

Table 8. Elements of the Alternatives

Alternative Element	ALTERNATIVE A: No Action	ALTERNATIVE B: A Vibrant, Urban District in a Historic Setting	ALTERNATIVE C: A Sustainable, Historic Campus for Public Service (Preferred)	ALTERNATIVE D: A Historic, Educational Campus for All
<b>Broad Concept</b>	<ul style="list-style-type: none"> <li>Without the more focused guidance of this <i>Environmental Assessment</i>, the NPS would take ownership of the East and South Barracks, and manage them according to the <i>General Management Plan</i> and relevant policies.</li> </ul>	<ul style="list-style-type: none"> <li>Similar to the Officers' Row and West Barracks models, the focus would be on creating a vibrant urban district that complements downtown Vancouver and the surrounding community with a variety of land uses</li> </ul>	<ul style="list-style-type: none"> <li>The primary focus of the draft preferred alternative is to create a dynamic, sustainable public service campus where the history of the East and South Barracks is celebrated and interpreted</li> <li>Education is a key part of this alternative, with an emphasis on interpreting the history of military occupation and the HBC in different locations throughout the Barracks</li> <li>Under this scenario, the National Park Service would seek to attract public agencies and organizations with compatible missions to the National Park Service to occupy office spaces and activate the site</li> </ul>	<ul style="list-style-type: none"> <li>There would be a heavy focus on educational, community and nonprofit uses that complement the focused interpretation of site-specific history, including HBC history in the South Barracks and military history (1901-1948) in the East Barracks</li> </ul>
<b>Primary Land Uses</b>	<ul style="list-style-type: none"> <li>NPS administrative, maintenance, and storage functions</li> </ul>	<ul style="list-style-type: none"> <li>NPS administrative, maintenance, storage, and curatorial functions</li> <li>Mix of offices, businesses, shops, restaurants, art galleries, and residences for the general public</li> <li>Heavy emphasis on commercial uses (restaurant, office etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Same as alternative B: NPS administrative, maintenance, storage and curatorial functions</li> <li>Office use would be complemented with a healthy mix of other uses such as nonprofit, community and some limited commercial uses in order to complement existing mix of uses within the VNHR</li> <li>Special events – opportunities for flexible events</li> <li>Overnight accommodations for educational groups (field schools, school groups, elder hostel)</li> </ul>	<ul style="list-style-type: none"> <li>Same as alternative B: NPS administrative, maintenance, storage and curatorial functions</li> <li>Offices, classrooms, and community spaces, with some complementary commercial services</li> <li>Overnight environmental learning camp</li> </ul>
<b>Occupants</b>	<ul style="list-style-type: none"> <li>National Park Service and Reserve Partners</li> <li>National Park Service would not proactively seek additional tenants</li> </ul>	<ul style="list-style-type: none"> <li>National Park Service and Reserve Partners</li> <li>Private businesses, organizations, and residents</li> </ul>	<ul style="list-style-type: none"> <li>National Park Service and Reserve Partners</li> <li>Federal and nonfederal public agencies would have a major presence</li> <li>Some private businesses</li> <li>Some educational and community nonprofits/ organizations</li> </ul>	<ul style="list-style-type: none"> <li>National Park Service and Reserve Partners</li> <li>Educational and community nonprofits/ organizations</li> <li>Some private businesses</li> </ul>
<b>Visitor Experience</b>	<ul style="list-style-type: none"> <li>Somewhat increased public access to building and grounds but few visitor facilities to support use</li> <li>No substantial changes to programming or interpretive opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Increased public access to buildings and grounds and a variety of activities for visitors</li> <li>Improved multi-modal access and circulation</li> <li>Visitors would have the opportunity to live, work, learn, shop and play in an attractive, historic setting</li> <li>Events, festivals, and retail activity would activate the site</li> </ul>	<ul style="list-style-type: none"> <li>Same as alternative B: increased public access to buildings and grounds and a variety of activities for visitors</li> <li>Same as alternative B: improved multi-modal access and circulation</li> <li>Parking and vehicular activity in the East Barracks would be limited</li> <li>Conferences, lectures and other events and activities would activate the site</li> <li>Educational programming and interpretive opportunities would be provided, such as demonstrations on American Indian history and culture</li> <li>Self-guided interpretation of military and other history such as self-guided tours, waysides, and foyer displays would complement person-to-person interpretation happening elsewhere on the site</li> <li>Visitors could also learn about work of agencies on site</li> </ul>	<ul style="list-style-type: none"> <li>Same as alternative B: increased public access to buildings and grounds and a variety of activities for visitors</li> <li>Same as alternative B: improved multi-modal access and circulation</li> <li>In partnership with outside organizations, educational programming and interpretive opportunities would be maximized, such as environmental learning camps, American Indian crafts making, and other activities</li> </ul>

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<b>Cultural Landscape</b>	<ul style="list-style-type: none"><li>• HBC cultural landscape restoration would include:</li><li>• Reconstruct Summer House</li><li>• Continue to restore Orchard (south of building 422)</li><li>• Restore historic Maple Allée in South Barracks</li><li>• Relocate Fort visitor parking</li><li>• Intact military landscape in the East Barracks would be preserved, rehabilitated and interpreted</li></ul>	<ul style="list-style-type: none"><li>• Overall landscape would be rehabilitated (adaptive reuse) to support new and expanded uses –while preserving contributing landscape resources. Major objectives of landscape rehabilitation would include: enhancing access and improving vehicular and pedestrian circulation</li><li>• Emphasis on interpreting historic scene, while maximizing aesthetic appeal</li><li>• Comparatively lush, ornamental plantings</li><li>• Updates to interpretive signage as needed</li><li>• HBC cultural landscape restoration, same as alternative A, except:</li><li>• Summer House would not be reconstructed, and</li><li>• New interpretive loop trail through restored Allée</li><li>• Same as alternative A: intact military landscape in East Barracks would be preserved, rehabilitated and interpreted</li></ul>	<ul style="list-style-type: none"><li>• Same as alternative B: overall landscape would be rehabilitated (adaptive reuse) to support new and expanded uses –while preserving contributing landscape resources. Major objectives of landscape rehabilitation would include: enhancing access and improving vehicular and pedestrian circulation.</li><li>• Emphasis on depicting/ interpreting historic conditions: focus on HBC history in the South Barracks and early/late military history in the East Barracks</li><li>• Plant palette would emphasize historic species that are also water wise, as well as some compatible natives where appropriate</li><li>• Same as alternative B: updates to interpretive signage as needed</li><li>• Robust HBC cultural landscape restoration would include removing the gravel lot on the HBC Cemetery to restore contemplative setting, and removing building 422 in order to extend historic HBC features into the South Barracks such as the Garden, Summer House, Orchard and Maple Allée</li><li>• Same as alternative A: intact military landscape in the East Barracks would be preserved, rehabilitated and interpreted</li><li>• Pending further research, cultural landscape restoration may be expanded to include reconstruction of historic houses and topographical features in western portion of South Barracks reflective of historic HBC Village</li></ul>	<ul style="list-style-type: none"><li>• Same as alternative B: overall landscape would be rehabilitated (adaptive reuse) to support new and expanded uses –while preserving contributing landscape resources. Major objectives of landscape rehabilitation would include: enhancing access and improving vehicular and pedestrian circulation</li><li>• Same as alternative B: emphasis on depicting/ interpreting historic conditions: focus on HBC history in the South Barracks and early/late military history in the East Barracks</li><li>• Plant palette would emphasize the use of historic species</li><li>• Same as alternative B, updates to interpretive signage as needed</li><li>• Most robust HBC cultural landscape restoration, pending further research, including restoring HBC Orchard and Garden to their full historic extents, historic reconstructions such as the Summer House for interpretive purposes, and the removal of later U.S. Army structures in the South Barracks to accommodate cultural landscape restoration.</li><li>• Pending further research, cultural landscape restoration may be expanded to include reconstruction of historic houses and topographical features in western portion of South Barracks reflective of historic HBC Village</li><li>• Same as alternative A, intact military landscape in the East Barracks would be preserved, rehabilitated and interpreted, plus small-scale features such as bollards and flags may be reconstructed per the <i>Cultural Landscape Report</i></li></ul>
<b>Development Character</b> <i>(all alts. would adhere to design guidelines in Historic Reserve Conservation District)</i>	<ul style="list-style-type: none"><li>• No substantial changes would be made to the aesthetic appearance of the East and South Barracks</li></ul>	<ul style="list-style-type: none"><li>• Distinct emphasis on visitor appeal</li><li>• Shade trees, ornamental plantings, and other site furnishings would be maximized.</li><li>• General appearance would be improved to create a unified design character</li></ul>	<ul style="list-style-type: none"><li>• Asphalt would be replaced in order to create safe, designated places for pedestrian activities and passive recreation</li><li>• Same as alternative B: general appearance would be improved to create a unified design character</li><li>• Site amenities would be installed such as picnic tables, bike racks, benches, etc.</li></ul>	<ul style="list-style-type: none"><li>• Development character would reflect historic conditions</li><li>• Same as alternative B: general appearance would be improved to create a unified design character</li><li>• Plantings, street furnishings, and other site improvements would be designed in keeping with historic conditions</li></ul>

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<i>Proposed Building Reuse/Treatment (Building treatments are suggestive in nature, and may change based upon future management decisions. Those in blue are suggested to be retained for primary NPS use. Other suggested uses are only meant to represent a desired mix of uses appropriate to the site. They should not be construed as required uses or locations.)</i>							
Bldg#	Building Name	C or NC*	Gross SF	Action/Use	Action/Use	Action/Use	Action/Use
400	Maintenance Building/ Storehouse	NC	7,280	Potentially NPS – Maintenance/ Storage	Maintenance/Storage (Lease to another entity)	NPS – Maintenance/Storage (Primary NPS Maintenance facility)	Maintenance/Storage (for Fort Vancouver National Trust or another organization use)
401	Flammable Materials Storage (“dry storage”)	NC	480	Potentially NPS – Maintenance/ Storage	NPS –Storage for maintenance functions	NPS –Storage for maintenance functions	DEMOLISH
402	Maintenance Building/ Storehouse	NC	6,000	Potentially NPS – Maintenance/ Storage	NPS – Maintenance/Storage (Primary NPS Maintenance facility)	Maintenance/Storage (for Fort Vancouver National Trust or another organization use)	NPS – Maintenance/Storage
404	Maintenance Building/ Storehouse	NC	5,200	Potentially NPS – Maintenance/ Storage	Maintenance/Storage (for Fort Vancouver National Trust or another organization use)	Maintenance/Storage (a partner)	NPS – Maintenance/Storage (Primary NPS Maintenance facility)
405	Maintenance Building/ Storehouse (Hangar)	NC	12,000	Potentially NPS – Maintenance/ Storage Note: General Management Plan recommends relocation of maintenance, but does not specify which building(s)	NPS – Regional Museum Management Facility (Interpretation/Visitor Services and Maintenance Storage)	NPS – Regional Museum Management Facility (Interpretation/Visitor Services and Maintenance Storage)	NPS – Regional Museum Management Facility (Interpretation/Visitor Services and Maintenance Storage)
409	Flammable Materials Storage	NC	240	DEMOLISH	DEMOLISH	DEMOLISH	DEMOLISH
410	Automotive Repair Shop (former Aviation building; currently Civil Air Patrol)	C	6,925	Undefined	Mixed Use: Retail/ Visitor Services (bike rental, food, etc. to serve users of Discovery Trail, building 405, and Fort visitor parking)	Mixed Use: Retail/Visitor Services (bike rental, food, gathering spaces, etc. to serve users of Discovery Trail, building 405, and Fort visitor parking)	DEMOLISH
422	Issue and Receiving Warehouse	C	15,180	Undefined	Retail	DEMOLISH	DEMOLISH
704	Barber Shop (currently Offices)	C	1,307	Undefined	Retail (café or convenience)	Retail (café or convenience)	Retail (café or convenience)
710	Arms Storage	NC	1,197	Undefined	DEMOLISH	DEMOLISH	NPS – Maintenance/Storage
721	Gymnasium (currently Auditorium)	C	11,025	Undefined	Arts/Events/ Community	Arts/Events/ Community	Arts/Events/Community
722	Mess Hall (currently U.S. Army Recruiting Offices)	C	2,030	Undefined	Office	Office	Retail (Daycare)
725	Post Exchange Restaurant (currently Orderly Room)	C	1,955	Undefined	Retail (Daycare)	Office	Retail (café or convenience)

\*Contributing or Non-contributing (whether the structure is a contributing element of the VNHR National Historic District, or not).

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Bldg#	Building Name	C or NC*	Gross SF	Action/Use	Action/Use	Action/Use	Action/Use
728	Finance Office (currently Explosive Ordinance Disposal Unit Building)	C	5,842	Undefined	Office	Retail (Daycare)	Arts/Events/Community (classrooms)
733	Mess Hall	C	2,544	Undefined	Retail	Arts/Events/Community (classrooms)	Arts/Events/Community (classrooms)
746	Barracks (currently 104th Div. Band Training Building)	C	4,830	Undefined	Residential (apartments)	Lodging (overnight accommodations for educational groups, elder hostel, or conferences)	Lodging (overnight accommodations for educa- tional groups, elder hostel, or conferences)
748	Motor Repair Shop (storage, vehicle parking, maintenance shop)	C	6,043	Undefined	Retail	Retail	Arts/Events/Community (art gallery)
749	Storage	C	225	Undefined	DEMOLISH	DEMOLISH (Candidate for demolition unless needed in connection with use of 748)	NPS (or other) – Maintenance/ Storage
750	Storage	C	227	Undefined	DEMOLISH	DEMOLISH (Candidate for demolition unless needed in connection with use of 748)	NPS (or other) – Maintenance/ Storage
752	Quartermaster Storehouse (currently Post Exchange storage)	C	13,296	Undefined	Retail (potentially storage)	Office	Arts/Events/Community
753	Storage (currently storage)	C	2,704	Undefined	NPS – Mixed Use: Maintenance/Storage and Interpretation/Visitor Services (costumes, interpretation materials etc.)	NPS –Maintenance/Storage	NPS – Mixed Use: Maintenance/Storage and Interpretation /Visitor Services (costumes, interpretation materials etc.)
754	Quartermaster Storehouse (currently Shoppette)	C	3,968	Undefined	Retail (potentially existing Post Exchange)	Retail (potentially existing Post Exchange)	Retail (potentially existing Post Exchange)
786	Work Shop (currently Wood Shop, Red Cross, Barber Shop)	C	10,080	Undefined	Residential (apartments)	Retail	Mixed Use: Retail/Visitor Services
787	Storage (Shed)	NC	300-400±	Undefined	DEMOLISH	DEMOLISH	NPS – Maintenance/Storage (minimal conversion)
987	Barracks (currently offices)	C	32,526	Undefined	Office (businesses)	Office (public agency)	Office (for nonprofits, educational organizations, etc)
989	Barracks (currently offices)	C	32,526	Undefined	Office (businesses)	Office (public agency)	Office (for nonprofits, educational organizations, etc)
991	Post Headquarters (HQ 1st Brigade 104th Training Div.)	C	13,215	NPS – Office: FOVA Administrative Headquarters (joint headquarters - primarily office)	Mixed Use: Office (for Fort Vancouver National Trust) and Arts/Events/Community	NPS – Office: FOVA Administrative Headquarters (joint headquarters - primarily office), and/or building 993	Mixed Use: Office (for Fort Vancouver National Trust) and Arts/Events/ Community plus potentially a museum
993	Barracks (currently WANational Guard Building)	C	32,526	Undefined	NPS – Office: FOVA Headquarters and other NPS offices (primarily office/meeting space, but with some public function)	NPS – Office and Interpretation/Visitor Services: FOVA Headquarters and other NPS offices (primarily office/meeting space, portion devoted to museum/ exhibit space, and costume storage and related volunteer functions), and/or building 991	NPS – Office: FOVA Headquarters and other NPS offices (primarily office/meeting space, portion devoted to museum/exhibit space)

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<b>New Construction</b>				
<i>Overall</i>	No new construction of buildings would be permitted anywhere in the East or South Barracks, except for the reconstruction of the Summer House in the South Barracks, pending further research	Newly designed landscape improvements such as plazas, furnishings, and circulation improvements would be allowed in greater numbers to enhance visual appeal	Newly designed landscape improvements such as plazas, furnishings, and circulation improvements would be allowed on a case-by-case basis in order to protect resources, restore the cultural landscape, and improve sustainability and visitor experience	Newly designed landscape improvements would be most limited here, and generally proposed for educational purposes, such as new signage, historical reconstructions, and reinstating historic road connections
<i>Pending further research, reconstruct historic HBC Summer House (glass greenhouse) and surrounding Garden for interpretive purposes</i>	Yes	No	Yes	Yes
<i>Covered Storage for NPS/partner use somewhere in South Barracks maintenance yard</i>	No	Yes	Yes	Yes
<i>New outdoor gathering areas</i>	None	<i>Most</i> – to increase visual appeal (courtyards and plazas for events)	<i>Some</i> – to create outdoor spaces for offices, conferences, educational camps, etc. (picnic tables, shelter, other improvements)	<i>Some</i> – to accommodate educational groups, etc. (picnic tables, shelter, other improvements)
<i>Small-scale historical reconstructions (flags, bollards, gateway features), pending further research</i>	None	None	<i>Some</i> may be allowed on a case-by-case basis	<i>Most</i> - installed at historic gateways, consistent with <i>Cultural Landscape Report</i>
<i>Historic reconstructions of additional HBC structures</i>	Potentially reconstruct historic HBC Sale Shop inside Fort in order to house museum collections	None	Potentially reconstruct historic houses within HBC village in the western portion of the South Barracks, as well as associated topographic features	Same as C
<b>Rehabilitation</b>				
<i>Number of Contributing Historic Structures Retained</i>	20	18	17	18
<i>Deferred Maintenance and Other Building Repairs</i>	Make minimal repairs as needed	Where feasible, proactively make substantial improvements to building envelope and fixtures to maximize resource efficiency, universal accessibility, and public safety	Same as alternative B	Same as alternative B
<i>Existing NPS Administrative Building</i>	Minimal repairs, and maintain in current condition	Same as alternative A	Rehabilitate to serve its original residential purpose to provide lodging for visiting researchers, NPS staff, students, etc.	Same as alternative A
<i>Existing NPS Maintenance Building</i>	Minimal repairs, and maintain in current condition	Use as interim storage for NPS costume program until adequate space can be provided in East or South Barracks	Same as alternative B	Same as alternative B



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<i>Tenant Improvements to Buildings and Grounds</i>	Permitted on case-by-case basis	Same as alternative A, plus: Greatest degree of flexibility granted in terms of character of improvements	Same as alternative A, plus: Some flexibility granted, with incentives to improve sustainability	Same as alternative A, plus: Least amount of flexibility granted in order to maintain historic authenticity
<i>Utility Upgrades</i> (In all alternatives, all required Section 106 procedures would be followed in order to minimize impacts to historic, cultural and archeological resources)	Minimum changes and repairs to utilities	Implement preferred alternative in the <i>Schematic Design Report for Fort Vancouver National Historic Site East and South Barracks Utility Upgrades</i> (2010). This upgrade would involve replacing existing utility lines with an underground system	Same as alternative B	Same as alternative B
<b>Vegetation/Plantings</b>				
<i>Plantings</i>	No substantial changes	<i>More</i> lush plantings, using ornamentals that are historically compatible	<i>Some</i> plantings, using both historic and compatible/native species	<i>Limited</i> plantings, using species selected more strictly from historic species list in CLR
<i>Vegetated Screening for Parking/Maintenance Areas in South Barracks</i>	Mix of evergreens and other compatibles throughout site. Restored Maple Allée would function as screening of maintenance for HBC Village	Mix of evergreens and other compatibles throughout site. Screening of maintenance for HBC Village would incorporate fencing and additional landscaping	Same as alternative B	Same as alternative B, plus: Full Orchard restoration will function as some screening
<i>Sustainable Stormwater Improvements</i>	None	Incorporate in ways that respect the cultural landscape (permeable paving, bioswales, etc.)	Same as alternative B, but no bioswales in East Barracks or in HBC Village area	Same as alternative B
<i>Irrigation (beyond establishment)</i>	No substantial changes	Install conventional system	Limited – Consider installation of cisterns and integrate with irrigation system	None – use historic methods only
<i>New Trees</i>	None	Many street trees and shade/ornamental plantings (historically compatible)	Some new trees (emphasis on water-wise historic species, with some flexibility for compatible native species)	Some/few additional trees. To extent practical, emulate historic U.S. Army period in East Barracks and HBC in South Barracks
<b>Cultural Landscape</b>				
<i>HBC Cemetery – specific landscape treatments, inadvertent discoveries, and interpretation</i>	Consult closely with tribes per all applicable laws, policies and best practices	Same as alternative A	Same as alternative A	Same as alternative A
<i>Prohibit new construction of buildings or structures on HBC Cemetery grounds</i>	Yes, prohibit new construction on Cemetery	Same as alternative A	Same as alternative A	Same as alternative A
<i>Allow necessary changes to roads, sidewalks, utilities or other infrastructure</i>	No	Consider in close consultation with tribes	Same as alternative B	Same as alternative B
<i>Maple Allée between Village and South Barracks</i>	Pending research, restore as part of continued Village reconstruction, and use Maple Allée to screen maintenance area from HBC Village	Pending research, restore and construct interpretive loop trail to link with visitor areas (building 405, Discovery Trail, etc)	Same as B, plus integrate fencing and screening to secure maintenance yard	Same as alternative B, plus: Restore original topography

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<i>HBC Orchard</i>	Continue restoring south of building 422	Same as alternative A, however: parking area would occupy area north of building 422	To the extent practicable, extend current restoration and interpretation efforts for HBC Orchard. Some part of this area would be used for parking. Building 422 would be demolished to facilitate this cultural landscape restoration	Complete full restoration north to East 5th Street and west to building 405 (parking would not be present in this location). Buildings 422 and 410 would be demolished to facilitate this cultural landscape restoration
<i>HBC Garden</i>	Pending further research, extend current restoration and interpretation efforts of HBC Garden to the north and west of Fort entrance, and integrate with possible reconstruction of historic Summer House. Building 409 would be removed to facilitate this restoration	No substantial changes	Same as alternative A	Same as alternative A
<i>Pending further research, reconstruct historic HBC houses and topographic features in the western portion of the South Barracks</i>	None	None	Yes, plus provide gathering space for events and cultural demonstrations	Yes
<i>Line of Douglas-firs along southern edge of Parade Ground (ca. 1950)</i>	Maintain as is	Same as alternative A	Do not replace if tree conditions become compromised due to safety or resource protection concerns	Remove to reinstate open views of facades from historic U.S. Army period
<i>Oregon white oak groves</i>	Maintain as is	Same as alternative A	If feasible, according to recommendations from Washington Department of Fish and Wildlife, restore oak habitat, possibly on former MASH site, in order to restore sensitive oak woodland habitat	Limited extension of existing stands, where feasible
<i>MASH Site</i>	Maintain as is (unimproved, bare area)	Replace with parking	If feasible, revegetate a portion of this site and tie into interpretation of the “Crossroads of the Pacific Northwest” as guided by historic conditions. Limited parking on a portion of this site would be pursued as an interim solution	Mostly replaced with Fort visitor parking, but some opportunity for interpretive signage
<i>Resurface historic roads with distinct aggregate</i>	According to General Management Plan, resurface East 5th Street from Pearson Field Airport to Park Road	None	None	Resurface Alvord Road, Ft. Vancouver Way, Hatheway Road, and East 5th Street in accordance with Cultural Landscape Report
<i>Reinstate historic place names in consultation with tribes (recommendation from Cultural Landscape Report)</i>	None	None	None	Yes, using historic American Indian names in consultation with tribes
<i>Small-scale historic reconstructions of military features (sentry gates, flag posts) (recom- mendation from Cultural Landscape Report)</i>	None	<i>See New Construction Section</i>	<i>See New Construction Section</i>	<i>See New Construction Section</i>
<b>Development Character</b>				
<i>Streetscape Improvements</i>	No substantial changes	Maximize new lighting, benches and street trees	Moderate amount of new lighting, benches and street trees	Limited – but some lighting etc. required. Strive for historic accuracy

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<i>Paint Scheme</i>	Repaint as needed	Coordinate paint scheme with Officers' Row and West Barracks	Same as B, plus opportunity to restore accurate historic paint scheme to 1 or 2 buildings for interpretive purposes	Same as alternative B, plus: Select one or two buildings to repaint with accurate historic color scheme
<i>Overhead Wires</i>	Retain in place	Bury underground and upgrade as necessary, according to <i>Schematic Design Report for Fort Vancouver National Historic Site East and South Barracks Utility Upgrades</i> (2010)	Same as alternative B	Same as alternative B
<i>Signage (wayfinding and interpretive signage)</i>	No substantial changes	Coordinate with rest of Reserve and locate at key intersections.	Same as alternative B	Same as alternative B, plus use historic place names where appropriate
<b>Interpretation</b>				
<i>Interpretive Focus</i>	Consistent with established goals and themes through Long Range Interpretive Plan and other guidance on interpretation, use established interpretive themes such as HBC, settlement of Oregon Country, establishment of U.S. Army Vancouver Barracks, and American Indian history and culture	Same as alternative A	Same as alternative A, plus expand themes to include sustainability focus  Public will have opportunities to learn about sustainable rehabilitation of historic structures and cultural landscapes	Same as alternative A, plus:  Emphasize 20th century military history in East Barracks and HBC in South Barracks and  Emphasize American Indian history and culture
<i>Interpretive Methods</i>	No additional interpretive signage or programming	Non-personal, self-directed methods (waysides, self-guided tours)	Same as alternative B, plus:  Emphasis on non-personal interpretation that complements more person-to-person interpretation elsewhere in the park. Public demonstration events may teach about model sustainable practices  Some guided tours and other educational events may be provided	Same as alternative B, plus:  Accommodate guided tours and demonstrations where feasible, and  Aggressively partner with outside organizations for other opportunities
<i>Archeological Resources</i>	Current archeological practices and procedures would continue  No additional interpretive activities would be offered in conjunction with archeological digs and activities in the East and South Barracks	Increased public access to digs would be provided  To accommodate archeological artifacts recovered from the construction of the Columbia River Crossing, building 405 would become a full service museum management facility, where museum collections would be appropriately stored, exhibited, interpreted and accessible to the public.	Same as alternative B.	Same as alternative B, plus:  The National Park Service would explore the creation of a collaborative archeology museum with partners that would incorporate all finds and all periods of history
<i>Devote portion of an East Barracks building to interpreting military history</i>	None	Potentially	Use a portion of building 993 to interpret early military history	Same as alternative C



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<i>Pursue development of additional museums</i>	None	Redevelop building 405 as regional museum management facility in order to increase public awareness and appreciation for collections, and provide needed space for curatorial, interpretation, and visitor service functions	Same as alternative B	Same as alternative B, plus:  Explore possibility of collaborative museum for American Indian history, culture and crafts
<b>Visitor Facilities</b>				
<i>Universal Accessibility</i>	<p>Common to all alternatives, site planning and design would accommodate all people and abilities to the greatest extent possible without the need for individual adaptation</p> <p>Once building occupancy is certain and subsequent design work is developed, the National Park Service would ensure the incorporation of standard accessibility requirements into the design</p> <p>Any improvements such as accessible parking, loading zones, fire access, elevators, ramps, and other modifications would be made in accordance with the Architectural Barriers Act Accessibility Standards and the Accessibility Guidelines for Outdoor Developed Areas</p>	<p>Same as alternative A, plus:</p> <p>As funding allows, NPS staff would explore the installation of tactile pavers, accessible cross walks, accessible trails, accessible signage, and other improvements that are compatible with the historic setting</p> <p>Temporary and non-historic changes made by the U.S. Army to accommodate universal access in certain barracks buildings would be removed and reconfigured to be more in keeping with historic architecture</p>	Same as alternative B	Same as alternative B
<i>Public Restrooms</i>	No substantial changes	Make available in key buildings throughout site, plus incorporate into building 410	Same as alternative B	Make available in key buildings throughout site, plus incorporate into building 786
<i>Provide visitor services such as bike rentals, limited concessions, etc. –operated by National Park Service or other organization</i>	No substantial changes	Incorporate into building 410	Same as alternative B	Incorporate into building 786
<i>Food Service</i>	No substantial changes	Commercially provided	<p>Same as alternative B, plus:</p> <p>Encourage healthy food options and local use of food grown on-site, and</p> <p>Encourage themed dining opportunities (in Mess Hall, for example)</p>	<p>Same as alternative B, plus:</p> <p>Encourage themed dining opportunities (in Mess Hall, for example)</p>
<b>Sustainability</b>				
<i>Stormwater Management</i>	No substantial changes	Reduce asphalt coverage, where feasible, with some installation of bioswales/rain gardens	<p>Same as alternative B, plus:</p> <p>In ways that respect the cultural landscape, seek to reduce the amount of storm water that is disposed off-site such as reduce surface</p>	Same as alternative B

Table 8. Elements of the Alternatives (cont.)

	ALTERNATIVE A: No Action	ALTERNATIVE B: A Vibrant, Urban District in a Historic Setting	ALTERNATIVE C: A Sustainable, Historic Campus for Public Service (Preferred)	ALTERNATIVE D: A Historic, Educational Campus for All
<i>Stormwater Management, cont.</i>			parking, consider permeable paving, and educate public on these approaches	
<i>Community Benefit</i>	Increased public access allows for more area for recreation/ exercise	Same as alternative A	Same as alternative A, plus:  Encourage localized use of food grown in HBC Orchard, Garden and fields; and encourage concessioners to offer healthy food options, and  Greatest amount of public education on sustainability	Same as alternative A, plus:  Greatest amount of involvement with, and space for community and educational groups
<b>Parking</b>				
<i>Existing Fort Visitor Parking</i>	Reduce parking to a few, accessible spaces only and reinstate agricultural fields in place	Same as alternative A	Same as alternative A	Same as alternative A
<i>New Fort Visitor Parking</i>	Relocate to East Barracks near building 753 and north of building 754	Relocate to South Barracks east of building 405	Relocate to South Barracks east of building 405	Relocate to former MASH site in East Barracks
<i>New Parking Lots (see maps)</i>	No substantial changes	Strategically construct new surface lots throughout site to serve retail/commercial functions (i.e. small lots north of East 5th Street)	Additional parking needs would be evaluated. To the extent possible, limit expansion of new surface lots to minimize resource damage	Same as alternative C
<i>Gravel Lot on HBC Cemetery</i>	Maintain as is	Maintain as is, or resurface with permeable hard surface	Remove and restore to park-like setting, including re-grading and grass seeding	Same as alternative C
<i>Fleet parking</i>	No substantial changes	Pending additional study, potentially provide in South Barracks	Same as alternative B, except fleet parking footprint would be primarily in the easternmost portion to accommodate expanded HBC Village restoration	Same as alternative C
<i>Tour Bus, RV and Trailer Parking</i>	No substantial changes	Primarily use new Fort parking lot in South Barracks, and work with City of Vancouver to use existing lots in West Barracks	Same as alternative B	Work with City of Vancouver to use existing lots in West Barracks
<i>Surface Materials for Paving</i>	No substantial changes	Primarily use traditional surfacing materials such as asphalt, with some application of pervious materials	Maximize application of pervious surfaces for paving and other hardscapes	Same as alternative B
<b>Roadways</b>				
<i>Reinstate historic road connections</i>	None	Potentially reconnect Hatheway Road to Park Road to connect East Barracks with the rest of park and VNHR	Potentially reconnect McClellan Road to Park Road to connect East Barracks with rest of park and reserve	Potentially reconnect McClellan Road, Hatheway Road and southernmost east-west road in East Barracks to Park Road

Table 8. Elements of the Alternatives (cont.)

	ALTERNATIVE A: No Action	ALTERNATIVE B: A Vibrant, Urban District in a Historic Setting	ALTERNATIVE C: A Sustainable, Historic Campus for Public Service (Preferred)	ALTERNATIVE D: A Historic, Educational Campus for All
<i>McClellan Road</i>	No substantial changes	Potentially allow one-way traffic to the West only	Future traffic direction (one-way or two-way) will be carefully considered in order to protect HBC Cemetery and ensure efficient circulation  Routing traffic one-way to the east is preferred; however, traffic needs would be subject to future design and development	Potentially narrow portion of McClellan Road across HBC Cemetery and convert to pedestrian use only and east of HBC Cemetery, potentially widen McClellan Road to accommodate two-way traffic
<i>Alvord Road</i>	No substantial changes	Potentially realign Alvord Road at southern end to meet East 5th Street	Potentially realign Alvord Road at southern end to meet East 5th Street and entrance to relocated Fort parking. Retain existing portion at western end as a pedestrian corridor	Potentially pedestrian use only on Alvord Road south of Hatheway Road
<i>Hatheway Road</i>	No substantial changes	Potentially install roundabout where Hatheway Road meets Alvord Road to manage traffic	No substantial changes	Potentially realign to straighten/clarify intersection at Alvord Road
<i>Park Road</i>	No substantial changes (remains primary route between visitor center and HBC Fort)	Same as alternative A	Same as alternative A	Same as alternative A
<i>Widen southernmost east-west road in East Barracks to serve two-way traffic</i>	No	No	No	Yes
<i>Improved wayfinding at key intersections</i>	None	Yes	Same as alternative B, plus:  Provide interpretation and wayfinding at East 5th Street and Ft. Vancouver Way (opportunity to interpret “Crossroads of the Pacific Northwest”)	Yes
<i>Resurface historic roads</i>	<i>See Cultural Landscape Section</i>	<i>See Cultural Landscape Section</i>	<i>See Cultural Landscape Section</i>	<i>See Cultural Landscape Section</i>
<i>Selectively redesign internal roads to improve safety, drainage and appearance (i.e. establish consistent road width where needed, re-grade to improve stormwater runoff, etc)</i>	No substantial changes	Redesign where necessary and feasible, consistent with the cultural landscape	Same as alternative B	Same as alternative B
<b>Walking, Biking and Transit</b>				
<i>If feasible, repair and extend sidewalks throughout East and South Barracks (see maps)</i>	No substantial changes	Yes	Same as alternative B	Same as alternative B
<i>Provide linkages with existing and proposed trail networks (see maps)</i>	No substantial changes	Yes	Same as alternative B	Same as alternative B
<i>Create new interpretive loop to connect historic Maple Allée, the HBC Village and the Discovery Trail</i>	No substantial changes	Yes	Same as alternative B	Same as alternative B

Table 8. Elements of the Alternatives (cont.)

	ALTERNATIVE A: No Action	ALTERNATIVE B: A Vibrant, Urban District in a Historic Setting	ALTERNATIVE C: A Sustainable, Historic Campus for Public Service (Preferred)	ALTERNATIVE D: A Historic, Educational Campus for All
Park Operations				
Staffing Levels	Maintain present staffing levels	Work with partners to assess capacity for support positions and  Create and fill additional authorized National Park Service positions as funding allows	Same as alternative B	Same as alternative B
Type of Additional Staffing	Maintain present staffing distribution and responsibilities	Additional positions may include staff for maintenance, events, special project teams, and law enforcement to manage higher volumes of use including residential	Additional positions may include staff for business management/planning, resource management (natural and cultural), maintenance, events, communications (web, media, etc), special project teams, and law enforcement to manage higher volumes of use	Additional positions may include staff for interpretation, educational programming, and resource management (natural and cultural)

Table 9. Impact by Alternative

ALTERNATIVE ELEMENT	Impact by Alternative				
	Note that all impacts listed are adverse unless specifically listed as beneficial				
	ALTERNATIVE A: No Action	ALTERNATIVE B: A Vibrant, Urban District in a Historic Setting	ALTERNATIVE C: A Sustainable, Historic Campus for Public Service (Preferred)	ALTERNATIVE D: A Historic, Educational Campus for All	MITIGATION MEASURES*
Historic Structures (impacts are only considered long-term)					
Rehabilitation of existing historic structures	Moderate to Major	Negligible to Minor	Same as alternative B	Same as alternative B	CR-4, CR-5, CR-6, CR-8, CR-10
Removal of historic structures	No impact	Moderate	Moderate	Moderate	CR-1, CR-2, CR-3, CR-4, CR-5
Cultural Landscapes and Vegetation (impacts are only considered long-term)					
Rehabilitation of existing historic structures	Negligible	Negligible to Beneficial	Same as alternative B	Same as alternative B	CR-4, CR-5, CR-6, CR-8
Removal of historic structures from South Barracks	No effect	Moderate	Same as alternative B	Same as alternative B	CR-1, CR-2, CR-3, CR-4, CR-5
Landscape/vegetation treatment actions	No effect	Minor to Moderate	Same as alternative B	Same as alternative B	CR-6, CR-9, CR-10
Parking, roads and sidewalk modifications	No effect	Negligible to Minor	Minor to Moderate	Minor to Moderate	CR-6
HBC and/or U.S. Army cultural landscape restoration	Beneficial	Beneficial to Moderate	Same as alternative B	Beneficial	CR-6
Archeological Resources (impacts are only considered long-term)					
Ground disturbance	Minor	Same as alternative A	Same as alternative A	Same as alternative A	CR-1, CR-2, CR-3, CR-4, CR-5
HBC Cemetery infrastructure upgrades	Minor	Same as alternative A	Same as alternative A	Same as alternative A	CR-1, CR-2, CR-3, CR-4, CR-5
Museum Collections (impacts are only considered long-term)					
Moderate to Major	Negligible to Minor	Same as alternative B	Same as alternative B	Same as alternative B	
Visitor Experience					
Short-Term Effects	Beneficial to Minor	Minor to Moderate	Same as alternative B	Same as alternative B	VE-1, VE-2, VE-3, VE-4, VE-5, VE-6
Long-Term Effects	Beneficial	Beneficial	Same as alternative B	Same as alternative B	
Air Quality and Global Climate Change					
Short-Term construction related emissions	Minor	Moderate	Same as alternative B	Same as alternative B	AQ-1, AQ-2, AQ-3, AQ-4, TPC-2
Long-Term regional and local mobile source emissions	Negligible	Major	Minor	Same as alternative C	TPC – 1, TPC - 3
Traffic, Circulation, and Parking					
Traffic volume	Short-Term: Negligible Long-Term: Beneficial	Short-Term: Minor to Moderate Long-Term: Moderate	Same as alternative B	Same as alternative B	AQ-1, TPC – 1, TPC - 3
Level of service (impacts were only analyzed for long-term)	Negligible	Minor	Same as alternative B	Negligible	AQ-1, TPC – 1, TPC - 3
Parking utilization	Short-Term: Negligible Long-Term: Negligible	Short-Term: Minor to Moderate Long-Term: Minor to Moderate	Short-Term: Minor to Moderate Long-Term: Moderate to Major	Short-Term: Minor to Moderate Long-Term: Moderate to Major	AQ-1, TPC – 1, TPC-2

\* See pages 89-96 for further explanation of Mitigation Measures.



Table 9. Impact by Alternative

ALTERNATIVE ELEMENT	Impact by Alternative				
	Note that all impacts listed are adverse unless specifically listed as beneficial				
	ALTERNATIVE A: No Action	ALTERNATIVE B: A Vibrant, Urban District in a Historic Setting	ALTERNATIVE C: A Sustainable, Historic Campus for Public Service (Preferred)	ALTERNATIVE D: A Historic, Educational Campus for All	MITIGATION MEASURES*
Socioeconomic Factors/ Land Use					
Change of ownership	<i>Short-Term:</i> Beneficial <i>Long-Term:</i> Beneficial	Same as alternative A	Same as alternative A	Same as alternative A	
Change of building functions	<i>Short-Term:</i> Negligible to Minor <i>Long-Term:</i> Negligible to Minor	<i>Short-Term:</i> Beneficial <i>Long-Term:</i> Beneficial	Same as alternative B	Same as alternative B	
Potential change in employment	<i>Short-Term:</i> Negligible to Minor <i>Long-Term:</i> Negligible to Minor	<i>Short-Term:</i> Negligible <i>Long-Term:</i> Beneficial to Negligible	Same as alternative B	Same as alternative B	
Local real estate market	<i>Short-Term:</i> Negligible <i>Long-Term:</i> Negligible	<i>Short-Term:</i> Negligible <i>Long-Term:</i> Negligible	Same as alternative B	Same as alternative B	
Contemporary tribal communities	<i>Short-Term:</i> Beneficial <i>Long-Term:</i> Beneficial	Same as alternative A	Same as alternative A	Same as alternative A	
Park Operations					
Move maintenance operations to South Barracks	<i>Short-Term:</i> Beneficial <i>Long-Term:</i> Beneficial	Same as alternative A	Same as alternative A	Same as alternative A	
Move park headquarters to East Barracks	<i>Short-Term:</i> Beneficial <i>Long-Term:</i> Beneficial	Same as alternative A	Same as alternative A	Same as alternative A	
Develop 405 into curation space	<i>Short-Term:</i> Minor <i>Long-Term:</i> Minor to Moderate	<i>Short-Term:</i> Minor <i>Long-Term:</i> Beneficial	Same as alternative B	Same as alternative B	
Utility/infrastructure improvements	<i>Short-Term:</i> Moderate <i>Long-Term:</i> Moderate	<i>Short-Term:</i> Beneficial <i>Long-Term:</i> Beneficial	Same as alternative B	Same as alternative B	PO-1, PO-2, PO-3
Staffing levels/additional responsibilities of NPS staff	<i>Short-Term:</i> Minor to Moderate <i>Long-Term:</i> Minor to Moderate	Same as alternative A	Same as alternative A	Same as alternative A	
Operating costs	<i>Short-Term:</i> Negligible to Minor <i>Long-Term:</i> Minor	<i>Short-Term:</i> Minor to Moderate <i>Long-Term:</i> Minor to Moderate	Same as alternative B	Same as alternative B	
Health/safety and the Environment					
Emergency services	<i>Short-Term:</i> Negligible <i>Long-Term:</i> Moderate	Same as alternative A	Same as alternative A	Same as alternative A	
Hazardous materials	<i>Short-Term:</i> Minor <i>Long-Term:</i> Negligible	Same as alternative A	Same as alternative A	Same as alternative A	CR-11
Promoting public health by developing trails and pedestrian walkways	<i>Short-Term:</i> No Effect <i>Long-Term:</i> No Effect	<i>Short-Term:</i> No Effect <i>Long-Term:</i> Beneficial	Same as alternative B	Same as alternative B	

\* See pages 89-96 for further explanation of Mitigation Measures.

## MITIGATIVE MEASURES

Congress has charged the National Park Service with managing the lands under its stewardship “in such manner and by such means as would leave them unimpaired for the enjoyment of future generations” (National Park Service Organic Act, 16 USC 1). As a result, the National Park Service routinely evaluates and applies mitigative measures whenever conditions could adversely affect the sustainability of national park system resources. The following mitigative measures and best management practices would be used to avoid or minimize potential impacts on natural and cultural resources from construction activities, use by visitors, and National Park Service operations. These measures would apply to all alternatives. Specific mitigative measures would be as follows:

### Cultural Resources

#### *CR-1: Pre-Construction Field Surveys*

Where not already completed, professional archeologists would perform surveys prior to ground disturbance in areas previously undisturbed.

*Responsible Party: National Park Service*

#### *CR -2 – Pre-construction Training:*

National Park Service cultural resources staff would provide training for all personnel involved with ground disturbance activities to facilitate recognition of potential archeological materials and to avoid impacts to deposits.

*Responsible Party: National Park Service*

#### *CR-3: Archeological and American Indian Monitoring*

National Park Service cultural resources staff would ensure that there is an archeological monitor present (and would give an opportunity to any of the 26 consulting federally recognized tribes to have a monitor present as well) during ground disturbing activities in the vicinity of recorded archeological resources. While the goal of the National Park Service is to preserve archeological resources, this mitigation measure would ensure that if additional deposits associated with known sites are discovered, there would be an archaeologist and possibly an American Indian representative on-site to identify and assess the find and impacts immediately and to halt construction, if appropriate.

*Responsible Party: National Park Service*

#### *CR-4: Previously Undiscovered Cultural Resources*

**Inadvertent Discoveries:** If buried cultural resources are inadvertently discovered during ground-disturbing activities, work shall stop in that area and within a 100-foot radius of the find until a qualified archaeologist can assess the significance of the find. Alternatively, an

archaeologist and possibly an American Indian representative may monitor ground disturbances in the vicinity of the site to ensure that such discoveries are protected until they can be properly recorded and assessed, and management decisions can be made about their treatment. Avoidance in place or no adverse effect from project actions is the preferred approach to all discoveries that are potentially eligible for listing on the NRHP. Inadvertent discoveries would be treated in accordance with 36 CFR 800.13 Protection of Historic Properties: Post-review Discoveries. The archeological resource would be assessed for its eligibility for listing on the NRHP in consultation with the Washington DAHP (and possibly an American Indian archeologist if it is an indigenous archeological site), and a determination of the project effects on the property would be made. If the site would be adversely affected, a treatment plan would also be prepared as needed during the assessment of the site's significance. Assessment of inadvertent discoveries may require archeological excavations or archival research to determine resource significance. Treatment plans would fully evaluate avoidance, project redesign, and data recovery alternatives before outlining actions proposed to resolve adverse effects.

**Discovery of Human Remains:** If human skeletal remains are encountered, all work shall stop in the vicinity of the discovery, and the find would be secured and protected in place. The Clark County coroner and park archaeologist would both be immediately notified. If a determination finds that the remains are American Indian, and that no further coroner investigation of the cause of death is required, they would be treated in accordance with the NAGPRA Regulations (43 CFR 10.4 Inadvertent Discoveries).

*Responsible Party: National Park Service*

#### ***CR-5: Cultural Resources Monitoring Plan***

A cultural resources monitoring plan would be prepared to ensure that ground-disturbing activities within the project area result in no adverse effects to buried resources. The monitoring program would include oversight of project schedules and excavation areas to ensure that important opportunities for archeological discovery are realized, and that potentially buried archeological deposits are recognized in the course of active excavation and restoration. If archeological resources are found that could be adversely affected by the proposed project, the National Park Service shall comply with Mitigative Measure CR-3.

*Responsible Party: National Park Service*

#### ***CR-6: Treatment of Historic Properties and Landscape***

- Building and landscape rehabilitation would conform to *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.
- Recommendations provided in the *Historic Structures Report Part I: Historic Background & Context Vancouver Barracks, East Barracks Vancouver National Historic Reserve* (Krafft & Krafft 2010) would be used to guide design work for the project area.
- Guidelines for compatible new construction would be prepared to ensure compatibility of new building construction and the introduction of other new elements into the historic setting and would be subject to review and approval by the National Park Service.

- In consultation with federally recognized tribes and the Washington DAHP, a Cemetery Management Plan for the HBC Cemetery would be drafted and the policies and guidelines within this plan would be adhered to during future management of the Cemetery area.

*Responsible Party: National Park Service*

#### ***CR-7: Lighting***

Any new lights would be compatible with the cultural landscape and shielded so that light is directed downwards to prevent light pollution of the night sky.

*Responsible Party: National Park Service*

#### ***CR-8: Visual Character***

To minimize visual intrusiveness of construction fencing, it will be designed and installed to blend into the surroundings as much as possible. All construction, staging, and stockpile access will be gated and kept locked except when in use.

*Responsible Party: National Park Service*

#### ***CR-9: Protection of Oregon white oak***

Comply with Washington Department of Fish and Wildlife guidelines (Larsen and Morgan 1998) for treatment of Oregon white oak trees. These may include management actions such as:

- No cutting of Oregon white oak woodlands except for habitat enhancement
- Selectively harvest individual oaks to improve stand age-class and structural diversity
- Thin encroaching conifers in oak woodlands
- Retain large, dominant oaks
- Retain contiguous aerial pathways
- Planting Oregon white oak acorns and seedlings
- Protect Oregon white oaks with construction fencing while using heavy equipment nearby

*Responsible Party: National Park Service*

#### ***CR-10 Use of Sedimentary Fill to Encapsulate Contaminated Soils***

In situations such as environmental cleanup and remediation where archeological resources eligible for listing on the NRHP cannot be avoided, contaminated soils will be encapsulated with clean sedimentary fill. In such a situation, it is recommended that a layer of plastic based geo-cloth (or equivalent) be applied over the original ground surface to indicate that the sedimentary fill post-dates the 20th century. Landscape-appropriate plantings can be placed within the new sedimentary fill to help blend the area into the surrounding existing cultural landscapes.

## Air Quality

### *AQ-1: Save the Air Measures*

The National Park Service would work with all tenants of rehabilitated properties to encourage the use of mass-transit or bicycling options for commuters to the campus; especially on days when air pollution concentrations exceed Environmental Protection Agency (EPA) recommended levels.

*Responsible Party: National Park Service, Tenants, and Property Manager*

### *AQ-2: Construction Vehicles*

Contractors will use hydraulically or electrically powered construction equipment when feasible. Contractors will limit the idling of motors except as necessary. All equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all state and federal requirements.

*Responsible Party: National Park Service and Contractor(s)*

### *AQ-3: Construction Dust*

To reduce dust and fine particles from becoming airborne during construction activities, truck beds would be covered with tarps or have at least two feet of freeboard. Soil stockpiles will be covered or watered daily. All paved access roads, parking areas and public streets would be swept, as appropriate, when soil material is visible.

*Responsible Party: National Park Service and Contractor(s)*

### *AQ-4: Indoor Air Quality*

Use low Volatile Organic Compounds paints, solvents and other chemicals and materials in building rehabilitation.

*Responsible Party: National Park Service and Contractor(s)*

## Visitor Experience

### *VE-1: Accessibility*

The project would conform to the Americans with Disabilities Act/Architectural Barriers Act Accessibility Guidelines (US Access Board, July 2004), the draft accessibility guidelines for outdoor developed areas prepared by the U.S. Access Board's Regulatory Negotiation Committee, and other relevant and current guidelines.

*Responsible Party: National Park Service*



### ***VE -2: Timing***

Whenever possible, construction work that could potentially affect the visitor experience would be scheduled during times of lowest park visitation.

*Responsible Party: National Park Service*

### ***VE-3: Construction Related Noise Control***

All equipment would be operated and maintained to minimize noise. No equipment would be operated with an un-muffled exhaust. Contractors would limit the idling of motors except as necessary (e.g., concrete mixing trucks). Noise-generating construction activities would be limited to approved hours of operation to minimize the impacts on visitors. The National Park Service may restrict construction activities during peak use hours/days, such as holidays and weekends, to minimize disruption to visitors.

*Responsible Party: National Park Service and Contractor(s)*

### ***VE-4: Construction Exclusion Areas- Visitor Restrictions***

During construction, the National Park Service would ensure that all active construction, staging, and stockpile areas are fenced to render them inaccessible to the public. To minimize visual intrusiveness of fencing, it would be designed and installed to blend into the surrounds as much as possible. All construction, staging, and stockpile access would be gated and kept locked except when in use. Signs would be conspicuously posted to inform the public about the need for caution and to safely route visitors around construction areas. Established and maintained walkways would be provided across the site, as well as barrier fencing along trails and paths.

*Responsible Party: National Park Service and Contractor(s)*

### ***VE-5: Visitor Notification***

Information regarding construction projects or activities that could affect visitors would be shared with the public via the park website, signage, rangers, press release, a park newsletter or other means to enhance the public's understanding of the issue and to help them better plan their visits.

*Responsible Party: National Park Service*

### ***VE-6: Event Guidelines***

The National Park Service will ensure that events at the East and South Barracks are appropriately sized and that the location, frequency, duration and nature of events in the Barracks are compatible with the uses and the character of the site and protective of park resources.

*Responsible Party: National Park Service*

## **Traffic, Parking, and Circulation**

### ***TPC-1: Parking and Traffic Plan***

The National Park Service will complete a comprehensive parking and circulation plan to further identify road closures, alignments and define parking needs, locations of parking lots and pedestrian trails. This will be completed prior to any construction on the road or parking system in the East and South Barracks.

*Responsible Party: National Park Service*

### ***TPC-2: Construction Traffic Control Plan***

A traffic control plan will be developed to provide information on construction phases and duration, traffic scheduling, staging area management, visitor safety, construction equipment travel routes, detour routes, parking area closures, and pedestrian and bicyclist movements on adjacent routes.

*Responsible Party: National Park Service*

### ***TPC-3: Transportation Initiatives***

The National Park Service will develop and implement strategies to reduce automobile use and parking requirements, alleviate traffic congestion, and enhance transportation safety. Each tenant would be encouraged to implement these initiatives which would be integrated into the overall program for the site.

*Responsible Party: National Park Service*

## **Park Operations**

### ***PO-1: Utilities***

- Utility/infrastructure work that requires interruptions in service would be coordinated at least 60 days in advance between NPS staff and other users that may be affected.
- Length of outages would be kept to a minimum and scheduled during nonpeak usage hours, whenever possible, to reduce economic impact on concessions and visitor inconvenience.

*Responsible Party: National Park Service and Contractor(s)*

### ***PO-2: Water Demand Management Best Management Practices***

The National Park Service, in cooperation with its tenants and residents, would continue to implement Best Management Practices (BMP) that encourage water conservation. Given the evolutionary nature of water conservation measures, the National Park Service would make

provisions for the removal or addition of BMPs as the technical and economic reasonableness of measures are determined. Current BMPs include:

- Continue to identify and repair leaks to reduce distribution system losses;
- Install water meters and develop a consumption-based billing system to discourage inefficient use of water;
- Monitor tenants' meters, water heaters, and plumbing fixtures;
- Install water-conserving devices as part of all building rehabilitation projects. Retrofit requirements include installation of low-flow toilet and shower fixtures and faucet aerators, and recycled water irrigation systems (in areas where recycled water is, or will be, available);
- Discourage the use of additional water for new landscaping or expansion of existing facilities unless the landscaping designs and plant materials are low water use and irrigation systems are water-efficient;
- Participate in efforts being made by other water management agencies to identify additional conservation programs.

*Responsible Party: National Park Service, Property Manager, Tenants*

### ***PO-3: Water Shortage Emergency Response***

As a retail customer of the City of Vancouver Water System, the National Park Service will follow all water shortage response plans and water rationing plans recommended or mandated by the City of Vancouver.

*Responsible Party: National Park Service*

## **Health, Safety and the Environment**

### ***HZ-1: Hazardous Spill Plan***

A hazardous spill plan will be completed prior to any construction.

*Responsible Party: Contractor(s)*

### ***HZ-2: Vehicle Maintenance***

All equipment used within the park for operations and construction would be maintained in a clean and well-functioning condition to avoid leaks and contamination of resources from mechanical and automotive fluids. Contractors' vehicle and equipment maintenance activities would be conducted off-site. If maintenance must occur on-site, designated maintenance areas will not directly connect to the ground or the storm drainage system to prevent the run-on of stormwater and runoff of spills. Secondary containment, such as a drain pan or drop cloth to catch spills or leaks, would be used when removing or changing fluids.

*Responsible Party: National Park Service and Contractor(s)*

## Geology, Soils and Stormwater Management

### ***GS-1: Soil Stockpiles***

No stockpiled soils shall remain exposed, unless surrounded by properly installed and maintained silt fencing or other means of erosion control.

*Responsible Party: National Park Service and Contractor(s)*

### ***GS-2: Soil Reuse***

Soils excavated during ground-disturbing activities will be reused to the extent that these locally derived materials are found to be clean and weed-free.

*Responsible Party: National Park Service and Contractor(s)*

### ***GS-3: Storm Water Pollution Prevention Plan***

Prior to construction work, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared when required. The SWPPP will identify all pollutant and sediment sources that may affect storm water discharges from the construction sites, identify and implement BMPs to control erosion and runoff, and reduce or eliminate these pollutants and sediments during construction and post-construction, and develop a maintenance schedule for post-construction BMPs. The SWPPP will be submitted to the park for review/approval prior to construction activities.

Trenching and grading operations using manual or heavy equipment would follow industry standard stabilization methods. After trenching and grading is completed, backfill, compaction and regrading operations would be initiated as soon as possible to establish and maintain stable soil surfaces. Soil surfaces would be treated and restoration within approved NPS guidelines and specifications would be performed.

*Responsible Party: National Park Service and Contractor(s)*

## Wildlife

### ***NR-1: Nesting Bird and Raptor Protection Measures***

To the greatest extent possible, removal of trees would occur outside of breeding season, which is generally January through July for raptors, and March through July for other land birds.

*Responsible Party: National Park Service and Contractor(s)*