AGENCY 390: WASHINGTON STATE HISTORICAL SOCIETY

BI23 CAPITAL BUDGET REQUEST

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TAB A

OFM

390 - Washington State Historical Society
Ten Year Capital Plan by Project Class
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS001
Date Run: 10/1/2020 12:09PM

Project Class: Preservation

Agency Priority	Project by Account-EA Type	Estimated Total	Prior Expenditures	Current Expenditures	Reapprop 2021-23	New Approp 2021-23	Estimated 2023-25	Estimated 2025-27	Estimated 2027-29	Estimated 2029-31
0	**30000288 Minor Works - Preservation**									
	057-1 State Bldg Constr-State	3,500,000	2,172,000	573,000	755,000					
0	**40000086 Minor Works - Preservation: 2019-21**									
	057-1 State Bldg Constr-State	2,608,000		140,000	2,468,000					
1	**40000136 Preservation - Minor Works 2021-23**									
	057-1 State Bldg Constr-State	23,198,000				7,527,000	3,287,000	4,568,000	3,974,000	3,842,000
	Total: Preservation	**29,306,000**	**2,172,000**	**713,000**	**3,223,000**	**7,527,000**	**3,287,000**	**4,568,000**	**3,974,000**	**3,842,000**

Project Class: Program

Agency Priority	Project by Account-EA Type	Estimated Total	Prior Expenditures	Current Expenditures	Reapprop 2021-23	New Approp 2021-23	Estimated 2023-25	Estimated 2025-27	Estimated 2027-29	Estimated 2029-31
1	**40000145 Program - Major Exhibit Renewal 2021-2023**									
	057-1 State Bldg Constr-State	4,890,000				4,890,000				
2	**40000146 Program - Minor Works Exhibit Renewal 2021-2023**									
	057-1 State Bldg Constr-State	850,000				850,000				
	Total: Program	**5,740,000**				**5,740,000**				

Project Class: Grant

Agency Priority	Project by Account-EA Type	Estimated Total	Prior Expenditures	Current Expenditures	Reapprop 2021-23	New Approp 2021-23	Estimated 2023-25	Estimated 2025-27	Estimated 2027-29	Estimated 2029-31

OFM

390 - Washington State Historical Society
Ten Year Capital Plan by Project Class
2021-23 Biennium
*

Version: C1 BI23 Capital Budget

Report Number: CBS001
Date Run: 10/1/2020 12:09PM

Project Class: Grant

Agency Priority	Project by Account-EA Type	Estimated Total	Prior Expenditures	Current Expenditures	Reapprop 2021-23	New Approp 2021-23	Estimated 2023-25	Estimated 2025-27	Estimated 2027-29	Estimated 2029-31
0	**30000297 Heritage Capital Grants Projects**									
	057-1 State Bldg Constr-State	8,986,000	2,737,000	2,450,000	3,799,000					
0	**40000014 Heritage Capital Grant Projects: 2019-21**									
	057-1 State Bldg Constr-State	9,177,000		1,408,000	7,769,000					
1	**40000099 Heritage Capital Grant Projects 2021-2023**									
	057-1 State Bldg Constr-State	9,161,000				9,161,000				
	Total: Grant	**27,324,000**	**2,737,000**	**3,858,000**	**11,568,000**	**9,161,000**				

Total Account Summary

Account-Expenditure Authority Type	Estimated Total	Prior Expenditures	Current Expenditures	Reapprop 2021-23	New Approp 2021-23	Estimated 2023-25	Estimated 2025-27	Estimated 2027-29	Estimated 2029-31
057-1 State Bldg Constr-State	62,370,000	4,909,000	4,571,000	14,791,000	22,428,000	3,287,000	4,568,000	3,974,000	3,842,000

OFM

Ten Year Capital Plan by Project Class

*

Report Number: CBS001
Date Run: 10/1/2020 12:09PM

Parameter	Entered As	Interpreted As
Biennium	2021-23	2021-23
Functional Area	*	All Functional Areas
Agency	390	390
Version	C1-A	C1-A
Project Classification	*	All Project Classifications
Include Enacted	No	No
Sort Order	Project Class	Project Class
Include Page Numbers	Y	Yes
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

OFM

390 - Washington State Historical Society
Capital FTE Summary
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS004
Date Run: 9/14/2020 2:16PM

FTEs by Job Classification

	Authorized Budget			
	2019-21 Biennium		2021-23 Biennium	
Job Class	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
143K FISCAL ANALYST 3			0.5	0.5

Account

	Authorized Budget			
	2019-21 Biennium		2021-23 Biennium	
Account - Expenditure Authority Type	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
001-1 General Fund-State			44,000	45,000

Narrative

Heritage Capital Administrative Support

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

September 11, 2020

Mr. David Schingeck
Capital Projects Coordinator
Washington State Historical Society
1911 Pacific Avenue
Tacoma, WA 98402

In future correspondence please refer to:
Project Tracking Code: 2020-09-05794
Property: WSHS Capital Budget Request 2021-2023
Re: Governor's Executive Order 05-05

Dear Mr. Schingeck:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP) regarding the Washington State Historical Society's Capital Budget Request for the 2019-2021 Biennium pursuant to the provisions of Governor's Executive Order 05-05 (GEO 05-05). Our review is based upon documentation contained in your communication.

The proposed projects for the Tacoma Research Center have the potential to have an impact on the historic property and we would appreciate the opportunity to continue consulting on its preservation projects to ensure the work proposed meets the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. We look forward to our continued consultation regarding the property should you receive capital funding. As you have noted, proposed upgrades for the Washington State History Museum are exempt from review under GEO 05-05 because the building is less than 50 years old, and there are no proposed ground disturbing activities.

Thank you for the opportunity to review and comment. If you have any questions, please contact me.

Sincerely,

Nicholas Vann, AIA
Deputy State Historic Preservation Officer
(360) 628-2170
nicholas.vann@dahp.wa.gov

cc: Jim Baumgart, GOV
Jennifer Masterson, OFM
Scott Merriman, OFM

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

September 2, 2020

Mr. David Schingeck
Capital Projects Coordinator
WA State Historical Society
1911 Pacific Ave
Tacoma, WA 98402

In future correspondence please refer to:
Project Tracking Code: 2020-09-05584
Property: HCPF 21-23 Biennium Capital Budget Request
Re: Proposed Projects under GEO 05-05

Dear Mr. Schingeck:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP) concerning compliance with Governor's Executive Order 05-05 (GEO 05-05) for Heritage Capital Grants in the 2021-23 biennium. Many of the projects on the attached spreadsheet need no further consultation with DAHP pursuant to GEO 05-05. However, we do note several projects that need further consultation:

- Northwest Railway Museum
- Town of Cathlamet
- Museum of Flight
- Rocklyn Zion Chapel
- Southwest Seattle Historical Society
- Muckleshoot Indian Tribe
- Franklin County Historical Society & Museum
- Issaquah History Museums
- Metro Parks Tacoma
- City of Lacey
- Cheney Depot Society
- Ferry County Historical Society
- The Center for Wooden Boats
- Olympia Tumwater Foundation
- Yakima Valley Trolley's
- City of Waitsburg

Please also refer to the spreadsheet for specific comments and actions required for each ranked project. Some projects may require additional information to be provided or implemented.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer pursuant to GEO 05-05. If any of these projects

become obligated with Federal funding, Section 106 of the National Historic Preservation Act and its implementing regulations in 36CFR800 must be followed. This is a separate process from GEO 05-05. Thank you for the opportunity to review and comment. If you have any questions, please contact me at (360) 586-3079 or Nicholas.Vann@dahp.wa.gov.

Sincerely,

Nicholas Vann, AIA
Deputy State Historic Preservation Officer

cc: Jim Baumgart, GOV
Jennifer Masterson, OFM
Scott Merriman, OFM

WASHINGTON STATE HISTORICAL SOCIETY Biennium 2021-2023 Backlog Reduction Plan

WSHS owns and maintains two facilities: In Tacoma, there is the Washington State History Museum (built 1995), the only museum in Washington responsible for collecting and interpreting the history of the entire state, and the Research Center (built in 1911 with additions in 1923 and 1972), housing the artifact and archival collections and providing a reading room for researchers.

WSHS uses operating funds for routine maintenance of these facilities. Work is performed by a combination of in-house staff and repair contracts, as required. WSHS uses capital funds for building preservation and improvement projects such as building systems replacement on the manufacturer's recommended cycles. WSHS spends approximately $1,625,000 per biennium of operating funds for maintenance and upkeep of facilities.

Prior to biennium 2007-2009 WSHS did not have a maintenance backlog. The Washington State History Museum was still relatively new and was built to high construction standards. The Research Center had been keeping current on facilities projects through a combination of routine maintenance paid for with operating funds and capital preservation projects paid for by capital appropriations. Since biennium 2007-2009, WSHS has not been able to stay current with needed preservation projects due to capital budget appropriations being made at amounts which are greatly below WSHS's biennial facilities needs.

The following is a list of backlog items by facility. If WSHS were to receive full funding of its BI 2021-2023 capital budget request, the backlog would be eliminated by the end of the biennium.

Washington State History Museum

HM 2.0	BUILDING EXTERIOR	
HM 2.1	Masonry Repairs and Sealing	Spot masonry repairs, cleaning, and water repellant sealant
HM 2.2	Cladding and Fenestration Repairs and Sealing	Spot repairs at cladding and fenestration systems, (Light fixtures, Concrete walls, doors, etc.)
HM 2.3	Window and Storefront Replacement	Replace windows and storefront where failings
HM 2.4	Museum Store display/visibility improvements	450 sf sales display feature - new construction on Pacific Avenue
HM 2.5	Track Level Entry Cover	Steel frame roof coverage to protect visitor entry. Architectural character to match museum.
HM 2.6	Metal Roofing Repairs - High Priority	Vaulted, lead-covered copper roofing needs various repairs
HM 2.7	Membrane Roof Replacement - High Priority	Low slope single-ply roofing is at end of life and needs replacement. Includes drain and flashing repairs
HM 2.8	Metal Roofing Repairs and Improvements - Moderate Priority	Improvement to barrel roofs for safety and maintenance

HM 3.0	**BUILDING INTERIOR**	
HM 3.6	Auditorium Upgrades	Replace Acoustical Panels and Paint
HM 3.7	Ben Cheney Meeting Room, Mezzanine Level	Meeting room improvement to isolate space from lobby
HM 3.8	Board Room, Upper Level	Board Room Remodel
HM 3.9	Acoustic Improvements Great Hall - Phase 1	Acoustic improvements for Great Hall Phase I
HM 3.10	Restroom Repairs and improvements	Miscellaneous Repairs and conversion of single use restrooms to All Gender
HM 3.11	Upper level theater	Remove temporary theater & replace carpet
HM 3.12	Miscellaneous Interior Improvements	Wainscoting, casework, etc.
HM 3.13	Catering kitchen and Breakroom improvements	Replace fixtures, flooring, install wainscot in breakrooms and catering kitchen.
HM 3.14	Audio Visual Improvements	Replace and/or add audio visual capabilities where obsolete or non-existant
HM 3.15	Office Mezzanine Construction	Construct mezzanine over Gift Shop to provide for additional office and administrative space needs
HM 4.0	**MECHANICAL AND PLUMBING**	
HM 4.1	Heating Water System - Replace Heating Water Pumps and VFDs	Replace (4) Heating Water System Pumps and (2) Variable Frequency Drives and integrate into existing controls
HM 4.2	Chilled Water System - Replacement/Retrofit	Chilled water system equipment in nearing the end of its useful life and is in need of retrofit or replacement
HM 4.3	HVAC AHU-1 Retrofit	AHU-1 components at end of useful life. Unit should be retrofit with new components and upgrades
HM 4.4	HVAC Equipment Replacement	HVAC system equipment is nearing the end of it useful life and should be replaced/retrofit
HM 4.5	Central Plant Valve Replacement	All existing valves are at the end of life and should be replaced
HM 4.6	Replace Circuit Setters	Replace balancing valves at heating and cooling coils throughout building

Research Center

RC 1.0	**SITE WORK**	
RC 1.1	Landscape Planting South side of Site	Planting to stabilize slope, limit intrusion
RC 1.2	Replace stairwell from parking lot to public sidewalk	Remove and replace existing concrete stair and handrails
RC 1.3	Site Fencings	New site and replacement fencings

RC 1.4	Parking Lot Improvements and Repairs	Security, Lighting, and Pavement Repair
RC 1.5	Public Sidewalk ROW Improvements	City requested ADA accessible route from parking lot to Main Entry
RC 2.0	**BUILDING EXTERIOR**	
RC 2.1	Masonry/Concrete Clean and Seal	Spot masonry repairs, cleaning, and water repellant sealant
RC 2.2	URM and Miscellaneous Exterior Repairs	Structural reinforcement and reinstallation of historic masonry features
RC 2.3	Install Soffits - 1972 Building	Thermal improvement to cantilevered concrete slab floors
RC 2.4	Roof Replacement - 1923 Building	Single Ply Membrane Replacement
RC 2.5	Roof Replacement - 1972 Building	Ballasted Roofing Membrane
RC 2.6	Roof Replacement - 1911 Building	Single Ply Membrane Replacement
RC 2.7	Metal Roof Replacements - All Buildings	Standing seam
RC 2.8	Exterior Doors	Restore original entrance doors
RC 2.9	Theft Resistant Glazing	Replace existing tempered glazing with laminated glass to prevent easy access to building
RC 3.0	**BUILDING INTERIOR**	
RC 3.1	1911 Building Tenant Improvements	
RC 3.2	1923 Building Tenant Improvements	
RC 3.3	1972 Building Tenant Improvements	
RC 4.0	**MECHANICAL AND PLUMBING**	
RC 4.1	Mechanical - Central Systems	
RC 4.2	Mechanical - Chiller Replacement	
RC 4.3	Smoke Exhaust Systems	
RC 4.4	Plumbing	
RC 6.0	**TELECOM AND ELECTRONIC SECURITY**	
RC 6.1	Communications Improvements	Improvements to communications cabling, and wireless infrastructure

TAB B

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 10/1/2020 12:19PM

Project Number: **30000288**
Project Title: **Minor Works - Preservation**

Description

Starting Fiscal Year: 2018
Project Class: Preservation
Agency Priority: 0

Project Summary
We are requesting re-appropriation for BI19 minor works.

Project Description
We are requesting re-appropriation for BI19 minor works.

Location

City: Tacoma	**County:** Pierce	**Legislative District:** 027
City: Tacoma	**County:** Pierce	**Legislative District:** 027

Project Type
Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

Growth Management impacts
NA

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	3,500,000	2,172,000	573,000	755,000	
	Total	**3,500,000**	**2,172,000**	**573,000**	**755,000**	**0**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

Capital Project Request

2021-23 Biennium

*

Parameter	Entered As	Interpreted As
Biennium	2021-23	2021-23
Agency	390	390
Version	C1-A	C1-A
Project Classification	*	All Project Classifications
Capital Project Number	30000288	30000288
Sort Order	Project Priority	Priority
Include Page Numbers	Y	Yes
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 10/1/2020 12:32PM

Project Number: **40000086**
Project Title: **Minor Works - Preservation: 2019-21**

Description

Starting Fiscal Year: 2020
Project Class: Preservation
Agency Priority: 0

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting building preservation funding for these two facilities. This request is for the biennium 2021 portion of the facilities preservation projects recommended in the Washington State Historical Society 10-year Needs Assessment.

Project Description

One of the agency's strategic goals is to provide safe and well-maintained facilities for the collections and visiting public. It also directs us to preserve the state's investment in our facilities. To achieve the goal, the agency has updated our biennial facilities needs assessment to make sure the facilities are safe for our clientele and major building systems are in working order. Here is the project budget for each facility by sub-components:

Washington State History Museum Preservation Request for Biennium 19-21: $4,939,000
1) PRESERVATION MEP/ENERGY - RC - $559,000
2) PRESERVATION AIR HANDLER RECONDITIONING & REPLACEMENT - RC - $917,000
3) PRESERVATION MEP/ENERGY - HM - $556,000
4) PRESERVATION EXTERIOR - HM & RC - $971,000
5) PRESERVATION INTERIOR - HM & RC - $728,000
6) PRESERVATION BOARD ROOM RENOVATIONS - HM - $143,000
7) PRESERVATION GREAT HALL UPGRADES - HM - $955,000
8) PRESERVATION ASSESSMENTS - HM & RC - $110,000

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

Growth Management impacts

NA

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	2,608,000		140,000	2,468,000	
	Total	**2,608,000**	**0**	**140,000**	**2,468,000**	**0**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 10/1/2020 12:32PM

Project Number: 40000086
Project Title: Minor Works - Preservation: 2019-21

Operating Impacts

No Operating Impact

Capital Project Request

2021-23 Biennium

*

Parameter	Entered As	Interpreted As
Biennium	2021-23	2021-23
Agency	390	390
Version	C1-A	C1-A
Project Classification	*	All Project Classifications
Capital Project Number	40000086	40000086
Sort Order	Project Priority	Priority
Include Page Numbers	Y	Yes
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: **40000136**
Project Title: **Preservation - Minor Works 2021-23**

Description

Starting Fiscal Year: 2022
Project Class: Preservation
Agency Priority: 1

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting building preservation funding for these two facilities. This request is for the biennium 2023 portion of the facilities preservation projects recommended in the Washington State Historical Society 10-year Needs Assessment.

Project Description

One of the agency's strategic goals is to provide safe and well-maintained facilities for the collections and visiting public. It also directs us to preserve the state's investment in our facilities. To achieve the goal, the agency has updated our biennial facilities needs assessment to make sure the facilities are safe for our clientele and major building systems are in working order. Here is the project budget for each facility by sub-components:

Washington State History Museum Preservation Request for Biennium 21-23: $7,527,000
1) PRESERVATION BUILDING EXTERIOR - HM - $2,251,000
2) PRESERVATION BUIILDING EXTERIOR - RC - $2,295,000
3) PRESERVATION SITEWORK - RC - $327,000
4) PRESERVATION MECHANICAL & PLUMBING – HM - $116,000
5) PRESERVATION BUILDING INTERIOR - HM $475,000
6) PRESERVATION MECHANICAL & PLUMBING - RC - $1,805,000
7) PRESERVATION BUILDING INTERIOR - RC - $128,000
8) PRESERVATION TELECOM & ELECTRONIC SECURITY - RC - $130,000

Location

City: Tacoma	**County:** Pierce	**Legislative District:** 027
City: Tacoma	**County:** Pierce	**Legislative District:** 027

Project Type

Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

Growth Management impacts

NA

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	23,198,000				7,527,000
	Total	**23,198,000**	**0**	**0**	**0**	**7,527,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State	3,287,000	4,568,000	3,974,000	3,842,000

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: **40000136**
Project Title: **Preservation - Minor Works 2021-23**

Funding

Total	**3,287,000**	**4,568,000**	**3,974,000**	**3,842,000**

Operating Impacts

Total one time start up and ongoing operating costs

SubProjects

SubProject Number: **40000137**
SubProject Title: **PRESERVATION BUILDING EXTERIOR - HM**

Starting Fiscal Year: 2022
Project Class: Preservation
Agency Priority: 1

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting building preservation funding for these two facilities. This request is for the biennium 2023 portion of the facilities preservation projects recommended in the Washington State Historical Society 10-year Needs Assessment.

Project Description

Problem Statement

The Society hired an architect to assess the conditions of the roof, cladding, and fenestration systems prior to work being done on the brick cladding and roof repairs. This assessment uncovered multiple deficiencies including safety hazards at the roof system and deficiencies in the water-shedding ability of the building envelope. The building envelope is the first and most important layer of protection for the museum and the artifacts and people within. The results of this assessment forced the Society to re-prioritize envelope measures.

Proposed Solution

This project proposes to repair the safety issues at the roof as well as the building envelope. This includes safety and miscellaneous repairs to the vaulted metal roof, repairing and sealing the cladding and fenestration, and replacement of the membrane roof systems.

Project Benefits

Preservation of the unique Washington State History Museum building
Protection and care for artifacts stored within the museum; both WSHS collections and items on loan or rented
Supports AAM accreditation
Proactively preserves building and prevents more costly emergency repairs
Prevents the growth of mold and other biological contaminants

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

Growth Management impacts

NA

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: 40000136
Project Title: Preservation - Minor Works 2021-23

SubProjects

SubProject Number: 40000137
SubProject Title: PRESERVATION BUILDING EXTERIOR - HM

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	4,808,000				2,251,000
	Total	**4,808,000**	**0**	**0**	**0**	**2,251,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State		550,000		2,007,000
	Total	**0**	**550,000**	**0**	**2,007,000**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: 40000138
SubProject Title: PRESERVATION BUIILDING EXTERIOR - RC

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium
*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: **40000136**
Project Title: **Preservation - Minor Works 2021-23**

SubProjects

SubProject Number: **40000138**
SubProject Title: **PRESERVATION BUIILDING EXTERIOR - RC**

Starting Fiscal Year: 2022
Project Class: Preservation
Agency Priority: 1

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting building preservation funding for these two facilities. This request is for the biennium 2023 portion of the facilities preservation projects recommended in the Washington State Historical Society 10-year Needs Assessment.

Project Description

Problem Statement

The Research Center is the Society’s only storage facility for historical artifacts not on display in the Washington State History Museum. The Research Center currently houses about 750,000 items that are of significant value in documenting and illustrating the history of the State of Washington. As such it is a critical facility to support the Society’s mission and vision.
The building envelope at the Research Center is in long-due need of repairs informed by a building-wide assessment similar to that performed at the museum. The ballasted roof covering the 1972 section of the building is more than 20 years old and the warranty can not be further extended. A 2009 exterior evaluation identified the deterioration of the sandstone balustrade on the 1913 building and the un-secured stone copings on the 1911 building as creating a potential hazard during a seismic event. They were subsequently removed. Repairs are also needed at the canopy over the large artifact loading door are required as water has damaged the gypsum sheathing lining the soffit due to a poorly-designed gutter system.
There are multiple cantilevered overhangs at the 1972 section of the building that are uninsulated. This results in unnecessary energy loss as well as provides a condensing surface inside the artifact storage areas which provide moisture for mold growth."

Proposed Solution

This project proposes to assess the condition of the historic building and replace the ballasted roof at the 1972 section. The proposal is also to replace the balusters on the 1923 building and the stone coping on the 1911 building, reinforce the remaining unreinforced masonry, and clean the masonry according to the Secretary of Interior's standards. The project will also repair the canopy and reconfigure the gutter above the large artifact loading door and insulate the cantilevered sections of the 1972 part of the building.

Project Benefits

Preservation of the Research Center as the depository of Washington's most important artifacts and ephemera as well as an historic asset.
Proactively preserves building and prevents more costly emergency repairs
Remedy known water damage
Improve thermal efficiency
Prevent mold growth inside artifact storage areas

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

Growth Management impacts

NA

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: 40000136
Project Title: Preservation - Minor Works 2021-23

SubProjects

SubProject Number: 40000138
SubProject Title: PRESERVATION BUIILDING EXTERIOR - RC

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	2,905,000				2,295,000
	Total	**2,905,000**	**0**	**0**	**0**	**2,295,000**

		Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State	54,000		556,000	
	Total	**54,000**	**0**	**556,000**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: 40000139
SubProject Title: PRESERVATION SITEWORK - RC

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: **40000136**
Project Title: **Preservation - Minor Works 2021-23**

SubProjects

SubProject Number: **40000139**
SubProject Title: **PRESERVATION SITEWORK - RC**

Starting Fiscal Year: 2022
Project Class: Preservation
Agency Priority: 1

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting building preservation funding for these two facilities. This request is for the biennium 2023 portion of the facilities preservation projects recommended in the Washington State Historical Society 10-year Needs Assessment.

Project Description

Problem Statement

The Research Center parking lot has been settling and has security deficiencies that need to be addressed. The parking lot has some sunken areas cracks from movement. This last year a small hole opened up that needs to be addressed in the center of the lot. There is no perimeter fencing at the Research Center property allowing vandals and transients to access it from the hillside below. A fence and better lighting is needed to help secure the property. The site immediately south of the portico is extremely steep and drops precipitously to the lower site. This areas is accessible to the public and presents a significant risk.

Proposed Solution

A Geotechnical analysis will be completed to determine the necessary repairs and a scope of work will be determined and performed to eliminate the movement and settling. This project will also add a light standard to the parking lot to provide better illumination and a fence will be installed on the north side of the parking lot above the problematic hillside and replace the wrought iron fence south of the portico.

Project Benefits

Improved security for the Research Center
Reduced liability for the State by reducing after-hours access to the building
Proactively repairs paving and prevents more costly emergency repairs

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

Growth Management impacts

NA

Funding			Expenditures		2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	954,000				327,000
	Total	**954,000**	**0**	**0**	**0**	**327,000**

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: **40000136**
Project Title: **Preservation - Minor Works 2021-23**

SubProjects

SubProject Number: **40000139**
SubProject Title: **PRESERVATION SITEWORK - RC**

		Future Fiscal Periods			
		2023-25	**2025-27**	**2027-29**	**2029-31**
057-1	State Bldg Constr-State	498,000	129,000		
	Total	**498,000**	**129,000**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: **40000140**
SubProject Title: **PRESERVATION MECHANICAL & PLUMBING – HM**

Starting Fiscal Year: 2022
Project Class: Preservation
Agency Priority: 1

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting building preservation funding for these two facilities. This request is for the biennium 2023 portion of the facilities preservation projects recommended in the Washington State Historical Society 10-year Needs Assessment.

Project Description

Problem Statement

During the recent boiler replacement it was found that many of the pumps and variable frequency drives, as well as several butterfly and triple-duty valves were at the end of their useful lives or were not functioning properly. There are a large number of balancing valves, circuit setters, installed on each of the hydronic coils in the building, used to set the proper full flow through the coils that are also at the end of their useful life and many are starting to leak.

Proposed Solution

This project will replace four heating water system pumps and two VFD's and integrate them into the existing controls. This project will also replace all of the circuit setters throughout the museum.

Project Benefits

Uninterrupted service of HVAC system in support of Society and museum mission
Proactive replacement to protect building and contents and prevent costly emergency repairs
Reduction of maintenance backlog

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium
*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: 40000136
Project Title: Preservation - Minor Works 2021-23

SubProjects

SubProject Number: 40000140
SubProject Title: PRESERVATION MECHANICAL & PLUMBING – HM

Growth Management impacts
NA

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	2,925,000				116,000
	Total	**2,925,000**	**0**	**0**	**0**	**116,000**

		Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State	1,542,000	406,000	861,000	
	Total	**1,542,000**	**406,000**	**861,000**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: 40000141
SubProject Title: PRESERVATION BUILDING INTERIOR - HM

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: **40000136**
Project Title: **Preservation - Minor Works 2021-23**

SubProjects

SubProject Number: **40000141**
SubProject Title: **PRESERVATION BUILDING INTERIOR - HM**

Starting Fiscal Year: 2022
Project Class: Preservation
Agency Priority: 1

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting building preservation funding for these two facilities. This request is for the biennium 2023 portion of the facilities preservation projects recommended in the Washington State Historical Society 10-year Needs Assessment.

Project Description

Problem Statement

Many components of the Society's flagship facility, the Washington State History Museum, haven't been upgraded or replaced since it was built over 25 years ago. The heavily used public and rental spaces like the Auditorium, Board room, and catering kitchen are in need of updated acoustical, audio visual, and equipment upgrades.

Proposed Solution

This project will replace the acoustical panels in the auditorium, upgrade the audio visual equipment throughout the museum, and upgrade the catering kitchen.

Project Benefits

Improved acoustics
Better visitor experiences
Increased rental income

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

Growth Management impacts

NA

Funding

Acct Code	Account Title	Expenditures: Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	8,130,000				475,000
	Total	**8,130,000**	**0**	**0**	**0**	**475,000**

Acct Code	Account Title	Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State	1,078,000	2,185,000	2,557,000	1,835,000
	Total	**1,078,000**	**2,185,000**	**2,557,000**	**1,835,000**

Operating Impacts

Project Number: **40000136**
Project Title: **Preservation - Minor Works 2021-23**

SubProjects

SubProject Number: **40000141**
SubProject Title: **PRESERVATION BUILDING INTERIOR - HM**

Total one time start up and ongoing operating costs

SubProject Number: **40000142**
SubProject Title: **PRESERVATION MECHANICAL & PLUMBING - RC**

Starting Fiscal Year: 2022
Project Class: Preservation
Agency Priority: 1

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting building preservation funding for these two facilities. This request is for the biennium 2023 portion of the facilities preservation projects recommended in the Washington State Historical Society 10-year Needs Assessment.

Project Description

Problem Statement

The Research Center is the Society's only storage facility for historical artifacts not on display in the Washington State History Museum. The Research Center currently houses about 750,000 items that are of significant value in documenting and illustrating the history of the State of Washington. As such it is a critical facility to support the Society's mission and vision. Controlling the environment in which these items are stored and ensuring there are redundant systems to do so is fundamental to the purpose of this facility. The Society hired McKinstry to research and develop a capital plan for this facility. Many of their recommendations have been implemented in past biennia but redundant systems are still needed to ensure the safety of the State's most cherished artifacts.

Proposed Solution

This project proposes to recondition air handlers where feasible and replace one air handler to ensure the efficient operation of the critical climate control system and replace the chiller that serves the entire building as it has reached then end of its useful life. The project also proposes to update the smoke exhaust system for evacuating smoke from a potential fire in the building to preserve the housed artifacts as well as update galvanized plumbing to prevent the development of leaks that could lead to damage and contribute to mold and other biological detriments to the preservation of artifacts.

Project Benefits

Preservation of artifacts and ephemera that are invaluable to the history of the State of Washington
Maintain and improve occupant comfort for staff, volunteers, and researchers
Supports AAM accreditation
Integrates the smoke exhaust system with modern controls

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium
*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: 40000136
Project Title: Preservation - Minor Works 2021-23

SubProjects

SubProject Number: 40000142
SubProject Title: PRESERVATION MECHANICAL & PLUMBING - RC

Growth Management impacts
NA

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	2,575,000				1,805,000
	Total	**2,575,000**	**0**	**0**	**0**	**1,805,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State		770,000		
	Total	**0**	**770,000**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: 40000143
SubProject Title: PRESERVATION BUILDING INTERIOR - RC

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: **40000136**
Project Title: **Preservation - Minor Works 2021-23**

SubProjects

SubProject Number: **40000143**
SubProject Title: **PRESERVATION BUILDING INTERIOR - RC**

Starting Fiscal Year: 2022
Project Class: Preservation
Agency Priority: 1

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting building preservation funding for these two facilities. This request is for the biennium 2023 portion of the facilities preservation projects recommended in the Washington State Historical Society 10-year Needs Assessment.

Project Description

Problem Statement

The reading room is the only room in the Research Center that most of the public accesses. The lighting and convenience outlets are inadequate and the entry doors need repair. The walls need repair and repainting as well.

Proposed Solution

This project proposes to replace the lighting and add convenience receptacles to the reading room. It will also repair the entry doors and walls and repaint.

Project Benefits

Enhanced visitor and researcher experience
Reduced risk of overloaded circuits
Reduced maintenance backlog

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

Growth Management impacts

NA

Funding

		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	771,000				128,000
	Total	**771,000**	**0**	**0**	**0**	**128,000**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State	115,000	528,000		
	Total	**115,000**	**528,000**	**0**	**0**

Operating Impacts

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: **40000136**
Project Title: **Preservation - Minor Works 2021-23**

SubProjects

SubProject Number: **40000143**
SubProject Title: **PRESERVATION BUILDING INTERIOR - RC**

Total one time start up and ongoing operating costs

SubProject Number: **40000144**
SubProject Title: **PRESERVATION TELECOM & ELECTRONIC SECURITY - RC**

Starting Fiscal Year: 2022
Project Class: Preservation
Agency Priority: 1

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting building preservation funding for these two facilities. This request is for the biennium 2023 portion of the facilities preservation projects recommended in the Washington State Historical Society 10-year Needs Assessment.

Project Description

Problem Statement
Outdated IT systems at the Research Center limit bandwidth which impacts staff efficiency, facility usage, and the visitor experience. The existing structured cabling system needs to be replaced to support higher bandwidth applications and increased digital access of the Research Center.

Proposed Solution
The new system will include additional cabling to support higher density of wireless access points.

Project Benefits
Improved staff and volunteer efficiency
Improved visitor and researcher experience

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Facility Preservation (Minor Works)
Health, Safety and Code Requirements (Minor Works)

Growth Management impacts

NA

Funding		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	130,000				130,000
	Total	**130,000**	**0**	**0**	**0**	**130,000**

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 10:59AM

Project Number: **40000136**
Project Title: **Preservation - Minor Works 2021-23**

SubProjects

SubProject Number: **40000144**
SubProject Title: **PRESERVATION TELECOM & ELECTRONIC SECURITY - RC**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SSW ARCHITECTS

SCHREIBER
STARLING
WHITEHEAD

WASHINGTON STATE
HISTORICAL
SOCIETY

10-Year Facilities Needs Assessment 2021-2031

REPORT OF FINDINGS

September, 2020

Client Agency:
Washington State Historical Society

SSW ARCHITECTS
SCHREIBER STARLING WHITEHEAD
901 FIFTH AVE #3100
SEATTLE, WA 98164
206-682-8300
SSWARCHITECTS.COM

11 September 2020

David Schingeck
Capital Projects Coordinator
Washington State Historical Society
1911 Pacific Avenue
Tacoma, WA 98402

Subject: **10-Year Facilities Needs Assessment 2021 – 2031**
Washington State Historical Society

Dear David:

It has been a delight to work with you and your staff in the development of the following 10-Year Facilities Needs Assessment and to assist in the development of the WSHS 2021-23 Capital Budget. From my field observations, it is clear that the Washington State Historical Society has done an exceptional job in documenting facilities needs as well as establishing and executing a multi-year implementation plan to ensure preservation of these important capital assets.

In developing this update to the 2017-2027 plan we provided the following:

- Conducted site visits to the Washington State History Museum and the Research Center to understand past recommendations and to identify and document new/emergent deficiencies.
- Incorporated the current systems evaluation and recommendations for the primary building systems prepared by McKinstry.
- Incorporated the exterior envelope evaluation and recommendations for the Museum provided by Building Envelope Technology and Research.
- Prepared narrative and tabular documentation of each deficiency and provided recommended corrective action and current budget estimates to address the issue.
- Assisted the WSHS in prioritizing deficiencies and developing a capital budget plan for the 21-23 biennium.

Clearly, the thorough and systematic approach to capital asset management that the WSHS has undertaken is exemplary and the result shows in how you have managed to excel in accomplishing your mission as your primary facility approaches 25-years of service. As the following report indicates, there is considerably more need than immediate funding, however the prioritized approach you have developed assures that the most critical needs can be met in the next biennium.

Thank you for this opportunity to join with the WSHS in the development of this plan. We look forward to its implementation, which will continue to assure that the citizens of our State have access to the premier resource of Washington State history.

Respectfully,

Stephen J. Starling AIA
Principal

TABLE OF CONTENTS

INTRODUCTION

Purpose

This 10-Year Assessment, updated each biennium, is a valuable comprehensive planning tool for the Washington State Historical Society. It is a "living" document that provides flexibility for incorporation of changes in the Society's programming and focus. The update process allows the WSHS to regularly analyze the current state of each facility, document improvements and maintenance completed in the previous biennium, and identify and plan for upcoming issues. The overall picture presented by the Assessment provides a sound basis for each biennial funding request.

Background

In May of 2020, Schreiber Starling Whitehead Architects (SSW), was tasked to assist the Washington State Historical Society (WSHS) in generating an update to their 2017-2027 10-Year Facility Needs Assessment.

The WSHS maintains two facilities: The Washington State History Museum (HM) in downtown Tacoma, the Washington State Historical Research Center (RC) in Tacoma's Stadium District.

Information from the previous biennial assessment by SSW Architects was reviewed and retained in the report where relevant. Where the deficiency remained, its quantities were generally confirmed with a site visit and the previous estimate adjusted to reflect 2020 costs and market conditions. New assessment and estimating for the mechanical and plumbing systems were provided by McKinstry. An Exterior Envelope Assessment provide by Building Engineering Technology and Research was also incorporate.

Methodology

Schreiber Starling Whitehead Architects representatives met with David Schingeck of the WSHS to review the previous biennial assessment. At this meeting, the following assessment items were reviewed:

- Noted deficiencies that had been completed
- Noted deficiencies underway in the present biennium
- New items identified for funding in future biennia and prioritization of those items

Following the kick-off meeting SSW Architects made field visits to the two facilities to observe the existing condition of the building envelope and interiors and to corelate the previously identified deficiencies with the planned scope of repair. From this assessment the list of deficiencies was updated, completed work removed, new costs applied, and the summary matrix updated.

In this biennium's planning, special attention was paid to regrouping deficiencies in appropriate scopes of work for project delivery. The goal was to create fewer projects, but with a greater level of impact. This also seeks to reduce the effort and costs of administrating the work.

Narratives and Matrices

Each work item is assigned an Office of Financial Management (OFM) identifying number. This number is consistent throughout the narrative.

The Overall Summary Matrix provides a single document overview of all the work items and budget needs for all facilities over the next ten years at a glance.

Recommended work items included in this Assessment are identified separately for each facility in three formats:

- Descriptive Narrative: The narrative, with its accompanying photographs, describes each work item and places it in context with the existing state of each facility.
- Summary cost matrix (spreadsheet): The summary matrix is an overview of the work items and their budgets, prioritized for implementation over the next five biennia.
- Detail cost matrix (spreadsheet): The detail matrix provides a description of the scope of each work item and its components with a unit price breakdown.

2021-23 Capital Budget

Working with WSHS, SSW Architects identified and developed a prioritized list of specific projects for the 2021-2023 Biennium. This section follows the overall matrix in the report

Overview Matrix

WASHINGTON STATE HISTORICAL SOCIETY

10-Year Needs Assessment Overview

Project Team: Schreiber Starling Whitehead Architects
Date of Plan June 30, 2010

Washington State History Museum and Research Center

1911 Pacific Avenue, Tacoma, WA 98402 — **UFI #A05174**

315 Stadium Way, Tacoma, WA 98403 — **UFI #A05648**

Item #	Item / Location	Biennium 2021-2023	Biennium 2023-2025	Biennium 2025-2027	Biennium 2027-2029	Biennium 2029-2031
	SUMMARY	**$7,824,320**	**$4,939,539**	**$5,602,100**	**$3,974,637**	**$3,841,894**
HM	**WASHINGTON STATE HISTORY MUSEUM**	**$3,142,679**	**$4,272,889**	**$4,174,404**	**$3,418,599**	**$3,841,894**
HM 1.0	SITE WORK	$0	$159,312	$266,962	$0	$0
HM 2.0	BUILDING EXTERIOR	$2,250,084	$0	$549,705	$0	$2,007,354
HM 3.0	BUILDING INTERIOR	$474,700	$1,077,994	$2,184,542	$2,557,276	$1,834,540
HM 4.0	MECHANICAL AND PLUMBING	$417,896	$1,542,038	$406,121	$861,323	$0
HM 5.0	ELECTRICAL	$0	$752,747	$0	$0	$0
HM 6.0	TELECOM AND ELECTRONIC SECURITY	$0	$71,690	$767,074	$0	$0
HM 7.0	CONVEYANCE SYSTEMS	$0	$669,108	$0	$0	$0
HM 8.0	ASSESSMENTS AND STUDIES	$0	$0	$0	$0	$0
RC	**RESEARCH CENTER**	**$4,681,641**	**$666,651**	**$1,427,696**	**$556,039**	**$0**
RC 1.0	SITE WORK	$326,282	$498,298	$129,411	$0	$0
RC 2.0	BUILDING EXTERIOR	$2,294,012	$53,648	$0	$556,039	$0
RC 3.0	BUILDING INTERIOR	$127,291	$114,704	$528,081	$0	$0
RC 4.0	MECHANICAL AND PLUMBING	$1,804,866	$0	$770,204	$0	$0
RC 5.0	ELECTRICAL	$0	$0	$0	$0	$0
RC 6.0	TELECOM AND ELECTRONIC SECURITY	$129,191	$0	$0	$0	$0
RC 7.0	CONVEYANCE SYSTEMS	$0	$0	$0	$0	$0
RC 8.0	ASSESSMENTS AND STUDIES	$0	$0	$0	$0	$0

2021-2023 Capital Budget Request Summary

2021 – 2023 CAPITAL BUDGET REQUEST - SUMMARY

Prioritization and Summary

The following projects are the priorities for the Washington State Historical Society for funding in the 2021-2023 biennium's Capital Budget Request

Priority 1 History Museum – Building Exterior

Problem Statement

The Washington State Historical Society (WSHS) hired an architect to assess the conditions of the roof, cladding, and fenestration systems prior to work being done on the brick cladding and roof repairs. This assessment uncovered multiple deficiencies including safety hazards at the roof system and deficiencies in the water-shedding ability of the building envelope. The building envelope is the first and most important layer of protection for the museum and the artifacts and people within. The results of this assessment forced the Society to re-prioritize envelope measures.

Proposed Solution

This project proposes to repair the safety issues at the roof as well as the building envelope. This includes safety and miscellaneous repairs to the vaulted metal roof, repairing and sealing the cladding and fenestration, and replacement of the membrane roof systems.

Project Benefits

- Preservation of the unique Washington State History Museum building
- Protection and care for artifacts stored within the museum; both WSHS collections and items on loan or rented
- Supports AAM accreditation
- Proactively preserves building and prevents more costly emergency repairs
- Prevents the growth of mold and other biological contaminants

Priority 2 Research Center – Building Exterior

Problem Statement

The Research Center is the Society's only storage facility for historical artifacts not on display in the Washington State History Museum. The Research Center currently houses about 750,000 items that are of significant value in documenting and illustrating the history of the State of Washington. As such it is a critical facility to support the Society's mission and vision.

The building envelope at the Research Center is in long overdue need of repairs informed by a building-wide assessment similar to that performed at the museum. The ballasted roof covering the 1972 section of the building is more than 20 years old and the warranty cannot be further extended. A 2009 exterior evaluation identified the deterioration of the sandstone balustrade on the 1913 building and the unsecured stone copings on the 1911 building as creating a potential hazard during a seismic event. They were subsequently removed. Repairs at the canopy over the large artifact loading door are required as water has damaged the gypsum sheathing lining the soffit due to a poorly designed gutter system.

There are multiple cantilevered overhangs at the 1972 section of the building that are uninsulated. This results in unnecessary energy loss as well as providing a condensing surface inside the artifact storage areas, which provides moisture for mold growth.

Proposed Solution

This project proposes to assess the condition of the historic building and replace the ballasted roof at the 1972 section. The proposal is also to replace the balusters on the 1923 building and the stone coping on the 1911 building, reinforce the remaining unreinforced masonry, and clean the masonry according to the Secretary of Interior's standards. The project will also repair

the canopy and reconfigure the gutter above the large artifact loading door and insulate the cantilevered sections of the 1972 section of the building.

Project Benefits

- Preservation of the Research Center as the depository of Washington's most important artifacts and ephemera as well as an historic asset
- Proactively preserves building and prevents more costly emergency repairs
- Remedy known water damage
- Improve thermal efficiency
- Prevent mold growth inside artifact storage areas

Priority 3 Research Center – Sitework

Problem Statement

The Research Center parking lot has been settling and has security deficiencies that need to be addressed. The parking lot has some sunken area cracks from movement. This last year a small hole opened that needs to be addressed in the center of the lot. There is no perimeter fencing at the Research Center property allowing vandals and transients to access it from the hillside below. A fence and better lighting is needed to help secure the property. The site immediately south of the portico is extremely steep and drops precipitously to the lower site. This area is accessible to the public and presents a significant risk.

Proposed Solution

A geotechnical analysis will be completed to determine the necessary repairs and a scope of work will be determined and performed to eliminate the movement and settling. This project will also add a light standard to the parking lot to provide better illumination and a fence will be installed on the north side of the parking lot above the problematic hillside and to replace the wrought iron fence south of the portico.

Project Benefits

- Improved security for the Research Center
- Reduced liability for the State by reducing after-hours access to the building
- Proactively repairs paving and prevents more costly emergency repairs

Priority 4 History Museum – Mechanical and Plumbing

Problem Statement

During the recent boiler replacement, it was discovered that many of the pumps and variable frequency drives, as well as several butterfly and triple-duty valves, were at the end of their useful lives or were not functioning properly. There are a large number of balancing valves, circuit setters, installed on each of the hydronic coils in the building, used to set the proper full flow through the coils that are also at the end of their useful life and many are starting to leak.

Proposed Solution

This project will replace four heating water system pumps and two VFD's and integrate them into the existing controls. This project will also replace all circuit setters throughout the museum.

Project Benefits

- Uninterrupted service of HVAC system in support of Society and museum mission
- Proactive replacement to protect building and contents and prevent costly emergency repairs
- Reduction of maintenance backlog

Priority 5 History Museum - Building Interior

Problem Statement

Many components of the Society's flagship facility, the Washington State History Museum, have not been upgraded or replaced since it was built over 25 years ago. The heavily used public and rental spaces like the auditorium, boardroom, and catering kitchen are in need of updated acoustical, audio visual, and equipment upgrades.

Proposed Solution

This project will replace the acoustical panels in the auditorium, upgrade the audiovisual equipment throughout the museum, and upgrade the catering kitchen.

Project Benefits

- Improved acoustics
- Better visitor experiences
- Increased rental income

Priority 6 Research Center – Mechanical and Plumbing

Problem Statement

The Research Center is the Society's only storage facility for historical artifacts not on display in the Washington State History Museum. The Research Center currently houses about 750,000 items that are of significant value in documenting and illustrating the history of the State of Washington. As such it is a critical facility to support the Society's mission and vision.

Controlling the environment in which these items are stored and ensuring there are redundant systems to do so is fundamental to the purpose of this facility. The Society hired McKinstry to research and develop a capital plan for this facility. Many of their recommendations have been implemented in past biennia but redundant systems are still needed to ensure the safety of the State's most cherished artifacts.

Proposed Solution

This project proposes to recondition air handlers where feasible and to replace one air handler to ensure the efficient operation of the critical climate control system as well as to replace the chiller that serves the entire building as it has reached then end of its useful life. The project also proposes to update the smoke exhaust system for evacuating smoke from a potential fire in the building to preserve the housed artifacts. In addition, the project proposes to update galvanized plumbing to prevent the development of leaks that could lead to damage and contribute to mold and other biological detriments to the preservation of artifacts.

Project Benefits

- Preservation of artifacts and ephemera that are invaluable to the history of the State of Washington
- Maintain and improve occupant comfort for staff, volunteers, and researchers
- Supports AAM accreditation
- Integrate the smoke exhaust system with modern controls

Priority 7 Research Center – Building Interior

Problem Statement

The reading room is the only room in the Research Center that most of the public accesses. The lighting and convenience outlets are inadequate, and the entry doors need repair. The walls need repair and repainting as well.

Proposed Solution

This project proposes to replace the lighting and add convenience receptacles to the reading room. It will also repair the entry doors and walls and repaint.

Project Benefits

- Enhanced visitor and researcher experience
- Reduced risk of overloaded circuits
- Reduced maintenance backlog

Priority 8 Research Center – Telecom and Electronic Security

Problem Statement

Outdated IT systems at the Research Center limit bandwidth which impacts staff efficiency, facility usage, and the visitor experience. The existing structured cabling system needs to be replaced to support higher bandwidth applications and increased digital access of the Research Center.

Proposed Solution

The new system will include additional cabling to support higher density of wireless access points.

Project Benefits

- Improved staff and volunteer efficiency
- Improved visitor and researcher experience

WASHINGTON STATE HISTORICAL SOCIETY

Washington State History Museum

1911 Pacific Avenue, Tacoma, WA 98402

UFI #A05174

10-Year Needs Assessment Cost Summary Matrix: 2021 - 2031

Item	Item / Location	Description	Biennium 2021-2023
	PROJECT SUMMARY	**TOTALS - All work, by Biennium**	**$3,142,679**
HM 2.0	**BUILDING EXTERIOR**		
HM 2.1	Masonry Repairs and Sealing	Spot masonry repairs, cleaning, and water repellant sealant	$637,526
HM 2.2	Cladding and Fenestration Repairs and Sealing	Spot repairs at cladding and fenestration systems, (Light fixtures, Concrete walls, doors, etc.)	$249,415
HM 2.6	Metal Roofing Repairs - High Priority	Vaulted, lead-covered copper roofing needs various repairs	$190,675
HM 2.7	Membrane Roof Replacement - High Priority	Low slope single-ply roofing is at end of life and needs replacement. Includes drain and flashing repairs	$402,811
		Construction Cost Subtotals	**$1,480,425**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%
			$71,357
		Construction Cost Total	$1,551,782
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$698,302
		Building Exterior Total	**$2,250,084**
HM 3.0	**BUILDING INTERIOR**		
HM 3.6	Auditorium Upgrades	Replace Acoustical Panels and Paint	$48,750
HM 3.8	Board Room Remodel	Functionaity improvement to the Board Room	$116,275
HM 3.13	Catering kitchen and Breakroom improvements	Replace fixtures, flooring, install wainscot in breakrooms and catering kitchen	$37,300
HM 3.14	Audio Visual Improvements		$110,000
		Construction Cost Subtotals	**$312,325**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%
			$15,054
		Construction Cost Total	$327,379
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$147,321
		Building Interior Total	**$474,700**
HM 4.0	**MECHANICAL AND PLUMBING**		
HM 4.1	Heating Water System - Replace Heating Water Pumps and VFDs		$30,551
HM 4.5	Central Plant Valve Replacement	All existing valves are at the end of life and should be replaced	$45,500
HM 4.6	Replace Circuit Centers	Replace Circuit Setters	$198,900
		Construction Cost Subtotals	**$274,951**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%
			$13,253
		Construction Cost Total	$288,204
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$129,692
		Mechanical and Plumbing Total	**$417,896**

WASHINGTON STATE HISTORICAL SOCIETY

Research Center

315 Stadium Way, Tacoma, WA 98403

UFI #A05648

10-Year Needs Assessment Cost Summary Matrix: 2021 - 2031

Item	Item / Location	Description	Biennium 2021-2023
	PROJECT SUMMARY	**TOTALS - All work, by Biennium**	**#REF!**
RC 1.0	**SITE WORK**		
RC 1.1	Landscape Planting South side of Site	Plannting to stablize slope, limit intrustion	$70,000
RC 1.4	Parking Lot Improvements and Repairs	Security, Ligthing, and Pavement Repair	$144,675
		Construction Cost Subtotals	**$214,675**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%
			$10,347
		Construction Cost Total	$225,022
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$101,260
		Sitework Total	**$326,282**
RC 2.0	**BUILDING EXTERIOR**		
RC 2.1	Masonry/Concrete Clean and Seal	Spot masonry repairs, cleaning, and water repellant sealant	$582,744
RC 2.2	URM and Miscellenaous Exterior Repairs	0	$654,034
RC 2.3	Install Soffits - 1972 Building	Thermal improvement to cantilevered concrete slab floors	$86,250
RC 2.5	Roof Replacement - 1972 Building	Ballasted Roofing Membrane	$186,300
		Construction Cost Subtotals	**$1,509,328**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%
			$72,750
		Construction Cost Total	$1,582,077
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$711,935
		Building Exterior Total	**$2,294,012**
RC 3.0	**BUILDING INTERIOR**		
RC 3.2	1923 Buidling Tenant Improvmeents	Minor improvments to public spaces.	$83,750
		Construction Cost Subtotals	**$83,750**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%
			$4,037
		Construction Cost Total	$87,787
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$39,504
		Building Interior Total	**$127,291**
RC 4.0	**MECHANICAL AND PLUMBING**		
RC 4.1	Mechancial - Central Systems	0	$1,023,060
RC 4.3	Smoke Exhaust Systems	0	$59,375
RC 4.4	Plumbing	0	$105,063
		Construction Cost Subtotals	**$1,187,498**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%
			$57,237
		Construction Cost Total	$1,244,735
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$560,131
		Mechanical and Plumbing Total	**$1,804,866**
RC 6.0	**TELECOM AND ELECTRONIC SECURITY**		
RC 6.1	Communications Improvements	Improvements to communcations cabling, and wireless infrastructure	$85,000
		Construction Cost Subtotals	**$85,000**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%
			$4,097
		Construction Cost Total	$89,097
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$40,094
		Telecom and Electronic Security Total	**$129,191**

State History Museum

WASHINGTON STATE HISTORY MUSEUM

Preface

The Washington State Historical Society (WSHS) relies on a continually updated assessment of architectural and engineering needs for their biennial requests for funding from the State. This report is a continuation and update of previously developed assessments, outlining the present and future needs for refurbishment, replacement and upgrading of the Museum's infrastructure over the next ten years.

Schreiber Starling Whitehead Architects has reviewed the previous assessments and the progress that has been made in implementing previously identified architectural and engineering needs. Some items will have been carried over from previous assessments; others will be newly added. Costs for items noted in previous assessments have been updated to reflect present and future expected expenditures.

The Washington State History Museum is a magnificent 105,000 square foot building constructed in 1995 on Pacific Avenue in downtown Tacoma; one of the last designs of noted architect, Charles Moore. Its distinctive roof arches and red-brick facades make it a landmark in Tacoma's Museum District, home to the newly-expanded Tacoma Museum of Art and the Museum of Glass as well as the University of Washington's Tacoma campus and the refurbished Union Station (Federal Court Building). The Museum is easily accessed by public transportation; there is a light-rail stop at its Pacific Avenue entrance.

With over 150,000 visitors biennially, the Museum offers permanent and temporary exhibits, classrooms, an auditorium, administrative and curatorial spaces, a shop, and a café. In visitor surveys, 93% rate their museum experience as good or excellent. The Museum is also an important educational resource; each year, the Museum hosts school groups from all over the state; with a goal of serving 20,000+ students yearly. Nearly 9,000 students participated in last year's National History Day. An amphitheater and plaza on the north side of the building offer additional spaces for outdoor gatherings and educational presentations. Parking is provided at the south and east sides of the building; bus groups are accommodated with a group entrance adjacent to bus parking on the east side.

In developing the updated assessment, Schreiber Starling Whitehead Architects reviewed previous assessments and construction documents, gathered information from WSHS personnel and made on-site evaluations of existing conditions. Additional input was obtained from reports provided by WSHS consultants McKinstry (retro-commissioning) and Building Envelope Technology and Research (exterior envelope assessment). These are appended to this document.

Narrative

Schreiber Starling Whitehead Architects examined the budget items with the following criteria in mind as a guide to prioritization:

Self-sustaining: Budget items that contribute to the financial sustainability of the Museum, items that will save operational costs and ensure energy efficiency; or contribute to the generation of new or increase to existing revenue streams. Budget items that contribute to the provision of flexible, multiple use spaces that meet the Museum's future needs and goals.

Preservation: Budget items related to both long term and shorter-term preservation issues that will increase the longevity of the Museum and its site. These items also relate to Life Safety issues, ADA compliance and improving the physical Museum experience for Staff and Visitors.

Security: Budget items that relate to maintaining and/or increasing security for the Museum, its collections, the staff, and visitors.

Each assessment item has been given its OFM-assigned unique identifying number, preceded with the designation "HM". For ease of reference, this number is used in the detailed narrative that follows as well as in the Summary and Detail matrices.

Deficiencies noted for funding in 2021-2023 Capital Budget Request

HM 1.0 Site Work

No deficiencies noted for funding in 2021-2023 Capital Budget Request

HM 2.0 Building Exterior

HM 2.1 Masonry Repairs and Sealing (Deficiency numbers 2.1.1 through 2.1.8)

Masonry: the building exterior finishes, most notably the masonry surfaces have many years of urban grime present. Sealants throughout the exterior envelope are deteriorating. As a key element of preventative maintenance, the buildings envelope should be cleaned and sealed. Joints at masonry relief angles and other locations should be inspected and replaced in conjunction with cleaning and selective masonry repointing. Application of water repellant may be considered, but carefully, as such application may affect masonry color.

For additional information and detail, see the Exterior Evaluation & Conditions Assessments Report included in the Appendix

HM 2.2 Cladding and Fenestration Repairs and Sealing (Deficiency numbers 2.2.1 through 2.2.10)

Scope includes miscellaneous repairs, sealant replacement, and material sealing for non-masonry materials and includes:

- Mortar and sealant replacement around all hollow metal door frames.
- Replacement of spalled masonry units.
- Spot replacement of sealant at decorative metal panels and other metal fenestration elements.
- Retrofit of existing light fixtures
- Repairs, cleaning and sealing of exterior concrete surfaces. The concrete components of the exterior walls have not been cleaned since construction and are stained and coated with organics.

For additional information and detail, see the Exterior Evaluation & Conditions Assessments Report included in the Appendix

HM 2.6 Metal Roofing Repairs – High Priority (Deficiency numbers 2.6.1 through 2.6.5)

The Museum's main roof is comprised of lead-coated copper panels with batten standing seams, and this roof system serves as the primary roof covering on the steep-slope barrel-shaped vaulted roof areas and the shed roof at the north end of the facility over the Anthem Café. The roof is generally in good shape and has many more years of service provided the identified maintenance issues are addressed. Roofing battens need to be tightened. Repairs are needed at sheet metal eave edges. Roof transitions have become disengaged and/or are loose. These issues create significant safety risks in high-wind conditions or periods of extensive thermally induced movement. Other items are related to degraded and/or failed sealants and soldered connections. Spot repairs are noted at select component of the steep-slope sheet metal roof at Anthem Café, most notable the recommendation to add snow guards over pedestrian areas.

HM 2.7 Membrane Roof Replacement – High Priority (Deficiency numbers 2.7.1 through 2.7.7)

The low-slope areas of the museum roof (eight locations) have a mechanically fastened, single-ply roof membrane over rigid roof insulation. These areas are weather, aged, somewhat embrittle, and chalking, and is at the end of its useful service life and need to be replaced. Additional scope includes installing fall protection anchors, snow guards where needed for safety, and associated sheet metal flashing repairs and replacement.

For additional information and detail, see the Exterior Evaluation & Conditions Assessments Report included in the Appendix

HM 3.0 Building Interior

HM 3.6 Auditorium Upgrades (Deficiency numbers 3.6.1 through 3.6.2)

There is water damage at rear corridor that is on-going and creates a potential mold source. This project includes repair of the wall surface, painting, and replacing water-damaged fabric wrapped acoustical panels. Scope proposed is for minor re-fresh of the museum's auditorium used for large scale instructional presentations and community activities.

HM 3.8 Board Room Remodel (Deficiency numbers 3.8.1 through 3.8.7)

The WSHS Board Room: Located on the Upper Level, the Board Room is a revenue source for the Museum through rental to community groups. The badly worn furnishings and finishes are original to the building and need replacement and refurbishment. Existing blinds are ineffective as well as worn; the room does not darken enough for effective presentations. Improvements will make the Board Room competitive with similar rental spaces in the market. The corridor outside of the Board Room needs re-carpeting and a wainscot should be installed to protect walls from damage during user furniture reconfiguration.

Anticipated scope of improvements includes; adding roller shades with blackout capability to exterior windows for glare control and improved AV presentations; Refinishing damage wood doors, installing wood chair rails, and other miscellaneous trim; Replacing carpet; Replacement of existing wire glass with privacy controls glass.

HM 3.13 Catering Kitchen and Breakroom Improvements (Deficiency numbers 3.13.1 through 3.13.5)

Twenty-five years has taken a toll on these heavily used spaces and they need upgrades to improve function as well as user and public safety. The proposed scope of upgrades includes replacement of casework and flooring, re-painting, and replacement of built-in kitchen equipment (dishwashers, ice machines, etc. The Catering Kitchen is a revenue source for the History Museum through rental to community groups.

HM 3.14 Audio Visual Improvements

Scope includes the replacement or addition of audio visual equipment including; replacement of the sound system on the Mezzanine; replacement of the video projector and sound system in the Auditorium to provide more flexible use of the spaces; and the addition of a complete Audio Visual (projector, sound, controls, screen, wireless devices, etc.) for the Boardroom.

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HM 4.0 Mechanical and Plumbing

HM 4.1 Replace Heating Water Pumps and Variable Frequency Drives

Heating Water System: Existing pumps and variable drives are nearing their end of life. This scope provides replacing space heating water downstream of the new boiler. The item includes replacing (4) Heating Water System Pumps and (2) Variable Frequency Drives.

HM 4.5 Central Plant Valve Replacement

Existing water valves throughout the chiller plant are nearing the end of their useful life. Many are leaking or are not operating effectively. This project would replace all valves and fully integrate into the building controls system offering improvements in efficiency and control.

HM 4.6 Replace Balancing Valves

Circuit Setters are the brand of balancing valves installed on each of the hydronic coils in the building. They are used to set the proper flow through the coils. This includes both heating and cooling water coils for AHUs, and hot water reheat coils, and unit heaters. In years past the museum has had ongoing issues with the valves becoming plugged due to water quality issues and were then flushed out. Many are starting to leak as they are at the end of their useful life. This project would replace all balancing valves and includes installation of isolation valves on the return side of each coil to make future maintenance easier.

HM 6.0 Telecom and Electronic Security

No deficiencies noted for funding in 2021-2023 Capital Budget Request

HM 7.0 Conveyance Systems

No deficiencies noted for funding in 2021-2023 Capital Budget Request

WASHINGTON STATE HISTORICAL SOCIETY

Washington State History Museum

1911 Pacific Avenue, Tacoma, WA 98402

UFI #A05174

Project Team: Schreiber Starling Whitehead Architects

Date of Plan June 30, 2010

10-Year Needs Assessment Cost Summary Matrix: 2021 - 2031

Item	Item / Location	Description	Biennium 2021-2023	Biennium 2023-2025	Biennium 2025-2027	Biennium 2027-2029	Biennium 2029-2031
	PROJECT SUMMARY	**TOTALS - All work, by Biennium**	**$3,142,679**	**$4,272,889**	**$4,174,404**	**$3,418,599**	**$3,841,894**
HM 1.0	**SITE WORK**						
HM 1.1	Site and Building Entry Signage Improvements	Identification Signage, Site Wayfinding Improvements		$100,000			
HM 1.2	Parking Lot Improvements	Miscellaneous improvements to parking lots and drop-off areas			$159,875		
		Construction Cost Subtotals	**$0**	**$100,000**	**$159,875**	**$0**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$0	$9,870	$24,237	$0	$0
		Construction Cost Total	$0	$109,870	$184,112	$0	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$0	$49,442	$82,850	$0	$0
		Sitework Total	**$0**	**$159,312**	**$266,962**	**$0**	**$0**
HM 2.0	**BUILDING EXTERIOR**						
HM 2.1	Masonry Repairs and Sealing	Spot masonry repairs, cleaning, and water repellant sealant	$637,526				
HM 2.2	Cladding and Fenestration Repairs and Sealing	Spot repairs at cladding and fenestration systems, (Light fixtures, Concrete walls, doors, etc.)	$249,415				
HM 2.3	Window and Storefront Replacement	Replace windows and storefront where failings					$1,094,200
HM 2.4	Museum Store display/visibility improvements	450 sf sales display feature - new construction on Pacific Avenue			$168,750		
HM 2.5	Track Level Entry Cover	Steel frame roof coverage to protect visitor entry. Architectural character to match museum.			$90,000		
HM 2.6	Metal Roofing Repairs - High Priority	Vaulted, lead-covered copper roofing needs various repairs	$190,675				
HM 2.7	Membrane Roof Replacement - High Priority	Low slope single-ply roofing is at end of life and needs replacement. Includes drain and flashing repairs	$402,811				
HM 2.8	Metal Roofing Repairs and Improvements - Moderate Priority	Improvement to barrel roofs for safety and maintenance			$70,450		
		Construction Cost Subtotals	**$1,480,425**	**$0**	**$329,200**	**$0**	**$1,094,200**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$71,357	$0	$49,907	$0	$290,182
		Construction Cost Total	$1,551,782	$0	$379,107	$0	$1,384,382
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$698,302	$0	$170,598	$0	$622,972
		Building Exterior Total	**$2,250,084**	**$0**	**$549,705**	**$0**	**$2,007,354**
HM 3.0	**BUILDING INTERIOR**						
HM 3.1	Exhibit Improvements - Phase 3	Long term improvements to the physical exhibit areas that have not been modified since 1995			$1,000,000		
HM 3.2	Exhibit Improvements - Phase 4	Long term improvements to the physical exhibit areas that have not been modified since 1995				$1,000,000	
HM 3.3	Exhibit Improvements - Phase 5	Long term improvements to the physical exhibit areas that have not been modified since 1995					$1,000,000
HM 3.4	Education Department: Concourse Level Improvements	Interior finishes repairs and improvements				$23,675	
HM 3.5	Interior Doors	Refinish interior doors and replace broken hardware			$192,000		

Item	Item / Location	Description	Biennium 2021-2023	Biennium 2023-2025	Biennium 2025-2027	Biennium 2027-2029	Biennium 2029-2031
HM 3.6	Auditorium Upgrades	Replace Acoustical Panels and Paint	$48,750				
HM 3.7	Ben Cheney Meeting Room, Mezzanine Level	Meeting room improvement to isolate space from lobby		$228,158			
HM 3.8	Board Room Remodel	Functionaity improvement to the Board Room	$116,275				
HM 3.9	Acoustic Improvements Great Hall - Phase 1	Acoustic improvements for Great Hall Phase I		$125,000			
HM 3.10	Restroom Repairs and improvements	Miscellaneous Repairs and conversion of single use restrooms to All Gender		$162,500			
HM 3.11	Upper level theater	Remove temporary theater & replace carpet		$161,000			
HM 3.12	Miscellaneous Interior Improvements	Wainscoting, casework, etc.			$116,250		
HM 3.13	Catering kitchen and Breakroom improvements	Replace fixtures, flooring, install wainscot in breakrooms and catering kitchen.	$37,300				
HM 3.14	Audio Visual Improvements		$110,000				
HM 3.15	Office Mezzanine Construction	Construct mezzanine over Gift Shop to provide for additional office and administrative space needs				$437,500	
		Construction Cost Subtotals	**$312,325**	**$676,658**	**$1,308,250**	**$1,461,175**	**$1,000,000**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$15,054	$66,786	$198,331	$302,463	$265,200
		Construction Cost Total	$327,379	$743,444	$1,506,581	$1,763,638	$1,265,200
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$147,321	$334,550	$677,961	$793,637	$569,340
		Building Interior Total	**$474,700**	**$1,077,994**	**$2,184,542**	**$2,557,276**	**$1,834,540**
HM 4.0	**MECHANICAL AND PLUMBING**						
HM 4.1	Heating Water System - Replace Heating Water Pumps and VFDs	#REF!	$30,551				
HM 4.2	Chilled Water System - Replacement/Retrofit	Chilled water system equipment in nearing the end of its useful life and is in need of retrofit or replacement				$492,143	
HM 4.3	HVAC AHU-1 Retrofit	AHU-1 components at end of useful life. Unit should be retrofit with new components and upgrades		$967,939			
HM 4.4	HVAC Equipment Replacement	HVAC system equipment is nearing the end of it useful life and should be replaced/retrofit			$243,213		
HM 4.5	Central Plant Valve Replacement	All existing valves are at the end of life and should be replaced	$45,500				
HM 4.6	Replace Circuit Centers	Replace Circuit Setters	$198,900				
		Construction Cost Subtotals	**$274,951**	**$967,939**	**$243,213**	**$492,143**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$13,253	$95,536	$36,871	$101,873	$0
		Construction Cost Total	$288,204	$1,063,474	$280,084	$594,016	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$129,692	$478,563	$126,038	$267,307	$0
		Mechanical and Plumbing Total	**$417,896**	**$1,542,038**	**$406,121**	**$861,323**	**$0**
HM 5.0	**ELECTRICAL**						
HM 5.1	Receptacles, Add Occupancy/Daylight sensors	Replace receptacles and Add Daylight/Occupancy Sensors where energy savings would be realized		$472,500			
		Construction Cost Subtotals	**$0**	**$472,500**	**$0**	**$0**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$0	$46,636	$0	$0	$0
		Construction Cost Total	$0	$519,136	$0	$0	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$0	$233,611	$0	$0	$0
		Electrical Total	**$0**	**$752,747**	**$0**	**$0**	**$0**
HM 6.0	**TELECOM AND ELECTRONIC SECURITY**						

Item	Item / Location	Description	Biennium 2021-2023	Biennium 2023-2025	Biennium 2025-2027	Biennium 2027-2029	Biennium 2029-2031
HM 6.1	Replace Structured Cabling	0			$459,375		
HM 6.2	Electronic Archive	Server, Hard Disk, Software		$45,000			
		Construction Cost Subtotals	**$0**	**$45,000**	**$459,375**	**$0**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$0	$4,442	$69,641	$0	$0
		Construction Cost Total	$0	$49,442	$529,016	$0	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$0	$22,249	$238,057	$0	$0
		Telecom and Electronic Security Total	**$0**	**$71,690**	**$767,074**	**$0**	**$0**
HM 7.0	**CONVEYANCE SYSTEMS**	See Hargis Report					
HM 7.1	Elevator Upgrade	Retrofit elevator hydraulics, controls, cab finishes		$420,000			
		Construction Cost Subtotals	**$0**	**$420,000**	**$0**	**$0**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$0	$41,454	$0	$0	$0
		Construction Cost Total	$0	$461,454	$0	$0	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$0	$207,654	$0	$0	$0
		Conveyance Systems Total	**$0**	**$669,108**	**$0**	**$0**	**$0**

WASHINGTON STATE HISTORICAL SOCIETY

Washington State History Museum

1911 Pacific Avenue, Tacoma, WA 98402
UFI #A05174

Project Team: Schreiber Starling Whitehead Architects
Date of Plan June 30, 2010

Back-up Detail Matrix

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	Total Const. Cost (June 2020)
HM 1.0	**SITE WORK**					**Site Work Subtotal**	**$259,875**
HM 1.1	**Site and Building Entry Signage Improvements**	Identification Signage, Site Wayfinding Improvements					**$100,000**
HM 1.1.1		Signage at Pacific Avenue; Museum and Museum Store Entry Identification; Site Wayfinding Improvements	Improve wayfinding signage, both exterior and interior to result in higher public awareness of the History Museum, increased visitation and an enhanced educational and entertainment experience.	1 ls	$100,000.00	$100,000	
HM 1.2	**Parking Lot Improvements**	Miscellaneous improvements to parking lots and drop-off areas					**$159,875**
HM 1.2.1	Curb at bus drop-off- Track Level	New reinforced, formed concrete curb.	Replace existing curb with poured curb; patch asphalt, paint traffic yellow	230 lf	$87.50	$20,125	
HM 1.2.2	East and south parking lots	Replace speed bumps.		1 ls	$7,250.00	$7,250	
HM 1.2.3	East and south parking lots	Resurface existing lots, south and east.	Repair, topcoat, restripe	1 ls	$87,500.00	$87,500	
HM 1.2.4	Replace Parking Lot POS Kiosks			2 ea.	$22,500.00	$45,000	
HM 2.0	**BUILDING EXTERIOR**					**Building Exterior Subtotal**	**$2,903,826**
HM 2.1	**Masonry Repairs and Sealing**	Spot masonry repairs, cleaning, and water repellant sealant					**$637,526**
HM 2.1.1			New silicon sealants at expansion joints and ledger angles	2,845 lf	$32.00	$91,040	
HM 2.1.2			New silicone sealants at masonry penetrations	340 ea.	$34.50	$11,730	
HM 2.1.3			New silicone sealants at decorative aluminum panel perimeters and butt joints	775 lf	$35.00	$27,125	
HM 2.1.4			Spot routing and re-pointing of brick masonry mortar joints	200 lf	$55.00	$11,000	
HM 2.1.5			Clean, scrub and rinse all cladding surfaces	48,020 sf	$3.75	$180,075	
HM 2.1.6			Apply water repellant coating at all masonry surfaces	33,900 sf	$6.00	$203,400	
HM 2.1.7		General work requirements	Mobilization, Safety, Lifts, Demobilization	1.0 mntl	$30,000.00	$30,000	
HM 2.1.8		Contractor Mark-ups		15%		$83,156	
HM 2.2	**Cladding and Fenestration Repairs and Sealing**	Spot repairs at cladding and fenestration systems, (Light fixtures, Concrete walls, doors, etc.)					**$249,415**
HM 2.2.1			Demo mortar, clean, repair, prime and install new silicone sealant joint at hollow metal door perimeters	145 lf	$32.50	4712.5	
HM 2.2.2			Spot replace silicone sealants at sheet metal cornice	300 lf	$35.00	10500	
HM 2.2.3			Spot replace silicone sealants at sheet metal fenestration	500 lf	$32.50	16250	
HM 2.2.4			Spot grind and remove metal from mortar joints and spot re-pointing	16 ea.	$65.00	1040	
HM 2.2.5			Replace spalled masonry units	4 ea.	$250.00	1000	
HM 2.2.6			Retrofit light fixtures inside archways	4 ea.	$250.00	1000	

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	Total Const. Cost (June 2020)
HM 2.2.7			New silicone sealant at joint in cast-in-place concrete cold joints and building perimeter	140 lf	$32.00	4480	
HM 2.2.8			Miscellaneous repairs of cast-in-place concrete substrates	2,100 sf	$55.00	115500	
HM 2.2.8			Apply water repellant coating at all concrete surfaces	8,100 sf	$4.00	32400	
HM 2.2.8		General work requirements	Mobilization, Safety, Lifts, Demobilization	1.0 mntl	$30,000.00	$30,000	
HM 2.2.10		Contractor Mark-ups		15%		$32,532	
HM 2.3	**Window and Storefront Replacement**	Replace windows and storefront where failings					**$1,094,200**
HM 2.3.1			Replace window and associated fenestration at east side bay window. Provide with high performance thermal system and glazing.	340 sf	$85.00	$28,900	
HM 2.3.2			Replace window and associated fenestration at all other locations. Provide with high performance thermal system and glazing.	5,920 sf	$85.00	$503,200	
HM 2.3.3		General work requirements	Mobilization, Safety, Lifts, Demobilization	0.5 mntl	$30,000.00	$15,000	
HM 2.3.4		Contractor Mark-ups		15%		$547,100	
HM 2.4	**Museum Store display/visibility improvements**	450 sf sales display feature - new construction on Pacific Avenue		450 sf	$375.00	$168,750	**$168,750**
HM 2.5	**Track Level Entry Cover**	Steel frame roof coverage to protect visitor entry. Architectural character to match museum.		400 sf	$225.00	$90,000	**$90,000**
HM 2.6	**Metal Roofing Repairs - High Priority**	Vaulted, lead-covered copper roofing needs various repairs					**$190,675**
HM 2.6.1		Repair perimeter flashings	Remove and replace existing perimeter flashings at eave edge of steep-slop roofs - throughout facility	428 lf	$118.00	$50,504	
HM 2.6.2		Repair flashings and transitions	Retrofit existing sheet metal transitions to flashing and secure	220 lf	$115.00	$25,300	
HM 2.6.3		Tighten Barrel Vault Roof Battens	Many of the roof batter anchors have loosened and required tightening	1 ls	$60,000.00	$60,000	
HM 2.6.4		General work requirements	Mobilization, Safety, Lifts, Demobilization	1 mntl	$30,000.00	$30,000	
HM 2.6.5		Contractor Mark-ups		15%		$24,871	
HM 2.7	**Membrane Roof Replacement - High Priority**	Low slope single-ply roofing is at end of life and needs replacement. Includes drain and flashing repairs	remove and replace roofing membrane, gutter and downspout repairs, sheet metal flashing repairs				**$402,811**
HM 2.7.1		Remove and replace single-ply membrane		3,391 sf	$78.00	$264,498	
HM 2.7.2		Clean drains, drain lines, and strainers		16 ea.	$950.00	$15,200	
HM 2.7.3		Remove and replace sheet metal flashings		252 lf	$71.00	$17,892	
HM 2.7.4		Repair broken solder joints at gutters		120 lf	$94.00	$11,280	
HM 2.7.5		Replace failed sealant joints, retrofit bird strip deterrents		200 lf	$57.00	$11,400	
HM 2.7.6		General work requirements	Mobilization, Safety, Lifts, Demobilization	1 mntl	$30,000.00	$30,000	
HM 2.7.7		Contractor Mark-ups		15%		$52,541	
HM 2.8	**Metal Roofing Repairs and Improvements - Moderate Priority**	Improvement to barrel roofs for safety and maintenance					**$70,450**
HM 2.8.1		Repairs at steep-slope roof penetrations and high traffic areas		432 sf	$48.00	$20,736	
HM 2.8.2		Install sheet metal closures, diverters where missing		14 ea.	$125.00	$1,750	
HM 2.8.3		Install roof anchors where needed for safety		6 ea.	$2,500.00	$15,000	

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	Total Const. Cost (June 2020)
HM 2.8.4		Install snow guards where needed for safety		145 lf	$95.00	$13,775	
HM 2.8.5		General work requirements	Mobilization, Safety, Lifts, Demobilization	1 ls	$10,000.00	$10,000	
HM 2.8.6		Contractor Mark-ups		15%		$9,189	
Other small miscellaneous items not yet categorized or in need of more information/detail							
HM 3.0	**BUILDING INTERIOR**					**Building Interior Subtotal**	**$4,758,408**
HM 3.1	**Exhibit Improvements - Phase 3**	Long term improvements to the physical exhibit areas that have not been modified since 1995	New exhibit: World and Economic Fears 1930-1960				**$1,000,000**
HM 3.1.1			Infrastructure changes to power, lighting, and support systems	1 ls	$150,000.00	$150,000	
HM 3.1.2			Demolition	1 ls	$100,000.00	$100,000	
HM 3.1.3			Install new exhibit to replace Hard Times	1 ls	$750,000.00	$750,000	
HM 3.2	**Exhibit Improvements - Phase 4**	Long term improvements to the physical exhibit areas that have not been modified since 1995	New exhibit: Society and change 1846-1889				**$1,000,000**
HM 3.2.1			Infrastructure changes to power, lighting, and support systems	1 ls	$150,000.00	$150,000	
HM 3.2.2			Demolition	1 ls	$100,000.00	$100,000	
HM 3.2.3			Install new exhibit as part of central spine (topic may be altered)	1 ls	$750,000.00	$750,000	
HM 3.3	**Exhibit Improvements - Phase 5**	Long term improvements to the physical exhibit areas that have not been modified since 1995	New exhibit: TBD				**$1,000,000**
HM 3.3.1			Infrastructure changes to power, lighting, and support systems	1 ls	$150,000.00	$150,000	
HM 3.3.2			Demolition	1 ls	$100,000.00	$100,000	
HM 3.3.3			Install new exhibit as part of central spine (topic may be altered)	1 ls	$750,000.00	$750,000	
HM 3.4	**Education Department: Concourse Level Improvements**	Interior finishes repairs and improvements					**$23,675**
HM 3,4,1		Classroom	Paint walls and soffits	1,320 sf	$1.56	$2,063	
HM 3.4.2		Classroom	Replace casework to provide universal access, install dishwasher, increase storage	13 lf	$562.50	$7,313	
HM 3.4.3		Corridor walls	Install corner guards and chair rail.	135 lf	$31.25	$4,220	
HM 3.4.4		Lunch Room	Install chair rail above counters, paint	504 sf	$20.00	$10,080	
HM 3.5	**Interior Doors**	Refinish interior doors and replace broken hardware					**$192,000**
HM 3.5.1		Refinish doors	Refinish interior doors and add kickplate protection plates 42" high	40 ea.	$300.00	$12,000	
HM 3.5.2		Replace failed door hardware	Replace failed lock cylinders and closers with new. New lock cylinders, new door closers; materials and installation	240 ea.	$750.00	$180,000	
HM 3.6	**Auditorium Upgrades**	Replace Acoustical Panels and Paint					**$48,750**

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	Total Const. Cost (June 2020)
HM 3.6.1		Interior paintings	Patch GWB walls and paint	1 ls	$18,750.00	$18,750	
HM 3.6.2		Acoustical Panel replacement.	Repair residual damage caused by previous water leak. Leak has been repaired.	1 ls	$30,000.00	$30,000	
HM 3.7	**Ben Cheney Meeting Room, Mezzanine Level**	Meeting room improvement to isolate space from lobby					**$228,158**
HM 3.7.1		Acoustically separate meeting room from Grand Lobby/Museum Shop.	Acoustical sliding/stacking door system with exit doors; structural support	65 lf	$2,000.00	$130,000	
HM 3.7.2		Acoustical panels at ceiling and adjacent walls; modify to support improvements and retain exiting/fire assemblies	Acoustical ceiling panels, wall panels, storage for stacking doors	1 ls	$53,750.00	$53,750	
HM 3.7.3		Ductwork modifications to permit acoustical doors to be applied at Mezzanine in Great Hall	Zoning and controls.	1 ls	$9,375.00	$9,375	
HM 3.7.4		Revise flooring in current serving area and hallways to kitchen	Rubber sheet goods, heat weld, nonslip, self cove	620 sf	$20.00	$12,408	
HM 3.7.5		Wall protection at prep and serving areas	Fiber reinforced plastic (FRP)	40 lf	$162.50	$6,500	
HM 3.7.6		New casework to conceal storage and provide code required head protection under curved stair	New casework to conceal required storage and provide code required head protection under stair	1 ls	$8,125.00	$8,125	
HM 3.7.7		Replace existing wire glass with clear rated glass	Replace with new 20 minute fire rated clear glazing	80 sf	$100.00	$8,000	
HM 3.8	**Board Room Remodel**	Functionaity improvement to the Board Room					**$116,275**
HM 3.8.1		Replace blinds at board room with roller shades and add blackout capabilities	512 sf. each, with frame additions, 512 sf. x 2	1,024 sf	$37.50	$38,400	
HM 3.8.2		Refinish existing flush doors	Remove finish, sand and refinish	9 ls	$625.00	$5,625	
HM 3.8.3		Replace flooring - existing carpet torn in several locations	Replace carpet with carpet tiles	700 sf	$12.50	$8,750	
HM 3.8.4		Replace tables	7 tables @ 3' x 6'	7 ea.	$1,500.00	$10,500	
HM 3.8.5		Replace chairs	32 chairs	32 ea.	$812.50	$26,000	
HM 3.8.6		5th Floor corridor outside of Board Room	Add chair rail and wainscot; re-carpet	360 sf	$25.00	$9,000	
HM 3.8.7		Replace rated wire glass at board room to clear ceramic or switchable privacy if available in fire rated	Replace with new 20 minute fire rated ceramic frit glazing	180 sf	$100.00	$18,000	
HM 3.9	**Acoustic Improvements Great Hall - Phase 1**	Acoustic improvements for Great Hall Phase I					**$125,000**
HM 3.9.1		Acoustic Design for implementation over 4 phases	Acoustic Design and Documentation	1 ls	$25,000.00	$25,000	
HM 3.9.2		Improvements to Upper Exhibits		1 ls	$50,000.00	$50,000	
HM 3.9.3		Improvements to Great Hall		1 ls	$50,000.00	$50,000	
HM 3.10	**Restroom Repairs and improvements**	Miscellaneous Repairs and conversion of single use restrooms to All Gender					**$162,500**
HM 3.9.2		Concours Level Public Restrooms Improvements	Flooring Repairs, partition replacement	1,000 sf	$50.00	$50,000	
HM 3.9.3		Convert 5th floor restrooms to All Gender	Privacy partitions, signage, window films, tile repairs, signage.	320 sf	$300.00	$96,000	
HM 3.9.4		i	Add security indicator to deadbolts at all single occupant restrooms	4 ea.	$250.00	$1,000	
HM 3.9.5		Lighting improvement at all single occupant restrooms	Add lighting to restrooms	4 ea.	$750.00	$3,000	
HM 3.9.6		Concours Level Staff Restroom	Replace hot-water heater and install wainscot	1 ls	$2,500.00	$2,500	
HM 3.9.7		Recaulk restroom fixtures		50 ea.	$200.00	$10,000	

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	Total Const. Cost (June 2020)
HM 3.11	**Upper level theater**	**Remove temporary theater & replace carpet**	Wall demolition, new carpet, electrical modifications	460 sf	$350.00	$161,000	**$161,000**
HM 3.12	**Miscellaneous Interior Improvements**	Wainscoting, casework, etc.					**$116,250**
HM 3.12.1	Wall protection	Install resilient wainscoting in corridors 230 & 231		100 lf	$150.00	$15,000	
HM 3.12.2	Interior Casework	Repair/Replace Interior Casework at office and common spaces	Remove existing countertops, base and wall cabinets and replace with new	50 lf	$550.00	$27,500	
HM 3.12.3	Changing Exhibit Doors and Security	Museum Changing Exhibit, add new doors for security and flexibility	(2) 3^0 x 8^0 Wood Doors/Frame; New wall	1 ls	$15,000.00	$15,000	
HM 3.12.4	Museum Store windows	To mitigate solar glare in Museum Store, add solar film to reduce sun penetration		3,000 sf	$16.25	$48,750	
HM 3.12.5	Planter crawlspaces	Ventilate crawlspace under ramp planters	Install exhaust fans and tie to controls systems	1 ls	$10,000.00	$10,000	
HM 3.13	**Catering kitchen and Breakroom improvements**	Replace fixtures, flooring, install wainscot in breakrooms and catering kitchen.					**$37,300**
HM 3.13.1		Catering Kitchen Casework	Install three multi-shelf cabinets	9 lf	$450.00	$4,050	
HM 3.13.2		Replace flooring	Seamless liquid applied kitchen flooring	250 sf	$45.00	$11,250	
HM 3.13.3		Install ice machines	Two, undercounter, built-tin ice machines with plumbing	2 ea.	$4,500.00	$9,000	
HM 3.13.4		Replace breakroom equipment	Replace kitchen equipment	4 ea.	$2,500.00	$10,000	
HM 3.13.5		Paint walls and ceilings	Repaint walls and ceiling with epoxy paint	800 sf	$3.75	$3,000	
HM 3.14	**Audio Visual Improvements**	Museum-wide improvement to AV Systems					**$110,000**
HM 3.14.1		Replace Sound System at the Mezzanine	Ceiling mounted speaker and sound board	1 ls	$20,000.00	$20,000	
HM 3.14.2		Replace/upgrade the Auditorium AV System	Replace projector and projection screen, add wireless microphones and sound system.	1 ls	$40,000.00	$40,000	
HM 3.14.3		Provide Audio Visual system in boardroom	Projector, screen, sound, and all controls systems.	1 ls	$50,000.00	$50,000	
HM 3.15	**Office Mezzanine Construction**	Construct mezzanine over Gift Shop to provide for additional office and administrative space needs	Elevated concrete on metal deck, gypsum board assembly walls, hollow metal doors and frames, glazing, all interior finishes.	1,250 SF	$350.00	$437,500	**$437,500**
HM 3.15.1							
HM 4.0	**MECHANICAL AND PLUMBING**				**Mechanical and Plumbing Subtotal**		**$1,978,245**
HM 4.1	**Heating Water System - Replace Heating Water Pumps and VFDs**	Replace Heating Water System Pumps and Variable Frequency Drives.	Replace (4) Heating Water System Pumps and (2) Variable Frequency Drives and integrate into existing controls	1 ls	$30,551.25	$30,551	**$30,551**
HM 4.2	**Chilled Water System - Replacement/Retrofit**	Chilled water system equipment in nearing the end of its useful life and is in need of retrofit or replacement					**$492,143**
HM 4.2.1		Replace Chilled Water Pumps, Expansion Tanks and Air Separators. Replace Condenser water pumps.	Replacing mechanical components and integrating DDC controls. Controls upgrade of main controllers was completed in 2016 and the integration should not require	1 ls	$88,407.50	$88,408	
HM 4.2.2		Replace Chiller 1	Chiller 1 at end of useful life	1 ls	$322,735.00	$322,735	
HM 4.2.3		Water treatment system	Water treatment system at end of useful life. Upgrade may also be necessary for new chemical requirements for Chiller upgrade	1 ls	$16,875.00	$16,875	
HM 4.2.4		Variable Frequency drives for all chilled water/condenser water system pumps.	VFDs at end of useful life	1 ls	$64,125.00	$64,125	

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	Total Const. Cost (June 2020)
HM 4.3	**HVAC AHU-1 Retrofit**	AHU-1 components at end of useful life. Unit should be retrofit with new components and upgrades					**$967,939**
HM 4.3.1		Overhaul AHU-1	AHU-1 components at end of useful life. Consider replacing fans with fan wall for additional redundancy.	1 ls	$512,502.50	$512,503	
HM 4.3.2		Replace AHU-1 VFDs	VFDs at end of useful life	4 ls	$27,843.75	$111,375	
HM 4.3.3		Replace Humidifier	Humidifier at end of estimated life	1 ls	$15,061.25	$15,061	
HM 4.3.4		Swap position of heating and cooling coils	This will provide redundancy of operation for dehumidification capacity of the equipment and reduce energy usage by terminal unit reheat coils.	1 ls	$329,000.00	$329,000	
HM 4.4	**HVAC Equipment Replacement**	HVAC system equipment is nearing the end of it useful life and should be replaced/retrofit					**$243,213**
HM 4.4.1		Replace Unit Heaters	Unit heaters at end of useful life.	5 ls	$2,025.00	$10,125	
HM 4.4.2		Replace Air Terminal Units	Air terminal units at end of useful life.	15 ls	$3,872.50	$58,088	
HM 4.3.3		Upgrade controls system for terminal units and overhauled air handling units.	Air terminal unit controllers were not upgraded in 2016. This is the second phase of a controls upgrade to get entire building upgraded.	1 ls	$175,000.00	$175,000	
HM 4.5	**Central Plant Valve Replacement**	All existing valves are at the end of life and should be replaced					**$45,500**
HM 4.5.1		Replace butterfly valves	Replace butterfly valves a boiler pumps	9 ea.	$3,250.00	$29,250	
HM 4.5.2		Replace butterfly valves	Replace butterfly valves a chiller pumps	5 ea.	$3,250.00	$16,250	
Other small miscellaneous items not yet categorized or in need of more information/detail							
HM 4.6	**Replace Circuit Centers**	Replace Circuit Setters	Isolate coils, drain, remove/replace circuit setinters, refill/balance/insulates system.	117 ea.	$1,700.00	$198,900	$198,900
HM 5.0	**ELECTRICAL**					**Electrical Subtotal**	**$472,500**
HM 5.1	**Receptacles, Add Occupancy/Daylight sensors**	Replace receptacles and Add Daylight/Occupancy Sensors where energy savings would be realized		105,000 ls	$4.50	$472,500	**$472,500**
HM 6.0	**TELECOM AND ELECTRONIC SECURITY**					**Telecom Subtotal**	**$504,375**
HM 6.1	**Replace Structured Cabling**						**$459,375**
HM 6.1.1		Category 6 cabling, patch panels, racks and modification to existing pathways; revise or relocate telecom IDF rooms	Provision new or modify existing spaces: gyp walls, Elec receptacles, doors (4) rooms	105,000 sf	$4.38	$459,375	
HM 6.2	**Electronic Archive**	Server, Hard Disk, Software					**$45,000**
HM 6.2.1		Server, Hard Disk, Software	Integrate with existing infrastructure.	1 ls	$45,000.00	$45,000	
HM 7.0	**CONVEYANCE SYSTEMS**					**Conveyance Subtotal**	**$420,000**
HM 7.1	**Elevator Upgrade**	Retrofit elevator hydraulics, controls, cab finishes					**$420,000**
HM 7.1.1		Elevators Assessment and upgrade study		1 ea.	$20,000.00	$20,000.00	
HM 7.1.2		Elevator improvements		1 ea.	$400,000.00	$400,000.00	

Research Center

RESEARCH CENTER

Preface

The Washington State Historical Society (WSHS) relies on a continually updated assessment of Architectural and Engineering needs for their biennial requests for funding from the State. This report is a continuation and update of previously developed assessments, outlining the present and future needs for refurbishment, replacement and upgrading of the Research Center's infrastructure over the next ten years. Schreiber Starling Whitehead Architects have reviewed the previous assessments and the progress that has been made in implementing previously identified architectural and engineering needs. Some items will have been carried over from previous assessments; others will be newly added. Costs for items noted in previous assessments have been updated to reflect present and future expected expenditures.

The Washington State Historic Society Research Center (RC), overlooking Commencement Bay in Tacoma's Stadium District, was originally constructed in 1911 with additions in 1923 and 1972. Up until 1996, when the new State History Museum was opened in downtown Tacoma, the building was open to the public as the Washington State History Museum. At that time, it was converted to a storage and preservation facility for the WSHS collection of historic objects and archives, as well as a public research facility. The older sections of the building are classically styled stone and masonry architecture while the 1972 addition is concrete and masonry in a modern, brutalist style.

The Research Center provides storage, curatorial and research space for nearly 800,000 artifacts, photographs, manuscript collections, books, and ephemera from all over the state, representing all periods of Washington's history.

In developing the updated assessment, Schreiber Starling Whitehead Architects reviewed previous assessments and construction documents, gathered information from WSHS personnel and made on-site evaluations of existing conditions. Additional input was obtained from WSHS consultants McKinstry, Inventrix Engineering (mechanical systems) and Hargis, Inc. (security and information technology systems).

The scope of this assessment does not include code analysis, permitting or survey of hazardous materials.

Narrative

Schreiber Starling Whitehead Architects examined the budget items with the following criteria in mind as a guide to prioritization:

Self-sustaining: Budget items that contribute to the financial sustainability of the Research Center, including items that will save operational costs and ensure energy efficiency.

Preservation: Budget items related to both long term and short-term preservation issues that will increase the longevity of the Research Center and its site. These items also relate to Life Safety issues, ADA compliance and improving the physical experience for staff and visitors.

Security: Budget items that relate to maintaining and/or increasing security for the Research Center, its collections, the staff, and visitors

Each assessment item has been given its OFM-assigned unique identifying number, preceded with the designation "RC". For ease of reference, this number is used in the detailed narrative that follows as well as in the Summary and Detail matrices.

Deficiencies for funding in 2021-2023 Capital Budget Request

RC 1.0 Site Work

RC 1.1 Landscape Planting South Side of Site

The steep sloped area located on the south side of the building between the main entrance to the building and loading dock area is unsecured. The Research Center proximity to the high school stadium and track make this area an attractive nuisance. This created potential for safety issues for staff and loading dock activities. This project aims to add landscape plantings to the area provide both a natural deterrent and to stabilize the steep slope.

RC 1.4 Parking Lot Improvements and Repairs. (Deficiency numbers 1.4.1 through 1.4.8)

The lower parking lot has limited access and extremely poor visibility from adjacent areas/lots. This creates an extremely non-defensible space and a significant security risk to both RS staff and the collection. Miscellaneous improvements are necessary to the staff parking and loading dock area to repair deficiencies, replace failed surfaces, and to protect and secure site area. Improvements proposed for this project include:

- Adding an automatic controlled vehicle gate to limit/control access to the staff parking and loading dock area.
- Provide bollards at loading dock door to prevent damage
- Add site lighting to improve safety at the staff parking and loading dock areas
- Parking lot subsurface repairs where significant settlement has occurred.
- Repair cracked pavement, provide seal coat, and new striping.
- Scope includes a geotechnical study to confirm/recommend subsurface improvements.

RC 2.0 Building Exterior

RC 2.1 Masonry Clean and Seal (Deficiency numbers 2.1.1 through 2.1.11)

The 1911 and 1923 buildings were last cleaned and sealed in 2010. The last clean and seal of the 1972 building is unknown. Cleaning masonry and application of water repellant is a critical reoccurring maintenance task that if deferred can lead to water infiltration and potentially mold in the indoor air environment. The plan provides for this critical maintenance on a 10 to 12-year cycle.

Ensuring the integrity of the masonry in a solid-wythe wall is a critical reoccurring maintenance task that if deferred can lead to water infiltration and potentially mold in the indoor air environment. This was identified as a high priority repair in the 2009 RDH report. The plan provides for minor masonry repairs, re-routing and repointing selected areas of masonry at the 1911 and 1923 buildings.

RC 2.2 URM and Miscellaneous Exterior Repairs (Deficiency numbers 2.2.1 through 2.2.9)

This project will commence with an updated seismic study to account for URM scope associated with recent code changes. The scope will also include a full exterior envelope assessment as was recently completed at the History Museum.

A 2009 exterior evaluation of the RC by RDH (envelope consultant) and a 2010 study by PCS (structural) both identified the deterioration of the sandstone balustrade on the 2913 building and the un-secured stone copings on the 1911 building as creating a potential hazard in a seismic event. To mitigate this risk and repair these historic elements, the proposal is to replace

the balusters on the 1923 building and the stone coping on the 1911 building. Scope will also include seismic bracing of all parapets/balustrade.

Masonry Infill Panels at the 1972 Building: The 2010 study by PCS (structural) identified the lack of reinforcing in the single-wythe brick in fill panels on the exterior of the 1972 addition as one of the highest seismic damage risks (falling hazard). The proposed scope includes installing new restraining strong backs at the interior of these 17 panels to anchor them to the structure against out-of-place forces.

RC 2.3 Install Soffits – 1972 Building (Deficiency numbers 2.3.1 through 2.3.4)

The 1972 Building includes several cantilevered concrete slabs. These are uninsulated and thermal/moisture transfer created challenges to environmental control to the spaces where they exist. Mold/mildew from the moisture penetration is a contact challenge. The proposed scope will install insulated soffits beneath the exposed concrete.

RC 2.5 Roof Replacement – 1972 Building (Deficiency numbers 2.5.1 through 2.5.3)

The roof of the 1972 building is nearing the end of its useful life in the coming biennia. This proposal provides for the replacement of the ballasted membrane roof at the 1972 building as the highest priority.

RC 3.0 Building Interior

RC 3.2 1923 Building Tenant Improvements (Deficiency numbers 3.2.1 through 3.2.3)

This scope includes minor tenant improvements/repairs to the publicly used portions of the 1923 building. Scope includes:

- Interior painting: The main public spaces in the RC have not had a coordinated painting in nearly 20-years. The proposal includes addressing peeling paint at several areas on all levels by removing existing paint, preparing the surface, and repainting with like materials.
- Reading Room Doors: There is an air pressure differential that makes the entry doors move and slam when the exterior doors open. The planned scope will furnish the existing doors with closers and flush bolts to control their action. The scope will also include gaskets/silencers, repair of the broken bottom rails, and refinishing of the wood.
- Reading Room Power and Lighting: Availability of convenience outlets for visitors to the reading room are limited and lighting is limited. Scope will add convenience outlets and additional light to better support the publics use of the space.

RC 4.0 Mechanical and Plumbing

RC 4.1 Mechanical – Central Systems (Deficiency numbers 4.1.1 through 4.1.4)

The major air handling units (AHU) in the RC are past their useful service life and become less effective in controlling temperature and humidity. The proposed project is to address the deficiencies in this crucial system by rebuilding AHU's 1, 2, and 4 and replacing AHU-5. This scope included providing new cooling coils, fans, valves, piping, and all control components.

A new access door will be provided into AHU 4 as its currently very had to service due to its configuration.

Air Terminal Units: Inspection noted this distributed equipment to be at the end of their useful life. It was also noted that the terminal units were impacted by sedimentation impacting their ability to effectively reheat air for zone temperature and humidity control. The issue provides for replacement of 4 Terminal Units served by AHU-5 and 18 Terminal Units served by AHU-2 and 4 at their current locations.

The recessed wall heater in the fifth-floor restroom is inoperable and will be replaced

RC 4.3 Smoke Exhaust Systems (Deficiency numbers 4.3.1 through 4.3.2)

The RC has a unique smoke evacuation system owing to the multi-floor atrium of the 1972 addition which was code-complete at the time of installation This system has not been upgraded since its installation and does not integrate with new non-analog controls. The proposed scope includes automating the exhaust louvers at each floor and adding new digital sensors and controls at each louver in the system. These will be tied into the digital fire detection and alarm system.

RC 4.4 Plumbing (Deficiency numbers 4.4.1 through 4.4.3)

Much of the domestic and heating water piping in the old areas of the RC are still original steel piping. The piping has corroded over the years losing significant fee area. This was specifically noted in the hot water systems. The project includes replacing all residual galvanized water piping, hot water heaters, and hot water circulating pumps. The removal of unused piping during past piping projects has left openings in floors that need to be sealed. This work will be included as part of the replacement of galvanized lines and water heaters.

RC 6.0 Telecom and Electronic Security

RC 6.1 Communications Improvements (Deficiency numbers 6.1.1 through 6.1.3)

Outdated IT systems at the RC limit bandwidth and wireless access points throughout the facility. This impacts staff efficiency, facility usage, and the visitor experience. The existing structured cabling system needs to be replaced to support higher bandwidth applications and increased digital access of the RC. The new system will include additional cabling to support higher density of wireless access points. Most of the existing cable tray and conduit pathways can remain to support new cabling. If possible, industry best practices recommend that dedicated telecommunications spaces should be created to support the telecommunications infrastructure. The existing telecommunications IDF spaces are not compliant with current electrical code requirements and will be relocated or modified to become compliant

WASHINGTON STATE HISTORICAL SOCIETY

Research Center

315 Stadium Way, Tacoma, WA 98403 | Project Team: Schreiber Starling Whitehead Architects

UFI #A05648 | Date of Plan June 30, 2010

10-Year Needs Assessment Cost Summary Matrix: 2021 - 2031

Item	Item / Location	Description	Biennium 2021-2023	Biennium 2023-2025	Biennium 2025-2027	Biennium 2027-2029	Biennium 2029-2031
	PROJECT SUMMARY	**TOTALS - All work, by Biennium**	**$4,681,641**	**$666,651**	**$1,427,696**	**$556,039**	**$0**
RC 1.0	**SITE WORK**						
RC 1.1	Landscape Planting South side of Site	Plannting to stablize slope, limit intrustion	$70,000				
RC 1.2	Replace stairwell from parking lot to public sidewalk	Remove and replace existing concrete stair and handrails			$77,500		
RC 1.3	Site Fencings	New site and replacment fencings		$93,363			
RC 1.4	Parking Lot Improvements and Repairs	Security, Ligthing, and Pavement Repair	$144,675				
RC 1.5	Public Sidewalk ROW Improvements	City requested ADA accessible route from parking lot to Main Entry		$219,420			
0	0	0					
		Construction Cost Subtotals	**$214,675**	**$312,783**	**$77,500**	**$0**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$10,347	$30,872	$11,749	$0	$0
		Construction Cost Total	$225,022	$343,654	$89,249	$0	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$101,260	$154,644	$40,162	$0	$0
		Sitework Total	**$326,282**	**$498,298**	**$129,411**	**$0**	**$0**
RC 2.0	**BUILDING EXTERIOR**						
RC 2.1	Masonry/Concrete Clean and Seal	Spot masonry repairs, cleaning, and water repellant sealant	$582,744				
RC 2.2	URM and Miscellenaous Exterior Repairs	0	$654,034				
RC 2.3	Install Soffits - 1972 Building	Thermal improvement to cantilevered concrete slab floors	$86,250				
RC 2.4	Roof Replacment - 1923 Buidling	Single Ply Membrane Replacment				$89,125	
RC 2.5	Roof Replacement - 1972 Building	Ballasted Roofing Membrane	$186,300				
RC 2.6	Roof Replacement - 1911 Building	Single Ply Membrane Replacment				$109,250	
RC 2.7	Metal Roof Replacments - All Buildings	Standing seam				$119,334	
RC 2.8	Exterior Doors	Restor original entranc doors		$20,875			
RC 2.9	Theft Rsistant Glazing	0		$12,800			
		Construction Cost Subtotals	**$1,509,328**	**$33,675**	**$0**	**$317,709**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$72,750	$3,324	$0	$65,766	$0
		Construction Cost Total	$1,582,077	$36,999	$0	$383,475	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$711,935	$16,649	$0	$172,564	$0
		Building Exterior Total	**$2,294,012**	**$53,648**	**$0**	**$556,039**	**$0**
RC 3.0	**BUILDING INTERIOR**						
RC 3.1	1911 Building Tenant Improvemetns	0			$316,250		
RC 3.2	1923 Buidling Tenant Improvmeents	Minor improvments to public spaces.	$83,750				
RC 3.3	1972 Buidling Tenant Improvmeents	0		$72,000			
		Construction Cost Subtotals	**$83,750**	**$72,000**	**$316,250**	**$0**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%

Item	Item / Location	Description	Biennium 2021-2023	Biennium 2023-2025	Biennium 2025-2027	Biennium 2027-2029	Biennium 2029-2031
			$4,037	$7,106	$47,944	$0	$0
		Construction Cost Total	$87,787	$79,106	$364,194	$0	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$39,504	$35,598	$163,887	$0	$0
		Building Interior Total	**$127,291**	**$114,704**	**$528,081**	**$0**	**$0**
RC 4.0	**MECHANICAL AND PLUMBING**						
RC 4.1	Mechancial - Central Systems	0	$1,023,060				
RC 4.2	Mechancial - Chiller Replacement	0			$461,250		
RC 4.3	Smoke Exhaust Systems	0	$59,375				
RC 4.4	Plumbing	0	$105,063				
		Construction Cost Subtotals	**$1,187,498**	**$0**	**$461,250**	**$0**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$57,237	$0	$69,926	$0	$0
		Construction Cost Total	$1,244,735	$0	$531,176	$0	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$560,131	$0	$239,029	$0	$0
		Mechanical and Plumbing Total	**$1,804,866**	**$0**	**$770,204**	**$0**	**$0**
RC 5.0	**ELECTRICAL**						
0	0	0					
		Construction Cost Subtotals	**$0**	**$0**	**$0**	**$0**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$0	$0	$0	$0	$0
		Construction Cost Total	$0	$0	$0	$0	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$0	$0	$0	$0	$0
		Electrical Total	**$0**	**$0**	**$0**	**$0**	**$0**
RC 6.0	**TELECOM AND ELECTRONIC SECURITY**						
RC 6.1	Communications Improvements	Improvements to communcations cabling, and wireless infrastructure	$85,000				
		Construction Cost Subtotals	**$85,000**	**$0**	**$0**	**$0**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$4,097	$0	$0	$0	$0
		Construction Cost Total	$89,097	$0	$0	$0	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$40,094	$0	$0	$0	$0
		Telecom and Electronic Security Total	**$129,191**	**$0**	**$0**	**$0**	**$0**
RC 7.0	**CONVEYANCE SYSTEMS**						
0	0	0					
		Construction Cost Subtotals	**$0**	**$0**	**$0**	**$0**	**$0**
		OFM Escalation at 2.38% per year, escalated to midpoint of biennium	4.82%	9.87%	15.16%	20.70%	26.52%
			$0	$0	$0	$0	$0
		Construction Cost Total	$0	$0	$0	$0	$0
		Project Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management at 45% of Construction Cost	$0	$0	$0	$0	$0
		Conveyance Systems Total	**$0**	**$0**	**$0**	**$0**	**$0**

WASHINGTON STATE HISTORICAL SOCIETY

Research Center

315 Stadium Way, Tacoma, WA 98403
UFI #A05648

Project Team: Schreiber Starling Whitehead Architects
Date of Plan June 30, 2010

Back-up Detail Matrix

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	Total Const. Cost (June 2020)
RC 1.0	**SITE WORK**					**Site Work Subtotal**	**$604,958**
RC 1.1	**Landscape Planting South side of Site**	Plannting to stablize slope, limit intrustion	Planting of slope with planting, shrubs, bushes. Inclues work path to nitrate equipment	7000 sf	$10.00	$70,000.00	**$70,000**
RC 1.2	**Replace stairwell from parking lot to public sidewalk**	Remove and replace existing concrete stair and handrails					**$77,500**
RC 1.2.1			Demoltion and remvoed existin stairs and handrials	1 ls	$10,000.00	$10,000.00	
RC 1.2.2			Three flights of new cast in place concrete stairs	3 flt	$15,000.00	$45,000.00	
RC 1.2.3			Steel handrails	180 lf	$125.00	$22,500.00	
RC 1.3	**Site Fencings**	New site and replacment fencings	Steel decoratived fencings				**$93,363**
RC 1.3.1	1911 Building: Fence	Replace fence adjacent to Portico, deter skateboarders	Steel docorative fencinge; include demolition of existing	30 lf	$218.75	$6,562.50	
RC 1.3.2		New east property line fence	6' decoratvie steel fences	440 lf	$150.00	$66,000.00	
RC 1.3.3		Provide securty fencing at top and bottom of north emergency exterior stairs	8' high security fencing	12 lf	$200.00	$2,400.00	
RC 1.3.4		Add bird securty netting to north emergency stair		80 lf	$30.00	$2,400.00	
RC 1.3.5		Replace chainlink fencing and gates at south storage yard	10' chainlink fencing. Include new gates	800 sf	$20.00	$16,000.00	
RC 1.4	**Parking Lot Improvements and Repairs**	Security, Ligthing, and Pavement Repair					**$144,675**
RC 1.4.1	Parking Lot: Automatic Gate	Replace inoperable hydraulic swing gate with rolling electric gate	Demolish and dispose of existing; cut trench; provide electrical to new sliding gate; card reader	1 ls	$47,500.00	$47,500.00	
RC 1.4.2		Add bollard to protect north loading dock door	2 removalable/retractable bollards	2 ea	$2,500.00	$5,000.00	
RC 1.4.3	Add light standard to middle of north parking lot	Add parking lot light between two existing in the central island of north parking lot.		3 ea	$5,000.00	$15,000.00	
RC 1.4.4	Loading Dooc Lighting	Add light fixtures to north loading dock door		2 ea	$750.00	$1,500.00	
RC 1.4.5	Parking lot repairs	Repair cracking pavement, seal coat, restripe both parking areas.		15 sy	$2,500.00	$37,500.00	
RC 1.4.6	Geotechnical Study	Study to deteremin what is causing subsurface settling/subsidance		1 ls	$37,500.00	$37,500.00	
RC 1.4.8	Parking lot pavement replacement.	Cost include removal, soil import and compactions, new asphalt and striping of damaged areas		15 sy	$45.00	$675.00	
RC 1.5	**Public Sidewalk ROW Improvements**	City requested ADA accessible route from parking lot to Main Entry					**$219,420**
RC 1.5.1			Clearing, grubbing and excavation	2400 sf	$10.00	$24,000.00	
RC 1.5.2			4" thick sidewalk	2400 sf	$19.50	$46,800.00	
RC 1.5.3			Curb and gutter	400 lf	$22.50	$9,000.00	
RC 1.5.4			Retaining Wall - average 3' high	600 sf	$45.00	$27,000.00	

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	Total Const. Cost (June 2020)
RC 1.5.5			Landscaping 6' wide average. Includes street tree removal and replacemenbt	2400 sf	$10.00	$24,000.00	
RC 1.5.6		General work requirements	Mobilization, Safety, Demobilization	2.0 mntl	$30,000.00	$60,000	
RC 1.5.7		Contractor Mark-ups		15%	$28,620.00	$28,620	
RC 2.0	**BUILDING EXTERIOR**					**Building Exterior Subtotal**	**$1,860,712**
RC 2.1	**Masonry/Concrete Clean and Seal**	Spot masonry repairs, cleaning, and water repellant sealant					**$582,744**
RC 2.1.1	1911 Buildings		Clean, scrub and rinse all cladding surfaces	9,702 sf	$3.75	$36,383	
RC 2.1.2			Apply water repellant coating at all masonry surfaces	9,702 sf	$3.00	$29,106	
RC 2.1.3			Spot routing and re-pointing of brick masonry mortar joints	450 lf	$55.00	$24,750	
RC 2.1.4	1923 Building		Clean, scrub and rinse all cladding surfaces	4,676 sf	$3.75	$17,535	
RC 2.1.5			Apply water repellant coating at all masonry surfaces	4,676 sf	$6.00	$28,056	
RC 2.1.6			Spot routing and re-pointing of brick masonry mortar joints	200 lf	$55.00	$11,000	
RC 2.1.7	1972 Building		Clean, scrub and rinse all cladding surfaces	25,144 sf	$3.75	$94,290	
RC 2.1.8			Apply water repellant coating at all masonry/concrete surfaces	25,144 sf	$6.00	$150,864	
RC 2.1.9			Spot routing and re-pointing of brick masonry mortar joints	450 lf	$55.00	$24,750	
RC 2.1.10		General work requirements	Mobilization, Safety, Lifts, Demobilization	3.0 mntl	$30,000.00	$90,000	
RC 2.1.11		Contractor Mark-ups		15%		$76,010.03	
RC 2.2	**URM and Miscellenaous Exterior Repairs**						**$654,034**
RC 2.2.1	1972 URM improvments	Structurally tie back 17 panels on the 2nd, 3rd, and 4th floors	Remove and replace existing metal stud and gyp board walls. Steel strongback anchors per PCS report	3740 SF	$85.00	$317,900.00	
RC 2.2.2	1923 Building Balusters	Replicate sandstone parapet and balusters and install	balustrade - GFRC replication	96 lf	$937.50	$90,000.00	
RC 2.2.3		Seoismially brace parapet and balusters		96 lf	$275.00	$26,400.00	
RC 2.2.4	1911 Building Coping	Repair existing sandstone coping		50 lf	$625.00	$31,250.00	
RC 2.2.5		Seoismially brace parapet and balusters		50 lf	$275.00	$13,750.00	
RC 2.2.6		General work requirements	Mobilization, Safety, Lifts, Demobilization	1.0 mntl	$30,000.00	$30,000	
RC 2.2.7		Contractor Mark-ups		15%		$94,734.00	
RC 2.2.8	Structural URM Assessment	Upgrade existing assessment for recent changes in seismic codes.	Un-reinforced masonry, parapets, copings	1 ls	$15,000.00	$15,000.00	
RC 2.2.9	Exterior Envelope Assessment	Assessment of the existing exterior enevelope and recommendations of improvements		1 ls	$35,000	$35,000.00	
RC 2.3	**Install Soffits - 1972 Building**	Thermal improvement to cantilevered concrete slab floors					**$86,250**
RC 2.3.1		Instal weather barrier, insulate underside of exposed slabs		900 sf	$20.00	$18,000.00	

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	Total Const. Cost (June 2020)
RC 2.3.2		Iinstall vented metal panel soffits to enclose exposed areas.		900 sf	$30.00	$27,000.00	
RC 2.3.3		General work requirements	Mobilization, Safety, Lifts, Demobilization	1.0 mntl	$30,000.00	$30,000	
RC 2.3.4		Contractor Mark-ups		15%		$11,250.00	
RC 2.4	**Roof Replacment - 1923 Buidling**	Single Ply Membrane Replacment					**$89,125**
RC 2.4.1			Remove and replace, includes flashing	2,500 sf	$25.00	$62,500.00	
RC 2.4.3		General work requirements	Mobilization, Safety, Lifts, Demobilization	0.5 mntl	$30,000.00	$15,000	
RC 2.4.3		Contractor Mark-ups		15%		$11,625.00	
RC 2.5	**Roof Replacement - 1972 Building**	Ballasted Roofing Membrane					**$186,300**
RC 2.5.1			Remove and replace existing ballast and insulation	4,900 sf	$30.00	$147,000.00	
RC 2.5.2		General work requirements	Mobilization, Safety, Lifts, Demobilization	0.5 mntl	$30,000.00	$15,000	
RC 2.5.3		Contractor Mark-ups		15%		$24,300.00	
RC 2.6	**Roof Replacement - 1911 Building**	Single Ply Membrane Replacment					**$109,250**
RC 2.6.1			Remove and replace, includes flashing	3,200 sf	$25.00	$80,000.00	
RC 2.6.2		General work requirements	Mobilization, Safety, Lifts, Demobilization	0.5 mntl	$30,000.00	$15,000	
RC 2.6.3		Contractor Mark-ups		15%		$14,250.00	
RC 2.7	**Metal Roof Replacments - All Buildings**	Standing seam					**$119,334**
RC 2.7.1		Remove and replace standing seam roofing		2,700 sf	$25.00	$67,500.00	
RC 2.7.2		Install coper gutters and scuppers	6 butresses, approximatelyh 65 lf. Each	390 lf	$51.88	$20,231.25	
RC 2.7.3		Install gutter at Loading dock doors		20 lf	$51.88	$1,037.50	
RC 2.7.4		General work requirements	Mobilization, Safety, Lifts, Demobilization	0.5 mntl	$30,000.00	$15,000	
RC 2.7.5		Contractor Mark-ups		15%		$15,565.31	
RC 2.8	**Exterior Doors**	Restor original entranc doors					**$20,875**
RC 2.8.1		1911 Building: Exterior Doors at South Portico	metal clad wood doors, refinish, repair hardware, reseal windows	1 ls	$1,375.00	$1,375.00	
RC 2.8.2		1923 Building: Exterior Doors	metal clad wood doors, refinish, repair hardware, reseal windows, replace windows above with insulating glass.	1 ls	$19,500.00	$19,500.00	
RC 2.9	**Theft Rsistant Glazing**						**$12,800**
RC 2.9.1	Fourth F.loor Wndows	Replace existing glazing	Repalce wil laminated safety glass	320 SF	$40.00	$12,800.00	
RC 3.0	**BUILDING INTERIOR**					**Building Interior Subtotal**	**$6,377,350**
RC 3.1	**1911 Building Tenant Improvemetns**						**$316,250**
RC 3.1.1	Third Floor Office Area	Upgrade office area to address acoustical issues and user needs	Wall transoms, painting, lighting, misc. mechancial, etc.	850 sf	$300.00	$255,000.00	

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	Total Const. Cost (June 2020)
RC 3.1.2	Donor Conference Room	Replace worn finishes, repair windows, replace lighting	Paint, carpet, window coverings, lighting	250 sf	$175.00	$43,750.00	
RC 3.1.3	Building wide painting	Paint public spaces, offices & circulation spaces.	one floor per biennium, premium for complex work, includes 15% premium for hazmat remediation	5,000 sf	$3.50	$17,500.00	
RC 3.2	**1923 Buidling Tenant Improvmeents**	Minor improvments to public spaces.					**$83,750**
RC 3.2.1	Reading Room	lighting and power upgrades	Replace lighting and add convenience outlets	1 ls	$52,500.00	$52,500.00	
RC 3.2.2	Reading Room	Repair existing interior entry doors from south entry vestibule	Repair and refinish existing doors. Install new hardware and seals	1 ls	$13,750.00	$13,750.00	
RC 3.2.3		Paint public spaces, Historic Reading Room, offices & circulation spaces.	one floor per biennium, premium for complex work, includes 15% premium for hazmat remediation	5,000 sf	$3.50	$17,500.00	
RC 3.3	**1972 Buidling Tenant Improvmeents**						**$72,000**
RC 3.3.1	Fourth Floor	Combine Darkrooms 407 and 408 for more efficient storage	Selective demolition, new lighting, finishes, paint, insulate walls, replace GWB	320 sf	$225.00	$72,000.00	
RC 4.0	**MECHANICAL AND PLUMBING**				**Mechanical and Plumbing Subtotal**		**$1,648,748**
RC 4.1	**Mechancial - Central Systems**						**$1,023,060**
RC 4.1.1	Mechanical - Air Handlers	Recondition 3 air handling units; replace 1 air handling unit	Rebuild AHU-1,2,4; Replace AHU-5. Includes cooling coils, fans, valves, piping and all control components.	1 ls	$763,750.00	$763,750.00	
RC 4.1.2	Mechanical - Terminal Units	Replace 4 Terminal Units Served by AHU-5 and 18 Terminal Units served by AHU-2 and 4	Terminal units at end of reasonable life	1 ls	$241,935.00	$241,935.00	
RC 4.1.3	Mechanical - Space Heater	Replace heater in 5th floor toilet room	small space heater recessed in wall	1 ls	$5,125.00	$5,125.00	
RC 4.1.4	Mechanical	Add access door to AHU-4	Inaccessible for maintenance at current time	1 ls	$12,250.00	$12,250.00	
RC 4.2	**Mechancial - Chiller Replacement**						**$461,250**
RC 4.2.1	Replace Air-cooled chiller	Replace air cooled chiller with new	Chiller is beyond it's expected service life, is starting to show signs of end-of-life, and is a single source of cooling with no redundancy for a facility that needs cooling capacity as a critical capability.	1 ls	$396,875.00	$396,875.00	
RC 4.2.2		Concrete Chiller Pad		1 LS	$5,000.00	$5,000.00	
RC 4.3	**Smoke Exhaust Systems**						**$59,375**
RC 4.3.1	Mechanical - Smoke Exhaust	Controls	Fan controls have been located out of fan room. Add sensors and louver controls at each floor	1 ls	$18,750.00	$18,750.00	
RC 4.3.2	Mechanical - Smoke Exhaust	Automation	Automate exhaust louvers. Add automatic exhaust louvers on each floor	5 ea	$8,125.00	$40,625.00	
RC 4.4	**Plumbing**						**$105,063**
RC 4.4.1	Piping and Water Heaters	Replace residual galvanized water piping and hot water heaters		1 ls	$72,500.00	$72,500.00	
RC 4.4.2	Circulation Pumps	Replace Circulation Pumps that have reached their reasonable life expectancy	PACO series Lf Model 11-30957 - $3,400 plus $2,000 for installation, $1500 for rebalancing and $ 500 for insulation.	2 ea	$9,250.00	$18,500.00	
RC 4.4.3	Plumbing	seal pipe floor penetrations		1 ls	$14,062.50	$14,062.50	
RC 5.0	**ELECTRICAL**					**Electrical Subtotal**	**$0**
RC 6.0	**TELECOM AND ELECTRONIC SECURITY**					**Telecom Subtotal**	**$85,000**

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity	Unit Cost	Sub-Total	**Total Const. Cost (June 2020)**
RC 6.1	**Communications Improvements**	Improvements to communcations cabling, and wireless infrastructure					**$85,000**
RC 6.1.1		Category 6 cabling, raceways, patch panels	Category 6 cabling, patch panels, racks and modification to existing pathways; Limited locations (40 points)	40 ea	$437.50	$17,500.00	
RC 6.1.2		Category 6 cabling, raceways, patch panels in historically perserved areas	Category 6 cabling, patch panels, racks and modification to existing pathways; Limited locations 12 points)	12 ea	$937.50	$11,250.00	
RC 6.1.3	Add wireless throughout	Wireless Access Points, software and installation	Integrate with existing controller.	30 ea	$1,875.00	$56,250.00	
RC 7.0	**CONVEYANCE SYSTEMS**					**Conveyance Subtotal**	**$0**

Appendix A

History Museum

Exterior Evaluation & Condtions Assessment Report

May 2020

Washington State History Museum

Exterior Evaluation & Conditions Assessment Report

With Recommendations, Priorities, &
ROM/Schematic Budget Cost Estimate

Prepared For:

Stephen Starling, AIA, of Schreiber Starling Whitehead Architects

Prepared by:
BUILDING ENVELOPE TECHNOLOGY & RESEARCH
4000 Delridge Way SW, Suite 100, Seattle, WA 98106 Office | (206) 405-3455 Website | bet-r.com

Exterior Evaluation & Conditions Assessment Report

With Recommendations, Priorities, & Schematic ROM Budget Cost Estimate

Washington State History Museum

Project Contacts:	*Phone:*	*E-mail:*
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BET&R Personnel on-site:	*Others on-site:*
• Dan Jaramillo, Project Administrator; • Zephyr Delahunt, Building Envelope Technologist; • Andrew Guy, Testing and Lab Manager; • John O'Brien, Building Envelope Technologist; • Jacob Magraw-Michelson, Building Envelope Technologist.	• Stephen Starling, Principal Architect, SSWA; • Rafeal Urena, Project Manager, DES; • Mark Sylvester, WSHM; • David Schingeck, WSHM.

TABLE OF CONTENTS:

I. Introduction

Background Information:

The Washington State History Museum (WSHM), located in the city of Tacoma, Washington was designed by Moore Anderson Architects per original Architectural Project Drawings dated 1993 and provided to Building Envelope Technology & Research (BET&R) by Schreiber Starling Whitehead Architects (i.e., SSWA, the Client) as the As-Built Record Drawings. These original drawings will be referred to herein as the Project Record Drawings. BET&R understands construction of the Museum was completed circa 1995.

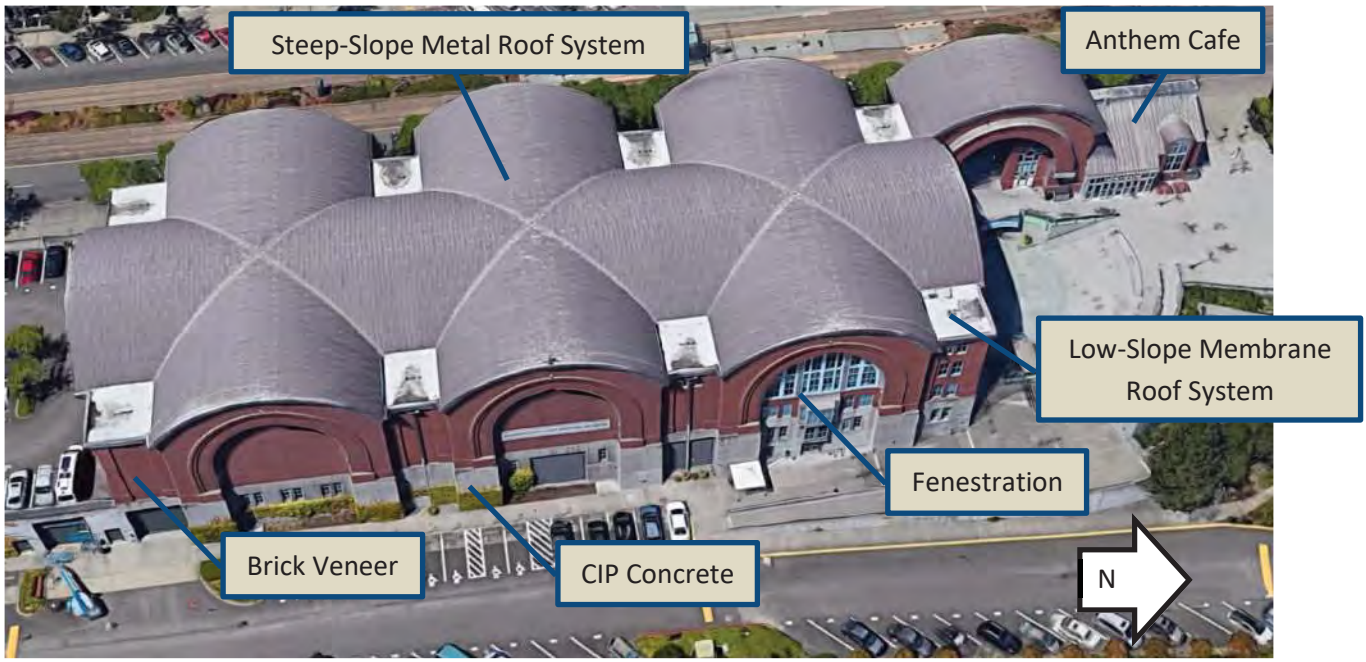


Figure No. 1. Satellite view of the Washington State History Museum depicting the various cladding, fenestration and roofing systems as viewed from the East Elevation.
Cladding & Fenestration Systems: Brick masonry veneer, cast-in-place (CIP) concrete, aluminum panels, extruded-aluminum framed fenestration systems.
Steep-Slope Roof System: Lead-coated copper standing seam roof system at the steep-slope barrel roofs and the Anthem Café shed roof.
Low-Slope Roof System: 40-mil thick Hypalon single-ply roof membrane.

Previous Maintenance and Repair Projects:

BET&R understands the last reported water repellant project associated with the building's brick masonry cladding occurred in 2002, approximately 18 years ago, and that project was designed by Leavengood Architects and was titled the "Masonry Cleaning and Sealing" Project. The Client provided project drawings from the water-repellant Project's work to BET&R for the purposes of providing additional background information. It appears during that project the brick veneer masonry was cleaned prior to water-repellent application. It also appears that sealant joints may have been replaced, however, the sealant joints associated with the brick veneer cladding are again in need of replacement.

Reportedly, a widespread above-grade waterproofing project designed by Cornerstone Architectural Group was conducted at the Museum's Plaza Deck and outdoor Amphitheater Area in 2016; as such BET&R was not requested to review the plaza deck waterproofing system as part of our on-site survey and condition assessment work. Furthermore, the size of the unique paver system concealing the waterproofing would require heavy equipment for paver system removal. Per the waterproofing project drawings it appears a hot-rubberized

asphalt waterproofing membrane system was installed on the concrete decks, prior to the system protection board, drainage course and rigid insulation, and concrete pavers as the traffic surface. A reinforced cold-liquid applied PMMA resinous waterproofing membrane system was applied at exposed locations at the amphitheater's seating area. BET&R notes that it is likely these systems are still under manufacturer warranty; however, the provided project drawings do not clearly delineate the warranty information.

Manufacturer system and/or product warranties for the majority of the WSHM's exterior envelope systems (e.g., the cladding, fenestration, and sealant) appear to have expired some time ago. The primary exception is the 30-year warranty for the standing seam sheet metal roof system, manufactured by Overly Manufacturing Company, which does appear to be active, with the last reported manufacturer inspection performed in 2018 per maintenance records distributed to BET&R for informational and background purposes.

Purpose of Survey:

This Exterior Evaluation & Conditions Assessment Report for the Washington State Historical Museum (WSHM), complete with accompanying Observations, Recommendations, Prioritization, and Rough Order of Magnitude (ROM) Schematic Budget Cost Estimates, was prepared by Building Envelope Technology & Research (BET&R) for Stephen Starling of SSW Architects. This Report was requested by the Owner's Representative, Rafeal Urena (DES), on behalf of Washington State Historical Museum (WSHM) and their efforts to maintain and preserve the Facility. This Report summarizes BET&R's observations, testing, and findings from the site visit, which was conducted over three days, Tuesday, March 10th through the late afternoon of Thursday March 12th, 2020 at the approximately twenty-five (25) year old Museum facility. BET&R understands that this Report will aid the Client in identifying and addressing potential maintenance, repair, and/or retrofit or replacement items for both the short-term and long-term performance of the facility's building envelope systems and related exterior components.

The purpose of BET&R's multi-day and multi-discipline survey was to review representative exterior areas of the Museum to observe, investigate, and document the existing condition of the building envelope in service at the Museum facility. As agreed with the Client, items surveyed included representative areas of: roofing, cladding, and fenestration (i.e., windows and doors) systems in order to assess their condition and identify priority areas of the Museum, and related exterior components, which may require attention, repair, and/ or retrofit or replacement in the future. It was also agreed that specific aspects of the building envelope would not be reviewed as part of this survey, including excavation would not be conducted for review of below-grade waterproofing systems, and paver removal would not be conducted for review of above-grade waterproofing at the Plaza Deck.

Survey & Testing Methods:

Visual and tactile survey was conducted by BET&R in order to review the steep-slope lead-coated copper standing seam panel roofing, low-slope single-ply membrane roof and related exterior components, as well as the cladding and fenestration systems at the Museum facility. Roof access was granted by WSHM for survey purposes and BET&R used their own fall-safety harnesses, lanyards, and safety lines, and made use of the fall restraint systems currently in place on the facility's roof to move about the various roof areas safely. The roof survey was to include one (1) test core, to verify roof composition and to aid in condition analysis. The test cut or core was carefully performed and then thoroughly patch repaired at the low-slope single-ply roofing system.

During BET&R's cladding survey of the existing brick masonry veneer, cast-in-place concrete foundation walls, aluminum wall cladding panels, and extruded-aluminum framed fenestration systems was surveyed from the ground, via BET&R's ladders, and an 80-ft. articulating boom lift, which BET&R used their on-staff certified-lift operator. Additionally, BET&R was able to utilize BET&R's aerial photography equipment (i.e., small unmanned aircraft system, sUAS, or 'drone'), and BET&R's FAA-certified on-staff pilot to view and visually investigate

difficult to access locations of the exterior of the building, especially at the upper portions of the North Elevation, as the man-lift was not able to be utilized at the Main Entry Plaza. BET&R's survey and limited testing work also included a series of RILEM Tube testing at brick veneer masonry cladding and cast-in-place concrete (CIP) foundation walls. BET&R also conducted Monarch Nozzle, controlled-water spray testing of select fenestration units to better assess the water resistance of the existing windows and their gasketed-glazing systems. It was agreed that no invasive or deconstructive test openings would take place at the brick veneer cladding system during this survey.

Executive Summary:

In general, the building envelope at Washington State Historical Museum is functioning well with no recent active leaks to the facility's interior reported to BET&R by the Museum facility contacts. BET&R understands there was a leak in the past that materialized at the ceiling of the ground-floor women's restroom, however, BET&R understands it has not been active since the relatively recent above-grade waterproofing project was completed, which was reported by Museum facilities staff. However, numerous items of concern, some of which are a safety hazard, were discovered during BET&R's visual and tactile survey and testing. All of the items will require attention in the near future and are related to roofing, cladding, the facility's fenestration, and related sealant-joint systems, but several items including loose sheet metal flashings require immediate attention to mitigate safety hazards.

Steep-Slope Roofs: The Museum's main roof is comprised of lead-coated copper panels with batten standing seams, and this roof system serves at the primary roof covering on the steep-slope barrel-shaped vaulted roof areas and the shed roof at the north end of the facility over Anthem Café. Generally, the steep-slope metal roofs were observed to be in good condition with many years of water-shedding performance remaining -- provided the recommended repairs and maintenance are specified correctly and are executed properly. Repairs are urgently required where deficiently secured sheet metal flashings at eave edges and roof transitions have become disengaged and/or are loose and at great risk of becoming disengaged during winds and periods of extensive thermally-induced movement. Other maintenance items required are related to degraded and/or failed sealants and soldered connections. Other more minor conditions are noted further on in this Report. Similar spot repairs are also recommended at select components of the steep-slope sheet metal shed roof at the Anthem Café.

Low-Slope Roofs: A mechanically fastened, 40-mil thick Hypalon single-ply roof membrane, over approximately four-inches of rigid roof insulation, comprises the insulated membrane roof system at the eight (8) low-lope roof areas. Each low-slope roof contains two (2) mechanical roof drains, a primary and overflow drain, which function as the drainage system for the large majority of the Upper Main Roof Areas, as the steep-slope barrel roof areas drain most of their run-off onto these relatively small low-slope roof areas. BET&R Technologists observed and determined that the existing 40-mil Hypalon single-ply membrane roofing is weathered, aged, somewhat embrittled, and chalking, and is at the end of its useful service life. BET&R's assessment reveals that the low-slope roofs replacement will need to be budgeted for soon so that these roofs can be removed and reroofed in the near future. If funds are not available for low-slope roof system removal and replacement at this time, another approach may be possible for short-term remediation. For relatively short-term emergency repair it would be prudent to consider an appropriately and carefully designed and correctly implemented spot patching, followed by a polyurethane base and top coat coating system over the existing, thoroughly cleaned and properly prepared low-slope membrane

roofs. A low-slope roof coating project should also include replacement of failing low-slope roof penetration flashings and "pitch-pans" (i.e., sealant filled penetration flashings) in order to extend the service life of the existing single-ply membrane until full roof removal and reroofing can be budgeted for by WSHM and completed in the future. A related item to address during a reroofing project relates to the low-slope roof areas drainage issues, whereby the primary mechanical roof drains and roof overflows both drain into the same conductor box. This drainage layout is problematic because a blockage at a primary roof drain is not easily detectable or obvious to the facility's staff should the secondary overflow become active, which typically readily signifies a blockage at the primary roof drain. BET&R recommends this problematic drainage issue be addressed, either during a repair and roof coating project or when reroofing is undertaken, so as to meet current code requirements.

Exterior Walls: The majority of the Museum's cladding system consists of single wythe brick masonry veneer over cast-in-place (CIP) concrete back-up walls. Cast-in-place (CIP) concrete foundation walls also make up the exterior envelope at the First Floor "Track Level" (North and East Elevations). Precast concrete window sill washes and base of wall plinths were also observed in-situ, similar to as depicted in the Project Record Drawings. Sections of decorative 0.50-inch thick anodized aluminum cladding panels are present at archway tops while pre-finished .125-inch thick aluminum cladding panels comprise the archway soffit cladding system. Sheet metal cornice panels clad the roofline of the building and create the transition from the roof-to-wall exterior systems. Dual-panel, extruded-aluminum framed window and storefront entry systems comprise the majority of the facility's exterior fenestrations and visible glazing units. There are also several hollow metal service and emergency exit doors around the Museum's ground floors. See below for specific conditions related to each general cladding and fenestration system.

Brick Veneer: The exterior brick masonry veneer and related mortar joints are in generally good condition with very little fractured or spalled brick or mortar observed. It appears that a thorough cleaning and subsequent well designed and implemented water-repellant application of the brick veneer would be prudent and is recommended to be undertaken in the near future as staining and efflorescence are evident at select exterior locations. Sealant joints were observed to be weathered and largely no longer serviceable and represent the highest priority item to be addressed (i.e., the soonest item recommended for replacement) related to the brick masonry veneer cladding. BET&R recommends the replacement of weathered and deteriorated sealant joints within the brick veneer (i.e., at floor lines, brick veneer ledger angles, and vertical and horizontal expansion joint locations) and at through-veneer penetrations (i.e., bolts, fixtures, bracket ties etc.) and transitions where seals are lacking. Also of importance is addressing voids and gaps at brick archway-to-brick veneer field of wall locations that appear to allow water to migrate to the backside of the brick veneer cladding system.

As noted earlier in this report, it was requested by the Client and agreed to by BET&R prior to BET&R's survey that no invasive or deconstructive test openings would take place at the brick veneer cladding system during this survey. As such, the building's actual full-cross sectional wall cladding system's composition could not be observed, verified, or analyzed beyond the primary cladding components that are exposed to the weather on the exterior surface of the facility. Please note that because of the era of the building's design and construction it is unfeasible to determine if the wall cladding systems' include a water-resistive barrier (WRB) -- which should be present under/behind the primary exterior cladding components -- without

an invasive test opening. Based on photos provided by the Client, it appears a non-reinforced liquid-applied asphaltic-based damproofing was applied to the concrete back-up walls, however it does not appear the product was applied with consistency or with uniform full-mill thickness. As such, it is likely that the existing WRB cannot be relied upon for the long-term. Also, during the era of the building's construction, a WRB was not as well known to be such a critical component of most wall cladding systems as it is today; and, where present the WRB may or may not have been an element that was inspected during the building's original construction and thus may or may not have been an element of the wall cladding systems required by Tacoma's local Building Department during that era of the Uniform Building Code.

Fenestration: The existing fenestration systems (i.e., windows and doors) fundamentally appear to be functioning as intended, and as evidenced during BET&R's limited Monarch Nozzle, controlled-water-spray testing that revealed no leakage of the systems tested. However, it appears that the existing fenestration systems lack rough-opening flashings and sill pan flashings, which should be included in successful-performing modern-era window assembly design and construction so as to redirect any incidental migratory water, which may get through or around the fenestration, back out to the exterior of the building -- so that any water leakage that may not be readily visible to the building's tenants or maintenance personnel does not cause progressive hidden damage over time.

After review of the Project Record Drawings it is BET&R's understanding that rough-opening flashings and related sill flashing pans were not included as part of the design of the Museum's fenestration systems. Another area of concern related to the existing fenestration systems is the condensation the fenestration units generate, as has been reported by facility's staff. Evidence of the condensation issue was also observed by BET&R during the survey, most notably at the protruding East Elevation bay windows. It appears the fenestration systems are thermally broken per shop drawings provided by the Client, however, the adequacy of the thermally broken frames and the aluminum trim pieces is questionable. The lack of proper insulation and thermal breaks in their as-built condition, and thus thermal bridging (i.e., the transfer via conduction of cool exterior temperatures through metallic substrates into the building's interior relatively warm and at times of heavy occupancy, more humid interior space) is likely causing the ongoing condensation issues. Correction of window rough-opening flashing shortcomings, identified during our on-site survey and conditions assessments work, and systemic correction of the condensation issue(s) will involve invasive investigation and be of potential significant expense -- but should be considered for the long-term future satisfactory performance and cost-effective preservation of the Museum. BET&R suggests that for the continued functionality of the Museum, a carefully planned and detailed invasive investigation be appropriately budgeted for, and carefully carried out in the near future, so that if a window retrofit project is in fact required, as it appears is necessary in future based upon BET&R's current observations, then a fenestration retrofit project can be carefully and thoroughly designed, correctly bid, and properly executed, perhaps by SSWA and BET&R, in the future.

Cast-In-Place Concrete Walls: Around the exterior base of the Museum building, the cast-in-place concrete foundation walls act as the primary cladding system at select areas at the North and East Elevations at the "Track Level." Rilem Tube testing conducted at representative wall areas indicate generally good performance as the concrete appears to be sufficiently dense and is relatively resistant to water absorption, however, several areas of hairline cracks, air-pockets (often referred to as "bug holes"), and rock pockets

were observed, where the concrete was likely not satisfactorily vibrated and thus is not as well consolidated as it otherwise could be for such a stately and significant public building. The non-protected skyward-facing ledges are susceptible to water absorption and will require attention in the future.

Sheet Metal Cornice and Aluminum Panel Cladding: BET&R surveyed numerous sheet metal panels at the roofline cornice, and the .125-inch thick pre-finished aluminum panels located at the undersides (i.e., soffits) of the archway elements, as well as the adjacent extruded-aluminum framed fenestration systems in service around the exterior elevations of the building. Wide expanses of the .125-inch thick pre-finished aluminum panels are installed at the underside of the large archways near the Main Entry Plaza of the building at the North Elevation as well as the arched bays at the West, South, and East Elevations of the Museum. The sheet metal and aluminum panels and related sealant joints are in generally good condition with limited areas of sealant failure at panel joints that require spot repair and replacement. Conversely, the 0.50-inch thick decorative anodized aluminum panels at the heads, or top surfaces (i.e., Extrados) of the archways are not flashed and lack seals; these portions of extrados need attention.

Also, the brick veneer field of wall-to-brick archway transitions with the 0.50-inch thick decorative aluminum panels currently lack sealant seals rendering them open to water entry, moisture migration and resulting moss growth. Moisture intrusion into the underlying brick masonry has resulted in efflorescence of underlying brick, and unsightly staining that can be observed in several areas, particularly on the North Elevation of the Museum where drying out of the intruded moisture is hampered and where the wide archway tops collect and allow the most water entry of these exterior elements. If these moisture intrusion shortcomings into the masonry are not retrofit and corrected, brick spalling from freeze-thaw cycling could become a wide spread issue in these areas in future. The 0.50-inch thick decorative aluminum panels require thorough cleaning, and should also be included for sealant joint installation at their perimeters and butt joints to halt or at least limit water migration and pooling under the panels, after thorough cleaning of the resultant staining and moss growth is achieved to ready these areas for properly designed flashing retrofit and sealant joints.

Above-Grade & Plaza Waterproofing: Although not specifically part of this survey work, after observing a suspect condition, BET&R attempted to review pertinent conditions at the above-grade Plaza where waterproofing systems and hardscapes were recently retrofit. However, the extreme size and weight of each unique 48” x 48” paver prevented widespread survey of the concealed systems. Where the large pavers were cut down in smaller pieces, apparently at two locations during their original installation, these smaller portions of the concrete pavers were manually, carefully lifted for cursory review, and then uniformly set back. As part of this plaza examination, BET&R also performed a brief review of the plaza waterproofing project drawings produced by Cornerstone Architects, related to the repair project reportedly conducted in 2016. According to the provided drawings, the work was conducted to replace the original waterproofing system with a new hot-rubberized asphalt waterproofing system. According to the waterproofing retrofit project drawings provided to BET&R by the Client, much of the newly installed hot-rubberized asphalt waterproofing system relies on sheet metal counterflashing, which were inset into a sawcut raggle joint, and are sealed with a single sealant joint that is concealed just below the paver level. This sealant joint serves to “seal” the counterflashing to the concrete, and the sealant is the only line of defense to prevent moisture from migrating behind the relatively new rubberized asphalt waterproofing

membrane and new base flashings. At select locations, these saw-cut raggles and sealant joints are depicted as tying-in with PMMA membrane flashings.

The lack of a true through-veneer flashing, at this plaza deck-to-rising wall condition, which should have an upturned back dam set in behind the masonry veneer would have been prudent for this type of important facility. In this moderate rainforest climate of the Pacific Northwest, and for a building of this public importance, located near the damp low-lying environment of the Tacoma waterway, the saw-cut raggle that has been fit with an inset counterflashing will likely not perform watertight and weatherproof for the long-term. This 2016 work also apparently included installing new poly methal methacrylate (PMMA) resin membrane flashings at waterproofing transitions, as well as coating a majority of the amphitheater seating at the North Elevation with PMMA waterproofing membrane. It appears as though the repairs to the Plaza have been relatively successful, as the Owner and the WSHM Staff have not reported any leaks in the occupied portions of the Building located below the recently installed above-grade plaza waterproofing systems. However, the plaza-to-wall detail should be monitored on at least an annual basis, so that as the as-built single-sealant seal and inset counterflashing details can be checked and spot repaired promptly if and where needed, or perhaps the condition can be retrofit with a more conservative through-veneer reglet and counterflashing detail for long-term, weatherproof and watertight performance.

Please review the remainder of this report, which follows and provides more detailed descriptions, explanations, photos and captions, and the priority repair list that follows.

II. ROOFING OBSERVATIONS & FINDINGS

The Washington State History Museum steep-roofs consist of three large cross-shaped double-barrel vaulted roof areas. The barrel vaulted roof areas primarily drain into eight (8) relatively small low-slope membrane roof areas, which collectively rout the roof drainage water runoff from the barrel vaulted roof areas and conduct the roof-water runoff through downspouts via roof drains, wall-mounted collector boxes, and downspout drops that are mounted to the exterior cladding.
BET&R conducted visual and tactile survey of the building's primary steep-roof covering's lead-coated copper standing seam roof system at the barrel vaulted roof areas and at the shed-shaped roof at the semi-attached Anthem café. BET&R also performed visual and tactile survey of the single-ply membrane low-slope roof areas. In addition, BET&R performed one (1) test opening at the existing low-slope roof system to determine roof system components, and to better evaluate the existing integrity of the existing low-slope membrane roof system. No invasive or destructive testing was performed at the lead-coated copper standing seam roof areas.

Photo No. 1 -Satellite view of the Washington State History Museum depicting general roof layout and areas of roof survey.

STEEP-SLOPE ROOF OBSERVATIONS:

The steep-slope portions of the building's Upper Main Roof and over Anthem Café at the North Elevation consist of lead-coated copper standing seam roof panels mechanical fastened at regularly spaced raised clips in a batten-covered standing seam configuration. The Project Record Drawings provided by the Client, from the building's construction indicate that a continuous pressure-sensitive "self-adhering" (SAM) membrane was to be installed beneath the sheet metal panels, and that membrane is indicated to have been adhered directly to the plywood-sheathed roof substrate. Where the SAM underlayment was observed at the location shown in Photos 2 and 3 below, it appears that Grace Ultra by WR Grace was utilized as the self-adhering underlayment. Per the Project Record Drawings the roof substrate consists of two layers of ½-inch plywood mechanically fastened onto 16-guage steel "c" channels that also function as insulation stops for insulation (approx. 5-inches in depth) installed in a compact, unvented, configuration over the cast-in-place concrete roof deck. The record drawings indicate that a continuous vapor barrier was to be installed between the cast-in-place concrete vaulted ceilings and the steep-slope system's roof insulation. However, invasive testing (i.e., roof test opening) at the low-slope roof area revealed that the continuous vapor barrier that was to be installed above the concrete deck, per the

Project Record Drawings, was not installed where the roof core was carefully extracted, and as such it is possible that this vapor barrier was similarly not installed at the steep-slope roof areas either.

As noted earlier in this report, as was agreed before the on-roof survey BET&R did not perform invasive testing at the steep-slope metal roof system, and thus the description of concealed roof components and systems outlined above is based on the Project Record Drawings, as provided by the Client.

In general, the steep-slope roof system appears to be in relatively serviceable condition for its type and age, with the exception of the specific items noted below, the most significant of which is that the metal roof panels, and select sheet metal flashings, are not securely attached to the building, and are in need of an urgent or emergency retrofit or repair. Please see the photos (e.g., Photos No. 2 & 3, etc.), captions, and cautions noted on the following pages, and Figure No. 1 below, for more detailed information.

However, the lead-coated copper roof panels themselves remain in good water-shedding condition, except these sealant joints are in need of replacement. Please see the photos (e.g., Photos No. 4 & 5, etc.), captions, and cautions noted on the following pages for more detailed information. Reportedly, according to facility staff, there is no known active roof leakage or other issues that have been reported by the facility staff or Client related to the steep-slope metal roof, which may be partly due to the pressure-sensitive membrane that serves as a membrane underlayment under the lead-coated copper primary roof covering. Provided spot repairs and specific retrofit are performed according to the items noted below, the existing lead-coated copper standing seam roof system should continue to perform for many more years of service to the facility.

SPECIFIC ITEMS OF CONCERN AT STEEP-SLOPE METAL PANEL ROOF AREAS

1. **Loose, Detached, and Improperly Fastened Sheet Metal Flashings at Draining Eave Edges:**
   The sheet metal flashings at the steep-slope-to-low-slope roof intersection, and at all sheet metal roof system eave edges, appears to be generally inadequately secured and these flashings have become either fully or partially detached in several locations, apparently during wind events and through thermal expansion and contraction. Key sheet metal components in the flashing assembly appear not to have been mechanically fastened, and properly cleated and clipped for thorough securement at the time of construction. Several locations examined do not appear cleated nor clipped, and instead appear to be only held in place predominantly through compression-type (e.g., crimped) forces. For example, he perimeter eave flashing fits between the hemmed downslope edge of the overlying roof panels and the hemmed edge of the underlying perimeter flashing, and appears to rely on compression from the overlying metal panel clips to remain in place, which is not prudent nor desired during wind events and/or during the temperature swings that can occur during the cool/cold winters of the Pacific Northwest that turn into warm springs and hot summers, which result in relatively significant thermal induce contraction and expansion movements of sheet metal components. Please see photos and field sketch below for more detail information regarding this deficient condition.

Photo No. 2 - Photo depicts overview of location at the west side of the building where sheet metal flashings (perimeter eave flashing and transition counterflashing) at the metal steep-slope-to-low-slope membrane roof systems. The flashings have become partially, and in locations fully, detached from the building. Following the survey BET&R bundled the loose components up and tied them down to a weighted stanchion base to mitigate blow-off potential. This item must be promptly addressed with additional temporary ballast by facility maintenances soon as possible as these loose flashings could be an urgent life safety hazard issue if winds blow them from the roof onto the public below. As soon as the loose flashings have been temporarily secured, then these deficient as-built flashings should be re-detailed for retrofit with different and additional mechanical attachment for long-term securement.
Please Note: BET&R would be glad to work with SSWA, whereby BET&R could promptly prepare a written scope of work, while simultaneously working with SSWA to prepare detail drawings, in prompt collaborative efforts to expedite and facilitate a retrofit project, which could then be bid, and then upon award of the work, the necessary work should be executed by a qualified local sheet metal roofing and flashing contractor.

Photo No. 3 - It appears the perimeter eave flashing attachment is reliant on compression between the overlying metal panel clips and the underlying perimeter flashing. The perimeter eave flashing has become detached from the building in this location and the counterflashing is now only partially attached. Rivets (yellow circled location) appear to have been placed at only each end of the ~10-foot lengths of sheet metal counterflashing, most likely just installed during construction for temporary holding convenience. These rivets appear to be the sole source of mechanical attachment and are not adequate means for securement of this sheet metal flashing assembly.
Please Note: These flashings also require urgent retrofit in order to avoid a public safety hazard if winds were to blow them off from the building during a potential upcoming wind event. BET&R would be glad to work to prepare a written scope of work and/or detail drawings and work in collaboration with SSWA in prompt efforts to facilitate a retrofit project, which could then be bid by quality-oriented local sheet metal shops, and then upon award of the retrofit project the necessary work should be executed by a qualified local sheet metal roofing and flashing contractor.

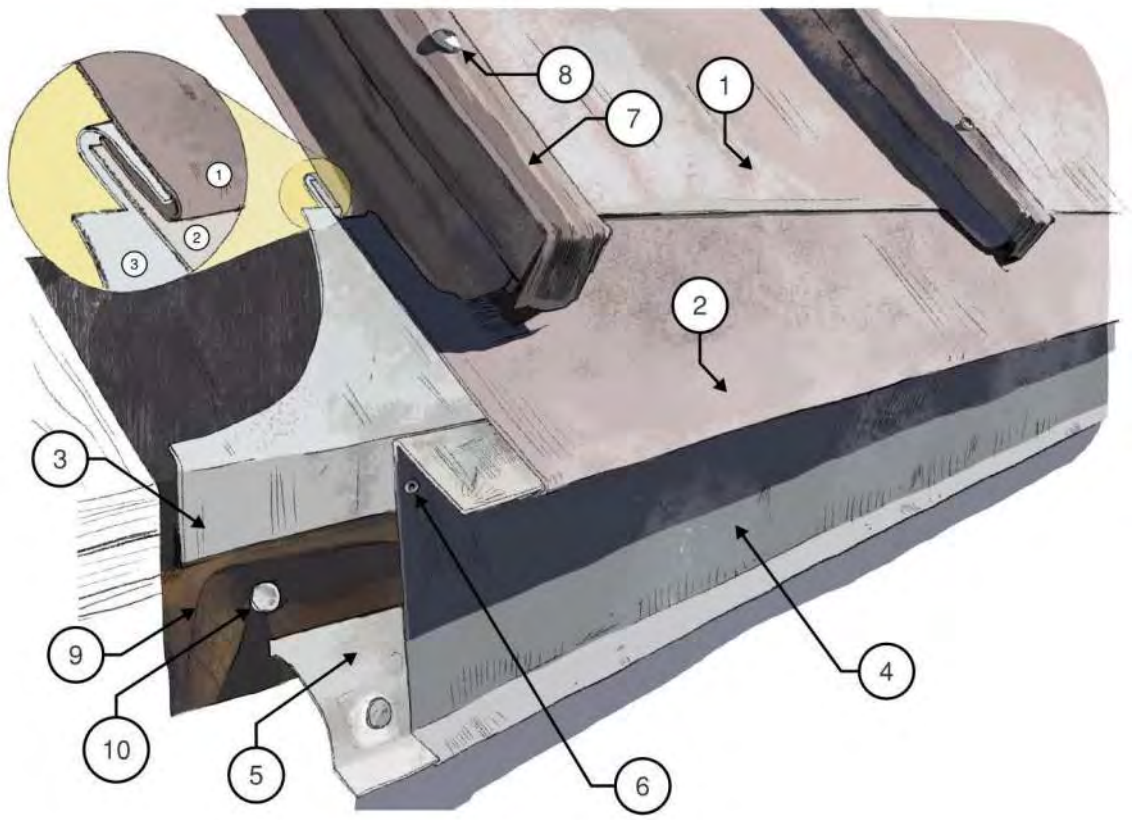


Figure No. 2. Field Sketch of the sheet metal at draining eave edge. Please note: Some components have been depicted layered, cut-back, expanded, or augmented for clarity. **1**. Lead-coated copper roof panels; **2.** Perimeter Eave Apron/Flashing, this component was observed fully detached at one location on the west side of the steep-slope roof area; **3.** Underlying perimeter flashing; **4**. Combination Apron-flashing Cleat & Fascia Counterflashing, this component was observed both partially and fully detached at one location on the west side of the steep-slope roof area, it was also disengaged from the underlying drip-edge cleat (5) in the same and numerous other locations; **5.** Cleat; **6.** Convenience Rivet, observed one at either end of the end of the partially detached 10-foot Apron-cleat & Fascia Counterflashing piece; **7.** Lead-coated Copper Clip Batten; **8.** Stainless-Steel Screw Fastener; **9.** Self-Adhering Underlayment (Grace Ultra), where the overlying sheet metal pieces were detached the Grace Ultra showed signs of oxidization/discoloration and degradation from prolonged UV exposure; **10.** Round-head roofing nail observed fastening the Cleat to underlying substrate and also appearing to secure the underlayment in places.

Preliminary Recommendation: *BET&R recommends that a retrofit of the sheet metal flashing at the draining eave edge of the steep-slope roof area be undertaken as soon as possible. The perimeter eave flashing should be mechanically secured to meet code wind uplift requirements, and industry sheet metal securement standards, in order to provide long-term weatherproof (e.g., wind resistant) and watershedding performance.*

2. **Aged and Failing Sealant at Coping, Above Inside Corner of North Plaza Deck:**
Aged and embrittled sealant was observed at the inside corner intersection of the sheet metal coping flashing above the North Plaza Deck adjacent the Museum's main entry. Streaking from water tracking down the sheet metal cornice and visibly wet and stained brick masonry was observed from the ground at this location, indicating that water flow was uncontrolled at the apex of the roof edge and sheet metal cornice. Visual and tactile observation from the roof at this location revealed aged and embrittled sealant at laps of the sheet metal coping flashing. It appears that water running down the slope of the barrel roof at the rake edge of these two adjoining steep-slope roof areas may not drain entirely to the low-slope roof area as designed. The water appears to be then be forced out over the roof edge and down the face of the cornice.

Photo No. 4 - Depicts the intersection of the steep-slope roof perimeters and specifically the rake edge roof panels at the intersecting sheet metal roof areas. The sealant applied at the laps of these sheet metal roof panels and flashing components has degraded and reached the end of its useful service life.

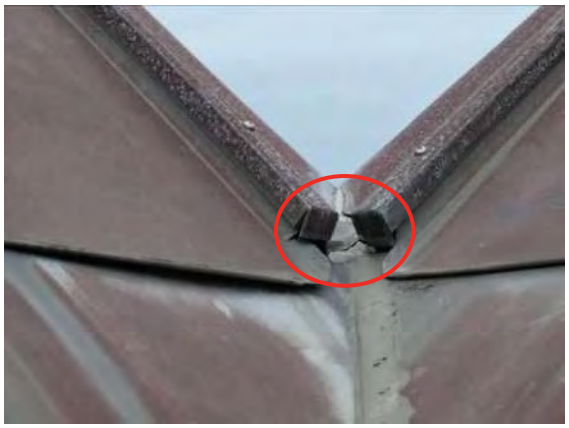


Photo No. 5 - Depicts close view of aged, degraded, and failing sealant at the roof panel intersection above the north courtyard.

Preliminary Recommendation: *Degraded and aged sealant joints should be carefully removed, the joints cleaned, primed and prepared; and then, new high-performance sealants (i.e., non-skinning butyl in concealed joints and silicone in exposed joints) need to be correctly specified and detailed by an experienced and knowledgeable sheet metal roofing consulting firm, working collaboratively with SSWA. Utilizing those prepared project documents, the full-scope of this metal-roof-related sealant work can be appropriately bid by sheet metal experienced contractors and then properly installed by the selected contractor, so as these sealant joints will perform successfully for the long-term.*

3. **Broken Solder Joints At Sheet Metal Roofing Panel Intersections:**
Numerous solder joints at the lead-coated copper roof panels around the fall protection anchors and near the apex of the barrel roofs have broken open and need correction prior to 2020 fall and winter rains, winter-snow, freezing temperatures, ice and ice-melt. The majority of these broken solder joints were observed at lower-sloped, high traffic areas at the apex of the sheet metal standing seam roof system.

Photo No. 6 - Depicts broken solder joints at the sheet metal flashing around a fall protection anchor at the apex of the steep-slope roof area, which needs to be repaired and flashed over.

Photo No. 7 - Depicts probe inserted into a broken solder joint near the apex of the sheet metal roof area, this location was in a more heavily trafficked portion of the roof area and may have been caused by repeated roof maintenance traffic applying pressure to the solder joint, rather than stepping over and past the joint.

Preliminary Recommendation: *BET&R recommends carefully removing all loose and damaged solder where damaged joints have broken open, then the joints can be cleaned, prepared, re-tinned, and correctly soldered. All solder joints should be probed and those that need attention marked to re-work and corrective-action repair or retrofit. The installation of new solder joints, at all failed solder joints, are recommended to be performed by a qualified sheet metal Contractor, that employs experienced craftspersons capable of successfully soldering lead-coated copper panels. After corrections of the solder joints adjacent the fall protection anchors, those joints should be flashed over with a new 16 ounce soft copper flashing collars, or a 4lb. lead flashing collar, or can be over-flashed with PMMA liquid applied flashing, fully reinforced with polyester-fleece to form a new flashing boot, installed at the fall protection anchors.*

4. Degraded Sealant at Fall Protection Anchors:

The sealant applied at the three (3) fall protection anchors above the sheet metal flashing collars and stainless steel clamping bands is weathered, sun degraded, crazed, and at the end of its useful service life. The sealant at all three fall protection anchors is embrittled, and the southernmost safety anchor location is the most heavily crazed, embrittled, cracked, and degraded, but all are in need of retrofit.

Photo No. 8 - Depicts a round-nosed probe inserted into a cracked and failed sealant joint at the fall protection anchor at the south end of the steep-slope roof area.

Photo No. 9 - Depicts weathered, degraded, crazed and cracked sealant joint at a fall protection anchor on the steep-slope roof area.

Preliminary Recommendation: *BET&R recommends carefully removing all aged and degraded sealant joints, thoroughly cleaning of the lead flashing-to-anchor post intersection, and then installation of a PMMA primer and a new PMMA resinous liquid applied and fully-fleece reinforced flashing collar, applied to overlap the existing lead flashing, that should be by a qualified roofing contractor in coordination with the roofing panel Manufacturer to ensure that the existing warranty is maintained.*

5. **Electrical Bird Deterrent at Parapets and Steep-Slope Perimeter Disconnected, and Displaced:** The thin strip of electrified bird deterrent installed at the perimeter of the building's main roof area is displaced and incompletely adhered in numerous locations. Additionally, the sealant used to adhere the metal strip to the sheet metal parapet is degraded and has disbonded from the sheet metal in numerous places. Contacts and connections apparently used to electrify the bird deterrent were also observed to be displaced in several locations. Further displacement and detachment of portions of the bird deterrent system may be expected, due to manner in which it was installed, and will pose a hazard if the system or system components detached from the roof and fell or are blown onto adjacent pedestrian or traffic areas below.

Photo No. 10 - Photo depicts displaced and progressively detaching electrified bird deterrent strips and loose and damaged plastic conduit at the steep-slope-to-low-slope transition at the northeast corner of the building. The bird deterrent system should be repaired, secured, or removed soon.

Photo No. 11 - Photo depicts loose electrical equipment and components at the apex of the steep-slope barrel roof area on the east side of the building. The bird deterrent system should be repaired, secured, or removed soon.

Preliminary Recommendation: *BET&R recommends the careful removal of all degraded sealant adhesive, damaged plastic conduit, and damaged bird deterrent components, followed by replacement with new, more robust components, and they should be thoroughly secured for the long term, by a qualified contractor, and to meet the roofing panel Manufacturer's requirements so as not to affect the roof warranty.*

6. **Gaps in the Sheet Metal Flashing at the Steep-Slope-to-Low-Slope Membrane Gutter Transition:** Improperly tabbed and sealed joints on the vertical face of the sheet metal flashing at the membrane gutter-to-steep slope roof area transition have resulted gaps in the sheet metal flashing and left the top edge of the low-slope roof membrane exposed to wind-driven rain and weather in locations. This condition was observed at the inside corner of the sheet metal roof perimeter flashing, and is in need of a backer rod and sealant closure.

Photo No. 12 - Photo depicts opening at the sheet metal eave edge flashing-to-membrane gutter intersection. The unsealed termination of the roofing membrane was observed to be exposed at this opening, which is in need of correction.

Photo No. 13 - Photo depicts a tactile probe inserted into an opening at the sheet metal eave edge flashing-to-membrane-lined gutter intersection. This condition was observed in the majority of the areas accessed and appears to be a typical condition – all of which are in need of backer rod and sealant and properly formed, fit, and secured sheet metal corner closures.

Preliminary Recommendation: *BET&R recommends the installation of closed-cell foam backer rod, Dow silicon sealant, then properly formed and secured sheet metal corner closures to close off these open and weather exposed conditions. This type of repair is recommended to be detailed in a drawing, generated by a knowledgeable and experience repair designer, so that the repair can be properly installed by a qualified contractor and integrated into the existing steep-slope roof system in a weathertight and watershedding manner.*

7. **Loose Stainless-Steel Fasteners at Standing Seam Sheet Metal Roof Battens:**
The stainless-steel fasteners that secure the lead-coated copper batten caps to the machined panel clips of the metal roof are loose in locations. The proper installation of these fasteners is critical to properly securing the sheet metal battens and preventing displacement and wind blow-off. Allowing loose fasteners to go unattended to may be anticipated to lead to the displacement or detachment of the sheet metal batten and cause a life safety risk during an upcoming wind event.

Photo No. 14 - Photo depicts roof technologist's tactile probe inserted between the head of the loose stainless steel screw fastener and the lead-coated copper roof panel seam battens at the apex of the steep-slope barrel roof area on the southern (i.e., windward) portion of the building.

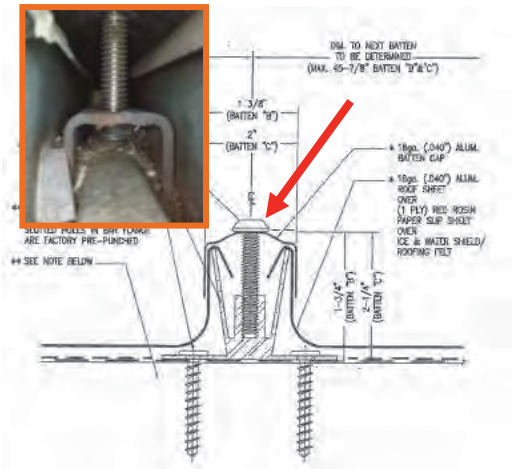


Photo No. 15 - Excerpt from Overly Manufacturing shop drawings depicts general arrangement of the roof system panel and batten securement. The machine screws were observed to be loose in select locations, as indicated with red arrow. Inset photo depicts example actual in-situ batten seam clip and machine screw threaded shank.

Preliminary Recommendation: *BET&R recommends having BET&R work with SSWA and the roofing panel Manufacturer to arrive at a mutually agreed upon, prudent and long-term corrective action detail for retrofitting of these loose roof batten conditions. All loose fasteners should be temporarily and properly torqued tight per the roofing Manufacturer requirements, in effort to maintain the roof warranty.*

8. **Degraded Sealant at Metal Gutter-to-Sheet Metal Rake Edge Flashing Intersection:**
The sealant at the sheet metal rake edge metal flashing and the exterior face of the sheet metal gutter flashing is cracked, disbonded, degraded, and at the end of its useful service life.

Photo No. 16 - Photo depicts aged and failed sealant joint at the roof's perimeter rake edge flashing-to-sheet metal gutter flashing intersection.

Photo No. 17 - Photo depicts roof technologist's flat metal probe carefully inserted into the failed and open sealant at the sealant-dependent sheet rake edge-to-sheet metal gutter flashing intersection. Due to anticipated rain water runoff migrating into these open joints, BET&R recommends including this failed detail in to an upcoming roofing and flashing repair & retrofit project, which BET&R would be glad to assist SSWA and the Museum to design and see to completion this year as needed.

Preliminary Recommendation: *BET&R recommends the careful removal of aged and degraded sealant, cleaning of the intersecting joint, and the installation of new high performance gutter seal or silicon sealant, which can be installed by a qualified sheet metal roofing or gutter specialty contractor to correct this condition for the long-term.*

ANTHEM Café

1. **Roof Area Sheet-Metal Flashings at the Dormer Barrel Roof-To-Main Steep-Slope Roof Area Appears To Be Inadequate And Potentially Allowing Water Into The Roof System:**
   At the intersection of the sheet metal flashing at the upslope apex of the barrel-shaped roof of the small dormer on the north end of the Anthem Café adjacent to the building's Main Roof Area, BET&R observed open sheet metal joints and degraded sealant. Moisture and signs of prior moisture intrusion were discovered downslope of this location indicating that the deficiencies observed at the Dormer's apex flashing-to-main roof intersection, located just above the dormer roof, are allowing water into the roof system.

Photo No. 18 - Photo depicts overview of the apex flashing at the dormer roof-to-main roof transition at the east side of the Anthem Café portion of the facility.

Photo No. 19 - Depicts close view from a different angle of the sheet metal apex flashing-to-main roof area transition. Water was observed behind and beneath the sheet metal roofing and flashing downslope of this location, indicating that this vulnerable intersection is allowing moisture into the roof system.

Photo No. 20 - Photo where staining and moisture was visible, apparently exuding out from between sheet metal components immediately down-slope of the problematic dormer-to-main field of roof intersection.

Photo No. 21 - Water-finding paper indicates that moisture is present, emanating from this sheet metal intersection. The upslope deficient detailed conditions should also be included in an upcoming roof repair and retrofit project, so that they can be carefully re-designed and retrofit to keep wind-driven rain and water from entering the roof for long-term successful performance of the roof system.

Preliminary Recommendation: *BET&R recommends the removal and replacement of all aged and degraded sealant joints as soon as possible, and the well thought out re-design of this apex flashing-to-Upper Main Roof intersections in order to properly plan the retrofit of this apex sheet metal flashing at the dormer-to-main field of roof intersection by an experienced sheet metal roofing and flashing contractor. This detail, along with numerous other flashings and transitions at the building/facility are recommended to be properly retrofit – before winter rains cause more leakage into the roof system -- and before frost and freezing weather cause more issues and keep skilled tradespersons off the steep-slope sheet metal roof system due to potential for slipping and injury.*

2. **Sheet Metal Flashings Improperly Terminated At The Dormer Rising Wall-To-Roof Eave Intersection:** The sheet metal roof-to-wall flashing at the rising wall of the dormer, on the north end of the Anthem Café main roof are open and improperly terminated at the eave edge, at the roof-to-wall base flashing, and at the stepped counterflashing. The roof-to-wall's sheet metal flashing does not wrap or extend out beyond the dormer's brick veneer cladding via a diverter flashing bend, nor is the eave termination of the metal roof panels and the overlying stepped counterflashing closed and/or sealed with sealant. The intermediate roof-to-wall sheet metal flashing lacks a diverter flashing extension flange, which should be retrofit to "kick" water out away from this vulnerable roof-to-masonry transition. The roof system is exposed to wind driven rain at this roof-to-wall intersection, which is not properly closed off. And, the masonry wall is exposed to drainage water runoff from the roof at this incompletely detailed roof-to-wall location. Wet and stained brick was observed adjacent the deficient sheet metal flashing at this roof-to-wall transition/location.

Photo No. 22 - Photo depicts weather-exposed opening between the sheet metal roof-to-rising wall flashing that extends up onto the brick veneer at the South Elevation of the Anthem Café Dormer. Incompletely terminated and unclosed sheet metal components, and the lack of a diverter flashing leaves this area vulnerable to wind-driven rain, and snow- and ice-melt moisture intrusion.

Photo No. 23 - Photo depicts opening between the sheet metal roof-to-rising wall flashing and the brick veneer at the North Elevation of the Anthem Café Dormer. A small portion of the underlying self-adhering ice and water protection membrane is visible at the incomplete termination of the sheet metal roof-to-rising wall flashing (arrow). Water was also observed to be on the brick behind the flashing at this location (circle); these roof-to-wall transition flashings need to be retrofit.

Preliminary Recommendation: *BET&R recommends retrofit design of this roof-to-wall intersection, and part of the retrofit should be the installation of sheet metal diverter flashings to promote rain water to drain to the gutter and to keep roof water runoff as well as snow- and ice-melt water from contacting and getting into the brick masonry wall assembly. BET&R also recommends installation of additional sheet metal closure components and proper modulus butyl sealant tape to properly close these currently deficiently detailed roof-to-wall conditions, which are and have been avenues for moisture intrusion into the masonry cladding and into the roof system, which in time will cause leakage into the building.*

INITIAL STEEP-SLOPE ROOF SYSTEM REPAIR & RETROFIT RECOMMENDATIONS & PRIORITIES

BET&R INITIAL & EMERGENCY RECOMMENDATIONS:

As described in detail above, the existing steep-slope lead-coated copper batten -seam roof system is in serviceable condition, but requires specifically targeted, properly designed retrofit, and immediate emergency-type repairs in order to avoid wind blow-off, damage, and life-safety hazards due to improperly attached, inadequately attached, and incompletely secured components. Specific repair and retrofit work is also recommended to halt water entry into the roof and wall cladding systems, which if not attended to will over time shorten of the roof and cladding systems performance and expected service life.

These intersecting radius-shaped steep-slope sheet metal roofs need prompt corrective action repairs, and numerous specific conditions to be re-designed in order for proper retrofits to be carried out correctly by an experienced local sheet metal roofing and architectural flashing contractor. Among the first items that need prompt corrective action are the improperly- and inadequately-secured sheet metal flashings at the steep-slope-to-low-slope roof transitions, as they are loose and vulnerable to blow-off. The securement of the perimeter flashing is a high priority item as the displacement of these sheet metal flashings area life safety issue if all or even portions of the sheet metal flashings were to become completely detached due to thermal expansion and contraction, and then blow-off from the building in an upcoming wind event. Such types of blow-off are a very real possibility because the flashings are not correctly attached to one another nor adequately secured to the building. As such, it is BET&R's recommendation that the securement of these flashings, as itemized in this report, be immediately with temporary ballast and temporary fastening, to guard against blow-off during spring winds. Then, in conjunction with maintenance staff or an outside contractor setting ballast on those flashings and panels where ballast is feasible and adding temporary fastenings, all of these flashings should properly and carefully re-designed for retrofit, with mindful considerations so as allow for thermal expansion and contraction where feasible and to meet code-required high-wind securement standards, while avoiding excessive puncturing of the sheet metal roofing panels, and some of the flashings, with too many additional exposed fasteners. BET&R recommends that the additional securement of the sheet metal flashings, and the metal roofing systems battens, which also secure the metal roof panels themselves, be promptly re-designed and these retrofits be promptly accomplished (several in emergency manner) at all roof areas where incompletely secured sheet metal components exist.

Roof safety anchors were noted to be absent at the steep-slope sheet metal roof at the Anthem Café, which should be addressed during the roofing and flashing retrofit work to allow safe roof access for roof maintenance activates. Also a snow retention system is not present at the sheet metal roof areas, some of which do extend out over potential pedestrian traffic areas, but where the roofs are vulnerable to sliding snow and ice fall onto pedestrians or onto other vulnerable portions of the facility, these roofs should be considered for the addition of snow and ice retention system(s) as part of the roofing and flashing retrofit project. Such a retrofit project is recommend to be accomplished before the onset of inclement fall and winter weather of 2020.

BET&R's recommendations for targeted repairs to the standing seams sheet metal roof also include replacement of existing aged, weathered, embrittled, crazed, cracked and degraded sealant joints; installation of polyester-fleece reinforced PMMA resinous-applied waterproofing membrane flashings at fall protection anchors, the resoldering and repair of broken and open solder joints, the repair or removal and replacement of the existing loose and partially detached electrified bird deterrent strips, and the proper closure of numerous openings in the sheet metal flashings at roof-to-wall and other intersections and transitions.

Please note that per Project Record Documents the steep-slope standing seam roof system is still under the 30-year manufacturer warranty. As such, the Metal Roofing Manufacturer should be notified and included in a review of the necessary repair and retrofit work items and solutions of same so as not to affect or void the Warranty (as may be applicable), or at a minimum request the Manufacturer provide written approval for the upcoming planned repairs as a means of continuation of warranty coverage, and potentially negotiating an extension of the Manufacturer's Warranty.

IMMEIDATE CORRECTIONS:

Regardless of whether the recommended full repair and retrofit work, or only targeted temporary roofing and flashing repairs are ultimately selected and undertaken, immediate correction of the unsecured sheet metal flashings at the steep-slope-to-low-slope roof transitions, and securement of the loose sheet metal battens that attach the metal roofing panels, and the other roofing and flashing related items noted in this report should be undertaken as emergency work as soon as possible. This work is recommended to be completed no later than September or early fall of 2020, so that all of the necessary work is completed before inclement and windy fall weather of 2020.

LOW-SLOPE ROOF OBSERVATIONS & TESTING

The eight (8) low-slope membrane roof areas adjacent the Upper Main Steep-slope Roofs utilize a single-ply 40-mil thick Hypalon (i.e., chlorosulphonated polyethylene, CSPE) roof membrane as was manufactured by JP Stevens, a roofing manufacturer that has since gone out of business. The membrane is primarily mechanically attached (i.e., screw attached) to the building's structural roof deck, throughout the field of each of the relatively small low-slope roof areas, but the roofs' membrane base flashings at parapets and rising walls are adhered in roofing membrane adhesive to an underlying roof substrate or coverboard board that was originally applied over the structural roof deck. The primary roof decks appear per the Project Record Drawings to be cast-in-place concrete, sloped to drain, with loose-laid and spot-mechanically attached organic/inorganic-faced 4-inch-thick polyisocyanurate roof insulation, but there is not a coverboard or substrate board installed over the field of these relatively small low-slope roof areas. Another shortcoming of the existing roof design, and existing as-built roofs, is that these low-slope roofs appear to lack a membrane vapor retarder, which should have been designed and installed at the roof deck level, below the rigid roof insulation so as the always keep the insulation and its steel screw fasteners above the dew-point temperature. Without a membrane vapor retarder having been incorporated into the existing low-slope roof systems, these isolated eight (8) low-slope roofs will likely have condensation-related issues during the colder winter months, which in the mechanically-attached configuration that they were built will likely wet out the insulation around the shanks of the cold-in-winter steel screw fasteners that currently attach the roofs to their underlying concrete roof decks.

As observed during BET&R's on-roof survey and conditions assessment, the surface of the roof membrane is significantly oxidized, faded, and is "chalky" to the touch, indicating degradation to the skyward-facing surface of the Hypalon single-ply roof membrane. The skyward-facing surface functions as the primary weathering surface and the primary waterproof layer of the laminated membrane. In addition, while roof insulation and the underlying roof deck at the test cut location were generally dry, spot moisture meter testing indicates that, due to the degradation of the primary waterproofing layer at the top surface of the membrane, moisture has begun to penetrate to the roof membrane's internal polyester fabric-reinforcing scrim of the membrane.

Due to the roof configuration of the building, the eight (8) low-slope membrane roof areas appear to function as essentially large roof-water runoff collection areas, for all of the standing seam sheet metal roof areas above that drain their runoff onto the low-slope roof areas, where roof drainage is then ultimately provided by the roof drains at the low-slope roof areas. As such it is critical that the low-slope areas continue to function properly, watertight and weatherproof, and that effective and unobstructed drainage off the low-slope roof areas is maintained.

WSHM staff reported no known leak issues into the interior occupied-space of the building, currently with the existing low-slope roof systems. However, these single-ply Hypalon low-slope roof membranes, currently covering the eight (8) low-slope roof areas have apparently been in service since approximately 1995 (~25 years), and are rapidly reaching the end of their useful and expected service life; as such, these relatively small membrane roof areas should be planned for reroofing during summer of 2020 or no later than summer of 2021.

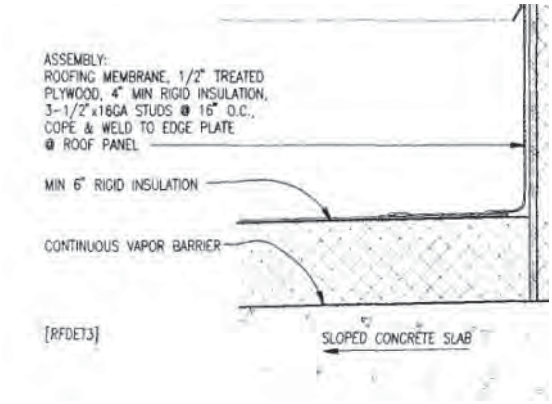


Photo No. 24 - Excerpt from Project Record Drawings indicates that the low-slope roof assembly consists of a sloped concrete deck, a vapor barrier, 6-inches of rigid insulation, and the mechanically attached roof membrane. However, BET&R discovered that the vapor barrier did not appear to exist and that the insulation was actually 4-inches thick rather than 6-inches thick.

Photo No. 25 - Depicts the roof test cut sample extracted during this 2020 site visit, which revealed: One 4-inch-thick layer of mechanically-attached, organic/inorganic paper-faced polyisocyanurate roof insulation that is covered by a weathered, aged, chalky, and embrittled, single-ply Hypalon roof membrane, as was once manufactured in the U.S. by JP Stevens (See arrow indicating light-blue backside of roof membrane, the color utilized solely by JP Stevens on their Hypalon roof membranes).

Photo No. 26 - The existing JP Stevens single-ply Hypalon roof membrane was noted to be a 40-mil (0.04-inch) thick single-ply, reinforced with a polyester-fabric scrim.

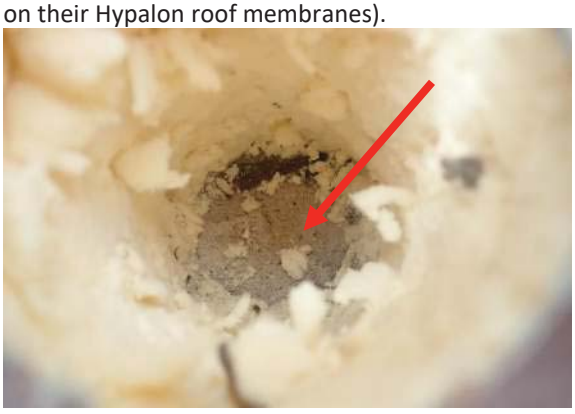


Photo No. 27 - Depicts existing concrete roof deck observed at test opening. No vapor retarder was observed at the area of the test opening. The black material, located just above the red arrow down in the test opening, is the bottom-side recycled-cardboard facer of the single-layer of rigid-roof insulation.

Photo No. 28 - Chalky residue visible on BET&R's Survey Technician's hand after light hand pressure was placed on the existing Hypalon roof membrane. In general, the oxidized chalky surface indicates that the primary top surface of the roof membrane is aged and weathered.

Photo No. 29 - Depicts open and disbonding membrane seam at the southeast corner roof area. Disbonding, or partially disbonded seams were observed in a few select locations, primarily at the west side of the southeast corner roof area.

SPECIFIC ITEMS OF CONCERN AT LOW-SLOPE ROOF AREAS

1. **Excessive Ponding Water, and Failing "Pitch Pans" at Electrical Penetrations:**
   There is debris build-up and ponding water on portions of the low-slope roofs, which is not desired with only a single-ply roof membrane as the primary roof covering on these eight (8) low-slope roof areas. And, the "pitch pans" filled with pourable sealant to form penetration "flashings" for the ganged-electrical conduit penetrations are aged and the sealant filler has shrunk and disbonded, leaving the penetration flashings and the adjacent roof system vulnerable to moisture intrusion.

Photo No. 30 - Circle indicates the "pitch pan" type penetration flashing typically present at electrical penetrations at the low-slope roof area. Note that the pan is located in a significant ponding area. One such pourable sealant penetration pocket was observed at each of the eight (8) low-slope roof areas.

Photo No. 31 - The pourable sealant installed as the electrical-conduit penetrations' "flashings" was observed to be aged, failing, and in numerous areas cracking and shrinking away from the perimeter of the pitch-pan, leaving the area vulnerable to moisture intrusion.

Preliminary Recommendation: *BET&R recommends the careful removal of all loose and degraded sealant and the installation of new properly configured flashing boots at all roof penetrations as part of a reroofing project for summer of 2020 or at latest 2021.*

2. **Lack of Slope To Drain At Membrane Lined Gutters:**
Besides the deficiency of ponding water on the low-slope roofs, which is not desired, the membrane-lined gutters built into the barrel roof eave edge, which drain into the low-slope roof areas, were observed to be generally either minimally sloped to drain back to the low-slope roof area, or even reverse sloped, retaining water, and in some cases supporting extensive vegetative growth that also hampers drainage. In addition, the sheet metal closure flashing detail at these built-in gutter conditions does not appear to incorporate a proper "kick-in" projecting flashing and appears to allow water exiting the end of the gutter to drain down onto the top of the adjacent parapet and potentially over the roof edge and down the exterior face of the cornice and wall. This defect should be retrofit with more thoroughly thought-out design detailing, so that during the upcoming reroofing these deficient details are retrofit and installed correctly.

Photo No. 32 - Photo depicts water ponding within an exemplar membrane-lined built-in gutter adjacent a low-slope roof area. As the water level indicates, the gutter is improperly sloped -- sloping away from the draining end rather than towards the gutter exit.

Photo No. 33 - Extensive vegetative growth was observed at several of the membrane-lined built-in gutters, apparently supported by the moisture available due to the gutters' improper slope.

Photo No. 34 - Photo depicts area where either a sloped "kick in" flashing should be installed, or better yet a re-sloping of the gutter trough during the upcoming reroofing so as to direct water away from the vulnerable parapet-to-gutter termination intersection.

Photo No. 35 - Arrow indicates vulnerable and open intersection between existing membrane gutter liner and the sheet metal end-closure flashing. Water appears to be able to drain out of the end of the gutter and intrude into this open and unsealed transition. These details should be corrected via their redesign by a roofing-experienced and knowledge roof consultant, assisting the architect, for the upcoming reroofing project design phase.

Preliminary Recommendation: *BET&R recommends the immediate careful removal of all vegetative growth and biological debris at the low-slope membrane roofs and in the built-in gutters. The augmentation of more positive slope on the low-slope roof areas, and more positive slope in the gutters and the installation of "kick-in" sheet metal flashings, should be included as part of the upcoming reroofing design for the upcoming Reroofing Project.*

3. **Loose and Unsecured Sheet Metal Counterflashing at Parapets:**
The existing sheet metal counterflashing along roof edge parapets at the low-slope roof areas was observed to be loose, easily detached, and in some cases, has already detached from the rising wall. This deficiency appears to be due to two primary conditions:

    1) The counterflashing's hold-down cleat appears to be secured to the parapet wall's plywood sheathing with only smooth-shanked nails, which have very minimal pull-out resistance and were observed to be pulling free in numerous locations; and,

    2) The counterflashing's hem was not fully engaged with the parapet's sheet metal wall cleat, nor was the counterflashing fully engaged with the hem of the parapet's overlying sheet metal coping cap.

Photo No. 36 - Red arrow indicates the sheet metal, counterflashing which engages into the roof-side hem of the parapet's sheet metal coping flashing. The hem was observed to be unevenly engaged at numerous locations, and in some cases had been attempted to be secured with rivets.

Photo No. 37 - The lower portion of the sheet metal counterflashing was apparently intended to be secured via engagement into/with a concealed stainless steel continuous cleat. BET&R observed that at numerous locations the cleat was either not effectively engaged with the counterflashing's hem, or the cleat was itself displaced due to insufficient securement with smooth-shanked copper nails (circled), or both.

Preliminary Recommendation: *BET&R recommends the immediate short-term or emergency-type securement of the parapet walls' sheet metal coping/cap flashing utilizing hex-head or modified-truss head screw fasteners, of appropriate length and diameter for secure and weatherproof anchorage into the substrate below. Each screw is recommended to be fit with a dome-shaped washer laminated to an EPDM-rubber gasket for secure and weatherproof mechanical attachment. The screw fasteners should be fastened through the sheet metal coping, through the cleat, and counterflashing, into the underlying sound plywood sheathing substrate, and into the underlying framing where feasible, so as to meet wind-uplift requirements for this Code designated minimum of 115 mph wind-design zone, and roofing and sheet metal industry standards. These new screw fasteners may be effectively spaced at approximately 12-inches on-center, for efficient emergency securement of these subject existing sheet metal components, by driving the screws along the inboard (e.g., the roof-side) flange of the coping. Also, the*

proper redesign of this deficiently constructed original coping and counterflashing detail, and their proper securement for the long-term, should include a re-shaped and differently attached sheet metal continuous cleat, as well as that of the sheet metal counterflashing, both of which should be part of the upcoming reroofing and reflashing Project.

4. **Extensive Buildup of Debris on the Roof and Clogged Drains:**
Extensive debris, including vegetative growth, silt, and detritus, were observed at all low-slope roof areas. These debris have collected to such an extent that they are affecting the drainage of the roof, both due to clogging and obstructing of the primary drain bowl, and also due to the organic debris and silt buildup lowering the effective slope of the roof. As noted above, extensive ponding, in some cases covering the majority of the low-slope roof area, was observed at all low-slope roof areas.

Photo No. 38 - Drone overview of the South Portion of the Museum's Main Roof illustrates extensive areas of ponding and staining observed on the low-slope roof areas, partly due to clogging of the roof-side drain strainers.

Photo No. 39 - Photo depicts significant buildup of silt and organic debris, as was typically observed at low-slope roof areas.

Preliminary Recommendation: *BET&R recommends immediate, careful, and thorough cleaning of each of the low-slope roof areas, and their roof drains and drain strainers, to facilitate drainage of each of the low-slope roofs as well as the Main Upper Roof Areas. This immediate drain cleaning should help to limit some of the ponding water, which dangerously accumulates on the low-slope roofs. These low-slope roofs, if drainage is further impeded, will potentially contribute to roof overloading, if drains were to become further clogged, which could potentially result in a collapse or a partial collapse of these low-slope roofs due to the contributory drainage of the large Upper Main Sheet Metal Roofed Areas.*

5. **Improperly Plumbed Roof Drains:**
The existing primary and secondary (i.e., overflow) roof drains at the low-slope roof areas were observed to be plumbed into the decorative sheet metal cornice, where the drain leaders both daylight into the same exterior wall-mounted decorative sheet metal collector box and flow into the same exterior downspout. This does not allow the overflow to function as required by Code. As these drains are currently plumbed, in the event one or more of the primary drains is clogged or becomes clogged, the overflow, which is only outfitted with a 2-inch drain, should activate, but there will be no indication to building maintenance personnel that the primary drain is clogged, as the water will continue to flow unseen into the collector box. This incorrect and deficient roof drain plumbing situation creates a potentially hazardous condition where extensive ponding on the roof surface becomes prevalent, as was observed during this survey, which can lead to roof overloading – and potential life-safe hazards – that are not readily apparent to the building facilities or building maintenance personnel or anyone else in or around the building.

Photo No. 40 - Photo depicts typical arrangement of roof-side primary and secondary roof drains as was observed at low-slope roof areas. The primary drain and the secondary overflow drain, outfitted with a 2-inch collar, are placed side by side, and both plumbed into the same collector box.

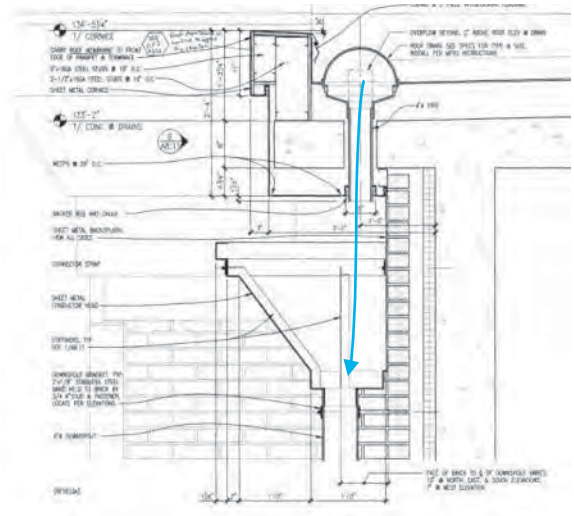


Photo No. 41 - Excerpted Project Record Drawing illustrates the configuration observed during the survey, with both primary and overflow ~4-inch drains being daylighted into the wall-mounted collector boxes.

Photo No. 42 - View of the primary drain and the secondary overflow drain both plumbed into the same collector box.

Photo No. 43 - Depicts 6-inch downspout typically observed at drain locations.

Preliminary Recommendation: *Roof drain overflow outlets should always be visible, so that if a primary roof drain becomes clogged and the overflow drain is activated -- the roof water runoff is readily noticeable to building facilities and/or maintenance personnel or building occupants – so that a knowledgeable person can to up on the roof(s) and clean the primary drain(s) to bring it back into regular and safe service. As such, BET&R recommends the addition of an easily observed outlet for each of the roof overflow drains so as to meet Code and in effort to avoid roof water overloading and a potential life safety issue.*

PRELIMINARY LOW-SLOPE ROOF SYTEM REPAIR RECCOMENDATIONS & PRIORITIES

BET&R RECCOMENDATION:

As described in detail above, the existing 40-mil thick single-ply Hypalon membrane roofs at the eight (8) low-slope roof areas, and their adjacent membrane lined gutters, are reaching the end of their useful service life. As such, it is BET&R's recommendation that the existing roof systems be replaced with new, properly vapor retarded, fully insulated, robust multi-ply polymer modified asphalt built-up roof systems consisting of styrene butadiene styrene (SBS) polymer modified asphalt roofing plies, and incorporating a complete and functioning vapor retarder, placed on and fully-adhered to the existing, cleaned and primed concrete deck. Due to the aged and embrittling roof membranes, numerous roof-related deficiencies (e.g., incorrect roof drain plumbing, ponding conditions, loose and unsecured metal roof panels, loose battens, and loose and/or detached and detaching sheet metal flashings, etc.) BET&R recommends planning for reroofing during summer of 2020; or, if funds are not yet budgeted for and available, then BET&R suggests commencing the design for reroofing, and roofing and flashing retrofit design, be undertaking during fall and early winter of 2020, so that bidding can occur during late winter 2020, and the project can be awarded late winter or very early spring 2021, such that all of the reroofing and roof- and flashing-related retrofit can be commenced and accomplished early summer through early fall of 2021.

During a reroofing project at the low-slope roof areas consideration should be given to the system's integration with the existing standing seam sheet metal roof system, as well as to correcting the numerous detail deficiencies noted with roof drains' plumbing, the low-slope roofs needing more positive slope, re-sloping the built-in gutters, and the securement of the adjacent metal roofing panels, batten covers, and all associated deficiently attached sheet metal flashings. In addition, during a reroofing project the primary and overflow drainage should be amended to adhere to the Code and provide separately functioning overflow drains with outlets that are readily visible from the ground. Correction of this item could potentially include simple replumbing of the existing overflow drains out the side of their adjacent collector box, such that when activated the overflow drain bypasses the collector box. But, such a replumbing design is recommended to be more thoroughly thought out so that any overflow water runoff is deposited safely and not potentially onto persons or property below that could be harmed, degraded, or damaged.

POTENTIAL TEMPORARY INTERIM REPAIR:

As the existing low-slope roof systems appear to be generally still functioning, albeit with very little service life remaining, temporary stop-gap repairs could be instituted while budgeting, planning, and designing for a full low-slope reroofing project.. Temporary stop-gap repairs to the low-slope roof areas could include cleaning all of the low-slope roofs' drains, and drain strainers; squeegeeing off the ponding water, while the water drains sweeping, cleaning, and then rinsing and squeegeeing off the Hypalon roofs, spot repair of the existing "pitch pans," temporary securement of all of the loose and all of the deficient sheet metal perimeter flashings, securement of all of the metal roof panels' and their battens, adding closures and sealant details at all locations as noted above and as needed on the roofs and flashings, correcting the overflow drainage and then priming, and coating of the existing Hypalon roofs with a polyurethane base and top coat coating system. However, due to the ponding issues on the low-slope roofs, a coating system will not be cost effective as the coating will be

short-lived, and when it starts to peel and detach it will clog the roof drain strainer and potentially can clog the drains if not carefully monitored. However, appropriately designed and carefully performed repairs and coating of the low-slope Hypalon roofs and flashings may be expected to extend the service life of the low-slope roof system by four (4) to seven (7) years.

IMMEIDATE CORRECTIONS:

Regardless of whether the recommended full reroofing and flashing retrofit is planned, and/or targeted temporary roofing, flashing retrofit, and low-slope coating is ultimately selected -- it is critical to undertake immediate cleaning of the low-slope roof drains, un-blocking of the existing roof drains, re-routing of the overflow drain's outlets, securement of all of the loose and detaching flashings and loose metal roof panels' battens, and other items noted above as soon as possible.

III. CLADDING OBSERVATIONS & FINDINGS

The cladding at the Washington State History Museum's cladding system is comprised primarily of single-wythe brick masonry veneer over cast-in-place (CIP) concrete back-up walls. Sections of cast-in-place concrete at the First Floor "Track Level" (North and East Elevations) comprise the exterior building envelope at those locations. Precast concrete elements are also installed at window sill washes and at base of wall plinth locations. Sections of decorative 0.50-thick anodized aluminum cladding panels are present at archway tops while approximately .125-inch thick pre-finished aluminum panels comprise the archway soffit cladding system. Sheet metal panels are installed at the roof cornice. Dual-panel, extruded-aluminum framed window and storefront entry systems comprise the majority of the buildings glazed fenestration. There are also several hollow metal service and emergency exit doors around the ground floor of the Museum as well as loading dock roll up doors.
BET&R conducted visual and tactile survey of representative areas of the Museum's exterior cladding and fenestration systems. RILEM Tube water absorption testing was conducted at both brick veneer masonry and at CIP foundation walls. Diagnostic Monarch water-spray testing was also performed at select fenestration systems during the survey. No destructive testing was conducted with respect to the cladding or fenestration during this 2020 exterior building envelope survey.

While the majority of the Museum's cladding and fenestration systems appear to be functioning as intended, there are several items of concern that will require attention in the future.

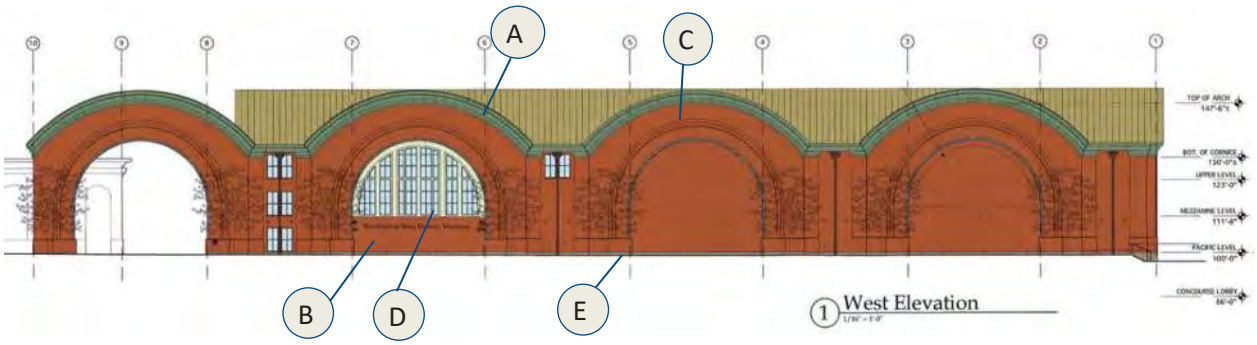


Figure No. 3. Excerpted from the 2002 brick veneer water repellent project this drawing of the West Elevation of the building shows an overview of the typical cladding systems. It was been colorized to clearly delineate the various building envelope systems at the Museum. Components are named as follows: **A.** Sheet Metal Cornice, **B.** Brick Veneer Cladding, **C.** Decorative Aluminum Panel Cladding, **D**. Aluminum Storefront Window Assemblies, **E**. Pre-cast Concrete Plinth.

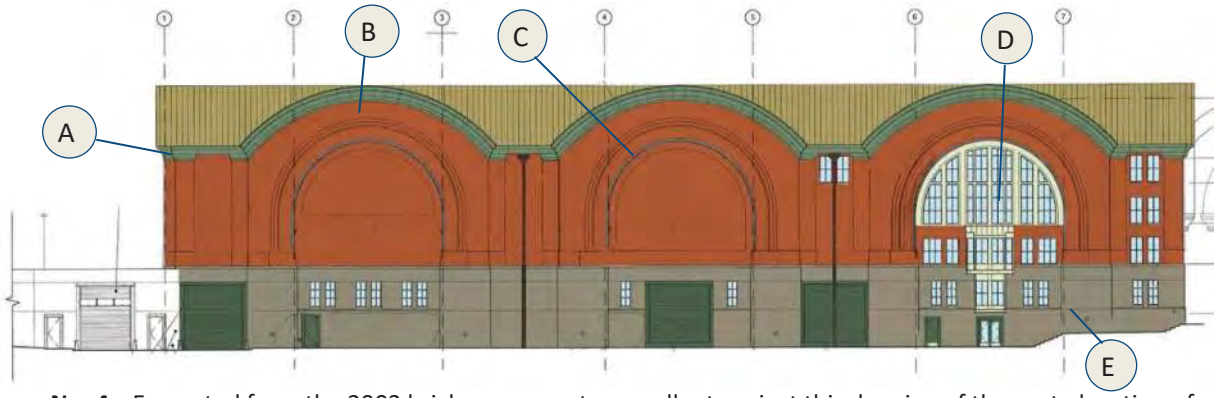


Figure No. 4. Excerpted from the 2002 brick veneer water repellent project this drawing of the east elevation of the building shows an overview of the typical cladding systems. **A.** Sheet Metal Cornice, **B.** Brick Veneer Cladding, **C.** Aluminum Panel Cladding, **D**. Aluminum Storefront Window Assemblies, **E**. Cast-in-Place Concrete Foundation Wall.

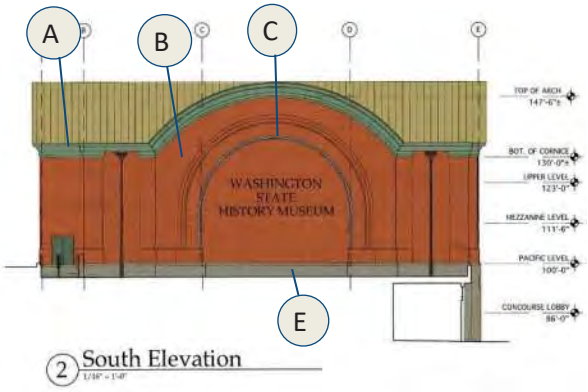


Figure No. 5. South Elevation of the building showing an overview of the typical cladding systems.

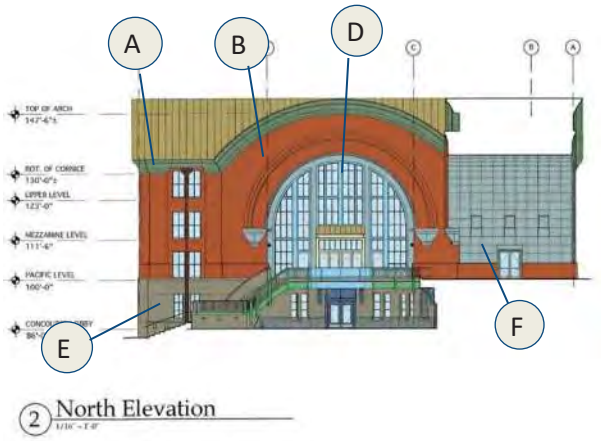


Figure No. 6. North Elevation of the building showing an overview of the typical cladding systems. **F.** .125 Pre-finished Aluminum Cladding Panels.

BRICK VENEER OBSERVATIONS:

Per Project Record Drawings the brick veneer is nominal 4-inches thick and is reportedly secured to the cast-in-place (CIP) concrete back-up wall with brick ties spaced approximately every 16-inches O.C. (See Figure 8 below). The brick veneer ties are mechanically attached to the CIP back-up wall, which reportedly varies in thickness per Structural Project Record Drawings. Reportedly, there are 2-inches of rigid insulation outboard of the CIP walls and 2-inches of air gap space between the rigid insulation and the brick veneer per Project Record Drawings. BET&R confirmed that rigid insulation was installed as depicted with the use of a borescope at one location during on-site survey and conditions assessment. See Figure 7 (Details 9 & 10 on sheet A-8.10) excerpted from the Project Record Drawings below.

The CIP back-up walls are noted to have received "Liquid membrane waterproofing system" at below grade-locations; It appears that other CIP back-up walls also received an asphaltic-based liquid applied damproofing; however, judging from photos provided by the Client, the application does not appear consistent, uniform, continuous, or applied at full mil thickness. As depicted in Figure 7 below, through-veneer flashing locations received a flexible flashing "Perm-a-barrier" membrane, installed over a rigid sheet metal flashing at base of the bricks' through-veneer locations. Similar through-veneer flashing are shown at brick ledger angle locations. BET&R observed a laminated (i.e., Flexible flashing membrane laminated to a flexible sheet metal core) flashing in use at select through-veneer locations, which may have taken the place of the dual flashing system that is depicted in the Project Record Drawings. The presence of through brick veneer flashings was also confirmed during review of original construction photos provided by the Client, although many of the flashings did not appear well adhered prior to the brick installation. Brick weep tubes are located approximately every 24-inches O.C. or every three brick head courses. Unfortunately, many of them are clogged with insect-related, and other, debris.

The brick veneer and related mortar joints are generally in good condition with very little fractured or spalled brick or mortar observed. Some staining and efflorescence on the brick veneer is evident at select locations. As such, it appears that a spot routing and pointing to repair isolated issues would be prudent; followed by a thorough steam cleaning or warm-water, low-pressure wash of the masonry after the pointing mortar has fully cured; followed by a correctly selected water-repellant application would also be prudent, after the walls dry after cleaning, all as spot repair and maintenance.

The highest priority maintenance item related to the brick masonry cladding is the replacement of failed sealant joints within the brick veneer system (i.e., at floor lines, brick veneer ledger angles, and expansion joint locations) and at penetrations. Sealant joints were observed to be lacking or not installed at select locations, and at other locations the existing sealant joints are weathered to a degree that they are no longer serviceable.

The failed sealant joints require removal, and numerous through-veneer penetrations (i.e., bolts, fixtures, bracket ties, etc.) require new sealant seals to be installed -- as they are currently lacking. Also of great importance is addressing voids and gaps at brick veneer archway-to-brick veneer wall locations that appear to be allowing water to migrate to the backside of the brick veneer cladding system. With specific and properly designed, and correctly executed repairs, and specific on-going maintenance, BET&R is confident the brick veneer cladding systems can provide many more years of successful service for the Museum.

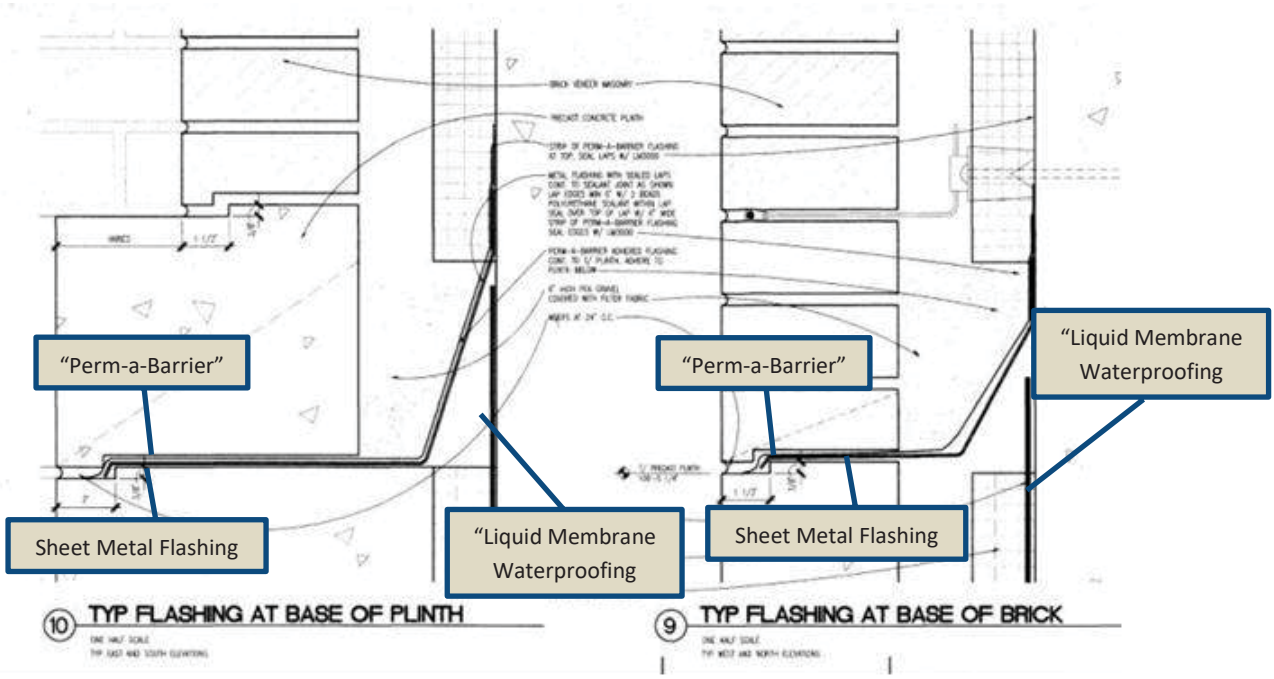


Figure No. 7. Details A-8.10/9 and A-8.10/10, excerpted from the Project Record Drawings showing the base of the brick veneer cladding system in section view. The depicted details call out a flexible flashing membrane installed over a rigid sheet metal flashing at base of brick through veneer locations and shows similar through veneer flashing at brick ledger locations. BET&R observed a laminated type flashing in use at select locations.

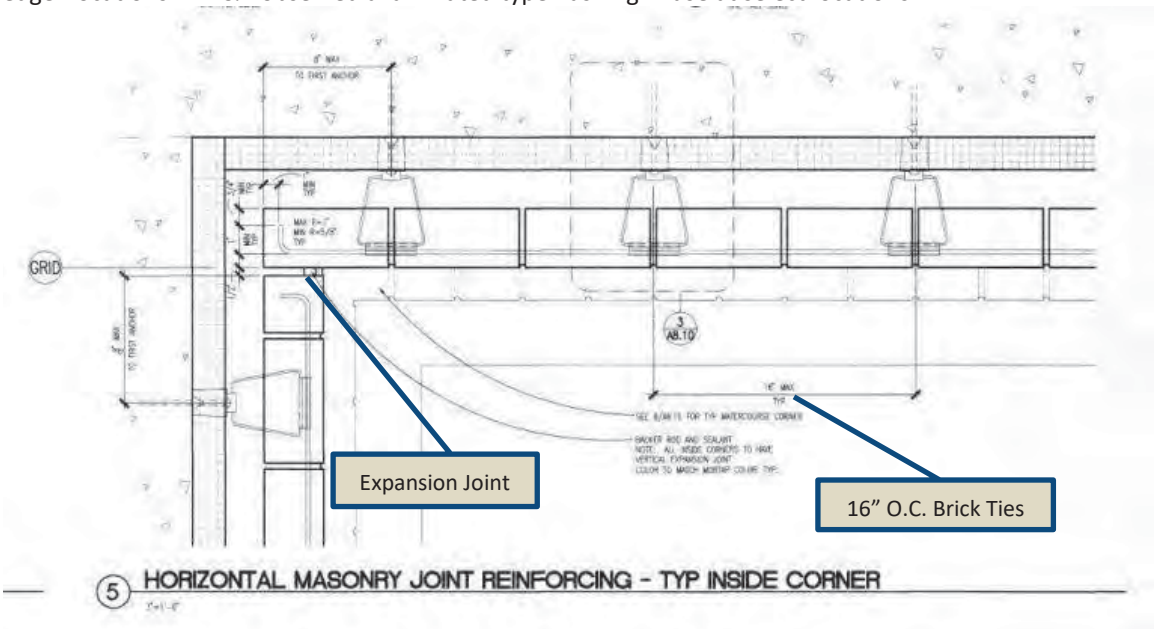


Figure No. 8. Details A-8.10/5 excerpted from the Project Record Drawings showing a typical inside corner with a backer rod and sealant joint at the vertical expansion joint. It also shows the brick ties were to be spaced at 16-inches O.C.

SPECIFIC ITEMS OF CONCERN RELATED TO CLADDING SYSTEMS:

1. **Failed and Weathered Sealant Joints at Brick Masonry:**
Widespread sealant joint failure observed at the masonry related sealant joints, caused by weathering, sealant aging, heat aging and chalking, and installation issues resulting in adhesive failure. The affected sealant joints are typically located at ledger angles, relief joints, below steel plates at column bases, where applied at archway radius bricks, and at inside-corner expansion joint locations. Note that brick veneer ledger angles are drained with weep tubes located approximately in intervals of every three brick head joints.

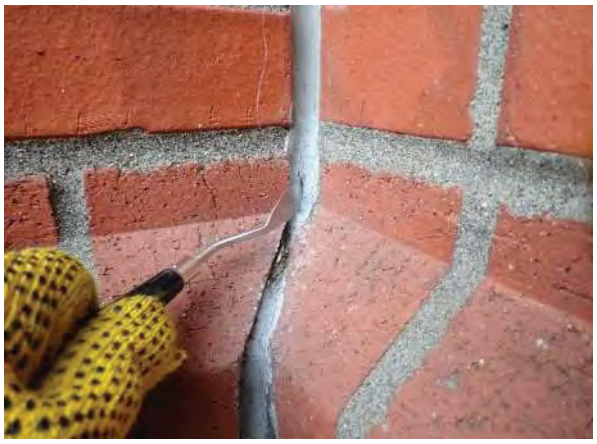


Photo No. 44 - View of flat probe inserted into a cohesively failed sealant joint at brick masonry veneer inside corner expansion joint. This is a typical condition.

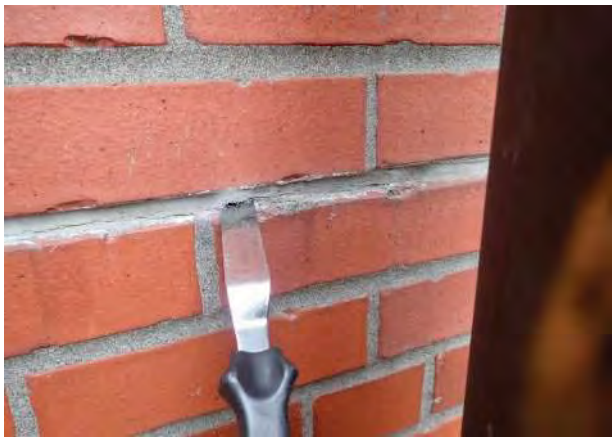


Photo No. 45 - View of flat probe inserted into an adhesively failed sealant joint at brick masonry veneer floor-line joint. This is a typical condition.

Photo No. 46 - Depicts flat probe inserted into an adhesively failed sealant joint below steel plate at column base location. This is a typical condition.

Photo No. 47 - Depicts weathered, aged, and failing sealant at the brick masonry veneer-to-decorative archway aluminum panel intersection. Of note, the Project Record Drawings do not show a sealant joint at this location. It is possible the sealant may have been installed during the brick masonry cleaning and sealing project of 2002.

Preliminary Recommendation*: Remove all existing backer rod and sealant joints at brick masonry-to-brick masonry junctures and intersections (Brick Ledger relief angles, expansion joints, and control joints, etc.), steel plate-to-brick masonry transitions, and at radius brick transitions for installation of new properly designed and correctly installed watertight backer rod and sealant joints, fit with weeps where required.*

2. **Open Penetrations Through Brick Masonry:**
Several open penetrations through the brick veneer masonry that were observed during survey including, eye-bolt anchor locations, downspout bracket anchors, signage anchors, etc. Some of these penetrations appeared to be epoxy set while others appeared to be threaded into brick veneer or mortar joints. Many of the penetrations did not appear to be well sealed, and some not sealed, at the brick veneer level.

Photo No. 48 - View of typical bolted connection at signage anchor for the Anthem Café is open to leakage and water migration in to the wall.

Photo No. 49 - View of typical bracket sleeve connection for downspouts through the brick veneer that is unsealed and open to water leakage/migration.

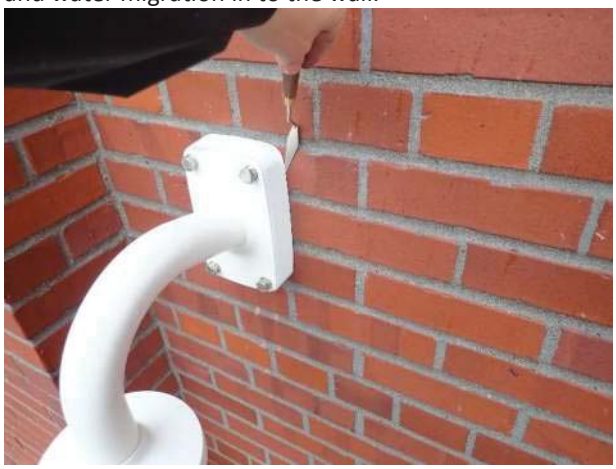


Photo No. 50 - Depicts flat probe inserted behind light fixture base mount at brick veneer, which is open to water entry and leak water migration into wall system.

Photo No. 51 - Depicts epoxy set eye-bolt locations through the brick veneer that are not fully sealed and are open to leakage and water migration into wall.

***Preliminary Recommendation**: Carefully clean and thoroughly prepare all through-brick veneer penetrations for application of properly bond-broken, full fillet bead of well tooled and properly adhered sealant. Use bond breaker tape or backer rod as appropriate and prime joints, prior to sealant installation as required by the Manufacturer.*

3. **Efflorescence and Staining:**
Areas of efflorescence and or staining, where visible on the brick veneer masonry at select locations, primarily near and around horizontal shelf angles and washes, and within brick veneer archways were water can pond and takes extended time to dry. Widespread sealant joint failure was noted at the masonry-related sealant joints including from weathering, aging, embrittlement and adhesive failure. These sealant joints are typically located at floor-line and inside-corner expansion joint locations.

Photo No. 52 - View of moisture-migration related staining at archway base locations at the West Elevation of the Museum above the steel base plates that do not have proper slope to drain.

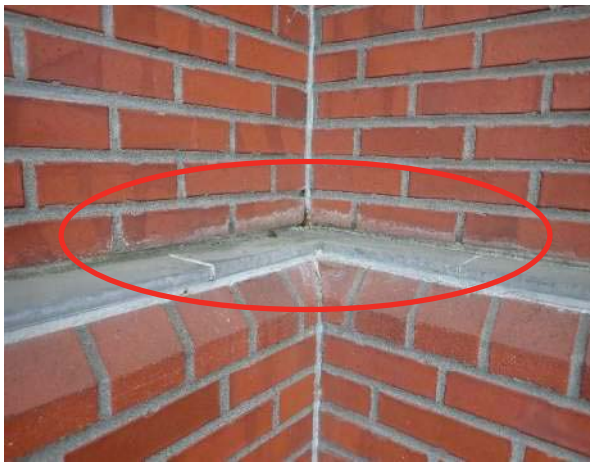


Photo No. 53 - Another view of moisture-related staining at horizontal shelf, at the steel base plate, near the Main Entry at the North Elevation that appears to be holding/ponding and absorbing water.

Photo No. 54 - View of negative shelf slope and resultant pooling water discovered at steel plate archway bases contributing to the staining and moisture absorption issues at the brick masonry.

Photo No. 55 - View of yellowish-green colored moss or lichen growing on the chamfered, skyward-facing rowlock course, indicating that numerous mortar joints are showing signs of weathering, and getting a bit porous, and capable of holding a bit of moisture in their slightly eroded surface, which are beginning to support some organic growth.

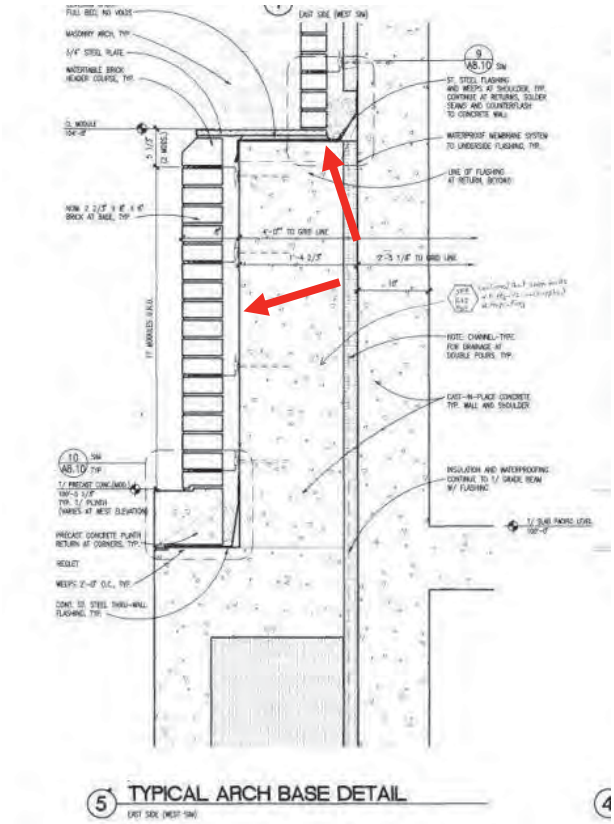


Photo No. 57 - Project Record Detail A-8.4/5 and Transition at ¾-inch steel plate. The transition is depicted to be waterproofed under the steel plate. As such BET&R does not suggest the tops of the steel plates be waterproofed, even though water is pooling at these locations and staining the brick mortar joints and base of brick.

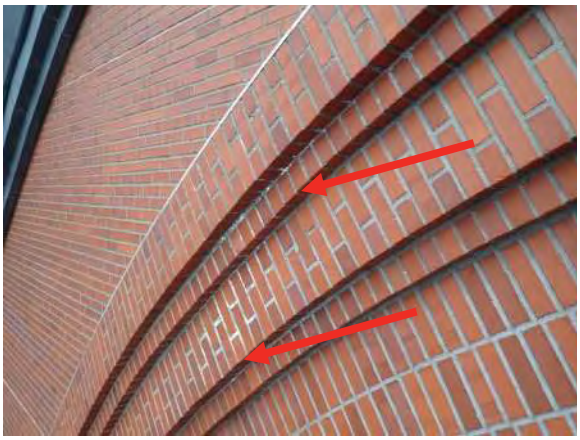


Photo No. 56 - View of moisture-absorption related efflorescence observed on mortar surface and brick masonry cladding at archway detail brick.

Photo No. 58 - Closer view of relatively heavy efflorescence deposits along the underside of archway brick detail.

Preliminary Recommendation*: In general, carefully redesign sealant joints for replacement; Retrofit and seal joints and open junctures, including among others, above brick masonry appropriately to limit water migration and design weeps into brick veneer cladding system for weeping and evacuation of migratory water. Carefully specify warm-water wash or steam clean exterior brick and mortar joints thoroughly, allow to dry thoroughly, then apply the most effective and appropriate water-repellant.*

4. **Fractured and Spalled Brick Masonry Units:**
Two brick units were identified, during BET&R's visual and tactile survey work, as beginning to reveal signs of concern: One uniquely fractured brick was examined, and one brick along a drip-course of the arch was discovered to have recently spalled. Both of these issues signal different things, which are further described below, and they should not be ignored despite their not yet being widespread.

Photo No. 59 - View of fractured brick unit discovered at the West Elevation of the Facility. This type of crack and resultant wide differential separation of the clay brick appears indicative of strain in the wall assembly or floor-line movement. It would be prudent to have a brick masonry-experienced structural engineer review this portion of the facility with BET&R, from the interior and exterior, so as to determine if there is more to a "repair" of the building than just to this isolated portion of the brick masonry veneer. Please see recommendation below for more information.

Photo No. 60 - View of spalled brick unit discovered at the South Elevation of the decorative and projecting portion of the façade of the Facility. This spall, occurring along the lower edge (i.e., a drip edge) of the wider/taller/bigger and prominent projecting band of brick is indicative of where water is held along the lower portion of this brick course before dripping off. Any brick that allows that paused water/moisture to permeate into the face of the fired-clay, along the drip-edge of this brick band, may freeze, expand in the frozen clay matrix, and spall or break the face of the brick. This condition is a sign that the previous water repellent has weathered, dissipating, and "wearing out." At this initial spall's depth, of the moisture permeation, it means that it is time to budget for and soon undertake spot repairs, cleaning, and a water repellent project. Please see specific recommendations below.

***Preliminary Recommendations**: The spalled brick revealed in Photo No. 60 should be carefully cut out and replaced with a matching brick. Then, this wall and the brick making up the projecting band of masonry should be scheduled for spot routing and pointing of the mortar, warm-water washing or steam cleaning of the brick and mortar after the pointing mortar has fully cured, then two flood-on and back-brushed coats of an appropriately test-selected water repellent should be carefully applied to minimize moisture permeation into the brick masonry.*

Prior to replacing the cracked and differentially fractured brick depicted in Photo No. 59, it would be prudent to have a masonry-experienced structural engineer review this portion of the facility with BET&R so as to determine if there is more to a "repair" of the building than just to this isolated brick or portion of the masonry veneer. *All brick units used for replacement with the existing brick should be matching in color, clay type, and degree of fired-hardness as the existing brick units. If removal of the*

cracked brick is not desired or nor afforded by the facilities current maintenance budget, an appropriate and carefully executed colored-epoxy repair may be suitable for the short term so as to fill and close the crack and thus to limit water entry into the wall and minimize additional damage during next fall wet and winter's anticipated wet and freezing weather.

5. **Mortar Joints at Door Perimeters:**
The steel framed emergency exit doors on the West Elevation of the Building have thin mortar joints around their perimeter that reveal signs of hairline cracking and separation where movement is likely occurring at intersection of dissimilar materials. BET&R recommends that these joints be redesigned for retrofit using a polymer-modified grout or specific sealant as a bedding compound for the steel door frames.

Photo No. 61 - View of typical Hollow Metal Door (HMD) and location of bedding-mortar joints at perimeters of door frame that are cracking due to differential movement.

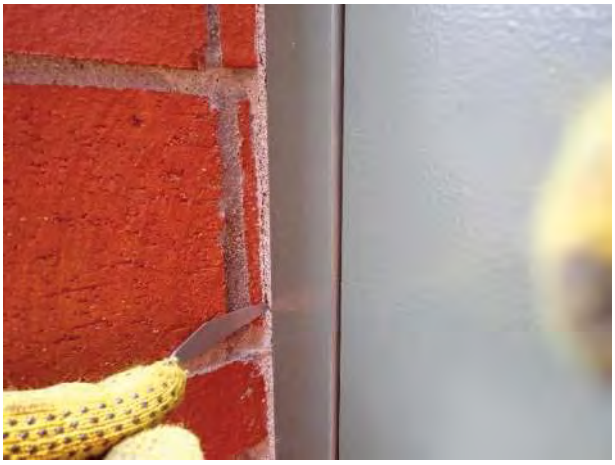


Photo No. 62 - Close up view of cracked and fracturing mortar joint at jamb of HMD.

Preliminary Recommendation*: Carefully protect HMD and frame, cut-off and route out mortar joint, clean and prepare substrates for properly bedding sealant joint and finish exposed face with backer rod and sealant joints that will accommodate the movement. The sealant joint can be sanded to match the adjacent mortar joints for aesthetic purposes if desired.*

6. Plugged Weeps at Brick Masonry:

Plastic weep tubes were observed at brick masonry weep lines and weep points. Weep tubes are generally located every three brick head courses or approximately 24-inches O.C.

Numerous weep tubes appear to be plugged or blocked-up with debris and wasp inserted packing, which are hampering the masonry veneer cladding system from properly draining. Weep tubes are generally located every three brick head courses or 24-inches O.C.

Photo No. 63 - Overview photo of brick veneer weep tubes located approximately every three brick head joints. Many of the weep tubes observed are to be blocked.

Photo No. 64 - Close-up of plugged weep tube discovered at a brick archway. In areas, the numerous clogged weep tubes may be adding to the moisture absorption and resultant staining observed at portions of the brick veneer cladding.

***Preliminary Recommendation**: Prior to brick veneer washing and cleaning, manually unclog and clean out all weep tubes.*

7. **Spalling Mortar Joints Due to Poorly and/or Deficiently Embedded Steel:**
Numerous locations of steel fragments, carelessly left in wall were then imbedded in a number of mortar joints, and are causing isolated locations of spalling mortar at bed joints. The steel fragments appear to be related to scaffolding wire tie-backs.

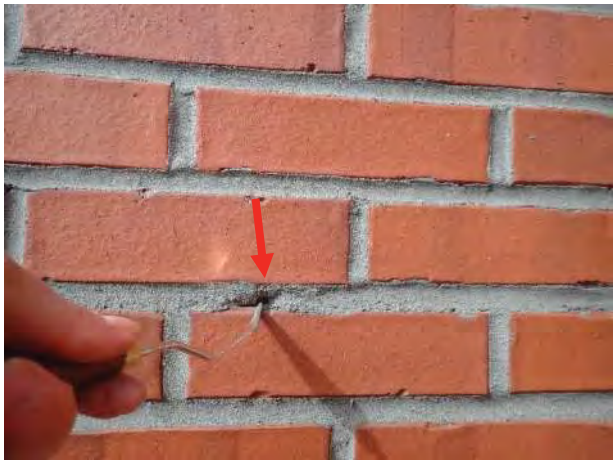


Photo No. 65 - View of scaffolding tie-back, carelessly left embedded in mortar joint, and causing mortar spalling as the steel corrodes.

Photo No. 66 - View of scaffolding tie-back embedded in mortar joint and causing isolated spalling as it corrodes.

***Preliminary Recommendation*:** *Consider carefully drilling out affected mortar joints and remove embedded steel from within mortar joints, and then repairing mortar to match existing. These isolated mortar joints and projecting steel-wire scaffolding ties could be carefully cut back 1-1/2 to 2-inches from the face of the brick; then the residual steel should be wire brushed and prepared, primed and coated to halt the corrosion and stop further spalling, then the affected mortar joints should be re-pointed and tooled to match adjacent joints.*

8. **Open Cladding Transitions at Main Entry Arch Bases and Head of Brick Veneer Wall at Anthem Cafe:** BET&R observed concerning locations that were apparently left opening at the brick veneer-to-column bases at the north entry and at the top of the brick veneer wall at the Anthem Café facade. Wind-driven rain and moisture can easily enter the cladding system at these open locations.

Photo No. 67 - Overview of column bases at main entry and locations of open brick veneer cladding, which should be corrected.

Photo No. 68 - View of large open gap and unsealed joint along at C-Channel penetration through brick veneer at base of archways near Main Entry Area. This location should be closed with partial brick, properly mortar-set, then a backer rod and sealant joint installed between brick and steel member.

Photo No. 69 - Overview of East Elevation of Anthem Café and location of open brick veneer cladding transition at head of wall.

Photo No. 70 - View of the errantly left gap at the top of the brick veneer wall, at the East Elevation of the Anthem Café, which has been susceptible to water migration. This open joint should receive a backer rod and sealant joint to close this vulnerable location.

***Preliminary Recommendation**: Carefully wisk broom and manually clean brick at open joint thoroughly and apply appropriately matched water-repellant, then allow to cure. Seal open junctures above brick masonry appropriately with backer rod and sealant joints to halt water migration where seals are lacking. This open joint should receive a redundant double-backer rod and double-sealed joint to close this vulnerable intersection.*

DECORATIVE ALUMINIUM PANEL OBSERVATIONS

Decorative 0.50-inch thick anodized aluminum panels are located at archway tops and are reportedly mechanically attached with ¼" stainless steel threaded rod or bolts and conical shaped stainless steel lugs per Project Record Drawings. The decorative aluminum panels at the tops or heads of the archways are not flashed well nor sealed to prevent water migration under and around these expensive aluminum panels. At adjacent brick veneer wall-to-brick archway transitions the aluminum panels currently lack sealant seals rendering them open to water migration and resulting moss and organic growth, moisture entry into the masonry, resultant efflorescence of underlying mortar and brick, and unsightly staining as observed in several areas, mainly on the northern side of the Museum but evident at locations at each elevation.

After cleaning is accomplished, these decorative aluminum panels may benefit from the correctly selected clear coat, and should be considered for specific sealant joint design and carefully sealant joint work at perimeters and butt joints to halt water migration behind the panels and into the masonry.

1. **Open Joints at Brick Masonry Archways:**
   Although original Project Record Drawings show a through veneer flashing at the brick veneer-to-archway head locations, flashings were not present as depicted in the Drawings. Additionally large gaps at the intersection were discovered that are allowing water migrating onto the brick cladding system at archways and subsequently causing staining and efflorescence in areas as the migrating water pulls mineral salts from the mortar and masonry cladding and deposits it at the bricks' surface as the moisture dries and evaporates.

Photo No. 71 - View of Building Envelope Technologist's high-vis ruler, carefully inserted into open gap at archway-to-brick veneer wall intersection. This large gap is susceptible to water migration and leakage into the cladding system.

Photo No. 72 - View of ruler inserted under decorative aluminum panel at brick archway and into deficiently left open gap at archway-to-brick veneer wall intersection. The void is susceptible to water migration into the wall assembly, which may be causing hidden degradation and damage to underlying components.

Photo No. 73 - Approximately ¾-inch gap deficiently left open at backs side of decorative aluminum panels. The panels and gap acts as a shelf where water can collect and migrate into the brick and cladding assembly, as the underlying brick is not flashed as otherwise indicated in the Project Record Drawings.

Photo No. 74 - View of large North Elevation archway top as observed from BET&R's drone near the main entry. Note the moss growth promoted by the large open butt joints in the decorative aluminum panel cladding system.

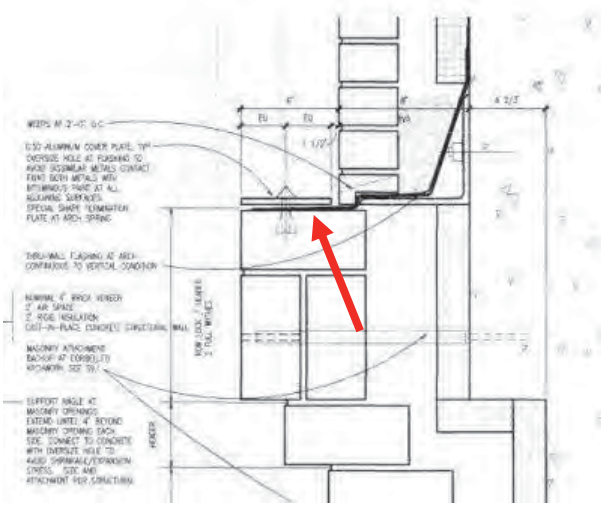


Photo No. 75 - Depicts portion of detail A-8.1/4 that depicts through veneer flashing at brick ledger angle and extends under the decorative aluminum cladding panel. The as-built condition does not match the detail as drawn.

Photo No. 76 - Overview of wide archway-to-brick veneer intersection near protruding base of archway. See close-ups below for additional information.

Photo No. 77 - Depicts large gap, approximately 1-inch + at this archway panel-to-brick veneer ledger angle intersection. It appeared that a flexible self-adhering flashing was applied to "flash" the void, however, the flashing membrane is currently unadhered, open, and exposed to UV degradation, and the intersection is wide open to wind-driven rain and migratory water – on both sides of the steel ledger angle.

Photo No. 78 - Ruler inserted into void at brick veneer ledger angle to archway panel cladding at adjacent to the Main Entry Area, which is open to water leakage into the wall assembly, which may be causing hidden degradation and damage to underlying components.

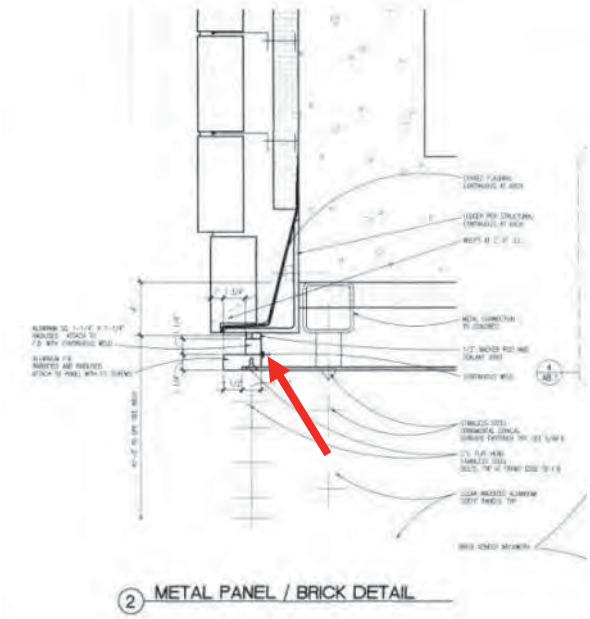


Photo No. 79 - Depicts through-veneer flashing at brick archway to .125 aluminum cladding system as depicted in Project Record Detail A-8.1/5.

Photo No. 80 - BET&R observed a hybrid laminated flexible flashing product at that this specific detail, as depicted in photo. The laminated flashing material appears to be similar to York Flash Vent product with a flexible copper core laminated to flexible reinforced membrane. This joint also is in need of corrective actions.

***Preliminary Recommendation**: Carefully clean and prepare brick veneer-to-brick archway juncture for application of an appropriate backer rod and sealant joint. Design and install through-sealant weep tubes at the arch bases to allow proper drainage of incidental water.*

2. **Open Joints Decorative Aluminum Panel Archway Cladding:**
The 0.50-inch thick decorative aluminum panel-to-panel joints and their related junctures with the brick veneer are open to the weather and lack sealant joints. The migration of water through open panel joints and onto the brick veneer is likely causing underlying degradation beside just the efflorescence, staining, and moss growth visible at select brick veneer locations, which is exacerbated by the lack of through-brick veneer flashing -- which despite that shown/depicted in the Project Record Drawings excerpted in Photo 79 – obviously did not get installed. Please Note: Select locations appeared to contain flexible flashing membrane under the aluminum decorative cladding while most locations did not.

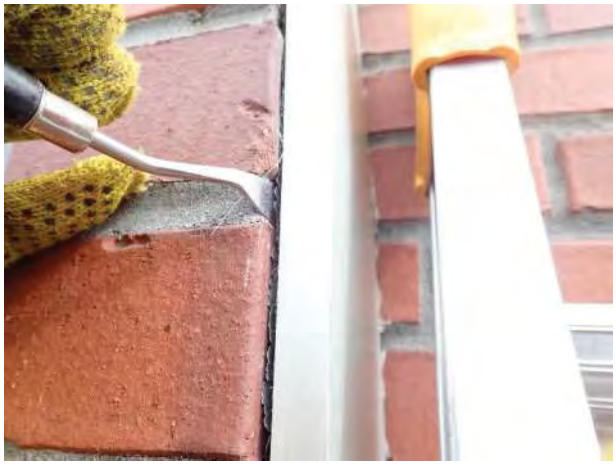


Photo No. 81 - View of what appears to be the edge of the flexible flashing, just visible under the decorative aluminum archway cladding panels. The membrane has degraded and embrittled from having been exposed to UV, weather, and water. Due to the unfinished and deficiently constructed joint, he material is no longer functioning as a through-veneer flashing.

Photo No. 82 - Depicts open decorative aluminum panel-to-panel joint, approximately 5/8" wide, open to water entry to the head of the brick arch. Note flexible flashing was not observed at this location under the decorative aluminum panels, so water and freeze-thaw degradation of portions the brick masonry may occur over time.

Photo No. 83 - Depicts open decorative aluminum panel-to-panel joint, approximately ½" deep, open to water migration to the head of the brick arch. Note that flexible flashing, nor an underlying back-up metal flashing that could and should have lapped out over the outer edge of the brick to protect the masonry from freeze-thaw damage, was not observed all along this area under the decorative aluminum panels.

Photo No. 84 - Another view of decorative aluminum panels at large archway tops, as observed along the two arches near the main entry at the North Elevation, and related moss growth and staining associated with the vulnerable gaps between the 0.50-inch thick aluminum decorative cladding panels, which essentially are serving as roofing and cladding over the arched masonry.

***Preliminary Recommendation**: Carefully clean and prepare brick veneer-to-decorative aluminum panel cladding junctures and intersections, as well as panel-to-panel butt joints for the brick archway intersections for application of an appropriate jacketed-backer rod and sealant joint. Consider the use of through-sealant weeps at the arch bases where necessary to allow drainage of migratory water. Consider the use of a dark colored sealant to maintain the appearance of shadow lines for sealant joints as an aesthetic possibility.*

CAST-IN-PLACE AND PRECAST CONCRETE OBSERVATIONS:

1. **Cast-In-Place Concrete:**
   The cast-in-place (CIP) concrete that acts as the primary building envelope system at the ground floors at the North and East Elevations appear to be in fair condition with some hairline cracking, air-pockets ("bug holes"), and rock pockets visible, as well as areas of sky facing concrete that is susceptible to standing water and moisture migration. Generally, the CIP walls appear to be largely resistant to water absorption in the field of the walls as evidenced by RILEM Tube testing.

Photo No. 85 - View of biological growth and staining observed on the exposed concrete walls at the East Elevation likely from crawling vines on that side of the Building.

Photo No. 86 - View of "bug holes" and rock pockets, which were not sacked & patched during original construction, are visible and holding some organic growth as observed at the CIP walls. This condition is not necessarily problematic provided the concrete receives an appropriate cleaning and proper application water repellent (including within the voids) at regular intervals as the concrete ages. If the wall were thoroughly cleaned, the voids could be grouted/filled with an appropriate color-matching cementitious grout or repair material if desired.

Photo No. 87 - View of skyward-facing concrete ledges that are susceptible to water pooling, the growth of moss, and other staining, as well as moisture migration, as evidenced by the degree of moss growth depicted in this photo.

Photo No. 88 - View of open cold joint at inside corner of CIP wall, as observed at the East Elevation, which is susceptible to water migration and freeze-thaw spalling.

Preliminary Recommendation*: Thoroughly clean exposed concrete at the base of the building. Apply appropriate penetrating water-repellant after sealing open joints and hairline cracks as appropriate. Consider waterproofing sky-facing ledges with a carefully designed and implemented membrane waterproofing system.*

RESULTS OF RILEM TUBE TESTING OF BRICK VENEER AND CAST-IN-PLACE CONCRETE

During BET&R's on-site survey and in-situ testing work, numerous RILEM Tube tests were conducted at the brick veneer masonry and the cast-in-place (CIP) concrete foundation wall.

RILEM Tube evaluation testing is a qualitative test that demonstrates the ability of a masonry, concrete, or other porous surfaces or substrates to resist moisture absorption and wind-driven rain. RILEM Tube testing is useful for evaluating the condition of mortar, brick, concrete, stone, concrete masonry units, and other masonry components for their ability to resist water absorption. Additionally, RILEM Tube testing can be used to help define specific repairs and/or the need for application of new water repellents. Often, properly fired or correctly made brick, concrete (CIP or precast), and some mortar mixes, will inherently resist absorption of water, and other times, often due to weathering, natural erosion and aging-related degradation, repairs in combination with renewal of water-repellants are a necessary and ongoing maintenance item of select porous masonry and exposed concrete elements. As masonry ages and is repeatedly exposed to moisture, and freeze-thaw cycling, it can become more susceptible to additional water absorption, resultant effloresce (i.e., a fine, white, powdery deposits of water-soluble mineral salts that are left on the surface of masonry or concrete as internal moisture evaporates), and in most extreme cases can lead to spalling, exacerbation of cracking, and degradation of the masonry or concrete.

RILEM Tube testing was conducted at selected typical conditions of masonry at all four elevations of the building over the three-day on-site survey and conditions assessment work. Additionally, the cast-in-place concrete foundation was also RILEM Tube tested at the East Elevation, as it comprises the building envelope at the First Floor "Track Level" of the Building. Water-resistance is marked in decimal values starting at zero (0) and increasing to a maximum of five (5), with zero (0) representing the maximum water resistance, and five (5) representing minimal water resistance. A masonry unit that maintains low water absorption can be said to be very resistant to wind-driven rain. Please review the following table for a brief summary of the RILEM Tube testing conducted during this survey:

Condition	Elevation	Initial	Final (30 min.)
West Elevation			
Mortar Head Joint @ Brick	West	0	0.5
Mortar Head Joint @ Brick String Course	West	0	0
Mortar Bed Joint	West	0	0
Face of Brick	West	0	0
Mortar Bed-to-Head Joint @ Brick	West	0	0
Mortar Head-to-Bed Joint above String Course	West	0	0
Face of String Course Brick	West	0	0
Horizontal Face of Brick at Window Sill	West	0	0
South Elevation			
Face of Brick	South	0	0.1
Mortar Bed Joint @ Brick	South	0	0.1
Vertical Face	South	0	0.1
Mortar Head Joint @ Brick	South	0	0
Mortar Head-to-Bed Joint @ Brick	South	0	0
Mortar Head Joint @ Brick	South	0	0
Mortar Head-to-Bed Joint @ Brick	South	0	0.2
Horizontal Face of Concrete Foundation Wall	South	0	0.2
East Elevation			
Vertical Face of Concrete Foundation (More-exposed location)	East	0	0.1
Vertical Face of Concrete Foundation (Less-exposed location)	East	0	0.1
Horizontal Face of Concrete Foundation Wall	East	0	0
Vertical Face of Concrete Foundation adjacent Door	East	0	0
North Elevation & North Plaza			
Main Entrance – East– Mortar Head Joint @ Brick	North	0	0.1
Main Entrance – East– Field of Brick	North	0	0
Main Entrance – West– Mortar Head-to-Bed @ String Course	North	0	0
Main Entrance – West– Vertical Face of Stringer Brick	North	0	0
Main Entrance – West– Mortar Bed-to-Head @ Stringer	North	0	0
Mortar Head Joint above Metal Plate (West of Main Entry)	North	0	0.2
Field of Brick (West of Main Entry)	North	0	0
Mortar bed Joint (West of Main Entry)	North	0	0.1

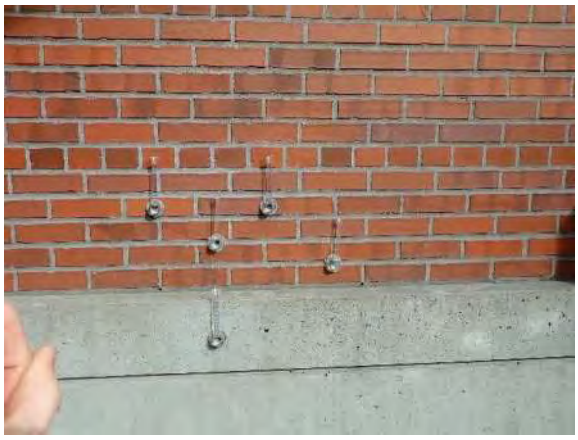


Photo No. 89 - Depicts overview of RILEM testing at the South Elevation adjacent the parking lot. This area exhibited strong resistance to moisture penetration at all the tested masonry and concrete surfaces.

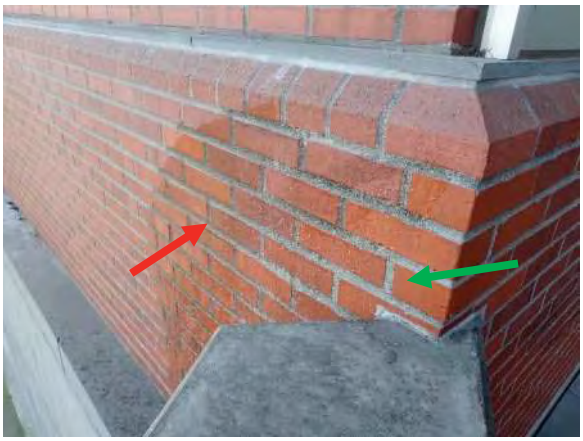


Photo No. 90 - Depicts the limited surface moisture testing at the North Elevation that revealed localized deficiencies in the clear siloxane-based water repellant, indicating that portions of the water-repellant have reached the end of their useful service life, and are allowing moisture to penetrate into the surface of masonry components. 'Dry' appearing areas of coating at green arrow are more in-tact than the 'wet' appearing area at the red arrow.

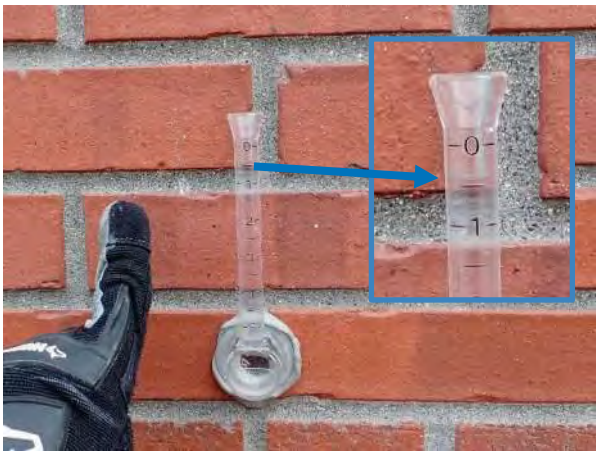


Photo No. 91 - Depicts close-up of the specimen on the West Elevation that exhibited among the most moisture penetration at 0.5 after the 30-minute test. While this does indicate good water-penetration resistance, the increased absorption will lead to an increased rate of water-related degradation and absorption unless remediation steps are taken to further protect the masonry substrate.

Photo No. 92 - Depicts testing conducted at the horizontal surface of the concrete foundation wall at the South Elevation of the building. This area was chosen due to the proximity of relatively moist-appearing mortar at the interface with the concrete. The small amount of moisture absorption exhibited at this location (0.2 after 30 minutes) indicates relatively high moisture penetration resistance, even in an area where water might be expected to pool and degrade the concrete in an accelerated manor.

Photo No. 93 - Depicts RILEM testing at the face of the concrete foundation wall at the East Elevation of the building. The area around the tube was bristle-brush cleaned prior to testing to ensure proper adhesion by the RILEM Tube. The concrete foundation wall locations tested generally exhibited high levels of moisture penetration resistance.

Photo No. 94 - Depicts an overview of testing conducted to the west of the Main Entrance at the North Elevation. Although the cluster of RILEM Tubes to the right was near an apparent location of moisture drainage from the sheet metal roof above, it performed approximately the same as the area to the left, just below the painted-steel support plate.

Testing Summary:

In general, it appears that the brick veneer masonry cladding and cast-in-place concrete foundation wall systems at the Washington State History Museum facility are still generally resistant to moisture penetration after 25 years of continued service. BET&R understands the last reported water repellant project occurred in 2002, approximately 18 years ago per information provided by the Client. Water penetration resistance, as measured via the RILEM Tube testing method, was tested at numerous masonry and concrete features typical to the building's construction, including both head and bed mortar joints of varying configurations, the face of brick masonry units, and the face of the cast-in-place concrete foundation, where it serves as exposed cladding at much of the East and North Elevations. No individual test produced a RILEM number higher than 0.5, indicating that all of the tested components of the masonry cladding system are quite resistant to moisture penetration and wind-driven rain at their weathering face. At the North Elevation adjacent the building's Main Entrance, related surface water-spray test indicated that the existing water repellant benefit is beginning to wane/fade at select weather-exposed locations. Given that clear siloxane-based water repellants typically have a useful service life of approximately 7-12 years with an average of about 10 years, it would be prudent to consider planning and budgeting for the application of new water-repellant and related cleaning of the building's masonry surfaces within the next 1-3 years.

FENESTRATION OBSERVATIONS:

Generally, the extruded-aluminum framed fenestration systems (i.e., windows and doors) are functioning in a weather-shedding manner and as intended, however a condensation issue is evident within the systems caused by thermal bridging created by the thermal conductivity of the subject aluminum window frames and trim extrusions.

Additionally, the aluminum-framed window systems do not appear to employ rough opening flashings and instead rely only on sealant joints at the cladding junctures in order to maintain weatherproof and watertight performance, and thus these vulnerable fenestration systems do not have any backup flashing system for when the fenestration frame joints fail and for when the sealant joints fail and leaks develop. Condensation issues, especially at the protruding window bay at the East Elevation will persist until the systems can be replaced in future.

Photo No. 95 - Overview of large storefront type windows at the west elevation of the Museum. The window system observed at his location is dual pane window system set into extruded-aluminum frames surrounded by extruded aluminum trim, with silicone sealant joints at transitions and miter joints.

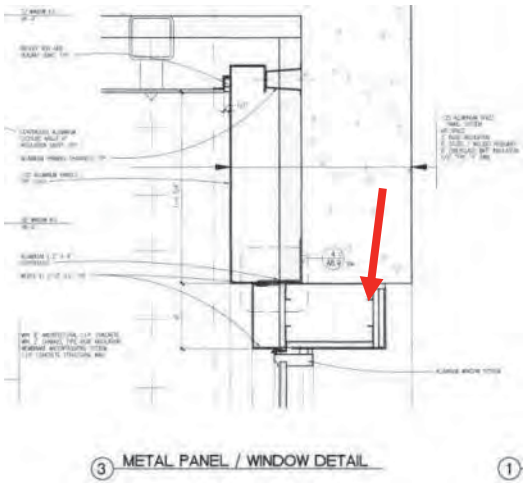


Photo No. 96 - Depicts Project Record Detail depicting aluminum window system-to-.125-inch thick aluminum panel-transition-to-.125 panel archway soffit panels. Note the window system does not depict rough opening flashings at the rough opening flashing (see red arrow).

Photo No. 97 - View of small sealant failure at jamb-to-sill intersection. Although minor locations of failed sealant were observed, the majority of the sealant appears to be in serviceable conditions.

Photo No. 98 - View of open .125-inch thick aluminum panel joinery associated with storefront window systems observed at the West Elevation arched windows. Careful tactile probing suggested a backer plate is present, as detected behind the open joint.

Photo No. 99 - Overview of protruding window bay at the East Elevation, which is a reported area of fairly intense condensation issues with respect to the aluminum framed window system.

Photo No. 100 - View of black and dark-colored fungal growth (e.g., mold) stained silicone sealant joints at the interior, as well as water droplets on the aluminum frame due to condensation forming on aluminum frame.

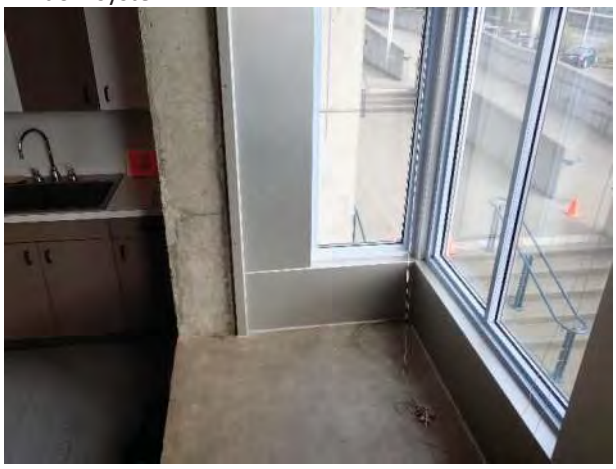


Photo No. 101 - View of interior of Bay Window at East Elevation, and location of residual moisture staining at the interior likely from the reported repetitive condensation occurring at these units.

Photo No. 102 - View of interior sealant joint showing signs of repeated wetting and drying, likely from condensation, as evidenced by the dark-colored fungal (e.g., mold) visible on the silicone sealant.

Photo No. 103 - View of open .125-inch thick aluminum panel end-joinery associated with storefront window systems, as observed at the East Elevation window bay.

Photo No. 104 - View of open .125-inch thick aluminum panel corner joinery associated with storefront window systems observed at the East Elevation window bay.

***Preliminary Recommendation**: Carefully clean, spot repair, replace, or retrofit all fenestration related glazing seals, the sealant joints, and related sheet metal joinery seals to ensure weatherproof performance. Where sealant joints are failed, failing in adhesion, or deficient, both at the interior and/or exterior, carefully cut out, remove, clean bond faces, and replace with properly designed sealant joints, complete with correctly integrated backer rod and high-performance silicone sealant joints. Where sheet metal joints are open, consider a repair design utilizing injected beads of sealant for short-term performance, or a sealant-bed aluminum cover plate for a longer-term retrofit. Condensation of the problematic window units will continue until the fenestration systems can be replaced in the future with proper thermally broken and insulated units -- unless a foam injected insulation retrofit is desired to be technically devised to mitigate condensation and to limit fungal (e.g., mold) growth on the sealant and interior surfaces and components.*

Results of Diagnostic Monarch Spray Testing:

BET&R carefully performed diagnostic controlled-spray water testing, following a modified AAMA 501.2 Quality Assurance and Diagnostic Water Leakage Field Check, of two existing fenestration systems at WSHM. The AAMA 501.2 controlled-spray water test for installed Storefronts, Curtain Walls, and Sloped Glazing Systems is used to determine if there are any readily detectable deficiencies with the watertight performance of the existing extruded-aluminum framed storefront window systems. There are reports of condensation, and thus it is prudent to test and check for readily apparent leaks via efficient testing at individual window units at the same time BET&R conducted its visual and tactile survey work on-site. The modified diagnostic water test consists of water being applied onto the surface of the fenestration unit's panel joints and sealant joints using a specialized valve and pre-calibrated Monarch Nozzle, which directs water in a controlled-spray manner. A Monarch nozzle is a brass nozzle fit with an adjustment valve and pressure gauge to allow for the increase or decrease of water pressure that is being applied to the window unit's exterior surfaces. The Monarch nozzle is typically set at 25 to 30 psi, and water is directed to the window sealant surfaces and panel gaps for approximately five (5) minutes per every five-feet of lineal window sill, then up the jambs, and finally the head areas of the fenestration unit being tested. The test is executed by a BET&R-trained technologist, spraying at the exterior, and as a second trained technician observes and examines the fenestration unit from the interior to watch for any signs of water intrusion and leaks.

As part of fenestration unit survey and testing at the Washington State History Museum, two system configurations were water-spray tested, including the storefront glazing system installed at Anthem Café and the Museum's Main Entry and administrative offices, as well as the aluminum-framed windows installed at the concrete foundation wall at the North Elevation.

The results of the Monarch Nozzle controlled-spray diagnostic water testing are summarized below. This test is divided into 'pass' and 'fail' criteria, where a 'pass' is given to a fenestration unit that does not allow visible moisture past the glazing plane during the test period. A 'fail' is given to units that allow visible moisture to the interior of the building during the testing period. Testing is conducted at the AAMA specified rate of 1-minute per 1-foot of test area, which is typically performed over 5-lineal feet during 5-minute test intervals:

Test No.	Area Description	Test Length	Test Time	Result
Education Center Window				
1.1	Sill & Adjacent Jambs at Base of Frame	~5'	5:00	Pass
1.2	Lower Horizontal Mullion	~2'	2:00	Pass
1.3	'Left' Jamb Mid-Height	~2'	2:30	Pass
1.4	'Right' Jamb Mid-Height	~2'	2:30	Pass
1.5	Upper Horizontal Mullion	~2'	2:30	Pass
1.6	'Left' Upper Jamb	~2'	2:30	Pass
1.7	'Right' Upper Jamb	~2'	2:30	Pass
1.8	Window Head Sealant Joint	~2'	2:30	Pass
Anthem Café Storefront				
2.1	Storefront Sill	~3'	3:30	Pass
2.2	Storefront 'Left' Jamb @ System Corner	~5'	5:30	Pass
2.3	Storefront 'Right' Jamb @ Cladding Interface	~5'	5:30	Pass
2.4	Window Head Sealant Joint	~3'	3:30	Pass
2.5	Sealant Joint Above Beauty Cap	~3'	3:30	Pass

Testing during this condition assessment survey indicates that the sealant joints and general construction of the fenestration units are currently resistant to the forces of typical wind-driven rain and exterior moisture penetration. The Owner and their representatives, nor facility staff, reported any specific leaks related to fenestration units, aside from the condensation problems associated with select storefront window configurations, which are described in this report.

Monarch Spray Testing Photos:

Photo No. 105 - Overview depicts area where typical extruded-aluminum framed, double-glazed window unit is set in cast-in-place concrete opening. The superimposed red box depicts the specific window unit that was tested. Sealant joints generally appeared satisfactorily -bonded and did not exhibit adhesive nor cohesive failure, surface chalking, crazing, or other visible signs of degradation. This window unit did not allow any water to the interior of the building during the test, and was determined to 'pass the controlled-spray diagnostic water test.'

Photo No. 106 - Depicts the test specimen as viewed from the interior mid-test. BET&R's testing technician is visible outside applying the 25 psi controlled-spray at a distance of approximately 12 to 18-inches from the window target zone. BET&R utilized infrared thermographic imaging to confirm that no bulk water had penetrated the fenestration unit.

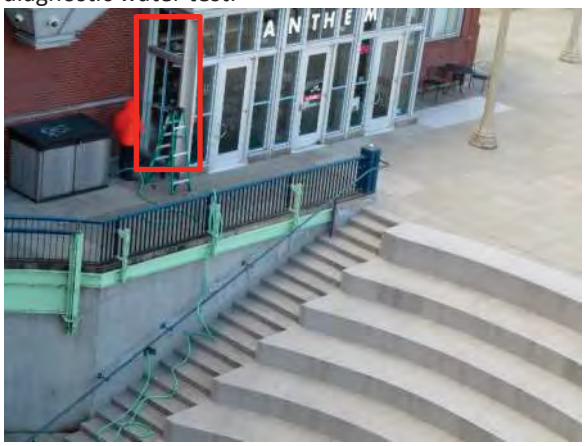


Photo No. 107 - Depicts an overview of the storefront glazing system from the exterior of Anthem Café, as BET&R's testing technician sets-up equipment at the subject window unit. This area was selected for its accessibility, similarity to the other storefront installed on the facility, yet distance and separation from the main entrance. Note: Employees at the Café did not report any leaks in past experience.

Photo No. 108 - Depicts the storefront window system as viewed from the interior, moments prior to the start of the water spray test. There did not appear to be visual signs of moisture infiltration or degradation to the adjacent concrete curb or aluminum storefront components during and after testing was conducted.

Photo No. 109 - Depicts the storefront window system during testing, as viewed from the interior. No water was observed penetrating to the interior during the test of this windows', sill, jambs, and the head, as well as its sealant joints. Thermographic imaging did not indicate any moisture penetration during the testing (see next image).

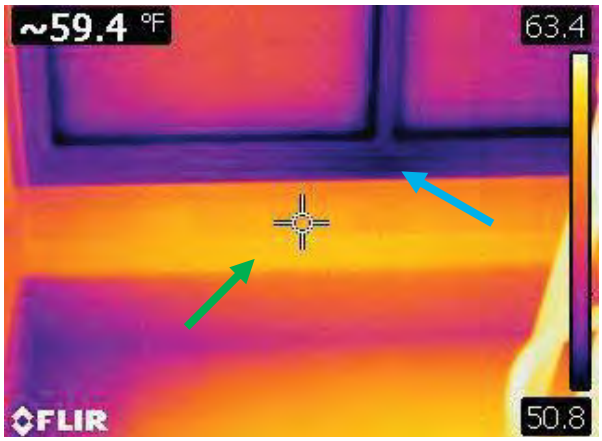


Photo No. 110 - Depicts an infrared thermographic view of the sill zone of the storefront window system tested at the Anthem Café. The colder temperatures indicated by the purple color at the window sill (blue arrow) are a result from the cold water spray hitting the metal from the exterior. If moisture penetration had occurred, it would be expected to reveal a colder pattern, both inside the aluminum system, and penetrating to the interior of the building, including along the warm, orange colored zone of the aluminum beauty cap (green arrow).

ADDITIONAL CLADDING OBSERVATIONS:

1. **Sheet Metal Cornice and Related Sealant:**
   Generally, the sheet metal cornice appears to be functioning as designed. The silicone sealant joints at the cornice panel butt joints appeared to be performing as intended; however, some minor and select locations observed revealed evidence of adhesive failure and are in need of attention.

Photo No. 111 - Overview of sheet metal cornice at South Elevation. Although some staining was observed on the surface of the metal much of the staining appears to be related to roof-edge drainage issues.

Photo No. 112 - Depicts a tactile flat probe inserted into failed silicone sealant joint at the underside of the break of the cornice element, which is segmented and installed in sections. The majority of the sealant appears to be in good shape, but spot repairs are needed.

***Preliminary Recommendation**: Spot repair failed silicone sealant joints with compatible and well designed and installed sealant joints. Consider wise spread sealant replacement in 3-78 years depending on elevation, sun and weather exposure, and results of recommended-yearly maintenance inspections.*

2. Aluminum Soffit Panels and Related Sealant Joints:
Generally, the .125-inch thick pre-finished aluminum cladding panels appear to be functioning as designed. The silicone sealant joints at the panel-to-panel butt joints also appeared to be performing as intended, however, some relatively minor and select locations observed show evidence of adhesive failure that are in need of attention.

Photo No. 113 - Overview of aluminum cladding panels which are mechanically attached and comprise the exposed soffit areas of the archways, both large and small. This photo depicts large soffit area outside of Main Entry at the North Elevation.

Photo No. 114 - Overview of aluminum cladding panels at small soffit area at repeating arched bay at the West Elevation.

Photo No. 115 - View of typical silicone sealant joint at aluminum panel butt joint intersections. The majority of the sealant is in relatively good condition and functioning as intended.

Photo No. 116 - Depicts one of the locations where the soffit panel joint sealant is adhesively failing off of one or in some places both bond-faces, and is in need of spot replacement.

***Preliminary Recommendation**: Spot replacement of failed sealant joints is needed, and should be accomplished with removal of existing failing sealant back to points of good adhesion on both sides of the joint, clean and prime the panel bond faces, replace backer rod with a compatible foam rod, and seal joint with new high-quality silicon sealant.*

3. **Light Fixtures:**
Several sconce-style light fixtures mounted to the .125 aluminum cladding panels at the undersides of archways appeared to be pulling away from the building and do not appear to be well sealed to the cladding system they are mounted against.

Photo No. 117 - View of displaced light fixture in need of re-securement and weatherproofing retrofit attention.

Photo No. 118 - View of displaced light fixture in need of attention.

Preliminary Recommendation*: Check all light fixtures for proper and sound securement. Install appropriate and properly backed and primed sealant joint at perimeters for watertight seal and or re-secure snuggly against an appropriate weather-sealing marine-vinyl gasket.*

4. **Sealant Expansion Joints at Base of Plinths:**
Although the majority of these types of joints are largely in fair condition and most are intact, select portions of the sealant expansion or control joints installed at the base of the precast concrete plinth-to-sidewalk junctures and plaza walkway intersections have adhesively failed. Most of these failed sealant conditions are at locations primarily along the West Elevation of the Coffee Shop and Building.

Photo No. 119 - Depicts flat probe easily inserted into a cohesively failed sealant joint of the expansion joint.

Photo No. 120 - View of flat probe inserted in to the failed and open inside corner of a different sealant joint at the expansion joint.

Preliminary Recommendation: *Remove all existing failed sealant and backer rod at expansion joints for the installation of new appropriately designed and installed sealant expansion joints, which should be accomplished with compatible materials, properly integrated, and compatible with existing intersecting components that are functioning and may remain.*

5. **Lack of Sealant Joints at Pre-cast Concrete Plinth Control Joints:** Panel-to-panel control joints at the precast concrete plinths are not sealed at the exterior, however, Project Record Drawings depict the CIP foundation as being waterproofed.

Photo No. 121 - View of flat probe inserted into the wider-than-hairline crack at the plinth control joint.

Photo No. 122 - Close-up view of cohesively failed and open control joint at precast concrete plinth.

Preliminary Recommendation: *Consider the application of a new properly cleaned, prepared, primed, and backed sealant joint at cracked control joint locations. Note that Project Record Drawings indicate that underlying below-grade concrete foundation walls are waterproofed behind plinth cold joints, however due to the concretes' exposed surface it is recommended these joint be backed and sealed.*

IV. ADDITIONAL ITEMS OF CONCERN

While BET&R was primarily on-site to survey the exterior building envelope, BET&R's trained and experienced technologists discovered and noted additional items of concern, associated with the envelope, some of which are not likely to cause serious leakage or water related damage to the interior of the Building – all should receive attention.

Photo No. 123 - Locations of paint coating peeling and disbondment at hand railings and related steel fascia and connections were observed adjacent the Main Entry plaza of the Museum facility.

Photo No. 124 - Failed sealant joints at the downspout to below-grade tight-line stub-up connections with wider diameter leader lines were discovered to need replacement while on-site. This was a typical condition, and should receive replacement to avoid freeze-thaw splitting and damage.

V. SCHEMATIC REPAIR OPTIONS AND PRIORITIES

CLADDING & FENESTRATION REPAIR OPTIONS

BET&R RECOMMENDATION:

As described in detail above, the existing cladding and fenestration systems are in serviceable condition and currently require a number of maintenance and repair tasks to be undertaken, some with targeted retrofit design in mind in order to mitigate moisture migration, staining, efflorescence, and water damage behind the various cladding systems.

BET&R's recommendations for the exterior cladding and fenestration systems include a steam clean and/or thorough warm water low-pressure wash, and in sensitive areas steam-cleaning, along with a manual scrubbing with medium bristle nylon brushes where needed, and clean water rinse to remove all staining, biological growth, and effloresce. Widespread sealant joint failure is occurring at brick masonry veneer ledger angles, and vertical expansion joints at inside corners that require attention. Through-veneer penetrations and brick veneer wall-to-brick veneer archway locations that currently lack seals also are in need of attention. Consideration during the installation of appropriate sealant joints must be given to carefully designed weeps at select locations in order for the brick veneer to maintain its ability to weep migratory water to the exterior of the building. After the cleaning is accomplished, BET&R recommends that a new penetrating siloxane water-repellant be carefully and skillful selected, and correctly applied to the building after all brick masonry veneer and cast-in-place or precast concrete repairs are completed and checked to verify all are appropriate, and well-installed sealant joint work has been executed.

Spot replacement of sealants associated with fenestration systems, pre-finished aluminum cladding panels, and sheet metal cornice panels is also appropriate, as is the installation of new backer rod and sealant joints at decorative aluminum panel-to-panel joints and other junctures as required.

In future, WSHM may wish to consider the replacement of problematic and condensation-prone fenestration systems. The current fenestration systems, although currently appear to perform in a visibility-respectful manner and mostly weathertight manner, do not employ rough opening flashings and related sill pan flashings that are recommended to redirect any incidental and migratory water back to the exterior of the Building. Furthermore, evidence of condensation associated with the existing units; especially at the East Elevation's protruding bay of windows that is ongoing has resulted in fungal growth in locations, which is not desired for the interior of a public exhibition space where sensitive persons may linger and be allergically affected.

Although select cladding and fenestration repairs may be deemed more important than others, the staging for said repairs would likely be most prudent and cost-effective if conducted during the same general progressively phased time frame, as staging is achieved at each area by lift, swing stage, and/or scaffolding. In other words, staging the cladding repairs during separate time-periods likely would be cost prohibitive. As such, BET&R's recommendation is for cladding and fenestration repairs to largely be conducted in one comprehensive project with carefully planned phasing, as may be necessary, and recommended on an elevation-by-elevation basis.

VI. MOVING FORWARD

In general, the building envelope at Washington State Historical Museum is functioning and serviceable, but is in definite need of specific repair and retrofit redesign work, followed by the skilled and successful completion of a number of repair and retrofit tasks, and other well executed maintenance tasks. If the above outlined and described tasks are combined into well planned project(s) that can be set-up for successful competitive bidding by quality-oriented specialty contractors (i.e., low-slope roofing, standing seam lead-coated copper sheet metal masonry repair, sealant, etc.), and a properly planned and well executed project is accomplished -- the building envelope will continue to provide successful performance for many years to come. There are however, a few notable exceptions, in the form of conditions in need of immediate attention -- as they appear to be allowing moisture into the building roofs, walls, and in select areas or zones are be a potential life-safety hazard or concern. BET&R recommends that these items be retrofit designed and properly corrected as soon as is possible.

As detailed in the report above BET&R observed conditions related to the roofing, flashing, cladding, sealant joints, and fenestration systems that should be corrected, with the critical and life-safety related items being given the highest and immediate priority. Please refer to the prioritized and bulleted recommendations below that summarize the building envelope systems “Schematic Repair Priorities & Associated Costs” sections also described in detail in the report above. The Schematic Repair Priorities & Associated Costs Sections above provide a description of some of the necessary repairs.

BET&R’s prioritized recommendations for repair and retrofit and the associated Rough Order of Magnitude (ROM) for the work endeavor to provide the Client with needed information to start budgeting for and executing repair and retrofit projects. BET&R recommends WSHM promptly allocate funds for High Priority Repairs, so that these can be correctly and thoroughly designed and properly specified for expedited bidding by qualified contractors. The ROM included as an appendix to this report has itemized information regarding schematic budget cost estimates for repairs similar to those needed at the WSHM facility. The estimates of costs included in this report are based on the current and regionally specific understanding of repair and retrofit construction costs and all estimates will need to be adjusted as time passes and as the somewhat volatile construction industry adjusts to recent events.

VII. PRIORITIZED SCHEMATIC REPAIR/RETROFIT RECOMMENDATIONS & ASSOCIATED SCHEMATIC BUDGET COST ESTIMATES

High Priority (Priority 1) Repair Recommendations:

Roofing:

1. **Steep-Slope Standing Seam Roof Batten Securement & Sheet Metal Flashing Retrofit to Secure Flashings:** Retrofit improperly secured, loose and detached sheet metal flashings at the steep-slope to low-slope roof transitions; and, retrofit batten fasteners so existing machine screws that currently are intended to fasten the battens are not prone to loosening or backing out.
    - Mechanically attach and retrofit of flashings for securement of perimeter flashings and roof-to-roof transition flashings:
    - Retrofit metal roofs' batten fasteners so as to positively secure all sheet metal battens and to better secure existing standing seam metal roofs.

        - ***ROM/Schematic Budget Cost Estimate: ~$135,804***
        - ***(See ROM for additional information.)***

2. **Low-Slope Single-ply Replacement:** For Approximately 40-year Service Life: Full removal of existing single-ply roof system and reroof with a new heat-fused SBS polymer-modified asphalt, mulit-ply membrane roof system to include:
    - New heat-fused vapor retarder, fully adhere to prepared and primed concrete deck;
    - New fully adhered R-38 polyisocyanurate rigid-roof insulation package, fit with crickets and taper, and sumps for roof drains, to facilitate positive roof drainage;
    - New fully adhered fiberglass-faced gypsum pre-primed coverboard (basis of design Densdeck Prime);
    - New heat-fused and fully adhered three-ply high-quality formulated APP polymer modified asphalt membrane roof system (basis of design: Derbigum);
    - Retrofit of the existing deficient overflow drains;
    - Retrofit of the adjacent sheet metal flashings;
    - Retrofit of positive slope-to-drain in gutters.
    - Replacement of existing aged and degraded sealant joints
    - Repair of broken solder joints;
    - The repair and resecurement, or removal, of the electrified bird deterrent strips;

        - ***ROM/Schematic Budget Cost Estimate: ~$320,270***
        - ***See ROM for additional information.***

OR

2. **Low-Slope Single-ply Roofs, Spot Patching and Coating System:** In Attempt to Extend Service Life of Low-Slope Membrane Roofs For Several More Years: Spot clean seams and heat-weld open seams and partially disbonded seams, strip in the repaired and suspect seams, spot patch membrane at abraded and partially damaged locations, and spot patch other areas of Hypalon roof membrane that need attention; then clean, prime, and fully coat the repaired existing single-ply membranes with urethane coating system to extend the useful service life of the existing roofs until reroofing can be afforded and successfully budgeted for:
    - Thorough cleaning of existing roof drains, drain strainers, and all membrane roofs;
    - Spot repair and strip in suspect seams;
    - Removal of failed sealant at pitch pans for replacement;
    - Spot patch membrane at abraded and other damaged locations;

- Install appropriately selected primer and base and top coats polyurethane coating system over existing repaired and clean single-ply membrane roofs.
    - ***ROM/Schematic Budget Cost Estimate: ~$213,236***
    - ***See ROM for additional information.***

Moderate Priority (Priority 2) Repair Recommendations:

Roofing:

1. **Steep-slope Targeted Repairs:** Targeted repairs to the standing seams sheet metal roofs to include:
    - Installation of new 4 lb. sheet lead flashing collars or polyester-fleece reinforced PMMA membrane flashings at all fall protection anchors;
    - Closure of openings in the sheet metal flashings;
    - Addition of roof anchors where lacking at Café Roof;
    - Addition of snow and ice retention guards where needed.
        - ***ROM/Schematic Budget Cost Estimate: ~$51,261***
        - ***See ROM for additional information.***

Cladding & Fenestration:

1. **Cleaning, Water-Repellant, and Sealant Application:** Full cladding warm-water, low-pressure wash of brick veneer, careful pressure washing of concrete, careful low-pressure washing of sheet metal and aluminum cladding systems, and full washing of fenestration, in preparation for spot patching of brick and select rout and point of mortar joints, application of new water-repellant, replace sealant joints at brick veneer, spot replacement of sealant at fenestration and aluminum/sheet metal panel cladding systems, and installation of new sealant seals at decorative aluminum archway panels:
    - Thorough warm water pressure-wash, manual scrub, and thorough rinse of all cladding and fenestration surfaces;
    - Removal of failed brick masonry veneer sealant joints for the installation of new appropriate silicone sealant joints at existing locations, at other locations where sealant joints are missing, as well as at penetrations, and hollow metal doors (HMD) lacking sealant joints (basis of design are Dow Silicone Sealants);
    - Installation of new silicone sealant joints at the decorative aluminum cladding panel joints and intersections including archway-to-wall junctures;
    - Spot replacement of failed sealants at fenestration (interior and exterior sealant joints), aluminum panel cladding, sheet metal cornice, and downspout sleeves;
    - Install appropriate sealant joints and select epoxy repairs at the cast-in-place concrete walls;
    - Replacement of 2 to 4 spalled and fractured brick units;
    - Retrofit of sconce-type exterior light fixtures to secure to building and seal;
    - Retrofit of hardscape-to-building plinth expansion joint seals.
        - ***ROM/ Schematic Budget Cost Estimate: ~$765,652***
        - ***See ROM for additional information.***
          ****Note: Cladding & Fenestration Repairs may be phased as appropriate or as budget will allow. Potential phasing plan rank by elevation: 1. North Elevation, 2. West Elevation, 3. South Elevation, 4. East Elevation.***

Low Priority (Priority 3) Future Consideration Repair Recommendations:

Fenestration:

1. **Future Targeted Fenestration Replacement:** Removal of existing East Elevation protruding window bay for replacement with new thermally broken and properly insulated fenestration systems, flashed with appropriate rough opening flexible membrane flashings and fit with head and sill pan flashings:
    - Carefully flash window and door rough openings incorporating head flashings, sill pans, etc. to meet current industry standards, best fenestration flashing practices, and prudent manufacturers' specifications, as well as current Code requirements;
    - Installation of new, carefully specified and prudently detailed windows and entry doors, anchored securely to meet the current wind-design loads and water penetration resistance requirements for the site so all are fully integrated with the cladding and flashing systems in a weatherproof and watertight fashion.

        - ***ROM/Budget Schematic Cost Estimate: ~$93,500***
        - ***See ROM for additional information.***

2. **Future Targeted Fenestration Replacement:** Removal and replacement of Museum's other fenestration systems excluding the North Main Entry and Anthem Café storefront systems, and Storefront Entry doors at the Ground Floor for replacement with new thermally broken and properly insulated fenestration systems, all fit with appropriate rough opening membrane flashings, fit with proper head and sill pan flashings:
    - Carefully flash window and door rough openings incorporating flexible membrane, head flashings, sill pan flashings, etc. to meet current industry standards, best fenestration flashing practices, prudent manufacturers' specifications, and current Code requirements;
    - Installation of new, carefully specified windows and entry doors, all anchored securely to meet the current wind-design loads and water penetration resistance requirements for the site, and fully integrated with the adjacent building envelope in a weatherproof and watertight fashion.

        - ***ROM/Schematic Budget Cost Estimate: ~$1,509,600***
        - ***See ROM for additional information.***

Railing Systems:

1. **Railing & Metal Fascia Preparation, Priming, Recoating Project:** Recoating of the metal hand rails and fascia adjacent the North Entry Plaza where coatings are peeling and failing (~25 ln ft currently):
    - Thoroughly wash and clean existing railing and fascia systems, then mechanically wire brush, sand, and prepare to receive new high performance primer and two-coat coating system as appropriate for maximum performance and cost effective longevity;
    - Wash, scrub, rinse, and dry, then wire brush and sand to prepare steel for primer;
    - Application of appropriate system epoxy primers for high-performance coating system;
    - Application of intermediate and topcoat of high-performance coating system for long-term performance and aesthetic appearance.

        - ***ROM/Schematic Budget Cost Estimate: ~$1,612.50***
        - ***See ROM for additional information.***

IN CLOSING

BET&R is pleased to have been able to assist SSW Architects and the Washington State Historical Museum with this Building Envelope Survey and Conditions Assessment Report, complete with Recommendations, Priority Suggestions, and Rough Order of Magnitude / Schematic Budget Cost Estimate. Thank you for allowing BET&R to provide technical assistance for this grand public facility.

We trust our on-site survey, limited testing, and conditions assessment work, along with our related observations, and the technical information contained in this Report are of assistance. Please contact us if you have questions, any comments or concerns, or if we may be of further technical service. BET&R would be pleased to assist in preparing a written scope of work or technical specifications and drawings for the repair and retrofit work and project(s) as well as assisting with future replacement of the various building envelope systems. Please call us at your convenience to discuss how we may best assist with the upcoming work for the maintenance, repair, and long-term cost effective preservation of this important public facility.

Respectfully,

Dan Jaramillo,
Cladding Section Manager & Building Envelope Technologist

Jim Carlson,
Technical Director

BUILDING ENVELOPE TECHNOLOGY & RESEARCH (BET&R)

REGARDING THIS REPORT

On-Site Survey, Report, Conclusions and Recommendations:

This Exterior Evaluation and Conditions Assessment Report, including initial preliminary recommendations and prioritizations are based upon observations of the visible and apparent conditions of the building, and the primary exterior components viewed and examined on the dates of the survey(s). Although care has been taken in the performance of the survey and limited on-site testing, Building Envelope Technology & Research, Inc. (BET&R) makes no representations regarding any latent or concealed defects that may exist, and no warranty or guarantee is expressed or implied.

This report is made in the best exercise of our technical ability, experience, industry exposure, observations of aspects of the previous work designed and performed by others, and our prudent judgment. Please understand that future winds and weather conditions, additional moisture migration and leakage into the building envelope systems, and compounding conditions (e.g., wetting and drying, freeze-thaw cycling, etc.) can alter the useful life of any item or exterior building component. The weather exposure, faulty manufacture and/or defective design, deficient construction, unfavorable conditions and installation, natural disasters (e.g., high-wind events, earthquakes, etc.), use and misuse, irregularity of servicing, and unforeseen circumstances make it impossible to state precisely when each building envelope component will require replacement.

Moisture Intrusion, Mold Growth, and Human Exposure To Mold

Persistent moisture intrusion, repetitive wetting, and/or condensation along with the resulting elevated moisture content and relative humidity in some situations can lead to the proliferation of biological and/or fungal growth (e.g., mold) and other potentially hazardous contaminants, release of spores, and/or can spread fungus into interior spaces, which can lead to allergic reactions in susceptible individuals, as well as other potential problems (hypersensitivity, etc.).

Limitations

This initial site visit and limited investigative-survey and evaluation report is prepared for the exclusive use of the named Client (i.e., SSW Architects, Washington States Department of Enterprise Services [DES], and the Washington State Historical Museum [WSHM]) and may not be relied upon or used by any other party. In preparing this Report for the named Client, the author assumes no duty to lenders or other parties, none of whom are authorized to rely on its contents.

Photographs were shot with the intent to document observed conditions and to help the Client understand the actual conditions observed on-site. These photographs were also shot to show example areas, specific locations, related conditions and situations, including safety hazards (e.g., loose sheet metal flashings, etc.); they are not inclusive of every condition or situation, but of general/typical conditions, and certain specific conditions.

REGARDING THE ATTACHED ROM/SCHEMATIC BUDGET COST ESTIMATE

The rough order of magnitude (ROM) or schematic budge cost estimate attached provides guideline figures for budgetary purposes as requested. This ROM does not include contract-related soft costs, legal costs, sales tax, repair or retrofit of potential latent issues or other defects that may exist or develop over time, repair of any interior damage or concealed degradation or damage, nor does it account for all site access and staging challenges, etc. The actual repair, retrofit, and replacement Project(s) costs will be determined by the actual repair and retrofit design produced, the bidding contractor(s), and may vary based upon the actual products and manufacturer's systems ultimately used, the quality of the contractors in the bidding, the actual contractor(s) selected to perform the work, the time of year the project(s) are bid and are to be performed/executed, and the local construction market during the repair, retrofit, and replacement projects construction period.

Appendix A

BUILDING ENVELOPE TECHNOLOGY & RESEARCH

PROFESSIONAL ROOFING, WATERPROOFING, CLADDING, AND FENESTRATION CONSULTANTS

Washington State History Museum

Roofing Related Preliminary Rough Order of Magnitude (ROM) Cost Estimate

Tuesday, May 26, 2020

No.	Code	Description/Repair	Qty.	Unit	Unit Price	Total
Mobilization, Setup, Demobilization, & Close-out						
S1	Setup	Safety Allowance	1	EA	$ 10,000.00	$ 10,000.00
S2	Setup	Mobilization Allowance	1	EA	$ 12,000.00	$ 12,000.00
S3	Setup	Man Lift and Boom Lift	8	Week	$ 2,800.00	$ 22,400.00
S3	Setup	Take Down, Demobilization, & Close-out	1	Week	$ 8,800.00	$ 8,800.00
					Subtotal for Setup	**$ 53,200.00**
Priority 1 Roofing Items: High Priority - Steep-Slope Perimeter Flashing Retrofit						
Demolition						
D1	Demo	Remove Existing Perimeter Flashings at Eave Edge of Steep-Slope Roofs and Store	428	LF	$ 16.00	$ 6,848.00
D2	Demo	Remove Existing Flashings at Steep-to-Low-Slope Roof Intersections/Transitions	428	LF	$ 62.00	$ 26,536.00
					Subtotal for Demolition	**$ 33,384.00**
Labor and Materials						
L1	L&M	Prepare and Retrofit Existing Sheet Metal Transition Flashings with New Cleats, Fasteners, and Clip System	428	LF	$ 40.00	$ 17,120.00
L2	L&M	Prepare and Retrofit Existing Sheet Metal Transition Flashings to Secure	220	LF	$ 115.00	$ 25,300.00
L3	L&M	Retrofit Existing Sheet Metal Roof Battens' Fasteners to Secure	1	EA	$ 60,000.00	$ 60,000.00
					Subtotal for Labor and Materials	**$ 102,420.00**
					Total for Steep-Slope Perimeter Repairs (not including soft costs or setup)	**$ 135,804.00**
Priority 1 Roofing Items: High Priority Option 1 - Low Slope Roof Replacement						
Demolition						
D1	Demo	Existing Single-Ply Roof System and Gutters and Penetrations	3,391	SF	$ 5.00	$ 16,955.00
D2	Demo	Clean Drain Strainer, Mechanical Drains, and Drain Lines (Primaries and Overflows)	16	EA	$ 75.00	$ 1,200.00
D3	Demo	Remove Existing Sheet Metal Flashings (at Parapets) and Store	252	LN	$ 26.00	$ 6,552.00
					Subtotal for Demolition	**$ 24,707.00**

Preparation							
P1	Preparation	Clean and Repair Existing Concrete Roof Deck	3,391	SF	$	8.00	$ 27,128.00
P2	Preparation	Clean and Prepare Mechanical Drain Locations -- Retrofit Secondary Drains	16	EA	$	500.00	$ 8,000.00
					Subtotal for Preparation		**$ 35,128.00**
Labor and Materials							
L1	L&M	Install New 3-Ply Mod Bit Roof System with Vapor Retarder, Insulation Package, Coverboard and Related Base & Penetration Flashings	3,391	SF	$	65.00	$ 220,415.00
L2	L&M	Epoxy Prime and Polyurethane Coat Existing Primary & Secondary Mechanical Roof Drains, and Retrofit and Coat Strainers	16	EA	$	375.00	$ 6,000.00
L3	L&M	Reinstall Sheet Metal Counterflashings at Parapets with New Cleats, Fasteners, etc.	252	LF	$	45.00	$ 11,340.00
L4	D&Prep&L&M	Repair Broken Solder Joints (Potential Warranty Item)	120	LF	$	94.00	$ 11,280.00
L5	D&Prep&L&M	Replace Failed Sealant Joints	200	LF	$	35.00	$ 7,000.00
L6	D&Prep&L&M	Bird Strip Retrofit Attachment (Remove, Clean, Prepare, Bed in Eternabond DoubleStick or sim.) and Resecure	200	LF	$	22.00	$ 4,400.00
					Subtotal for Labor and Materials		**$ 260,435.00**
					Total for Low-Slope Roof Replacement (not including soft costs or setup)		**$ 320,270.00**
Priority 1 Roofing Items: High Priority Option 2 - Low Slope Roof Coating Project							
Demolition							
D1	Demo	Existing Pitch Pan and Roof Penetration Flashings	24	EA	$	65.00	$ 1,560.00
					Subtotal for Demolition		**$ 1,560.00**
Preparation							
P1	Preparation	Power Wash, Scrub, and Rinse Existing Single-Ply Roof Surface	3,391	SF	$	18.00	$ 61,038.00
P2	Preparation	Spot Repair Single-Ply Membrane at Seams and Other Locations as Necessary	48	EA	$	75.00	$ 3,600.00
					Subtotal for Preparation		**$ 64,638.00**
Labor and Materials							
L1	L&M	Install New Pitch Pans, Strip-in, & Related Sealants	24	EA	$	285.00	$ 6,840.00
L2	L&M	Apply Roof Coating System	3,391	SF	$	38.00	$ 128,858.00
L3	L&M	Retrofit Sheet Metal Counterflashings at Parapets	252	LF	$	45.00	$ 11,340.00
					Subtotal for Labor and Materials		**$ 147,038.00**
					Total for Low-Slope Roof Coating (not including soft costs or setup)		**$ 213,236.00**

Priority 2 Roofing Items: Moderate Priority Steep-Slope Roof Repairs and Retrofit							
Labor and Materials							
L1	D&Prep&L&M	PMMA Repairs at Steep-Slope Roof Penetrations and High Traffic Areas	432	SF	$ 48.00	$	20,736.00
L2	D&Prep&L&M	Install Sheet Metal Closures, Diverters, etc., Where Missing	14	EA	$ 125.00	$	1,750.00
L3	D&Prep&L&M	Install Roof Anchors Where Lacking at Café Roof (Does Not Include Engineering or Structural Retrofit)	6	EA	$ 2,500.00	$	15,000.00
L4	D&Prep&L&M	Install Snow Guards Where Lacking	145	LF	$ 95.00	$	13,775.00
					Subtotal for Labor and Materials	**$**	**51,261.00**
					Total for Steep-Slope Priority 2 Repairs (not including soft costs or setup)	**$**	**51,261.00**

Priority 1, Option 1 Project (Steep-Slope Perimeter Flashing Retrofit, and Replace Low-Slope Roofs with New Low-Slope 3-Ply Modified Bituminous Roofing System):

- Retrofit Existing Damaged and Deficient Sheet Metal Roof Flashings & Bird Strip
- Retrofit Low-Slope Roof Drainage
- Install New 3-Ply Mod Bit Roof Assembly
- Install New Penetration and Transitional Flashings, Repair Open Solder & Sealant Joints

	Priority 1, Option 1 SUBTOTAL	**$**	**509,274.00**
GC General Conditions	20%	$	101,854.80
GC Profit	15%	$	76,391.10
Design & Consulting Contingency	12%	$	61,112.88
Priority 1 - Option 1 Only | ROM/Schematic Budget Cost Estimate		**$**	**748,632.78**
Priority 1 - Option 1 W/ Priority 2 Items | Total ROM/Schematic Budget Cost Estimate		**$**	**902,190.45**

Priority 1, Option 2 Full Project (Steep-Slope Perimeter Flashing Retrofit and Coating of Single-ply Roof Membrane):

- Retrofit Existing Damaged and Deficient Sheet Metal Wall Flashings
- Retrofit Low-Slope Roof Drainage
- Prepare Prime & Coat Single-ply Roof Membrane
- Retrofit Penetration Flashings

	Priority 1, Option 2 SUBTOTAL	**$**	**402,240.00**
GC General Conditions	20%	$	80,448.00
GC Profit	15%	$	60,336.00
Design & Consulting Contingency	12%	$	48,268.80
Priority 1 - Option 2 | ROM/Schematic Budget Cost Estimate		**$**	**591,292.80**
Priority 1 - Opt. 2 W/ Priority 2 Items | Total ROM/Schematic Budget Cost Estimate		**$**	**744,850.47**

Priority 2 Repair Items (See ROM above for full list):

- PMMA Repairs at Steep Slope Roof Flashings
- Conduct Flashing Retrofit
- Add Roof Anchors and Snow Guards where Lacking

	Priority 2 Repair Items SUBTOTAL	**$**	**104,461.00**
GC General Conditions	20%	$	20,892.20
GC Profit	15%	$	15,669.15
Design & Consulting Contingency	12%	$	12,535.32
Priority 2 | ROM/Schematic Budget Cost Estimate		**$**	**153,557.67**

Appendix B

BUILDING ENVELOPE TECHNOLOGY & RESEARCH

PROFESSIONAL ROOFING, WATERPROOFING, CLADDING, AND FENESTRATION CONSULTANTS

Washington State History Museum

Cladding Related Preliminary Rough Order of Magnitude (ROM) Cost Estimate

Tuesday, May 26, 2020

No.	Code	Description/Repair	Qty.	Unit	Unit Price	Total
Mobilization, Setup, Demobilization, & Close-out						
S1	Setup	Safety Allowance	1	EA	$ 8,500.00	$ 8,500.00
S2	Setup	Mobilization Allowance	1	EA	$ 9,500.00	$ 9,500.00
S3	Setup	Man Lift & Scaffolding	6	Week	$ 4,800.00	$ 28,800.00
S4	Setup	Take Down, Demobilization, & Close-out	1	EA	$ 6,800.00	$ 6,800.00
					Subtotal for Setup	**$ 53,600.00**
Priority 1 Cladding Items: High Priority Repairs & Retrofit (Warm Water Pressure Wash, Mechanical Scrub and Rinse of Cladding, Spout Rout and point and Water-Repellant Application at Brick Veneer, & Backer Rod and Sealant Replacement at Brick Veneer and Decorative Cladding Panels)						
Labor and Materials						
L1	L&M	Install New Silicone Sealants at Expansion Joints and Ledger Angles (Removal of existing and preparation included)	2,845	LF	$ 32.00	$ 91,040.00
L2	L&M	Install New Silicone Sealants Joints at Masonry Penetrations (Preparation included)	340	EA	$ 34.50	$ 11,730.00
L3	L&M	Install New Silicone Sealants Joints at Decorative Aluminum Panel Perimeters and Butt Joints	775	LF	$ 35.00	$ 27,125.00
L4	L&M	Spot Route and Repointing of Brick Masonry Mortar Joints	200	LF	$ 55.00	$ 11,000.00
L5	L&M	Warm Pressure Wash (or Steam Clean), Mechanical Scrub, and Rinse of All Cladding System Surfaces	48,020	SF	$ 3.75	$ 180,075.00
L6	L&M	Apply Water Repellent at Brick Veneer Substrates (2 flood-on coats and back brush etc.)	33,900	SF	$ 6.00	$ 203,400.00
					Subtotal for Labor and Materials	**$ 524,370.00**

Priority 2 Cladding Items: Moderate Priority Repairs and Retrofit (Additional Spot Sealant Repairs at Cladding and Fenestration Systems, Retrofit and Secure Light Fixtures, Repairs of Cast Concrete Wall Areas and Water-Repellant Application for Same, & Replacement of Spalled/Fractured Brick Units)						
Labor and Materials						
L1	L&M	Demo Mortar, Clean, Prepare, Prime and Install New Silicone Sealant Joints at Hollow Metal Doors Perimeters	145	LF	$ 32.50	$ 4,712.50
L2	L&M	Spot Replace Silicone Sealants at Sheet Metal Cornice (Anticipated Allowance)	300	LF	$ 35.00	$ 10,500.00
L3	L&M	Spot Replace Silicone Sealants at Fenestrations (Anticipated Allowance)	500	LF	$ 32.50	$ 16,250.00
L4	L&M	Spot Grind and Remove Metal From Mortar Joints then Spot Repoint	16	EA	$ 65.00	$ 1,040.00

L5	L&M	Demo and Replace Spalled/Fractured Masonry Units with New [Anticipate Four (4) Locations]	4	EA	$ 250.00	$ 1,000.00
L6	L&M	Retrofit Light Fixtures inside Archways	4	EA	$ 250.00	$ 1,000.00
L7	L&M	Install New Silicone Sealant Joints at Cast in Place Concrete Cold Joints and Building Perimeter	140	LF	$ 32.00	$ 4,480.00
L8	L&M	Various Repairs of Cast-in-Place Concrete Substrates (Wash, Rinse, Sack-n-patch)	2,100	SF	$ 55.00	$ 115,500.00
L9	L&M	Apply Water Repellent at Cast-in-Place Concrete	8,300	SF	$ 4.00	$ 33,200.00
				Subtotal for Labor and Materials		**$ 187,682.50**

Priority 3 Cladding Items: Cladding Repair and Retrofit for Future Considerations (Install New Storefront and Fenestration Systems, Rough Opening Flashings, and Sealants & Repair of Handrail Coating where Failing)						
Labor and Materials						
L1	L&M	Demo, Prepare Rough Opening and Install New Fenestration System at East Elevation Bay Window	340	SF	$ 275.00	$ 93,500.00
L2	L&M	Demo, Prepare Rough Opening and Install New Fenestration System at Other Storefronts	5,920	SF	$ 255.00	$ 1,509,600.00
L3	L&M	Prepare Select Handrails & Fascia's (Wash, Rinse, Wire Brush, Sand, Solvent Wipe) and Apply New Coating System (w/ Primer & Top Coat) at Select Hand Rails	25	LF	$ 64.50	$ 1,612.50
				Subtotal for Labor and Materials		**$ 1,604,712.50**

Priority 1 & 2 (Including Mobilization, Setup, Demobilization, & Close-out) SUBTOTAL		**$ 765,652.50**
GC General Conditions	20%	$ 153,130.50
GC Profit	15%	$ 114,847.88
Design & Consulting Contingency	12%	$ 91,878.30
Priority 1 & 2 | Total ROM/Schematic Budget Cost Est.		**$ 1,125,509.18**

Priority 1 & 2 Work -- Phasing by Elevation Option		
North Elevation	30%	$ 337,652.75
West Elevation	25%	$ 281,377.29
East Elevation	35%	$ 393,928.21
South Elevation	10%	$ 112,550.92

Priority 3 (Including Mobilization, Setup, Demobilization, & Close-out) SUBTOTAL		**$ 1,658,312.50**
GC General Conditions	20%	$ 331,662.50
GC Profit	15%	$ 248,746.88
Design & Consulting Contingency	12%	$ 198,997.50
Priority 3 | Total ROM/Schematic Budget Cost Est.		**$ 2,437,719.38**

Appendix B

History Museum

Retro-Commissioning Report

January 2016

Washington State History Museum
Retro-Commissioning Phase 1
Job No. 2016-131
Consolidated Project Closeout Report

Tacoma, Washington

January, 2016

Retro-Commissioning Investigation Report

Executive Summary

OVERVIEW

McKinstry is pleased to report that at the end of the Phase 1 Retro-Commissioning project we have identified solutions to the deficiencies in the Washington State History Museum's HVAC system that are contributing to the humidity control issues this project was intended to address.

McKisntry was brought onboard for this project after an initial survey was made by a separate contractor, Inventrix, in 2014. Most of the issues identified by Inventrix were also identified by McKinstry but the commissioning effort performed looked deeper into the mechanical systems to find the root cause of the issues at hand. This additional effort resulted in recommendations that differ from those of Inventrix but will address the same overall deficiencies in the mechanical system overall.

Some of the issues identified during this phase of work were addressed with maintenance funds and have already been resolved. The remaining issues require significant repair, upgrade, or replacement to be corrected. We have identified those that require further action as "Open" in the Deficiencies and Corrective Actions table on the following two pages and have provided Rough Order of Magnitude (ROM) implementation and associated utility savings costs in the Implementation Recommendations section at the end of this report.

The following sections outline the actions performed in this phase of work, issues/observations identified, recommended resolutions, and additional improvement measures to that will enhance system performance while lowering utility spend and upgrading aging system components.

ACTIONS PERFORMED

In accordance with the project scope, McKinstry has performed the following:

- Reviewed the as-built documents and Inventrix study from March 2014.
- Conducted a mechanical system condition assessment inventorying and rating the condition of the systems, while determining remaining useful life of the systems (report enclosed).
- Reviewed the control system with Siemens to capture any known deficiencies.
- Conducted a physical point check and calibration verification of critical control sensors from installed location to Siemens operator's workstation.
- Conducted a mechanical system functional performance investigation including detailed testing of the HVAC and Siemens control systems to determine current state of operation with a focus on the temperature and humidity control requirements for the galleries.

SUMMARY

Detailed observations and recommendations are enumerated in the "Deficiencies and Corrective Actions" table included in the following pages.

McKinstry utilized the Inventrix study from 2014 as a baseline to begin a full investigation of the museum. For the most part McKinstry agrees with the recommendations made by Inventrix but there are some key differences between the findings from this study and the Inventrix study that drive different recommendations for solutions. In particular, McKinstry feels that forgoing a full DDC controls upgrade and instead opting for an upgrade of only the master controllers will leave budget to address other essential items which will give the museum better control of its critical zones.

Inventrix also recommended that the museum add zone humidity control units for each of three zones. McKisntry observed that the return duct humidity at AHU-1 was very close to the individual

zone humidity setpoints, however, and recommends that the museum make improvements to this return humidity control strategy instead of adding individual units throughout the museum. To accomplish this strategy McKinstry recommends first upgrading the DDC control system to monitor three critical zone humidity readings as well as outside air humidity. The proposed control sequence will give the building operator the flexibility to maintain humidity control at AHU-1 return humidity (the current control strategy), worst-case zone humidity, average critical zone humidity, or the most critical zone humidity. Humidification and dehumidification will still take place at AHU-1 but the controlling component can be changed by the operator for more flexibility. McKinstry further recommends that the museum swap the orientation of the heating and cooling coils at AHU-1. This will provide the museum added mechanical redundancy by providing heating at both the air handler and the individual zones. Furthermore, it will allow maintenance staff to perform repairs as necessary at individual VAV zones without crippling the ability to control zone temperature and humidity.

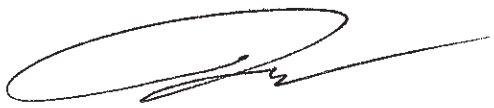
During the investigation phase of this project it was noted that facility operators were required to override pumps, valves, dampers, setpoints and fan speeds in an effort to maintain temperature and humidity throughout the building. While there are a number of issues contributing to this, the root cause was found to be a severely clogged heating water system which rendered many of the terminal unit heating coils incapable of providing the heat required to properly maintain zone setpoints. In 2014 Inventrix suggested that heating valves in the system were beginning to fail but a deep investigation by McKinstry found that this was not the case. After working with the museum's maintenance staff and chemical provider to resolve this issue McKinstry found that no valves are failed. This provides the museum with the ability to control temperature and humidity as required for critical facility operation.

McKinstry also utilized the resources of DDC controls vendor Siemens to assist in identifying failed and malfunctioning components in the automated control system. Siemens identified a number of failed and overridden points and was also able to significantly improve the operation of the current system. McKinstry supplemented this investigation with a detailed physical point check and identified one failed damper actuator that was causing the air handling unit serving the shop area to operate inefficiently. Aside from that deficiency it was found that no critical components and only 13 points overall (out of hundreds throughout the building) were failed. All of these can be easily repaired during follow-on phases of work which will not require that the entire control system be upgraded. Estimated costs in the recommended Facility Improvement Measures (FIMs) include these repairs.

In addition to the above actions which primarily addressed temperature and humidity control in the museum McKinstry performed a mechanical facility condition assessment to assist the museum in planning its future costs for these critical systems. A separate section of this report is dedicated to that investigation.

Overall the museum has made huge improvements to the operation of the mechanical systems in the building over the course of this project. This has been aided by help from the controls vendor as well as the chemical provider. A consolidated list of recommended future improvements and ROM estimates are included in final section of this report.

Sincerely,

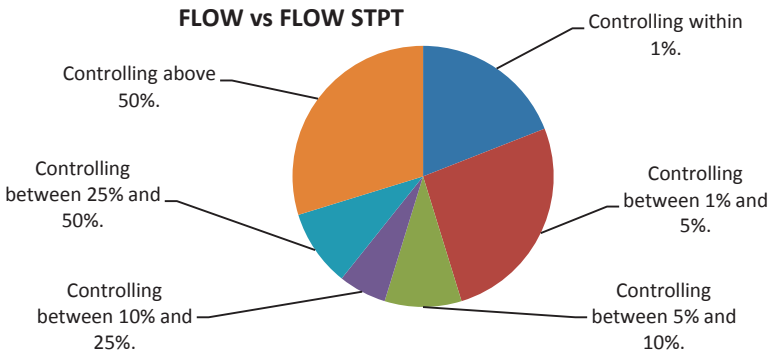


Joseph Moroni

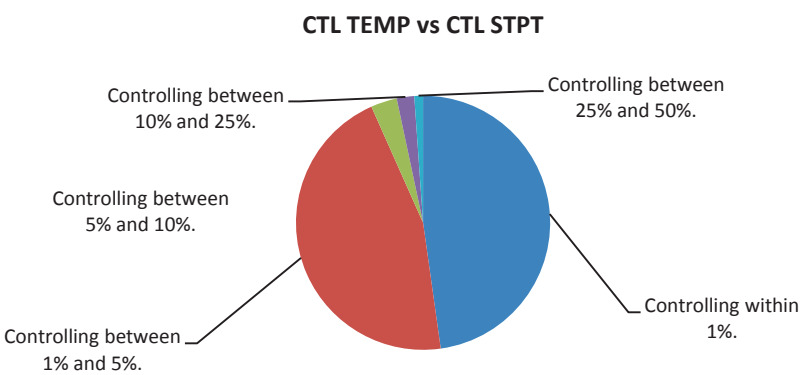
Deficiencies and Corrective Actions

ITEM	DEFICIENCY NOTED	EFFECT ON SYSTEM OPERATION	CORRECTIVE ACTION PERFORMED OR RECOMMENDED	STATUS
1	The DDC control system mislabeled heating valve position for VAV boxes as heating valve command. This led to the inability to properly troubleshoot the system or override the system for manual operation.	The inability to override valve position from the operator workstation gave the false indication that heating valves were failed in the system. Ultimately these valves were found to be functional and McKinstry does not recommend valve replacement as the Inventrix report in 2014 indicated.	Directed Siemens to change DDC system to display both heating valve position and command. Valves have been verified to function properly.	Issue Resolved
2	The DDC control system did not display discharge air temperature for VAV boxes. These sensors were added as a project after the building was initially built but it appears the points were never added to (or were deleted from) the graphical interface.	Discharge air temperature indication is essential for proper maintenance and operation of this facility. Dehumidification for this building is accomplished at the main air handling unit by cooling down the air below the saturation temperature. This will result in air being delivered to all zones at this low temperature (approximately 50 degrees F). Each VAV box will re-heat this air and being able to monitor that ability is essential to maintain the strict temperature/humidity band for the museum.	Directed Siemens to change the DDC system to display discharge air temperature for all VAV boxes resolving the issue. All temperature sensors have been verified to respond properly to heating water flow.	Issue Resolved
3	The Return air damper for AHU-2 which serves the shop area was found failed shut.	This damper is designed to modulate in tandem with the outside air damper for this unit. The result of this damper being shut is that only outside air is provided to the unit which increases the heating required when outside air is cold.	The maintenance staff replaced damper with an on-hand spare resolving the issue.	Issue Resolved
4	The DDC control system is outdated and is no longer supported by the manufacturer for repair parts. Electronic memory, storage and response times are limited.	This limits the ability to make future repairs and will also make additional controls sequence changes difficult—if not impossible--to implement.	McKinstry recommends that the main controllers be upgraded and control sequence re-written to accommodate better overall building control. This does not require a full system upgrade as Inventrix recommended in 2014.	Open. Reference FIM 04.02 for details

ITEM	DEFICIENCY NOTED	EFFECT ON SYSTEM OPERATION	CORRECTIVE ACTION PERFORMED OR RECOMMENDED	STATUS
5	The DDC control system was found to have 13 failed points and approximately 50 overridden points.	This has led to improper control of temperature and airflow in the system. (See items 5.1 and 5.2) Building maintenance staff has been diligent in returning points to normal operation and overall this system has seen major improvements.	Directed Siemens to perform a failed points analysis and general checkout of system. McKinstry recommends a controls upgrade to the main building control units and these repairs will be implemented.	Open. Repairs have been integrated into future FIM 04.02
5.1	The control system is unable to maintain airflow setpoints properly due to an abnormal number of overridden points in the system.	See Graph:	McKinstry recommends a controls upgrade to the main building control units and these repairs will be implemented.	Open. Repairs have been integrated into future FIM 04.02



5.2	The control system is unable to maintain zone temperature setpoints in key zones due to an abnormal number of overridden points and a clogged heating water system.	See Graph:	McKinstry recommends a controls upgrade to the main building control units and these repairs will be implemented.	Open. Repairs have been integrated into future FIM 04.02



ITEM	DEFICIENCY NOTED	EFFECT ON SYSTEM OPERATION	CORRECTIVE ACTION PERFORMED OR RECOMMENDED	STATUS
6	Mechanical investigation found that heating coils at terminal VAV units were impacted with sediment and that the system was unable to properly reheat air for zone temperature and humidity control.	The ability to re-heat air at the terminal unit level is essential for building operation (see #2 above).	A clean and flush has been performed by chemical provider (CH2O). A continued service contract with CH2O is recommended to ensure continuity of control and proper building operation. It is also recommended that VAV boxes be periodically checked for sediment buildup.	Open See FIM 04.02
6.1	Discussion with McKinstry engineering revealed that the root cause for sediment buildup in the heating water system is likely that Boiler 2 has not been properly laid-up and is corroding internally.	The level of sediment present in the heating water system effectively crippled the ability of the museum to dehumidify the air at the main air handler and then re-heat at terminal units.	McKinstry recommends that boiler 2 be taken fully offline and laid up to prevent further corrosion.	Open. See service repair pricing quote.
7	The dehumidification strategy control sequence does not disable heating valve operation at AHU-1. (This issue was further exacerbated by clogged terminal unit heating coils that make proper humidity control impossible.)	Leaving heating enabled does not remove moisture from the air to lower the humidity (See #2 above).	McKinstry engineering performed calculation based on installed equipment and determined that dehumidification and reheat are possible given existing conditions. Follow-on project has identified control strategy changes to ensure this is properly implemented.	Open See FIM 04.02
8	The heating and cooling coils at AHU-1 are oriented to provide heating before cooling for the system.	This orientation does not allow discharge temperature control and dehumidification simultaneously and is a major design deficiency. The system should be designed to dehumidify the air first by cooling to 50 degrees F (via cooling coil) and then re-heat the air (heating coil) to maintain discharge air temperature setpoint (approx. 60F) and require less re-heat at terminal box level. An added benefit of this is heating coil redundancy in the case of further system clogging or malfunction.	McKinstry recommends physically swapping the location of the heating and cooling coils within the unit and has provided a ROM estimate for this proposed work which includes all additional DDC controls points and sequences necessary to fully implement the change. This is proposed instead of individual zone humidity units as Inventrix recommended in their 2014 report.	Open See FIM 04.01

ITEM	DEFICIENCY NOTED	EFFECT ON SYSTEM OPERATION	CORRECTIVE ACTION PERFORMED OR RECOMMENDED	STATUS
9	Individual zone humidity control is recommended by Inventirx but is not necessary for proper building operation.	The control system currently maintains building humidity by controlling to return humidity. Trends have indicated that each zone deviates very little from this and that this strategy can be maintained for future operation.	McKinstry has written a humidity control sequence that will maintain return humidity control but has also built in flexibility to control to worst-case zone humidity if there is future expansion or if control issues surface. Future projects are designed to resolve these issues.	Open. See FIMs 04.01 and 04.02.
10	Review of Inventrix engineering study as well as mechanical investigation revealed that building pressurization is problematic.	In order to prevent moisture infiltration and to maintain proper humidity control the building should be maintained at a slightly positive pressure.	Follow-on projects have been written to re-develop pressurization strategy. This will be achieved at AHU-1 by controlling return fan VFD and AHU-1 relief dampers separately. A new building static pressure sensor will also be added.	Open See FIM 04.02
11	Condensation has been reported on a number of interior windows, particularly in conference rooms.	This presents mostly cosmetic issues related to water stains but can also damage equipment.	This issue was re-prioritized to low priority during project but cleaning the heating water system and implementing proper space temperature control should help mitigate the issue. If issue remains afterward future efforts should be considered.	Open. Deferred to Museum staff
12	Heating water system operated with a 115F temperature. Design is 180F, although an agreement with the utility provider in 2012 decreased this temperature to control a return of 105F to new boiler.	Diminished water temperature might make implementation of dehumidification strategy problematic.	McKisntry engineering will perform calculations based on system configuration and recommend an aggressive temperature re-set strategy to maintain humidity control, heating and energy efficiency in building. This re-set is currently not possible with given control system. Recommended FIMs will address this issue.	Open. See FIM 04.02
13	Domestic hot water heaters throughout the facility are beyond their useful life.		McKinstry recommends replacing water heaters. To comply with current energy code, storage type water heaters will require circulation pumps and thermostatic mixing valves. Point-of-use water heaters might be more cost-effective and will be investigated during design.	Open. See FIM 12.01

ITEM	DEFICIENCY NOTED	EFFECT ON SYSTEM OPERATION	CORRECTIVE ACTION PERFORMED OR RECOMMENDED	STATUS
14	Domestic hot water heater serving café is beyond useful life and requires immediate replacement to meet inspection requirements.		McKinstry recommends replacing water heater with a like-for-like electric water heater and additionally adding circulating pump and thermostatic mixing valve to meet new code requirements.	Open. See service repair pricing quote.
15	Chilled water system is unable to effectively control at low building loads. Chiller 1 was retro-fit to a different refrigerant type but Chiller 2 is effectively retired in place. Furthermore, the water-side economizer system is retired in place due to a failed control valve.	Inability to control to low loads affects temperature control but more critically it also affects humidity control.	Repair water-side economizer and replace Chiller 2 with a more energy efficient system. A control sequence is proposed to stage the economizer and Chillers 2 and 1 to maintain the system based on demand.	Open. See FIM 02.01 and 02.02.
16	Chilled water cooling tower chemical treatment system is not operating and no chemical treatment is currently in place. A chemical treatment report from 1/6/16 reports pH, Hardness, Alkalinity and Conductivity grossly out of specification.	This could lead to deterioration of piping or shortened equipment life and could also lead to chillers being unable to operate altogether.	Connect piping to new chemical treatment system (already onsite) and commission in conjunction with chemical provider. This should be covered either in maintenance budget or as part of warranty from 2015 cooling tower construction project.	Open. See service repair pricing quote.

Service Repair Pricing Quote

Washington State History Museum

1/22/2016

Washington State History Museum
1911 Pacific Avenue
Tacoma, WA 98402

Attn: Joe Moroni – McKinstry
Phone: 206-763-5398
Email: Joemo@mckinstry.com

RE: WSHM – Water Treatment, Boiler, and Water Heater Repairs

Thank you for the opportunity to provide the following proposal. We have been asked to propose a solution to connect water treatment to the cooling tower loop, layup the existing backup boiler, and replace a water heater serving the café space with a solution that increases functionality, uptime, energy efficiency, and serviceability. The details and recommendations are listed below.

EXISTING CONDITIONS:

- The existing water treatment controls are disconnected. McKinstry has been asked to provide a proposal to remove the existing water treatment piping and replace with new that connects to new water treatment controls.
- The existing atmospheric boiler is a backup. The boiler is currently flowing water through it and the HX is suffering and rusting. It was recommended by McKinstry commissioning to "layup" this boiler, remove water flow, and add water treatment to the system. This will keep the HX from further degradation.
- The water heater serving the café is unable to maintain above 110 degree water. Replacement of electric tank water heater and addition of recirculation line was requested.

RECOMMENDATIONS:

- Per McKinstry commissioning, connect water treatment, layup boiler, and replace water heater with like in kind model to support café hot water demands.

Water Treatment - Our scope includes labor and materials to:

- Drain existing cooling tower loop to support removal and connection of water treatment lines.
- Remove and dispose of existing water lines from old controllers.
- Furnish and install new water treatment lines from new controllers to existing connection points.
- Refill cooling tower loop.
- Start up and test lines to ensure system is free of leaks.

TIME AND MATERIALS NOT TO EXCEED PRICE FOR ABOVE SCOPE: $4,079.00

Layup Boiler - Our scope includes labor and materials to:

- Drain down boiler and loop to allow for removal of existing valves.
- Furnish and install (2) automated or manual control/isolation valves on Bryan boiler.
- Due to location of current isolation valve, during this modification, isolation valve will be moved as close to header as possible to assist in future replacement of boiler. With current configuration, that valve needs to be removed to install a new boiler anyway.
- Provide local controls required to modify firing rate and loop temp of boiler if it needs to run.
- Re-fill and isolate boiler.
- Support water treatment company adding treatment to boiler.
- Start up and test of system to ensure it operates as expected.

DIGITAL CONTROL - LUMP SUM FOR ABOVE SCOPE OF WORK: $18,478.00
MANUAL CONTROL - LUMP SUM FOR ABOVE SCOPE OF WORK: $10,555.00

Water Heater - Our scope includes labor and materials to:

- Remove and dispose of existing AO Smith Water Heater.
- Furnish and install electric water heater to match heating and storage capacity.
- Furnish and install recirculation water line to furthest available connection point in system.
- Furnish and install recirculation pump.
- Furnish and install electrical to recirculation pump.
- Relocate water heater into corner of mechanical room.
- Furnish and install insulation and tagging on new pipe as required by code.
- Start up and test system to ensure hot water is delivered to system.

TIME AND MATERIALS NOT TO EXCEED PRICE FOR ABOVE SCOPE: $16,234.00

EXCLUSIONS:

- Patch and Paint
- Any structural modifications required
- Integration of controls into existing building automation system
- Anything not included in above scope
- Mechanical screening
- Existing conditions
- Water or Water Treatment Chemicals
- Overtime or shift premium
- Washington State Sales Tax

QUALIFICATIONS:

- Pricing assumes all work above and in café is performed outside standard working hours.

Payment is due in full upon substantial completion. This proposal is valid for 45 days from the date proposed.

Upon your favorable review, please sign and return this proposal for scheduling and implementation. Should you have any questions or require additional information, please feel free to call me at 206-200-8871.

Sincerely,

Larry Mayotte
Project Manager
McKinstry
larryma@mckinstry.com

Acceptance:

_____

Customer Signature and Date

Terms and Conditions

1. **Performance of Work**. McKinstry shall perform the scope of work ("Work") specified herein. McKinstry shall furnish all services necessary to perform the Work and perform the Work to completion diligently, expeditiously and with adequate forces. Customer shall use its best efforts to provide all information, materials, documents, and assistance that is reasonably required for McKinstry to perform any and all aspects of the Work.

2. **Payments**. Customer shall pay McKinstry the compensation specified herein ("Price") for the value of Work that McKinstry has completed, as the Work is completed. Customer shall pay McKinstry within fifteen (15) days of receiving an invoice. McKinstry will be entitled to interest at the rate of 1.5 percent per month on all sums overdue and unpaid from the date due.

3. **Warranties**. Customer shall receive a one (1) year warranty that covers labor and materials provided by McKinstry as part of the Work. This warranty commences on the date that the portion of the Work warranted is substantially complete. However, McKinstry makes no warranty whatsoever regarding components of the Work provided by third parties, and in such case the terms of the third party's warranty, including manufacturers' warranties, if any, shall apply between Customer and the third party. THE WARRANTIES IN THIS SECTION ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED.

4. **Termination**. Either Party may terminate this agreement upon fifteen (15) days written notice to the other Party. In such case, the rights and obligations of each Party that arose prior to the termination date shall survive such termination.

5. **Disputes**. In case of dispute between the Parties, the Parties will attempt to negotiate a resolution. If a dispute remains unresolved more than thirty (30) calendar days after the commencement of negotiation, and the Parties have not agreed to extend such date, then the Parties shall pursue mediation. If any dispute remains unresolved more than sixty (60) calendar days after the commencement of mediation, then either Party may pursue arbitration. No litigation will be commenced by either Party unless all of the foregoing steps have been pursued to completion.

6. **Choice of Law, Venue**. The validity, interpretation, and performance of this agreement shall be governed by the laws of the state in which the Work is performed. The venue for resolving any dispute shall be the county in which the Work is performed.

7. **Force Majeure**. Neither McKinstry nor Customer shall be considered in breach of this agreement to the extent that the Party's performance is prevented by an event or events that are beyond the control of such party, including but not limited to acts of God, fire, earthquake, flood, storm, war, rebellion, revolution, insurrection, riot, strike, nuclear contamination, and/or acts or threats of terrorism.

1. **No Waiver**. No waiver of any breach, failure, right, or remedy shall be deemed a waiver of any other breach, failure, right, or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver.

8. **Intellectual Property**. Intellectual property provided by McKinstry to Customer as part of the Work are instruments of service owned by McKinstry and are not "work made for hire" as such term is defined under U.S. copyright law. When the Work is performed to completion, McKinstry grants to Customer a limited license to use the Intellectual Property to operate, maintain, renovate, and manage the subject matter of the Work.

9. **Damages**. NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, OR SIMILAR, DAMAGES OR LOSSES, INCLUDING LOSS OF PROFITS, ARISING OUT OF OR RELATING TO THIS AGREEMENT, WHETHER BASED IN CONTRACT OR TORT OR ANY OTHER THEORY, EVEN IF A PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. FURTHERMORE, THE TOTAL AGGREGATE LIABILITY OF EITHER PARTY, UNDER ANY THEORY, IS LIMITED TO THE AGREEMENT PRICE.

10. **Indemnification**. McKinstry shall indemnify and hold harmless Customer from and against all third party claims, damages, losses and expenses for bodily injury, sickness, disease, or death or destruction of tangible property, directly arising from McKinstry's performance of the Work, but only to the extent caused by the negligent acts or omissions of McKinstry.

11. **Severability, Survival**. If any portion of this agreement shall be held invalid in whole or in part under any law, rule, regulation, or order, then such portion shall remain in effect only to the extent permitted, and the remaining portions of the agreement shall remain in full force and effect. Any invalid portions shall be substituted with an interpretation that most accurately reflects the Parties' intentions.
12. **Amendment**. This agreement may not be amended except pursuant to a written amendment signed by an authorized signer of each Party.

13. **Complete Agreement**. This agreement, including the exhibits attached hereto, is a fully integrated agreement. Any legal terms and conditions appearing elsewhere in this agreement shall be ignored to the extent they contradict or are inconsistent with the terms and conditions contained in the foregoing numbered list. All previous agreements between McKinstry and Customer as to the Work are superseded by this agreement.

Implementation Recommendations

Facility Improvement Measure (FIM) Summary - Rough Order of Magnitude (ROM)

Project	WA State History Museum
Scenario	ROM Dec 2015
Date	December 23, 2015

			Budget *		Annual Utility Savings	
FIM Name	FIM Description	Facility	Min	Max	Min	Max
04.02 - Optimize AHU1 Dehumidification Sequence	Optimize AHU-1: AHU-1 is currently unable to efficiently control temperature and humidity to maintain critical museum spaces within design tolerance. This is due to deficiencies in mechanical design as well as automatic control sequence errors. This measure will physically swap the position of the heating and cooling coils inside AHU-1 and reconfigure the control sequence to properly maintain space humidity. This newly implemented sequence will remove excess humidity from the return air across the cooling coil by cooling the air down to saturation temperature (approximately 50 degrees F) and then pre-heat that air to the AHU discharge air temperature setpoint before being delivered to individual terminal unit zones. These units will then further heat the air if necessary to maintain room temperature setpoint. Overall this sequence provides redundancy in heating, better humidity control and energy efficiency.	WA State History Museum	$263,200	$336,300	$11,390	$14,730
04.01 - System-wide Controls Sequence Upgrades	System-wide controls sequence upgrades: The current DDC controls system is outdated and at the end of useful life. This measure will upgrade the main controllers in that system and will also replace critical control devices (temperature and pressure sensors) in those controllers to ensure proper operation of the heating and cooling systems in the building. Furthermore, the measure will implement an improved control sequence to implement heating and cooling temperature modulation, better humidity control and more efficient building operation overall.	WA State History Museum	$126,200	$161,300	$110	$140
12.01 - Replace Domestic Hot Water Heaters	Existing electric hot water heaters are beyond their useful life and require replacement. This measure will replace those water heaters and will also add circulating pumps and thermostatic mixing valves where required by current code.	WA State History Museum	$226,200	$289,000	$50	$70
02.01 - Upgrade Chiller 2	Chiller 2 is currently not utilized by the museum due to its inability to turn-down to meet varying levels of demand during cooling and dehumidification-only operation. It is effectively retired in place and does not provide the museum with the required redundancy necessary to maintain critical temperature and humidity setpoints in the museum. This measure will replace the existing chiller with a new unit capable of efficiently meeting the needs of the facility, particularly during levels of low load.	WA State History Museum	$308,500	$394,200	$2,120	$2,740
02.02 - Enable Water-side Economizing	The water-side economizer in the cooling water system is currently not operational due to a failed control valve. This measure will repair the system and utilize it as the first stage for cooling/dehumidification in the system.	WA State History Museum	$184,700	$236,000	$4,950	$6,410
			$1,108,800	**$1,416,800**	**$18,620**	**$24,090**

* Since design cost, audit cost, etc. are distributed among the FIMs, the total project cost will not go up or down by exactly the amounts shown here if a FIM or FIMs are dropped.
** For non recurring operational savings, the values are averaged over the 30 year length of this analysis.
*** Incentives are contingent on final approval and are not guaranteed. Funds are shown for reference only.

Mechanical Facility Condition Assessment Report

PURPOSE:

This study complements the commissioning effort of this project by providing a high-level review of mechanical systems installed in the facility. In addition to the general condition of these systems, the team assigned estimated remaining life of the systems and estimated replacement costs or allowance for continual upkeep. The remaining life and cost estimates provide the museum with a probable capital expenditure budgets for the next 30 years for their major equipment. In addition, since this report will be utilized to help supplement the 10 year architectural needs assessment that the museum has already completed this data has been provided in that format as well.

Note: Since this report is most useful in electronic form only samples have been included here which hide some rows of the Excel document for ease of presentation in this report.

METHODOLOGY:

1) Documentation review and interviews with key on-site personnel – The condition assessment team reviewed available documents to familiarize themselves with the facility and to verify the accuracy of information collected versus existing. Interviews with on-site occupants and maintenance staff is then performed to gather critical information on historic performance and known deficiencies.

2) Walk-through survey by a team of field observers representing key disciplines:

    a) Description of the building systems

    b) Determination of the estimated remaining life of each piece of MEP equipment;

    c) Identify major building and maintenance deficiencies (backlog maintenance) likely to be addressed over a time period by the owner;

3) Prepare opinions of probable cost to address and remedy physical deficiencies – Utilizing our team's experience with all of the building systems, cost data, and the client's past experiences, an opinion of probable cost will be developed for each element within the report to assist in establishing appropriate repair budgets to be used in determining the Net Present Value of the Asset.

4) Prepare the FCA report – Compile all field observation reports, along with documented interviews into a final working presentation document.

ASSESSMENT CRITERIA:

The current condition of existing equipment was utilized to estimate the remaining life of the equipment. This estimate then populated the corresponding year on the 30-year plan (adjusted for inflation estimated at 3% annually). Then, each piece of equipment populated again after industry standard lifecycle estimate for the equipment.

Example: For an AHU with estimated remaining life of 5 years and an estimated total life of 15 years the replacement cost will be populated in the year 5 and year 20 estimates. The year 20 estimate will be a larger value because of adjustment for inflation.

PROJECT: Washington State History Museum
DATE : 12/23/2015

Capex NPV, Mechanical Systems

Financial Data

Inflation Rate (Annual) 0.00%

Discount Rate 0.00%

Building Name	NPV	2016 1	2017 2	2018 3	2019 4	2020 5
Washington State History Museum	$3,258,445	$286,965	$215,094	$253,749	$46,474	$8,100

Capital Renewal NPV **$3,258,445**

Building Name	2021 6	2022 7	2023 8	2024 9	2025 10
Washington State History Museum	$170,633	$0	$0	$0	$499,102

2026 11	2027 12	2028 13	2029 14	2030 15
$0	$337,867	$12,049	$0	$0

2031 16	2032 17	2033 18	2034 19	2035 20
$13,450	$81,240	$9,561	$0	$416,283

2036 21	2037 22	2038 23	2039 24	2040 25
$258,188	$183,600	$0	$46,474	$0

2041 26	2042 27	2043 28	2044 29	2045 30
$89,100	$249,618	$72,799	$8,100	$0

Equipment Tag	Equipment System	Equipment Type	Approx Install Date	Estimated Remaining Life	Estimated Replacement Cost $	Notes
P-1	Chilled Water	Pump - Chilled Water	1994	2	$7,803	
P-2	Chilled Water	Pump - Chilled Water	1994	2	$7,803	
P-3	Chilled Water	Pump - Chilled Water	1994	2	$12,393	
P-4	Chilled Water	Pump - Chilled Water	1994	2	$12,393	
P-5	Chilled Water	Pump - Condenser Water	1994	2	$12,393	
P-6	Chilled Water	Pump - Condenser Water	1994	2	$7,800	
P-13	Chilled Water	Pump	2007	1	$10,328	This is the pump for the outside air economizer. The system as a whole is not operating and should be repaired in order to use outside air for free cooling.
No Tag	Chilled Water	Economizer	2007	1	$0	The system as a whole is not operating and should be repaired in order to use outside air for free cooling.
CT-1	Chilled Water	Cooling Tower	1994	20	$139,115	
CT-2	Chilled Water	Cooling Tower	1994	20	$139,115	
AS-1	Chilled Water	Air Separator	1994	2	$6,357	
ET-1	Chilled Water	Expansion Tank	1994	2	$3,783	
WC-1	Chilled Water	Chiller - Rotary Screw	2007	12	$258,188	This chiller should have a 10 year maintenance performed on it. During start-up it sounds like it's struggling.
WC-2	Chilled Water	Chiller - Rotary Screw	1999	1	$258,188	This chiller does not run because it cannot support dehumidificaiton only. Recommended replacement.
No Tag	Chilled Water	Variable Frequency Drive	2010	12	$13,500	VFD for CT-1
No Tag	Chilled Water	Variable Frequency Drive	2009	12	$13,500	VFD for CT-2
No Tag	Chilled Water	Variable Frequency Drive	2015	12	$12,150	VFD for P-3
No Tag	Chilled Water	Variable Frequency Drive	2015	12	$12,150	VFD for P-4
No Tag	Chilled Water	Water Treatment	1994	12	$13,500	Water treatment is setup on a timer.
WH-1	Domestic Hot Water	Water Heater	1994	1	$2,500	
WH-2	Domestic Hot Water	Water Heater	1994	1	$2,500	
WH-3	Domestic Hot Water	Water Heater	1994	1	$3,200	
WH-6	Domestic Hot Water	Water Heater	1994	1	$1,500	
No Tag	Domestic Hot Water	Water Heater	1994	1	$1,250	
WH-4	Domestic Hot Water	Water Heater	1994	1	$2,500	
WH-5	Domestic Hot Water	Water Heater	1994	1	$2,500	
WH-4	Domestic Hot Water	Water Heater	1994	1	$2,500	
P-7	Heating Water	Pump - Hot Water	1994	3	$2,066	
P-8	Heating Water	Pump - Hot Water	1994	3	$2,066	
P-9	Heating Water	Pump - Hot Water	1994	12	$5,430	Recently replaced but is currently not operational. Appears to require new differential pressure sensor and should be properly aligned.
P-10	Heating Water	Pump - Hot Water	1994	3	$5,430	
P-11	Heating Water	Pump - Circulating	1994	2	$10,328	
P-12	Heating Water	Pump - Circulating	1994	2	$10,328	
AS-2	Heating Water	Air Separator	1994	2	$5,231	
ET-2	Heating Water	Expansion Tank	1994	2	$12,049	
B-1	Heating Water	Boiler - Gas	2013	22	$183,600	
B-2	Heating Water	Boiler - Gas	1994	3	$244,188	
Pump P-9	Heating Water	Variable Frequency Drive	2013	12	$4,725	VFD for P-9. Recently replaced but appears to require electrical terminations re-verified to ensure code compliance and safety of system.
Pump P-10	Heating Water	Variable Frequency Drive	2013	12	$4,725	VFD for P-10. Recently replaced but appears to require electrical terminations re-verified to ensure code compliance and safety of system.
UH-1	HVAC	Unit Heater	1994	5	$1,620	
UH-2	HVAC	Unit Heater	1994	5	$1,620	
UH-3	HVAC	Unit Heater	1994	5	$1,620	
UH-4	HVAC	Unit Heater	1994	5	$1,620	
UH-5	HVAC	Unit Heater	1994	5	$1,620	
AH-1A/B	HVAC	Air Handling Unit	1994	10	$201,386	
AH-1 Htg/Clg Coils	HVAC	Air Handling Unit	1994	10	$263,200	
AH-2	HVAC	Air Handling Unit	1994	6	$13,770	
AH-3	HVAC	Air Handling Unit	1994	6	$13,770	
AH-4	HVAC	Air Handling Unit	1994	6	$33,278	
AH-5	HVAC	Air Handling Unit	1994	6	$16,639	

Equipment Tag	Equipment System	Equipment Type	Approx Install Date	Estimated Remaining Life	Estimated Replacement Cost $	Notes
AH-6	HVAC	Air Handling Unit	1994	6	$37,868	
SF-1	HVAC	Supply Fan	1994	10	$26,163	
SF-2	HVAC	Supply Fan	1994	10	$10,328	
RF-1A/1B	HVAC	Return Fan	1994	10	$172,125	
RF-2	HVAC	Return Fan	1994	6	$11,934	
RF-3	HVAC	Return Fan	1994	6	$11,934	
RF-4	HVAC	Return Fan	1994	6	$16,754	
RF-5	HVAC	Return Fan	1994	6	$14,688	
EF-1	HVAC	Exhaust Fan	1994	2	$16,754	
EF-2	HVAC	Exhaust Fan	1994	2	$11,750	
EF-3	HVAC	Exhaust Fan	1994	2	$11,750	
EF-4	HVAC	Exhaust Fan	1994	2	$11,750	
EF-5	HVAC	Exhaust Fan	1994	2	$8,813	
EF-6	HVAC	Exhaust Fan	1994	2	$8,813	
EF-7	HVAC	Exhaust Fan	1994	2	$8,813	
EF-8	HVAC	Exhaust Fan	1994	2	$12,852	
EF-9	HVAC	Exhaust Fan	1994	2	$11,750	
EF-10	HVAC	Exhaust Fan	1994	2	$1,129	
EF-11	HVAC	Exhaust Fan	1994	2	$1,129	
EF-12	HVAC	Exhaust Fan	1994	2	$1,129	
No Tag	HVAC	Humidifier	2013	13	$12,049	
AT-1	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-2	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-3	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-4	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-5	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-6	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-7	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-11	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-12	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-13	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-14	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-15	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-16	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-17	HVAC	Air Terminal Unit	1994	4	$3,098	
AT-18	HVAC	Air Terminal Unit	1994	4	$3,098	
No Tag	HVAC	Variable Frequency Drive	2009	10	$22,950	VFD for AH-1A
No Tag	HVAC	Variable Frequency Drive	2009	10	$22,950	VFD for AH-1B
No Tag	HVAC	Variable Frequency Drive	2009	10	$21,600	VFD for RF-1A
No Tag	HVAC	Variable Frequency Drive	2009	10	$21,600	VFD for RF-1B
No Tag		Air Compressor	2005	20	$4,200	

WASHINGTON STATE HISTORICAL SOCIETY

Washington State History Museum

1911 Pacific Avenue, Tacoma, WA 98402
UFI #A05174

Project Team: Buffalo Design/Project Delivery Analysts LLC
State Project No. 2014-210A

10-Year Needs Assessment Cost Summary Matrix: 2015 - 2025 (McKinstry Edits Dec 2015)

Item	Item / Location	Description	Biennium 2017-2019	Biennium 2019-2021	Biennium 2021-2023	Biennium 2023-2025	Biennium 2025-2027
HM 1.3 & 1.4	**MECHANICAL, PLUMBING & ELECTRICAL**						
HM 1.3	**Mechanical & Plumbing**						
HM 1.3.1	Chilled Water Mechanical Components	Replace Chilled Water Pumps, Expansion Tanks and Air Separators. Replace Condenser water pumps.	$70,726				
HM 1.3.2	Heating Water System--boiler and mechanical components	Replace Boiler 2, heating water pumps, expansion tanks and air separators.	$291,684				
HM 1.3.3	Exhaust fans, building wide	Replace exhaust fans	$106,433				
HM 1.3.4	Toilet Fixtures	Replace valves with flushometers	$18,200				
HM 1.3.5	Public Lavatories	Install hands-free faucets	$10,200				
HM 1.3.6	HVAC - Air Handling Units, Supply Fans and Air Terminal Units	Overhaul or replace (5) air handling units and associated supply and return fans.		$170,633			
HM 1.3.7	HVAC - Unit Heaters and Air Terminal Units	Replace Unit Heaters and Air Terminal Units		$54,570			
HM 1.3.8	HVAC - Controls Systems	Upgrade controls sytem for terminal units and overhauled air handling units.		$140,000			
HM 1.3.9	Heating Water System - Heating Water Pumps and VFDs	Replace (4) Heating Water System Pumps and (2) Variable Frequency Drives				$24,441	
HM 1.3.10	Chilled Water System - Chiller Replacement	Replace Chiller 1, water treatment system, and Variable Frequency drives for all chilled water/condenser water system pumps.					$322,988
HM 1.3.11	HVAC - AHU-1	Overhaul AHU-1 and replace Fans, VFDs and Humidifier					$774,351
		Construction Cost Subtotals	**$497,243**	**$365,203**	**$0**	**$24,441**	**$1,097,339**
	40%	< Soft Costs: Permits, Inspections, Design Fees, Printing, Taxes, and Project Management	$198,897	$146,081	$0	$9,776	$438,936
		Total	$696,140	$511,284	$0	$34,217	$1,536,275
		Plumbing and Mechanical Total Project Costs	**$696,140**	**$511,284**	**$0**	**$34,217**	**$1,536,275**

Back-up Detail Matrix

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity (sf, ls., lf.)	Unit Cost	Sub-Total	**Total Const. Cost**
HM 1.3	**Mechanical and Plumbing**						**$1,984,226**
HM 1.3.1	Chilled Water Mechanical Components	Replace Chilled Water Pumps, Expansion Tanks and Air Separators. Replace Condenser water pumps.	Replacing mechanical components and integrating DDC controls. Controls upgrade of main controllers was completed in 2016 and the integration should not require major controls overhaul.	1 ls	$70,726	$70,726	**$70,726**
HM 1.3.2.1	Heating Water System--boiler and mechanical components	Replace Boiler 2	Boiler is oversized and is therefore underutilized. Further, it is at end of useful life.	1 ls	$244,188	$244,188	**$244,188**
HM 1.3.2.2	Heating Water System--boiler and mechanical components	Replace heating water pumps, expansion tanks and air separators.	Pumps and other major mechanical components are at end of useful life. Controls upgrade of main controllers was completed in 2016 and the integration should not require major controls overhaul.	1 ls	$47,496	$47,496	**$47,496**
HM 1.3.3	Exhaust fans, building wide	Replace exhaust fans	Exhaust fans at end of useful life. Replace and integrate into controls sytem.	1 ls	$106,433	$106,433	**$106,433**
HM 1.3.4	Toilet Fixtures	Replace valves with flushometers		1 ls	$18,200	$18,200	**$18,200**
HM 1.3.5	Public Lavatories	Install hands-free faucets		1 ls	$10,200	$10,200	**$10,200**
HM 1.3.6	HVAC - Air Handling Units, Supply Fans and Air Terminal Units	Overhaul or replace (5) air handling units and associated supply and return fans.	AHU-2,3,4,5 and 6. AHU-1 is not included in this project scope.	1 ls	$170,633	$170,633	**$170,633**
HM 1.3.7.1	HVAC - Unit Heaters and Air Terminal Units	Replace Unit Heaters	Unit heaters at end of useful life.	5 ls	$1,620	$8,100	**$8,100**
HM 1.3.7.2	HVAC - Unit Heaters and Air Terminal Units	Replace Air Terminal Units	Air terminal units at end of useful life.	15 ls	$3,098	$46,470	**$46,470**
HM 1.3.8	HVAC - Controls Systems	Upgrade controls sytem for terminal units and overhauled air handling units.	Air terminal unit controllers were not upgraded in 2016. This is the second phase of a controls upgrade to get entire building upgraded.	1 ls	$140,000	$140,000	**$140,000**

WASHINGTON STATE HISTORICAL SOCIETY

Washington State History Museum

1911 Pacific Avenue, Tacoma, WA 98402
UFI #A05174

Project Team: Buffalo Design/Project Delivery Analysts LLC
State Project No. 2014-210A

Back-up Detail Matrix

Item	Item / Location	Item Components	Scope of Item / Notes	Quantity (sf, ls., lf.)	Unit Cost	Sub-Total	**Total Const. Cost**
HM 1.3.9	Heating Water System - Heating Water Pumps and VFDs	Replace (4) Heating Water System Pumps and (2) Variable Frequency Drives	Replace pumps and integrate into existing controls.	1 ls	$24,441	$24,441	**$24,441**
HM 1.3.10.1	Chilled Water System - Chiller Replacement	Replace Chiller 1	Chiller 1 at end of useful life	1 ls	$258,188	$258,188	**$258,188**
HM 1.3.10.2	Chilled Water System - Chiller Replacement	Water treatment system	Water treatment system at end of useful life. Upgrade may also be necessary for new chemical requirements for Chiller upgrade.	1 ls	$13,500	$13,500	**$13,500**
HM 1.3.10.3	Chilled Water System - Chiller Replacement	Variable Frequency drives for all chilled water/condenser water system pumps.	VFDs at end of useful life	1 ls	$51,300	$51,300	**$51,300**
HM 1.3.11.1	HVAC - AHU-1	Overhaul AHU-1	AHU-1 components at end of useful life. Consder replacing fans with fan wall for additional redundancy.	1 ls	$410,002	$410,002	**$410,002**
HM 1.3.11.2	HVAC - AHU-1	Replace AHU-1 VFDs	VFDs at end of useful life	4 ls	$22,275	$89,100	**$89,100**
HM 1.3.11.3	HVAC - AHU-1	Replace Humidifier	Humidifier at end of estimated life	1 ls	$12,049	$12,049	**$12,049**
HM 1.3.11.4	HVAC - AHU=1	Swap position of heating and cooling coils	This will provide redundancy of operation for dehumidification capacity of the equipment and reduce energy usage by terminal unit reheat coils.	1 ls	$263,200	$263,200	**$263,200**
	Mechanical and Plumbing Total						$1,984,226


WASHINGTON STATE HISTORICAL SOCIETY

TAB C

OFM

390 - Washington State Historical Society
Capital Project Request

2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 1:12PM

Project Number: **40000145**
Project Title: **Program - Major Exhibit Renewal 2021-2023**

Description

Starting Fiscal Year: 2022
Project Class: Program
Agency Priority: 1

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting program-related capital funding for renewal of the Great Hall of Washington History at the State History Museum.

Project Description

Problem Statement

The prime mission of the WSHM is to present exhibitions pertaining to the history of Washington. The primary permanent exhibit space of the WSHM is the 20,000-SF Great Hall which was developed in 1995. Unlike temporary or traveling exhibits, permanent exhibits are a capital asset with an expected life of 15-20 years and are attached to the building as fixtures. The exhibition fixtures in the Great Hall are now both worn out from visitor use and out of date from a museum experience and historical scholarship perspective and must be replaced. In order to continue to attract and serve over 160,000 visitors biennially, the permanent exhibits in the Great Hall must remain engaging to visitors.

Over the past three biennia, two discrete sections of the Great Hall have been replaced, an interpretive masterplan has been written to provide direction for future updates, and an additional space is in the process of being renewed as part of the Biennium 19-21 capital budget, with completion by June 30, 2021. These sections are located along the periphery of the Great Hall of Washington History and are focused on the geological forces that shaped Washington State, ancient peoples, immigration and emigration to Washington, sea and land exploration, and the settlement/development of communities and industry as a result of Washington's unique landscape and geographic location (e.g. the timber industry, agriculture, deep water ports, and the railroad.) Each of these updates has been accomplished as a minor work project under $1M.

The updates to these peripheral spaces have vastly improved the visitor experience, provided renewed scholarship, and allowed the Society to incorporate diverse new voices and multiple perspectives in our exploration of Washington State history that helps meet Society and State DEI objectives. As well, the new sections have been developed to align with OSPI essential academic learning requirements for Washington State K-12 students in state history and social studies in general.

The majority of the square footage that comprises the Great Hall of Washington History, the large central section of the permanent gallery space, has not yet been updated and is our desired next area for renewal. Given the updates to the surrounding galleries, the central section now stands out as old, outdated and outmoded and does not present the Museum as an engaging modern museum for our visitors.

Proposed Solution

The proposed renewal of the large central area of the Great Hall gallery, what we call the CORE, will be focused on presenting the history of Washington's Tribal nations. The original treatment of this history that dates to the opening of the museum in 1996 is focused on tribes as they were when European explorers first arrived in Washington. This places Washington's Tribal nations specifically in the past, leaving the visitor with the impression that they are not the vibrant force that they are in Washington today. As well, the exhibition lacks proper and appropriate contemporary interpretation. For example, the gallery contains a reproduction of a Native American longhouse, but there is little to no exhibit context for the exhibit that explains to the visitor what they are seeing, how longhouses were used, the geographical siting and limits on them, and their role in Native American life, as well as who constructed the longhouse for the museum, a fact that is particularly salient, given that the majority of Native contributors to the original exhibition are now no longer with us.

Our exhibition goals for this section are to:

· Create an entry experience that acts as a physical land acknowledgement of the fact that the State History Museum sits on the historic lands of the Puyallup Tribe

· Create a gallery experience that directly supports the "Since Time Immemorial" Office of the Superintendent of Public Instruction (OSPI) required curriculum on Native American history and culture in Washington

· Educates the visitor about the 29 federally recognized tribal nations in Washington

· Educate the visitor about Tribal sovereignty and negotiated treaty rights

· Provide an immersive exhibition experience that honors and reflects the different tribal cultures in Washington

These goals will be achieved by exploring the following interpretive areas, among others:

Native Lifeways

· Using the existing traditional Plank House as the centerpiece, we will partner with Native American communities to explore

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 1:12PM

Project Number: **40000145**
Project Title: **Program - Major Exhibit Renewal 2021-2023**

Description

traditions (ancient and modern) and ways of life for Native Americans. Through artifact and contemporary Native arts, we will communicate the ways that culture survives, is passed down generationally, and how lives today have been shaped by the past.

Pathways to Understanding

· Native Tribes in Washington are sovereign nations. How does the past help us to
understand the political reality of Native Americans today? This section will explain sovereignty; explore treaty rights, how they originated, and their impact today (e.g. the Boldt Decision and fishing rights and how they connect to the commercial fishing industry rules and regulations in Washington).

This gallery will be developed in partnership and in consultation with Washington State Tribes. This current biennium, the Society was able to hire a .5FTE tribal liaison, Michael Finley. Michael has tremendous contacts with tribal communities across Washington due to his past role as head of the Colville Business Council, the governing body of the Confederated Tribes of the Colville Reservation and as 1st Vice President to the National Congress of American Indians.

It is likely that, if funded, this appropriation will allow renewal of the first 65 % of the CORE, with removal of exhibitry and development of content in the final 35% of the CORE being developed as part of a future project. That future project will focus on creating a visitor flow route from the 3rd floor gallery up to the 5th floor galleries, as well as updating the current Columbia River Theatre and its entry, located at the far back wall of the Great Hall.

Project Benefits

The benefits to this project are numerous:

· A major exhibition will be updated and renewed in the Great Hall of Washington History at a time when construction and other jobs are needed to kick start our economy following COVID-19. This project will support hiring among multiple trades, as well as historians, exhibition designers, IT professionals, and likely Native curators, historians, and artists.

· The completed exhibition will provide direct support to K-12 school children as they learn about Native American history and culture under the mandated “Since Time Immemorial” curriculum. The Society normally hosts up to 16,000 children on school field trips each year and this gallery will provide an engaging, in-person experience to expand and support their learning requirements and social studies standards related to this topic.

· Completion of this large portion of the gallery will essentially create a “museum-within-a-museum” that is focused on Native American history and culture that we expect to serve as a major destination-a draw for visitors, school groups, and tourists, which will increase ticket sales and earned revenue. Surveys of visitors to our museum indicate that contemporary viewpoints to Native American history is one of their top interests.

· A new exhibition will have a 15-20 year life span, serving general visitors, school field trips, and group tours on a daily basis, normally 80,000+ people each year.

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Program (Minor Works)

Growth Management impacts

NA

New Facility: No

How does this fit in master plan

NA

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 1:12PM

Project Number: **40000145**
Project Title: **Program - Major Exhibit Renewal 2021-2023**

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	4,890,000				4,890,000
	Total	**4,890,000**	**0**	**0**	**0**	**4,890,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington State Historical Society
Project Name	Great Hall Exhibitions CORE upgrade
OFM Project Number	

Contact Information	
Name	Jennifer Kilmer
Phone Number	253-798-5900
Email	jennifer.kilmer@wshs.wa.gov

Statistics			
Gross Square Feet	6,000	MACC per Square Foot	$438
Usable Square Feet	6,000	Escalated MACC per Square Foot	$461
Space Efficiency	100.0%	A/E Fee Class	A
Construction Type	Museums	A/E Fee Percentage	13.82%
Remodel	Yes	Projected Life of Asset (Years)	
Additional Project Details			
Alternative Public Works Project		Art Requirement Applies	Yes
Inflation Rate	2.38%	Higher Ed Institution	No
Sales Tax Rate %	0.00%	Location Used for Tax Rate	Tacoma
Contingency Rate	5%		
Base Month	September-20	OFM UFI# (from FPMT, if available)	
Project Administered By	Agency		

Schedule			
Predesign Start	January-20	Predesign End	June-21
Design Start	July-21	Design End	April-22
Construction Start	May-22	Construction End	June-23
Construction Duration	13 Months		

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Project Cost Estimate

Total Project	**$4,687,802**	Total Project Escalated	**$4,890,373**
		Rounded Escalated Total	**$4,890,000**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington State Historical Society
Project Name	Great Hall Exhibitions CORE upgrade
OFM Project Number	

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$200,000**	**Acquisition Subtotal Escalated**	**$200,000**

Consultant Services			
Predesign Services	$850,000		
A/E Basic Design Services	$262,830		
Extra Services	$0		
Other Services	$118,083		
Design Services Contingency	$61,546		
Consultant Services Subtotal	**$1,292,459**	**Consultant Services Subtotal Escalated**	**$1,326,332**

Construction			
Construction Contingencies	$131,250	Construction Contingencies Escalated	$138,233
Maximum Allowable Construction Cost (MACC)	$2,625,000	Maximum Allowable Construction Cost (MACC) Escalated	$2,764,650
Sales Tax	$0	Sales Tax Escalated	$0
Construction Subtotal	**$2,756,250**	**Construction Subtotal Escalated**	**$2,902,883**

Equipment			
Equipment	$125,000		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$125,000**	**Equipment Subtotal Escalated**	**$131,650**

Artwork			
Artwork Subtotal	**$24,330**	**Artwork Subtotal Escalated**	**$24,330**

Agency Project Administration			
Agency Project Administration Subtotal	$289,762		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$289,762**	**Project Administation Subtotal Escalated**	**$305,178**

Other Costs			
Other Costs Subtotal	**$0**	**Other Costs Subtotal Escalated**	**$0**

Project Cost Estimate

Total Project	**$4,687,802**	Total Project Escalated	**$4,890,373**
		Rounded Escalated Total	**$4,890,000**

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease	$0				
Appraisal and Closing	$0				
Right of Way	$0				
Demolition	$200,000				
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$200,000**		**NA**	**$200,000**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis	$0			
Environmental Analysis	$0			
Predesign Study	$0			
Other	$0			
Exhibition Design	$850,000			
Sub TOTAL	**$850,000**	**1.0197**	**$866,745**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$262,830			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$262,830**	**1.0288**	**$270,401**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation				
Commissioning				
Site Survey				
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0288**	**$0**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$118,083			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$118,083**	**1.0532**	**$124,366**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$61,546			
Other				
Insert Row Here				
Sub TOTAL	**$61,546**	**1.0532**	**$64,820**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$1,292,459**		**$1,326,332**	

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Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation				
G20 - Site Improvements				
G30 - Site Mechanical Utilities				
G40 - Site Electrical Utilities				
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0399**	**$0**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0399**	**$0**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction	$2,500,000			
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems	$125,000			
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions				
Other				
Insert Row Here				
Sub TOTAL	**$2,625,000**	**1.0532**	**$2,764,650**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$2,625,000**		**$2,764,650**	

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7) Construction Contingency				
Allowance for Change Orders	$131,250			
Other				
Insert Row Here				
Sub TOTAL	**$131,250**	**1.0532**	**$138,233**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0532**	**$0**	
Sales Tax				
Sub TOTAL	**$0**		**$0**	
CONSTRUCTION CONTRACTS TOTAL	**$2,756,250**		**$2,902,883**	

Green cells must be filled in by user

Cost Estimate Details

Equipment				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
E10 - Equipment	$125,000			
E20 - Furnishings				
F10 - Special Construction				
Other				
Insert Row Here				
Sub TOTAL	**$125,000**	**1.0532**	**$131,650**	
1) Non Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0532**	**$0**	
Sales Tax				
Sub TOTAL	**$0**		**$0**	
EQUIPMENT TOTAL	**$125,000**		**$131,650**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Project Artwork	$24,330				0.5% of total project cost for new construction
Higher Ed Artwork	$0				0.5% of total project cost for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$24,330**		**NA**	**$24,330**	

Green cells must be filled in by user

Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Agency Project Management	$289,762				
Additional Services					
Other					
Insert Row Here					
PROJECT MANAGEMENT TOTAL	**$289,762**		**1.0532**	**$305,178**	

Green cells must be filled in by user

Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Other					
Insert Row Here					
OTHER COSTS TOTAL	**$0**		**1.0399**	**$0**	

Green cells must be filled in by user

C-100(2020)
Additional Notes

Tab A. Acquisition
Insert Row Here

Tab B. Consultant Services
Exhibition Design services are generally calculated at 25-35% of exhibition fabrication costs. This cost estimate is based on a rate of
Insert Row Here

Tab C. Construction Contracts
Estimated fabrication costs estimated at $416 per square foot.
Insert Row Here

Tab D. Equipment
Exhibition related equipment
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
Insert Row Here

OFM

390 - Washington State Historical Society
Capital Project Request

2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:04AM

Project Number: **40000146**
Project Title: **Program - Minor Works Exhibit Renewal 2021-2023**

Description

Starting Fiscal Year: 2022
Project Class: Program
Agency Priority: 2

Project Summary

Washington State Historical Society owns and maintains two facilities: State History Museum in Tacoma (HM), constructed in 1996 and Stadium Way Research Center (RC) in Tacoma, constructed in 1911, 1923, and 1971. The agency is requesting program-related capital funding for renewal of the Great Hall of Washington History at the State History Museum.

Project Description

Problem Statement

The prime mission of the WSHM is to present exhibitions pertaining to the history of Washington. The primary permanent exhibit space of the WSHM is the 20,000-SF Great Hall which was developed in 1995. Unlike temporary or traveling exhibits, permanent exhibits are a capital asset with an expected life of 15-20 years and are attached to the building as fixtures. The exhibition fixtures in the Great Hall are now both worn out from visitor use and out of date from a museum experience and historical scholarship perspective and must be replaced. In order to continue to attract and serve over 160,000 visitors biennially, the permanent exhibits in the Great Hall must remain engaging to visitors.

Proposed Solution

To ensure continued access during exhibit upgrades, it is proposed to implement a phased renewal of the SHM Great Hall over multiple biennia. This will be the 4th exhibition upgrade. The areas of focus will be multiple smaller gallery areas within the Great Hall including a section currently focused on railroads that utilizes leftover pieces of old temporary exhibits and is in need of major upgrades, another small side gallery with outmoded exhibits, as well as a small gallery near the entrance of the Great Hall that is currently empty.

Project Benefits

· K-12 students will continue to have the educational opportunity of using the Great Hall to reinforce state history curriculum and to help build historical inquiry skills
· Maintain or increase museum use through new compelling exhibition techniques
· A new exhibition will have a 15-20 year life span, serving general visitors, school field trips, and group tours on a daily basis, normally 80,000+ people each year.

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Program (Minor Works)

Growth Management impacts

NA

New Facility: No

How does this fit in master plan

NA

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2021-23 Fiscal Period Reapprops	New Approps
057-1	State Bldg Constr-State	850,000				850,000
	Total	**850,000**	**0**	**0**	**0**	**850,000**

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:04AM

Project Number: **40000146**
Project Title: **Program - Minor Works Exhibit Renewal 2021-2023**

Funding

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

TAB D

OFM

390 - Washington State Historical Society
Capital Project Request

2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 10/1/2020 12:32PM

Project Number: **30000297**
Project Title: **Heritage Capital Grants Projects**

Description

Starting Fiscal Year: 2018
Project Class: Grant
Agency Priority: 0

Project Summary

We are requesting re-appropriation of $8,766,000 funds for all projects for biennium 17-19 for Heritage Grants Projects carry-over. Due primarily to the delay in the initial capital budget, spending was also delayed. All projects, except 19-18 Quincy Valley Historical Society are requesting re-appropriation.

Project Description

The purpose of HCPF is to “support capital needs and facilities of heritage organizations, tribal governments, public development authorities, and local government agencies that interpret and preserve Washington’s history and heritage” (WAC 255-02-010). Projects need to have a minimum total budget of $22,500; request a grant of not more than $1,000,000.; involve property that will be held a minimum of 13 years beyond project completion; provide at least a $2 match for each $1 of HCPF grant funds; comply with the Governor’s Executive Order 05-05; and comply with all applicable and current federal, state, and local laws, regulations and policies , including high performance (“green”) building standards (RCW 39.35 D), unless exempt. Each applicant needs to demonstrate a significant public benefit in the form of heritage interpretive and preservation activities that will occur via completion of their project. An applicant must demonstrate in the application that it has the readiness and capacity to undertake and complete their capital project in a timely fashion. In the current round, the required cost share (or match) in hand at the time of application was 3/4ths of the total indicated in the total project cost figure. The Washington State Historical Society (WSHS), administers the Heritage Capital Projects Fund. An Advisory Panel recommends grant guidelines for approval of the WSHS Director. The Washington Museum Association, the Office of the Secretary of State, Eastern Washington State Historical Society, Department of Archaeology and Historic Preservation, the Department of Enterprise Services and citizen members at-large are represented on the panel. In July or August of even-numbered years, the panel members independently evaluate and score each grant application.

Opportunity or Problem

The State of Washington has affirmed that Washington has a “rich heritage in historical sites and artifacts that have the potential to provide life-long learning opportunities for citizens of the state” and that “many of these historical treasures are not readily accessible to citizens, and that there is a need to create an ongoing program to support the capital needs of heritage organizations and facilities.” To meet this need, the Heritage Capital Projects Fund (HCPF) competitive grant program was authorized in 1995 (RCW 27.34.330). New projects continue to be brought forward by local applicants to serve local needs for heritage preservation and interpretation.

Support the Agency and Statewide Results

The operation of this grant program dovetails with the other work of the agency, including providing technical assistance to non-profits and government entities in the operation of facilities, security, collections management, exhibit development, educational excellence, cultural emergency response and preparedness, and public programming and events. The statewide nature of successful applicants over the years has necessarily involved the agency in assisting entities in all areas of the state.

Specific Benefits

Historic buildings have been preserved and utilized, museums have been built and added on to, historic transportation vehicles have been restored, interpretive centers and longhouses have been built, historic landscapes have been reconstructed, and national landmarks have been protected through capital expenditures.

Effect on Clients

The state dollars that go into the dozens of HCPF projects each biennium leverage additional public, corporate, foundation, and individually donated funds. Staff has repeatedly heard that the state dollars have provided a needed indication of support for projects, as applicants seek to raise local funds for historic preservation and heritage interpretation bricks and mortar work during sometimes rocky economic times. The lack of state funding may not stop these efforts, but would slow the achievement of local capital projects and could prevent preservation of and interpretation of significant and endangered places.

Other State Programs Effected

The Washington State Department of Archeology and Historic Preservation reviews all proposed Heritage Capital Projects for their compliance with Governor’s Executive Order 05-05 and to confirm that those facilities that are a focus of the grants and are listed or eligible for the National Register of Historic Places adhere to the national Secretary of Interior’s Standards for Treatment of Historic Properties.

Project Number: 30000297
Project Title: Heritage Capital Grants Projects

Description

Impact on Operating Budget
None

Alternative

None

Agency's Funding Strategy
The Washington State Historical Society serves as the administrator of the Heritage Capital Projects program retaining 3% of each appropriation to fund the administration work.

Historical Significance
Yes.

Growth Management
These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

RCW
27.34.330

Rank: 1 Applicant: Sound Experience Project: Capstone Phase: Adventuress Centennial Restoration Project Total Cost: $1,191,906 HCPF Share: $394,170 Legis. Dist. : 24 Location : Port Townsend County : Jefferson
Rank: 2 Applicant: Seattle Theatre Group Project: The Paramount Theatre - Critical Upgrades to Improve Safety and Access Total Cost: $1,735,502 HCPF Share: $572,716 Legis. Dist. : 43 Location : Seattle County : King
Rank: 3 Applicant: Washington Trust for Historic Preservation Project: Stimson-Green Mansion Building & Site Rehabilitation - Phase III Total Cost: $583,509 HCPF Share: $192,500 Legis. Dist. : 43 Location : Seattle County : King
Rank: 4 Applicant: Ritzville Public Development Authority Project: Stabilization and Restoration of the German American Bank Building Total Cost: $136,744 HCPF Share: $45,320 Legis. Dist. : 9 Location : Ritzville County : Adams
Rank: 5 Applicant: Olympia Film Society Project: Capitol Theater Roof Replacement & Original Awning Restoration - Phase 3 Total Cost: $352,752 HCPF Share: $117,584 Legis. Dist. : 22 Location : Olympia County : Thurston
Rank: 6 Applicant: Kitsap County Sewer District #7 Project: Fort Ward Community Hall (Heritage Bakery Building Restoration) Total Cost: $278,000 HCPF Share: $92,000 Legis. Dist. : 23 Location : Bainbridge Island County : Kitsap
Rank: 7 Applicant: Northwest Seaport Inc. Project: Lighthouse No. 83 (Swiftsure) Phase III Rehabilitation Total Cost: $897,973 HCPF Share: $299,324 Legis. Dist. : 43 Location : Seattle County : King
Rank: 8 Applicant: Friends of Gladish Project: Gladish Community and Cultural Center Restoration and Repair Projects Total Cost: $391,648 HCPF Share: $130,536 Legis. Dist. : 9 Location : Pullman County : Whitman
Rank: 9 Applicant: University Heights Center for the Community Foundation Project: University Heights Center Historic Preservation Project Total Cost: $2,279,587 HCPF Share: $750,000 Legis. Dist. : 43 Location : Seattle County : King
Rank: 10 Applicant: City of Auburn Project: Railroads, Waterfowl, Field Trips and Family Outings Total Cost: $1,636,140 HCPF Share: $497,308 Legis. Dist. : 30 Location : Auburn County : King
Rank: 11 Applicant: Fort Worden Lifelong Learning Center PDA Project: Rehabilitating Fort Worden's Historic Warehouses for New Programmatic Uses Total Cost: $2,250,000 HCPF Share: $750,000 Legis. Dist. : 6 Location : Port Townsend County : Jefferson
Rank: 12 Applicant: Pacific Science Center Foundation dba Pacific Science Center Project: Yamasaki Courtyard Renewal Project - Lower Courtyard and West Staircase Repair Total Cost: $90,038 HCPF Share: $30,013 Legis. Dist. : 36 Location : Seattle County : King
Rank: 13 Applicant: City of Longview Project: Completion of Longview Shay Pavilion Total Cost: $241,725 HCPF Share: $60,094 Legis. Dist. : 19 Location : Longview County : Cowlitz
Rank: 14 Applicant: The 5th Avenue Theatre Association Project: Theatre Upgrade: Digital Sound System, Auditorium Seats & Carpet Total Cost: $3,001,167 HCPF Share: $750,000 Legis. Dist. : 43 Location : Seattle County : King
Rank: 15 Applicant: Museum of Flight Foundation Project: Museum of Flight Roof Repair Project Total Cost: $1,127,164 HCPF Share: $375,721 Legis. Dist. : 11 Location : Seattle County : King
Rank: 16 Applicant: City of Tumwater Project: Tumwater Old Brewhouse Tower Rehabilitation Project - Phase 1 Total Cost: $1,520,550 HCPF Share:$ 506,850 Legis. Dist. : 22 Location : Tumwater County : Thurston
Rank: 17 Applicant: Gig Harbor Peninsula Historical Society, dba Harbor History Museum Project: Historic Purse Seiner

OFM

390 - Washington State Historical Society
Capital Project Request

2021-23 Biennium

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 10/1/2020 12:32PM

Project Number: **30000297**
Project Title: **Heritage Capital Grants Projects**

Description

Shenandoah Restoration - Phase 4 Total Cost: $195,269 HCPF Share: $58,269 Legis. Dist. : 26 Location : Gig Harbor County : Pierce
Rank: 18 Applicant: Quincy Valley Historical Society Project: The Quincy Valley Community Heritage Barn Total Cost: $621,788 HCPF Share: $205,190 Legis. Dist. : 13 Location : Quincy County : Grant
Rank: 19 Applicant: Seattle City Light - Environmental Affairs Project: Georgetown Steam Plant Historic Concrete Restoration Total Cost: $2,396,745 HCPF Share: $750,000 Legis. Dist. : 37 Location : Seattle County : King
Rank: 20 Applicant: Pacific Northwest Railroad Archive Project: Increase Energy Efficiency & Security of the Pacific Northwest Railroad Archives Building Total Cost: $198,217 HCPF Share: $51,821 Legis. Dist. : 34 Location : Burien County : King
Rank: 21 Applicant: Si View Metropolitan Park District Project: Tollgate Farmhouse Rehabilitation Total Cost: $846,464 HCPF Share: $279,333 Legis. Dist. : 5 Location : North Bend County : King
Rank: 22 Applicant: Foss Waterway Seaport Project: Illuminating the Balfour Dock Building Total Cost: $1,680,089 HCPF Share: $560,030 Legis. Dist. : 27 Location : Tacoma County : Pierce
Rank: 23 Applicant: Northwest School of Wooden Boat Building Project: Growing Public Access to Traditional Boatbuilding Skills & Education at the Port Hadlock Heritage Campus Total Cost: $1,102,087 HCPF Share: $360,000 Legis. Dist. : 24 Location : Port Hadlock County : Jefferson
Rank: 24 Applicant: The Old Hotel Art Gallery Project: Exterior Renovation with ADA Accessibility and Mechanical upgrades Total Cost: $169,233 HCPF Share: $56,411 Legis. Dist. : 9 Location : Othello County : Adams
Rank: 25 Applicant: Kirkman House Museum Project: Restoration and Stabilization of the Foundation and Exterior of the Kirkman House Museum Total Cost: $301,854 HCPF Share: $90,000 Legis. Dist. : 16 Location : Walla Walla County : Walla Walla
Rank: 26 Applicant: Northwest Railway Museum Project: Restoring the Golden Age of Rail Travel Total Cost: $603,045 HCPF Share: $201,015 Legis. Dist. : 5 Location : Snoqualmie County : King
Rank: 27 Applicant: Cornish College Project: Cornish Playhouse Theater Renovation Total Cost: $1,076,283 HCPF Share: $354,137 Legis. Dist. : 43 Location : Seattle County : King
Rank: 28 Applicant: Mount Baker Community Club Project: Mount Baker Community Club Energy and Life Safety Improvements Total Cost: $421,876 HCPF Share: $140,620 Legis. Dist. : 37 Location : Seattle County : King
Rank: 29 Applicant: Polson Park & Museum Historical Society Project: Hubble House Restoration Total Cost: $182,378 HCPF Share: $41,100 Legis. Dist. : 24 Location : Hoquiam County : Grays Harbor
Rank: 30 Applicant: Nikkei Heritage Association of Washington Project: Phase II - Facilities Preservation and Long Term Operations Plan Total Cost: $150,890 HCPF Share: $20,600 Legis. Dist. : 2 Location : Seattle County : King
Rank: 31 Applicant: Valley Theater Company Project: Rehabilitation of Princess Theater and the Green Room at the Princess Total Cost: $547,303 HCPF Share: $113,606 Legis. Dist. : 16 Location : Prosser County : Benton
Rank: 32 Applicant: The M. V. Lotus Foundation Project: M.V. Lotus Deck Replacement Total Cost: $88,482 HCPF Share: $29,491 Legis. Dist. : 43 Location : Seattle County : King
Rank: 33 Applicant: Woodland Productions Project: Woodland Theatre Repair and Restoration Total Cost: $156,075 HCPF Share: $43,771 Legis. Dist. : 7 Location : Colville County : Stevens
Rank: 34 Applicant: Pacific County Historical Society Project: Annex Storage Building Total Cost: $96,000 HCPF Share: $32,000 Legis. Dist. : 19 Location : South Bend County : Pacific
Rank: 35 Applicant: Coupeville Maritime Heritage Foundation Project: Historic Schooner Suva Preservation Total Cost: $293,990 HCPF Share: $33,990 Legis. Dist. : 10 Location : Coupeville County : Island

Location

City: Statewide **County:** Statewide **Legislative District:** 098

Project Type

Grants

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

*

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 10/1/2020 12:32PM

Project Number: **30000297**
Project Title: **Heritage Capital Grants Projects**

Description

Grant Recipient Organization: B19 Heritage Capital Grants Projects

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	8,986,000	2,737,000	2,450,000	3,799,000	
	Total	**8,986,000**	**2,737,000**	**2,450,000**	**3,799,000**	**0**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

OFM

Capital Project Request

2021-23 Biennium

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Parameter	Entered As	Interpreted As
Biennium	2021-23	2021-23
Agency	390	390
Version	C1-A	C1-A
Project Classification	*	All Project Classifications
Capital Project Number	30000297	30000297
Sort Order	Project Priority	Priority
Include Page Numbers	Y	Yes
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

Project Number: 40000099
Project Title: Heritage Capital Grant Projects 2021-2023

Description

non-profits and government entities in the operation of facilities, security, collections management, exhibit development, educational excellence, cultural emergency response and preparedness, and public programming and events. The statewide nature of successful applicants over the years has necessarily involved the agency in assisting entities in all areas of the state.

Specific Benefits

Historic buildings have been preserved and utilized, museums have been built and added on to, historic transportation vehicles have been restored, interpretive centers and longhouses have been built, historic landscapes have been reconstructed, and local and national landmarks have been protected through capital expenditures.

Effect on Clients

The state dollars that go into the dozens of HCP projects each biennium leverage additional public, corporate, foundation, and individually donated funds. Staff has repeatedly heard that the state dollars have provided a needed indication of support for projects, as applicants seek to raise local funds for historic preservation and heritage interpretation bricks and mortar work during sometimes rocky economic times. The lack of state funding may not stop these efforts, but would slow the achievement of local capital projects and could prevent preservation of and interpretation of significant and endangered places.

Other State Programs Effected

The Washington State Department of Archeology and Historic Preservation reviews all proposed Heritage Capital Projects for their compliance with Governor's Executive Order 05-05 and to confirm that those facilities that are a focus of the grants and are listed or eligible for the National Register of Historic Places adhere to the national Secretary of Interior's Standards for Treatment of Historic Properties.

Impact on Operating Budget

None

Alternative

None

Agency's Funding Strategy

The Washington State Historical Society serves as the administrator of the Heritage Capital Projects program retaining 3% of each appropriation to fund the administration work.

Historical Significance

Yes.

Growth Management

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

RCW

27.34.330

RANK: 1, APPLICANT: Gig Harbor Peninsula Historical Society, PROJECT TITLE: Maritime Gallery Construction, TOTAL COST: $2,100,000 HCP SHARE: $450,000 LEG DIST: 26, LOCATION: Gig Harbor, COUNTY: Pierce
RANK: 2, APPLICANT: Historic Whidbey, PROJECT TITLE: Haller House Acquisition & Rehabilitation, TOTAL COST: $1,137,121 HCP SHARE: $202,000 LEG DIST: 10, LOCATION: Coupeville, COUNTY: Island
RANK: 3, APPLICANT: Northwest Railway Museum, PROJECT TITLE: Roundhouse Gallery part one, TOTAL COST: $5,374,440 HCP SHARE: $1,000,000 LEG DIST: 5, LOCATION: Snoqualmie, COUNTY: King
RANK: 4, APPLICANT: Town of Cathlamet, PROJECT TITLE: Cathlamet Pioneer Cemetery Restoration, TOTAL COST: $60,000 HCP SHARE: $20,000 LEG DIST: 19, LOCATION: Cathlamet, COUNTY: Wahkiakum
RANK: 5, APPLICANT: Lopez Island Grange #1060, PROJECT TITLE: Revitalize Lopez Island Grange Phase I, TOTAL COST: $65,000 HCP SHARE: $22,000 LEG DIST: 40, LOCATION: Lopez Island, COUNTY: San Juan
RANK: 6, APPLICANT: Museum of Flight, PROJECT TITLE: HVAC & Building Envelope Improvements To The Museum's Library & Archives 9-04 Building, TOTAL COST: $378,144 HCP SHARE: $127,000 LEG DIST: 11, LOCATION: Seattle, COUNTY: King
RANK: 7, APPLICANT: Rocklyn Zion Chapel, PROJECT TITLE: Restoration of Rockyn Zion Chapel, TOTAL COST: $45,000 HCP SHARE: $15,000 LEG DIST: 13, LOCATION: Davenport, COUNTY: Lincoln
RANK: 8, APPLICANT: Quilcene Historical Museum, PROJECT TITLE: Worthington Park Phase V, TOTAL COST: $615,160 HCP SHARE: $230,000 LEG DIST: 24, LOCATION: Quilcene, COUNTY: Jefferson
RANK: 9, APPLICANT: City of Vancouver, PROJECT TITLE: U.S. Grant House Re-Roofing Project, TOTAL COST: $420,000 HCP SHARE: $140,000 LEG DIST: 49, LOCATION: Vancouver, COUNTY: Clark
RANK: 10, APPLICANT: Southwest Seattle Historical Society, PROJECT TITLE: Log House Museum Facility Preservation/Improvement, TOTAL COST: $80,433 HCP SHARE: $26,000 LEG DIST: 34, LOCATION: Seattle, COUNTY: King

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

Description

RANK: 11, APPLICANT: University Heights Center for the Community Association, PROJECT TITLE: Elevator Installation and ADA Upgrades, TOTAL COST: $1,035,000 HCP SHARE: $345,000 LEG DIST: 43, LOCATION: Seattle, COUNTY: King
RANK: 12, APPLICANT: LaCrosse Community Pride, PROJECT TITLE: LaCrosse Rocks! A Heritage Center on the National Geologic Trail (Phase 1), TOTAL COST: $392,742 HCP SHARE: $131,000 LEG DIST: 9, LOCATION: LaCrosse, COUNTY: Whitman
RANK: 13, APPLICANT: Friends of Lakewold Gardens, PROJECT TITLE: Preservation Campaign Phase III: Lakewold Gardens Carriage House Rehabilitation and Accessibility Improvements, TOTAL COST: $1,240,801 HCP SHARE: $414,000 LEG DIST: 28, LOCATION: Lakewood, COUNTY: Pierce
RANK: 14, APPLICANT: Historic Seattle PDA, PROJECT TITLE: Good Shepherd Center Seismic Retrofit (Phase 1B), TOTAL COST: $2,604,954 HCP SHARE: $869,000 LEG DIST: 43, LOCATION: Seattle, COUNTY: King
RANK: 15, APPLICANT: Muckleshoot Indian Tribe, PROJECT TITLE: Reynolds Farm & Indian Agency, TOTAL COST: $1,176,483 HCP SHARE: $390,000 LEG DIST: 31, LOCATION: Auburn, COUNTY: King
RANK: 16, APPLICANT: Experience Learning Community, PROJECT TITLE: Critical Safety Upgrades, TOTAL COST: $1,171,845 HCP SHARE: $389,000 LEG DIST: 36, LOCATION: Seattle, COUNTY: King
RANK: 17, APPLICANT: Franklin County Historical Society & Museum, PROJECT TITLE: Franklin County Historical Society Museum Exhibit and Storage Annex, TOTAL COST: $577,530 HCP SHARE: $174,000 LEG DIST: 16, LOCATION: Pasco, COUNTY: Franklin
RANK: 18, APPLICANT: Issaquah History Museums, PROJECT TITLE: Rehabilitation of the Issaquah Auto Freight Building, Phase I, TOTAL COST: $290,506 HCP SHARE: $96,000 LEG DIST: 5, LOCATION: Issaquah, COUNTY: King
RANK: 19, APPLICANT: Metro Parks Tacoma, PROJECT TITLE: Fort Nisqually Facilities Renovation and Replacement, TOTAL COST: $1,136,259 HCP SHARE: $379,000 LEG DIST: 27, LOCATION: Tacoma, COUNTY: Pierce
RANK: 20, APPLICANT: Island County Historical Society Museum, PROJECT TITLE: Replace Museum Roof, TOTAL COST: $33,132 HCP SHARE: $11,000 LEG DIST: 10, LOCATION: Coupeville, COUNTY: Island
RANK: 21, APPLICANT: City of Lacey, PROJECT TITLE: New Lacey Museum, Phase 3, TOTAL COST: $1,871,913 HCP SHARE: $608,000 LEG DIST: 22, LOCATION: Lacey, COUNTY: Thurston
RANK: 22, APPLICANT: Holocaust Center for Humanity, PROJECT TITLE: Holocaust Center Capital Project: Phase 3, TOTAL COST: $272,371 HCP SHARE: $90,000 LEG DIST: 36, LOCATION: Seattle, COUNTY: King
RANK: 23, APPLICANT: Cowlitz County Historical Museum, PROJECT TITLE: Cowlitz County Historical Museum Collections Storage, TOTAL COST: $50,216 HCP SHARE: $17,000 LEG DIST: 19, LOCATION: Longview, COUNTY: Cowlitz
RANK: 24, APPLICANT: Cheney Depot Society, PROJECT TITLE: Cheney Depot Rehabilitation Project - Phase 3 - Interior Rehab, TOTAL COST: $924,976 HCP SHARE: $306,000 LEG DIST: 6, LOCATION: Cheney, COUNTY: Spokane
RANK: 25, APPLICANT: Whitman County Historical Society, PROJECT TITLE: Pullman Depot Heritage Center, TOTAL COST: $807,939 HCP SHARE: $266,000 LEG DIST: 9, LOCATION: Pullman, COUNTY: Whitman
RANK: 26, APPLICANT: Ferry County Historical Society, PROJECT TITLE: L.H.Mason Building Rehabilitation, Phase 1, TOTAL COST: $40,649 HCP SHARE: $14,000 LEG DIST: 7, LOCATION: Republic, COUNTY: Ferry
RANK: 27, APPLICANT: Northport Historical Society, PROJECT TITLE: Northport Welcome Center, Museum and Artisan Gallery, TOTAL COST: $284,000 HCP SHARE: $75,000 LEG DIST: 7, LOCATION: Northport, COUNTY: Stevens
RANK: 28, APPLICANT: Friends of Gladish, PROJECT TITLE: Roof replacement, TOTAL COST: $360,000 HCP SHARE: $120,000 LEG DIST: 9, LOCATION: Pullman, COUNTY: Whitman
RANK: 29, APPLICANT: The Center for Wooden Boats, PROJECT TITLE: Floating Campus Restoration, TOTAL COST: $3,220,900 HCP SHARE: $1,000,000 LEG DIST: 43, LOCATION: Seattle, COUNTY: King
RANK: 30, APPLICANT: Olympia Tumwater Foundation, PROJECT TITLE: Schmidt House Restoration/Renovation, TOTAL COST: $362,888 HCP SHARE: $121,000 LEG DIST: 22, LOCATION: Tumwater , COUNTY: Thurston
RANK: 31, APPLICANT: Foothills Historical Society, PROJECT TITLE: Foothills Historical Society Heritage Center, TOTAL COST: $135,250 HCP SHARE: $45,000 LEG DIST: 31, LOCATION: Buckley, COUNTY: Pierce
RANK: 32, APPLICANT: US Lighthouse Society, PROJECT TITLE: Point Wilson Lighthouse (station), TOTAL COST: $110,000 HCP SHARE: $33,000 LEG DIST: 24, LOCATION: Port Townsend, COUNTY: Jefferson
RANK: 33, APPLICANT: Westport South Beach Historical Society, PROJECT TITLE: Maritime Museum Rehabilitation Projectects, TOTAL COST: $60,000 HCP SHARE: $20,000 LEG DIST: 19, LOCATION: Westport, COUNTY: Grays Harbor
RANK: 34, APPLICANT: Yakima Valley Trolleys, PROJECT TITLE: Restoration of Brill Streetcar #160, TOTAL COST: $450,000 HCP SHARE: $150,000 LEG DIST: 14, LOCATION: Yakima, COUNTY: Yakima
RANK: 35, APPLICANT: City of Waitsburg, PROJECT TITLE: Waitsburg City Hall renovation, TOTAL COST: $200,000 HCP SHARE: $66,000 LEG DIST: 16, LOCATION: Waitsburg, COUNTY: Walla Walla
RANK: 36, APPLICANT: Skagit County, PROJECT TITLE: Skagit County Courthouse Seismic Retrofit, TOTAL COST: $2,400,000 HCP SHARE: $800,000 LEG DIST: 40, LOCATION: Mount Vernon, COUNTY:

OFM

390 - Washington State Historical Society
Capital Project Request
2021-23 Biennium

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

Description

Location
City: Statewide **County:** Statewide **Legislative District:** 098

Project Type
Grants
Grants

Grant Recipient Organization: BI23 HERITAGE CAPITAL GRANTS PROJECT

RCW that establishes grant: 27.34.330

Application process used
Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts
These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town core

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	8,986,000	2,736,559	2,413,159	3,836,282	
057-1	State Bldg Constr-State	9,177,000		1,329,360	7,847,640	
057-1	State Bldg Constr-State	9,161,000				9,161,000
	Total	**27,324,000**	**2,736,559**	**3,742,519**	**11,683,922**	**9,161,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
057-1	State Bldg Constr-State				
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

No Operating Impact

No Operating Impact

SubProjects

SubProject Number: **40000015**
SubProject Title: **Metro Parks Tacoma - W.W. Seymour Botanical Conservatory Rehab**

OFM

390 - Washington State Historical Society
Capital Project Request

2021-23 Biennium

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 10/1/2020 12:33PM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

Description

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

The agency anticipates an appropriation of up to $ 10 million for the Heritage Capital Projects Fund (HCPF) under the terms of RCW 27.34.330. These funds provide up to one third of the cost of local capital projects undertaken by non-profit organizations, tribes, and various local governments. Projects that provide for the preservation and interpretation of the heritage of the state are submitted by applicants, reviewed and ranked by an advisory panel, and submitted for inclusion in the agency's state capital budget. Since 1997, nearly seventy-eight million dollars have been appropriated to support 325 projects. Each state dollar has helped attract at least two dollars of other support. For this biennium, the advisory panel selected 36 projects out of 42 submissions that met threshold requirements.

Project Description

The purpose of HCPF is to "support capital needs and facilities of heritage organizations, tribal governments, public development authorities, and local government agencies that interpret and preserve Washington's history and heritage" (WAC 255-02-010). Projects need to have a minimum total budget of $22,500; request a grant of not more than $1,000,000.; involve property that will be held a minimum of 13 years beyond project completion; provide at least a $2 match for each $1 of HCPF grant funds; comply with the Governor's Executive Order 05-05; and comply with all applicable and current federal, state, and local laws, regulations and policies , including high performance ("green") building standards (RCW 39.35 D), unless exempt. Each applicant needs to demonstrate a significant public benefit in the form of heritage interpretive and preservation activities that will occur via completion of their project. An applicant must demonstrate in the application that it has the readiness and capacity to undertake and complete their capital project in a timely fashion. In the current round, the required cost share (or match) in hand at the time of application was 3/4ths of the total indicated in the total project cost figure. The Washington State Historical Society (WSHS), administers the Heritage Capital Projects Fund. An Advisory Panel recommends grant guidelines for approval of the WSHS Director. The Washington Museum Association, the Office of the Secretary of State, Eastern Washington State Historical Society, Department of Archaeology and Historic Preservation, the Department of Enterprise Services and citizen members at-large are represented on the panel. In July or August of even-numbered years, the panel members independently evaluate and score each grant application.

Opportunity or Problem

The State of Washington has affirmed that Washington has a "rich heritage in historical sites and artifacts that have the potential to provide life-long learning opportunities for citizens of the state" and that "many of these historical treasures are not readily accessible to citizens, and that there is a need to create an ongoing program to support the capital needs of heritage organizations and facilities." To meet this need, the Heritage Capital Projects Fund (HCPF) competitive grant program was authorized in 1995 (RCW 27.34.330). New projects continue to be brought forward by local applicants to serve local needs for heritage preservation and interpretation.

Support the Agency and Statewide Results

The operation of this grant program dovetails with the other work of the agency, including providing technical assistance to non-profits and government entities in the operation of facilities, security, collections management, exhibit development, educational excellence, cultural emergency response and preparedness, and public programming and events. The statewide nature of successful applicants over the years has necessarily involved the agency in assisting entities in all areas of the state.

Specific Benefits

Historic buildings have been preserved and utilized, museums have been built and added on to, historic transportation vehicles have been restored, interpretive centers and longhouses have been built, historic landscapes have been reconstructed, and national landmarks have been protected through capital expenditures.

Effect on Clients

The state dollars that go into the dozens of HCPF projects each biennium leverage additional public, corporate, foundation, and individually donated funds. Staff has repeatedly heard that the state dollars have provided a needed indication of support for projects, as applicants seek to raise local funds for historic preservation and heritage interpretation bricks and mortar work during sometimes rocky economic times. The lack of state funding may not stop these efforts, but would slow the achievement of local capital projects and could prevent preservation of and interpretation of significant and endangered places.

Other State Programs Effected

The Washington State Department of Archeology and Historic Preservation reviews all proposed Heritage Capital Projects for

Description

their compliance with Governor's Executive Order 05-05 and to confirm that those facilities that are a focus of the grants and are listed or eligible for the National Register of Historic Places adhere to the national Secretary of Interior's Standards for Treatment of Historic Properties.

Impact on Operating Budget

None

Alternative

None

Agency's Funding Strategy

The Washington State Historical Society serves as the administrator of the Heritage Capital Projects program retaining 3% of each appropriation to fund the administration work.

Historical Significance

Yes.

Growth Management

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

RCW

27.34.330

Rank: 1 Applicant: Metro Parks Tacoma: W.W. Seymour Botanical Conservatory Rehabilitation Total Cost: $2,320,000.00 HCP Share: $773,196.00 Leg. Dist.: 27 Location: Tacoma County: Pierce
Rank: 2 Applicant: Discover Your Northwest: Chittenden Locks Fish Ladder Viewing Gallery Renovation and Interpretive Center Total Cost: $1,146,200.00 HCP Share: $382,100.00 Leg. Dist.: 36 Location: Seattle County: King
Rank: 3 Applicant: Foss Waterway Seaport: Continued restoration and renovation of the Balfour Dock Building: Phase IIIE Expansion, Enclosure and Enhancement of Heritage Wooden Boat Shop Total Cost: $920,897.00 HCP Share: $306,967.00 Leg. Dist.: 27 Location: Tacoma County: Pierce
Rank: 4 Applicant: City of Tumwater: Tumwater Old Brewhouse Tower Rehabilitation - Phase 2 Total Cost: $1,534,841.00 HCP Share: $512,723.00 Leg. Dist.: 22/ 25 Location: Tumwater County: Thurston
Rank: 5 Applicant: Gig Harbor Peninsula Historical Society dba Harbor History Museum: Shenandoah Project Phase V Total Cost: $301,400.00 HCP Share: $100,000.00 Leg. Dist.: 26 Location: Gig Harbor County: Pierce
Rank: 6 Applicant: City of Vancouver, Washington: Re-roof three buildings on historic Officer's Row including the General O.O. Howard House Total Cost: $457,260.00 HCP Share: $150,350.00 Leg. Dist.: 49 Location: Vancouver County: Clark
Rank: 7 Applicant: Northwest School of Wooden Boatbuilding: Expanding Public Access to Historic Waterfront of Port Hadlock through Acquisition and Rehabilitation of Galster House Property Total Cost: $720,000.00 HCP Share: $240,000.00 Leg. Dist.: 24 Location: Port Hadlock County: Jefferson
Rank: 8 Applicant: Kalispel Indian Community of the Kalispel Reservation, dba Kalispel Tribe: Restoration of Our Lady of Sorrows Catholic Church Total Cost: $100,000.00 HCP Share: $33,300.00 Leg. Dist.: 7 Location: Cusick County: Pend Oreille
Rank: 9 Applicant: King County Dept. of Natural Resources: Mukai Farmstead & Garden preservation plan Total Cost: $1,800,000.00 HCP Share: $600,000.00 Leg. Dist.: 34 Location: Vashon County: King
Rank: 10 Applicant: City of Edmonds: Edmonds Museum (Carnegie Library Restoration) Total Cost: $221,300.00 HCP Share: $73,876.00 Leg. Dist.: 21 Location: Edmonds County: Snohomish
Rank: 11 Applicant: Vancouver National Historic Reserve Trust, dba The Historic Trust: Renovate Providence Academy North Porches Total Cost: $2,961,790.00 HCP Share: $490,000.00 Leg. Dist.: 3 Location: Vancouver County: Clark
Rank: 12 Applicant: Washington Trust for Historic Preservation: Stimson-Green Mansion Masonry and Site Rehabilitation Total Cost: $300,000.00 HCP Share: $100,000.00 Leg. Dist.: 43 Location: Seattle County: King
Rank: 13 Applicant: Phinney Neighborhood Association: John B. Allen School (aka the Phinney Center) Total Cost: $89,800.00 HCP Share: $29,900.00 Leg. Dist.: 36 Location: Seattle County: King
Rank: 14 Applicant: Pacific Northwest Railroad Archive: Mounting rails to install three mobile shelving carriages Total Cost: $138,585.00 HCP Share: $46,662.00 Leg. Dist.: 34 Location: Burien County: King
Rank: 15 Applicant: City of Roslyn: The Historic Community Center, Library, and City Hall Building Restoration, Phase 3 Total

OFM

390 - Washington State Historical Society
Capital Project Request

2021-23 Biennium

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 10/1/2020 12:33PM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

Description

Cost: $725,206.00 HCP Share: $233,000.00 Leg. Dist.: 13 Location: Roslyn County: King
Rank: 16 Applicant: Quincy Valley Historical Society & Museum: Community Heritage Barn Phase II Total Cost: $172,500.00 HCP Share: $41,237.00 Leg. Dist.: 13 Location: Quincy County: Grant
Rank: 17 Applicant: The Northwest Railway Museum: Puget Sound Electric Railway interurban 523 rehabilitation Total Cost: $687,477.00 HCP Share: $229,124.00 Leg. Dist.: 5 Location: Snoqualmie County: King
Rank: 18 Applicant: The Cutter Theatre: 1912 Metaline Falls School Re-Roofing Total Cost: $78,336.00 HCP Share: $25,773.00 Leg. Dist.: 7 Location: Metaline Falls County: Pend Oreille
Rank: 19 Applicant: Delridge Neighborhoods Development Association: Elevate Youngstown - Structural improvements to remedy settling on south end of DNDA's Historic Cooper School - Phase 1 Total Cost: $918,660.00 HCP Share: $298,660.00 Leg. Dist.: 34 Location: Seattle County: King
Rank: 20 Applicant: Seattle City Light - Environment, Land and Licensing: Continue Georgetown Steam Plan Historic Concrete Restoration Total Cost: $2,480,562.00 HCP Share: $773,196.00 Leg. Dist.: 43 Location: Seattle County: King
"Rank: 21 Applicant: Skagit County Historical Society: Skagit City School Rehabilitation Phase Two Total Cost: $70,360.00 HCP Share: $22,371.00 Leg. Dist.: 10 Location: La Connor / Mount Vernon County: Skagit
Rank: 22 Applicant: Mount Baker Theatre: Mount Baker Theatre Preservation Total Cost: $3,014,985.00 HCP Share: $1,000,000.00 Leg. Dist.: 42 Location: Bellingham County: Whatcom
Rank: 23 Applicant: North Bay Historical Society: Sargent Oyster House Restoration Total Cost: $462,800.00 HCP Share: $160,412.00 Leg. Dist.: 35 Location: Allyn County: Mason
Rank: 24 Applicant: City of Lynnwood: Heritage Park Water Tower Phase II Renovation Total Cost: $360,000.00 HCP Share: $366,535.00 Leg. Dist.: 21 Location: Lynnwood County: Snohomish
Rank: 25 Applicant: Town of Waverly: Restoration of Prairie View Schoolhouse Total Cost: $164,755.00 HCP Share: $55,491.00 Leg. Dist.: 9 Location: Tukwila / Waverly County: Spokane

Rank: 26 Applicant: City of Lacey: Renovating Lacey warehouse for new museum Total Cost: $2,937,000.00 HCP Share: $978,866.00 Leg. Dist.: 22 Location: Lacey County: Thurston
Rank: 27 Applicant: Northwest Schooner Society: Restoration of the 1906 Keepers' Quarters, Burrows Island Light Station Total Cost: $199,000.00 HCP Share: $82,474.00 Leg. Dist.: 10 Location: Seattle / Anacortes County: Skagit
Rank: 28 Applicant: Sammamish Heritage Society: Phase 3 Plans for Reard House to Include Reconstruction of Kitchen Wing and Interior Renovation Total Cost: $368,393.00 HCP Share: $123,402.00 Leg. Dist.: 5 Location: Sammamish County: King
Rank: 29 Applicant: Cheney Depot Society: Cheney Depot Relocation & Rehabilitation Project Total Cost: $1,101,926.00 HCP Share: $366,535.00 Leg. Dist.: 6 Location: Cheney County: Spokane
Rank: 30 Applicant: The 5th Avenue Theatre Association: Theatre Upgrade: Auditorium Balcony Seats, Flooring and Carpets Total Cost: $3,000,000.00 HCP Share: $560,000.00 Leg. Dist.: 43 Location: Seattle County: King
Rank: 31 Applicant: Highline Historical Society (dba Highline Heritage Museum): Phase 3: Highline Heritage Museum - Enhance Public Amenities and Collection Storate/Access. "Hello Heritage. Welcome Home!" Total Cost: $212,619.00 HCP Share: $70,619.00 Leg. Dist.: 34 Location: Burien County: King
Rank: 32 Applicant: University Place Historical Society: Curran House project Total Cost: $131,000.00 HCP Share: $41,237.00 Leg. Dist.: 28 Location: University Place County: Pierce
Rank: 33 Applicant: Coupeville Maritime Heritage Foundation: Preservation of historic vessel SUVA/uscg #225008 Total Cost: $215,075.00 HCP Share: $71,071.00 Leg. Dist.: 10 Location: Coupeville County: Island County
Rank: 34 Applicant: Fort Worden Public Development Authority: Sage Arts and Education Center (Building 305) Total Cost: $6,152,853.00 HCP Share: $560,000.00 Leg. Dist.: 6 Location: Port Townsend County: Jefferson
Rank: 35 Applicant: South Pierce County Historical Society: Eatonville Tofu House Restoration Total Cost: $45,951.00 HCP Share: $14,760.00 Leg. Dist.: 2 Location: Eatonville County: Pierce
Rank: 36 Applicant: City of Everett Parks & Community Services Department: Van Valley Home Lead Abatement and Painting Preservation Total Cost: $201,700.00 HCP Share: $67,261.00 Leg. Dist.: 38 Location: Everett County: Everett

Location

City: Statewide **County:** Statewide **Legislative District:** 098

Project Type

Grants

OFM

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Capital Project Request
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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 10/1/2020 12:33PM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

Description

Grant Recipient Organization: B21 Heritage Capital Grants Projects

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	9,177,000		1,408,000	7,769,000	
	Total	**9,177,000**	**0**	**1,408,000**	**7,769,000**	**0**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

Capital Project Request

2021-23 Biennium

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Parameter	Entered As	Interpreted As
Biennium	2021-23	2021-23
Agency	390	390
Version	C1-A	C1-A
Project Classification	*	All Project Classifications
Capital Project Number	40000014	40000014
Sort Order	Project Priority	Priority
Include Page Numbers	Y	Yes
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: 40000099
Project Title: Heritage Capital Grant Projects 2021-2023

SubProjects

SubProject Number: 40000100
SubProject Title: Maritime Gallery Construction

	Future Fiscal Periods			
	2023-25	2025-27	2027-29	2029-31
057-1 State Bldg Constr-State				
Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000101
SubProject Title: Haller House Acquisition & Rehabilitation

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

This project has been a campaign to purchase and rehabilitate the 1866 Haller House in Coupeville. This prominent residence is actually comprised of two conjoined dwellings - the Haller House proper and 1859 Brunn House, attached as an ell. Historic Whidbey completed the first phase - acquisition of the house and property - in October 2018. This was supported in part by the sale of a preservation easement on the house to the National Park Service and by grants from the National Park Foundation, the National Park Trust, the Norcliffe Foundation and the Coupeville Lions. The replacement of the cedar shingle roof took place in May 2019 as an emergency intervention. Now begins the complete rehabilitation of the structure for its ultimate intended use: a public heritage site devoted to the interpretation of Washington's Territorial Era - a vital part of the interpretation of Ebey's Landing National Historical Reserve.

Project Description

Historic Whidbey. This grant Funds: Haller House Acquisition & Rehabilitation. Total Cost is: $1,137,121 and the proposed grant is for: $202,000 . Start date is July 1, 2021. Leg. District: 10. Location is Coupeville, Island County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Coupeville **County:** Island **Legislative District:** 010

Project Type

Grants

OFM

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000101**
SubProject Title: **Haller House Acquisition & Rehabilitation**

Grant Recipient Organization: Historic Whidbey

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	202,000				202,000
	Total	**202,000**	**0**	**0**	**0**	**202,000**

Acct Code	Account Title	Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000019**
SubProject Title: **Foss Waterway Seaport - Balfour Dock Building: Phase IIIE**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000019**
SubProject Title: **Foss Waterway Seaport - Balfour Dock Building: Phase IIIE**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Project Phase Title: Phase 1
Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

The Roundhouse Gallery will be new exhibit space to interpret the role railroads placed in the settlement and development of the region, and will provide access to resources heretofore inaccessible to the public. The Roundhouse Gallery phase one will consist of all site and foundation work, along with construction of the exhibit tracks and associated walkways. Reimbursable work will include clearing and grading, ground stabilization, foundation construction, landscaping, utility work, track construction, and installation of a railway turntable. Most match work will be performed as a percentage of the cost, but the turntable acquisition and restoration will be a match in its entirety.

Project Description

Northwest Railway Museum. This grant Funds: Roundhouse Gallery part one. Total Cost is: $5,374,440 and the proposed grant is for: $1,000,000 . Start date is July 1, 2021. Leg. District: 5. Location is Snoqualmie, King County.

Location

City: Snoqualmie **County:** King **Legislative District:** 005

Project Type

Grants

Grant Recipient Organization: Northwest Railway Museum

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	1,000,000				1,000,000
	Total	**1,000,000**	**0**	**0**	**0**	**1,000,000**

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Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000102**
SubProject Title: **Roundhouse Gallery**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000103**
SubProject Title: **Cathlamet Pioneer Cemetery Restoration**

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000103**
SubProject Title: **Cathlamet Pioneer Cemetery Restoration**

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

This project requests assistance to restore and honor the Pioneer Cemetery in Cathlamet where the remains of several of the most significant figures and families in early Washington history are interred. Specifically, the project requests $20,000 in state funds which, when combined with local dedicated and matching funds ($40,000) will help pay for a wrought iron fence and necessary headstone repairs and conservation of the Cathlamet Pioneer Cemetery. Cathlamet is one of the earliest settlements in Washington, see: https://www.historylink.org/File/8917 Cathlamet was founded in 1846 by James Birnie, a native Scot and former senior Clerk of the Hudson's Bay Company, having previously given significant service at Ft. George (Astoria, oldest US settlement west of the Rockies) as well as Ft. Spokane, Ft. Colville, and Ft. Vancouver assisting HBC Chief Factor Dr. John McLoughlin (long honored as the “Father of Oregon”). James, his wife Charlot Birnie (of Métis descent from Cree and French Canadian ancestry) and their 10 children settled in Cathlamet and established "Birnie's Retreat" a trading post that became the Town of Cathlamet, platted by Mr. Birnie (who also donated the land on which the Pioneer Cemetery sits). James and Charlot Birnie were recognized as the Laird and Lady of Cathlamet (see: http://furtradefamilyhistory.blogspot.com/2012/ known for their legendary hospitality and good works, welcoming guests which included not only Dr. McLoughlin but also Captain Ulysses S. Grant (stationed at Ft. Vancouver in the early 1850s). In addition to the Birnie family, the Cemetery is home (among many early settlers) to the signators of the original petition to create Wahkiakum County in 1854, only a few years after Washington became a territory. The Cathlamet Pioneer Cemetery is also unique in the Pacific Northwest in having both marked and unmarked Native American interments, including Queen Sally, of the Kathlamet Chinookan band, credited in oral history with sighting the Lewis & Clark Corps of Discovery, and Skamokawa, leader of the Wahkiakium Chinookan band and signer of one of the critical Tansy Point treaties negotiated with the United States Government (1851) which form the present-day basis for the Chinook Nation https://www.chinooknation.org/ . A stone memorial honoring Skamokawa as "Chief Wahkiakum" (1800-1857) remains in the Cemetery as a one-of-a-kind memorial to Cathlamet’s pre-settlement Chinookan history. At this writing, the Cathlamet Pioneer Cemetery is in a sad state of repair, unmarked and neglected behind a cyclone fence next to a school parking lot, playfield and John C. Thomas Middle School. No repairs or capital improvements have been made at the site since 1969, and broken and weathered headstones are abundant. Nor is the Pioneer Cemetery site marked or signed for visitors - only aware local residents are able to find it behind the school parking lot and ballfield. With proper wrought iron fencing restoring in some measure the original look of the cemetery, and repairs and restoration of numerous historic headstones, this grant will make a start in restoring the Cathlamet Pioneer Cemetery to its rightful place as one of the most critical and historic Pioneer cemeteries in the State of Washington, celebrating several of the most significant earliest settlers in the territory as well as the indigenous Chinookan bands (Kathlamet and Wahkiakum) who originally flourished in Cathlamet, one of the largest Native American settlements west of the Cascades.

Project Description

Town of Cathlamet. This grant Funds: Cathlamet Pioneer Cemetery Restoration. Total Cost is: $60,000 and the proposed grant is for: $20,000 . Start date is July 1, 2021. Leg. District: 19. Location is Cathlamet, Wahkiakum County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Cathlamet **County:** Wahkiakum **Legislative District:** 019

Project Type

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

Project Type

SubProject Number: **40000103**
SubProject Title: **Cathlamet Pioneer Cemetery Restoration**
Grants

Grant Recipient Organization: Town of Cathlamet
RCW that establishes grant: 27.34.330
Application process used
Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts
These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	20,000				20,000
	Total	**20,000**	**0**	**0**	**0**	**20,000**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000104**
SubProject Title: **Revitalize Lopez Island Grange**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
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Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000104**
SubProject Title: **Revitalize Lopez Island Grange**

Project Phase Title: Phase 1
Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

Our Heritage Project Grant request entitled “Revitalize Lopez Island Grange Phase I” is a request for funds to do much-needed upgrades to our heating/cooling system, insulation and weatherization upgrades and stone foundation repairs. These changes to our historic 117 Grange/former Center Schoolhouse building will establish maximum heating and cooling energy efficiency, keeping our Grange comfortable through all the seasons.

Project Description

Lopez Island Grange #1060. This grant Funds: Revitalize Lopez Island Grange Phase I. Total Cost is: $65,000 and the proposed grant is for: $22,000 . Start date is July 1, 2021. Leg. District: 40. Location is Lopez Island, San Juan County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Unincorporated **County:** San Juan **Legislative District:** 040

Project Type

Grants

Grant Recipient Organization: Lopez Island Grange #1060

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	22,000				22,000
	Total	**22,000**	**0**	**0**	**0**	**22,000**

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000104**
SubProject Title: **Revitalize Lopez Island Grange**

	Future Fiscal Periods			
	2023-25	**2025-27**	**2027-29**	**2029-31**
057-1 State Bldg Constr-State				
Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000105**
SubProject Title: **HVAC & Building Envelope Improvements**

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

This project will consist of improvements to, and installation of new HVAC equipment and building envelope improvements throughout The Museum of Flight's Library and Archives 9-04 building. This work is needed to improve the storage and preservation environment for our library and small artifacts storage facility which houses tens of thousands of small artifacts, more than 3 million rare photographic images, 34,000 books, 66,000 periodicals and 14,000 technical manuals. • Funding received through this grant will support the Phase 2 Material Costs of the HVAC work as shown on the AirReps LLC quote, plus a portion of the Phase 2 Installation as well as the building envelope improvements outlined in the G3 Builder's quote. • Costs over and above any funding awarded will be covered by the Museum's cost share.

Project Description

Museum of Flight. This grant Funds: HVAC & Building Envelope Improvements To The Museum's Library & Archives 9-04 Building. Total Cost is: $378,144 and the proposed grant is for: $127,000 . Start date is July 1, 2021. Leg. District: 11. Location is Seattle, King County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Seattle **County:** King **Legislative District:** 011

Project Type

Grants

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000105**
SubProject Title: **HVAC & Building Envelope Improvements**

Grant Recipient Organization: Museum of Flight

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	127,000				127,000
	Total	**127,000**	**0**	**0**	**0**	**127,000**

Acct Code	Account Title	Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000023**
SubProject Title: **NW School of Wooden Boatbuilding - Expanding Public Access**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000023**
SubProject Title: **NW School of Wooden Boatbuilding - Expanding Public Access**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

The Rocklyn Zion Chapel is a country church that was founded in 1883. It is a classic white church with a tall silver steeple, located on a hill among the wheat fields of eastern Washington. The building needs restoration of the wooden structure, including the steeple, and the field stone foundation. The wooden siding needs to be painted. A deteriorated galvanized water line providing water from the well to an exterior spigot needs to be replaced. An electrical connection needs to be established between the Chapel and the well pump.

Project Description

Rocklyn Zion Chapel. This grant Funds: Restoration of Rockyn Zion Chapel. Total Cost is: $45,000 and the proposed grant is for: $15,000 . Start date is July 1, 2021. Leg. District: 13. Location is Davenport, Lincoln County.

Location

City: Davenport **County:** Lincoln **Legislative District:** 013

Project Type

Grants

Grant Recipient Organization: Rocklyn Zion Chapel

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	15,000				15,000
	Total	**15,000**	**0**	**0**	**0**	**15,000**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000106**
SubProject Title: **Restoration of Rockyn Zion Chapel**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000107**
SubProject Title: **Worthington Park Phase V**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000107**
SubProject Title: **Worthington Park Phase V**

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

Worthington Park Phase V Project Summary: Shortly after the Quilcene Historical Museum purchased the Worthington mansion and the 10-acre property, a community meeting was held to determine priorities for the new restoration and preservation project. Saving the 1892 mansion and turning the private residence into a community asset was unanimous. Thus, the five-phase project was launched with a focus on the construction and preservation needed to save the failing mansion. With Phase I (the purchase) completed, Phase II began—the exterior of the building and constructing the third floor and Mansard roof. Phase III—restoring the interior of the Worthington mansion was next. With the support of private donors, event funds, extraordinary work of many volunteers, an WSHS HCPF grant and a M.J. Murdock Charitable Trust grant, these phases have been completed. Phase IV, furnishing the mansion, is underway. That leaves the completion of Phase V. This phase includes improvements to the Worthington mansion; Security & Fire Detection, ADA Ramp Lighting, ADA bathroom, 2nd floor bathroom, Kitchen, ADA hall, Stairs to 2nd floor, Kitchen porch, Interior trim, Stairs to 3rd floor. Phase V includes; several Jefferson County land-use requirements to be met before Worthington Park can become a permitted event center: an updated septic system, an upgrade to the water system, parking upgrades, electrical service to out-buildings, Landscaping (lighting, fencing, plants, etc.), ADA ramps, stairs, and walkways that include ease of access. And Phase V includes improvements to the Museum building & Pump house; rebuild/enlarge north porch, lighting, and new pump house construction. The focus of this request is part of Phase V; rebuild the stairway to the 3rd floor Mansard of the Worthington Mansion to meet county requirements for public access, provide electrical service to the Barn and the garage, improve landscaping and meet county requirements for land use (lighting, fencing, plants, etc.), improvements to the Museum building & Pump house; rebuild/enlarge north porch, lighting, and new pump house construction.

Project Description

Quilcene Historical Museum. This grant Funds: Worthington Park Phase V. Total Cost is: $615,160 and the proposed grant is for: $230,000 . Start date is July 1, 2021. Leg. District: 24. Location is Quilcene, Jefferson County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Unincorporated **County:** Jefferson **Legislative District:** 024

Project Type

Grants

OFM

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000107**
SubProject Title: **Worthington Park Phase V**

Grant Recipient Organization: Quilcene Historical Museum

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	230,000				230,000
	Total	**230,000**	**0**	**0**	**0**	**230,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: **40000027**
SubProject Title: **KC Dept. of Natural Resources - Mukai Farmstead & Garden Preserv**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000027**
SubProject Title: **KC Dept. of Natural Resources - Mukai Farmstead & Garden Preserv**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

The proposed project is the re-roofing of the U.S. Grant House, built in 1849 and the oldest building in the Officers Row Historic District, as the present roof, installed in 2007, is failing due to the cedar shingles becoming cupped from moisture infiltration and therefore separating from the roof sheathing below.

Project Description

City of Vancouver. This grant Funds: U.S. Grant House Re-Roofing Project. Total Cost is: $420,000 and the proposed grant is for: $140,000 . Start date is July 1, 2021. Leg. District: 49. Location is Vancouver, Clark County.

Location

City: Vancouver **County:** Clark **Legislative District:** 049

Project Type

Grants

Grant Recipient Organization: City of Vancouver

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	140,000				140,000
	Total	**140,000**	**0**	**0**	**0**	**140,000**

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000108**
SubProject Title: **U.S. Grant House Re-Roofing Project**

	Future Fiscal Periods			
	2023-25	**2025-27**	**2027-29**	**2029-31**
057-1 State Bldg Constr-State				
Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000109**
SubProject Title: **Log House Museum Facility Preservation/Improvement**

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

The Southwest Seattle Historical Society is requesting funds to support facility improvement projects to the Log House Museum which are part of the organization's long-term preservation plan. These projects, and specifically the improvement of our ADA ramp, the improvement and preservation of our roof, and the upgrade to the Log House Museum's electrical system, will ensure that the Historical Society can continue to utilize the Log House Museum as an inclusive and indispensable resource to preserve and share local history with the entire community. This phase of the Historical Society's preservation and improvement project builds on work that has been completed since 2015, when the long-term preservation project was created and formally adopted by the Board of Trustees. SWSHS has already completed several elements of this long-term plan, which we are utilizing as part of our match for this grant application. The HCP grant funding we are requesting through this application would be utilized to reimburse expenses for the three project areas noted above.

Project Description

Southwest Seattle Historical Society. This grant Funds: Log House Museum Facility Preservation/Improvement. Total Cost is: $80,433 and the proposed grant is for: $26,000 . Start date is July 1, 2021. Leg. District: 34. Location is Seattle, King County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Seattle **County:** King **Legislative District:** 034

Project Type

Grants

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: 40000099
Project Title: Heritage Capital Grant Projects 2021-2023

SubProjects

SubProject Number: 40000109
SubProject Title: Log House Museum Facility Preservation/Improvement

Grant Recipient Organization: Southwest Seattle Historical Society

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	26,000				26,000
	Total	**26,000**	**0**	**0**	**0**	**26,000**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: 40000031
SubProject Title: Vancouver National Historic Reserve Trust - Renovate Providence

Version: C1 BI23 Capital Budget

Report Number: CBS002
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Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000031**
SubProject Title: **Vancouver National Historic Reserve Trust - Renovate Providence**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

University Heights Center (UHeights) is building an elevator shaft on the outside of our building to link the basement, ground floor, and two top floors, including building a hallway connecting the south and north wings of the ground floor. Also part of the project is the removal of two URM chimneys (due to seismic issues) and the rebuilding of one chimney; and the installation of roof anchors to allow easy access for roof maintenance/preservation.

Project Description

University Heights Center for the Community Association. This grant Funds: Elevator Installation and ADA Upgrades. Total Cost is: $1,035,000 and the proposed grant is for: $345,000 . Start date is July 1, 2021. Leg. District: 43. Location is Seattle, King County.

Location

City: Seattle **County:** King **Legislative District:** 043
City: Vancouver **County:** Clark **Legislative District:** 049

Project Type

Grants

Grant Recipient Organization: University Heights Center for the Community Association

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	345,000				345,000
	Total	**345,000**	**0**	**0**	**0**	**345,000**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000110**
SubProject Title: **University Heights Elevator Installation &ADA Upgrade**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000111**
SubProject Title: **LaCrosse Rocks! A Heritage Center on the National Geologic Trail**

Project Phase Title: Phase 1
Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

This grant request funds the conversion of historic basalt rock buildings built during the Great Depression into productive use as a Heritage Museum and Ice Age Floods Visitor Center. Project involves rebuilding two small bunkhouses, adding a restroom, and repairing the old Service Station; reimbursement is requested for construction expenses associated with the project.

Project Description

LaCrosse Community Pride. This grant Funds: LaCrosse Rocks! A Heritage Center on the National Geologic Trail (Phase 1). Total Cost is: $392,742 and the proposed grant is for: $131,000 . Start date is July 1, 2021. Leg. District: 9. Location is LaCrosse, Whitman County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: La Crosse **County:** Whitman **Legislative District:** 009

Project Type

Grants

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000111**
SubProject Title: **LaCrosse Rocks! A Heritage Center on the National Geologic Trail**

Grant Recipient Organization: LaCrosse Community Pride

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	131,000				131,000
	Total	**131,000**	**0**	**0**	**0**	**131,000**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000035**
SubProject Title: **Phinney Neighborhood Association - John B. Allen School**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000035**
SubProject Title: **Phinney Neighborhood Association - John B. Allen School**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Project Phase Title: Phase 3
Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

This project will rehabilitate Lakewold Gardens' circa 1918 Carriage House. The Carriage House will be stabilized and rehabilitated into a space for education, interpretation, and administration. This rehabilitation project represents the third phase of a capital campaign that began in 2014. The Carriage House project will be further broken down into "portions." This proposal seeks support for Portion 1A, Carriage House Rehabilitation, with other portions happening concurrently but funded separately.

Project Description

Friends of Lakewold Gardens. This grant Funds: Preservation Campaign Phase III: Lakewold Gardens Carriage House Rehabilitation and Accessibility Improvements. Total Cost is: $1,240,801 and the proposed grant is for: $414,000 . Start date is July 1, 2021. Leg. District: 28. Location is Lakewood, Pierce County.

Location

City: Lakewood **County:** Pierce **Legislative District:** 028

Project Type

Grants

Grant Recipient Organization: Friends of Lakewold Gardens

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	414,000				414,000
	Total	**414,000**	**0**	**0**	**0**	**414,000**

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: 40000099
Project Title: Heritage Capital Grant Projects 2021-2023

SubProjects

SubProject Number: 40000112
SubProject Title: Lakewold Gardens Carriage House Rehab & Accessibility Improvement

	Future Fiscal Periods			
	2023-25	2025-27	2027-29	2029-31
057-1 State Bldg Constr-State				
Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000113
SubProject Title: Good Shepherd Center Seismic Retrofit

Project Phase Title: Phase 1B
Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

Historic Seattle is conducting a seismic retrofit of the Good Shepherd Center in the Wallingford neighborhood of Seattle. In our first phase of work, Phase 1A, our organization conducted exploratory demolition to verify seismic status and load-test attachment points and created a preliminary design for the retrofit. With the knowledge obtained from that phase, we moved forward with Phase 1B to develop the final design and begin work on the most critical elements, the floor-to-wall connections. Approximately 70% of the building's floor-to-wall connections will be completed in Phase 1B, the highest priority work identified by our architect and structural engineer.

Project Description

Historic Seattle PDA. This grant Funds: Good Shepherd Center Seismic Retrofit (Phase 1B). Total Cost is: $2,604,954 and the proposed grant is for: $869,000 . Start date is July 1, 2021. Leg. District: 43. Location is Seattle, King County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Burien **County:** King **Legislative District:** 034
City: Seattle **County:** King **Legislative District:** 043

Project Type

Grants

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000113**
SubProject Title: **Good Shepherd Center Seismic Retrofit**

Grant Recipient Organization: Historic Seattle PDA

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	869,000				869,000
	Total	**869,000**	**0**	**0**	**0**	**869,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: **40000039**
SubProject Title: **City of Roslyn - Historic Community Center, Library, & City Hall**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000039**
SubProject Title: **City of Roslyn - Historic Community Center, Library, & City Hall**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

The Reynolds Farm and Indian Agency is a 5.12 acre site adjacent to the reservation,once owned by Charles Reynolds, "Farmer in Charge" and Indian Agent to the Muckleshoot Indian Tribe. In 2018, the Muckleshoot Tribe purchased the Farm. Funds have been set aside in the Tribe's budget to stabilize a log cabin on the property (c. 1880), the first home of Charles Reynolds. The HCP grant would provide funds to renovate Reynolds' second home on the property (1914), and the conversion of the modern shop on the property to a curation storage building for oversized items.

Project Description

Muckleshoot Indian Tribe. This grant Funds: Reynolds Farm & Indian Agency. Total Cost is: $1,176,483 and the proposed grant is for: $390,000 . Start date is July 1, 2021. Leg. District: 31. Location is Auburn, King County.

Location

City: Auburn **County:** King **Legislative District:** 031

Project Type

Grants

Grant Recipient Organization: Muckleshoot Indian Tribe

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	390,000				390,000
	Total	**390,000**	**0**	**0**	**0**	**390,000**

OFM

390 - Washington State Historical Society
Capital Project Request
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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000114**
SubProject Title: **Reynolds Farm & Indian Agency**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000115**
SubProject Title: **Frank Gehry Bldg - Critical Safety Upgrades**

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

This project will address critical safety upgrades to the internationally recognized Frank Gehry building for both visitor safety and artifact preservation.

Project Description

Experience Learning Community. This grant Funds: Critical Safety Upgrades to Frank Gehry Building. Total Cost is: $1,171,845 and the proposed grant is for: $389,000 . Start date is July 1, 2021. Leg. District: 36. Location is Seattle, King County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Quincy	**County:** Grant	**Legislative District:** 013
City: Seattle	**County:** King	**Legislative District:** 036

Project Type

Grants

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: 40000014
Project Title: Heritage Capital Grant Projects: 2019-21

SubProjects

SubProject Number: 40000041
SubProject Title: Quincy Valley Historical Society & Museum - Comm Heritage Barn

Grant Recipient Organization: Experience Learning Community

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	389,000				389,000
	Total	**389,000**	**0**	**0**	**0**	**389,000**

Acct Code	Account Title	Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000043
SubProject Title: The NW Railway Museum - Puget Sound Electric Railway Interurban

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: 40000014
Project Title: Heritage Capital Grant Projects: 2019-21

SubProjects

SubProject Number: 40000043
SubProject Title: The NW Railway Museum - Puget Sound Electric Railway Interurban

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

The new annex building is to be located on property adjacent to the Franklin County Historical Society Museum, which is a restored 1911 Carnegie Library and National Historic Site. The society has pressing needs for additional space for exhibits, educational programs, and storage of material culture and archives. Among other recent accessions, the society acquired the archives of the Washington State Railroads Historical Society, and the museum's textile and other collections presently occupy considerable space off-site in the basement of the city's Community Center. The society also seeks to expand its nascent Mid-Columbia Gallery of Agrarian Art. Moreover, the present museum's meeting room can only accommodate eighty people which greatly limits the society's capacity to expand educational and cultural programs.

Project Description

Franklin County Historical Society & Museum. This grant Funds: Franklin County Historical Society Museum Exhibit and Storage Annex. Total Cost is: $577,530 and the proposed grant is for: $174,000 . Start date is July 1, 2021. Leg. District: 16. Location is Pasco, Franklin County.

Location

City: Pasco **County:** Franklin **Legislative District:** 016

Project Type

Grants

Grant Recipient Organization: Franklin County Historical Society & Museum

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

OFM

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Capital Project Request
2021-23 Biennium

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000116**
SubProject Title: **Franklin County Historical Society Museum Exhibit & Storage Annex**

Funding

Acct Code	Account Title	Expenditures: Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	174,000				174,000
	Total	**174,000**	**0**	**0**	**0**	**174,000**

Acct Code	Account Title	Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000117**
SubProject Title: **Rehabilitation of the Issaquah Auto Freight Building**

Project Phase Title: Phase 1
Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

Grantee is seeking funds to complete the Phase I of an extensive building renovation project. The first phase will include structural, seismic, and foundation work at the Issaquah Auto Freight Building (AFB), in preparation for future stages. Scope of Work includes items in process (Master Plan, Surveying, Hazardous Materials Survey, and Geotechnical Exploration).

Project Description

Issaquah History Museums. This grant Funds: Rehabilitation of the Issaquah Auto Freight Building, Phase I. Total Cost is: $290,506 and the proposed grant is for: $96,000 . Start date is July 1, 2021. Leg. District: 5. Location is Issaquah, King County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Issaquah **County:** King **Legislative District:** 005

Project Type

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: 40000099
Project Title: Heritage Capital Grant Projects 2021-2023

SubProjects

Project Type

SubProject Number: 40000117
SubProject Title: Rehabilitation of the Issaquah Auto Freight Building

Grants

Grant Recipient Organization: Issaquah History Museums

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	96,000				96,000
	Total	**96,000**	**0**	**0**	**0**	**96,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000047
SubProject Title: Delridge Neighborhoods Dev Assoc - Structural improvements

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000047**
SubProject Title: **Delridge Neighborhoods Dev Assoc - Structural improvements**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

This project addresses three Fort Nisqually buildings that were erected in the 1930s: The Clerk's House (Montgomery House), the Sale Shop, and the Kitchen. MPT's application is seeking approximately $375,000 in matched funding to demolish and replace the Clerk's House, and complete designs for much-needed structural repairs to the Sale Shop and Kitchen at Fort Nisqually. (No construction funding is being requested for the Sale Shop or the Kitchen at this time. MPT will pursue fundraising efforts to raise the additional construction funds.) The rebuilding of the Clerk's House and repairs to the Sale Shop and Kitchen are the top three priorities identified in the Fort Nisqually Building Assessment (2018). Additionally, these repairs are called for in the Fort Nisqually Living History Museum 2036 Capital Development and Program Plan. Every effort will be made to ensure the authenticity of these structures in construction, appearance, function, and use. These buildings were built for education and interpretation, and their maintenance care will follow best current practices in equivalent historic sites and districts.

Project Description

Metro Parks Tacoma. This grant Funds: Fort Nisqually Facilities Renovation and Replacement. Total Cost is: $1,136,259 and the proposed grant is for: $379,000 . Start date is July 1, 2021. Leg. District: 27. Location is Tacoma, Pierce County.

Location

City: Tacoma **County:** Pierce **Legislative District:** 027

Project Type

Grants

Grant Recipient Organization: Metro Parks Tacoma

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: 40000099
Project Title: Heritage Capital Grant Projects 2021-2023

SubProjects

SubProject Number: 40000118
SubProject Title: Fort Nisqually Facilities Renovation and Replacement

Funding

Acct Code	Account Title	Expenditures: Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	379,000				379,000
	Total	**379,000**	**0**	**0**	**0**	**379,000**

Acct Code	Account Title	Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000119
SubProject Title: Island Co Historical Society Roof Replacement

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

The grantee seeks funding to remove, and dispose of, existing roofing and underlayment. Replace with heavy duty GAF Timberline 50-yr composition roofing, with snow and ice rated underlayment. Replace all vents and flashing.

Project Description

Island County Historical Society Museum. This grant Funds: Replace Museum Roof. Total Cost is: $33,132 and the proposed grant is for: $11,000 . Start date is July 1, 2021. Leg. District: 10. Location is Coupeville, Island County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Coupeville **County:** Island **Legislative District:** 010
City: Seattle **County:** King **Legislative District:** 043

Project Type

Grants

OFM

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000119**
SubProject Title: **Island Co Historical Society Roof Replacement**

Grant Recipient Organization: Island County Historical Society Museum

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	11,000				11,000
	Total	**11,000**	**0**	**0**	**0**	**11,000**

Acct Code	Account Title	Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000051**
SubProject Title: **Skagit County Historical Society - Skagit City School Rehab**

OFM

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Capital Project Request
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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000051**
SubProject Title: **Skagit County Historical Society - Skagit City School Rehab**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Project Phase Title: Phase 3
Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

In this phase of the project, City of Lacey will prepare for building construction. This includes demo of the existing building, old parking lot and slab, disposal, backfill and grade the site, and demo of underground utilities for the old building

Project Description

City of Lacey. This grant Funds: New Lacey Museum, Phase 3. Total Cost is: $1,871,913 and the proposed grant is for: $608,000 . Start date is July 1, 2021. Leg. District: 22. Location is Lacey, Thurston County.

Location

City: Lacey **County:** Thurston **Legislative District:** 022

Project Type

Grants

Grant Recipient Organization: City of Lacey
RCW that establishes grant: 27.34.330
Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	608,000				608,000
	Total	**608,000**	**0**	**0**	**0**	**608,000**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000120**
SubProject Title: **New Lacey Museum**

	Future Fiscal Periods			
	2023-25	**2025-27**	**2027-29**	**2029-31**
057-1 State Bldg Constr-State				
Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: **40000121**
SubProject Title: **Holocaust Center Capital Project**

Project Phase Title: Phase 3
Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

Grantee is requesting funding for the design and construction of a remodeled office space to include a small conference room, resized cubicles, electrical work, and sound abatement between the office and museum area. Beyond the redesign and construction costs, funding for this project would allow the Holocaust Center to invest in a comprehensive acoustical enhancement project in order to create a better exhibit experience for visitors and a better work environment for staff.

Project Description

Holocaust Center for Humanity. This grant Funds: Holocaust Center Capital Project: Phase 3. Total Cost is: $272,371 and the proposed grant is for: $90,000 . Start date is July 1, 2021. Leg. District: 36. Location is Seattle, King County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Seattle **County:** King **Legislative District:** 036

Project Type

Grants

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Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000121**
SubProject Title: **Holocaust Center Capital Project**

Grant Recipient Organization: Holocaust Center for Humanity

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	90,000				90,000
	Total	**90,000**	**0**	**0**	**0**	**90,000**

Acct Code	Account Title	Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000055**
SubProject Title: **North Bay Historical Society - Sargent Oyster House Restoration**

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000055**
SubProject Title: **North Bay Historical Society - Sargent Oyster House Restoration**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

This project would renovate outdated collections storage room with compactable collections storage shelving, security doors for access to collections facility room.

Project Description

Cowlitz County Historical Museum. This grant Funds: Cowlitz County Historical Museum Collections Storage. Total Cost is: $50,216 and the proposed grant is for: $17,000 . Start date is July 1, 2021. Leg. District: 19. Location is Longview, Cowlitz County.

Location

City: Longview **County:** Cowlitz **Legislative District:** 019

Project Type

Grants

Grant Recipient Organization: Cowlitz County Historical Museum

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	17,000				17,000
	Total	**17,000**	**0**	**0**	**0**	**17,000**

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Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000122**
SubProject Title: **Cowlitz County Historical Museum Collections Storage**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000123**
SubProject Title: **Cheney Depot Rehabilitation Project**

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Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000123**
SubProject Title: **Cheney Depot Rehabilitation Project**

Project Phase Title: Phase 3 - Interior Rehab
Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

Cheney's 1929 Northern Pacific Railroad Depot has been relocated from BNSF property to a new site near the historic downtown, and exterior stabilization & rehabilitation of the structure began in 2019 and continued in 2020 (Phase 1 & 2). Completion of site improvements and interior rehabilitation is identified as Phase 3 of this multi-year project. Cheney's unique 1929 Spanish style Northern Pacific Railroad depot was threatened with demolition in 2014. An active citizen-led movement to 'Save Our Station' led to establishment of a non-profit organization to relocate, restore & repurpose the Depot. A benefactor offered to match donations up to $500,000 toward this end. BNSF agreed to donate the building with the provision that it be removed from their property. A local development group, Sunshine Investment, donated 4 city lots adjacent to the BNSF track, a very short distance from the depot's original location, and adjacent to a National Register Historic District. A substantial donation of site preparation work has been provided by a local contractor, Gillingham Excavation. The award of a Heritage Capital Grant of $366,000 in the 2019-2020 biennium put our project on track for success, and at the time of this application, mid-June 2020, we have just completed relocation of the depot to our property. Phase 1 of this multi-year project, Cheney Depot Relocation, is complete. Phase 2, Cheney Depot Exterior Rehabilitation, will commence by the end of June 2020. Our contract with Walker Construction of Spokane covers completion of footings and foundation, framing repairs to the roof structure and an interior wall which are needed due to water intrusion, repairs to the Spanish tile roof, and repairs to the stucco finish. Exterior stabilization of the depot, Phase 2 of this project, should be completed before October 2020. As our capital campaign continues, we still need to identify funding to complete Phase 3, site development and interior rehab of the depot. Walker Construction has developed cost estimates for this work, which are attached to substantiate this grant request. However, as we have demonstrated in the first two phases of the project, we believe there is sufficient community support to provide donation of some aspects of the work. With our experienced project team in place, and leveraging the momentum of our just-completed milestone of depot relocation, we will be ready to bring this project to completion within a year of securing full project funding. Phases 1 and 2 of this project will have been completed using just 75% of Dr. Peter O. Hansen's committed match, or $375,000, leaving the remainder of $125,000 available for Phase 3; a budget amendment to our current Heritage Capital Grant has been requested reflecting that adjustment. Further, the Avista Foundation has committed an additional $25,000 to the interior rehab of the depot.

Project Description

Cheney Depot Society. This grant Funds: Cheney Depot Rehabilitation Project - Phase 3 - Interior Rehab. Total Cost is: $924,976 and the proposed grant is for: $306,000 . Start date is July 1, 2021. Leg. District: 6. Location is Cheney, Spokane County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Cheney **County:** Spokane **Legislative District:** 006

Project Type

Grants

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000123**
SubProject Title: **Cheney Depot Rehabilitation Project**

Grant Recipient Organization: Cheney Depot Society

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	306,000				306,000
	Total	**306,000**	**0**	**0**	**0**	**306,000**

		Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: **40000059**
SubProject Title: **Town of Waverly - Restoration of Prairie View Schoolhouse**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000059**
SubProject Title: **Town of Waverly - Restoration of Prairie View Schoolhouse**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

The grantee requests funding for preservation of the exterior masonry - cleaning, repointing, and repairing the brick; cleaning the stone portions. Rebuilding and replacing the roof - removing the existing metal roof, rebuilding two eyebrow features present on the original depot, replace existing metal roofing with a historically appropriate new roof. Replace and repair damaged sheathing. Select material that meets historic integrity and matches as closely as possible the scale, texture, and coloration of the historic roofing material. Repairing and painting soffits and fascia. Replacing gutters where necessary

Project Description

Whitman County Historical Society. This grant Funds: Pullman Depot Heritage Center. Total Cost is: $807,939 and the proposed grant is for: $266,000 . Start date is July 1, 2021. Leg. District: 9. Location is Pullman, Whitman County.

Location

City: Colfax	**County:** Whitman	**Legislative District:** 009
City: Pullman	**County:** Whitman	**Legislative District:** 009

Project Type

Grants

Grant Recipient Organization: Whitman County Historical Society

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

			Expenditures		2021-23 Fiscal Period	
Acct Code	**Account Title**	**Estimated Total**	**Prior Biennium**	**Current Biennium**	**Reapprops**	**New Approps**
057-1	State Bldg Constr-State	266,000				266,000
	Total	**266,000**	**0**	**0**	**0**	**266,000**

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000124**
SubProject Title: **Pullman Depot Heritage Center**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: **40000125**
SubProject Title: **L.H.Mason Building Rehabilitation**

Project Phase Title: Phase 1
Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

Grantee requests funding for the architectural design and development of a construction plan for a multi-year project to rehabilitate the L.H. Mason building for use as a museum

Project Description

Ferry County Historical Society. This grant Funds: L.H. Mason Building Rehabilitation, Phase 1. Total Cost is: $40,649 and the proposed grant is for: $14,000 . Start date is July 1, 2021. Leg. District: 7. Location is Republic, Ferry County

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Lacey	**County:** Thurston	**Legislative District:** 022
City: Republic	**County:** Ferry	**Legislative District:** 007

Project Type

Grants

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Capital Project Request
2021-23 Biennium
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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000125**
SubProject Title: **L.H.Mason Building Rehabilitation**

Grant Recipient Organization: Ferry County Historical Society

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	14,000				14,000
	Total	**14,000**	**0**	**0**	**0**	**14,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000063**
SubProject Title: **Northwest Schooner Society - Restoration 1906 Keepers Quarters**

OFM

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Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000063**
SubProject Title: **Northwest Schooner Society - Restoration 1906 Keepers Quarters**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary
NEED SOME MORE DATA HERE?

Project Description
Northport Historical Society. This grant Funds: Northport Welcome Center, Museum and Artisan Gallery. Total Cost is: $284,000 and the proposed grant is for: $75,000 . Start date is July 1, 2021. Leg. District: 7. Location is Northport, Stevens County.

Location

City: Anacortes	**County:** Skagit	**Legislative District:** 040
City: Northport	**County:** Stevens	**Legislative District:** 007

Project Type
Grants

Grant Recipient Organization: Northport Historical Society
RCW that establishes grant: 27.34.330
Application process used
Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts
These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

			Expenditures			2021-23 Fiscal Period
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	75,000				75,000
	Total	**75,000**	**0**	**0**	**0**	**75,000**

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: 40000099
Project Title: Heritage Capital Grant Projects 2021-2023

SubProjects

SubProject Number: 40000126
SubProject Title: Northport Welcome Center, Museum and Artisan Gallery

	Future Fiscal Periods			
	2023-25	2025-27	2027-29	2029-31
057-1 State Bldg Constr-State				
Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000127
SubProject Title: Gladish Community & Cultural Cntr Roof Replacement

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary
This project will replace seven Gladish Community and Cultural Center roof sections.

Project Description
Friends of Gladish. This grant Funds: Roof replacement. Total Cost is: $360,000 and the proposed grant is for: $120,000 . Start date is July 1, 2021. Leg. District: 9. Location is Pullman, Whitman County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location
City: Pullman **County:** Whitman **Legislative District:** 009

Project Type
Grants

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Project Number: 40000099
Project Title: Heritage Capital Grant Projects 2021-2023

SubProjects

SubProject Number: 40000127
SubProject Title: Gladish Community & Cultural Cntr Roof Replacement

Grant Recipient Organization: Friends of Gladish

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	120,000				120,000
	Total	**120,000**	**0**	**0**	**0**	**120,000**

Acct Code	Account Title	Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000067
SubProject Title: Cheney Depot Society - Cheney Depot Relocation & Rehabilitation

Version: C1 BI23 Capital Budget

Report Number: CBS002
Date Run: 9/14/2020 11:02AM

Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000067**
SubProject Title: **Cheney Depot Society - Cheney Depot Relocation & Rehabilitation**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

"In order to best serve the public, be responsible stewards of our aquatic environment, and meet the requirements of our lease with the Department of Natural Resources (DNR), we are launching a Capital Campaign project for the restoration of our floating campus in Waterway 4. The Center for Wooden Boats (CWB) has operated from Waterway 4 in South Lake Union since the early 1980's with the organizational vision to create equitable access to empowering maritime experiences. One of the ways in which we provide that access is by offering free boat rides to the public using small historic watercraft on Sundays year-round, a program which serves over 8,000+ annually. The Floating Boathouse (where we welcome visitors to sign up for those rides) and the Floating Boatshop (where we build and conduct maintenance on our fleet) are central to that effort. The Floating Boathouse also serves as our "Shore School" classroom for kids and adults learning to sail, our training hub for volunteers, a meeting space for other nonprofits, and will soon house our maritime library. Our West dock allows access to our Oarhouse operations and vessels for adult sailing lessons, and the Boulevard dock (on loan from the Northwest Yacht Brokers Association) is central to our youth sailing operations. CWB's floating campus in Waterway 4 is on DNR property, and our lease (attached) requires many of the components of this restoration project, including: • Replacement of West dock floatation and any treated wood with ecofriendly materials, and the addition of grating to let more light through • Replacement of all dock ecoblocks with helix anchors and midline floats, or else install pilings • Removal of a creosote dolphin (an unused cluster of pilings that predates our land occupancy but deemed an environmental hazard due to the creosote treatment of the wood) • Create and implement a storm water management plan • Conduct underwater surveys to confirm that floatation on all other docks align with current environmental standards • Make changes to dock lighting to minimize glare on the water While addressing those DNR lease requirements, we aim to make additional improvements to our historic floating buildings and the docks that connect them, including: • Floating Boathouse: roof replacement (to address leaks), plumbing overhaul (use as a public restroom for the park combined with old plumbing currently leads to frequent blockages and constant maintenance), updated electrical (to improve wi-fi connectivity for working staff and visitors), upgraded insulation and weather-proofing, and internal layout changes (for better event flow and public use, particularly when we install the maritime library). • Floating Boatshop: roof replacement (to address leaks) and floatation replacement (current floatation is waterlogged and slowly sinking) • Replace the 400 ft. West dock altogether, which would address the floatation upgrade and grating additions required by DNR, as well as rotting wood decking and framing that must be replaced to ensure secure cleats and thus secure boats. Replacement of this dock would require rerunning electrical to our Oarhouse. • Replace framing of the 40 ft. Oarhouse dock, which is rotting underneath the Oarhouse structure and causing the dock to bend in half. • Work with a landscape designer to improve pedestrian flow between our floating campus and our land-based Wagner Education Center, and between our floating campus and our maritime partners in Lake Union Park: Northwest Seaport, The Steamer Virginia V Foundation, MV Lotus Foundation, and the Seattle Fireboat Duwamish. This would likely result in 2 new docks/ramps. All these nonprofit organizations are part of the Lake Union Park Working Group and have voiced support for better connection points and interpretive signage to improve access and visibility within the park. The Market to MOHAI pedestrian corridor is increasing foot traffic to Lake Union Park, and these improvements would enhance the exploration experience for pedestrians while increasing engagement for all maritime organizations in the park. • Build a replacement for the 325 ft. Boulevard dock, currently on loan from the Northwest Yacht Brokers Association (NYBA). We've been fortunate to borrow this dock for many years, but have wanted to install our own dock so that our youth programming isn't interrupted when NYBA tows the dock away for their events several times annually, and so we can install permanent boat storage on the dock for youth sailing vessels, thus increasing our capacity to get more kids on the water each year. This need for a replacement dock is now heightened because NYBA has been evicted from their

Project Number: 40000099
Project Title: Heritage Capital Grant Projects 2021-2023

SubProjects

SubProject Number: 40000128
SubProject Title: Center for Wooden Boats Floating Campus Restoration

former location as part of Vulcan's development of Chandler's Cove on South Lake Union. NYBA has relocated to Everett, putting our long-term access to this dock in question, and with it, the fate of many of our youth programs. The Chandler's Cove development further illustrates how the character of South Lake Union is rapidly changing, and how vital it is for CWB to maintain our waterfront infrastructure and historic floating buildings to ensure public access to boating opportunities for everyone in our community.

Project Description

The Center for Wooden Boats. This grant Funds: Floating Campus Restoration. Total Cost is: $3,220,900 and the proposed grant is for: $1,000,000 . Start date is July 1, 2021. Leg. District: 43. Location is Seattle, King County.

Location

City: Seattle **County:** King **Legislative District:** 043

Project Type

Grants

Grant Recipient Organization: The Center for Wooden Boats

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Expenditures: Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	1,000,000				1,000,000
	Total	**1,000,000**	**0**	**0**	**0**	**1,000,000**

Acct Code	Account Title	Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: 40000129
SubProject Title: Schmidt House Restoration/Renovation

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Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000129**
SubProject Title: **Schmidt House Restoration/Renovation**

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

This project will give greater access to the building by installing ADA lift and bathrooms, replace and upgrade much of existing archives that will become accessible to the public for research; and replace institutional lighting on the main floor as well as restore period lighting. It will also protect the structure and archives through installation of a fire suppression system, backup generator and additional moisture proofing of the basement/archives level.

Project Description

Olympia Tumwater Foundation. This grant Funds: Schmidt House Restoration/Renovation. Total Cost is: $362,888 and the proposed grant is for: $121,000 . Start date is July 1, 2021. Leg. District: 22. Location is Tumwater , Thurston County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Seattle **County:** King **Legislative District:** 043
City: Tumwater **County:** Thurston **Legislative District:** 022

Project Type

Grants

Grant Recipient Organization: Olympia Tumwater Foundation

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	121,000				121,000
	Total	**121,000**	**0**	**0**	**0**	**121,000**

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Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000129**
SubProject Title: **Schmidt House Restoration/Renovation**

	Future Fiscal Periods			
	2023-25	**2025-27**	**2027-29**	**2029-31**
057-1 State Bldg Constr-State				
Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: **40000071**
SubProject Title: **Highline Historical Society - Phase 3: Highline Heritage Museum**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

A new building adjacent to current museum building to serve community as a Heritage Center • to provide public access to collections, exhibits, education programs; • to professionally protect archives, collections, and artifacts • to provide a venue for workshops, programs, staff and public education

Project Description

Foothills Historical Society. This grant Funds: Foothills Historical Society Heritage Center. Total Cost is: $135,250 and the proposed grant is for: $45,000 . Start date is July 1, 2021. Leg. District: 31. Location is Buckley, Pierce County.

Location

City: Buckley **County:** Pierce **Legislative District:** 031

Project Type

Grants

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Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000130**
SubProject Title: **Foothills Historical Society Heritage Center**

Grant Recipient Organization: Foothills Historical Society

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	45,000				45,000
	Total	**45,000**	**0**	**0**	**0**	**45,000**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000131**
SubProject Title: **Point Wilson Lighthouse (station)**

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Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000131**
SubProject Title: **Point Wilson Lighthouse (station)**

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

The Point Wilson Lighthouse complex, also referred to as the Point Wilson Light Station is an important Port Townsend and Washington State landmark listed on the National Register of Historic Places. It has been left abandoned with no maintenance for at least 10 years, with public access being rescinded by the U.S. Coast Guard in 2016. In 2019, the U.S. Lighthouse Society successfully established a partnership with the U.S. Coast Guard in order to restore the historic buildings on-site and open them to the public for educational interpretation, tours and lodging. The goal for the entire project is to create a financially self-sustaining entity with monies raised to fund continued maintenance and restoration as well as an endowment for the future. For the phase of the project we are applying for now, we will replace the roof of the lighthouse itself. We expect to open the lighthouse for tours in late 2020 which will help with much needed project exposure. Normally, Fort Worden receives 1.8 million visitors per year, many of who visit the historic lighthouse grounds. Once restored and operating at full capacity, Point Wilson is poised to become the most visited lighthouse in the nation.

Project Description

US Lighthouse Society. This grant Funds: Point Wilson Lighthouse (station). Total Cost is: $110,000 and the proposed grant is for: $33,000 . Start date is July 1, 2021. Leg. District: 24. Location is Port Townsend, Jefferson County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Port Townsend	**County:** Jefferson	**Legislative District:** 024
City: Port Townsend	**County:** Jefferson	**Legislative District:** 024

Project Type

Grants

Grant Recipient Organization: US Lighthouse Society

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

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Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000131**
SubProject Title: **Point Wilson Lighthouse (station)**

Funding

Acct Code	Account Title	Expenditures: Estimated Total	Expenditures: Prior Biennium	Expenditures: Current Biennium	2021-23 Fiscal Period: Reapprops	2021-23 Fiscal Period: New Approps
057-1	State Bldg Constr-State	33,000				33,000
	Total	**33,000**	**0**	**0**	**0**	**33,000**

		Future Fiscal Periods: 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000075**
SubProject Title: **Coupeville Maritime Heritage Foundation - Preserv of vessel Suva**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

This project would update old electrical services and mains, restore porch railing, cupola restoration, new vintage down spouts, and add sheet structure to the building roof , gables and fascia to carry modern roofing materials. To return the Museum to the original livery colors of a red roof.

Project Description

Westport South Beach Historical Society. This grant Funds: Maritime Museum Rehabilitation Project. Total Cost is: $60,000 and the proposed grant is for: $20,000 . Start date is July 1, 2021. Leg. District: 19. Location is Westport, Grays Harbor County.

Location

City: Westport **County:** Grays Harbor **Legislative District:** 019

Project Type

Grants

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Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000132**
SubProject Title: **Maritime Museum Rehabilitation Project**

Grant Recipient Organization: Westport South Beach Historical Society

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	20,000				20,000
	Total	**20,000**	**0**	**0**	**0**	**20,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

SubProject Number: **40000133**
SubProject Title: **Restoration of Brill Streetcar #160**

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Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000133**
SubProject Title: **Restoration of Brill Streetcar #160**

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary
Funds from the grant will be used for the restoration of Brill trolley car number 160.

Project Description
Yakima Valley Trolleys. This grant Funds: Restoration of Brill Streetcar #160. Total Cost is: $450,000 and the proposed grant is for: $150,000 . Start date is July 1, 2021. Leg. District: 14. Location is Yakima, Yakima County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location
City: Port Townsend **County:** Jefferson **Legislative District:** 024
City: Yakima **County:** Yakima **Legislative District:** 014

Project Type
Grants

Grant Recipient Organization: Yakima Valley Trolleys
RCW that establishes grant: 27.34.330
Application process used
Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts
These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding			Expenditures		2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	150,000				150,000
057-1	State Bldg Constr-State					
	Total	**150,000**	**0**	**0**	**0**	**150,000**

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Project Number: **40000014**
Project Title: **Heritage Capital Grant Projects: 2019-21**

SubProjects

SubProject Number: **40000077**
SubProject Title: **Fort Worden Public Development Authority - Sage Arts & Ed Ctr**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000079**
SubProject Title: **South Pierce County Historical Society - Eatonville Tofu House**

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

Waitsburg City Hall was built in the late 1890s and has remained largely unchanged since then and is now in need of a major renovation to bring the building up to today building standards and make it more usable to the City and the Citizens of Waitsburg. Project funding request who be for the design and engineering phase of the renovation.

Project Description

City of Waitsburg. This grant Funds: Waitsburg City Hall renovation. Total Cost is: $200,000 and the proposed grant is for: $66,000 . Start date is July 1, 2021. Leg. District: 16. Location is Waitsburg, Walla Walla County.

Location

City: Eatonville **County:** Pierce **Legislative District:** 002
City: Waitsburg **County:** Walla Walla **Legislative District:** 016

Project Type

Grants

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Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000134**
SubProject Title: **Waitsburg City Hall renovation**

Grant Recipient Organization: City of Waitsburg

RCW that establishes grant: 27.34.330

Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Expenditures Current Biennium	2021-23 Fiscal Period Reapprops	2021-23 Fiscal Period New Approps
057-1	State Bldg Constr-State	66,000				66,000
	Total	**66,000**	**0**	**0**	**0**	**66,000**

Acct Code	Account Title	Future Fiscal Periods 2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

No Operating Impact

SubProject Number: **40000135**
SubProject Title: **Skagit County Courthouse Seismic Retrofit**

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Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000135**
SubProject Title: **Skagit County Courthouse Seismic Retrofit**

Starting Fiscal Year: 2022
Project Class: Grant
Agency Priority: 0

Project Summary

Seismic retrofit on 1924 Courthouse to decrease lateral forces during a seismic event by reducing mass and center of gravity. This will be accomplished by removing the 4th floor jail that is no longer used and is barely visible behind the parapets. This retrofit was recommended by the structural engineers that provided a seismic assessment in 2019.

Project Description

Skagit County. This grant Funds: Skagit County Courthouse Seismic Retrofit. Total Cost is: $2,400,000 and the proposed grant is for: $800,000 . Start date is July 1, 2021. Leg. District: 40. Location is Mount Vernon, Skagit County.

Starting Fiscal Year: 2020
Project Class: Grant
Agency Priority: 0

Project Summary

Location

City: Mount Vernon **County:** Skagit **Legislative District:** 040
City: Mount Vernon **County:** Skagit **Legislative District:** 040

Project Type

Grants

Grant Recipient Organization: Skagit County
RCW that establishes grant: 27.34.330
Application process used

Applicants including non-profit organizations, tribes, and other local government entities, submit standard forms. Rating of applications by nine advisors is done independently. The ratings become the basis for an open and public meeting at which a ranked list is developed. The rank list is reviewed and accepted by the agency director prior to inclusion in the proposed capital budget of the agency

Growth Management impacts

These projects will have a negligible effect, in that they involve work within existing structures, primarily in city and town cores.

Funding		Expenditures			2021-23 Fiscal Period	
Acct Code	Account Title	Estimated Total	Prior Biennium	Current Biennium	Reapprops	New Approps
057-1	State Bldg Constr-State	800,000				800,000
	Total	**800,000**	**0**	**0**	**0**	**800,000**

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Project Number: **40000099**
Project Title: **Heritage Capital Grant Projects 2021-2023**

SubProjects

SubProject Number: **40000135**
SubProject Title: **Skagit County Courthouse Seismic Retrofit**

		Future Fiscal Periods			
		2023-25	2025-27	2027-29	2029-31
057-1	State Bldg Constr-State				
	Total	**0**	**0**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs