





## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
1	ເຄື່ອງທົດລອງຄວາມແໜ້ນ Soil Compaction Test	<ul style="list-style-type: none"> <li>- Meet ASTM D558, D559, D560, D698, D1557, AASHTO T99, T134, T135, T136, T180</li> <li>- 1 Standard compaction mold 4" dia</li> <li>- 1 Modified compaction mold 6" dia</li> <li>- 1 Standard compaction hammer 5.5 lbs</li> <li>- 1 Modified compaction hammer 10 lbs</li> <li>- 1 Rubber mallet</li> <li>- 1 Mixing trowel</li> <li>- 1 Straight edge 12" long</li> <li>- 6 Sample tray 10" x 2"</li> <li>- 6 Mixing pan 18" x 18" x 3"</li> <li>- 3 Wash bottle 500 ml</li> <li>- 3 Sand scoop cap 1.00 kg (with round bottle)</li> <li>- 24 Moisture can cap 3 oz</li> <li>- 1 Sample ejector for 4", 6" molds</li> </ul>	  	<b>Brand : STS</b> <b>Country : Thailand</b>	set	2
2	ເຄື່ອງທົດລອງຄວາມແຂງແກ່ນຂອງຫີນ Los Angeles Abrasion Testing Machine	<p>Los Angeles Abrasive Testing Apparatus is used for the determination of stone to resist friction, impact and edge combined effects of shear capacity of the quality of microscopic identification of stone.</p> <p><u>Technical specification:</u></p> <ul style="list-style-type: none"> <li>- Rotating speed : 30 - 33 RPM</li> <li>- Steel ball quantity : 12 pcs</li> <li>- Total weight of steel ball : 5000 - 5g</li> <li>- Power supply : 220VAC</li> </ul>		<b>Brand : TBT</b> <b>Country : China</b>	set	1



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3	ເຄື່ອງທົດລອງຂະໜາດເມັດ Sieve Analysis of Fine and Coarse Aggregates; Standard ASTM C136/AASHTO T27	<ul style="list-style-type: none"> <li>- A stel housing with a 60 minute built-in timer encloses the mechanism</li> <li>- Provides Protection from motor, pulleys and belts, but easy access for maintenance</li> </ul> <p><u>Unit Include:</u></p> <ul style="list-style-type: none"> <li>- 1 Sieve, 8" dia, 3" (75mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, 2-1/2" (63mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, 2" (50mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, 1-1/2" (37.5mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, 1" (25mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, 3/4" (19mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, 1/2" (12.5mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, 5/8" (16mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, 3/8" (9.5mm), Full Height, Brass Frame, Stainless Mesh</li> </ul>	 	Brand : STS Country : Thailand	set	2

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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
		<ul style="list-style-type: none"> <li>- 1 Sieve, 8" dia, No.4 (4.75mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.6 (3.35mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.8 (2.36mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.10 (2.00mm), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.16 (1.18mm), Full Height, Brass Frame, Stainless Mesh</li>   <li>- 1 Sieve, 8" dia, No.20 (850μ), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.30 (600μ), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.40 (425μ), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.50 (300μ), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.60 (250μ), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.80 (180μ), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.100 (150μ), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Sieve, 8" dia, No.200 (75μ), Full Height, Brass Frame, Stainless Mesh</li> <li>- 1 Wet Washing Sieve, #200 Stainless Steel Cloth, 8" x 4"</li> </ul>				

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4	ເຄື່ອງທົດລອງຄວາມແຂງແກ່ນຂອງດິນແບບດິຈິຕອນ (ເຄື່ອງໜີບ CBR) CBR Load Frame Electric with Datalogger : Standard ASTM D1883/AASHTO T193	<p><u>CBR-Test 50 Machine 50kN Capacity Two Speeds BS and ASTM</u></p> <ul style="list-style-type: none"> <li>- Maximum Load : 50 kN</li> <li>- Speed : 2 speed machine ; 1.0 mm/min (BS), 1.27 mm/min (ASTM)</li> <li>- Platen diameter : 133 mm</li> <li>- Power source : 220-240V, 50-60Hz, 1ph</li> </ul> <p><u>Two Channel Digital Controls Displays and Data Logger</u></p> <ul style="list-style-type: none"> <li>- Acquisition and data processing system at 24 bit, effective resolution 22 bit</li> <li>- Selectable 0 to 4 decimal point digits for displays value</li> <li>- Selectable measuring force kN, lbf, kgf and Ton engineering units</li> <li>- On-board memory for 9000 test result. (Record data can be selectable and delete data selection)</li> <li>- Resolution selectable 1, 2, 5, 10 and 20 Point</li> </ul>	 	Brand : STS Country : Thailand	set	1


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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
		<ul style="list-style-type: none"> <li>- Record able date mount year and time to test report and recall back to review</li> <li>- USB and RS 232 interface for transfer data during test or test results directly to PC. (Via Download software)</li> <li>- Baud rate selectalbe 1200, 2400, 4800, 9600, 19200</li> <li>- On board circuit protection for maximum load or setting point</li> <li>- Print test result via LPT port directly</li> <li>- Power supply : 220-240V 1ph 50/60Hz</li> </ul> <p>Units Including:</p> <ul style="list-style-type: none"> <li>- 50 KN Compression Load Cell supplied Compelte with Calibration Certificate ISO 17025</li> <li>- 50mm Displacement Transducer</li> <li>- 1 Bracket and Adaptor for TLDT50mm (Mounting on Penetration Piston)</li> <li>- 1 Report Software for California Bearing Ratio Test (CBR)</li> <li>- 1 Penetration Piston 3 sqr.in., 7" long</li> </ul>				

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5	ເຄື່ອງທົດລອງເຈາະຄວາມແໜ້ນໃນສະໜາມດ້ວຍບັງຊາຍ Density and Unit Weight of Soil in Place by the Sand-Cone Method; Standard ASTM D1556/AASHTO T191	<ul style="list-style-type: none"> <li>- Sand Density Cone 4" dia.(S/S) Top Cone Threads into Sand Jug, Flanged; to 4-1/2" dia. Bottom cone, 1/2" Neck dia. With Valve for Controls sand Flow.</li> <li>- Field Density Plate Cast Iron Construction 9" x 9" x 3/4" Dimension, 4-1/2" Opening, flanged</li> </ul> <p><u>Units Including</u></p> <ul style="list-style-type: none"> <li>- 1 Plastic replacement jar 1 gallon (3.79 liters)</li> <li>- 1 Density sand 50 lbs. meet ASTM D1556 , AASHTO T191</li> <li>- 1 Rubber mallet</li> <li>- 1 Steel chisel 1"</li> <li>- 1 Stainless Steel Sampling Spoon</li> <li>- 1 Aluminium alloy round nose scoop 0.25 kg. capacity</li> <li>- 1 Soft hair brush 3"</li> <li>- 12 Moisture can 5 oz.</li> <li>- 2 Steel coated field can 1 gallon</li> <li>- 1 Electronic balance 30 kg.capacity, 1g. Readability</li> </ul>	 	Brand : STS Country : Thailand	set	2
6	ອຸປະກອນເສີມສຳລັບການທົດລອງ CBR CBR Accessories	<ul style="list-style-type: none"> <li>- 3 CBR MOLD ASTM STANDARD</li> <li>- 1 MODIFIED COMPACTION HAMMER 10 LBS</li> <li>- 1 SPACER DISC DIA. 5-5/16" x 2.416"(H)</li> <li>- 6 CIRCULAR SURCHARGE WEIGHT 5 LBS. (วงแหวน)</li> <li>- 3 SLOTTED SURCHARGE WEIGHT 5 LBS. (เหล็กงม่)</li> <li>- 3 SWELL PLATE (BRASS)</li> <li>- 3 TRIPOD ATTACHMENT</li> <li>- 1 Filter Paper 150 mm. Dai. Pack of 100</li> </ul>	 	Brand : STS Country : Thailand	set	2

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7	ອຸປະກອນທົດລອງ ຄວາມໜຽວຂອງດິນ Atterberd limit /Liquid Limit, Plastic Limit, and Plasticity Index of Soils : Standard ASTM D4318/AASHTO T89, T90	<p><u>Liquid Limit Test</u></p> <ul style="list-style-type: none"> <li>- Determining liquid limit of soil</li> <li>- Liquid Limit Machine Include ASTM Grooving Tool And Gauge Block</li> <li>- 1 AASHTO Grooving tool</li> <li>- 1 Evaporating Dish 125 mm. dia.</li> <li>- 1 Spatula 4" blade</li> <li>- 2 Glass measuring cylinder 100 ml.</li> <li>- 12 Moisture can capacity 5 oz.</li> </ul> <p><u>Plastic Limit Test</u></p> <ul style="list-style-type: none"> <li>- 1 Glass plate 6"x6"x1/2"</li> <li>- 1 Evaporating dish 125 mm dia.</li> <li>- 1 Spatula 4" blade</li> <li>- 1 Glass measuring cylinder 25 ml.</li> <li>- 1 Wash bottle 500 ml</li> </ul> <p><u>Shrinkage Limit Test</u></p> <ul style="list-style-type: none"> <li>- 1 Stainless steel monel shrinkage dish</li> <li>- 1 Crystallizing dish</li> <li>- 1 Shrinkage prong plate</li> <li>- 2 Glass measuring cylinder 100 ml.</li> <li>- 1 Evaporating dish 125 mm dia.</li> <li>- 1 Mercury (1 kg./bottle)</li> </ul>	 	Brand : Humboldt Country : USA	set	2

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8	ເຄື່ອງເຈາະດິນ DCP Dual-Mass Dynamic Cone Penetrometer : Standard ASTM D6951	<ul style="list-style-type: none"> <li>- Quickly determining in-situ CBR values of pavement base, sub base and sub grades.</li> <li>- Determine in-place soil shear strength in road construction with CBR values from less than 0.5 to 100% and bearing values ranging from 430 to 10,800 psf.</li> <li>- Consist of a drive hammer and steel extension shaft assembly with a 60° hardened cone tip attached at one end.</li> <li>- The cone tip is driven into the pavement or sub grade by means of a sliding dual-mass hammer.</li> </ul> <p><u>Unit Including</u></p> <ul style="list-style-type: none"> <li>- 1 Dual-Mass DCP Hammer, Threaded Connection</li> <li>- 1 Drive Rod, Threaded, 1-meter</li> <li>- 1 Disposable Cone Adapter</li> <li>- 1 Hard Cone Tip</li> <li>- 1 Disposable Cones (pkg of 25)</li> <li>- 1 Scale, 48"</li> <li>- 1 Single-User Scale Guide Set</li> <li>- 1 Wrench Set (Threaded)</li> <li>- 1 Go, No-Go Gauge</li> <li>- 1 Pelican Case</li> </ul>		Brand : Humboldt Country : USA	set	2






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9	ເຄື່ອງໜີບ CBR ແບບທຳມະດາ Manual CBR Load Frame : Standard ASTM D1883/AASSTO T193	<p><u>Mechanical Loading Jack</u></p> <ul style="list-style-type: none"> <li>- Maximum Load : 50 kN.</li> <li>- Speed : 2 speed loading test</li> <li>- Platen diameter : 133 mm</li> </ul> <p><u>Clamped Boss Load Ring - Compression 28kN .</u> <u>Height 248mm.</u></p> <ul style="list-style-type: none"> <li>- Repeatability within 0.2% of indicated load</li> <li>- Accuracy within ±1% of indicated load</li> <li>- Works calibrated</li> </ul> <p><u>Units Including</u></p> <ul style="list-style-type: none"> <li>- 1 Penetration Piston.</li> <li>- 1 DIAL INDICATOR 1" X 0.001" ( For penetration)</li> <li>- 1 Gauge Holder for CER</li> </ul>	 	Brand : STS and ELE Country : Thailand and England	set	1




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10	ເຄື່ອງຕຳດິນແບບລະບົບຄວບຄຸມ Mechanical soil compactor: Standard ASTM D558, D559, D560, D698, 1557/AASHTO T180, T99	<p><u>Feature</u></p> <ul style="list-style-type: none"> <li>- Motorized drive system eliminates operator fatigue and guarantee uniform tests.</li> <li>- Digital automatic counter for setting and indicating number of hammer blows.</li> <li>- Stop automatically when pre-set number of blows is reached. Mold rotates after each hammer blow.</li> <li>- Adjustable hammer weight and drop for standard or modified compaction tests.</li> <li>- Safety switch in housing access door shuts unit down if opened during operation.</li> </ul> <p><u>Specifications</u></p> <ul style="list-style-type: none"> <li>- Hammer : Circular-faced foot; adjusts to either 5-1/2 lb.(2.5kg) or 10 lb.(4.5 kg) weight</li> <li>- Drop : Adjustable to either 12”(305mm) or 18”(457mm)</li> <li>- Pickups : Spring-loaded on roller chain;cam-controlled</li> <li>- Counter : Digital Indicates number of blow;automatically stops unit at a pre-set number of blow.</li> <li>- Motor : 1/3 hp with overload protection;worm gear reduction drive</li> <li>- Power : 220 - 240 V, 50 Hz, 1 ph</li> </ul>		Brand : STS Country : Thailand	set	1


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11	ເຄື່ອງທົດລອງຄວາມໜຽວຂອງດິນແບບລະບົບຄວບຄຸມ Atterberger Limits Cone Penetrometer Liquid Plastic Limit Device	<ul style="list-style-type: none"> <li>- Function : Electricity and water traffic</li> <li>- Reading time : 0.01 mm.</li> <li>- Delay time : 5±0.5sec</li> <li>- Measuring distance : 0-25 mm..</li> <li>- Weight : 3.9 kg</li> <li>- Power supply : 380V 50 Hz</li> <li>- Dimension (LxWxH) : 220 x 130 x 300 mm.</li> </ul>		Brand : TBT Country : China	set	1
12	ເຄື່ອງໜີບອັດສະຟານ ມາດຕະຖານ ASTM D1559 Resistance of Plastic Flow of Bituminous Mixtures Using Marshall Apparatus : ASTM D1559	<ul style="list-style-type: none"> <li>- Pressure transducer measuring range measuring range : 3-30KN</li> <li>- Pressure transducer measuring accuracy : ≤1%</li> <li>- Displacement transducer measuring range : 0 - 15mm</li> <li>- Vertical deformation (flow rate) measuring accuracy : ≤1%</li> <li>- Specimen pressure head size : Φ101.6mm</li> <li>- Allowable mixture max. particle size : &gt;26.5mm</li> <li>- Power supply : AC220V ±10% 50Hz</li> <li>- Working environment temperature : 0°C - 60°C</li> <li>- Consumption capacity : 600W</li> <li>- Rising speed : 50mm/min±5mm/min</li> <li>- PC interface : DB9 232</li> </ul>		Brand : TBT Country : China	set	1
13	ເຄື່ອງຕຳອັດສະຟານ Preparation of Asphalt Mixture Specimens Using Marshall Apparatus : ASTM D6926	<ul style="list-style-type: none"> <li>- Hammer distance : (457.2 ± 1.5) mm</li> <li>- Compaction speed : 60 times/min ±5 time/min</li> <li>- Compaction pre set up number : 0 - 999times</li> <li>- Hammer weight : 4.536Kg ± 0.009Kg</li> <li>- Mould diameter : 101.6mm</li> <li>- Power supply : 220VAC</li> </ul>		Brand : TBT Country : China	set	1

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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
14	ຄີກ(ສຳລັບຕຳອັດສະຟານ)Marshall mould	<ul style="list-style-type: none"> <li>- Construction : Machined seamless steel forming mold; base and collar.</li> <li>- Finish : Plated for rust resistance.</li> <li>- Dimension : 6” (152.4 mm) I.D. x 4.25” (107.9 mm) internal h. with base.</li> </ul>		Brand : STS Country : Thailand	set	9
15	ແຜ່ນເຈ້ຍຮອງຄີກPaper discs	<ul style="list-style-type: none"> <li>- Paper disk pack of 100 pcs.</li> <li>- Pushing Force : 3,000 kgf (30 kN.).</li> <li>- Jack : Hydraulic; hand-operated; 8” (203 mm) stroke.</li> <li>- Construction : All metal; plated extrusion plates and piston discs; painted finish on housing and pump</li> </ul>		Brand : Matest Country : Italy	set	1
16	ອ່າງແຊ່ສຳລັບອັດສະຟານ marshall water bath : ASTM D1559 Small gas-strut assisted marshall water bath : ASTM D1559	<ul style="list-style-type: none"> <li>- Capacity : 4” (101.6 mm) and 6” (152.4 mm)molds.</li> <li>- Accuracy : 60 ± 1°C or 37.8 ± 1°C</li> <li>- Capacity : 60 Litres</li> <li>- Working Space : 600(L) x 500(W) x 185(H) mm.</li> <li>- Dimension : 840(L) x 540(W) x 400(H) mm.</li> <li>- Power : 220 - 240 V , 1 ph , 50/60 Hz , 4000 W</li> </ul>		Brand : NL Country : Malaysia	set	1


## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
17	ເຄື່ອງທົດລອງຄວາມເຂັ້ມຂຸ້ນຂອງຢາງ ASTM D88 Test Method for Saybolt Viscosity : ASTM D88	<p><u>Saybolt digital viscometer</u></p> <ul style="list-style-type: none"> <li>- Used to determine the viscosity of petroleum products at specified temperatures between 70 to 210 °F.</li> <li>- Dual safety thermostat to prevent accidental over-heatings</li> <li>- Power supply : 220 - 240 V, 1 ph, 50/60 Hz, 500 W</li> </ul> <p><u>Units Including</u></p> <ul style="list-style-type: none"> <li>- 1 Saybolt thermometer +19°C to +27°C</li> <li>- 1 Saybolt thermometer +34°C to +42°C</li> <li>- 1 Saybolt thermometer + 49°C + 57°C</li> </ul>		Brand : Matest Country : Italy	set	1
		<ul style="list-style-type: none"> <li>- 1 Saybolt thermometer + 57°C + 65°C</li> <li>- 1 Saybolt thermometer + 79°C + 87°C</li> <li>- 1 Saybolt thermometer + 95°C + 103°C</li> <li>- 1 Furol orifice</li> <li>- 1 Universal orifice</li> <li>- 1 Saybolt flask</li> <li>- 1 With Drawal Tube</li> <li>- 1 Filter Funnel</li> <li>- 1 White Mineral Oil</li> <li>- 1 Stop Watch 0-60 Minutes</li> </ul>				




## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
18	ເຄື່ອງທົດລອງຈຸດອ່ອນຕົວຂອງຢາງ Softening Point of Bitumen (Ring-and-Ball Apparatus) : ASTM D36	<ul style="list-style-type: none"> <li>- It adopts microcomputer control technology, linear heating and automatic stirring working mode</li> <li>- It can determine two samples at a time and can show test result automatically.</li> <li>- Measurement range : 5.0°C to 90±0.5°C</li> <li>- Temperature resolution : 0.1°C</li> <li>- Stirrer : Its speed can be continuously adjusted</li> <li>- Heating rate : It will be 5.0±0.5°C/min after 3 minutes in the measurement state</li> <li>- Heating power : 800W</li> <li>- Capacity of beaker : 1000 ml</li> <li>- Environment : The working temperature should be lower than 35°C and keep stable without air convection</li> <li>- Power consumption : 850W</li> <li>- Relative humidity : ≤85%</li> <li>- Power supply : 220VAC 50HZ</li> </ul> <p><u>Units Including</u></p> <ul style="list-style-type: none"> <li>- 2 Steel ball locator</li> <li>- 2 Shoulder ring</li> <li>- 2 Steel ball (Φ9)</li> <li>- 1 Beaker</li> <li>- 1 Stirring bar</li> <li>- 1 Temperature sensor cable</li> <li>- 2 Six Amp fuse (Φ5×20)</li> </ul>		Brand : TBT Country : China	set	1

## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment


ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ,ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
19	ເຄື່ອງທົດລອງຈຸດຕິດໄຟຂອງຢາງ ASTM D92  Flash and Fire Points by Cleveland Open Cup Tester : ASTM D92	<p>- Petroleum Products Determination of Flash and Fire Points - Cleveland Open Cup Method and Method for Flash and Fire Points by Cleveland Open Cup Tester.</p> <p>- It is applicable to all petroleum products with flash points above 79°C and below 400°C except fuel oils.</p> <p><u>Features</u></p> <p>- It adopts special heating furnace to ensure the safety of test. The heating power is continuously adjustable.</p> <p>- The instrument adopts desktop structure, with stainless steel working table and furnace shell which make it beautiful.</p> <p>- The instrument is fully self-contained complete. The operator can do determination as long as connecting with coal gas or other civil gas.</p> <p>- The instrument is equipped with flame extinguishing cover which accord with requirements of test.</p> <p><u>Technical specification</u></p> <p>- Heating device : Quartz tube furnace heating, no naked fire, explosion prevented.</p> <p>- The heating power is adjustable from 0W to 600W.</p> <p>- Test flame applicator : It applies the test flame automatically</p> <p>- Igniting device : (1) Ignition source: coal gas(or civil gas) , (2) Flame diameter is 3.2mm~4.8mm</p> <p>- Ambient temperature : (-10-50)°C</p> <p>- Power consumption : 650W</p> <p>- Relative humidity : ≤85%</p> <p>- Power supply : 220VAC 50HZ</p>		Brand : TBT Country : China	set	1

## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment



ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
20	ເຄື່ອງເຈາະຕົວຢ່າງອັດສະຟານ Gasoline power core drill	<ul style="list-style-type: none"> <li>- This drilling machine equipped with diamond core bit.</li> <li>- Mainly used for road, airport, dam, highway and other concrete &amp; asphalt pavement.</li> <li>- The max depth can be 400 mm.</li> <li>- Drilling diameter : D150 mm. max</li> <li>- Power : 5.5 HP</li> <li>- Rotated speed : 200 - 1000 RPM</li> <li>- Include water pump with belt driven and water swivel attachment.</li> </ul>		Brand : TBT Country : China	set	1
21	ຫົວເພັດປະກອບເຄື່ອງເຈາະອັດສະຟານຂະໜາດ 4" Concrete/asphalt core bit 4"	- Diamond core bit, inner size dia. 100 mm.		Brand : TBT Country : China	set	2
22	ຫົວເພັດປະກອບເຄື່ອງເຈາະອັດສະຟານຂະໜາດ 6" 6" Concrete/asphalt core bit 6"	- Diamond core bit, inner size dia. 150 mm.		Brand : TBT Country : China	set	2



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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
23	ເຄື່ອງທົດລອງຍິງຢາງ Test Method for Penetration of Bituminous Materials : BS:2000: Part 49/ AASHTO T49/ ASTM D5 / IP49	<p><u>Semi-automatic Penetrometer</u></p> <ul style="list-style-type: none"> <li>- Digital Automatic Controller which releases the needle assembly.</li> <li>- The time set is displayed by a bright, easy to read display</li> <li>- The 150 mm diameter dial is graduated in 400 divisions of 0.1 mm.</li> <li>- Selectable timer 0- 99 second</li> </ul> <p><u>Penetration Needle</u></p> <ul style="list-style-type: none"> <li>- Hardened steel, supplied with an NPL (National Physical Laboratory, UK) verification certificate.</li> <li>- For testing to BS 2000-49 and ASTM D5.</li> </ul> <p><u>Units Including</u></p> <ul style="list-style-type: none"> <li>- 1 TRANSFER DISH, made from glass, with support</li> <li>- 3 SAMPLE CUP, brass made, dia. 55x35 mm</li> <li>- 3 SAMPLE CUP, brass made, dia. 70x45 mm</li> <li>- 1 Penetrometer cooling bath</li> </ul>		Brand : ELE, Matest, NL Country : England, Italy, Malaysia	set	1


## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ,ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
24	ເຄື່ອງທົດລອງຊອກຫານໍ້າໜັກຈໍາເພາະຂອງຢາງ Theoretical Maximum Specific Gravity Of Uncompacted Bituminous Paving Mixtures: AASHTO T283 / ASTM D2041 / EN 12697-5	<p><u>Vacuum pycnometer 10 litres capacity</u></p> <ul style="list-style-type: none"> <li>- Transparent plexiglass made, complete with valve and gauge, it is utilized for a rapid determination of asphalt content, bulk specific gravity of aggregates, the max. theoretic specific gravity of bituminous uncompacted road mixtures and the percent air voids in compacted mixtures.</li> <li>- To perform the test a minimum ultimate vacuum of 30mm/Hg is requested.</li> <li>- Dimensions: 300mm dia. x 450mm high</li> </ul> <p><u>Unit Including</u></p> <ul style="list-style-type: none"> <li>- 1 Vibro-Deaerator,Electromagnetic for 220</li> <li>- 1 VACUUM PUMP 2 STAGE AIR: 4,5 M3/H</li> <li>- 1 VACUUM REGULATOR</li> <li>- 1 CONDENSED WATER TRAP</li> <li>- 1 RUBBER TUBING FOR VACUUM, 3 METRES</li> <li>- 1 ELASTICS TO FIX THE PYKNOMETER</li> </ul>		Brand : Matest Country : Italy	set	1
25	ເຄື່ອງທົດສອບຄວາມໝຽວຂອງຢາງ Test Method for Ductility of Bituminous Materials : ASTM D113	<p><u>FEATURES</u></p> <ul style="list-style-type: none"> <li>- Multiple speed setting for elongation movement</li> <li>- High accuracy LED test parameter</li> <li>- Using double ball screw with servo motor for uniform movement</li> <li>- Save up to 10 groups test result</li> <li>- Fitted with immersion electric heater, coiling coil &amp; circulating pump unit</li> <li>- Enable connected to mini printer for instant print out 3 groups average test result</li> </ul>		Brand : NL Country : Malaysia	set	1

## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
		<u>Technical Specifications</u> - Max. Carriage Displacement : 1500 mm - Displacement Accuracy : 1 mm - Temperature Range : 5 - 40°C - Temperature Accuracy : ±0.1°C - Test Speed - Cooling Power : 1200 W - Heating Power : 3500 W - Nos. of Specimen Carriage : 3 - Product Dimension : 2120 (L) x 440 (W) x 970 (H) mm - Packing Dimension : 2130 (L) x 5400 (W) x 1200 (H) mm - Power : 220 V, 1 ph, 50 / 60 Hz  <u>Unit Include</u> - 1 Handheld Distance Remove Control - 2 Tank Glass Cover - 1 Briquette Mould c/w Base Plate (ASTM D113) - 1 Mini Printer c/w Cable				


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ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
26	ເຄື່ອງທົດສອບແຮງດຶງ Computer control tensile testing machine	<p><u>Features</u></p> <ul style="list-style-type: none"> <li>- Double column structure, with servo motor system, ball screw</li> <li>- Industrial PC inserted into control cabinet which save operating space compare to normal PC</li> <li>- Equipped with “stroke type” load cell which make the test more stable &amp; accuracy</li> </ul> <p><u>Technical specification</u></p> <ul style="list-style-type: none"> <li>- Capacity : 100 KN</li> <li>- Accuracy degree : Grade 1</li> <li>- Effective measurement range : 0.4%-100%F·S</li> <li>- Measurement relative error : Within ±0.5% of displayed value</li> <li>- Measurement resolution : 1/±300000 of max. capacity</li> <li>- Deformation measuring range : 0.2~100%F.S</li> </ul>		Brand : TE Country : China	set	1

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ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນ ລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
		<ul style="list-style-type: none"> <li>- Displacement measurement resolution : 1/±300000 of max. capacity</li> <li>- Big deformation resolution : 0.008mm</li> <li>- Displacement relative error : Within ±0.5% of displayed value</li> <li>- Displacement resolution : 0.0025mm</li> <li>- Stress speed control range : 0.005~5%F.S/S</li> <li>- Stress speed relative error : Within ±1% of set value</li> <li>- Deformation speed adjusting range : 0.02~5%F.S/S</li> <li>- Deformation speed relative error : Within ±2% when speed &lt;0.05%F.S , Within ±0.5% when speed &gt;=0.05%F.S</li> <li>- Beam speed adjusting range : 0.001~500mm/min.</li> <li>- Beam speed relative error : Within ±1.0% when speed &lt;0.01mm/min. , Within ±0.2% when speed &gt;=0.01mm/min.</li> <li>- Constant stress, deformation, displacement range : 0.5%~100%F.S</li> <li>- Constant stress, deformation, displacement accuracy : Within ±1% when setting value &lt;10%F.S , Within ±0.1% when setting value &gt;=10%F.S</li> <li>- Effective tensile space : 600mm</li> <li>- Effective width : 500mm</li> <li>- Power supply : 220VAC 50HZ</li> </ul> <p><u>Unit Including</u></p> <ul style="list-style-type: none"> <li>- 1 Flat Type Tensile Jaw size 0 - 7 mm.</li> <li>- 1 V Type Tensile Jaw size D4 - 9 mm.</li> <li>- 1 Compression jaw 1set (D100mm)</li> </ul>				


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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
27	ເຄື່ອງທົດສອບຫາຄ່າກຳລັງຕ້ານທານຂອງຄອນກຣີດແບບບໍ່ເຈາະຄອນກຣີດ Test Method for Rebound Number of Hardened Concrete : EN 12504-2 / ASTM C805	<u>During test performing:</u> - Shows index value - Shows average index value - Allows to select measuring system in MPa or Psi - Shows numbers of performed rebounds - Shows date and time - Identifies tested element - Identifies automatically and shows rebound angle - Shows battery life		Brand : Matest Country : Italy	set	2

## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment



ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນ ລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
		<p><u>Main features:</u></p> <ul style="list-style-type: none"> <li>- Possibility to store, display on graphic LCD 64x124 and download data to PC over 15000 tests</li> <li>- Automatic statistical processing and readings</li> <li>- Automatic conversion of rebound index to equivalent compression strength in psi, N/mm2, kg/cm2</li> <li>- High accuracy and resolution</li> </ul> <p><u>Technical specifications:</u></p> <ul style="list-style-type: none"> <li>- Impact energy: 2,207 Joule (Nm)</li> <li>- Measuring range: 10 – 120 N/mm2</li> <li>- Interface: USB</li> <li>- Power source: 6 rechargeable batteries AA NiMh 2400mA/hour</li> <li>- Battery life: 60 hours with automatic shut down</li> <li>- Operating temperature: -10°C +60°C</li> <li>- Supplied complete with data transfer software, data transfer USB cable, battery charger, abrasive stone, carrying case</li> <li>- Dimensions with case: 330x180x120 mm</li> </ul>				

## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment



ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
28	ເຕົາອົບວັດສະດຸດິນ Oven	<p>Technical specification</p> <ul style="list-style-type: none"> <li>- Chamber volume : 620L</li> <li>- Temp. Control range : RT +10C ~ 300C</li> <li>- Temperature accuracy / evenness : <math>\pm 1C</math> at 100C / <math>\pm 2.5C</math> at 100C</li> <li>- Timer : Min. 1minute, max. 99hour</li> <li>- Controller : PID microprocessor</li> <li>- Sensor : PT100</li> <li>- Inner chamber material : #304 stainless steel</li> </ul> <ul style="list-style-type: none"> <li>- Inner chamber size : 800*600*1300mm</li> <li>- Power supply : 380VAC 50Hz</li> <li>- Consuming power : 5700W</li> <li>- Standard shelf : 3(standard)/6(max)</li> </ul>		Brand : TBT Country : China	set	2






## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
29	ອຸປະກອນທົດສອບນ້ຳໜັກຈຳເພາະຂອງຊາຍ ແລະ ເປີເຊັນດູດຊຶມນ້ຳຂອງຊາຍ Sand absorption cone and tamper	<p><u>Conical Mold and Tamper 1 set</u></p> <ul style="list-style-type: none"> <li>- Complies with ASTM C128; AASHTO T84.</li> <li>- Determination of bulk and apparent specific gravity and absorption of fine aggregate.</li> <li>- Brass mold is 40 mm. ID at top, 90 mm. ID at bottom, 75 mm. high.</li> <li>- Flat circular tamping face dia. size 1" (25mm)</li> </ul> <p><u>Pycnometer Top and Glass Jar 1 set</u></p> <ul style="list-style-type: none"> <li>- Complies with ASTM C128.</li> <li>- Pycnometer top and 1qt. (.95L) glass jar set for determining specific gravity of fine aggregate.</li> <li>- Top is spun brass with 3/8" (10mm) hole in one end; threaded end fits 1- or 2-qt. (1 or 2L) glass jar.</li> <li>- Includes rubber gasket that fits on jar mouth.</li> </ul> <p><u>Precision Balance</u></p> <ul style="list-style-type: none"> <li>- Capacity : 4100 g.</li> <li>- Application Modes : Weighing, PartsCounting, Percent</li> <li>- Readability : 0.01 g.</li> <li>- Platform Size : Dia.180 mm.</li> <li>- Linearity : 30 mg.</li> <li>- Taring Time : 1 sec.</li> <li>- Stabilization Time : 3 sec.</li> </ul> <p><u>Sample Tray 12 set</u></p> <ul style="list-style-type: none"> <li>- Size : 260x420x50 mm.</li> <li>- Material : Aluminium</li> </ul>	  	Brand : Humboldt, OHAUS, STS Country : USA, USA, Thailand	set	2


## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
30	ອຸປະກອນທົດສອບນໍ້າໜັກຈຳເພາະຂອງແຮ່ Methods for Density and Specific Gravity of Plastics by Displacement : ASTM D792	- Used to determine the density of geomembranes, plastics and other solid materials.  <u>Technical Specification</u> - Test Method : Manual - Glass Cylinder Size : Inner D185 x 220 mm. - Capacity : 1000 g. - Accuracy : 0.01 g.		Brand : TBT Country : China	set	2
31	ອຸປະກອນທົດສອບນໍ້າໜັກຈຳເພາະຂອງຊີເມັນ ASTM C188 Method for Density of Hydraulic Cement : ASTM C188 Test	<u>Specific Gravity Flask 1 set</u> - For determining density of powdered materials ; limes, slag and hydraulic cement. - Capacity : 250ml. - Neck is graduated from 0 to 1ml and from 18 to 24ml. - Flask is accurate to 0.05ml. Complies with ASTM C188; AASHTO T133.  <u>Units Including</u> - 1 Chattaway Spatula 125 mm long. - 1 Glass Funnels 75 ml. - 1 Glass Thermometer 0-100C - 1 Glass Beaker 600 ml. - 1 Rubber Plate 12"x12"x1/4" - 1 Precision Balance 410 g. x 0.001 g.		Brand : STS Country : Thailand	set	2

## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
32	ເຄື່ອງທົດສອບໄລຍະການແຂງຕົວຂອງຊີເມັນ Time of Setting of Concrete Mixtures by Penetration Resistance : ASTM C403	Acme Penetrometer - Determining the setting time of concrete - Loads are applied hydraulically with pressures read on a 200 lbf - Cast aluminum base and set of 6 stainless steel penetration needles size 645, 323, 161, 65, 32 and 16 mm <sup>2</sup> - One wooden block - 100 laboratory test data reporting forms		Brand : Humboldt Country : USA	set	2
33	ແບບຫຼັງຊີເມັນ Mortar MOULD	- Cement cube mold 50x50x50 mm. Cast iron		Brand : STS Country : Thailand	set	2
34	ເຄື່ອງໜີບຊີເມັນ and flexural machine dual Compression	<u>Technical specification:</u> - Max. Capacity for compression test: 300KN - Max. Capacity for flexure test: 10KN - Compression space for flexure test: 180mm - Piston stroke for flexure test: 60mm - Compression space for compression test: 180mm - Piston stroke for compression test: 80mm - Fixed upper platen diameter: D108mm / D60mm - Ball seat upper platen diameter: D170mm - Lower platen diameter: D205mm - Power supply: 220VAC		Brand : TBT Country : China	set	1



## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
35	ເຄື່ອງກວດສອບກຳລັງອັດຂອງຈັກໜີບ Calibration process load cell	<p><u>At the end of the test the unit automatically elaborates the stored value and displays:</u></p> <ul style="list-style-type: none"> <li>- Effective applied load</li> <li>- Measured load (over three verification cycles)</li> <li>- Average measured load</li> <li>- Accuracy in %</li> <li>- Repeatability</li> <li>- Relative readability</li> <li>- Max error</li> <li>- The tester's accuracy is <math>\pm 0.5\%</math> of the indicated load.</li> </ul> <p><u>TECHNICAL SPECIFICATIONS:</u></p> <p><u>HARDWARE:</u></p> <ul style="list-style-type: none"> <li>- High resolution converter up to 24 bit.</li> <li>- Excitation at 5Vcc</li> <li>- Standard signals: feed + feed – (0V) signal + signal – and shield</li> </ul>		Brand : Matest Country : Italy	set	1

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ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນ ລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
		<ul style="list-style-type: none"> <li>- Remote push button to facilitate the readings' confirmation during the calibration and the execution of the cycle of verification.</li> </ul> <p><u>FIRMWARE:</u></p> <ul style="list-style-type: none"> <li>- Software administration up to ten load cells. It can be used one cell at a time, selectable among with the ones correctly configured and installed</li> <li>- Load measuring range: kN, kg, lb</li> <li>- Visualization up to 5 decimal points</li> <li>- Date of test and/or calibration</li> <li>- Linearization steps or polynomial</li> <li>- Digital filter of the first programmable order that is able to filter and settle the value acquired by the electrical cell.</li> </ul> <p><u>FUNCTIONS:</u></p> <ul style="list-style-type: none"> <li>- Unlimited execution of verification tests</li> <li>- Code of the device under verification</li> <li>- Execution of the verification cycles according to the European EN Standards</li> <li>- Calculation of all the fundamental parameters required: repeatability and accuracy percentage error, residual error on the 0 point, maximum relative resolution and class of the device under verification</li> <li>- Sending all the data tests to PC, importable in excel</li> <li>- Direct USB printer connection (PCL compatible printers)</li> <li>- Administration of tests by Matcal software (accessory).</li> </ul>				



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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
		<p><u>MAIN PAGE:</u></p> <ul style="list-style-type: none"> <li>- Visualization of all the device data of the selected cell</li> <li>- Date and time</li> <li>- Available languages: Italian, English, French, German and Spanish, Polish (other languages on request).</li> </ul> <p><u>Unit Including</u></p> <ul style="list-style-type: none"> <li>- 1 Standard Load Cell 500 kN</li> <li>- 1 Calibration process of one load cell</li> </ul>				
36	ຊຸດທົດສອບຄ່າຍຸບຕົວຂອງຄອນກຣີດ Test Method for Slump of Hydraulic-Cement Concrete : ASTM C143	<ul style="list-style-type: none"> <li>- 1 Slump Cone Stainless Steel dia. 6"</li> <li>- 1 Tamping rod dia. 5/8" mm. and long 24"</li> <li>- 1 Brass Brush</li> <li>- 1 Round aluminium scoop capacity 1000 ml.</li> <li>- 1 Mixing Trowel</li> <li>- 1 Mixing Pan 24"x24"x3"</li> <li>- 1 Measuring Tap 50 Meters</li> </ul>		Brand : STS Country : Thailand	set	2
37	ອຸປະກອນທົດສອບຕັດສະນີຄວາມແປ ແລະ ຄວາມຍາວ Thickness gauge and Length gauge	<p><u>Used to concrete aggregate grading screening</u></p> <p><u>Technical specification</u></p> <ul style="list-style-type: none"> <li>- Width: 3/5.2/7.2/9/11.3/14.3mm</li> <li>- Distance: 18/31.2/43.2/54/67.8/85.8mm</li> </ul>		Brand : TBT Country : China	set	4

## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment




ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
38	ເຄື່ອງວັດແທກໄລຍະທາງແບບດີຈີຕ້ອນ TOPMEASURE	Wheel Diameter: 32cm Wheel Circumference: 1m Measurement Increments: decimeters, meters Resettable Counter: Yes Handle Reset Counter: Yes Counter Limit: 9999m Fold-down/Telescopic handle: Yes, 2 piece fold-down Brake: Yes Kick Stand: Yes Weight: 1.86kg		TOPMEASURE TM12	set	2
39	ກ້ອງລະດັບ Automatic LEVEL	Model: NAK2 - Magnification:32X - Weight:2.4 Kg		Leica	set	1

## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment



ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
40	ເຄື່ອງຄົ້ນຫາພິກັດຄວາມລະອຽດສູງ GPS RTK GALAXY G1	<ul style="list-style-type: none"> <li>- Dimension 12.9cm x 11.2cm</li> <li>- Weight 970g</li> <li>- Material Magnesium aluminum alloy shell</li> <li>- Power Consumption</li> <li>- Power Consumption 2W</li> <li>- Battery Rechargeable, removable Lithium-ion battery</li> <li>- Battery Life Single battery: 7h (static mode) 5h (internal UHF base mode) 6h (rover mode)</li> <li>- Wireless Modem Integrated internal radio receiver and transmitter 0.5W/2W External radio transmitter 5W/25W</li> </ul>		SOUTH	set	2
41	ກ້ອງວັດແທກມຸມ TOTAL STATION	<p>Best in class electronic distance measurement(EDM) with pin point EDM, Flex line plus deliver the optimal balance arrange, accuracy, reliability, beam visibility, laser dot size and measurement time. 1.5mm to prism 2mm</p> <p>2ppm+2ppm to any surface extremely fast(2 seconds)</p> <p>1000m range without a prism</p>		Leica	set	1





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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
42	ເຄື່ອງກວດສອບຜິດຂອງກ້ອງມຸມ ແລະ ກ້ອງລະດັບ calibration total station theodolit auto level	F420-4T collimator for total station theodolit auto level desktop		Brand : SANZHUN Country : CHINA	set	1
43	ຄອມພິວເຕີ້ງໂຕະສຳລັບອອກແບບ Desktop	HP - Pavilion 23.8" Touch-Screen All-In-One - Intel Core i5 - HDD=2TB - RAM= 4 GB - window10 pro		HP - Pavilion	set	21
44	ກະດານອັດສະລິຍະ smart board RAZR Interactive Board i 78 H	RAZR Interactive Board i 78 H		RAZR	set	1



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ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ,ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
45	ລົດໄລຂະໜາດນ້ອຍ(Gasoline Double drum vibratory road roller)	Manual double drum vibratory road roller Honda gasoline power asphalt rollers(FYL-S600)		Honda	set	1
46	ເຄື່ອງບີດອັດດິນສັ່ນສະເທືອນຂະໜາດນ້ອຍ (Honda GX270 Reversible Plate Compactor Vibrator Soil Compactor)	Engine: Honda GX270 Power(W): 5.5HP/ 9.0HP Vibrating force: 30KN working area: 70*50 cm		Honda	set	1
47	ເຄື່ອງບີດອັດດິນແບບກະໂດດ(Tamping rammer)	Tamping rammer "Mikasa" Model MT-50V Impact rate 750-1000 kgf Power by Robin EC08GH 3.3 PS		MIKASA Country : Japan	set	1


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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
48	ເຄື່ອງຕັດເບຕິງ(concrete Cutting machine)	<p>Diesel engine is also available for the concrete cutter.</p> <p>Diameter of the blade:350mm</p> <p>Width of cutting slot:3-4mm</p> <p>Cutting deepness:110mm</p> <p>Working speed:1-2 m/min</p> <p>Power of engine:9.0HP</p> <p>Volime of water tank:35</p>		Honda	set	1
49	ເຄື່ອງທຳລາຍຄອນກຣີດ(Bosch demolition breaker hammer)	<p>Breaker GSH 16-30 Professional by Bosch</p> <ul style="list-style-type: none"> <li>- Rated power input 1.750 W</li> <li>- Max. impact energy 41 J</li> <li>- Impact rate at rated speed 1.300 bpm</li> <li>- Weight 16,5 kg</li> <li>- Length 760 mm</li> <li>- Width 255 mm</li> <li>- Bit holder 30 mm internal hexagon</li> </ul>		Bosch	set	

## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

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Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
50	ເຄື່ອງຈັບເບຕົງ (Concrete pump MIKASA MGX-28 1)	<ul style="list-style-type: none"> <li>- Power: 280 Watts</li> <li>- the vibration (VPM): 12000-15000 / min</li> <li>- oscillation frequency (Frequency) 200 - 258 HZ</li> <li>- diameter (D) 24.6 MM: AMPTITUDE 1.8 MM</li> <li>- line length 1.5 M pendant</li> <li>- head size pendant 28 MM</li> </ul>	 <p style="font-size: small; text-align: center;">             ມາໂນລີ              ເຄື່ອງຈັບເບຕົງ MIKASA ກຸ່ມ MGX-28x1ແມັດ              MADE IN JAPAN 9000 ການ         </p>	MIKASA Country : Japan	set	
51	ເຄື່ອງຕົ້ມຢາງມະຕອຍ BERGIN BO-80 Asphalt Blower and Gas LPG	<ul style="list-style-type: none"> <li>- energy: LPG</li> <li>- usage condition: Boiled</li> <li>- Boiling characteristics: 2-storey</li> <li>- First tank: Boil the oil</li> <li>- Second tank:Boiled asphalt with rubber stirred.</li> <li>- Diameter of boiler tank: 500 mm</li> <li>- Boiler height: 500 mm</li> <li>- Boiling tank capacity: 80 liter</li> <li>- Control system: Adjust the tire</li> <li>- Number of wheels:4 wheels</li> <li>- 3 Wash bottle 500 ml</li> <li>- 3 Sand scoop cap 1.00 kg (with round bottle)</li> <li>- 24 Moisture can cap 3 oz</li> <li>- Steering system: Force the front wheel.</li> </ul>		BERGIN	set	1

## Indicative package for Savannakhet Technical and Vocational College, Road and Bridge Construction Equipment

ລ/ດ	ຊື່ອຸປະກອນ	ລັກສະນະເຕັກນິກ, ຈຸດພິເສດ, ມາດຕະຖານອຸປະກອນ	ຮູບພາບອຸປະກອນ	ຍີ່ຫໍ້ອຸປະກອນ	ໜ່ວຍ	ຈຳນວນລວມ
Lot REF. NO.	ITEM	SPECIFICATION	PICTURE	Preferred brand	UNIT	Total QUANT.
52	ເຄື່ອງແຕ້ມເສັ້ນຈາລະຈອນ (LXD gasoline engine self-propelled thermoplastic road making machine)	<ul style="list-style-type: none"> <li>- Engine: 5.5HP Honda liquified petroleum gas engine</li> <li>Paint tank: double layer stainless steel, capacity of 120kg, equipped with inserted dismountable manumotive stirring device</li> <li>- double layer stainless steel, capacity of 120kg, equipped with inserted dismountable manumotive stirring device</li> <li>- Working speed: More than 1000 m/h</li> <li>- Marking width: 50/100/150/200/300/400/450mm, you can choose different specification of marking shoe to fit for the situation of construction. thickness range from 1.2mm to 2.5mm</li> </ul>		Brand : LXD Country : China	set	1