

## **Schedule 2 Agreed Services**

### **Part 1 – Maintenance, Emergency Response and Reporting**

The Contractor shall render the following services during the Term:

#### **1. Routine Inspections and Maintenance**

- 1.1. The Contractor shall at all times during the Term keep the System in good working order and condition and shall undertake and perform routine inspections and maintenance on the System at the frequency based on the existing schedule (a sample is attached in Schedule 3).
- 1.2. The Contractor and the Contractor's Personnel shall thoroughly examine the System during each inspection, and shall:
  - 1.2.1. promptly take such action as is necessary to repair, remedy and rectify any defect, deficiency, flaw and/or effect of wear and tear in the System, or if necessary replace any defective or faulty part of the System; and
  - 1.2.2. troubleshoot, correct and resolve expeditiously any error which may be discovered or revealed through the investigations and tests conducted by the Contractor's Personnel.
- 1.3. The Contractor shall, from time to time at the request of the Company, provide the Company with general guidance, technical advice, assistance and support in relation to the use, operation, maintenance and repair of the System.
- 1.4. In relation to the repair or replacement of any of the Parts with any Defect, the Contractor shall:
  - 1.4.1. commence any such repair or replacement only when so authorized by the Company's Supervisor; and
  - 1.4.2. replace that defective Part with a new and unused Part of the best possible quality in relation to condition, durability and performance, from authorized suppliers approved by the Company's Supervisor.

## **2. Emergency Response**

- 2.1. The Contractor's Personnel shall be on call on a 24-hour basis (including all Sundays and public holidays) to provide the services set out in paragraphs 2.2 to 2.7 below.
- 2.2. The Contractor's Personnel shall respond promptly to any telephone inquiry made by the Company in respect of any issue involving the System, and provide such technical support over the telephone as may be required to resolve the issue. However, if the Company is unable to resolve the issue to its satisfaction despite such telephone support, the Contractor's Personnel shall be required to attend at the Premises. The Contractor's Personnel shall report at the Premises 2 hours upon notification.
- 2.3. The Company may at its discretion require two (2) or more of the Contractor's Personnel to attend at the Premises to resolve the issue involving the System after office hours. They should be contactable by handphone at all times.
- 2.4. Where a Contractor's Personnel is required to attend at the Premises pursuant to any provision of this paragraph 2, the Contractor's Personnel shall personally enter the Premises to inspect the System within the relevant period under column (4) of the table set out in Schedule 3. For the purpose of this paragraph 2.4, the Contractor's Personnel shall be deemed to arrive at the Premises at the time he reports to the Company's Supervisor at the Premises.
- 2.5. The Contractor's Personnel shall immediately investigate the cause of the issue(s), problem(s) or fault(s) encountered by the Company with the System and shall conduct such evaluations and tests as may be appropriate to verify and confirm that all of the parts, accessories and components comprising the System and their related software are:
  - 2.5.1. free from any defect, fault, malfunction or failure, technically sound and operating in accordance with their respective functional design and specifications; and
  - 2.5.2. operating in proper combination with each other.
- 2.6. The Contractor's Personnel shall:
  - 2.6.1. promptly take such action as is necessary to repair, remedy and rectify any defect, deficiency, flaw and/or effect of wear and tear in the System, or if necessary replace any defective or faulty part of the System; and

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2.6.2. troubleshoot, correct and resolve expeditiously any error which may be discovered or revealed through the investigations and tests conducted by the Contractor's Personnel.

2.7. In relation to the repair or replacement of defective Parts, the Contractor shall:

2.7.1. commence any such repair or replacement only when so authorized by the Company's Supervisor; and

2.7.2. replace the defective Parts with new and unused Parts of the best possible quality in relation to condition, durability and performance, from authorized suppliers approved by the Company's Supervisor.

### **3. Reporting**

3.1. For each time that the Contractor's Personnel is required to attend at the Premises to perform any of the Services (whether on account of performing routine inspections and maintenance, or responding to a notification by the Company of any issue with the System), the Contractor's Personnel shall, within the relevant period under column (4) of the table set out in Schedule 3, submit to the Company's Supervisor a report stating, inter alia, the following:

3.1.1. a record of the defects, faults, errors and/or problems found in the System; and

3.1.2. the work done by the Contractor in respect of the defects, faults, errors and/or problems referred to in paragraph 3.1.1, including any part, accessory and/or software repaired or replaced.

### **4. Preventive Maintenance (PM)**

4.1. The PM shall be carried out once a month or as per the manufacturer's maintenance schedule for all equipment. The maintenance work covers checking, lubricating, minor adjustment, functional test of all safety devices and controls. (For details, please refer to Schedule 1). The Tenderer is expected to provide qualified and skilled technicians to perform this program. There should be sufficient manpower to complete the number of equipment scheduled for servicing every month. The equipment servicing cycle should not exceed 6 weeks unless special permission is given.

4.2. All tools and consumable items are included in the tender price. e.g.

4.2.1. All types of bolts, nuts, washers, screws, springs, bushing and pins

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- 4.2.2. All types of cleaning solvents, grease, lubricants, sprays, paint, hydraulic oil (for topping up only) and filters
- 4.2.3. Rags and brushes
- 4.3. The Contractor shall submit a master maintenance schedule – both monthly and yearly (please refer to Schedule 1) during the tender submission for reference. This will serve as a guideline whereby future schedule will be based on.
- 4.4. The actual work on site will however need to be adjusted after consultation with SAS so that the timing of equipment shutdown can be properly coordinated.
- 4.5. The proposed maintenance contract sum shall include all arrangement and assistance for necessary testing, inspections and issuance of professional engineers' certificates as required by the government authorities at any point of time but will exclude PE fees.
- 4.6. The proposed contract sum should include all inspections for the Work at Height Platforms (from AFT1-6) anchorage points, Self-Retracting Lifelines (SRL) and Safety harnesses by a competent person. It should also include the lifelines and harnesses attached to the MHS equipment in AFT1-5.
- 4.7. The Contractor shall follow closely to the manufacturer's recommended list of PM checklist. This is indicated in Schedule 1. Within 3 weeks upon the award of this contract, the Contractor is to submit to SAS a proposed list of checklists following closely to the manufacturer's recommendation for approval by SAS engineers. The Contractor is expected to improve the manufacturer recommendations and should include other details like spare part used, manhours taken, components to change during the next PM, etc.
- 4.8. Defects requiring repair discovered during regular PM must be rectified at no additional cost.
- 4.9. The Contractor shall carry out half-yearly load tests on all lifting equipment. The required load shall always be available in the terminal so that ad-hoc tests can be carried out.
- 4.10. The Contractor must ensure that function tests must be carried out on the sub-system (on which the PM has been done) before the system is released to SAS for use.

- 4.11. SAS reserves the right to amend the preventive schedules as and when required and to redeploy the men to carry out repairs. Such repair works shall not be chargeable if the existing preventive maintenance manpower is used.

## **Part 2 – First Line Maintenance and Reporting**

The Contractor shall render the following services during the Term:

### **5. First Line Maintenance**

- 5.1. The Contractor shall at all times during the Term keep the System in good working order and condition and shall undertake and perform breakdown recovery and repairs on the System as and when directed or when equipment breaks down.
- 5.2. The Contractor and the Contractor's Personnel shall correctly recover the system from breakdown, and shall:
- 5.2.1. promptly take such action as is necessary to repair, remedy and rectify any defect, deficiency, flaw and/or effect of wear and tear in the System, or if necessary replace any defective or faulty part of the System; and
  - 5.2.2. troubleshoot, correct and resolve expeditiously any error which may be discovered or revealed through the investigations and tests conducted by the Contractor's Personnel.
- 5.3. The Contractor shall, from time to time at the request of the Company, provide the Company with general guidance, technical advice, assistance and support in relation to the use, operation, maintenance and repair of the System.
- 5.4. In relation to the repair or replacement of any of the Parts with any Defect, the Contractor shall:
- 5.4.1. commence any such repair or replacement only when so authorized by the Company's Supervisor; and
  - 5.4.2. replace that defective Part with a new and unused Part of the best possible quality in relation to condition, durability and performance, from authorized
  - 5.4.3. free from any defect, fault, malfunction or failure, technically sound and operating in accordance with their respective functional design and specifications; and

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5.4.4. operating in proper combination with each other.

5.4.5. there shall not be additional charges for such repairs during first line support (repairs requiring no more than 2 men and not more than 5 manhours)

### **6. Reporting**

6.1. The Contractors' men are expected to report to the duty Technical Officer at the start and end of every shift. They are to fill in an attendance form provided by the Contractor with details of time reporting and leaving the workplace. This form shall be kept in the control room.

6.2. The men are expected to stay in the control room if there are no breakdowns. The men would be given time off for lunch breaks. The lunch breaks will be staggered to ensure there are sufficient men to attend to breakdowns.

### Schedule 3

## Service Frequencies and Periods

#### 1 INDEX OF PM CHECKLISTS

Check List No	Equipment Abbrev	Equipment Type	MCPs Using the Check list	No of Subsystem
1	ETP	ULD Hoist	ETP 1- 6	6
2	ETV	Elevating Transfer Vehicle	MCP 23 - 25	3
3	TTTV	Turn-Table Transfer Vehicle	MCP 26 - 28	3
4	BDA/BUA	Workstation	MCP 1-3 ,6-8,12-14 and 15-17	12
5	TV	Transfer Vehicle	MCP 29, 30,31,32,33	5
6	BV	Bridge Vehicle	MCP 35,36	2
7		Minishipment	MCP 21A,21B,22A and 22B	4
8	T/D	T/D and Fork tyne Deck	MCP 5 TDS, TDN and MCP 9 TDS,TDN	4
9		Bin Input and output station	MCP I12, I14, I16, I22, I24, I26 AND O11, O13, O15, O21, O23, O25	12
10		Right Angle Deck	MCP 4 AND MCP 10	2
11		Scissor Lift	MCP 5 X-Lift and MCP 9 X-Lift	4
12	RQL	Refrierated Queue Lane	MCP 11	15
13	TT	Turn-Table	MCP 5	1
14	TT & RA	Turn-Table & RA Deck	MCP 9	1
15	CR	Cold Room	MCP 5	4
16		Barrier Gate	MCP 11	1
17	QLE	Q Lane Export	Queue Lane North	414
18	QLI	Q Lane Import	Queue Lane South	371
19	SR	Stacker Crane	MCP 18-20	3
20		Mobile Platform		14

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*Preventive Maintenance Checklist for T5*Equipment Type (1): **Hoist**

MCP: \_\_\_\_\_

The : \_\_\_\_\_ (th) servicing

Start	End
Date	
Time	

Code	Job Description	**	EquipmentCondition	Service	Remarks
E0	<b>Electrical(:)</b>				
E01	Visual check for any damage, loose or discoloured electrical cables in control cabinet & control panels.(M)	/			
E02	Check & test all emergency switches.(M)	/			
E04	Clean and replace filter if necessary.(M)	/			
E09	Check, clean & test photocells.(M)	/			
E13	Check cooling fan of motor controllers.(M)	/			
H0	<b>Hoist(:)</b>				
H01	Check for abnormal noise of the pedestal roller bearing.(M)	/			
H02	Check abnormal noise on bearings for rope sheave & pulleys.(M)	/			
H03	Check & clean AC motor fan & fan cover.(M)	/			
H05	Check & service motor brake.(1st,4th,7th,10th)				
H06	Check & lubricate platform bearings & guides.(2nd,5th,8th,11th)				
H07.1	<b>Steel wire rope, speed governor cable &amp; drum</b>				
(i)	Visual check steel wire rope & speed governor cable for wire breakage, corrosion and abrasion.(M)	/			
(ii)	Visual check for drum condition and corrosion.(M)	/			
(iii)	Lubricate steel wire rope & drum.(6th, 12th)				
H07.2	<b>Safety Grab Device</b>				
(i)	Visual check all links for any damages.(M)	/			
(ii)	Visual check all catching surfaces & grab rails to ensure free from grease, clean if necessary.(M)	/			
(iii)	Function check all knurling wheels & wedges not jammed.(M)	/			
(iv)	Trigger the speed governor to ensure safety grab device is functioning properly.(6th, 12th). (Without load).				
(v)	Check PE test sticker for validity.(M)	/			
H08	Check DC motor carbon brush for wear. Replace if necessary.(1st, 4th, 7th 10th)				
M0	<b>Mechanical(:)</b>				
M01	Complete check for any damage.(M)	/			
M02	Clear rubbish in & around equipment.(M)	/			



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M03	Check abnormal noise of roller bearing, housing & protection guard.(M)	/			
M05	Check & lubricate coupling for easy engage & disengagement.(M)	/			
M06	Check & lubricate stopper mechanism.(M)	/			
M08	Check all guide rollers, mounting & run rail.(M)	/			
M09	Check mounting & structure of equipment.(M)	/			
M10.1	Check general condition of roller chain.(M)	/			
M11.2	Simulate operation for all modes 3000kg load(All except 6th, 12th)				
M11.3	Load test using 6800kg load(6th, 12th)				
M12.1	Check condition & lubrication of chain sprocket & chain tension(1st,4th 7th,10th)				
M12.2	Check condition & of chain sprocket & chain tension(All except 1st,4th, 7th,10th)				
M13	Check & service motor disc brake (2nd, 5th, 8th, 11th)				
M15	Touch up rusty parts.(6th, 12th)				
Z1	Perform final simulation on all modes before leaving.(M)	/			

**Service Explanation:**

ADJ : Adjustment

AWP : Waiting for Parts

CLE : Cleaned

REP : Repair

\*\* : "/" To carry out servicing, "--" Noservicing needed  
to be carry out

RPL : Replacement of Parts

TIG : Tighten

√ : Equipment condition-OK

X : Equipment condition-Faulty

**For MCP4,5,9,10 (ETP1,2,3,4,6)**

Updated on : 03/10/2018

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*Preventive Maintenance Checklist for T5*Equipment Type (2): **Elevating Transfer Vehicle**

MCP: \_\_\_\_\_

The : \_\_\_\_\_ (th) servicing

Start	End
Date	
Time	

Code	Job Description	**	EquipmentCondition	Service	Remarks
E0	<b>Electrical(:)</b> Check incoming power to inverter is correct	/			
E01	Visual check for any damage, loose or discoloured electrical cables in control cabinet & panels, Fuse F29,Altivar,Rectivar mounting (M)	/			
E02	Check & test all emergency switches.(M)	/			
E03	Check control cabinet lighting, ventilation & door condition.(M)	/			
E04	Clean and replace filter if necessary.(M)	/			
E13	Check cooling fan of motor controllers.(M)	/			
E05	Check & clean air condition filters.(M)	/			
E06	Check battery water level.(M)	/			
E07	Check & test photocell, optotrap, anti-collision sensors & rotoSCAN.(M)	/			
E10	Check busbar for deformity & clean with cleaning brush(1st,4th,7th,10th)				
E12	Check & test function of extractor & retractor proximity switch.(12)th				
H0	<b>Hoist(:)</b>				
H01	Check for abnormal noise of the pedestal roller bearing.(M)	/			
H02	Check abnormal noise on bearings for rope sheave & pulleys.(M)	/			
H03	Check & clean AC motor fan & fan cover.(M)	/			
H05	Check & service motor brake.(1st,4th,7th,10th)				
H06	Check & lubricate platform bearings & guides.(2nd,5th,8th,11th)				
H07.1	<b>Steel wire rope, speed governor cable &amp; drum</b>				
(i)	Visual check steel wire rope & speed governor cable for wire breakage, corrosion and abrasion.(M)	/			
(ii)	Visual check for drum condition and corrosion.(M)	/			
(iii)	Lubricate steel wire rope & drum.(6th, 12th)				
H07.2	<b>Safety Grab Device</b>				
(i)	Visual check all links for any damages.(M)	/			
(ii)	Visual check all catching surfaces & grab rails to ensure free from grease, clean if necessary.(M)	/			
(iii)	Function check all knurling wheels & wedges not jammed.(M)	/			

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(iv)	Trigger the speed governor to ensure safety grab device is functioning properly.(6th, 12th). (Without load).				
(v)	Check PE test sticker for validity.(M)	/			
M0	<b>Mechanical(:)</b>				
M01	Complete check for any damage.(M)	/			
M02	Clear rubbish in & around equipment.(M)	/			
M03	Check abnormal noise of roller bearing,housing & protection guard.(M)	/			
M05	Check & lubricate coupling for easy engage & disengagement.(M)	/			
M06	Check & lubricate stopper mechanism.(M)	/			
M08	Check all guide rollers, mounting & run rail.(M)	/			
M09	Check mounting & structure of equipment.(M)	/			
M10.1	Check general condition of roller chain.(M)	/			
M11.2	Simulate operation for all modes 3000kg load(All except 6th, 12th)				
M11.3	Load test using 6800kg load(6th, 12th)				
M12.1	Check condition & lubrication of chain sprocket & chain tension(1st,4th 7th,10th)				
M12.2	Check condition & of chain sprocket & chain tension(All except 1st,4th, 7th,10th)				
M13	Check & service motor disc brake (2nd, 5th, 8th, 11th)				
M15	Touch up rusty parts.(6th, 12th)				
M18	Check fire extinguisher serviceability.(M)	/			
M19	Remove guide roller bearings for checking (3rd & 9th)				
Z1	Perform final simulation on all modes before leaving.(M)	/			

**Service Explanation:**

ADJ : Adjustment

AWP : Waiting for Parts

CLE : Cleaned

REP : Repair

\*\* : "/" To carry out servicing, "--" No servicing needed  
to be carry out

RPL : Replacement of Parts

TIG : Tighten

√ : Equipment condition-OK

X : Equipment condition-Faulty

For MCP 23, 24 (ETV 1, 2)

Updated on : 03/10/2018

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[illegible]

CT2112Z036 Maintenance of MHS at AFT1-5

[illegible]

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AFT 1-4				DATE:				
Transfer Vehicle				TIME:				
				MO NUMBER:				
Sno	TRANSFER VEHICLE	TV No:	FREQUENCY OF CHECKS	1	2	3	4	5
1	Check the rope fastening, sheave and drum		1- monthly					
2	Oil and grease on rope, sheave and drum if required		6- monthly (3,9)					
3	Check the Deck lifting mechanism, spindel, coupling andn shaft		1- monthly					
4	Check guide roller for the button carriage, Travel wheel and run rail		1- monthly					
5	Condition of chain, sprocket, tarvel wheel, friction wheel, housing bearing, roller, coupling, bolt and nut and metal guard		1- monthly					
6	Check oil for gear box and grease chain and bearing replace it if necessary		1- monthly					
7	Fire extinguisher serviceability		1- monthly					
8	Condition of battery replace it if necessary		1- monthly					
9	Operation of photocell, limit switch, control switch, stopper motor and mechanical brake		1- monthly					
10	Servicing of safety devices eg: Emergency stop buttons, bumpers and scanners		1- monthly					
11	Condition of Aircon units		1- monthly					
12	Checking of wire rope condition or splindles condition		3- monthly (1, 4, 7, 10)					
13	Check, servicing and adjustment of brake for travel motor, hoist motor, deck motor, emergency rail brake and coupling		3- monthly (2, 5, 8, 11)					
14	Condition of current collector trolley		2- monthly (2, 4, 6, 8, 10)					
15	Check control cabinet and panel eg: Cable terminal for all contractors, relays, resistors and insulation test of motor		6- monthly (6, 12)					
16	Inspection of lifting gearbox if necessary top up oil		12- monthly (8)					
17	Visual inspection of steel structures for cracks		12- monthly (9)					
RECOMMENDATIONS:								
REMARKS:								

S. No.	EXPLANATION
1	Items in order
2	Items require attention
3	Items require immediate repair replacement
4	Lubrication and/or greasing
5	Adjustment done

Job carried out by :

1

2

3

4

Report Prepared by \_\_\_\_\_

Report accepted by \_\_\_\_\_

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Schedule 1  
Attachment G  
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**PRIMITIVE MAINTENANCE CHECKLIST**

ETV 4	04	06	08	10	12	14	16	18	20	22	24	26	28	30	32	34	36
1L																	
1A																	
2L																	
2A																	
3L																	
3A																	
TV 6																	
BY																	

**REMARKS:**  
R = REFLECTOR DAMAGED OR MISSING  
X = STOPPER DAMAGED OR JAMMED  
A = ABSORBER SPRING  
C = CONSPICUOUS  
S = STOPPER SPRING  
B = ANGLE BRACKET TWISTED  
P = ANGLE BRACKET PIN BROKEN  
/ = GOOD CONDITION

CHECKED BY \_\_\_\_\_  
DATE : \_\_\_\_\_

CERTIFIED BY \_\_\_\_\_  
DATE : \_\_\_\_\_

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**1. CONVEYORS**

No.	Part	Component	Measures/actions	OK	NOK	NA	Remarks
1	Belt conveyors	Entire unit	Check for oil loss				
2	Belt conveyors	Entire unit	Clean the sensors				
3	Tray conveyors	Drive shaft	Check for abnormal operating noises or vibrations				Replace pedestal bearing where necessary
4	Tray conveyors	Return rollers	Check for abnormal operating noises				Replace where necessary
5	Tray conveyors	Carrier rollers	Replace where necessary				
6	Tray inclined conveyors	Clearance roller	Replace where necessary				
7	Tray divert conveyors	Drive axles	Check for abnormal operating noises				
8	Tray divert conveyors	Wheels and rollers/ pulleys	Check for abnormal operating noises				
9	Tray turns/ wheel conveyors	Drive axles	Check for abnormal operating noises				
10	Tray turns/ wheel conveyors	Wheels and rollers/ pulleys	Check for abnormal operating noises				

**2. S-TILTER & CHUTES**

No.	Part	Component	Measures/actions	OK	NOK	NA	Remarks
1	Chute	75% filling sensor and reflector	Cleaning, check against any damage, tight connection, alignment check				Alternate chutes every month Chutes:
2	Chute	100% filling sensor and reflector	Cleaning, check against any damage, tight connection, alignment check				Alternate chutes every month Chutes:
3	Chute	Jam sensor and reflector	Cleaning, check against any damage, tight connection, alignment check				Alternate chutes every month Chutes:



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4	Chute	Limit switch	Check spring pin function				Alternate chutes every month Chutes:
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**3. EARLY BAG SYSTEM (EBS)**

No.	Part	Component	Measures/actions	OK	NOK	NA	Remarks
1	Hoist	Drive pulley and flange bearing	Check for abnormal operating noises or vibration				Replace bearing where required
2	Hoist	Toothed belt	Visual check of overall status				Clean belt, remove extraneous material and waste
3	Hoist	Toothed belt	Check correct fastening at belt tension/clamping plate				Replace if damaged, re-tighten fastening if required
4	Hoist	Toothed belt	Check uniform lifting and lowering movement				Replace if damaged
5	Hoist	Guide Wheel	Check for abnormal operating noises				Replace where required
6	Hoist	Guide Wheel	Clean guide wheel and running surface				
7	Hoist	Sensors	Check functionality, mechanical damages, pollution and securely fixed. Clean if required				Mechanically damaged sensors have to be replaced immediately
8	Shuttle	Drive pulley and flange bearing	Check for abnormal operating noises				Replace where required
9	Shuttle	Chain wheel/roller	Visual check of overall status				Replace if damaged, re-tighten fastening if required
10	Shuttle	Chain wheel/roller	Check correct fastening at chain tension				Replace if damaged, re-tighten fastening if required
11	Shuttle	Chain wheel/roller	Check uniform lifting and telescope movement				Replace where required
12	Shuttle	Drive wheel and guide roller	Check for abnormal operating noises				Replace where required
13	Shuttle	Drive wheel and guide roller	Clean guide wheel and running surface				
14	Shuttle	Compact rail or roller plug	Check for abnormal operating noises				Replace where required
15	Shuttle	Compact rail or roller plug	Clean guide wheel and running surface				
16	Shuttle	Gear or rack	Visual check of overall status				Clean and remove extraneous material and waste
17	Shuttle	Gear or rack	Check for abnormal operating noises				Lubricate if required
18	Shuttle	Sensors	Check for functionality, mechanical damage, pollution and if securely fixed. Clean if required				Replace if damaged

**4. TRAY**

No.	Part	Component	Measures/actions	OK	NOK	NA	Remarks
1	Tray	Entire unit	Visual inspection				Clean if necessary, replace damaged parts

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5. ULD SYSTEM

No.	Part	Component	Measures/actions	OK	NOK	NA	Remarks
1	Castor deck	General	<ul style="list-style-type: none"> <li>• Clean if dirty</li> <li>• Check for running noises</li> <li>• Check for damage</li> <li>• Check for corrosion</li> <li>• Check condition of welded seams</li> <li>• Visual check of screws for tight fit</li> <li>• Check "take over height" between roller conveyor and adjacent equipment</li> <li>• Check safety equipment (cover etc.)</li> </ul>				
2	Castor deck	Swivel castor	<ul style="list-style-type: none"> <li>• Check for running noises and damage</li> </ul>				
3	Free drive roller conveyor	General	<ul style="list-style-type: none"> <li>• Clean if dirty</li> <li>• Check for running noises</li> <li>• Check for damage</li> <li>• Check for corrosion</li> <li>• Check condition of welded seams</li> <li>• Visual check of screws for tight fit</li> <li>• Check "take over height" between roller conveyor and adjacent equipment</li> <li>• Check safety equipment (cover etc.)</li> </ul>				
4	Free drive roller conveyor	Roller	<ul style="list-style-type: none"> <li>• Check for running noises and damage</li> </ul>				
5	Roller conveyor	General	<ul style="list-style-type: none"> <li>• Clean if dirty</li> <li>• Check for running noises</li> <li>• Check for damage</li> <li>• Check for corrosion</li> <li>• Check condition of welded seams</li> <li>• Visual check of screws for tight fit</li> <li>• Check "take over height" between roller conveyor and adjacent equipment</li> <li>• Check safety equipment (cover etc.)</li> </ul>				
6	Roller conveyor	Roller - Flanged bearing	<ul style="list-style-type: none"> <li>• Check for running noises and damage</li> </ul>				
7	Roller conveyor	Roller	<ul style="list-style-type: none"> <li>• Check for damage</li> </ul>				

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8	Take over conveyor	General	<ul style="list-style-type: none"> <li>• Clean if dirty</li> <li>• Check for running noises</li> <li>• Check for damage</li> <li>• Check for corrosion</li> <li>• Check condition of welded seams</li> <li>• Visual check of screws for tight fit</li> <li>• Check "take over height" between roller conveyor and adjacent equipment</li> <li>• Check safety equipment (cover etc.)</li> </ul>				
9	Take over conveyor	Roller - Flanged bearing	<ul style="list-style-type: none"> <li>• Check for running noises and damage</li> </ul>				
10	Take over conveyor	Roller	<ul style="list-style-type: none"> <li>• Check for damage</li> </ul>				
11	ULD	Electrical	<ul style="list-style-type: none"> <li>• Check current collector of power feed rail</li> </ul>				Every 2 months

6. AUTOMATED STORAGE AND RETRIVEL SYSTEM (ASRS)

No.	Part	Component	Measures/actions	OK	NOK	NA	Remarks
1	Hoist drive	Steel cable – right	<ul style="list-style-type: none"> <li>• Damage</li> <li>• Wear</li> <li>• Lubricate (S.K.D. 16)</li> </ul>				Stacker crane
2	Hoist drive	Steel cable – left	<ul style="list-style-type: none"> <li>• Damage</li> <li>• Wear</li> <li>• Lubricate (S.K.D. 16)</li> </ul>				Stacker crane
3	Guide rollers (lifting frame)	Lift guide rail at mast	<ul style="list-style-type: none"> <li>• Damage</li> <li>• Wear</li> <li>• Clean</li> <li>• Lubricate (F.L. 400)</li> </ul>				Stacker crane
4	Top part	Guide rollers	<ul style="list-style-type: none"> <li>• Damage</li> <li>• Wear</li> <li>• Smooth running</li> <li>• Running noise</li> <li>• Lubricate (F.L.G. GT-2)</li> </ul>				Telescopic table
5	Central part 1	Running surfaces	<ul style="list-style-type: none"> <li>• Clean</li> <li>• Lubricate (F.L.G. GT-2)</li> </ul>				Telescopic table
6	Central part 2	Guide rollers	<ul style="list-style-type: none"> <li>• Damage</li> <li>• Wear</li> <li>• Smooth running</li> <li>• Running noise</li> <li>• Lubricate (F.L.G. GT-2)</li> </ul>				Telescopic table
7	Central part 2	Toothed rack	<ul style="list-style-type: none"> <li>• Damage</li> <li>• Wear</li> <li>• Fixing</li> <li>• Clean</li> <li>• Lubricate (F.L.G. GT-2)</li> </ul>				Telescopic table
8	Central part 2	Running surfaces	<ul style="list-style-type: none"> <li>• Clean</li> <li>• Lubricate (F.L.G. GT-2)</li> </ul>				Telescopic table
9	Bottom part	Guide rollers	<ul style="list-style-type: none"> <li>• Damage</li> <li>• Wear</li> <li>• Smooth running</li> <li>• Running noise</li> <li>• Lubricate (F.L.G. GT-2)</li> </ul>				Telescopic table

## CT2112Z036 Maintenance of MHS at AFT1-5

10	Bottom part	Deflection roller with deep-groove ball bearing	<ul style="list-style-type: none"> <li>• Damage</li> <li>• Wear</li> <li>• Running noise</li> <li>• Lateral fit (no clearance)</li> <li>• Clean</li> <li>• Lubricate (F.L.G. GT-2)</li> </ul>				Telescopic table
11	Gear box	Pinion shaft with deep-groove ball bearing	<ul style="list-style-type: none"> <li>• Damage</li> <li>• Wear</li> <li>• Running noise</li> <li>• Clean</li> <li>• Lubricate (F.L.G. GT-2)</li> </ul>				Telescopic table
12	Gear box	Gear wheels with deep-groove ball bearing	<ul style="list-style-type: none"> <li>• Damage</li> <li>• Wear</li> <li>• Running noise</li> <li>• Lateral fit (no clearance)</li> <li>• Clean</li> <li>• Lubricate (F.L.G. GT-2)</li> </ul>				Telescopic table
13	Chain tensioner 1	Flyer chain	<ul style="list-style-type: none"> <li>• Wear</li> <li>• Soiling</li> <li>• Chain tension</li> <li>• Pre-tensioning force (420N)</li> <li>• Clean</li> <li>• Tension</li> <li>• Lubricate (S.K.D. 16)</li> </ul>				Telescopic table
14	Chain tensioner 2	Flyer chain	<ul style="list-style-type: none"> <li>• Wear</li> <li>• Soiling</li> <li>• Chain tension</li> <li>• Pre-tensioning force (420N)</li> <li>• Clean</li> <li>• Tension</li> <li>• Lubricate (S.K.D. 16)</li> </ul>				Telescopic table

**7. LOAD ASSIST DEVICE (LAD)**

No.	Part	Component	Measures/actions	OK	NOK	NA	Remarks
1	Table with ball roller incl. guiding	Ball roller	Cleaning, check against any damage, check tight connection, replace if necessary				
2	Table with ball roller incl. guiding	Table brake	Check brake function, adjust or replace if necessary				
3	Table with ball roller incl. guiding	Guiding system table	Cleaning, check against any damage, check running noise, adjust or replace if necessary				
4	Scissor system	Scissor structure	Cleaning, check against any damage/wear, check tight connection, replace if necessary				
5	Scissor system	Guiding system scissor	Cleaning, check against any damage/wear, check running noise, replace if necessary				
6	Linear actuator	Bolt connection	Cleaning, check function, check against any damage/wear, check tight connection, replace if necessary				

## CT2112Z036 Maintenance of MHS at AFT1-5

7	Linear actuator	Lubricant loss	Identification of lubricant loss and elimination of its cause, lubricate				
8	Linear actuator	Limit switch	Check spring pin function				Every 2 months
9	Travel drive/ power feed rail	Travel wheel	Cleaning, check function, check against any damage/wear, check tight connection, replace if necessary				Every 2 months
10	Travel drive/ power feed rail	Travel wheel with foot brake	Cleaning, check function, check against any damage/wear, check tight connection, replace if necessary				Every 2 months
11	Travel drive/ power feed rail	Guiding system	Cleaning, check function, check against any damage/wear, check tight connection, replace if necessary				Every 2 months
12	Travel drive/ power feed rail	Power feed rail	Check function, check against any damage/wear, check tight connection, replace if necessary				Every 2 months

**8. ELECTRICAL**

No.	Part	Component	Measures/actions	OK	NOK	NA	Remarks
1	Electrical	Cabinets & Boxes	Visual inspection Clean if required				
2	Electrical	Outside components like sensors, push buttons, etc.	Check tight seat, check functions Clean if required. If necessary, tighten or replace defective parts.				

## CT2112Z036 Maintenance of MHS at AFT1-5

MONDAY			TUESDAY			WEDNESDAY			THURSDAY			FRIDAY		
Date	Time	Equipment	Date	Time	Equipment	Date	Time	Equipment	Date	Time	Equipment	Date	Time	Equipment
	AM			AM			AM			AM		01.10.21	AM	TV6
	PM			PM			PM			PM		Core I	PM	
04.10.21	AM	ETV6 T4 D/L	05.10.21	AM	WS3C	06.10.21	AM	T4 QL	07.10.21	AM	WS3A Mobile platform	08.10.21	AM	WS 3G
Core I	PM		Core G	PM		Core I	PM		Core F	PM		Core F	PM	Core F TD/DTV
11.10.21	AM	ETV4 Core F D/L	12.10.21	AM	TV4	13.10.21	AM	Core F Q/L	14.10.21	AM	WS 3F, Mobile platform	15.10.21	AM	Strong Room
Core F	PM		Core F	PM		Core F	PM		Core F	PM		Core I	PM	T4 RQL 5 & 6
18.10.21	AM	ETV5	19.10.21	AM	TV5	20.10.21	AM	Core G QL	21.10.21	AM	WS 3E, Mobile platform	22.10.21	AM	WS 4B ECC X-RAY
Core G	PM		Core G	PM		Core G	PM		Core F	PM		Core I	PM	
25.10.21	AM	WS 4A	26.10.21	AM	WS 3B	27.10.21	AM	BV1	28.10.21	AM	WS3D, Mobile Platform	29.10.21	AM	WS 4C
Core I	PM		Core G	PM		Core F & I	PM	BV2	Core F	PM		Core I	PM	

AM = 08:30 - 12:00 : DL = Dock Leveler : TD = Truck-Dock : QL = Queue-Lane  
 PM = 13:00 - 17:30 : WS = WorkStation : DTV = Dolly Transfer

## Schedule 4

### Schedule of Rates for Agreed Services

1. In consideration of the Contractor completing each of the Services specified in column (2) of the table below, the Company shall pay the Contractor the charges as described and specified against such Services in column (3) of the table below:

<b>S/No. (1)</b>	<b>Types of Services (2)</b>	<b>Payment Charges/Milestones (3)</b>
1.	PM maintenance for AFT1-5 including eCommerce Airhub	Cost per annum: \$ (5 years) Cost per annum: \$ (option 2 years)
2.	First Line Maintenance for AFT2-5 (Option) – 2men/shift	Cost per annum: \$ (5 years) Cost per annum: \$ (option 2 years)
3.	First Line Maintenance for eCommerce Airhub – 2men/shift	Cost per annum: \$ (5 years) Cost per annum: \$ (option 2 years)
4.	Additional men for First Line Maintenance of AFT1-5 including eCommerce Airhub	Cost per month: \$ (per man per shift) Cost per manhour: \$
		Cost per manhour (Option 2 years) Cost per month: \$ (per man per shift) during the option 2 years.
5.	Emergency Response	Cost per manhour: \$
		Cost per manhour (during Option 2 years): \$

2. The Contractor shall determine the amounts payable by the Company in accordance with this Schedule on the last day of each month that such amount becomes due and payable, and prepare and render an invoice for such amounts on the Company in the following month.
3. The contractor shall quote for the standard repairs below:  
Applicable items shall be applied to other relevant subsystem or equipment

ITEM	DESCRIPTION	MANHOUR Price S\$	Total Man Hours	MATERIAL Price S\$	UNIT PRICE S\$
<b>I A. WORKSTATIONS</b>					
1	To repair one unit roller deck motor or cross drive motor without pit access				
2	To repair one unit of roller deck roller or cross drive motor with pit access				
3	To replace one length of roller- deck roller				
4	To replace one no. bearing housing or sprocket for roller				
5	To replace one eccentric drive shaft or bearing				
6	To replace one piece of "E" or "J" stopper				
7	To replace one set of cross-roller support frame				
8	To replace one piece of 3200 length protection guard				
9	To replace one-piece of 2600 length protection guard				
10	To replace one piece of 500 length protection guard				
11	To replace one eccentric drive motor				
12	To replace one eccentric drive's chain				
13	To replace one piece of guide shaft pin with bushing				
14	To replace one piece of M24 dia chemical bolt with pit				
15	To replace one piece of 24mm dia chemical bolt without pit				
16	To change on unit of hydraulic pump				
17	To change one unit of hydraulic pump motor				
18	To change one unit of hydraulic cylinder (main)				
19	To change one unit of hydraulic maintenance struck cylinder				
20	To change one length of hydraulic hose (per metre)				
21	To change one length of hydraulic pipe (per metre)				
22	To change one no. of bearing or bush or pivot pin for scissor lift				
23	To replace one eccentric drive's sprocket				
24	To replace one unit of hydraulic control valve/pressure setting and load testing				
25	To replace one length of cross drive shaft/sprocket				
26	To change one no. of bushing for vertical guide.				



ITEM	DESCRIPTION	MANHOUR Price S\$	Total Man Hours	MATERIAL Price S\$	UNIT PRICE S\$
<b>B. BRIDGE VEHICLES</b>					
1	To change one unit of Drive Travel wheel				
2	To change one unit of Free Travel wheel				
3	To change one unit of Travel motor				
4	To change one length of friction drive gear motor				
4.1	Roller deck gear motor				
4.2	D. C. magnetic motor				
5	To change one length of 4 metre power feed rail				
6	To change one set of current collector trolley				
7	To change one unit of friction drive roller				
8	To change one length of deck's roller				
9	To change one unit of stopper				
10	To change one unit of bearing housing or sprocket for roller Workshop Repair				
11	To replace one set of travel wheel guide roller				
12	To replace one unit of frequency converter for travel motor				

<b>BYPASS VEHICLE</b>					
1	To change one unit of Drive Travel Wheel				
2	To repair one unit of Free Travel Wheel				
3	To change one unit of Travel Gear Motor				
4	To change one set of travel wheel guide roller				
5	To change one length of deck's roller				
6	To change one unit of stopper DC magnetic motor				
7	To change one unit of bearing housing or sprocket for roller				
8	To change one unit of drive travel motor				
9	To replace one unit of frequency converter-AVT for travel motor				
10	To change one unit of roller deck gear motor				

ITEM	DESCRIPTION	MANHOUR Price S\$	Total Man Hours	MATERIAL Price S\$	UNIT PRICE S\$
<b>D. STACKERS</b>					
1	To change one unit of Drive Travel's Wheel				
2	To change one unit of Free Travel's Wheel				
3	To change one unit of Travel's motor				
4	To change one unit of hoist's motor (upper)				
5	To change one length of 4 metre power-feedrail/communication power feedrail				
6	To change one set of current collector trolley				
7	To change one no. of wire rope sheave				
8	To change one length of electrical flexible cable				
9	To change one length of electrical flexible cable				
10	To change one unit of Hoist's motor (lower)				
11	To change one unit of Hoist's motor-brake (upper)				
12	To change one unit of Hoist's motor-brake (lower)				
13	To change I/P or O/P station roller deck's gear motor				
14	To change I/P or O/P station roller-deck's shaft				
15	To change I/P or O/P station roller-deck's shaft				
16	To change a set of Telescopic fork assembly				
17	To change one unit of Telescopic fork's gear motor				
18	To change one piece of Telescopic fork's chain				
19	To change one length of wire rope				
20	To replace one unit of frequency converter for hoist motor				
21	To replace one unit of frequency converter for telescopic fork motor				
22	To replace one unit of electronic power converter for travel motor				
23	To change one unit of travel gear motor				
24	To change one unit of hoist gear motor				
25	To change hoisting motor gearbox seal (drum side)				
26	To provide equipment and conduct inspection on ABS Vertical Lifeline System.				
	WORKSHOP REPAIR				
	To repair/replace of above item 1, 2 & 17				

ITEM	DESCRIPTION	MANHOUR Price S\$	Total Man Hours	MATERIAL Price S\$	UNIT PRICE S\$
<b>E. TRANSFER VEHICLES (TURN TABLE TV)</b>					
1	To change one unit of Drive Travel's Wheel				
2	To change one unit of Free Travel's Wheel				
3	To change one unit of Travel's gear motor				
4	To change one unit of vertical drive gear motor				
5	To change one unit of Friction drive or roller deck or stopper DC magnetic motor				
6	To change one length 4 metre power feedrail				
6.1	Data Communication feedrail				
7	To change one set of current collector trolley				
8	To change one unit of Friction drive roller				
9	To change one length of deck's chain				
10	To replace one unit of frequency converter for travel motor				
11	To change one unit of vertical driven gear box				
12	To change one unit of bearing housing or sprocket for roller				
13	To change one length of vertical drive chain				
14	To change one length of vertical drive shaft/sprocket				
	WORKSHOP REPAIR				
1	To repair for above item 11				

ITEM	DESCRIPTION	MANHOUR Price S\$	Total Man Hours	MATERIAL Price S\$	UNIT PRICE S\$
<b>F. ELEVATING TRANSFER VEHICLES - ETV/CARGO HOIST</b>					
1	To repair one unit of Drive Travel's Wheel				
2	To repair one unit of Free Travel Wheel				
3	To change one unit of Travel's motor				
4	To change one unit of Hoist's motor DC (main) ETV/Hoist)				
5	To change one unit of Friction drive or roller-deck or stopper motor				
6	To change one length of 4 metre power feedrail/communication power feedrail				
6.1	Data Communication rail				
7	To change one set of current collector trolley				
8	To change one unit of Friction drive roller				
9	To change one length of wire rope (ETV/Hoist)				
10	To change one wire rope sheave (ETV/Hoist)				
11	To change one length of electrical flexible cable (ETV/Hoist)				
12	To change one length of deck's roller (ETV/Hoist)				
13	To change one length of electrical flexible cable (ETV/Hoist)				
14	To change one unit of Hoist's gear motor AC backup (ETV/Hoist)				
15	To change one unit of Hoist's gear motor brake D.C. (ETV/Hoist)				
16	To change one unit of Hoist's motor brake A.C. (ETV/Hoist)				
17	To change one unit of DC magnetic motor for stopper (ETV/Hoist)				
18	To change double wire rope sheave (ETV/Hoist)				
19	To replace stop retractor gear box				
20	To replace extractor gear box assy				
21	To change one unit of bearing housing or sprocket for roller (ETV/Hoist)				
22	To replace one unit of frequency converter for travel motor				
23	To replace one unit of electronic power converter-RTV for hoist motor (ETV/Hoist)				
24	To repair/replace/change for any of the above item 1, 2, 3, 4, 5, 8 and 12				
25	To repair/replace/change one unit of Friction drive assembly				
26	To provide equipment and conduct inspection on ABS Vertical Lifeline System.				

ITEM	DESCRIPTION	MANHOUR Price S\$	Total Man Hours	MATERIAL Price S\$	UNIT PRICE S\$
<b>G. Q-LANE OR STACKER BIN</b>					
1.	To repair one-unit stopper Mechanical interlock cable				
2	To fabricate, supply and install one new unit of stopper				
3	To change one length of deck's roller				
4	To change one unit bearing housing or sprocket for roller				
5	To repair one unit of 4' x 8' stacker bin (25% damaged)				
6	To repair one unit of 4' x 8' stacker bin (50% damaged)				
7	To replace a base plate for 4' x 8' stacker bin				
8	To fabricate and supply one unit of 4' x 8' stacker bin				

ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
<b>H. GENERAL ITEMS</b>						
1	Magnet (Small) GA110.40-1	410344				
2	Magnet (Big) EMG GN-1206-135	410342				
3	Toothed Rod (16 teeth 515mm Length) (2S-15-3290-16)	1156652				
4	Shaft c/w Key (3S-15-3290-17)	633209				
5	Guide Shoe Insert 16mm, l=140mm, EM 16	1215594				
6	Carbon Brushes	KMK 175				
7	Diepa Wire Ropes 20mm x 38m, minimum breaking force of 320 kN = 32.6 metric tonnes, Rope Lay: Right End Thread Terminal (I Bolt), One End Fuse					
8	Diepa Wire Ropes 20mm x 42m, minimum breaking force of 320 kN = 32.6 metric tonnes, Rope Lay: Left End Thread Terminal (I Bolt), One End Fuse					
9	Diepa Wire Ropes 22mm x 38m, minimum breaking force of 401 kN = 40.9 metric tonnes, Rope Lay: Left Both End Fuse					
10	Diepa Wire Ropes 22mm x 42m, minimum breaking force of 401 kN = 40.9 metric tonnes, Rope Lay: Left Both End Fuse					
11	Diepa Wire Ropes 20mm x 38m, minimum breaking force of 320 kN = 32.6 metric tonnes, Rope Lay: Right Both End Fuse					
12	Diepa Wire Ropes 20mm x 42m, minimum breaking force of 320 kN = 32.6 metric tonnes, Rope Lay: Left Both End Fuse					
13	S164 24VDC Relay Weschler	1012260				
14	RUNNER'S WHEEL UPPER/LSV7 (VAHLE) - SA-ZB-FR-SKN/T/K-SWN/T- SWM/T-S Guide Wheel For SKN(T), SWM(T) AND SKN/K COLLECTOR	254903				
15	Round Steel Dia. 110mm	110050				
16	Profinet Interface S7-1200PLC CPU	6ES7212-1BE40-0XB0				
17	Process Unit S7-300 CPU319F-03 PN/DP	6ES7318-3FL01-0AB0				
18	Process Unit S7-300 CPU315-2PN DP	6ES7315-2EH14-0AB0				
19	LAUER DISPLAY PCS900	PCS900				
20	GA115.31 110V Solenoid J-Stop	1258041				
21	Door Catch	470104				
21	PRK46C.D/4P-M12 Photocell Leuze	PRK46C.D/4P-M12				

ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
22	POWER SUPPLY PS407	6ES7407-ODA02-OAAO				
23	DIGITAL OUTPUT MODULES SM322	6ES7322-1HH01-OAAO				
24	Brake Chopper BC 4.1 TAE	12264-2F00				
25	AB CPU Module	1785-L80E				
26	Round Steel	110086				
27	Laser Scanner RSL420-L/CU416-25	53800219				
28	Round Steel 130	110088				
29	Relay 24V DC	C3-A30DX/24VDC				
30	Flanged Wheel Dia 400mm, Drwg.3S-03-2423-02	9K-900626-0041				
31	BV Guide Roller Assy 2S-36-3302-32	1243070				
32	SIEMENS TOUCH SCREEN KTP BASIC DP	6AV 6545-OCC				
33	SIEMENS GEARED MOTOR	FDU1605/2310198 008				
34	ETV Bottom Guide Roller	1S-25-3290-10				
35	Vulkollan Wheel (Ø300x50mm)	1068329				
36	SIMATIC S7-300-CPU-315-2PN/DP	6ES7513-1AL01-0AB0				
37	SIMATIC S7-1500-CPU-1513-1PN	6ES7513-1AL01-0AB0				
38	SIMATIC S7	6ES7131-6BH01-0BA0				
39	10A PLC Power Supply 6ES7307-1KA02-OAA0					
40	Diffuse mode sensor GLV30-8-2000-2372	419126				
41	Parallel interface WCS-IP110	244206				
42	Parallel interface WCS-IP111	244207				
43	Read head WCS2B-LS211	200779-0006				
44	Inductive slot sensor SJ15-E2-V1-Y23594	023594				
45	Field connector. Female V1-W-BK	224884				
46	Female cordset V1-W-E2-2M-PUR	033831				
47	Diffuse mode sensor GLV30-8-2500/47/73c	419128				
48	Inductive slot sensor SJ15-A2-V1	087232				
49	Diffuse mode sensor RLK31-8-1200-RT/31/115	183068				
50	Retroreflective sensor VL18-54-M-LAS/40a/118/128	800182				
51	Retroreflective sensor RL28-55/47/82b/105/106	132450				
52	Thru-beam sensor LD31/LV31/25/73c/76a/136	187674				
53	Guide trolley WCS2-GT09-P1	184046				
54	Retroreflective sensor RL28-55/82b/105/110	419082				

ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
55	Female cordset V1-W-E2-15M-PUR	035191				
56	Reflector REF-H85-2	185398				
57	Background suppression sensor RL29-8-H-1200-RT/73c/136	801769				
58	Background suppression sensor GLV18-8-H-120/73/120	212930				
59	Inductive sensor NEN10-12GM50-E2-V1	231723				
60	Cleaning brushes, set WCS2-GT-BR Set	184057				
61	Inductive sensor NBB15-U1-A2-V1	203007				
62	Inductive sensor NJ5-18GM50-E2-V1	282958				
63	Inductive sensor NEB6-12GM50-E2-V1	231715				
64	Inductive sensor NBB20-U1-UU	238884				
65	Lens and seal verpackt - WCS2-PL2	198619				
66	Female cordset V1-G-10M-PUR	103082				
67	Extension cable V1-W-0,1M-PUR-V1-G	222806				
68	Reflector REF-H78	125442				
69	Retroreflective sensor RLK29-55/59/116	114642				
70	Inductive sensor NBB15-30GM50-WS	801650				
71	Inductive sensor NJ4-12GM40-E2	282947				
72	Female cordset V1-W-10M-PVC	033486				
73	Inductive sensor NBN30-U1-E2	194775				
74	Inductive sensor NBB15-U1-A2	194782				
75	Reflector REF-MA21	113960				
76	Field connector. Female V15-G-PG9	099774				
77	Reflector REF-A80	113959				
78	Mounting aid BF 18	000050				
79	Zubehör WCS2 WCS2-MH2	184053				
80	21314D1C3	NTN 21314D1C3				
81	22212	NTN 22212				
82	6008 ZZ	NTN / NATEC 6008 ZZ				
83	6210 LLU	NTN 6210 LLU				
84	6216 ZZ	NTN 6216 ZZ				
85	6305 ZZ	NTN / NATEC 6305 ZZ				
86	6309 ZZ	NTN / NATEC 6309 ZZ				
87	SUCFLC 208	NATEC SUCFLC 208				



ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
88	CF20VBUUR	JNS CF20VUURA				
89	NART50VUUR	JNS NART50VUUR				
90	NUTR 310X	JNS NUTR 310X				
91	SL04-5015NR	NTN SL04-5015NR				
92	C-22SB	C-22SB				
93	C-8Y	C-8Y				
94	PERMA FUTURA S014 - P12	PERMA FUTURA S014 - P12				
95	PERMA STAR BATTERY SET	PERMA STAR BATTERY SET				
96	PERMA STAR LC SO14 -250	PERMA STAR LC SO14 -250				
97	PERMA STAR COMPLETE UNIT SO14-250	PERMA STAR COMPLETE UNIT SO14-250				
98	PERMA SO14- 1 LITRE	PERMA SO14- 1 LITRE				
99	UC 205	UC 205				
100	8 Patel Rubber Coupling EVA/X	ROTEX GR48				
101	Axle Drive Shaft ETV 1001 (42CrM4)	DRWG 02 KWE 305.1				
102	Axle Drive Shaft EVA 1002 (42CrM4)	DRG03KWE006				
103	Ball Screw Jack Dust Cover	J3B HUN D120				
104	Bearing cap for EVX travelling wheel	D260XT19 02KSO 508.1 C45				
105	BEARING ROLLER/T5-SR	3018.001.001				
106	Bearing Shaft Washer for WV Rail Guide	WS6085 IKO				
107	Belt Guide Left & Right - 1665mm	BG-3330				
108	BOLT(PIN)EXTRACTOR PART/T5	4S-15-3290-08				
109	BUSH (CLUTCH UNIT)	MB6040-DU				
110	Bushing 480025					
111	Bushing 60x12x12mm					
112	Bushing For Motor Shaft Pin c/w allen sc					
113	BV RAIL GUIDE WHEEL SET	SATS-GG96				
114	Chain cover 75MM X 150MM X 1575MM					
115	Chain cover 75MM X 150MM X 1615MM					
116	Chain Sprocket 3/4" T5	9K-93811-0043				
117	Concave Spring Washer 71x36x2mm					
118	COUPLING ROTEX W/SLOT /T5	ROTEX R-42				
119	COUPLING/ETV TRVL MTR GEARBOX	DAYCO TYPE 80				
120	Cross Roller c/w Bearing & Sprocket					

ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
121	D=60 L=352 Shaft for Extractor	DRWG 02 KWE 020				
122	D=60 L=405 Shaft of Extractor	DRWG 02 KWE 019				
123	Dock leveler rubber bumper APS					
124	DOUBLE SPROCKET/12B-2-12 ID47	DRWG:22028142				
125	Double Stud Bracket P003479 TYPE A					
126	Double Stud Bracket c/w Nut P00378 TypeB					
127	DRIVE WHEEL	31117943				
128	DUPLEX SPROCKET Z=16	3/4"X7/16"XT16XD38MM				
129	End plate of Axle Drive Shaft ETV 1001	DRWG 02 KWE 306				
130	EVX Rail Cleaning Block /PA6G	POLYAMID 29X119X270				
131	Platform Plate C/W Nut n Screw 126mmx30m					
132	Platform Plate c/w Screw n Washer					
133	Platform Plate c/w Washer n Nut 126mmx30					
134	Platform Plate cw Scw n Whr D-126mmx30MM					
135	Platform Plate Screw n Washer 100mmx30mm					
136	FLEXIBLE COUPLING	NEF45-40JX40J				
137	Flexible Coupling (slim Plate)					
138	FORK RUBBER COVER/SR FORK T5	MHS0538/97				
139	FRICTION DRIVE FRAME / TV ETV BV	32023642				
140	Gas Spring Head Top n Bottom type 750n					
141	Guide Roller - E-Com	320.913424				
142	Guide Roller WV-hardening	R500X62 FIG1				
143	Guide Shoe Bracket ULD Hoist	SAFETY GATE TYPE 2				
144	Guide Shoe/safety gate	60X40XT10				
145	GUIDE WHEEL/T5-SR	7405.000.361				
146	Hexagon Bolt grade 8.9 M12X60mm					
147	Hexagon Bolt Grade 8.9 M12X60MM 19"					
148	Keyway for Shaft 8mmx8mmxL45mm					
149	locking gasket window seal 4 meter (APS)					
150	OPTIBELT OMEGA SIZE 360 5M					
151	Packing Caster Wheel					
152	PERIFLEX SHAFT CPLG SIDE A	ASN01701/14				
153	Pin block for EVA/X Retractor	D18XL132/L60XW50XT20				

ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
154	Plastic Chain Guide type PE					
155	Plastic Chain Guide Type(PL)					
156	Pressure Plate 100mmx100mmxdia-57mm					
157	Push Pull Cable Connector					
158	RAD Fixing Bracket					
159	Recondition of friction wheel (WV)					
160	Recondition of Turntable drive wheel					
161	ROTEX-COUPLING 75 /T5	D=58				
162	Rubber Buffer_Cabin_T5(3102.052.058)	3102052058				
163	S/S 304 Checker plate(L1105mmxB960xThk3m					
164	S/S 304 Checker plate(L880mmxB960mmxthk3					
165	Safety Catcher Device Sets Lrft/Right					
166	Shaft c/w eccentric bush	158X54 C/W KEY FIG1				
167	SHAFT ECCENTRIC BUSH (WHOLESET)	158X54 C/W KEY FIG1,WASHER & BEARING				
168	Shaft for EVA Extractor 98KWE 141.3.1	D70X L799.5 (C45)				
169	Shaft Spacer/ETV rope sheave	88.9X3.6 ST37-2				
170	Shaft/ETV rope sheave	80DIAx155SCM440				
171	Sliding Lock c/w Screw					
172	Special Nut for Guide Roller M16					
173	SPROCKET (DOUBLE)	12B-2-20T (B60DIA-30MM)				
174	SPROCKET 5/8" 12B-1-Z=10	ER-10-012				
175	SPROCKET B #60/N25	E1-11680-02				
176	Sprocket for extractor dis 120 m10 z=11	99 KSO 413				
177	Sprocket for extractor dis 120 m10 z=12	99 KSO 412				
178	SPROCKET GEAR/12B-2-12 ID47	DRWG:22049442				
179	Stainless steel 304 round capping Dia:11					
180	Stainless steel 304 round capping Dia:2"					
181	Stainless steel plate					
182	steel angle plate 304-Size: 1mmThk x 50 x 50 x 2060Lg					
183	steel angle plate 304-Size: 1mmThk 50 x 50 x 1050Lg					
184	Stopper Arm Pin c/w Nut & Spring Washer					
185	Supporting Guide For Bin Hoist/t6					
186	TAPERED ROLLER BEARING HOUSING	HOUSING-001				

ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
187	Telfon hard bumper (grey)					
188	To fabricate 2 new Guide Wheel					
189	To repair Guide Roller Wheel					
190	To repair Guide Wheel					
191	TRAG WHEEL INSIDE C/W TYRE	31549743				
192	TV PYRAMID'S BRACKET C/W HOLE	DRWG 960801				
193	W/S Chequered Plate 1045x95x4mm					
194	W/STATION PLASTIC GEAR WHEEL	18T				
195	Silencer Repair					
196	508H TYPE CLUTCH FOR RS60 T25 SPROCKET	E1-11681				
197	Adjustable Stud M12xL195xT125xD16MM					
198	Acrylic / Sticker HALAL Signage (300x150MM)					
199	Art Tag Box W85xL150xH36mm					
200	Actuator Worm Gear					
201	Aluminium Wheel Choke Box					
202	Axle Drive Shaft ETV 1001 OD140xL615mm (42CrM4)	KWE305.1				
203	Ball Transfer Unit	805-30-16				
204	Balluff Tag Mounting Plate (Plastic) 120x120xT3MM					
205	Ball Valve (Stainless Steel 316) 1/2"					
206	Belting Guide L3330MM					
207	Belting Guide L860x40x10MM					
208	Belting Guide L770x40x10MM					
209	Belting Guide L3150x40x10MM					
210	Bolt Pin 1693108	1693108				
211	Bolt Pin 1693127	1693127				
212	Bolt Pin 2133108	2133108				
213	Bolt Pin 903108B	903108B				
214	Bolt Pin 903127B	903127B				
215	Bolt Pin Extractor Part T5	4S-15-3290-09				
216	Bolt Pin / Cylinder Swivel Joint 903125	903125				
217	Brush for Elev-Vehicle Dim-dia66mmx35mm					
218	Brake Motor Cover Worn out Screw					
219	Brass Adaptor with threading					

ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
220	Brass Bushing OD40xID13xL12MM	BBOD40xID13xT12				
221	Brass Bushing OD22xID18xL25MM					
222	Brass Bushing 0111202 (OD23xID18xL15MM)	111202				
223	Brass Bushing 0111203	111203				
224	Brass Coupling 3/4"x1/2"					
225	Brass Globe Valve 3/8" DN10BSP					
226	Butterfly Hinge	B-1078-14				
227	Caged Nut M8					
228	Chain Roller CPL Srt 1201	45-A0341				
229	Clutch unit 1201 (508H R560T25)	45-A0345				
230	Collar Universal Joint					
231	Compression Spring	430006				
232	Compression Spring OD12xL60xT1					
233	Compression Spring OD10xL35xT1.4					
234	Concave Spring Washer Dia-20mmx10mmx3mm					
235	Concave Spring Washer Dia-40mmx20mmx3mm					
236	Connector Disk-1002 Travel wheel	03KSO 056 POS.4				
237	Cotter Pin					
238	Coupling Bush Set with Spring/Ball Bearing / Keys					
239	Coupling Rubber Damper Element 8 Petals Type 42	Type 42				
240	Coupling Rubber Damper Element 8 Petals Type 65	Type 65				
241	Curve Roller Coupling	A10041182				
242	Double Sprocket EV drive roller	Z=16,3/4"x7/16"A=38				
243	Draw Spring T5 D-364-06	D-364-06				
244	Drive Shaft OD35xL1240MM					
245	ETV Guide Roller w Bearing 6202LU					
246	ETV Rope Sheave					
247	EVA Rail Guide Roller (Whole Set)	MHE-GG610036-SET				
248	EVX Plastic Rope Guide OD81.5xL152MM					
249	Exhaust Silencer Clamp					
250	Flange cover 1-1002 wheel	03KSO 0561052				
251	Flange Splined Coupling Hub 1693206	1693206				
252	Flange Splined Coupling Hub LDR for Air Marrel					

ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
253	Flange Splined Coupling Hub MDL for Air Marrel					
254	Flexible Coupling Shim 100mmx100mmxdia-57					
255	Flexible Coupling Rubber Element 8 Petals Type 40	1213552				
256	Flexible Coupling w Element Type 42	1767107				
257	Flourescent T5 Lamp Holder (Snap Fit Type)	T5 holder				
258	Friction Drive Shaft c/w Key					
259	Friction Drive Frame	32023642				
260	Gas Spring Head c/w Spring Washer	30P3/0506				
261	Gas Spring Head N Bottom Type 760N	Type760N				
262	Grease Nipple L Shaped Push In 08mm					
263	Grease Nipple LShaped Push In 10mm					
264	Greasing Nipple L shaped Threaded 10MM					
265	Greasing Nipple L shaped Threaded 08MM					
266	Helicoil Screw c/w Nuts					
267	Hexagon Threaded Plug with Spacer					
268	High Tensile Steel Pin (OD20xL80MM)					
269	ID Tag (Stainless Steel 304) W20xL60xT1MM					
270	ID Tag (Stainless Steel 304) W20xL70xT1MM					
271	ID Tag (Plastic Acrylic) W20xL60xT2					
272	Key Mild Steel (10x14x79MM)					
273	Kingpin Lower Arm Shaft OD24.5x222MM					
274	Kingpin Axle Recon	1863134D				
275	Kingpin Axle Recon	1863133D				
276	L Jaw Coupling	6242382				
277	Legrand Switch 2 Way (One Gang)	69711				
278	Level Switch Housing					
279	Limit Switch Control Lever					
280	Load Spring PW10					
281	LR41 Batteries	LR41				
282	Mild Steel Bushing OD60xID12xT12MM	MSOD60xID12xT12MM				
283	Mild Steel Back Stopper W25xL120xT9MM					
284	Modular Light Bracket	MLG7-3125F842SICK				
285	Modular Lift Cylinder Sheave	6201662				

ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
286	Motor Recon 3 Phase 1.55KW Blower Fan					
287	Motor Recon 3 Phase 2.2KW					
288	Motor Recon 3 Phase 4KW					
289	Mounting Plate					
290	Oil Tank Filter Housing Cover (Aluminium)					
291	Output Shaft for PTO	3P703				
292	Panel Lock Pin c/w R Pin					
293	PATLITE Revolving Beacon Red Light /T5	RS-220VAC RED				
294	Pin Block					
295	Plastic Back Stopper					
296	Plastic Bushing	480025(BR-3)				
297	Plastic Bushing (OD20xID14.25xT3MM)					
298	Plastic Guide Shoe L8.6/NCxW3NCx	L8.6/NCxW3NCx				
299	Plastic Side Guide (L100xW40xH50MM)					
300	Polyurethane Wheel 3" (Hammer)	420S-UB75				
301	Pollyamide Idle Roller c/w Bushing					
302	Powder Coat Blade					
303	Pressure Roller Bush					
304	Propeller Shaft Repair					
305	Pulley Cast Iron with Key way (2 way)					
306	Pulley Cast Iron with Key way (3 way)					
307	Rethread motor cover screw hole					
308	Remit Threaded Bolt w Spacer / Lock Nut					
309	Roller Bracket (Stainless Steel 304)					
310	Roller Pressure Holder					
311	Roller with Bearing	486339V				
312	Roller Recon LR234	LR234				
313	Roller Recon LR238	LR238				
314	ROTEX-CLUTCH W/KEY TYPE 42 /T5	R42/T5				
315	Rubber Guide Wheel 625ZZ DIA-20MM	625ZZ/20				
316	Rubber Guide Wheel 625ZZ/ DIA-22MM	625ZZ/22				
317	Shaft Eccentric Bush (WHOLESET)	158X54 KEY FIG1				
318	Shaft Eccentric Bush (SHAFT ONLY)					

ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
319	Shaft for ETV stop retractor c/w keys (C45)	D25X270				
320	Shaft for ETV rope sheave	80DIAX155SCM440				
321	Shaft for Extractor OD60xL352MM	OD60xL352MM				
322	Shaft for Extractor OD70xL799.5MM					
323	Shaft for PMC Motor (OD50xL405MM)					
324	Spindle Nob					
325	Spring (ID25xL76.2xT2.5MM)					
326	Spring 5800045	5800045				
327	Sprocket Double 12T (12B-2-12)	12B-2-12				
328	Sprocket Double 18T	18T				
329	Sprocket Double 16T	12B-2-16-B30				
330	Sprocket Single 15T	12B-2-15T / BB114				
331	Sprocket Single 10T	12B-1-10T / BB600123				
332	Sprocket Single 18T	12B1-18-B60				
333	Sprocket Single 22T					
334	Sprocket 48T ASN11223 (OD200xID50xL50MM)	ASN11223				
335	Stabilizer Base Plate					
336	Stainless Steel Coupling 3/4"x1/2"					
337	Stainless Steel Idle Gear 149MM					
338	Stainless Steel L Rod 290x110xOD16mm					
339	Stainless Steel Rod L845xOD10mm					
340	Sticker Label with Running Numbers					
341	Steering Wheel Handle (Mild Steel)					
342	Tappered Roller New 1428MM	ROLLER-0001				
343	Tappered Roller New 1428MM	ROLLER-0002				
344	Tappered Roller Rebonding 1428MM					
345	Teflon Gear					
346	Threaded Stud L100mm					
347	Tight Hold T Handle Cam Latches					
348	Tow Pin Shaft OD70xL260MM					
349	Tow Pin Shaft OD75xL250MM					
350	Tow Pin Shaft OD90xL265MM					
351	Tow Pin Shaft OD90xL470MM					



ITEM	DESCRIPTION	OEM PART NO.	UOM	Estimated Minimum Lead Time (Weeks)	Unit Price for New Items SGD\$	UNIT Price for Repaired Item (where feasible) SGD\$
352	Tyre Roller Replace 170/75-100 Type 2	170/75-100 T2				
353	Tyre Roller Replace 170/75-100 Type 3	170/75-100 T3				
354	TTTTV unpowered wheel shaft OD100xL525mm	OD100 X L525MM				
355	W/STATION PLASTIC GEAR WHEEL	18T				
356	Wheel Bearing cap 1 1001 OD260	DRWG 02 KSO 494				
357	Wheel Hub Cover MS OD85xL48MM					
358	Wheel Hub Recon					
359	WV Extractor Shaft with Key (OD60xL305MM)					
360	Worm Gear Shaft					
361	Worm Gear Fabrication					
362	Repair drive rollers					

SN	Description(Repair)	OEM PART NO.	Unit Rates per Cylinder					
			BARREL	CLEVIS	HEADCAP	ROD	PISTON	Seal Kits
363	Stabilizer Cylinder	25320343R000						
364	Orbit Motor (White Hyd Motor) (Roller Stator)	811472Q						
365	Cylinder module	P01018T						
366	Stabilizer assy	B440200101						
367	Bogy Wheel cyl	6201571						
368	Folding Wing Cyl (Cyl Guide Fwd)	6215643						
369	Guide Cyl Assy	6215639						
370	Stabilizer assy	B440200201						
371	Rear Cylinder Slide Guide	438539V						
372	Stabilizer	P01007G						
373	Steering Cylinder	438537K						
374	Lift off Cylinder	P01003C						
375	Steering Cylinder	106650						
376	Stabilizer Cyl	6215638						
377		811446N						
378	Strg Cyl	840CIL0005						
379	cylinder height	840CIL0101						
380	Stabilizer right	M300100410						
381	Front Stabilizer cyl	6215640						
382	Steering Cylinder	472309R						
383	Steering Cylinder	624-7793						

384	Accelerator Cylinder	811032A						
385	hyd motor	1510717						
386	Bridge Cylinder	498182M						
387	Stabilizer left	M300100310						
388	Scissor cyl (main hst)	WHCT-9955-24HS						
389	Stabilizer Assy	WHCT9955-25HS						
390	Bogy Wheel cyl	620157						
391	Front Stabilizer cyl	621-5640						
392	Platform Lift Iff Cylinder	811450W						
393	Main cylinder	C300110010						
394	Orbit Motor	6201428						
395	Rear Wheel Cylinder	050 334H						
396	Bridge Lift Cylinder	473084L						
397	Side Guide Rail Cyl R/H	810686S						
398	Rear Wheel Cylinder	P01045V						
399	Shift Shift BXT Cylinder Canopy	WHCT-9955-27HS						

**Note:**

- **Currency: Singapore Dollars**
- **Base Term: 05 Years**

## Schedule 6 Insurances

1. The Contractor shall effect and maintain at its sole cost, at all times during the Term, the following insurances:
  - 1.1. public liability policy against any risks arising out of fire, theft, occurrences on the Premises and such other risks as are customarily insured in a public liability policy, with the following limits of indemnity:
    - 1.1.1. for any one accident, not less than **\$1,500,000** per claim; and
    - 1.1.2. for any one period of indemnity, unlimited;
  - 1.2. Workmen's Compensation Insurance against liability arising under the Workmen's Compensation Act (Chapter. 354) and at common law arising out of the master-servant relationship, which shall contain the following endorsements:
    - 1.2.1. **Endorsement A** – If any workmen employed by the insured or by the insured's contractors as referred to in Endorsement B herein or any dependant of such workman, brings or makes a claim under any Workmen's Compensation legislation in force in Singapore against the Company and its related corporations and associated corporations for personal injury or disease sustained whilst at work on any contract covered by the terms and conditions of the within policy which the Contractor may be carrying out for the Company, the insurance company will indemnify the Company and its related corporations and associated corporations against such claim, that the insurance company may have the sole conduct and control of all proceedings connected with claims covered by this endorsement. Nothing in the endorsement will be construed as affecting the insured's right to recover damages in any other way under the said legislation;
    - 1.2.2. **Endorsement B** – It is hereby understood and agreed that the indemnity herein granted is intended to cover the legal liability of the insured to workmen in the employment of contractors performing work for the insured while engaged in the business and occupation in respect of which the within policy is granted but only so far as regards claims under any Workmen's Compensation legislation or common law in force in Singapore;
  - 1.3. any other insurances required under law or customarily effected by persons which provide services similar to or analogous with the Services.

## **Schedule 9**

### **Services Obligations**

#### **1. Removal of Properties**

- 1.1. The Contractor shall not, and shall ensure that the Contractor's Personnel shall not, remove any property, including discarded and unused items, from the Premises without written authorization from the Company.
- 1.2. The Contractor will be liable for the cost of any property so removed (regardless of how such property may have come into its possession) and will indemnify the Company in full under Clause 12.3 against all liability resulting from such removal.

#### **2. Uniforms for Contractor's Personnel**

- 2.1. The Contractor shall provide the Contractor's Personnel with uniforms (including shirts, trousers and footwear) acceptable to the Company. All uniforms must bear the Contractor's name and logo.
- 2.2. All Contractor's Personnel must be properly attired in such uniforms while on the Premises.

#### **3. Safety**

- 3.1. All safety regulations of SATS, Changi Airport Authority and Singapore Factory Act or other regulations are to be complied with.
- 3.2. Without prejudice to any other terms of the contract, the Contractor shall pay the following amounts to SAS:  
  
1<sup>st</sup> time offence – \$100 penalty.  
  
2<sup>nd</sup> to 5<sup>th</sup> time offence – \$500 penalty per occurrence.  
  
6<sup>th</sup> time offence – the contractor shall be barred from future tender.
- 3.3. The contractor shall promptly pay all sums due hereunder upon SAS request. Without prejudice to any other right of action or remedy of SAS against the Contractor does not promptly pay any such amounts to SAS, SAS may set off and deduct such sum against any payment(s) due to the Contractor, or set off the same against the security deposit furnished by the Contractor, as SAS may elect in its sole discretion.

### 3.4. Safety requirements

3.4.1. The followings are the safety measures that the Contractor shall provide in the course of the Works. It shall be the responsibility and duty of the Contractor to ensure that all safety measures deemed by SAS to be necessary for the proper execution and completion of the Works are complied with.

a) Safety Helmet

The Contractor shall provide safety helmets to all workmen who are required to work or pass through places that are normally exposed to falling materials or objects. The safety helmet shall be of the type approved by the Standard, Productivity and Innovation for Growth ("Spring").

b) Safety Belts

The Contractor shall provide safety belts, life lines and all devices for the attachment of lines to all workmen who are required to work at height in respect of whom the attachment of life lines shall be of adequate strength and of a type approved by Spring.

c) Overhead Shelters

The Contractor shall provide as and when directed by the SO suitable overhead shelters at places where workmen are required to work or pass which are potentially exposed to falling materials or objects.

d) Warning Signs

The Contractor shall erect and maintain proper warning signboards and barriers during the progress of Works which may endanger the safety of the staff working there or others. The warning signboards and barriers shall be sufficiently large to attract attention and shall include words such as "Danger", "Keep Out", etc. as appropriate.

e) Scaffolding

The Contractor shall provide and maintain all scaffolding required for the Works. Scaffolding shall be erected in compliance with the relevant laws, regulations, by-laws and codes of practice and to the satisfaction of the relevant authority(ies) and shall be removed when directed by SAS.

f) Erection/Dismantling of Scaffolding

i. Sufficient numbers of workmen must be deployed at the Site in order to ensure that the operation of erecting and dismantling scaffolding is expeditious and smooth.

- ii. Unwanted poles must not be stacked up along the common corridors but must be removed immediately from the Site.
- iii. No poles shall be thrown down from the upper floors.
- iv. The Contractor and his/her scaffolding sub-contractor shall be present to control the workmen during the erection and dismantling operation.

g) Safety Vests/Boots

- i. The Contractor shall provide safety vests and boots to all workmen who are required to work or pass through premises or places, (including without limitation warehouses) that are normally exposed to safety hazards. The safety vests shall be of the type approved by Spring.

h) The Contractor shall confirm to SATS WSHA requirements. A guide will be given to the Contractor.