

# Final Construction Audit Report

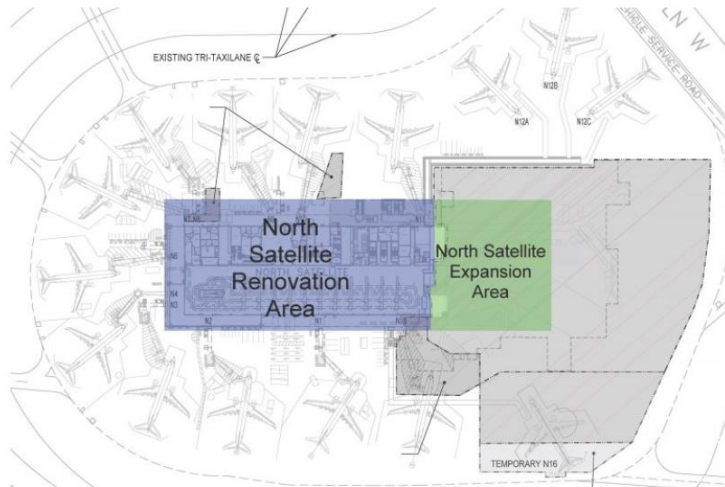
## The Port of Seattle

**Mechanical Contractor/Construction Manager:  
Hermanson Company, LLP**

**Electrical Contractor/Construction Manager:  
VECA Electrical Company, Inc.**

---

## North Satellite Renovation and Expansion



---

### Report Submitted By:

**R. L. Townsend & Associates, LLC**

(972) 403-1829

Plano, Texas

June 3, 2022

*The contents of this report are based on our understanding of documents and other information provided to us as of the date of this report. If anyone has any questions regarding the contents of this report, please contact our office for clarification. A revised report will be issued with a revised date if any material representation needs correction.*

**EXECUTIVE SUMMARY**

**Audit Background**

As a part of an overall program of controlling construction costs, the Port of Seattle (PoS) engaged R.L. Townsend & Associates, LLC (RLT) to perform an ongoing review of the contracts and billing records associated with The Port of Seattle – North Satellite Renovation and Expansion. This report covers the Mechanical Contractor/Construction Manager (MC/CM) and Electrical Contractor/Construction Manager (EC/CM) portions of the general contract managed by Hensel Phelps.

**Project Background - MC/CM**

On July 14, 2015, Hensel Phelps (HPCC) contracted with Hermanson Company, LLP. (Hermanson) to serve as the MC/CM for the Port of Seattle Sea-Tac expansion.

The budget for the Project at the time of the contract was \$584,680, which covered the pre-construction phase. This initial subcontract was subsequently amended three times for PWP 1 – 3 and Final MASCC, which brought the total contract value to \$68,939,752 prior to Subcontractor Change Orders.

A fixed specified amount for General Conditions (GCs) costs was specified in the original contract and added after 90% design completion.

A fixed fee of 8.42% was used to compensate the subcontractor monthly after the Maximum Allowable Subcontractor Construction Costs (MASCC) amendment was negotiated and executed.

Bonding was required for the Cost of Work and included within the MC/CM fee.

**Project Background - EC/CM**

On July 14, 2015, Hensel Phelps contracted with VECA Electric Company, Inc. (VECA) to serve as the EC/CM for the Port of Seattle Sea-Tac expansion.

The budget for the Project at the time of the contract was \$571,975, which covered the pre-construction phase. This initial subcontract was subsequently amended three times for PWP 1 – 3 and Final MASCC, which brought the total contract value to \$82,504,310 prior to Subcontractor Change Orders.

A fixed specified amount for GCs costs was specified in the original contract and added after 90% design completion.

A fixed fee of 12.5% was used to compensate the subcontractor monthly after the Maximum Allowable Subcontractor Construction Costs (MASCC) amendment was negotiated and executed.

Bonding was required for the Cost of Work and was included within the EC/CM fee.

***Final Audit Objectives, Scope, and Methodology*****Objectives:**

The audit objectives were to determine the accuracy of the contractor's billings, document audit adjustments and costs avoided due to the audit and evaluate the appropriateness of the approved change orders.

**Scope:**

The scope included a review of the mechanical and electrical subcontractor costs and billings associated with the Base Building. Pre-Construction Services and final negotiated PWP-1 costs were included to ensure a comprehensive project overview.

**Methodology:**

The following methodology was used:

- Job Cost Reports
  - Reviewed and compiled job cost accounting records to date.
- Lump sum 2<sup>nd</sup> tier subcontractor contracts
  - Reviewed subcontracts for alternates, allowances, and unit rates.
  - Reviewed 2<sup>nd</sup> tier subcontractor change orders.
- Subcontractor Change Orders (SCO)
  - Reviewed SCO supporting backup documentation for correct fees, labor rates, possible duplicates, math errors, or any unusual items.
  - Reviewed Force Account (FA) SCO reconciliation to ensure accuracy of final costs.
  - Reviewed Negotiated Support Services (NSS) Work Authorizations (WA) supporting backup documentation for correct fees, labor rates, possible duplicates, math errors, or any unusual items.
  - Reviewed Force Account Work Authorizations (WA) reconciliations to ensure accuracy of final costs.
- Monthly Hermanson and VECA Payment Application (Pay App)
  - Began monthly billing invoice reviews with the General Contractor/Construction Manager (GCCM) Pay App #58 dated September 30, 2018.
  - Labor reports were reviewed to ensure the PoS approved labor rates were utilized.
  - Material invoices were reviewed to ensure the billed costs were supported with backup documentation.
  - Invoices were reviewed to ensure that small tools and safety items were not incorporated into the costs (it was agreed that a percentage add would be utilized to pay for these items).
  - Equipment rental costs were reviewed.
  - Second tier subcontractor pay apps were reviewed monthly.
  - The monthly pay apps were reviewed to ensure non-reimbursable items were not billed.
  - The monthly projections and reverse projections were validated.
  - The calculations for small tools and safety were verified.
  - The fee calculations on base work and change order work were verified.
  - The amount HP billed for MC/CM and EC/CM costs were reviewed to ensure the costs billed to PoS were consistent with the costs submitted.
  - A worksheet with issues was submitted to the PoS for review and comments.

## Port of Seattle

North Satellite Renovation and Expansion MC/CM & EC/CM

Report Date: June 3, 2022

- Issues were resolved by email or phone calls with each subcontractor.
- Issues were noted as closed and revised worksheets were submitted as necessary.
- Monthly meetings were attended with the PoS project team to discuss discrepancies, issues, and recommended corrective action.
- Revised Pay Apps were tracked and monitored.

### **Summary of Total Subcontractor Cost (TSC) – MC/CM**

The following chart indicates Hermanson's Total Subcontractor Cost (TSC) for Pre-Construction Services, Amendments and SCO #s 1- 108 equals \$81,382,006:

Phase	Pre-Con	General Conditions	COW	MC/CM Fee 8.42%	Total
Pre-Con	\$ 584,680				\$ 584,680
PWP 1		\$ 197,591	\$ 541,354	\$ 45,582	\$ 784,527
PWP 2		\$ 376,043	\$ 7,653,651	\$ 644,437	\$ 8,674,131
PWP 3		\$ 283,347	\$ 20,546,813	\$ 1,730,042	\$ 22,560,202
Final TSC		\$ 2,841,826	\$ 30,893,180	\$ 2,601,206	\$ 36,336,212
<b>Original TSC</b>	<b>\$ 584,680</b>	<b>\$ 3,698,807</b>	<b>\$ 59,634,998</b>	<b>\$ 5,021,267</b>	<b>\$ 68,939,752</b>
SCO #s 1-107	\$ 95,717	\$ 544,865	\$ 10,810,489	\$ 923,765	\$ 12,374,836
<b>Current TSC</b>	<b>\$ 680,397</b>	<b>\$ 4,243,672</b>	<b>\$ 70,445,487</b>	<b>\$ 5,945,032</b>	<b>\$ 81,314,588</b>
SCO #108			\$ 62,432	\$ 4,986	\$ 67,418
<b>Final TSC</b>	<b>\$ 680,397</b>	<b>\$ 4,243,672</b>	<b>\$ 70,507,919</b>	<b>\$ 5,950,018</b>	<b>\$ 81,382,006</b>

### **Summary of Total Subcontractor Cost (TSC) – EC/CM**

The following chart indicates VECA's Total Subcontractor Cost (TSC) for Pre-Construction Services, Amendments and SCO #s 1-111 equals \$94,747,841:

Phase	Pre-Con	General Conditions	COW	EC/CM Fee 12.5%	Total
Pre-Con	\$ 571,975				\$ 571,975
PWP 1		\$ 902,985	\$ 2,784,262	\$ 348,033	\$ 4,035,280
PWP 2		\$ 62,833	\$ 1,507,170	\$ 188,396	\$ 1,758,399
PWP 3		\$ 417,046	\$ 21,484,822	\$ 2,685,603	\$ 24,587,471
Final TSC		\$ 4,628,940	\$ 41,708,662	\$ 5,213,583	\$ 51,551,185
<b>Original TSC</b>	<b>\$ 571,975</b>	<b>\$ 6,011,804</b>	<b>\$ 67,484,916</b>	<b>\$ 8,435,615</b>	<b>\$ 82,504,310</b>
SCO #s 1-109	\$ 151,561	\$ -	\$ 12,320,428	\$ 1,540,054	\$ 14,012,043
<b>MASC</b>	<b>\$ 723,536</b>	<b>\$ 6,011,804</b>	<b>\$ 79,805,344</b>	<b>\$ 9,975,669</b>	<b>\$ 96,516,353</b>
SCO #110	\$ -	\$ -	\$ (1,572,010)	\$ (196,502)	\$ (1,768,512)
<b>Estimated Final TSC</b>	<b>\$ 723,536</b>	<b>\$ 6,011,804</b>	<b>\$ 78,233,334</b>	<b>\$ 9,779,167</b>	<b>\$ 94,747,841</b>

### **Audit Discussion Items – MC/CM and EC/CM**

Description	Agreed To Credit	Cost Avoidance	Total
Hermanson Audit Discussion Items	\$ 355,837	\$ 490,448	\$ 846,285
VECA Audit Discussion Items	\$ 668,234	\$ 636,240	\$ 1,304,474
<b>Total</b>	<b>\$ 1,024,071</b>	<b>\$ 1,126,688</b>	<b>\$ 2,150,759</b>

Details regarding the audit reviews of Hermanson and VECA can be found on the following pages.

**MECHANICAL CONTRACTOR/CONSTRUCTION MANAGER:  
HERMANSON COMPANY, LLP**

***Summary of MC/CM Audit Discussion Items with Status***

Item #	Scope	Description	Agreed To Credit	Cost Avoidance	Total	Status	GC/CM Pay App
1	All	Job Cost Reconciliation vs Billings	\$ 58,563		\$ 58,563	Remitted	98
2	PWP 1	True-up Labor Cost PWP-1 – Amount Billed for Labor vs. Payroll Register	\$ 11,379		\$ 11,379	Remitted	73
3	PWP 1	BIM Labor Rates for PWP-1	\$ 2,222		\$ 2,222	Remitted	73
4	Final	Payroll Tax Adjustments	\$ 283,673		\$ 283,673	Remitted	92, 94, 98
5	All	GC/CM Pay Application #s 58 - 98 Reviews		\$ 490,448	\$ 490,448	Remitted	Various
<b>Total</b>			<b>\$ 355,837</b>	<b>\$ 490,448</b>	<b>\$ 846,285</b>		

**1. Final Total Subcontractor Cost (TSC) vs Billed Amount**

The final reconciliation of the Hermanson’s project job cost equaled \$81,382,006. As a result, HPCC issued a final SCO in the amount of \$67,418 as shown below:

Description	Amount
MASC @ SCO #107	\$ 81,314,588
SCO #108	\$ 67,418
<b>Final TSC</b>	<b>\$ 81,382,006</b>

Review of Hermanson’s Pay Application #73 identified an overbilling of \$58,563:

Description	Amount
MC/CM Contract as of SCO #107	\$ 81,314,588
<b>Agreed-to final TSC</b>	<b>\$ 81,382,006</b>
<b>HPCC issued SCO #108</b>	<b>\$ 67,418</b>
Billed as of MC/CM Pay App #73	\$ 81,440,569
<b>Potential Overbilling</b>	<b>\$ 58,563</b>

**Status:** HPCC acknowledged the overbilling, and a credit was provided in CM Pay Application #98.

**2. True-up Labor Cost PWP-1 – Amount Billed for Labor vs. Payroll Register**

The labor rates that were billed were reviewed against the labor rates reported in the payroll register. Based on this review, it appears there may be a potential overbilling of \$10,495 (not including fee) resulting from the cost variance between the actual labor rates and the labor rates billed. After fee is included, the total credit is \$11,379.

**Status:** Credit was provided in OPA 73 (Sub PA 49 dated 11/30/19).

**3. BIM Labor Rates for PWP-1**

The labor rates that were billed were reviewed against the labor rates reported in the payroll register. Based on this review, it appears there may be a potential overbilling of \$2,222 resulting from the cost variance between the actual labor rates and the labor rates billed.

**Status:** Credit was provided in OPA 73 (Sub PA 49 dated 11/30/19). This item is closed.

**4. Payroll Tax Adjustments**

Federal and State Unemployment (FUTA/SUTA) payroll taxes were reconciled and the proposed credit of \$283,673 was accepted.

<b>Year</b>	<b>Total FUTA/SUTA Credit</b>
2016	\$ 7,232
2017	\$ 33,787
2018	\$ 90,403
2019	\$ 31,397
2020	\$ 76,809
2021	\$ 10,468
<b>Subtotal</b>	<b>\$ 250,096</b>
Small Tools & Safety Add	\$ 11,547
Fee Add	\$ 22,030
<b>Total Credit</b>	<b>\$ 283,673</b>

**Status:** Agreed - Credit issued in Hermanson Pay Apps.

**5. Pay Application Reviews**

During the audit review, PoS requested monthly reviews of the Hermanson draft pay applications for CM Pay App #s 58 – 98. During the review, a total of \$490,448 in discrepancies were discovered and resolved. Discrepancies included differences between the backup documentation and the amount billed, variances in labor costs billed vs. the PoS approved labor rates, and billing projections not being reversed.

Pay Application Review		
Item	Amount	Notes
Discrepancies resolved	\$ 488,114	A
Direct Savings to Project	\$ 2,334	B
<b>Total</b>	<b>\$ 490,448</b>	

Notes:

- A. The discrepancies resolved were primarily schedule of values inaccuracies with other minor variances between the backup and SOV as well.

OPA	Sub PA	Discrepancies Resolved	Audit Notes
59	35	\$ 507,679	SOV Variance
60	36	\$ 12,850	SOV Variance
64	40	\$ (5,244)	SOV Variance
65	41	\$ 43,273	SOV Variance
68	44	\$ (946)	SOV Variance
69	45	\$ 711	SOV Variance
72	48	\$ (14,687)	SOV Variance
73	49	\$ (27,962)	SOV Variance
79	55	\$ (781)	SOV Variance
81	57	\$ (4,716)	SOV Variance
84	60	\$ (12,243)	SOV Variance
85	61	\$ (18,672)	SOV Variance
87	63	\$ 8,852	SOV Variance
<b>Total</b>		<b>\$ 488,114</b>	

- B. The cost avoidance items showed a direct cost savings to the project of \$2,334.

OPA	Sub PA	Discrepancies Resolved	Audit Notes
58	34	\$ 79	Small tools
63	39	\$ 1,688	Labor finding
77	53	\$ (97)	Labor finding
78	54	\$ 489	Labor finding
89	65	\$ 171	Labor finding
92	68	\$ 4	Labor finding
<b>Total</b>		<b>\$ 2,334</b>	

**Status:** The above cost avoidance and discrepancies were corrected prior to PoS acceptance, thus avoiding potential overpayment.

**ELECTRICAL CONTRACTOR/CONSTRUCTION MANAGER:  
VECA ELECTRIC COMPANY, INC.**

***Summary of EC/CM Audit Discussion Items with Status***

Item #	Scope	Description	Agreed To Credit	Cost Avoidance	Total	Status	CM Pay App
1	All	Total Subcontractor Cost vs Billings	\$ 119,553		\$ 119,553	Remitted	98
2	All	Payroll Tax Adjustments and other labor items	\$ 531,300		\$ 531,300	Remitted	64R2, 79R2, 81, 82
3	PWP 1	Duplicate items	\$ 3,081		\$ 3,081	Remitted	79R2
4	Final	Change order 34 & 54 duplicate item	\$ 14,300		\$ 14,300	Remitted	79R2
5	Final	Business & Occupation Tax cost avoidance		\$ 169,525	\$ 169,525	n/a	n/a
6	All	CM Pay Application #s 58 - 98 Reviews		\$ 466,715	\$ 466,715	Remitted	Various
<b>Total</b>			<b>\$ 668,234</b>	<b>\$ 636,240</b>	<b>\$ 1,304,474</b>		

**1. Final Total Subcontractor Cost (TSC) vs Billed Amount**

The final reconciliation of the VECA’s project job cost equaled \$94,747,841. As a result, HPCC issued a final deductive SCO in the amount of <\$1,768,512> as shown below:

Description	Amount
Current MASC @ SCO #109	\$ 96,516,353
SCO #110	\$ (1,768,512)
<b>Final TSC</b>	<b>\$ 94,747,841</b>

Review of VECA’s Pay Application #83 identified an overbilling of \$119,533:

Description	Amount
<b>Agreed-to final TSC</b>	<b>\$ 94,747,841</b>
EC/CM Contract as of SCO 109	\$ 96,516,353
<b>Recommended SCO 110</b>	<b>\$ (1,768,512)</b>
Billed as of EC/CM Pay App #83	\$ 94,867,394
<b>Potential Overbilling</b>	<b>\$ 119,553</b>

**Status:** HPCC acknowledged the overbilling, and a credit was provided in CM Pay Application #98.



**2. Payroll Tax Credits and other Labor Items**

The job cost backup for the payroll was reviewed for accuracy in base rates and burden items. During the review, it was determined that payroll taxes did not reflect actual cost. VECA agreed to reconcile costs at the end of each year and to present the reconciliation for audit to review. The reconciliation was reviewed and accepted by audit. Other minor errors in the billings included base rate inaccuracies and duplicate billings of hours. The reconciliation was remitted in the pay apps as a line item.

<b>Payroll Tax Credit Breakdown</b>			
<i>Year</i>	<i>Report</i>	<i>Description</i>	<i>Amount</i>
2017	PWP 1	Payroll tax credit & other	\$ 29,281
2018	PWP 1	Payroll tax credit	\$ 186,793
2019	Final	Payroll tax credit	\$ 122,268
2020	Final	Payroll tax credit	\$ 146,907
2021	Final	Payroll tax credit	\$ 46,051
<b>Total</b>			<b>\$ 531,300</b>

**Status:** Agreed to credits were issued in OPA 64 R2, OPA 79 R2, OPA 81, and OPA 82.

**3. PWP 1 Duplicate items**

PWP 1 included line-item charges for the same items within the job cost backup to the pay apps. This issue was discussed with VECA and the PoS in the PWP 1 report and resolved after review of backup detail.

**Status:** A \$3,081 credit issued in Owner Pay app 79 R2.

**4. SCO 34 & 54 Duplicate**

SCO's 34 and 54 included line-item charges for the same change. This item was brought to the attention of the PoS and VECA and resolved via credit.

**Status:** A \$14,300 credit issued in Owner Pay app 79 R2.

**5. Business & Occupation Tax Cost Avoidance**

At the beginning of the project, the payroll labor base and burdens were reviewed for allowable charges per the contract. B&O tax was identified as a disallowed charge.

**Status:** The total savings over the course of the project is estimated to be approximately \$169,525.

**6. Pay Application Reviews**

RL Townsend was hired to review the pay apps for VECA from Owner Pay App 58 through the present. The pay apps were reviewed utilizing a comprehensive excel spreadsheet custom designed for the PoS project for reviewing the GMP subs. An abbreviated form of the spreadsheet was presented to PoS monthly. A high-level summary of the issues found, as well as job cost backup was provided. Audit communicated with the PoS and VECA via email and monthly meetings to resolve any issues.

During the review, a total of \$466,715 in discrepancies (such as schedule of values variances between previous and current pay apps), and direct cost savings (inaccurate billings) to the project were discovered, as shown in the chart below.

<b>Pay Application Review</b>		
<b>Item</b>	<b>Amount</b>	<b>Notes</b>
Discrepancies resolved	\$ 281,888	<b>A</b>
Direct savings to project	\$ 184,827	<b>B</b>
<b>Total</b>	<b>\$ 466,715</b>	

Notes:

- A.** The discrepancies resolved were primarily schedule of values inaccuracies with other minor variances between the backup and SOV as well.

<b>OPA</b>	<b>SubPA</b>	<b>Discrepancies resolved</b>	<b>Audit Notes</b>
60	47	\$ 2,709	SOV variance
62	49	\$ 48,638	SOV variance
63	50	\$ 90,049	SOV variance
64	51	\$ 1,016	SOV variance
65	52	\$ 74,698	SOV variance
86	72	\$ 47,840	SOV variance
88	74	\$ 12,696	SOV variance
89	75	\$ 977	SOV variance
91	77	\$ 1,099	SOV variance
92	78	\$ 2,166	SOV variance
<b>Total</b>		<b>\$ 281,888</b>	

- B.** The cost avoidance items showed a direct cost savings to the project of \$184,827.

<b>OPA</b>	<b>SubPA</b>	<b>Direct Savings</b>	<b>Audit Notes</b>
65	52	\$ 145,000	Labor finding
75	61	\$ 396.90	Duplicate hours
79	65	\$ 36,550	COVID
81	67	\$ 2,880	Backcharge
<b>Total</b>		<b>\$ 184,827</b>	

**Status:** The above cost avoidance and discrepancies were corrected prior to PoS acceptance, thus avoiding potential overpayment.