

SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN

PROJECT:

INTERIOR RENOVATION 4TH FLOOR COMPANIES CONSULTANT:

SOHAIL A. KHAN ASSOCIATES Architecture and Designing

House #159, Street 4, Race Course Road, Rawalpindi Tel: 5174329 - 5174098; Fax: 5125075 Email: mail@saka.net.pk

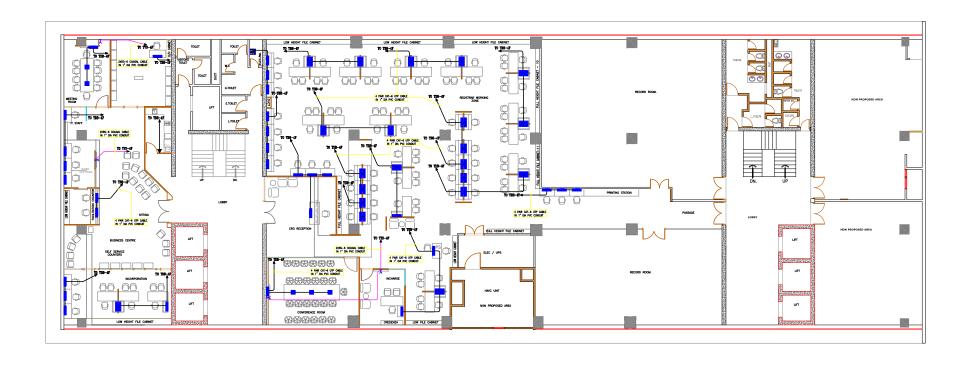


RAAHIM ASSOCIATES
MEP ENGINEERS & CONSULTANT
FLAT 07, 1F SHERAZ PLAZA, GULBERG II, LHR
Ph: 042-35764449, Cell no: 0333-4320990
E-mail: raahimassociates@gmail.com

DRAWING TITLE:

DATA SYSTEM LAYOUT

1	DESIGN BY:	DRAWN BY:	CHECK BY:
	CH.USAMA	M.AKRAM	S.Y.B
	SCALE:	DATE:	DWG.NO:
	N.T.S	15.06.2020	E-08



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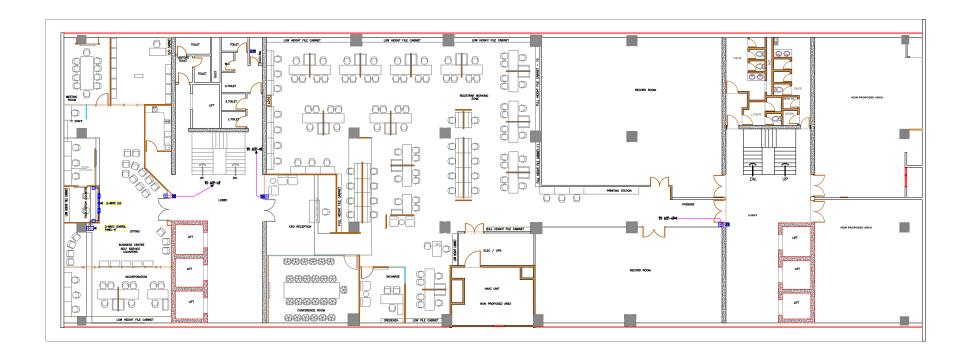
RAAHIM ASSOCIATES
MEP ENGINEERS & CONSULTANT
FLAT OT, IF SHERAZ PLAZA, GUILBERG II, LHR
Ph: 042-3574449, Cell mc. 3333-4320990
E-mail: raahimassociates@gmail.com

TELEPHONE & TV CABLE

SYSTEM LAYOUT

DRAWING TITLE:

DESIGN BY:	DRAWN BY:	CHECK BY:			
CH.USAMA	M.AKRAM	S.Y.B			
SCALE:	DATE:	DWG.NO:			
N.T.S	15.06.2020	E-09			



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SOHAIL A. KHAN ASSOCIATES
Architecture and Designing

House #159, Street 4, Race Course Road, Rawalpindi Tel: 5174329 - 5174098; Fax: 5125075 Email: mail@saka.net.pk



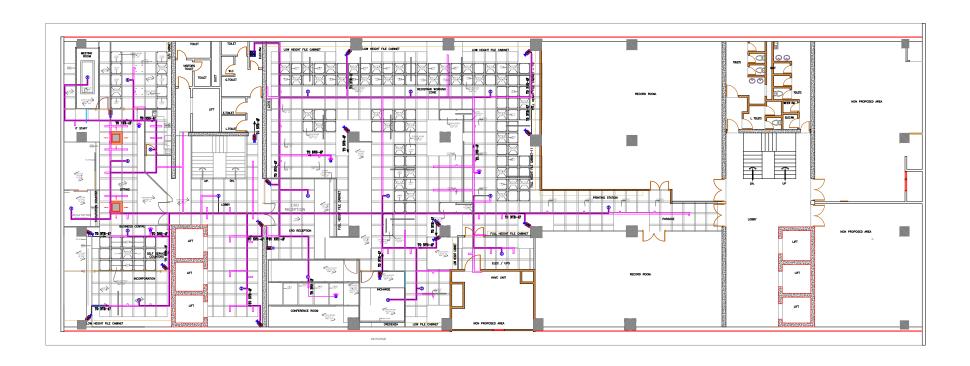
RAAHIM ASSOCIATES

MEP ENGINEERS & CONSULTANT
FLAT 07, 17 SHERAZ PLAZA, GULBERG II, LHR
Ph. 022–3576444, Cell no: 0333–3420990
E-mail: raahimassociates@gmail.com

DRAWING TITLE:

ACCESS CONTROL & Q-MATIC SYSTEM LAYOUT

1	DESIGN BY:	DRAWN BY:	CHECK BY:
	CH.USAMA	M.AKRAM	S.Y.B
	SCALE:	DATE:	DWG.NO:
	N.T.S	15.06.2020	E-10



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CONSULTANT:

SOHAIL A. KHAN ASSOCIATES Architecture and Designing

House #159, Street 4, Race Course Road, Rawalpindi Tel: 5174329 - 5174098; Fax: 5125075 Email: mail@saka.net.pk



RAAHIM ASSOCIATES

MEP ENGINEERS & CONSULTANT
FLAT 07, 1F SHERAZ PLAZA, GUILBERG II, LHR
Ph: 042-33764449, Cell no: 0333-4320990

E-mail: raahimassociates@gmail.com

DRAWING TITLE:

FIRE ALARM, WIFI & CCTV SYSTEM LAYOUT

DESIGN BY:	DRAWN BY:	СНЕСК ВҮ:
CH.USAMA	M.AKRAM	S.Y.B
SCALE:	DATE:	DWG.NO:
N.T.S	15.06.2020	E-11

# PLUMBING





## PLUMBING SYSTEM GENERAL NOTES & LEGEND

#### GENERAL NOTES :-

- 1- ALL DIMENSIONS ARE IN INCHES OTHERWISE SPECIFIED.
- 2- IT IS THE CONTRACTOR RESPONSIBILITY AND LIABILITY TO SYSTEMATICALLY, ACCURATELY, AND DILIGENTLY COORDINATE ALL WORKS OF ALL TRADES, AS DEPICTED ON EACH TRADE DRAWING, WITH EACH OTHERS AND WITH ALL PRODUCTS DATA SHEETS BEFORE GENERATING SHOP DRAWINGS FOR FABRICATION, INSTALLATION, PROCUREMENT OF PRODUCTS, AND/OR CONSTRUCTION.
- 3- CONTRACTOR IS RESPONSIBLE FOR CONNECTION OF NEW NETWORK WITH EXISTING LINES IN CO-ORDINATION WITH CLIENT
- 4- ANY NECESSARY ARRANGEMENTS REQUIRED FOR ABOVE MENTIONED WORKS WILL COME UNDER JURISDICTIONS OF MAIN CONTRACTOR.

#### WATER SUPPLY SYSTEM:

- 1- PROVIDE ISOLATING VALVE OR ANGLE VALVE AT ALL BRANCH PIPES CONNECTION / RISER.
- 2- ALL JOINTS IN PIPE WORK AND JOINTS OF PIPE WORK TO APPLIANCES SHALL BE AIRTIGHT AND WATERTIGHT AND SHALL REMAIN SO DURING USE. CARE SHALL BE TAKEN TO ENSURE THAT NO JOINING MATERIAL PROJECTS INSIDE THE CORE OF THE PIPE. SOME FLEXIBILITY IS DESIRABLE WHERE THERE IS A POSSIBILITY OF MOVEMENT IN A PIPELINE OR BETWEEN THE PIPE AND THE APPLIANCE AND PROVISION SHALL BE MADE IN ASSEMBLY OF SANITARY PIPE WORK TO ACCOMMODATE AND CONTROL THERMAL MOVEMENT.
- 3- ALL PIPE SIZE SHOWN ARE NOMINAL PIPE DIAMETER IN INCHES.
- 4- REFER TO AREA PLANS FOR DETAILED PIPING LAYOUT OF WATER SUPPLY PIPING NETWORK
- 5 ALL PIPE PENETRATION THROUGH ROOF AND EXTERIOR WALLS SHALL BE FULLY WATERPROOFED.
- 6- EXACT ROUTE AND LOCATION OF EACH PIPELINE SHALL BE DETERMINED IN COORDINATION WITH OTHER TRADES PRIOR TO INSTALL ATION
- 7- PROVIDE UNIONS AT THE FINAL CONNECTION TO EACH PIECE OF EQUIPMENT OR PLUMBING FIXTURE HAVING 2 INCHES AND SMALLER CONNECTIONS.
- 8- PROVIDE FLANGES ON ALL VALVES, APPARATUS AND EQUIPMENT HAVING 2-1/2 INCHES AND LARGER CONNECTIONS.
- 9- PROVIDE PIPE SLEEVE WITH CAULKING FOR ALL PIPES PENETRATING THROUGH CONCRETE STRUCTURES
- 10- THE CONTRACTOR MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR FIXTURES PRE-INSTALLATION.
- 11- ALL MATERIALS TO BE USED SHALL GENERALLY CONFORM TO SASO, AMERICAN OR BRITISH STANDARDS.
- 12- COMPLETED PLUMBING SYSTEM INSTALLATIONS SHALL BE TESTED IN ACCORDANCE WITH ACCEPTED CODES AND STANDARD TESTING PROCEDURE.
- 13- ALL IMPORTANT ITEMS LIKE VALVES, ETC. SHALL HAVE A REPRESENTATIVE SAMPLE & CATALOG TO BE SUBMITTED TO THE CONSULTANT FOR APPROVAL.
- 14- ALL ITEMS TO BE INSTALLED SHALL IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS.
- 15- ALL PLUMBING FIXTURES WILL BE INSTITUTIONAL GRADE, VITREOUS CLAY OR STAINLESS STEEL AS REQUIRED.
- 16- WATER CLOSETS WILL BE FLOOR MOUNTED TYPE WITH A FLUSH RATE OF 1.6 GPF.
- 17- LAVATORIES WILL BE WALL HUNG OR COUNTER TOP TYPE, 1.9 LITERS PER MINUTE MAXIMUM FLOW RATE WITH MANUAL FAUCETS.
- 18- FLOOR DRAINS AND / OR FLOOR SINKS WILL BE FLUSH WITH FINISHED FLOOR, MINIMUM 2 INCHES OUTLET.
- 19- SEISMIC RESTRAINTS WILL BE PER THE REFERENCED BUILDING CODE
- 20- SBC, UPC AND IPC IS TO BE FOLLOWED DURING WORK IN PROGRESS.
- 21- POLYPROPYLYNE PIPES ARE TO BE PROVIDED FOR WATER SUPPLY PIPING

#### IMPORTANT NOTES :-

- 1- ALL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INTENDED TO DEMONSTRATE THE INTENT OF THE DESIGN AND SHALL NOT BE USED DIRECTLY FOR FABRICATION AND/OR INSTALLATION. THE CONTRACTOR SHALL USE THE INFORMATION SHOWN AS START POINT TO DEVELOP DETAILED SHOP DRAWINGS NECESSARY FOR FABRICATION & INSTALLATION, THE CONTRACTOR SHALL SUBMIT THESE SHOP DRAWINGS, & CATALOG CUTS FOR CLIENT APPROVAL PRIOR TO PROCUREMENT, FABRICATION AND INSTALLATION.
- 2- THE CONTRACTOR PERFORMING THE PROCESS WILL CONSIDER & CHECK THE LATEST UPDATE OF ARCHITECTURAL, INTERIOR DESIGN, REQUIREMENTS OF MEDICAL GASES INSIDE THE ROOMS & LABS, THE SELECTION OF APPROPRIATE SYSTEMS TO FIGHT THE FIRE INSIDE THE SPECIAL ROOMS IN ACCORDANCE WITH NFPA
- 3- THE COORDINATION BETWEEN ALL TRADES IS THE CONTRACTOR RESPONSIBILITY
- 4- SHOP DRAWING REQUIRED FROM THE CONTRACTOR TO CONSULTANT APROVAL
- 5- WHERE THERE IS CONFLICT BETWEEN ANY LOCAL AUTHORITY REQUIREMENTS AND THE DRAWINGS OR SPECIFICATIONS, REQUIREMENTS OF LOCAL AUTHORITIES SHALL GOVERN.
- 6- IT IS THE CONTRACTOR RESPONSIBILITY AND LIABILITY TO SYSTEMATICALLY, ACCURATELY, AND DILIGENTLY COORDINATE ALL WORKS OF ALL TRADES, AS DEPICTED ON EACH TRADE DRAWING, WITH EACH OTHERS AND WITH ALL PRODUCTS DATA SHEETS BEFORE GENERATING SHOP DRAWINGS FOR FABRICATION, INSTALLATION, PROCUREMENT OF PRODUCTS, AND/OR CONSTRUCTION.
- 7- REFER TO DRAWINGS FOR EQUIPMENTS CAPACITIES & POWER REQUIRED ACCORDING TO DESIGN STAGE ONLY
- 8- CONTRACTOR IS RESPONSIBLE FOR CONNECTION OF MAIN NETWORK WITH EXISTING LINES IN CO-ORDINATION WITH CLIENT
- 9- ANY NECESSARY ARRANGEMENTS REQUIRED FOR ABOVE MENTIONED WORKS WILL COME UNDER JURISDICTIONS OF MAIN CONTRACTOR.

#### DRAINAGE SYSTEM:

- 1- SANITARY DRAINAGE SYSTEM INSIDE THE BUILDING SHALL BE ONE PIPE SYSTEM FOR BOTH SOIL AND WASTE APPLIANCES.
- 2- SANITARY DRAINAGE PIPING BELOW GRADE WILL BE UPVC CLASS 5 & CLASS 4 FOR ABOVE GRADE WITH RUBBER GASKET.
- 3- ALL WET AREAS SUCH AS TOILETS, JANITORS, KITCHENS, MECHANICAL ROOMS, ...ETC SHALL BE PROVIDED WITH FLOOR DRAINS.
- 4- DRAINAGE AND STORM SYSTEMS WITHIN THE INTERIOR OF THE BUILDING SHALL BE TESTED AND APPROVED BY OWNER IN ACCORDANCE WITH THE PROVISIONS OF THE PLUMBING CODE.
- 5- ALL DRAINS AND SEWER LINES INSIDE BUILDING SHALL BE SLOPED AT MAXIMUM OF 2.0% AND MINIMUM OF 1.0% SLOPE UNLESS OTHERWISE MENTIONED.
- 6- ALL PIPES RUN SHOWN ARE ABOVE FALSE CEILING LEVEL UNLESS OTHERWISE MENTIONED.
- 7- CONNECTION OF HORIZONTAL DRAINAGE LINES WITH OTHER HORIZONTAL DRAINAGE LINES SHALL BE MADE USING 45 DEGREE 'Y' BRANCHES, COMBINATION 'Y' AND 1/8 BEND BRANCHES OR OTHER APPROVED FITTINGS OF EQUIVALENT SWEEP, UNLESS SPECIFIED OTHERWISE.
- 8- INSTALL PIPING PARALLEL TO BUILDING WALLS AT SUCH HIGHS AS NOT TO OBSTRUCT ANY PORTION OF WINDOWS, DOOR WAYS, STAIR WAYS OR PASSAGE WAYS.
- 9- CONNECTION OF VERTICAL DRAINAGE LINES WITH HORIZONTAL DRAINAGE LINES SHALL BE MADE USING 45 DEGREE BRANCHES OR OTHER APPROVED FITTINGS OF EQUIVALENT SWEEP.60 DEGREE BRANCHES OR OFFSETS MAY BE USED ONLY WHEN INSTALLED IN A TRUE VERTICAL POSITION.
- 10- CHANGES IN DIRECTION OF DRAINAGE PIPING SHALL BE MADE BY THE APPROPRIATE USE OF APPROVED FITTINGS AND SHALL BE OF THE ANGLES PRESENTED BY 1/16 BEND, 1/8 BEND OR 1/6 BEND OR OTHER APPROVED FITTINGS OF FOLIVALENT SWEEP
- 11- HORIZONTAL PIPING SHALL BE SUPPORTED AT SUFFICIENTLY CLOSE INTERVALS TO MAINTAIN PIPE ALIGNMENT AND PREVENT SAGGING.
- 12- PROVIDE ESCUTCHEONS ON ALL EXPOSED PIPING PASSING THROUGH WALLS, FLOORS, PARTITIONS AND CEILINGS HELD IN PLACE BY INTERNAL SPRING TENSION OR SET SLEEVES.
- 13- RODDING ACCESS TO BE LOCATED ON WALL OF DUCT SHAFTS AND COORDINATED WITH ARCHITECT (TYPICAL TO ALL DUCT SHAFTS).
- 14- TRAP ALL FIXTURES AS REQUIRED BY CODES & STANDARDS
- 15- EXACT ROUTE AND LOCATION OF EACH PIPELINE SHALL BE DETERMINED IN COORDINATION WITH OTHER TRADES PRIOR TO INSTALLATION.
- 16- PROVIDE PIPE SLEEVE WITH CAULKING FOR ALL PIPES PENETRATING THROUGH CONCRETE STRUCTURES.
- 17- THE CONTRACTOR MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR FIXTURES PRE-INSTALLATION.
- 18- UNLESS OTHERWISE SHOWN, ALL PLUMBING MATERIALS SHALL BE AS SPECIFIED.
- 19- DIELECTRIC UNION MUST BE USED WHEN TWO PIPES OF DIFFERENT MATERIAL ARE CONNECTED TOGETHER.
- 20- ALL MATERIALS TO BE USED SHALL GENERALLY CONFORM TO SASO, AMERICAN OR BRITISH STANDARDS.
- 21- ALL FIXTURES SHALL BE PROVIDED WITH P OR S TRAP.
- 22- LONG RADIUS BEND SHALL BE USED AT THE FOOT OF VERTICAL SOIL / WASTE STACKS.
- 23- COMPLETED PLUMBING SYSTEM INSTALLATIONS SHALL BE TESTED IN ACCORDANCE WITH ACCEPTED CODES AND STANDARD TESTING PROCEDURE.
- 24- ALL ITEMS TO BE INSTALLED SHALL IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS.

### LEGEND:

COLD WATER PIPE (C.W) HOT WATER PIPE (H.W)	cw cw
GATE VALVE	GV
CHECK VALVE	NRV
PRESSURE REGULATING VALVE	PRV
WASTE PIPE SOIL PIPE VENT PIPE	
WITH P- TRAP	□ FD
CLEAN OUT	□ CO
FLOOR CLEAN OUT	O FCO

CLIENT:

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SOHAIL A. KHAN ASSOCIATES [

Architecture and Designing
House #159, Street 4, Race Course Road, Rawalpindi
Tel: 5174329 - 5174098; Fax: 5125075
Email: mail@saka.net.pk

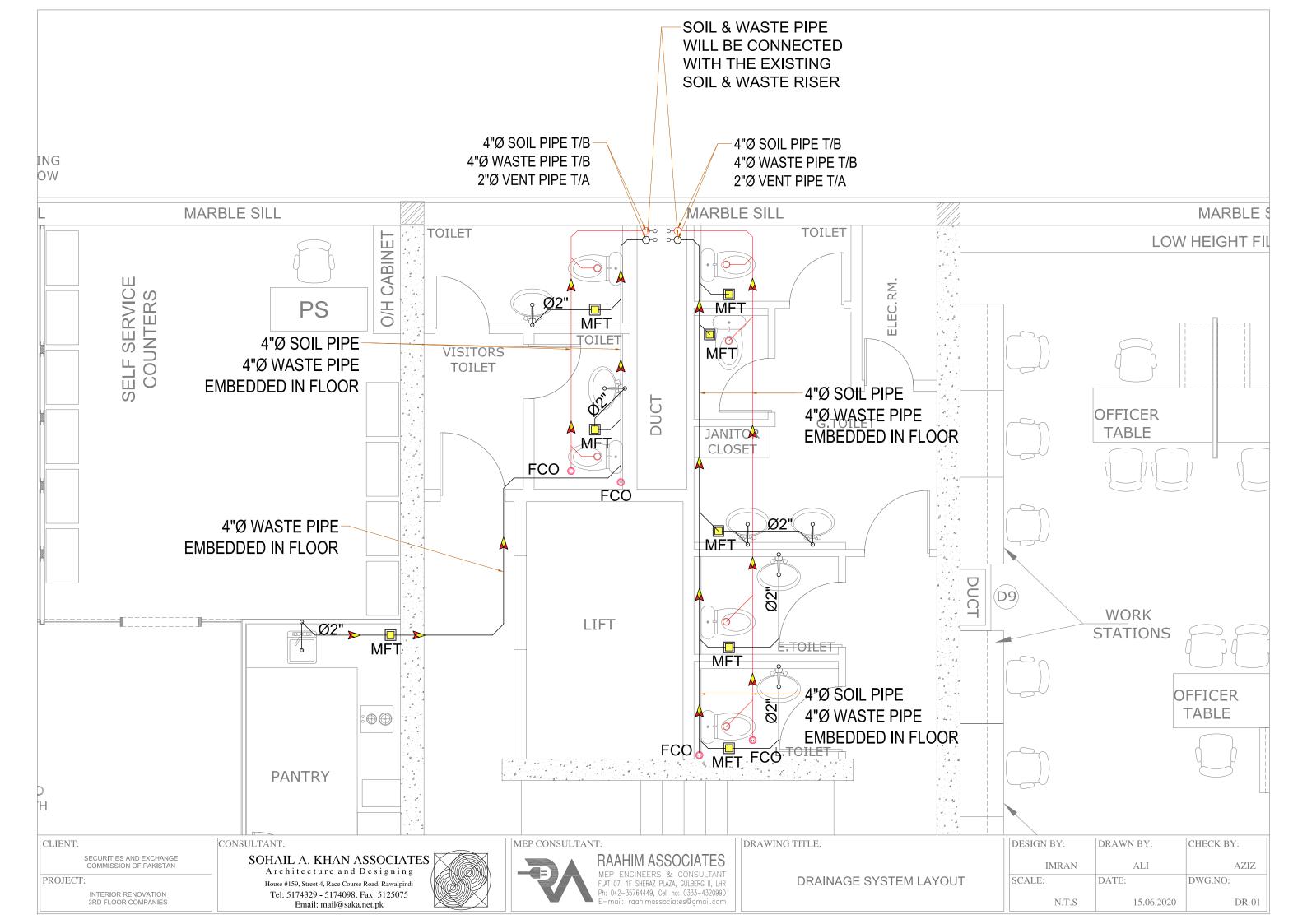


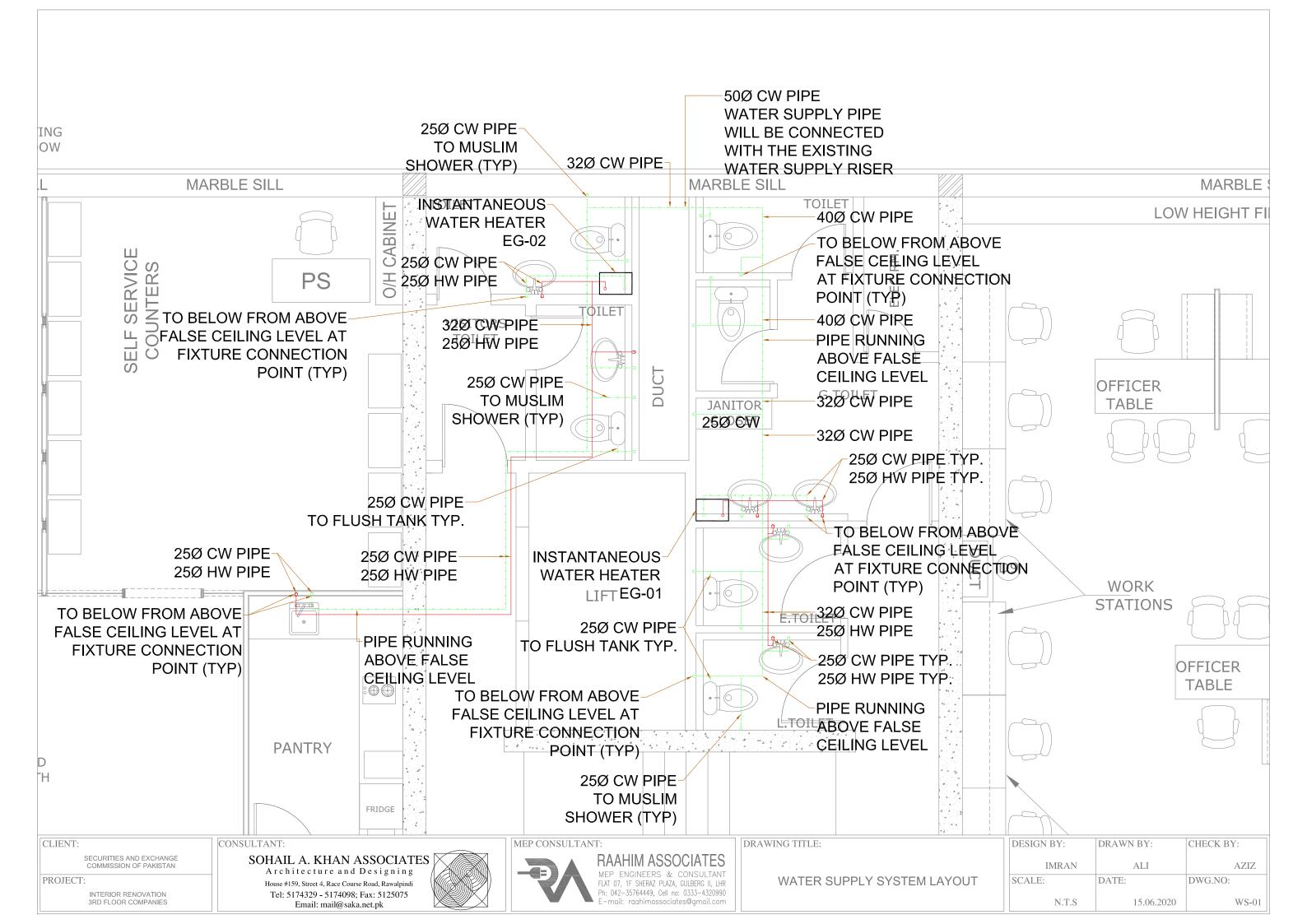


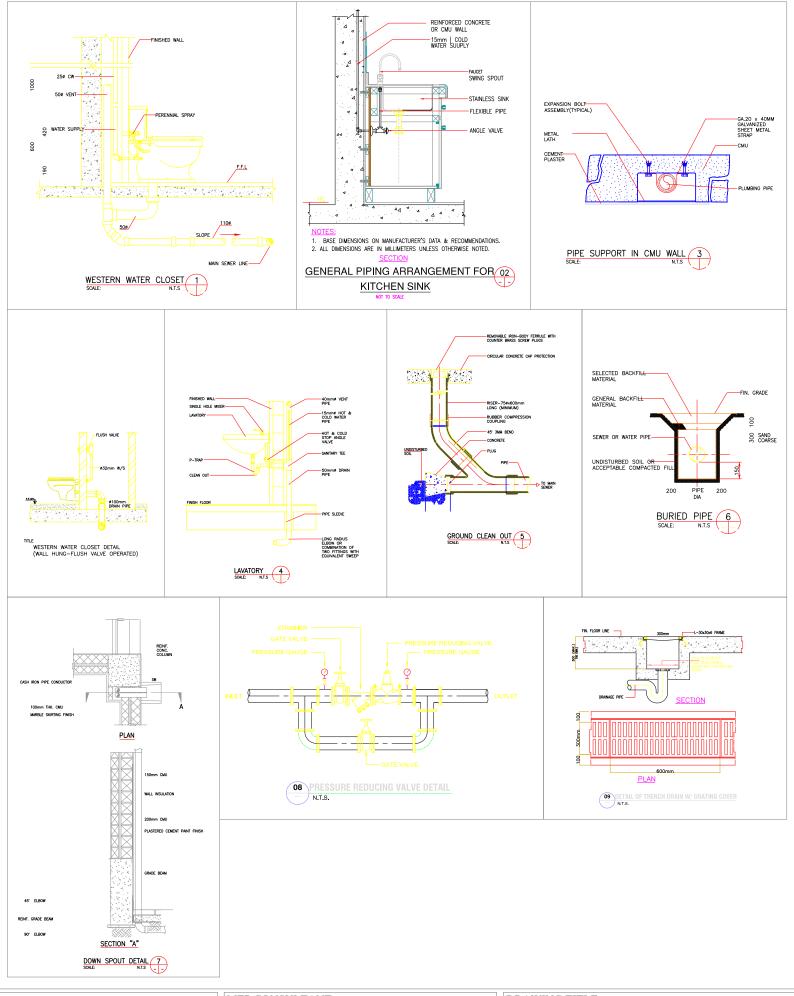
DRAWING TITLE

GENERAL NOTES & LEGEND

DESIGN BY:	DRAWN BY:	CHECK BY:
IMRAN	ALI	AZIZ
SCALE:	DATE:	DWG.NO:
N.T.S	15.06.2020	G-01







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Tel: 5174329 - 5174098; Fax: 5125075
Email: mail@saka.net.pk



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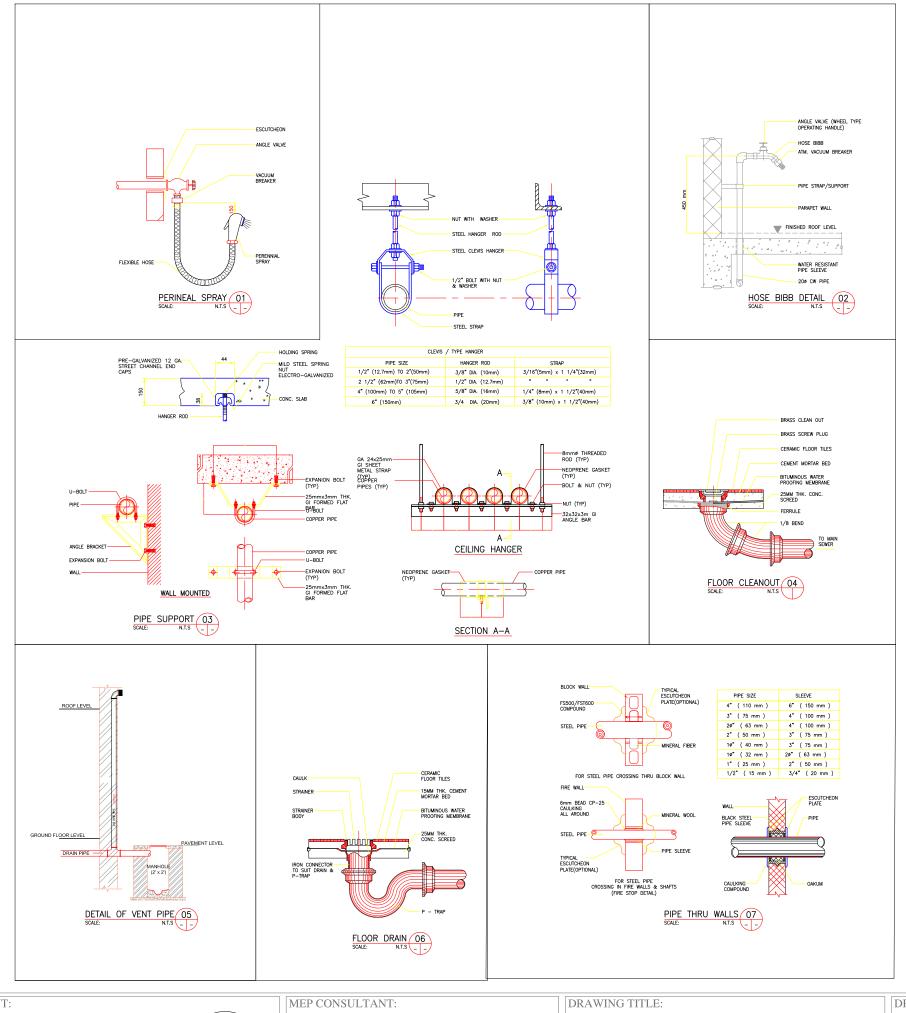
RAAHIM ASSOCIATES

MED ENCINEERS & CONSULTANT

MEP ENGINEERS & CONSULTANT FLAT 07, 1F SHERAZ PLAZA, GULBERG II, LHR Ph: 042-35764449, Cell no: 0333-4320990 E-mail: raahimassociates@gmail.com DRAWING TITLE:

STANDARD DETAILS-1

1	DESIGN BY:	DRAWN BY:	СНЕСК ВҮ:			
	IMRAN	ALI	AZIZ			
	SCALE:	DATE:	DWG.NO:			
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Email: mail@saka.net.pk



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MEP ENGINEERS & CONSULTANT
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Ph: 042-35764449, Cell no: 0333-4320990

—mail: raahimassociates@gmail.com

STANDARD DETAILS-2

DESIGN BY:	DRAWN BY:	СНЕСК ВҮ:
IMRAN	ALI	AZIZ
SCALE:	DATE:	DWG.NO:
N.T.S	15.06.2020	SD-02





DRG NO	DRG NO DESCRIPTION	
HV-00	HVAC INDEX-LEGEND AND GENERAL NOTES	1NO.
HV-01 AC COPPER LAYOUT		1NO.
HV-02	AC ELECTRICAL SYSTEM LAYOUT	1NO.
HV-03 HVAC CONDENSATE LAYOUT HV-04 HVAC STANDARD DETAILS		1NO.
		1NO.

LEGEND AND GENERAL NOTES			
		CONDENSATE DRAIN PIPE	
		REFRIGERANT PIPE	
+	CCS	CEILING CASSETTE TYPE UNIT	
WMU WALL MC		WALL MOUNTED UNIT	
CU CONDENSING UNIT		CONDENSING UNIT	

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SOHAIL A. KHAN ASSOCIATES Architecture and Designing

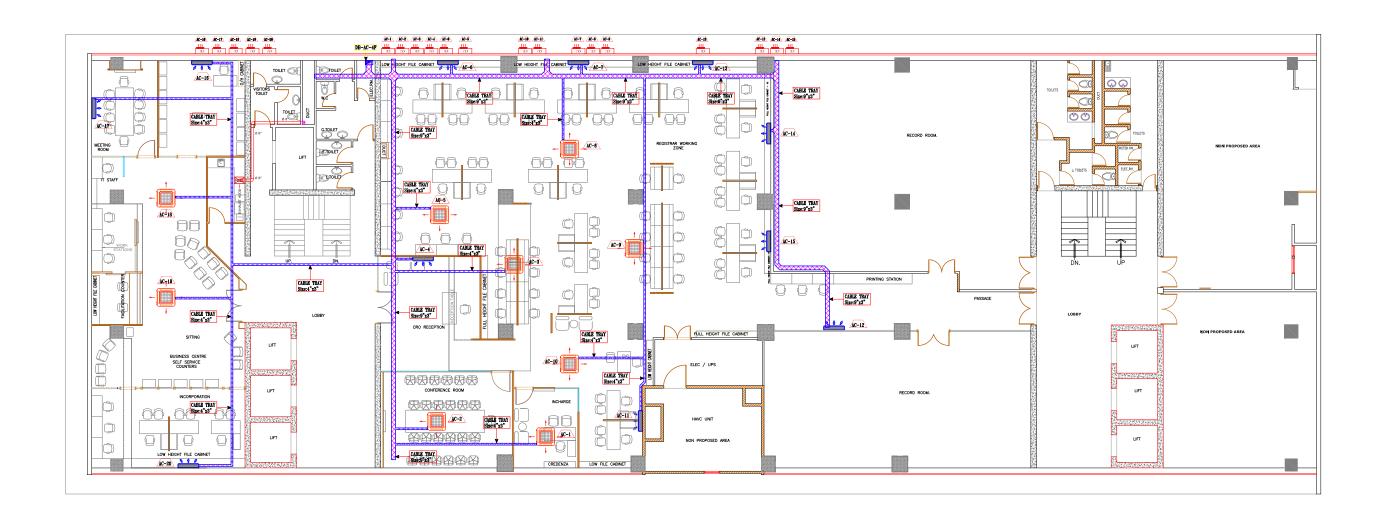
House #159, Street 4, Race Course Road, Rawalpindi Tel: 5174329 - 5174098; Fax: 5125075 Email: mail@saka.net.pk



DRAWING TITLE:

LEGEND AND GENERAL NOTES

DESIGN BY:	DRAWN BY:	СНЕСК ВҮ:
CH.USAMA	M.AKRAM	S.Y.B
SCALE:	DATE:	DWG.NO:
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House #159, Street 4, Race Course Road, Rawalpindi Tel: 5174329 - 5174098; Fax: 5125075 Email: mail@saka.net.pk





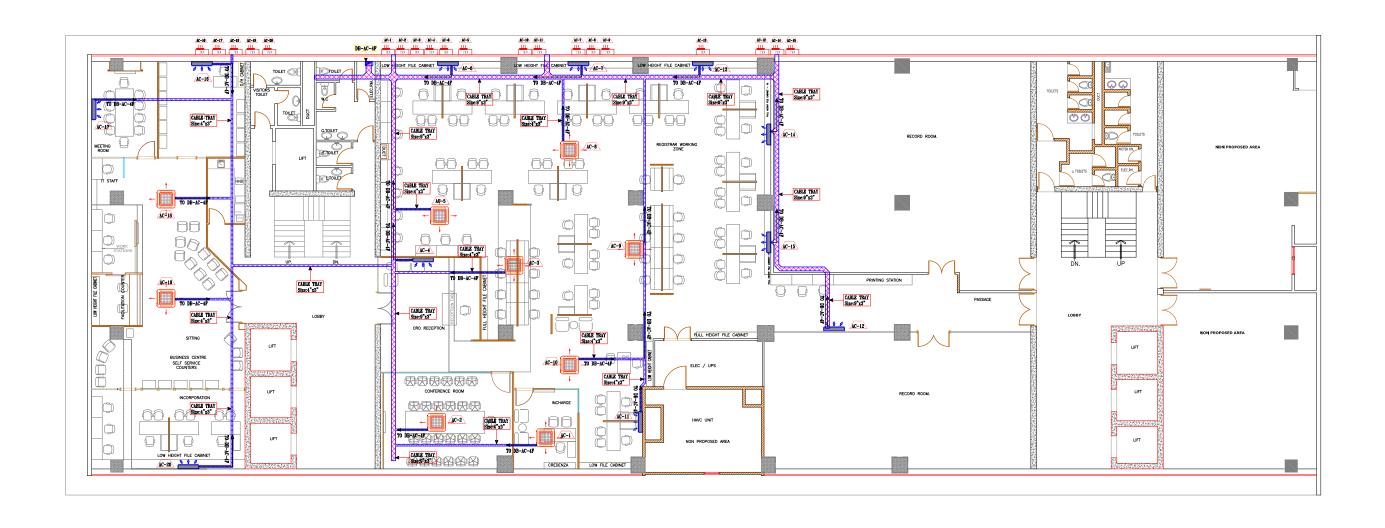


Ph: 042-35764449, Cell no: 0333-4320990 -mail: raahimassociates@gmail.com

DRAWING TITLE:

AC COPPER LAYOUT

DESIGN BY:	DRAWN BY:	CHECK BY:
CH.USAMA	M.AKRAM	S.Y.B
SCALE:	DATE:	DWG.NO:
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Architecture and Designing

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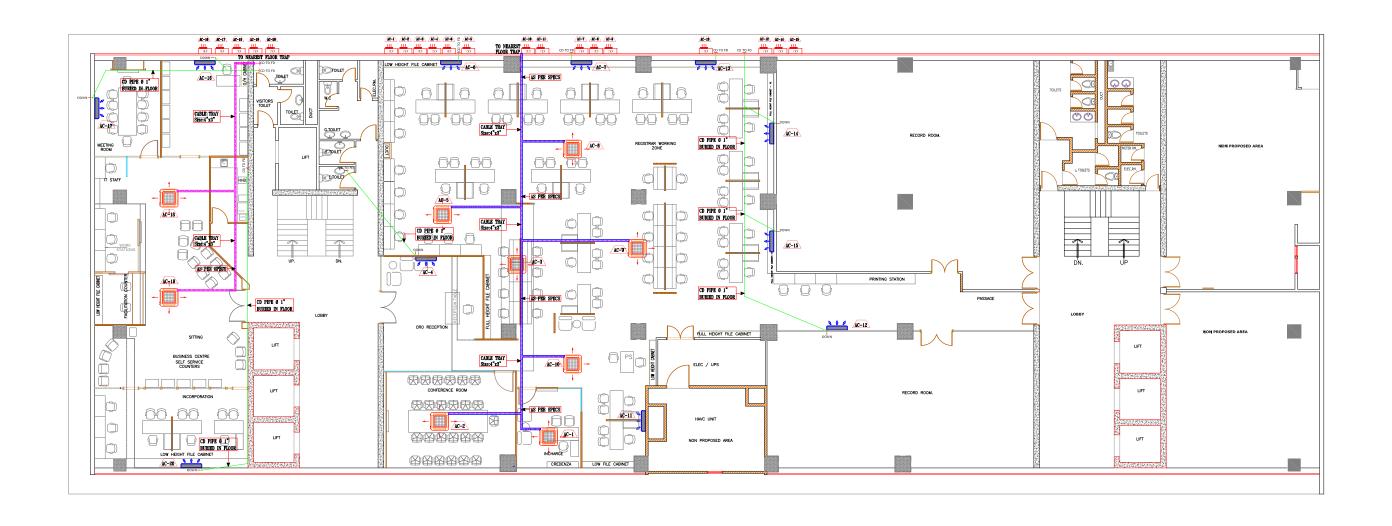
MEP CONSULTANT:



DRAWING TITLE:

ELECTRICAL SYSTEM LAYOUT

DESIGN BY:	DRAWN BY:	CHECK BY:
CH.USAMA	M.AKRAM	S.Y.B
SCALE:	DATE:	DWG.NO:
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SOHAIL A. KHAN ASSOCIATES
Architecture and Designing

House #159, Street 4, Race Course Road, Rawalpindi Tel: 5174329 - 5174098; Fax: 5125075 Email: mail@saka.net.pk



MEP CONSULTANT:

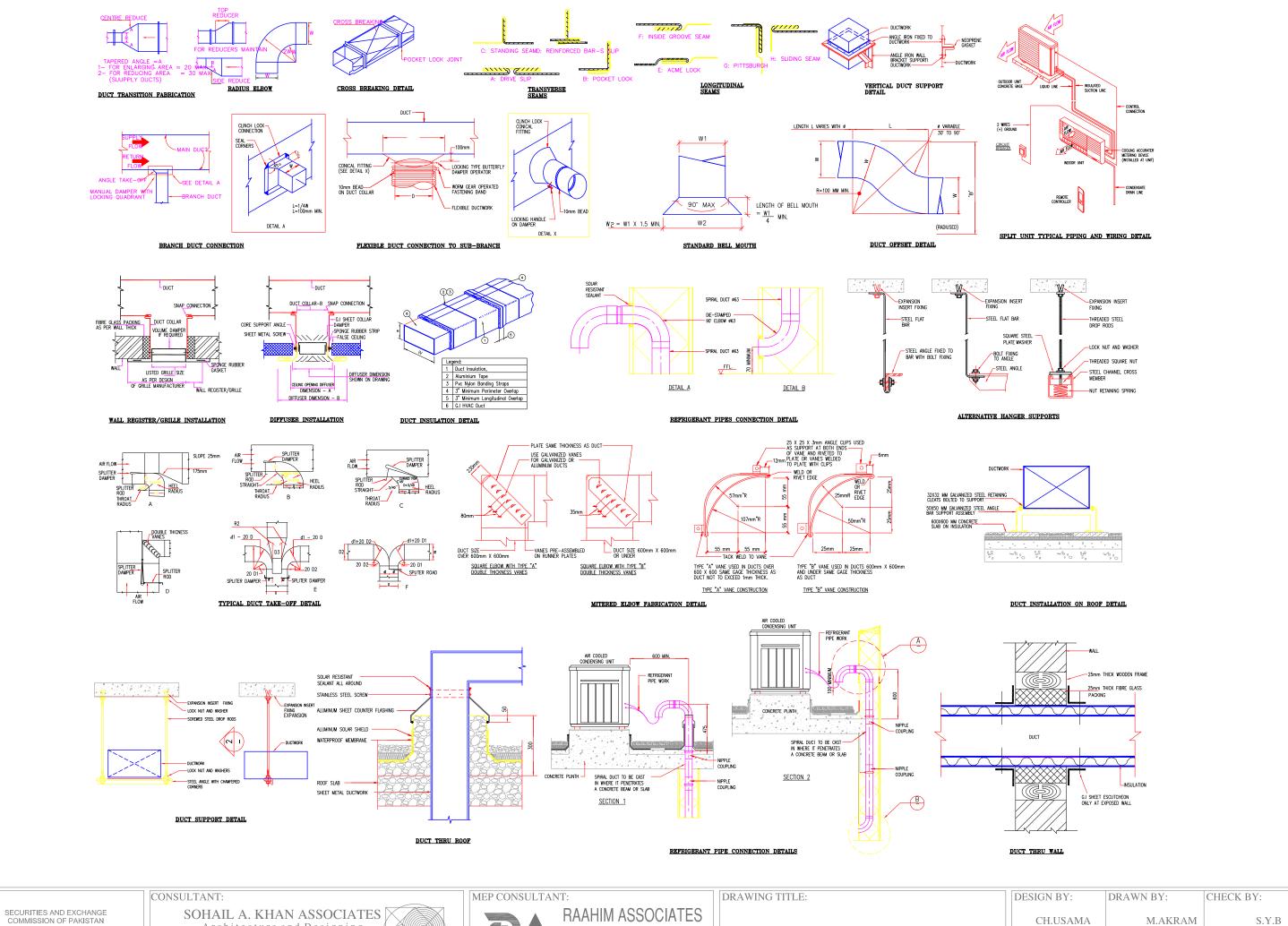


-mail: raahimassociates@gmail.com

DRAWING TITLE:

HVAC CONDENSATE LAYOUT

DESIGN BY:	DRAWN BY:	CHECK BY:
CH.USAMA	M.AKRAM	S.Y.B
SCALE:	DATE:	DWG.NO:
N.T.S	15.06.2020	HV-04



PROJECT:

INTERIOR RENOVATION 4TH FLOOR COMPANIES Architecture and Designing

Tel: 5174329 - 5174098; Fax: 5125075 Email: mail@saka.net.pk





**HVAC STANDARD DETAILS** 

DESIGN BY:	DRAWN BY:	CHECK BY:
CH.USAMA	M.AKRAM	S.Y.B
SCALE:	DATE:	DWG.NO:
N.T.S	15.06.2020	HV-05