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ANUENUE FISHERIES RESEARCH CENTER 1039 SAND ISLAND PARKWAY HONOLULU, HI 96819



ATTACHMENT 2: REQUIREMENTS MATRIX

All proposals will include the following components built in relative to the proposed layout diagrams in Attachment 3(A), 3(B), 3(C): LAYOUTS

Area	Component	Deliverables	Notes
Location	Location	<u>Location</u> : Anuenue Fisheries Research Center 1039 Sand Island Parkway Honolulu, Hawaii, 96819.	
Building	Building Plans	Contractor/Fabricator to provide structural engineered plans, including modularized to scale floor plan and material specification. Plans to be reviewed and accepted by DAR prior to construction.	
Building External	Dimensions, Accessibility and Orientation, Ground Clearance, Removal and Disposal, Site Prep	Dimensions:Dimensions:New modular office willbe approximately 32' x 42' composedof two (2) 10.62' x 42' modules andone (1) 10.77' x 42' module.Themodular office building is to beinstalled on an existing building site.Orientation:Modules to be placed inan East/West orientation.Accessibility:Determine accessibilityfor an East/West placement of themodules.Ground Clearance:Modules to beinstalled with minimum groundclearance allowed for ADA entry ramp.Removal and Disposal:Existingstructures at site to be removed anddisposed.Site currently has two (2) 10'x 32' office trailers and one (1) 12' x 32'wooden deck that needs to beremoved to allow required site preprequirements.All waste materials tobe removed from site and disposed.Site Prep:Site to be prepared asrequired for the installation of the newmodular structure.	Current site occupied by two 10' x 32' office trailers with a 12' x 32' deck.
Building External	Main Entry Ramp	Main Entry Ramp: Install all-weather aluminum ADA approved entry ramp with proper railing and structural support for access to main front door. All assembly nuts, bolts, and washers to be stainless steel. Straps, brackets,	The ADA Ramp will be over sections of a FW Main and Sewer Pump Pipeline. Use of stainless steel for assembly will help if the

		etc. to be stainless steel if available. Design TBD.	ramp needs to be disassembled for any emergency repairs and/or unscheduled maintenance to the FW Main and/or Sewer Pump Pipeline.
Building External	Back Door OSHA Steps	Back Door OSHA Steps: Install one (1) aluminum OSHA compliant steps with entry platform at back door. All assembly nuts, bolts, and washers to be stainless steel. Straps, brackets, etc. to be stainless steel if available.	The OSHA Steps will be over sections of a Sewer Pump Pipeline. Use of stainless steel for assembly will help if the steps need to be disassembled for any emergency repairs and/or unscheduled maintenance to the Sewer Pump Pipeline.
Building External	Skirt, Skirt Access Gate	Skirt: A solid framed skirt around the entire structure to be installed using same material (or comparable) as exterior walls and painted the same color. Skirt height will depend on final posting of modules. Framing for skirt walls to be termite treated. Bottom of skirt not to touch ground. Clearance between skirt and ground TBD.	
		Skirt Access Gates: 3 skirt access gates to access the area beneath the building will be installed using same material as exterior walls and painted same color. Bottom of skirt gate not to touch ground. Skirt gate on the North side will be centered below the North wall. Skirt gate on the West side will be centered below the West wall below the kitchen area. Skirt gate on the South wall will be centered below the <u>East wall of Office #4</u> beginning about 6+' feet from the Southwest corner of the building. Skirt access gates to be 4' wide with 2 (two) each 2' hinged gates with stops at top and a hasp for padlock.	
Building External	Hurricane Straps	Hurricane Straps: Install heavy duty anchor straps to secure all modules in place. To be able to withstand winds up to 110 miles per hour. If available,	

		use corrosion resistant stainless-steel	
		straps.	
Building External	Foundation Support, Wheels, Axles	Foundation Support: Modules to be secured in place and leveled using adjustable piers (or similar) atop solid concrete foundation blocks or similar. Adjustable piers to be galvanized. Shims for leveling should be aluminum or stainless steel. If wooden shims or spacer are used, they must be termite treated. Concrete blocks to be resistant to moisture and salt environment.	
		<u>Wheels and Axles</u> : Axles to remain attached. Wheels to remain on axle if building frame is 18" above ground (per code) when building is set on foundation blocks or piers. Wheels that need to be removed will be stored under modular building.	Wheels can be stored on paved area that was part of the parking lot and will now be under the building.
Building	Roof, Gutters,	Roof: To be designed and installed to	
External	Penetrations, Flashing	hold PV panels across entirety. Roofing material to be heavy duty with extended life comparable to life of PV systems. Roof to be sloped slightly towards the south to maximize solar exposure. Roof to be waterproofed with high wind resistance, i.e., hurricane standards. Other roof designs acceptable if minimizes water pooling on roof, maximizes solar exposure for panels, and heavy duty with extended life comparable to life of PV systems. Future PV installation by separate vendor. Roof type and color TBD.	Contractor to provide Information on roof type and sealant used (brand/manufacturer).
		<u>Gutter</u> : Install a single Aluminum gutter system running along the south facing (lowest) edge of the roofline with drainage at each end slightly sloped toward each drain to maximize draining and prevent pooling. Gutter size and down pipes to be properly sized.	
		Roof-Top Penetrations: All penetrations to be completely sealed. Roof will be flashed and waterproofed.	

		<u>Flashing</u> : Roof to be flashed and waterproofed. Flashing to be painted.	
Building External	Security Lights	Security Lights: Install four (4) LED security lights, motion-activated at night (off during day). One (1) each above the two (2) external doors, and one (1) each mounted above the office windows for Office #4 and Office #5. No light required for front of building facing parking lot. Lights should be weather resistant. Wattage TBD.	Front of building (East end) is covered by facility flood lights.
Building General	Air Conditioner (H.V.A.C.) Location, Control Panel, Weatherize	Air Conditioning Location:Install one(1) 5.0-ton heavy duty AC unit to coolentire building centered in the Westend of the middle module (outside ofthe Kitchenette).A/C Control Panel:Location of main ACcontrol panel mounted on wall TBD.Weatherize Air Conditioner:AC unitsto be weatherized (if available) forprotection against weather, saltexposure, etc.	
Building General	Structural Materials	Structural Materials: All wood used for structural, roofing, and skirt framing to be for termite treated.	
Building General	External Walls, internal Walls, Skirts, Ceiling, Insulation, Paint/ Painting	External Walls: All external walls to be weatherized, concrete composite sided, resistant to sea salt and sun and painted. Material should have insulating properties or have other properties to maintain internal room temperature. All cut edges to be repainted. Lighter colors more reflective/cooler. Color TBD. <u>Internal Walls:</u> Material should be resistant to marks and heavy use with insulating properties or have other properties to maintain internal room temperature in a high sun environment. Lighter colors brighter. Color TBD.	

Building General	Windows, Window Screens, Office Windows, Workstation Windows	Skirt Walls: To be same as external walls or similar. Color to be same as external walls.         Ceiling: Drop ceiling or similar.         Insulation: All interior office walls, outside facing walls, ceiling, and area below floor to be insulated.         Paint/Painting: Type and application TBD.         Windows: All windows will be aluminum framed (or similar), double pane, and sliding (opening type). Each window to have 1" Mini Alabaster blinds.         Window Screens: All windows will have fiberglass insect (mosquito) screens with aluminum framing or similar.         Dimensions Office Windows: There will be one (1) 48" L x 48" H window centered on the East or West exterior facing walls for offices #1, #2, #3, #4, and #5. Windows to be about 45" above the floor and about/or 10" below the ceiling. One-inch Mini Alabaster Blinds will be installed on each window.         Dimensions Workstation Areaa         Windows: There will be two (2) 48" L x24"H windows equally spaced in the space available on the North Workstation wall and two (2) 48" L x24"H windows equally spaced in the space available on the South Workstation walls. All windows will be about 60" above the floor and/or 10" below the ceiling. One-inch Mini Alabaster Blinds will be installed on each window.	
Building General	Offices and Dimensions	Offices and Dimensions: Offices #1, #3, #4, #5 are approximately 8.71' W x 10.62' L. Office #2 is approximately 8.71'W x 10.77' L. Final dimensions will depend on space available.	

Building Kitchen       Kitchen Countertop, Over Counter Cabinetry and Shelving, Under Counter Drawers and Cabinetry, Sink Counter, Countertops and Refigerator Receptacles       Kitchen Court Cabinetry and Shelving: Install hanging wood cabinets mounted above the two (2) side counters in the kitchen. From end of counter next to refigerator to sink counter wall. Cabinet depth to be 127" with 2 (two) additional adjustable shelves. Wood finish and design TBD.         Kitchen Under Counter Trawers and Cabinetry: Install under counter wood drawers and cabinets recessed under counters. Depth of drawers TBD. Cabinet depth to be 120" with 2 (two) additional adjustable shelves. Wood finish and design TBD.         Kitchen Under Counter Trawers and Cabinetry: Install under counter wood drawers and cabinets recessed under counters. Depth of drawers TBD. Cabinet depth to be TBD with 1 (one) additional adjustable shelf.         Sink Counter: Sink counter to be about 34" above the floor and wide enough to accommodate a full-size double bowl stainless steel sink. There will be no sink counter drawers. The sink cabinet doorway to be equal to or greater than the length of a full-sized (L=33") double bowl stainless steel sink. The under-sink cabinet to be double doored. Design, size, and depth TBD by space available. Additional cabinets to be installed on the left and right sides of the sink cabinet the size will be dependent on space available.         Countertop and Refigerator Clutets (on Side Walls): Install three (3) GFC1 receptacles each equally spaced on side walls, inline, and 12" above countertop with the last receptacle (refigerator receptacle) adjusted to be located above the counter (NOT BEHIND THE REFIGERATOR). All outlets to be flush mounted. A refigerator will be located at the end of each counter later.				
of each counter later.	-	Over Counter Cabinetry and Shelving, Under Counter Drawers and Cabinetry, Sink Counter, Countertops and Refrigerator	to be about 24" wide and 34" above the floor. Countertop laminate to be scratch, chemical and stain resistant. Laminate and color TBD. <u>Kitchen Over- Counter Cabinetry and</u> <u>Shelving</u> : Install hanging wood cabinets mounted above the two (2) side counters in the kitchen. From end of counter next to refrigerator to sink counter wall. Cabinet depth to be 12" with 2 (two) additional adjustable shelves. Wood finish and design TBD. <u>Kitchen Under Counter Drawers and Cabinetry</u> : Install under counter wood drawers and cabinets recessed under counters. Depth of drawers TBD. Cabinet depth to be TBD with 1 (one) additional adjustable shelf. <u>Sink Counter</u> : Sink counter to be about 34" above the floor and wide enough to accommodate a full-size double bowl stainless steel sink. There will be no sink counter drawers. The sink cabinet doorway to be equal to or greater than the length of a full-sized (L=33") double bowl stainless steel sink. The under-sink cabinet to be double doored. Design, size, and depth TBD by space available. Additional cabinets to be installed on the left and right sides of the sink cabinet the size will be dependent on space available. <u>Countertop and Refrigerator Outlets (on Side Walls</u> ): Install three (3) GFCI receptacles each equally spaced on side walls, inline, and 12" above countertop with the last receptacle (refrigerator receptacle) adjusted to be located above the counter (NOT BEHIND THE REFRIGERATOR). All outlets to be flush mounted. A refrigerator will be located at the end	
Building     Garbage disposal     Kitchen Garbage Disposal: Install       Kitchen     minimum ¾ hp 120V stainless steel	-	Garbage disposal	Kitchen Garbage Disposal: Install	

		garbage disposal to sink. On/off switch location TBD. Disposal to be on separate electrical circuit. Disposal model TBD.	
Building Kitchen	Sink Location/Type, Faucet, Sink Drain/Sewer Connection with Vented Drainpipe	<u>Kitchen Sink Location/Type</u> : Install full- sized drop-in stainless steel double bowl 33' x 22" sink. Located centrally in counter at Kitchenette West end in front of AC. Connecting drain and p- trap to be PVC.	
		Kitchen Faucet: Faucet fixture to be minimum 1.5 gpm, ADA compliant, stainless-steel finish or similar with 8" L-type swing spout and lever handles. OPTION: single handle high arc swivel spout with flow/spray head. On/Off ball valves to be installed on incoming water supply lines. Connect the cold- water supply line to both the hot-water and cold-water valves feeding the faucet. No water heater to be installed. A water filter will be installed later at the hot water valve to provide filtered water at sink faucet. Drain/Sewer Connection and Vented Drain: Install sink and disposal drain with p-trap to vented drainpipe. Install vented drainpipe next to/below kitchen. Existing capped sewer connection/cleanout is in area below kitchen approximately 3' West of	
		building. Install drain stub-out. Connection to sewer line will be done by AFRC.	
Building Workstation	Workstation Area Receptacles, Data Ports Side Walls, Data Ports Central Area, Data Ports Offices	Workstation Area Receptacles and Data Ports North and South Walls: Install one (1) receptacle and one (1) RJ45 data port located 20" above floor and centered to each workstation location for WS1 to WS4 and WS11 to WS14 and flush mounted. Each workstation is 60" wide.	Having outlets and ports closer to floor will avoid blocking front of desk against wall. Wires can be brought up from below as needed.
		Locations for the wall workstation receptacle and data port stations for WS1 to WS4 and WS11 to WS14 are as follows: Starting at walls for Offices #4 and #5, the stations are at 2.5', 7.5',	IT PORTAL #: To identify IT portals and their locations each IT Portal has a unique ID number. The number is

	based on the location
	(Offices: OFx-Px and
mounted.	Workstations: WSx-Px)
Workstation Receptacles and Data	
Ports Central Area: Install six (6) floor	
mounted covered stations with flip	
covers each with one (1) receptacle	
and one (1) RJ45 data port for each	
central area located workstations WS5	Workstations desk are
	60" W x 30" D x 29.5"
	H. Mid-station to mid-
	station is 5'. This would
60" wide.	place the stations under
	the front/center of the
	desk with 24" from the
	front of the desk, with 6" of the desk
	overlapping into the
_	adjacent section.
_	
Going East, WS5 and WS8 are located	
at 6.5', with WS6 and WS9 at 11.5', and	
WS7 and WS10 at 16.5'. Each point is	
18" toward the center of the building	
from the reference line. Each to be	
and flush mounted.	
Receptacles in Offices #1, #2, #3, #4,	Having outlets and
<u>#5:</u> Install centered on each wall one	ports closer to floor
(1) each outlet located 20" above floor.	(20") will avoid blocking
and flush mounted	front of desk against wall. Wires can be
Data Port ID Numbers in Workstation	brought up from below
	as needed.
· · ·	
number. E.g., WS-1 will have an IT	
portal number of WS1-P with all others	
following in order. WS2 will be WS2-P	
continuing to WS14 which will be	
WS14-P.	
Data Port ID Numbers in Offices #1. #2.	
Data Port ID Numbers in Offices #1, #2, #3, #4, #5: There will be two (2) RJ45	
Data Port ID Numbers in Offices #1, #2, #3, #4, #5: There will be two (2) RJ45 data ports installed per office. All data	
<u>#3, #4, #5:</u> There will be two (2) RJ45	
<u>#3, #4, #5:</u> There will be two (2) RJ45 data ports installed per office. All data	
<u>#3, #4, #5:</u> There will be two (2) RJ45 data ports installed per office. All data ports to be installed 20" above the	
	Ports Central Area:Install six (6) floor mounted covered stations with flip covers each with one (1) receptacle and one (1) RJ45 data port for each central area located workstations WS5 to WS7 and WS8 to WS10 located in space between the office/kitchen area and front door. Each workstation is 60" wide.Locations for the central workstation receptacles and data port stations for WS5 to WS7 and WS8 to WS10 are as follows: Using the corner where the kitchen walls and the East walls for Offices #4 and #5 meet as a starting reference point and reference line. Going East, WS5 and WS8 are located at 6.5', with WS6 and WS9 at 11.5', and WS7 and WS10 at 16.5'. Each point is 18" toward the center of the building from the reference line. Each to be centered on the workstation locations and flush mounted.Receptacles in Offices #1, #2, #3, #4, 

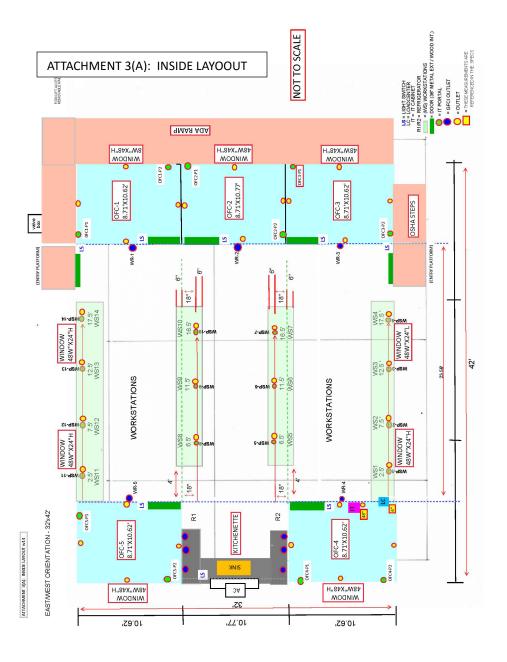
		North wall. Data Port OFC1-P2 is 18" from the Southeast corner along the East wall.	
		<b>Office #2</b> : Data Port OFC2-P1 is 18" from the Northeast corner along the East wall. Data Port OFC2-P2 is 18" from the Southwest corner along the South wall.	
		<b>Office #3</b> : Data Port OFC3-P1 OP 3-1 is 18" from the Northeast corner along the East wall. Data Port OFC3-P2 is 18" from the Southwest corner along the South wall.	
		<b>Office #4</b> : Data Port OFC4-P1 is 18" from the Northwest corner along the West wall. Data Port OFC4-P2 is 18" from the Southwest corner along the West wall.	
		<b>Office #5</b> : Data Port OFC5-P1 is 18" from the Northeast corner along the North wall. Data Port OFC5-P2 is 18" from the Southwest corner along the West wall.	
Building Floors	Floor Covering and Baseboards	<u>Flooring Covering</u> : All flooring to be vinyl plank with a minimum thickness of 5 mm. Flooring to be waterproof, sealed seams, mark-resistant, vinyl simulated wood flooring (or equivalent) with underlying pad (or equivalent). Color and pattern TBD.	
		Baseboard: Baseboards to be 4" on all sides. Dark colored either black or brown.	
Building Locks	Doors, Locks, Closers, Stops, and Drip Covers.	Interior Doors: All interior doors to be 36" solid wood core doors with 3 hinges with removable hinge pins.	
		Exterior/Entryway Doors: Both front and back exterior entryway doors will be 36" metal doors with 3 hinges with removable hinge pins and with one way mirror filmed tinted window (if available). Door window dimensions about 22" x 28" double paned. All exterior doors (front and back) will	

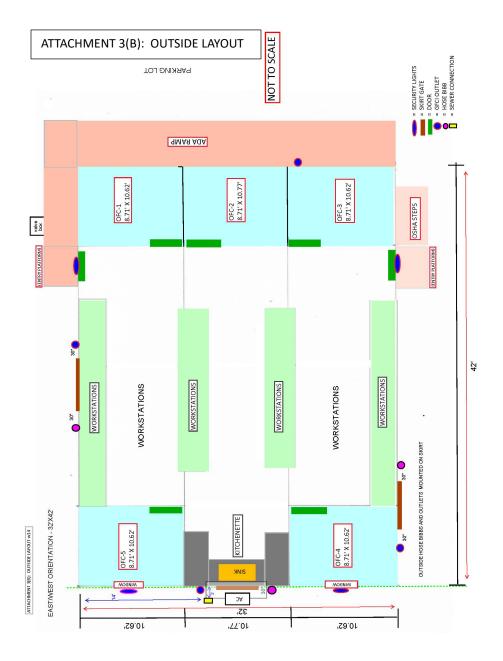
	swing-out. Front main entry door will have entry platform on ADA ramp and back door will have OSHA steps with entry platform. Exterior Doors Drip Covers: All	
	exterior doors to have drip covers (if available).	
	Entry locks and Deadbolts: All doors will have lever handle ADA compliant entry lock sets with turn/push button locking inside. If available all exterior doors will have matching deadbolts with same key as door. ALL EXTERIOR ENTRY DOORS AND DEADBOLTS TO BE KEYED ALIKE. The offices will each have separate keyed lock sets with no deadbolt. Minimum of two (2) keys to be provided for each door lockset and deadbolt.	
	Door closers and door stops: Auto door closers will be installed on the two (2) exterior doors. No door closers on office doors. Doorstops will be installed on all interior and exterior doors. Door closers and door stops to be commercial grade.	
	Door Painting: Exterior metal doors to be finished and painted as required. Interior solid wood core doors to be sealed, primed, and finished with a minimum of 2 coats of premium exterior grade semi-gloss latex paint. All faces and edges of all doors to be primed and painted. Color TBD.	
ight Fixtures, Light witches	Light Fixtures: All lights to be ceiling mounted linear LED fixtures. Light Switches: Offices #1, #2, #3, #4, and #5, the Workstation Area, and the Kitchen Area will have independent light switches. All IT parts, outlets, and	
	light switches to be flush mount unless specified otherwise. Office light switches to be mounted on the left interior wall as you enter for	
		entry lock sets with turn/push button locking inside. If available all exterior doors will have matching deadbolts with same key as door. ALL EXTERIOR ENTRY DOORS AND DEADBOLTS TO BE KEYED ALIKE. The offices will each have separate keyed lock sets with no deadbolt. Minimum of two (2) keys to be provided for each door lockset and deadbolt.Door closers and door stops: Auto door closers will be installed on the two (2) exterior doors. No door closers on office doors. Doorstops will be installed on all interior and exterior doors. Door closers and door stops to be commercial grade.Door Painting: Exterior metal doors to be finished and painted as required. Interior solid wood core doors to be sealed, primed, and finished with a minimum of 2 coats of premium exterior grade semi-gloss latex paint. All faces and edges of all doors to be primed and painted. Color TBD.tht Fixtures, Light vitchesLight Fixtures: All lights to be ceiling mounted linear LED fixtures. Light switches: Offices #1, #2, #3, #4, and #5, the Workstation Area, and the Kitchen Area will have independent light switches to be flush mount unless specified otherwise. Office light switches to be mounted on

		<ul> <li>(Offices #1 and #4) and on the right interior wall as you enter for doors that swing-left (Offices #2, #3, and #5). All IT ports, outlets, and light switches to be flush mount unless specified otherwise.</li> <li>Workstation Area lights will be split into two (2) areas (North half and South half). Each half will be controlled separately. Install two (2) 2-way switches at the main entrance and at the back entrance to allow control of the lights from either door location. The main entrance switches will be on the interior wall to the left as you enter with the door swinging-out to the right. The back entrance switches will be on the wall to the right as you enter with the door swinging- out to the left. All IT ports, outlets, and light switches to be flush mount unless specified otherwise.</li> <li>The Kitchenette area will have one (1) awitch leasted on the wall shout</li> </ul>	With two (2) 2-way switches at the front and back doors, either half of the workstation area can be turned on/off when entering or leaving.
		switch located on the West wall about 20" from the North kitchenette side wall and about 20" above the sink counter to the right of the AC. All IT ports, outlets, and light switches to be flush mount unless specified otherwise.	
Building Electrical	Electrical Service Panel (Load Center)	Electrical Service Panel: Load Center to be flush mounted in the workstation area on the East wall of Office #4 approximately 6" from the South wall. Distance above the floor TBD. Exact location TBD.	AFRC will disconnect and re-connect existing service.
		All breakers will be full sized. Panel to be sized to allow minimum of eight (8) open slots for future expansion. If the load center cannot be fully flush mounted due to available wall depth, the exposed portion may be enclosed on 4 sides with a molding and painted the same color as the wall. Front face of panel to remain "as is" with standard product finish. When installing need to avoid location of IT	

		Cabinet installed on opposite side of Office #4 East wall. Install a PVC stub-out under floor below the load center for incoming wiring running to the edge of the South wall. A skirt gate will be located at that location on the South wall. Size of conduit TBD.	
Building Electrical	IT Cabinet and Receptacle, Miscellaneous Workstation Area Receptacles, Outdoor Receptacles	IT Cabinet and Receptacle: Install one (1) receptacle next to the IT Cabinet located in Office #4 on the East wall, about 48" from Southeast corner 36" above floor. The <u>IT Cabinet</u> will be purchased and installed by AFRC on the East wall of OFC-4 about 48" from the Southeast corner next to the cabinet receptacle. All outlets to be flush mounted. Install a PVC stub-out under floor below the IT cabinet for incoming wiring to the edge of the South wall. A skirt gate will be located at that	IT CABINET: CHATSWORTH PRODUCTSCube-IT Wall Mount Cabinets. Cabinet dimensions are 36" H x 24" W x 18" D
		location on the South wall. Size of conduit TBD. <u>Miscellaneous Workstation Area</u> <u>Receptacles</u> : Install five (5) GFCI receptacles (WR-1, WR-2, WR-3, WR-4, and WR-5) centrally located on the office outside walls of OFC-1 to OFC-5 and 20" above the floor. All receptacles to be flush mounted. <u>Outdoor Electrical Receptacles</u> : Install 3 covered/ shielded outdoor	
Building IT	Data Port Internal Wiring	receptacles mounted 10" below exterior wall on skirt in aluminum all- weather box surface mounted with watertight drip proof box covers. Located 30" to left of skirt door. All exterior outlets to be 20A/120V GFCI. Each outlet to be on separate circuits. Data Port Internal Wiring: All in- wall/ceiling/sub-floor wiring for data ports will be Plenum Cat 6 cable.	
		All cables shall have sufficient slack to use as a service loop.	

Building Plumbing	Plumbing, Water Heater and Water Filter, Freshwater Connections	<u>Plumbing</u> : Plumbing supply lines to be copper. Water service main will connect to sink faucet and three (3) external hose bibb faucets (located near skirt gates on North, West, and South sides of the building) next to the skirt access gate).	AFRC will disconnect and re-connect existing service.
		Water Heater and Water Filter: No water heater to be installed. Connect hot and cold-water lines from faucet to the cold-water supply via separate supply line and valves. The sink fixture hot water line will be re-plumbed by AFRC to a water filter that utilizes same type of filter cartridge used on other water filters at AFRC.	
		<u>Freshwater Connection</u> : Main freshwater input connection point will be single capped copper stub-out below floor under kitchen sink area (where skirt door located). Pipe to dead-end with threaded male adapter and cap for connection to external water supply line by AFRC.	
		Outside Hose Bibb Faucet: one (1) outside faucets to be installed on the skirt 10" below exterior wall and 30" to right of each skirt gate opening. Location to be shifted if obstructed by OSHA Stairs, ADA Ramp, etc.	Skirt gate is 4' wide with 2 each door panels. 30" will clear open skirt gate.





ATTACHMENT 3(C): KITCHENETTE LAYOUT

EAST/WEST ORIENTATION

