Pacific Asian Enterprises, Inc.
PO Box 874 • Dana Point, CA 92629
(949) 496-4848 phone (949) 240-2398 fax

STANDARD SPECIFICATIONS - NORDHAVN 76 Aft Pilot House

Updated 11-20-15

A.				**GENERAL DIMENSIONS***
				*Dimensions are subject to change with Buyer's selected options and personal effects which may add to displacement and increase both draft and waterline length.
	1			LOA: 76' 3" (23.24 m)
	2			LWL: 69' 0" (21.03 m)
	3			BEAM: 21' 0" (6.4 m)
	4			DRAFT: 7' 8" (2.34 m)
	5			DISPLACEMENT: 252,000 LBS (114.3 METRIC TONS)
	6			WATER CAPACITY: 800 GALLONS (3,028.4 LITERS)
	7			FUEL CAPACITY: 4070 GALLONS (15,520.2 LITERS)
	8			HOLDING TANK CAPACITY: 150 GALLONS (567.8 LITERS)
	9			GRAY WATER TANK CAPACITY: 150 GALLONS (567.8 LITERS)
B.				**BASIC STRUCTURE**
	1.			**Hull lamination** schedule per PAE design the area below water line to use "Isophthalic" Gelcoat and vinyl ester resin for the first three (3) layers. Deck lamination schedule per construction plan per PAE design. “Cymax” fiberglass will be used for all deck lamination and small part lamination. This is to reduce the weight in the deck. 2 mm Coremat to be added to lamination to eliminate print through
	2.			**Standard Gelcoat Colors** from CCP color chart. Gelcoat for deck and superstructure to be Ferro brand "Ultra Shield" white
		a		Hull- Arocoat #310 Light Beige
		b		Deck and deck house - Ferro Ultrashield White
		c		Boot top - Arocoat #355 Black
		d		Non-skid - Arocoat #310 Light Beige
		e		Exhaust stack/flybridge - Ferro Ultrashield White

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	3.			**Coring**
		a		Cabin side (vertical surfaces): Klegecell # R75 varying degrees of thickness
		b		Cabin top and deck (horizontal surfaces): Baltec or equivalent vertical end grain balsa, 1" (2.5 cm) thick
		c		Hull: Solid series of laminates
		d		Top sides to 18" (45.72 cm) above the waterline 3/4" (1.9 cm) end grain balsa
	4			**Deck/Hull Joint**
		a		Between deck and hull flange: 3M 5200
		b		Inside of joint: Three (3) layers M. & W.R. (where accessible)
		d		Mechanical fastening: 3/8" x 14 thru-bolt on 8" centers (9.5 mm x 14 thru-bolt on 20.3 cm center)
		c		Teak cap: Across stern only, varnished
	5.			**Longitudinal Stringer**
		a		Hull: Nine (9) full length each port and starboard (total of 18), engine beds and floor stringers
	6			**Ballast:** Approx. 34,000 lbs (15,422 kg) lead fixed. Vessel trimmed to suit after launch in An Ping Harbor
C.				**MACHINERY AND ENGINE ROOM**
	1.			**Main Engine**: John Deere 6135AFM 500hp @2000rpm, keel cooled with dry exhaust & 24 volt starting
		a		Gear Box: Twin Disc #MGX5114 Deep Case
		b		Engine Instrument Panel: Three (3) EDM (Electronic Display Module) instrument panels with alarm that will monitor Tachometer, Station active, Engine oil pressure, Engine water temp, Fuel consumption GPH, System voltage, Gear oil temp, Gear oil pressure, Alarm on/off button and five step illumination control.
		c		Alternator: Two (2) Alternators: (1) 175 amp for starting batteries and (1) 175 amp for the house batteries
		d		Engine Controls: Twin Disc Electronic controls with polished stainless steel finish six (6) stations: wheel house, fly bridge and aft deck, port and starboard Portuguese bridge and engine room
		e		"Air Sep" crankcase ventilation
		f		Two (2) 4D batteries connected in series for 24 volt start
		g		Engine bed to have 12.7 mm (1/2") stainless steel cap
		h		Engine mounted on (4) vibration resilient mounts or John Deere Equivalent
		i		Start up on John Deere engines
	2.			**Propeller:** ZF four (4) blade left hand rotation I.S.O. class 1

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	3.			**Propeller Shaft:** A22HS 3-1/2" (8.9 cm) diameter
		a		Taper details: Standard SAE
		b		Spurs line cutter on main engine shaft
	4.			**Stern tube**: FRP
		a		Bearing: Rubber cutlass type at aft end
		b		Stuffing Box: Bronze-traditional
		c		Use "T" bolt clamps in lieu of hose clamps on stuffing box
	5.			**Keel Cooler**
		a		R.W. Fernstrum model #D1290U
	6.			**Fuel Filter**: One (1) Racor 900MAX duplex with 10 micron filter elements in addition to secondary engine mounted filter
	7.			**Engine Cooling System to be filled with John Deere specified mixture of coolant/antifreeze**
	8.			**Engine Room Floors**: All engine room floors and structural members to be FRP with white gel coated surfaces
	9.			**Noise Control**
		a		Hull Damping - Area above the propeller rotation plane to be treated with two (2) layers of E-A-R Specialty Composites Isodamp CN Tiles (CN-62), alternating between resin and chopped glass to form a constrained layer damping system to be the inboard side of the shell plate
		b		Engine room ceiling and fwd bulkhead treated with 2" (5.08 cm) of 3M Thinsulate and 2" (5.08 cm) Soundown or equivalent. Inboard tank sides, aft bulkhead, underside of deck, forward side of engine room bulkhead and ventilation ducts to be treated with 2" (5.08 cm) 3M Thinsulate and 1" (2.5 cm) thick Soundown or equivalent before being covered with white aluminum panels by Soundown
		c		Salon/galley cabin sole to have 2" (5.08 cm) 'Nida Core' core system and 1/4" (6.4 mm) Soundown or equivalent "decoupler" layer
		d		Engine room hatches to have rubber gasket and lock down mechanism
		e		Soundown Quite Pro lining or equivalent covering engine room intake and exhaust ventilating ducts, 1" (2.5 cm) thick secured with epoxy and mechanical fasteners
		f		Seal all holes and cracks in engine room parameter to prevent noise leakage
		g		Insulated bulkheads in living areas
	10.			**Engine Room Ventilation**: (See Air Conditioning Systems and Ventilation Systems)

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	11.			**Dry Exhaust System**
		a		Muffler: Harco model #1648VRS6X8 with 6" (15.24 cm) inlet flange and 8" (20.3 cm) outlet flange
		b		Custom exhaust blanket on engine room portion of exhaust
		c		Exhaust piping under blanket is wrapped first with fiberglass tape
		d		Stainless steel wrinkle belly sections
		e		Soft mounted with Soundown mounts and spring hanger mounts supplied by PAE
	12.			**Wing Engine**: John Deere 4045AFM 160hp @ 2300rpm
		a		"V" drive ZF marine gear 2.5:1 ratio
		b		Heat exchanger cooled
		c		1-3/4" (4.45 cm) diameter shaft A22
		d		Spurs line cutter on wing engine shaft
		e		Gori three (3) blade folding propeller
		f		100 amp 24 volt alternator
		g		Twin Disc electronic controls dual station
		h		Electronic front PTO 24 volt to operate hydraulics
		i		Two (2) "Group 31" batteries in series for 24 volt start
		j		25 gallon (95 liter) day tank
		k		Racor 900 MAX fuel filter with 10 micron filter element in addition to engine mounted filter between day tank and engine
		l		Dual station panels, wheelhouse and flybridge
		m		Engine bed to have 3/8" (9.5 mm) thick stainless steel cap
				Generator #1
	13.			Generator Onan model #MDDCA 40 kW 120/240 volt AC 60 Hz
		a		Wet exhaust system using gen-sep
		b		24 volt start
		c		Alternator: 20 amp
		d		Install remote engine panel in the pilothouse
		e		Install secondary remote on/off panel on the main electrical panel in the salon
				Generator #2
	14			Generator Onan model #MDKBT 27.5 kW 120/240 volt AC 60 Hz
		a		Wet exhaust system using gen-sep
		b		24 volt start

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		c		Alternator: 20 amp
		d		Install remote engine panel in the pilothouse
		e		Install secondary remote on/off panel on the main electrical panel in the salon
	15			**ABT Hydraulic System** to include following
		a		50 hp bow and 38 hp stern thrusters using 16" (40.64 cm) and 14" (30.48 cm) tunnels with proportional controls at five (5) stations. Eye brows to be installed on the hull to allow water to pass smoothly over bow thruster
		b		Hydraulically powered anchor wash pump - 180 gallons (681 Liters) per minute
		c		Hydraulically powered 180 gallons (681 Liters) per minute emergency bilge pump with manifold system and plumbing to five (5) bilge areas
		d		TRAC #370 digital stabilizer system with 16 sq. ft. (3.6 sq. m.) fins and dual station control. Stainless steel kelp blockers forward of fins tied to bonding system. System is without winglet assembly.
		e		Two (2) Maxwell VWC 4500 windlasses with dual station controls for each. Each windlass to have band brakes
		f		Hydraulics cooled by a hyd. cooling pump and two (2) heat exchangers. One (1) on the return side and one (1) on the case drain side
	16			**Work Bench** to have swivel vise and (1) one Craftsman 26" 5 drawer tool chest, black in color
D.				**AIR CONDITIONING SYSTEM AND VENTILATION SYSTEMS**
	1.			**Air Conditioning System**
				Cruisair Tempered Water System (chilled water) 108,000 BTU/hr 230 volt AC 60 Hz
		a		Modular Tempered Unit: Three (3) MTC36
		b		Control Panel: MPEDR2UC1 (TALC 2-Unit Panel, 2 Pump Relays 230 volt 1 PH)
		c		Air Handlers BP 230 volt
				Two (2) x Cruisair CBBL9C - Lower Mid Cabins/Laundry Room
				Two (2) x Cruisair CBBL12C - Master Stateroom
				Two (2) x Cruisair CBBL18C - Salon
				One (1) x Cruisair CBBL12C - Galley
				One (1) x Cruisair CBBL12C / One (1) Cruisair CBBL18C - Wheel House
				One (1) x Crusiair CBBL12C - Captain's Cabin
				One (1) x Cruisair CBSB24C Slimline - Engine room
		d		Circ Pump: 225500178
		e		Sea Water Pump: PS1500BX
		f		Controllers
				Eight (8) SMXHT Digital controls

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				Eight (8) CXP10 Cable Interconnect
				Eight (8) TSEP10 Cable Temp Sensing Element with RF-11
		g		Accessories
				EXT120 Expansion Tank-TW-Bladder
				BFC27 Balancing Flow Control
				1060915 Automatic Vent
				1070200 Backflow Preventer Valve
				1070201 Pressure Regulator Valve
	2.			**Engine Room Ventilation System**
		a		Two (2) Intake Blowers - Grainger #3C964. Two (2) louvered vents on aft deck wings with screened blower inlet
		b		One (1) Exhaust Blower -Fantech #FKD12XL. One (1) vent on aft side exhaust stack with screened blower inlet
		c		Fire/Smoke Dampers: Ruskin CD36 Low Leakage Control Damper, 12"x12" (30.5 cm x 30.5 cm) Stainless Steel Rear Flanged equipped with a side mounted Honeywell H-2024 (24 volt DC) Fast-Acting, Two Position Actuator. One (1) damper each installed on the engine room side of each blower for easy access. Each damper will be normally open and will close on Seafire actuation. For boats equipped with main engine dry exhaust, one (1) damper each installed on the inside of each main engine exhaust stack louvered vent opening - damper size to be compatible with stack opening
		d		Auto Blower Stop and Damper Closure on Engine Room Seafire Actuation (See Fire Protection System)
				Note: See Noise Control Item Section B.9.f
	3.			**Lazarette and Forward Machinery Compartment**
		a		**Lazarette -** (3 Total) - Grainger #3C967 inline blower fans
		b		**Forward Machinery** - (2 Total) Grainger #3C967 inline blower fan
		c		Auto Blower Stop on Seafire Actuation in the compartment
		d		Forward bilge and machinery compartment blowers to be 24 volt continuous duty
		e		Install stainless ladder from the lazarette to the cockpit level. On the cockpit level a vertical handrail on the FRP console to allow a person to easily climb out of the lazarette
	4.			**Heads**
		a		One (1) Exhaust Blower each head (5 total) - Fantech #FR100. On/Off wall switch for blower start and stop
		b		10 minute timer for each exhaust fan
	5.			**Staterooms**

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		a		One (1) Supply Blower for master, forward guest staterooms (4 total). Fantech #FR100. On/Off wall switch for blower start and stop
		b		Outside air supplied from a louvered intake and ducted to the stateroom. Exhaust air from each stateroom routed to berthing passageway
		c		Blower located to insure minimal noise in stateroom
E.				**FIRE PROTECTION SYSTEM**
	1.			**Seafire Fixed System Fire Extinguishers**
		a.		Engine Room
				One (1) x Seafire Model #FD-1500-M
				One (1) x Seafire Automatic Engine Shutdown System Model #131-261
				24 volt DC for main engine, generators, engine room blowers, fire/smoke dampers
				One (1) x Seafire Manual Discharge Cable 30' (9.4 m) Model #135-030
		b.		Lazarette
				One (1) x Seafire Model FD-1100-M
				One (1) x Seafire Deluxe Discharge Alarm Model #131-401
				One (1) x Seafire Manual Discharge Cable 30' (9.4 m) Model #135-030
		c		Forward Bilge #1
				One (1) x Seafire Model #FD-300-M
				One (1) x Seafire Deluxe Discharge Alarm Model #131-401
				One (1) x Seafire Manual Discharge Cable 30' (9.4 m) Model #135-030
		d		Forward Bilge #2
				One (1) x Seafire Model #FD-300-M
				One (1) x Seafire Deluxe Discharge Alarm Model #131-401
				One (1) x Seafire Manual Discharge Cable 30' (9.4 m) Model #135-030
	2.			**Portable Fire Extinguishers**
		a.		Pilot House, Flybridge, Galley, Salon, and Master Stateroom: One (1) each USCG TYPE B-II (5 total)
		b.		Guest and Crew Cabins: One (1) each USCG TYPE B-1 (3 total)
F.				**STEERING SYSTEM**
	1.			**Kobelt Hydraulic Steering System** - 35 degree Rudder Deflection, Single Station (wheel house)
		a		Recessed Helm Pump x one (1): Model #7012-AL
		b		Unbalanced Cylinders x two (2): Model #7065-U12 2" (5.1 cm) Bore with 12" (30.48 cm) stroke
		c		Safety and Bypass Valve: Model# 7020
		d		Twin Arm Tiller Arm: Model# 7052-T

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		e		Filler Tank: Model #7002
	2.			**Hydraulic Lines**: Seamless copper tubing 3/4" (1.9 cm) I.D. with reinforced rubber hydraulic lines to the hydraulic rams
	3.			**Steering Wheel** - One (1) 30" (76.2 cm) stainless steel destroyer type in wheel house
	4.			**Emergency Tiller:** To attach to top of rudderpost and stow in lazarette - fabricated of stainless steel with 1" (2.5 cm) I.D. stainless steel eyes welded 10" (25.4 cm) in from the end of the tiller arm for attaching a block and tackle rig. 10. The emergency tiller deck plate will be accessed via locker doors on the transom inboard bulkhead. This is in lieu of creating a recess for it
	5.			**Stainless Steel Steering Manifold** located in Lazarette with valves for two (2) autopilot pumps
G.				**RUDDER**
	1.			**Rudder Stock**: 3-1/2" (8.9 cm) A22HS
	2			**Rudder:** 1/2" (1.27 cm) #316 stainless steel plate rudder with stiffening ribs
	3			**Rudder Carrier Shoe**: Two piece fabricated 316 stainless steel. Main piece fastened to hull by rivets. Aft piece removable so that rudder can be removed. Shoe to be tied into bonding system and to have attached zinc plate
	4			**Rudder Stock Stuffing Box**: Bronze traditional style
	5			**Rudder Stock Tube**: FRP with bronze/rubber cutlass bearing at the bottom
		a		"T" bolt clams at stuffing box
H.				**PLUMBING SYSTEM**
	1.			**Water Tanks**
		a		Number and capacity: One (1) tank totaling 800 gallons (3028 Liters)
		b		Material: Fiberglass from male molds with FDA approved gel coated interior
		c		Inspection plates: Appropriately positioned and sized for access
		d		Tanks air tested to 4.5 pounds (2.04 kg) per sq. inch
		e		Each tank to have "Wema" level gauge
		f		Each tank to be fitted with sight gauge
		g		Tank baffles to be spaced on 24" (61 cm) centers

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		h		Exterior of tanks finished in blue gel coat
		i		Tanks to comply with ABYC section H-23 for potable water systems for use on boats
		j		Cleanliness: Tank interior surfaces to be thoroughly vacuumed and wiped down prior to final closure
		k		All hoses and cables running through watertight bulkheads to be ran through Roxtec and Ta Shing designed watertight fittings
	2.			**Fuel Tanks**
		a		Number and capacity: Five (5) main tanks totaling 4070 gallons (15406.5 Liters) with one centerline aluminum “Day Tank” at 80 gallons (303 Liters) which will gravity feed from main wing tanks
		b		FRP construction from male molds using Vinyl ester resin. To comply with all ABYC codes for diesel fuel tanks. Tanks to be coated with fire retardant Gelcoat on outside to comply with ABYC section H-33.20 for fire resistance per PAE's design
		c		Inspection Plates appropriately positioned for interior access by average size man. Plates to be fitted with labels that contain all information as stated in ABYC section H-33.16.3. Each internal baffle to have a removable panel to allow access to entire interior of all fuel tanks
		d		Fuel system to include a powder coated aluminum supply reservoir, which feeds by gravity from all five (5) fuel tanks. A light and audible alarm in wheelhouse if excessive water is present. Reservoir fitted with five (5) draw spigots for main, two (2) generators, wing engine and spare - mounted at lower level of reservoir but above water sensing probe. All returns from main, wing and generator plumbed into reservoir via a return manifold
		e		Sight gauges provided for two (2) of the five (5) fuel tanks
		f		Each tank to be air tested to 4.5 pounds (2.04 kg) per sq. inch
		g		Provide baffles on 24" (61 cm) centers
		h		Transfer manifold and 3.5 gallons (13.25 Liters) per minute fuel pump with timer switch and Racor 1000 fuel filter with 10 micron element which can transfer fuel from one tank to another and scrub fuel while transferring
		i		Exterior of tanks finished in red gel coat
		j		Cleanliness: tank interior surfaces to be vacuumed and wiped clean before final closure
		k		Each tank to have two (2) 1” (2.5 cm) I.D. vent lines
		l		Each tank to have separate 2” (5.08 cm) I.D. fill pipe located a minimum distance of 18” (45.7 cm) from any ventilation openings
		m		All hardware that comes in contact with fuel to be bonded into the 24 volt DC ground system
	3.			**Fuel Pipe and Hose**
		a		Supply lines from tanks to supply reservoir are 1-1/2” (3.8 cm) I.D. with Aeroquip brand fuel hose and swaged brass fittings
		b		Fuel line from supply reservoir to main engine filter is 3/4" (19 mm) I.D. with Aeroquip brand fuel hose and swaged brass fittings
		c		Fuel lines from supply reservoir to generator and wing engine to be 1/2” (12.7 mm) I.D. with Aeroquip brand fuel hose and swaged fittings

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		d		Fuel vent lines to be fuel certified, reinforced hose 1” (2.5 cm) I.D. Trident model #327 hose.
		e		Fuel fill lines to be fuel certified, reinforced hose 2” (5 cm) I.D. Trident model #327 hose.
	4			**Water Hoses**
		a		Cold water: Hose from water tanks to water pump should be reinforced suction rated hose. Hose from pump to accumulator should be pressure rated reinforced hose. Branch lines to be 1/2" (12.7 mm) Uponor semi-rigid tubing (blue)
		b		Hot water: Uponor 1/2" (12.7 mm) semi rigid tubing (red)
		c		Sea water hoses: Reinforced for marine use and provided with double stainless steel clamps below the water line
		d		All hoses used shall meet the requirements for service as set out by ABYC for the system intended
	5			**Hot Water Heater:** Torrid #MV50 water heater, 50 gallon capacity (178 Liter) with dual 240 volt AC elements for quick recovery, 4000watt and 1000watt
	6			**Thru Hulls**: Groco bronze body, Stainless Steel Balls and Teflon seats
		a		Grounding wire: #6 gauge green wire
		b		Each thru hull to have a clearly visible tag indicating use
		c		Each thru hull to be easily accessible
	7			**Fresh Water System**
		a		Main Pump: Headhunter Mach 5 Model #M5-120/60 - 120 volt with pressure regulator and Groco WSA-1000 strainer on pump inlet
		b		Groco #PST5 accumulator tank with pressure gauge
		c		Hose from water tanks to water pumps and to accumulator to be 1" (2.5 cm) diameter reinforced and approved for potable water
		d		Back up Pump: Head hunter "X-Caliber" 12-24 volt DC pump Model # XR-124
		e		Filter: US water filter housing with a 5 micron sediment filter installed downstream of fresh water discharge manifold
		f		Pump Selection Manifolds, two (2): Pump inlet and discharge manifolds made of stainless steel standard pipe. Supply manifold furnished with isolation ball valves from each fresh water tank, to each fresh water pump, and from the water maker. Discharge manifold furnished with isolation valves from each pump
		g		(1) one Sea recovery Aquamatic 1400 gallon per day watermaker, model #AC14C1400-2 with color remote panel #B610140008
		h		(1) UV Sterilizer #VMS-12SS, plumbed in line on the discharge side of the fresh water manifold
	8			**Plumbing Fixtures**

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		a		Head sinks - Six (6) total: Owner's x two (2), salon day head , guest lowers, and wheel house. Nameeks semi recessed sink, model #1828532
		b		Galley sink: Double stainless steel corner style Proflo #PFUO907
		c		Head faucets: Six (6) total Grohe Europlus. Model #33170002
		d		Galley sink faucet: Grohe Model# 32999 1 K0 chrome/black
		e		Engine room sink faucet, local stainless steel
		f		Engine room sink, fly bridge and aft deck sink: local made stainless steel
		g		Shower fixtures: Four (4) All Grohe #28179 handle, #28631 soap dish, #28.620 24" (61 cm) shower bar, #28.151 hose, #34.436 thermostat valve
	9			**Shower and Sink Sump Pump System** for lower level guest heads and laundry
		a		Two FRP drain basins, approximately five (5) gallon (18.9 Liter) capacity installed below sole of lower level guest heads. Basin to have a bolted flange top cover, separate 1-1/2" (3.8 cm) drain inlets from the head sink and shower stall, a 3/4" (1.9 cm) bottom outlet to the discharge pump, a float switch, and a 3/4" (1.9 cm) overflow to the engine room bilge
		b		Two (2) Jabsco 36600-0010, 24 volt. Pumps to auto start by float switch actuation and discharge to the gray water tank. Pump discharge to be equipped with a swing check valve
	10			**Bilge Pumps**
		a		Electric: Five (5) Par Jabsco 36600 24 volt 7.9 gallons (29.9 Liters) per minute Diaphragm 3/4" (1.27 cm) diameter ports, with "Ultra Senior" 24 volt auto float switch #UPS-01-24/32. One (1) in each water tight compartment
		b		Manual: Five (5) Edson Model #638 AL. One (1) in each water tight compartment
		c		Hydraulic drive emergency pump: One (1) "Pacer" 180 gallons (681 Liters) per minute plumbed to all water tight compartments. Manifold for emergency pump to be located in easily accessible location
		d		High Water Bilge Pump System - Engine Room: RULE Model 16A, 3700 gallons (14006 Liters) per hour, 24 volt AC, RULE Model #33AL High Water Bilge Alarm, and "Ultra Senior" bilge switch
		e		High Water Bilge Alarm Panel - Pilot House High water bilge sense will come from std. Ultra Senior in each bilge compartment. Visual and audio alarm panel in pilot house
	11			**Toilets and Holding Tank System**
		a		All toilets, five (5) total, to be Tecma Silence Plus, with model #THET36504 Thermoplastic seat
		b		Water supply to toilets to be fresh water only
		c		Holding Tank: One (1) FRP 150 gallon (567.8 Liter) holding tank
		d		Use only PVC pipe or Trident "Odor Safe" #102 hose
		e		Holding tank overboard pumps: Edson "Bone Dry" #120ELB 20 gallon (75.71 Liters) per minute 120/208-230 volt AC electric and Edson "Bone Dry" #557BR 30 gallon (113.56 Liters) per minute manual pump
		f		Holding tank vent to use Sealand# 310002 vent filter

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		g		Deck fitting for portable evacuation facility
		h		Holding Tank Level Monitor: Sealand 24 volt Tank Watch 4 Panel/Tank Master Panel and Cap with Vent, 45" (1.14 m) probes Part #600115, including Universal Flange, 3" NPT (7.6 cm, NPT) with gasket and stainless steel hardware, 24 volt
		i		Install Tecma 2 button marine wall switch in each head
	12			**Fresh Water Outlets** on the foredeck, aft deck, flybridge and one (1) in engine room using stainless steel spigots
	13			**Gray Water System**
		a		Tank: One (1) FRP 150 gallon (567.8 Liter) tank. All sinks, showers, and air conditioning condensate to drain to tank. All drains to have "P" traps and sloped down hill run to tank. Exception: lower level head sink and shower and engine room sink drains will be pumped to gray water tank with Whale "Gulper" pump. Tank equipped with electric and manual discharge pumps, level switch for pump starting, and level monitor system
		b		Electric Discharge Pump: Sealand T24 Discharge Pump. Pump inlet to draw with 1" (2.5 cm) of the absolute bottom of the tank. Pump to discharge overboard through anti siphon loop
		c		Level Monitor System: Sealand 24 volt Tank Watch 4 Panel/Tank Master Panel and Cap with Vent, 45" (1.14 m) probes part #600115, including Universal Flange 3" (7.6 cm) NPT with gasket and stainless steel hardware
		d		Manual back up pump: Edson Model #638AL
		e		Install "Hepvo" odor valve on the gray water system before tank
	14			**Transom Shower** "Scandvik" #101513-MR
	15			**Bosch #WAT28400UC Washing Machine** and a **Bosch #WTG86400UC Condensation Dryer** located in Laundry room on lower level
	16			**Individual Raw Water Inlet** thru hulls per item requiring raw water
		a		Wing engine, generator(s), water maker intake and air conditioning
		b		Each inlet to have Groco strainer
	17			**Oil Change System**
		a		System utilizes a 120 volt AC Oberdorfer Gear Pump Model #OBN992Q-10F18BC (3.86 gallon {14.62 Liter} per minute) to drain and fill engine lube oil from/to crankcases of main, wing, and generator(s) engines. Pump is controlled by a three (3) position switch mounted at pump location. Switch positions to be labeled "ENGINE OIL DRAIN", "OFF", "ENGINE OIL FILL"
		b		Manifold, pump and control switch to be located in an accessible and comfortable location. Engine side of manifold to include isolation valves for each engine. Pump discharge/fill side to include a hose of suitable length for drawing from and discharging to a locally placed container

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	18			**All Pumps and Motors** to be mounted on starboard and PVC pads
I.				**ELECTRICAL SYSTEM**
				AC SYSTEM
	1.			**Vessel is fitted with two (2) 240 volt AC shore inlets**. House shore power is fed through a 12KVA isolation transformer. The air conditioning may be operated from the house shore power or from its own dedicated shore power inlet which is equipped with a galvanic isolator. The air conditioning may be operated from either 50 Hz or 60 Hz current. Current is distributed through custom PAE electrical panels containing 240 volt AC and 120 volt AC sections, volt and amp meters and individual breakers for functions
		a		(2) two 3.5 kW 24 volt inverter/charger with remote control panel. Electrical panel is fitted with an inverter bypass switch in the event of failure
		b		AC Outlets are standard Vimar US format 120 volt AC
		c		All Vimar outlets in head compartment, galley, Engine Room and exterior are GFCI type
		d		All external outlets have water proof covers
		e		Two (2) Glendinning shore power cord retrieval systems, model #CM-7 are provided. One each for the 240 volt house shore power and air conditioning shore power. Each system to be provided with 100' (30.48 m) of shore power cable
		f		Install two (2) 100' (30.48 m) 50 amp shore cords at the transom for the Glendinning system
				DC SYSTEM
	2.			**DC power** is provided by 12 volt DC and 24 volt DC systems. The primary DC system is 24 volts and the secondary system is 12 volts for any equipment that is available in 12 volts only
		a		Standard Batteries are provided as follows
				24 volt DC house battery bank - Consists of (12) twelve 8D, 12 volt AGM Batteries @ 255 Ah each.
				12 volt DC house power is drawn from one (1) one 24VDC to 12VDC transformer located in the Pilot House
				Main engine starting - Two (2) 4D AGM Batteries connected in series for 24 volt starting. Switching logic to parallel with 24 volt house bank for emergency starting
				40 kW Generator starting - Two (2) Group 31 AGM Batteries connected in series for 24 volt starting
				Wing Engine/27.5 kW Generator starting - Two (2) Group 31 AGM Batteries connected in series for 24 volt starting
		b		24 Volt Battery charging is provided in the following ways
				The inverter/charger provide a total of about 100 amps at 24 volts
				One (1) Victron Skylla 100 amp charger which operates on 240 volt AC-50 Hz or 60 Hz. This charger is a back up to the inverter/charger
				Main engine starting battery bank is charged from a dedicated alternator on the engine

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				40 kW Onan generator has a 20 amp 24 volt alternator which charges the starting battery
				27.5 kW Onan generator has a 20 amp 24 volt alternator which charges the starting batteries
				Wing engine has a 50 amp 24 volt alternator which charges the starting battery
	3.			**Battery Cable**: to be sized and color-coded
	4.			**Wiring Color Coded** per ABYC standards when possible
	5.			**All Wiring** to be "tinned" copper
	6.			**All Wiring Connections** except behind electrical panels to be sealed with "shrink wrap". Connectors to be ring type with closed end seamless construction
	7.			**SSB Radio Ground Plate and Lightning Ground Systems**
	8.			**Electrolysis Control**
		a		All thru hulls to be bonded together with a #6 green wire and tied into the DC grounding system
		b		All hardware mounted below water line - i.e. stuffing box, rudder shoe, rudder frame, all thru hulls, engines, and strainers to be tied into bonding system
		c		Three (3) zinc plates to be tied into the bonding system
		d		"Cross Lock" zinc on end of propeller shaft
		e		Collar zinc on wing engine shaft
	9.			**AC Genset 1**- Onan 40 kW #MDDCA with sound shield providing 120/240 volt AC current at 60 Hz
				AC Genset 2 - Onan 27.5 kW #MDKBT with sound shield providing 120/240 volt AC current at 60 Hz
		a		Generator fuel filter- Racor 900FG
	10.			**Electrical Panels (subject to change)**
		a		Main AC/DC distribution and control panel located in forward stbd corner of salon
		b		Sub AC/DC distribution and control panel located in stbd corner of the pilothouse helm
		c		Sub AC/DC distribution panel in Lazarrete
		d		House battery control panel located in the lazarette
		e		Engine/gen start battery and emergency parallel control panel at entrance to engine room
		f		Generator start/stop panel in wheel house
J.				**INTERIOR**

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	1.			**General**: Teak wood, horizontal grain pattern with a 60" gloss varnish. Settee, tables, bunks, nightstands, misc furniture type structures and stair risers to be Charco wood. Cabinet and furniture topsides to be Toseva NA-15 wood. Joinery work to be a contemporary style.
		a		Cushions to be covered with owners choice of Ultraleather
		b		Interior steps to all be teak and charco
		c		Interior lockers and drawers to be locking Timage with chrome push button
		d		Interior overhead panels - Majilite Finesse Natural. Removable, held in place by Fastmount system
		e		Interior door lock sets to be Mobella "McCoy" chrome brass, all heads to have privacy locks
		f		Hanging lockers to have automatic interior lights controlled by micro switch. Lined with "Cedar wood"
		g		Solid (non louvered) cored doors for heads and staterooms 1" (2.5 cm) thick
		h		Wall covering included within the interior above chair rail in the salon, pilothouse, cabins and heads.
		i		Salon tables, pilothouse table to be varnished with a 100% high gloss varnish
		j		All hand rails to be polished stainless steel
		k		Structural bulkheads dividing staterooms and heads to have 3/4" (1.9 cm) furring strips on each side to allow application of 3/4" (1.9 cm) thick sound insulation. The finished bulkhead material of 3/8" (9.5 mm) thickness to be applied over this
		l		Ceiling material in all showers to be white FRP
		m		All interior drawers to have stainless steel ball bearing drawer slides
		n		Install Orcas magnetic door catches on all interior doors
		o		All drawers to have plywood finish on the inside
		p		All lockers in the galley, heads, laundry room and pilothouse dash area to be white Formica interior
		q		Lockers in the salon, staterooms and the pilothouse settee and desk area to be teak veneer interior
		r		All book shelves to have stainless steel fiddles
		s		All exterior doors to have Phantom Roll Away Screens installed
	2			**Galley**
		a		Two (2) GE Monogram #ZIC30GNDII over/under refrigerator/freezer units mounted side by side with teak overlay panels
		b		Counter top: Granite with 1/8" pencil round bull nosed edges, buyer's choice from the standard budgeted selection available in Taiwan. Countertop to have raised bar area as per drawing
		c		Floors: Buyer's choice from the standard budgeted selection available in Taiwan
		d		Cabinet paneling: All teak
		e		Interior locker finish to be white formica finish
		f		All drawers in the galley to have plywood finish on the inside
		g		**Microwave** - Sharp #KB6524PS (Drawer Type)
		h		**Oven** - GE Monogram #ZET1SHSS 30" convection oven

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		i		**Stove** - GE Monogram #ZEU30RSJSS 30" electric cooktop
		j		**Vent Hood** - GE Monogram #ZVC30LSS 30" custom insert
		k		**Trash Compactor** - GE Monogram #ZCGP150RII with teak overlay
		l		**Dishwasher** - GE Monogram #ZDT800SIFII with teak overlay
		m		**Garbage Disposa**l - Insinkerator #ESSENTIAL 3/4hp
		n		Stove alcove to be lined with granite
		o		Install stainless steel pot holder rail system around the stove with holder arms
		p		**Backsplash** - Mosaic tiles of buyers choice
		q		Appliance doors needing exterior locking devices will be provided
		r		(3) three barstool covered with buyers choice of Ultraleather
		s		(1) one local made soap dispenser located at the galley sink
	3.			**Main Salon**
		a		Floors: Carpet with Soundown underlayment pad
		b		Cabinet/paneling: Varnished teak
		c		Dinette table: Teak with 100% high gloss varnish. Table to be large enough for 6 people (chairs not included)
		d		Locker interior finish: Teak
		e		Drawer interior finish to be plywood
		f		TV lift "New Style" for a 55" (140 cm) flat panel TV. (TV not included)
		g		Teak valance/air con soffit port and starboard and aft sides of salon
		h		Overhead treatment, with teak wood border
		i		Teak coffee table starboard side with 100% high gloss varnish. Table to have hinged top with storage below
		j		Salon to be arranged for loose furniture provided by the buyer
		k		Hutch with overhead locker above.
		l		Wine Cooler - Sub Zero #315W/O 15" wine cooler with teak overlay
		m		(4) four wall Jaxon LED wall sconces installed as per drawing
	4.			**Master Cabin**
		a		Floors: Carpet with Soundown underlayment pad
		b		Cabinet/paneling: Varnished teak
		c		Hanging locker interior finish: "Cedar wood" natural finish
		d		TV alcove for flat screen 42" (106 cm) TV (TV not included)
		e		Vanity/desk area
		f		Mattress: Standard 12.7cm (5") foam covered with cotton mattress ticking

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		g		Locker interior finish to be teak
		h		Drawer interior finish to be plywood
		i		Hull Staving to be varnished teak
		j		(1) one Sentry X055 safe well hidden within the master cabin
		k		(2) two wall Jaxon LED wall sconces installed as per drawing
				(1) one Ultraleather covered ottoman with storage below located at the vanity desk in the master cabin
	5.			**Master Head**
		a		Flooring: Buyer's choice of tile from the standard budgeted selection available in Taiwan
		b		Counter top: Granite with bull nosed edges, buyers choice from within the standard selections
		c		Charco framed beveled mirrors above the two sinks
		d		Molded white FRP shower stall
		e		Ceiling material in shower to be white FRP
		f		Shower door to be frameless clear glass with stainless steel door hinges and handle
		g		Cabinet/joiner work: All teak
		h		Locker finish: White Formica
		i		Drawer finish: plywood
		j		Head exhaust blower with 30 minute timer
		k		Toilet paper holder Keuco #14962
		l		Towel bar Keuco #14901 24" (61 cm)
		m		(3) three wall Jaxon LED wall sconces installed as per drawing
		n		Backsplash - 6" tall above the countertop; mosaic tiles of buyers choice
	6			**Salon Day Head**
		a		Flooring: Buyer's choice of tile from within the standard selection
		b		Counter top: Granite with bull nosed edge, buyers choice from within the standard selection
		c		Charco framed beveled mirror above the sink
		d		Cabinet/joiner work: All teak
		e		Locker interior finish to be white formica
		f		Drawer interior finish to be plywood
		g		Exhaust blower with 10 minute timer
		h		Towel bar Keuco #14901 24" (61 cm)
		i		Toilet paper holder Keuco #14962
		j		(2) two wall Jaxon LED wall sconces installed as per drawing
		k		Backsplash - 6" tall above the countertop; mosaic tiles of buyers choice

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	7			**Pilothouse**
		a		Floors: Teak and spruce
		b		Cabinet/joiner work: Varnished teak
		c		Counter tops and instrument panel faces: Formica #939 Dark Gray
		d		Dinette table: Teak with 100% high gloss varnish
		e		Settee with chart drawers under
		f		Helm seat - (1) one Stidd 500N-2X2 Low Back "Slimline". Ultraleather seat and pedestal powdercoat colors are buyer's choice
		g		Chart light: Imtra F4 Touch LED light, bulkhead mount 19" (48.26 cm)
		h		Dash locker interior finish to be white formica
		i		Settee and desk interior locker finish to be teak
		j		Book shelves and chart drawers
		k		Hand rails: One each on the port and starboard forward doors
		l		Compass- Weems and Plath inverted compass mounted on a teak block
		m		Install swing out stool at desk, with backrest, wrapped in Ultraleather
		n		Pilothouse console to wrapped with Ultraleather, owner to choose color
		o		Drawer interior finish to be plywood
	8			**Pilothouse Head**
		a		Flooring: Buyer's choice of tile from within the standard selection
		b		Counter top: Granite with bull nosed edge, buyers choice from within the standard selection
		c		Cabinet/joiner work: All teak
		d		Exhaust blower with 30 minute timer
		e		Towel bar Keuco #14901 24" (61 cm)
		f		Toilet paper holder Keuco #14962
		g		Drawer interior finish to be plywood
		h		Locker interior finish: White Formica
		i		Shower door to be frameless clear glass with stainless steel door hinges and handle
		j		Ceiling material in shower to be white FRP
		k		Charco framed beveled mirror above the sink
		l		(1) one wall Jaxon LED wall sconces installed as per drawing
		m		Backsplash - 6" tall above the countertop; mosaic tiles of buyers choice
	9			**Pilothouse Cabin**
		a		Floors: Carpet with Soundown underlayment pad

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		b		Cabinet/joiner work: Varnished teak
		c		Locker interior finish: Teak
		d		Mattress: Standard 12.7cm (5") foam covered with cotton mattress ticking
		e		Hanging locker to have aromatic cedar
		f		Dresser with four (4) drawers with plywood finish
		g		Drawer interior finish to be plywood
	10			**Forepeak (Chain Locker)**
		a		Shelves: Longitudinal plywood shelves with 5" (12.7 cm) fiddles provided port and starboard for storage
		b		Anchor line deck hawse fitting
		c		Two pad eyes in locker
		d		Finish: Painted with gel coat
		e		Locker to be divided for dual anchors and chain
	11			**Laundry Room and Lower Hallway**
		a		Bulkheads to be finished: Varnished teak
		b		Floors to be Lonseal Loncoin 2
		c		(2) two front loading Indel Cruise 90 freezers with teak overlays located in laundry area lower level
		d		Washer and Dryer installed in laundry room
	12			**Lower Level Guest Cabins**
		a		Floors: Carpet with Soundown underlayment pad
		b		Cabinetry and joiner work: Teak
		c		Hanging locker with "Cedar wood" lining
		d		Book shelves and lockers outboard of berths
		e		Locker interior finish to be teak
		f		Drawer interior finish to be plywood
		g		Mattresses: Standard 5" (12.7 cm) foam mattress's covered with cotton mattress ticking
		h		Hull staving to be varnished teak
		i		(1) one Ultraleather covered ottoman with storage below located at the vanity desk in the lower starboard guest cabin
	13			**Lower Level Heads**
		a		Flooring: Buyer's choice of tile from within the standard selection
		b		Counter tops: Granite with bull nosed edges, buyers choice from within the standard selection

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		c		Cabinetry: Teak
		d		Shower to be molded white FRP
		e		Shower doors to be frameless clear glass with Chrome door hinges and handles
		f		Ceiling material in shower to be white FRP
		g		Exhaust blower with 30 minute timer
		h		Toilet paper holder Keuco #14962
		i		Towel bar Keuco #14901 24" (61 cm)
		j		Locker interior finish to be white formica
		k		Drawer interior finish to plywood
		l		Framed beveled mirrors above the sinks
		m		(4) four wall Jaxon LED wall sconces installed as per drawing (two per head)
		n		Backsplash - 6" tall above the countertop; mosaic tiles of buyers choice
K.				**LIGHTING AND SWITCHES**
	1			**Interior Overhead Lights**: Imtra " Ventura LED" warm white in color. (100 total lights)
	2			**Interior Overhead Reading Lights**: Imtra "Captiva W/ Switch LED" warm white in color. (10 total lights)
	3			**Interior Courtesy Lights**: Imtra "Yukon LED" red in color. (50 lights in total)
	4			**Interior Under Cabinet Lights:** Imtra "Hattares LED" warm white in color. (8 lights total)
	5			**Interior Hanging Locker Lights:** Imtra "Resolux LED" warm white in color (8 lights total)
	6			**Interior Bunk Reading Lights:** Imtra "Hobart LED" warm white in color. (8 light total)
	7			**Pilothouse chart Light:** Imtra "F4 Touch LED" White and red in color. Bulkhead mount. (1 light total)
	8			**Exterior Overhead Lights:** Imtra "Avalon 105 LED" cool white in color. (35 total lights)
	9			**Exterior Courtesy Lights:** Imtra "Yukon LED" cool white in color. (30 in total)
	10			**Engine Room AC Lights:** Imtra 24" High Output LED lights (7 total)
	11			**Engine Room DC Lights:** Imtra "Ventura" Cool White in color (20 lights total)
	12			**Navigation Lights and Signal lights** for vessels over 20m (65' 7"): Hella Lights
		a		Port nav light - Hella #959 900 001
		b		Stbd nav light - Hella #959 908 001
		c		Stern light - Hella #959 909 001
		d		Steaming light - Hella #2LT 959 940 411
		e		Anchor light - Hella #980 910 001

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		f		Restricted maneuverability lights - Hella #980 910 401 (4 lights total)
		g		Stainless steel, powedercoated white "Light Stand"
	13			Interior and exterior lights switches to be Vimar Idea. Interior switches to have black cover plates and gray switches. Exterior switches to have white covers and white switches, with weather-proof covers.
	14			Interior and exterior electrical outlets to be Vimar Idea. Interior outlets to have black cover plates and gray outlets. Exterior outlets to have white covers and white outlets, with weather-proof covers.
	15			All interior and exterior switches to be laser engraved, stating their purpose
	16			**Deck Floodlights**: Rigid Q Series LED floodlights mounted on port and starboard forward and aft corners of the F/B hardtop. (4 lights total)
	17			**Carlisle & Finch 200 Watt Spotlight** #XY2EDE-RF with dual station remote controls. Unit mounted on the flybridge hardtop
L.				**EXTERIOR, DECK HARDWARE, and EQUIPMENT**
	1.			**All Horizontal Surfaces on Deck** to have a diamond pattern non skid as shown in deck plan - standard non skid to be a contrasting color to deck parameter
	2.			**Stainless 316 Handrails** 1-1/2" (3.81 cm) electro polished bases
		a		Nordhavn style transom hand rails
		b		Nordhavn style hand rails along port and starboard side deck coamings
		c		Nordhavn style rail on underside of aft deck overhang
		d		Rail around F/B sink console
		e		Rail around the topside of the B/B drinks fridge console
		f		Curved rail on the underside of the overhead on the stbd side above the stairs down to the side-deck
		g		Vertical handrail on the port and starboard boarding doors
		h		Vertical handrail on the cockpit console to allow a person to exit the lazarrete
		i		Horizontal handrail running above the port side (widebody side) salon windows
	3.			**Nine (9) 316 Stainless Steel Hawse Fittings:** Eight (8) port and starboard 5" x 10" (12.7 cm x 25.4 cm) with cleats. Recessed into bulwarks where possible. One (1) on aft center line with cleat (Cleats to be solid stainless steel bar)
	4.			**Two (2) 316 Stainless Steel Bollards** centerline aft of windlass

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	5.			**Upper Rub Rail Cap** to be 316 stainless steel 2-1/2" W x 7/16" thick (6.35 cm W x 1.1 cm thick) fastened with flush square head 316 stainless steel fasteners. Stainless steel caps on upper and lower rub rails
	6.			**Lower Rub Rail Cap** to be 316 stainless steel 1-1/2" W x 5/16" thick (3.81 cm W x 1.1 mm thick)
	7.			**Portlights in hull to be frameless fritted glass**. Ports positioned as follows
		a		Four (4) starboard side hull 8" x 16" (20.3 cm x 40.6 cm) oval
		b		Four (4) port side of hull 8" x 16" (20.3 c, x 40.6 cm) oval
		c		Master cabin portlights to be rectangular frameless fritted glass, (3) three port side and (3) three stbd side. Glass to 1/2" (1.27cm) thick
	8.			**316 Stainless Steel Double Bow Roller** - rollers to be slotted for chain
	9.			**316 Stainless Steel Bow and Stern Pulpits** and stanchions to be 1-1/4" (3.18 cm) diameter. Bow pulpit to have socket for 1" (2.5 cm) burgee staff. Bases to be round with fastening stud welded on bottom, except upper deck which will be fastened with flat head screw
	10			(1) one 48" varnished teak flag staff for the stern and (1) one 18" varnished teak burgee staff for the bow
	11			**Foredeck** to have solid 316 stainless rail with 1-1/2" (3.81 cm) diameter stanchions. Bases to be round with fastening stud welded on bottom.
	12			**Windshield Wipers**: "Exalto" 2-speed self-parking motor, with wash system for five (5) front windows
		a		#EX2167.32 wiper motor 223BS 24VDC/23Nm, for 34.5mm (1-3/8") bulkheads x five (5)
		b		#EX2133 T1 Pantograph arm 270-450mm (10.6"-17.7") adjustable x five (5)
		c		#EX2171 curved wiper blade 40.6cm (16") x five (5)
		d		#EX210 Series Wiper Control Unit (1)
		e		#EX2143 24volt solenoid valve for wash system x one (1)
		f		#EX2133.03 tubing retainer strip x five (5)
		g		#EX2184 Washing Jet for type 1 adjustable pantograph arm x five (5)
		h		#EX2186 plastic bulkhead connector for 50cm (19.7") - new style
		i		#EX2154 Tubing 6.35mm (1/4") soft black x 5m (16')
		j		#EX2157 Tubing 6.35mm (1/4") hard black for push fit plumbing fittings x 5m (16')
		k		#EX2129 elbow 6mm (.24") x six (6)

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		l		#EX2166 T-coupling 6x6x6mm (.24x.24.24") x four (4)
		m		#EX2119 straight coupling, 6.35mm (1/4") x one (1)
	13			**Horn:** Kahlenberg dual trumpet #D-1 with white finish
	14			**Deck Hatches**: Per deck plan, five (5) Lewmar #70 "Ocean Series" to include Oceanaire insect and privacy screens. One (1) Lewmar #30 "Ocean Series" to include Oceanaire privacy shade and insect screen
	14.			**Aft Upper Deck Seating Area N62 style**. This will be the same seating console as is used on the N62. Vinyl cushions and FRP table included
	15.			**Access to Flybridge from Wheel House** thru hinged cockpit hatch custom built by Ta Shing
	16.			**Windows to be fritted frameless glass** with 1/2" (1.27 cm) thick laminated tempered glass
		a		All side windows to be tinted glass
		b		All pilothouse and salon windows are recessed 1" (2.5 cm)
		c		Aft wheel house corner windows to be 1/2" (1.27 cm) tempered safety glass
	17.			**Fiberglass doors by Ta Shing Yacht** as follows (Note: interior as well as exterior TS doors are included in this schedule)
		a		Wheel house - (2) two ea Weather Tight Dutch door, one (1) L.H. Mortise hinge, one (1) R.H. Mortise hinge. C.O. 21" x 73" (53.3 cm x 185.4 cm)
		b		Salon Aft - (1) one ea, Weather Tight single opening door. 36" x 73" (91.4 cm x 185.4 cm)
		c		Salon starboard side - (1) one Weather Tight Dutch door, R.H. Mortise hinge. C.O. 21" x 73" (53.3 cm x 185.4 cm)
		d		Engine room (Aluminum PCM Door)- (1) one ea, Water Tight model no. PCM4170-W with sound blanket core, painted. R.H. surface mount hinge. C.O. 21" x 73" (53.3 cm x 185.4 cm)
		e		Lazarette (Aluminum PCM Door) - One (1) ea, with port hole, Water Tight model no. PCM4170-W with sound blanket core, painted. R.H. surface mount hinge. C.O. 21" x 46" (53.3 cm x 116.8 cm)
	18.			**Boarding Doors**: port and starboard - opening in two pieces. Top to fold up and over and bottom to open outboard. Stern door on starboard side aft. Doors to have Freeman "blind" dog lock/handles
	19.			**Davit** Steelhead 2500 lb (1134 kg) capacity hydraulic/24VDC with extendable boom to 18 feet (5.5 m) mounted on fore deck. Davit sized and positioned to launch dinghies from port and starboard side

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	20			**Cockpit Exterior Cabinet**
		a		Sink: Stainless steel to drain directly overboard
		b		Faucet: Shurflo #133-0210-CP
		c		Control alcove for Twin Disc engine control ABT bow and stern thruster jog levers, rudder angle indicator and steering jog, start/stop, air horn push buttons and forward windlass control
		d		(2) two Miele CS1312 electric BBQs
		e		(1) one local made soap dispenser located at the cockpit sink
	21.			**Bottom Treatmen**t: Three (3) layers of epoxy barrier coat and three (3) coats of anti fouling paint
		a		Two (2) coats of antifouling to be applied at Ta Shing and one (1) coat to be applied after the boat is hauled out at Kaohsiung before shipment
	22.			**Upper Deck to Drain** through six (6) 2" (5.08 cm) scuppers three (3) per side and eight (8) freeing ports four (4) per side
	23.			**Anchor Well to Drain** through scupper 2" (5.08 cm) diameter
		a		Install secondary 1" drains in the forward inboard corner of each anchor well
	24.			**All Exterior Lockers** to have FRP louvers
		a		All louvers to be covered with an acrylic covet to block water on the interior side of the locker door
	25.			**FRP Exhaust Stack / Radar Mast** with flag halyards port and starboard. Stack to have FRP louvers
	26.			**Portuguese Bridge Control Stations** port and starboard side of forward Portuguese bridge. Station is recessed into Portuguese bridge with Twin Disc controls, bow and stern thruster controls, start/stop/horn. Recess to have courtesy light inside
	27.			**Flybridge with FRP Hardtop,** sink, U-Line #2175RSS drinks refrigerator with FRP door, and (1) one Stidd "Slimline" helm chair #500n-2x2 white Nogahyde and settee with Sunbrella (Owners Choice) cushions and a high gloss teak table. Sink to drain directly overboard. Ritchie #SS 5000 compass installed
		a		FRP hardtop finished with smooth Gelcoat, with white non-skid
		b		Hardtop to have a stainless rail continuation of the ladder on the topside of the hardtop to allow a person to easily access this area
	28			Aft Mid Deck to be extended to cover the cockpit settee, extended handrails. Mid-deck to include the standard settee and white FRP table. Deck to be covered in teak decking. Access from the cockpit by an FRP staircase with teak step treads. Hinged FRP hatch above with teak decking on topside

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	29			**Stern Capstan Winches:** Two (2) Maxwell VC 2500 24 volt port and starboard
	30			**Door to Foredeck** through Portuguese bridge with freeman dog set and SS pantograph hinge
	31			**Freeman Watertight Deck Hatch** over chain locker, #18HAALR x two (2)
	32			**Anchor:** (1) one 300 lb. (136 kg) stainless steel plow with "Prime Fabrication" etched into the anchor
	33			**400 ft. 1/2" HT Chain** (122m) stored within the starboard anchor locker
	34			**Swim Ladder:** Stainless steel with teak steps mounted on swim step under FRP hatch
	35			**Cleats -** Three (3) Pop-up Style 10" (25.4 cm) Cleats on swim step port and starboard for dinghy tie up
	36			**Windlass:** Maxwell VWC 4500 hydraulic with band brake and 1/2" HT (1.27 cm) chain gypsy
	37			**Maxwell Chain Stopper** for 1/2" (1.27 cm) diameter HT chain
	38			**All Exterior Locker Doors** to use "Perko" fig. 777 flush hatch dogs as latch
	39			**All Exterior Door Keepers** to be ABI #2039CH
	40			**Two (2) Fishing Pole Holders** flushed into bulwarks in cockpit. One (1) each port and starboard sides with drains
	41			**Stainless Breast Plate** with two (2) anchor wash nozzles and Nordhavn emblem
	42			**Large Pad Eye** at stem through boot top 1-1/4" (3.2 cm) O.D
	43			(2) two Zodiac 6 person liferafts, USCG and Solas Approved Pack A. Model #DRZ31141. Include (2) two Hamnar Releases #DRE02017. Liferafts to be mounted within the aft mid railing, port and starboard
	44			**Four (4) "U" Shaped Rails** across swim step, rails to be 2.5" diameter

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	45			**Nordhavn Name Plates** x two (2) port and starboard side
	46			**All Deck Washes** to be installed in recessed FRP boxes with FRP doors
	47			**Foredeck Lockers -** three (3) total: two (2) flush style port and starboard. One centerline fwd of Portuguese Bridge. Centerline locker to have gas shocks to hold open
	48			**Gasoline Storage Tank** 80 Gallon (303 liter) with electric pump installed inside Portuguese bridge and accessed from foredeck deck
	49			**Zincs**
		A.		Ship loose two (2) left hand shaft zincs and two (2) right hand shaft zincs
		B		Ship Loose four (4) B4 plate zincs
	50			**Marquipt Dinghy Ladder**
				***Specifications are subject to change at the discretion of designers and builders**

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