

City of St. Petersburg
Budget, Finance, and Taxation Committee
May 26, 2022 – 8:00 AM
City Hall, Room 100

Members: Committee Chair Ed Montanari, Committee Vice-Chair Copley Gerdes, Council Chair Gina Driscoll, and Council Member Lisset Hanewicz

Alternate: Council Member Richie Floyd

Support Staff: Jayne Ohlman – Senior Legislative Aide

1) Call to Order

2) Approval of Agenda

3) Approval of May 12, 2022 Minutes

4) New Business – May 26, 2022

- a) Stormwater, Pavement, & Traffic Operations (SPTO) Management Evaluation (2021) - Progress Report – *Dianna Rawleigh, Stormwater, Pavement & Traffic Operations Director, Claude Tankersley, Public Works Administrator, and Members of the SPTO Team*

Attachments

- 1) PowerPoint Presentation
- 2) 2021 SPTO Management Evaluation Excerpts: Section 4 – Recommendations & Section 5 – Priority of Recommendations

5) Upcoming Meeting Dates & Tentative Agenda Items

June 9, 2022

- a) Draft Consolidated Plan & Proposed Budget – *Joshua Johnson, Housing and Community Development Director*

June 16, 2022

- a) FY23 Utility Rate Study – *Angela Miller, Public Works Services Manager*

General Attachments:

Minutes of the May 12, 2022 BF&T Committee Meeting
Pending and Continuing Referral List
Weeki Wachee Project List
Agenda Item Support Material

City of St. Petersburg
Budget, Finance and Taxation Committee
May 12, 2022 Meeting Minutes
City Hall, Room 100

Present: Committee Chair Ed Montanari, Committee Vice-Chair Copley Gerdes, Council Chair Gina Driscoll, and Richie Floyd (Alternate)

Absent: Council Member Lisset Hanewicz

Also Present: Assistant City Administrator Tom Greene, Assistant City Attorney Macall Dyer, Chief Financial Officer Anne Fritz, Budget & Management Director Liz Makofske, City Treasurer Tom Hoffman, and Assistant City Clerk Cathy Davis.

Support Staff: Jayne Ohlman – Senior Legislative Aide

1. **Call to Order** – 10:52 AM
2. **Approval of Agenda** – CM Gerdes motioned for approval. All voted in favor.
3. **Approval of April 14, 2022 Minutes** – CM Driscoll motioned for approval. All voted in favor.
4. **New Business – May 12, 2022**

Proposed Resolution Authorizing the City to Exchange the Taxable Public Utility Refunding Revenue Bond (Series 2020) for a Tax-Exempt Public Utility Refunding Revenue Bond (Series 2022) to Realize Significant Net Present Value Debt Service Savings – *Anne Fritz, Chief Financial Officer*

Chief Financial Officer Anne Fritz presented the committee with the proposed resolution authorizing the City to exchange its Taxable Public Utility Refunding Revenue Bond (Series 2020) for a Tax-Exempt Public Utility Refunding Revenue Bond (Series 2022). Ms. Fritz explained that the administration recommends passage of the resolution authorizing the City to utilize its option to exchange the bonds and provide supplemental appropriations for the cost of issuance and related refunding transactions and achieve nearly \$1 million in additional net present value savings.

In referencing the debt service payment projections, Committee Chair Montanari noted the significant increase in the bond's principal payments beginning in 2029 and asked if there was an explanation for the rise. Ms. Fritz explained that at the time of the original public utility bond series, the City employed a "wrapped" debt service approach that pushes principal payments to the end of a bond's repayment schedule. Ms. Fritz noted that the City's current practice for bond issuances is to achieve a level debt service, meaning the City pays all of its required interest payments and some principal on a bond until the interest and principal payments become level.

Committee Vice-Chair Gerdes moved approval of the proposed resolution, and all present committee members voted in favor.

Quarterly Financial & Investment Reports for the Period Ending March 31, 2022 – *Anne Fritz, Chief Financial Officer*

Ms. Fritz provided an overview of the City's financial results for the six months preceding March 31, 2022, and the investment reports for the second quarter. Beginning with the investment report, Ms. Fritz stated that the current amortized book value of all holdings governed by the City's General Investment Policy is \$983.4 million with a corresponding market value of \$968.8 million, resulting in an

unrealized loss of \$14.6 million.¹ The calculation for total unrealized gain is the market value loss of \$118,152 relating to the BlackRock holdings. Therefore, excluding the BlackRock holdings, the City-managed portfolio reports a \$14.5 million unrealized loss. Combining all sources of interest income earnings for the twelve months preceding March 31, 2022, the City's investment earnings were \$7.5 million, for an average return of 0.83%. During the second quarter, there were maturities held for the face amount of \$30.6 million and \$32 million in instruments purchased. Ms. Fritz reported that the current amortized book value of the Alternative Investment Portfolios is \$30.3 million, with a corresponding market value of \$44.4 million and a total unrealized gain of \$14.1 million. The total amortized book value of the General and Alternative Investment Policies combined is \$1.014 billion, and the market value is \$1.013 billion, with a total unrealized loss of \$0.5 million.²

Next, Ms. Fritz provided an overview of the outstanding governmental and enterprise debt as of March 31, 2022, and a summary of future funding sources for the fiscal year and beyond.³ Enterprise debt includes the following funds: Water Resources, Stormwater, Sanitation, Marina, and Equipment Replacement. Ms. Fritz emphasized that when the City issues new debt, it will always identify the funding source for repayment. Ms. Fritz added that the City's bond ratings are strong, a positive indicator of how it manages its finances and structures its debt.

Ms. Fritz continued with a summary of the City's Employees Retirement Fund, Fire Pension Fund, and Police Pension Fund ("the Plans") as of March 31, 2022. Ms. Fritz explained that during fiscal year 2022, the Plans experienced aggregate interest and dividend income earnings of approximately \$12.6 million, with realized and unrealized investment losses of \$7.2 million. During fiscal year 2021, the Plans had experienced an aggregate interest and dividend income earnings of approximately \$11.4 million and realized and unrealized investment gains of \$166.7 million.

Finally, Ms. Fritz provided an update of the Weeki Wachee Fund, including the portfolio's book value of \$14.8 million and market value of \$17.2 million, with an unrealized gain of \$2.4 million. Ms. Fritz explained that during the reporting period, the fund received interest and dividend income earnings totaling \$149,171 and an unrealized investment loss of \$428,021.

CM Montanari asked about the sizeable amount held in the money market funds as of March 31, 2022. Ms. Fritz responded that the City recently moved about \$150 million out of the money market funds to buy securities, and the timing of those transactions occurred after the closing of the second quarter.

Second Quarter Budgetary Analysis & Fund Balance Report – Liz Makofske, Budget & Management Director

Budget and Management Director Liz Makofske detailed the Fiscal Year 2022 second quarter budgetary analysis, fund balance report, and stoplight report.⁴ For the second quarter, 38 of the 41 selected funds are operating within an acceptable variance of plus or minus 2% less, while the remaining

¹ The change in market value of the City's investments fluctuates daily and the change in market value will not be realized unless the instrument is sold or impaired.

² The deposit and investment of all city monies is governed to the extent permitted by Section 2-102 and 2-104 of City Code, as well as the Investment Policy for Municipal Funds and the Alternate Investment Policy (Preservation Reserve Fund, Weeki Wachee Fund, Environmental Preservation Fund, Water Cost Stabilization Fund). The policies were prepared in accordance with Chapter 218.415, Florida Statutes, which governs the city's investment activities.

³ General Governmental Debt as of March 31, 2022 is \$94,509,989 including principal and interest.

⁴ The stoplight report provides a snapshot of quarterly performance with selected operating funds' revenue and expense projections. The stoplight report separates the BP-funded investments and the revenues/expenditures associated with the CARES Act from the true operating revenue and expenses within the general fund.

three funds are projected to have year-end fund balances at 5% or more below target. First, Ms. Makofske explained that based on actual revenue collected as of March 31, 2022, and projections for the balance of FY 2022, the general fund would collect an estimated \$324.712 million in revenue, exceeding both the adopted and amended revenue budget. In contrast, total expenditures are an estimated \$336.280 million, of which \$4.461 million were encumbrances in FY 2021 but are set to become actuals in FY 2022.

Next, Ms. Makofske noted that the beginning fund balance of the general fund includes \$756,396 of unspent or unencumbered BP resources. As of March 31, 2022, all \$6,477,796 of the initial BP resources have been appropriated, and any unspent funds will be rolled over to FY 2023.⁵

Ms. Makofske concluded with an overview of the fund balance targets established by the City's fiscal policies. The first target states that the unappropriated fund balance of the general fund will be 5% of the annual appropriation in the fund, excluding any transfer to the Economic Stability Fund. For FY 2022, the City's 5% target equates to approximately \$15.363 million. Based on second-quarter estimates, the year-end projection is about \$42.473 million in unappropriated fund balance, exceeding the 5% target by \$27.110 million. The second target that applies to the general fund group of funds is to have an unappropriated fund balance in the group of funds equal to 20% of the collective appropriation. For FY 2022, the 20% target equates to \$62.426 million, and the projected year-end unappropriated fund balance is \$78.578 million, exceeding the 20% target by \$16.152 million.

Committee Referral List

Council Chair Driscoll noted that the committee had not addressed the business item related to scooter rental revenue initiated by former Council Member Blackmon and if no council member is willing to take up the item, she would suggest removing it from the referral list. CM Driscoll made a motion to remove the item, and all present committee members voted in favor.

CM Montanari adjourned the meeting at 11:58 AM.

⁵ During the first quarter of FY 22, the city received \$1,063,567 in additional BP proceeds. The stoplight reports show the additional revenues received by the city but will not show in the expenditure estimate until a plan to spend the proceeds is approved.

Budget, Finance, & Taxation Committee Pending & Continuing Referral List					May 26, 2022	
Topic	Return Date	Referral Date	Prior Meeting	Referred by	Staff	Notes
SPTO Management Evaluation (2021) - Progress Report	5/26/2022		1/28/2021 10/28/2021	City Council	Claude Tankersley, Dianna Rawleigh	
Draft Consolidated Plan and Proposed Budget. Approval of Draft for Publication and Comment	6/9/2022	Annual			Joshua Johnson	
FY23 Utility Rate Study (Meeting #1)	6/16/2022	Annual			Angela Miller	
Review the dollar threshold set forth in Section 2-205 (Approval Authority) of the St. Petersburg City Code to determine if such threshold remains appropriate	7/14/2022		12/9/2021	Ordinance 466-H	Tom Greene	12/9/21 - Committee voted to maintain the \$75,000 threshold for Council approval authority and to review again in six months
FY23 Utility Rate Study (Meeting #2)	7/14/2022	Annual			Angela Miller	
A Discussion on the Process to Request Funding from the Downtown Open Space Art Fund (1902) and a Potential Ordinance to Codify the Process	7/28/2022	5/5/2022		Gina Driscoll	Macall Dyer	
2022 Quarterly Financial Reports	Q3 - 8/11/2022 Q4 - 11/10/2022	Quarterly	Q1 - 2/10/2022 Q2 - 5/12/2022	City Fiscal Policies (Resolution 2009-247)	Anne Fritz, Liz Makofske	
2023 Management Evaluation	10/13/2022	Annual		Resolution 2012-271	Boriana Pollard	
Grants - Quarterly Report	10/27/2022 Q3 & Q4	Quarterly	4/14/2022 Q1 & Q2	City Council	Shrimatee Ojah-Maharaj	
SBE Contracts - Quarterly Report	10/27/2022 Q3 & Q4	Quarterly	4/14/2022 Q1 & Q2	Ordinance 378-H	Jessica Eilerman	
FY 2022 Budget Clean-Up	11/10/2022	Annual			Liz Makofske	
Apprentice & Disadvantaged Workers Update Report	12/8/2022	Annual	12/9/2021	Ordinance 378-H	Stephanie Swinson	

2023 Health Insurance Renewal - Status Update on Current Year Health Plan	12/8/2022	Annual		BF&T	Chris Guella	
A report regarding how additional proceeds recovered from the lawsuits related to the BP Oil Spill and Halliburton will be spent	TBD	12/16/2021		Brandi Gabbard	Liz Makofske	
Discussion on developing a plan for funding non-utility infrastructure projects that currently do not have a dedicated funding source	TBD	2/6/2020		Gina Driscoll		
Discussion on Co-Op Grocery and Businesses	TBD	9/24/2020 (COW)		Brandi Gabbard		
2023 Property Insurance Renewals	March 2023	Annual			Blaise Mazzola, Chris Guella	
FY 2022 External Audit	March 2023	Annual			Anne Fritz	
Upcoming BF&T Dates: 5/26, 6/9, 6/16, 7/14, 7/28, 8/11, 8/25, 9/8, 9/22, 10/13, 10/27, 11/10, 12/8					Updated: 5/20/2022	

BUDGET, FINANCE & TAXATION COMMITTEE
WEEKI WACHEE PROJECT LIST

May 26, 2022

TOPIC	DATE REFERRED	REFERRED BY	RETURN DATE	STAFF RESPONSIBLE	SPECIAL NOTES
Jack Puryear Park Expansion Project	March 12, 2020	Montanari		Mike Jefferis	
Carter G. Woodson African American Museum – Outdoor Event Green Space Beautification Project	August 5, 2021	Figgs-Sanders		TBD	

SPTO Management Study Progress Report (2021)

BFT Committee Meeting May 26, 2022





Management Study Summary Points

- Study timeline:
 - Conducted summer 2021
 - Draft presented to BFT Committee on October 28, 2021
 - Final report submitted on November 19, 2021
- 54 recommendations
 - General – 10 recommendations
 - Planning – 16 recommendations
 - Organizing – 17 recommendations
 - Directing/Scheduling – 4 recommendations
 - Controlling/Improving – 7 recommendations
- Direct employee feedback through survey (59 questions)
 - Unedited, confidential responses
 - 86% employee participation rate



General Recommendations of Authors

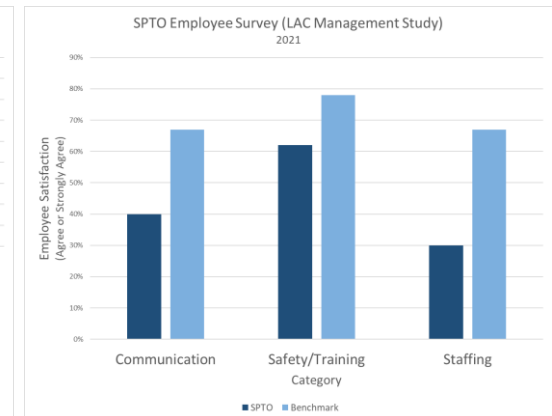
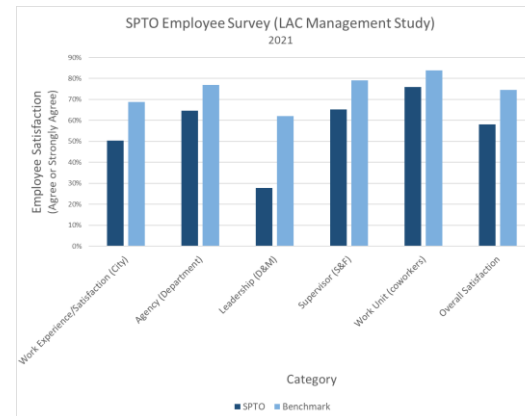
- COVID-19 had a significant impact on Department operations and morale (Quote from Harry Lorick: “Without COVID, we may not have had some of these issues.”)
- Employee Engagement
 - Improve communication (both internal and external)
 - Increase employee involvement and interaction with Department leadership
 - Get buy-in for recommendations across all levels of the Department
- Data Integration for Planning, Organizing, Directing, and Monitoring/Improving
 - Reduce data gaps
 - Improve integration of work order system and GIS
 - Standardize staffing metrics (span-of-control, work shifts, training, safety)
 - Improve proactive scheduling of routine processes
- Consolidate Department into one location with modern facilities (PW Campus Master Plan)



Six-Month Progress Report

- Identified survey benchmark
 - Office of Personnel Management Federal Employee Viewpoint Survey (2020)
- Assigned each of the 54 recommendations to an accountable management or staff member
- Developed a tracking database
- Analyzed recommendations for:
 - Common themes
 - Actions have the greatest impact on the largest number of recommendations

SPTO Management Study Recommendation (R#)	Action performed during current reporting period (11/01/2021 - 04/30/2022)	Action taken during next reporting period (5/01/2022 - 08/30/2022)	Action taken during previous reporting period (9/01/2021 - 08/30/2021)	Action performed during next reporting period (11/01/2021 - 04/30/2022)	Assigned to	Status	Anticipated Date of Completion	Notes
4.1	General Recommendation							
4.1.1	Establish a continuous improvement process with leadership and staff to ensure ongoing feedback and data. Provide an annual "State of Maintenance and Operations Report" to the Public Works Administration, Board, and City Council. Conduct annual audits, including financial, operational, and safety, and use audit results to inform continuous improvement efforts. Identify and address all safety issues.	In part of our FY22 goals we developed the RPT (Risk Prevention Tool) for the annual team plan. The RPT process review was updated on November 18 for the annual team plan.	Schedule RPT (Risk Prevention Tool) reviews and updates of the annual team plan.	The RPT process review was updated on November 18 for the annual team plan.	Mark Adams	Completed		
4.1.2	Establish a continuous improvement process with leadership and staff to ensure ongoing feedback and data. Provide an annual "State of Maintenance and Operations Report" to the Public Works Administration, Board, and City Council. Conduct annual audits, including financial, operational, and safety, and use audit results to inform continuous improvement efforts. Identify and address all safety issues.	Use the RPT (Risk Prevention Tool) to identify and address safety issues. The goal is to have a process in place to identify and address safety issues. The RPT can be submitted by anyone in the Department.	Use the RPT (Risk Prevention Tool) to identify and address safety issues. The goal is to have a process in place to identify and address safety issues. The RPT can be submitted by anyone in the Department.	Use the RPT (Risk Prevention Tool) to identify and address safety issues. The goal is to have a process in place to identify and address safety issues. The RPT can be submitted by anyone in the Department.	Mark Adams	Completed		
4.1.3	Identify or create a position and job description for a person who can provide operational and technical support. This person will have an internal knowledge of the Department's mission and operational functions.	Mark Adams, Engineering Clerk. Need to budget and purchase a job license.			Mark Adams	Planning		





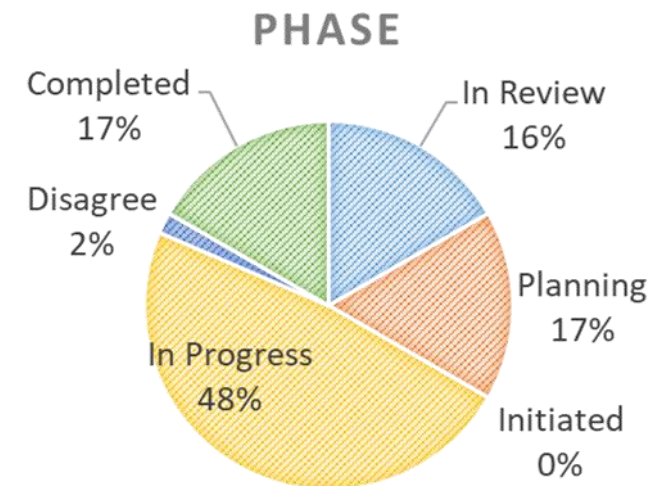
Six-Month Progress Report

Common Theme	Solution
Communication	Implement a Department Employee Engagement and Communications Plan
Safety/Training	Implement a safety and training program with input from staff to meet their needs
Staffing	Develop staffing benchmarks <ul data-bbox="784 961 2237 1239" style="list-style-type: none">• Do we know what staffing levels is appropriate for our workload?• Can we demonstrate what other Public Works agency staffing levels have?



Six-Month Progress Report

- Completed nine (9) recommendations (17%)
 - 4.1.1 4.2.1 4.2.15 4.2.16 4.3.8 4.3.10 4.3.11 4.3.13 4.5.7
- Department-wide SWOT workshops open to all Department staff (SWOT = Strengths, Weaknesses, Opportunities, Threats)
- Increased engagement of HR Labor Relations to facilitate management-staff dialogue
- Two (2) non-mandatory In-Service Days for staff
- Trained staff volunteers as Change Champions
- Process Improvement Team (PIT) Crews
- Reduced position vacancies from 20% to 14%





Six-Month Progress Report

- Daily tailgate meetings with all staff
- Weekly Manager's meeting
- Quarterly Meet the Managers meeting
- Weekly Foreperson and Supervisor meeting
- Weekly Lead Workers meeting



Draft - Not yet reviewed for clarity and accuracy - subject to change



Six-Month Progress Report

- 26 of 54 recommendations rely upon WACS implementation
 - Go-live December 2022
 - One-year implementation period to get accustomed to using it, another two years to collection enough useful data to see positive impacts
 - What are we doing in the meantime as we transition to WACS (field books)
- GIS usage increase over past six months
- Supervisor certification
- Improvements in TTC compliance in past six months



Employee Engagement

In-Service Days (day-long training, team building, brainstorming activities)	4.1.1 4.3.7 employee survey
Process Improvement Teams (PIT)	4.1.1 4.2.9 4.2.13 4.3.2 4.3.7 employee survey
Change Champions	4.1.1 4.1.7 4.1.8 4.3.7 4.5.7 employee survey
Daily Tailgate Meetings	4.1.1 4.2.9 4.3.6 4.3.7 4.4.4 employee survey



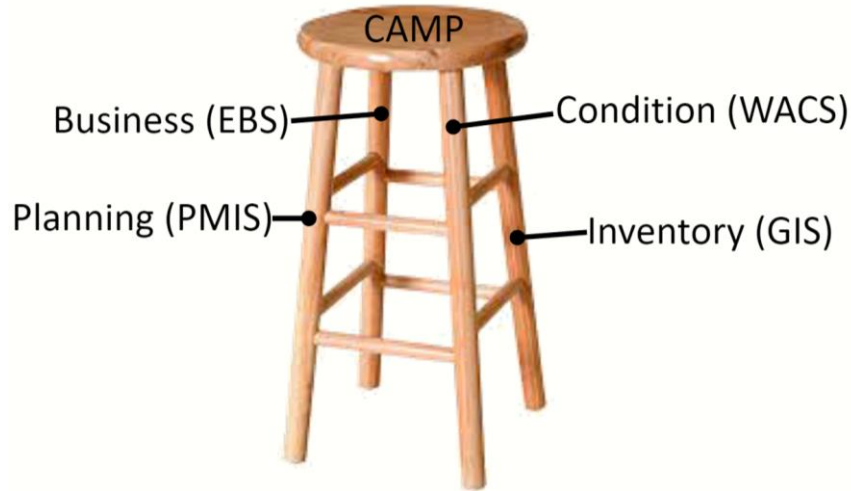
Draft - Not yet reviewed for clarity and accuracy - subject to change



Data Integration

- WACS implementation is 50% complete with Go-Live November-December 2022
- CAMP implementation initiated and budgeted in FY22 and FY23 (pending budget approval)

4.1.7 4.1.8 4.1.9 4.1.10 4.2.3 4.2.4 4.2.6 4.2.7
 4.2.10 4.2.11 4.2.12 4.2.16 4.3.3 4.3.4 4.3.9
 4.3.15 4.4.1 4.4.2 4.4.3 4.5.1 4.5.2 4.5.3 4.5.4
 4.5.4 4.5.6 4.5.7



GIS Viewer – Connected Assets

Side-bar area: View details of assets and work, Create new work, navigate into WAM, Control layers

Address Search bar

Redlining and Markups

Webmap provides selected layers and controls

Hover over highlights feature on map

When desired Assets are selected, hit Create Work to launch WAM dialog

Asset details: Water Hydrant, Badge Number 37998, In Service @ Hydrant - 311 Jamart Ct, Naperville. Asset Type: Water Hydrant. Condition Rating: 3.00

Asset details: Water Hydrant, Badge Number 42121, In Service @ Hydrant - 420 Dillman Ct, Naperville. Asset Type: Water Hydrant. Condition Rating: 3.00

Asset details: Water Hydrant, Badge Number 33937, In Service @ Hydrant - 304 Camarie Ct, Naperville. Asset Type: Water Hydrant. Condition Rating: 3.00

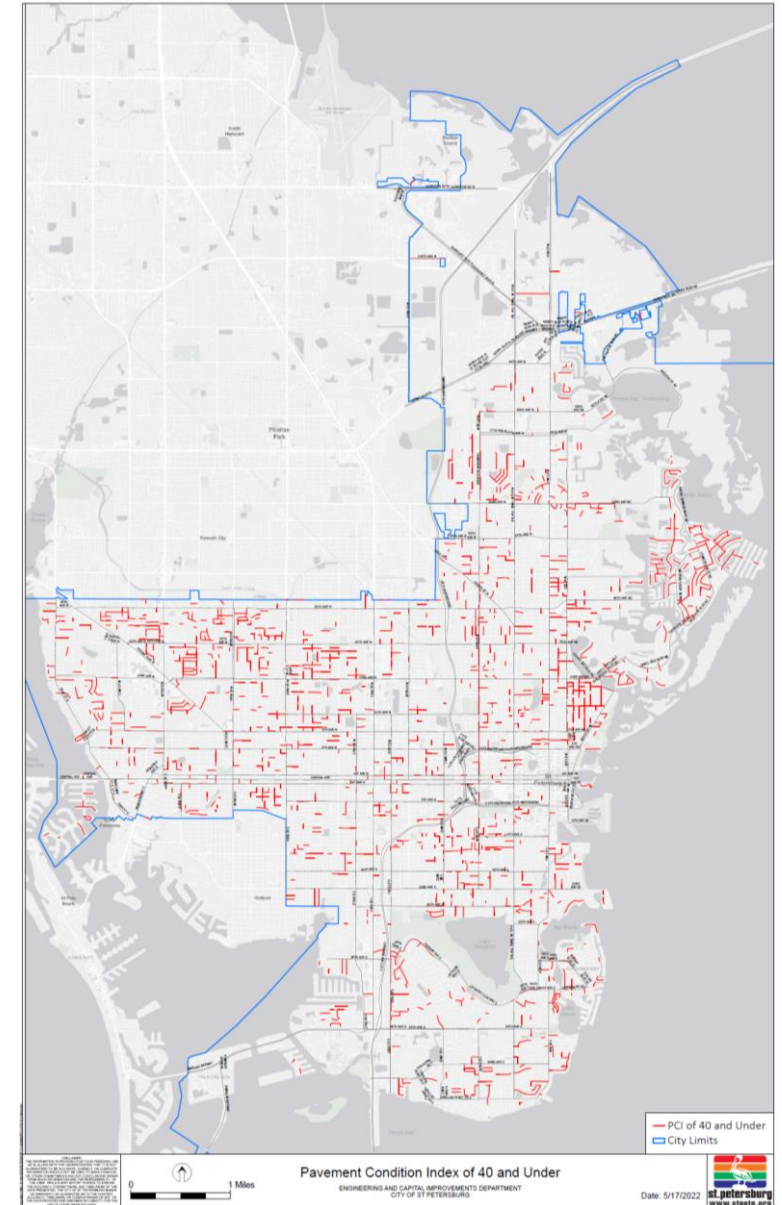
Create Work

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Progress on Other Issues

Department Values – drawing contest – in progress	4.1.2
PCI Map of streets below a score of 40	4.2.4
Management training: <ul style="list-style-type: none">• <i>Supervisor Orientation Parts I,II, III</i>• <i>21st Century Leadership</i>• <i>Professionalism</i>• <i>Emotional Intelligence</i>• <i>Performance Planning and Evaluation</i>	4.3.3
Standardized work shifts and eliminated 3 rd shift	4.3.10 4.3.11
Traffic control training and certification for staff	4.3.13



SECTION 4- RECOMMENDATIONS

This section provides the details of the recommendations for the Stormwater, Pavement, and Traffic Operations Department. The fifty-four (54) recommendations are not in order by priority but are in a suggested implementation sequence. The recommendations are related in many cases so that the complete benefits indicated may not occur without the prior recommendations being implemented. The following recommendations are structured in five sections according to the best business and management process to assist with improving existing operations.

4.1. General

4.1.1. **Establish employee teams to review various improvement opportunities. Utilize the teams on an annual basis to assist in the review of work guidelines and methods, levels of effort, quality controls, as well as annual performance planning.**

The Department's employees show an earnest desire to implement sound business practices and proudly represent their organization. Employee involvement is a critical component in the implementation of effective improvement processes. LAC surveyed employees who expressed concern about open communications, their involvement, and their awareness of system changes.

Employee support and acceptance can be further enhanced by establishing capable employee teams. This employee involvement will provide a conduit for ideas and the flow of information during the implementation. Essential involvement includes the development of work methods, annual work plans, and equipment needs. Forepersons, as well as lead and senior workers, would then be consulted on the work methods and activity guidelines to ensure valuable input is obtained from those employees closest to the work.

The involvement of employee teams is crucial to the successful implementation and development of methods for continuous improvement. Therefore, the teams should be used on an annual basis to update work methods and guidelines as well as to review the annual work plans.

4.1.2. **Re-create mission statement to include elements focused on efficiencies and effectiveness as primary goals. Obtain buy-in from all levels of the organization.**

The SPTO Department is a full-service, operational public works organization. Through the department's SPTO's group, the City provides public works services to approximately 250,000 city residents and 9,900 businesses (Pinellas County Economic Development, 2021).

While the Department's mission statement supports the City's overarching values, strategic pathways, and ultimate vision, it appears a considerable number of the Department's employees were unaware of its existence or helped in its creation.

To encourage buy-in and a shared common strategic focus, the Department should re-create its mission statement with input and feedback from every level of the organization. Also, the new mission statement should fully support the City's overarching values, strategic pathways, and vision. Finally, the statement should include the elements of both efficiency and effectiveness metrics to manage their operations (De Waal & Heijtel, 2017).

4.1.3. **The stormwater aspects of the Integrated Water Resources Master Plan (IWRMP) should be clearly identified in the short term, with the potential benefits. City staff**

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

**should relate the plan to improvements with the availability of existing fundings
CIP resources.**

The Integrated Water Resources Master Plan (IWRMP) is a 723-page document created due to a Federal Department of Environmental Protection (FDEP) consent order issued July 25, 2017. The regulatory submittal was produced by Jacobs Engineering Group, Inc. of Tampa, Florida (Jacobs Engineering Group Inc., 2019). The master plan provided thirty-three (33) scenarios in seven (7) categories. The fifth category includes Stormwater Management. The Stormwater Management portion of the program will cost approximately \$634.8 million or 20% of the total.

To establish accountability and an implementable plan, the stormwater aspects of the IWRMP should be explicitly defined and detail the City's return on investment (ROI) from the effort. In addition, this plan should be further linked to existing and future CIP funding resources.

A plan was outlined by Public Works but not completed in 2019, due to a myriad of factors including COVID-19. This plan is now expected to take more than 30 months to complete.

4.1.4. Formally review and report the progress and accomplishments of fulfilling the recommendations of the audit projects to the City Auditor quarterly. Set a goal of completion for all goals by October 1, 2022.

Over the past several years, the Department has faced several internal reviews and subsequent follow-up reports conducted by the Office of the City Auditor. The primary objective of Audit Projects 18-04 and 18-15 was to verify that proper internal controls were in place and operating effectively for the respective groups and compliance with City and departmental policies and procedures. In addition, through follow-up audit projects 18-04F (Stormwater Operations) and 18-15F (Pavement & Traffic Operations), it was identified that some recommendations were found to be outstanding or in various stages of completion.

To promote the completion and provide accountability as a follow-up to each review, the Department should formally review and report the progress and accomplishment of all audit project recommendations. This formal review should be conducted quarterly, with a goal set for accomplishing all recommendations by October 1, 2022. These results should also be reported in the Department's annual "State of Maintenance and Operations Report" for FY 2021-22, which will be further defined later in this report.

4.1.5. Formally review and update the Department Manual annually, using input from all levels of the organization and any other needed City external resources.

The Department has developed a Department Manual, with an effective date of 2021. This manual offers five sections – Introduction, Department Policies and Programs, Standard Operating Procedures, Emergency Operations, and Appendices. While the manual is generally comprehensive and took a considerable effort to compile, some managers, leaders, and field employees are unaware of its content. Through the employee survey, 29% responded they were unaware of the manual, while only 20% of the respondents affirmed their contribution.

As an annual review and follow-up edit to the manual, Department leadership should further solicit and employ participation from employees and all levels of the organization. This method of review and update will foster buy-in and a shared strategic focus from all internal

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

stakeholders. Further, SPTO may seek to use input from other external stakeholders to enhance the document.

4.1.6. Report the progress and accomplishments of the Department’s goals and objectives in the annual “State of Maintenance and Operations Report” provided to the Public Works Administrator, Mayor, and City Council.

Published in the Department Manual and through Memo #SPTOM20-144, the Director has documented twelve (12) aggressive goals and objectives assigned personal responsibilities. Some of these goals include the implementation of Process Improvement Teams (PIT) and a Cross Training Rotation Program. While the memorandum and section of the Department Manual reference these goals, their completion status is unknown or not communicated to the broader group of departmental employees.

The Department Director and senior leadership should report on the progress and accomplishments of the Department’s goals and objectives. In addition, the status should be registered to all employees through the quarterly meetings by each assigned lead. Further, this update should be placed in the proposed annual “State of Maintenance and Operations Report” along with being provided to the Public Works Administrator, Mayor, and City Council. These steps can help promote accountability to Department staff and external stakeholders.

4.1.7. Fully configure the WAMS/WACS databases to the needs of the SPTO Department, including the subgroups of their divisions. Include direct input for the sub-groups of stormwater, pavement, and traffic.

The WAMS was implemented in 2007 and utilized for approximately ten years as the primary CMMS for the Water Resources Department. However, it was only recently implemented and utilized in 2019-2020 by SPTO.

While the WAMS is sufficient for the Water Resources services, it lacks complete configuration for street, traffic, and stormwater infrastructure for SPTO. These functions require information and structure on activity, performance metrics, resources, locations, assets, and accomplishment. This lack of development for SPTO has impacted the usage, accuracy, and relevance of this system. The data collected has minimal use in making management decisions and is mainly used for tracking external service requests.

The City should fully configure the current WAMS and future WACS database, which is 1-3 years away from completion, to meet the needs of the SPTO to the sub-group level. This would contain work directed at the Supervisor and Foreperson levels, which includes –

- Stormwater Operations
 - Line Clearing & Aquatics
 - Shallow & Deep Construction
 - Seawall Construction
 - Mini-Mowing
 - Hand Ditch Construction
 - Street Sweeping
 - Equipment Services

Stormwater, Pavement, and Traffic Operations Department Management Evaluation

- Stormwater Quality
 - Stormwater Quality Maintenance
 - FDOT Landscape / Litter & Debris
- Pavement
 - Asphalt
 - Alleys & Brick
 - Concrete
- Traffic
 - Signs & Markings
- Traffic Signals and devices

A more significant and complete configuration will equip the leaders and managers of the Department with standard tools for monitoring efficiency and making any organizational change based on historical system data in their specific functional area.

4.1.8. **Fully implement the WAMS/WACS and related system management tools, allowing all levels assess to the system. Use WAMS/WACS data for work management, which includes the ability to plan, organize, schedule, monitor, and improve operations.**

The use of the WAMS varies between the Department's operational groups. For example, through the Leadership Survey posed the statement "The WAM system is useful to me for planning and scheduling work," 55.5% of respondents answered *Strongly Disagree* or *Neutral*. Related to a similar question, the following statement was posed, "I review a WAMS output every _____ to help me make better work decisions," 66.7% responded *Weekly*, while 33.3% responded *Never*. Also, during the solicitation of feedback for employees, it was shared that some lead workers have limited access to areas of the WAMS that they could use to follow trends in the work they perform and measure historical work accomplishments.

Additionally, accomplishment is tracked in various locations within the WAMS, including the notes section. This makes it difficult to compile work accomplishment efficiency data. When the accomplishment field is used, often different measurement units are selected for an activity making productivity and unit cost very difficult to compile. Also, though most employees in the survey (86%) indicate that they understand how to track their work in the system, accomplishment is accounted for only in a small portion of the daily entries and when recorded is often logged inconsistently.

The current WAMS and future WACS are the systems of record and management tool for the tracking of maintenance and repairs performed by the Department. Both the current WAMS and future WACS databases should be configured to properly allow for the appropriate access of information for administrative and field leaders. This can be performed through appropriate security protocols such as read-only, read-write, and read-write-delete. All leaders should have the ability to use the work management system as a tool for planning, organizing, scheduling, and monitoring the use of resources. All this to collectively pursue operational improvement based on actual production data. Without proper training and access to the data collected by operational supervisors and managers, the system produces little value beyond what a simple service request could provide for tracking complaints.

4.1.9. Fully utilize the capabilities of the City’s GIS database and information as a tool for dynamically planning and organizing work.

Several similar benchmark agencies use GIS as a critical tool for each phase of maintenance management, including planning resources, levels of service, scheduling, and monitoring productivity. They use the database’s capabilities to organize resources, establish preventative maintenance routines, and monitor work accomplishments.

SPTO primarily uses the City’s GIS mapping capabilities and data to create static maps, as with the maps included in the Department Manual. However, the Department currently lacks the full utilization of the City’s GIS database for analysis and planning.

The Department should fully exploit the capabilities of the City’s GIS as a tool for planning, organizing, and analyzing work through the use of dynamic data-driven information. For example, similar benchmark agencies have dynamically linked their GIS database with their maintenance management tool using outputs from both systems to effectively communicate plans and work accomplishments to their internal and external stakeholders.

4.1.10. Identify or obtain a WAMS/WACS and GIS power user to provide operational and technical support. This user must have an intimate knowledge of the department’s mission and operational functions.

The capability of the users of the WAMS database found in the Department varies, with some groups integrating the system with their daily work processes and others using the system to track portions of their work accomplished. The WAMS is supported by the staff of the Water Resources Department, who are knowledgeable of the automated system and have experience in retrieving data out of the system. Further, the GIS system exists yet is utilized by only a few SPTO leaders, which is only in very basic functionality.

Many of the functions being performed by the SPTO Department have specific technical nuances and require some operational background in stormwater, pavement, and traffic maintenance and operations. Therefore, the daily interaction and system integration with work processes are paramount for GIS system success and full functionality.

SPTO should identify or acquire a “power user” within their department to provide operational and technical support of the current WAMS and future WACS databases and operational functions of the City’s enterprise GIS. This user should be the point of contact and work closely with the Department’s senior leadership in fully utilizing the available automated systems and tools to promote consistency and data accuracy. Finally, specific goals for the implementation of these capabilities should be identified and specifically outlined for the selected power user.

4.2. Planning

4.2.1. The Department should share appropriate resources across all Divisions including labor, equipment, and supervision.

Each of the three primary groups of Stormwater, Pavement, and Traffic Operations operates independently with little involvement in their work functions with little overlap. The assistance

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in work of employees between groups does occur to some extent through promotions, participation in City special events, and emergency response.

A process needs to be established to readily share resources among groups, such as equipment, basic labor support, and traffic control. Specialty groups that perform traffic signal maintenance and herbicide application may be challenging to include in this resource-sharing effort, yet there are several other areas where this effort will be possible. These groups should support each other with cross-training to allow for increased resource capabilities and open opportunities for employees. All work should be appropriately accounted for in the WAMS system and accounting and tracking, especially for work in specific fund categories such as stormwater, FDOT, and contract support.

4.2.2. The Department should implement an approach that allows for all resources to report out of one location.

SPTO staff, materials, and equipment are staged out of two primary locations. These include the Water Resources Administrative Complex, located at 1650 3rd Ave N., and the Pavement and Traffic Operations at 1744 9th Ave N. The first location is the primary staging location for Stormwater Operations, the Department Director, the Department's support staff. The second location is the primary staging location of staff, materials, and equipment for Pavement, Traffic Operations, and Water Quality. In addition, the City has a 6-year, \$35 million CIP project to combine the two facilities into one along with a myriad of Water Resources facilities improvements that are planned in a five- to six-year timeframe.

The implementation of this improvement is warranted to promote lower operational costs, the availability and exposure of leadership to all department staff, and the potential of additional resource sharing. The City should continue to pursue and fully fund the CIP plan of developing a one-site location for the SPTO Department and Water Resources as it has multiple efficiencies and effectiveness values.

Further, efforts should be made in the interim to unite the groups in SPTO by management expending office time in both locations and creating opportunities to share equipment, labor, and materials resources.

4.2.3. Establish a process along with responsibilities for consistent and accurate asset inventory updates to compile and summarize data for functional application. Identify a process and departmental point of contact that verifies the values provided to produce the City's Annual Comprehensive Financial Reports (ACFR) and any other published documents, to promote consistency and accuracy.

The City reports several asset classes, functions, and programs within its Annual Comprehensive Financial Report (ACFR). Figure 3-7- ACFR Asset Inventories reported reflecting a wide range of changes over the past ten years, some are significant. Over the past five years, staffing of the Department has increased by 18%. Over the past ten years, storm pipes increased 26%, and catch basins increased by 5%. In contrast, grate inlets decreased by 31%. This reduction of an asset type appears to be questionable as no other data was available to verify such a large change and casts doubt on the accuracy of the different asset data. Finally, the staff that is responsible for updating these values for Finance does not appear to reside in SPTO.

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The SPTO Department, in coordination with the authoring City Department, should develop a standardized and repeatable process for consistently and accurately reporting and updating asset values in the ACFR and other published documents. The reporting of consistent and accurate data will allow the Department and other stakeholders reliable information to base asset trends and analysis along with other external interests and stakeholders to have a precise portrayal of City assets.

The City's ACFR provides statistical data of asset inventories, which come from many sources. Several reported data inventory values do not match those of the SPTO's data records. Further, the SPTO staff are unaware of the data sources provided or who supplies these inventory values.

Several similar benchmark agencies standardize the sourcing of data provided to create the agency's certified reporting documents. These agencies use historical ACFR data as a confident source of information for performing trending analysis of operations, projecting resources needs, and calculating levels of services if the information is appropriately tracked and recorded.

The Department should develop and implement a process of validating and verifying the values provided for the City's Annual Comprehensive Financial Reports (ACFR) and any other published documents. An SPTO Department point of contact should be identified and responsible for supplying this information to promote consistency and data accuracy. Any noted irregularities of the assets data should be corrected and documented for historical reference.

4.2.4. Confirm the validity of 1,033 street segment conditions of all PCI values below forty, reporting to the Public Works Administrator on the results.

The City has 890.2 total miles of streets, with 99% having an asphalt surface. Nearly 24% or just under 214 miles of the asphalt roads are rated as poor or below according to the Pavement Condition Index (PCI) from City's Pavement Management Program (PMP) for each road segment. The rest of the roadway network has 25% are in fair condition, 22% are satisfactory, and 29% are in good condition scale used in the PMP.

The average rating of all asphalt streets is 68.4 out of possible 100, which is in the higher range of the Fair category scale used in the PMP. The City should confirm the validity of the street segments that have reported PCI ratings of below 40 as some appeared to be questionably low. Additionally, Public Works and SPTO should also establish a benchmark condition range rating for their paved road network. The PCI results should be compared against this benchmark and reported to the Public Works Administrator, SPTO Director, PTO Manager, and Pavement Supervisor with actions taken to maintain, enhance and/or improve.

4.2.5. Establish a level of service for alley maintenance efforts to meet the needs of internal and external stakeholders using available resources. Stakeholder input from the Sanitation Department and alley adjacent homeowners should be considered.

There are almost 229 miles of alleys in the City – approximately 81% of which have sanitation routing provided by the City's Solid Waste Department, which is a major stakeholder of this asset class. Most of the alleyways are 12 feet in width and the highest alley mileage is located within more established and urbanized population centers.

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As the City's alleys are a major asset class of the Department and impact both internal and external stakeholders, as well as one of the Department's documented goals, the Department should establish and document a level of service (LOS) for alley maintenance. This LOS should be a key element in calculating the performance-based work plan and budget for this activity. The Department should solicit and include feedback to meet the needs of internal and external stakeholders, such as the Sanitation Department and alley adjacent homeowners. When determining the LOS for this activity, the Department's available resources should also be considered.

4.2.6. Fully evaluate the complete cost of providing ROW maintenance. Determine the total and unit cost, use all labor with an applied avoidable overhead, equipment, and material costs and apply to all properties (City, FDOT, Private, and County) maintained.

The SPTO Department is responsible for mowing and maintaining right-of-way areas, which total approximately 704 acres, with some of the area accomplished on a contract basis for the State and County. The City maintains 311 acres owned by the City, twenty-one (21) acres are owned by the County, 301 acres are owned by the State, and thirty-five (35) acres are designated as private. Some of these private acres include a ditch at 17th Way N and 78th Ave. N to 83rd Ave. N, a playground at Bay Point Elementary School, and a right-of-way at Oak St N / 105th Terrace NE to Gandy Blvd N.

High-performance organizations (HPOs) use their maintenance management program as a tool to plan work accomplishment through creating annual performance work plans, track and record all resources used, such as labor with applicable overhead rates, equipment hours and rates, materials, and work accomplishment. They also use outputs to systematically monitor unit costs and productivity against the annual performance work plan.

Using this methodology, the Department should thoroughly evaluate the total cost of providing maintenance in each owner data type. A total and unit cost should be determined using all labor with an applied avoidable overhead, equipment, and applicable material costs.

4.2.7. Compare the cost of service to the revenue received from performing ROW maintenance for others. If the cost substantially exceeds the revenue, a determination should be made in obtaining additional revenue and or reducing service. Provide results to executive leadership to ensure that these contracts are acceptable.

The Department is mowing and maintaining right-of-way areas throughout the City. The City owns approximately 311 acres, and others own an additional 357 acres that require this ROW support. This includes Pinellas County, the FDOT, and others. Of the 357 acres maintained for others, 301 acres are maintained for the FDOT through a subcontract with Ferrovia Services Infrastructure Inc. Ferrovia Services is the primary contractor for maintenance with the FDOT. In addition, the City has entered into an agreement with Ferrovia Services Infrastructure Inc. to provide roadway sweeping, various roadway repairs, and other services on selected state roadways in Pinellas County. This contract is valued at \$411,300 annually. The City has also

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agreed with Ferrovial Services to provide sweeping services and specific sections of the Crosstown Expressway. This contract is valued at just under \$100,000 annually.

While it is difficult to determine the actual cost of fulfilling the scope of these agreements as SPTO labor, equipment, and material records are not fully tracked to these contracts, it appears, using rough budget values, that the total cost incurred by SPTO substantially exceeds the revenue generated. Plus, this subcontracted work is done on higher speed roadways where several accidents have occurred with City equipment impacting SPTO employees in which the City bore the cost.

In all cases, the Department should consistently track all costs to include labor and applicable overhead, equipment, and materials in meeting the contractual agreements with others. Once consistent data is collected, a cost comparison should be made, comparing the cost of service to the revenue received. If the cost substantially exceeds the revenue, a determination should be made to obtain additional revenue by negotiating with Ferrovial Services and FDOT or reducing service or, at a minimum, providing executive leadership the cost that this service for other facilities is costing the City.

SPTO should provide cost analysis results to executive leadership with assistance from other departments such as Audit and Finance. This decision should be an executive, not departmental decision if the City is willing to pay a higher cost to provide an increased level of service on facilities within the City that are owned by others.

4.2.8. Perform National Bridge Inventory (NBI) level structural inspections on the same frequency to all non-NBI structures in the City’s bridge inventory.

The City owns eighty-one (81) bridges, with 28 having less than 20 feet, which is considered a non-National Bridge Inventory (NBI) bridge. The remaining 24 bridges have a span over 20 and up to 30 feet, and 27 have a span greater than 30 feet. The average “life expectancy” for these bridges is approximately 26 years.

The federal government requires the state of Florida to conduct the complete inspection of all NBI bridges every two years, supplying the maintaining agency a copy of the reports which list the rating of each bridge and its components.

Like several similar benchmark agencies, the City should develop and implement a program of inspection for their non-national bridge inventory (NBI) structures on the same schedule as the state for the NBI structures. This will ensure the City’s non-national bridge inventory assets are inspected similar to the frequency and to the measure of those found on the national list, maximizing the useful life of the asset class.

4.2.9. Use facilitated employee teams annually to establish and update standardized activity lists, definitions, and work units for benchmarking of all maintenance and repair activities.

While the Department has developed and published twenty-four (24) formal standard operating procedures (SOP), as well as several similar department policies related to specific repair and maintenance activities, each functional group should further develop a list of specific, well-defined activities which are understood and communicated to all employees. In addition,

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employee teams with supervisor facilitation support should be used annually to identify key actions and associated work units for their respective groups.

A combination of historical data, institutional knowledge of staff, and industry benchmarks should be utilized to accomplish this effort. This concept should be applied by employee teams working independently in the following years to annually configure, refine, and update to match the current working environment and mandated required work and related processes.

4.2.10. Establish levels of effort by activity for each asset type based on condition along with established minimum levels of service based on available resources and cost.

Actual levels of effort (LOE), whether quantitative or qualitative, are not known for activities performed by the SPTO. Due to the lack of established LOE, work is performed without understanding whether specific overall service goals are being achieved.

As outlined by APWA (American Public Works Association, 2008), a good business practice is to define levels of service by the individual maintenance activity the Department desires or is required to achieve and then allocate the related resources.

The work effort in production units for the year can be determined by knowing the number of assets to maintain and the frequency of each activity. These units are the basis of information needed to perform an estimate of the resources required to perform the work and are a critical element of preparing a performance-based budget by activity.

The LOE should be established by activity and policy for all infrastructure assets. This would allow each operational group to develop specific performance-based work plans and provide direction to supervisors and forepersons in their use of resources.

Establishing specific maintenance and performance goals allows for the development of service levels, which helps determine the funding and yearly service projections. The effort levels and performance goals can be adjusted to reflect population growth, mandates, and rising customer expectations. Optimal routine maintenance cycles improve the quality of assets, reduce the need to perform response work, and help minimize life cycle costs.

There is a cost-benefit trade-off that must be determined of the cost versus the service being provided. Benchmarking to others can assist to determine this value, but it should be a combination function of the community's desires and the effort to optimize asset life.

The Department should establish specific LOE for each activity and then, through the budget and resource process, determine specific cycles that would be achieved. A process should be established to monitor status to assure compliance and understanding of shortfalls for actions planned.

4.2.11. Define performance guidelines and related measures to the annual plan utilizing facilitated employee teams and store results within the WAMS/WACS. Include the planning criteria of average daily production (ADP) and the related asset inventory values.

While the Department has developed and published twenty-four (24) formal standard operating procedures (SOP), as well as several similar policy memorandums developed in the last two

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years, currently general work method and quality expectations are verbal or uses from the employees' experience for the maintenance and repair activities. The performance standards should be modified and enhanced through facilitated employee support and then defined as guidelines. They can then be used daily and to include associated planning criteria of average daily production (ADP) and the related asset inventory values. These tools would assist employees and management in understanding the tasks that are to be performed and provide guidance and expectations (APWA, 2008; 2011).

Each activity guidelines guideline should include –

- An activity definition
- Criteria to be used for work identification and planning
- The mix of resources required, including labor, equipment, and materials
- The general method and steps to conduct work
- Expected daily productivity or average daily production (ADP)
- Work quality expectation or what should the outcome be after the work is complete

This information should serve as a baseline and resource for all of the work planning and provide the additional benefit of common terminology and a device for training. Most importantly, guidelines can be used as a tool for continuous improvement. The establishment of an annual update process of new methods, technology, and processes should be considered as part of the guideline improvement process each year.

The guidelines would also serve as a basis for comparison and benchmarking to determine how various decisions impact efficiency and allow for staff input in the work process. Therefore, the guidelines should be made available to all employees and annually describe how they will be used and the intent of their use in work planning.

4.2.12. Establish the capability of developing a performance budget based on the level of service, asset inventory, productivity, and work methods with a quality standard for each activity. Use the established performance plan as a tool to develop a budget based on actual needs. Provide annual performance plans to the Public Works Administrator and City Leadership.

The Department should establish a process to allow each group to produce an annual performance-based work plan and budget based on anticipated work performance. A performance-based work plan and budget allow planned dollars to be directly linked to the quantity and quality of work budgeted (Balanced Score Card Institute, 2014).

The work program should be established for each organizational unit by activity and include inventory, level of service, productivity, and required resources. Also, each outcome (traffic light serviced, linear feet of lines cleaned, or linear feet sidewalk removed and replaced) should be linked to a quality standard. For example, develop a specific goal of sidewalk replacement to be performed and establish a budget based upon the actual maintenance performance. The

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performance budget would establish accountability and is a good business practice, ensuring work is planned based on a desired measured outcome.

Seasonal variations may occur for some activities, which are a function of weather, special events, or community schedules. The performance plan should be adjusted to account for these variations in workload and resources, which should be planned accordingly. An opportunity may exist for the utilization of temporary or contract support during peak workloads.

This effort will also produce a work calendar, which quantifies the number of work units planned each month and needed resources. This allows for major activities and routine work to be broken down into manageable amounts for both scheduling and coordination.

Once the performance plan is complete, it should be provided to senior leadership, executive leadership, and elected officials communicating the utilization of available resources for the year. This establishes accountability, as well as educates leadership on how resources are being used.

4.2.13. Use facilitated employee teams to develop specific goals and objectives for each sub-group, which include quantifiable performance measures and links to the Department's guiding principles.

Minimal tools and data parameters are in place for employees to measure performance and maintenance costs or evaluate field performance, which would allow them to take proactive management actions based on the identified inefficiencies.

The tools and processes that are now in place are manual-tracking processes that research after-the-fact accounting for past occurrences. Thus, performance planning, internal benchmarks, and associated accountability are missing. Further, the Department also lacks specific key performance measures used to monitor and routinely report on effective and efficient operations.

4.2.14. Link work recorded in the WAMS/WACS to the Department's Budget Performance Metrics. Report the status and progress in achieving production goals monthly to the Public Works Administrator. Act as the primary source of information to be provided to those who prepare the annual budget documents reporting metric values.

While it appears that the SPTO desires the effective and efficient delivery of service, their operational performance metrics lack automated linkages to their annual budget and budget performance metrics. Instead, tracking performance measures is primarily accomplished through manual processes with various sources and independent calculations. Several similar HPO agencies directly link performance measures with their budgets to promote accountability and transparency of expenditures to quantifiable measures.

The Department should develop and implement a process of linking work recorded in the current WAMS and future WACS to the Department's Budget Performance Metrics. These metrics should be monitored internally by the Department's senior leadership, and the status and progress reported to the Public Works Administrator monthly. This process and status should act as the primary source of information to be provided to those who prepare the annual budget documents reporting metric values.

4.2.15. Determine the need for providing non-traffic sign fabrication services and ensure all costs for that service are recovered, including labor and overhead, equipment, materials, and storage. Consider discontinuing this non-traffic and departmental support unless full cost recovery occurs.

The primary objective of the Traffic Sign Fabrication and Traffic Sign Installation Division is to inform motorists and pedestrians of traffic regulations or information by sign installation and maintenance. The Budget includes two performance measures – the number of ‘Signs Installed/Replaced’ and the number of ‘Signs Fabricated.’ It appears that sign fabrication outpaced traffic sign installation in the last two years. Traffic sign installation is for the installation of new street signs or their replacement.

Although the reported numbers for these metrics may be questionable, the City should determine all costs to include labor and overhead, equipment, materials, and storage using data from the current WAMS and Future WACS of sign fabrication. If the decision is made to continue to provide non-traffic sign fabrication services to others, the Department should ensure all costs for that service are being recovered. This requires enhancing reporting all-time, equipment, materials, and overhead to all non-traffic sign work, and the appropriate department/group is charged for that service.

4.2.16. Determine and use avoidable overhead in the WAMS/WACS for work costing and outsourcing consideration. A full overhead rate should be used for external billing and reimbursement. Further, develop an annual process to update the rates and educate management and leadership of their application.

As previously recommended by the City Auditor, the SPTO Department should establish a repeatable process of determining overhead rates to be applied to labor rates. The Department should establish an avoidable overhead rate for internal cost comparisons and use it for outsourcing determination (Martin, 1993). Applying this rate allows true cost analysis, benchmarking, and other comparative analyses concerning direct maintenance and repair costs. This rate should also be used as the default value in the current WAM system and future configuration of the WACS.

A second rate should also be determined for a full overhead allocation to consider the costs related to all aspects of the Department that includes various fees, administrative salaries, insurance, professional services, and rents/leases. This rate should be applied to work conducted for other agencies, citizens, or external groups to recoup the Department’s full costs of performing work. These rates should be reviewed and updated on an annual basis.

4.3. Organizing

4.3.1. Establish a goal of each Manager being credentialed as a Certified Public Works Professional-Manager (CPWP-M) and each Supervisor credentialed as a Certified Public Works Professional-Supervision (CPWP-S) through the American Public Works Association (APWA). Establish these goals to be completed by October 1, 2022.

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While each manager and supervisor bring the strengths of practical experience, most lack the lengthy time in their current roles to develop the specific skills of systematically planning, organizing, directing, and controlling resources as well as system tools that are in place. The training and development of these foundational skills are critical in the ideal maintenance management process to provide a good foundation for new leadership and supervisors to become fully functional leaders. Additionally, the employees indicated some concern in that only 32% of employees in the employee survey showed they had confidence that management could lead their Division. Further, over ¾ have been in their roles less than two years, most of that during the Covid time frame.

As the primary industry organization, the American Public Works Association (APWA) has developed and offers several certification programs to promote excellence leading to an improved workforce and improved delivery of services. They currently provide a Certified Stormwater Manager (CSM), Certified Public Works Professional-Supervision (CPWP-S), and Certified Public Works Professional-Management (CPWP-M). Now, the SPTO Department Director holds a CPWP-M displaying the value to the organization.

Each credential has specific education, experience, and application process requirements to promote the advancement of particular leadership and supervisory skills. A goal should be established where each manager should be credentialed as a Certified Public Works Professional-Manager (CPWP-M), and each supervisor credentialed as a Certified Public Works Professional-Supervision (CPWP-S). A goal should be set for October 1, 2022, for certification.

Obtaining these will require self-study and guidance by the Director and should enhance each manager and supervisor skill set and demonstrate all their capabilities to be in their positions. Further, it also increases their value to the organization in general and reveals to others the department's professionalism.

4.3.2. Conduct annual independent review (City Auditor or Human Resources) and or survey of interactions, communication, and feedback between the SPTO Director, senior leadership, and all levels of the organization. With the results, the Director should compile an action plan to address any concerns and submit it to the Public Works Administrator.

There are four levels of leadership below the Director to the lowest level in the organization. These levels include managers, supervisors, forepersons, lead workers, and reporting employees. The Director's span of control is 1:7. Communication has been impacted between this high number of leadership levels, the number of employees, and the COVID-19 influences. The Director and the senior staff have needed to depend on lower leadership levels in communicating existing and newly created policies and procedures. The employee survey returns also indicated that generally, employees believe there is a lack of communication and availability between the Director and field employees.

To address and monitor this concern, an annual independent review or survey by the City Auditor or Human Resources should occur. The tool should measure the interactions, communication, and feedback between the SPTO Director, senior leadership, and all levels of the

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organization. From the results, the Director should compile an action plan to address any concerns and submit it to the Public Works Administrator.

4.3.3. All supervisors and managers should be trained on management skills to be updated annually, as well as on the methodology and capabilities of WAMS/WACS and GIS. This should be a requirement of promotion and part of an employee's annual review.

The WAMS system has been selected to manage operations, yet less than 23% of all labor is now being captured, and supervisors and management utilize minimal system outputs for decision making. While being generally understood, GIS is not fully applied by managers, supervisors, and forepersons. Both of these tools and the future WACS are critical tools for the leadership and management of resources, as well as planning, executing, and monitoring work.

Leaders and managers should have a basic operational understanding of the current WAMS system, future WACS, and increased utilization of the City's GIS database. This understanding and utilization should be a requirement for promotion to supervisor or manager positions. Also, utilization of WAM/GIS and future WACS for decision-making should be an element of managers, supervisors, and the lead person's annual review.

4.3.4. Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented, and all traffic staff time is being recorded by activity.

It appears that the Department's staff to maintain traffic signals is slightly lower than the average benchmark data. The LAC benchmark agency average is .41 staff per 10 signals, where the Department is approximately .3 per 10 signals.

This high-level metric does not lead by itself lead to a specific conclusion. After the Department begins and records consistent work management and production data, a staffing analysis should be performed to determine if the critical preventative and proactive activities are being completed for all signals that SPTO is responsible for.

It is essential to gather labor and overhead, equipment and materials resources, and work accomplishment data. This information will allow the Department to establish a performance standard for developing an annual performance plan and budget and a reportable performance metric for the traffic signals group to determine if staffing matches the desired service levels.

4.3.5. Managers and Forepersons should have three (3) or more direct reports or provide a documented justification for a lower span of control ratio, approved by the SPTO Director.

The span of control for all but one Foreperson has a low span of control, most having a span of control of 1:1. These will low spans include the Asphalt Foreperson, Sidewalk Foreperson, the Alleys & Bricks Foreperson, and the forepersons of Line Clearing & Aquatics, Shallow & Deep Construction, Seawall Construction, Mini-Mowing, and Hand Ditch Construction. In contrast, the Foreperson of Street Sweeping and FDOT Sweeping has a high span of control yet appears adequate based on the tasks of these direct reports which are scheduled repetitive work, with very little need for direct supervision.

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A range of 1:4-8 is a typical desirable benchmark and good business practice for this management level unless direct reports need increased supervision or consistent direction and communication, where a low ratio should be considered. Higher levels are acceptable when little day-to-day supervision is required, such as in the case of the Department's Sweeping group with repetitive routine tasks.

As a good management practice and effective use of leadership, all leaders should have three (3) or more direct reports. For any variances to this target benchmark, a documented justification for a lower ratio should be provided and approved by the SPTO Department Director. Often there are cases where lower spans make sense yet should be justified.

4.3.6. Establish a formal proactive process of field visits by the Department Director and Managers. This is to observe work efforts, promote communication, as well as provide senior staff availability to all levels of the organization. Establish and formalize the goal of visiting each sub-group at least once a year.

Communication concerns at various levels are perceived through the organization as shown in both surveys. For example, the employee survey results in employees generally indicating a belief that there is a lack of communication and availability between the Director and field employees. Additionally, only 32% of employees in the employee survey indicated they had confidence that management can lead their Division. This may have been compounded during the Covid-19 timeframe, where managers often worked virtually while operational employees maintained a regular physical work environment.

To address this concern and apply a form of Management by Walking Around (MBWA) (Mears, 2009), the Department Director and Managers should establish annual goals of proactively performing field visits to each of the Department's sub-groups or their respective divisions sub-groups. The purpose of these visits would be to observe and further understand work efforts, promote communication, as well as increase interaction opportunities between senior management and field employees, providing availability to all levels of the organization. These visits would assist the leaders in gaining first-hand knowledge of their employee's state of morale and allow for the understanding and implications of directives impacting front-line employees.

4.3.7. Establish a systematic methodology for connecting with employees to obtain unfiltered input and real feedback through quarterly meetings.

The lack of involvement and understanding are other issues identified from the employee surveys and LAC interviews. The LAC survey indicated that senior management has a perceived problem of lacking in communication with employees and not creating an open work environment. The employees also expressed a lack of confidence in management's ability to lead the Department through the survey.

Senior management needs to reach out to all employees on a routine basis. Establish a quarterly meeting where senior management (The Department Director and the Public Works Administrator) can receive unfiltered direct input from employees and then transparently discuss identified common issues. Once the concerns have been presented and identified, management should outline actions to address each issue or explain their understanding and consideration.

4.3.8. Develop and implement a sign reflectivity inspection program and replacement process to meet FHWA design to maintain traffic sign retro-reflectivity at or above the established minimum levels. Systematically report inspection program progress and results to the Department Director, Public Works Administrator, and through the Department's annual "State of Maintenance and Operations Report."

The Department is responsible for repairing and maintaining approximately 60,900 signs, with about 9,500 being stop signs. Regulatory signs comprise the most significant number of signage, followed by directional signs, parking signs, and warning signs. Unfortunately, through a combination of field reviews, observations, and interviews, it appears the systematic process of sign reflectivity inspections and replacement following State and Federal suggested guidance lacks adherence.

As referenced by the U.S. Department of Transportation, Federal Highway Administration, the basic concept of an assessment method is that the condition of each sign is assessed or evaluated periodically. While the MUTCD does not set specific intervals, they recommend agencies assess their signs every one to two years. In addition, public agencies or officials also must maintain sign retro-reflectivity at or above minimum levels found in the MUTCD (U.S. Department of Transportation: Federal Highway Administration, 2009).

While MUTCD does not set a specific interval, the City should develop and implement a sign reflectivity inspection program and replacement process to meet FHWA designed to maintain traffic sign retro-reflectivity at or above the established minimum levels. They should consider following the recommended inspection frequency every two years. Through this methodology, a systematic process of reporting the programs' progress and results should be reported to the Department Director, Public Works Administrator, and through the Department's annual "State of Maintenance and Operations Report."

4.3.9. Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented and all signs and marking staff time are being recorded by activity.

The Department's sign staff benchmark of staff per 1,000 signs is slightly lower than LAC's average benchmark value. The LAC benchmark average is .14, where the sign staff per 1,000 signs is .11. This is somewhat lower than the benchmark average.

While this high-level metric does not by itself lead to a specific conclusion but shows that sign maintenance staffing is in the general lower range of other agencies. After the Department begins and records consistent work management and production data, a staffing analysis should then be performed. It is essential to gather labor and overhead, equipment and materials resources, and work accomplishment data. This information will allow the Department to establish a performance standard for developing an annual performance plan and budget and a reportable performance metric for the signs and marking group. This analysis can help determine if the basic proactive maintenance practices are being done of inspection, cleaning, replacement and then determine the appropriate staffing to meet the desired service levels.

4.3.10. Work shifts should be established based on specific work needs. The number of shifts should be standardized. An external evaluation on the benefits to the City

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should be conducted with employee team involvement, documenting the negative and positive benefits. The Department Director should review and approve all schedules and shifts.

In response to COVID-19 and to address the operational and maintenance needs of the Department, twenty (20) different schedules were established over twenty-one (21) groups. This, along with the levels of management, communication, and accountability, was potentially impacted. More recently, the Department's working groups have reportedly moved to the eight (8) shifts, with the majority of SPTO crews working 7:00 am to 3:30 pm, Monday through Friday. In addition, some Stormwater Quality and Traffic Signals employees work other various shifts. This results in some employees working while their direct supervisor is not working in the same timeframe. In the survey, 36% of the employees stated that their immediate supervisor could not communicate specific goals, objectives, and expectations, which may be a partial result.

All working hours should be based on what is best for the City, with some employee considerations that allow retention and recruitment. Working in the Florida environment involves high temperatures and humidity in the summer and shorter days in the winter. This results in crews working at twilight and during peak traffic periods, which further impacts work. Crews that work longer hours can negatively impact productivity (Lorick, 2012). It is possible schedules could vary for some groups depending on what their job entails and the needs of the City. All shifts should be standardized as logically possible and aligned with the lead person and supervisor's schedules. The Department Director should approve all schedules.

4.3.11. The Traffic Signals group should use a single shift or provide economic justification for a second shift. The third shift should be eliminated. The Department Director should review and approve all schedules and shifts.

The Traffic Signals Group has four (4) different shifts, including one used only by the Signal Coordinator. The first shift runs from 6:45 am to 3:15 pm, focused on response and PMs. The second shift runs from 3:15 pm to 11:15 pm and focuses on YFI 100, illuminated street signs, and senior technicians. The third shift runs from 11:15 pm until 7:15 am, overlapping with the first shift. The Signal Coordinator's schedule is from 6:00 am to 2:30 pm.

While the group uses this blend of schedules, the rationale for the second and third shifts lacks documented justification. Only a few similar benchmark agencies utilize a second shift, and LAC lacks any documented experience of agencies with a third shift to maintain and repair traffic signals.

This group should use a single shift or provide economic justification for a second shift. The third shift should be eliminated. All after-hours responses should be addressed through an on-call process, and special needs should be addressed through temporary shift variances. The SPTO Manager and Department Director should review and approve all schedules and shift variances.

4.3.12. Track, compile and establish benchmarks for Worker's Compensation, FMLA, and leave without pay by sub-group. Review during monthly meetings and report annually to employees, the SPTO Director, and the Public Works Administrator. Calculate and report leave hours in full-time equivalents (FTE).

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A key to accomplishing work and providing value to the Department's stakeholders is employee availability. Workman compensation (WC) and the Family Medical Leave Act (FMLA) provide employees with benefits for leave from work that can affect work planning and production. Over the last five years, the Department has averaged 3,539 hours of Workers Compensation or almost two (2) FTEs. FMLA is the highest it has been in five years, at 3,470 hours or just over 1.5 FTEs. Another factor in resources availability is the use of leave without pay. In the same period, the Department averaged 611 hours.

These three measures impact work accomplishment, budgets, and staffing. As well as leadership's ability to plan based on a stable workforce. The Department should establish benchmarks for these leave categories by Division and sub-group, with monthly monitoring for accountability and measuring their impact. The impact of these values and adherence to goals should be evaluated and reported to the Public Works Administrator monthly in full-time equivalents (FTE).

4.3.13. Utilize the Department's Safety Officer to systematically monitor and report the application of traffic control devices by field staff. Include non-compliance reporting to the SPTO Director. Charge the Safety Officer with tracking and monitoring of all safety-related training, providing data to be reported monthly and in the Department's annual "State of Maintenance and Operations Report."

Each of the developed and documented activity SOPs references appropriate traffic control methods for temporary, moving operations, and longer-range projects. These methods include the use of workers ahead signage, staff to flag traffic, as well as traffic cone tapers and barricades when appropriate. The Department has also employed a Safety Officer specifically to monitor overall safety methods by employees.

While the Department's SOPs reference traffic control methods, it was discovered through observation to be minimally used. Further, the employee surveyed indicated that 36% believe traffic control is used inadequately, and 36% indicated that more safety training is needed.

Increased safety training should occur for all staff responsible for traffic control during maintenance and repair activities performed by the Department. In addition, the Department's Safety Officer should be utilized and charged with systematically monitoring and reporting the application of traffic control devices by field staff. Include non-compliance reporting to the SPTO Director and specific Manager.

As the safety of the public and workers should be paramount in the day-to-day operations of the Department, the Safety Officer should be charged with the tracking and monitoring of all safety-related training. This would include training in response to observed behaviors inconsistent and non-compliance with safety standards. The Safety Officer should also report his findings monthly to the Department Director and Managers, as well as annually in the Department's "State of Maintenance and Operations Report."

4.3.14. Track and monitor all traffic signal maintenance costs and productivity. Calculate and report the unit cost of each preventive maintenance routine performed and compare against an established benchmark. Determine if the total FDOT reimbursement covers the Department's resource costs to perform maintenance.

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The Traffic Signal group is responsible for 311 signals – the majority of which utilize LEDs for their signal indications. Of this inventory, 205 (66%) are owned by the City, and the Florida Department of Transportation (FDOT) owns 106 (34%). Through a contractual agreement, the City receives a lump sum payment of \$554,000 annually or approximately \$5,900 per signal from the FDOT.

Inconsistency exists in resource reporting, labor and equipment rates, and various work accomplishment values. This makes it difficult to calculate the total cost or unit cost consistently and accurately, or productivity of performing preventive and response maintenance for a traffic signal.

Using the current WAMS and future WACS, the Department should track all traffic signal maintenance costs, including labor and appropriate overhead, equipment, materials, and work accomplishment by intersection. The Department should calculate and report each preventive maintenance routine's unit cost and compare it against an established benchmark with this data. Further, the determination should be made if the FDOT total reimbursement covers the Department's resource costs to perform traffic signal maintenance for the FDOT assets. Finally, cost and labor hours for each signal by PM, response, and repair regardless of ownership should be determined and used as guidance for enhancement or replacement.

4.3.15. Establish equipment rates for each equipment class that includes all costs – repair, maintenance, fuel, & lubrication, and replacement. All ‘Out of yard’ hours for each piece of equipment should be tracked in the WAMS/WACS.

Equipment rate determination methods should be developed and documented for consistency, using all costs such as repair, maintenance, fuel and lubrication, and replacement. This is significant when determining the total cost of performing an activity (resource costs of labor, equipment, and materials). The actual cost of the operation could be distorted by using national FEMA rates that are not representative of the actual cost of ownership.

The SPTO Department should adopt the methods outlined in APWA publications (McCorkhill, 2008). Utilizing this method is helpful in many ways –

- Communication with customers – breaking down the equipment rate allows users to understand what the rate includes.
- Comparison with others – having rate components available can facilitate an “apples-to-apples” comparison with other agencies and service providers.
- Financial management – allows an agency to track revenues and match these against actual expenditures periodically.

In addition, the rates should be based on the number of hours that the vehicle or equipment leaves the yard and is staged and/or committed for a particular activity (out of yard hours). Also, if it is unavailable for other employees to use This measurement would be in addition to the operating hours of the equipment and the running time of the hour meter or mile meter. The current WAMS and future WACS should be utilized to track the “out of yard” hours for each piece of equipment.

4.3.16. Some equipment including the classes of Concrete Truck, Loader, Skid Steer, and Backhoe should be evaluated by February 1, 2022, as they appear to be low use. Eliminate low-use equipment unless warranted by some specific need.

A performance-based budget can estimate resource needs, including equipment needs by activity and/or group (APWA, 2008). Resource needs are based upon a series of developed activity guidelines, inventory values, and service levels. By first enhancing the plan and being more effective and efficient with work, the City can optimize the equipment needed. In addition, having the correct number of equipment units owned will save the City in unneeded equipment expenses by providing potential one-time salvage costs of those unnecessary vehicles.

Unit costs were calculated using equipment-related data for each piece of rolling stock, while some data is questionable, some critical equipment classes appeared to have low usage values. These classes included Concrete Truck, Loader, Skid Steer, and Backhoe.

The City should confirm and evaluate the annual hourly usage for these equipment classes by beginning to track all time when these vehicles are on the worksite in WAMS. This data could then be used to determine actual utilization as currently, there is minimal information being tracked in WAMS. These equipment classes appear to be essential to fulfill the Department's mission. The target date for this evaluation should be February 1, 2022. For those individual units found to be still in a low-use state, the Department should either eliminate the unit or justify its continued usage and report to the Director the rationale for retention.

4.3.17. Perform and establish an equipment utilization analysis of all rolling stock by October 1, 2022. Document process to evaluate needed units that are under-utilized based on industry standards. Eliminate low-use equipment unless warranted by some specific need.

As with the previous recommendation, a performance-based budget can estimate resource needs, including equipment needs by activity and/or group (APWA, 2008). Optimizing the number of equipment units needed to the equipment owned will save the City in unneeded equipment expenses with potential one-time salvage costs of vehicles that are not needed.

Initially, the City should initiate an annual equipment utilization analysis of all rolling stock equipment. The initial network-wide analysis should be completed by October 1, 2022. Next, the City should confirm and evaluate the annual hourly usage for all equipment classes. This analysis should also occur every year. Finally, the Department should either eliminate the unit or justify its continued ownership for those individual units in a low-use state and report to the Director the rationale for low use vehicle retention. This will require full reporting of equipment on the job site every day in the WAMS system so that data is available to make these decisions on the hours that the vehicles were used.

4.4. Directing/Scheduling

4.4.1. Define, standardize, and document priority procedures for all service requests based on need, safety, and risk to the public in the WAMS/WACS. Attempt to identify all non-emergency and safety work to be done at least two weeks in advance.

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Service requests and work orders are managed and processed differently within the Department, including assignment, monitoring, closure, and recording. Some groups use technology, such as laptops and tablets, while others use manual forms. The priority assignment for service requests and work orders are not defined and consequently handled differently by each group and dependent on the discretion of the group's leader.

The Department should standardize priorities based on specific needs, safety-related issues, and any risk to the public and infrastructure. Call takers should be trained and the Department to manage service requests consistently in a standardized and documented workflow manner. Assign items that do not pose immediate safety, liability, or public risk to a priority category to future efforts. Then integrate them with scheduling and group work by geographical area to allow for more efficient assignment.

4.4.2. Monitor, assign, and reduce the number of service requests in the status of Pending Approval, found in the WAMS database. Clearly define, use, and communicate the service requests statuses of the WAMS/WACS database.

Using City's WAMS database, an analysis of the status of service requests for the SPTO Department discovered that over 25% of the service requests were in a 'Pending Approval' status. Although this analysis was performed point-in-time, this value appears to be high. This means that over a quarter of the service requests in the WAMS are pending approval to create an associated work order. There are also seven (7) other statuses, including Finished, Work Order, Canceled, Active, Created, Closed, and Approved.

While the current work management database is the WAMS, the Department should monitor, assign, and reduce the number of service requests in Pending Approval status. In the WAMS and future WACS, the statuses should be clearly defined, prioritized, and communicated, reducing the transitional status categories. In addition, all work that cannot be done should be backlogged and the estimated workload generated used to determine any needed resource requirements.

4.4.3. Develop documented routine programs linked to GIS assets by key activities that are used for cyclical work and routines in support of stormwater operations, pavement, and traffic operations.

Many activities with related assets can be predetermined, grouped, and scheduled. Managers and Supervisors should focus on these activities and others by structuring as many activities as possible into defined routines. These routines should be documented with established levels of effort and linked to GIS assets and the current WAMS database and through the future configuration of the WACS. The Department should develop a documented routine program for cyclical work supporting all maintenance efforts and SPTO infrastructure.

These routines should be used within the current WAMS and future WACS as a basis for the annual performance-based work plan, distribution of resources, and the generation of proactive work orders from the system. The development and subsequent use of routines will aid managers and supervisors to better plan, organize, and schedule their resources. By grouping and scheduling work, travel time and setup can also be minimized.

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4.4.4. Fully develop a two-week schedule procedure for all staff and equipment, relating schedules to annual work plans and routine processes. Charge and hold accountable the Department's Forepersons and Supervisors with the responsibility of communicating short-term work schedules and plans to field staff.

A systematic two-week scheduling process should be developed with all employees trained to utilize and enhance the current daily work assignment process. This scheduling process needs to include all work by activity to be accomplished in a specific time based on a developed annual work plan and outstanding service requests. Systematic involvement of managers, supervisors, and forepersons should occur to coordinate equipment, labor and material needs, methodology, and any special circumstances. A two-week scheduling meeting should involve managers, supervisors, and forepersons to discuss the adherence to and future efforts of these schedules. Various points related to this process should include –

- Allowance for maximum use and sharing of limited resources
- Minimize work insertions and “fire-fighting.”
- Communicate among all employees about the work plan and available resources
- Provide for employee involvement and feedback in planning work
- Reduce resource conflicts

Forepersons should focus on adherence to the two-week schedule with field support by informed field employees. This will assist in the completion of the annual plan and established performance measures. Such a two-week scheduling process is now being done in similar Florida stormwater, street, and traffic agencies such as Hillsborough, Charlotte, and Volusia Counties.

The systematic two-week schedule should be prepared and released for all maintenance employees to know the planned work. Further, forepersons and supervisors should be required to discuss their new schedules and compare them with the prior two-week plan to determine the adherence to the preceding schedule.

Supervisors should be held accountable for their scheduled completion. Before establishing an effective scheduling system, tools such as a PM program, routines, performance plans, cross-training, and an adequately configured WAM system must be operational.

Supervisors and forepersons should lead their respective sections with support provided by field lead workers. Schedules should be derived primarily from the annual work plan and work calendar, which is broken down into manageable ‘projects’ on a two-week basis. Forepersons should use the two-week schedules for guiding daily assignments with adjustments made for defined emergencies or urgent requests only.

4.5. Controlling/Improving

4.5.1. **Standardize and document the flow of work over all the groups. Use automation to reduce the dependence upon unlinked manual processes, including spreadsheets, forms, See-Click-Fix, and other manual databases.**

Although some work is scheduled proactively and some routines exist, work is primarily prioritized, scheduled, and assigned manually. These practices are based upon available staffing and equipment as well as the judgment of the group's respective supervisor or foreperson. These processes lack automated linkages to the WAMS.

The Department should standardize and document the flow of work over all the groups. Through the configuration of the future WACs, the Department should use automation to reduce the dependence upon unlinked manual processes, including spreadsheets, forms, See-Click-Fix, and other manual databases. The workflow should be based on systematic planning, organizing, scheduling, and controlling/monitoring work. This process should be documented and followed by every organization member to provide consistency and reduce unnecessary redundancies. The workflow should identify the responsible staff for each of its elements. The workflow should be evaluated annually as part of the planning process, reflecting any changes identified by leadership in making service delivery increasingly more effective and efficient methods.

4.5.2. **Standardize work reporting, with resources used (labor, equipment, and materials), accomplishments and locations documented. Track and link all time to activities, including travel and preparatory effort. Account for one hundred percent (100%) of employee time in the WAMS/WACS.**

Although some work data is collected, basic information such as the completed cost of work and productivity cannot be captured. In addition, complete costing with overhead, equipment, and materials is also lacking. For example, some groups do not record support work preparation in the yard or travel time, just the time spent at the individual work locations. This lack of complete costing makes an analytical comparison to alternative service providers very difficult.

The Department should establish a mechanism for 100% tracking of time to activities, assets, and locations. Currently, less than 1/3 of time is accounted for in the WAM system. This complete tracking will provide input on evaluating how work is being completed and give data to assist and improve ways to manage work.

The data on accomplishment (i.e., linear feet of curb repaired, cubic yards of asphalt for potholes, and the number of signs replaced) would be included in work reporting. All work activities would then be stored in the current WAMS database and future WACS in the appropriate field. In addition, locations such as zone or areas should be systematically reported and stored by activity. This will assist with future reporting and compilation of data. Reports will be able to be run by one location, one activity, or an entire section to determine where work efforts are concentrated. The standardized complete tracking and accounting of time, resources, and accomplishment by asset and location are paramount for establishing accountability and productivity.

4.5.3. Supervisors should utilize the WAMS/WACS for work tracking and planning. Establish a monthly meeting to review data from the WAMS/WACS with management responsible for creating accountability.

The WAM system is used by all groups at varying degrees to collect and store limited portions of work data. Less than 23% of working hours are recorded in the WAMS. Additionally, little utilization is made of the data collected to adjust or enhance operations. Some outputs are generated on work order numbers yet are not widely utilized. Various groups create ad-hoc reports for their specific uses. The data is being collected but lacks any focused utilization to improve the organization. Outputs and reports are mainly created on a request basis, or by administrative staff. Any accountability in the system uses and data compiled are minimal or nonexistent.

The Divisions of Stormwater, Pavement, and Traffic should establish a report or outputs that can be reviewed for accountability. The output should be a report for each Division of the labor hours by activity, work accomplishment in units, productivity, and cost of actual effort versus a desired plan (Michel, 2004). These reports should be created with data from the current WAMS and in the future, the WACS. The outputs should be reviewed by management, and the necessary actions taken to quality control data to use for improving operations. These outputs, after being reviewed by each group's respective Manager, should be released to both the SPTO Director and the Public Work Administrator. The utilization of outputs that display work, response, cost, and resources fully utilizes these large computerized work and assets systems (WAMS and WACS). Some output data were extracted from the WAMS system on work order status and reviewed by senior management but was discontinued in 2020. Hence, analytics must be used from the system to leverage these databases to make the best business decisions for the City's extensive stormwater, pavement, and traffic assets.

4.5.4. Cross-train Forepersons and Supervisors to produce and interpret management system outputs for decision making, as well as promote accountability.

As field staff including Lead Works, Forepersons, and Supervisors prepare for the next advancement in their careers, they should be mentored and cost-trained on producing and interpreting management system outputs from the current WAMS and future WACS databases. Further, these levels of staff should be involved and collaborate in the configuration of the WACS system, as they are the future mid-level and senior-level Department leaders. Through the interpretation of such outputs, they should learn to link current field decisions with the successful accomplishment of short-term operational goals and annual performance-based work plans. The successful implementation of this recommendation will foster buy-in and accountability throughout the organization.

4.5.5. Develop standard outputs that can be used by management to direct and manage work, schedules, and data quality. Each Operational Division should produce a monthly report prepared in a similar format. Each Division should also establish a monthly meeting with the Department Director to review the WAMS/WACS data, for establishing accountability with all teams.

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Minimal tools and data parameters are in place for employees to measure performance and maintenance costs or evaluate field performance, which would allow them to take proactive management actions based on identified inefficiencies. The tools and processes that are now used are manual-tracking processes that research after-the-fact accounting for past occurrences. Thus, performance planning, internal benchmarks, and associated accountability are missing. Further, the Department also lacks specific key performance measures to monitor and routinely report on effective and efficient operations.

Management can use standard outputs to assist the managers and leaders in monitoring performance as well as directing and managing work, schedules, and data quality. These outputs should be created using data from the current WAMS and configured through the development and implementation of the new WACS. This should be designed to allow easy access by managers and leaders to information concerning the efficiency and effectiveness of their operation and contribute to successfully achieving established short-term and annual performance goals.

The Department should use the current WAMS and future WACS to determine the unit cost, productivity, total cost, and work accomplished for all activities. This data is critical to aid supervisors and managers to plan, organize, schedule, control, and adjust operations for improvement.

Each organizational group should compile, and report work accomplishments in defined units, productivity in units per hour, and unit costs. These production and cost units should be compared against benchmarks and the annual plan monthly and report the action taken to ensure compliance or corrective measures taken, for accountability.

4.5.6. Provide training to Managers and Supervisors in using WAMS/WACS data for developing operational alternatives and making management decisions to improve the efficiency and effectiveness of resource utilization. Utilize data from the WAMS/WACS to compare both effective and efficiency benchmark parameters to other agencies and industry standards.

Currently, basic management data such as unit costs by activity, total project costs, productivity, and work accomplishment measurements are difficult to compile, with most cost factors not fully being considered or available in the WAMS. Most documented reporting on performance measures takes considerable effort to produce and is created external to the WAMS. The ability to track accurate total project costs and activity unit costs is complicated through the use of multiple systems and processes with many cost factors such as equipment, overhead, and materials not being fully considered. The result of this effort minimizes the effectiveness of managers and supervisors to make decisions, as well as the reduction of communication and direction to frontline supervisors that could also use data for making decisions.

The managers and supervisors should be fully trained in using the current WAMS and future WACS data to fully utilize data-driven analytics for meaningful operational decision-making and developing functional alternatives. Further, all cost factors must be in the WAMS and WACS systems and updated annually. This data and metrics can then be utilized to improve operational efficiencies and the effectiveness of their operation in resource utilization.

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Additionally, and as discussed in recommendation 4.5.5, each group should compile a report in a similar format, which includes work accomplishment in defined units, productivity in units per hour, and unit cost. This data should be compared annually against established internal and external benchmarks. Further, the Department should benchmark against other similar agencies, comparing similar activity productivity. If the SPTO Department's metrics are below benchmarks, actions should be taken to evaluate for improvement opportunities as well as to ensure compliance to the city's annual performance-based work plans.

4.5.7. Establish a continuous improvement process with quarterly updates given to employees using WAMS/WACS data. Provide an annual "State of Maintenance and Operations Report" to the Public Works Administrator, Mayor, and City Council. Compare planned activities, workdays, accomplishments, cost, and unit cost versus actual effort, with non-compliance identified and solutions for correcting.

The Department has many good work processes, yet they are not linked and integrated as discussed in prior recommendations. System feedback is not used to update any planning or scheduling data from one year to the next. Limited short-term scheduling is done, yet it is independent of other processes. Historically minimal work is tracked, with a lack of linkage to a performance work plan and budget. A performance-based work plan and associated budget are absent. Many tools and manual processes are in place, but they lack system integration and understanding by employees.

A systematic method for evaluating the effectiveness and efficiency of the operation is not currently available. The Department's mechanism for tracking, planning, and scheduling is recorded in various databases and spreadsheets, which does not allow for the evaluation of cost-effectiveness and/or the measurement of efficiency.

The current WAMS system and future WACS should be fully utilized as a planning tool to establish a baseline consisting of frequency of service, the desired quality and quantity of work, and unit cost for all activities that can be obtained on a routine basis by any specific time frame and/or location. By developing these capabilities, training the managers, supervisors, and forepersons, then re-engineering processes, methods could be established to have an integrated business-like operation.

Each group should have tools to review all alternatives for cost-effectiveness and quality service and select the best options (internal, contract, or combination) to meet these criteria. These tools, if implemented, could provide a process and mechanism to maximize the best use of the public's dollars and increase stewardship of Department assets.

A complete continuous improvement process as outlined in APWA's s Public Works Administrative Manual (American Public Works Association, 2008) and NACE (National Association of County Engineers, 1992) should be implemented with facilitation, and these independent systems linked and optimized. Training should be performed to guide the Department's managers, supervisors, and forepersons on fully utilizing system concepts to plan, organize, schedule, and improve their work. This system would then provide both data and feedback methods to all levels to work toward continuous improvement. The Department has some of the processes, but they are not tied together with employees lacking the background on

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implementing this concept. A quarterly meeting should occur where summary information on costs, productivity, and accomplishment is presented to all employees. Actions planned because of this information should be documented and used as targets for improvement. Various activities' performance in cost and productivity should be available and posted for all employees to observe results.

The information should be compiled into a short report to further communication and accountability on an annual basis. It should be provided to the Public Works Administrator, outlining the results of work effort and compliance to the annual performance work plan. Information on response to customers, performance measures, unit cost, accomplishment, and productivity. Proposed actions to ensure compliance and acknowledgment of success should also be provided. Once information is confirmed and reviewed, the "State of the Maintenance and Operations" should be presented to the City's executive leadership and elected officials.

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5.2. Priority of Recommendations

The proposed fifty-four (54) recommendations are a combination of independent and interdependent actions. LAC has organized each recommendation into several categories including employee impacts, systems, business process, organizational improvements, and further studies. The priorities are only within each category and not overall.

The City’s priorities are influenced by many factors including managerial and leadership desires, overarching City goals, desired levels of service and pressing issues, as well as available resources and employee capabilities. LAC has assumed priorities based on our limited City background and those we believe present the best opportunities for improvement. These priorities should be used along with the above-mentioned factors to determine which actions should be pursued first.

On the following pages, each recommendation is prioritized within four categories, including a value indicating independence. Independent recommendations (**Y**) could be pursued without significant need for another recommendation to be implemented or impact others. Interdependent recommendations (**N**) are directly related to one or more other recommendations and benefits may not occur without concurrently implementing those related recommendations.

Business Process

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.1.2	Re-create mission statement to include elements focused on efficiencies and effectiveness as primary goals. Obtain buy-in from all levels of the organization.	Business Process	1	N
4.1.1	Establish employee teams to review various improvement opportunities. Utilize the teams on an annual basis to assist in the review of work guidelines and methods, levels of effort, quality controls, as well as annual performance planning.	Business Process	2	N
4.2.13	Use facilitated employee teams to develop specific goals and objectives for each sub-group, which include quantifiable performance measures and links to the Department’s guiding principles.	Business Process	3	N
4.5.1	Standardize and document the flow of work over all the groups. Use automation to reduce the dependence upon unlinked manual processes, including spreadsheets, forms, See-Click-Fix, and other manual databases.	Business Process	4	N
4.2.9	Use facilitated employee teams annually to establish and update standardized activity lists, definitions, and work units for benchmarking of all maintenance and repair activities.	Business Process	5	N
4.5.6	Provide training to Managers and Supervisors in using WAMS/WACS data for developing operational alternatives and making management decisions to improve the efficiency and effectiveness of resource utilization. Utilize data from the WAMS/WACS to compare both effective and efficiency benchmark parameters to other agencies and industry standards.	Business Process	6	N
4.2.11	Define performance guidelines and related measures to the annual plan utilizing facilitated employee teams and store results within the WAMS/WACS. Include the planning criteria of average daily production (ADP) and the related asset inventory values.	Business Process	7	N
4.3.13	Utilize the Department’s Safety Officer to systematically monitor and report the application of traffic control devices by field staff. Include non-compliance reporting to the SPTO Director. Charge the Safety Officer with tracking and monitoring of all safety-related training, providing data to be reported monthly and in the Department’s annual “State of Maintenance and Operations Report.”	Business Process	8	Y

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Business Process (Cont.)

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.2.3	Establish a process along with responsibilities for consistent and accurate asset inventory updates to compile and summarize data for functional application. Identify a process and departmental point of contact that verifies the values provided to produce the City's Annual Comprehensive Financial Reports (ACFR) and any other published documents, to promote consistency and accuracy.	Business Process	9	N
4.3.8	Develop and implement a sign reflectivity inspection program and replacement process to meet FHWA design to maintain traffic sign retro-reflectivity at or above the established minimum levels. Systematically report inspection program progress and results to the Department Director, Public Works Administrator, and through the Department's annual "State of Maintenance and Operations Report."	Business Process	10	Y
4.2.10	Establish levels of effort by activity for each asset type based on condition along with established minimum levels of service based on available resources and cost.	Business Process	11	N
4.2.5	Establish a level of service for alley maintenance efforts to meet the needs of internal and external stakeholders using available resources. Stakeholder input from the Sanitation Department and alley adjacent homeowners should be considered.	Business Process	12	N
4.3.15	Establish equipment rates for each equipment class that includes all costs – repair, maintenance, fuel, & lubrication, and replacement. All 'Out of yard' hours for each piece of equipment should be tracked in the WAMS/WACS.	Business Process	13	N
4.2.16	Determine and use avoidable overhead in the WAMS/WACS for work costing and outsourcing consideration. A full overhead rate should be used for external billing and reimbursement. Further, develop an annual process to update the rates and educate management and leadership of their application.	Business Process	14	N
4.3.16	Some equipment including the classes of Concrete Truck, Loader, Skid Steer, and Backhoe should be evaluated by February 1, 2022, as they appear to be low use. Eliminate low-use equipment unless warranted by some specific need.	Business Process	15	N
4.2.12	Establish the capability of developing a performance budget based on the level of service, asset inventory, productivity, and work methods with a quality standard for each activity. Use the established performance plan as a tool to develop a budget based on actual needs. Provide annual performance plans to the Public Works Administrator and City Leadership.	Business Process	16	N
4.4.2	Monitor, assign and reduce the number of service requests in the status of Pending Approval, found in the WAMS database. Clearly define, use, and communicate the service requests statuses of the WAMS/WACS database.	Business Process	17	N
4.2.14	Link work recorded in the WAMS/WACS to the Department's Budget Performance Metrics. Report the status and progress in achieving production goals monthly to the Public Works Administrator. Act as the primary source of information to be provided to those who prepare the annual budget documents reporting metric values.	Business Process	18	N
4.4.4	Fully develop a two-week schedule procedure for all staff and equipment, relating schedules to annual work plans and routine processes. Charge and hold accountable the Department's Forepersons and Supervisors with the responsibility of communicating short-term work schedules and plans to field staff.	Business Process	19	N
4.3.14	Track and monitor all traffic signal maintenance costs and productivity. Calculate and report the unit cost of each preventive maintenance routine performed and compare against an established benchmark. Determine if the total FDOT reimbursement covers the Department's resource costs to perform maintenance.	Business Process	20	N
4.3.11	The Traffic Signals group should use a single shift or provide economic justification for a second shift. The third shift should be eliminated. The Department Director should review and approve all schedules and shifts.	Business Process	21	Y

Stormwater, Pavement, and Traffic Operations Department Management Evaluation

Business Process (Cont.)

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.3.12	Track, compile and establish benchmarks for Worker's Compensation, FMLA, and leave without pay by sub-group. Review during monthly meetings and report annually to employees, the SPTO Director, and the Public Works Administrator. Calculate and report leave hours in full-time equivalents (FTE).	Business Process	22	N
4.3.7	Establish a systematic methodology for connecting with employees to obtain unfiltered input and real feedback through quarterly meetings.	Business Process	23	Y
4.1.6	Report the progress and accomplishments of the Department's goals and objectives in the annual "State of Maintenance and Operations Report" provided to the Public Works Administrator, Mayor, and City Council.	Business Process	24	N
4.5.7	Establish a continuous improvement process with quarterly updates given to employees using WAMS/WACS data. Provide an annual "State of Maintenance and Operations Report" to the Public Works Administrator, Mayor, and City Council. Compare planned activities, workdays, accomplishments, cost, and unit cost versus actual effort, with non-compliance identified and solutions for correcting.	Business Process	25	N
4.1.5	Formally review and update the Department Manual annually, using input from all levels of the organization and any other needed City external resources.	Business Process	26	N
4.2.8	Perform National Bridge Inventory (NBI) level structural inspections on the same frequency to all non-NBI structures in the City's bridge inventory.	Business Process	27	Y
4.3.17	Perform and establish an equipment utilization analysis of all rolling stock by October 1, 2022. Document process to evaluate needed units that are under-utilized based on industry standards. Eliminate low-use equipment unless warranted by some specific need.	Business Process	28	N

Further Study

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.2.6	Fully evaluate the complete cost of providing ROW maintenance. Determine the total and unit cost, use all labor with an applied avoidable overhead, equipment, and material costs and apply to all properties (City, FDOT, Private, and County) maintained.	Further Study	1	Y
4.2.7	Compare the cost of service to the revenue received from performing ROW maintenance for others. If the cost substantially exceeds the revenue, a determination should be made in obtaining additional revenue and or reducing service. Provide results to executive leadership to ensure that these contracts are acceptable.	Further Study	2	Y
4.3.2	Conduct annual independent review (City Auditor or Human Resources) and or survey of interactions, communication, and feedback between the SPTO Director, senior leadership, and all levels of the organization. With the results, the Director should compile an action plan to address any concerns and submit it to the Public Works Administrator.	Further Study	3	Y
4.1.3	The stormwater aspects of the Integrated Water Resources Master Plan (IWRMP) should be clearly identified in the short term, with the potential benefits. City staff should relate the plan to improvements with the availability of existing fundings CIP resources.	Further Study	4	Y
4.3.10	Work shifts should be established based on specific work needs. The number of shifts should be standardized. An external evaluation on the benefits to the City should be conducted with employee team involvement, documenting the negative and positive benefits. The Department Director should review and approve all schedules and shifts.	Further Study	5	Y
4.2.15	Determine the need for providing non-traffic sign fabrication services and ensure all costs for that service are recovered, including labor and overhead, equipment, materials, and storage. Consider discontinuing this non-traffic and departmental support unless full cost recovery occurs.	Further Study	6	Y
4.1.4	Formally review and report the progress and accomplishments of fulfilling the recommendations of the audit projects to the City Auditor quarterly. Set a goal of completion for all goals by October 1, 2022.	Further Study	7	Y
4.2.4	Confirm the validity of 1,033 street segment conditions of all PCI values below forty, reporting to the Public Works Administrator on the results.	Further Study	8	Y

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Organization Improvement

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.3.3	All supervisors and managers should be trained on management skills to be updated annually, as well as on the methodology and capabilities of WAMS/WACS and GIS. This should be a requirement of promotion and part of an employee's annual review.	Organization Improvements	1	N
4.3.6	Establish a formal proactive process of field visits by the Department Director and Managers. This is to observe work efforts, promote communication, as well as provide senior staff availability to all levels of the organization. Establish and formalize the goal of visiting each sub-group at least once a year.	Organization Improvements	2	Y
4.3.5	Managers and Forepersons should have three (3) or more direct reports or provide a documented justification for a lower span of control ratio, approved by the SPTO Director.	Organization Improvements	3	Y
4.3.1	Establish a goal of each Manager being credentialed as a Certified Public Works Professional-Manager (CPWP-M) and each Supervisor credentialed as a Certified Public Works Professional-Supervision (CPWP-S) through the American Public Works Association (APWA). Establish these goals to be completed by October 1, 2022.	Organization Improvements	4	Y
4.2.1	The Department should share appropriate resources across all Divisions including labor, equipment, and supervision.	Organization Improvements	5	Y
4.2.2	The Department should implement an approach that allows for all resources to report out of one location.	Organization Improvements	6	Y
4.3.4	Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented, and all traffic staff time is being recorded by activity.	Organization Improvements	7	N
4.3.9	Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented and all signs and marking staff time are being recorded by activity.	Organization Improvements	8	N

Stormwater, Pavement, and Traffic Operations Department Management Evaluation

Systems

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.1.10	Identify or obtain a WAMS/WACS and GIS power user to provide operational and technical support. This user must have an intimate knowledge of the department's mission and operational functions.	Systems	1	N
4.1.7	Fully configure the WAMS/WACS databases to the needs of the SPTO Department, including the subgroups of their divisions. Include direct input for the sub-groups of stormwater, pavement, and traffic.	Systems	2	N
4.1.8	Fully implement the WAMS/WACS and related system management tools, allowing all levels access to the system. Use WAMS/WACS data for work management, which includes the ability to plan, organize, schedule, monitor, and improve operations.	Systems	3	N
4.1.9	Fully utilize the capabilities of the City's GIS database and information as a tool for dynamically planning and organizing work.	Systems	4	N
4.4.3	Develop documented routine programs linked to GIS assets by key activities that are used for cyclical work and routines in support of stormwater operations, pavement, and traffic operations.	Systems	5	N
4.4.1	Define, standardize, and document priority procedures for all service requests based on need, safety, and risk to the public in the WAMS/WACS. Attempt to identify all non-emergency and safety work to be done at least two weeks in advance.	Systems	6	N
4.5.2	Standardize work reporting, with resources used (labor, equipment, and materials), accomplishments and locations documented. Track and link all time to activities, including travel and preparatory effort. Account for one hundred percent (100%) of employee time in the WAMS/WACS.	Systems	7	N
4.5.3	Supervisors should utilize the WAMS/WACS for work tracking and planning. Establish a monthly meeting to review data from the WAMS/WACS with management responsible for creating accountability.	Systems	8	N
4.5.5	Develop standard outputs that can be used by management to direct and manage work, schedules, and data quality. Each Operational Division should produce a monthly report prepared in a similar format. Each Division should also establish a monthly meeting with the Department Director to review the WAMS/WACS data, for establishing accountability with all teams.	Systems	9	N
4.5.4	Cross-train Forepersons and Supervisors to produce and interpret management system outputs for decision making, as well as promote accountability.	Systems	10	N