b>\$ 383,143.33</b>	<b>\$(19,473.02)</b>	

## **BUDGET STRUCTURE**

The program reported nine performance measures in FY 2006-2007. The measures currently reported for FY 2008-2009 have been slightly modified (see [Table 3](#)). One measure and three data points were added to the new structure. The budget data point was modified from reporting actual expenditures to reporting the percent of budget expended.

In addition to the nine performance measures, the program's twenty-one (21) organizational cost accounts (or service activities) are organized into the following six service delivery plans:

1. Mitigation of Tripping Hazards on City Sidewalks and Parkways
2. Mitigation of Tree Root/Concrete Conflicts
3. Concrete Reconstruction
4. Service Response
5. Management and Support Services
6. Allocated Costs

The [Table 4](#) groups the organizational cost accounts by service delivery plan. The activities have not changed in the FY 2008-2009 budget structure.

**Table 3: Performance Measures (FY 2006-2007 and FY 2008-2009)**

Program 217 – Concrete Maintenance  
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PROGRAM 217 - CONCRETE MAINTENANCE PERFORMANCE MEASURES REPORTED IN FY 06-07 and FY 08-09		
Q1	Sidewalk and curb and gutter sites with tree root control materials installed five (5) fiscal years previously shall be judged as effective in protecting the new concrete and protecting the tree.	Percent Effective
		Number of Sidewalk and Gutter Sites
Q2	Request for assistance from Risk and Insurance on Claims shall be investigated and responded to within five (5) working days of notification.	Percent Completed
		Number of Claims
P1	Sidewalks are, from notification/discovery, temporarily ramp patched to mitigate immediate tripping hazards within three (3) working days for displacement greater than one inch or within one (1) day of a trip and fall having been reported.	Percent Ramped
		Number of Ramp Locations
P2	Sidewalks with displacements less than one (1) inch are milled to level within 30 days from discovery/notification.	Percent Replaced
		Number of Locations
P3	Sidewalk, curb and gutter areas identified as requiring replacement are replaced within five (5) fiscal years after the fiscal year of discovery.	Percent Replaced
		Number of Replacement Sites
	<i>Added to FY 08-09 Structure</i>	<i>Total Sites Deferred</i>
P4	Parkway Strip concrete identified as a potential tripping hazard shall be removed and made safe within 12 weeks or if at a current contract replacement site in conjunction with the concrete replacement.	Percent Removed
		Parkway Strip Sites Serviced
CE1	Cost of sidewalk replacement per square foot is within five (5) percent of the average of four (4) comparison public agencies for the current fiscal year.	Percent of Average
		Sunnyvale's Average Per Square Foot
	<i>Added to FY 08-09 Structure</i>	<i>Four-city Avg Cost per Sq. Ft.</i>
CE2	Cost of Curb and Gutter replacement per linear foot is within five (5) percent of the average of four (4) comparison public agencies for the current fiscal year.	Percent of Average
		Average Per Linear Foot
	<i>Added to FY 08-09 Structure</i>	<i>Four-city Avg Cost per Linear Ft.</i>
F1	Actual total expenditures for Concrete Management will not exceed planned program expenditures.	Total Program Expenditures
	<i>Deleted from FY 06-07 Structure</i>	<i>Total Program Expenditures</i>
	<i>Added to FY 08-09 Structure</i>	<i>Percent of Total Program Budget Expended</i>
<b>Added to FY 08-09 Structure</b>		
	<i>Sidewalks, curbs, and gutters requiring tree root control/mitigation have root barrier/mitigation devices installed at time of concrete replacement.</i>	<i>Percent of Replacement Sites With Tree Roots Damage</i>
		<i>Average Cost of Concrete Per Site Replacement with Root Mitigation</i>

**Table 4: Organizational Cost Accounts and Product Titles**

<b>SDP-1: Mitigation of Tripping Hazards on City Sidewalks and Parkways</b>			
	217100	Install Temporary A/C Ramp Patch - To Make Safe, Displaced Sidewalk Awaiting Replacement	A Linear Foot of Sidewalk Ramped
	217110	Grind To Make Safe - Sidewalk Displaced Less Than One (1) Inch	A Linear Foot of Sidewalk Ground
	217120	Remove Parkway Concrete - that is a Right-of-Way (ROW) Hazard	A Square Foot of Concrete Removed
	217130	Equipment Maintenance and Miscellaneous Activities Related to Mitigation of Trip Hazards	A Piece of Equipment Maintained
<b>SDP-2: Mitigation of Tree Root/Concrete Conflicts</b>			
	217200	Root Prune At Sites - Where Tree Roots Are Displacing the Sidewalk	A Linear Foot of Sidewalk Root Pruned
	217210	Install Root Control Materials - At Sidewalk Sites that have been Root Pruned	A Linear Foot of Sidewalk Barrier Installed
	217220	Root Prune at Sites - Where Tree Roots are Displacing the Curb and Gutter	A Linear Foot of Curb and Gutter Root Pruned
	217230	Install Root Control Materials - At Curb and Gutter Sites that have been Root Pruned	A Linear Foot of Curb and Gutter Barrier Installed
	217240	Install Sidewalks With Alternative Materials	A Square Foot of Sidewalk Installed
	217250	Survey Root Mitigation Sites - For Effectiveness	A Survey Completed
	217260	Equipment Maintenance and Miscellaneous Activities Related to Mitigation Tree/Concrete Conflict	A Piece of Equipment Maintained
<b>SDP-3: Concrete Reconstruction</b>			
	217300	Sidewalk Replacement (by Contract)	A Square Foot of Sidewalk Replaced
	217310	Curb and Gutter Replacement (by Contract)	A Linear Foot of Curb and Gutter Replaced
<b>SDP-4: Service Response</b>			
	217400	Investigate Service Requests for Public Sidewalk and Curb and Gutter Repair	A Service Request Completed
	217410	Investigate Claims Forwarded from Risk and Insurance Division	A Claim Investigated
	217430	Root Barrier Installed - At Private Concrete (Protect from Street Tree Root Intrusion)	A Linear Foot of Barrier Installed
	217470	Project Review Committee	A Project Plan Reviewed
<b>SDP-5: Management and Support Services</b>			
	217500	Management and Supervisory Services	A Work Hour
	217530	Staff Training and Development - Including Tailgate Meetings, Certifications and Operations/Safety Related Class	A Training Session Attended
	217540	Administrative Support - Including Clerical Staff Hours	A Work Hour
<b>SDP-6: Allocated Costs</b>			
	217980	Program-Wide Allocation	None

Table 5 shows the distribution of staff hours by activity. Staff spends most of its time on grinding, patching, root pruning, service requests, and management activities.

A comparison of the performance measures in Table 3 to distribution of hours in Table 5 shows that the performance measures reported by the program reflect the bulk of the program's work; except for measure Q2 which reports the number and percentage of risk and insurance claims investigated within five working days based on the information tracked for activity 217410.

The program may want to consider dropping measure Q2 from its reporting structure for two reasons: 1) claim investigation is a minor function of staff's overall time (only 16 out of 12,134 staff hours were spent on investigating claims); and 2) the new risk and insurance officer has indicated that reviews do not need to be completed within five working days. Turnaround times for claim investigations are not tracked by the staff in Risk and Insurance.

**Table 5: Staff Hours by Activity – Distribution of Labor**

PROGRAM 217 - HOURS WORKED BY ACTIVITY								Difference (Hrs)
Activity #	Activity Title	FY 06-07			FY 07-08			
217110	Grind To Make Safe - Sidewalk Displaced Less Than One (1) Inch	2,556	21%	91%	2,439	21%	91%	(117)
217100	Install Temporary A/C Ramp Patch - To Make Safe, Displaced Sidewalk Awaiting Replacement	1,707	14%		1,189	10%		(518)
217200	Root Prune At Sites - Where Tree Roots Are Displacing the Sidewalk	1,621	13%		1,264	11%		(357)
217500	Management and Supervisory Services	1,309	11%		1,015	9%		(294)
217400	Investigate Service Requests for Public Sidewalk and Curb and Gutter Repair	1,231	10%		1,278	11%		48
217120	Remove Parkway Concrete - that is a Right-of-Way (ROW) Hazard	978	8%		539	5%		(439)
217540	Administrative Support - Including Clerical Staff Hours	590	5%		654	6%		64
217210	Install Root Control Materials - At Sidewalk Sites that have been Root Pruned	556	5%		825	7%		270
217220	Root Prune at Sites - Where Tree Roots are Displacing the Curb and Gutter	537	4%		584	5%		47
217530	Staff Training and Development - Including Tailgate Meetings, Certifications and Operations/Safety Related Class	375	3%		9%	382		3%
217230	Install Root Control Materials - At Curb and Gutter Sites that have been Root Pruned	197	2%	432		4%	236	
217130	Equipment Maintenance and Miscellaneous Activities Related to Mitigation of Trip Hazards	190	2%	268		2%	78	
217260	Equipment Maintenance and Miscellaneous Activities Related to Mitigation Tree/Concrete Conflict	98	1%	181		2%	83	
217470	Project Review Committee	54	0%	74		1%	20	
217240	Install Sidewalks With Alternative Materials	49	0%	77		1%	28	
217300	Sidewalk Replacement (by Contract)	36	0%	211		2%	175	
217310	Curb and Gutter Replacement (by Contract)	21	0%	168		1%	147	
217410	Investigate Claims Forwarded from Risk and Insurance Division	16	0%	16		0%	-	
217430	Root Barrier Installed - At Private Concrete (Protect from Street Tree Root Intrusion)	12	0%	4		0%	(8)	
217980	Program-Wide Allocation	4	0%	9	0%	5		
217250	Survey Root Mitigation Sites - For Effectiveness	0	0%	1	0%	1		
<b>TOTAL</b>		<b>12,134</b>	<b>100%</b>	<b>100%</b>	<b>11,608</b>	<b>100%</b>	<b>100%</b>	

Table 5 was expanded in Table 6 to show the number of products reported in each activity. The relationship between hours and products reported for the two years do not make sense in some cases. For example, the number of hours reported in activity 217110 decreased by 117 in FY 2007-2008 but the number of products reported increased by 4,361. An additional 270 hours in activity 217210 produced 6,497 less products. These anomalies may be an indication of recording or reporting errors.

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To see if the hour and product differences indicate a reporting problem, Table 6 was expanded in Table 7 to calculate the number of products produced per hour. The program ground (milled) two additional linear feet per hour to produce 4,361 more products with 117 less hours for activity 217110 in FY 2007-2008. Thus, the change in hours and products is feasible with processing improvements and may not be a reporting problem.

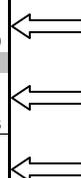
**Table 6: Staff Hours and Products by Activity**

PROGRAM 217 - HOURS AND PRODUCTS BY ACTIVITY							Difference (Hrs)	Difference (Products)
Activity #	Activity Title		FY 06-07		FY 07-08			
			Hrs	Prod	Hrs	Prod		
217110	Grind To Make Safe - Sidewalk Displaced Less Than One (1) Inch	A Linear Foot of Sidewalk Ground	2,556	34,565	2,439	38,926	(117)	4,361
217100	Install Temporary A/C Ramp Patch - To Make Safe, Displaced Sidewalk Awaiting Replacement	A Linear Foot of Sidewalk Ramped	1,707	8,850	1,189	8,734	(518)	(116)
217200	Root Prune At Sites - Where Tree Roots Are Displacing the Sidewalk	A Linear Foot of Sidewalk Root Pruned	1,621	9,905	1,264	9,206	(357)	(699)
217500	Management and Supervisory Services	Work Hours	1,309	Work Hrs	1016	Work Hrs	(294)	(294)
217400	Investigate Service Requests for Public Sidewalk and Curb and Gutter Repair	A Service Request Completed	1,231	1,187	1,278	1,233	48	46
217120	Remove Parkway Concrete - that is a Right-of-Way (ROW) Hazard	A Square Foot of Concrete Removed	978	21,180	539	20,825	(439)	(355)
217540	Administrative Support - Including Clerical Staff Hours	Work Hours	590	Work Hrs	654	Work Hrs	64	64
217210	Install Root Control Materials - At Sidewalk Sites that have been Root Pruned	A Linear Foot of Sidewalk Barrier Installed	556	12,856	825	6,359	270	(6,497)
217220	Root Prune at Sites - Where Tree Roots are Displacing the Curb and Gutter	A Linear Foot of Curb and Gutter Root Pruned	537	8,545	584	5,045	47	(3,500)
217530	Staff Training and Development - Including Tailgate Meetings, Certifications and Operations/Safety Related Class	A Training Session Attended	375		382	182	8	182
217230	Install Root Control Materials - At Curb and Gutter Sites that have been Root Pruned	A Linear Foot of Curb and Gutter Barrier Installed	197	2,000	432	3,780	236	1,780
217130	Equipment Maintenance and Miscellaneous Activities Related to Mitigation of Trip Hazards	A Piece of Equipment Maintained	190	177	268	244	78	67
217260	Equipment Maintenance and Miscellaneous Activities Related to Mitigation Tree/Concrete Conflict	A Piece of Equipment Maintained	98	92	181	149	83	57
217470	Project Review Committee	A Project Plan Reviewed	54	11	74	26	20	15
217240	Install Sidewalks With Alternative Materials	A Square Foot of Sidewalk Installed	49	600	77	950	28	350
217300	Sidewalk Replacement (by Contract)	A Square Foot of Sidewalk Replaced	36	8,475	211	39,102	175	30,627
217310	Curb and Gutter Replacement (by Contract)	A Linear Foot of Curb and Gutter Replaced	21	1,866	168	9,384	147	7,518
217410	Investigate Claims Forwarded from Risk and Insurance Division	A Claim Investigated	16	15	16	13	-	(2)
217430	Root Barrier Installed - At Private Concrete (Protect from Street Tree Root Intrusion)	A Linear Foot of Barrier Installed	12	75	4	0	(8)	(75)
217980	Program-Wide Allocation	---	4	---	9	---	5	---
217250	Survey Root Mitigation Sites - For Effectiveness	A Survey Completed	0	1	1	1	1	-
<b>TOTAL</b>			<b>12,134</b>		<b>11,609</b>			

Program 217 – Concrete Maintenance  
Performance Results Audit of FY 2006-2007

**Table 7: Staff Hours and Products by Activity with Product per Hour Calculations**

PROGRAM 217 - HOURS AND PRODUCTS BY ACTIVITY									
Activity #	Activity Title		FY 06-07		FY 07-08		FY 06-07	FY 07-08	
			Hrs	Prod	Hrs	Prod	Prod/Hr	Prod/Hr	
217110	Grind To Make Safe - Sidewalk Displaced Less Than One (1) Inch	A Linear Foot of Sidewalk Ground	2,556	34,565	2,439	38,926	14	16	
217100	Install Temporary A/C Ramp Patch - To Make Safe, Displaced Sidewalk Awaiting Replacement	A Linear Foot of Sidewalk Ramped	1,707	8,850	1,189	8,734	5	7	
217200	Root Prune At Sites - Where Tree Roots Are Displacing the Sidewalk	A Linear Foot of Sidewalk Root Pruned	1,621	9,905	1,264	9,206	6	7	
217500	Management and Supervisory Services	Work Hours	1,309	Work Hrs	1016	Work Hrs			
217400	Investigate Service Requests for Public Sidewalk and Curb and Gutter Repair	A Service Request Completed	1,231	1,187	1,278	1,233	1	1	
217120	Remove Parkway Concrete - that is a Right-of-Way (ROW) Hazard	A Square Foot of Concrete Removed	978	21,180	539	20,825	22	39	
217540	Administrative Support - Including Clerical Staff Hours	Work Hours	590	Work Hrs	654	Work Hrs			
217210	Install Root Control Materials - At Sidewalk Sites that have been Root Pruned	A Linear Foot of Sidewalk Barrier Installed	556	12,856	825	6,359	23	8	
217220	Root Prune at Sites - Where Tree Roots are Displacing the Curb and Gutter	A Linear Foot of Curb and Gutter Root Pruned	537	8,545	584	5,045	16	9	
217530	Staff Training and Development - Including Tailgate Meetings, Certifications and Operations/Safety Related Class	A Training Session Attended	375		382	182			
217230	Install Root Control Materials - At Curb and Gutter Sites that have been Root Pruned	A Linear Foot of Curb and Gutter Barrier Installed	197	2,000	432	3,780	10	9	
217130	Equipment Maintenance and Miscellaneous Activities Related to Mitigation of Trip Hazards	A Piece of Equipment Maintained	190	177	268	244	1	1	
217260	Equipment Maintenance and Miscellaneous Activities Related to Mitigation Tree/Concrete Conflict	A Piece of Equipment Maintained	98	92	181	149	1	1	
217470	Project Review Committee	A Project Plan Reviewed	54	11	74	26	0	0	
217240	Install Sidewalks With Alternative Materials	A Square Foot of Sidewalk Installed	49	600	77	950	12	12	
217300	Sidewalk Replacement (by Contract)	A Square Foot of Sidewalk Replaced	36	8,475	211	39,102			
217310	Curb and Gutter Replacement (by Contract)	A Linear Foot of Curb and Gutter Replaced	21	1,866	168	9,384			
217410	Investigate Claims Forwarded from Risk and Insurance Division	A Claim Investigated	16	15	16	13			
217430	Root Barrier Installed - At Private Concrete (Protect from Street Tree Root Intrusion)	A Linear Foot of Barrier Installed	12	75	4	0			
217980	Program-Wide Allocation	---	4	---	9	---			
217250	Survey Root Mitigation Sites - For Effectiveness	A Survey Completed	0	1	1	1			
		<b>TOTAL</b>	<b>12,134</b>		<b>11,609</b>				



However, the hour per product calculations in Table 7 show significant differences in the amount of products produced in activities 217120, 217210, and 217220. Either the program has significantly changed its root pruning and concrete removal techniques, or there is a problem with how the products are being tracked and reported for these activities.

**PRODUCT TRACKING SYSTEMS**

For the most part, the measures used by the program report the number of products (sites or claims) and whether the products were produced within processing goals (1

day, 3 days, 5 days, 30 days or 5 years). The activities report linear feet, square feet, claims, surveys, work hours, and training sessions. Examples of the support documentation provided for the audit is described below. Examples of each document can be found in the Appendix.

**Service Request Reports (Exhibit 1 of the Appendix):** Service request reports are the comprehensive inspection and work order documents for a site. Operators in the Field Services Call Center use Access™ to print contact and service request information on blank forms. These forms are picked up by the program's senior workers and are used as both an inspection and service record for the site. Access™ assigns an identification number to the request forms completed in the call center; but, blank copies of the form are kept in the field to document service needs that are discovered by staff. These field generated requests do not receive an identification number. Thus, the identification number on the call center requests does not indicate the entire number of requests generated throughout the year.

**Tracking Spreadsheet (Exhibit 2 of the Appendix):** All service information about a site is entered into the program's master spreadsheet (address, inspection date, service types, service dates, service dimensions, staff comments, etc.) The spreadsheet can calculate response times and product counts (square feet, linear feet, etc.). Reported measure results are calculated from excerpts of this spreadsheet, but the activity products are reported from the information on the daily worksheets.

**Daily Worksheets (Exhibit 3 of the Appendix):** Daily worksheets are filled out by the senior worker at the end of the day. These forms record staff hours, the number of completed products (i.e. the footage, or equipment maintenance), and the number of locations that were serviced during the day. Information from the daily worksheet is entered into two spreadsheets: 1) *Period Summary of Weekly Work*, and 2) *Concrete Maintenance Summary* workbook. The paper service request reports are then filed by service type after the daily worksheets are completed. Many service request forms were difficult to sort out, as many service types can be documented on one form and the form could be filed under any of the service titles.

**Period Summary of Weekly Work (Exhibit 4 of the Appendix):** The *Period Summary of Weekly Work* summarizes staff hours, product counts, and the number of service sites from the *Daily Worksheets* by week and by fiscal period.

**Concrete Maintenance Summary Workbook (Exhibit 5 of the Appendix):** The *Period Summary of Weekly Work* details hours, sites, and products by week for a fiscal period total. The *Concrete Maintenance Summary* workbook compares the fiscal period totals to the budgeted amount and maintains a year-to-date total. The arrows on Exhibits 3 & 4 in the appendix show how the two reports relate. Note that the number of locations on *Period Summary of Weekly Work* spreadsheet is not tracked on the *Concrete Maintenance Summary* workbook.

**Activity Product Report Form (Exhibit 6 of the Appendix):** Product counts from the maintenance summary workbook are used to complete activity product report forms which are used to create a journal voucher to enter products into the financial system. As of FY 2008-2009, staff is no longer creating the activity product report forms. Instead, products are placed directly on journal vouchers, eliminating the need to create these forms.

## AUDIT RESULTS

### SUMMARY

#### Budget Structure

The measures reported by the program appear to match service efforts, except for activity 217410 and measure Q2 which track and report the number and percentage of risk and insurance claims investigated within 5 days. The program should consider dropping measure Q2 from its reporting structure for two reasons: 1) it is a minor function that requires only 16 staff hours; and 2) the 5 day turnaround time is not required by the Office of Risk and Insurance.

#### Result Accuracy

Reported results could not be verified as the numbers in the various tracking systems do not agree with one another, nor could the product totals be reconciled back to the original service documents. The program has the infrastructure to track and report results, but needs to reorganize how it uses its current tools.

Reported results are based on two paper documents which are tracked and counted with various excel spreadsheets. The *Service Request Report* essentially is a work order form. This document is taken out in the field to document service requirements and completion dates for each site. Site information from the form is entered into a master tracking spreadsheet.<sup>2</sup> In addition to entering information into the master tracking spreadsheet, the crew supervisor fills out a *Daily Worksheet* at the end of each day. This handwritten form tracks the number of staff hours, locations, and products by service type. Completed *Service Request Reports* are filed after the *Daily Worksheets* are filled out.

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<sup>2</sup> Address, cross-street, service area, services needed (replacement, ramping, milling/grinding), work dimensions (length, width, and linear feet), inspection date, and completion dates for both ramping, and milling/grinding. Replacements are on a five year schedule from point of discovery. Sites and completion dates are tracked using the master tracking spreadsheet and a spreadsheet designed to track contractor payments.

Information on *Daily Worksheets* is tallied by entering the information into two spreadsheets – the *Period Summary of Weekly Work* and the *Concrete Maintenance Summary* workbook. The first summarizes four weeks of staff hours, locations, and products for each fiscal period. The second compares period totals for staff hours and products to the budgeted amounts, and tracks year-to-date totals. The number of location sites is not transferred to the second report.

Although the master tracking spreadsheet houses all service information, activity products are reported from the *Daily Worksheet* files and measure results are calculated from copies of the master file created for each individual service type (ramping, milling/grinding, parkway strips, etc.). None of the details from these reports can be reconciled back to the individual *Service Request Reports*, as the paper files are organized by service type and electronic files are organized by date or address.

The audit verified that activity product totals from the *Daily Worksheets* were accurately reflected in the financial system, except for three root pruning and root barrier activities. Most, or all, of the products for these activities were completed by staff in Street Trees Program (218) and reported by the Urban Landscape Supervisor in fiscal period 14. No backup documentation was provided for the audit.

Since the activity products completed by program staff were accurately reflected in the financial system, the audit assumes that the other information on the *Daily Worksheets* is correct, as they were filled out by the crew supervisor at the end of each day. The tally of locations on the eleven *Period Summary of Weekly Work* forms received in the audit binder was significantly higher than the number of locations in the spreadsheets used to calculate the measure results.

The audit could not reconcile the spreadsheets to the paper files, but could take a sample of the paper files to see if all the locations were on the spreadsheets. Four (4) out of 102 ramping *Service Request Reports* sampled were not on the measure calculation spreadsheet. This supports the *Daily Worksheet* totals and the theory that the measure spreadsheets may be missing information.

The need to reorganize how results are calculated and the paper filing systems is further illustrated by attempts to reconcile measure results.

#### Measure P1 for Ramping Services

- Dates on the 102 *Service Request Reports* sampled were sometimes several months apart but always indicated that the service was completed within 3 days. It is possible that these sites were re-ramped, but the theory can not be verified with the paper files. Multiple forms for a single site were not seen during the reconciliation process.
- Linear feet totals for ramping were often different between the paper and the spreadsheets (sometimes larger – sometimes smaller).

### Measure P3 for Replacement Services

- The measure reports 159 locations. This number is supported by the measure calculation spreadsheet which was created by copying replacement records from the master tracking spreadsheets. The master replacement spreadsheet shows 160 replacement locations which also supports the reported result. However, when the addresses in the two files are compared only 146 match. The calculation spreadsheet had 12 addresses that were not on the master spreadsheet and the master spreadsheet had 14 addresses that were not on the calculation spreadsheet.
- The progress payment spreadsheet tracks replacement sites to pay the contractor invoices. The product totals (square and linear feet) from this spreadsheet support the reported results for activities 217300 (sidewalk replacement by contract) and 217310 (curb & gutter replacement by contract). According to the spreadsheet the activity totals were derived from 139 replacements at 63 locations. Neither total from the progress payment spreadsheet matches the total reported for the measure.

### **The audit makes four recommendations:**

#### Budget Structure:

1. Consider deleting the risk and insurance measure from the reporting structure (Measure Q2). This measure is not tracked by the Risk and Insurance Office and comprises less than 1% of the programs overall work effort (16 hours).

#### Result Accuracy:

2. Calculate reported results directly from a master tracking file with reporting worksheets in the same workbook; or work with the IT department to develop a new tracking and reporting system in Access. The latter may be necessary given that some sites require multiple ramping and grinding/milling services before they can be replaced.
3. Add a "Reference Number" column to the master tracking spreadsheet and assign a reference number to the *Service Request Reports* as they are entered into the master tracking file. Then file the reports in order of reference number. This will accomplish two things:
  - a. The paper files will be cross-referenced to the electronic records.
  - b. Program staff can easily tell if the paper records have been entered into the electronic system.
4. Develop a method for documenting and tracking root pruning and root barrier products completed by staff in the Street Tree or other programs. This can be as simple as a transfer of documents or summary reports from the other program.

## **DETAILS**

### **Budget Structure**

The measures reported by the program appear to match service efforts except for the measure which reports the number for risk and insurance claims investigated by the program and turnaround time (Measure Q2). The program spends less than a percent of its overall time on this activity (See Table 5 in the *Background* Section of this report). The Risk and Insurance Office does not track departmental response rates. Reporting this measure may no longer be needed.

#### **Recommendation:**

Consider deleting the risk and insurance measure from the reporting structure (Measure Q2). This measure is not tracked by the Risk and Insurance Office and comprises less than 1% of the programs overall work effort (16 hours).

### **Paper Files**

Two paper documents support the reported results:

- **Service Request Reports** are the comprehensive inspection and work order documents for a site. Completed reports are filed by service type (replacement, grinding, ramping, etc.). Since a *Service Request Report* can indicate multiple services at one location, the document could be filed in multiple locations within the filing system. This makes it difficult to find individual forms.
- **Daily Worksheets** are filled out by the senior worker and record staff hours, the number of completed products (i.e. the footage or equipment maintenance), and the number of locations that were serviced during the day. Although these are based on the *Service Request Reports* completed during the day, they are filed separately. The documents received by the audit were grouped by fiscal period to support the summary report totals. Location and product counts can not be verified against the *Service Request Report* files because *Daily Worksheets* are organized by date and *Service Requests* are organized by type.

### **Electronic Files:**

The program maintains two electronic systems to track and calculate the reported results. Site information, work activity, and measure products are managed and calculated with a tracking spreadsheet based on the *Service Request Reports*. Activity products and work efforts are tracked with summary spreadsheets based on the *Daily Worksheets*.

- **Tracking Spreadsheet:** All information on the service request forms is entered into a tracking spreadsheet including completion dates and product dimensions. Services are managed by sorting the master and creating individual spreadsheets by type (grinding, ramping, replacements, etc.). Service information on the master often does not match the service information on the copies due to updates. Information on either version can not be confirmed with the original paperwork as the spreadsheets are organized by address and the paper files are organized by service type without any subcategories (request number, inspection date, address, etc.). Measure results are calculated from the service files created by copying the master.
- **Summary Reports:** Activity products are reported from the daily worksheets, not from the master tracking or subsequent spreadsheets. Daily worksheets are filled out by the senior worker and record staff hours, the number of completed products (i.e. the footage or equipment maintenance), and the number of locations that were serviced during the day. This information is summarized by two spreadsheets: 1) Period Summary of Weekly Work; and 2) Concrete Maintenance Workbook (CMW). The period summary of weekly work reports four weeks of hours, products (linear feet, square feet, etc.), and location counts. The period summary of weekly work reports hours, sites, and products by period. The CMW compares hour and product counts to the budgeted amounts and maintains a year-to-date total. The CMW does not track locations.

Reported results could not be verified as the numbers in the various tracking systems do not agree with one another and the product totals could not be reconciled back to the original *Service Request Reports*.

### **Reported Results - Activities**

Reported products from *Concrete Maintenance Workbook* were compared to the reported results. Product counts matched for all activities except following four activities: 217470 – Project Reviews; 217210 – Install Root Control Materials at Sidewalks; 217220 – Root Prune at Curb & Gutters; and 217430 – Root Barrier Installed at Private Concrete (Street Trees).

A clerical error caused the project review counts in activity 217470 to be off by four reviews. This minor error can be ignored. However, the other three activities showed significant differences. Most or all of products reported in the three activities were completed by staff in the Street Tree Program. The urban landscape supervisor, who manages both programs, realized there was a problem when the product counts didn't match the number of hours charged to the activities. The supervisor reported products in fiscal period 14. No support documentation was provided.

**Recommendation:**

Develop a method for documenting and tracking root pruning and root barrier products completed by staff in the Street Tree or other programs. This can be as simple as a transfer of documents or summary reports from the other program.

To ensure products were accurately transferred from the *Daily Worksheets* to the *Concrete Maintenance Workbook*, three fiscal periods of *Daily Worksheets* were reconciled to the *Concrete Maintenance Workbook*. The results on the table below show little difference between the totals from the *Daily Worksheets* and the totals in the *Concrete Maintenance Workbook (CMW)*.

<b>THREE PERIOD TOTAL</b>		<b>Period Reports</b>	<b>Daily Worksheets</b>	<b>Difference</b>	<b>% Difference</b>
217400	Investigate Req for Services	233	233	-	
217410	Investigate Claims for Risk& Ins.	8	8	-	
217100	Apply A/C Ramp	2,525	2,525	-	
217110	Grind Sidewalks	8,955	8,955	-	
217120	Remove Pkwy Concrete	6,565	6,540	25	0%
217130	Equpt Maint.	80	79	1	1%
217210	Install Root Control/SW	640	640	-	
217200	Root Prune @ Sidewalks	2,450	2,450	-	
217230		10	10	-	
217220	Root Prune @ Curb/Gutter	825	825	-	
217260	Equip Maint. Activities	31	31	-	0%
217300		-	-	-	
217310		-	-	-	
217530	Staff Training	N/A	N/A		
217470	Project Review Committee	1	1	-	
217240		-	-	-	
217250		-	-	-	
217420		-	-	-	

**Conclusion:** The financial system and the *Concrete Maintenance Workbook (CMW)* accurately reflect the activity product counts from the *Daily Worksheets*.

**Reported Results - Measures**

Measure results are calculated by sorting the master tracking file created from the *Service Request Reports* and creating individual spreadsheets by service type (grinding, ramping, replacements, etc.). The reconciliation process for *Measure P3* illustrates how the various reporting systems contradict one other.

Meas#	Measure	Data Point	Reported Result
P3	Sidewalk, curb and gutter areas identified as requiring replacement are replaced within five (5) fiscal years after the fiscal year of discovery.	Number of Replacement Sites	159.00

The number of locations on the calculation copy for *Measure P3* was compared to the master file. A similar number of addresses were on each file (159 and 160). However, when the addresses in the two files were compared to each other – only 146 matched. The calculation spreadsheet had 12 addresses that were not on the master spreadsheet and the master spreadsheet had 14 addresses that were not on the calculation spreadsheet.

The audit could not determine which list of addresses (if any) is correct for the measure. *Service Request Reports* for replacements are old and were not provided to the audit. Even if the files were provided, finding the necessary documents would be difficult given how the files are organized.

**Recommendation:**

Add a “Reference Number” column to the master tracking spreadsheet and assign a reference number to the *Service Request Reports* as they are entered into the master tracking file. Then file the reports in order of reference number.

**Recommendation:**

Calculate reported results directly from a master tracking file with reporting worksheets in the same workbook

Differing addresses within the two files showed that the number of locations reported for the measure can not be verified against the master file. Nor could the number be verified with the paper records. Thus, the audit turned to the *Daily Worksheets* which produced the reported activity products.

According to the *Period Summary of Weekly Work* reports there should be 213 locations for *Measure P3* (104 for the sidewalk replacement activity 217300 and 109 for the Curb and Gutter activity 217310). However, this too is not an accurate count because replacement products were not calculated from the *Daily Worksheets*. Replacement products were reported from the *Progress Payment Reports* is used to manage and track the contractor’s invoices.

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Concrete Maintenance - Period Summary of Weekly Work (FY 2006-2007)															
Location Count															
		Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8	Period 9	Period 10	Period 11	Period 12	Period 13	Total
217100	Ramp Sites	97	102	86	72	92	123	114		83	125		84	71	1,049
217110	Grind/Mill Sites	161	134	104	110	113	128	121		226	145		120	165	1,527
217120	Removal Sites	22	149	56	48	123	116	68		26	0		0	0	608
217130	Equip. Maint. Trips	0	13	16	15	29	23	29		12	8		0	3	148
217210	Sidewalk Root Barrier Sites	28	7	5	0	0	0	4		89	43		105	84	365
217200	Sidewalk Root Pruning Sites	71	58	65	65	47	66	84		156	165		131	90	998
217230	C&G Root Barrier Sites	0	0	9	8	0	0	0		4	4		54	109	188
217220	C&G Root Pruning Sites	6	32	41	0	41	36	48		11	9		65	104	393
217260	Equip. Maint. Root Pruning	0	14	9	43	13	9	10		9	2		0	0	109
217300	Sidewalk Replacement Sites (contract)	0	0	0	0	0	0	0		0	0		0	104	104
217310	C&G Replacement Sites (contract)	0	0	0	0	0	0	0		0	0		0	109	109

Review of the contractor payment progress reports showed that the products reported for the two activities in FY 2006-2007 were billed in the first two invoices. The products on the next two invoices were reported in the next fiscal year.

The table below shows the number of locations cited for the first two invoices. The number of overall sites on the table refers to the number of addresses at which a service occurred. Every address received one replacement to make the list. Most addresses received more than one type of concreted replacement. Thus, the first row of the table would read as follows: *“Replacements occurred at thirty addresses for payment #1. Within these 30 addresses, the contractor replaced: 20 sidewalks; 7 driveways; 12 driveway aprons; and 25 curbs and gutters.”*

Number of Sites FY 2006-2007 Contractor Progress Payment Reports					
	Overall Number of Sites	Sidewalks	Driveways	Driveway Aprons	Curb & Gutters
Prog Paymnt #1	30	20	7	12	25
Prog Paymnt #2	33	25	11	14	25
	63	45	18	26	50
			139		

As mentioned in the *Service Request* filing discussion, multiple services can occur at one site. Initially it was thought that the 159 sites reported for *Measure P3* may count the number of service sites (139 total on the table above) not the number of addresses. However, further review of the calculation spreadsheet showed that 159 was the address count from the spreadsheet. Thus, *Measure P3* should have reported 63 locations for the product amounts reported at the activity level.

Table 8 on page 19 compares reported results to the various calculation systems. The table shows that the calculation sheets used to report measure locations do not support the amount of products reported in the activities. The spreadsheets used to report activity products do not support the number of locations reported in the measures.

The numbers in the various systems contradict one another.

**Recommendations:**

Calculate reported results directly from a master tracking file with reporting worksheets in the same workbook; or work with the IT department to develop a new tracking and reporting system in Access. The latter may be necessary given that some sites require multiple ramping and grinding/milling services before they can be replaced.

Add a “Reference Number” column to the master tracking spreadsheet and assign a reference number to the *Service Request Reports* as they are entered into the master tracking file. Then file the reports in order of reference number. This will accomplish two things:

**AUDIT CONCLUSION**

**Budget Structure:** Measures reported by the program appear to match service efforts except for the measure Q2 which reports the number of risk and insurance claims investigated by the program within five working days of notification. The audit recommends that the program consider deleting the measure from its reporting structure for two reasons: 1) investigating claims is a minor function that requires only 16 staff hours per year; and 2) the five day turnaround is not required by the Office of Risk and Insurance.

**Accuracy:** The audit could not verify the reported results as the numbers in the various reporting systems did not agree, and totals could not be reconciled back to original service documents. Service documents for three activities were not received as these products were produced by another program managed by the urban landscape supervisor. The audit recommends that results are calculated directly from one master tracking file instead of making copies of the file to perform calculations; a system be developed to reference the electronic files to the paper support documents; and a method be developed for documenting and reporting products performed by other programs within the division.

**Table 8 : Totals by Tracking System Comparison**

REPORTED MEASURES				REPORTED ACTIVITIES				Measure Calculations Spreadsheets		Activity Calculation Spreadsheets	
Meas#	Measure	Data Point	Reported Result	Charge Code	Charge Code Title	Product Title	Reported Result	Number of Locations	Products	Number of Locations	Products
P1	Sidewalks are, from notification/discovery, temporarily ramp patched to mitigate immediate tripping hazards within three (3) working days for displacement greater than one inch or within one (1) day of a trip and fall having been reported.	Number of Ramp Locations	396.00	217100	Install Temporary A/C Ramp Patch - To Make Safe, Displaced Sidewalk Awaiting Replacement	A Linear Foot of Sidewalk Ramped	8,850.00	396.00	3,024.50	1,049.00	8,850.00
P2	Sidewalks with displacements less than one (1) inch are milled to level within 30 days from discovery/notification.	Number of Locations	844.00	217110	Grind To Make Safe - Sidewalk Displaced Less Than One (1) Inch	A Linear Foot of Sidewalk Ground	34,565.00	844.00	17,390.50	1,527.00	34,565.00
P3	Sidewalk, curb and gutter areas identified as requiring replacement are replaced within five (5) fiscal years after the fiscal year of discovery.	Number of Replacement Sites	159.00	217300	Sidewalk Replacement (by Contract)	A Square Foot of Sidewalk Replaced	8,475.00	159.00	18,172.00	63.00	8,475.00
					Curb and Gutter Replacement (by Contract)	A Linear Foot of Curb and Gutter Replaced	1,866.00		4,132.50		1,866.00
P4	Parkway Strip concrete identified as a potential tripping hazard shall be removed and made safe within 12 weeks or if at a current contract replacement site in conjunction with the concrete replacement.	Parkway Strip Sites Serviced	44.00	217120	Remove Parkway Concrete - that is a Right-of-Way (ROW) Hazard	A Square Foot of Concrete Removed	21,180.00	44.00	Not Included	608.00	21,180.00

Location Count the Same

Product Count the Same

Location Count is Different on the Calculation Spreadsheet

**DEPARTMENTAL RESPONSE**

<b>Findings</b>	<b>Recommendation</b>	<b>Dept. Response</b>	<b>Disposition</b>
1 Investigating risk and insurance claims within five days does not appear to be an issue since claims can be filed up to months after an incident. Plus, the program spends less than 5% of its overall time investigating these claims.	Consider deleting the five day response time measure for risk and insurance requests from the budget structure.	Concur	Implement  Will be excluded from 2010-11-12 Budget Restructure
2 Numbers in the various tracking systems did not match due to how the results are calculated. Copies of the master tracking spreadsheet are created to calculate each type of service. Corrections made during the process are not always made in both systems.	1. For version control, calculate the reported results directly from the master file.  2. Consider tracking service data in another software system that can handle more information than Excel.	Concur – The concrete program should consolidate all of its service information into a central system. The City is exploring the possibility of installing a comprehensive Maintenance Management System (MMS).  Meanwhile, Excel 2007 does not have the same size limitations as Excel 2003. Upgrading to this version is a better alternative than exploring a new software package.	Implement
3 Information in the master tracking spreadsheet can not be reconciled back to individual service request forms due to the structure of the filing system.  A sample of ramping service requests showed that not all service requests are being entered into the master spreadsheet.	Add a “reference number” column to the master tracking spreadsheet and write the number on the service request forms when they are entered. Then file the documents by reference number.	Concur – A tracking number to be added to the tracking spreadsheet	Implement as part of FY 2010-11 budget
4 All root barrier and root pruning products are reported in the concrete program (217) but most of the products are produced by staff working in the street tree program (218). Program 217 is not receiving the backup documentation for the products produced by the other program.	Develop a system for documenting and tracking root pruning and root barrier products completed by other programs. The system can be as simple as receiving a copy of completed work orders.	Concur – Root barriers installed at new planting sites are tracked in program 218 (Street Trees). All other root barrier installations are tracked in the concrete program. It is appropriate to track all the products in the concrete program as the barriers protect the concrete, not the trees.	As of FY 2010-11 all root barrier installations shall be charged to Concrete Maintenance

**Exhibit 1: Example of a Service Request Report**

Request ID 2482	 <b>Public Works Department Concrete Services Request Report</b>		Date 12/20/2006
USA Notice YES/NO	Number 1129	Street BERNARDO AV S	Time 9:57 AM
		Cross Street: Remington	Received by Operator
			Area Seq
Reporting Party First name First Name	Reporting Party Last name Last Name	Reporting Party Phone: ( 408 ) Phone	
Comments Raised sidewalk.			
<input checked="" type="checkbox"/> Sidewalk <input type="checkbox"/> Curb and Gutter <input checked="" type="checkbox"/> Parkway Strip <input type="checkbox"/> Driveway Apron <input type="checkbox"/> Driveway Sidewalk Other:			
SW REPLACEMENT STATUS		CURB & GUTTER	
SIDEWALK DISPLACEMENT 1"		REPL NO	
REPLACE SW 29'0" X 4'-5"		ROOT PRUNE YES / NO	
ROOT PRUNE YES / NO		PLATES YES / NO	
ROOT BARRIER YES / NO			
DWS DWA			
REMOVE PWS YES / NO		<b>ACTIONS TAKEN</b>	
COMMENTS 5'5" X 5'-5" Pull NO CUT.		GRIND SW 10'0"	
		RAMP SW 6'0"	
STATUS MONO 2.5, 4.5, 5.5 / OTHER		GRIND TASK # 217110	COMP DATE: 12-21-06
TREE TYPE 17223			
TASK # 217400		RAMP TASK # 217100	COMP DATE: 12-21-06
DATE 12-20-06			
BY 410		COMPLETED BY 754	CREW MEMBER #4
SITE AUDIT/COMMENTS:			

Filled out by Call Center Operators

5 YEARS

5 YEARS

30 DAYS

3 DAYS

Filled out by Crew

INSPECTION

The service request report in the Exhibit 1 was received at the call center. The top portion of the form was completed by a call center operator in Access™ and then the

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form was printed. The senior worker assigned to radio 410 picked up the form and inspected the site on December 20, 2006. The senior worker decides what should be done at the site. All handwritten information on the form in Exhibit 1 was filled out by the senior worker at the time of the inspection except for the completion dates at the bottom right. Completion dates are filled out when the grinding and ramping tasks are completed. The senior worker then brings the form back to the office and enters the details into a tracking spreadsheet.

The program has a goal of grinding or milling sidewalk displacements under one inch within 30 days of discovery. The same timeline applies to installing temporary ramps on displacements over one inch. Replacement timelines are much longer – 5 years. Within this timeframe, several temporary ramps may need to be installed or the amount of displacement may change. The arrows in Exhibit 1 indicate the various timelines for each section of the form. The original service request forms are archived after crews have completed the grinding and ramping tasks. Replacement work is based on the tracking spreadsheets.

**Tracking Spreadsheet:** The tracking spreadsheet is large and complex. The excerpts below of the first fourteen rows still do not capture all the columns in the spreadsheet. Note that the first row in some cases provides totals for the columns (square feet, C/G, etc.).

**Exhibit 2: Excerpt of a Tracking Spreadsheet**

Sites on this List >>				169	12883.00			2879.50			4203.75			5130.00	0.00	0.00	0.00
DATE	A R E A	A D R E S S	STREET NAME	S E Q U E N C E D I R E C T I O N	L	S/W W	Sq.Ft.	L	S/W W	Sq.Ft.	L	D/W W	Sq.Ft.	C/G	Park Strip	SIX Inch S/W	SAW CUT A/C
4	562	TAAFFE ST S	OLIVE AVE		2.50	5.0	12.50	11.00	6.0	66.00	11.00	7.5	82.50	20.00	NO		
1	223	VELVETLAKE DR	LAKWOOD DR		3.00	4.5	13.50	8.00	4.5	36.00	9.00	6.0	54.00	9.50	NO		
7	842	MARY AV S	HEATHERSTONE AV		5.00	4.5	22.50	2.50	4.5	11.25	19.00	6.0	114.00	64.00	NO		
7	1026	PINENUT CT	PEEKSKILL DR		5.00	5.0	25.00	14.50	5.0	72.50	20.00	5.0	100.00	32.00	NO		
8	925	WOLFE RD S	MARIA LN		7.00	5.0	35.00	12.00	5.0	60.00	12.00	6.0	72.00	18.50	NO		
7	760	HARVARD AV	HOLLENBECK RD		7.00	4.5	31.50	16.00	4.5	72.00	20.00	5.5	110.00	60.50	YES		
11	871	THE DALLES	MARY AV S		7.50	4.5	33.75							20.00	NO		
4	591	MURPHY AV S	OLIVE AV W		8.00	7.0	56.00							15.00	NO		
4	591	TAAFFE ST S	EL CAMOINO REAL E		8.00	4.5	36.00								NO		

COMMENTS	ROOT S/W	PRUNE C/G	ROOT S/W	BARRIER C/G	COMMENTS	SERVICE REPORT DATE	SERVICE INSPECT DATE	SERVICE RAMPING DATE	P R I	RE INSPECT DATE	SERVICE COMPTD DATE	INSPECTION DAY(S)	RAMPING DAY(S)	COMPLETION MONTH(S)	PRI. INSP MONTH(S)	1483.50 RAMPING UNITS Ln. Ft.
	NO	NO	NO	NO		4/14/05	4/15/05				46	1 PASS	No S/W?	INC.		0.00
	NO	NO	NO	NO		4/11/05	4/12/05	4/13/05			46	1 PASS	PASS	INC.		25.00
	NO	NO	NO	NO		12/13/04	12/13/04	12/14/04			50	0 PASS	PASS	INC.		5.00
	NO	NO	NO	NO		11/29/04	11/29/04	11/29/04			51	0 PASS	PASS	INC.		30.00
	NO	NO	NO	NO		3/22/05	3/24/05	4/15/05			47	2 PASS	PASS	INC.		25.00
PWS 8X5.5	NO	NO	NO	NO	PWS 8X5.5	11/8/04	11/10/04	11/16/04			51	2 PASS	PASS	INC.		0.00
	NO	NO	NO	NO		5/23/05	5/23/05	5/24/05			45	0 PASS	PASS	INC.		5.00
CRACKS AND SPLITS ON SW AREA	NO	NO	NO	NO	CKS AND SPLITS ON SW A	2/3/05	2/3/05	2/4/05			49	0 PASS	PASS	INC.		10.00
	NO	NO	NO	NO		10/19/04	10/19/04	10/21/04			52	0 PASS	PASS	INC.		0.00

As with the service request reports, the information for all services (replacements, root pruning, root barriers, ramping, etc.) are initially placed in one file. However, this file is copied multiple times by the program to create individual files for each type of service to accommodate response timelines ranging from one day to five years. Version control is an issue as updates are sometimes made to the master and other times made to the copy.

Performance Results Audit of FY 2006-2007 - **APPENDIX**  
 Program 217 – Concrete Maintenance

**Exhibit 3: Example of a Daily Worksheet**

Daily Worksheet Concrete Maintenance						
Day: <u>Monday</u>						
Date: <u>12-18-06</u>						
Activity	Description	Activity	Hours	Locations	Footages	
217400	Investigate Request for Service	217400	6.0	6		✓ Ea
217410	Investigate Claims from Risk and Insurance	217410				Ea
217100	Apply A/C Ramp	217100	9.0	6	50.0	✓ Sq Ft
217110	Grind Sidewalk Displacements	217110	14.0	10	220.0	✓ Ln Ft
217130	Equipment Maintenance/Misc. Activities	217130	3.0		3	✓ Unit
217120	Remove Parkway Concrete	217120	20.0	6	160.0	✓ Ea
217210	Install Root Control at S/W Sites with Roots	217210				Ea
217200	Root Prune at S/W Sites	217200	3.0	3	20.0	✓ Ln Ft
217230	Install Root Control at C&G Sites with Roots	217230				Ea
217220	Root Prune at C&G Sites	217220	3.0	3	20.0	✓ Ln Ft
217260	Equipment Maintenance/Misc. Activities	217260	1.0		1	✓ Unit
217300	Remove and Replace S/W by Contract	217300				Sq Ft
217310	Remove and Replace C&G by Contract	217310				Ln Ft
217530	Staff Training: Safety & Development	217530				Unit
217470	Project Review Committee	217470				Unit

SENIOR WORKER #1	Hours	SENIOR WORKER #2	Hours	CREW MEMBER #1	Hours
217400	1.0	217400	5.0	217120	5.0
217200	2.0	217100	1.0		
217220	2.0	217110	1.0		
217120	2.0	217200	1.0		
217260	1.0	217220	1.0		
217100	1.0	217130	1.0		
217110	1.0				
217130	1.0				
	<u>11.0</u>				

CREW MEMBER #2	Hours	CREW MEMBER #3	Hours	CREW MEMBER #4	Hours
217100	3.0	217120	5.0	217100	8.0
217110	6.0			217110	6.0
	<u>9.0</u>			217130	1.0
					<u>10.0</u>

NAME	Hours	Vacation	Medical	Sick	Holiday	Miscellaneous

**APPENDIX – Performance Results Audit of FY 2006-2007  
Program 217 – Concrete Maintenance**

**Exhibit 4: Period Summary of Weekly Work for Period 7**

period 7 217 - Concrete Maintenance Period Summary of Weekly Work						
Summary	Week	Week	Week	Week	Week	Period
Activites	1	2	3	4	5	Totals
217400	17.00	5.00	12.00	24.00	0.00	58.00
217410	0.00	2.00	0.00	0.00	0.00	2.00
217100	200.00	125.00	28.00	925.00	0.00	217100
217110	880.00	400.00	555.00	1010.00	0.00	2825.00
217120	480.00	10.00	585.00	1202.00	0.00	2277.00
217130	12.00	6.00	6.00	5.00	0.00	29.00
217210	0.00	0.00	80.00	0.00	0.00	80.00
217200	150.00	40.00	215.00	370.00	0.00	775.00
217230	0.00	0.00	0.00	0.00	0.00	0.00
217220	85.00	40.00	55.00	110.00	0.00	300.00
217260	3.00	2.00	1.00	4.00	0.00	10.00
217300	0.00	0.00	0.00	0.00	0.00	0.00
217310	0.00	0.00	0.00	0.00	0.00	0.00
217530	0.00	0.00	5.00	0.00	0.00	5.00
217470	0.00	0.00	1.00	0.00	0.00	1.00
217240	0.00	0.00	0.00	0.00	0.00	0.00
217250	0.00	0.00	0.00	0.00	0.00	0.00
217420	0.00	0.00	0.00	0.00	0.00	0.00
ARK 311	12.0	0.0	0.0	0.0	0.0	12.0
VANARK 360	0.0	6.0	8.0	14.0	0.0	28.0
	Week	#VALUE!	#VALUE!	#VALUE!	#VALUE!	Weekly
	Monday	Tuesday	Wednesday	Thursday	Friday	Totals
<b>(VACATION)</b>						
JOE.G	0.0	0.0	0.0	0.0	0.0	0.0
JAMES L.E.M	0.0	0.0	0.0	0.0	0.0	0.0
ADAM L	0.0	0.0	0.0	0.0	0.0	0.0
GALDINO.B	0.0	0.0	0.0	0.0	0.0	0.0
TONY S.	0.0	0.0	0.0	0.0	0.0	0.0
JACK J.	0.0	0.0	0.0	0.0	0.0	0.0
<b>(MED APPT)</b>						
JOE.G	0.0	0.0	0.0	0.0	0.0	0.0
JAMES L.E.M	0.0	0.0	0.0	0.0	0.0	0.0
ADAM L	0.0	0.0	0.0	0.0	0.0	0.0
GALDINO.B	0.0	0.0	0.0	0.0	0.0	0.0
TONY S.	0.0	0.0	0.0	0.0	0.0	0.0
JACK J.	0.0	0.0	0.0	0.0	0.0	0.0
<b>(SICK LEAVE)</b>						
JOE.G	0.0	0.0	0.0	0.0	0.0	0.0
JAMES L.E.M	0.0	0.0	0.0	0.0	0.0	0.0
ADAM L	0.0	0.0	0.0	0.0	0.0	0.0
GALDINO.B	0.0	0.0	0.0	0.0	0.0	0.0
TONY S.	0.0	0.0	0.0	0.0	0.0	0.0
JACK J.	0.0	0.0	0.0	0.0	0.0	0.0
<b>(STAFF HRS)</b>						
JOE.G	0.0	0.0	0.0	0.0	0.0	0.0
JAMES L.E.M	0.0	0.0	0.0	0.0	0.0	0.0
ADAM L	0.0	0.0	0.0	0.0	0.0	0.0
GALDINO.B	0.0	0.0	0.0	0.0	0.0	0.0
TONY S.	0.0	0.0	0.0	0.0	0.0	0.0
JACK J.	0.0	0.0	0.0	0.0	0.0	0.0

925 Linear Feet Ramped

147 Hours  
114 Sites

	Week	Week	Week	Week	Week	Period
	1	2	3	4	5	Totals
217400 Hours:	17.0	5.0	12.0	24.0	0.0	58.0
217410 Claims:	0.0	2.0	0.0	0.0	0.0	2.0
217100 Reports/Sites:	33	17	27	37	0	114
217100 Hours:	37.0	20.0	43.0	47.0	0.0	147.0
217110 Reports/Sites:	37	18	26	40	0	121
217110 Hours:	48.0	22.0	40.0	50.0	0.0	160.0
217120 Reports/Sites:	17	0	13	38	0	68
217120 Hours:	35.0	0.0	16.0	41.0	0.0	92.0
217130 Reports/Sites:	12	6	6	5	0	29
217130 Hours:	12.0	6.0	6.0	5.0	0.0	29.0
217210 Reports/Sites:	0	0	4	0	0	4
217210 Hours:	0.0	0.0	8.0	0.0	0.0	8.0
217200 Reports/Sites:	17	6	23	38	0	84
217200 Hours:	21.0	6.0	27.0	44.0	0.0	98.0
217230 Reports/Sites:	0	0	0	0	0	0
217230 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217220 Reports/Sites:	17	6	9	16	0	48
217220 Hours:	19.0	6.0	11.0	20.0	0.0	56.0
217260 Reports/Sites:	3	2	1	4	0	10
217260 Hours:	3.0	2.0	1.0	4.0	0.0	10.0
217300 Reports/Sites:	0	0	0	0	0	0
217300 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217310 Reports/Sites:	0	0	0	0	0	0
217310 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217530 Hours:	0.0	0.0	5.0	0.0	0.0	5.0
217470 Hours:	0.0	0.0	1.0	0.0	0.0	1.0
217240 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217250 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217420 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217430 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217440 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217500 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217810 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217820 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217830 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217840 Hours:	0.0	0.0	0.0	0.0	0.0	0.0
217880 Hours:	0.0	0.0	0.0	0.0	0.0	0.0

Performance Results Audit of FY 2006-2007 - **APPENDIX**  
Program 217 – Concrete Maintenance

**Exhibit 5: Period 7 Tab from the Concrete Maintenance Summary Workbook**

PERIOD 7																				
53.97% of Fiscal Year																				
Activity	Products	Pd/Hr	Pd/Hr	Hrs/Pd	Hrs/Pd	YTD Hrs/Pd	YTD Prod.	Annual Prod.	YearEnd Prod-Prod	Percent YTD	Percent YearEnd	Annual Hours	YTD hours	Hours Summary This Period		YTD Hours				
														Actual	Budgeted					
<b>SDP 217.1 MITIGATION OF TRIPPING HAZARDS ON CITY SIDEWALKS AND PARKWAYS</b>															<b>SDP 217.1 MITIGATION OF TRIPPING HAZARDS ON CITY SIDEWALKS AND PA</b>					
217100	147.0	925	6.2925	6.7568	0.1589	0.1480	0.1821	5101	7500	9452	68.01%	126.02%	217100	1110	83.69%	22.1%	147.0	8.9%	85.4	929.0
217110	160.0	2825	17.6563	11.0062	0.0566	0.0909	0.0886	16072	35550	29780	45.21%	83.77%	217110	3230	44.09%	24.0%	160.0	26.0%	248.5	1424.0
217120	92.0	2277	24.7500	21.1864	0.0404	0.0472	0.0449	20399	15000	37797	135.99%	251.98%	217120	708	129.38%	13.8%	92.0	5.7%	54.5	916.0
217130	29.0	29	1.0000	0.7692	1.0000	1.3000	1.0000	125	200	232	62.50%	115.81%	217130	260	48.08%	4.4%	29.0	2.1%	20.0	125.0
<b>SDP 217.2 MITIGATION OF TREE ROOT/CONCRETE CONFLICTS</b>															<b>SDP 217.2 MITIGATION OF TREE ROOT/CONCRETE CO</b>					
217200	98.0	775	7.9082	5.4770	0.1265	0.1826	0.1376	4005	7750	7421	51.68%	95.75%	217200	1415	38.94%	14.7%	98.0	11.4%	108.8	551.0
217210	8.0	80	10.0000	12.658	0.1000	0.0790	0.1556	376	5000	697	7.52%	13.93%	217210	395	14.81%	1.2%	8.0	3.2%	30.4	58.5
217220	56.0	300	5.3571	10.0000	0.1867	0.1000	0.1637	1625	3500	3011	46.43%	86.03%	217220	350	76.00%	8.4%	56.0	2.8%	26.9	266.0
217230		0	0.0000	8.1633	0.000	0.1225	0.1600	100	2000	185	5.00%	9.26%	217230	245	6.53%	0.0%	0.0	2.0%	18.8	16.0
217240		0	0.0000	2.2222	0.000	0.4500	0.0000	0	600	0	0.00%	0.00%	217240	270	0.00%	0.0%	0.0	2.2%	20.8	0.0
217250		0	0.0000	0.0400	0.0000	25.0000	0.0000	0	1	0	0.00%	0.00%	217250	25	0.00%	0.0%	0.0	0.2%	1.9	0.0
217260	10.0	10	1.0000	0.7267	1.0000	1.3760	1.0000	68	125	126	54.40%	100.80%	217260	172	39.53%	1.5%	10.0	1.4%	13.2	68.0
<b>SDP 217.3 CONCRETE RECONSTRUCTION</b>															<b>SDP 217.3 CONCRETE RECONSTI</b>					
217300		0	0.0000	66.6667	0.0000	0.0150	0.0000	0	25000	0	0.00%	0.00%	217300	375	0.00%	0.0%	0.0	3.0%	28.8	0.0
218310		0	0.0000	18.0328	0.0000	0.055	0.0000	0	5500	0	0.00%	0.00%	218310	305	N/A	0.0%	0.0	2.5%	23.5	0.0
<b>SDP 217.4 SERVICE RESPONSE</b>															<b>SDP 217.4 SERVICE RESPONSE</b>					
217400	58.0	58	1.0000	0.9602	1.0000	1.041	1.0000	661	965	1225	68.50%	126.92%	217400	1005	65.77%	8.7%	58.0	8.1%	77.3	661.0
217410	2.0	2	1.0000	0.4000	1.0000	2.5000	1.0000	11	10	20	110.00%	203.82%	217410	25	44.00%	0.3%	2.0	0.2%	1.9	11.0
217430		0	0.0000	12.8125	0.0000	0.0780	0.0000	0	1025	0	0.00%	0.00%	217430	80	0.00%	0.0%	0.0	0.6%	6.2	0.0
217470	1.0	1	1.0000	0.2188	1.0000	4.5714	1.0000	7	35	13	N/A	37.06%	217470	160	N/A	0.2%	1.0	1.3%	12.3	7.0
<b>SDP 217.5 MANAGEMENT AND SUPPORT SERVICES</b>															<b>SDP 217.5 MANAGEMENT AND SUPPORT S</b>					
217500		0.0000	1.0000	0.0000	1.0000	0.0000	0	1259	0	0.00%	0.00%	217500	1259	0.00%	0.0%	0.0	10.1%	96.8	0.0	
217530	5.0	5	1.0000	0.4459	1.0000	2.2424	2.1429	77	165	143	46.67%	86.47%	217530	370	44.59%	0.8%	5.0	3.0%	28.5	165.0
217540		0.0000	1.0000	0.0000	1.0000	0.0000	0	650	0	0.00%	0.00%	217540	650	0.00%	0.0%	0.0	5.2%	50.0	0.0	
													12409	41.88%	100.0%	666.00	69.8%	954.5	5197.5	

666.0 = Total Hours Expended this Period  
69.8% = Percent of Monthly Budgeted Hours

[Green Box] = Service Delivery Plan (SDP)

**Activity Product Report Form:** Product counts from the maintenance summary workbook are used to complete an activity product report forms (Exhibit 6). Journal vouchers are created from the activity product report forms to enter the data into the financial system. Staff is no longer creating the activity product report forms in FY 2008-2009. Instead, products are placed directly on journal vouchers skipping the need to create these forms.

**APPENDIX – Performance Results Audit of FY 2006-2007  
 Program 217 – Concrete Maintenance**

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**Exhibit 6: Example of an Activity Product Report Form**

DATE: 1/16/06 City of Sunnyvale  
**ACTIVITY - PRODUCT REPORT FORM**

PROGRAM- SDP Concrete Maintenance <b>217</b>	DEPARTMENT Public Works
FISCAL YEAR <b>2006-07</b>	ACCOUNTING PERIOD 7
Activity NUMBER	TOTAL PRODUCTS
217100	925
217110	2825
217120	2277
217130	29
217200	775
217210	80
217220	300
217230	
217240	
217250	
217260	10
217300	
217310	
217400	58
217410	2
217470	1
217530	5
MANAGER'S SIGNATURE	

Products are reported as whole numbers  
 No fractional or decimal products

**City of Sunnyvale**  
**FY 2006/2007**  
**Performance Results Audit**



***Department of Public Works***

***Program 218***  
***Street Tree Services***

**March 2009**

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**Auditor:** Sue English, Department of Finance, City of Sunnyvale  
**Field Work Start Date:** September 2008

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### AUDIT OBJECTIVE

The goal of a performance results audit is to ensure that budgetary and management decisions are based upon valid and complete performance information. This is accomplished by evaluating the following components of a program's performance reporting system:

- **Accuracy:** Auditor count or calculations are within  $\pm 3.0$  percent for program measures and within  $\pm 5.0$  percent for activity product counts.
- **Language:** Measure/Product text accurately represents the numbers portrayed in the reported result.
- **Documentation/Data Integrity:** Documentation systems are complete and data accurately reflects a program's operations. Each measure should have a Standard Operating Procedures (SOP) document describing data sources and calculation methodologies.
- **Integration:** Data collection systems are automated and integrated into the operational workflow of the organization whenever possible.

The evaluation is performed through staff interviews, documentation review, and by recalculating the reported results. The audit considers the year-end report to the City Manager as final. Handwritten corrections in the year-end report are acceptable.

### AUDIT SCOPE

The City of Sunnyvale uses performance-based budgeting — a method in which the General Plan's goals are directly supported and accomplished by specific programs. Performance-based budgeting quantifies both performance and expenditures; it also presents the interrelation between the two. This interrelation is called “performance results” and is the focus of this audit.

To quantify performance, each program's function is defined by a program performance statement. The program performance statement provides the purpose of the program and how this purpose will be achieved. Performance measures are the benchmarks and data points are the statistics that provide context for the measures.

To quantify expenditures, each program is separated into service delivery plans (SDPs), which are separated further into activities [also referred to as organizational cost accounts (OCAs) or charge codes]. They are the “place” where all work hours, direct expenditures, and units of production (products) are charged.

The auditor reviewed the FY 2006/2007 performance results as reported by *Program 218 – Street Tree Services*. The program's reporting structure consists of 11 performance measures, 10 data points and 24 activities.

## **PROGRAM BACKGROUND**

Program 218 — Street Tree Services is part of the Trees and Landscaping Division in the Department of Public Works. The program maintains around 37,000 trees planted along the sides of the city roads. Trees planted within medians are maintained by a different program. Offices for the Trees and Landscaping Division are located at 221 Commercial Street in the Corporation Yard.

Plant leaves consume carbon dioxide and produce oxygen during photosynthesis. The goal of this and other tree maintenance programs within the city is to maintain a safe and cost effective urban forest while cultivating the largest tree canopy possible.

Growing large tree canopies is the most efficient way to reduce the city's carbon footprint and to promote a healthier environment. However, large trees must be cultivated safely to ensure they are structurally sound. Falling limbs and falling trees pose significant safety hazards. Plus, trees growing along roadways could cause accidents if a driver's line of vision is blocked or a traffic sign is covered. The program manages these safety issues by dedicating 90% of its work efforts to tree inspection and pruning.

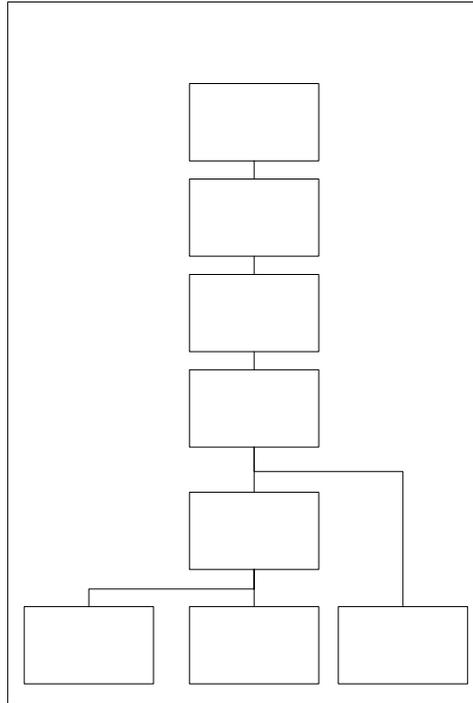
Reporting to the Urban Landscape Supervisor, the program has nine (9) line staff, two senior workers, and contracts with two tree service firms. One of the two senior workers is a certified arborist. The arborist manages the program and decides what actions should be taken based on site inspections and service history. The other senior leader provides line supervision.

Exhibit 1 below shows the reporting structure of the program. This chart should not be confused with an organizational chart as it does not show all the entities managed by the three top positions.

The program was originally a service delivery plan in the Roadside and Median Right-of-Way Services Program (215). It became an independent program within the budget structure in FY 2004-2005. Table 1a below summarizes actual hours and operating expenditures for the past five years.

Staff time was eliminated during the FY 2003-2004 budget reduction process. Outsourcing for tree planting and stump removal activities was started in FY 2004-2005 and has expanded to include pruning and planting activities. Outsourced services are invoiced by product not by service hour. Table 1b puts the amount spent on outsourced services and contract personnel into perspective with overall operating expenditures.

**Exhibit 1:**



**Table 1a:**

PROGRAM 218 - HOURS AND EXPENDITURES							
	FY 02-03*	FY 03-04*	FY 04-05	FY 05-06	FY 06-07	Change from FY 02-03	Change from FY 02-03
<b>OPERATING EXPENDITURES</b>	\$ 1,396,759	\$ 1,212,885	\$ 1,261,962	\$ 1,189,198	\$ 1,417,659	\$ 20,900	1%
<b>% Change from Previous Year</b>		(13%)	4%	(6%)	19%		
<b>HOURS WORKED**</b>	27,020	20,688	19,860	19,311	20,007	(7,013)	(26%)
<b>% Change from Previous Year</b>		(23%)	(4%)	(3%)	4%		
*This program functioned as Service Delivery Plan 2 in the Roadside and Median Right-of-Way Services Program (Program 215) during fiscal years 2002-2003 and 2003-2004.							
** Staff time was eliminated during the FY03-04 budget reduction process.							

**Table 1b:**

PROGRAM 218 - OPERATING EXPENDITURES DISTRIBUTION					
	FY 02-03*	FY 03-04*	FY 04-05	FY 05-06	FY 06-07
INTERNAL	\$ 1,366,071	\$ 1,120,883	\$ 1,173,192	\$ 1,064,562	\$ 1,186,256
OUTSOURCED SERVICES	\$ 27,545	\$ 88,058	\$ 86,377	\$ 123,025	\$ 229,543
CONTRACT EMPLOYEES	\$ 3,143	\$ 3,943	\$ 2,393	\$ 1,611	\$ 1,860
<b>TOTAL</b>	<b>\$ 1,396,759</b>	<b>\$ 1,212,885</b>	<b>\$ 1,261,962</b>	<b>\$ 1,189,198</b>	<b>\$ 1,417,659</b>
INTERNAL	98%	92%	93%	90%	84%
OUTSOURCED SERVICES	2%	7%	7%	10%	16%
CONTRACT EMPLOYEES	0%	0%	0%	0%	0%

The program organizes its twenty-eight (28) organizational cost accounts (or service activities) into the following four service delivery plans:

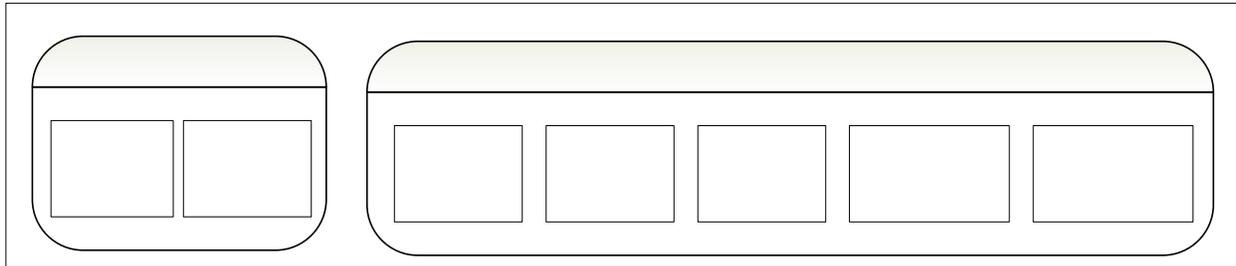
1. Structural Pruning
2. Sustain Street Tree Population by New and Replacement Planting
3. Service Response
4. Management and Support Services

The eleven performance measures reported by the program are listed below. Six measures report performance based on a tree's age or a service response time (measures Q2, Q3, Q4, Q5, P1, and P3). These measures require that the program track at least two dates for reported results.

PROGRAM 218 - REPORTED PERFORMANCE MEASURES		
Number	Text	Data Reported
Q1	Quarterly surveys of the street trees inventory receive a structural integrity rating of three (3) or less on a scale of 1-5 (1 being the highest) using International Society of Arboriculture (ISA) standards.	Overall Rating
		Surveys Conducted
Q2	Request for assistance from Risk and Insurance on Claims shall be investigated and responded to within five (5) working days of notification.	Percent Completed
		Number of Claims
Q3	Service request pruning of single street trees are completed within ten (10) weeks of determination of need by a City Arborist.	Percent Pruned
		Trees Pruned
Q4	Requests for tree services are investigated within nine (9) working days after notification.	Percent Investigated
		Number of Requests
Q5	Trees planted within the past three (3) years, where property owner watering is insufficient, are watered to establish these recently planted trees.	Percent Established
		Trees Planted
P1	The entire inventory of street trees is on average pruned or inspected every five and one-half years.	Percent of Inventory Pruned
		Trees Pruned
P2	Remove and replace street trees that are damaged, diseased, dead or otherwise have become hazardous as determined by the City Arborist.	Percent Replaced
		Trees Replaced
P3	Newly planted street trees are trained within the first three (3) years from planting to develop their permanent structure conforming to International Society of Arboriculture (ISA) structural integrity standards.	Percent Trained
		Trees Trained
C1	The cost of a large street tree (>30' and <60') structurally pruned will not exceed the planned cost.	Cost Per Large Street Tree
		Number Pruned
C2	The cost of a street tree removed will not exceed the planned cost.	Cost Per Street Tree
		Trees Removed
F1	Actual total expenditures for Street Tree Services will not exceed planned program expenditures.	Total Program Expenditures

Ninety percent (90%) of the program’s work effort is dedicated to inspection and pruning activities aimed at preventing hazards associated with large trees. The rest of the program’s efforts revolve around planting, watering, tree/stump removal, equipment maintenance, quality assurance, and reviewing community development projects (see Exhibit 2).

**Exhibit 2: Division of Program Efforts**



Based on the number of products reported in FY 2006/2007, Table 2 estimates the division of labor between lead employees, staff, and contracted services.

**Table 2:**

PROGRAM 218: Distribution of Effort in FY2006-2007										
	Pruning			Inspections			Quality Review	Project Review	Equipment Maintenance	
	Structural	Requested	New Tree Training	Service Requests	Claim Investigations	Removal Permits			Pruning	Remove/ Replace
Arborist/Lead	---	---	---	100%	100%	100%	100%	100%		
Program Crew	68%	100%	100%	---	---	---	---	---	100%	100%
Contractors	32%	---	---	---	---	---	---	---		
<b>Total Products</b>	<b>6,361</b>	<b>717</b>	<b>608</b>	<b>1,815</b>	<b>17</b>	<b>350</b>			<b>1,345</b>	<b>215</b>
	Removal		Planting		Watering	Quality Review	Project Review	Equipment Maintenance		
	Tree	Stump	New	Replacement				Pruning	Remove/ Replace	
Arborist/Lead	---	---	---	---	---	100%	100%			
Program Crew	100%	3%	50%	31%	100%	---	---	100%	100%	
Contractors	---	97%	50%	69%	---	---	---			
<b>Total Products</b>	<b>368</b>	<b>401</b>	<b>44</b>	<b>402</b>	<b>6,349</b>	<b>200 (trees)</b>	<b>76</b>	<b>1,345</b>	<b>215</b>	

The program uses two software packages to initiate, manage, and report pruning and inspection efforts. TreeKeeper7<sup>®</sup> (TK7) is an “off-the-shelf” management system specifically designed for tree management. The system can be used to initiate work orders and track service history by individual tree. The latter is an important feature as different tree species grow at different rates and individual trees may have specific

90%

structural issues. The history in TK7 allows the arborist to make decisions based on tree characteristics and service history. Pruning schedules can be developed by querying the system by last pruning date. Decisions to keep or replace a tree can be based on the amount and type of services recently rendered to keep the tree healthy.

Despite its key role in determining what should be done, TK7 is not used to assign work because there is not enough room on the printed reports for staff to make notations while out in the field. Instead, information from TK7 (addresses, tree species, size, etc.) is downloaded into Excel<sup>®</sup> to create task lists with enough space for handwritten notes. These paper lists are taken into the field and used to document the service nature (i.e. inspection, pruning, removal, etc.) and any changes with the tree (i.e. height, diameter, tree missing from site, etc.). Work products from the Excel<sup>®</sup> lists are then manually counted back in the office and transferred into the financial system. Exhibits 3a and 3b describe and diagram the program's information flow and documentation processes.

## **AUDIT RESULTS**

### **Summary**

The accuracy of results in FY 2006-2007 could not be verified due to labeling and filing issues. That is, the original files were dismantled so multiple people could work on updating the information in TreeKeeper7<sup>®</sup> (TK7). The page numbering system on the task lists made it impossible to know if all the documents were returned to the files. In addition, missing information on some paperwork makes it difficult to cross-reference summary reports to unit reports. The program has addressed some of the filing issues but labeling and formatting issues still hinder its ability to cross-reference between the various reports.

Although the products could not be verified, negative turnaround times on a few calculation sheets provide evidence that data entry delays may be affecting the accuracy of information in the TK7 system. Updating TK7 is being delayed for two reasons. First, service efforts are currently tracked and reported with several levels of handwritten forms. The amount of time needed to manually fill out these forms is time that can not be used for other duties. Second, the program has no administrative staff to assist with data entry. The system is updated only when crew schedules permit.

Several of the forms used by the program are created in Excel<sup>®</sup> but the information is not being put back into these files to calculate results. Instead products are handwritten on other forms and products are manually counted. The program can save time and increase accuracy if it eliminates several layers of these manual reports.

One suggestion for streamlining the process would be to work with a TK7 technician to reformat how reports are printed from the system. There would be no need to download information into Excel<sup>®</sup> if the TK7 reports had enough space for staff to make field notations. If the TK7 reports can not be altered, then the program should consider

expanding the file used to create the task lists. Several layers of hand written reports would be eliminated if program staff entered completion dates and product types into this spreadsheet to generate the progress reports. Comments and changes in site information would not need to be entered into this system. This data could continue to be entered directly into TK7.

### **Audit Details**

Program 218 has an information loop (see diagram in Exhibit 3b). Information in the TK7 system initiates work activity. The information in TK7 is taken out and put into Excel files to produce the work. Paper documents and files record the work. Information from the paper needs to get back into the TK7 system to initiate future work and to calculate turnaround times.

The accuracy of results reported in FY 2006-2007 could not be verified because the unit files had been dismantled to enter work information into TK7. Completeness of the files could not be determined due to how the pages were numbered. The files could also not be verified using other sources. Formatting differences between the reports made verification through cross-referencing impossible.

The task lists created by the program are the equivalent to a unit report. They provide a daily record of work assignments and accomplishments. To create a task list, the TK7 system is queried and a list of sites is generated by downloading the data into Excel<sup>®</sup>. These lists are given to work crews and contract firms as work assignment sheets and are taken out into the field to record daily accomplishments (i.e. products). Contractors invoice the city by product count. The Urban Landscape Supervisor reports contractor products by creating a journal voucher from the invoices.

Staff use their completed task lists back in the office to fill out the staff product sheets, weekly reports, and period reports. These reports are filled in by hand and products are manually tabulated. The completed task lists are then filed in a binder. As time permits, staff will take the original forms out of the binders to update the service information and tree characteristics in TK7. The updated information in TK7 drives future work assignments.

Each task list is created individually by downloading TK7 information into a blank spreadsheet. The spreadsheets are then formatted and saved as separate files by type (pruning, planting, service requests, etc.) and by date. Separating the lists into individual files makes it difficult to locate when individual tasks were assigned to a crews. It also produces paper documents which are not consecutively numbered.

Exhibits 4a, 4b, and 4c are examples of task lists that are currently being used in FY 2008-2009. Note the formatting differences. Exhibits 4a and 4c were not printed with page numbers while Exhibit 4b is labeled as page 5.

Most of the TK7 updating for FY 2006-2007 occurred at the end of the fiscal year. The binder was dismantled so multiple staff could simultaneously work on updating the system. It is impossible to know if all the documents were returned to the binder as the task lists were not consecutively numbered or numbered in context of each printed packet (i.e. *Page X of XX*). Since the task lists are created by individual files, each page will need to be numbered in context of the packet to ensure that all paper documents are present in the files.

**Finding 1:** The documents are created in a manner that does not produce consecutive page numbers. Completeness of the files could not be determined due to how the pages were numbered.

**Recommendation 1:** Reformat the page numbering system to “*Page X of XX.*”

Summary reports also could not be verified against the task lists as these documents group products by staff member (see Exhibits 5 and 6) and the task lists do not indicate who did the work (Exhibits 4a and 4b). The program will need to add crew information to the task list forms but should also consider expanding how it uses the task list file.

The diagram in Exhibit 3b shows that the first three Excel<sup>®</sup> files used by the program are used solely to create paper forms for handwritten notes. None of the numbers collected on these forms are entered back into the computer files.

In addition to adding a crew assignment column to the task list form, the program may want to consider entering the product counts from the paper sheets back into the original spreadsheet and allowing the computer to calculate and produce the summary reports. This would eliminate the need for creating and filling out the forms associated with Files 2, 3, and 4 in Exhibit 3b. Plus, all the information needed to proof product counts will be housed in one computer file.

**Finding 2:** Products from the various reporting levels could not be reconciled back to the daily task lists.

**Recommendation 2:** Option 1 - Add crew information to the task list templates so product reports can be reconciled back to daily work efforts. Continue manual reconciliation.

Option 2 – Create a new template spreadsheet in Excel which tracks crew activity, calculates product counts, and produces summary reports.

Exhibit 4b shows a typical pruning task list. The date the document was printed is in the upper right corner and the file name is in the lower right corner. Note that the date

columns in Exhibit 4a are missing from the task list in 4b. Also note that the order of the columns has changed. Exhibit 4a orders the columns: Species, Work, DBH (diameter), Height, and Comments; while Exhibit 4b orders the columns: Species, DBH, Height, Work Type, and Comments. These two documents are different because there is no set template for creating the task lists in Excel<sup>®</sup>. The information is downloaded from TK7 and columns are added to create the task lists.

It is not crucial that the date columns were omitted on the pruning task list in Exhibit 4b as the amount of time from assignment to task completion is not reported for pruning activities. However, the program does report turnaround times for service request activities. These task lists need to either include two date columns for request and completion dates; or completion dates need to be entered into TK7 as soon as possible so the system can calculate the turnaround times.

Exhibit 4c is an example of a service request task sheet (work types: single pruning – 110, tree removal – 220, and structural pruning of a medium sized tree –150). The date column on the form indicates when the tasks were completed but this form can not be used by itself to calculate turnaround times as the service request dates are missing. In fact, three completion dates noted on the form occurred three days before the form was created. Thus, TK7 houses the only record of service request dates.

The spreadsheet used by the program to calculate turnaround times for Performance Measure 8 indicated that 25 service records (1.4%) were not closed in TK7.<sup>1</sup> The arborist had to close these files with the current date because each task list is created in a separate file and service information is manually tracked on paper. There is no easy way to search the paper files to find the site information which corresponds to a TK7 record. TK7 updating is being delayed for two reasons; 1) task lists are not available for input until after the summary forms are filled out; and 2) there is no clerical support available to assist the program with data entry.

**Finding 3:** TK7 is not being updated in a timely manner due to the amount of time needed to track and calculate products on handwritten forms and insufficient administrative support to assist with data entry.

**Recommendation 3:** Explore options to streamline the reporting system. Consider the following suggestions:

- 1) Download TK7 information into one or two large Excel workbooks to track work efforts and products for the year and enter only information needed for long term decisions back into TK7;

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<sup>1</sup> 2006-07 Inspections.xls

2) Work with TK7 technicians to see if the report formats in the system can be modified to create task lists to eliminate the need to create Excel files and work directly off the TK7.

3) Work with a consultant to find ways to streamline the current documentation and reporting systems.

**Finding 4:** It is difficult to correct TK7 records as the task lists used by the program can not be easily searched by individual addresses.

**Recommendation 4:** Option 1: Download TK7 information into one or two large Excel workbooks to track work efforts and products for the year and enter only information needed for long term decisions back into TK7;

Option 2: Work with TK7 technicians to see if the report formats in the system can be modified to create task lists to eliminate the need to create Excel files and work directly off the TK7 system.

### **AUDIT CONCLUSION**

The accuracy of results in FY 2006-2007 could not be verified due to labeling and filing issues. The original files were dismantled so multiple people could work on updating TreeKeeper7<sup>®</sup> (TK7). Determining if all the pages were returned is not possible with the current page number system. Plus, missing information on some of the documents makes it difficult to cross-reference summary reports to unit reports. The program has addressed some of the filing issues but labeling and organizational issues still hinder the ability to cross-reference between the various reporting systems.

Although the products could not be verified, there is evidence that delays in entering service information back into TreeKeeper7<sup>®</sup> (TK7) is affecting the integrity of the reported timeliness measures. Updating the information in TK7 is being delayed for two reasons. First, service efforts are currently tracked and reported with several levels of handwritten forms. The amount of time needed to manually fill out these forms is time that can not be used for other duties. Second, the program has no administrative staff to assist with data entry. The system is updated only when crew time permits or a staff member is medically assigned to light duty.

Several of the forms used by the program are created in Excel<sup>®</sup> but the information is not being put back into these files to calculate results. Instead other forms are filled out by hand and product counts are manually tabulated. The program can save time and increase accuracy if it eliminates several layers of manual reports.

One suggestion is to work with TK7 technician to reformat how reports are printed in this system. There would be no need to download information into Excel<sup>®</sup> if the TK7 reports had enough space for staff to make field notations. If the TK7 reports can not be altered, then the program should consider expanding the file used to create the task lists to also sort and report products. Several layers of hand written reports would be eliminated if program staff entered completion dates and product types into this spreadsheet, and allowed the spreadsheet to generate the progress reports. Comments and changes in site information noted on the task lists do not have to be entered into this system. This data can continue to be entered into TK7.

**Exhibit 3a: Workflow Description**

Work is initiated in the TreeKeeper7<sup>®</sup> (TK7) program. First, call center or program staff enters information into TK7 (service requests or data about a service that was rendered). The arborist queries the system, decides what sites need to be reviewed. He then downloads the site information into an Excel<sup>®</sup> file and prints a task list (in this case the first task list would be a list of inspection sites). The arborist then inspects the sites and determines if any action should be taken. If action is needed, the arborist creates a work order in TK7. He resorts the information in TK7 and downloads again into Excel<sup>®</sup> to create task lists for the crew action by type of work (pruning, removals, young tree training, etc.). In FY 2006-2007, the arborist performed 1,815 inspections (see [Table 2](#) above). 717 trees were pruned based on these requests and most of the trees removed were probably also due to these inspections.

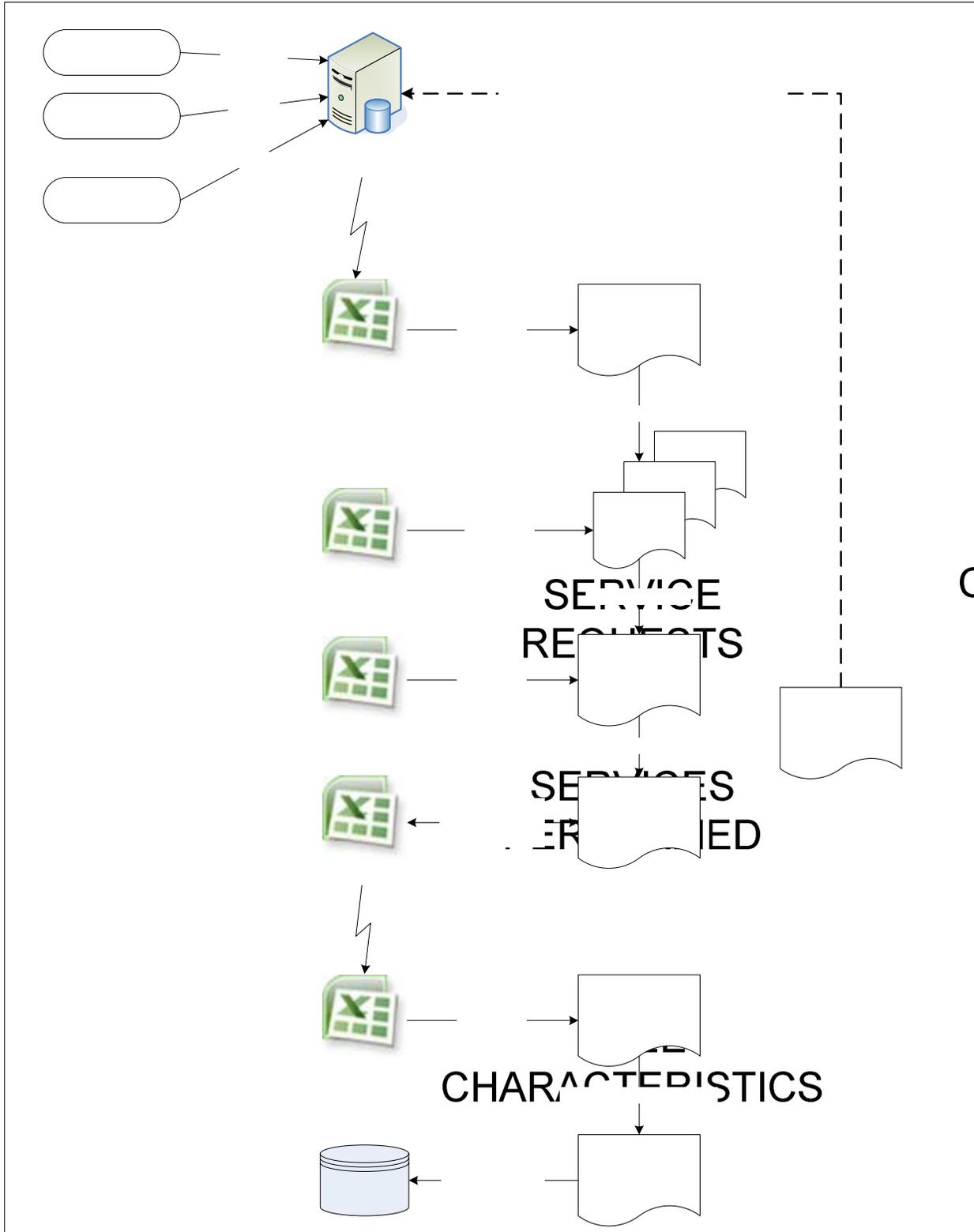
Crews take the task lists generated by the arborist into the field and note the service type, completion date, and any changes to the tree (size, species, tree missing, etc.). An example of annotated task list is provided below in [Exhibit 4](#). The number of services completed by each crew member is manually counted for each day and then noted directly on the staff product report. None of the task list pages reviewed totaled products by page.

Crew members posting products to the wrong activity numbers caused past reporting errors. Thus, the crew leader now uses the original task lists to verify accuracy on the staff product sheets or to personally fill out product sheets for staff members.

The crew leader then manually tallies the products from ten staff product sheets and writes in the totals on a weekly report form. The four weekly reports forms for each reporting period are then given to the arborist who enters the product counts into a period report spreadsheet. The period report spreadsheet is electronically sent to the Urban Landscape Supervisor.

The urban landscape supervisor then cut and pastes the information into another spreadsheet to create a journal voucher document (paper). The paper journal voucher is mailed to accounting staff in the Department of Finance who then manually enter products into the financial system.

**Exhibit 3b: Workflow Diagram**



Call Center  
and/or  
Program  
Program  
Program

**Exhibit 4a:** Example of a Task List (Pruning)

8/5/08

Verified Stump removal 10/9/08 to set up for oct/08

Address	Date	From Street	Date	Species	Work	DBH	Height	Comments
751 X HOMESTEAD RD /W Front 1		NEW BRUNSWICK AV	8/5	SAWTOOTH ZELKOVA	ok 160	3 to 6+	15-30 ok	Comp 150
751 X HOMESTEAD RD /W Front 2		NEW BRUNSWICK AV	8/5	SAWTOOTH ZELKOVA	ok 160	6 to 12+	15-30+	Comp 160
751 X HOMESTEAD RD /W Front 3		NEW BRUNSWICK AV	8/5	SAWTOOTH ZELKOVA	ok 160	6 to 12+	15-30+	Comp 160
751 X HOMESTEAD RD /W Front 4	noted	NEW BRUNSWICK AV	8/5	SAWTOOTH ZELKOVA	ok 160	6 to 12	15-30	no tree 40 space for plant 1
771 HOMESTEAD RD /W Front 1		NEW BRUNSWICK AV	8/5	SAWTOOTH ZELKOVA	ok 160	12 to 18 ok	15-30+	Comp 160
775 HOMESTEAD RD /W Front 1		NEW BRUNSWICK AV	8/5	SAWTOOTH ZELKOVA	ok 160	12 to 18 ok	15-30+	Comp 160
779 HOMESTEAD RD /W Front 1		NEW BRUNSWICK AV	8/5	CRAPE MYRTLE/NATCHEZ	220	0 to 3	0-46 220	Comp 220
783 HOMESTEAD RD /W Front 1		NEW BRUNSWICK AV	8/5	SAWTOOTH ZELKOVA	ok 160	12 to 18+	15-30+	Comp 160
787 HOMESTEAD RD /W Front 1		NEW BRUNSWICK AV	8/5	SAWTOOTH ZELKOVA	ok 160	6 to 12	15-30+	Comp 160
791 HOMESTEAD RD /W Front 1		NEW BRUNSWICK AV		CHINESE PISTACHE	160	3 to 6	0-15	} will be done when we do the rest of block
795 HOMESTEAD RD /W Front 1		NEW BRUNSWICK AV		SAWTOOTH ZELKOVA	160	12 to 18	15-30	
799 HOMESTEAD RD /W Front 1		NEW BRUNSWICK AV		SAWTOOTH ZELKOVA	160	12 to 18	15-30	
307 San Petronio av f/1		Atwanee	8/14	mod. ash	220	---	---	Comp 220
1120 Robin av		Robin ct	8/18	L. A limb	120	---	---	Comp 120
1015 Cassia Silver Pine ct			8/18	Carob limb	120	---	---	Comp 120

**Exhibit 4b:** Example of a Pruning Task List with Headers and Footers

8/4/08  
8/5/08  
8/6/08

City of Sunnyvale July Work 6/25/2008

Address	From Street	Species	DBH	Height	Work Type	Comment
1640 KENNEWICK DR Front 1	NSQUALLY DR	RED CRAPE MYRTLE	3 to 6 ok	0-15 ok	140 / 150	Comp 8/4/08
1640 KENNEWICK DR Front 2	NSQUALLY DR	WHITE BIRCH	3 to 6+	0-15+	140 / (25)	Comp 8/4/08
1652 KENNEWICK DR Front 1	NSQUALLY DR	TRISTANIA LAURINA	3 to 6+	0-15+	140 / (25)	Comp 8/4/08
1660 KENNEWICK DR Front 1	NSQUALLY DR	CORK OAK	0 to 3 ok	0-15 ok	250/140 / 150	Comp 8/4/08
1670 KENNEWICK DR Front 1	NSQUALLY DR	AFRICAN SUMAC	3 to 6+	15-30 ok	140 / (50)	Comp 8/4/08
1678 KENNEWICK DR Front 1	NSQUALLY DR	CAROB	12 to 18+	15-30+	140 / (50+)	Comp 8/4/08
1686 KENNEWICK DR Front 1	NSQUALLY DR	Vacant Planting Site	N/A	N/A	140 / 150	Vacant Site
1690 KENNEWICK DR Front 1	NSQUALLY DR	Peach	0-3	0-15	140	Comp 8/4/08
1696 KENNEWICK DR Front 1	NSQUALLY DR	AFRICAN SUMAC	3 to 6+	0-15+	140 / (50)	Comp 8/4/08
799 HOMESTEAD RD /W Side 2	NSQUALLY DR	CORK OAK	0 to 3+	0-15 ok	140 / (50)	Comp 8/4/08
806 LOGAN CT Side 1	LOGAN CT	CORK OAK	0 to 3 ok	0-15 ok	250/140 / 150	Comp 8/6/08
807 LOUISE DR Side 1	LOGAN CT	CAROB	6 to 12+	15-30+	140 / (160+)	Comp 8/5/08
806 LOUISE DR Side 1	LOUISE DR	CORK OAK	0 to 3 ok	0-15 ok	250/140 / 150	Comp 8/6/08
806 LOUISE DR Side 2	LOUISE DR	TRISTANIA LAURINA	3 to 6 ok	0-15 ok	250/140 / 150	Comp 8/6/08
811 HOMESTEAD RD /W Side 1	LOUISE DR	CORK OAK	0 to 3+	0-15+	140 / (50)	Comp 8/6/08
811 HOMESTEAD RD /W Side 2	LOUISE DR	CORK OAK	0 to 3	0-15	140 - 150	tree was removed
855 Nisqually Dr S/2	Kennewick	Tristania Laurina	6-12	15-30	(150)	Comp 8/5/08
806 Logan ct S/2	Kennewick	cork oak	0-3	0-15	250	Comp 8/6/08
806 Pear av	Pear	Pear	12-18	30-45	160	Comp 8/4/08
1690 Kennewick Dr F/2	Louise Dr	Peach	3-6	0-15	140	Comp 8/4/08

5 July Work.xls

**Exhibit 4c:** Example of a Single Prune Task List (Service Requests)

TREE DIVISION Daily Crew Assignments							
Tree Division	Monday, October 06, 2008						
Urban Landscape Supvr	454	Address	X Street	Date	Type	Work DBH	HT Posted
Employee 1	414	670 E Duane	NFO	10/6	Sumac	220	
		905 Coachella	Santa Paula	10/3	Fern Pine	110	18-24 30-45
Employee 2	444	926 Barstow Ct	San Rafael Dr	10/6	Australian Willow	220	
Employee 3	422	333 LAKECHIME DR Front 1	LAKEFAIR DR	10/3	HOLLY OAK	110	12 to 18 30-45
		780 LAKEKNOLL DR Front 1	LAKEMUIR DR	10/6	MAIDENHAIR TREE	110	18-Dec 15-30
Employee 4	423	765 LAKEKNOLL DR Front 1	LAKEMUIR DR	+	RAYWOOD ASH	110	18-Dec 15-30
		766 LAKEKNOLL DR Front 1	LAKEMUIR DR	+	RAYWOOD ASH	110	3 to 6 15-30
Employee 5		767 LAKEKNOLL DR Front 1	LAKEMUIR DR	+	FAN TEX ASH	110	0 to 3 0-15
		773 LAKEKNOLL DR Front 1	LAKEMUIR DR	+	RAYWOOD ASH	110	6 to 12 15-30
		779 LAKEKNOLL DR Front 1	LAKEMUIR DR	+	RAYWOOD ASH	110	6 to 12 15-30
		647 LakeHaven terr F/S		10/3	Peav stump	220	
		887 Lake noll Dr f/1	lake muir dr	+	ginko	150	6-12 15-30
		S Eden	NFO to W EDEN				
		San Aleso	N Mathilda to W Ahwenne				
Personal Time-							
Disabled-Shop							
705-0							

Tree Has a bad lean  
H.O. Cut some big roots by trunk  
had 1 big dead limb

10/6/2008

Tree Crew Daily Assignments SS-10-6-08.xls

**Exhibit 5:** Example of Staff Product Report Report (File 2 on Exhibit 3B)

City of Sunnyvale		Product Report		Week <u>4</u> of 4	Period <u>3</u> of 13			
Program 218		Street Tree Services		Ending Date <u>9/20</u>				
Radio Call # <u>444</u>								
ACTIVITY /SUBACTIVITY	ACTIVITY	Monday	Tuesday	Wednesday	Thursday	Friday	Other	TOTALS
Date-		9/15	9/16	9/17	9/18	9/19	01	
<b>STRUCTURAL PRUNING</b>								
Small Tree <15 ft.	218140			1	3			4
Medium Tree >15<30ft	218150	3	2	2	6			13
Large Tree .>30<60 ft	218160	9	5	3	5			22
Very Large >60 ft	218170							
<b>CALL OUTS</b>								
Service Request (single) Pruning	218110				1			1
Priority Pruning-Regular hours	218120							
Emergency Prune -After hours (OT)	218130							
Private Hazard - (OT)	218180							
Equipment Maintenance-Pruning	218190							
<b>REMOVE AND REPLACE</b>								
Replacement Tree Planting	218200							
Repl.Tree Planting Contract	218201							
Repl.Tree Planting Staff	218202							
New Tree Planting	218210							
New Tree Planting -Contract	218211							
New Tree Planting Staff	218212							
Tree Removal	218220	1		1				2
Tree Stump Removal (by Contract)	218230							
Tree Watering	218240							
Young Tree Pruning W/STAKE	218250	2						2
Equipment Maintenance-Removals	218270	2	3		2			7
<b>INSPECTIONS</b>								
Respond to Service Requests	218300							
Claims Investigation	218330							
Administrative Support	218450							
Tree Removal Permit Investigations	218380							
Staff Training	218440							
Project Review Committee	218390							
		1						

**Exhibit 6:** Example of Weekly Report (File 3 on Exhibit 3B)

City of Sunnyvale		Product Report		Week <u>1</u> of 4		Period <u>5</u> of 13						
Program 218		Street Tree Services		Ending Date <u>11/14</u>								
ACTIVITY /SUBACTIVITY	Week	Call number										
	ACTIVITY	466	465	453	444	434	427	423	422	414	404	TOTALS
<b>STRUCTURAL PRUNING</b>												
Small Tree <15 ft.	218140	10		18	1							29
Medium Tree >15<30ft	218150	5		2	10					10		27
Large Tree .>30<60 ft	218160	3		10	5							18
Very Large >60 ft	218170											
<b>PRUNING BY CONTRACTOR</b>												
Medium Tree >15<30ft	218000											
Large Tree .>30<60 ft	218010			X								X
Very Large >60 ft	218020											
Service Request (single) Pruning	218110			2								2
Priority Pruning-Regular hours	218120	2			4					1		7
Emergency Prune -After hours (OT)	218130									1		1
Private Hazard - (OT)	218180											
Equipment Maintenance-Pruning	218190		5	5			3				6	19
<b>REMOVE AND REPLACE</b>												
Tree Planting Contract	218290											
Tree Planting Staff	218600											
Tree Removal	218220			3	7	6						16
Tree Stump Removal (by Contract)	218230											
Tree Watering	218240						128					128
Young Tree W/STAKE	218250	13	6				4					23
Equipment Maintenance-Removals	218270			2	5	12	2	8			2	31
Tree Removal-Liquidambar	218280											
Stump Removal-Liquidambar	218281											
Tree Planting -Liquidambar	218282											
<b>INSPECTIONS</b>												
Respond to Service Requests	218300									25		25
Structural Integrity Survey	218310											
Claims Investigations	218330									1		1
Tree Removal Permit Investigations	218380									9		
Projects Reviewed	218390											
Staff Training and Development	218460											
Tailgates and other staff meetings	218470	1	1	1	1	1	1	1	1	1	1	9
		0	0	0	0	0	0	0	0	0	0	

**DEPARTMENTAL RESPONSE**

Findings	Recommendation	Dept. Response	Disposition
1 The documents are created in a manner that does not produce consecutive page numbers. Completeness of the files could not be determined due to how the pages were numbered.	Reformat the page numbering system to "Page X of XX."	Agree. The work data files will be formatted with page numbering to be in the format "x of xx"	Implement
2 Products from the various reporting levels could not be reconciled back to the daily task lists.	<p><b>Option 1</b> - Add crew information to the task list templates so product reports can be reconciled back to daily work efforts. Continue manual reconciliation.</p> <p><b>Option 2</b> – Create a new template spreadsheet in Excel which tracks crew activity, calculates product counts, and produces summary reports.</p>	Agree. Will plan to incorporate Option 2, and create an Excel spreadsheet to track work performed by City crews, and designed to calculate product counts and make production of summary reports easy.	Implement
3 TK7 is not being updated in a timely manner due to the amount of time needed to track and calculate products on handwritten forms and insufficient administrative support to assist with data entry.	<p>Explore options to streamline the reporting system. Consider the following suggestions:</p> <ol style="list-style-type: none"> <li>1) Download TK7 information into one or two large Excel workbooks to track work efforts and products for the year and enter only information needed for long term decisions back into TK7.</li> <li>2) Work with TK7 technicians to see if the report formats in the system can be modified to create task lists to eliminate the need to create Excel files and work directly off the TK7.</li> <li>3) Work with a consultant to find ways to streamline the current documentation and reporting systems.</li> </ol>	Agree. TreeKeeper 7™ is the master street tree inventory database which is incompatible with SV PAMS financial reporting system. We will modifying the program SOPs to clarify the data record keeping. TK7 is a street tree management tool not a financial recordkeeping system. We propose to extract the work scheduled for the fiscal year from TK7 as Excel data. These Excel spreadsheets can be formatted to be compatible with PAMS. Hours and products can be kept on the Excel spreadsheets and used as the source data for PAMS. Record updating in TK7 would then be done separately from financial reporting. We would plan to archive Excel spreadsheets for six years, i.e. three budget cycles.	Implement
4 It is difficult to correct TK7 records as the task lists used by the program can not be easily searched by individual addresses.	<p><b>Option 1:</b> Download TK7 information into one or two large Excel workbooks to track work efforts and products for the year and enter only information needed for long term decisions back into TK7.</p> <p><b>Option 2:</b> Work with TK7 technicians to see if the report formats in the system can be modified to create task lists to eliminate the need to create Excel files and work directly off the TK7 system.</p>	Agree. We propose to use Option 1, consistent with the comments under findings #3 above.	Implement