

Asset Inventory

Goal Satisfaction Percent	Goal		Current State		Issue / Gaps
	Having a repository of	1.	Asset Lists exists in different	1.	No asset list categorization
What is this?	up to date assets that		forms: Digital, Physical, and		strategy, so there is no
	can be prioritized for		others.		consensus on what asset
Derived from the results	the maintenance plan	2.	Digital forms: laserfiche,		information to collect, and
of the EAOS As-Is			share drive, data on shop		what level of detail
Feedback Survey, this	Goals		computers, BMS database,	2.	Asset Lists for all shops are not
number represents	1) Develop a list of		etc.		up-to-date or missing data,
crews' sense or	assets	3.	Physical forms: paper		including entire assets, asset
"temperature" of how	2) Categorize assets into		building lists, paper maps,		information, as-built specs
well current business	"regulatory", "major"		paper maintenance files,		from contractors, parts lists
practices are satisfying	and critical equipment		paper PM sheets, etc.		used by contractors, updates
the EOAS Goals in this	categories	4.	Mental lists or implicit		like space renovations and
Business Area.	3) Develop a system for		knowledge of asset		equipment upgrades, service
	collecting and		information also used		level needs for assets, asset
	updating:	5.	Some shops maintain their		values & replacement values,
	a. asset data		own asset lists		square footage of beds, etc.
	b. the ongoing	6.	Some asset lists are shared	3.	No asset list prioritization
100%	maintenance status		with other shops (i.e.:		strategy, so there is no
90%	of assets	_	laserfiche, share drive lists)		consensus on what assets are
80%	c. the ongoing status of	7.	Some asset lists are not		more important than others
70% 46	the use of these		shared with other shops	4.	Current Asset Lists are time-
00%	assets	8.	Records of maintenance for	_	consuming/hard to maintain
50%			some assets don't	5.	Sometimes-contradictory Asset
40%		9.	exist/inconsistently collected		Lists are being kept and
30%		9.	Our Crew Members are Assets too		maintained in different locations
20%		10	The definition for "Asset" in	6.	No asset list communication
10%		10.	Custodial/Utility Workers is	0.	strategy, so lists don't get
0%			different from the rest of the		shared, are hard to find and
			organization; a "Custodial		use
			Asset" is usually a piece of	7.	No binding specifications for
			equipment or system owned	,.	trades/contractors to follow,
			by Building Ops and used by		so consistent quality of parts,
			the crews to maintain UBC		standardization of use of parts
			buildings/spaces		manufacturers, consistent
			a amamaga, aparada		labelling of equipment,
					consistent reporting of as-built
					specs by contractors to
					Building Ops takes place, which
					gives us little recourse when
					this happens
				8.	No "Asset Inventory Owner" or
					entity responsible for
					consistently collecting,
					maintaining, updating, sharing
					all Building Ops asset list
					information, and representing
					our asset list strategy to
					outside parties like Project
					Services
				9.	Need to track condition of
					assets

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Operations and Maintenance Plans

Goal Satisfaction Percent	Goal		Current State		Issue / Gaps
	-A comprehensive list of	1.	Operations & Maintenance	1.	Need clear definitions for
What is this?	operations, maintenance		(O&M) Plans exist for some		"Operations" & "Maintenance"
	and preventive		of the assets that need them.	2.	Definitions need to be
Derived from the results	maintenance	2.	It's hard to find out who		accepted by prospective shops
of the EAOS As-Is	requirements		performed work on assets as	3.	Need to have a log/history of
Feedback Survey, this number represents	-A system that effectively		there is no easy-to-use work	4.	who did what on an asset Need to be able to identify
crews' sense or	coordinates and	3.	log Most shops who refer to	4.	equipment nearing the end of
"temperature" of how	monitors progress and	٥.	O&M Plans are able to		its life and ready for renewal in
well current business	performance of		schedule the work in a		advance of failure
practices are satisfying	operations, maintenance,		variety of ways	5.	Need to make sure we adhere
the EOAS Goals in this	service contracts and ad-	4.	O&M Work tends to be		to O&M and Renewal Plans
Business Area.	hoc service requests		deferred when sudden	6.	Current O&M Plans aren't
	Goals		reactive maintenance		flexible enough to
	1) Identify equipment	5.	requests arise O&M Work tends to be		accommodate a sudden change in demand
	that need Operations	Э.	deferred when crews	7.	Some trades want
4.000/	and/or Maintenance and/or Preventive		assigned identify that parts	<i>,</i> .	maintenance plans for certain
100%	Maintenance		are not available		assets but they don't exist (i.e.:
90% ————————————————————————————————————	Associate assets with	6.	Completed O&M Work tends		Municipal catch basin
70%	maintenance tasks		not to be reviewed		maintenance, painting of
60%	and frequencies	7.	O&M Work tends not to be		animal rooms, core landscape
50% 32	3) Estimate resource		coordinated with other O&M		maintenance)
40% %	requirements		Work or other Planned maintenance work like	8.	Survey respondents say it's hard to do O&M Work with
30%	4) Reconcile asset needs		shutdowns		the current crew size
20%	with available	8.	Some O&M Plans used to	9.	Need to prevent reactive
10%	resources		exist, but have lapsed; i.e.:		maintenance from conflicting
0%	5) Generate a		painting of buildings used to		with the performance of
	maintenance work		be scheduled		scheduled O&M work
	plan at least 3 months	9.	Some shops have an informal	10.	Current O&M Work Planning
	in advance of the		plan for some equipment		strategy isn't clear on if it
	fiscal year end		that is important to them. This plan is not shared		always considers Customer Impact
	6) Implement Operations	10.	Asset Renewal plans are	11.	Need clarity in who develops,
	and Maintenance		generally non-existent,		supports the plan
	Plans where necessary		though some exist for assets	12.	Need Quality Control for O&M
			like vehicles		work done
		11.	Important asset information	13.	Need Technical Support when
			like warranties are not		performing work in O&M
		12	always known or collected The current purchasing		Plans, like Training on Planned Maintenance concepts &
		12.	process is hard to go		definitions for some workers
			through, so estimating		(i.e.: custodial, new hires) and
			parts/materials is challenging		guidance on what work to
		13.	Regarding reconciling		perform and how
			resources, it's hard to see	14.	Need better support for
			what's in stock in stores, so		purchasing parts for tasks; the
			shadow stocks are still kept outside of Stores in storage		purchasing process is not clear and hard to manage; it's hard
			units, mech rooms, etc.		to see what's in stock in Stores
		14.	Regarding reconciling	15.	Need stores inventory to be
			resources, it's sometimes		updated
			hard to use purchasing	16.	Need to review and streamline
			trends to estimate what		Weber contract to support
			items should be		work execution (i.e.: Weber
			automatically ordered in, because of shadow stocks		doesn't support after-purchase issues)
			Security of Stratow Stocks	17.	Need to know which
					equipment is due for renewal
					or replacement
				18.	Need to track warranties

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Organizational Structure

Goal Satisfaction Percent	Goal		Current State		Issue / Gaps
	Having an organization	1.	Workforce is generally	1.	Need to review rationale
What is this?	that can:		organized by shop		behind current org structure
		2.	Some of the workforce is		(i.e.: Construction Office, FMs,
Derived from the results	a. Balance proactive		organized by zone in addition to		Stores/Garage, etc)
of the EAOS As-Is	and reactive		shop	2.	Current Org Structure is
Feedback Survey, this	maintenance	3.	Different shops with different		missing a distinct "Operations"
number represents	needs		Roles & Responsibilities are		branch and distinct
crews' sense or	b. Improve asset		sometimes under the same		"Maintenance" branch
"temperature" of how	performance		management	3.	Need to review zone model
well current business		4.	Rationale behind current org	4.	Need to organize crews to
practices are satisfying	Goal		structure is not explicit		address reactive vs proactive
the EOAS Goals in this	Develop and	5.	Some work flows through		work
Business Area.	implement a Building		multiple shops to complete one	5.	Org Structure must be easy to
	Operations		"procedure" (Room		access & clear to everyone so
	Organizational		temperature adjustments can		anyone can access and
	Structure designed to		flow through up to 7 shops)		understand the reporting
	improve Workflow	6.	Most survey respondents said		structure
100%			vacant or insufficient co-worker	6.	Review communication gaps
90%			positions prevents efficient		and have better
80%		_	workflow		communication between
70% 47		7.	Crews are not effectively		Building Ops and Customers
60% %			organized to address proactive		(sometimes we provide
50% 40%			vs. reactive work		conflicting info to customers),
30%		8.	Some groups have "informal"		Properties Trust (sometimes
20%			PM task forces, like		they don't acknowledge our
10%			Architectural		needs), contractors, SHHS,
0%		9.	Some Building Ops trades are housed in buildings outside of		Athletics, outside utilities, UNA, RCMP, VFD, Project
			USB, like Lower Mall Header		
			House		Services, other Building Ops Trades
		10	Staffing gaps due to	7.	Communicating with other
		10.	illness/injury don't get backfilled	٧.	Building Ops trades and
			all the time, or it takes a long		efficient workflow between
			time to backfill, creating		trades is hard for trades who
			backlogs in work		don't have shops in USB (like
			adding the many		Municipal)
				8.	Accountability: some shops
					lack of a single person/position
					for each specific building,
					system
				9.	Review communication gaps
					and have better
					communication between
					shops as well as management
					to shops and vice versa
				10.	There is no fast or responsive
					backfilling strategy

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Roles and Responsibilities

Goal Satisfaction Percent	Goal		Current State		Issue / Gaps
	-Work that gets	1.	Some shops share certain	1.	All stakeholders (i.e.: trades,
What is this?	completed consistently		maintenance Roles &		FMs, shop stewards, , Housing
			Responsibilities		Trades etc.) need more clarity
Derived from the results	-Work that is of	2.	Overlap in roles not always clear		around everyone's Roles &
of the EAOS As-Is	appropriate quality	3.	It's hard to know how many		Responsibilities at Building
Feedback Survey, this	Caala		people are required to satisfy		Ops, including how they
number represents	Goals		certain Roles & Responsibilities		overlap
crews' sense or	Develop documents		due to lack of clarity around	2.	Specifically need clarity on the
"temperature" of how	that clearly define:		roles and overlap		role of "Operating Engineers"
well current business	a. Job Roles	4.	Some work gets re-assigned	3.	Need quality control
practices are satisfying	b. Job Responsibilities		multiple times due to lack of		processes, including
the EOAS Goals in this	c. Workflows for all		clarity on who's responsible or		product/service quality from
Business Area.	relevant business		work is too narrowly-defined		Weber
	processes,	5.	Survey respondents said people	4.	Need to make clarity of roles &
	including work		who don't know or don't		responsibilities and overlap
	quality control		perform their responsibilities		easy for everyone to reference
		_	prevents efficient workflow	_	to reduce inefficiencies
100%		6.	Not all business processes are	5.	Gaps include cleaning of fleet
90%			documented, and are subject to	6.	Need training to do estimating
80% 58		_	change without notice		and need clarity around who
70% %		7.	Specifically, quality control	7	pays
60%			business processes don't	7.	Need to identify and confirm
50%			exist/aren't documented, including processes for		missing Roles (i.e.: are there missing support staff roles
30%			measuring and communicating		specializing in Safety LR HR,
20%			on the quality of		clerical staff for trades,
10%			products/services, so delays can		"estimator" roles, purchasing
0%			be caused (i.e.: work is not		roles, "system owners"
			completed due to lags in	8.	Need to identify and document
			purchasing process from		missing or unclear workflows
			vendors like Weber)		that are important, like the
		8.	Some changes to business		process of communicating with
			processes are not consistently		vendors like Weber on
			supported with communication		products/services rendered;
			and training (i.e.: shop		troubleshooting checklists;
			estimating process)		when mech rooms should be
		9.	Work is not indicated as		cleaned and by whom; the
			complete in PeopleSoft		estimating process and what
			sometimes		estimating services are
		10.	Some roles may be missing, like		considered core and what part
			"estimators", clerical support for		of the estimating process is
			trades, "system owners" who		customer-funded (like
			are trades identified to be		designs/drawings); who is
			ultimately accountable for		responsible for communicating
			certain assets, though other		BOWs to other trades when
			trades may perform		working on a multi-trade job
		11	work/operations on them	9.	Need to identify which job
		11.	Roles & Responsibilities as		descriptions are outdated and
			stated in some job descriptions may be outdated		update them to reflect current Roles & Responsibilities
		<u> </u>	may be outdated		Notes & Nesponsibilities

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Resource Optimization

Goal Satisfaction	Goal	Current State	Issue / Gaps
Percent	- 50.		, 6660
What is this? Derived from the results of the EAOS As-Is Feedback Survey, this number represents crews' sense or "temperature" of how well current business practices are satisfying the EOAS Goals in this Business Area. 100% 90% 80% 58 70% 60% 60% 10% 10% 10% 10% 10% 10% 10% 10% 10% 1	 A "right-sized" Workforce A Workforce that operates efficiently A workforce that is flexible A Workforce that has enough oversight and support from managers and supervisors Goal Develop and Implement a strategy that balances Resources (FTEs, their skillsets) to Demand (including quantity, quality, and types of work) 	 Number of Resources (workforce) is known at a basic headcount level Some FTEs are counted as full-time presence, but do not perform full-time duties and must be reconciled (i.e.: Return-to-Work or temporary light duties crew members) Some demand is implicitly known through crew experience Demand is hard to explicitly quantify when working in a reactive environment, so it may seem that trades may be underutilized BOWs, timecards, Service Requests don't capture all data required to determine Demand and is hard to analyze Average cost of requests for service is not consistent No current documented or consistent strategy to balance resource and demand exists Current balancing strategies include getting crew members from other shops/departments to assist 	 Need to do a better job of identifying types, qualities, and quantities of work and roles & responsibilities Need a Resource reconciling strategy that accounts for different duty types, like light duties Need a way to explicitly quantify Demand Need a documented Resource/Demand balancing strategy that is transparent and flexible Need a Demand prioritization strategy that is clear, transparent, and agreed to by all stakeholders Need to have agreement on resources & Time required to service standard equipment (UBC specific) Need to collect good, reliable data on time, resources, asset lists to understand Resources & Demand values

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Expert Staff

Goal Satisfaction %	Goal		Current State		Issue / Gaps
What is this?	-An Engaged	1.	Current internal feedback	1.	Need more on-going technical training
	Workforce		systems include suggestion		that includes a plan for refresher
Derived from the			boxes, shop talks, meetings		courses for existing skills & technology
results of the EAOS As-	-A Workforce that		with management, working	2.	Staff need input into design review,
Is Feedback Survey,	demonstrates high		committees & other meetings		like through guidelines and
this number represents	expertise	2.	Some shops don't have an		specifications creation
crews' sense or			internal feedback system (i.e.:	3.	Need to identify what skills require an
"temperature" of how	-A Workforce that		inconsistent shop meetings		ongoing training strategy
well current business	retains institutional		with management)	4.	More engagement in training sessions
practices are satisfying	knowledge	3.	Acknowledgement of feedback		(i.e.: lunch & learns with reps)
the EOAS Goals in this	Goals		received is inconsistent	5.	Need to establish on-going internal
Business Area.	Develop and	4.	It's hard to tell if and when		feedback systems that are open to all
	Implement:		internally-sourced feedback		and transparent
	a. A skills training	_	was implemented	6.	Need to establish an internal
	strategy	5.	A lot of institutional knowledge		knowledge transfer strategy that
100%	b. An internal	6.	is kept implicitly (mentally) When crew members leave,		everyone can access, like a knowledgebase that includes
90% ————	knowledge	0.	they take their knowledge with		reference material
70% 46	transfer		them	7.	Consider mentorship process for
60% %	strategy	7.	No mentorship or peer review	٠.	sharing best practice between heads
50%	c. A system for	/ .	process exists to ensure		and crews, crew members and crew
30%	capturing and		consistency of institutional		members, shops and shops
10%	implementing		knowledge	8.	Need to develop more ways to engage
0%	suggestions for	8.	Due to complexity of new		workforce throughout career, e.g. a
			buildings/materials, updated		career development plan that tracks
	improvement		technical training is lacking		job performance, training
	(feedback	9.	Some skills don't have training		/accreditation received, if that training
	system)		strategies associated with them		is pertinent to their role & expiry
			(i.e.: vehicle use)	9.	Need succession planning process
			Some training is not engaging	10.	Ensure backfilling takes place in such a
		11.	Some work is not engaging.		way that implicit knowledge from the
			Working alone makes it worse		incumbent can be captured
		12.	Sometimes, some staff are	11.	Current hiring & onboarding practices
			disengaged (i.e.: "riding it out"		need to reflect our desired workplace
		12	to retirement)		culture to help hires from Construction /outside industries to adjust
		13.	It's hard to know how to move up within the organization.	12	No on-going external feedback
			Discussions around how to	12.	strategy to look for best practice
			move up within Building		strategy to look for best practice
		1	Operations happen aren't		
			usually formalized or part of a		
			process		
		14.	Technology is moving faster		
			than our capacity to change		
		15.	Some shops are perceived to		
			experience relatively high		
			turnover		
	•	•			

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Customer Expectations

Goal Satisfaction Percent Current State Issue / Gaps Goal A documented Customer Customers surveyed said Need system of What is this? communication with Building Ops is setting and Agreement lacking negotiating -A feedback mechanism Derived from the results New Customer Agreements are not customer whereby information on made through a standardized list of expectations and of the EAOS As-Is equipment and system resolving conflicts for Feedback Survey, this services & service levels performance is number represents 3. Customer Agreements are generally all types of work so communicated to crews' sense or renewed by copying previous customers know customers "temperature" of how agreements what we are -Customer expectations responsible for, and well current business 4. Feedback mechanisms between /requirements are practices are satisfying **Building Ops and Customers include** what they are consistently met or the EOAS Goals in this NPS, person-to-person interactions responsible for exceeded Business Area. including emails and meetings Need to update -Total asset life-cycle cost 86% of Customers surveyed said NPS billing process for is reduced score is not a good gauge of Service both customers **Building Ops** Agreement performance -Assets are maintained in (internal and Survey 66% of Customers surveyed said NPS is external) and crews safe and working Respondents not a good gauge of Customer to make invoicing condition easier to understand **Expectations** 100% 7. Performance of customer-funded and perform Goals 90% 3. Need to accurately equipment is not consistently 80% 64 1) Implement systems communicated to the customer record costs to % 70% and processes that 70% of Customers surveyed said they correct customer-60% manage customer funded BOWs want the above info quarterly 50% expectations by 9. Customers surveyed said Billing of work Need better 40% reconciling available is difficult to reconcile reporting 30% 10. Knowledge of jobs not always passed mechanisms to resources; customer 20% along from one staff member to the Customers by finding priority within the 10% out what they want Campus; 0% to know and how 11. Capacity to take on more project work quality/capacity of hampered by lack of system reconciling they want that existing systems; delivered available resources **Customer Survey** provide a means of 12. Service levels differ between buildings Need quality control Respondents regular feedback to 13. Some work is prioritized by "customer for work performed Customer by FM, 100% by Building Ops and politics", i.e.: the amount of influence 90% **Heads and Trades** the customer has on trades, FMs, etc. contractors 80% 2) Implement systems 14. A customer may receive conflicting 6. Need to 70% and processes that information from FMs, Trades, and communicate 60% other stakeholders about a single job, support Trades in customer needs to 50% 30 executing their work which makes it hard for the customer to Trades working on 40% % have consistent expectations Service Contracts such that it's 30% 15. In some cases, customers and/or Need to make sure completed with no or 20% Building Ops trades don't understand customers provide minimal 10% the boundaries of where Building Ops' enough accurate 0% disruption/interferen core maintenance responsibilities start information to ce to Customer and end on some systems/equipment perform work operations. Need to reduce 16. In some cases, customers and/or completed on time / Building Ops trades don't understand conflicting budget: of the boundaries of a customer's financial information Building appropriate quality Ops gives the responsibility for the maintenance of some systems/equipment customer – make 17. Sometimes, when a job goes wrong sure a consistent that's being worked on by other groups, message is given to customers Building Operations gets blamed for it 18. Some information coming from The influence of the customers is missing when they create a customer's perceived authority should not Service Request, creating delays in service influence the performance of work 10. The influence levels of some groups on other should not impact the efficient performance of work

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Contractual Obligations

Goal Satisfaction Percent	Goal		Current State		Issue / Gaps
What is this? Derived from the results of the EAOS As-Is Feedback Survey, this number represents crews' sense or "temperature" of how well current business practices are satisfying the EOAS Goals in this Business Area. 100% 90% 66 80% 70% 60% 50% 40% 30% 20% 10% 0%	-Consistent contract services and costs -Improved customer relations Goals 1) Develop a list of standard service offerings and levels 2) Develop a set of consistent methods for costing and resourcing future contract requests	1. 2. 3. 4. 5. 6.	Standards of Service Offerings and Service Levels do not exist in a list/reference format Methods for costing and resourcing contract requests is not created consistently from case to case Customers are presented with Service Levels or Service Offerings only when they review and/or draft contract Customers are aware of inconsistencies in service levels, and is a source of frustration Some stakeholders are not always aware of the obligations (both Building Ops stakeholders and customers) Custodial crew members, custodial heads, and customers are all aware of the agreed-to service agreement details, and they get performed consistently Customers aren't always aware of our scope of our duties — they're not the only customers BC Landscape Standards, APPA standards are externally-created standards that sometimes can be	 1. 2. 4. 6. 7. 	Need to clearly define the different contracted work types and make sure everyone understands them (i.e.: Internal vs External Service Contracts) A Building Ops Lists of Standards of Consistent Service Offerings and Service Levels based on a categorized asset list needs to be created List of mandatory (regulatory) items and optional items needs to be created Service Contract/Service Agreement details has to be easy to refer to and use Need to include contractual obligations in the scheduling and prioritization processes Need to reconcile demand of contractual obligations with resources available Lacking a central repository
		9.	referenced by outside groups who may want our services Current Service Contract/Service Agreement details are hard to access/refer to		of lease agreements and Service Contracts, so it's hard to refer to

Scheduling

What is this? Derived from the results of the EAOS Asls Feedback Survey, this number represents crews' Sense or "" The series of the EAOS Assection of	Effective deployment of resources The ability to drive ccountability Streamlined communication for all takeholders Goals) For work requiring scheduling, implement a resource scheduling system that: a. assigns work at the trades	 2. 3. 4. 	Work can be scheduled by shop heads/subheads, Construction Office, crew members, managers and others Work priority is sometimes determined by who scheduled the work Scheduling tools and methods differ greatly between these groups Estimates, repair requirements, inspection details are generally included in scheduled work when assigned Information needed to	 Need consistent system to schedule work that is clear and accessible by all (including external groups like Film crews) to prevent conflicts Scheduling system needs to be easy-to use All information pertinent to scheduling should be easy to access (shutdowns, UBC exam schedule, classroom schedules) It's not known why previous scheduling systems have failed (i.e.: the "Wheel", some scheduling meetings, etc.) Scheduling priorities must be created, and clear and understood by all so "bumping" is reduced Need better understanding of Resource
50% 40%	person/shop- level b. captures inspection details	5.	schedule all work is stored in different places, like Shutdowns, Service Requests, Service Contracts, projects, and is	
	•	6.	•	duties workers 9. Scheduling system needs to be able to automatically communicate updates to schedule to all stakeholders, including crew members, impacted Customers, t

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Tracking System

VALIDATED

Goal Satisfaction Percent Goal **Current State** Issue / Gaps -A system that provides Time tracked via timecards and Need a better What is this? **BOWs** accounting of where information on, employee, Charging to BOWs is inconsistent work gets done system performance and Derived from the results and not always representative of all Need to have asset life-cycle costs of the EAOS As-Is work (i.e.: charges to building agreement on what data should be Feedback Survey, this -A system that assists with: numbers vs zone numbers) collected and how number represents identifying areas of Much of the data collected from assets are generally not collected crews' sense or detailed data should improvement, value-add "temperature" of how consistently enough so tracking of opportunities and reducing well current business Need to update those values can take place time spent on administrative practices are satisfying Data is stored in different formats: Work Order Strategy tasks e.g. timecards, etc. the EOAS Goals in this electronically, on paper, and mental to effectively capture work effort Business Area. Goals Some data is hard to collect/not and asset tracking, Implement a work tracking collected (i.e.: Maintenance and so it's easy to system that collects relevant Cost/Repairs for Custodial Assets & use by trades, and information like: Utility Workers Assets are not everyone follows it 100% a. check dates the same way collected) 90% b. the nature of work Sometimes data is hard to analyze Need method of 80% performed due to how they were collected (i.e.: collecting c. further repair 70% 53 infrequent collection, data collected information in a way requirements 60% % on paper, inconsistent Service that makes it easy to d. suggestions for 50% Request/Work Order updates & analyze improvement Need automatic closing) 40% e. task completion time Time data collected via timecards & system for collecting 30% f. other information BOWs is hard to extract & analyzing time 20% a. Implement a system Hard to extract data of value from data 10% that will support new timecards (i.e.: OT vs. regular time Need to identify & 0% technologies and spent by building) track problem (or enable data collection The dollar values of some assets are end-of-life) and analysis with not quantifiably established (i.e.: equipment to know where inefficiencies minimal effort some buildings, systems, landscapes, etc.) exist 7. 10. Some buildings are so old they are Need to separate "time losers" – potentially not worth the collection of the time to upkeep Billing data from 11. Time data is primarily collected Payroll processes through a Payroll-owned process: (i.e.: timecards) timecards Need to create 12. Information critical to precise billing processes to ensure processes is collected through a reliable data is payroll-owned process: timecards collected with few errors so good decisions can be made with them

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Software System

Goal Satisfaction Percent	Goal		Current State		Issue / Gaps
	-To have a single, integrated	1.	Most shops have	1.	Some shops are lacking
What is this?	system that manages all		computers for crew		enough computers, smart
	aspects of Building Operations		members to access		devices that are appropriate
Derived from the results	services.	2.	Some shops don't (i.e.:		for use in the field and are
of the EAOS As-Is			refrigeration)		appropriate to view
Feedback Survey, this	-To generate significant	3.	Some crew members can		pertinent info as its stored
number represents crews'	efficiencies in:		access the internet on	2.	Some shop computers use
sense or "temperature"	a marsamus I damla masant		their phones or smart		outdated operating systems
of how well current	a. personnel deployment		devices		like Windows XP, preventing
business practices are	b. asset performance	4.	Some crew members use		access to current software
satisfying the EOAS Goals	Goals		their own person smart	3.	It's hard to update Service
in this Business Area.	collects customer	_	devices to be mobile		Requests out in the field
	requests	5.	Some work is assigned	4.	PeopleSoft in general is not
	2) prioritizes work		and tracked through		very user-friendly, which
			PeopleSoft Service		makes users waste time
100%	· =		Requests & Work Orders,	_	navigating it
90%	4) assigns work	c	though some work is not	5.	Scheduling is not well
80%	5) tracks work	6.	Shadow systems are in		supported by any current software system
70%	6) schedules resources		use to perform tasks like scheduling work, tracking	6.	It's hard to share some
	7) bills customers		work, tracking	0.	information through current
60% 42	8) Is user friendly		measurements from		software (no cloud
50% %	9) Is automated		equipment, etc.		technology)
40%	10) will be used	7.	Shops may have to refer	7.	More regular training on
30%	consistently	/.	to multiple software	7.	technology is needed to
20%	throughout the		sources to perform a		keep up with changes and to
10%	organization		single task		maintain/increase our
0%	11) will support a mobile	8.	Assigning work to		knowledge of existing
	workforce		multiple trades in		software
	12) Can integrate with the		PeopleSoft requires	8.	Poor visibility of project
	following existing		duplicate Service		costing: multiple locations in
	systems:		Requests to be made		PeopleSoft need to be
	a. PeopleSoft's	9.	Re-assigning Service		accessed to get the most
	Finance, Human		Requests to other trades		complete picture
	Resources,		can be confusing	9.	Some software systems are
	Inventory,	10.	Hard to print documents		not accessible to all staff
	b. Purchasing and		from PeopleSoft		that need to access it i.e.
	Maintenance	11.	Some information is		VFA Facilities, AutoCAD,
	Manager modules;		missing from Laserfiche,		Classroom Schedule
	c. the SOP (Standard		is inconvenient to	10.	Laserfiche needs to be made
	Operation		retrieve, and can't be	4.4	easier to use for trades
	Procedures)		sorted by shop interest	11.	Need to make sure everyone
	· ·				who needs access to specific
	database of safety			12	software & hardware gets it
	information;			12.	Need on-going support for
	d. the Laserfiche				technology in use at Building Ops, including hardware &
	records department				software
					Software

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Key Performance Indicators

Goal Satisfaction Percent	Goal		Current State		Issue / Gaps
	Metrics that assists with decision-making around;	1.	We collect some	8.	Need to ensure data
What is this?	p. p		data about		collected is reliable
	a. predictive maintenance		employees, assets,		so metrics can be
Derived from the	b. developing mitigation plans		and customers		truly reflective of the
results of the EAOS	c. Service Contract Improvements/Value-adds	2.	Some data is		current state
As-Is Feedback	d. effectiveness of maintenance efforts		available but not	9.	Need a KPI strategy
Survey, this number	Asset replacement/selection		used to create		that allows all
represents crews'	Asset replacement/selection		metrics/KPIs (i.e.:		stakeholders to
sense or	a. resource utilization		Number of SRs		agree on what to
"temperature" of	b. training/development		closed/completed		collect, what KPIs are
how well current	c. performance management	_	by day)		relevant and to
business practices are	d. improving employee usage of the program	3.	Examples of some		whom, how to
satisfying the EOAS	e. improving service quality		of the data		collect the data,
Goals in this Business	f. enhancing customer relations		collected (i.e.: BMS		ensure data integrity,
Area.	l		values, building		how to analyze
	g. improving workplace safety		energy		them, and what to
	Having sets of metrics that serve as a mechanism	4	consumption, etc.), Some KPIs currently		do with them, and
	to;	4.	•	10	who governs them
100%			in use include NPS, PM completion	10.	KPIs need to be accessible to
90%	a. categorize asset performance		rates, Trending		everyone
80%	b. prioritize maintenance activities		based on BMS	11	Automated reporting
			values, etc.)	11.	from PeopleSoft data
70%	Goals	5.	PM Scorecard:	12	PM Scorecard
60% 42	1) to implement methods/systems (processes)	٥.	tracks a limited	12.	Measures against
50% %	to measure;		number of PM		outdated asset lists
40%	a. The performance of buildings, systems, and		Inspection tasks	13.	Need to track costs,
30%	equipment		completed		performance,
20%	b. Regulatory compliance	6.	Data collected has		condition of assets
10%	c. Service contract performance		historically been	14.	Need a full review of
0%	d. effort on repairs		collected		the NPS process,
070	e. asset lifecycle maintenance costs		inconsistently, and		including its value,
	f. employee productivity		is not a true		who it applies to,
	g. employee engagement		reflection of the		what data it needs to
	h. customer satisfaction		current state		collect, etc.
	i. employee injury rates	7.	Sometimes it's not		
	j. the number of customer "re-contacts/call-		clear what data gets		
	backs"		collected and		
			reported on from		
			SRs/BOWs		

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Current State Analysis

VALIDATED

EAOS Gap Solution Suggestions

- 1. Need to improve filtration on all HVAC systems
- 2. Need to improve water treatment on water systems
- 3. Roles & Responsibilities: consolidate /organize work around single shop/tradesperson responsible for an entire system
- 4. Scheduling: improve successful schedules as little as possible
- 5. Scheduling: Schedule only projects/large repairs
- 6. Review Fleet zone painters share cars, which is inefficient
- 7. Review Weber aggressive use of some vendors, and stock should renew for paints seasonally automatically
- 8. Perform more elevator & generator work in-house
- 9. Reduce the amount of money spent on shipping from Andrew Sherett
- 10. PMs could be done on down time (i.e.: weekends, early morning)
- 11. Have crews dedicated to PM work
- 12. Technical training manager as a position
- 13. Tile setter as a position
- 14. Shut down whole building to perform PM work
- 15. Assign SRs to RMS
- 16. Have an RMS person in the field "field guy" to assist with questions
- 17. Condenser coil cleaning to reduce energy consumption
- 18. Crew 27 zones should be smaller
- 19. Clean vehicles regularly to wash salt off, reduce wear/tear, mold inside
- 20. Regarding Org Structure Issue "Need to Review Zone Model", Org re-structure should take into account building complexity
- 21. Regarding Org Structure Issue "Need to review Org Structure rationale", org re-structure process should investigate different ways of organizing Building Operations, including being organized by asset function or relationship (i.e.: instead of "Carpentry Shop", consider "Building Envelope Shop", which would house people trained in carpentry, roofing, etc. It should also reflect our strategy for balancing our Demand vs. Resources
- 22. Regarding Expert Staff "Hiring for workplace culture", target more mechanically-skilled/knowledgeable, technically-aligned/inclined staff and place them throughout organization to create better communication between technical trades/non-technical trades
- 23. Regarding Software Systems, tie an inventory [list] to the asset, so you know what kinds of parts have been purchased historically for it
- 24. Regarding Expert Staff "Need on-going technical training", consider creating "Just-In-Time" training for refreshers on some of the smaller repetitive tasks, like using PeopleSoft. Consider using video format
- 25. Regarding Software Systems, "Some shops are lacking computers, smart devices" need to make sure smart device strategy should include a standardization of devices
- 26. Scheduling: Bring back "The Wheel"
- 27. Digital screens in buildings to "push info" to customers on what Building Ops is up to for them
- 28. Why not implement SME's to assist with training on technology and technical trades training reinforcement
- 29. Attracting Expert Staff: Update compensation plans to make sure quality candidates
- 30. Regarding the lack of a standardization of fixtures/assets: write technical guidelines to narrow choices in manufacturers down going forward
- 31. Note history for work completed on assets should contribute to body of institutional knowledge
- 32. Need to track warranties (suggestion: could be easily dealt with through specifications, rather than guidelines, to commit contractors to transfer that knowledge)
- 33. Review communication gaps: keep communication as direct as possible (i.e.: no middlemen)
- 34. Need to reorganize purchasing roles: Vendor Support is lacking. Suggestion for purchasing processes: take purchasing off the plates of the heads. They would put the request in but have someone else manage price optimization, managing payment, shipping, etc.
- 35. Better Communication between Properties Trust, etc: use FMs as communicators to prevent customers from interfering with trades
- 36. Look at "Composite Crew" Structures as a means to optimize resources
- 37. Need to review rationale behind current org structure: (i.e.: Construction Office, FMs, Stores/Garage, etc, "Building Envelope Shop"; Brick layers, roofers in their own shop)
- 38. Need to have better communication between the trades on what each trade should do with each asset: Standard Operating Procedures would be good to use for clarity of roles
- 39. Need to establish an internal knowledge transfer strategy: note history for work completed on assets would contribute to body of knowledge related to tracking, software, assets goals
- 40. Transition into a UBC-Specific environment from a construction environment is a huge barrier need to look at how to integrate "fitting in" into the process as early as possible. Consider changing the onboarding/hiring process to accommodate this

Initiatives out of EAOS scope, but need to be addressed

- 1. Gap in recycling plastics, pallets and using RMS recycling website
- 2. Cell phones: how to update contacts
- 3. Allow shops to bid on work that is
- 4. Compensation inconsistencies between trades must be looked at
- 5. Define ways to increase the ReUse It Program
- 6. Mech Ops/Services (i.e.: 31, 31R) Shop space is too small for the number of crew members in it
- 7. 1801 & 1802 forms Union Work Forms: review that process. It's inefficient and wasteful

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