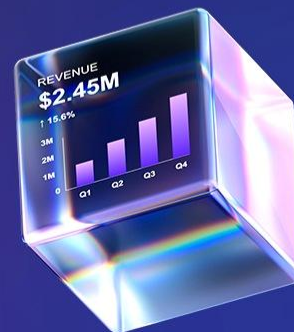




Autonomous Finance Realized

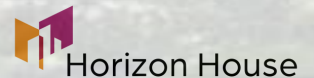
Welcome to the Delegation Era



How We Gained Control Over a \$400M Construction Project Using Prophix, ERP & Excel

Per Solheim

Senior Financial Analyst, Horizon House



About Me

- Senior Financial Analyst, Horizon House
- 20+ years FP&A & systems
- Prophix + Excel + Business Central

The West Tower Project

About Horizon House



- Opened in 1961
- 927,000 square feet; 4 city blocks
- **Towers:**
- 1954 Central Tower
- 1983-1984 East Tower & West Wing
- 2007 North Tower
- 2026 West Tower (construction underway)





What It Means to Live Here

- Residents are active, engaged and inclusive
- Residents manage 60+ interest groups (Art, music, education, environment, etc.)

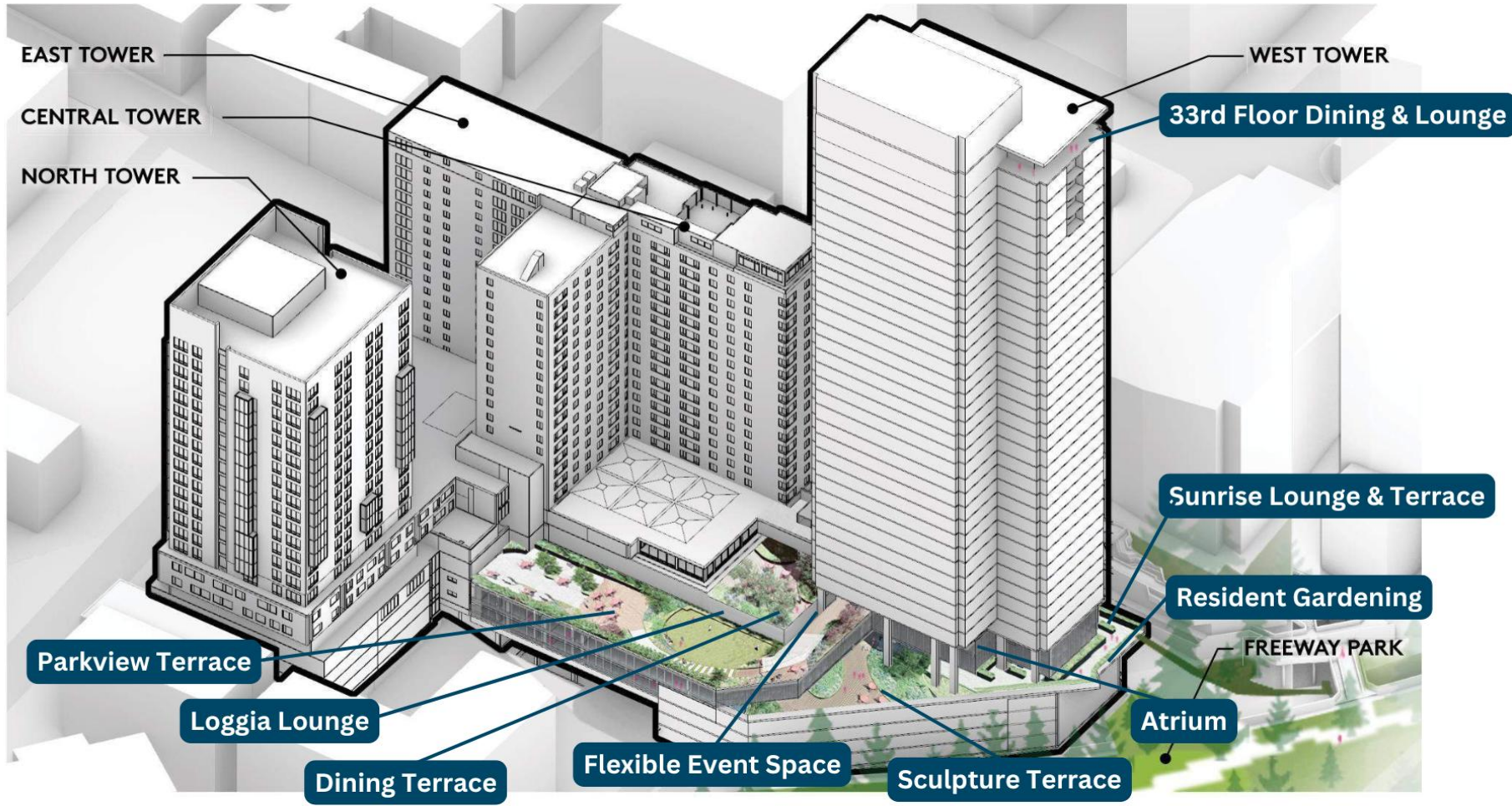


The Project: West Tower Expansion

- \$400M+ multi-year project
- 33-story residential tower
- Early stage, ~4 years remaining
- Hundreds of cost components



HORIZON HOUSE CAMPUS



West Tower Construction is just in the beginning

So far, the old West Wing building has been demolished, and the builders are preparing for the new 33-store building!



The Challenge

The Finance Challenge: Multi-Dimensional Visibility

- **We needed to track:**
- Vendor
- Cost category and cost items
- Budget and forecasting vs actual
- Owner's contingency
- Finance Committee reporting

Starting Point: Everything was in Excel

- Complex file
- Manual processes
- Risk of errors
- Hard to scale

Before You Build, You Have to Understand the Existing Model

- We started from Excel
- Existing complex model
- First question:
👉 What is it actually doing?

1	Master Plan		Back tax tool: D1 = E1/1.101	3,705.81	4,080.10	CapX: TEAMS/WG Department Heads/Budget 2021					
2	MASTER CASHFLOW		Less Retainage tool:	16,236.94	15,427.02	78,253				\$ 824,782	Q1-25
3	#####		Back to SOV tool:	(1,142.30)	(1,086.84)						Feb-25 Mar-25
4			Total w/ invoice tax as of 1/1/2021		80,000.00	NOTES		\$ 394,145			

Item#	Change Type	Vendor	DESCRIPTION	SOV Total	TOTAL w/ invoice tax	POTENTIAL PROJECT SAVINGS	Percent Complete	TOTAL	ACTUAL COST TO DATE	ESTIMATE TO COMPLETE		
						-	#DIV/0!	\$ -	\$ -	\$ -		
						-	#DIV/0!	\$ -	\$ -	\$ -		
			Hefron SIP Engineering (traffic consultant)		75,000.00	-	0%	\$ 75,000	\$ -	\$ 75,000	15,000.00	15,000.00
			MH San: BE testing & commissioning		101,000.00	-	0%	\$ 101,000	\$ -	\$ 101,000		
			UNCOM: BE testing & commissioning (remaining budget)		24,000.00	-	0%	\$ 24,000	\$ -	\$ 24,000		
48	ommitte	Mendel	Tom Owens - contracts attorney		58,652.00	2,612.00	51%	\$ 56,040	\$ 29,912	\$ 26,128		
49	ommitte	Hillis Cla	Holly Golden - Land use lawyer		120,800.00	(2,677.50)	78%	\$ 123,478	\$ 93,883	\$ 29,594		5,000.00
			Builder's Risk insurance		687,428.00	-	0%	\$ 687,428	\$ -	\$ 687,428		
51	ommitte	Westlak	Owner's Rep		1,355,855.00	30,863.18	14%	\$ 1,324,992	\$ 186,773	\$ 1,138,219	25,000.00	25,000.00
			Cost management		2,261,630.00	-	1%	\$ 2,261,630	\$ 12,235	\$ 2,249,395	38,332.71	38,332.71
			zumBrunnen (construction monitor)		355,000.00	-	0%	\$ 355,000	\$ -	\$ 355,000		
		Morrison	Morrison/SCOPOS		25,000.00	12,000.00	0%	\$ 13,000	\$ -	\$ 13,000	1,000.00	
55	ommitte	Natalie	community outreach		10,000.00	-	100%	\$ 10,000	\$ 10,000	\$ -		
						-	#DIV/0!	\$ -	\$ -	\$ -		
						-	#DIV/0!	\$ -	\$ -	\$ -		
			Land Use / MUP / ENTITLEMENTS			-	#DIV/0!	\$ -	\$ -	\$ -		
59	ommitte	City of S	EDG submission (1 meeting)		5,638.08	-	100%	\$ 5,638	\$ 5,638	\$ -		
60	ommitte	City of S	MUP Application		11,235.95	-	100%	\$ 11,236	\$ 11,236	\$ -		
61		City of S	Land Use fees/DRB		15,000.00	-	0%	\$ 15,000	\$ -	\$ 15,000		
62		City of S	Structural peer review			-	#DIV/0!	\$ -	\$ -	\$ -		
63	ommitte	City of S	seismic peer review		34,157.10	-	56%	\$ 34,157	\$ 19,157	\$ 15,000		
64		City of S	peer review		25,000.00	-	0%	\$ 25,000	\$ -	\$ 25,000		
65		City of S	SEPA (exempt)		-	-	#DIV/0!	\$ -	\$ -	\$ -		

The Goal: Move to Prophix

- More structure
- More reliability
- Scalable model

The Team Challenge: Different Background

Cost Consultant

- Deep expertise in construction accounting
- Limited experience with Prophix modeling

Prophix Consultants that we worked with

- Deep expertise in Prophix
- Limited experience with construction accounting from a project owner's viewpoint.

My Role

- Bridging both worlds
- Learning construction accounting and Prophix at the same time.

Project
Second Floor Offices
University Café
West Tower
West Wing

Project Phase
Design
Foundation
Completion
Framing

Version
(ACT) Actual YTD
(OE) Original Estimate
(PLAN01) Plan
(RE) Revised Estimate
(CTC) Cost to Complete

Committed, Unc...
Actual
Committed
Contingency
Remaining Budget
Uncommitted

Cost Category
Hard Costs
Soft Costs

Funding Source
Internal Funds
Loans

Projects

Sum of Amount	Column Labels							2024 Total	* 2025	Grand Total
Row Labels	2024	Jan	Feb	May	Sep	Nov	Dec			
Second Floor Offices		344,400					354,640	699,040	359,760	1,058,800
University Café					225,659			225,659	667,546	893,204
West Tower			431,780				444,580	876,360		876,360
West Wing				278,797				278,797	286,989	565,786
Grand Total		344,400	431,780	278,797	225,659	354,640	444,580	2,079,856	1,314,294	3,394,150

Project and Phases

Sum of Amount	Column Labels													2024 Total	* 2025	* 2026	* 2027	Grand Total
Row Labels	2024	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
Second Floor Offices		688,800	690,848	692,896	694,944	696,992	699,040	701,088	703,136	705,184	707,232	709,280	711,328	8,400,768	11,877,440	16,545,216	13,924,960	50,748,384
Completion																1,385,632	13,924,960	15,310,592
Design		688,800	690,848	692,896	694,944	696,992	699,040	701,088	703,136	705,184	707,232	709,280	711,328	8,400,768	5,036,640			13,437,408
Foundation															6,840,800	6,872,000		13,712,800
Framing																8,287,584		8,287,584
University Café		440,832	442,143	443,453	444,764	446,075	447,386	448,696	450,007	451,318	452,628	453,939	455,250	5,376,492	7,601,562	10,588,938	8,911,974	32,478,966
Completion																886,804	8,911,974	9,798,779
Design		440,832	442,143	443,453	444,764	446,075	447,386	448,696	450,007	451,318	452,628	453,939	455,250	5,376,492	3,223,450			8,599,941
Foundation															4,378,112	4,398,080		8,776,192
Framing																5,304,054		5,304,054
West Tower		861,000	863,560	866,120	868,680	871,240	873,800	876,360	878,920	881,480	884,040	886,600	889,160	10,500,960	14,846,800	20,681,520	17,406,200	63,435,480

Accounts

Sum of Amount	Column Labels													2024 Total	* 2025	* 2026	* 2027	Grand Total
Row Labels	2024	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
(C) Total Cost		861,000		443,453				560,870					709,280	2,574,604	2,452,173	5,083,342	4,026,329	14,136,448
(CTC) Cost to Complete			863,560		444,764				562,509				711,328	2,582,161	2,457,042	5,087,947	4,029,936	14,157,086
(RT) Rates				866,120		446,075				564,147				1,876,342	3,175,287	3,983,048	4,247,456	13,282,134
Owner's Contingency					868,680		447,386				565,786			1,881,851	3,590,494	3,986,655	4,251,262	13,710,262

Designing the Model

Requirements, the Model Needed to:

- Import actuals from Business Central
- Allocate to cost items
- Forecasting multiple years
- Compare actuals vs budget & forecasts
- Track contingency & vendors
- Produce Finance Committee reports

End-to-End Financial Model

STEP	DESCRIPTION	KEY ACTIONS
1. Input Actuals	Import data from Business Central	Allocate to cost items Prophix template
2. Forecast Input	Manual entry in forecast template	Adjust assumptions and scenarios
3. Reporting	Generate reports and dashboards	Monitor KPIs and variances
4. Maintenance	Update Name Sets and add new items	Ensure accuracy and scalability

Key Dimensions for Detailed Reporting

- Account
- Vendor
- Cost items / categories
- Owner's contingency
- Time / Version
- Project / work package

What This Structure Unlocks

- Cost by vendor
- Cost by category
- Progress tracking
- Owner's Contingency usage

How the Model Works

Allocation Is the Engine

Allocation:

- Data comes in at vendor level
- Needs to be allocate to cost items

Mix of:

- Automated mapping
- Manual allocation

Mapping Table Editor: **Vendor-Cost Category Mapping**



Please use keyboard shortcuts to copy and paste content to and from external sources.



Reset

	Source	Target
1	ABBOTT CONSTRUCTION	SC-TRANSITIONING-6.06
2	ALSTON	SC-ENTITLEMENTS-2.17
3	APPLIEDBUILDING	SC-CONSULT-7.06
4	ARI	00
5	AVPOWELL	SC-FINANCE-9.05
6	BRH	SC-ENTITLEMENTS-2.15

Manual Allocation Template

Allocation of actual costs to Cost Item - 2026

Vendor	Cost Item	OC	Account	Project	Jan2026	Feb2026	Mar2026
All	(00) N/A	All	WT	WT	44,408	249,255	115,342
	Remaining, unallocated:				112,074	(112,122)	(12,202)
All	(TOTAL_COST) Total Cost Categories	All	WT	WT	2,049,375	2,561,235	2,751,057
	Variance Project Cube vs Financial (should be equal to Remaining)				(198,039)	435,638	406,243
Journal Entry	(WT) West Tower	All	WT	WT			
Journal Entry	(00) N/A	All	WT	WT	(80,872)	151,438	34,522
	Remaining, unallocated:				80,872	(151,438)	(34,522)
Arthur J. Gallagher Risk Management	(00) N/A	All	2690	WT			
Arthur J. Gallagher Risk Management Se	(SC-MISC-10.09) Builders Risk	BS	2690	WESTWING			
Arthur J. Gallagher Risk Management Se	(SC-MISC-10.10) OCIP (Liability & Pollution)	BS	2690	WESTWING			
Arthur J. Gallagher Risk Management Se	(SC-MISC-10.09) Builders Risk	ACO	2690	WESTWING			
Arthur J. Gallagher Risk Management Se	(SC-MISC-10.10) OCIP (Liability & Pollution)	ACO	2690	WESTWING			
	Remaining, unallocated:				-	-	-
Cascade Moving and Storage Inc.	(00) N/A	All	2690	WT	2,925		
Cascade Moving and Storage Inc.	(SC-TRANSITIONING-6.06) WO#8 ET3 fire sprinklers &	BS	2690	WESTWING			
Cascade Moving and Storage Inc.	(SC-TRANSITIONING-6.03) Temporary Admin Offices	BS	2690	WESTWING			
Cascade Moving and Storage Inc.	(SC-TRANSITIONING-6.01) Resident Lockers & Storage	ACO	2690	WESTWING			
Cascade Moving and Storage Inc.	(SC-TRANSITIONING-6.03) Temporary Admin Offices	ACO	2690	WESTWING			
	Remaining, unallocated:				2,925	-	-

Forecasting, Multi-Year Forecast

- 5-year timeline
- Actuals → forecast → completion
- Hundreds of Cost Items
- Hundreds of Vendors
- Includes Owner's Contingency

The Forecasting Template

Cost Items	Vendors	Qtr 1	Qtr 2	Jul2025	Aug2025	Sep2025	Oct2025	Nov2025	Dec2025	Future-->	Jan2026	Feb2026
Design	(All) All										100,000	50,000
Design & Preconstruction	(ANDERSCONST) Andersen DB Services										100,000	50,000
Entitlements	(All) All	44,454	18,668			11,992	11,542	8,292	8,671		15,105	126,686
Permitting - MUP Application, Land Use, P	(CITYBUS2) City of Seattle										8,500	83,686
Easement - Cielo	(00) No Vendor											
Easement - Virginia Mason	(VIRGINIA MASON) CommonSpirit Health											
Easement - Bellwether	(BELLWETHER) Bellwether Housing											
Easement - Seattle Parks	(00) No Vendor											
Topo/ALTA Survey	(BRH) Bush, Roed & Hitchings, INC	9,000										25,000
Land Use Lawyer, Holly Golden	(HILLIS) Law Offices Hillis Clark Martin ar	31,164	18,668			11,992	11,542	8,292	8,671			
Land Use Attorney, Stacy M	(ALSTON) Alston, Courtnage & Bassetti L	4,290									6,605	
Geotech & Utilities	(All) All	5,831	42,563	28,767	13,194	1,924	3,648	1,485	20,400		10,000	10,000
Geotechnical	(HALEYALDRICH) Haley & Aldrich, Inc.	5,831	42,563	28,767	13,194	1,924	3,648	1,485	20,400			
Seattle City Light (SCL)	(SCL) Seattle City Light											
SPU - Electrical/ Water	(SPU) Seattle Public Utilities - City of Sea										10,000	10,000
Commissioning	(All) All	20,400	39,391	2,729	9,558	3,780		4,563	840		1,450	5,000
Building Information Modelling	(VIATECHNIK) VIATechnik LLC			2,729								
BE Testing & commissioning, 9/27/2024	(HERSHFIELD) Stantec Consulting Servic		23,071		1,874			3,723				
Special inspections 7/1/2024	(00) No Vendor											
Mech 3rd-party commissioning (CX) agent	(EEI) Engineering Economics, Inc.	20,400	16,320		7,684	3,780		840	840			
FF&E	(All) All	7,725	4,050					3,600			5,058	2,300
FF&E	(00) No Vendor											
Curated Portable Works	(00) No Vendor											
Site Responsive Integrated Art	(HADDAD) Haddad Drugan LLC											
Integrated Art Consultant	(EPIPHANY) Ashley Long dba Epiphany C	7,725	4,050					3,600			2,000	2,000
Final Keying	(00) No Vendor											
AV/IT/Security	(00) No Vendor											
Transitioning	(All) All			600	21,174				39,224		237,961	198,263
Resident Lockers & Storage	(00) No Vendor											
Temporary Monday Market, 160,540	(00) No Vendor											
Q348381 B1 TV Room casework	(00) No Vendor											
WO#8 ET3 fire sprinklers & system mods,	(ABBOTT CONSTRUCTION) Abbott Cons								39,224			

Forecasting, Owner's Contingency

Report Mode | Loaded As of: October2025

Pages | Delay page change

Account: (2690) West Tower Constr... | Entity: Horizon House | Owners Contingency: All | Project: (WESTWING) West Tower...

Cost Items	Vendors	Total w/ Invoice Tax	Potential Project Savings	Percent Complete	Total	Actual Cost to Date	Estimate to Complete	2021
Misc.	(All) All	374,222	204,324	1%	169,898	4,898	165,000	
Physical Model	(00) No Vendor		-		-		-	
Land Use Signage	(00) No Vendor		-		-		-	
Electrical Mockup, plan review	(CASINT) Cascade Integration, Inc.	5,129	5,129	0%	-		-	
Ceiling Mockup in BY	(CHOICEFLOORS) Choice Renovations L	2,869	2,869	0%	-		-	
ELAN credit card, etc.	(ELAN) CORPORATE PAYMENT SYSTE	33,327	33,327	0%	-		-	
Hazardous (HBM)	(NWABATEMENT) Northwest Abatement	16,785	16,785	0%	-		-	
Self-Perform Performance Bond	(00) No Vendor		-		-		-	
Builders Risk	(GALLAGHER) Arthur J. Gallagher Risk M	-	-		-		-	
OCIP (Liability & Pollution)	(GALLAGHER) Arthur J. Gallagher Risk Management Serv	-	-		-		-	
Wrap Administrator	(00) No Vendor		-		-		-	
Hard Construction	(All) All	1,469,300	#####	67%	322,671,969	980,596	321,691,373	
Hard Construction	(ANDERSCONST) Andersen DB Services	-	#####		322,671,969	980,596	321,691,373	
West Tower	(All) All	30,146,589	#####	4%	368,706,768	1,064,234	367,642,534	17,631
Owner's Contingency	(00) No Vendor		(23,066,584)		23,066,584		23,066,584	
							Total	2021
Owner's Contingency Input							23,066,584	
Base Scope							17,932,977	17,631
Base Scope Uncommitted							324,532,169	
Total Base Scope							342,465,146	17,631
Potential Change Order							2,110,803	
Approved Change Order							-	
Total Change Orders							2,110,803	-
Remaining							20,955,781	
Committed							17,932,977	17,631
Uncommitted							326,642,973	-

Data Flow (Visual)

- Business Central → Prophix → Allocation → Forecast → Reporting
- If something breaks, this is where we go first.

The Value of Excel

Excel as a Control Mechanism

We didn't replace Excel.

We partnered with it!

Prophix + Excel

Prophix:

- Structure
- Consistency
- Scalability

Excel:

- Validation
- Flexibility
- Speed

Excel Validation, Trust in the Numbers

Used for:

- Reconciliation
- Variance checks
- ERP comparison

- This is what gave us confidence in the numbers.

Excel validation example

2690	Business Central			Prophix			Variance		
Vendor	January	February	March	January	February	March	January	February	March
Journal Entries	-80872	44173	-72743	0	-109442	0	-80872	153615	-72743
ABBOTT CONSTRUCTI	15154	88149	0	0	103303	0	15154	-15154	0
ANDERSCONST	1885598	1699569	2574894	0	8735502	2575442	1885598	-7035933	-548
BELLWETHER	0	800000	0	0	800000	0	0	0	0
BRH	0	3000	0	0	4617	1617	0	-1617	-1617
CASINT	4824	0	0	0	4824	0	4824	-4824	0
CASMOV	2925	0	0	0	2925	0	2925	-2925	0
CITYBUS2	0	0	5230	0	5230	0	0	-5230	5230
CONSGROUP	0	6854	0	0	6854	0	0	0	0
CONVENTIONCENTEF	10250	9020	10635	10635	51175	10635	-385	-42155	0
CWDOOR	1676	1603	0	0	3279	0	1676	-1676	0
FENAGH	0	0	0	0	332	332	0	-332	-332
FIRSTPRESBYTERIAN	0	0	0	0	45564	45564	0	-45564	-45564
HALEYALDRICH	16286	8665	0	0	62177	37226	16286	-53512	-37226
HILLIS	28785	0	55814	0	91815	7216	28785	-91815	48599

GL 2690 Pivot

GL 2690 Entries

GL 8246 Pivot

GL 8246 Entries

Prophix vs BC

Prophix 2690

Prophix 8246

Results and Impact of the Prophix Project

The Result of the Prophix Project

We built a structured and scalable financial model:

- Integrated data across systems
- Consistent and reliable reporting
- Clear model design and function
- Improved visibility into costs and forecasts

Impact of the Prophix Project

Meaningful impact for Horizon House:

- Clear visibility into a \$400M+ project
- More efficient tracking of actuals and forecasting
- Increased confidence in the numbers!
- Better-informed decisions by leadership

Challenges and Lessons Learned

Challenge 1, Model Complexity

- Many dimensions
- Many perspectives
- 👉 Driven by the project—not the tool

Challenge 2, Integration Issues

- Missing data
- Duplicates
- API limits
- Key lesson:
- If integration isn't stable, reporting won't be trusted.

Challenge 3, Time Pressure

- Ongoing deadlines
- Model still evolving
- **Solution:**
Excel + Prophix together

Lessons Learned Building a Complex Construction Model

Practical Tips for Building Models in Prophix

- Stay logical
- Understand the model
- Use Excel for validation
- Document decisions
- Keep formatting clean

Spend More Time on Design

- Dimensions
- Allocations
- Reporting

Test Integration Early—or Pay for It Later

- Full loads
- Validate totals
- Build checks

Validation Controls Are Not Optional

- Reconciliation
- Variance checks
- ERP comparison

Construction Accounting is Different

- SOV
- Contingency
- Contract changes
- Capitalized costs

Analyze Is the Fastest Way to Understand and Debug Models

- Drill into data
- Understand structure
- Debug faster

What I'd Do Differently and Key Takeaways

What I'd Do Differently

- More upfront design
- Earlier integration testing
- Define reporting early
- Build validation sooner

Key Takeaways – Three Things That Matter Most

- Design matters
- Integration matters
- Validation matters

The Practical Takeaway

- Prophix + Excel
- Structure + Scalability
- Flexibility + Validation

Thank you!



Scan the QR code and complete
the course evaluation to earn
your CPE credit

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