

CITY OF SEATTLE

CAPITAL IMPROVEMENT PROGRAM (CIP) OVERSIGHT ASSESSMENT | PHASE 1



PHASE 1 SUMMARY REPORT CIP OVERSIGHT ASSESSMENT

MAY 26, 2017

PRESENTED TO:

SEATTLE CITY COUNCIL
Seattle City Hall
600 Fourth Avenue
Seattle, Washington



Hill International

ACKNOWLEDGEMENT

We offer special thanks to the City of Seattle Council Central Staff and Department Executive Staff for making themselves available for interviews and for sharing their perspectives regarding the City's CIP project governance and management.

For members of our CIP Assessment Team, we thank them for participating in meetings to track progress and for offering comments that were taken into consideration in producing this report.

We recognize that participation in this program required an investment of valuable time, and we appreciate the willingness and active participation exhibited by all who provided their honest and thoughtful insight.





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1. EXECUTIVE SUMMARY

1.1 PROGRAM OVERVIEW

The Seattle City Council (Council) engaged Hill International, Inc. (Hill) to conduct an assessment of the City's current operations, as related to the Council's ability to effectively oversee the Capital Improvement Program (CIP). Pursuant to Resolution 31720, the overall objective of the Assessment (Phase 1 and Phase 2) is to support the commitment of the Council and Mayor for enhancing the City's CIP oversight and for developing new approaches that improve project management and oversight.

This report provides a summary of the City's current capital budgeting and project oversight practices identified in Phase 1, as well as potential challenges identified regarding the implementation of Resolution 31720.

1.2 DATA COLLECTION

In addition to City documents and presentations provided for Hill's review, ten interviews were conducted with Council Central Staff analysts (Central Staff) and Department Executive Staff (Executive Staff) representing the following City Departments:

- Seattle Department of Transportation (SDOT)
- Seattle Public Utilities (SPU)
- Finance and Administrative Services (FAS)
- Seattle City Light (SCL)
- Department of Parks and Recreation (DPR)

Data collected from documents, presentations and staff interviews helped to gauge our perceptions regarding the Council's current CIP oversight practices, highlighting trends, common/uncommon themes, challenges/what is working well and desired outcomes.

1.3 CHALLENGES

Challenges revealed during the interviews illustrated inherent differences in legislative and departmental oversight objectives and mission.

- Council Central Staff challenges include lack of access to meaningful CIP progress information. For instance, budget and schedule information from CIP and Quarterly Monitoring Reports do not provide information needed to gauge real progress, identify root causes of budget/schedule variances or analyze trends. It was noted that there tends to be a reluctance on the part of department Executive Staff to provide in-depth project information (share bad news), unless requested by Council. In addition, CIP fund transfers used to address changes or overruns are not always transparent to Council and may hide or mask ongoing scope or budget project issues. Additionally, supplemental budget requests often have very limited information for decision making.
- Department Executive Staff challenges focused on the need for better project management tools, better cost control and forecasting processes, and more training for Project Managers managing CIP projects.



1.4 WHAT IS WORKING WELL

Both legislative and departmental staff agreed that standardized installations or projects worked well (budget/schedule control), and better estimating (independent 3rd party) were keys to successful project outcomes.

- Council Central Staff noted that more in-depth real time progress information was available when Central Staff was included on the CIP project team.
- Department Executive Staff pointed to recent improvements in estimating and project controls, and better coordination with stakeholders and other Departments. However, it is not apparent that the project performance information is being shared with Central Staff to allow for more effective oversight and timely decision-making.

1.5 DESIRED OUTCOMES

Comparisons and contrasts of the desired outcomes expressed by Central Staff and Executive Staff provided insight regarding existing departmental oversight processes and monitoring/control of capital projects.

- Council Central Staff recommendations addressed CIP reporting improvements (i.e. flagging scoping issues or higher risks). The Central Staff also wants more transparency (providing essentially the same reporting information that is available to Department PMs). They would like to see risk assessments performed ahead of appropriations (for higher risk projects) and phased budget and schedule stage gate information (when appropriate) to assess cost and schedule performance at key points in project delivery.
- Department Executive Staff recommendations focused on internal improvements to departmental reporting, more advanced estimating and scheduling practices (3rd party estimates and Earned Value Management) and better interdepartmental communication.

Suggested improvements for enhancing CIP oversight, common to both Central and Executive Staff, include standardization of project management tools and reporting standards.

It also should be noted that the recommendations differed somewhat, based upon specific Department CIP oversight practices and program characteristics. For example, the DPR staff dealing with smaller, less complicated projects do not believe that more sophisticated PM tools, processes or project controls are necessary to improve oversight. In contrast, staff from the larger CIP programs (SDOT, SPU, SCL and FAS) expressed the need for implementing more advanced project management tools and processes for larger projects (i.e. stage gates, EVM, CPM scheduling, etc.).

1.6 COUNCIL PHASED APPROPRIATION

Considering how a Council phased appropriation mechanism might overlay on top of departmental stage-gate mechanisms, it was noted in the interviews that SPU uses stage gate project management processes. In the case of SPU, check points help the Department make informed decisions during project planning, scoping, budgeting and execution. SCL has a similar phased project management framework ((i.e. Initiation→Planning→Execution→Closeout)).

There is agreement among legislative and departmental staff regarding reasons for oversight (i.e. the exercise of effective budget and schedule controls), however, responsibilities for oversight differ. Departmental staff's primary responsibility is day-to-day project management of the CIP to meet approved budgets and schedules. Legislative staff is tasked with assuring that Council appropriations for CIP are reasonable and that project reporting provides timely and useful information to guide Council decision-making.



Department staff expressed that a stage gate process allows for more effective estimating, procurement, risk/contingency management and change management. Similarly, Central Staff responded that it would be useful, from an oversight perspective, to make project stage gate information available (if utilized by the department). Additionally, Central Staff noted that it would be useful to implement check points to assess project status for making necessary adjustments or decisions regarding the project scope, budget and schedule before moving forward to the next project phase.

Some local and state agencies, King County and Washington State Department of Transportation (WSDOT), use a phased appropriation process for their large capital projects or programs. Hill is aware that several other states and jurisdictions are required to use phased or incremental appropriations for multi-year contracts. In some cases, the funding is tied to specific deliverables or may use cash flow curves.

Some of the challenges or potential impediments regarding the blanket use of phased appropriations or overlaying phased appropriations with a stage gate process include:

- Small projects (within a single season or fiscal year) do not typically use phased budget appropriations or stage gates. Small projects (e.g. <\$1M) make up a significant proportion of total City CIP projects.
- Ongoing CIP programs (i.e. sidewalk repairs, ADA improvements, pipe relining, and projects with standardized designs) are not as amenable to stage gates.
- Timing of critical stages/key project check points may not align well with the normal or annual budget update process.
- Non-traditional contracts (i.e. design-build, GC/CM) may not fit well with traditional stage gates.

As part of Phase 2, Hill will assess how other agencies have implemented phased appropriations and how, or if, these incremental appropriations align with key check points in a stage gate project development process.

1.7 PHASE 2

Pending Council approval, Phase 2 of the assessment includes analyzing gaps, identifying best practices and proposing recommendations for enhancing the CITY's CIP oversight, addressing phased appropriation process, budget transparency and reporting. Building upon the Phase 1 evaluation and observations, the Phase 2 approach includes comparing the City's oversight (from Council and legislative perspectives) with similar City and County CIP oversight tools, processes and governance.

Based upon the initial assessment of peer agency programs, Hill proposes interviewing eight peer agency programs in Phase 2. Agencies will include two local municipalities/agencies, as well as six municipalities/agencies located outside of Washington that will provide meaningful comparisons and/or contrasts, as well as best practices for CIP oversight.

Phase 2 will use the criteria in a Maturity Model, produced during Phase 1, to rate maturity levels for CIP oversight. The ratings will be used to benchmark the City's CIP (by department) with the peer agencies for the specific elements that address CIP oversight best practices. Different maturity levels may be appropriate, depending on the specific CIP program or project type.

Based upon the assessment of gaps and best practices, recommendations for improving the City's CIP management and oversight and providing more transparency to the public for the City's CIP Projects will be proposed. The final Phase 2 report will include benchmark findings, best practices and recommendations for enhancing phased appropriation, oversight and controls.



2. PROGRAM OVERVIEW

The City of Seattle engaged Hill to assess the City's oversight of its CIP. The goal of the assessment is to address a phased appropriation process and to improve budget transparency (i.e. controls, gaps and reporting) in support of the City's implementation of Council Resolution 31720.

2.1 PROGRAM APPROACH

To support the commitment of the City Council and Mayor for enhancing City CIP oversight and developing new approaches for improving project monitoring, the Council selected Hill to conduct an initial assessment.

The approach includes segmenting the project into two phases:

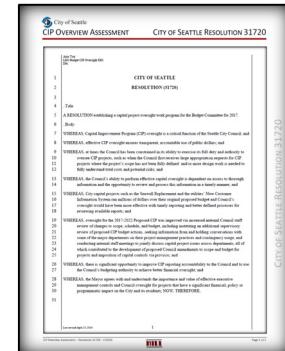
- Phase 1: Internal assessment of current City capital budgeting and project oversight practices that identifies potential challenges with implementation of Resolution 31720.
- Phase 2: Development of recommendations for the implementation of Resolution 31720 (pending Council approval).

For reference, Resolution 31720, illustrated to the right, is included in Appendix B.

2.2 PROGRAM SCOPE

Phase 1 includes the following tasks for conducting the CIP Oversight Assessment:

- Task 1 – Conduct interviews with City personnel, including Central Staff, City Budget Office and staff of the five City Departments with largest CIP portfolios, to identify areas of deficit/excellence regarding existing oversight/management of capital programs and to identify specific projects/programs appropriate for additional analysis.
- Task 2 – Examine the relationship between Council and departmental oversight to identify the challenges associated with how a Council phased appropriation mechanism might overlay on top of departmental stage-gate mechanisms.
- Task 3 – Meet regularly with Program Team City Staff to track status, debrief interview results and discuss concerns identified.
- Task 4 – Propose potential peer agencies appropriate for identifying best practices and benchmarking. Candidates may include organizations in Washington and/or other jurisdictions, similar to Seattle in size and scope of services.
- Task 5 – Produce 'Scope of Work' for Phase 2.



Refer to Appendix B for the Council Resolution 31720.



Refer to Appendix A for the Phase 1 Program Overview.

For reference, the Program Overview for Phase 1, illustrated above, is included in Appendix A. Additionally, the proposed scope of work for Phase 2 is included in Appendix G of this report.



2.3 PROGRAM MANAGEMENT

With formal “Notice to Proceed” awarded on February 27, 2017, Hill hosted a project kick-off call on March 7th. The Hill/Central Staff Team (HCS Team) reviewed and confirmed the program scope and approach. As a result, the Program Overview, highlighting program goals, milestones, deliverables and roles/responsibilities was produced and distributed to the HCS Team. For reference, the Phase 1 Program Overview is included in Appendix A.

Bi-weekly Status Meetings to guide implementation and track status were conducted and documented. Minutes documenting each meeting were distributed to the HCS Team. Additionally, Monthly Reports documenting program status were produced. For reference, refer to Appendix A for the Monthly Reports.

2.4 PROGRAM TEAM

Following are the HCS Team members who supported Phase 1 of the CIP Oversight Assessment:

- Amy Tsai, Legislative Analyst, City of Seattle
- Geri Morris, Legislative Aide, City of Seattle
- William Chen, Legislative Assistant, City of Seattle
- Newell Aldrich, Legislative Assistant, City of Seattle
- Greg Heinz, Vice President, Hill International
- Sid Scott, III, PE, Senior Vice President, Hill International
- Catherine Spillars, Vice President, Hill International



3. DATA COLLECTION

Several methods were used to collect data, including reviewing documents and presentations provided by the City, conducting and documenting interviews with Council Central Staff (Central Staff) and Department Executive Staff (Executive Staff) and producing case studies for specific CIP projects referenced during the interviews. Reviews of these documents, interview findings and case studies provided the foundation for observations presented in this report. Additionally, this collection of data is intended to serve as a basis for Phase 2 peer agency interviews, case studies, benchmarks and recommendations for improving budget transparency in support of the City's implementation of Council Resolution 31720.

3.1 DATA COLLECTION – DOCUMENTS

To provide insight regarding the City's current CIP oversight practices, the City made available SDOT, SPU FAS, SCL and DPR reports and presentations for Hill's review.

3.2 DATA COLLECTION – COUNCIL CENTRAL STAFF INTERVIEWS

To gain a basic understanding of the City's CIP oversight and operational dynamics, interviews were scheduled with Central Staff members. Interviews addressed existing Council oversight, monitoring and control of capital program budgets and project delivery. The following five interviews, scheduled March 13-14, 2017, were conducted by Hill's Sid Scott and Catherine Spillars:

1. SDOT: Calvin Chow, SDOT Legislative Analyst
2. SPU: Peter Lindsay, SPU Legislative Analyst
3. FAS: Tony Kilduff, FAS Legislative Analyst
4. SCL: Tony Kilduff, SCL Legislative Analyst
5. DPR: Traci Ratzliff, DPR Legislative Analyst

Additional staff invited to participate in the Central Staff interviews included:

- Amy Tsai, Legislative Analyst, City of Seattle
- Kristan Arestad, Director of Central Staff, City of Seattle
- Dan Elder, Deputy Director of Central Staff, City of Seattle

3.3 DATA COLLECTION – DEPARTMENT EXECUTIVE STAFF INTERVIEWS

Representing SDOT, SPU, FAS, SCL and DPR, department staff were invited to participate in interviews to discuss existing Council oversight monitoring and control of capital program budgeting and project delivery. The following five interviews, scheduled March 23, 24 and April 10, 2017, were conducted by Hill's Sid Scott and Catherine Spillars with department staff members:

1. SDOT: Jeff Lundstrom, Project Manager and Christine Patterson, CIP Finance Director
2. SPU: Hanif Khan, Division Director, Project Management and Cameron Findlay, Finance Director
3. FAS: Frank Coulter, Capital Projects Program Manager and Dove Alberg, Capital Programs Director
4. SCL: Scott Roberts, Manager, PM Improvement, Amy Coogins, Management Analyst and Eyvind Westby, Financial Planning
5. DPR: Michael Shiosaki, Director, Planning and Development and Michele Finnegan, Finance Director

Additional staff invited to participate in the interviews included the following individuals:

- Saroja Reddy, Budget Lead, City Budget Office
- Scott Clarke, Fiscal and Capital Manager, City Budget Office
- Caleb Wagenaar, Fiscal and Policy Manager, City Budget Office



4. INTERVIEWS

The goals associated with conducting the Council Central Staff (Central Staff) and Department Executive Staff (Executive Staff) interviews included reviewing existing departmental practices for CIP project oversight, controls and progress reporting to identify strengths weaknesses (in CIP governance, management and reporting) and desired outcomes (to improve transparency and accountability for CIP projects).

4.1 INTERVIEW SUMMARY FINDINGS – COUNCIL CENTRAL STAFF

Information captured during the five interviews conducted with the Central Staff addressed existing Council oversight, monitoring and control of capital program budgets and project delivery for SDOT, SPU, FAS, SCL and DPR. Findings were summarized using the following categories:

- Department CIP
- Level of Involvement
- Oversight
- What is Working Well
- Issues/Needed Improvements
- Common and Uncommon Elements

Highlights of the findings were summarized for presentation and review with Central Staff. For reference, Appendix C includes the Central Staff Interview Schedule and Summary Findings, and Appendix G includes the PowerPoint presentation of the Debrief, illustrated below.

CIP Overview Assessment – Central Staff Interview Schedule																																		
Key: The City Council Central Staff interview was conducted to determine current practices regarding Council oversight, monitoring and control of capital program budgets and project delivery. The City Council interview information, submitted March 1, 2017, was used to inform the findings presented in this section.																																		
GOALS The interview will consist of the following interview objectives: • Provide descriptive research, analysis, and legislative options to inform the Council's policy decisions. • Identify strengths and challenges in oversight and management of capital projects. • Identify opportunities for improvement in oversight and management of capital projects. CENTRAL STAFF The interview will be conducted professionally, independently and fairly relative to the Council or its individual members. • Provides descriptive research, analysis, and legislative options to inform the Council's policy decisions. • Identify strengths and challenges in oversight and management of capital projects. • Identify opportunities for improvement in oversight and management of capital projects. INTERVIEW The interview will be conducted in a confidential setting. • Identify strengths and challenges in oversight and management of capital projects. • Identify opportunities for improvement in oversight and management of capital projects. NOTES All notes will be used for the synthesis of information from the Council, City Council and executive branch staff.																																		
Formatting & Documentation of the Central Staff Interview Schedule Formatted in Microsoft Word document, 12-point font, double-spaced, black text, 1-inch margins.																																		
Central Staff Interview Schedule <table border="1"> <thead> <tr> <th>Section</th> <th>Title</th> <th>Description</th> <th>Length</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>Introduction</td> <td>Central Staff Interview Schedule</td> <td>Provides an overview of the interview process and objectives.</td> <td>~1 page</td> <td></td> </tr> <tr> <td>Background</td> <td>Central Staff Interview Schedule</td> <td>Provides background information on the City's Capital Improvement Program (CIP).</td> <td>~1 page</td> <td></td> </tr> <tr> <td>Central Staff</td> <td>Central Staff Interview Schedule</td> <td>Provides information on the City's Central Staff, their roles, and responsibilities.</td> <td>~1 page</td> <td></td> </tr> <tr> <td>Central Staff Interview</td> <td>Central Staff Interview Schedule</td> <td>Provides the interview questions and a summary of the interview.</td> <td>~1 page</td> <td></td> </tr> <tr> <td>Conclusion</td> <td>Central Staff Interview Schedule</td> <td>Provides a conclusion to the interview.</td> <td>~1 page</td> <td></td> </tr> </tbody> </table>					Section	Title	Description	Length	Comments	Introduction	Central Staff Interview Schedule	Provides an overview of the interview process and objectives.	~1 page		Background	Central Staff Interview Schedule	Provides background information on the City's Capital Improvement Program (CIP).	~1 page		Central Staff	Central Staff Interview Schedule	Provides information on the City's Central Staff, their roles, and responsibilities.	~1 page		Central Staff Interview	Central Staff Interview Schedule	Provides the interview questions and a summary of the interview.	~1 page		Conclusion	Central Staff Interview Schedule	Provides a conclusion to the interview.	~1 page	
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Conclusion	Central Staff Interview Schedule	Provides a conclusion to the interview.	~1 page																															

CIP Overview Assessment – Interview Summary Findings – Central Staff				
CENTRAL STAFF – INTERVIEW SUMMARY FINDINGS				
Type:	SDOT	SPU	FAS	SCL
Findings:	<ul style="list-style-type: none"> • SDOT includes diverse projects generally \$2M or more and organized into four main bureaus: Water, Streets, Landmarks, and Parks. Four rate structures to manage funding for maintenance and capital projects. • Each bureau has distinct projects and funding streams. Water has ongoing maintenance for 23+ city departments and bureaus, and major capital improvements for Seward, Alki, and Rainier. • Solid waste tends not to have major capital programs, i.e., two transfer stations and some smaller facilities by year of plan. 	<ul style="list-style-type: none"> • SPU is involved in public utility rate setting for three main water supply companies (i.e., PUD, and two private companies). Rate structure to manage funding for maintenance and capital projects. • Each facility has distinct projects and funding streams. Water has ongoing maintenance for 23+ city departments and bureaus, and major capital improvements for Seward, Alki, and Rainier. • Solid waste tends not to have major capital programs, i.e., two transfer stations and some smaller facilities (Bett, etc.). 	<ul style="list-style-type: none"> • SCL has the largest capital program of any city department. However recent record shows a significant decline in spending (\$3.5M/year). • Major capital projects include Generation Fleet and Delivery Systems. • Major capital projects are focused on major maintenance of generating fleet, delivery systems, and delivery vehicles. Through all bureaus, with a go-by-go budget approach. 	<ul style="list-style-type: none"> • DPR is very different from other departments. Park has only “\$0” budget. Major capital projects include Waterfront. • Major capital projects are focused on major maintenance for existing assets. However, funds are ~\$25M/year. • Major capital projects are a key ingredient for park projects. • Major capital projects are focused on Waterfront (example of larger project). • Major capital projects are focused on GCL, DEP, however, there is currently open bid contracting.
Department CIP:				
NOTES:	While the two categories – includes and excludes – are somewhat similar, they are not identical. The “includes” category is broader than the “excludes” category. For instance, new facilities are included in the “includes” category, while new facilities are excluded from the “excludes” category. This is because new facilities are typically more complex. SCL crews require specialized training and equipment to maintain and repair new facilities. It can be very expensive if they fail. (It can be very expensive if they fail.) While the two categories – includes and excludes – are somewhat similar, they are not identical. The “includes” category is broader than the “excludes” category. For instance, new facilities are included in the “includes” category, while new facilities are excluded from the “excludes” category. This is because new facilities are typically more complex. SCL crews require specialized training and equipment to maintain and repair new facilities. It can be very expensive if they fail.			

CIP Overview Assessment – Debrief – Central Staff Interviews				
BRIEFING COVERS <ul style="list-style-type: none"> • City Resolution 11700 • Central Staff CIP Roles and Information (Oversight for Capital projects) • What is Working Well with CIP Oversight • CIP Strengths and Challenges • CIP Improvements (What Central Staff would like to see implemented) 				
City of Seattle – Executive Department City of Seattle Capital Improvement Project (CIP) Overview Assessment Debrief – Central Staff Interviews March 1, 2017				
Debrief Central Staff Interviews March 1, 2017				
Debrief Central Staff Interviews March 1, 2017				

Refer to Appendix C for the Central Staff Interview Schedule and Summary Findings. For the Central Staff Interview Debrief presentation, refer to Appendix G.

4.2 INTERVIEW SUMMARY FINDINGS – DEPARTMENT EXECUTIVE STAFF

Five interviews were conducted with department staff, representing SDOT, SPU, FAS, SCL and DPR, to evaluate their perspectives regarding existing CIP oversight, monitoring and control of capital programs, as well as budgets and project delivery. Findings were summarized using the following categories:

- CIP Overview
- Project Management Organization
- Purchasing/Procurement
- Project Controls
- Challenges
- What is Working Well
- Desired Outcomes



Highlights of the findings were summarized for presentation and review with Central Staff and for review by the Executive staff. For reference, Appendix D includes the Executive Staff Interview Schedule and Summary Findings, and Appendix G includes the PowerPoint presentation of the Debrief, illustrated below.

The image shows three Microsoft Word documents from the City of Seattle CIP Overview Assessment:

- Executive Staff Interview Schedule:** A table listing interviewees with their names, titles, department, and interview date and time. It includes interviews with SDOT, SPU, FAS, SCL, DPR, and City Council members.
- Interview Summary Findings – Executive Staff:** A table comparing findings across four departments: SDOT, SPU, FAS, and DPR. Key findings include:
 - SDOT:** Decision to move forward with the project is driven by several factors, including political will, stakeholder support, and availability of funding.
 - SPU:** FAS includes facilities maintenance of generation facilities, water treatment facilities, and power houses with hydroelectric power generation.
 - FAS:** A large group of SCL's capital plan includes maintenance of generation facilities, water treatment facilities, and power houses with hydroelectric power generation.
 - DPR:** DPR projects are smaller than other City departments. Average size is \$5M-\$10M. DPR has a long history of working on large projects, such as the Seattle Center.
- Debrief – Executive Staff Interviews:** A brief summary of the Debrief meeting, including the date (March 1, 2017), location (Seattle City Hall), and attendees (DPR Executive Staff). It also lists the agenda items.

Refer to Appendix D for the Executive Staff Interview Schedule and Summary Findings. Refer to Appendix G for the Executive Staff Interview Debrief.

4.3 INTERVIEW HIGHLIGHTS – CHALLENGES AND WHAT IS WORKING WELL

Included in Table 1 (below) are the Council challenges and highlights of what is working well, captured during the Council Central Staff interviews:

TABLE 1 COUNCIL CENTRAL STAFF – CHALLENGES AND WHAT IS WORKING WELL	
CHALLENGES	
SDOT, SPU, FAS, SCL	<ul style="list-style-type: none"> Lack of in-depth information (i.e. root cause of \$/schedule variance, earned value, etc.) for monitoring progress and supplemental budget requests, unless CS asks for it
SDOT, SPU	<ul style="list-style-type: none"> Limited reporting and decision-making in Pre-Design. Lack of metrics to track progress (as opposed to spending)
SPU, SCL	<ul style="list-style-type: none"> Misunderstanding of contingency Fund transfers (between projects) can hide project performance
FAS	<ul style="list-style-type: none"> Lack of consistent communication between Executive/Council staff for CIP projects. Limited monitoring of schedule/delays Lack of formalized/consistent PM processes among departments Misunderstanding of contingency
WHAT IS WORKING WELL	
SDOT	<ul style="list-style-type: none"> Department Teams – If included on Department Teams, Central Staff receives access to in-depth real-time information for large high-profile projects
SDOT, DPR	<ul style="list-style-type: none"> Provisos – Useful tool to manage/control spending
SCL	<ul style="list-style-type: none"> Standardized Installations – Scope control
DPR	<ul style="list-style-type: none"> Current oversight tools – Work well for small projects Budget Due Diligence – 3rd party independent estimators



Included in Table 2 (below) are the departmental challenges and highlights of what is working well, captured during the Department Executive Staff interviews:

TABLE 2 DEPARTMENT EXECUTIVE STAFF – CHALLENGES AND WHAT IS WORKING WELL	
CHALLENGES	
SPU	<ul style="list-style-type: none">Project management training needs on CM/integration of tools
SCL	<ul style="list-style-type: none">Sub-project budgetingForecasting/anticipating growth and needs
SDOT	<ul style="list-style-type: none">Negative public perceptionsCoordination with multiple departments
DPR	<ul style="list-style-type: none">Delay due to environmental permitsMarket issues – high bids or lack of bids
FAS	<ul style="list-style-type: none">Lack of preliminary engineering funding.Cost overruns for difficult tenant improvements
WHAT IS WORKING WELL	
SCL, FAS, DPR	<ul style="list-style-type: none">Standardized projects/programs
SCL, FAS	<ul style="list-style-type: none">Standardized contracts
SPU, FAS, SPU/KING COUNTY	<ul style="list-style-type: none">Coordination
SCL	<ul style="list-style-type: none">Good existing tools for project controlsPrioritizing projects
SDOT	<ul style="list-style-type: none">Lessons-learned analysis
DPR	<ul style="list-style-type: none">Independent 3rd party estimating
FAS	<ul style="list-style-type: none">Earned value analysis

Challenges revealed during the interviews illustrated inherent differences in the objectives and mission of the legislative and departmental staff regarding CIP oversight.

Central Staff challenges include:

- Lack of access to more meaningful CIP progress information. For instance, budget and schedule information from CIP and Quarterly Monitoring Reports routinely track spend to budget, however the reports do not provide meaningful information needed to gauge real progress, identify root causes of budget/schedule variances or analyze trends.
- There tends to be a reluctance on the part of Executive Project Staff to provide in-depth project information (share bad news), unless requested by Council staff.
- CIP fund transfers used to address changes or overruns are not always transparent to Council staff and may hide or mask ongoing scope or budget project issues.
- Supplemental budget requests often have very limited information for decision making.

These issues have logically been raised for some of the larger and more controversial department CIP projects. However, even the small project programs can benefit from improved reporting. For example, one department reported that it rarely exceeded the baseline budget because the mandate was to cut scope, if necessary, to stay within budget.



From the Central staff perspective, current oversight (tracking spend to budget) was adequate for this program, because there were few instances where budget overruns required supplemental budget requests. Is this good practice for a small project program? Although cutting scope may be acceptable for certain types of small projects, it does not answer whether the department receives the appropriate value for dollars it expends. Even standard programs (i.e. pipe relining, sidewalk repairs) could benefit from an analysis of productivity.

Based on our experience, the Central Staff are flagging the right issues. There does appear to be a clear lack of access to more meaningful progress reporting to allow Central Staff to anticipate, prioritize and manage CIP appropriations.

In contrast to Central Staff concerns, the departmental staff focused mainly on internal project management issues (i.e. environmental permitting, bidding issues, negative public perceptions and tenant-caused cost overruns) that had little to do with project controls and reporting standards.

In terms of what was working well, both Council Central Staff and Department Executive Staff agreed that standardized installations or projects worked well (budget and schedule control) and better estimating (independent 3rd party) were keys to successful project outcomes. However, the departmental staff indicated that they were using effective tools and processes, or were working towards improving estimating practices and project controls for CIP oversight.

Based on our understanding of current departmental project management practices, some City departments are using, what we would call, mature project management practices and best practice project controls tools with improved metrics (e.g. stage gating, risk/contingency management, earned value analysis, advanced scheduling and financial forecasting). These practices vary considerably, depending on the department and project/program, which we would expect. The real issue is that when meaningful performance data is generated for a project, this information is not being shared with Central Staff in a timely manner to allow for effective Council oversight. There clearly is a need for improved reporting with more in-depth real time information transfer from the departmental PM staff to the Central Staff.

4.4 INTERVIEW HIGHLIGHTS – REPORTED DEFICITS AND DESIRED OUTCOMES

Table 3 (below) highlights reported deficits expressed by Council Central Staff and Department Executive Staff related to existing oversight processes and monitoring/control of capital projects.

TABLE 3
REPORTED DEFICITS

COUNCIL CENTRAL STAFF		DEPARTMENT EXECUTIVE STAFF
DPR	• N/A	<ul style="list-style-type: none">• Delay due to environmental permits• Market issues – high bids or lack of bids
SPU	<ul style="list-style-type: none">• Limited reporting and decision-making in Pre-Design• Lack of metrics to track progress, as opposed to spend	<ul style="list-style-type: none">• PM training needs for CM/integration of tools
FAS	<ul style="list-style-type: none">• Lack of consistent communication between Department/Council staff for CIP projects• Limited monitoring of schedule/delays• Lack of formalized/consistent dept. PM processes• Misunderstanding of contingency	<ul style="list-style-type: none">• Lack of preliminary engineering funding.• Cost overruns for difficult tenant improvements
SDOT	<ul style="list-style-type: none">• Limited reporting and decision-making (Pre-Design)• Lack of metrics to track progress	<ul style="list-style-type: none">• Negative public perceptions• Coordination with multiple departments
SCL	<ul style="list-style-type: none">• Misunderstanding of contingency• Fund transfers between projects can hide project performance	<ul style="list-style-type: none">• Sub-project budgeting• Forecasting/anticipating growth and needs



Table 4 (below) highlights desired outcomes expressed by Council Central Staff and Department Executive Staff related to existing oversight processes and monitoring/control of capital projects.

		TABLE 4 DESIRED OUTCOMES
COUNCIL CENTRAL STAFF		DEPARTMENT EXECUTIVE STAFF
DPR	<ul style="list-style-type: none"> • Modify CIP reports and highlight new projects 	<ul style="list-style-type: none"> • Electronic signatures • Decision points for moving forward (at bid)
SPU	<ul style="list-style-type: none"> • Harmonize use of PM tools • Make stage gate information available (if used by department) 	<ul style="list-style-type: none"> • More bundled (standardized design, PM) projects • Better inter-department communication and coordination
FAS	<ul style="list-style-type: none"> • Conduct risk assessment ahead of project appropriations, instead of after the fact • More focus (monitoring) on high risk projects/programs 	<ul style="list-style-type: none"> • EVM tools • Standardized (CSI) contract templates • Better 3rd party estimating accuracy for high risk projects
SDOT	<ul style="list-style-type: none"> • Provide access to department PM information/tools 	<ul style="list-style-type: none"> • Common terms and reporting standards • Better baseline reporting for all departments (transparency)
SCL	<ul style="list-style-type: none"> • *Star* projects on CIP reports that have not been adequately scoped • Access to QA reports for major projects • Implement breaks or stage gates to assess project performance/minimize surprises (as appropriate) • Use “turnkey” delivery (i.e. facility performance risk transferred to contractor) for difficult to manage projects 	<ul style="list-style-type: none"> • Better estimating accuracy • Standardization: tools and reporting standards

It should be noted that although the challenges and desired outcomes highlighted in the tables above (Table 3 and Table 4) are not necessarily linked, they reflect the differences and/or similarities expressed during the interviews by the Council Central Staff and the Department Executive Staff.

Three of the Central Staff recommendations addressed CIP report improvements (i.e. flagging scoping issues, higher risks or new projects). The Central Staff wants more transparency (providing essentially the same reporting information that is available to department PMs), would like to see risk assessments ahead of appropriations (for higher risk projects) and stage gate information (when appropriate) to assess cost and schedule performance at key points in project delivery.

Suggested improvements common to both Central Staff and Department Executive Staff were standardization of project management tools and reporting standards. Other departmental recommendations focused on internal improvements to department reporting, more advanced estimating and scheduling practices (3rd party estimates and EVM) and better interdepartmental communication.

The recommendations differed based on the specific department CIP oversight practices and program characteristics. For example, the DPR staff, dealing with smaller, less complicated projects, does not believe that more sophisticated project management tools, processes or project controls are necessary to improve oversight. In contrast, the staff from the larger CIP programs (SDOT, SPU, SCL, and FAS) revealed the need for implementing more advanced PM tools and processes (i.e. stage gates, EVM, CPM scheduling, etc.).



4.5 INTERVIEW HIGHLIGHTS – CIP CASE STUDIES

To gain insight regarding the CIP project challenges and solutions referenced during the interviews, a collection of case studies was produced for the following City programs:

- North Precinct Project
- Ship Canal Water Quality Project
- Alaska Way Viaduct Project
- Denny Substation Project
- EMC System Project
- New Customer Information System Project

The screenshot shows a page from the 'CITY OF SEATTLE CIP CASE STUDIES' document. The title 'North Precinct Project' is at the top, followed by a photograph of a modern police station building. Below the photo is a detailed description of the project's challenges and solutions, including budget overruns and community engagement.

Refer to Appendix E for the six City of Seattle CIP Case Studies.

For reference, Appendix E includes the six City of Seattle CIP Case Studies, illustrated above.

4.6 INTERVIEW HIGHLIGHTS – PHASED APPROPRIATION

From the Council monitoring and oversight perspective, some of the key Council Central Staff oversight responsibilities include:

- Prioritizing capital projects to fund new or existing CIP projects, as part of the annual budget process.
- Exerting oversight via budgetary controls as part of CIP budget process.
- Accessing/reviewing real time budgets/schedules throughout the year, via monitoring and reporting.
- Addressing supplemental budget requests.

By way of comparison, some of the key Department Executive Staff responsibilities, as related to department CIP monitoring and oversight, include:

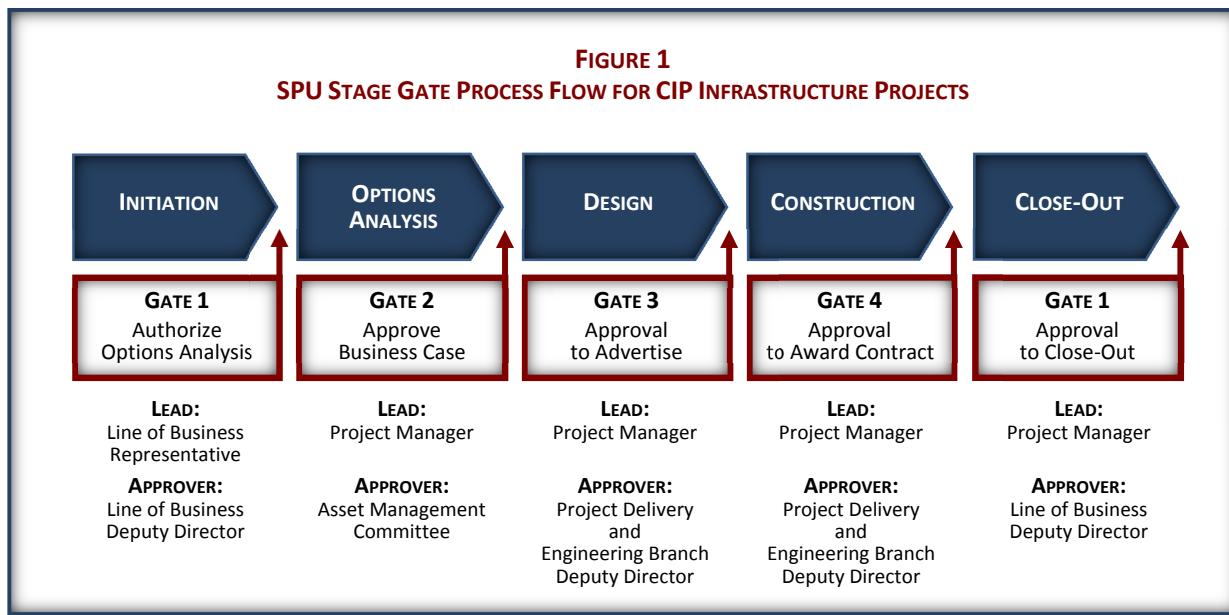
- Setting budgets and schedules for appropriation requests and project controls.
- Utilizing stage gate processes to perform scope, budget and schedule reviews at key project stage gates.
- Providing monthly reporting, briefings.
- Quarterly spending reports (Budget to Actual).
- Selecting/implementing a variety of estimating and control tools that range from Enterprise Project Management, scheduling software (P6/MS Project), e-Builder, Summit, Sage estimating software, etc.
- Setting thresholds for variances that would trigger a change or supplemental budget request.
- Improving change and contingency management.
- Implementing time and cost metrics.

There is agreement among legislative and department staff regarding reasons for oversight (i.e. the exercise of effective budget and schedule controls), however, the responsibilities for oversight differ.

- The Department Executive Staffs' primary responsibility is their departments' day-to-day project management of the CIP project to meet approved budgets and schedules.
- Council Central Staff is tasked with assuring that CIP appropriations are reasonable and that the CIP project progress reports provide timely and useful information to guide Council decision-making.



Regarding challenges associated with a Council phased appropriation mechanism that might overlay on top of departmental stage-gate mechanisms, it was expressed in the interviews that some City departments, particularly those with the largest programs (i.e. SPU), currently use standard stage gate project management processes, as shown in Figure 1 (SPU Stage Gate Process Flow for Infrastructure Projects) below.



Check points help departments make informed decisions during project planning, scoping, budgeting and execution. SCL has a similar project management framework ((i.e. Initiation→ Planning→ Execution→ Closeout).

Department staff expressed that a stage gate process allows for more effective estimating, procurement, risk/contingency management and change management. Similarly, Central Staff responded that it would be useful, from an oversight perspective, to make project stage gate information available (if utilized). Additionally, Central Staff noted that it would be useful to implement check points to assess project status for making necessary adjustments or decisions regarding the project scope, budget and schedule before moving forward to the next project phase.

Some of Seattle's local and state agencies, King County and Washington State Department of Transportation (WSDOT), use phased appropriation for their large capital projects or programs. A phased appropriation process ideally should tie directly to stage gates and provide an annual review and budget ordinance approval process that effectively allows for a phased review and adjustment to the budget, if needed.

By way of comparison, the WSDOT Connecting Washington capital program similarly projects the budget over 15 years for a suite of projects where larger multi-year projects or programs are subject to specific spending caps (i.e. maximum payment curves) in each fiscal year. These funding limits can be adjusted (fund transfers) during the annual fall budgeting process. WSDOT also appropriates funds for specific project phases in some regions, for example an appropriation is made for project design to the Plans, Specifications and Estimate (PS&E) stage in the first fiscal year. It then appropriates funds for construction in the next fiscal year. Hill is aware of several other states and jurisdictions that are required to use phased or incremental appropriations for multi-year contracts. In some cases, the funding is tied to specific deliverables or may use cash flow curves.



Some of the challenges or potential impediments regarding the use of phased appropriations or overlaying phased appropriations with a stage gate process include:

- Smaller projects (within a single season or fiscal year) do not typically use phased budget appropriations or stage gates. Small projects (e.g. <\$1M) make up a significant proportion of total City CIP projects.
- Ongoing CIP programs (i.e. sidewalk repairs, ADA improvements, pipe relining, repetitive projects with standardized designs) are not as amenable to stage gates.
- Timing of critical stages/key project check points may not align with the annual CIP reviews during the annual budget review process.
- Non-traditional contracts (i.e. design-build and GC/CM) with accelerated delivery may not fit well within traditional stage gates.

Based on our experience, phased appropriations, dovetailed with a classic stage gate process, would be more appropriate for larger (multiple season) projects with significant risks or unknowns. These projects make it difficult for the departmental PM staff to provide an accurate baseline estimate for budgeting without adding a significant contingency or management reserve. For these projects, a phased appropriation might include an order of magnitude budget for pre-construction services. This would advance the design to a level that would allow for a more accurate “Class 2” estimate for construction with an off-ramp if bids (or buyouts) exceed a competitive range or target. Some state and municipal agencies are experimenting with alternative delivery methods (e.g. GC/CM) that incorporate similar phased processes with a guaranteed maximum or target pricing.

For small project programs (i.e. single season projects or standardized programs), a traditional stage gate project development process (i.e. Initiation→ Planning→ Execution→ Closeout) would not be applicable. However, periodic checkpoints still could be useful (annual or biannual tied to appropriations) to assess whether the programs are achieving the expected market value for the dollars expended.

Hill will assess, in Phase 2 of the Assessment, how other agencies have implemented phased appropriations and what nuances would apply, based on project size or type, and how phased appropriations would best align with key check points in a stage gate process.



5. PHASE 2

Phase 2 of the CIP Oversight Assessment, if approved by Council, will provide specific recommendations for improving the City's Capital Improvement Program.

5.1 PHASE 2 SCOPE

The goal of Phase 2 is to identify best practices and propose recommendations for enhancing the City's CIP management and oversight, specifically addressing phased appropriation, budget transparency and reporting. Building upon the Phase 1 evaluation and observations, the Phase 2 approach includes comparing City oversight (from Council and departmental perspectives) with similar City and County CIP oversight tools, processes and governance. For reference, the Proposed Scope for Phase 2 of this Assessment, illustrated to the right, is included in Appendix G.

Based upon the assessment of gaps and best practices, recommendations for improving the City's CIP oversight will be proposed for improving project monitoring, as well as best practices for increasing appropriate and timely oversight and providing more transparency to the public for the City's CIP projects.

Major tasks proposed for Phase 2 of the CIP Assessment include:

- Task 1 – Assess the levels of maturity of City of Seattle CIP oversight, in terms of program governance, cost/financial reporting, schedule management, scope/change management, risk/contingency management and systems/ technology, using the Maturity Model.
- Task 2 – Analyze content of existing CIP monitoring and status reports, CIP audits and best practice recommendations for Board/Council oversight of capital projects. Sources may include cities and counties (i.e. Tampa, Dallas, San Diego, King County), aviation authorities, port authorities (i.e. New York and New Jersey), transit agencies (i.e. Sound Transit, NYC MTA), and private sector CIP delivery practices (i.e. utilities, contractors, suppliers). Hill has collected CIP information from sources (clients, internet accessible CIP materials and best practice publications).
- Task 3 – Produce peer agency questionnaire, based upon initial assessment of peer agency programs, to compare feedback from agencies with internal Central Staff interviews (and secondarily, Department interviews).
- Task 4 – Interview eight selected peer agencies, using criteria that includes Central Staff/Department interview findings, size/diversity of CIP, local Washington CIP programs, form of government (and its effect on CIP oversight) and maturity of CIP processes/reporting (see Proposed Peer Agencies/Criteria document included in Appendix G of this report).
- Task 5 – Produce an analysis of peer agency CIP oversight practices, compared to Seattle CIP oversight practices, for identifying gaps and best practices, considering the different Department programs and project types.
- Task 6 – Produce the final report, documenting the results of the assessment with recommendations for enhancing CIP oversight for the City's Central Staff and Council.
- Task 7 – Present findings and recommendations to the City's Central Staff and Council.



Refer to Appendix G for the Phase 2 Proposed Scope of the Assessment.



5.2 MATURITY MODEL

Phase 2 of the assessment will use the criteria in a Maturity Model produced during Phase 1, to rate maturity levels for CIP oversight. For reference, the Maturity Model, illustrated below, is included in Appendix G.

The Maturity Model rates elements within the following key areas of interest:

- Program Governance
- Cost and Financial Management
- Schedule management
- Scope and Change Management
- Risk and Contingency Management
- Systems and Technology

Table 1 Program Oversight					Maturity Model
	Level 1	Level 2	Level 3	Level 4	
Key Area					
Project Governance	• Minimal or no formal governance structure in place. • Project teams are often ad-hoc and lack accountability.	• Formalized governance structure is in place, but lacks accountability. • Project teams are ad-hoc.	• Governance structure is well-defined and accountable. • Project teams are clearly defined and accountable.	• Governance structure is highly effective and accountable. • Project teams are well-defined and accountable.	• Governance structure is highly effective and accountable. • Project teams are well-defined and accountable.
Resource Management	• Resource allocation is ad-hoc and lacks prioritization.	• Resource allocation is prioritized but lacks formal processes.	• Resource allocation is well-defined and prioritized.	• Resource allocation is highly effective and prioritized.	• Resource allocation is highly effective and prioritized.
Delivery Assurance	• Limited delivery assurance processes.	• Delivery assurance processes are in place but lack depth.	• Delivery assurance processes are well-defined and include risk management.	• Delivery assurance processes are highly effective and include risk management.	• Delivery assurance processes are highly effective and include risk management.
Scope and Change Management	• Minimal scope and change management processes.	• Basic scope and change management processes.	• Robust scope and change management processes.	• Highly effective scope and change management processes.	• Highly effective scope and change management processes.
Risk and Contingency Management	• Minimal risk and contingency management processes.	• Basic risk and contingency management processes.	• Robust risk and contingency management processes.	• Highly effective risk and contingency management processes.	• Highly effective risk and contingency management processes.
Systems and Technology	• Minimal systems and technology integration.	• Basic systems and technology integration.	• Robust systems and technology integration.	• Highly effective systems and technology integration.	• Highly effective systems and technology integration.

Refer to Appendix G for the Maturity Model.

The ratings will be used to benchmark the City's CIP (by Department) with the peer agencies for the specific elements that address CIP oversight best practices. It should be noted that different maturity levels may be appropriate, depending on the specific CIP program or project type.

The maturity model was developed using a combination of Hill's industry experience, as well as project management industry standards. Standards that were used include the evolution of the Capability Maturity Model (CMM) developed at Carnegie Mellon University, as well as current leading practices published in the Project Management Body of Knowledge (PMBOK) by the Project Management Institute (PMI).

The Final Report will include a summary of the benchmark findings and recommendations for implementing Council-phased appropriation oversight, as well as other CIP oversight controls and enhancements.

5.3 PROPOSED PEER AGENCIES

Based upon the initial assessment of peer agency programs, Hill proposes interviewing eight peer agency programs (two local municipalities/agencies and six municipalities/agencies located in other areas). Topics and questions will be designed to compare feedback from peer agencies with internal Seattle Central Staff interview findings (and secondarily departmental staff interview findings).

For reference, refer to Appendix G for the Proposed Peer Agency/Criteria overview, illustrated to the right.

CIP Oversight Assessment – Proposed Peer Agencies/Criteria	
CIP Oversight Assessment – Proposed Peer Agencies/Criteria	
Based on the initial assessment of peer agency programs, Hill proposes interviewing eight peer agency programs, as noted below. The proposed peer agencies are intended to provide a range of perspectives on how to approach CIP oversight, including different sizes, types, and locations. The proposed peer agencies are not intended to be a comprehensive list of all potential peer agencies.	
The proposed peer agencies will be used to specifically benchmark the City's CIP programs against best practices from other agencies. Hill will work with the City to better align the City's CIP programs with best practices from the proposed peer agencies. Hill will also seek feedback from the specific Department of CIP programs on how to better align their programs to best practices from the proposed peer agencies.	
<p>Proposed Peer Agencies/Criteria</p> <p>The following table lists the proposed peer agencies. Other considerations included Dallas, Phoenix, Maricopa County, Austin, and Denver. Hill assessed the internal City of Seattle CIP program, noting many of the CIP program processes and structures are similar to the proposed peer agencies. Hill also considered the City of Seattle's CIP program as a potential peer agency, but determined it did not have enough unique characteristics to warrant inclusion in the proposed peer agency list.</p> <p>Proposed Peer Agencies/Criteria</p> <p>The following table lists the proposed peer agencies. Other considerations included Dallas, Phoenix, Maricopa County, Austin, and Denver. Hill assessed the internal City of Seattle CIP program, noting many of the CIP program processes and structures are similar to the proposed peer agencies. Hill also considered the City of Seattle's CIP program as a potential peer agency, but determined it did not have enough unique characteristics to warrant inclusion in the proposed peer agency list.</p>	

Refer to Appendix G for the Phase 2 Proposed Peer Agency/Criteria.

Following are the proposed peer agencies for the oversight assessment and potential case studies.

TABLE 5
PROPOSED PEER AGENCIES

LOCAL MUNICIPALITIES/ AGENCIES	OTHER MUNICIPALITIES/AGENCIES
<ul style="list-style-type: none"> • King County (Washington) • Sound Transit (Washington) 	<ul style="list-style-type: none"> • City of San Francisco (California) • City of Portland (Oregon) • City of San Diego (California) • City of Boston (Massachusetts)

In addition to the two local Washington CIP programs (Sound Transit and King County), the goal will be to review approximately six CIP programs from the proposed list, outside of Washington.



Information will be benchmarked and serve as a basis for providing meaningful comparisons or contrasts, as well as oversight best practices for inclusion in the assessment.

Additional peer agencies that were considered include Dallas, Phoenix, Maricopa County, Austin and Denver. Criteria for selection included the internal Central Staff/department interview findings, relative size/diversity of CIP programs/projects and form of government, as well as maturity/ timeliness of CIP oversight and reporting.

As appropriate, Hill will segregate responses for specific department CIP programs to better compare programs with Seattle's CIP programs. Hill will obtain qualitative information, similar to Central Staff interview response topics, to include program make-up, oversight, issues/challenges and CIP best practices.

Based upon the assessment of gaps and best practices, recommendations for improving the City's CIP management and oversight and providing more transparency to the public for the City's CIP Projects will be proposed. The final Phase 2 report will include the summary of the benchmark findings and best practices, as well as specific recommendations for enhancing Council oversight and controls, specifically addressing phased appropriation, budget transparency and reporting.

PROGRAM MANAGEMENT

APPENDIX A

PROGRAM MANAGEMENT

PROGRAM OVERVIEW – PHASE 1

MONTHLY REPORT – MARCH 2017

MONTHLY REPORT – APRIL 2017

PROJECT: CAPITAL IMPROVEMENT PROGRAM (CIP) OVERSIGHT ASSESSMENT – PHASE 1

DATE: March 2017 – May, 2017

SCHEDULE: The City Council approved the Assessment in December 2016, with the formal ‘Notice to Proceed’ awarded on February 27, 2017. Hill will present the Phase 1 Assessment to the City in May, 2017.

GOAL: The primary goal of the Assessment is to address a phased appropriation process and improve budget transparency (i.e. controls, gaps and reporting) in support of the City’s implementation of Council Resolution 31720.

APPROACH: To support the commitment of the City Council and Mayor for enhancing the City’s CIP oversight and developing new approaches for improving project monitoring, the Council selected Hill International to conduct an assessment. The approach includes segmenting the project into two phases:

PHASE 1: Hill internal assessment of current City practices regarding capital budgeting and project oversight that identifies potential challenges with implementation of Resolution 31720.

PHASE 2: Development of recommendations for implementation of Resolution 31720.

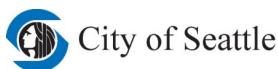
TASKS: The tasks identified for conducting Phase 1 of the Assessment include:

1. Interview City personnel, including City Council Central Staff, City Budget Office, and staff of five City departments (with largest CIP portfolios), as appropriate and subject to accessibility. A Program Team City staff will attend all interviews; participation will be under the direction of Hill staff. The purpose of interviews is to:
 - Identify areas of deficit and excellence regarding existing departmental oversight processes and monitoring/control of capital projects.
 - Identify specific projects and programs for additional analysis.
2. Examine the relationship between Council and departmental oversight, and identify challenges in how a Council phased appropriation mechanism might overlay on top of departmental stage-gate mechanisms.
3. Meet regularly with Program Team City Staff to debrief interview results and discuss concerns identified.
4. Propose potential peer agencies appropriate for identifying best practices and benchmarking. Candidates may include WA organizations and/or other jurisdictions, similar to Seattle in size and scope of services.
5. Produce proposed ‘Scope of Work’ for Phase 2.

DELIVERABLES: Phase 1 deliverables include:

1. Summary of interview findings and identification of potential impediments to employing Council-phased appropriation oversight, similar to that used by King County.
2. Proposed potential peer agencies, as appropriate.
3. Proposed Scope of Work/Work Plan and schedule for Phase 2.

PROGRAM TEAM:	Amy Tsai Geri Morris William Chen Newell Aldrich Greg Heinz Sid Scott, III, PE Catherine Spillars	Legislative Analyst Legislative Aide Legislative Assistant Legislative Assistant Vice President Senior Vice President Vice President	City of Seattle City of Seattle City of Seattle City of Seattle Hill International Hill International Hill International	Amy.Tsai@Seattle.gov Geri.Morris@Seattle.gov William.Chen@Seattle.gov Newell.Aldrich2@Seattle.gov GregoryHeinz@HillIntl.com SidScott@HillIntl.com CatherineSpillars@hillIntl.com	206-684-5509 206-684-5398 206-233-7801 206-386-9011 425-214-0317 215-309-7856 425-985-1515
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CIP OVERSIGHT ASSESSMENT

MONTHLY REPORT – MARCH 2017

DOCUMENT: MARCH 2017 MONTHLY REPORT – CIP OVERSIGHT ASSESSMENT

SUBMITTED: April 3, 2017

OVERVIEW: With formal ‘Notice to Proceed’ awarded on February 27, 2017, Phase 1 of the CIP Oversight Assessment is scheduled to be completed by May 31th. Bi-weekly status meetings to track program progress are scheduled with the Hill/Central Staff Team. As of March 31st, all deliverables/activities due in March were completed and Phase 1 is on-track for May delivery.

ACTIONS:

- ✓ HCS Team kickoff meeting was conducted and documented on March 9th.
- ✓ Amy forwarded several SDOT, SPU, FAS, SCL and DPR documents, presentations and reports for Hill’s review.
- ✓ Sid and Catherine conducted the five Central Staff interviews on March 13th and March 14th. Following is the schedule:



Seattle Central Staff Interviews					
Date	Name	Title	Department	Time	Location
March 13 th (Monday)	Calvin Chow	Legislative Analyst	SDOT	9:00 - 10:30 AM	LC 265A Rochester Room
	Peter Lindsay	Legislative Analyst	SPU	11:00 - 12:30 PM	LC 265A Rochester Room
	Tony Kilduff	Legislative Analyst	FAS	3:00 - 4:30 PM	LC 265A Rochester Room
March 14 th (Tuesday)	Tony Kilduff	Legislative Analyst	SCL	8:30 - 10:00 AM	LC 265A Rochester Room
	Traci Ratzliff	Legislative Analyst	DPR	11:00 - 12:30 PM	LC 265A Rochester Room

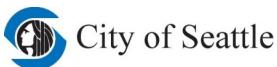
- ✓ Sid and Catherine participated in the March 23rd CIP Meeting to deliver the Central Staff Interview debrief.
- ✓ Sid and Dan Elder reviewed standard budget process and clarification of Central Staff oversight vs. Executive Staff PM roles.
- ✓ Sid and Catherine conducted SDOT, SPU, FAS Executive Staff Interviews on March 23rd/24th. SCL, DPR were scheduled April 10th.

City of Seattle – Executive Interviews					
Date	Name	Title	Department	Time	Location
March 23 rd (Thursday)	Jeff Lundstrom	Project Manager	SDOT	8:30 -10:00 AM	Rochester Room
	Christine Patterson	CIP Finance Director			
	Hanif Khan	Division Director, PM	SPU	12:00 - 1:30 PM	Sam Smith Room
	Cameron Findlay	Finance Director			
March 24 th (Friday)	Frank Coulter	Capital Projects Program Mgr.	FAS	12:00 - 1:00 PM	Rochester Room
	Dove Alberg	Capital Programs Director			
April 10 th (Monday)	Scott Roberts	PM Improvement Program Mgr.	SCL	2:00 - 3:30 PM	Rochester Room/Skype
	Amy Coogins	Management Systems Analyst			
	Eyvind Westby	Financial Planning			
	Michael Shiosaki	Director, Planning and Dev.	DPR	3:30 - 5:00 PM	Rochester Room/Skype
	Michele Finnegan	Finance Director			

- ✓ On March 23rd, Sid and Catherine presented highlights of the Central Staff preliminary interview findings to the Central Staff at their CIP Monthly Meeting.
- ✓ The biweekly status meeting was conducted and documented on March 24th.
- ✓ On March 30th, Catherine forwarded Central Staff Interview Summary and PowerPoint Debrief presentation to Amy for review with her Central Staff.

STATUS: As of March 31, 2017, the HCS Team is on track to deliver Phase 1 of the Assessment in May 2017, as scheduled.

MARCH 2017 MONTHLY REPORT



CIP OVERSIGHT ASSESSMENT

MONTHLY REPORT – APRIL 2017

DOCUMENT: APRIL 2017 MONTHLY REPORT – CIP OVERSIGHT ASSESSMENT

SUBMITTED: May 3, 2017

OVERVIEW: With formal ‘Notice to Proceed’ awarded on February 27, 2017, Phase 1 of the CIP Oversight Assessment is scheduled to be completed by May 31th. Bi-weekly status meetings to track program progress have been conducted with the HCS Team. As of April 30th, all deliverables/activities due in April were completed. Phase 1 of the Assessment is on-track for an early May delivery.

ACTIONS:

- ✓ Status Meetings were conducted and documented on April 7th and April 21st. Minutes were distributed.
- ✓ Catherine provided copies of the Central Staff Interview Findings presentation highlighting the summary, to Amy so that highlights can be included in a presentation that she plans to deliver to Council Member Burgess in early May.
- ✓ Sid and Catherine conducted the final two Executive Staff interviews (SCL and DPR) on April 10th. Sid participated via WebEx.



CITY OF SEATTLE – EXECUTIVE INTERVIEWS					
DATE	NAME	TITLE	DEPARTMENT	TIME	LOCATION
April 10 th (Monday)	Scott Roberts	PM Improvement Program Mgr.	SCL	2:00 - 3:30 PM	Rochester Room/Skype
	Amy Coogins	Management Systems Analyst			
	Eyvind Westby	Financial Planning			
	Michael Shiosaki	Director, Planning and Dev.	DPR	3:30 - 5:00 PM	Rochester Room/Skype
	Michele Finnegan	Finance Director			

- ✓ On April 14th, Amy provided the edits/revisions resulting from the Central Staff review on April 17th, and Catherine noted that the final draft of the CS Interview Summary had been produced, incorporating all edits.
- ✓ Amy provided CS team comments on the PowerPoint presentation delivered to the Central Staff on March 23rd. Catherine and Sid incorporated feedback and returned the draft to Amy on April 20th. Amy noted that this information will provide background for their presentation to Council Member Burgess on May 11th.
- ✓ Catherine sent the draft summary of the Executive Interviews to Amy on April 20th.
- ✓ Upon completion of the review with Central Staff and CBO, Amy forwarded all revisions to Catherine and Sid on April 28th.
- ✓ On April 28th, Sid and Catherine provided a list of the potential peer agencies for consideration. Selected agencies will be interviewed for benchmarking in Phase 2. Final selection will take into consideration centralized/decentralized organizations, CIP set-up and phased appropriations.
- ✓ On April 28th, Sid and Catherine submitted the proposed Scope of Work/Work Plan for Phase 2 of the Assessment to Amy.
- ✓ On April 28th, Amy provided feedback/comments on the Executive Staff Interview Findings.
- ✓ On April 28th, Amy scheduled a meeting for May 8th for Hill’s presentation of the Phase 1 CIP Overview Assessment Report to Central Staff.

STATUS: As of May 3, 2017, the HCS Team is on track to deliver the final Phase 1 CIP Overview Assessment Report to Amy on May 5th. A meeting to present the report to Central Staff is scheduled on May 8th.

CITY OF SEATTLE RESOLUTION

APPENDIX B

CITY OF SEATTLE RESOLUTION

RESOLUTION 31720



Amy Tsai
LEG Budget CIP Oversight RES
D6c

CITY OF SEATTLE
RESOLUTION (31720)

4 Title

5 A RESOLUTION establishing a capital project oversight work program for the Budget Committee for 2017.

6 | ..Body

7 WHEREAS, Capital Improvement Program (CIP) oversight is a critical function of the Seattle City Council; and

8 WHEREAS, effective CIP oversight ensures transparent, accountable use of public dollars; and,

9 WHEREAS, at times the Council has been constrained in its ability to exercise its full duty and authority to
10 oversee CIP projects, such as when the Council first receives large appropriation requests for CIP
11 projects where the project's scope has not been fully defined and/or more design work is needed to
12 fully understand total costs and potential risks; and

13 WHEREAS, the Council's ability to perform effective capital oversight is dependent on access to thorough
14 information and the opportunity to review and process this information in a timely manner; and

15 WHEREAS, City capital projects such as the Seawall Replacement and the utilities' New Customer
16 Information System ran millions of dollars over their original proposed budget and Council's
17 oversight would have been more effective with timely reporting and better defined processes for
18 reviewing available reports; and

WHEREAS, oversight for the 2017-2022 Proposed CIP was improved via increased internal Council staff review of changes to scope, schedule, and budget, including instituting an additional supervisory review of proposed CIP budget actions, seeking information from and holding conversations with some of the major departments on their project management practices and contingency usage, and conducting internal staff meetings to jointly discuss capital project issues across departments, all of which contributed to the development of proposed Council amendments to scope and budget for projects and imposition of capital controls via provisos; and

26 WHEREAS, there is significant opportunity to improve CIP reporting accountability to the Council and to use
27 the Council's budgeting authority to achieve better financial oversight; and

28 WHEREAS, the Mayor agrees with and understands the importance and value of effective executive
29 management controls and Council oversight for projects that have a significant financial, policy or
30 programmatic impact on the City and its residents; NOW, THEREFORE,

31



Amy Tsai
LEG Budget CIP Oversight RES
D6c

1

2 **BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE MAYOR**
3 **CONCURRING, THAT:**

4 Section 1. The Council and the Mayor are committed to improving Capital Improvement Program
5 (CIP) oversight and developing new approaches to project monitoring.

6 Section 2. The Budget Committee shall lead this improvement effort for the Council through its 2017
7 work program by improving CIP accountability in the following ways:

8 A. Development of phased appropriation requirements for large CIP projects that provide Council
9 with the opportunity to oversee the development of a project's scope, schedule, and budget, including
10 development of a capital project risk assessment tool to inform phased appropriation decision-making;

11 B. Establishment of requirements for Council authorization of large external capital grant applications
12 in situations such as grants that are sought by departments in advance of initial Council appropriation for a
13 CIP project; and

14 C. Institution of mechanisms to improve visibility of and budgetary control over use of capital project
15 contingency amounts.

16 Section 3. The Budget Committee will also institute requirements that improve the utility of CIP
17 information communicated to the Council, as follows:

18 A. Enhanced regular CIP reporting developed in conjunction with the City Budget Office, including
19 but not limited to quarterly reports to the Budget Committee on project scope, schedule, or budget deviations
20 from the Council-approved CIP and any subsequent mid-year amendments;

21 B. Improved organization and content of departmental CIP information transmitted with the 2018
22 Proposed Budget, developed in conjunction with the City Budget Office and departments; and

23 C. Improved inter-branch communication on capital projects including coordination with the
24 Executive Capital Subcabinet and other cross-branch opportunities.

25 Section 4. An ad hoc panel of independent experts on capital budgeting and project oversight shall be
26 convened by the Council and Mayor to review current City practices and capital projects and make
27 recommendations for improvement.

28 Section 5. Through the actions identified in this resolution, the Council seeks to institute new rigor in
29 capital project oversight that will increase appropriate and timely oversight and provide more transparency to
30 the public.

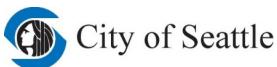
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INTERVIEWS – CENTRAL STAFF

APPENDIX C

INTERVIEWS – CENTRAL STAFF

CENTRAL STAFF INTERVIEW SCHEDULE
CENTRAL STAFF INTERVIEW SUMMARY OF FINDINGS



CIP OVERVIEW ASSESSMENT

CENTRAL STAFF INTERVIEW SCHEDULE

Key City Council Central Staff members were selected for interviews to discuss existing Council oversight, monitoring and control of capital program budgeting and project delivery. The ~one-hour individual interviews, scheduled March 13-14, 2017, were conducted by Hill's Sid Scott and Catherine Spillars in the Legislative Chambers at the Seattle City Hall, 600 Fourth Avenue, in Seattle, Washington.

GOALS

The goals associated with conducting the interviews included:

- Review existing Council oversight/monitoring/control of capital budgeting and project delivery for selected Departments.
- Identify strengths and deficiencies/gaps in oversight or monitoring/control of capital projects.
- Identify desired outcomes to improve CIP oversight.

CENTRAL STAFF

Council Central Staff provides professional, nonpartisan policy and fiscal analysis to the Council and its individual members:

- Provides objective research, analysis, and legislative options to achieve the Council's policy objectives.
- Supports the Chair of the Select Committee on Budget in managing the Council's annual budget review processes, including the development of an initial and revised balancing package.
- Analyzes the Mayor's proposed budget and capital improvement program by identifying potential issues and options.
- Drafts memoranda, legislation, amendments and budget actions that accomplish the Council's intended objectives.
- Facilitates and participates in meetings with and between Councilmembers and other branches of city government, as well as outside partners, stakeholders and lobbyists.
- Acts as the central hub for the exchange of information between the Council, legal counsel and executive branch staff.

INTERVIEW SCHEDULE

Following is the schedule of the Central Staff interviews:

SEATTLE CENTRAL STAFF INTERVIEW SCHEDULE					
DATE	NAME	TITLE	DEPARTMENT	TIME	LOCATION
March 13 th (Monday)	Calvin Chow	Legislative Analyst	Seattle DOT	9:00 AM – 10:30 AM	LC 265A Rochester Room
	Peter Lindsay	Legislative Analyst	Seattle Public Utilities	11:00 AM – 12:30 PM	LC 265A Rochester Room
	Tony Kilduff	Legislative Analyst	Finance and Administrative	3:00 PM – 4:30 PM	LC 265A Rochester Room
March 14 th (Tuesday)	Tony Kilduff	Legislative Analyst	Seattle City Light	8:30 AM – 10:00 AM	LC 265A Rochester Room
	Traci Ratzliff	Legislative Analyst	Parks and Recreation	11:00 AM – 12:30 PM	LC 265A Rochester Room

Additional City of Seattle Central Staff invited to participate in the interviews include:

- Amy Tsai, Legislative Analyst, City of Seattle
- Kristan Arestad, Director of Central Staff, City of Seattle
- Dan Elder, Deputy Director of Central Staff, City of Seattle

PROGRAM TEAM

Following is the contact information for members of the CIP Assessment Program Team:

CIP ASSESSMENT TEAM				
NAME	TITLE	CITY OF SEATTLE/HILL	EMAIL	TELEPHONE
Amy Tsai	Legislative Analyst	City of Seattle	Amy.Tsai@Seattle.gov	206-684-5509
Geri Morris	Legislative Assistant	City of Seattle	Geri.Morris@Seattle.gov	206-684-5398
William Chen	Legislative Assistant	City of Seattle	William.Chen@Seattle.gov	206-233-7801
Newell Aldrich	Legislative Assistant	City of Seattle	Newell.Aldrich2@Seattle.gov	206-386-9011
Greg Heinz	Vice President	Hill International	GregoryHeinz@HillIntl.com	425-214-0317
Sid Scott, III, PE	Senior Vice President	Hill International	SidScott@HillIntl.com	215-309-7856
Catherine Spillars	Vice President	Hill International	CatherineSpillars@hillIntl.com	425-985-1515



CIP OVERVIEW ASSESSMENT

INTERVIEW SUMMARY FINDINGS – CENTRAL STAFF

CENTRAL STAFF – INTERVIEW SUMMARY FINDINGS					
TOPIC	SDOT	SPU	FAS	SCL	DPR
<ul style="list-style-type: none"> SDOT CIP includes discrete projects, generally \$1M or more and ongoing annual paving, bridge painting and sidewalk safety/ADA improvement programs. There can be small spot improvements, therefore there is a wide range of CIP projects from small ADA, sidewalk, traffic signals and street repairs, to large bridge rehabilitation, roadway corridors and major improvements (i.e. Seawall, AWV). SDOT has the Move Seattle levy, a 9-year \$700M CIP. Although funding comes through levies, vehicle license fees, etc., SDOT also relies on grants, partnerships and other long-term funds. Reporting requirements may vary based on sources of funding. During the budget update process each year, the spending plan is processed through grant/partnership opportunity lens, then project funding decisions are based upon what is available. Cash flow workout needs to stage spending plan by year or phase. 	<ul style="list-style-type: none"> SPU is multi-faceted public utility (1. Water, 2. Solid Waste, 3. Wastewater and 4. Drainage/Stormwater), with four rate structures to manage funding. For funding purposes, Wastewater/ Stormwater are combined. Each facet has distinct projects and programs (i.e. transmission requires several smaller projects to support transmission). Example: sewage lining program is a continuous program capitalized over useful life of project. Solid waste tends not to have programmatic aspects. Typically small capital programs, i.e. two transfer stations plus old landfills with some smaller facilities (fleet, etc.). 	<ul style="list-style-type: none"> FAS was created a few years ago by combining groups (i.e. Fleets and Facilities). There has been a lack of effort to improve operations. FAS is responsibilities include ongoing maintenance for 23+ city departments (physical assets – department submits request). Example: FAS charged with scoping Library compliance. Some projects not owned by Facilities, i.e. City Hall. FAS distinguished between client building and government work. FAS has everything from Fleet to regulatory construction/compliance (i.e. licenses, checking gas pumps, weights/measures, dog pound, etc.). 	<ul style="list-style-type: none"> SCL has the largest capital program of any city department. However recent transportation levies may pass it up (\$3-4M/year). Typical projects include Generation Fleet and Delivery Systems. Generation: City Light is involved in major maintenance of generating fleet, a series of dams and power houses with hydro-electric systems. They cycle through all turbines, with a plan to pull, check and maintain them before failure (it can be very expensive if they fail). Wire is the busy side with most of the budget is applied here. 	<ul style="list-style-type: none"> DPR is very different from other departments. Parks has only ~10 projects over \$2M. Most projects involve major maintenance, roof replacement, pool repair, etc... In previous years, Park levies provided funding for major park development projects. Now, CIP focus emphasizes major maintenance for existing assets. There is some money for 14 sites, however funds are ~\$1M/park. Community engagement is a key ingredient in park projects. Two Pier 62 piers connected to the Waterfront (example of larger project). 	<ul style="list-style-type: none"> Regarding bidding, there is some GCCM, DB, however it is mostly open bid contracting. Wire: Wire is busy with most of the SCL budget. Routine maintenance includes transformers in some critical locations that are ~70 years old and should be cycled out. Very few hiccups. Generally, wire projects do not exceed budget. Expansion of commercial hookups can be complex. 50+ cranes can require many connections. Problems include delays. Many cases of over/under charging due to less time/effort spent on correctly pricing installations. SCL often picks up the tab for the physical and labor expense. Relocation on infrastructure is required for transportation projects (long-standing theory that right of way is owned by the people). Example: AWV had SCL infrastructure. AWV is driven by DOT rather than the SCL schedule.

DEPARTMENT CIP



CIP OVERVIEW ASSESSMENT

INTERVIEW SUMMARY FINDINGS – CENTRAL STAFF

TOPIC	SDOT	CENTRAL STAFF – INTERVIEW SUMMARY FINDINGS			
		SPU	FAS	SCL	DPR
<ul style="list-style-type: none">Monitoring involvement can be driven by constituent complaints, which can impact construction/community. Performance and monitoring generally focus on actual to budget performance.Council oversight could be improved.Although Council Staff receives a spending report, there is no context in terms of delivery.Council Staff tends to be the squeaky wheel to receive information. Sometimes Council Staff receives a heads-up, however typically, there is not a report.	<ul style="list-style-type: none">Council typically sets rates for a 3-year period. 2018 anticipate new proposal for rates to go up in 2019. City does appropriate funds for SPU.Whole science/architecture around rates. Spending drives rates – however also depends upon what type of utility. 2Xs debt load is a standard formula.Council Staff does always see supplemental budget requests. At times, money is transferred from one project to another. Sometimes, Council Staff requests backup regarding the request.Council Staff does not have a lot of oversight views at various points in a project – process tends to be more reactionary.Although Peter receives a fiscal note for a supplemental budget request, it could be two sentences that does not include the whole history.Although fiscal notes are attached to legislation, supplemental requests only require a fiscal note.				<ul style="list-style-type: none">Central Staff involved during initial funding decision. If major issues arise with cost overruns, Central Staff is typically alerted mid-year. Example includes a briefing received in March – when bids were received, the bids for park projects came in about \$1M over the original estimates.Central Staff reviews concession agreements is related to investments by private parties in city land (Magnussen Park, Building 27, etc.). These agreements allow private parties to come in with ~\$1M investments for exclusive use/lease agreements – basically, a capital investment in exchange for a long-term lease. The City looks for partners willing to develop and then negotiate to suit the interest of both parties. This is independent from other projects.



CIP OVERVIEW ASSESSMENT

INTERVIEW SUMMARY FINDINGS – CENTRAL STAFF

CENTRAL STAFF – INTERVIEW SUMMARY FINDINGS					
TOPIC	SDOT	SPU	FAS	SCL	DPR
INFORMATION SUPPLIED FOR OVERSIGHT	<ul style="list-style-type: none"> Information is supplied at different stages. Stage gates – early pre-design/budgeting is often a placeholder. The CIP budget page provides limited information Change of appropriations for the current year are not uniform. Whatever Central Staff approves in the first year rolls over – the placeholder is based upon the preliminary budget. TBD funds can include identifying the design budget for the first year without identifying future requirements. If the funds are not used in the current year, funds roll over. There are no real time tools for monitoring progress. Unless requested, Central Staff does not receive more in-depth information. 	<ul style="list-style-type: none"> Central Staff receives quarterly reports –they really just track the money. Central Staff looks at monitoring reports. If variance is +- \$1M, they investigate what is causing the variance. Actually, it is more difficult during budget process because they are dealing not only with capital program, they must address expense requests on top of whatever capital requests they are proposing. SPU uses a stage gate process, but it is not transparent to Central Staff. Central Staff is notified for any major SPU procurements, however it does not always have questions. SPU provides a link. There is more focus on consultant contracts. 	<ul style="list-style-type: none"> Reports are somewhat similar/uniform regarding actual to budget spend. Central Staff receives quarterly reports that include action against budget and sometimes flags changes. Generally, it's not a very informative report, considering the regular ups and downs associated with capital portfolio management. It would be cumulative. Could easily have 2-3 projects moving funds around. If it is significant and not a major issue, it is OK. 	<ul style="list-style-type: none"> SCL uses the same reporting systems as other city systems. Developed the reporting mechanism for all capital departments. Financial governance requires that it goes up the chain. Need to understand that many of the tools are management rather than oversight tools. 	<ul style="list-style-type: none"> In terms of oversight, it is mostly related to quarterly CIP Reports. Central Staff has performed some monitoring of parks projects and engagement with budget staff who provided alerts when problems arose. As with other departments, Executives have approval authority up to \$1M within department and \$500K within BCLs. These levels have not changed within 10 years. Generally, the Council approves requests for additional funds or projects. If the request is for a lot of money, then they ask for written materials to justify the request. Although this is a rare occurrence, it does happen occasionally.



CIP OVERVIEW ASSESSMENT

INTERVIEW SUMMARY FINDINGS – CENTRAL STAFF

CENTRAL STAFF – INTERVIEW SUMMARY FINDINGS					
TOPIC	SDOT	SPU	FAS	SCL	DPR
<ul style="list-style-type: none"> A proviso is a very useful tool for controlling spending when there is a major question regarding funding. Council Staff has put provisos on big construction projects for preliminary steps, however must come back to Council for approval before contracting – PROVISOS – spending restrictions – can require milestones be reached before spending money. Council Staff sits on a team regarding 520 (WSDOT) and also ST 3 delivery therefore sitting on city departmental team for both projects is recognition that they will require Council Member involvement at some time. 	<ul style="list-style-type: none"> Examples of improved due diligence include requesting/receiving three estimates and then cataloguing them. 	<ul style="list-style-type: none"> All routine maintenance is done well for SCL. Huge piece of capital projects for SCL is maintenance. Replacing or expanding existing assets. Most of what the city does is maintenance of existing assets. There was a tendency for engineers in the field to give full reign to designers, which can result in disparity with the original design. Now there are standardized installations. Crews understand parameters and only extend with approval of a non-standard installation. Need to close the loop to make sure that design matches plans. Installation is getting better due to oversight/standardizing installations. 	<ul style="list-style-type: none"> No oversight improvements needed for small projects <\$1M (gated approach not necessary). Project Development Division Report tells where they are in the process – red or green zone (MPD's report). An external estimator verifies that the bids are accurate. It is encouraging that outside estimators are brought in to confirm estimates – good for overall efficiency. Some controls – Council Staff has leverage over project priorities and can earmark funds (funds cannot then be used for any other purpose). Provisos can be used by Council to limit or prohibit expenditures on a project. For example, Council can use Provisos to stop a project, defund projects or leave them in the budget and require further action. Provisos provide opportunity for an additional review and serve to address Council avoidance. Great coordination with SDOT Seawall project– able to combine some work on Waterfront Project. Efficiencies saved funds. Executives from the two departments worked together to save funds. Although the project is slightly delayed because of bidding, this is a good example of partnering. 		

WHAT IS WORKING WELL



CIP OVERVIEW ASSESSMENT

INTERVIEW SUMMARY FINDINGS – CENTRAL STAFF

CENTRAL STAFF – INTERVIEW SUMMARY FINDINGS					
TOPIC	SDOT	SPU	FAS	SCL	DPR
<ul style="list-style-type: none"> Need to report more when projects are in predesign to make sure that there is a lever. Projects are funded through final design, however need to have discussions, as part of budget, to understand priorities so that Calvin can Proviso those projects before check-in. Streetcar Line – vehicles were delivered a year late. Power cut out of one vehicle, therefore SDOT has now pulled all vehicles off the road. People are already having mixed feelings, as the news is appearing in the press. 	<ul style="list-style-type: none"> Although Central Staff is very diligent, there is no systemic effort on part of the legislative branch. When defining oversight, it implies something that is systemic and long-term, with guiding policy goals. More information should be brought in for effective oversight. Central Staff has limited time to address issues. Central Staff tries once a year to look through what SPU executive staff sends. Structure has not been set to imply oversight. Central Staff does its best to review information provided by executive staff during budget process and to raise issues when they are seen. Challenges include understanding where projects are in conceptual life, understanding how projects are evaluating programmatic investments and understanding the use of contingency with a clear distinction of a project going over budget as related to contingency. 	<ul style="list-style-type: none"> Reality is that communication between Executives and Council often occurs when public attention alerts politicians. Not an uncommon problem. Inadequacy of reporting includes not identifying the project status compared to schedule. There is six-year CIP, however the adopted budget/legal authority is only for one year. It should identify the whole budget. There are tremendous changes over six years. Tell me where you are (progress) not what you've spent. It is more difficult to convey where the project is. It requires a defined beginning, scope, schedule, milestones and metrics ahead of time. QA should be more focused to address where the project is according to where it should be, with explanation. 	<ul style="list-style-type: none"> Council does not want price/timeline surprises. There is no way to tell if CIP numbers are solid. Should be some flag that indicates the level of design. Need to determine how to price projects and hold those accountable – contingencies do not help when the price doubles. Steering committee is a governing body that, in general, does not make bad decisions. However it is slow to recognize that there might be a problem and for one project, it did not listen to the QA person who told them there was a problem. Some Councilmembers think of contingency as icing on the cake that should not be there and therefore, should never be spent. A general concern regarding Project/ Capital Management is the lack of formal PM process. Departments all have different state-of-the-art concepts for PM. Today, they take their best guess estimate and just do it. 	<ul style="list-style-type: none"> Regarding the Quarterly Report, recommend including total project budget rather than yearly spending/ projected basis, addressing time. Recommend additional information, including substantial questions for new projects when funding is requested in the proposed budget. Already require callouts for deferred, expanding scope, etc. for new projects. Recommend highlighting significant changes to CIP, once a year when mayor puts together budget. Executives are implementing the Summit Accounting System, likely after 2017. 	<ul style="list-style-type: none"> Regarding the Quarterly Report, recommend including total project budget rather than yearly spending/ projected basis, addressing time. Recommend additional information, including substantial questions for new projects when funding is requested in the proposed budget. Already require callouts for deferred, expanding scope, etc. for new projects. Regarding the Quarterly Report, recommend including total project budget rather than yearly spending/ projected basis, addressing time. Recommend additional information, including substantial questions for new projects when funding is requested in the proposed budget. Already require callouts for deferred, expanding scope, etc. for new projects.

WHAT ARE ISSUES AND/OR NEEDED IMPROVEMENTS

CENTRAL STAFF – INTERVIEW SUMMARY FINDINGS					
TOPIC	SDOT	SPU	FAS	SCL	DPR
LIKE TO SEE IMPLEMENTED	<ul style="list-style-type: none"> Want to see whatever tools Executive staff are using. Dangerous to interrupt work – however want to see how Department is managing it. Would like to put breaks in place. In large part, identifying concerns, rather than guess what might become an issue. When it comes down to it, want to have more confidence that the system is working because it is a dangerous position to second-guess system on the ground. Want to understand that the Department is taking the appropriate steps. 	<ul style="list-style-type: none"> Make stage gate information available to Council Staff when making decisions regarding capital spending. Better to focus on higher risk programs – only focus on things that are most at risk and most consequential, as related to dollars (i.e. flood control project or public safety). The Ship Control project is a \$1.5B 3-mile subterranean project – Peter sees a lot of potential risk – very complex project – should be scrupulous on this project. Way to harmonize use of tools – next level of city efficiency would be to harmonize processes 	<ul style="list-style-type: none"> Risks – inherent risks – it would be nice if there is an assessment of risks ahead of the projects. Seems to be more lip service. Hasn't seen risk register before the fact – however do see them after the fact. It's only when something has that much reality – project QA – see a risk register being developed. That is too late in the game. More status information than currently provided in quarterly monitoring reports Standardization of PM tools across departments 	<ul style="list-style-type: none"> For all capital programs – need to ** sta.** projects that have not yet been scoped – the state required that city/sub-jurisdiction requires 6-year CIP even though they only adopt the budget annually City should use “turnkey” contracts when difficult to price or manage (i.e. IT). 	<ul style="list-style-type: none"> Regarding CIP reports, would like to change a couple of things – not big things. The City started a process that if they had a project funded by 2 sources, they created two separate projects in the CIP. Council Staff asked if they could combine the projects and not create new projects moving forward. Budget office is working on it. Probably some substantial questions about new projects. Already require that when Department submit new projects that CIP includes note callouts in (deferred, expanding scope, etc.). Ways to highlight any significant changes to CIP – once a year when mayor puts together budget.

CENTRAL STAFF – INTERVIEW SUMMARY FINDINGS		
RESPONSES – COMMON ELEMENTS	RESPONSES – UNCOMMON ELEMENTS	RESPONSES – UNCOMMON ELEMENTS
<ul style="list-style-type: none"> Information supplied (quarterly monitoring reports) is generally a comparison of actual spend to budget. OK for small low profile projects but not so much for larger, high profile, politically sensitive projects Budget (placeholder) when incomplete scope, or design Not typically apprised of transfers (of \$ between/among CIP projects in annual budget) Budget variances flagged (come to light) when Council Staff asks or Department asks for Budget amendment Stage gate process (information at key stages in project) to reduce surprises Use same PM tools/information that Executive staff uses. More focus (estimating, scheduling, reporting and monitoring) on higher risk, high profile projects 	<ul style="list-style-type: none"> For small projects (Parks Program) current levels of oversight are OK - no need in higher levels of oversight (scrutiny) than currently provided Harmonize use of PM tools (across departments) Third party estimates for selected projects 	<ul style="list-style-type: none"> For small projects (Parks Program) current levels of oversight are OK - no need in higher levels of oversight (scrutiny) than currently provided Harmonize use of PM tools (across departments) Third party estimates for selected projects

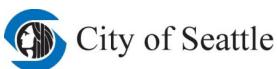


INTERVIEWS – EXECUTIVE STAFF

APPENDIX D

INTERVIEWS – EXECUTIVE STAFF

EXECUTIVE STAFF INTERVIEW SCHEDULE
EXECUTIVE STAFF INTERVIEW SUMMARY FINDINGS



CIP OVERVIEW ASSESSMENT

EXECUTIVE STAFF INTERVIEW SCHEDULE

Executives, representing SDOT, SPU, FAS, SCL and DPR, were invited for interviews to discuss existing Council oversight monitoring and control of capital program budgeting and project delivery. The ~one-hour individual interviews, scheduled March 23, 24 and April 10, 2017, were conducted by Hill's Sid Scott and Catherine Spillars in the Legislative Chambers at the Seattle City Hall, 600 Fourth Avenue, in Seattle, Washington.

GOALS

The goals associated with conducting the interviews include:

- Review existing Departmental practices for CIP project oversight, controls and progress reporting.
- Identify strengths and weaknesses in governance, management and reporting of CIP projects.
- Identify desired outcomes to improve transparency and accountability for CIP projects.

INTERVIEW SCHEDULE

Following is the schedule of the Executive interviews:

CITY OF SEATTLE – EXECUTIVE INTERVIEW SCHEDULE					
DATE	NAME	TITLE	DEPARTMENT	TIME	LOCATION
March 23 rd (Thursday)	Jeff Lundstrom	Project Manager	SDOT	8:30 AM – 10:00 AM	Rochester Room
	Christine Patterson	CIP Finance Director			
	Hanif Khan	Division Director, Project Management	SPU	12:00 PM – 1:30 PM	Sam Smith Room
	Cameron Findlay	Finance Director			
March 24 th (Friday)	Frank Coulter	Capital Projects Program Manager	FAS	12:00 PM – 1:00 PM	Rochester Room
	Dove Alberg	Capital Programs Director			
April 10 th (Monday)	Scott Roberts	Manager, PM Improvement Program	SCL	2:00 PM – 3:30 PM	Rochester Room and Skype
	Amy Coogins	Management Systems Analyst			
	Eyvind Westby	Financial Planning			
	Michael Shiosaki	Director, Planning and Development	DPR	3:30 PM – 5:00 PM	Rochester Room and Skype
	Michele Finnegan	Finance Director			

Additional City of Seattle Central Staff invited to participate in the Executive interviews include:

- Amy Tsai, Legislative Analyst, City of Seattle
- Sarajo Reddy, Budget Lead, City of Seattle
- Scott Clarke, Fiscal and Capital Manager, City of Seattle
- Caleb Wagenaar, Fiscal and Policy Manager, City of Seattle
- Kristan Arestad, Director of Central Staff, City of Seattle
- Dan Elder, Deputy Director of Central Staff, City of Seattle

PROGRAM TEAM

Following is the contact information for members of the CIP Assessment Program Team:

CIP ASSESSMENT TEAM				
NAME	TITLE	CITY OF SEATTLE/HILL	EMAIL	TELEPHONE
Amy Tsai	Legislative Analyst	City of Seattle	Amy.Tsai@Seattle.gov	206-684-5509
Geri Morris	Legislative Assistant	City of Seattle	Geri.Morris@Seattle.gov	206-684-5398
William Chen	Legislative Assistant	City of Seattle	William.Chen@Seattle.gov	206-233-7801
Newell Aldrich	Legislative Assistant	City of Seattle	Newell.Aldrich2@Seattle.gov	206-386-9011
Greg Heinz	Vice President	Hill International	GregoryHeinz@HillIntl.com	425-214-0317
Sid Scott, III, PE	Senior Vice President	Hill International	SidScott@HillIntl.com	215-309-7856
Catherine Spillars	Vice President	Hill International	CatherineSpillars@hillIntl.com	425-985-1515





CIP OVERVIEW ASSESSMENT

INTERVIEW SUMMARY FINDINGS – EXECUTIVE STAFF

EXECUTIVE STAFF – INTERVIEW SUMMARY FINDINGS					
TOPIC	SDOT	SPU	FAS	SCL	DPR
<ul style="list-style-type: none"> SDOT enters projects in the CIP when funded. CIP includes discrete projects, generally \$1M or more and ongoing annual paving, bridge painting and sidewalk safety/ADA improvement programs. There can be small spot improvements, therefore there is a wide range of CIP projects from small ADA, traffic signal, improvements, and street repairs, to large bridge rehabilitation, roadway corridors and retaining wall improvements. SDOT has modal plans that prioritize programs. They also have a large capitalization plan that assesses needs, forms projects and then rates projects using a set of criteria. Prioritization is then based upon available funds. SDOT has the largest pot of money. Move Seattle levy is a 9-year \$930M CIP. Regarding revenue sources, although they receive tax levies, vehicle license fees, etc., they also rely on grants, partnerships and long-term funds. Reporting requirements vary based on sources of funding During the budget update process each year, the spending plan is processed with grant/partnership opportunity lens, therefore there are decisions based upon what is available. Cash flow workout needs to stage spending plan by year or phase. PM tools are used for larger projects. Estimating uses internal PMAC and a more robust cost estimating tool that has proven to be better at accounting for contingencies and issues. 	<ul style="list-style-type: none"> Decision to move forward with the project is driven by several factors. Prioritization is part of the assessment at the initiation gate of stage gate process. At early stages, SPU has programmatic plans (master planning) that evolve into programs. Because SPU is heavily regulated (health, safety, etc.), they need to set priorities because a number of factors impact decision on what to fund. Although there are some federal funds, most revenue comes from rate payers – plus they go to the bond market to finance projects. The initiation stage is not a project - it is a problem statement. They develop a charter, a business case analysis, and a cost. A decision is then made whether or not to approve/fund the project. The business case is supported by preliminary scope, engineering and PM. Engineering during that phase is really conceptual engineering to support a 10% level conceptual estimate - not based on an absolute alignment. This estimate is a Class 4 estimate with LCC. The city budget cycle is set, however when they propose their budget, they give their best estimate on the cost based upon information available at that time (could be programmatic or stage gate 2) and manage within those parameters throughout the project. 	<ul style="list-style-type: none"> FAS includes fleets and facilities. More than 100 buildings, shops and yards. Tenants include police, fire, and other city departments. \$308M Levy program coming to completion Requesting appropriation for money is typically a predesign exercise. If there is request for a project, they move forward to ask for funds, then come up with a scope during initiation or feasibility. Often, need to give an estimate – this is the only way they are funded (through the CIP). Therefore it is a (ROM) rough order of magnitude based on operational needs of tenants, not necessarily compared to reality. All FAS projects go through budget process and FAS is always building to a budget, and if they get tied to a number, that is what the public remembers, even if they provide operations/capacity needs, etc. If there is no money to do early work, they are providing their best guess based upon their experience and tenant information and criteria. Because there is currently no master plan, they tend to be reactive in their approach. All projects in the CIP go through the budget process (FAS is not like SPU with a revenue stream). The city budget cycle is set, however when they propose their budget, they give their best estimate on the cost based upon information available at that time (could be programmatic or stage gate 2) and manage within those parameters throughout the project. 	<ul style="list-style-type: none"> A large group of SCL's capital plan includes maintenance of generation fleet and transmission system. Generation includes maintaining dams and power houses with hydroelectric Systems (which cycle through turbine rewinds) and other maintenance activities. Transmission includes adding to or maintaining distribution systems (wire, poles, hook-ups, and substation renovations, etc.). Other activities include real estate and IT investments. Total budget for 2017-2018 is \$410M (most is on transmission (wire) side). A significant IT investment (2018 implementation) includes networked (smart) meters at each residence to replace meter readers. SCL has various prioritization processes. The energy/innovation technology group, responsible for the majority of transmission/distribution, is evaluating categorization/prioritization processes compared to current best practices. Regarding scoping, SCL is developing plans for next year's capital programs. SCL produces a business case analysis for projects >\$1M and then evaluates for initiation. The City Light Review Panel reviews new initiatives and makes recommendations. A lot of programs are programmatic (i.e. connection projects) vs. discrete projects. They are managed separately and use MSP schedules. 90+% revenues are fees from customers for service connections. 	<ul style="list-style-type: none"> DPR CIP projects are smaller than other City departments. Average size is ~\$1M (some are \$30K. The \$25M Community Center and Pool project is the largest. Most DPR projects are small major maintenance projects and are driven by extensive public engagement/input that results in prioritization of projects (rather than being staff-driven). The CIP six-year funding package is a result of an extensive public process – a committee including citizens proposes programs that reflect citizen interests. The Asset Management Work Order System lists known needs based on condition assessments that can include facilities, parks, irrigation, roofs, etc. The Asset Management Work Order System links projects systematically. As a result, condition assessments are now considered and funded. Scoping/budgeting often goes back to condition assessments/early project identification through the Asset Management Plan. Assessments are used to develop early ROM estimates. DPR may receive an allocation (i.e. \$6M) - so they build to budget. For years, some programs funded out of voter-approved levies, therefore a scope would be adjusted accordingly (could be phased). With so many similar projects, DPR is good at estimating (i.e. playgrounds, sport field conversions, etc.). Funding source does not change the way projects are funded, however they are tracked separately. 	





CIP OVERVIEW ASSESSMENT

INTERVIEW SUMMARY FINDINGS – EXECUTIVE STAFF

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	<ul style="list-style-type: none">Project plan includes defining scope, survey/base map, concept memo on drainage and a pavement memo @ 10%, therefore it is good to assess original scope and develop preliminary budget at 10% (drainage and pavement reports were previously constant budget busters).The same planning (Charter → PMP → Design (30-60-90) → w/ baselining budget at 30%) applies to all projects; however, might skip a few steps for less complicated projects.The trend has been to do more front-end design before establishing budgets.For federally-funded projects, there are more steps (i.e. risk assessment, VE studies, CVEP, etc.)Estimating tool provides a better assessment of contingency at 10% design for baseline budget, scope and scheduleAll departments sign off on the full charter. Although SPU and SCL do not sign the charter, they are invited to review it. SPU integrates their scope with SDOT (once pavement is put down, utilities are not allowed to tear up streets for five years).	<ul style="list-style-type: none">Specific tools used include EPMS (Enterprise Project Management), Primavera P6 for scheduling and an Excel-based Risk Assessment. Every project uses their own risk register.SPU has a pilot license for Sage estimating software (with Excel-based standard templates for estimating and reporting) and plans to implement it at a later date.			

CIP OVERVIEW (CONTINUED)

EXECUTIVE STAFF – INTERVIEW SUMMARY FINDINGS					
TOPIC	SDOT	SPU	FAS	SCL	DPR
<ul style="list-style-type: none"> SDOT uses a mix of in-house staff and consultants to help supplement staff. SDOT follows a strict bid-limit law. A project going out for bid comes to the Capital Projects Group – they assign a PM. Often the contracts group will help hire consultants, sometimes on-call, etc. Then they manage the design and work with cities for CPCS to put out the contracts for procurement. SDOT's CM group manages the project through construction and closeout. Design/construction changes go to the Change Management Board to determine contingency/additional funds. Funding may come from other project savings or Grants. If funds are not available, the project might be paused or de-scoped. If a change is major and does not fit within contingency (25% at PM, 75% at executive level), it goes to the Control Board. Scope, schedule or budget changes can trigger Board reviews. PMAC (PM and Project Controls software), MS Project and Roadmap are the three main PM tools. The Roadmap, made available to Planning, is only accessible by PMs. PMs are trained to use the Roadmap. MS Project is used for PM (tracks 5-6 major milestones, ages dollars and shows the full spending plan through planning, design, construction, etc.). SDOT does have quality functions, mostly in design. The PMP typically has a quality management chapter. Also, consultants bring quality checks. 	<ul style="list-style-type: none"> SPU is a matrixed organization. A PM manages several CMs A lot of work is in-house (engineering, and PC, CE and inspection), but also outsource to consultants for larger projects. Sewer work is SPU's core. SPU frequently manages multi-departmental projects with SDOT and WSDOT (due to aging infrastructure or because it is an opportunity to protect the asset). SDOT takes the lead – SPU/SDOT work together regarding the design, PM, schedules checkpoint reviews, etc. MOAs and Capital Coordination Papers are produced/signed by all partners. MOA defines payment. Capital coordination papers highlight issues. Three city partners (SDOT, SPU and SCL) have established standard rules of engagement because they work together so frequently SPU uses their own tools (P6) and updates their tools with information from the other department (integrated yet separate). For consistency, SPU uses a PMM Project Management Manual that describes the processes and project controls. An estimating guide defines estimating levels, contingencies, etc. (based on APWA standards). Construction has an office for construction standards for the city - working with people in the various capital departments. Also QA in asset management for utility services. Don't have QA process staff in-house. 	<ul style="list-style-type: none"> FAS is different from utilities – their office is cradle to grave. CIP is divided into programs managed by PM. PMs are involved from project beginning to end. FAS is the boutique office – they don't have a CM group – they are the design manager, bid reviewer and then a project manager. . They are divided into programs, i.e. major maintenance, design, controls, tenant improvements, engineering/critical infrastructure, etc. They have critical infrastructure in their buildings. They do EOC (emergency operations center). FAS has PMs who report into their Program Managers – they matrix manage. PMs can have a few types of projects with 7 or 8 managers reporting into them. They are small, manage a lot of projects and use outside A&Es and specialty consultants. PMs have a variety of backgrounds. FAS hires specialists (their PMs do not stamp drawings). They refer to consultants for their expertise and for designers of record. They perform some early design services that may not require permits. Although they do not stamp plans, they do have CAD capability. SPU engineers do stamp drawings. FAS engineers could stamp drawings, however they don't want that to happen. 	<ul style="list-style-type: none"> SCL is organizational based, with four capital program control levels headed by Sponsors (typically division director). PMs/Engineers are responsible for project reporting, with some latitude to move funds between projects All projects require one PM and one Sponsor. SCL would like to lower Sponsor signature authority due to limited sponsor availability. PMs determine needs for project delivery. SCL does many projects with SDOT – mainly large transportation projects (AWV, ST, etc.) requiring relocations. CBO manages these joint budgets. Most SCL services are in-house, (planning, design, inspection, etc.). Outsourcing for consulting expertise includes using design and CM consulting services for larger projects. SCL administers their own permits. Some PMs have 10 projects, however most have one to four (depends on size, complexity and budget). Top 20 Report includes current year top projects (> 50% of SCL capital plan). They perform some early design services that may not require permits. Although they do not stamp plans, they do have CAD capability. SPU engineers do stamp drawings. FAS engineers could stamp drawings, however they don't want that to happen. 	<ul style="list-style-type: none"> Generally, with most of the larger park development projects, a design program is developed, then agreement is reached to avoid scope creep, before going out for public involvement. In some cases, scope can be changed to respond to public requests (i.e. restrooms which can be expensive), but project still must stay w/in budget. The project goes through schematic design before going to the planner and going out to bid. The PM oversees construction and the budget. Planners and PMs are in-house. In some cases, consultants are hired. PMs report to the director. DPR can work with other departments on projects (e.g. ~5-6 projects with SPU (parks on reservoir projects, etc.). DPR emphasizes 'lessons learned', particularly for joint projects. Firm lines of communication and clear definition of roles/responsibilities are important. In general, PMs have between 8-15 projects (different stages). DPR does not have a lot of significant joint projects. On the Mapes Creek, joint PM did not work well. DPR is good with defining roles. External partners can include non-profit partners (i.e. Seattle Art Museum). They agree upfront on roles. There is no PM manual. Initial training for new hires includes systems, and resources. DPR uses the "Buddy System" (i.e. shadowing or mentoring) for on-the-job training. 	<ul style="list-style-type: none"> SDOT, project management, and project controls. An estimating guide defines estimating levels, contingencies, etc. (based on APWA standards). Construction has an office for construction standards for the city - working with people in the various capital departments. Also QA in asset management for utility services. Don't have QA process staff in-house.

PROJECT MANAGEMENT ORGANIZATION





CIP OVERVIEW ASSESSMENT

INTERVIEW SUMMARY FINDINGS – EXECUTIVE STAFF

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	<ul style="list-style-type: none"> SDOT does some sole sourcing (traffic signal, transit ORCA cards, etc.). If using federal funds, they have to deal with their departments. SDOT is trying to reduce sole sourcing and leave it to open bids (2-3 options or equivalent). Projects go out for low-bid, except for those used by the city. SDOT does some GCCM. They have not done DB, however may start soon (SPU has been doing DB). SDOT also uses JOC (job order contracts), for small contracts. Most SDOT projects are now coming out in DBB. 	<ul style="list-style-type: none"> SPU goes outside for procurement and follows public works contract rules and regulations that are set by FAS. SPU works with FAS to advertise and manage bid process, and award contracts, then SPU manages the contracts. SPU uses DBB 90% of the time because of practice and experience with DBB (additionally, FAS is a proponent of DBB). SPU has done both DB and GCCM and has found some good and some not good experience with both. SPU is currently finishing two GCCM projects. SPU does use some on-call contracts (one for Engineering, one for Project Controls, but not one for PM). They also have on-call contracts for survey services, environmental assessments and value engineering (they always do VE through on-calls). Sole sourcing is not encouraged and is meant for <\$40K projects (training, etc.). 	<ul style="list-style-type: none"> DEA handles procurement and construction contracting for the City FAS uses any and all project delivery methods the city gives them (DBB, DB, GCCM, Job Order Contracting, etc.), depending upon what is best approach for project. Standard boilerplate and templates used for each of these methods Contract administrator makes sure that division numbers are contracting. Consulting is not centralized and is handled by each department. There is a boilerplate standard, however the departments handle the details. SPU does use some on-call contracts (one for Engineering, one for Project Controls, but not one for PM). They also have on-call contracts for survey services, environmental assessments and value engineering (they always do VE through on-calls). Sole sourcing is not encouraged and is meant for <\$40K projects (training, etc.). 	<ul style="list-style-type: none"> SCL project delivery includes DBB, DB, on-call and IDIQ contracts (blanket contracts). Generally, anything over \$250K is considered to be a project. SCL has a group of prequalified on-call providers. SCL uses sole-sourced contracts on an exception basis (OK if <\$50K – must apply for approval if > \$50K). SCL has architecture, engineering and CM on-call contracts for, plus a consultant roster for professional consulting services. City has two IDIQs – CPCS coordinates the selection. Three \$6M/City then slice off to various departments (\$1.2M for the whole city). \$1M for FAS (each department cannot exceed \$350K). 	<ul style="list-style-type: none"> DPR project delivery is only DBB – they do not use GC/CM or other methods. Small projects are generally more suited for DBB. At the time they bid a project, they role about 10% and roll into bid alternatives (bidding strategy). Regarding preferred agreements, there is some ability to use consultants. It is based upon cost of contract (can select consultant if up to \$48K). DPR uses the City Consultant Roster to establish a short list based on type of work. They make their selection based upon the criteria, then make the selection. Most of the time, they use the consultant roster process, even though the focus of the roster is to drive projects to smaller businesses. For larger projects, DPR uses an RFP process which may be open to firms not on the roster.

EXECUTIVE STAFF – INTERVIEW SUMMARY FINDINGS					
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<ul style="list-style-type: none"> Projects are reported monthly (PMAC covers scope, schedule, budget and funding) - it downloads payments, etc., every two weeks). SDOT moves project forward in stages and never advertises for contractors until they have the full funds. An external dashboard reports on about 2 dozen higher profile projects. SDOT provides quarterly updates to budget office. Annually, SDOT does a CIP Update to recalibrate and shift funds, because transportation projects frequently have factors that can change the schedule. Budget Control Limits (BCLS) are really large. Move Seattle has specific projects with prescribed funding and many restrictions on their funds. However, there are occasionally political situations where flexibility is required. SDOT is always working with stakeholder partners (Metro, Sound Transit, WSDOT, SPU, etc.). Additionally, they work with various neighborhood councils (Pioneer Square, Preservation Board, arts, bicycles, etc.). Political culture is important in Seattle (very decentralized and currently trying to establish more centralized coordination). Stakeholders can influence decisions (SDOT is attuned to social justice). 	<ul style="list-style-type: none"> Regarding governance and change management, any time a project varies by >\$1m or increases by 25%, it has to come back to the same governing body for approval (top tier is executive team, including head of organization). A gate going to executive committee is signed by many players, not just the PM. Typically, a project needs more money because to fund design (approval at project delivery threshold). Triggers/ thresholds start with \$50K (could be a shift of \$), \$50K requires the section manager, \$100K - \$250K requires the division director and \$500K requires the deputy director. Fund transfers must hold to budget rules and need to inform City Council. Supplemental budget requests for >\$1M Monthly briefings/analyses are used to track project. Quarterly Briefings are delivered at the executive team level. All projects provide reports, and reports vary by project size (full report vs. status report of budget and time). SPU does look at entire project costs. They do a monthly time forecast (total cost of completion/cash flow). SPU uses change orders rather than contingency funds for large changes. All funding is constrained. Every project >\$5M has a project status report. Projects <\$5M, have a portfolio report. Performance metrics include cost, schedule and scope. For all three metrics, the minimum is 90%. 	<ul style="list-style-type: none"> EVM is standard practice. Every FAS project has a schedule. FAS uses MS Project for resource-loaded schedules, cash curves and custom databases for cost accounting. Excel produces cash curves and Earned Value graphs. Budget is received before project is received. The resource schedule is needed before submitting to CIP. PMs have some contingency leeway for major properties (design, bid and construction). Fire stations have a program level contingency pool. There is no formal risk assessment – no Monte Carlo analysis. PMs analyze risk. If new scope, it is held outside the contingency (may be program-level). Progress reporting can be weekly or monthly. FAS reports quarterly to CBO, fire levy commission and stakeholders. There is an Oversight Committee for fire projects (reporting is quarterly). Stage gate at each design stage is typically 30-60-90% (can be 10-60-90% schematic, interim, and construction docs). Government structure is tight. Status is confirmed before moving to next phase (must be within budget). Phase Reviews provide guidance on scope, if too high. Or they go to CBO or project team for supplemental budget. Governance with Seattle Design Commission has the same prescribed check-in process as that for landmarks. They are stakeholders and part of the process (a jurisdiction advocate committee rather than a client). 	<ul style="list-style-type: none"> SCL sets project baselines at the end of project initiation/planning stages. PMs manage projects against the baseline. Utilities International (UI) Planner System is used for financial planning/budgeting (rate setting) and integration of cost/resource requirements. MS Project is used for defined deliverables and large transportation projects. Estimating is in-house. XL is used for historical data for many projects so budget issue papers can be developed. PMF includes risk tools for deriving contingency reserves during planning (XL sheet with questions/suggested contingencies (10-15-25)). SCL uses a risk register to manage risks. Contingency management is relatively new to SCL. In the past, contingencies were buried in the budget or cut – now encouraging realistic contingencies as part of the budget (PMI risk register). A cost management spreadsheet is used to apply contingency reserves. Significant scope changes are analyzed to determine impact/benefits. Sponsor approval is required. Changes resulting in contract change orders are subject to approval levels, based on \$ amount. PMs report progress monthly. CIP project spending is reported monthly. Quarterly status reports are required, with +/- \$500k variances flagged. Dashboards are not used except for asset reliability/safety. PM Metrics include cost/schedule variance from baseline, scope, accomplishments, risks and contingency reserves. 	<ul style="list-style-type: none"> Budgeting and scheduling are done mostly in-house. Budgets are informed by condition assessments. Each project has a budget template (\$2M project is broken into components (construction, communication, etc.)). PMs typically establish schedules. Budgets are reviewed using e-Builder & Asset Management Resource System. Quarterly reviews are conducted for every project at a higher level. Parks Committee reviews significant budget changes. Division Director is involved when fund transfers may be required. There is no formal risk process. Small building renovation projects typically include greater risks (difficulty finding contractors to bid for those projects). They do not set design contingencies. There is a construction contingency (10%) on every project going out to bid. PMs are paid for out of project costs. e-Builder is used for scheduling, budgeting and document control. It generates monthly internal reports that provide access to every capital project (does not go to CBO or Council). e-Builder and Summit update a quarterly financial report that is sent to COB and goes on the Park District webpage. Plus, the mayor's office milestones/expectations are updated. Parks Steering Committee reviews significant variances (shift funds/delay project). A levy project scoped as a park renovation with a membrane issue was put to levy for REIT dollars. 	
PROJECT CONTROLS					



EXECUTIVE STAFF – INTERVIEW SUMMARY FINDINGS					
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<ul style="list-style-type: none"> SDOT has made some improvements in estimating and project controls. SDOT remains flexible to improve and is doing a better job with lessons learned (Example: the 23rd Avenue BRT Project was not a shining moment for SDOT (community input not fully considered, an extended lane closure, and lack of coordination with SPU contributed to delays and cost overruns), therefore they stepped back to examine what worked well and what they can do better). From the public standpoint, the project seemed to last longer than what they thought they were told. This was unfortunate, however it was fortunate in that they learned the lesson to step back and be realistic with the public. 	<ul style="list-style-type: none"> SPU has made a lot of improvements in past two years, especially controls. Ship Canal played a part - with the \$400M project, SPU realized that it was necessary to improve systems now and passed it to Vladimir who started Project Controls group. SPU had an accomplishment issue a few years ago, with more dollars coming in than SPU could spend, so rates were lowered. There were several factors, including the need to deliver projects more efficiently. The low accomplishment rate pushed them to be more efficient and productive. King County and SPU working together on the Ship Canal project. The project, in design now, is a \$430M+ regulatory-driven project, and needs a high level of efficiency to meet completion date. 	<ul style="list-style-type: none"> The Fire Levy started in 2004 (three fire stations, either new or seismically updated, three fire boats, EOC fire station 10). Newspaper articles were positive - within budget (\$380M bottom line). Not one contract went to mediation. This is the biggest building program the city has undertaken with very successful outcome. FAS has a very aged portfolio and has created an asset preservation sub-fund plan for major maintenance programs for their aging portfolio. FAS recommends using 'Earned Value' to tie appropriations (needs to be scaled correctly/completely). Because FAS is a very small shop that does a large amount of work, they control everything for consistency. FAS spends time on training and tools. Even on the fire levy, FAS knew the city didn't have a CSI so they did research and wrote their own. Contracting is key. If contracts are managed successfully, budget, scope and schedule will be maintained. SPU is a great partner and helped FAS manage facilities. Design is built around user groups (can be the biggest risk). Because the levy was a public vote, the public thought the entire project cost was \$167M. Steel drove up budgets 30-40%. The project was stopped in place to repackage/recalibrate. FAS selected the middle of 3 options, adding \$60M. FAS learned an important lesson – to call the project a program, rather than a levy, especially for fire fighters. 	<ul style="list-style-type: none"> SCL has is making improvements in CIP project oversight, monitoring and management. SCL does a good job of reporting and prioritizing projects. They are providing PM tools and processes to report more effectively on projects (Top 20 Report). SCL does a good job with scheduling, however it is challenging (crew work schedules and asset management). SCL has good tools for project controls/monitoring and scope management. SCL has established a good foundation for PM Framework based on industry standard best practices (Framework implemented in 2015), however have a long ways to go). They have received good support (both up and down the management chain) for implementing these processes. Traditionally, systems set to track from budget/financial perspective, however not as good at project management level (sub projects/planners). EMS Management system manages all of the power moving from dams, as well as transmission to California. SCL replaced them on-time and within budget within the last two years. A lot of success related to the generator turbine rewind process (programmed out for 25 years indicating what generators need rewinding to extend life). SCL stayed in front of this project with rewinds planned every couple of years. 	<ul style="list-style-type: none"> DPR typically does not have issues with delay, scope, etc. Typically large project issues have to do with public involvement rather than financial issues. DPR does a very good job with play area renovations. They have 145 areas, with seven projects/year, if they are fully funded. 	



CIP OVERVIEW ASSESSMENT

INTERVIEW SUMMARY FINDINGS – EXECUTIVE STAFF

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<ul style="list-style-type: none"> Dealing with public perceptions when delays occur that impact the public. Work stoppages and cost overruns. Coordination with multiple departments. 	<ul style="list-style-type: none"> Big challenge is learning and training on new processes. Organization needs more training in CM. Even though PMs don't use Primavera, they should understand the information. The organization, as a whole, needs training on new processes, especially related to integration of tools, change control and reporting (there are some software challenges with new tools (estimating, integrating Primavera with other tools, etc.). 	<ul style="list-style-type: none"> Having preliminary engineering funds in facilities would help build better budgets. FAS is operationally focused. Having funding applied to front end planning/development would help tee up projects and improve budgeting. Projects go into the CIP pipeline right at beginning (different from utilities). CIP Quarterly Monitoring Report needs improvement. CBO is working to identify projects on the radar/watch-list, therefore Quarterly Monitoring Reports would address them. There have been a handful of must-do projects that are not completed. North Precinct is the most current/highly visible example (originally planned to open in 2016). During public safety discussions 8-10 years ago, the project was estimated to cost \$160M. When entered into the CIP, \$89M was used instead. After starting the project to meet an aggressive timeline, they discovered the cost for the actual scope when they reached the design stage. Because it languished and social issues (police) became an issue, the resulting tension was irresolvable. 	<ul style="list-style-type: none"> One challenge is sub-project budgeting. For some projects, some sub-projects are not loaded, therefore there is a plan to change PM tracking as part of Summit Reimplementation Initiative project. Scott is pushing PMs to break out detail. This new initiative is challenging with multiple projects/groups. It is a work in progress. Summit Reimplementation Process (\$100M-project) is an ERP system. Not a problem on the CIP side, but challenging on the O&M side (PeopleSoft 9.2). Scott sees this as a good process to get to the next level for tracking progress. This is a good step towards standardizing processes. The huge growth in Seattle has placed many demands upon crews. It is important for the City to do a better job of forecasting/anticipating growth. 	<ul style="list-style-type: none"> Delays with environmental permitting can cause financial challenges. Finding right contractors for small building projects. Seasonal issues if project extends beyond one season. Financial inflation. The current high demands on construction make bidding challenging. Little competition for work because everybody is so busy, results in excessively high bids. Bid is a decision point. If bids are too high, must decide whether to cut scope, rebid, or move funds to adjust budget. 	<ul style="list-style-type: none"> • FAS needs a reporting structure that addresses difficult tenant improvement projects (multiply by 10-20 fold).



CIP OVERVIEW ASSESSMENT

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EXECUTIVE STAFF – INTERVIEW SUMMARY FINDINGS					
TOPIC	SDOT	SPU	FAS	SCL	DPR
<ul style="list-style-type: none"> Standardization for departments: Look at all departments and develop common terms and same reporting standards (common elements, definitions and common understanding of certain stages). Set thresholds. Work on ways to become more transparent regarding budgets. Also, communicating to the central staff (common reporting). Reengineer entire financial system. The Summit Reimplementation project, expected to go live Jan 2018, will include reporting (currently developing reports intended to be standard across the board). Producing the reports is very time consuming - it would be more gratifying if they were used. You can dig down but really need more transparent information. Budget analysis: Include pre-budget questions. Need improvements to the CIP page. 	<ul style="list-style-type: none"> Implemented controls. Hanif's group has 33 PMs – three teams with about 11 PMs each. Defining roles and responsibilities for SPU is challenging because SPU is a utility, not an engineering organization. Good communication is a key element in managing the various funding sources that have to be considered, with multiple roles and stakeholders. Stakeholders can be inter agency, other private utilities outside SPU, environmental agencies, regulatory agencies etc. SPU is executing better. 2016's program was larger than 2017. SPU is asking questions to make sure that they tier projects they can deliver to balance projects/meet regulatory pressure/requirements. Example of a program working very well is Seismic Upgrades program, a bundled program of projects using the same contractor and same project team. Standardization of the PM process has resulted in a highly efficient and cost effective outcome. 	<ul style="list-style-type: none"> CBO is making the effort to initiate discussion across capital lines to create a baseline reporting for common terminology and approach considering differences/similarities EVM tools (EV/A) is key to efficiency Fine tune appropriations to scope/budget. Standard CSI contract templates (best suited to building projects) Prioritization of projects (i.e. asset preservation sub-fund through rental income) 3rd party cost estimating for higher risk projects. 	<ul style="list-style-type: none"> Standardization of PM tools. Better estimating accuracy. Improved reporting. 	<ul style="list-style-type: none"> Best/scoping practices include being consistent, having the right tools/procedures/policies and learning from mistakes (lessons-learned). Financially, DPR has improved over the last decade on budgeting, doing a good job of prioritizing/defining scope and talking to community groups. If a bid comes in too high, they look at a way to rebid it and still maintain a reasonable scope. Or, they can choose to find additional funding. e-Builder holds promise and is good for DPR because it is the right size for their projects – right tool at the right cost. Relatively easy scheduling tool. A huge process improvement for DPR is their move to electronic signatures. Makes everything move more quickly. Asset Management Work System has provided standards for documents. Implementing the change has been challenging. Other departments are using other systems. There is some shift in the city regarding understanding the basics of scheduling, design and construction. Skills are transferable. Level of project engagement for DPR is different/emotional (play area/sports area for community vs. a transfer station). Hand-holding, public relations, etc. are important PM skills because of high-level community involvement. 	

DESIRED OUTCOMES



CIP OVERVIEW ASSESSMENT

INTERVIEW SUMMARY FINDINGS – EXECUTIVE STAFF

EXECUTIVE STAFF – INTERVIEW SUMMARY FINDINGS	
RESPONSES – COMMON ELEMENTS	RESPONSES – UNCOMMON ELEMENTS
<ul style="list-style-type: none">• The budget figure that is entered in the CIP is what is remembered.• Improved estimating accuracy (more front-end design).• Standardize/Improve reporting (terminology/approach).	<ul style="list-style-type: none">• Training on new PM tools/processes.• Use of EVM tools.• 3rd party estimates for higher risk projects.

CASE STUDIES

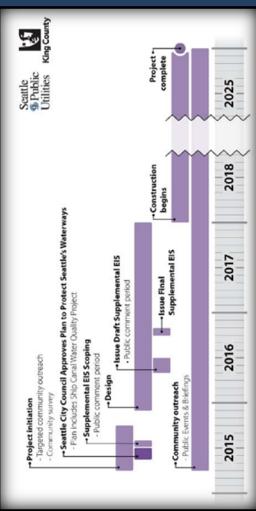
APPENDIX E

CASE STUDIES

NORTH PRECINCT PROJECT
SHIP CANAL WATER QUALITY PROJECT
ALASKA WAY VIADUCT PROJECT
DENNY SUBSTATION PROJECT
EMC SYSTEM PROJECT
NEW CUSTOMER INFORMATION SYSTEM PROJECT

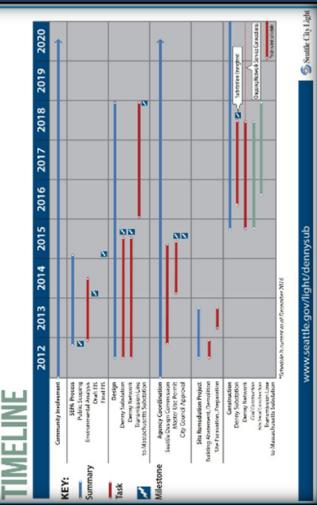
The following tables includes specific case studies for City of Seattle CIP projects referenced during the Central Staff and Department Executive interviews. The information in the case studies provides insight regarding some of the key challenges and solutions associated with the delivery of the CIP projects that were referenced.

CASE STUDIES	CITY OF SEATTLE CIP PROJECTS
	<ul style="list-style-type: none"> • Currently, the city is divided into precincts. North of Ship Canal is served by one large precinct, the North Precinct. For many years, the city was moving forward with a plan to build a new North Precinct facility in Northgate to oversee all of the Police Department's operations. The North Precinct serves 40% of the city and it was determined that building a new police station for a single precinct would save the city money and allow for a central training and community engagement location. • The existing facility was considered to be overcrowded and rundown, however the project was put on hold in September 2016, after the community questioned the \$160M price and the city priorities associated with the facility. The project, intended to replace the 32-year-old existing station in Northgate, was shelved as a result of its cost and public concerns. A timeline for the review is unclear. • Critics urged the Mayor not to spend money on a police department still working to carry out court-ordered reforms related to excessive use of force and racial bias. • In August, 2016, the council passed a resolution directing the city to conduct a racial-equity analysis of the precinct's design and to scrutinize the price. Therefore, the city decided to not move ahead with the project and to review other aspects of the project, such as the number of facilities and cost. The North Precinct Project grew and took on a life of its own. • Original funding for the plan included a mix of cash financing and almost \$100M in bonds. Because the project will now not move forward, officials will not seek that money in the 2017 budget, though about \$15M already is set aside for the project. • Price became an issue for the project because it grew from \$89M project to \$160M, which resulted in a compromised reduction to \$149M. Additionally, the facility was originally built to handle 120 staff, which has now grown to 260+ staff. • Pushback that stalled the project was a result of the group, "Block the Bunker." The issue became adding more people to the police force while there was a consent decree for the police department to treat people of color better. Plus, the makeup of the current council includes a socialist Council Member, therefore the social impact has heightened since she has been a Council Member. If the project cost had remained the same as the original quote, it is possible that there would still have been an issue because that community currently has strong feelings about the police. • It is difficult to describe where in the project management timeline the project went off the rails, however some possible contributing factors include: <ul style="list-style-type: none"> • Nontransparent price increase • Value engineering probably could have done more with early analyst engagement on scoping • Lack of good messaging/consistency in characterizing placeholders budgets • Although FAS managed for the client, the departments have wish lists, therefore the project should have been managed within the bounds of the oversight bodies, prioritizing clear, transparent policy direction early (on scope and budget) • Incomplete information provided by FAS late in the game when Central Staff were more engaged, as it was starting to go south • Some City Councilmembers were not aware of the political challenges and the budget issues, however it is difficult to place the blame on project management. It was decided to sell the old facility, however the old facility has not sold yet because the project is stymied because of several issues. For a long time, the police were requesting a new facility and while there was originally no pressure to have the facility, there is now pressure NOT to have it. • This project is one of the reasons that justified the current CIP Assessment. 

CASE STUDIES	CITY OF SEATTLE CIP PROJECTS	
SCWQ PROJECT (SHIP CANAL WATER QUALITY)	<p>The SPU's Ship Canal Water Quality Project is a \$430M+ underground storage tunnel that will reduce the amount of polluted water that spills into Seattle waterways.</p> <ul style="list-style-type: none"> Seattle Public Utilities and King County are working together on this high-risk, high-profile project with multijurisdictional dynamics. The project includes building an underground storage tunnel to reduce the amount of polluted water that spills into the Lake Washington Ship Canal from Ballard, Fremont, Wallingford and north Queen Anne. The 2.7-mile, approximately 14-foot diameter tunnel will capture and temporarily hold more than 15 million gallons of stormwater mixed with some sewage that overflows during heavy rains. When the storm passes, overflows will be sent to the existing West Point Wastewater Treatment Plant in Magnolia. The tunnel will serve as a large underground storage facility, built using tunneling technology. King County, working with SPU, has successfully built and operated tunnels carrying sewage and stormwater over the years. Tunnels require less maintenance to run, fewer disruptions during construction and operation and fewer above ground facilities to build. Compared to building four individual storage tanks, the tunnel is a better option because it: <ul style="list-style-type: none"> Requires less open-trench construction Requires less excavation and hauling Generates significantly fewer truck trips and localizes soil excavation and hauling to a single site Requires a smaller footprint (1.3 acres for the tunnel vs. 4.3 acres for the individual tanks) Provides operational flexibility to meet future needs, either from growth or climate change. Funding for the estimated \$430M project cost (in 2025 dollars) will be paid for by sewer rates and bonds backed by sewer rates. 	<p>The Alaskan Way Viaduct Replacement Program includes projects led by the Washington State Department of Transportation, King County, the City of Seattle and the Port of Seattle. The Federal Highway Administration is a partner in this effort.</p> <ul style="list-style-type: none"> The Alaskan Way Viaduct, an elevated section of State Route 99 in Seattle, was built in the 1950s, and decades of daily wear and tear have taken their toll on the structure. Because of the viaduct's age and vulnerability to earthquakes, replacing it is critical to public safety. The viaduct's central waterfront section is being replaced with a bored tunnel beneath downtown Seattle. The southern mile of the viaduct, near Seattle's port and stadiums, was replaced with a new roadway that has wider lanes and meets current earthquake standards. AWV has a lot of City Light infrastructure hanging off of it. AWV is driven by the transportation schedule rather than the City Light schedule. Major elements of the program include: <ul style="list-style-type: none"> A two-mile-long tunnel beneath downtown Seattle. A mile-long stretch of new highway that connects to the south entrance of the tunnel, near Seattle's stadiums. A new overpass at the south end of downtown that allows traffic to bypass train blockages near Seattle's busiest port terminal. Demolition of the viaduct's downtown waterfront section. A new Alaskan Way surface street along the waterfront that connects SR 99 to downtown. The AWV project includes 32 projects that are led or funded by the state as part of this effort. Related projects include street, transit and waterfront improvements. Because old Seawall was deteriorating, all structures had to be redeveloped, requiring SCL relocation work. For some projects that overran, cost overruns were absorbed in the SCL budget – customers were then billed to cover the additional budget expenses. Everybody agreed. Strategic plan had to be reworked - had to find \$75M more in the SCL budget. This was not a \$1M transfer step. SCL put it into upcoming budget. Transportation piece is a pretty big part of the SCL wiring budget.
	<p>AWV PROJECT (ALASKA WAY VIADUCT)</p> 	

CASE STUDIES
CITY OF SEATTLE CIP PROJECTS

- Seattle is one of the fastest growing cities in the nation, and South Lake Union and Denny Triangle are among its fastest growing neighborhoods. The City has already made a number of investments to keep pace with this growth and now is making a major upgrade to the electrical system to meet the accelerating power needs of current and anticipated consumers.
- SCL's new electrical substation is the first and largest substation in 30 years, near the intersection of Denny Way and Stewart Street. An underground distribution network and transmission line will also be built to carry power to the substation and deliver it to customers.
- SCL conducted a two-year design process that included numerous public meetings, close consultation with stakeholders and presentations to neighborhood groups and organizations. This extensive community involvement effort has resulted in a one-of-a-kind substation design that meets the needs of the utility and brings significant amenities to the neighborhood.



- This program was designed to support the city's rapid growth, and included new parks and open spaces, an off-leash area, community meeting spaces and public art. It will also provide improved reliability and system flexibility, benefiting customers both in and beyond the project area.
- Engineers had originally conceived a big block substation, however it was not approved by the City Council, ultimately, the project requires a street vacation which requires a significant mitigation with the community - could have been \$15-30M cost. If Council decides this is the principle, then it goes. One Council Member saw an underground substation in Japan with park on the top. City Light had visions of it being underground also, but it wouldn't work with the water table not being low enough.
- The project ended up being \$100M more expensive than the original project. It is now on track - running through contingencies. The original contingency was not big enough due to soil mitigation. When excavation was initiated, they hit a patch diesel and oil contamination which had to be cleared out (\$3M).
- Denny substation (sort of languished - SCL identified a problem with its system that needed beefing up - problem with transformer - then next year - a capital project showed up - no transition between planning document/solution to the budget document. As a consequence, project put on hold - 2006 (Proviso). SCL could not come up with a reason why the new option was the solution, therefore until 2012, it remained a Proviso. The solution was not a nice linear solution. It ended up being a new station in Lake Union (took four years to frame it to get approval). -Coincidentally, at this time, system reliability became an issue so they started system design work as the demand grew.

- The EMC legacy system was a German system. The City decided to upgrade and replaced the EMC system. It worked like a charm because it had a very clear purpose statement with timeline and schedule.
- The project had the full backing of management and the right kind of resources that were disciplined in their approach. Therefore, the project came in on time and under budget. It was a large project that required swapping out communication systems, etc. The project was considered to be a success.

EMC SYSTEM PROJECT

CASE STUDIES
CITY OF SEATTLE CIP PROJECTS

- The New Customer Information System (NCIS) is a joint Seattle City Light (SCL) and Seattle Public Utilities (SPU) project to replace the Consolidated Customer Service System (CCSS) – the existing SCL and SPU billing system. The CCSS supports billing and customer processes for both utilities, but fails to meet current business practices and is no longer supported by the vendor. SPU and SCL realized in 2012 that they needed a new billing system to accommodate its >400,000 customers. The NCIS project is intended to improve operational efficiency, provide better customer communication options, offer increased financial control and auditing and improve customer data security.
- Although the work upfront proved OK and they were not wrong with the specifications, the number associated with what it was going to cost was built into the system before it was even designed (a consultant/in-house decision). When they kicked off the budget in January 2014, they brought on Price Waterhouse to help design the system, however that did not occur until June or July when they received an original design.
- In 2015 the Council approved a project budget for a total of \$66M – about 56% of project costs to SCL and 44% to SPU. In June 2016, Council Members stated that no one ever made the problems clear to them as they passed a budget last year – that there was nothing in the budget that the council approved in 2015 that indicated that there was a change from the budget that was approved in 2014.
- The NCIS budget included >750 pages and the capital improvement program included >850 pages. Council members stated that no one clued them into the fact the project would probably be at least \$34M over budget and about a year behind schedule. It ended up being \$80M over budget – more than 50% of the original estimate.
- Director of the City Budget stated that information was provided to council, however they failed to be more proactively transparent about calling out the issues and noted the complexities associated with the project that spans the two departments.
- SCL stated that customers might eventually see an increase of 7-14 cents a month as a result of the program if savings in other areas did not happen. SCL stated that NCIS is a complex foundational computer system that works with more than 40 other applications and that these types of systems are notorious for having risks for delays and cost overruns. The mayor indicated that the rising cost of this project was disappointing and that he directed the utilities to complete the project within currently adopted customer utility rates.
- It is anticipated that there were more than a hundred staff between SPU and SCL working on the project, with more than 600 city employees using aspects of the system when completed.
- The Central Staff would like to see that capital programs highlight (flag) projects that have not yet been scoped. Although the state requires that cities produce a six-year CIP, budgets are only adopted annually.
- There is no way to tell if the numbers in a CIP are solid – there is no indication in the document. There should be a flag that indicates the level of design. They found that the initial stake in the ground for the NCIS project was in the wrong place.
- It is important to determine how to properly price projects and be accountable? Contingencies did not help the NCIS project when the price doubled.
- Additionally, a more fundamental problem with NCIS was that the City auditor decided that, if they were charged with doing an assessment, they would hand it off to a consultant. Although the Executive Summary stated that this project that was over budget and behind schedule, they did not understand the nature of the problem. Simply, it was over budget because it was behind schedule and they did not have the right skillset in-house to do the commissioning system as they rolled it out.
- It was discovered that they needed to understand the system, communication and importantly, aspects of the side systems, since 99% of the time, the problem is with a side system. When the first live test was run, it blew up. Events cascaded and the City did not have staff qualified to chase down/fix the bugs.
- The backlog situation took the project over budget because of schedule (\$3-4M/month for the consultant). Over-budget totals were first \$60M – then \$80M. Someone should have stated that the \$60M was unrealistic. It was never broadcasted that the project went over by 100%.

**NCIS PROJECT
(NEW CUSTOMER INFORMATION SYSTEM)**

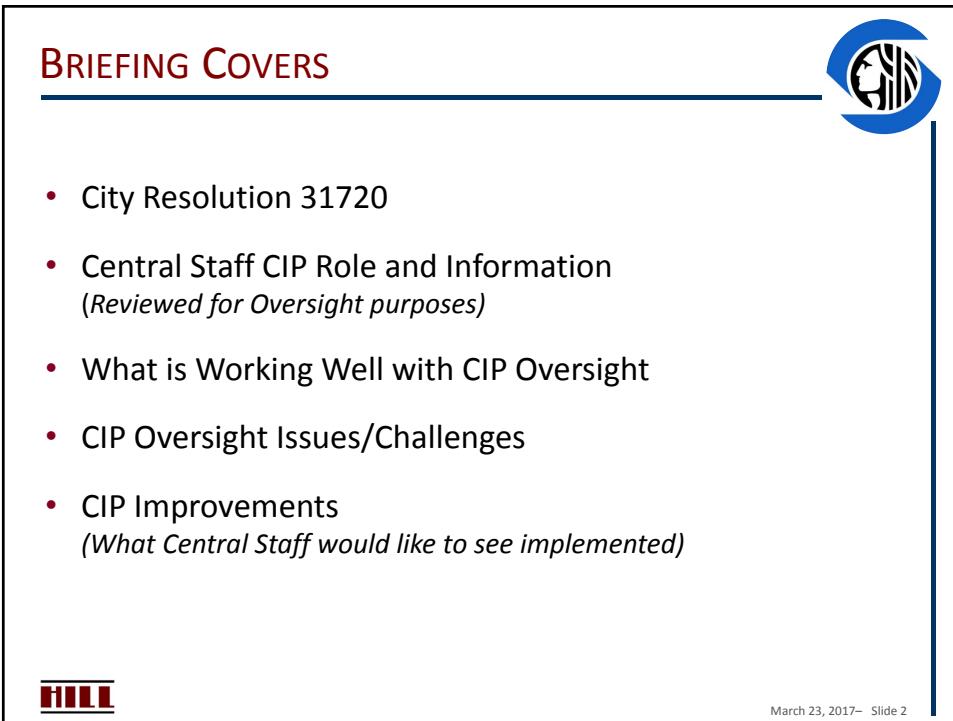

PRESENTATIONS

APPENDIX F

PRESENTATIONS

DEBRIEF – CENTRAL STAFF INTERVIEWS

DEBRIEF – EXECUTIVE STAFF INTERVIEWS



BRIEFING COVERS

- City Resolution 31720
- Central Staff CIP Role and Information
(Reviewed for Oversight purposes)
- What is Working Well with CIP Oversight
- CIP Oversight Issues/Challenges
- CIP Improvements
(What Central Staff would like to see implemented)

HILL

March 23, 2017 – Slide 2

CITY RESOLUTION 31720

UNDERLYING ISSUES

(GIVING RISE TO CITY RESOLUTION 31720)

- Unanticipated CIP budget cost/schedule overruns requiring Council action
- Current reporting processes/tools do not provide necessary controls/transparency for Council to make timely/informed CIP budget decisions

PROPOSED SOLUTIONS

(APPROPRIATE/TIMELY OVERSIGHT/GREATER TRANSPARENCY)

- Improve financial controls
- Improve project management controls
- Provide new approaches for project monitoring
 - Enhance oversight of scope, schedule and budget (higher risk projects)
 - Introduce capital project risk assessment tools
 - Phase appropriation requirements
 - Improve visibility/management of project contingency



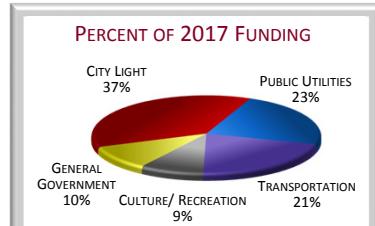
March 23, 2017– Slide 3

2017–2022 CIP PROJECTS

\$1.1B PROPOSED FUNDING IN 2017

Wide variation in project size, types and programmatic (bundles) of CIP projects

- **SCL**
(Generation, Transmission, Support Systems)
- **SPU**
(Water, Wastewater/Stormwater, Solid Waste Collection, Storage, Treatment, Transmission, Distribution/Support Facilities)
- **SDOT**
(Transit, Roads, Bridges, Retaining Walls, ADA, Sidewalks, Signals, Pedestrian/Bike Trails, etc.)
- **FAS**
(Buildings, Libraries, Fire Stations, Maintenance Yards, etc.)
- **DPR**
(Minor/Major Maintenance of Parks/Community Centers, Park Development Projects)



March 23, 2017– Slide 4



CENTRAL STAFF CAPITAL PROJECT OVERSIGHT

FALL BUDGET PROCESS

- Prioritizing capital projects to fund, new or existing
- Exerting oversight via budgetary controls

ONGOING MONITORING/OVERSIGHT

- Oversight throughout the year via monitoring and reporting
- Supplemental budget requests

EXECUTIVE ROLE

- Project delivery and day-to-day project management



March 23, 2017— Slide 5

CENTRAL STAFF CIP ROLE/INFORMATION REVIEW

ANNUAL CIP BUDGET PROCESS

- Prioritization and spending decisions for new or existing projects

MONITORING AND OVERSIGHT OF CIP PROJECTS

- Review of quarterly spending reports (Budget to Actual)
 - Reactionary – significant deviations are flagged
 - Do not typically have oversight views at various stages of a project
- Supplemental budget requests may have very limited information for decision making
- Reporting lacks context and in-depth information (i.e. root cause of \$ or schedule variance, earned value, etc.) for monitoring progress, unless Central Staff asks for it



March 23, 2017— Slide 6



CENTRAL STAFF CIP OVERSIGHT



WHAT IS WORKING WELL

- Provisos – Useful tool to manage/control spending
- Budget Due Diligence – 3rd party independent estimators
- Standardized Installations – Scope control
- Department Team – Access to in-depth real-time information for large high-profile projects
- Current Oversight Tools – Work well for small projects



March 23, 2017 – Slide 7

CENTRAL STAFF CIP OVERSIGHT



ISSUES AND CHALLENGES

- Limited Reporting and Decision-Making in Pre-Design
- Lack of Consistent Communication between Executive/Council staff for CIP Projects
- Lack of Metrics to Track Progress in a More Meaningful Way (as opposed to spending)
- Limited Monitoring of Schedule/Delays
- Misunderstanding of Contingency
- Lack of Formalized/Consistent PM Processes among Departments
- Fund Transfers (between projects) can hide Project Performance



March 23, 2017 – Slide 8



CENTRAL STAFF CIP OVERSIGHT



IMPROVEMENTS CENTRAL STAFF WOULD LIKE TO SEE IMPLEMENTED

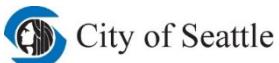
- Modify CIP reports and highlight new projects
- For projects with multiple funding sources (report as one project)
- Risk assessment ahead of project appropriations (instead of after the fact)
- Access to whatever PM information/tools Executive staff is using
 - Access to QA reports for major projects
- Make stage gate information available (if used by Department)
- Implement breaks or stage gates to assess project performance and minimize surprises (as appropriate)
- More focus (monitoring) on higher risk projects/programs
- **Star** projects that have not been adequately scoped
- Harmonize use of PM tools
- Use “turnkey” delivery (i.e. facility performance risk transferred to contractor) when projects are difficult to price or manage



March 23, 2017 – Slide 9



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BRIEFING COVERS



- Executive Staff CIP Role and Information
(Reviewed for Oversight purposes)
- What is Working Well with Capital Project Oversight
- CIP Oversight Issues/Challenges
- CIP Improvements
(What Executive Staff would like to see implemented)



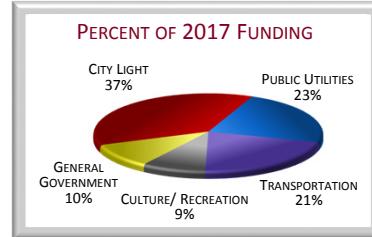
May 5, 2017 – Slide 2

2017–2022 CIP PROJECTS

\$1.1B PROPOSED FUNDING IN 2017

Wide variation in project size, types and programmatic (bundles) of CIP projects

- **SCL**
(Generation, Transmission, Support Systems)
- **SPU**
(Water, Wastewater/Stormwater, Solid Waste Collection, Storage, Treatment, Transmission, Distribution/Support Facilities)
- **SDOT**
(Transit, Roads, Bridges, Retaining Walls, ADA, Sidewalks, Signals, Pedestrian/Bike Trails, etc.)
- **FAS**
(Buildings, Libraries, Fire Stations, Maintenance Yards, etc.)
- **DPR**
(Minor/Major Maintenance of Parks/Community Centers, Park Development Projects)



May 5, 2017 – Slide 3

EXECUTIVE STAFF CAPITAL PROJECT OVERSIGHT

ONGOING MONITORING/OVERSIGHT

- Oversight throughout the year via monitoring and reporting
- Budget update process
- Stage spending plan by year or phase

EXECUTIVE ROLES

- Master planning
- Condition assessments
- Prioritization – business case analysis
- Risk assessment (selected projects)
- Initiation, scoping, budgeting
- Project delivery and day-to-day project management
- Change management



May 5, 2017 – Slide 4

EXECUTIVE STAFF CIP OVERSIGHT ROLE



ANNUAL CIP BUDGET PROCESS

- Prioritization and spending decisions for new or existing projects
- Budget fund transfers



May 5, 2017 – Slide 5

EXECUTIVE STAFF CIP OVERSIGHT ROLE



MONITORING AND OVERSIGHT OF CIP PROJECTS

- Monthly reporting, briefings
- Stage gate processes (scope, budget, schedule reviews)
- Quarterly spending reports (Budget to Actual)
- Variety of project controls tools (EPM, P6, e-Builder, Summit, etc.)
- Thresholds for variances
- Change and Contingency management
- Time and cost metrics



May 5, 2017 – Slide 6



EXECUTIVE STAFF CIP OVERSIGHT

WHAT IS WORKING WELL

- Good existing tools for project controls (SCL)
- Improvements in estimating and project controls (SDOT, SCL, SPU)
- Prioritizing projects (SCL)
- Standardized projects/programs (SCL, FAS, DPR)
- Coordination (SPU and King County, SPU and FAS)
- Managing contracts (FAS)
- Lessons-learned analysis (SDOT)
- Earned value analysis (FAS)



May 5, 2017 – Slide 7

EXECUTIVE STAFF CIP OVERSIGHT

ISSUES AND CHALLENGES

- Negative public perceptions (SDOT)
- Forecasting/anticipating growth/needs (SCL)
- Training needs on CM/Integration of tools (SPU)
- Lack of Preliminary engineering funding (FAS)
- Cost overruns for difficult tenant improvements (FAS)
- Sub-project budgeting (SCL)
- Delay to environmental permits (DPR)
- Market - high bids or lack of bids (DPR)



May 5, 2017 – Slide 8

EXECUTIVE STAFF CIP OVERSIGHT



IMPROVEMENTS EXECUTIVES WOULD LIKE TO SEE IMPLEMENTED

- Standardization of tools and reporting standards
- More transparent budgets
- Decision points for moving forward (at bid) (DPR)
- More bundled (standardized design, PM) projects (SPU)
- Better reporting (baseline reporting for all departments, with more transparent information) (SDOT, FAS)
- Better inter-department communication/coordination
- EVM tools (FAS)
- Standard contract templates (FAS)
- Electronic signatures (DPR)
- Better estimating accuracy (SCL)
- 3rd party estimates for higher risk projects (FAS)
- Scheduling basics, and public relations PM skills



May 5, 2017 – Slide 9



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PHASE 2

APPENDIX G

PHASE 2
PHASE 2 SCOPE
PROPOSED PEER AGENCIES
MATURITY MODEL

CIP OVERSIGHT ASSESSMENT – PHASE 2

PROPOSED SCOPE

PROJECT: CAPITAL IMPROVEMENT PROGRAM (CIP) OVERSIGHT ASSESSMENT – PHASE 2

GOAL: To analyze gaps, identify best practices and propose recommendations for enhancing the City's CIP oversight (phased appropriation processes, budget transparency and reporting).

PURPOSE: To support the commitment of the City Council and Mayor for enhancing the City's CIP oversight and developing new approaches for improving project monitoring, the Council selected Hill International to conduct an assessment, segmented in two phases:

- Phase 1: Internal assessment of City practices regarding capital budgeting and project oversight to identify potential challenges with implementation of Resolution 31720.
- Phase 2: Analysis of best practices to propose recommendations for improving the City's CIP oversight associated with implementation of Resolution 31720.



SCHEDULE: NTP by May 31, 2017, Final Report by November 17, 2017 and Presentation by December 15, 2017.

APPROACH: Compare the City of Seattle's CIP oversight (from Council and Departmental perspectives) with similar City and County CIP oversight tools, processes and governance. Based upon the assessment of gaps and best practices, propose recommendations for improving the City's CIP oversight.

TASKS: Major tasks associated with Phase 2 of the CIP Assessment include:

1. Assess the levels of maturity of City of Seattle CIP oversight, in terms of program governance, cost/financial reporting, schedule management, scope/change management, risk/contingency management and systems/technology, using the Maturity Model.
2. Analyze content of existing CIP monitoring and status reports, CIP audits and best practice recommendations for board/council oversight of capital projects. Sources may include cities and counties (i.e. Tampa, Dallas, San Diego, King County), aviation authorities, port authorities (i.e. New York and New Jersey), transit agencies (i.e. Sound Transit, NYC MTA), and private sector CIP delivery practices (i.e. utilities, contractors, suppliers). Hill has collected CIP information from sources (clients, internet accessible CIP materials and best practice publications).
3. Produce peer agency questionnaire, based upon initial assessment of peer agency programs, to compare feedback from agencies with internal Seattle Central Staff interviews (and secondarily, Department interviews).
4. Interview eight selected peer agencies, using criteria that includes Central Staff/Department interview findings, size/diversity of CIP, local Washington CIP programs, form of government (and its effect on CIP oversight) and maturity of CIP processes/reporting (see Proposed Peer Agencies/Criteria document).
5. Produce an analysis of peer agency CIP oversight practices, compared to Seattle CIP oversight practices, that identifies gaps and best practices, considering the different Department programs and project types.
6. Produce the final report, documenting the results of the assessment with recommendations for enhancing CIP oversight for the City's Central Staff and Council.
7. Present findings and recommendations to the City's Central Staff and Council.

PROJECT A kick-off meeting will be held with the CIP Assessment Team (Hill and Central Staff) to confirm project scope, schedule and

MANAGEMENT: deliverables. Following the kick-off meeting, bi-weekly status calls/meetings to assess the ongoing project status will be conducted with the CIP Assessment Team, with minutes for each meeting documented and distributed to the Team.

DELIVERABLES: Phase 2 deliverables include:

- Progress reports and meeting minutes.
- Final Report (to include summary of benchmark findings and recommendations for implementing Council-phased appropriation oversight, as well as other CIP oversight controls and enhancements).
- PowerPoint presentation of findings and recommendations.

PROGRAM TEAM:	Amy Tsai Geri Morris William Chen Newell Aldrich Greg Heinz Sid Scott, III, PE Catherine Spillars	Legislative Analyst Legislative Aide Legislative Assistant Legislative Assistant Vice President Senior Vice President Vice President	City of Seattle City of Seattle City of Seattle City of Seattle Hill International Hill International Hill International	Amy.Tsai@Seattle.gov Geri.Morris@Seattle.gov William.Chen@Seattle.gov Newell.Aldrich2@Seattle.gov GregoryHeinz@HillIntl.com SidScott@HillIntl.com CatherineSpillars@hillIntl.com	206-684-5509 206-684-5398 206-233-7801 206-386-9011 425-214-0317 215-309-7856 425-985-1515
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**CIP OVERSIGHT ASSESSMENT – PROPOSED PEER AGENCIES/CRITERIA**

Based on the initial assessment of peer agency programs, Hill proposes interviewing eight peer agency programs, as noted below. The topics and questions will be designed to compare the feedback from peer agencies with internal Seattle Central Staff interview findings (and secondarily Executive staff interviews).

As appropriate, Hill will segregate responses for specific Department CIP programs to better compare programs with Seattle's CIP programs. Hill will obtain qualitative information, similar to the Central Staff interview response topics, to include:

- Make-up of Projects/Programs
- IP Oversight Process (from Council/Commission Perspective)
- Information Provided for Oversight Purposes
- Issues
- Best Practice Improvements (improvements that have been made or improvements that should be implemented to improve CIP oversight)

The maturity benchmarks for analysis of CIP oversight will include:

- Program Governance
- Cost and Financial Management
- Schedule Management
- Scope and Change Management
- Risk and Contingency Management
- Systems and Technology

The following table includes the list of proposed Peer Agencies. Others considered included Dallas, Phoenix, Maricopa County, Austin, and Denver. Criteria included the internal Central Staff/Department interview findings, relative size/diversity of CIP programs/projects and form of government, as well as maturity/timeliness of CIP oversight and reporting. In addition to local Washington CIP programs, our goal would be to review approximately six CIP programs from the proposed list outside of Washington that will provide meaningful comparisons or contrasts and best practices for CIP oversight.

PROPOSED PEER AGENCIES FOR CIP OVERSIGHT ASSESSMENT AND POTENTIAL CASE STUDIES	
LOCAL MUNICIPALITIES/AGENCIES	CHARACTERISTICS
King County, WA	Mix of Project-similar Types, Phased Appropriations, Performance Dashboard, EVM
Sound Transit, WA	Large CIP (Bus, LRV, Rail Links, O&M facilities), Quarterly Progress Reporting, EVM, Contingency Management
OTHER MUNICIPALITIES/AGENCIES	CHARACTERISTICS
City of San Francisco, CA	Large, City CIP, Council (Commissioner)-Strong Mayor, Phased Appropriation Mechanism
City of Portland, OR	City Commission, CIP Reporting (Scope, Budget, Schedule)
City of San Diego, CA	Similar CIP Project Types/Sizes. Transition from Council-Manager to Council-Strong Mayor (2010), CIP 2011 Audit for Improving Oversight and Management of CIP (including Performance Metrics and Feedback Systems)
City of Boston, MA	Similar to Seattle in population, similar CIP Department, Council-Mayor, performance dash-boarding
City of Miami Dade/Orlando, FL	Mayor-Commissioner (Florida cities)
City of Charlotte, NC	Close to Seattle Population, Council-Manager
City of Philadelphia, PA	Large City CIP, Council-Strong Mayor
New York MTA	Mega CIP (Bus, Rail, Stations, Storage Yards, O&M Facilities, Tunnels, Bridges), Capital Program Dashboard



CIP OVERSIGHT ASSESSMENT

MATURITY MODEL

CIP OVERSIGHT ASSESSMENT – MATURITY MODEL

Included in this document are six tables that provide maturity level definitions/requirements, assigned for each process component. Hill developed this CIP Maturity Model to compare the current maturity levels for project management oversight, governance and controls for each of the City Departments with peer agencies.

The maturity model was developed using a combination of Hill's industry experience, as well as project management industry standards. Standards that were used include the evolution of the Capability Maturity Model (CMM) developed at Carnegie Mellon University, as well as current leading practices published in the Project Management Body of Knowledge (PMBOK) by the Project Management Institute.

The Maturity Model defines elements within areas of interest including Program Governance, Cost and Financial Management, Schedule management, Scope and Change Management, Risk and Contingency Management and Systems and Technology.

Maturity levels are based on a scale 1-5 scale. Levels 1 and 2 may contain practices that a mature organization would have eliminated. Levels 4 and 5 typically achieve the requirements of Level 3, with incremental improvements. Following is a brief description for each of the five maturity levels:

1. Level 1 – Processes are recognized by team members but definition is lacking and understanding may be inconsistent between team members. There are no standards of accountability and activities are done on an ad hoc basis.
2. Level 2 – Processes may be formally defined and encouraged by management, but their use is not enforced. Processes are inconsistently applied by team members. Adaptive actions are informally identified but without impact analysis. Monitoring capabilities of project performance by those outside of the project is limited.
3. Level 3 – Project management processes are standardized and repeatable. Focus is on the project management organization rather than on specific projects or individuals. Project reporting is available at a detailed and summarized level for those outside of the project.
4. Level 4 – Processes are integrated with corporate policy and enforced by management. Data is available to allow for proactive action and data driven decision making. Key lessons learned documented.
5. Level 5 – Processes are utilized to accurately measure project performance and efficiency on a real time basis. Processes are in place to improve project performance. Management's focus is on continuous improvement.

Tables 1 through 6 provide process descriptions/requirements for each of the five levels defined above for the following processes:

- Table 1 – Program Governance
- Table 2 – Cost and Financial Management
- Table 3 – Schedule Management
- Table 4 – Scope and Change Management
- Table 5 – Risk and Contingency Management
- Table 6 – Systems and Technology

Phase 2 of the CIP Oversight Assessment will use the criteria in this Maturity Model to rate maturity levels for CIP oversight. The ratings will be used to benchmark the City's CIP (by Department) with the peer agencies for the specific elements that address CIP oversight best practices. It also should be noted that different maturity levels may be appropriate, depending on the specific CIP program or project type.





CIP OVERSIGHT ASSESSMENT

MATURITY MODEL

TABLE 1
PROGRAM GOVERNANCE

ELEMENT	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
PROJECT INITIATION AND AUTHORIZATION	<ul style="list-style-type: none"> Informal project initiation. Limited/no documentation of scope, objectives, requirements or business case. 	<ul style="list-style-type: none"> Defined process for creating project charters, scope statements. Project scope/benefits are broad/difficult to measure. 	<ul style="list-style-type: none"> Work does not begin for any project without written authorization. Authorization includes clearly defined scope, objectives and business case. 	<ul style="list-style-type: none"> Project charter process is highly developed and repeatable. Scope, assumptions and benefit/cost ratio are documented/monitored. 	<ul style="list-style-type: none"> Data from previous projects consistently used to refine scope/define requirements.
PROGRESS MONITORING	<ul style="list-style-type: none"> Project Manager provides informal updates to management. 	<ul style="list-style-type: none"> Consistent industry metrics used to measure progress. Not a formalized process. 	<ul style="list-style-type: none"> Standard metrics developed and used to evaluate performance of individual projects. 	<ul style="list-style-type: none"> Tracking and reporting at regular intervals against a detailed baseline across all projects. 	<ul style="list-style-type: none"> Project progress tracked. Real-time updates available. All projects report earned value.
OVERSIGHT STRUCTURE	<ul style="list-style-type: none"> No oversight requirements on project delivery. 	<ul style="list-style-type: none"> Executives briefed on large projects. 	<ul style="list-style-type: none"> Program-level oversight structure, including executive committee. 	<ul style="list-style-type: none"> Oversight structure fully integrated with any and all capital spend. 	<ul style="list-style-type: none"> Oversight structure is part of a project-based organization.
APPROVAL PROCESSES	<ul style="list-style-type: none"> No project approval hierarchy for scope/budget/schedule changes. 	<ul style="list-style-type: none"> Large projects follow agency approvals. 	<ul style="list-style-type: none"> Defined approval processes for scope/budget/schedule changes across program. 	<ul style="list-style-type: none"> Integrated project and operational approvals 	<ul style="list-style-type: none"> Oversight is continuously evaluated against oversight process.
STAGE GATE PROCESS	<ul style="list-style-type: none"> No defined process for review/approval of key activities/deliverables throughout project lifecycle. Stakeholder oversight depends on level of sponsor engagement. 	<ul style="list-style-type: none"> Formal review/approval process established. Project lifecycle stages, gates, review requirements and approval limits defined. Process flexibilities are considered. 	<ul style="list-style-type: none"> Consistent gate review process applied across program. Reviews oversee scope, design maturity, cost estimates and risks. Reviews performed on a standard platform. 	<ul style="list-style-type: none"> Reviews fully informed with data from other functional areas. Review process aligned with agency strategy and organizational structure. 	<ul style="list-style-type: none"> Reviews contain detailed feedback loop for driving continual improvement. Sustained maintenance regularly performed on process structure/templates.
PROCESS/PROCEDURE FRAMEWORK	<ul style="list-style-type: none"> Processes/procedures are unclear, not formally defined or do not exist. 	<ul style="list-style-type: none"> Processes/procedures in functional areas may be formally defined. Processes/procedures not necessarily structured as an integrated framework. Application is inconsistent. 	<ul style="list-style-type: none"> Clear processes/procedures. Standardized framework applied consistently across project management organization. 	<ul style="list-style-type: none"> Processes/procedures integrated with agency policies. Framework fully enforced by management. 	<ul style="list-style-type: none"> Process/procedure framework maintained regularly. Framework utilized by management to improve program performance.



CIP OVERSIGHT ASSESSMENT

MATURITY MODEL

TABLE 2
COST AND FINANCIAL MANAGEMENT

ELEMENT	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
ESTIMATING	<ul style="list-style-type: none">Estimates are ad hoc and may miss some costs.Basis for documenting estimates is inadequate.	<ul style="list-style-type: none">Cost estimates tied to simple Work Breakdown Structure (WBS).Cost estimating template used as basis for documented estimates.	<ul style="list-style-type: none">Formal estimating standards and coding.Visibility of estimates at each stage.Historical cost database used.	<ul style="list-style-type: none">Estimating integrated with finance/accounting systems.Incorporates discipline-specific cost standards and specialist input.	<ul style="list-style-type: none">Lessons learned used to improve quality of estimates.Historical database maintained in agency system.
BUDGETING	<ul style="list-style-type: none">Budget processes not standardized.Not all projects have baseline costs.	<ul style="list-style-type: none">Baseline has detailed cost coding.Process is formal, yet not implemented consistently.	<ul style="list-style-type: none">Standard metrics developed and used to evaluate performance of individual projects.	<ul style="list-style-type: none">Fully integrated with project scheduling, finance and strategic planning.	<ul style="list-style-type: none">Cost baselines continuously evaluated for improvement on future projects.
FINANCIAL FORECASTING	<ul style="list-style-type: none">Basic forecasting is performed once budget is exceeded.	<ul style="list-style-type: none">Cost forecasting performed on large projects at manager's request.	<ul style="list-style-type: none">Program-level oversight structure, including executive committee.	<ul style="list-style-type: none">Forecast incorporates quantitative risk assessments based on work schedule.	<ul style="list-style-type: none">Forecast/related assumptions can be updated in real time.Analyses performed to increase accuracy.
COST MONITORING AND REPORTING	<ul style="list-style-type: none">Individual teams apply their own approach.Cost reports are ad hoc.	<ul style="list-style-type: none">Periodic reports by project team.Reports not fully reconciled to accounting system.	<ul style="list-style-type: none">Clear processes/procedures.Standardized framework applied consistently across project management organization.	<ul style="list-style-type: none">Cost reports integrated with schedule, technical status and activity reporting.	<ul style="list-style-type: none">Cost assessments for management decisions and for continuous improvement.





CIP OVERSIGHT ASSESSMENT

MATURITY MODEL

TABLE 3
SCHEDULE MANAGEMENT

ELEMENT	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
SCHEDULE DEVELOPMENT/METRICS	<ul style="list-style-type: none">No activity sequencing or duration estimating process.Durations between milestones usually rough estimates.	<ul style="list-style-type: none">Basic guidelines exist that outline schedule development, but not always used.No detailed WBS or network diagram.	<ul style="list-style-type: none">All projects have detailed and resource-loaded schedules.Baseline schedules/tracking metrics are developed.	<ul style="list-style-type: none">Earned value management metrics developed for some projects.Schedule decisions largely data-driven.	<ul style="list-style-type: none">Project as-built schedules and metrics captured.Metrics maintained in a database to improve process.
SCHEDULE MONITORING/ CONTROL	<ul style="list-style-type: none">Schedule control is left to each project team.Milestone changes managed inconsistently and often not monitored.	<ul style="list-style-type: none">Formal process is developed for schedule change control.Process not consistently followed across projects.	<ul style="list-style-type: none">Schedule change control/reporting process implemented on all projects.Field progress verified.Cost and schedule correlated.	<ul style="list-style-type: none">Schedule earned value performance used to monitor status.What-if scenarios considered and formally implemented.	<ul style="list-style-type: none">Schedule earned value trends monitored.Corrective actions tracked on all projects.Historic performance trends stored in database.





CIP OVERSIGHT ASSESSMENT

MATURITY MODEL

TABLE 4
SCOPE AND CHANGE MANAGEMENT

ELEMENT	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
BASELINE SCOPE DEVELOPMENT AND VERIFICATION	<ul style="list-style-type: none"> • Ill-defined scope, with little or no stakeholder involvement. • No formal process 	<ul style="list-style-type: none"> • Project requirements documented after active input from stakeholders. • Basic process in place to define high-level WBS. 	<ul style="list-style-type: none"> • Baseline scope included in project approval document. • Detailed WBS dictionary created and used as basis for defining project tasks. 	<ul style="list-style-type: none"> • Agency-level technical requirements fully integrated in the scope baseline. • WBS closely aligned with all project deliverables. 	<ul style="list-style-type: none"> • Quality assurance techniques used. • Historical requirement definitions are reviewed. • Process is sustained and improved upon.
SCOPE CHANGE IDENTIFICATION, ANALYSIS AND APPROVAL	<ul style="list-style-type: none"> • Ill-defined scope does not allow for identification of changes. • No scope management plan. 	<ul style="list-style-type: none"> • Change identification not systematic. • Analysis/approval processes defined, yet informal. 	<ul style="list-style-type: none"> • Formal processes for timely identification, analysis and approval. • Implemented scope management plan. 	<ul style="list-style-type: none"> • Changes identified/analyzed quantitatively and segregated by root cause. • Includes value engineering. • Includes independent reviews. 	<ul style="list-style-type: none"> • Scope changes contain value proposition, in addition to cost and schedule impact. • Value confirmed post-implementation.
SCOPE CHANGE MONITORING AND CONTROL	<ul style="list-style-type: none"> • Changes communicated in an ad hoc manner. • Updated scope not completely tracked and documented. 	<ul style="list-style-type: none"> • Defined tracking parameters and formal process used on large, highly visible projects. 	<ul style="list-style-type: none"> • Detailed scope change control system, reporting and analysis processes are defined. 	<ul style="list-style-type: none"> • In addition to Level 3 requirements, includes full adherence on project and program levels. 	<ul style="list-style-type: none"> • In addition to Level 4 requirements, includes full integration with agency systems. • Lessons learned are documented.





CIP OVERSIGHT ASSESSMENT

MATURITY MODEL

TABLE 5
RISK AND CONTINGENCY MANAGEMENT

ELEMENT	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
RISK IDENTIFICATION, QUANTIFICATION AND MITIGATION	<ul style="list-style-type: none">Risks not identified as a normal practice.Specific risks/impacts may be discussed informally.Risks responded to as they arise.	<ul style="list-style-type: none">Risk identification process developed, yet only used occasionally.Risk impacts are qualitative only.	<ul style="list-style-type: none">Risk identification process fully developed.Risk identification process regularly and consistently applied on all projects.Risk quantification uses multiple criteria for prioritization of risks.Mitigation plan for each risk.	<ul style="list-style-type: none">Identification, quantification and mitigation process fully integrated with other project management processes.Program-wide risk profiles provided for review by leadership.	<ul style="list-style-type: none">Lessons learned captured and used for improvement.Use of project contingency against risk identification history is tracked to identify areas for improved response development.



CIP OVERSIGHT ASSESSMENT

MATURITY MODEL

TABLE 6
SYSTEMS AND TECHNOLOGY

ELEMENT	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
PROJECT-SPECIFIC TOOLS AND SYSTEMS	<ul style="list-style-type: none">Standard performance metrics developed/used to evaluate performance of individual projects.	<ul style="list-style-type: none">Simple systems can be used by Project Manager across the project, such as a shared drive or a centralized reporting system.Custom tools used by each Project Manager.	<ul style="list-style-type: none">Central project system contains project information tools, processes and procedures.Not all team members take advantage of functionality.	<ul style="list-style-type: none">Project systems/tools standardized across projects.Systems and tools used by all project team members.Software systems are repeatable, auditable, measurable and integrated with other agency systems.	<ul style="list-style-type: none">Integrated project management systems in place to manage all key functions.Systems are used to evaluate project efficiency and effectiveness.Lessons learned used to make project management system improvements.
CAPITAL PROGRAM SUPPORT BY AGENCY-WIDE SYSTEMS	<ul style="list-style-type: none">No support for project management from agency systems.	<ul style="list-style-type: none">Enterprise systems have some project management functionality, yet used at the Project Managers' discretion.	<ul style="list-style-type: none">Enterprise systems offer standard reports that can be exported and customized by project management.	<ul style="list-style-type: none">Enterprise and project management systems are integrated.Standardized reports can be produced at regular intervals.	<ul style="list-style-type: none">Enterprise system offers real-time automated reporting for project management.



ACRONYMS

APPENDIX H

ACRONYMS

GLOSSARY OF ACRONYMS

GLOSSARY OF ACRONYMS	
ACRONYM	DEFINITION
ADA	Americans with Disabilities Act of 1990
AWV	Alaska Way Viaduct
CBO	City Budget Office
CIP	Capital Improvement Program
CM	Construction Management
CMM	Capability Maturity Model
CPM	Critical Path Method
CCSS	Consolidated Customer Service System
CS	Central Staff
CSI	Construction Specifications Institute
CVEP	Continuous Value Enhancement Process
DB	Design Build
DBB	Design Bid Build
DEA	Department of Environmental Affairs
DPR	Department of Parks and Recreation
EMS	Environmental Management System
EOC	Emergency Operations Center
EVM	Earned Value Management
FAS	Finance and Administrative Services
GC/CM	General Contractor/Construction Manager
HCS	Hill/Central Staff (Team)
IDIQ	Indefinite Delivery/Indefinite Quantity
IT	Information Technology
JOC	Job Order Contracting
LCC	Life-Cycle Cost (Estimate)
MSP	Microsoft Project
NCIS	New Customer Information System
O&M	Operations and Maintenance
ORCA	One Regional Card for All
PM	Project Manager, Project Management
PMBOK	Project Management Body of Knowledge
PMP	Project Management Plan
PS&E	Plans, Specifications and Estimates
QA	Quality Assurance
SCL	Seattle City Light
SCWQ	Ship Canal Water Quality
SDOT	Seattle Department of Transportation
SPU	Seattle Public Utilities
ST	Sound Transit
UI	Utilities International
WA	Washington
WSDOT	Washington State Department of Transportation

CITY OF SEATTLE COUNCIL RESOLUTION 31720

A RESOLUTION establishing a capital project oversight work program for the Budget Committee for 2017

WHEREAS, Capital Improvement Program (CIP) oversight is a critical function of the Seattle City Council; and
WHEREAS, effective CIP oversight ensures transparent, accountable use of public dollars; and
WHEREAS, at times Council has been constrained in its ability to exercise its full duty and authority to oversee CIP projects, such as when Council first receives large appropriation requests for CIP projects where project scope has not been fully defined and/or more design work is needed to fully understand total costs and potential risks; and
WHEREAS, the Council's ability to perform effective capital oversight is dependent on access to thorough information and the opportunity to review and process this information in a timely manner; and
WHEREAS, City capital projects such as the Seawall Replacement and the utilities' New Customer Information System ran millions of dollars over their original proposed budget and Council's oversight would have been more effective with timely reporting and better defined processes for reviewing available reports; and
WHEREAS, oversight for the 2017-2022 Proposed CIP was improved via increased internal Council staff review of changes to scope, schedule, and budget, including instituting an additional supervisory review of proposed CIP budget actions, seeking information from and holding conversations with some of the major departments on their project management practices and contingency usage, and conducting internal staff meetings to jointly discuss capital project issues across departments, all of which contributed to the development of proposed Council amendments to scope and budget for projects and imposition of capital controls via provisos; and

WHEREAS, there is significant opportunity to improve CIP reporting accountability to the Council and to use the Council's budgeting authority to achieve better financial oversight; and

WHEREAS, the Mayor agrees with and understands the importance and value of effective executive management controls and Council oversight for projects that have a significant financial, policy or programmatic impact on the City and its residents; NOW, THEREFORE,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE MAYOR CONCURRING, THAT:

Section 1. The Council and the Mayor are committed to improving Capital Improvement Program (CIP) oversight and developing new approaches to project monitoring.

Section 2. The Budget Committee shall lead this improvement effort for the Council through its 2017 work program by improving CIP accountability in the following ways:

A. Development of phased appropriation requirements for large CIP projects that provide Council with the opportunity to oversee the development of a project's scope, schedule, and budget, including development of a capital project risk assessment tool to inform phased appropriation decision-making;

B. Establishment of requirements for Council authorization of large external capital grant applications in situations such as grants that are sought by departments in advance of initial Council appropriation for a CIP project; and

C. Institution of mechanisms to improve visibility of and budgetary control over use of capital project contingency amounts.

Section 3. The Budget Committee will also institute requirements that improve the utility of CIP information communicated to the Council, as follows:

A. Enhanced regular CIP reporting developed in conjunction with the City Budget Office, including but not limited to quarterly reports to the Budget Committee on project scope, schedule, or budget deviations from the Council-approved CIP and any subsequent mid-year amendments;

B. Improved organization and content of departmental CIP information transmitted with the 2018 Proposed Budget, developed in conjunction with the City Budget Office and departments; and

C. Improved inter-branch communication on capital projects including coordination with the Executive Capital Subcabinet and other cross-branch opportunities.

Section 4. An ad hoc panel of independent experts on capital budget and project oversight shall be convened by the Council and Mayor to review current City practices and capital projects to make recommendations for improvement.

Section 5. Through the actions identified in this resolution, the Council seeks to institute new rigor in capital project oversight that will increase appropriate and timely oversight and provide more transparency to the public.



CITY OF SEATTLE

CIP OVERSIGHT ASSESSMENT – PHASE 1

Presented to the City of Seattle on May 26, 2017, this report includes a summary of Phase 1 key findings and observations, based upon the City Council's Central Staff and the Department Executive Staff interviews conducted by Hill International, Inc. The overall goal of the CIP Oversight Assessment (Phase 1 and Phase 2) is to recommend best practices that will increase appropriate and timely oversight and provide more transparency to the public for the City's CIP projects.