



# โครงการ ก่อสร้างและตกแต่งภายใน อาคารสำนักงาน กสทช. แห่งใหม่

เอกสารประกอบการ ประชุมรับฟังคำชี้แจงรายละเอียดเพิ่มเติม

เอกสารแนบ ข้อสอบถามและประเด็นสงสัย

เอกสารแนบ 6

**BMS POINT SCHEDULE**  
**SYSTEM : SUMMARY**

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 OPTIMUM CONSULTANTS CO.,LTD.  
 21/8/2014

SYSTEM	HARDWARE POINTS				SOFTWARE POINTS		REMARKS
	AI	AO	DI	DO	AV	DV	
ELECTRICAL SYSTEM AND LIFT	0	0	12	0	38	10	
AIR CONDITIONING AND VENTILATION SYSTEM	209	0	1080	571	740	370	
SANITARY SYSTEM	0	0	181	0	0	0	
<b>TOTAL</b>	<b>209</b>	<b>0</b>	<b>1273</b>	<b>571</b>	<b>778</b>	<b>380</b>	
<b>GRAND TOTAL</b>				<b>2,053</b>		<b>1158</b>	

**REMARKS**

- AI = Analog Input. A physical input to the control module.
- AO = Analog Output. A physical output from the control module.
- AV = Analog Value. An intermediate (software) point that may be editable or read- only. Editable AVs are typically used to allow the user to set a fixed control parameter, such as a set point.
- DI = Digital (or Binary) Input. A physical input to the control module.
- DO = Digital (or Binary) Output. A physical output from the control module.
- DV = Digital (or Binary) Value. An intermediate (software) point that may be editable or read-only. Editable DVs are typically used to allow the user to set a fixed control parameter, such as a set point. Read Only DVs are typically used to display the status of a control operation.

**BMS POINT SCHEDULE : BUILDING A**  
**SYSTEM : AIR CONDITIONING AND VENTILATION**

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SYSTEM	EQUIPMENT	EQUIP. NO.	DESCRIPTION	HARDWARE POINTS				SOFTWARE POINTS		REMARKS	
				AI	AO	DI	DO	AV	DV		
CHILLER PLANT	DIFFERENTIAL PRESSURE CONTROLLER	DPC-1	water pressure indication	1							
	<b>BUILDING A</b>										
AHU For DOL.&V.S.D. startor (total 107 sets)	FAN		START/STOP				107				
			STATUS (ON/OFF)			107					
			General alram								
			run time								
	CONTROL VALVE (MODULATING)			OVERLOAD TRIP			107				
				PI CONTROL							
	Damper Actuator			FEEDBACK STATUS VALVE							
				PI CONTROL							
	AIR FLOW CLOG						107				
	DUCT TEMP. SENSOR W/TRANSMITTER	DT		SUPPLY AIR TEMP.							
DUCT SMOKE DETECTOR						107					
AIR FLOW SWITCH	AFS		FAN OPERATION STATUS								
ROOM HUMIDITY SENSOR											
ROOM TEMP. SENSOR			ROOM TEMP.	107							
FCU (ON/OFF) For small FC (total 201sets)	FAN		STATUS (ON/OFF)			201				(FL.1=30,FL.2=16,FL.3=22,FL.4=24,	
			START/STOP				201			FL.5=21,FL.6=31,FL.7=33,	
	ROOM TEMP. THERMOSTAT								FL.8=12,FL.9=11,FL.ROOF=1)		
				TEMP. SET POINT							
R-OAU-(01,02)	FAN		START/STOP				4				
			STATUS (ON/OFF)			4					
			General alram								
			run time			2					
	CONTROL VALVE (MODULATING)			OVERLOAD TRIP			4				
				PI CONTROL							
	Damper Actuator			FEEDBACK STATUS VALVE							
				PI CONTROL							
	AIR FLOW CLOG						2				
	DUCT TEMP. SENSOR W/TRANSMITTER	DT		SUPPLY AIR TEMP.	2						
DUCT SMOKE DETECTOR				2							
AIR FLOW SWITCH	AFS		FAN OPERATION STATUS								
ROOM HUMIDITY SENSOR				2							
TEMP. SENSOR			ROOM TEMP.	2							

**BMS POINT SCHEDULE : BUILDING A**  
**SYSTEM : AIR CONDITIONING AND VENTILATION**

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SYSTEM	EQUIPMENT	EQUIP. NO.	DESCRIPTION	HARDWARE POINTS				SOFTWARE POINTS		REMARKS	
				AI	AO	DI	DO	AV	DV		
EXHAUST FAN For DOL. (total 35 sets)	FAN		START/STOP				35				
			STATUS (ON/OFF)			35					
			OVERLOAD TRIP			35					
VAV BOX TYPE A,B&C (total 185 sets)	VAV BOX		START/STOP						185		
			STATUS (ON/OFF)						185		
			OVERLOAD TRIP								
			ROOM TEMP.					185			
			TEMP. SET POINT					185			
			AIR FLOW RATE					185			
PRESSURIZED FAN (total 4 sets)	FAN		START (NO STOP)								
			STATUS (ON/OFF)			4					
			OVERLOAD TRIP			4					
<b>TOTAL</b>				<b>116</b>	<b>0</b>	<b>719</b>	<b>347</b>	<b>740</b>	<b>370</b>		
<b>GRAND TOTAL</b>				<b>1,182</b>				<b>1110</b>			

**BMS POINT SCHEDULE : BUILDING B**  
**SYSTEM : AIR CONDITIONING AND VENTILATION**

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				AI	AO	DI	DO	AV	DV	
CHILLER PLANT	DIFFERENTIAL PRESSURE CONTROLLER <b>BUILDING B</b>	DPC-1	water pressure indication	1						
FCU (ON/OFF) For small FC (total 67 sets)	FAN		STATUS (ON/OFF)			63				
			START/STOP				63			
	ROOM TEMP. THERMOSTAT		ROOM TEMP.							
AHU for DOL startor			TEMP. SET POINT							
	FAN		START/STOP				4			
			STATUS (ON/OFF)			4				
			General alarm run time							
			OVERLOAD TRIP							
	CONTROL VALVE (MODULATING)		PI CONTROL							
	Damper Actuator		FEEDBACK STATUS VALVE							
			PI CONTROL							
	AIR FLOW CLOG									
	DUCT TEMP. SENSOR W/TRANSMITTER	DT		SUPPLY AIR TEMP.						
DUCT SMOKE DETECTOR										
AIR FLOW SWITCH	AFS		FAN OPERATION STATUS							
ROOM HUMIDITY SENSOR										
ROOM TEMP. SENSOR			ROOM TEMP.							
EXHAUST FAN For DOL. (total 5 sets)	FAN		START/STOP				5			
			STATUS (ON/OFF)			5				
			OVERLOAD TRIP			5				
<b>TOTAL</b>				<b>1</b>	<b>0</b>	<b>77</b>	<b>72</b>	<b>0</b>	<b>0</b>	
<b>GRAND TOTAL</b>				<b>150</b>				<b>0</b>		

**BMS POINT SCHEDULE : BUILDING C**  
**SYSTEM : AIR CONDITIONING AND VENTILATION**

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SYSTEM	EQUIPMENT	EQUIP. NO.	DESCRIPTION	HARDWARE POINTS				SOFTWARE POINTS		REMARKS	
				AI	AO	DI	DO	AV	DV		
CHILLER PLANT	DIFFERENTIAL PRESSURE CONTROLLER <b>BUILDING C</b>	DPC-1	water pressure indication	1							
AHU For DOL.&V.S.D. startor (total 24 sets)	FAN		START/STOP				24				
			STATUS (ON/OFF)			24					
			General alram								
			run time								
	CONTROL VALVE (MODULATING)			OVERLOAD TRIP			24				
				PI CONTROL							
	Damper Actuator			FEEDBACK STATUS VALVE							
				PI CONTROL							
	AIR FLOW CLOG						24				
	DUCT TEMP. SENSOR W/TRANSMITTER		DT	SUPPLY AIR TEMP.							
DUCT SMOKE DETECTOR				24							
AIR FLOW SWITCH		AFS	FAN OPERATION STATUS								
ROOM HUMIDITY SENSOR											
ROOM TEMP. SENSOR			ROOM TEMP.	24							
FCU (ON/OFF) For small FC (total 42 sets)	FAN		STATUS (ON/OFF)			42					
			START/STOP				42				
	ROOM TEMP. THERMOSTAT			ROOM TEMP.							
EXHAUST FAN For DOL. (total 10 sets)	FAN		TEMP. SET POINT								
			START/STOP				10				
			STATUS (ON/OFF)			10					
PRESSURIZED FAN &SMOKE EXHAUST (total 3 sets)	FAN		OVERLOAD TRIP				10				
			START (NO STOP)								
			STATUS (ON/OFF)			3					
SPLIT TYPE (total 2 sets)	FAN		OVERLOAD TRIP				3				
			START/STOP					2			
			STATUS (ON/OFF)			2					
			OVERLOAD TRIP								
	ROOM TEMP. THERMOSTAT		ROOM TEMP.								
<b>TOTAL</b>				<b>49</b>	<b>0</b>	<b>142</b>	<b>78</b>	<b>0</b>	<b>0</b>		
<b>GRAND TOTAL</b>				<b>269</b>				<b>0</b>			

**BMS POINT SCHEDULE : BUILDING D**  
**SYSTEM : AIR CONDITIONING AND VENTILATION**

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SYSTEM	EQUIPMENT	EQUIP. NO.	DESCRIPTION	HARDWARE POINTS				SOFTWARE POINTS		REMARKS
				AI	AO	DI	DO	AV	DV	
CHILLER PLANT	DIFFERENTIAL PRESSURE CONTROLLER	DPC-1	water pressure indication	1						
	<b>BUILDING D</b>									
AHU For DOL startor (total 11 sets)	FAN		START/STOP				11			
			STATUS (ON/OFF)			11				
			General alram							
		run time								
	CONTROL VALVE (MODULATING)		OVERLOAD TRIP			11				
			PI CONTROL							
	Damper Actuator		FEEDBACK STATUS VALVE							
	AIR FLOW CLOG		PI CONTROL							
	DUCT TEMP. SENSOR W/TRANSMITTER	DT	SUPPLY AIR TEMP.				11			
	DUCT SMOKE DETECTOR			11						
AIR FLOW SWITCH	AFS	FAN OPERATION STATUS								
ROOM HUMIDITY SENSOR										
ROOM TEMP. SENSOR		ROOM TEMP.	11							
FCU (ON/OFF) For small FC (total 5 sets)	FAN		STATUS (ON/OFF)			5				
			START/STOP				5			
	ROOM TEMP. THERMOSTAT		ROOM TEMP.							
		TEMP. SET POINT								
EXHAUST FAN (total 6 sets)	FAN		START/STOP				6			
			STATUS (ON/OFF)			6				
			OVERLOAD TRIP			6				
SPLIT TYPE (total 1 sets)	FAN		START/STOP				1			
			STATUS (ON/OFF)			1				
			OVERLOAD TRIP							
		ROOM TEMP. THERMOSTAT		ROOM TEMP.						
<b>TOTAL</b>				<b>23</b>	<b>0</b>	<b>51</b>	<b>23</b>	<b>0</b>	<b>0</b>	
<b>GRAND TOTAL</b>				<b>97</b>				<b>0</b>		

**BMS POINT SCHEDULE : BUILDING E**  
**SYSTEM : AIR CONDITIONING AND VENTILATION**

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				AI	AO	DI	DO	AV	DV		
CHILLER PLANT	DIFFERENTIAL PRESSURE CONTROLLER <b>BUILDING E</b>	DPC-1	water pressure indication	1							
AHU For DOL startor (total 1 sets)	FAN		START/STOP				1				
			STATUS (ON/OFF)			1					
			General alram								
			run time								
			OVERLOAD TRIP			1					
	CONTROL VALVE (MODULATING)		PI CONTROL								
			FEEDBACK STATUS VALVE								
	Damper Actuator			PI CONTROL							
	AIR FLOW CLOG					1					
	DUCT TEMP. SENSOR W/TRANSMITTER	DT		SUPPLY AIR TEMP.							
DUCT SMOKE DETECTOR				1							
AIR FLOW SWITCH	AFS		FAN OPERATION STATUS								
ROOM HUMIDITY SENSOR											
ROOM TEMP. SENSOR			ROOM TEMP.	1							
SPLIT TYPE (total 3 sets)	FAN		START/STOP				3				
			STATUS (ON/OFF)			3					
			OVERLOAD TRIP								
	ROOM TEMP. THERMOSTAT			ROOM TEMP.							
<b>TOTAL</b>				<b>3</b>	<b>0</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>0</b>		
<b>GRAND TOTAL</b>				<b>13</b>				<b>0</b>			



**BMS POINT SCHEDULE : BUILDING F**  
**SYSTEM : AIR CONDITIONING AND VENTILATION**

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				AI	AO	DI	DO	AV	DV		
CHILLER PLANT	DIFFERENTIAL PRESSURE CONTROLLER <b>BUILDING F</b>	DPC-1	water pressure indication	1							
AHU For DOL startor (total 8 sets)	FAN		START/STOP				8				
			STATUS (ON/OFF)			8					
			General alram								
			run time								
	CONTROL VALVE (MODULATING)		OVERLOAD TRIP			8					
			PI CONTROL								
	Damper Actuator		FEEDBACK STATUS VALVE								
			PI CONTROL								
	AIR FLOW CLOG					8					
	DUCT TEMP. SENSOR W/TRANSMITTER	DT		SUPPLY AIR TEMP.							
DUCT SMOKE DETECTOR				8							
AIR FLOW SWITCH	AFS		FAN OPERATION STATUS								
ROOM HUMIDITY SENSOR											
ROOM TEMP. SENSOR			ROOM TEMP.	8							
FCU (ON/OFF) For small FC (total 15 sets)	FAN		STATUS (ON/OFF)			8					
			START/STOP				8				
	ROOM TEMP. THERMOSTAT			ROOM TEMP. TEMP. SET POINT							
EXHAUST FAN (total 5 sets)	FAN		START/STOP				5				
			STATUS (ON/OFF)			5					
			OVERLOAD TRIP			5					
SPLIT TYPE (total 2 sets)	FAN		START/STOP				9				
			STATUS (ON/OFF)			9					
			OVERLOAD TRIP								
			ROOM TEMP. THERMOSTAT								
<b>TOTAL</b>				<b>17</b>	<b>0</b>	<b>51</b>	<b>30</b>	<b>0</b>	<b>0</b>		
<b>GRAND TOTAL</b>				<b>98</b>				<b>0</b>			

**BMS POINT SCHEDULE : BUILDING H**  
**SYSTEM : AIR CONDITIONING AND VENTILATION**

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SYSTEM	EQUIPMENT	EQUIP. NO.	DESCRIPTION	HARDWARE POINTS				SOFTWARE POINTS		REMARKS
				AI	AO	DI	DO	AV	DV	
EXHAUST FAN (total 17 sets)	FAN		START/STOP				17			
			STATUS (ON/OFF)			17				
			OVERLOAD TRIP			17				
<b>TOTAL</b>				<b>0</b>	<b>0</b>	<b>34</b>	<b>17</b>	<b>0</b>	<b>0</b>	
<b>GRAND TOTAL</b>								<b>51</b>	<b>0</b>	

**BMS POINT SCHEDULE : CHILLER PLANT MANEGMANT  
SYSTEM : AIR CONDITIONING AND VENTILATION**

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SYSTEM	EQUIPMENT	EQUIP. NO.	DESCRIPTION	HARDWARE POINTS				SOFTWARE POINTS		REMARKS
				AI	AO	DI	DO	AV	DV	
CHILLER PLANT	CHILLER	CH-01 TO 04	START/STOP					4		
			STATUS (ON/OFF)						4	
			Over current						4	
			Water Flow switch			4				
			General alarm					4		
			INLET PIPE TEMP.(CHILLED WATER)					4		
			OUTLET PIPE TEMP.(CHILLED WATER)					4		
			INLET PIPE TEMP.(CONDENSER WATER)					4		
			OUTLET PIPE TEMP.(CONDENSER WATER)					4		
	CHILLED WATER PUMP (VARIABLE PRIMARY)	VPF-1 TO 7	START/STOP						7	Via communication bus of soft start
			Water Flow switch			7				
			STATUS (ON/OFF)						7	Via communication bus of soft start
			Over current						7	Via communication bus of soft start
	CONDENSER WATER PUMP	CDP-01 TO 04	START/STOP						4	Via communication bus of soft start
			Water Flow switch			4				
			STATUS (ON/OFF)						4	Via communication bus of soft start
			Over current						4	Via communication bus of soft start
	CONTROL VALVE (BYPASS FUNCTION)	MV-1	Motorised control				1			
	CH water TEMP. SENSOR W/TRANSMITTER	TTCH-1 to3	waterTEMP. SENSOR for CH1-3	8						
	water Flow rate SENSOR W/TRANSMITTER	FM 1A-3A	waterflow rate for VPF1-7	7						
	water Flow rate SENSOR W/TRANSMITTER	FM 4B-7B	waterflow rate for CDP1-4	4						
	FLOW SENSOR W/TRANSMITTER	FM-1	CH supply & return flow (OB)	1						
	FLOW SENSOR W/TRANSMITTER	FM-2	CH supply & return flow (OB)	1						
	FLOW SENSOR W/TRANSMITTER	FM-3	CH supply & return flow (SB)	1						
	FLOW SENSOR W/TRANSMITTER	FM-4	CH supply & return flow (CB)	1						
	FLOW SENSOR W/TRANSMITTER	FM-5	return flow header 20"	1						
	FLOW SENSOR W/TRANSMITTER	FM-6	supply flow header 20"	1						
TEMP SENSOR W/TRANSMITTER	TT1-2	CH supply & return temp (OB)	2							
TEMP SENSOR W/TRANSMITTER	TT3-4	CH supply & return temp (OB)	2							
TEMP SENSOR W/TRANSMITTER	TT 5-6	CH supply & return temp (SB)	2							
TEMP SENSOR W/TRANSMITTER	TT7-8	CH supply & return temp (CB)	2							
TEMP SENSOR W/TRANSMITTER	TT9	return header temp system(Chiller)	1							
TEMP SENSOR W/TRANSMITTER	TT10	supply header temp system(Chiller)	1							
TEMP SENSOR W/TRANSMITTER	TT11	supply header temp system(Cooling Tower)	1							
TEMP SENSOR W/TRANSMITTER	TT12	header temp system(Cooling Tower-1)	1							

**BMS POINT SCHEDULE : CHILLER PLANT MANEGMANT  
SYSTEM : AIR CONDITIONING AND VENTILATION**

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				AI	AO	DI	DO	AV	DV	
	TEMP SENSOR W/TRANSMITTER	TT13	header temp system(Cooling Tower-2)	1						
	TEMP SENSOR W/TRANSMITTER	TT14	Return header temp system(Cooling tower)	1						
	FLOW METER FOR CH-01-04	FM	waterflow rate for CH-01 to 04	4						
	DIFFERENTIAL PRESSURE CONTROLLER	DPC-1	water pressure indication	5						
	BUILDING F									
	MOTORIZED VALVE FOR CH-01 TO 04		On-Off Valve		8					
COOLING TOWER	COOLING TOWER	CT-01/1,2	START/STOP						6	
		CT-02/1,2	Air Flow switch			6				
		CT-03/1,2	STATUS (ON/OFF)						6	
			Over current						6	
	TEMP. SENSOR W/TRANSMITTER	TTCT-1,2,3	water temp sensor	3						
	MOTORIZED VALVE FOR CT-01 TO 02		On-Off Valve		4					
WATER METER	WATER METER	-	water meter	1						
<b>TOTAL</b>				<b>52</b>	<b>12</b>	<b>21</b>	<b>1</b>	<b>24</b>	<b>59</b>	
<b>GRAND TOTAL</b>				<b>86</b>				<b>83</b>		

**BMS POINT SCHEDULE**

**SYSTEM : Electrical and Communication System**

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				AI	AO	DI	DO	AV	DV		
TRANSFORMER	TEMP. SENSOR W/TRANSMITTER (TR1)		WINDING TEMP.	1							
			HIGH ALARM			1					
	TEMP. SENSOR W/TRANSMITTER (TR2)		WINDING TEMP.	1							
			HIGH ALARM			1					
TEMP. SENSOR W/TRANSMITTER (TR3)		WINDING TEMP.	1								
		HIGH ALARM			1						
TEMP. SENSOR W/TRANSMITTER (TR4)		WINDING TEMP.	1								
		HIGH ALARM			1						
MDB & EMDB	SURGE PROTECTIVE DEVICE (MDB-1)		FAULT			1					
	SURGE PROTECTIVE DEVICE (MDB-2)		FAULT			1					
	SURGE PROTECTIVE DEVICE (MDB-3)		FAULT			1					
	SURGE PROTECTIVE DEVICE (MDB-4)		FAULT			1					
	MAIN ACB (MDB-1)		TRIP			1					
	MAIN ACB (MDB-2)		TRIP			1					
	MAIN ACB (MDB-3)		TRIP			1					
	MAIN ACB (MDB-4)		TRIP			1					
	NORMAL BUS (MDB)		VOLTAGE PHASE R	5							
			VOLTAGE PHASE S	5							
VOLTAGE PHASE T			5								
EMERGENCY BUS (EMDB)		VOLTAGE PHASE R	1								
		VOLTAGE PHASE S	1								
		VOLTAGE PHASE T	1								
GENERATOR	GENERATOR SET STATUS		STATUS					10	10	LON OR CANBUS OR EQUAL	
ACCESS CONTROL	ACCESS CONTROL SERVER		FIRE EXIT DOOR STATUS(OPEN/CLOSE)						3	VIA COMMUNICATION	
FIRE ALARM	FIRE CONTROL PANEL (FCP)		ALARM ZONE MONITORING						25	VIA COMMUNICATION	
SOUND	SOUND SYSTEM CONTROLLER		PAGING EVACUTION (GET ALARM ZONE)						1	VIA COMMUNICATION	
ENERGY MONITORING	ENERGY MONITORING SERVER		STATUS					10	10	VIA COMMUNICATION	
IP-CCTV	IP-CCTV SERVER		IP-CCTV MONITORING (FIRE EXIT STATUS OPEN)						3	VIA COMMUNICATION	
IP-PABX	PABX SERVER		RING ALL TELEPHONES (GET ALARM ZONE)						1	VIA COMMUNICATION	
<b>TOTAL</b>						<b>12</b>		<b>20</b>	<b>10</b>		
<b>GRAND TOTAL</b>											

**BMS POINT SCHEDULE**  
**SYSTEM : SANITARY AND FIRE PROTECTION SYSTEM**

โครงการ ก่อสร้างและตกแต่งภายในอาคารสำนักงาน กสทช. แห่งใหม่  
**OPTIMUM CONSULTANTS CO.,LTD.**

21/8/2014

SYSTEM	EQUIPMENT	EQUIP. NO.	DESCRIPTION	HARDWARE POINTS				SOFTWARE POINTS		REMARKS
				AI	AO	DI	DO	AV	DV	
COLD WATER SUPPLY	WATER TRANSFER PUMP (COLD WATER)	WSP-01 TO 2	STATUS (ON/OFF)			2				
			OVERLOAD TRIP			2				
	ELECTRODE (UNDERGROUND TANK)		HIGH LEVEL ALARM			2				
			LOW LEVEL ALARM			2				
	ELECTRODE (ELEVATED TANK)		HIGH LEVEL ALARM			2				
			LOW LEVEL ALARM			2				
BOOSTER PUMP SET (COLD WATER)	BOOSTER PUMP SET	BP-01	STATUS (ON/OFF)			3				
			TROUBLE			3				
BOOSTER PUMP SET	BOOSTER PUMP SET	BP-02	STATUS (ON/OFF)			3				
			TROUBLE			3				
BOOSTER PUMP SET	BOOSTER PUMP SET	BP-03	STATUS (ON/OFF)			3				
			TROUBLE			3				
SEWAGE SUMP	SEWAGE PUMP	SW-01 TO 14	STATUS (ON/OFF)			14				
			OVERLOAD TRIP			14				
	FLOAT LEVEL SWITCH		HIGH LEVEL ALARM			7				
DRAINAGE SUMP	DRAINAGE PUMP	DP-01 TO 02 F-DP-01, T-DP-02	STATUS (ON/OFF)			4				
			OVERLOAD TRIP			4				
	FLOAT LEVEL SWITCH		HIGH LEVEL ALARM			2				
WASTEWATER TREATMENT	TRANSFER PUMP	STP-1 TO 2	STATUS (ON/OFF)			2				
			OVERLOAD TRIP			2				
	FLOAT LEVEL SWITCH (TRANSFER PUMP)		HIGH LEVEL ALARM			1				
	AERATOR	A-1 TO 10	STATUS (ON/OFF)			10				
			OVERLOAD TRIP			10				
	SLUDGE PUMP	SLP-1 TO 2	STATUS (ON/OFF)			2				
			OVERLOAD TRIP			2				
	FLOAT LEVEL SWITCH (SLUDGE TRANSFER)		HIGH LEVEL ALARM			1				
	EFFLUENT PUMP	EFP-1 TO 2	STATUS (ON/OFF)			2				
			OVERLOAD TRIP			2				
FLOAT LEVEL SWITCH (EFFLUENT)		HIGH LEVEL ALARM			1					
EJECTOR PUMP	EJ-1	STATUS (ON/OFF)			1					
		OVERLOAD TRIP			1					
REUSE WATER PUMP	REUSE WATER PUMP	RWP-W-1	STATUS (ON/OFF)			2				
			OVERLOAD TRIP			2				
	ELECTRODE (REUSE WATER TANK)		HIGH LEVEL ALARM			1				
			LOW LEVEL ALARM			1				
FIRE PROTECTION SYSTEM	FIRE PUMP STATUS	FP-01	SUPERVISE			1				
			ENGINE RUNNING			1				
			GENERAL ALARM			1				
			TROUBLE			1				

**BMS POINT SCHEDULE**  
**SYSTEM : SANITARY AND FIRE PROTECTION SYSTEM**

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21/8/2014

SYSTEM	EQUIPMENT	EQUIP. NO.	DESCRIPTION	HARDWARE POINTS				SOFTWARE POINTS		REMARKS
				AI	AO	DI	DO	AV	DV	
	JOCKY PUMP STATUS	JP-01	SUPERVISE			1				
			ENGINE RUNNING			1				
			GENERAL ALARM			1				
			TROUBLE			1				
WATER FEATURE & POND	POND CIRCULATING PUMP	PCP-1-02	STATUS (ON/OFF)			1				
			TROUBLE ALARM			1				
	POND CIRCULATING PUMP	PCP-1-01 PCP-2-01,PCP-3-01	STATUS (ON/OFF)			3				
			TROUBLE ALARM			3				
			HIGH LEVEL ALARM			3				
	WATER FEATURE CIRCULATING PUMP	WF-1-01,WF-2-02 WF-2-01,WF-3-01	STATUS (ON/OFF)			4				
			TROUBLE ALARM			4				
	WATER FEATURE PUMP	WP-A-01 TO WP-A-06	STATUS (ON/OFF)			6				
			TROUBLE ALARM			6				
	POND CIRCULATING PUMP	WFP-A-01 TO WFP-A-03	STATUS (ON/OFF)			3				
			TROUBLE ALARM			3				
			HIGH LEVEL ALARM			1				
REUSE WATER TREATMENT PUMP	END SUCTION CENTRIFUGAL PUMP	UFO-01,02	STATUS (ON/OFF)			2				
			TROUBLE ALARM			2				
	BACKWASH PUMP	BWP-01,02	STATUS (ON/OFF)			2				
			TROUBLE ALARM			2				
	CARBON FEED PUMP	CBFP-01,02	STATUS (ON/OFF)			2				
			TROUBLE ALARM			2				
			HIGH LEVEL ALARM			1				
	CIRCULATION PUMP	CP-01,02	STATUS (ON/OFF)			2				
			TROUBLE ALARM			2				
				<b>GRAND TOTAL</b>			<b>181</b>			

**BMS POINT SCHEDULE**  
**SYSTEM : LIFT System**

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21/8/2014

SYSTEM	EQUIPMENT	EQUIP. NO.	DESCRIPTION	HARDWARE POINTS				SOFTWARE POINTS		REMARKS
				AI	AO	DI	DO	AV	DV	
LIFT	LIFT L-A-P-(01 TO 06)		LIFT CAR LOCATION BUILDING A					6		
	LIFT L-A-S-(01 TO 02)		LIFT CAR LOCATION BUILDING A					2		
	LIFT L-B-P-01		LIFT CAR LOCATION BUILDING B					1		
	LIFT L-B-S-01		LIFT CAR LOCATION BUILDING B					1		
	LIFT L-C-P-(01 TO 02)		LIFT CAR LOCATION BUILDING C					2		
	LIFT L-C-S-01		LIFT CAR LOCATION BUILDING C					1		
	LIFT L-D-P-(01 TO 02)		LIFT CAR LOCATION BUILDING D					2		
	LIFT L-F-P-01		LIFT CAR LOCATION BUILDING F					2		
	LIFT L-G-P-01		LIFT CAR LOCATION BUILDING G					1		
<b>TOTAL</b>						<b>0</b>		<b>18</b>		
<b>GRAND TOTAL</b>										