Section 1 Materials and equipment for the elderly and health	
Lift	By **ARITCO**: S15 or as drawing specified
Air ventilation equipment	PM2.5 prevention and clean air ventilation equipment by **PD Fresh Airflow model Fresh Plus** – **Spiral duct** installed over the ceiling as engineer specified.
Elder room floor	**Shock absorb Soft+ floor – PVC type, by LT by COTTO** with PVC floor skirt
House entrance ramp	Coarse polished cement, as drawing specified
Door for elder bathroom	Hung type sliding, **anodized aluminum door by TOSTEM: ATIS** or as manufacturer specified, **1.00 m. wide** with 8 mm. frosted glass or as drawing specified.
Elder Bathroom	**"AMERICAN STANDARD" or COTTO" (White color)**
Water closet	AMERICAN STANDARD: **Cygnet Hygiene Rim 2626SC-WT-0** with toilet seat model Armorlid, 2 function rinsing spray by COTTO: CT980H#WH (HM) and stop valve model CT179N(HM)
Wash basin	Wall hung type by **COTTO: For All SC00537**
Wash basin mixer faucet	COTTO: CT300A (with hot water pipe)
Wall mounted mixer faucet for shower	AMERICAN STANDARD: **SIGNATURE A-1712-300** with shower head model RAINCLICK F40017-CHADY (with water pipe)
Wall mounted faucet	AMERICAN STANDARD: WINSTON FFAST602-0T0500BT0
Towel bar	AMERICAN STANDARD: **ACACIA E K-1393-46N** chromium color
Soap holder	AMERICAN STANDARD: **ACACIA E K-1382-42N** chromium color
Tissue holder	AMERICAN STANDARD: **ACACIA E K-1387-55-N** chromium color
Mirror	**COTTO: MZ901#BS** with shelf and cloth hook
Bathroom floor drain	**COTTO: CT654Z2P** (size 100 cm.)
Safety equipment for Elder bathroom	**Foldable support arm by COTTO: CT0164** **L shape handrail by COTTO: CT0162** **Foldable wall mounted shower seat by COTTO: CT0169**

Swimming Pool	
Wall structure	Polypropylene wall with concrete structure depth does not exceed 1.20 m. or as drawing specified.
Floor-wall system	1.1 mm. thick, anti-slip, blue liner, no pattern. Pool edge tile with granite stone (black granite, flamed finish black granite or marble-patterned granite) size 30x60 cm.
Installation equipment	Electrical system, pipe, drainage and filter system size follow the manufacturer recommendation
Pool pavement (if any)	Reinforced concrete with porcelain tile **(price does not exceed 500 baht/sq.m)**
Section 2 Materials and equipment for Energy-Efficiency and Heat Insulation	
Solar water heater	**Capacity 200 litres with hot water piping** (Pimaflex) to **every bathroom** for wash basin, bath tub and shower. (except maid bathroom)
Heat prevention beneath the roof	**6 inches thick insulator by "STAY COOL": Premium** placed on ceiling beneath upper and lower roof level (except garage, upper, lower terrace area external ceiling and Insulated Roof).
Roof tile (Excella)	**"SCG" Ceramic roof tile model** **Excella Classic** (Crystal blue, White pearl, Green peridot, Red sapphire, Red garnet, Carnelian brown, Yellow sapphire) or **Excella Grace** (Navy blue, Burgundy) or **Excella Modern** (Coco brown, Obsidian grey, Silver grey, Platinum) with **"Dry ridge system"**, stainless #24 for valley rafter.
Exterior/ interior wall material	Exterior wall - **20 (10+10) cm.** thick, or as thick as the structural column thickness, Autoclave concrete with plastering and skim coat. General wall - **10 cm. thick** Autoclave concrete with plastering and skim coat.
Sanitary ware (**Water saving**)	**"AMERICAN STANDARD" or COTTO" (White color)**
Water Closet for general bathroom	**AMERICAN STANDARD: ACACIA EVOLUTION 2307SC-WT-0** with stainless steel rinsing spray model SMART A-4900-S
Section 3 Eco-Friendly Materials and Equipment	
General first floor and upper floor materials	**7.5 mm.** thick **waterproof wood floor** by **"KRONOTEX": Corepel** or **12 mm.** thick laminated floor by **"KRONOTEX": Robusto** or equal with PVC floor skirt
Wooden stair set	A set of **Engineered Wood** by **ACON or MUKU** color coated from the factory
Stair tread	**Size 300x30 mm.**

Riser	**Size 200x20 mm.**
Baluster	**Size 50x50 mm.**
Landing	**30 mm. thick, 2 pieces (V groove connect)**
Post	**Size 100x100 mm.**
Handrail	**Wrought Iron** as drawing specified topped with Engineered wood size 50x75 mm.
Exterior ceiling (Balcony/Garage/Eaves)	**Wood Plastic Composite (WPC)** by **PD WOOD by Maxis Wood model QB-003 Plus Teak color** or equal with Zinc galvanized studs#26 and insect prevention screen.
Decorated wall (If any)	In case of fiber cement decorated wall, use “SCG” or “CONWOOD” or **Wood Plastic Composite (WPC)** - **PD WOOD by Maxis Wood model CX-002 teak** color or as drawing specified
Interior Doors	
General interior door/ Bedroom/ Storage room (if any)	**Wood Plastic Composite (WPC)** door with steel structure by **“PD WOOD”** model C1-WPC-001-006 color New Pine, Burma teak or Vintage wenge (choose later). And white wood pattern film coated **Wood Plastic Composite (WPC)** door frame model Ultra series 3 by **“PD WOOD”**.
Door for maid room and maid bathroom	White **Wood Plastic Composite (WPC)** door model C-WPC-001-003, 008, 011, 012 and white wood pattern film coated **Wood Plastic Composite (WPC)** door frame model Ultra series 3 by **“PD WOOD”**
Door for maid room/ maid bathroom (open to exterior)	White **Wood Plastic Composite (WPC)** door with steel structure by **“PD WOOD”** model C1-WPC-008, 011, 012. White wood pattern film coated **Wood Plastic Composite (WPC)** door frame model Ultra series 3 by **“PD WOOD”**.
Facia	Fiber - cement board by **“SCG”: 6”, 8”** primer paint coated type or Synthetic wood **“Eave Plus”** or equal
Treatment Tank	Fiberglass tank by **“DOS” model ST-36/BK** or “PP”: Ecotank or equal (put underground).
Grease trap Tank	Fiberglass tank by **“DOS”: GT-09/BK-40** or **“PP”: GT-30UG** (put underground).
Section 4 Construction technology and innovative materials and equipment	
Concrete Structure	
Footing/Column /Beam/ Staircase/ Bathroom tray	**Prefabrication structure with Multi Joint Lock System**. Some parts of structure are cast-in-place as engineer specified.

General concrete plank	Prestressed planks by **D-CON** or **PCM** or equal. Some parts of structure are cast-in-place as engineer specified.
Exterior Door/Window	**by TOSTEM**
General Window	**Anodized aluminum** window by **"TOSTEM": ATIS** or as manufacturer specific with 8 mm. thick clear green glass.
Bathroom window	**Anodized aluminum** window by **"TOSTEM": ATIS** or as manufacturer specific with 8 mm. thick frosted glass.
Door to Terrace / Balcony/ main entrance	**Anodized aluminum** door by **"TOSTEM": ATIS** or as manufacturer specific with 8 mm. thick clear green glass.
Kitchen/ garage door/ washing area (exterior door)	**Anodized aluminum** door by **"TOSTEM": Airflow door** or as manufacturer specific with 6 mm. thick clear green glass.
Hung type sliding door (if any)	**Anodized aluminum** door **by TOSTEM: ATIS** or as manufacturer specific with 8 mm. thick clear green glass.
Door for Bathroom	**Anodized aluminum** window by **"TOSTEM": ATIS** or as manufacturer specific with 8 mm. thick frosted glass.
Door for storage room under stair (if any) / Door for electric control unit panel	Aluminum door by **"TOSTEM": ATIS** or as manufacturer specific
Plastering Material	Mortar cement by **"SCG", "INSEE", "TPI", "SINGHA MORTAR"** or equal with skim coat. For exterior wall, protective formula mortar **"PD Mortar Plus"+ Fiberglass mesh** is used.
Roof Truss	**Alu-zinc (AZ-150)** or **SuperDyma** coated high strength steel structure with screw and nut system as engineer specified.
Water pipe	**Pimaflex Mutipipe by PIMATEC** 25x2.5 mm. (20 mm.) for main pipe from building to meter, length not exceed 40.00 m. with ball valve, metal handle, separating for each floor 20x2.25 mm. (15.5 mm.) for branch pipe 16x2.0 mm. (12 mm.) for hot water pipe
Handrail	**Wrought Iron**, tempered glass or as drawing specified
Section 5 General Construction Materials and Equipment	

Concrete Structure	
Piling	Bangkok area and surrounding area - pre-stressed concrete pile **I-26 not exceed 21.00 m. long** (2 piles welded connection) In case driven pile cannot be used, bored pile as engineer specified is used (extra cost) Provincial area (stiff soil), - pre-stressed concrete solid square pile **26 x 26 cm** is used. One storey house, the length does not exceed 10.00 m. 2-3 storey house, the length does not exceed 12.00 m. In the area where pile can not be driven, soil bearing foundation as engineer specified is used.
Floor of washing area	Reinforced concrete slab on ground as engineer specified. **Piling work size I-12, 2.00 m. long every 0.80 m. interval** (except stiff soil where pile cannot be driven)
Entrance pavement	Reinforced concrete slab on ground with 0.12 m. thickness or as engineer specified. **Total area not exceed 40 sq.m.**
Concrete	Ready mixed concrete by **SCG, INSEE, TPI**
Floor Level	
First floor level	**0.80 m. high from the ground** or as specified in the drawing (In case of multilevel floor).
Second floor level	**3.80 m**. approximately high from the first-floor level or as specified in the drawing
Flooring Materials	
Master bathroom floor	Porcelain tile (price does not exceed **1,000 bath/sq.m**.)
General bathroom floor	Porcelain tile (price does not exceed 500 bath/sq.m.)
Elder bathroom floor	Porcelain tile (price does not exceed 500 bath/sq.m.)
Maid bathroom floor	Porcelain tile (price does not exceed 300 bath/sq.m.)
Kitchen floor/ Laundry floor (if any)	Porcelain tile (price does not exceed 500 bath/sq.m.) with PVC floor skirt or equal
Maid room floor/ storage room floor	Porcelain tile (price does not exceed 300 bath/sq.m.) with PVC floor skirt or equal
Main entrance terrace	Porcelain tile (price does not exceed **1,000 bath/sq.m.)** with aluminum stair nose
General terrace floor	Porcelain tile (price does not exceed **500 bath/sq.m.)** with aluminum stair nose
Waterproofing system for terrace/balcony/toilet floor	the paint type waterproofing system, **TOA Cement Waterproof** with **fiberglass mesh** or equal will be applied.

Parking floor / Entrance/ Footpath	Ceramic tile by **"Bezen": Rome Street Nano** size 4"x4"
Washing area	Porcelain tile (price does not exceed 300 bath/sq.m.) with aluminum stair nose (If any)
Wall Decoration Materials	
Master bathroom wall	Porcelain tile (price does not exceed **1,000 bath/sq.m.**) height does not exceed 2.80 m. with stainless steel or aluminum tile trim or 45-degree mitered tile corners
General bathroom wall	Porcelain tile (price does not exceed **500 bath/sq.m.**) height does not exceed 2.80 m. with stainless steel or aluminum tile trim or 45-degree mitered tile corners
Elder bathroom wall	Porcelain tile (price does not exceed **500 bath/sq.m.**) height does not exceed 2.80 m. with stainless steel or aluminum tile trim or 45-degree mitered tile corners
Maid bathroom wall	Porcelain tile (price does not exceed 300 bath/sq.m.) height does not exceed 2.40 m. with PVC tile trim
Decorated wall (If any)	Natural color granite **"BEZEN" or "KENZAI"** model as drawing specified (price does not exceed **2,500 baht/sq.m**.) or equal, spaced grooves
Ceiling	
General interior ceiling	Height not exceed 3.00 m. Beveled edge gypsum board 9 mm. thick by **"SCG"** with galvanized metal studs#26. 2 set of 60x60 cm. instant service access on the second-floor ceiling.
Maid room/ Storage room ceiling	Beveled edge gypsum board 9 mm. thick by **"SCG"** with galvanized metal studs#26
Ceiling for bathroom	Beveled edge gypsum board, moisture resistant type, 9 mm. thick by **"SCG"** with galvanized metal studs #26
Roof tile	Concrete roof tile model **Adamas Tile,** chalet shake or smooth tile model with **Standard color (**Atlantic gray, Rich gray, Pacific gray, Spanish gray, Arctic gray, Misty gray, Silver gray, Earth gray, Black wood brown, Russet brown, Italthai brown or Mahogany brown) the color chosen later with **"Dry ridge system"**, stainless #24 for valley rafter. In case of polished concrete roof, the paint type waterproofing system, **TOA PU Waterproof with fiberglass mesh** or equal will be applied.
Door and window accessories	
Handle / Lock set for general interior doors/ kitchen door/ garage door	Stainless steel mortise lock set by **"HAFELE": 902.92.044** with dead lock key model **911.02.153** or equal with stainless steel door stopper
Kitchen/ garage door/ washing area (exterior	by **"TOSTEM": Airflow door** or as manufacturer specific.

door)	
Maid room door	Stainless steel mortise lock set by "**MATURE": MTL-001-C** or equal with stainless steel door stopper model **MDH-006** or equal.
Maid bathroom door	Stainless steel knob by "MATURE": MK-012-B SS (eco) or equal with stainless steel door stopper model MDH-006 or equal.
Hinge for general doors/ Maid bathroom door	Stainless steel butterfly hinge by **"HAFELE":926.96.100** or equal, 4 pieces/door
Bathroom door	Hinge and lockset by **"TOSTEM"** or equal
Hung type sliding door (if any)	by **"TOSTEM"** or equal
SANTARY WARE	**"AMERICAN STANDARD" or COTTO" (White color)** or equal (as specified by company)
Water closet	Master bathroom by **AMERICAN STANDARD**: **PLAT Smart Toilet Music & Auto Seat 2021-WT-9** with 2 function rinsing spray model **DuoSTiX A-4800CH-WT** chromium color Maid bathroom by AMERICAN STANDARD: NEW WINSPLUS 2698SCW-WT-0 with rinsing spray model A-4800-WT, white color
Urinal	**AMERICAN STANDARD: LYNBROOK CCAS6519-3120410F0** with automatic electronic flush valve (in 1 bathroom downstairs)
Bathtub	For Master bathroom only, **AMERICAN STANDARD: PLAZA TF-8190-WT** with wall mount mixer faucet and shower set model **SIGNATURE A-1712-300** (with hot water pipe)
Wash basin	For master bathroom, **AMERICAN STANDARD**: **FECILITY DOUBLE WP-F521H-WT**, over the counter type For general bathroom **AMERICAN STANDARD**: **ACACIA SUPASLEEK WP-F420-WT**, over the counter type For maid bathroom, AMERICAN STANDARD: LOVEN 0262-WT-0, wall hung type
Wash basin mixer faucet	For master bathroom, **AMERICAN STANDARD**: **ACACIA EVOLUTION A-1305-100** For general bathroom **AMERICAN STANDARD**: **ACACIA EVOLUTION A-1301-100**
Wash basin faucet	For maid bathroom AMERICAN STANDARD: ARC A-J55-10
Bathroom counter	For general bathroom counter topped with African black color granite stone, counter edge topped with porcelain tile same as the wall.

Wall mounted mixer faucet for shower	For master bathroom, **AMERICAN STANDARD**: **ACACIA EVOLUTION MONO A-1312-300B** with rain shower set model **MOONSHADOW H20S A-6110-978-906** For general bathroom **AMERICAN STANDARD: SIGNATURE A-1712-300** with shower head set
Wall mounted faucet for shower	For maid bathroom AMERICAN STANDARD: WINSTON FFAST604-7T1500BT0
Wall mounted faucet	For master bathroom, general bathroom and maid bathroom **AMERICAN STANDARD**: **WINSTON FFAST602-0T0500BT0** (1 for each bathroom)
Towel bar	For master bathroom and general bathroom **AMERICAN STANDARD**: **ACACIA EVOLUTION K-1393-46-N** For maid bathroom AMERICAN STANDARD: CONCEPT ROUND K-2801-46-N
Soap holder	For master bathroom and general bathroom **AMERICAN STANDARD**: **ACACIA EVOLUTION K-1382-42-N** For maid bathroom RASLAND: RA-BENZ-9894
Tissue holder	For maid bathroom **AMERICAN STANDARD**: **ACACIA EVOLUTION K-1387-55-N** chromium color For maid bathroom RASLAND: RA-822626
Shelf	For maid bathroom RASLAND: RA-B30044
Mirror	For master bathroom and general bathroom **AMERICAN STANDARD: GRACE LQ-04** For maid bathroom **COTTO: MM006**
Bathroom floor drain	For master bathroom and general bathroom, odor trap chrome plated brass floor drain by AMERICAN STANDARD: A-8204-N, 2 for each bathroom
WATER	**PVC pipes by SCG or THAI PIPE**
Waste water/ Drain	4” dia. PVC pipe (class 8.5) for sewage pipe. 2” dia. PVC (class 8.5) for drainage pipe and 3” dia. for main pipe (class 8.5)
Ventilation pipe	1" dia. PVC pipe (class 5.0)
Rain-water drainage	2” dia. PVC pipe for branch rainwater pipe and 3” dia. for main water pipe (class 8.5). 2” Skull shape stainless steel floor drain for balcony or concrete slap roof.
SANITARY SYSTEM	

Drainage pipe	Asbestos cement pipe dia. 8" to public drain (Not exceed 40.00 m. long from the house).
Manhole	30x40 cm. precast manhole every 6.00 m. interval and every bends or corners.
ELECTRICITY SYSTEM	**Electric cables and equipment comply with the Standard of Metropolitan Electricity or Provincial Electricity Authority. Electricity cable by THAI YASAKI or equal.**
Main income wiring	PVC insulated single copper wiring (KV-CV#50 sq.mm.) **The length from wall to meter not exceed 40.00 m (put in PE conduit dia. 2" underground).**
Main income telephone wiring	Four cores **wiring not exceed 40.00 m**. from meter to the house put in PE conduit ½" underground.
Internal wiring	Single copper wiring with PVC insulated with yellow PVC conduit in wall or on ceiling.
Air condition wiring	Maximum 6 points wiring
Control panel	36 circuit breaker by **"BTICINO": BTLN36MBE125** with 32 Amps main breaker model **T6013/100** or equal with Residual Current Device (RCBO).
Lighting switch	Flat wall mounted lighting switch by **"BTICINO"** switch cover model **Nexy Q01LT / Q02LT / Q03LT** – Titanium color**,** 1 way switch model Nexy Q4001A install 1 switch for 1 room and 3 switches for master bedroom, 2 way switch model Nexy Q4003A only at stair hall.
Receptacle	Flat wall mounted 3 pins receptacle by **"BTICINO"** model **Nexy QT4185A –** Titanium color install 2 for each room and **3 for living room, master bedroom and kitchen** (none for storage/bathroom).
Exterior receptacle	**2 sets** of Flat wall mounted 3 pins receptacle by **"BTICINO"** model **Nexy QT4185A –** Titanium color with IP55 waterproof case model 29603
T.V. outlet	**2 set**s of Flat wall mounted T.V. outlet by **"BTICINO"** cover model **Nexy QA4803M1T** – Titanium color and 75 ohm T.V. outlet model QT4202T
LAN outlet	**5 sets** of Flat wall mounted LAN outlet by **"BTICINO** cover model **QA4803M1T** – Titanium color and CAT6 LAN outlet model QT4279C6
Luminaire	Total budget not over **80,000 Baht**
Emergency light	2 sets of twin LED lamp head emergency light at stair hall or as drawing specified.
ELECTRICITY AND WATER METER	
Permanent electric meter	**30 Amps 3 phases meter. Fee and meter deposit covered by company.** (Exclude the service area extension fee)

Permanent water meter	½ **" Diameter meter, Fee and meter deposit covered by company.** (Exclude the service area extension fee)
PAINTING	**BY TOA**
External wall	External acrylic paint **"TOA": Supershield** or equal,1 primer and 2 final coated
Internal wall	Internal acrylic paint **"TOA": Supershield Duraclean A+** or equal,1 primer and 2 final coated
Steel surface/HDF panel	Emulsion paint **"TOA": Glipton** or equal 1 primer and 2 final coated
Facia/Fiber Cement Board	External acrylic paint **"TOA": Supershield** or equal,1 primer and 2 final coated
OTHER WORK	
Termite protection system	**"BAYER": Agenda termite chemical** or equal spray on ground and 1 meter around the building. Springer system and PVC tube piping for termite protection chemical is installed beneath the first floor structure for termite protection chemical.
Tile adhesive	Glue cement by **SCG, WEBER, CROCODILE** or equal
Section 6 Warranty	
Structure	**20 year** warranty
General work	**2 year** warranty exclude natural depreciation of materials due to long used and misused

Remarks: The company reserves the right to change the list if needed but the price of the materials is not less than that stated above. The cost of the construction does not include:

- Old building demolition - Interior decoration and garden - Air conditioner system.
- Water drainage outside the construction site. - Mosquito net, door and window steel bars, rain gutter.