SCHOOL BOARD ACTION REPORT



DATE: FROM: LEAD STAFF:	April 7, 2021 Dr. Brent C. Jones, Interim Superintendent Fred Podesta, Chief Operations Officer 206-252-0102, <u>fhpodesta@seattleschools.org</u>					
For Introduction:	May 19, 2021					
For Action:	June 2, 2021					

1. <u>TITLE</u>

BEX V: Approval of the Value Engineering Report for the Van Asselt School Addition project

2. <u>PURPOSE</u>

The purpose of this action helps to secure approximately \$770,000 in state funding assistance for the Van Asselt School Addition project. The Office of Superintendent of Public Instruction (OSPI) Form D-7 Application requires board acceptance of the Value Engineering Report and the Architect's Response and Recommendation Matrix.

3. <u>RECOMMENDED MOTION</u>

I move that the School Board approve the Value Engineering Report dated December 11, 2020, for the BEX V Van Asselt School Addition project, as attached to the Board Action Report.

4. <u>BACKGROUND INFORMATION</u>

a. Background

In December 2020, MENG Analysis performed an independent value engineering study of the design development drawings for the Van Asselt School Addition project, as designed by Bassetti Architects.

The study was undertaken by a team of professional architects, engineers, and cost estimators who analyzed the design and developed suggestions for adding value to the project. Value Engineering is defined by the Washington Administrative Code (WAC) 392-343-080 as a cost control technique that is based on the use of a systematic, creative analysis of the functions of the facility with the objective of identifying unnecessary high costs or functions and/or identifying cost savings that may result in high maintenance and operation costs.

The value analysis suggestions were accepted if they added value and/or reduced costs without negatively affecting the educational program and goals or the long-term operation of the building. The study provided the design team and district with information and strategies necessary to keep construction costs within budget.

The Value Engineering consultant made 51 different value recommendations, of which 16 were accepted or partially accepted and had potential cost savings, and 35 were rejected for

various reasons, including not meeting district educational and program goals, district maintenance goals, or district sustainability goals. The total anticipated cost savings from the suggested proposals that the design team and district accepted is \$503,703.

To date, the following key actions related to this project have been approved by the board:

- Award Contract for Construction Management Services to Shiels Obletz Johnsen on March 11, 2020
- Award Contract for Architecture and Engineering Services to Bassetti Architects on July 8, 2020
- Award Contract for General Contractor/Construction Manager (GC/CM) to Cornerstone General Contractors on October 7, 2020
- Approval of Intent to Construct Resolution on April 7, 2021

b. Alternatives

Deny Motion. If the motion is denied, it would delay the issuance of the D-8 form, which allows the district to open bids and could impact the district's ability to receive state funding assistance. Not having the ability to open bids could potentially have a negative impact on the Van Asselt School Addition project.

c. Research

Per (WAC) 392-343-080, the state requires the board to accept or reject the proposals as outlined in the value engineering report, prepared by MENG Analysis, for all projects larger than 50,000 square feet. According to the American Institute of Architects (AIA) and BEX standards, value analysis is an industry best practice for large construction projects, regardless of state funding assistance requirements.

5. <u>FISCAL IMPACT/REVENUE SOURCE</u>

This action does not represent a specific expenditure.

This action helps to secure up to \$770,000 in state funding assistance for the project.

The revenue source for this project is from BEX V Capital Levy fund and the state of Washington's SCAP New-in-Lieu and Modernization funding. This project is budgeted at \$44,247,436.

Expenditure: One-time Annual Multi-Year N	J/A
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Revenue: One-time Annual Multi-Year N/A

6. <u>COMMUNITY ENGAGEMENT</u>

With guidance from the District's Community Engagement tool, this action was determined to merit the following tier of community engagement:

Not applicable

Tier 1: Inform

Tier 2: Consult/Involve

Tier 3: Collaborate

The selection of projects in the \$1.4 billion BEX V levy program went through an extensive community vetting process and ultimately received 73% approval on February 12, 2019.

7. <u>EQUITY ANALYSIS</u>

The district's Racial Equity Analysis toolkit was utilized to guide the planning process for the BEX V Capital Levy, influencing community engagement methods, preparation of the 2018 update to the Facilities Master Plan, and ultimately the final proposed levy package. The board's guiding principles stated that racial and educational equity should be an overarching principle for the BEX V Capital Levy planning efforts in accordance with Board Policy 0030, Ensuring Educational and Racial Equity. Projects identified for inclusion in the BEX V Capital Levy will ultimately improve conditions for all students in the affected schools. Improved building conditions create a better environment for learning and can provide facilities to better position students for academic success.

8. <u>STUDENT BENEFIT</u>

The Van Asselt School Addition project design will incorporate guidelines and requirements provided in the district's Educational Specifications and the School Design Advisory Team process. It is the goal of the district to continue the process of implementing the Buildings, Technology, and Academics/Athletics (BTA) and BEX Capital Levy programs to provide students with safe and secure school buildings.

9. WHY BOARD ACTION IS NECESSARY

Amount of contract initial value or contract amendment exceeds \$250,000 (Policy No. 6220)

Amount of grant exceeds \$250,000 in a single fiscal year (Policy No. 6114)

Adopting, amending, or repealing a Board policy

Formally accepting the completion of a public works project and closing out the contract

Legal requirement for the School Board to take action on this matter

 \boxtimes Board Policy No. 6100, Revenues from Local, State, and Federal Resources provides the Board shall approve this item

Other: Requirement of the OSPI D-Form application process

10. POLICY IMPLICATION

School Board Policy No. 6100, Revenues from Local, State, and Federal Sources, states in part: "It is the policy of the Seattle School Board to pursue systematically those funding opportunities that are consistent with district priorities from federal, state, and other governmental units, as well as from private and foundation sources." In addition, the policy states: "The Board agrees to comply with all federal and state requirements that may be a condition for the receipt of federal or state funds."

11. BOARD COMMITTEE RECOMMENDATION

This motion was discussed at the Operations Committee meeting on May 6, 2021. The committee reviewed the motion and moved the item forward with a recommendation for approval by the full Board.

12. <u>TIMELINE FOR IMPLEMENTATION</u>

Upon approval of this motion, the architect can continue with the design.

13. <u>ATTACHMENTS</u>

- Value Engineering Report Executive Summary Report (for approval)
- Value Engineering Response from Architect (for reference)



Value Engineering Report

Van Asselt School Addition Project

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For questions and more information about this document, please contact the following:

Kristi Jones Project Assistant, Capital Projects krjones@seattleschools.org

Executive Summary and the response from the architects for the Van Asselt School addition project.

SEATTLE PUBLIC SCHOOLS VAN ASSELT SCHOOL ADDITION VALUE ENGINEERING REPORT DECEMBER 11TH, 2020

Amended with Implementation form update March 23, 2021





Value Engineering Team

Timothy Buckley, AIA, VMA, LEED AP BD+C, Team Facilitator Eric Meng, AIA, CVS, Value Methodology Oversight Matt Lersch, CCA, BECxP, CxA+BE, ITC, Cost Estimator / Construction Management Nina Cousins, PE, Civil / Landscape Brian Rich, AIA, LEED BD+C, CCCA, PMP, sUAS, Architectural Dick Hemmen, PE, SE, Structural Doug Smith, PE, MBA, VMA, CCP, LEED AP, cSBA, Mechanical Bryan Boeholt, PE, LEED AP, Electrical Sarah Partap, MBA, VMA, VE Project Manager Cam Iseri, VE Project Coordinator

VALUE ENGINEERING

TABLE OF CONTENTS

I.	EXECUTIVE SUMMARY	1
		1
II.	PROJECT DESCRIPTION	3
	Project Information	3
	Criteria Prioritization	4
	Site Plan	8
	Floor Plans	9
	Rendering	12
	Proposal Summary	13
III.	VALUE ENGINEERING PROPOSALS	17
		17
	Landscape	17
	Structural	17
	Architectural	17
	Mechanical	17
	Electrical	17
IV.	. TECHNICAL REPORTS	64
V.	VALUE ENGINEERING	77
	Cost Analysis	77
	Program Area Analysis	82
	Risk Analysis	83
	Function Analysis	85
VI.	. VE METHODOLOGY	86
VII	I. APPENDIX	87
	Value Engineering Team	88
	Owner and Design Team	89
	KICKOFF MEETING SIGN-IN SHEET	90
	VE IMPLEMENTATION FORM	91
	Creativity Alternatives Sheets	95
	VE IMPLEMENTATION FORM	120



I. EXECUTIVE SUMMARY

INTRODUCTION

This value engineering (VE) report is presented to Seattle Public Schools and the design team to assist in decision making at the design development phase for the Van Asselt School Addition project.

The goals for this study were to review the current design concepts and identify potential opportunities for design cost effectiveness and efficiency. The VE team sought to identify site development, planning, and building system alternatives that may offer first cost or life cycle cost benefits and/or improve project quality and reduce construction risks.

The following criteria were described by stakeholders as important project requirements:

- Program Adaptability: ability for this site to be used as an interim site and be flexible to house numerous elementary and middle school programs, and then per the long-range master plan, have the potential to be redeveloped to accommodate a high school, if needed
- Open by September 2023
- Meet the Budget

Value Engineering Team and Process

The multidisciplinary team was led by a certified value management facilitator and included: licensed architectural, civil, structural, mechanical, electrical, cost estimating and construction management team members.

At the initial kickoff meeting, Seattle Public Schools and design team presented their project requirements and basis of planning and design. The VE study team worked together using the formal value methodology. The essential and secondary functions of the project components were identified along with their associated costs, design alternatives were generated, and the most viable alternatives were further developed.

Substantiate Current Design and Project Requirements

In the process of comparing alternative concepts against the current design, the VE team noted the following planning/design components and owner project requirements that merit strong continued support:

- Retaining and rehabilitation of the landmark 1909 building
- Limited improvement scope in the 1950s building
- Segregation of work from the existing occupied building
- Exposed and expressed warmth of the cross-laminated timber structure
- Sensitivity to and coordination of 50-year building elements
- Simple form and massing



Value Engineering Proposals

Key proposals include:

- Heating system alternatives
- DOAS ventilation and efficiency system improvements
- Lighting controls functional enhancements
- Stormwater impact reduction
- Enhancements to Architectural and Structural systems

Success of the formal VE process is not merely measured in terms of the value of cost reductions, but rather in the accepted implementation of all VE proposals and their contributions toward performance improvements in the project as a whole. In recognition of such additional benefits and to assist Washington State in representing the results of its VE program to the state legislature, performance measures have been developed and standardized by the Cascadia Chapter of SAVE International. The following table summarizes the VE team's proposals relative to these performance measures:

Performance Measures	Number of Proposals
Program	2
Aesthetics	5
Facility Preservation	1
Total Cost of Ownership / LCCA	10
Environmental Sustainability	5
Schedule	4
Constructability	9
Occupant Comfort, Safety & Performance	5

Summary

At 100% Design Development, and as the design is well-developed, the Value Engineering team recommendations were focused on sensitive improvements to the design that can be implemented without significantly disrupting the critical path schedule of design and submittal for permits under the current code cycle deadline.

Proposals include a number of ideas to help improve the value of the project for the district. While focusing on maintaining the required functionality, some of the proposals include first cost savings alternatives, and many also include long-term cost savings to the district.

CLIENT:	Seattle Public Schools							
PROJECT:	Van Asselt School Addition							
DATE:	December 11, 2020	3/23/2021	update					
Prop. #	COMPONENTS AND SYSTEMS	VE CONSULTANT'S PROJECTED COST (Rough Order of Magnitude)	GC/CM'S ESTIMATED COST	ACCEPT	REJECT	MODIFY	ACCEPTED VALUE OF PROPOSAL	COMMENTS / DISCUSSION
C1	Stormwater Impact - Keep impervious surfaces below 65% lot coverage threhold - ADD	\$ 2,000	\$ 2,000	х			\$ 2,000	Design team has modified the landscape and hardscape to reduce impervious area below the lot coverage threshold.
L1	Pavement Systems - Pave the area between the new gym and the existing 1950s building with asphalt	\$ (35,000)	\$ (48,181)	x			\$ (48,181)	Design team has revised the paving between the gym and the 1950's building from concrete to asphalt paving, using the fence line as the division between concrete and asphalt. See Budget Option Log C5 for additional reductions in the courtyard area.
S1	Structural Detailing - Include alternate design-build provisions for mass timber connections and details	\$ (91,000)	\$ (88,941)			x	\$ (88,941)	Design team has revised the structural connections at the roof and nonexposed areas to less expensive alternatives. Connections are required to be permitted by SDCI for use on the project. Substituting products during construction will have cost and schedule impacts that could offset the anticipated savings. See Budget Option Log S1 .
A1	Cladding - Use thicker profiled insulated metal wall panel in lieu of double layer of metal siding	\$ (201,000)	\$ (201,000)		X			Design team has already revised exterior envelope to a standard rain screen assembly per SPS direction, so this proposed modification to the previous cladding system no longer applies.
A2	Acoustics - Coordinate thermal and acoustical issues to increase efficiency in insulation systems for both acoustical and thermal performance for interior spaces	\$ (92,000)	\$ (113,261)			x	\$ (113,261)	Design team has revised the applied acoustical products in the classrooms and band room, and fine tuned quantities to provide cost savings. See Budget Option Log A17 and A18.
М1	Integrated Design - Premium thermal envelope with downsized HVAC system	\$ (10,000)	\$ (10,000)		x			Design team has already optimized the performance of the thermal envelope, so that increased insulation would be beyond the point of diminishing returns, and further downsizing of the mechanical system is not feasible.
M2	Heating - Direct (in-space) electric resistance heat with two alternates: A) Baseboard electric resistance heat and B) Radiant floor electric resistance heat	\$ (1,001,000)	\$ (592,944)		x			(1) The proposed system would not meet the Technical Building Standards. (2) It would compromise thermal comfort and increase operational costs. (3) The planned future implementation of a ground loop system would be made cost prohibitive.
М3	Ventilation - Semi-variable DOAS for classroom wing addition, including rooftop HRV unit with high-efficiency fixed core heat recovery, high sidewall DV and semi-ducted return	\$ (1,142,000)	\$ (758,968)		x			(1) The proposed system would not meet the Technical Building Standards, which do not typically allow for rooftop units. (2) The space that was proposed to be saved is entirely internal and difficult to use for instructional purposes, so cost savings for square footage reduction is not practical or feasible. (3) The use of a semi-variable Dedicated Outside Air System unit in lieu of VAV boxes does not meet the current energy code.
E1	Electrical Service - Route primary service around south end of building and provide load break splice vault for future connections to new utility transformer serving future building or provide infrastructure for secondary reconnection of addition to future building distribution - ADD	\$ 147,000	\$ 147,000		x			Option 1: Recommend rejecting because (1) The routing proposed on the south side of the building would require SCL easement which would conflict with the maintenance path. (2) The West side routing, between the new addition and the field, would be impossible because of the wall foundation and reduced width. (2) Significant added cost because of the extensive length of trenching and back filling per SCL requirements. Option 2: Recommend rejecting because (1) SCL transformers would have to be above ground due to power requirement of the future High School. This would be problematic for the current condition (conflicts with circulation and play area/firetruck access/landmark) and future high school as it would be located at the front of the school. (2) Back feeding the 1909/Addition building from a future HS building SCL service is not feasible due to load size.
E2	Light Fixtures - Provide 2x4 acoustical ceiling tile (ACT) floating cloud system with 2x4 LED troffers in corridors and classrooms	\$ (101,000)	\$ (41,506)		x			I he proposed revised lighting (and ceiling treatment) approach would obscure the warm and welcoming character of the timber structural system selected for sustainability, efficiency and aesthetic value, and also supported by the Strategic Plan and the SDAT goals.
E3	Lighting Controls - Take advantage of wireless technology advancements where possible and utilize wireless controls where applicable	\$ (67,000)	\$ (47,436)		x			The proposed lighting controls approach would not meet the Technical Building Standards. Wireless lighting controls can reduce low voltage cabling and installation costs, but typically require additional maintenance due to battery replacements. Design team will continue to study with Facilities.
	SUBTOTAL VE PROPOSALS	\$ (2,591,000)	\$ (1,753,237)				\$ (248,383)	
				1	1	1		

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REVISION PROPOSALS (Lower priority ideas that were not fully developed by VE Consultant)								
R1	Remove redundant sanitary sewer manhole	\$ (3,800)	\$ (3,800)	х			VE consultant's proposal did not accurately reflect the design intent. This manhole was removed between SD and DD design phases.
R2	Decomposed granite (fine crushed, similar to gravel) in lieu of asphalt in north parking lot (demo again with HS)	\$ (7,500)	\$ (40,340)	х			The design team believes this would create durability and maintenance issues for the ~10 year life of the parking lot. Annual maintenance costs would offset capital savings within a few years.
R3	Construct berms along west side of site with excess excavated soil materials	\$ (65,000)	\$ (71,184)	x			(1) The site lacks adequate space to add berm(s) without impacting other activities on the site. (2) Construction access would be challenging without damaging existing playfield. (3) Berms could over-burden existing ECA steep slope on west side of site and pose regulatory hurdles with SDCI. (4) A narrow but steeply sloped berm would likely require hand mowing or other inefficient landscape maintenance practices.
R4	Eliminate permanent irrigation system, drought tolerant plantings	\$ (15,000)	\$ (12,780))	X			Landscape designer has worked with Mary Albanese, Grounds Supervisor, to ensure long term success of plantings. Permanent irrigation systems are important as part of long- term maintenance needs and viability of plantings.
R5	Increase tree plantings - ADD	\$ 2,500	\$ 2,500		х			Landscape designer has worked with Mary Albanese to fine tune landscape design including appropriate quantity and placement of new trees.
R6	Use netting in lieu of 20' fence	\$ (17,000)	\$ (17,788)		х	\$ (17,788)	Design team is developing a modified version of this idea. Will replace 20' high chain link fence with a 10' fence topped with 10' of netting.
R7	Concrete planters (movable for future HS work)	\$ (3,600)	\$ (3,600)	x			VE consultant's proposal did not accurately reflect the design intent. Planters were shown in the SD phase. For the DD phase, the only raised planter is the bio-retention planter at the courtyard area, which would not be impacted by future High School development.
R8	All steel construction (lower cost, but does not meet other goals) - NIC	N/A	N/A		x			VE consultant removed this idea from consideration because the design team studied it extensively at SD phase and SPS rejected it.
R9	CLT gym roof for mass for sound attenuation - ADD	\$ 16,548	\$ 100,000		х			Design team has already studied most cost efficient structural system for the gym and elected steel instead of CLT. The structural system and roof design have been optimized for acoustics. GC/CM believes added cost would be much more significant than that identified by VE consultant.
R10	Reduce floor to floor height in classroom addition to 13.0'	\$ (270,882)	\$ (63,909)		x	\$ (63,909)	Design team has incorporated a modified version of this idea at 1st floor by reducing height by 6", from 14'0" to 13'6". The design team is also reducing the roof height at the 2nd floor by 8". Additional height reduction not possible because clearances for utilities and ductwork would be compromised.
R11	Hollow metal exterior and high-use doors and frames ILO aluminum	\$ (165,000)	\$ (2,135)		x	\$ (2,135)	Design team is incorporating hollow metal exterior / high use doors at all 6 openings (with U-value 0.6 to meet 2018 Seattle energy code). VE consultant's estimate did not accurately reflect the design intent so this has been re-priced by GC/CM.
R12	Code-compliant aluminum storefront ILO ultra thermal performance - NIC	N/A	N/A		x			VE consultant removed this idea from consideration. See response to R11. All exterior doors we are using meet U-value 0.6 to meet 2018 Seattle Energy Code.
R13	Sunshades as Bid Add Alternate (increase window SHGC to 0.40 as Base Bid)	\$ (85,000)	\$ (98,576))		x	\$ (98,576)	Sunshades are required per WSSP, but design team has modified the design to be a single 24" deep sunshade. See Budget Option Log EN1.
R14	Reduce window area from 26.2% to 20% (for energy savings, while still providing daylight and views)	\$ (25,741)	\$ (12,452)		х	\$ (12,452)	Design team has reduced the window area by 750 SF and has also reduced the exterior envelope area for a total of 24% of window area. See Budget Option Log EN9.
R15	Add canopy at new main entry - ADD	\$ 18,500	\$ 12,333	x			\$ 12,333	Design team has added a canopy at the new main entry. This is a cost to add an 8'8" x 6'0" canopy.

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R16	Insulate exterior walls at 1909 building (core and blow-in	Magnitude) \$ 13,844	\$ 56,468	x			\$ 56,468	Design team has incorporated this idea into the design. This is a cost add.
	existing stud cavity) - ADD							
R17	Add vestibule at door to playfields - ADD	\$ 15,000	\$ 15,000		x			Not recommended due to additional cost.
R18	Kal-wall windows at Gym ILO skylights	\$ (16,500)	\$-		х			Skylights have been removed from base bid and made a Bid Alternate. Unit skylights are the most cost effective approach; this proposal is not a cost savings.
R19	Add small skylight over admin offices - ADD	\$ 5,000	\$ 5,000		x			Not recommended due to additional cost.
R20	Corrugated metal siding at areas of future additions ILO insulated metal wall panels	\$ (48,336)	\$ (11,200)		x			No longer applicable. Insulated Metal Wall Panel system has been deleted per SPS direction. AEP Span Flex Series could be changed to corrugated metal siding (or equivalent) at north face of gym, but is not recommended due to (1) building envelope quality concerns and (2) risk to City of Seattle Landmarks Preservation Board approval process.
R21	Abuse-resistant gypsum board ILO impact-resistant wall coverings	\$ (162,300)	\$ (24,007)		х			VE consultant's proposal did not accurately reflect the design intent. The design includes abuse-resistant gypsum board up to 8' in all corridors.
R22	Additional tackable wall surface / reduce height of MDF wainscot from 7' to 4'	\$ (27,822)	\$ (27,822)		х			VE consultant's proposal did not accurately reflect the design intent. The DD phase documents removed MDF from the corridors and replaced it with impact-resistant gypsum board. The only location with MDF wall protection is the Gym.
R23	Flocked resilient flooring (like Flotex by Forbo), ILO carpet	\$ (41,073)	\$ (41,073)		Х			Not recommended because it would be a significant deviation from SPS Carpet Standards and is not compatible with SPS' floor cleaning equipment and processes.
R24	Replaceable school logos in flooring (carpet, tile, sheet flooring, walk-off-mats, etc.) - ADD	\$ 6,500	\$ 6,500		x			Design team studied several approaches to personalizing spaces for each school that occupies the classroom addition. Recommended approaches are reflected as Bid Alternates.
R25	Provide additional food service for homeless students (small kitchenette) - ADD	\$ 12,750	\$ 12,750		x			Project budget has required minimal work at 1950 building; the community kitchenette/food pantry would typically be located adjacent to student commons. The elementary-sized commons is already too small to accommodate middle school in three lunches. The kitchenette/pantry would require some portion of this space.
R26	Packaged rooftop unit HVAC system (heating, cooling & ventilation combined) - NIC	N/A	N/A		x			This idea was already discarded by VE consultant. This proposal would not meet SPS Technical Building Standards. Also, shrinking and infilling the mechanical room would result in odd program adjacencies and there is no exterior wall for windows for program that would be moved to this location.
R27	Alternate duct materials (fabric, duct-board, etc.) ILO all sheet metal - NIC	N/A	Ν/Α		x			This idea was already discarded by VE consultant. The design team has provided fabric ducts in the Gym, which is the only feasible location. Other materials such as duct board would not function with a medium pressure system. This would require an increase in duct sizes which cannot be accommodated with the floor to floor heights. Duct-board also would not meet the durability needed for the lifetime of this building.
R28	Standard ILO premium duct in exposed ceiling spaces, but with good workmanship	\$ (94,811)	\$ (60,000)		x			The design team is not specifying 'premium' ductwork materials, however there is oval ductwork in exposed ceiling spaces for aesthetic reasons. Square/rectangular ductwork is not recommended due to quality and aesthetic concerns.
R29	Reverse return hydronic piping system to simplify balancing and controls - NIC	N/A	Ν/Α					This idea was already discarded by VE consultant. Reverse return piping designs were essentially discarded with the advent of variable speed pumping controls in combination with automatic flow limiting cartridges and pressure independent control valves. This design approach would add substantially more piping and would increase the project costs as well as increase pump energy consumption.

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R30	Heat pump DHW heater(s) ILO electric - ADD	\$ 23,703	\$23	703		х			This item is a cost add beyond what was suggested by the Meng report. It would require additional heat to be provided in the main plant space because an air to water heat pump for domestic HW absorbs heat from the surrounding air. These systems are not as easy to maintain and would not be favorable to the SPS Facilities department.
R31	Design team design fire sprinkler system ILO bidder design (control aesthetics with exposed CLT)	\$ (16,931)	\$	-		x			Not recommended because the design documents already show all the mains and there are notes about exposed pipe locations. There would also be additional cost for the design team that would need to be considered. For these reasons no credit is available.
R32	Provide utility solar infrastructure rough-in - ADD	\$ 9,000	\$	-			х	\$-	Design already includes "PV ready" raceways per District standards and code.
R33	Egress pathway lighting doubles as lighting reduction and after-hours pathway	\$ (20,000)	\$	-			х	\$ -	Design team has incorporated the standard SPS lighting control approach which meet this requirement.
R34	Aluminum ILO copper feeders	\$ (67,000)	\$ (41	506)		х			This proposal was rejected by SPS at the SD phase. See Budget Option Log E1.
R35	Distributed battery lighting ILO centralized building inverter	\$ (9,000)	\$ (10	673)	X			\$ (10,673)	The design includes a distributed battery pack approach because SPS directed that this project will not have a generator for emergency power.
R36	Ceiling fans as bid alternate	\$ (58,000)	\$ (49	807)	x			\$ (49,807)	Ceiling fans are now a Bid Alternate. See Budget Option Log E5.
R37	Explore wireless technologies vs cabled low voltage solutions where practical (clock, security, etc.)	\$ (87,000)	\$ (43	500)		х			Not recommended because the clocks and intercoms would require battery replacement to keep these systems operational; additional maintenance and potential security issue for intercom to lose battery power. The design team does not believe wireless security to be sufficiently reliable and wireless is not a preferred approach of SPS.
R38	More wireless (bandwidth) and less hardwired data drops	\$ (56,000)	\$ (56	000)		x			Proposal would not meet Technical Building Standards. Nine hardwired data drops is current standard, reduced from significantly more.
R39	Distributed Antenna System (DAS) emergency responder system as bid alternate pending testing	\$ (28,000)	\$ (68	781)	x			\$ (68,781)	The DAS will be a Bid Alternate. Once the building is substantially complete the building can be tested for RF inbound/outbound signals to determine if it requires an emergency responder system.
R40	Lower final grade of north parking lot by 12"	\$ (40,590)	\$	-		х			VE consultant's proposal did not accurately reflect the design intent.
	SUBTOTAL REVISION PROPOSAL (excluding NIC items)	\$ (1,308,542)	\$ (526	679)				\$ (255,320)	
	GRAND TOTAL ALL PROPOSALS	\$ (3,899,542)	\$ (2,279	916)				\$ (503,703)	
The owner ha	s reviewed each of the Value Analysis								
proposals and	recommends the responses contained herein.								
Ethan Bernau									
by									
Project Manag	er								
title									
3/24/2021									
aate									