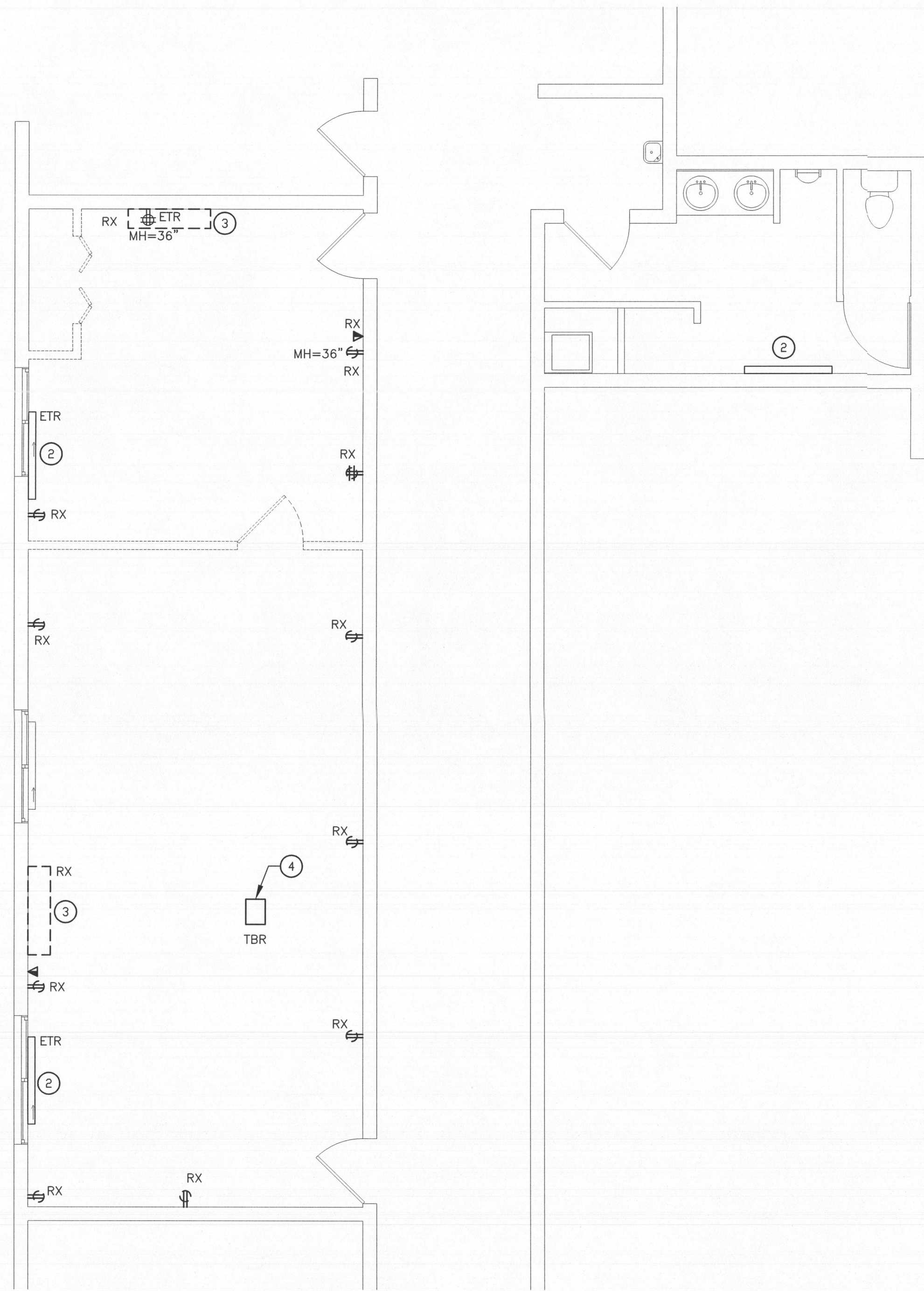


PARTIAL FIRST FLOOR PLAN - LIGHTING DEMOLITION
SCALE: 1/4"=1'-0"



PARTIAL FIRST FLOOR PLAN - POWER DEMOLITION
SCALE: 1/4"=1'-0"

DEMOLITION GENERAL NOTES:

1. REMOVE AND LEGALLY DISPOSE OF ALL ELECTRICAL ITEMS INDICATED TO BE REMOVED INCLUDING ASSOCIATED SUPPORTS AND ATTACHMENTS.
2. PROTECT EXISTING ELECTRICAL DEVICES THAT REMAINS FROM DAMAGE OR INTERRUPTION DURING DEMOLITION AND CONSTRUCTION WORK.
3. DO NOT INTERRUPT ELECTRICAL, WATER, SEWER, OR TELECOMMUNICATIONS SERVICES WITHOUT COORDINATING WITH OWNER AND SCHEDULING ANY OUTAGES AT LEAST 48 HOUR IN ADVANCE. MAKE PRECAUTIONS TO PREVENT ACCIDENTAL INTERRUPTIONS OF SERVICES AND RESTORE ANY UNSCHEDULED INTERRUPTIONS IMMEDIATELY.
4. COORDINATE CONSTRUCTION OF ALL ELECTRICAL WORK WITH ARCHITECTURAL, MECHANICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
5. LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.
6. CONTRACTOR SHALL FIELD VERIFY THAT ALL EXISTING ELECTRICAL DEVICES IS OPERATIONAL AND CAN MEET IT'S PERFORMANCE DATA PRIOR BEGINNING HIS/HER WORK.
7. CONTRACTOR SHALL REMOVE ALL DEMOLISHED LIGHTING AND DEVICES THATS NOT BEING USED FROM OUT THE PANEL AND LABEL THE BREAKER AS AN SPARE.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEYING SITE AND TRACING ALL AFFECTED AS APART OF THIS CONTRACT PRIOR TO START WORK.
9. CONTRACTOR SHALL PROVIDE NEW TYPED UPDATED PANEL DIRECTORY IN EACH AFFECTED UNDER THIS CONTRACT.

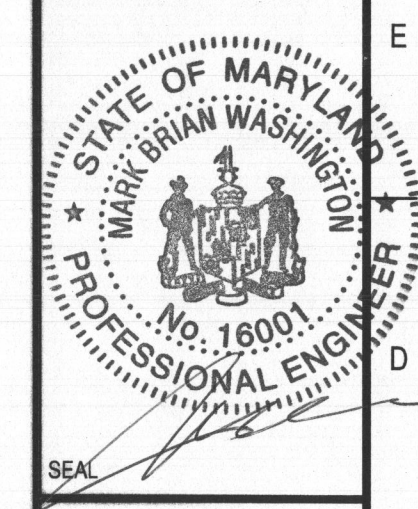
DRAWING NOTES:

- ① ALL LIGHTING FIXTURES AND WIRING ARE EXISTING TO REMAIN.
- ② EXISTING BASEBOARD HEATER TO REMAIN WITH ALL THE WIRING AND CONNECTIONS.
- ③ EXISTING DUCTLESS SPLIT UNIT TO BE REMOVED WITH ALL THE WIRING AND CONNECTIONS BACK TO DESIGNATED PANEL. FIELD VERIFY RESPECTIVE PANELS.
- ④ EXISTING PROJECTOR TO BE RELOCATED WITH ALL THE WIRING AND CONNECTIONS.
- ⑤ EXISTING LIGHTING FIXTURES TO BE RELOCATED WITH ALL THE WIRING AND CONNECTIONS.
- ⑥ EXISTING LIGHTING CIRCUIT CONNECTION TO LOCAL PANEL.

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REV. NO.	DATE	DESCRIPTION
09-06-16		DESIGN DEV

M.A.C.A. LABORATORY CLASSROOM
Mt. AIRY, MD.
MT. AIRY CHRISTIAN ACADEMY



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FIRST FLOOR PLANS-ELEC DEMOLITION

PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 16001, Expiration Date: 4/26/20

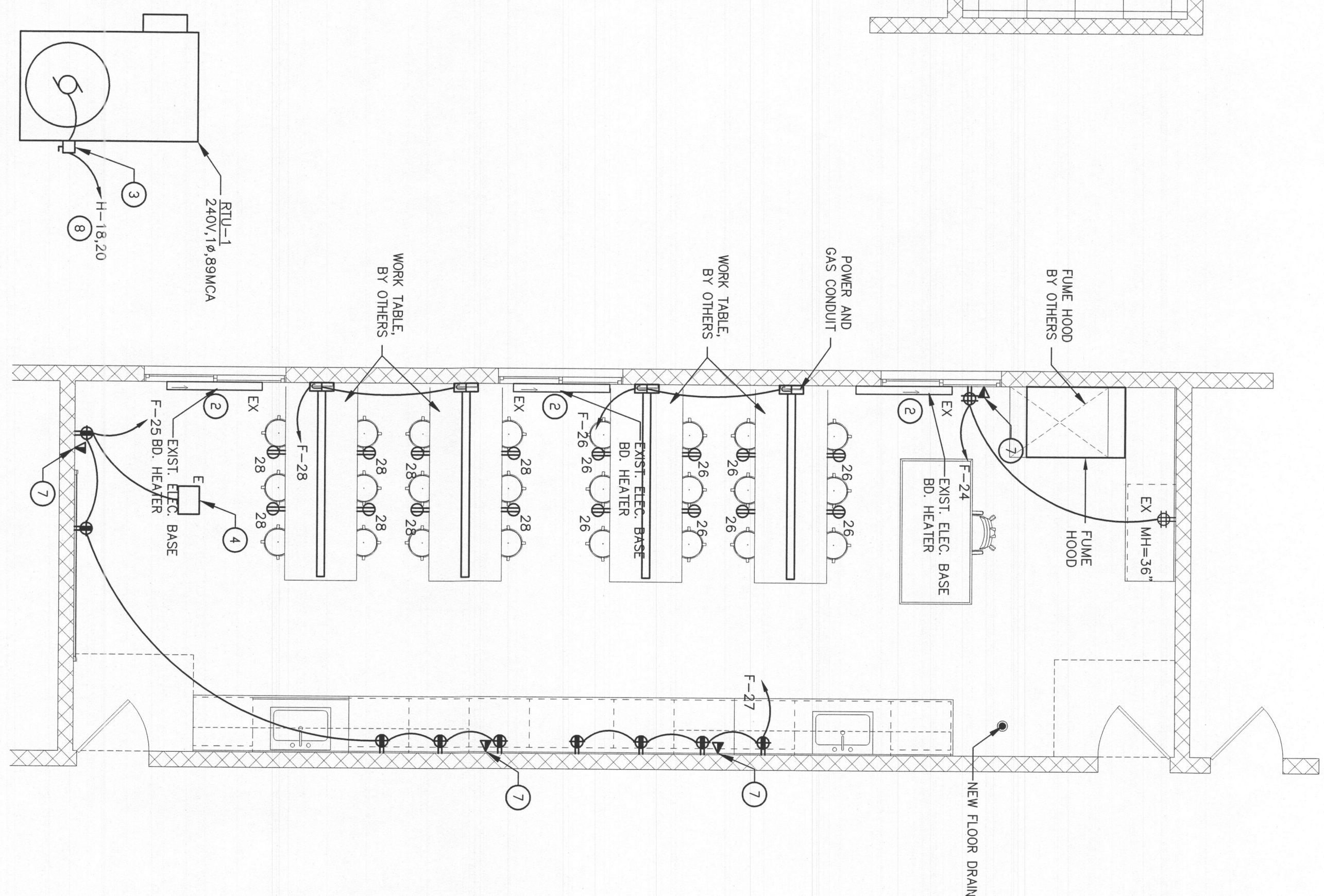
Johnson Consulting Engineers, Inc.
130 W. 25th Street Baltimore, Maryland 21218
Tel: (410) 235-0057, Fax: (410) 235-0946
Email: info@jceengineers.net

PROJECT NUMBER	19-123
FIRST RELEASE DATE	6-13-19
SHEET NUMBER	E-1

100% CD SET (6-13-19)



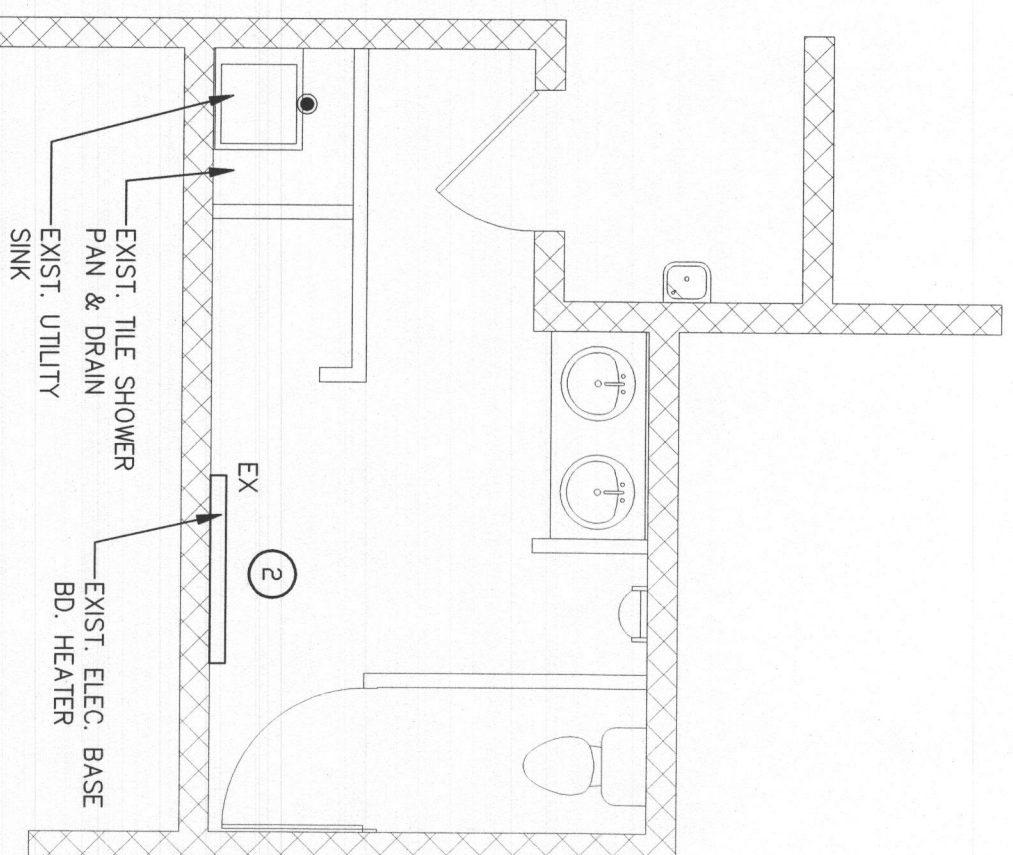
PARTIAL FIRST FLOOR PLAN - LIGHTING NEW WORK
SCALE: 1/4"=1'-0"



PARTIAL FIRST FLOOR PLAN - POWER NEW WORK
SCALE: 1/4"=1'-0"

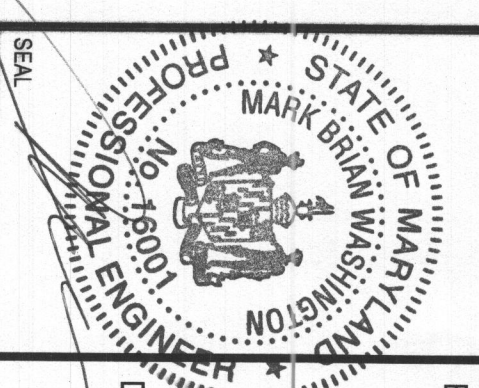
- GENERAL NOTES:**
1. CONTRACTOR SHALL PROVIDE NEW TYPED UPDATED PANEL DIRECTORY IN EACH AFFECTED PANEL UNDER THIS CONTRACT.
 2. CONTRACTOR SHALL CLEAN AND RELAMP ALL EXISTING LIGHT FIXTURES BEING REUSED.

- DRAWING NOTES:**
1. ALL LIGHTING FIXTURES AND WIRING ARE EXISTING TO REMAIN.
 2. EXISTING BASEBOARD HEATER TO REMAIN WITH ALL THE WIRING AND CONNECTIONS.
 3. PROVIDE A 100A, 2P, 240V, FSS FUSED @ 90A IN NEMA 3 ENCLOSURE FOR RTU-1.
 4. EXISTING PROJECTOR TO BE RELOCATED WITH ALL THE WIRING AND CONNECTIONS.
 5. CONTRACTOR SHALL RECONNECT RELOCATED LIGHTING TO EXISTING LOCAL LIGHTING BRANCH CIRCUIT.
 6. EXISTING LIGHTING CIRCUIT CONNECTION TO LOCAL PANEL.
 7. PROVIDE NEW DATA OUTLET AND CONNECT TO EXISTING DATA CIRCUIT.
 8. CONTRACTOR SHALL PROVIDE 244+RGL1C TO NEW 90A, 2P, 240V BREAKER IN EXISTING LOCAL PANEL "H" FOR NEW RTU-1.



PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 15001, Expiration Date: 4/26/20

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PROJECT NAME
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Mt. Airy, MD.
MT. AIRY CHRISTIAN ACADEMY

REVISIONS		
Rev. No.	Date	Description
09-06-16		DESIGN DEV

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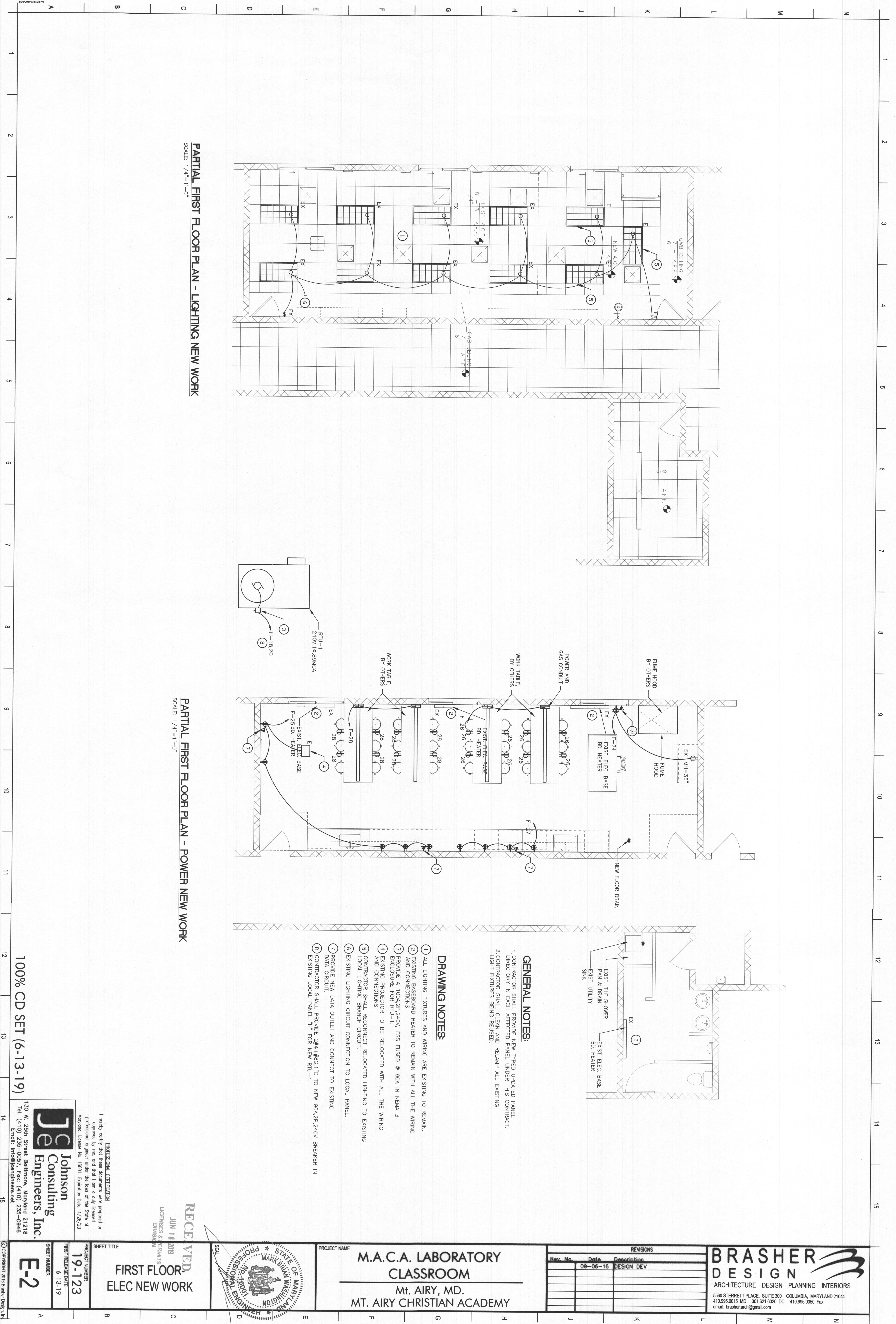
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SHEET TITLE
FIRST FLOOR ELEC NEW WORK

PROJECT NUMBER
19-123

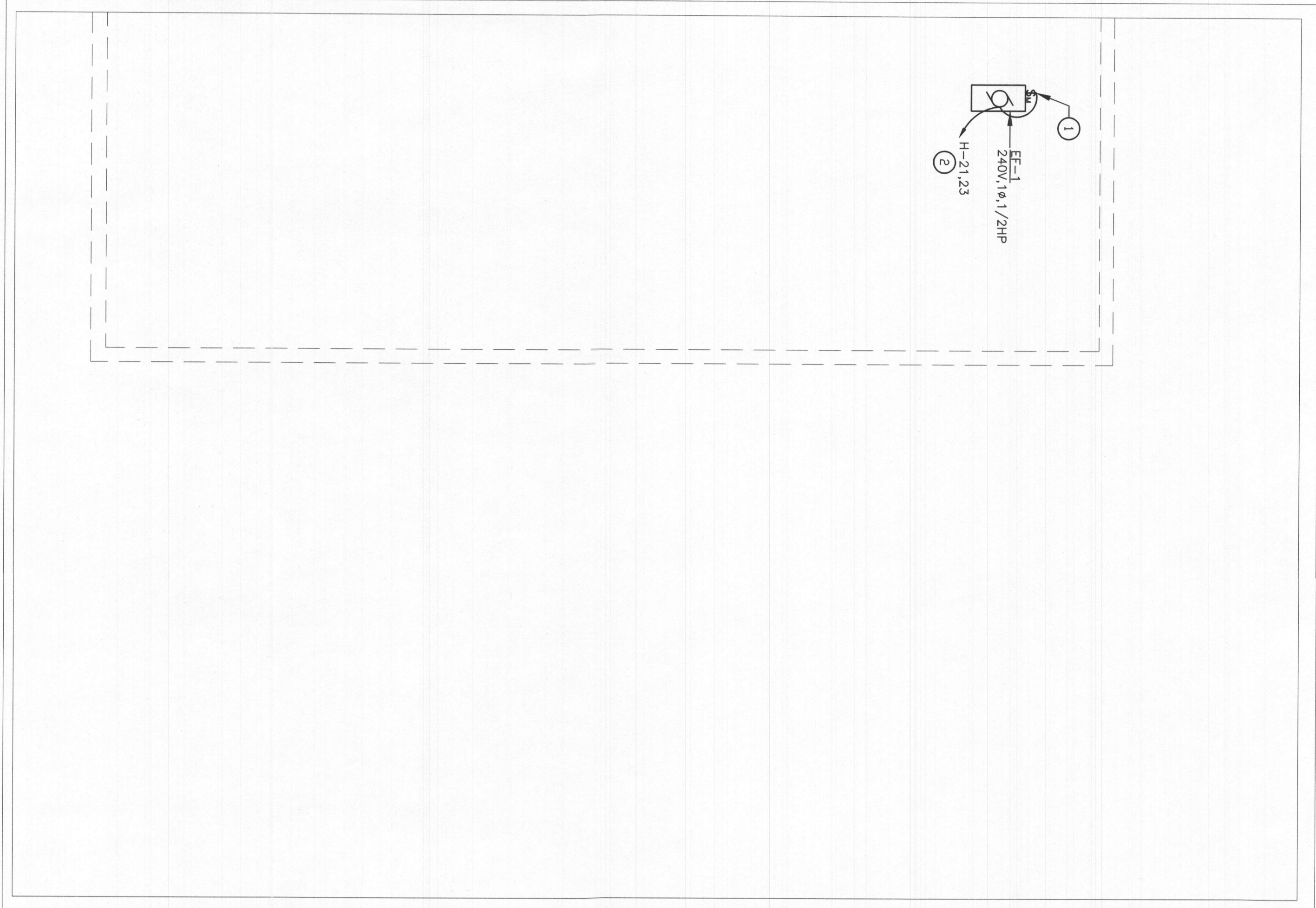
FIRST RELEASE DATE
6-13-19

SHEET NUMBER
E-2



A B C D E F G H J K L M N

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



PARTIAL ROOF PLAN - POWER NEW WORK
SCALE: 1/4"=1'-0"

- DRAWING NOTES:**
- ① PROVIDE A 20A, 2P, 240V, MANUAL MOTOR SWITCH IN NEMA 3 ENCLOSURE FOR EF-1.
 - ② CONTRACTOR SHALL PROVIDE 2#12+2#23, 4°C TO NEW 20A, 2P, 240V BREAKERS IN EXISTING LOCAL PANEL "H" FOR NEW EF-1.

100% CD SET (6-13-19)

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Mt. Airy, MD.
MT. AIRY CHRISTIAN ACADEMY

REVISIONS		
Rev. No.	Date	Description
09-06-16		DESIGN DEV

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SHEET TITLE
PARTIAL ROOF PLAN - ELEC NEW WORK

PROJECT NUMBER
19-123

FIRST RELEASE DATE
6-13-19

SHEET NUMBER
E-3

EX.LOADCENTER F														
VOLTAGE		120 / 240		400 AMP/MAIN CB		A.I.C.		10K		MOUNTED FLUSH				
PHASE WIRE		1, 3		DESIGN NVA, 29.5		DESIGN NVA, 29.5		DESIGN NVA, 29.5		DESIGN NVA, 29.5				
QTY	SERVING	P	TRIP	QTY	AVG	NVA	PH	NVA	QTY	AVG	P	TRIP	SERVING	QTY
1	EX REC	1	20	2	12	1.0	A	1.0	2	12	1	20	EX LEATHER UNIT	2
3	EX REC	1	20	2	12	0.7	B	1.0	2	12	1	20	EX AC UNIT	4
7	EX REC	1	20	2	12	1.2	A	1.0	2	12	1	20	EX AC UNIT	6
9	EX REC	1	20	2	12	0.9	B	1.0	2	12	1	20	EX REC	8
11	EX REC	1	20	2	12	1.5	A	1.0	2	12	1	20	EX LEATHER UNIT	10
13	EX REC	1	20	2	12	1.5	A	1.5	2	12	1	20	EX AC UNIT	14
17	EX REC	1	20	2	12	1.1	B	1.5	2	12	1	20	EX LIGHTS	18
18	EX REC	1	20	2	12	1.2	A	1.0	2	12	1	20	EX LIGHTS	18
21	EX REC	1	20	2	12	1.1	A	0.2	2	12	1	20	EX SUB FEED	20
25	EX REC	1	20	2	12	0.7	B	0.7	2	12	1	20	EX SUB FEED	24
26	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	24
29	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	28
30	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	28
31	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	30
33	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	32
35	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	34
37	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	38
41	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	42
TOTAL DEMAND NVA (PER PHASE):														
A: 32.0 B: 33.0 DESIGN NVA: 34.0														

NOTES:
* PROVIDE HANDLE LOCK ON CB COVER

EX.LOADCENTER F														
VOLTAGE		120 / 240		400 AMP/MAIN CB		A.I.C.		10K		MOUNTED FLUSH				
PHASE WIRE		1, 3		DESIGN NVA, 31.1		DESIGN NVA, 31.1		DESIGN NVA, 31.1		DESIGN NVA, 31.1				
QTY	SERVING	P	TRIP	QTY	AVG	NVA	PH	NVA	QTY	AVG	P	TRIP	SERVING	QTY
1	EX REC	1	20	2	12	1.0	A	1.0	2	12	1	20	EX LEATHER UNIT	2
3	EX REC	1	20	2	12	0.7	B	1.0	2	12	1	20	EX AC UNIT	4
7	EX REC	1	20	2	12	1.2	A	1.0	2	12	1	20	EX AC UNIT	6
9	EX REC	1	20	2	12	0.9	B	1.0	2	12	1	20	EX REC	8
11	EX REC	1	20	2	12	1.5	A	1.0	2	12	1	20	EX LEATHER UNIT	10
13	EX REC	1	20	2	12	1.5	A	1.5	2	12	1	20	EX AC UNIT	12
15	EX REC	1	20	2	12	1.1	B	1.5	2	12	1	20	EX AC UNIT	14
17	EX REC	1	20	2	12	1.2	A	1.0	2	12	1	20	EX LIGHTS	16
18	EX REC	1	20	2	12	1.2	A	1.0	2	12	1	20	EX LIGHTS	18
19	EX REC	1	20	2	12	1.0	B	0.2	2	12	1	20	EX SUB FEED	20
23	EX REC	1	20	2	12	1.1	A	0.2	2	12	1	20	EX SUB FEED	22
25	EX REC	1	20	2	12	1.1	A	0.2	2	12	1	20	EX SUB FEED	24
26	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	26
27	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	28
28	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	30
29	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	32
31	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	34
33	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	36
35	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	38
37	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	40
41	EX REC	1	20	2	12	1.2	A	0.7	2	12	1	20	EX SUB FEED	42
TOTAL DEMAND NVA (PER PHASE):														
A: 18.5 B: 11.9 DESIGN NVA: 31.1														

NOTES:
* PROVIDE HANDLE LOCK ON CB COVER

EX.LOADCENTER H														
VOLTAGE		120 / 240		400 AMP/MAIN CB		A.I.C.		10K		MOUNTED FLUSH				
PHASE WIRE		1, 3		DESIGN NVA, 23.3		DESIGN NVA, 23.3		DESIGN NVA, 23.3		DESIGN NVA, 23.3				
QTY	SERVING	P	TRIP	QTY	AVG	NVA	PH	NVA	QTY	AVG	P	TRIP	SERVING	QTY
1	EX AC UNIT	2	50	2	6	5.4	A	5.4	2	6	2	50	EX AC UNIT	2
3	EX AC UNIT	2	50	2	6	5.4	B	5.4	2	6	2	50	EX AC UNIT	4
5	EX HEATER UNIT	2	50	2	6	4.8	A	5.7	2	6	2	50	EX AC UNIT	6
7	EX HEATER UNIT	2	50	2	6	4.8	B	5.7	2	6	2	50	EX AC UNIT	8
9	EX HEATER UNIT	2	50	2	6	5.7	A	4.8	2	6	2	50	EX HEATER UNIT	10
11	EX HEATER UNIT	2	50	2	6	5.7	B	4.8	2	6	2	50	EX HEATER UNIT	12
13	EX HEATER UNIT	2	40	2	6	3.8	A	5.4	2	6	2	40	EX AC UNIT	14
15	EX HEATER UNIT	2	40	2	6	3.8	B	5.4	2	6	2	40	EX AC UNIT	16
17	EX HEATER UNIT	2	20	2	12	1.9	A	1.9	2	12	1	20	EX AC UNIT	18
21	EX HEATER UNIT	2	20	2	12	1.9	B	1.9	2	12	1	20	EX AC UNIT	20
23	EX HEATER UNIT	2	20	2	12	1.9	A	1.9	2	12	1	20	EX AC UNIT	22
25	EX HEATER UNIT	2	20	2	12	1.9	B	1.9	2	12	1	20	EX AC UNIT	24
27	EX HEATER UNIT	2	20	2	12	1.9	A	1.9	2	12	1	20	EX AC UNIT	26
29	EX HEATER UNIT	2	20	2	12	1.9	B	1.9	2	12	1	20	EX AC UNIT	28
31	EX HEATER UNIT	2	20	2	12	1.9	A	1.9	2	12	1	20	EX AC UNIT	30
33	EX HEATER UNIT	2	20	2	12	1.9	B	1.9	2	12	1	20	EX AC UNIT	32
35	EX HEATER UNIT	2	20	2	12	1.9	A	1.9	2	12	1	20	EX AC UNIT	34
37	EX HEATER UNIT	2	20	2	12	1.9	B	1.9	2	12	1	20	EX AC UNIT	36
41	EX HEATER UNIT	2	20	2	12	1.9	A	1.9	2	12	1	20	EX AC UNIT	38
TOTAL DEMAND NVA (PER PHASE):														
A: 32.0 B: 33.0 DESIGN NVA: 34.0														

NOTES:
* PROVIDE HANDLE LOCK ON CB COVER

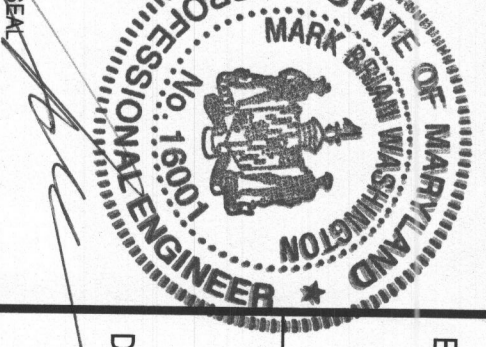
EX.LOADCENTER H														
VOLTAGE		120 / 240		400 AMP/MAIN CB		A.I.C.		10K		MOUNTED FLUSH				
PHASE WIRE		1, 3		DESIGN NVA, 86.2		DESIGN NVA, 86.2		DESIGN NVA, 86.2		DESIGN NVA, 86.2				
QTY	SERVING	P	TRIP	QTY	AVG	NVA	PH	NVA	QTY	AVG	P	TRIP	SERVING	QTY
1	EX AC UNIT	2	50	2	6	5.4	A	5.4	2	6	2	50	EX AC UNIT	2
3	EX AC UNIT	2	50	2	6	5.4	B	5.4	2	6	2	50	EX AC UNIT	4
5	EX HEATER UNIT	2	50	2	6	4.8	A	5.7	2	6	2	50	EX AC UNIT	6
7	EX HEATER UNIT	2	50	2	6	4.8	B	5.7	2	6	2	50	EX AC UNIT	8
9	EX HEATER UNIT	2	50	2	6	5.7	A	4.8	2	6	2	50	EX HEATER UNIT	10
11	EX HEATER UNIT	2	50	2	6	5.7	B	4.8	2	6	2	50	EX HEATER UNIT	12
13	EX HEATER UNIT	2	40	2	6	3.8	A	5.4	2	6	2	40	EX AC UNIT	14
15	EX HEATER UNIT	2	40	2	6	3.8	B	5.4	2	6	2	40	EX AC UNIT	16
17	EX HEATER UNIT	2	20	2	12	1.9	A	1.9	2	12	1	20	EX AC UNIT	18
19	EX HEATER UNIT	2	20	2	12	1.9	B	1.9	2	12	1	20	EX AC UNIT	20
21	EX HEATER UNIT	2	15	2	14	0.5	A	0.5	2	14	2	15	NEW B-1	22
22	EX HEATER UNIT	2	15	2	14	0.5	B	0.5	2	14	2	15	NEW B-1	24
23	EX HEATER UNIT	2	15	2	14	0.5	A	0.5	2	14	2	15	NEW B-1	26
24	EX HEATER UNIT	2	15	2	14	0.5	B	0.5	2	14	2	15	NEW B-1	28
25	EX HEATER UNIT	2	15	2	14	0.5	A	0.5	2	14	2	15	NEW B-1	30
26	EX HEATER UNIT	2	15	2	14	0.5	B	0.5	2	14	2	15	NEW B-1	32
27	EX HEATER UNIT	2	15	2	14	0.5	A	0.5	2	14	2	15	NEW B-1	34
28	EX HEATER UNIT	2	15	2	14	0.5	B	0.5	2	14	2	15	NEW B-1	36
29	EX HEATER UNIT	2	15	2	14	0.5	A	0.5	2	14	2	15	NEW B-1	38
30	EX HEATER UNIT	2	15	2	14	0.5	B	0.5	2	14	2	15	NEW B-1	40
31	EX HEATER UNIT	2	15	2	14	0.5	A	0.5	2	14	2	15	NEW B-1	42
TOTAL DEMAND NVA (PER PHASE):														
A: 43.1 B: 43.1 DESIGN NVA: 86.2														

NOTES:
* PROVIDE HANDLE LOCK ON CB COVER

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REVISIONS		
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09-06-16		DESIGN DEV

PROJECT NAME
M.A.C.A. LABORATORY CLASSROOM
Mt. AIRY, MD.
MT. AIRY CHRISTIAN ACADEMY



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PROFESSIONAL CERTIFICATION
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Email: info@jce-engineers.com

SHEET NUMBER
19-123
FIRST RELEASE DATE
6-13-19
SHEET TITLE
ELECTRICAL SCHEDULES
E-4

100% CD SET (6-13-19)

LEGEND + ABBREVIATIONS

—	SANITARY PIPING
—	VENT PIPING
—	COLD WATER PIPING
—	HOT WATER PIPING
—	TEMPERED WATER PIPING
—	CONDENSATE PIPING
—	FIRE PROTECTION PIPING
—	CONNECT TO EXISTING
—	TAMPER SWITCH
—	FLOW SWITCH
—	BACKFLOW PREVENTER
—	GATE VALVE
—	PIPE GOING DOWN
—	PIPE GOING UP
—	REMOVE EXISTING
—	COLD WATER
—	HOT WATER
—	TEMPERED WATER
—	SANITARY
—	STORM WATER
—	FLOOR DRAIN
—	EXISTING TO REMAIN
—	RAIN LEADER
—	DOWN
—	UP
—	TYPICAL
—	V.I.R.
—	FIRE DEPARTMENT VALVE
—	VENT THRU ROOF
—	FLOW SWITCH
—	SEWER HOUSE CONNECTION
—	WALL HYDRANT

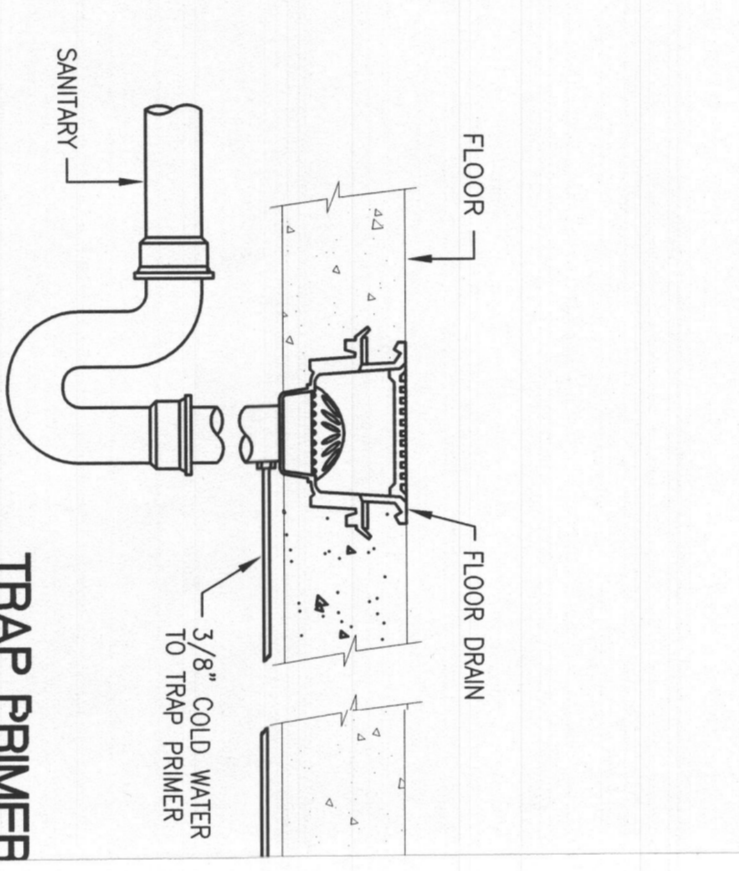
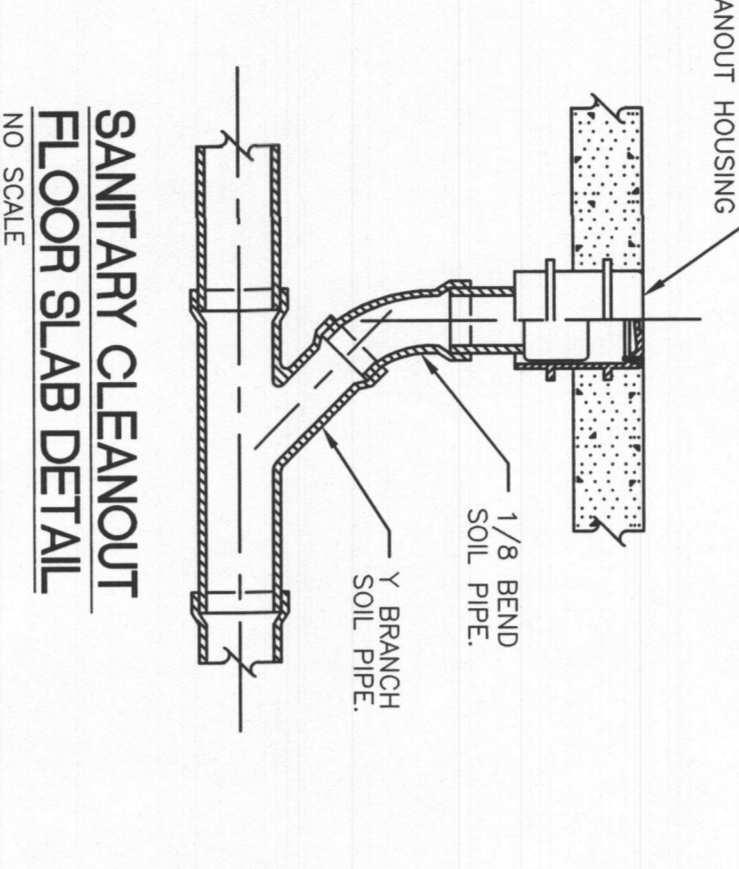
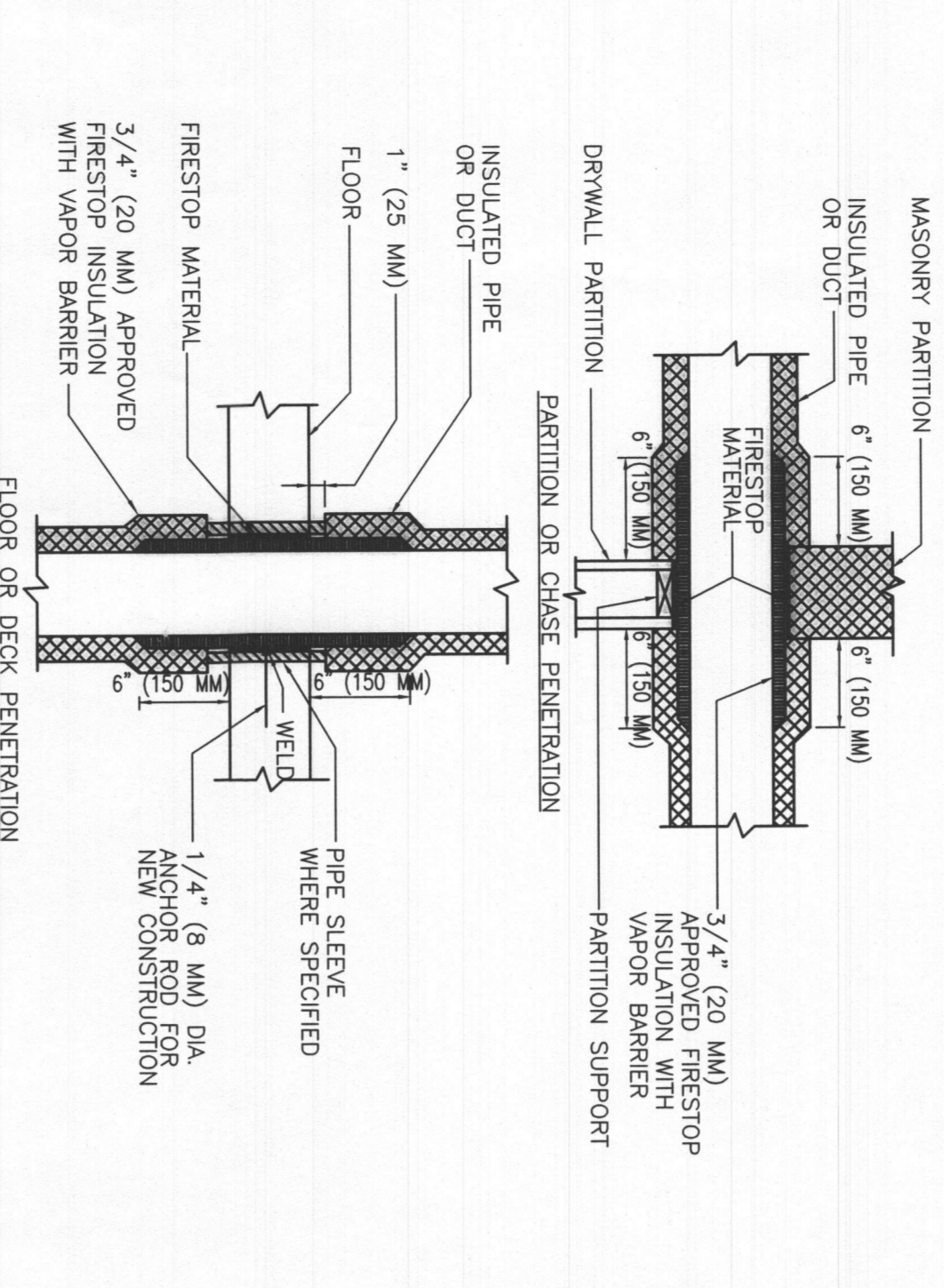
PLUMBING FIXTURE SCHED

NO.	TYPE	COLD		HOT		WASTE	VENT	FLOW RATE
		WATER	1/2"	WATER	1/2"			
P-1	PANTRY KITCHEN SINK	1/2"	1/2"	2"	1-1/4"	1.5 GPM		
P-2	EMERGENCY EYE/SHOWER UNIT	1-1/4"	1-1/4"	1-1/2"	1-1/4"			

NOTES:
 1. PROVIDE ALL REQUIRED COMPONENTS FOR COMPLETE FIXTURE ROUGH-IN, I.E. SUPPLIES, STOPS, TIE
 2. SEE PLANS AND RISERS FOR VENT SIZING AND CONNECTIONS.
 3. FIXTURES SHALL BE ADA COMPLIANT. PROVIDE WITH ADA COMPLIANT ACCESSORIES. MOUNT ADA CO-
 4. PROVIDE PROTECTIVE GUARD INSULATION DEVICES ON EXPOSED UNDERCOUNTER PLUMBING.
 5. PROVIDE THERMOSTATIC MIXING VALVE ASSE 1070 FOR EYEWASH STATION.

FLOOR DRAIN SCHEDULE

DESIGNATION	PIPE SIZE	DESCRIPTION	COMMENTS	CELL
ED-1	3"	CAST IRON FLOOR DRAIN	FLOOR DRAIN SHALL BE ZIRN MODEL Z415-082L WITH A TRAP PRIMER.	CELLA

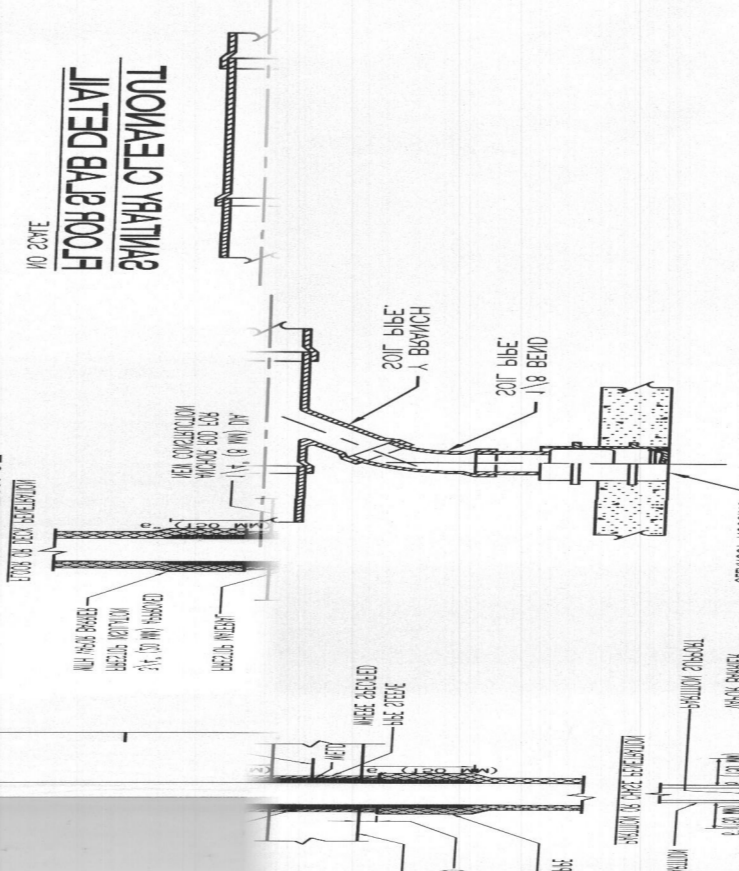
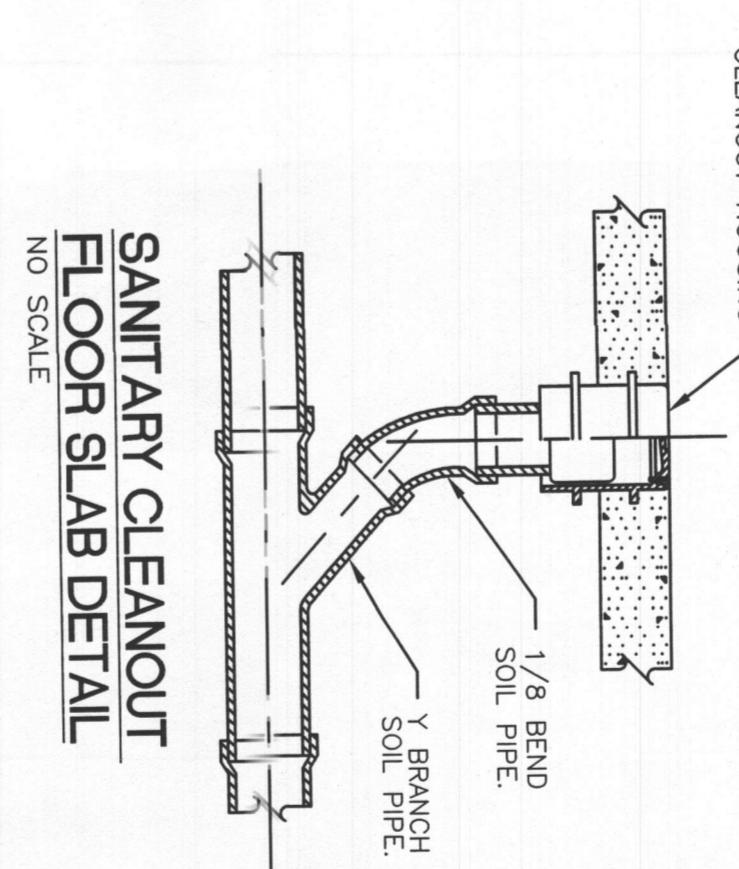
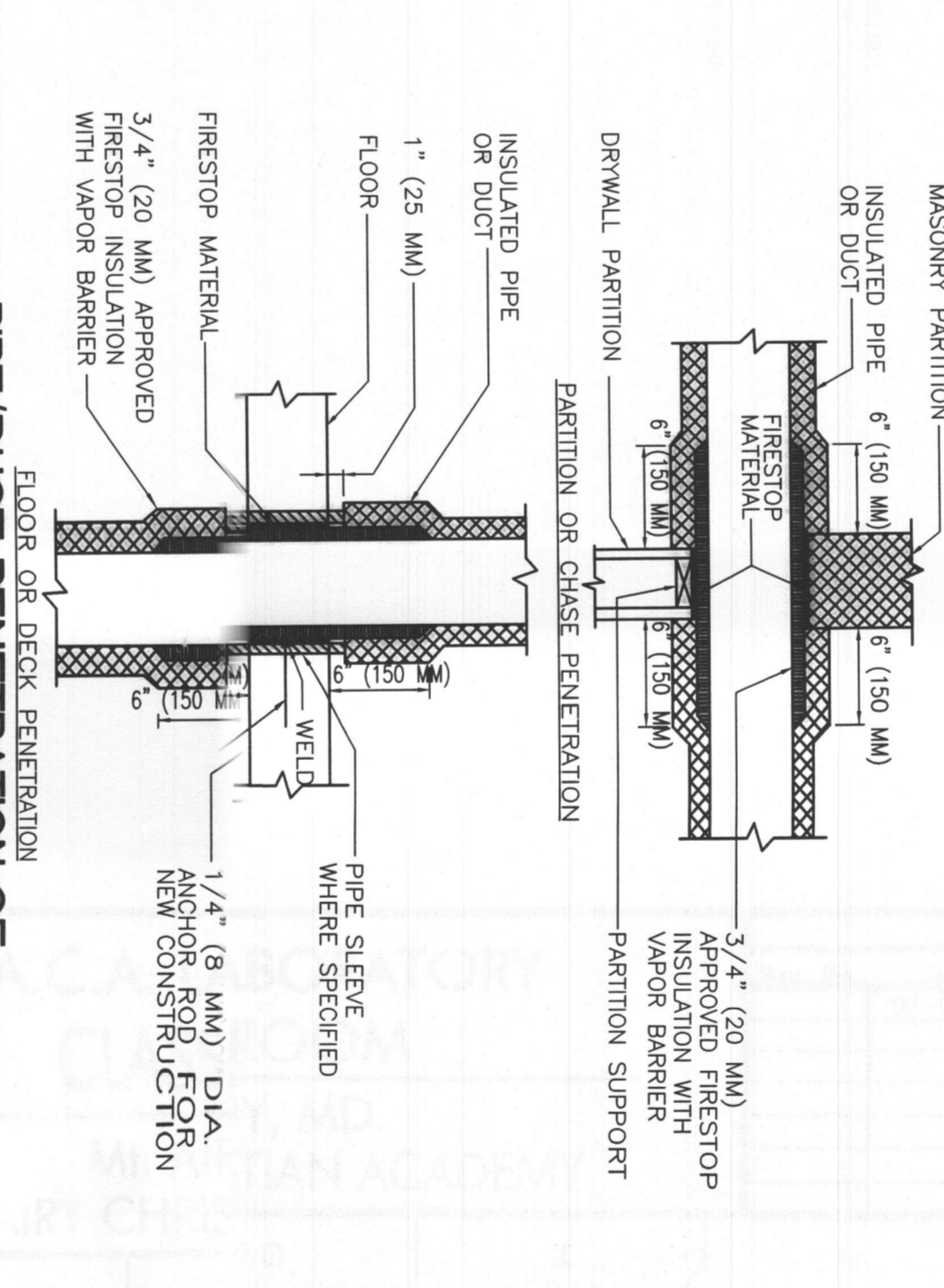


LEGEND + ABBREVIATIONS

—	SANITARY PIPING
—	VENT PIPING
—	COLD WATER PIPING
—	HOT WATER PIPING
—	TEMPERED WATER PIPING
—	CONDENSATE PIPING
—	FIRE PROTECTION PIPING
—	CONNECT TO EXISTING
—	TAMPER SWITCH
—	FLOW SWITCH
—	BACKFLOW PREVENTER
—	GATE VALVE
—	PIPE GOING DOWN
—	PIPE GOING UP
—	REMOVE EXISTING
—	COLD WATER
—	HOT WATER
—	TEMPERED WATER
—	SANITARY
—	STORM WATER
—	FLOOR DRAIN
—	EXISTING TO REMAIN
—	RAIN LEADER
—	DOWN
—	UP
—	TYPICAL
—	V.I.R.
—	FIRE DEPARTMENT VALVE
—	VENT THRU ROOF
—	FLOW SWITCH
—	SEWER HOUSE CONNECTION
—	WALL HYDRANT

LEGEND + ABBREVIATIONS

—	SANITARY PIPING
—	VENT PIPING
—	COLD WATER PIPING
—	HOT WATER PIPING
—	TEMPERED WATER PIPING
—	CONDENSATE PIPING
—	FIRE PROTECTION PIPING
—	CONNECT TO EXISTING
—	TAMPER SWITCH
—	FLOW SWITCH
—	BACKFLOW PREVENTER
—	GATE VALVE
—	PIPE GOING DOWN
—	PIPE GOING UP
—	REMOVE EXISTING
—	COLD WATER
—	HOT WATER
—	TEMPERED WATER
—	SANITARY
—	STORM WATER
—	FLOOR DRAIN
—	EXISTING TO REMAIN
—	RAIN LEADER
—	DOWN
—	UP
—	TYPICAL
—	V.I.R.
—	FIRE DEPARTMENT VALVE
—	VENT THRU ROOF
—	FLOW SWITCH
—	SEWER HOUSE CONNECTION
—	WALL HYDRANT



NOTE:
 1. APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBERS, IN ACCORDANCE WITH
 NFPA 101. REFER TO SPECIFICATIONS SECTION 0720, FIRE STOPPING SYSTEMS.

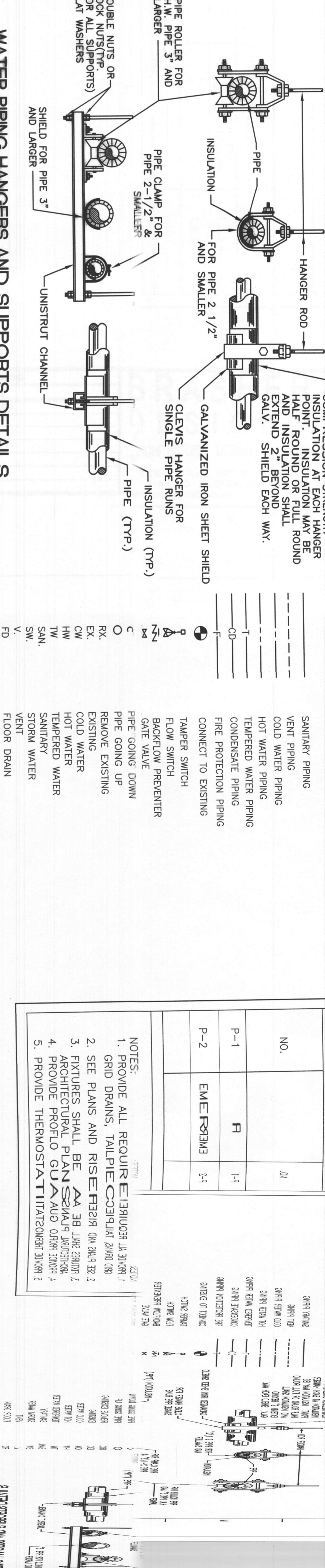
NOTE:
 1. APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBERS, IN ACCORDANCE WITH
 NFPA 101. REFER TO SPECIFICATIONS SECTION 0720, FIRE STOPPING SYSTEMS.

FLOOR DRAIN SCHEDULE

DESIGNATION	PIPE SIZE	DESCRIPTION	COMMENTS	CELL
ED-1	3"	CAST IRON FLOOR DRAIN	FLOOR DRAIN SHALL BE ZIRN MODEL Z415-082L WITH A TRAP PRIMER.	CELLA

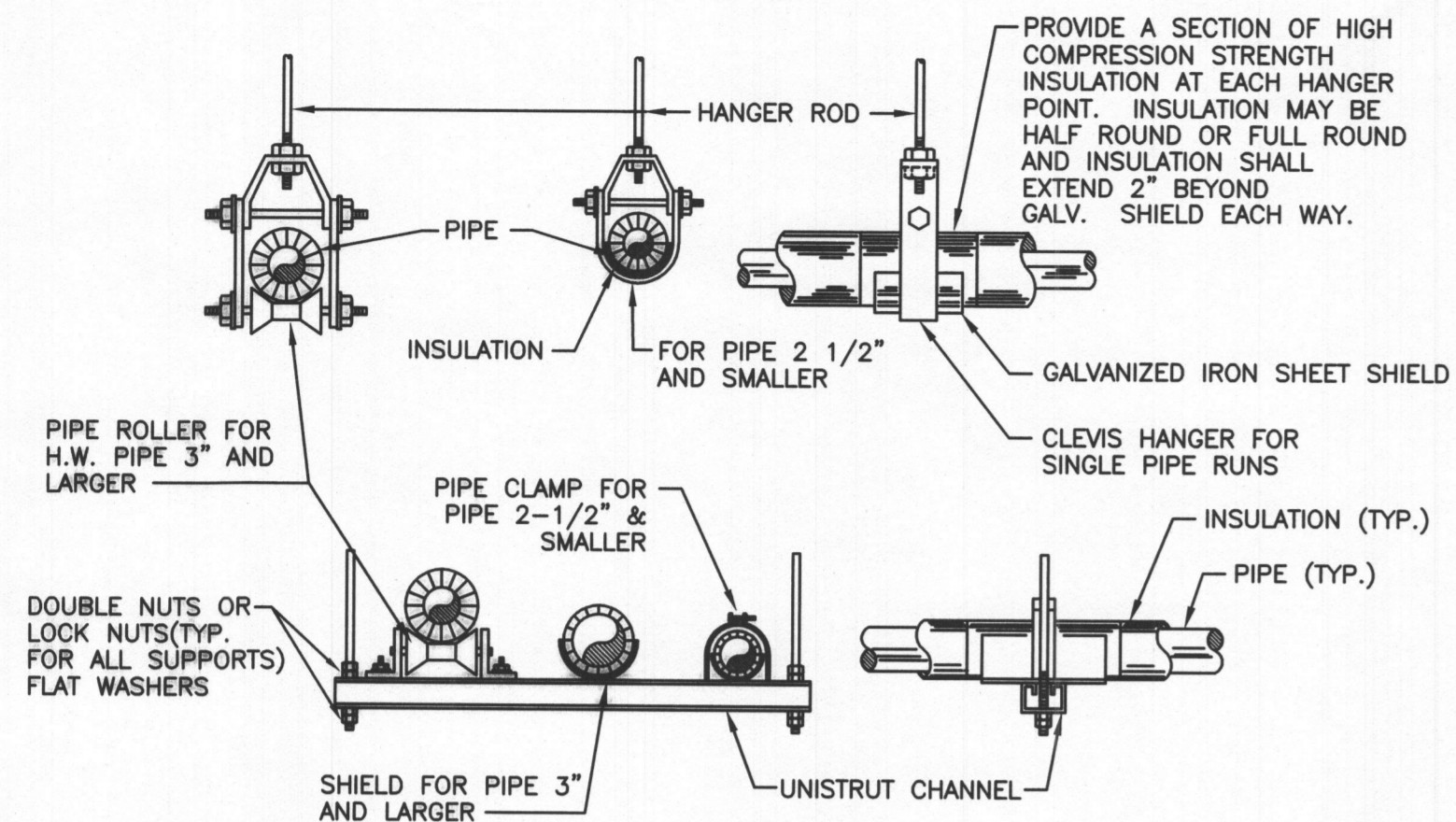
FLOOR

DESIGNATION	PIPE SIZE	DESCRIPTION	COMMENTS	CELL
ED-1	3"	CAST IRON FLOOR DRAIN	FLOOR DRAIN SHALL BE ZIRN MODEL Z415-082L WITH A TRAP PRIMER.	CELLA



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

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WATER PIPING HANGERS AND SUPPORTS DETAILS
NO SCALE

LEGEND + ABBREVIATIONS

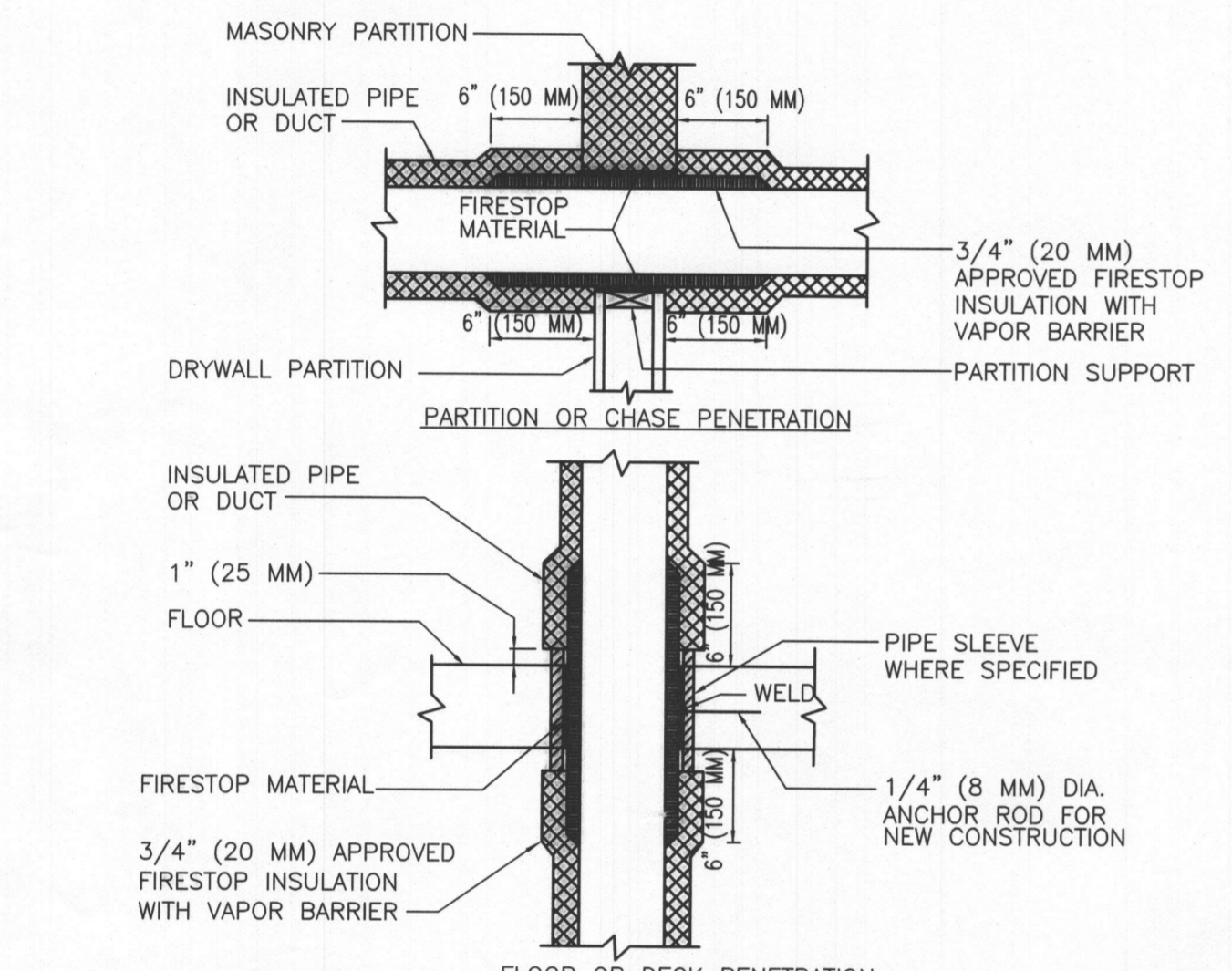
---	SANITARY PIPING
---	VENT PIPING
---	COLD WATER PIPING
---	HOT WATER PIPING
---	TEMPERED WATER PIPING
---	CONDENSATE PIPING
---	FIRE PROTECTION PIPING
---	CONNECT TO EXISTING
---	TAMPER SWITCH
---	FLOW SWITCH
---	BACKFLOW PREVENTER
---	GATE VALVE
---	PIPE GOING DOWN
---	PIPE GOING UP
---	REMOVE EXISTING
---	EXISTING
---	COLD WATER
---	HOT WATER
---	TEMPERED WATER
---	SANITARY
---	STORM WATER
---	VENT
---	FLOOR DRAIN
---	EXISTING TO REMAIN
---	RAIN LEADER
---	DOWN
---	TYP.
---	V.T.R.
---	FDV
---	TS
---	FS
---	UP
---	SHC
---	W.H.
---	SEWER HOUSE CONNECTION
---	WALL HYDRANT

PLUMBING FIXTURE SCHEDULE									
NO.	TYPE	CONNECTIONS							
		COLD WATER	HOT WATER	WASTE	VENT	FLOW RATE	MANUFACTURER/MODEL	FAUCET MANUFACTURER/MODEL	NOTES
P-1	PANTRY KITCHEN SINK	1/2"	1/2"	2"	1-1/4"	1.5 GPM	KOHLER VAULT MODEL: K-3840-1-NA	KOHLER BELLERA MODEL: K-560-CP	1,2,3,4
P-2	EMERGENCY EYE/SHOWER UNIT	1-1/4"	1-1/4"	1-1/2"	1-1/4"	-	HAWSCO 8300-8309	-	1,2,5

NOTES:
 1. PROVIDE ALL REQUIRED COMPONENTS FOR COMPLETE FIXTURE ROUGH-IN, IE. SUPPLIES, STOPS, TRAPS, CARRIERS, GRID DRAINS, TAILPIECES, ETC. NOT ALL REQUIRED COMPONENTS ARE SPECIFIED ABOVE.
 2. SEE PLANS AND RISERS FOR VENT SIZING AND CONNECTIONS.
 3. FIXTURES SHALL BE ADA COMPLIANT, PROVIDE WITH ADA COMPLIANT ACCESSORIES, MOUNT ADA COMPLIANT. SEE ARCHITECTURAL PLANS FOR ELEVATIONS.
 4. PROVIDE PROFLO GUARD INSULATION DEVICES ON EXPOSED UNDERCOUNTER PLUMBING.
 5. PROVIDE THERMOSTATIC MIXING VALVE ASSE 1070 FOR EYEWASH STATION.

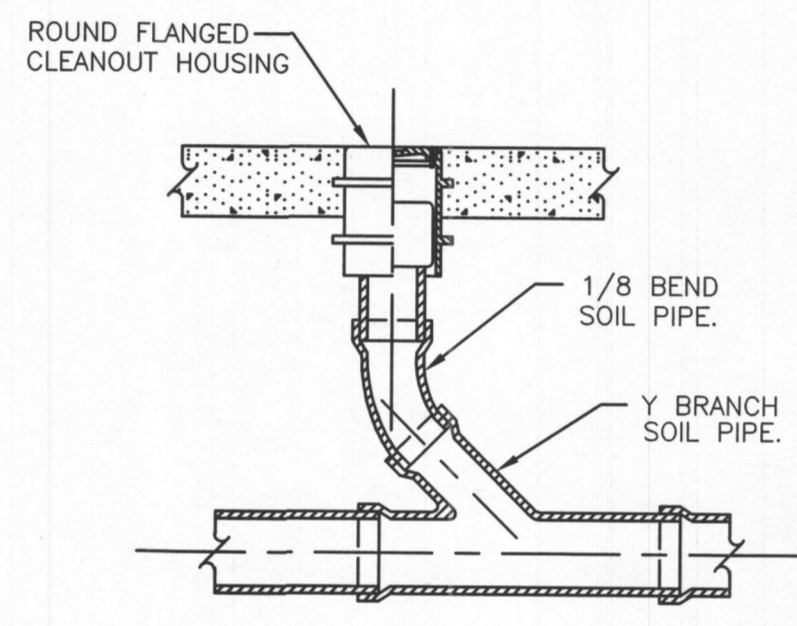
FLOOR DRAIN SCHEDULE			
DESIGNATION	PIPE SIZE CONNECTION	DESCRIPTION	COMMENTS
FD-1	3"	CAST IRON FLOOR DRAIN	FLOOR DRAIN SHALL BE ZURN MODEL 2415-5BZ, WITH A TRAP PRIMER.

NOTES:

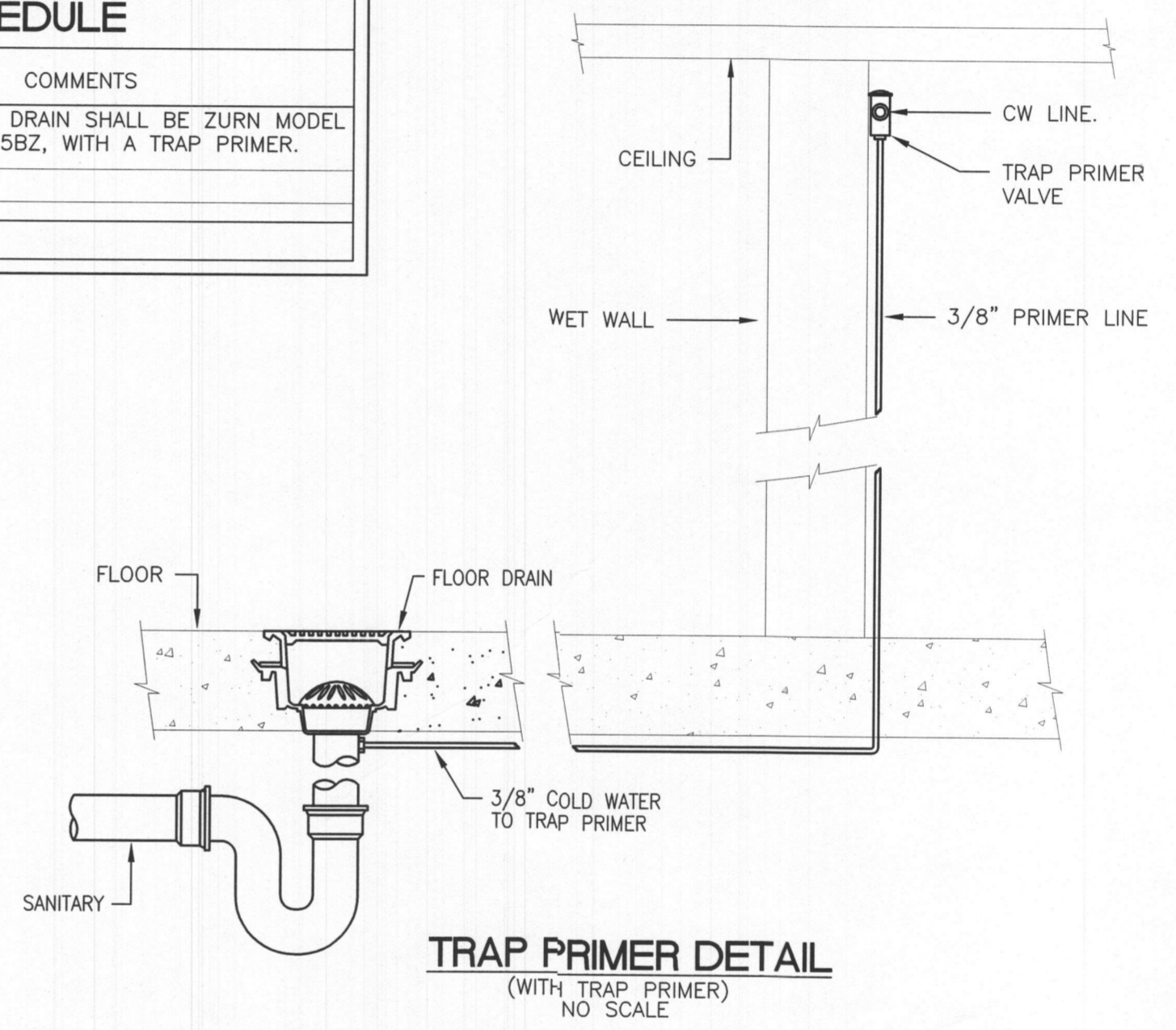


PIPE/DUCT PENETRATION OF FIRE/SMOKE BARRIERS
NO SCALE

NOTE:
1. APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBRANES, IN ACCORDANCE WITH NFPA 101. REFER TO SPECIFICATIONS SECTION 07270, FIRE STOPPING SYSTEMS.



SANITARY CLEANOUT FLOOR SLAB DETAIL
NO SCALE

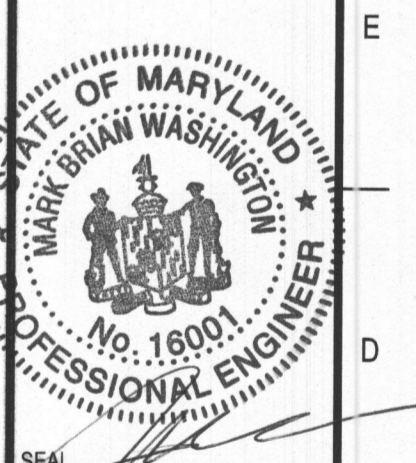


TRAP PRIMER DETAIL (WITH TRAP PRIMER)
NO SCALE

BRASHER DESIGN
ARCHITECTURE DESIGN PLANNING INTERIORS
560 STERRETT PLACE, SUITE 300, COLUMBIA, MARYLAND 21044
tel: 410.365.0300 fax: 410.365.0301
email: brasher@brasherdesign.com

REV. NO.	DATE	DESCRIPTION
09-06-16		DESIGN DEV

M.A.C.A. LABORATORY CLASSROOM
Mt. AIRY, MD.
MT. AIRY CHRISTIAN ACADEMY



RECEIVED
JUN 18 2019
LICENSES & PERMITS DIVISION

PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 16001, Expiration Date: 4/26/20

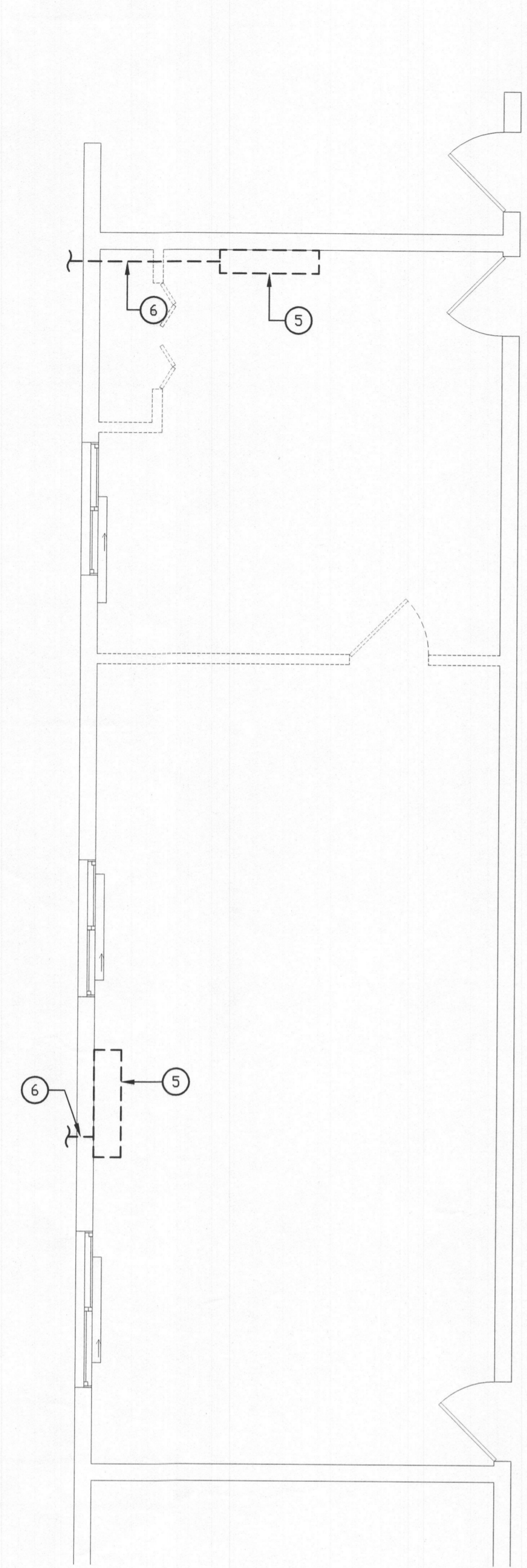
Johnson Consulting Engineers, Inc.
130 W. 25th Street Baltimore, Maryland 21218
Tel: (410) 235-0057, Fax: (410) 235-0946
Email: info@jceengineers.net

SHEET TITLE	PLUMBING COVER SHEET
PROJECT NUMBER	19-123
FIRST RELEASE DATE	6-13-19
SHEET NUMBER	P-0

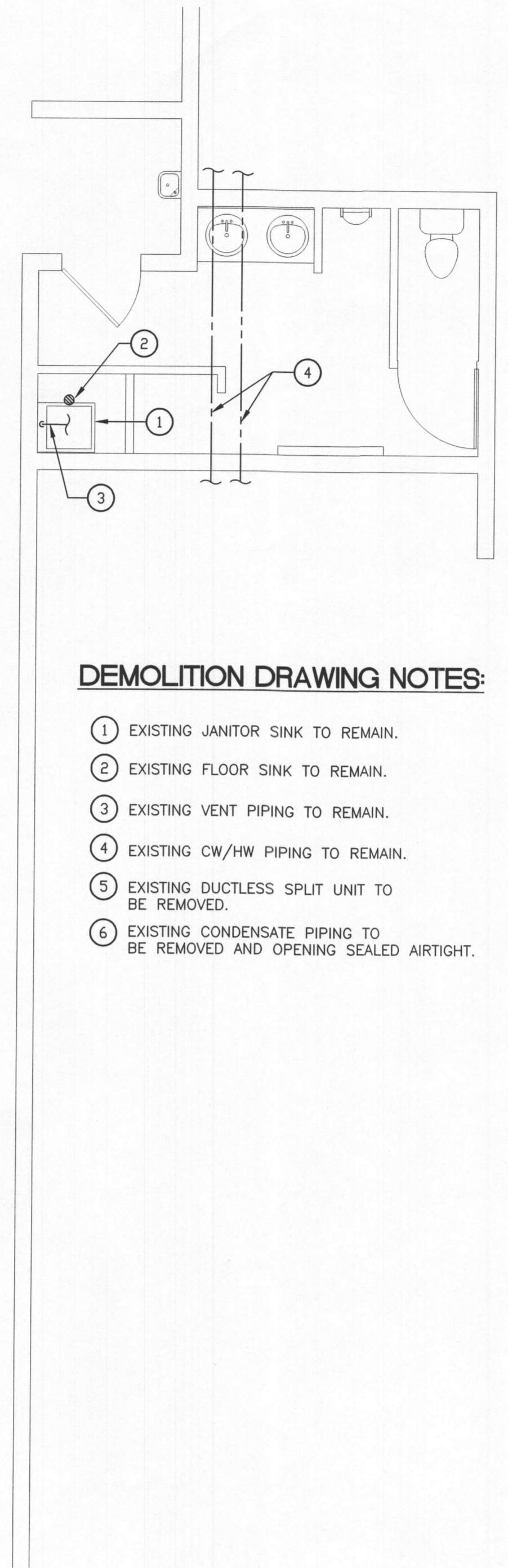
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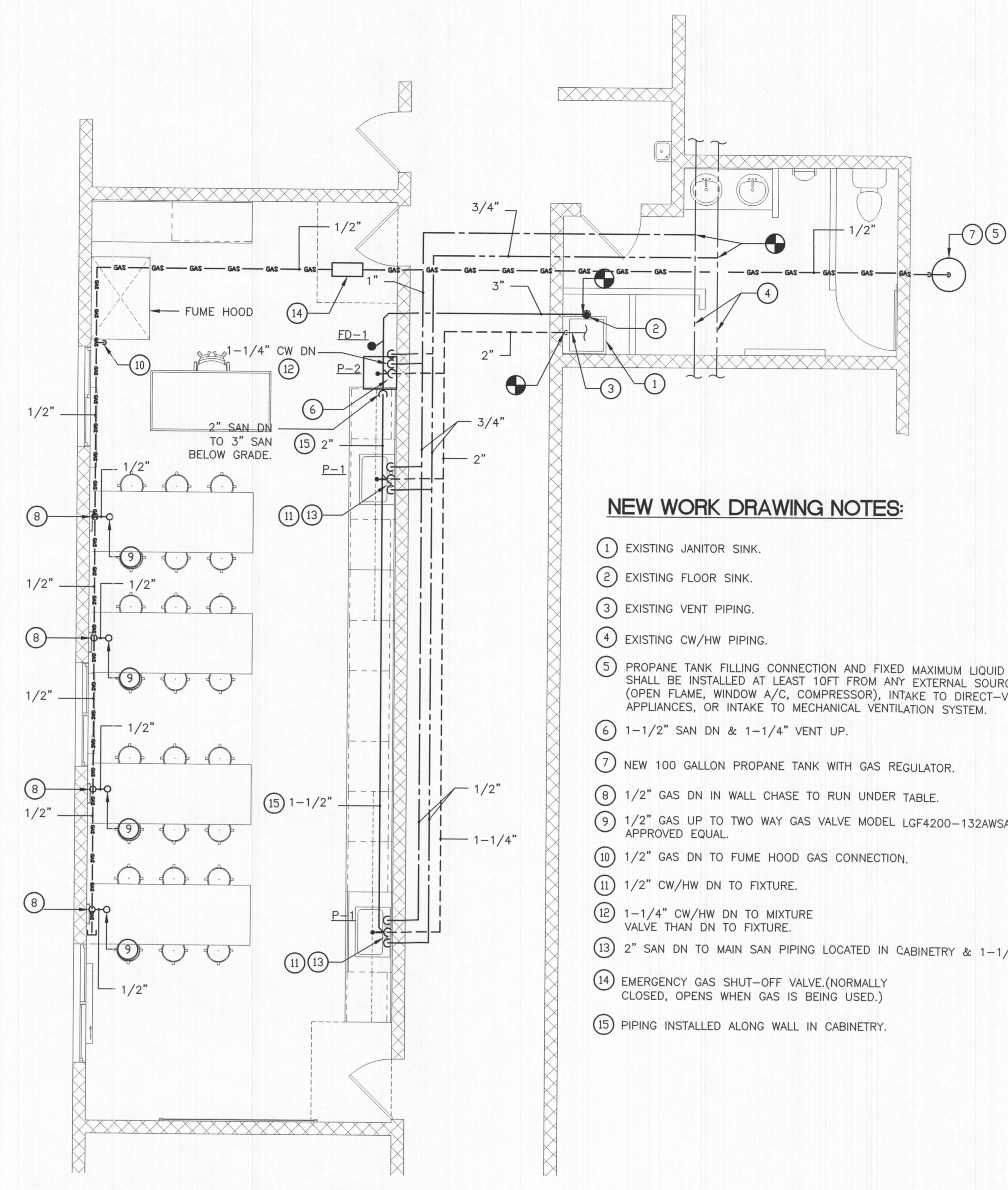


PARTIAL FIRST FLOOR PLAN - PLUMBING DEMOLITION
SCALE: 1/4"=1'-0"



DEMOLITION DRAWING NOTES:

- ① EXISTING JANITOR SINK TO REMAIN.
- ② EXISTING FLOOR SINK TO REMAIN.
- ③ EXISTING VENT PIPING TO REMAIN.
- ④ EXISTING CW/HW PIPING TO REMAIN.
- ⑤ EXISTING DUCTLESS SPLIT UNIT TO BE REMOVED.
- ⑥ EXISTING CONDENSATE PIPING TO BE REMOVED AND OPENING SEALED AIRTIGHT.



NEW WORK DRAWING NOTES:

- ① EXISTING JANITOR SINK.
- ② EXISTING FLOOR SINK.
- ③ EXISTING VENT PIPING.
- ④ EXISTING CW/HW PIPING.
- ⑤ PROPANE TANK FILLING CONNECTION AND FIXED MAXIMUM LIQUID LEVEL GAUGE SHALL BE INSTALLED AT LEAST 10FT FROM ANY EXTERNAL SOURCE OF IGNITION (OPEN FLAME, WINDOW A/C, COMPRESSOR), INTAKE TO DIRECT-VENTED GAS APPLIANCES, OR INTAKE TO MECHANICAL VENTILATION SYSTEM.
- ⑥ 1-1/2" SAN DN & 1-1/4" VENT UP.
- ⑦ NEW 100 GALLON PROPANE TANK WITH GAS REGULATOR.
- ⑧ 1/2" GAS DN IN WALL CHASE TO RUN UNDER TABLE.
- ⑨ 1/2" GAS UP TO TWO WAY GAS VALVE MODEL LGF4200-132AWSA-G OR APPROVED EQUAL.
- ⑩ 1/2" GAS DN TO FUME HOOD GAS CONNECTION.
- ⑪ 1/2" CW/HW DN TO FIXTURE.
- ⑫ 1-1/4" CW/HW DN TO MIXTURE VALVE THAN DN TO FIXTURE.
- ⑬ 2" SAN DN TO MAIN SAN PIPING LOCATED IN CABINETRY & 1-1/2" VENT UP.
- ⑭ EMERGENCY GAS SHUT-OFF VALVE.(NORMALLY CLOSED, OPENS WHEN GAS IS BEING USED.)
- ⑮ PIPING INSTALLED ALONG WALL IN CABINETRY.

PARTIAL FIRST FLOOR PLAN - PLUMBING NEW WORK
SCALE: 1/4"=1'-0"

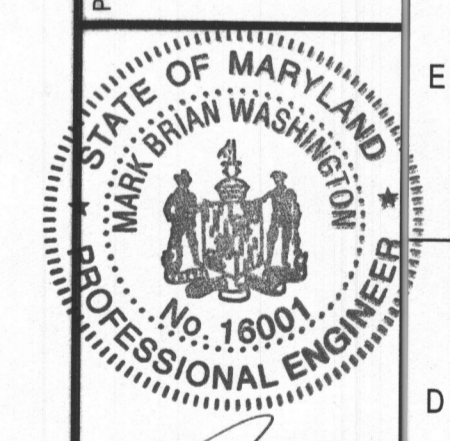
GENERAL NOTES:

1. ALL PIPING SHOWN ON THIS PLAN EXCEPT FOR SANITARY & CONDENSATE SHALL BE INSTALLED IN THE CEILING SPACE OF THE RESPECTIVE FLOOR UNLESS OTHERWISE NOTED.
2. ALL BALANCING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS.
3. ALL WATER HEATERS UNITS SHALL HAVE A DRAIN PAN.
4. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EX. SANITARY AND DOMESTIC WATER PIPING PRIOR TO BEGINNING HIS/HER WORK.
5. ALL PENETRATIONS THROUGH THE ROOF SHALL BE SEALED AND FLASHED.
6. INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
7. COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
8. ALL SAN,VENT, CW & HW PIPING LOCATED IN OPEN CEILING AREAS SHALL BE PAINTED BLACK.
9. ALL PIPING LOCATED INSIDE OF A FIRE-RATED PARTITION SHALL BE FIRE-STOPPED PER U.L.-TESTED ASSEMBLY.
10. PROVIDE CLEANOUTS IN SANITARY SYSTEMS AT ENDS OF RUNS, AT CHANGES IN DIRECTION, NEAR THE BASE OF STACKS, EVERY 50 FEET IN HORIZONTAL RUNS AND ELSEWHERE AS INDICATED.
11. ALL CLEANOUTS SHALL BE FULL SIZE OF PIPE FOR PIPE SIZES 6 INCHES SMALLER AND SHALL BE 6 INCHES FOR PIPE SIZES LARGER THAN 6 INCHES.
12. UNLESS OTHERWISE NOTED, ALL PIPING IS OVERHEAD, TIGHT TO UNDERSIDE OF SLAB, WITH SPACE FOR INSULATION IF REQUIRED.
13. PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.
14. IF PRESSURE ON THE EXISTING CW PIPING EXCEEDS PLUMBING FIXTURES MANUFACTURERS RECOMMENDATIONS & DESIGN GUIDELINES, A PRESSURE REDUCING VALVE SHALL BE INSTALLED ON THE DOMESTIC CW LINE WHERE THE NEW CW PIPING CONNECTS TO THE EXISTING CW PIPING.
15. ALL PIPING SHALL BE INSULATED WITH 1-1/2" INSULATION.
16. IF NEW PIPING IS BEING INSTALLED IN A CEILING PLENUM APPLICATION, ALL PIPING SHALL COMPLY WITH CEILING PLENUM REQUIREMENTS LISTED IN THE CODE.
17. CONTRACTOR SHALL VERIFY EXISTING PIPING LOCATION BEFORE FINAL BID TO REDUCE ANY FUTURE COMPLICATIONS.
18. CONTRACTOR SHALL IDENTIFY ANY ISSUES WITH THE SLOPING OF THE PLUMBING PIPING PRIOR TO FINAL BID.

BRASHER DESIGN
ARCHITECTURE DESIGN PLANNING INTERIORS
4000 STRATFORD PLACE, SUITE 300, COLUMBIA, MARYLAND 21044
410.350.1111
email: brasher.arch@gmail.com

REV. NO.	DATE	DESCRIPTION
09-06-16		DESIGN DEV

M.A.C.A. LABORATORY CLASSROOM
MT. AIRY, MD.
MT. AIRY CHRISTIAN ACADEMY

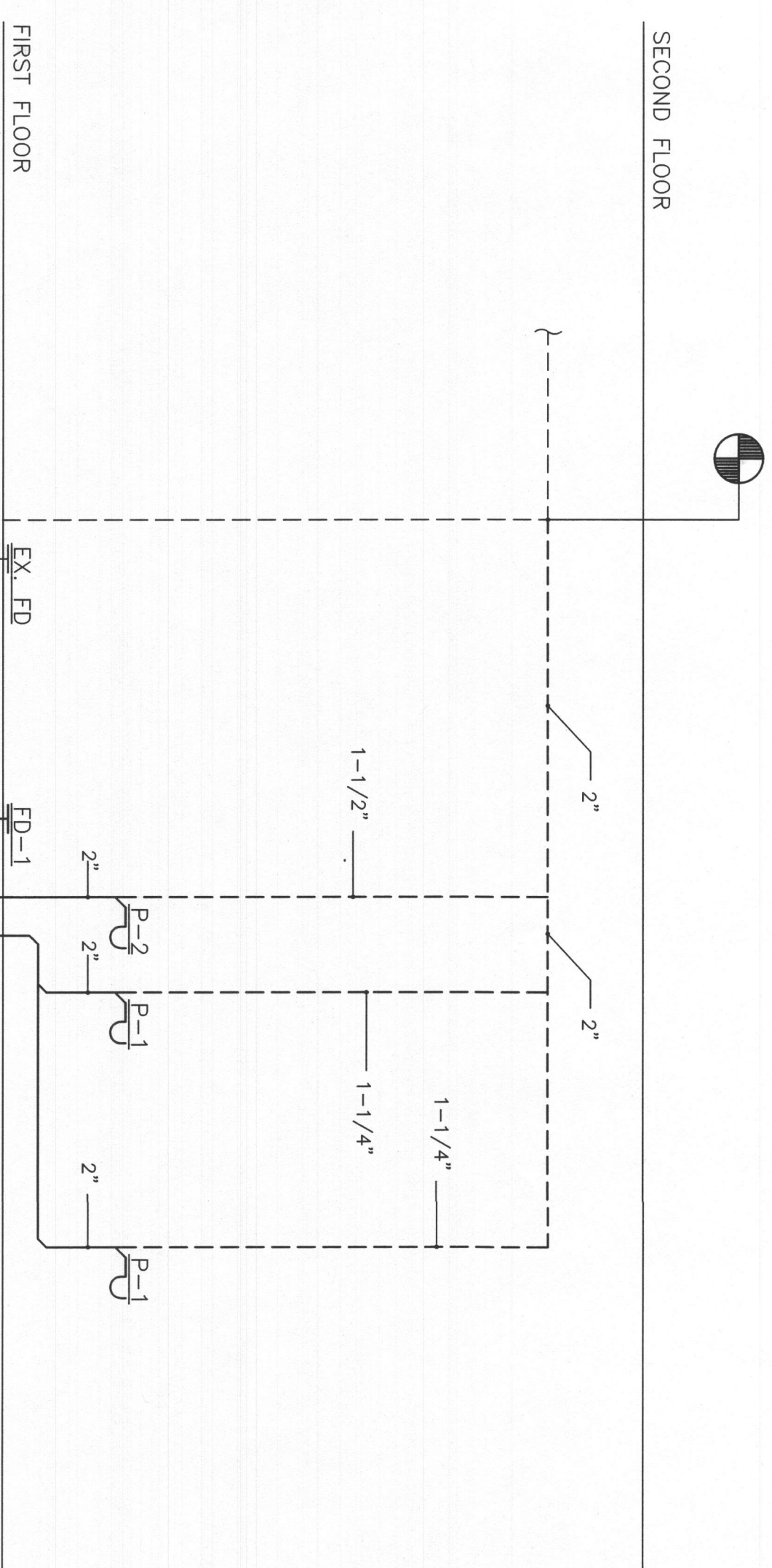


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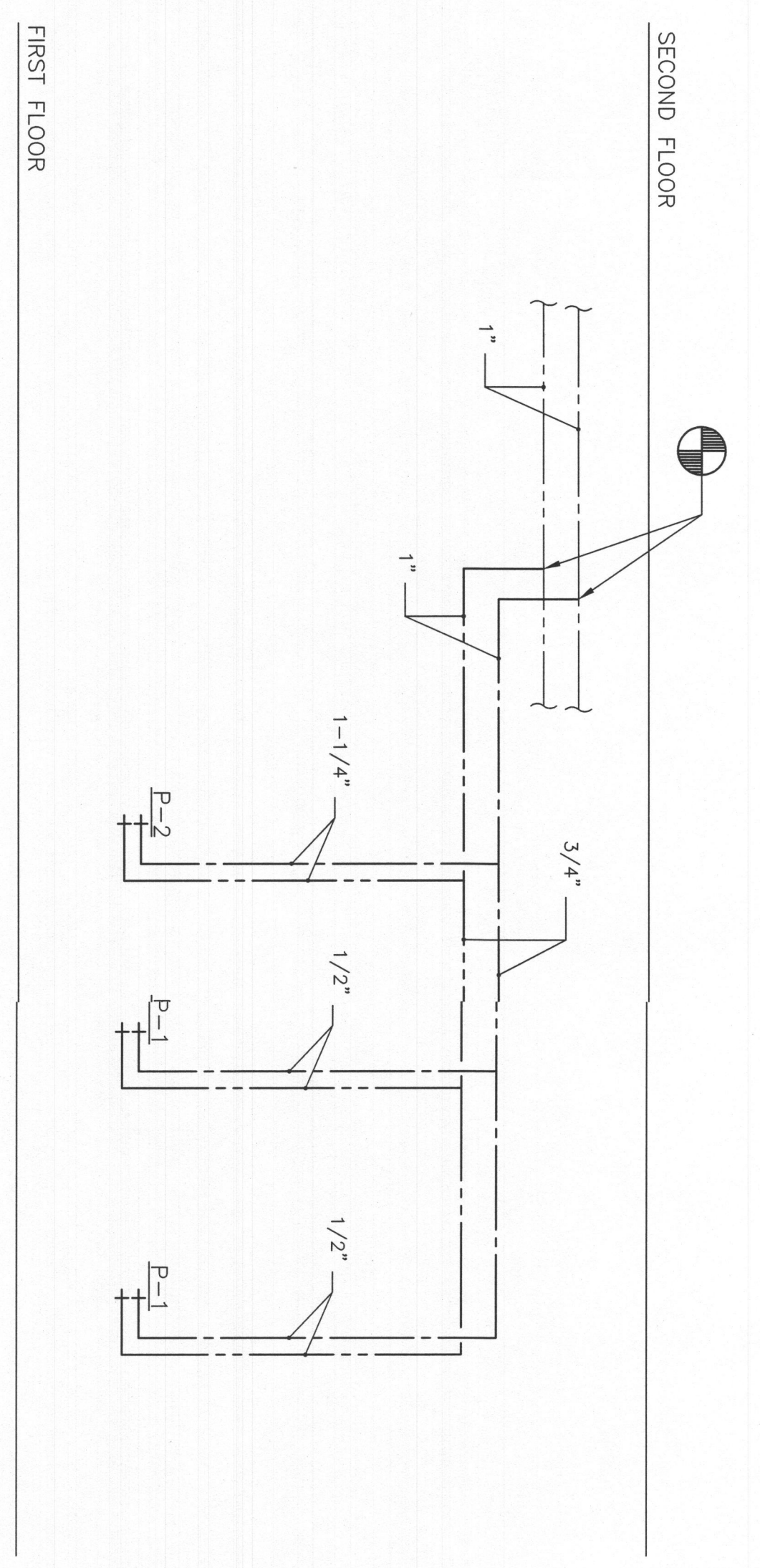
Johnson Consulting Engineers, Inc.
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Email: info@jceengineers.net

SHEET TITLE	PLUMBING COVER SHEET
PROJECT NUMBER	19-123
FIRST RELEASE DATE	6-13-19
SHEET NUMBER	P-1

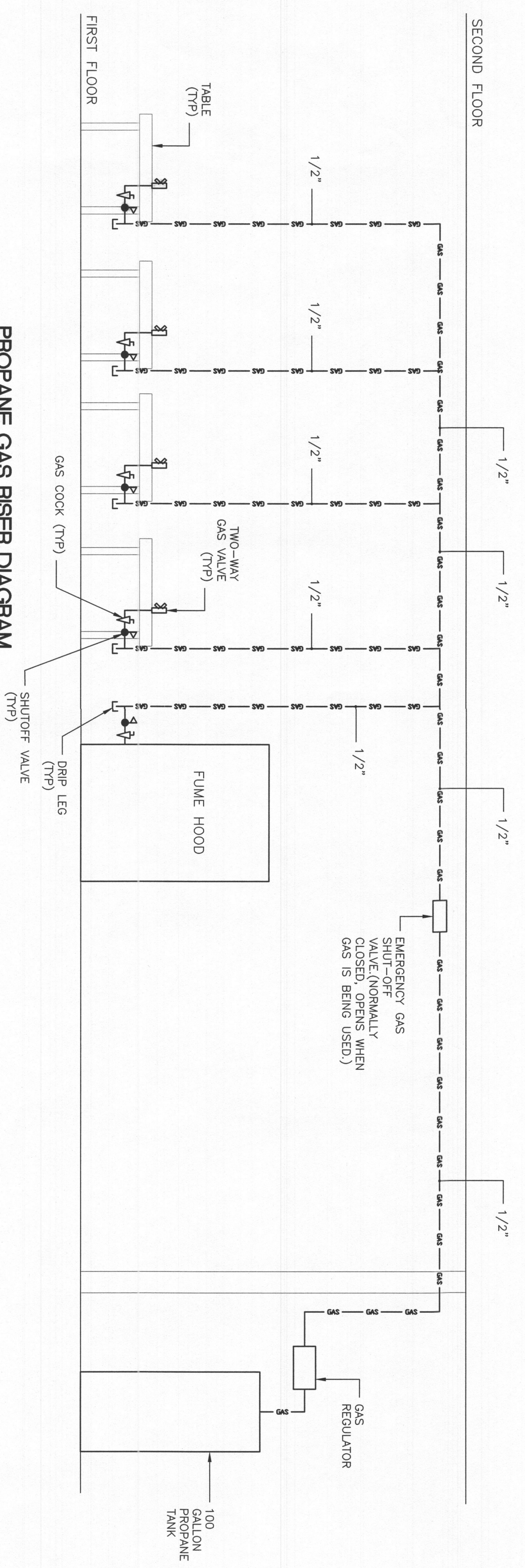
100% CD SET (6-13-19)



SANITARY RISER DIAGRAM
NO SCALE



DOMESTIC WATER RISER DIAGRAM
NO SCALE



PROANE GAS RISER DIAGRAM
NO SCALE

- NOTES:**
1. PROPANE TANK FILLING CONNECTION AND FIXED MAXIMUM LIQUID LEVEL GAUGE SHALL BE INSTALLED AT LEAST 10FT FROM ANY EXTERNAL SOURCE OF IGNITION (OPEN FLAME, WINDOW A/C, COMPRESSOR), INTAKE TO EXHAUST, VENTED GAS APPLIANCES, OR INTAKE TO MECHANICAL VENTILATION SYSTEM.
 2. MAX PRESSURE TO BUNSEN BURNER SHALL BE 14" W.C.

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PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer in the State of Maryland, License No. 16011, Expiration Date: 7/26/20

Johnson Consulting Engineers, Inc.
130 W. 25th Street, Baltimore, Maryland 21218
Tel: (410) 235-0057, Fax: (410) 235-0946
Email: mjc@jceengineers.net



PROJECT NAME
M.A.C.A. LABORATORY CLASSROOM
Mt. Airy, Md.
MT. AIRY CHRISTIAN ACADEMY

REVISIONS		
Rev. No.	Date	Description
09-06-16		DESIGN DEV

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ARCHITECTURE DESIGN PLANNING INTERIORS
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email: brasher.arch@gmail.com

100% CD SET (6-13-19)

SHEET NUMBER
P-2

SHEET TITLE
PLUMBING RISER DIAGRAMS

PROJECT NUMBER
19-123

FIRST RELEASE DATE
6-13-19

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