

			RETAIL DESI	GN & DELIV	RETAIL DESIGN & DELIVERY SUBMITTAL & TRANSMITTAL FORM	AL FORM	· · · · · · · · · · · · · · · · · · ·		
MAL	MALL / PROPERTY NAME:	AL KOUTH MALL	BB	BRAND NAME:		CLARK'S		UNIT NUMBER:	6-07
	SUBMITTAL / TRANSMITTAL NO.:	NSMITTAL NO.:		0	001 003	SUBMITT	SUBMITTAL DATE:	24-Sep-17	p-17
j=4	INVESTOR and/or	NAME of Investor / Authorized Representative	ized Representa	tive	CONTACT No. of Investor / Authorized	Authorized	E-mail Address	E-mail Address of Investor / Authorized Representative	zed Representative
fille	AUTHORIZED REPRESENTATIVE	JASHANMAL	IAL		90022060			rafat@jashanmal.net	LI.
	CONTRACTOR'S	COMPANY NAME	JAME		NAME of Contractor's Project Manager	Manager	CONTACT No.	E-mail Address	ddress
bila	REPRESENTATIVE	Lanouvelle Interiors	teriors		Eng.Dory Hanna		99825584	dory@lanouvelleint.com	elleint.com
	6	ONE (1) SUBMITTAL / TRANSMITTAL for each SUBMITTAL TYPE	TAL for each SUBM	ITTTAL TYPE		✓ NEW SUBMITTAL	Ď	RE-SUBMITTAL	отнекѕ
	DRAWING TITL	DRAWING TITLE / DESCRIPTION		NO. OF	DF The state of th		RD&D ACTION	_	
	SUBMI	SUBMITTAL TYPE		COPIES	ES CODE				
NO.		CONCEPT DESIGN; ARCHITECTURAL & MEP DETAILED DESIGN; SIGNAGE; HOARDING; KFD/FIRE ALARM, FIRE FIGHTING, EMERGENCY & EXIT; AS BUILT; MATERIAL SAMPLE; SPECIFICATIONS; SURVEYS; INSURANCE, ETC.	DRAWING NO.	KEVISION	HANDCOPY  (A) ONLY)  B) APPROVED AS NOTED  K) REVISE & RESUBMIT		соммеи.	COMMENTS / REMARKS	
Н	COMPOSIT LAYOUT		CO-01	-1	1/	X /			
2	FIRE FIGHTING LAYOUT		FF-01	1	1/	Z			
3	LIGHTING LAYOUT		10-17	1/	V	_	×/		
4	HVAC LAYOUT		AC-01	1	1		<u> </u>	_	
2	POWER LAYOUT		PW-01	1	11/1				
9	SMOKE DETECTOR LAYOUT		SM-01		1				
7	EM & EX LAYOUT		EMX-01	1	1	>			
80	SPEAKER LAYOUT		SP-01	7	1				
6	DB SCHDULE management a GLA Property Hanagement Ca. (WLL)			1	\-1				
6	HEAT LOAD			н			\		
	2 4 SEP 2017								
	Time:	RETAIL DESIGN & DELIVERY	& DELIVERY				Investo	Investor / Contractor	
	Received By: & Delivery C	Received By: a Delivery Dept RD&D Coordinator MIM	Sr. MEP / MEP Engineer		Sr. Manager and/or General Manager	Name:	THOMAS JOY	I hereby cartify that the above submitted Itams have been reviewed in detail and are correct in the strict comformance with the contfact requirement except as	submitted Items have been re correct in the strict act requirement except as
						Tel. No.:	90020031	CO. (1)	stated.
ž	Name / Signature / Date	Name / Signature / Date	Name / Signature / Date	rre / Date	Name / Signature / Date	Date:	24-Sep-17	Authorized Signature / Date	nature / Date

NOTE: DOCUMENTS & DRAWING SUBMITTAL(S) MUST BE SUBMITTED AT GLA OFFICE FROM 8:00AM TO 5:00PM (SUNDAY TO THURSDAY). SUBMITTAL(S) AFFER 5:00PM WILL BE STAMPED THE NEXT WORKING DAY'S DATE.

• ALL DRAWING SUBMITTALS MUST BE IN: A) A3 SIZE PAPER; B) COLOR; C) SOFTCOPY ON CD WHICH INCLUDES ALTOCAD DRAWINGS (DWG) & ACROBAT (PDF) FILES.

• DRAWINGS SUBMITTED IN OTHER PAPER SIZE SUCH AS A0, A1, A2, FTC. SHOULD BE SUBMITTED IN THREE (3) HARDCOPIES TOGETHER WITH A SOFTCOPY ON CD;

• OTHER DOCUMENTS SUCH AS INSURANCE (Original), CERTFICATIONS, LETTERS, CATALOGUES, SPECIFICATIONS, FTC. SHOULD BE SUBMITTED ONLY IN A4 or A3 PAPER SIZE TOGETHER WITH SOFTCOPY ON CD.

NO. OF PAGES: Page Of

A for		m			180			150			300			300			110						400			009			400			20	2510	
ELCB 30m	LOAD (W)	>		210			140			300			300			300						400			400			250					2600	
0A 4P CO		œ	215			120			250			300			300			300			400			400			400						2685	
for Lighting , 4	Watts per point		6x25 + 1x15 + 1x50	5x25 + 3x15 + 2x20	6x25 + 2x15	4x20 + 2x20	5x25 + 1x15	2x75	5x50	3×100	3x100	3×100	3×100	3×100	3×100	1x300	8X10 + 3X10	0 <b>2</b> X9			2x200	2×200	2×200	2×200	2×200	3×200	2×200	250	2x200					
Clarks - AL Kout Mall 40A 4P COELCB 300mA with contactor for Lighting , 40A 4P COELCB 30mA for	DESCRIPTION	THE RESIDENCE CONTROL OF THE CONTROL	L1 ( P0532 + P4401 + womens pendant )	L2 ( P0532 + P4401 + P4402 )	L3 ( P0532 + P4401 )	Entrance ( P4402 + D4477 )	L4 ( P0532 + P4401 )	Display ( S4307JA )	Chandilier	Furniture Display D -1	Furniture Display D -2	Furniture Display D -3	Furniture Display D -4	Furniture Display D -5	Furniture Display D -6	Signage	EX & EM	L - Store	Spare	Spare	Cashier - 1	Cashier - 2	Store	Utility - 1	Utility - 2	Utility Store	P-IT	AC	P-CCTV	Spare	Spare	Spare	7795	TOTAL LOAD = 7.795 KW
	Controlled by				١	/0 <i>†</i>	ЯО	TO/	ΑTV	100	) <b>X</b> 8	<b>a</b> 0	37	108	ΙΤΝ	00					SW. Socket	SW. Socket	SW. Socket	SW. Socket	SW. Socket	SW. Socket	SW. Socket	SW. Socket	SW. Socket					TOTAL LOA
N on load type,	WIRE	SIZE	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5			4	4	4	4	4	4	4	4	4					
A TPN on	MCB	Kating	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	20	20	20	20	20	20	20	20	20	20	20	20		
ator 100 /	PHASE	No.	œ	<b>&gt;</b>	В	Я	γ	В	Я	<b>\</b>	В	æ	٨	В	Ж	٨	В	Ж	>	В	Я	Υ	В	R	٨	В	Я	Υ	В	22	<b>\</b>	В		
DB - 10 ways Isolator 100 A TPI	CKT			-			7			က			4			5			9						80			တ	GLAP	) open	OF Man	nag	eme at Co	nt (w.c.
DB - 10 w						4			ε	NI.	LHS	דוכ													5	ΙΞΛ	۸٥			2 <i>l</i>			201	

	Cross Innut Data	
	Space Input Data	
Clarks		07/25/2017
Lenovelle		08:15AM

G-01 RETAIL			
1. General Details:     Floor Area	ft lb/ft² CFM/person	2.4. People:	
Fixture Type Recessed (Unvented) Wattage 1.86 Ballast Multiplier 1.08 Schedule LIGHTING	W/ft²	Occupancy         4.0           Activity Level         User defined           Sensible         230.0           BTU/hr/person         104.1           BTU/hr/person         Schedule           PEOPLE	People
2.2. Task Lighting: Wattage	W/ft²	2.5. Miscellaneous Loads:         0           Sensible         0           Schedule         None           Latent         0           Schedule         None	BTU/hr BTU/hr
2.3. Electrical Equipment:  Wattage	Watts		

### 3. Walls, Windows, Doors:

Ехр.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
NNW	327.2	0	0	0

3.1. Construction Types for Exposure NNW
Wall Type Wall

4. Roofs, Skylights:
(No Roof or Skylight data).

## 5. Infiltration:

militration.		
Design Cooling	0.00	CFM
Design Heating		
Energy Analysis	0.00	CFM
Infiltration occurs only when the fan is off.		

## 6. Floors:

Type ...... Floor Above Conditioned Space (No additional input required for this floor type).

7. Partitions: (No partition data).



Page 1 of 2 Hourly Analysis Program v4.61

User defined 230.0 BTU/hr/person 104.1 BTU/hr/person PEOPLE		
0	BTU/hr	
None	BTU/hr	
None		
OLA manageme Property Management 6	ent ca.(WLL)	
2 4 SEP 20	1 <mark>17</mark>	
ECEIN	VED	

	Space Input Data	
Clarks		07/25/2017
Lenovelle		08:15AM

G-02 RETAIL

6. Floors:

7. Partitions: (No partition data).

1. General Details:	
Floor Area	ft²
Avg. Ceiling Height	ft
Building Weight	lb/ft²
1.1. OA Ventilation Requirements:	10/11
Space Usage RETAIL: Sales	
OA Requirement 1 8.1	CFM/pe
OA Requirement 2 0.12	CFM/ft <sup>2</sup>
Space Usage Defaults ASHRAE Std 62.1-2007	
2. Internals:	
2.1. Overhead Lighting:	
Fixture Type Recessed (Unvented)	
	W/ft²
Ballast Multiplier	
Schedule LIGHTING	
2.2. Task Lighting:	
Wattage 0.00	W/ft²
Schedule None	
swer sole o	
2.3. Electrical Equipment:	141-41-
Wattage	Watts
Scriedule ELECRICAL	
3. Walls, Windows, Doors:	
(No Wall, Window, Door data).	
4. Roofs, Skylights:	
(No Roof or Skylight data).	
5. Infiltration:	
Design Cooling	CFM
Design Heating 0.00	CFM
Energy Analysis 0.00	CFM
Infiltration occurs only when the fan is off.	

Type ...... Floor Above Conditioned Space (No additional input required for this floor type).



Hourly Analysis Program v4.61 Page 2 of 2

n		
	2.4. People:	Doonlo
	Occupancy	People
	Sensible 220.0	
	Latent	
	Schedule PÉOPLE	
	2.5. Miscellaneous Loads:	
	Sensible	BTU/hr
	Schedule None	
	Latent	BTU/hr
	Concedito	

## Air System Sizing Summary for FCU-11 CLARKS

Project Name: Clarks Prepared by: Lenovelle 07/25/2017 08:15AM

Air System Information Air System Name FCU-11 CLARKS Equipment Class CW AHU Air System Type SZCAV  Sizing Calculation Information Zone and Space Sizing Method:		Number of zones	ft²
Zone CFM Peak zone sensible load Space CFM Coincident space loads		Calculation Months Jan to Dec Sizing Data User-Modified	
Central Cooling Coil Sizing Data			
Total coil load       3.5         Total coil load       42.4         Sensible coil load       34.2         Coil CFM at Jul 1900       1700         Max block CFM       1700         Sum of peak zone CFM       1700         Sensible heat ratio       0.806         ft²/Ton       422.7         BTU/(hr-ft²)       28.4         Water flow @ 10.0 °F rise       8.49	MBH MBH CFM CFM CFM	Load occurs at         Jul 1900           OA DB / WB         112.8 / 79.7           Entering DB / WB         75.2 / 65.1           Leaving DB / WB         57.9 / 56.8           Coil ADP         55.8           Bypass Factor         0.100           Resulting RH         52           Design supply temp.         59.9           Zone T-stat Check         0 of 1           Max zone temperature deviation         0.0	*F *F *F *F OK *F
Central Heating Coil Sizing Data			
Max coil load       8.6         Coil CFM at Des Htg       1700         Max coil CFM       1700         Water flow @ 20.0 °F drop       0.86	CFM CFM	Load occurs at	°F
Precool Coil Sizing Data			
Total coil load       1.1         Total coil load       13.6         Sensible coil load       13.6         Coil CFM at Jul 1500       300         Max coil CFM       300         Sensible heat ratio       1.000         Water flow @ 10.0 °F rise       2.72	MBH MBH CFM CFM	Load occurs at         Jul 1500           OA DB / WB         117.3 / 80.8           Entering DB / WB         117.3 / 80.8           Leaving DB / WB         75.0 / 69.6           Bypass Factor         0.100	°F °F
Supply Fan Sizing Data			
Actual max CFM         1700           Standard CFM         1689           Actual max CFM/ft²         1.14	CFM	Fan motor BHP	
Outdoor Ventilation Air Data  Design airflow CFM		CFM/person	CFM/per



Hourly Analysis Program v4.61 Page 1 of 4

900 9.7 °F 5.1 °F 66.8 °F 55.8 °F 100 52 % 99.9 °F OK 0.0 °F					
Htg 5.7 '0.9 °F					
500 10.8 °F 10.8 °F 19.6 °F 100					
1.26 BHP 1.00 kW 3.75 CFM/person					
P 2017  Delivery Dept.					
Page 1 of 4					
Htg 5.7 70.9 500 80.8 80.8 89.6 1.00	°F °F °F °F CFM/person	°F °F °F BHP kW  CFM/person	*F *	*F  *F  *F  *F  *F  *F  *F  *F  *F  *F	"F "F BHP KW CFM/person

## Zone Sizing Summary for FCU-11 CLARKS

Project Name: Clarks Prepared by: Lenovelle

07/25/2017 08:15AM

Air System Information
Air System Name ......
Equipment Class ...... FCU-11 CLARKS ..... CW AHU ..... SZCAV 

Number of zones .. . 1495.1 ft² Floor Area ... Location ... Kuwait City, Kuwait

. Peak zone sensible load ... Coincident space loads Space CFM

Calculation Months ...... Jan to Dec Sizing Data ... **User-Modified** 

## Zone Sizing Data

	Maximum	Design	Minimum	Time	Maximum	Zone	
	Cooling	Air	Air	of	Heating	Floor	
	Sensible	Flow	Flow	Peak	Load	Area	Zone
Zone Name	(MBH)	(CFM)	(CFM)	Load	(MBH)	(ft²)	CFM/ft <sup>2</sup>
FCU-11 CLARKS	28.0	1700	1700	Jul 1900	1.0	1495.1	1.14

### Zone Terminal Sizing Data

No Zone Terminal Sizing Data required for this system.

### Space Loads and Airflows

Zone Name / Space Name	Mult	Cooling Sensible (MBH)	Time of Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (ft²)	Space CFM/ft²
FCU-11 CLARKS							7022 (002000000000
G-01 RETAIL	1	8.4	Jul 1900	507	1.0	572.6	0.89
G-02 RETAIL	1	19.7	Jul 1900	1193	0.0	922.5	1.29



Hourly Analysis Program v4.61 Page 2 of 4

# Air System Design Load Summary for FCU-11 CLARKS

Project Name: Clarks Prepared by: Lenovelle 07/25/2017 08:15AM

	DES	GN COOLING	3	DESIGN HEATING HEATING DATA AT DES HTG			
	COOLING DATA A	T Jul 1900					
	COOLING OA DB /	WB 112.8 °	F / 79.7 °F	HEATING OA DB /	WB 40.1 °F /	36.6 °F	
		Sensible	Latent		Sensible	Latent	
ZONE LOADS	Details	(BTU/hr)	(BTU/hr)	Details	(BTU/hr)	(BTU/hr)	
Window & Skylight Solar Loads	0 ft²	0	-	0 ft²	-		
Wall Transmission	327 ft²	1626	-	327 ft²	1023		
Roof Transmission	O ft²	0	-	0 ft²	0		
Window Transmission	0 ft²	0	-	0 ft²	0	-	
Skylight Transmission	O ft²	0	-	0 ft²	0	-	
Door Loads	O ft²	0	-	0 ft²	0		
Floor Transmission	O ft²	0	) <del>-</del>	0 ft²	0		
Partitions	O ft²	0	-	0 ft²	0		
Ceiling	O ft²	0	-	0 ft²	0		
Overhead Lighting	3000 W	6385	-	0	0	12	
Task Lighting	0 W	0	( <u>2</u>	0	0		
Electric Equipment	4300 W	13932	(=	0	0	-	
People	16	3065	1665	0	0	C	
Infiltration	-	0	0	-	0	C	
Miscellaneous		0	0	-	0	C	
Safety Factor	12% / 7%	3001	117	0%	0	0	
>> Total Zone Loads		28008	1782	-	1023	0	
Zone Conditioning		28103	1782	-	1771	C	
Plenum Wall Load	0%	0	-	0	0		
Plenum Roof Load	70%	0	-	0	0		
Plenum Lighting Load	30%	3071	-	0	0		
Return Fan Load	1700 CFM	0		1700 CFM	0		
Ventilation Load	300 CFM	11520	6434	300 CFM	10188	C	
Supply Fan Load	1700 CFM	3412	1-	1700 CFM	-3412		
Space Fan Coil Fans	-	0	_	-	0	(•	
Duct Heat Gain / Loss	1%	280		1%	10		
>> Total System Loads	-	46386	8215	-	8558	C	
Central Cooling Coil		34226	8217	-	0	C	
Central Heating Coil	_	0	į	-	8558	2	
Precool Coil	-	12161	0	-	0	0	
>> Total Conditioning	-	46386	8217	_	8558	0	
Key:	Positive v	alues are cig	loads	Positive values are htg loads			
Williams ▼ Mass	Negative v	alues are htg	loads	Negative values are clg loads			



Hourly Analysis Program v4.61 Page 3 of 4



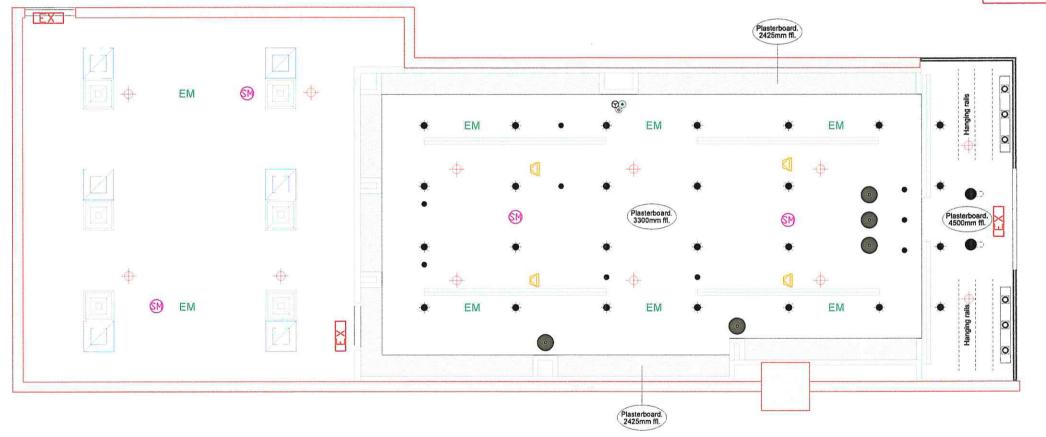
Location: Kuwait City, Kuwait Altitude: 180.0 ft. Data for: July DESIGN COOLING DAY, 1900 30 1. Outdoor Air 2. Vrecool Coil Outlet 3. Wixed Air 3. Wixed Air 5. Supply Fan Outlet 6. Duct Heat 6. Duct Heat 7. Return Plenum Outlet 40 50 60 70 80 Temperature(°F) 90 100 110 Specific Humidity ( lb/lb ) 0.000 0.018 0.020 0.002 0.004 0.016 OLA management GLA Property Management Co. (WLL) 2 4 SEP 2017

Hourly Analysis Program v4.61

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Project Name: Clarks Prepared by: Lenovelle Psychrometric Analysis for FCU-11 CLARKS 07/25/2017 08:15AM



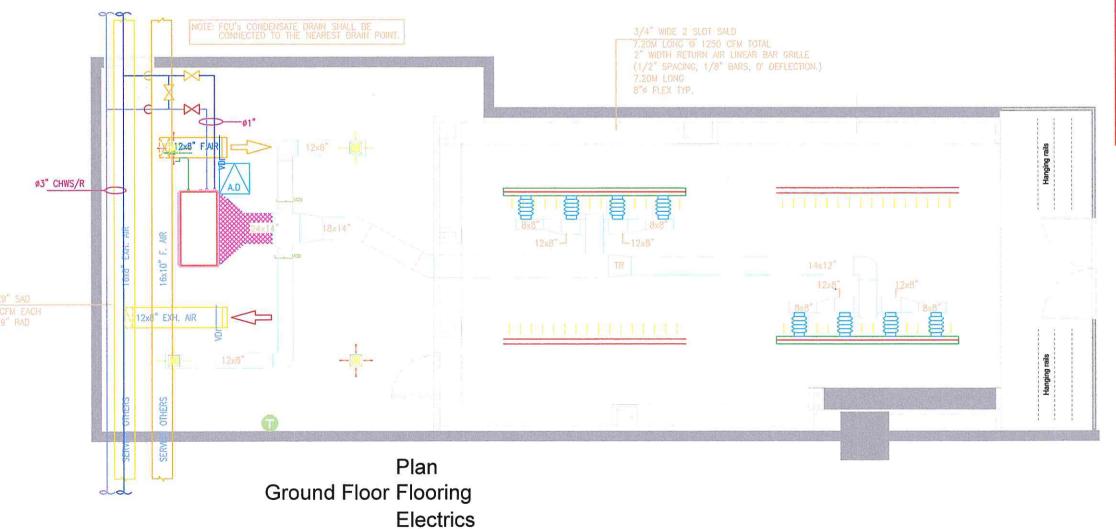


D.B. N.A. DDL. Ef. ATI AL

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LEGEND PENDENT & UPRIGHT SPRINKLER PENDENT SPRINKLER SMOKE DETECTOR SPEAKER EMERGENCY LIGHT EM EX M AC DEFUSER AC GRILL

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT



DUCTED FAN COIL UNIT SCHEDULE - GROUND FLOOR (HV-104-00) (INVESTER'S SCOPE OF WORK)

60.0

SUPPLY COOLING CAPACITY

AIR SENSIBLE TOTAL TOTAL

CFM (BTUH) (BTUH) (TR)

1800 35640 42687 3.6

75.0

63.0

57.0

56.0

46.0

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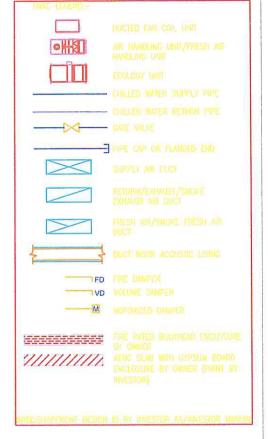
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CHILLED WATER

MAX. PD COIL

FT. H<sub>2</sub>O ROWS

6.1 10 4 0.3







AC-01

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E.S.P. T.S.P. FILTER

ELECTRICAL DATA

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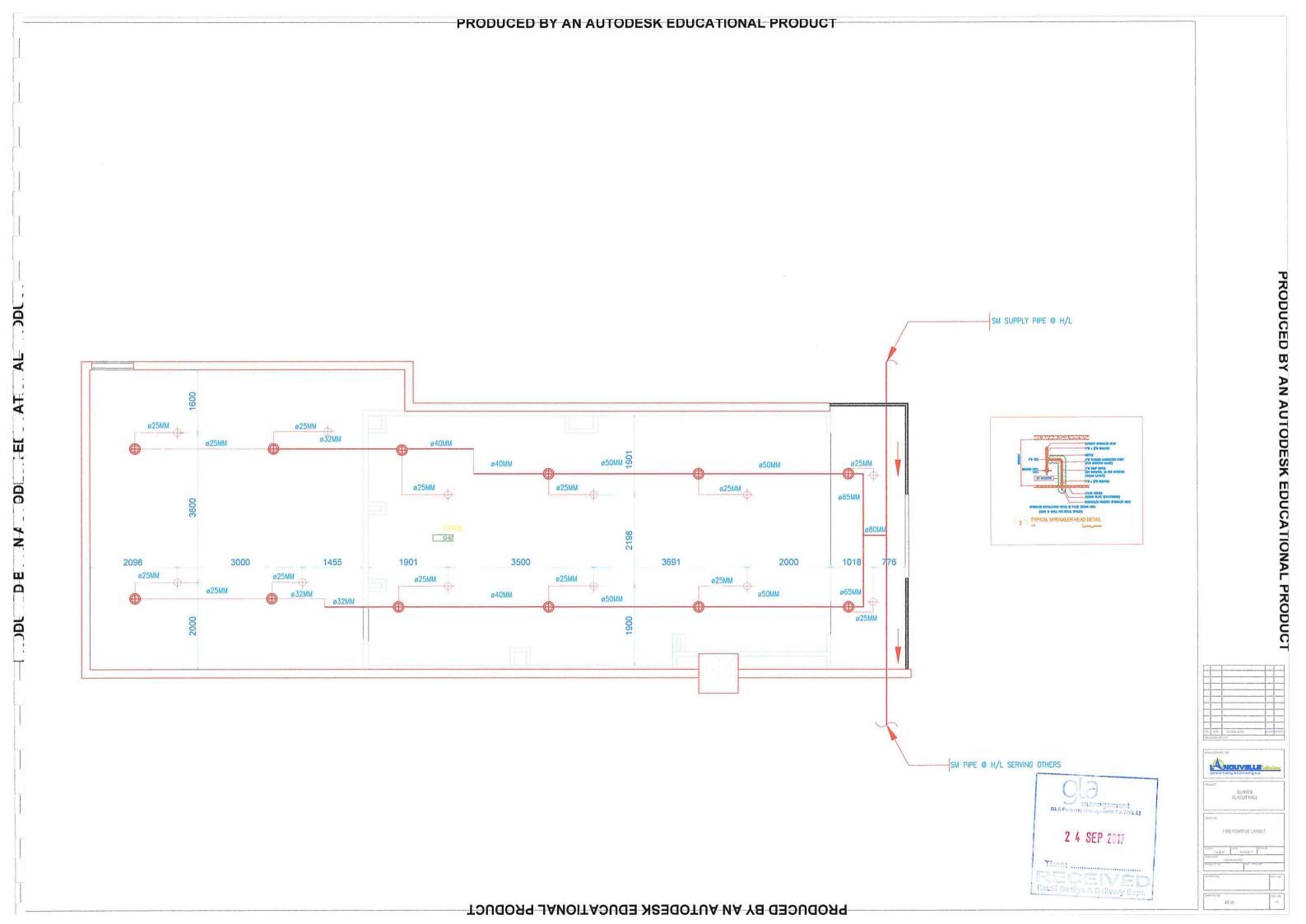
REMARKS

SEE NOTE (1)

THK./ WATTS VOLTS

TYPE

1.0 2" FLAT



AL... DDL

AT

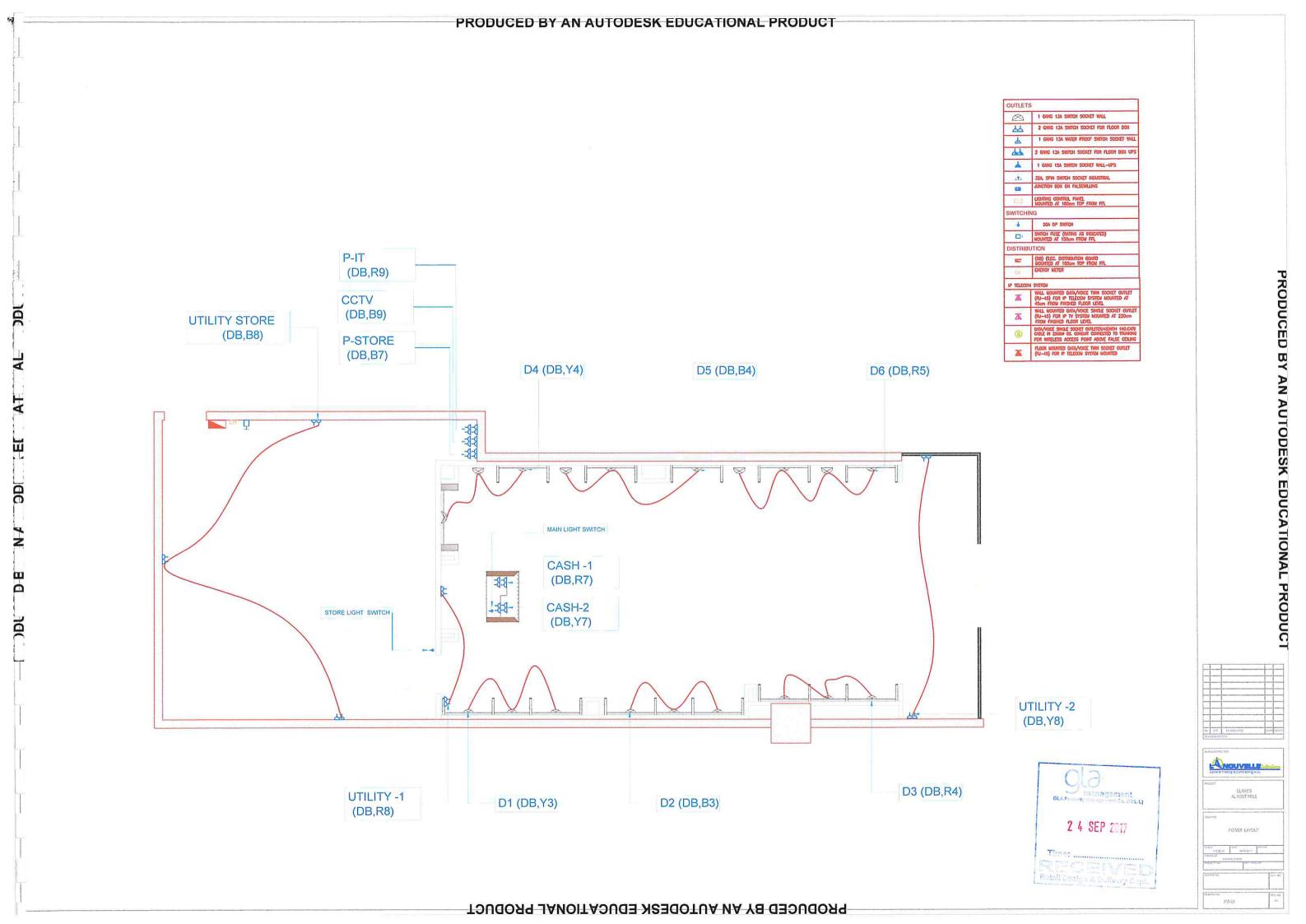
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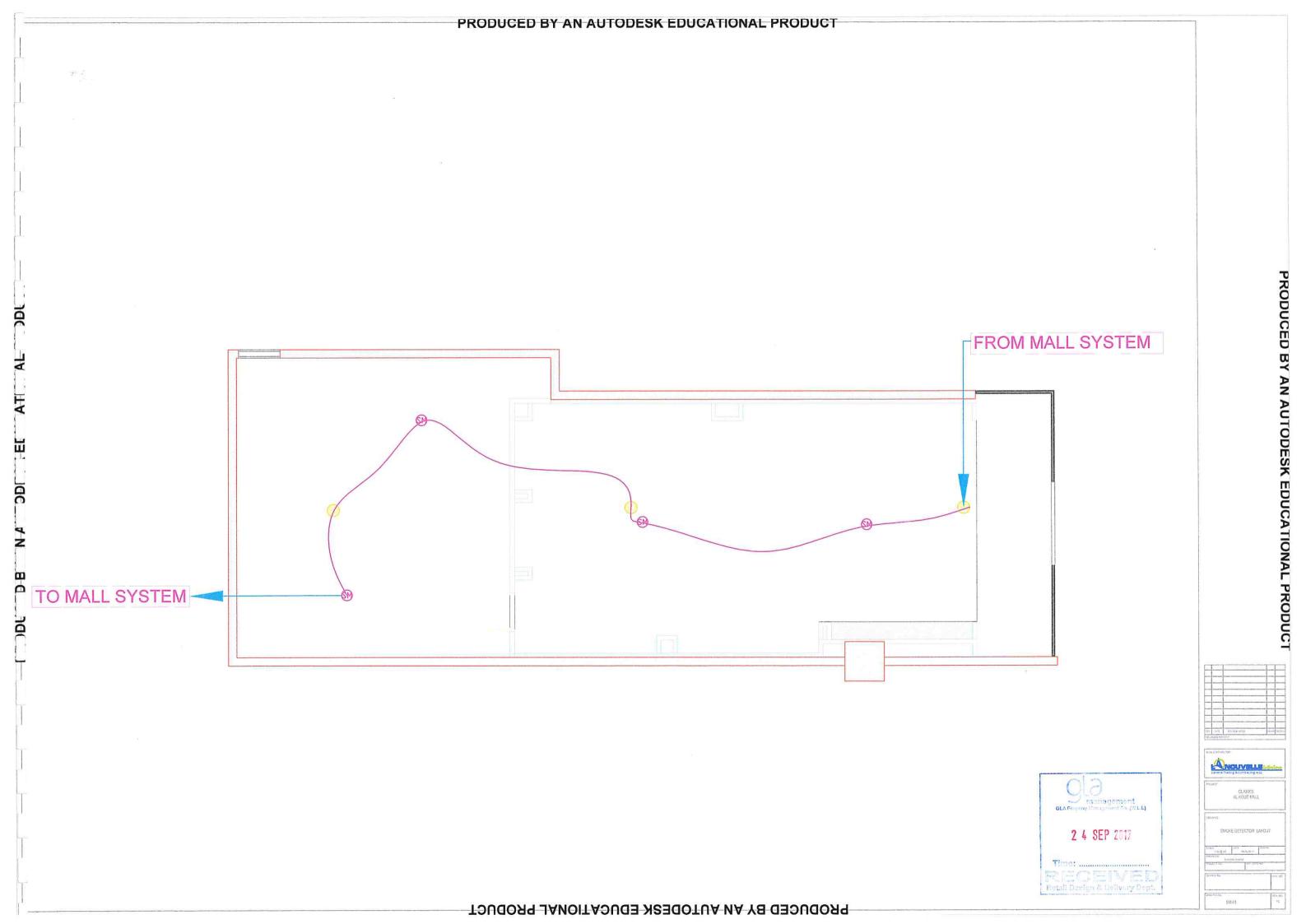
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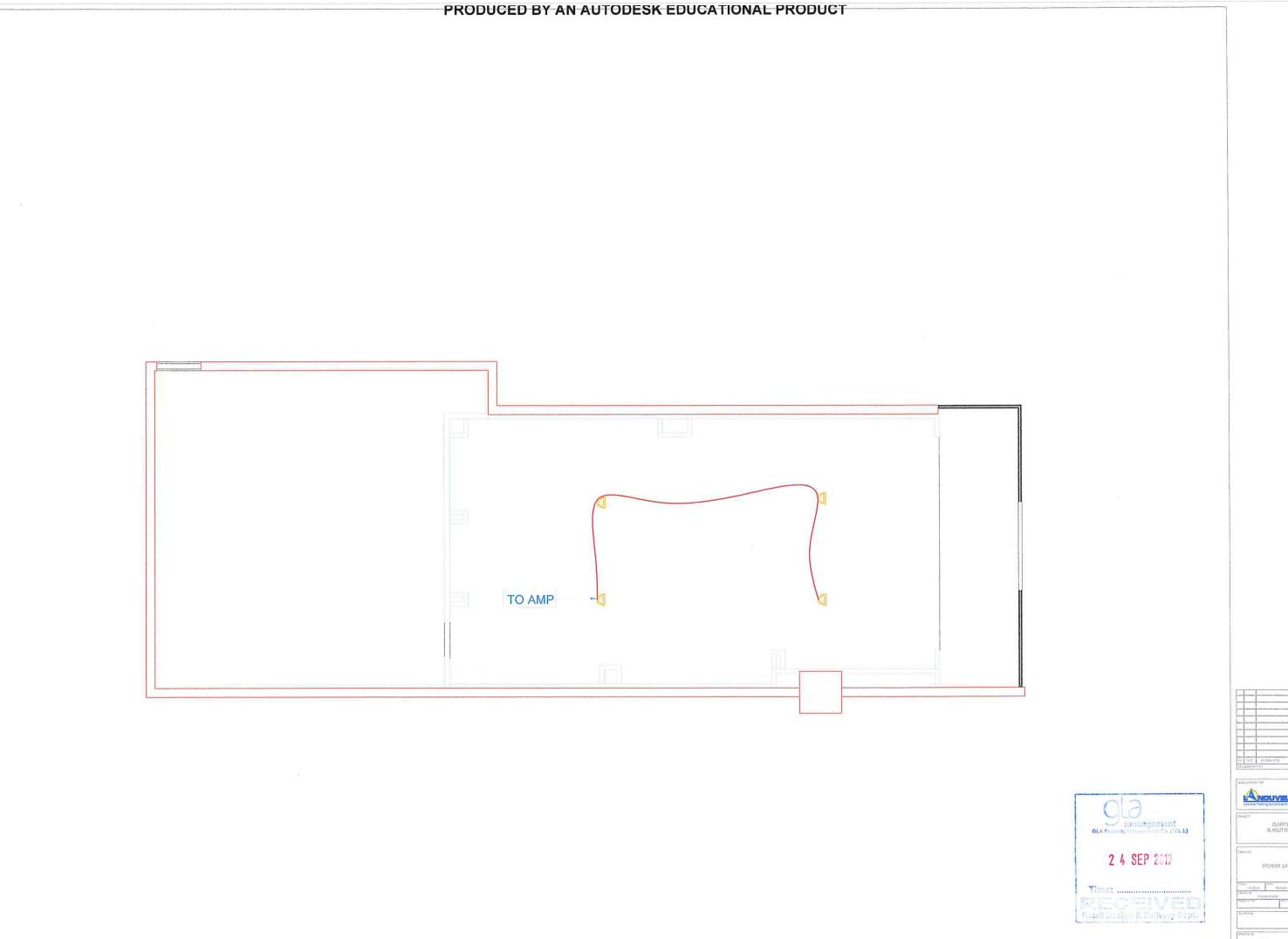
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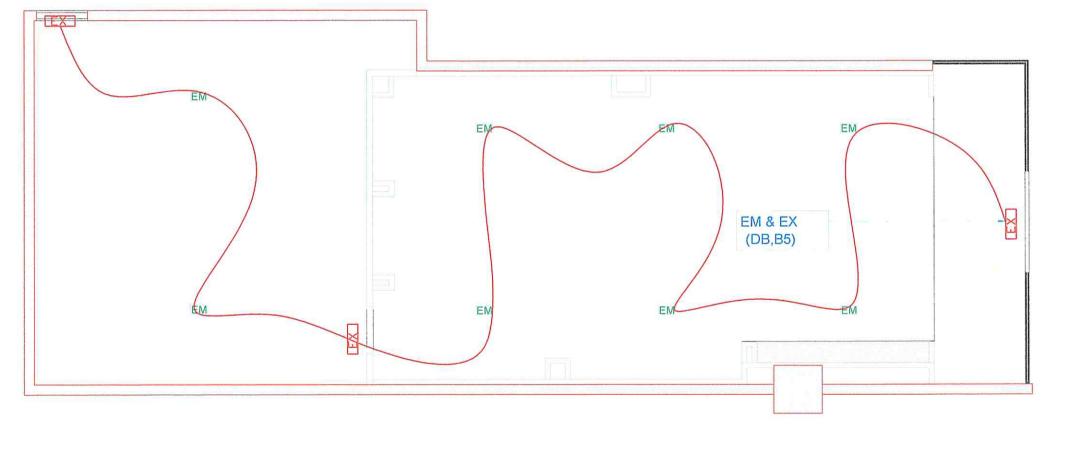


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