Appendix A - Recommended Leading Practices for Policy and Procedure Manual

The following processes are recommended leading practices that FP&C may consider implementing in any future updates to the FP&C PPM:

- Section 12 – Risk Management
- Section 13 – Project Communication
- Section 18 – Lessons Learned

12   Risk Management

This Risk Management policy establishes a guideline and approach for successful management of risks that a project might face during its entire life cycle. Risk management tasks involve proactively identifying and mitigating project risks to facilitate project success. To do so, the following must be considered:

- Recognize that risk will always exist in construction and that the objective of a Risk Management Plan is to minimize its impact.
- Not all risk will be eliminated; while some may be, others will only be mitigated or managed in another way (e.g. transferred).
- Risk should be carried by the party most suitable to do so. However, the transference of the Risk should be equitable and not arbitrary.
- Guidance is needed for the systematic approach to the identification, quantification, and the monitoring/controlling of risk.
    - Such will necessitate the development of control documents such as the 'Risk Register'.
- The early evaluation of costs due to risks serve as a foundation to determine project contingency.

12.1 Risk Management Process[1]

Risk management processes are different for Large and Small Projects.

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[1] Refer to Appendix 12.1W – Risk Management Workflow

12.2 Typical Risk Events Worksheet

The Typical Risk Events Worksheet (Appendix 12.2) documents common risk events on FP&C projects and potential responses to be considered to eliminate or reduce the risk impact. The worksheet should be reviewed by the PM during development of the Project Request (PR) and Project Agreement (PA). The PM should note in the PR if the project has any unusual risks and how key risks identified from the Typical Events Worksheet will be addressed.

12.3 Risk Register

For Large Projects, upon designation of a PM to a project, the PM should begin actively tracking risks using a Risk Register (Appendix 12.3).

The PM holds a project team meeting to identify, analyze, and determine strategies to address project risks. The project team includes the PM, the APM and any other team members the PM may want involved.

The project team then meets with the Client, design team, the contractor, I.T., and Facilities and Campus Services (F&CS) to discuss and assess risks and provide risk responses.

Following these various meetings, the PM updates the risk register on the PMIS and the Director reviews the risk register and provides comments and feedback.

The PM should update the risks on at least a monthly basis throughout the project. Monthly project team meetings should include a discussion of risks. Conversely, risks that no longer exist should be marked closed, with reasoning identified.

The Director does a quarterly review of all risk register to verify that they are updated. Additionally, the AVC reviews all risk registers on a quarterly basis and provides comments and feedback as necessary.

Lastly, the PM prepares a final risk resolution report and verifies that all items in risk register are commented on and closed. The report is then used as a reference for lessons learned[2].

The Risk Register should be an online database that will be viewable by the entire Project Team on the PMIS, but additions and updates will be controlled to authorized Project Team members. The Risk Register may have a structure similar to Appendix 12.3, however, it should be modified to meet the needs of the individual project.

The register should give:
1. Indication of project risks that have been identified.
2. Indication of probability of risk occurring, the corresponding impact on project objectives if the risks do occur (Table 12.3.1a and 12.3.1b).
3. Indication of an overall risk category (high/medium/low) based on likelihood and impact (Table 12.3.1c)

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[2] Refer to Section 16 – Lessons Learned

4. Indication of quantitative numerical impact on project objectives if the risks do occur.
5. Indication of the potential Response / Mitigation Plan(s) for each risk and their root cause / possible Implications (Table 12.3.1d).

Likelihood			
Description	**Scales**	**Probability**	**Description**
High (H)	Likely/Certain	75%-100%	Almost certain to occur
Medium (M)	Possible	20%-74%	Fairly likely to occur
Low (L)	Unlikely/Rare	0%-19%	Unlikely to occur

Table 12.3.1a

Impact	
Description	**Scenario**
High (H)	Critical/major impact on the achievement of objectives and overall performance. Huge/serious impact on costs and/or reputation. Difficult/medium long-term effect and expensive to recover.
Medium (M)	Reduces viability, significant waste of time and resources and impact on operational efficiency, output, and quality. Medium term effect, which may be expensive to recover.
Low (L)	Minor/minimum loss, delay, inconvenience or interruption. Short to medium term effect.

Table 12.3.1b

Sample Risk Classification Matrix				
Probability	**H**	M	H	H
	M	L	M	H
	L	L	L	M
'H'-High Risk 'M'-Medium 'L'-Low Risk	**L**	**M**	**H**	
		Impact		

Table 12.3.1c

Risk Strategy	
Risk Classification	**Action Required**
High (H)	Must eliminate or transfer risk
Medium (M)	Attempt to manage, avoid or transfer risk
Low (L)	Needs to be actively managed

Table 12.3.1d

13 Project Communication

Consistent project reporting helps keep the Client and project stakeholders informed of the current status of the Project. The Project Manager (PM) is responsible for regular reporting. Standard project report templates (detail below) should be used for all reporting; amendments to the standard template should be made as appropriate, with approval of the Director.

Upon commencement of Design Phase activities, the PM is responsible for completion and distribution of standard project reporting on a monthly basis. Reports should be distributed based upon the project's Communication Plan (Appendix 13) prior to the 5th business day of each month. A summary of standard reports appears below:

13.1 Dashboard Summary

Required for all projects: A one-page report containing a standard metrics/status dashboard (Appendix 13.1) (red-yellow-green) and brief status summary. The Dashboard Summary is updated on a bi-weekly basis and distributed to the Director, the Client, stakeholders and will be available on the PMIS for any other authorized FP&C team member to review.

In an effort to promote effective and efficient meetings, the dashboard summary is standardized. Any additional dashboards deemed necessary by the PM can be added as a secondary page to the project dashboard summary.

13.2 Monthly Reports

For Large Projects, the PM is responsible for creating Monthly Reports. The Monthly Report is distributed to the Director, the Client, stakeholders and will be available on the PMIS for any other authorized FP&C team member to review. Monthly Report for large projects (Appendix 13.2) report includes the following:

1. Project progress
    a. Summary of activities completed within prior month
2. Most recent cost forecast or estimate
3. Most recent schedule estimate
4. Project risks
5. Outstanding Change Orders
6. Outstanding submittals
7. New/Outstanding RFIs
8. Summary of upcoming activities (Three-week-look-ahead schedules)
9. Any other key events FP&C management, Client representative and other key stakeholders

For Small Projects, the PM may utilize the dashboard summary template for review during meetings.

18   Lessons Learned

18.2 FP&C Lessons Learned

For all projects, the PM should be aware of lessons learned from previous projects maintained in the FP&C Lessons Learned (Appendix 18.2).

The PM inputs the project lessons learned summary into the FP&C Lessons Learned Log for future use.

On at least an annual basis, the PM performs analysis on the FP&C Lessons Learned Log to identify trends and opportunities for FP&C improvement. This report is published to FP&C personnel.

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Facilities Planning and Construction (FP&C)

UAA FP&C Risk Register for Large Projects

Project:	\<insert Project name\>	PM:	\<insert PM\>
Project ID:	\<insert Project ID\>	Updated:	\<insert last update date\>

ID	Status	Raised by	Date ID'd	Date Last Updated	Description	Cost Impact	Time Impact	Probability (H/M/L)	Probability (%)	Impact (H/M/L)	Risk Classification (H/M/L)	Probability $ Impact	Probability Time Impact (days)	Mitigation Plan	Mitigation Activities Pursued (incl. dates)	Action Owner	Closure Date
Guide	Active/Closed	Name of party who originally identified risk	Date risk was identified	Date of last update/review	Description of the risk	Perceived impact to project costs if the risk occurs	Perceived impact to project's schedule if the risk occurs	Probability that the risk event occurs H = High M = Medium L= Low	Probability that the risk event occurs in percentage	Impact from risk H = High M = Medium L= Low	Risk classification from probability and impact designations	Automatically calculated value	Automatically calculated value	Describe the mitigation plan the team has agreed to take to eliminate or reduce the risk impact	Describe the mitigation activities that have occurred to date	Name the risk owner	Date of closure (if closed)
R1						$ -						$ -	0				
R2						$ -						$ -	0				
R3						$ -						$ -	0				
R4						$ -						$ -	0				
R5						$ -						$ -	0				
R6						$ -						$ -	0				
R7						$ -						$ -	0				
R8						$ -						$ -	0				
R9						$ -						$ -	0				
R10						$ -						$ -	0				

Appendix 13 - Communication Plan

Facilities Planning and Construction (FP&C)

Project Name: <Project Name> **Project ID:** <Project ID>
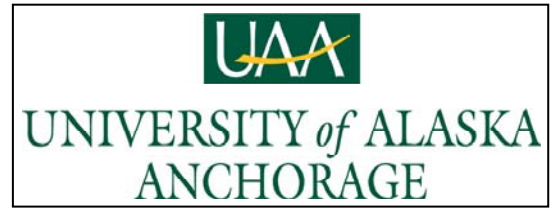**Project Manager:** <Project Manager> **Updated:** <Insert last update date>

Purpose: Consistent project reporting helps keep the Client and project stakeholders informed of the current status of the Project. This document is intended to provide transparency on required communication from the project stakeholders.

Item #	PPM Section		Project Size	Owner of Communication Task	Communication Type	Communication Type Details	Attendance	Frequency	Associated Template/ Documents	Elements of Communication
1	6	**Initiation**	All	Project Manager	Meeting	Project Scoping	Project Team	Per each scoping phase	Design Assessment Checklist	Scoping Session to occur within 2 weeks of PM Assignment PM to capture full intended scope of work from Client
2	9	**Closeout**	Large	Project Manager	Meeting	Lessons Learned Workshop	Project stakeholders	1x per project (@ completion)	Project Lessons Learned Log	
3	10	**Schedule Management**	All	Project Manager	Meeting	Project Schedule Meeting	Project stakeholders	As required	Schedule Checklist	
4	11	**Risk Management**	All	Project Manager	Meeting	Risk Management Meeting	Project stakeholders	As required	Risk Register	
5	12	**Project Communication**	All	Project Manager	Meeting	Internal FP&C Staff Meeting	FP&C Staff	Bi-Weekly (2x/month)	Item #8 & #9	
6	12	**Project Communication**	Large	General Contractor	Meeting	Coordination Meeting Owner-Architect-Contractor (OAC)	Project stakeholders	Bi-Weekly (2x/month)	n/a	
7	13	**Change Management**	All	Project Manager	Meeting	Project Change Meetings	Project stakeholders	As required	1. Contractor Potential Change Order 2. Change Order Log	
8	12	**Project Communication**	All	Project Manager	Report	Dashboard Summary	Project stakeholders	Bi-Weekly (2x/month)	Dashboard	To be communicated at Internal FP&C Staff Meeting (Item 5)
9	12	**Project Communication**	Large	Project Manager	Report	Monthly Project Report	Project Team	Monthly	Monthly Report for Large Projects	To be communicated at Internal FP&C Staff Meeting (Item 5)
10	12	**Project Communication**	Large	Director	Report	Board of Regents Report	Board of Regents	Quarterly	Construction in Progress	To be communicated at Quarterly BOR meeting
11	12	**Project Communication**	All	Fiscal Manager	Report	Statewide Maintenance and R&R Report	Board of Regents	1x/year (December)	TBD	
12	12	**Project Communication**	All	Fiscal Manager	Report	Expenditure Report	Board of Regents	1x/year (June)	TBD	
13	12	**Project Communication**	All	Fiscal Manager	Report	Operations Report	Board of Regents	1x/year (July)	TBD	

Appendix 13.1 – Projects Dashboard

Project	Current		Previous		Cost (US $)				Scope	Schedule Completion to date		Comments
	Status		Status		Approved	Spent	Commit.	Forecast	% Complete	Approved	Forecast	

🟢 On Track (Scope, $, Schedule)　🟠 Potential at risk / areas of concern　🔴 Value at risk　⚫ Pending decision

Appendix 13.2 – Monthly Report Summary for Large Projects Template

Facilities Planning and Construction

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Project Status Report | <insert Project Name>

Project Manager: <Month Year>

1 PROJECT OVERVIEW

1.1 STATUS

<A description of the project should be provided, including an overview of the scope, total project costs (budget and forecast costs), and expected completion schedule including key milestones.>

1.2 DASHBOARD REPORT (LARGE PROJECTS ONLY)

Metric	Current	Prior Month	Comment
Cost Performance			
Budget Variance			
Design & Scope Changes			
Change Order %			
Schedule Performance			
Schedule Variance			
Schedule Float			
Assignable Square Footage			
<other metrics may be included at the request of Director or AVC>			

Green: Variance <5% from baseline
Yellow: Variance of less than 10% but more than 5% greater than baseline
Red: Variance greater than 10% from baseline

2 STATUS SUMMARY

2.1 PRIOR MONTH ACTIVITIES

<A summary of the activities since issuance of the last project report should be contained here. This is to include all construction completed over the prior period, any decisions related to the project, any delays or activities expected to be completed that were not, and other key events that occurred over the course of the prior period.>

2.2 30 DAY LOOK AHEAD

<A summary of all expected activities, events and decisions over the next thirty days (or next reporting period if more than 30 days) should be provided.>

3   COST REVIEW

3.1   FORECAST REVIEW
<A summary of the most recent forecast should be included, including total project costs and a summary of costs, at a minimum, showing Approved Budget, Forecast, Forecast Variance from Prior Month, Forecast Variance from Budget, and Actual spend to date.>

3.2   BUDGET VARIANCES
<All variances in excess of 10 percent should be summarized. Variances should be calculated as forecast relative to budget, as well as the forecast relative to the prior month's forecast.>

4   SCHEDULE REVIEW

4.1   SCHEDULE STATUS
<The status of the project, including expected milestones and the projected project completion date. The schedule should be inserted at a detail level no less than the Feasibility Schedule requirements, including the baseline and current schedule.>

4.2   SCHEDULE VARIANCES
<A summary of all schedule delays should be included. All delays to activities on the Critical Path should be summarized, regardless of the amount of delay. Delays in excess of 5 days for non-critical path activities, or delays impacting the Critical Path, should be summarized. An explanation of all delays should be included.>

5   DESIGN STATUS

5.1   DESIGN SUMMARY
<A summary of the design status, including any key design dates and the design firm, should be included.>

5.2   SCOPE CHANGES
<A summary of all scope changes over the course of the project, both approved and requested/in-progress, should be included. Each should include a description, justification of change, and impact (cost and schedule).>

5.3   VALUE ENGINEERING
<All value engineering activities should be summarized, including all value engineering events pursued and incorporated into the project.>

6 PROCUREMENT SUMMARY

6.1 PROCUREMENT STATUS

<A summary of the procurement strategy and key procurement dates should be summarized. The status of all procurements of $50,000 or greater (or 20% of the project costs) should be summarized, including procurement, vendor (if selected), key dates, and value of the procurement (including relative to budget). The total procurement amount and actual procurement complete to date (e.g., contracts executed), including %, should be contained.>

6.2 CHANGE ORDER MANAGEMENT

A summary of all construction change orders for the project is provided below:

Status	# of Change Orders	Cost Impact	Time Impact
Approved			
Expected			
Pending			
Total Exposure	**<sum of Approved, Pending & Expected>**		
Rejected			

<A summary of all Pending and Expected Change orders should be provided:

- Change Order 1:
- Change Order 2:>

7 RISK MANAGEMENT

<A copy of the most recent risk register should be inserted. All risk events (changes, additions, subtractions) over the prior period should be summarized.>

8 SAFETY REVIEW

<Insert a summary of any safety events over the prior period, including injury incidents, shutdowns, etc., if any.>

A summary of project safety statistics is contained below:

SAFETY STATISTICS	This Month	Project to Date
Avg. Daily Workforce		
Lost Time Incidents		
Recordable Incidents		
Total Hours Worked		
Total Recordable Incident Rate		

Appendix

Project Photos

Cost Report (current month)

Current Schedule

Current Forecast

Appendix 18.2 – FP&C Projects Lessons Learned Overview Template

FP&C LESSONS LEARNED

1	**Project Manager:**	**Project Name:**	**Date:**
	Contractor Name:	**Contractor Project Manager:**	
	Original Contract Value:	**Final Contract Value:**	
2	**Project Manager:**	**Project Name:**	**Date:**
	Contractor Name:	**Contractor Project Manager:**	
	Original Contract Value:	**Final Contract Value:**	
3	**Project Manager:**	**Project Name:**	**Date:**
	Contractor Name:	**Contractor Project Manager:**	
	Original Contract Value:	**Final Contract Value:**	
#	**Project Manager:**	**Project Name:**	**Date:**
	Contractor Name:	**Contractor Project Manager:**	
	Original Contract Value:	**Final Contract Value:**	

1	Project Manager:	Project Name:		Date:
	Contractor Name:		Contractor Project Manager:	
	Original Contract Value:		Final Contract Value:	

Executive Summary

Project Description (short description of project):

Project Successes (bulleted list of only the <u>most important</u> things that went well):

Project Problems (bulleted list of the only <u>most important</u> things that didn't go well):

Suggestions for Future Projects (bulleted list of only the <u>most important</u> suggestions for improvement):
Always Do: - - **Never Do:** - -

2	**Project Manager:**	**Project Name:**	**Date:**
	Contractor Name:	**Contractor Project Manager:**	
	Original Contract Value:	**Final Contract Value:**	

Executive Summary

Project Description (short description of project):

Project Successes (bulleted list of only the <u>most important</u> things that went well):

Project Problems (bulleted list of the only <u>most important</u> things that didn't go well):

Suggestions for Future Projects (bulleted list of only the <u>most important</u> suggestions for improvement):
Always Do: ▪ ▪ **Never Do:** ▪ ▪

3	Project Manager:		Project Name:		Date:
	Contractor Name:			Contractor Project Manager:	
	Original Contract Value:			Final Contract Value:	

Executive Summary

Project Description (short description of project):

Project Successes (bulleted list of only the <u>most important</u> things that went well):

Project Problems (bulleted list of the only <u>most important</u> things that didn't go well):

Suggestions for Future Projects (bulleted list of only the <u>most important</u> suggestions for improvement):
Always Do: ▪   ▪   **Never Do:**   ▪   ▪

#	Project Manager:	Project Name:		Date:
	Contractor Name:		Contractor Project Manager:	
	Original Contract Value:		Final Contract Value:	

Executive Summary

Project Description (short description of project):

Project Successes (bulleted list of only the <u>most important</u> things that went well):

Project Problems (bulleted list of the only <u>most important</u> things that didn't go well):

Suggestions for Future Projects (bulleted list of only the <u>most important</u> suggestions for improvement):

Always Do:

▪
▪

Never Do:

▪
▪

Distribution

Full Report	Executive Leadership
	Name
	Others