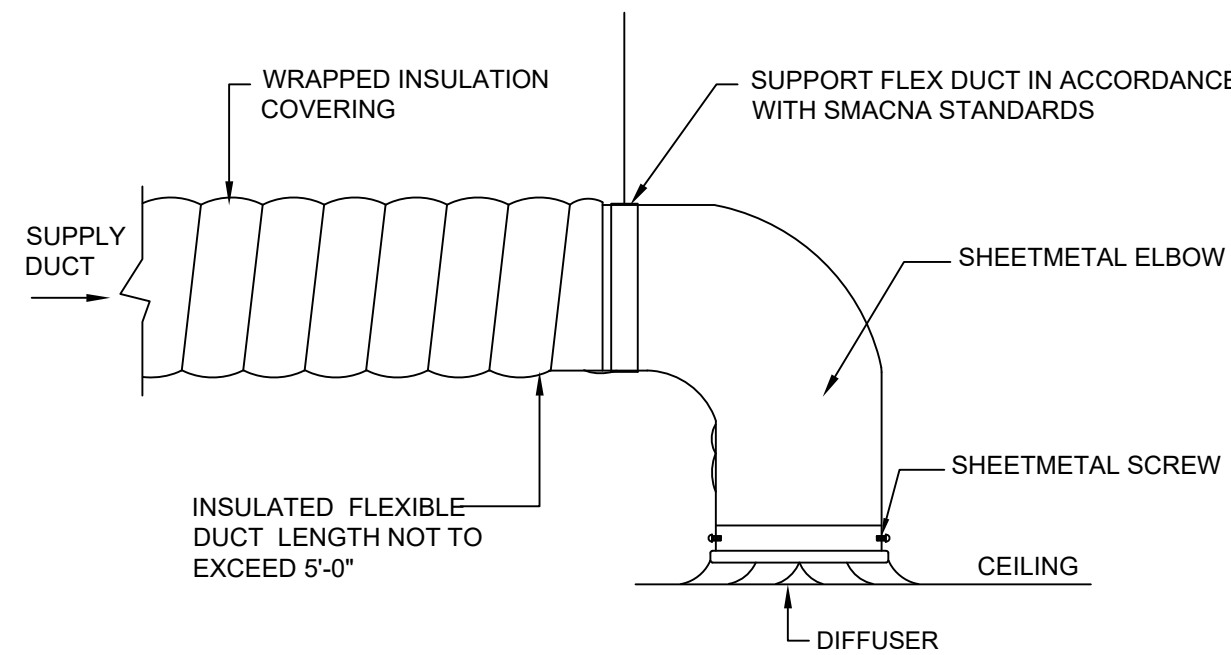


CONSTRUCTION TO COMPLY WITH
SECTION NEW JERSEY MECHANICAL
CODE 2021 IMC 2021 AMENDED



NOTES

1. THE CEILING SUSPENSION SYSTEM MUST SUPPORT DIFFUSER WEIGHT WHEN FLEXIBLE CONNECTIONS ARE USED. ON SURFACE MOUNTED DIFFUSER APPLICATIONS, A PROPERLY SIZED HOLE SHALL BE CUT IN THE ACOUSTICAL CEILING PANEL. THE DIFFUSER SHALL NOT SUPPORT THE ACOUSTICAL CEILING.
2. DO NOT CONNECT FLEXIBLE DUCTWORK DIRECTLY TO DIFFUSER NECK.
3. FLEXIBLE DUCTWORK GREATER THAN 10-INCH DIAMETER INSTALLED IN 1-INCH W.G. OR GREATER SMACNA PRESSURE CLASSIFICATION DUCTWORK SHALL BE ATTACHED TO RIGID GALVANIZED STEEL DUCTWORK WITH STAINLESS OR GALVANIZED STEEL DRAW BANDS. FLEXIBLE DUCTWORK 10-INCH DIAMETER OR LESS INSTALLED IN DUCTWORK LESS THAN ONE INCH W.G. SMACNA PRESSURE CLASSIFICATION MAY BE ATTACHED TO RIGID GALVANIZED STEEL DUCTWORK WITH NYLON CABLE TIE.
4. FLEXIBLE DUCTWORK SHALL NOT BE INSTALLED IN RETURN OR EXHAUST AIR DUCTWORK SYSTEMS.

3 TYPICAL CEILING DIFFUSER FLEXIBLE DUCT CONNECTION DETAIL

NTS

AIR BALANCE					
UNIT	AREA SERVED	SUPPLY AIR	OUTSIDE AIR	RETURN AIR	EXHAUST AIR
CU-1	FRONT	1600 CFM	150 CFM	1450 CFM	-
CU-2	BACK	1600 CFM	150 CFM	1450 CFM	-
EF-1	TOILET RM	-	-	-	75 CFM
EF-2	LOCKER RM	-	-	-	150 CFM
EF-3	PRIVATE TOILET	-	-	-	75 CFM
TOTAL:		3200 CFM	300 CFM	2900 CFM	300 CFM
BUILDING PRESSURE: 0 CFM POSITIVE					

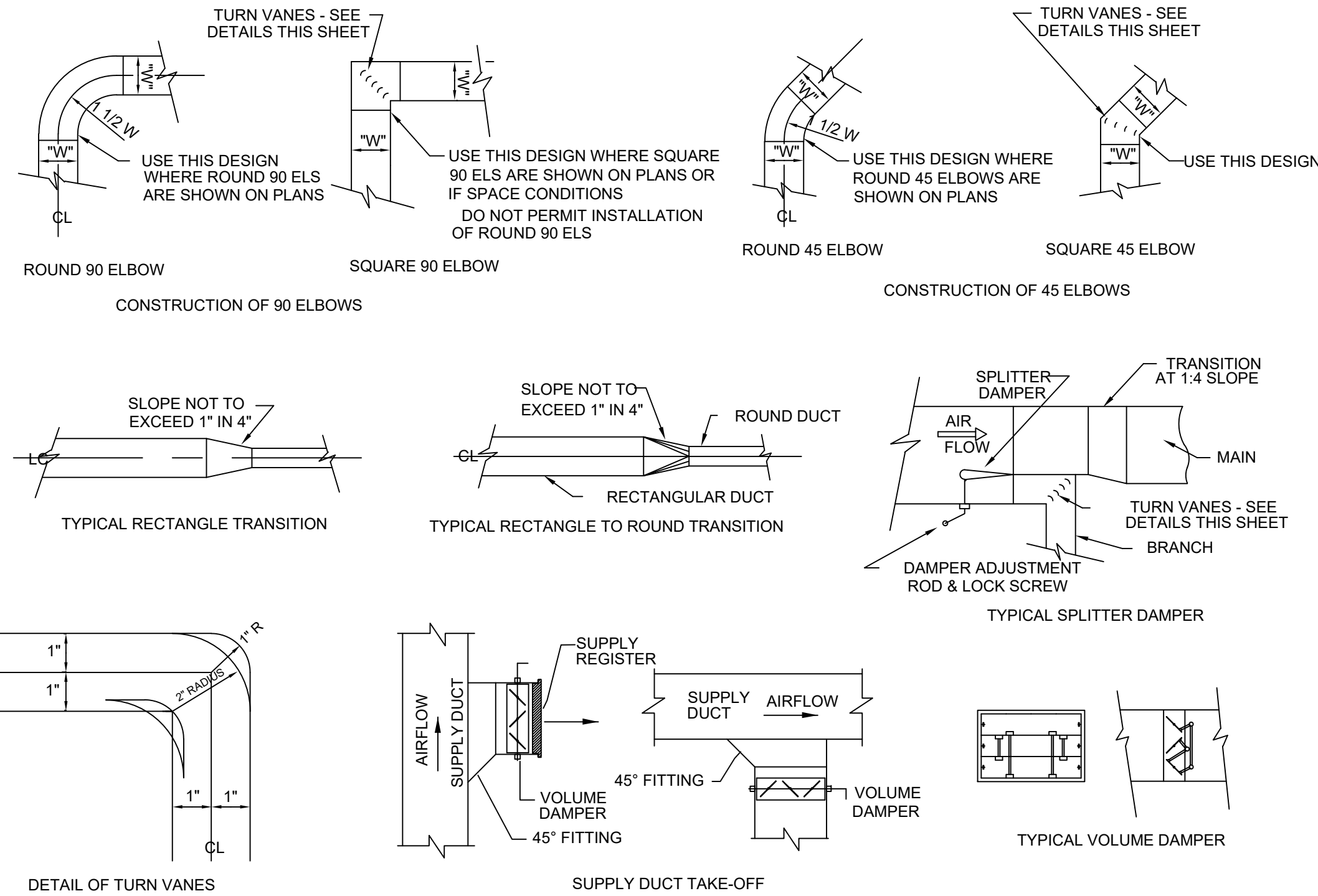
GENERAL HVAC PLAN NOTES:

1. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF DUCTWORK, EQUIPMENT ETC. DO NOT SCALE DRAWINGS, THE EXACT LOCATION AND / OR ROUTING OF DUCTWORK, EQUIPMENT, ETC. UNLESS SPECIFICALLY DIMENSIONED ON THE DRAWINGS, SHALL BE DETERMINED IN THE FIELD. MAKE REASONABLE MODIFICATIONS IN THE INSTALLATION SO ALL DUCTWORK, EQUIPMENT, ETC. FIT PROPERLY AND CAN BE SERVICED.
2. HVAC EQUIPMENT AND INSTALLATION SHALL CONFORM TO THE LATEST EDITION OF THE:
 - STATE BUILDING CODE
 - STATE PLUMBING CODE
 - STATE MECHANICAL CODE
 - STATE FIRE CODE
 - STATE ENERGY CODE
 - NATIONAL ELECTRICAL CODE
 - APPLICABLE OSHA AND NFPA STANDARDS
 - COUNTY AND CITY BUILDING REGULATIONS AND CODES.
3. PROVIDE ADDITIONAL OFFSETS IN DUCTWORK AS REQUIRED TO AVOID INTERFERENCE WITH STRUCTURE, DUCTWORK, PIPING, ELECTRICAL, ETC.
4. PAINT ALL INTERIOR OF ALL SHEET METAL DUCTWORK VISIBLE THROUGH FACE OF GRILLES FLAT BLACK.
5. ALL EQUIPMENT SHALL BE INSTALLED PER NEC REQUIREMENTS AND TO ALLOW FOR CODE REQUIRED CLEARANCES AND MANUFACTURE'S RECOMMENDED CLEARANCES.
6. IF HVAC EQUIPMENT IS USED PRIOR TO SUBSTANTIAL COMPLETION, PROVIDE TEMPORARY FILTER MEDIA AT ALL EXHAUST AIR GRILLES.
7. THE CONTRACTOR SHALL MOUNT AND / OR WIRE ALL EQUIPMENT DEVICES NOT FACTORY MOUNTED AND / OR WIRED.
8. EXHAUST FANS: THE TEST AND BALANCE CONTRACTOR SHALL BALANCE THE AIR FLOW WITH THE SPEED CONTROLLER.
9. THE TEST AND BALANCE CONTRACTOR SHALL BALANCE THE DOMESTIC HOT WATER RETURN FLOW TO THE INDICATED VALUE.
10. AT ALL EXPOSED DUCT PENETRATIONS THROUGH WALLS AND ROOF, PROVIDE SHEET METAL FLANGE AROUND DUCT TO COVER ANY GAP BETWEEN DUCT AND OPENING.
11. DO NOT ROUTE ANY DUCTWORK OVER ELECTRICAL PANELS, DISCONNECTS, ETC. COORDINATE WITH DIVISION 26 CONTRACTOR. ANY DUCTWORK ROUTED OVER ELECTRICAL PANELS, DISCONNECTS, ETC. SHALL BE RELOCATED AT NO ADDITIONAL COST.
12. PROVIDE ANY MISCELLANEOUS STEEL OR WOOD AS REQUIRED TO ATTACH EQUIPMENT TO STRUCTURE.
13. ALL DUCTWORK SHALL BE SEALED PER THE REQUIREMENTS OF ASHRAE STANDARD 90.1-2007.
14. CAULK JOINT BETWEEN CONTROL DAMPER FRAME AND DUCT AIR TIGHT.
15. MECHANICAL CONTRACTOR TO FURNISH & INSTALL THE FOLLOWING: ALL NEW DIFFUSERS, DUCTWORK NECESSARY TO CONNECT TO VARIOUS PROPOSED UNITS. SEE PLAN FOR SPECIFICATIONS. MECHANICAL CONTRACTOR TO INSPECT AND UPDATE THE SYSTEM AS REQUIRED.
16. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL ALL WIRING AND OTHER MATERIALS REQUIRED TO CONNECT A/C UNIT TO DISTRIBUTION PANEL WITH DISCONNECT SWITCH.
17. MECHANICAL CONTRACTOR SHALL PROVIDE ALL AUTOMATIC AND MANUAL DEVICES NECESSARY FOR THE CONTROL SYSTEM AND FIRE ALARM / DETECTION SYSTEM.
18. MECHANICAL CONTRACTOR SHALL PROVIDE DUCTWORK SHOP DRAWINGS PRIOR TO FABRICATION.

EQUIPMENT SCHEDULE																			
SYMBOL	Make	Model	Nominal Tons	Refrigerant	Orientation	Supply AirFlow (cfm)	Air Handler	SupplyFan NomPower (hp)	Unit NetTotal Cool (Btuh)	Unit Discharge WB (F)	ARI EER	ARI SEER	Heating Mixed DB (F)	Heat Source	MBH INPUT	MBH OUTPUT	HEATING Dis. DB (F)	FURNACE COIL MODEL	Condenser Voltage
AHU / CU -1	Carrier	GH55AN54800A	4	R-454B	Horizontal Vertical	1,600	FJ5 Series	0.25	48,000	55	12	15.2	70	OA	48	48	47	FG5ANBD60L	208-230 VOLTS, SINGLE PHASE, 60 HZ
AHU / CU -2	Carrier	GH55AN54800A	4	R-454B	Horizontal Vertical	1,600	FJ5 Series	0.25	48,000	55	12	15.2	70	OA	48	48	47	FG5ANBD60L	208-230 VOLTS, SINGLE PHASE, 60 HZ

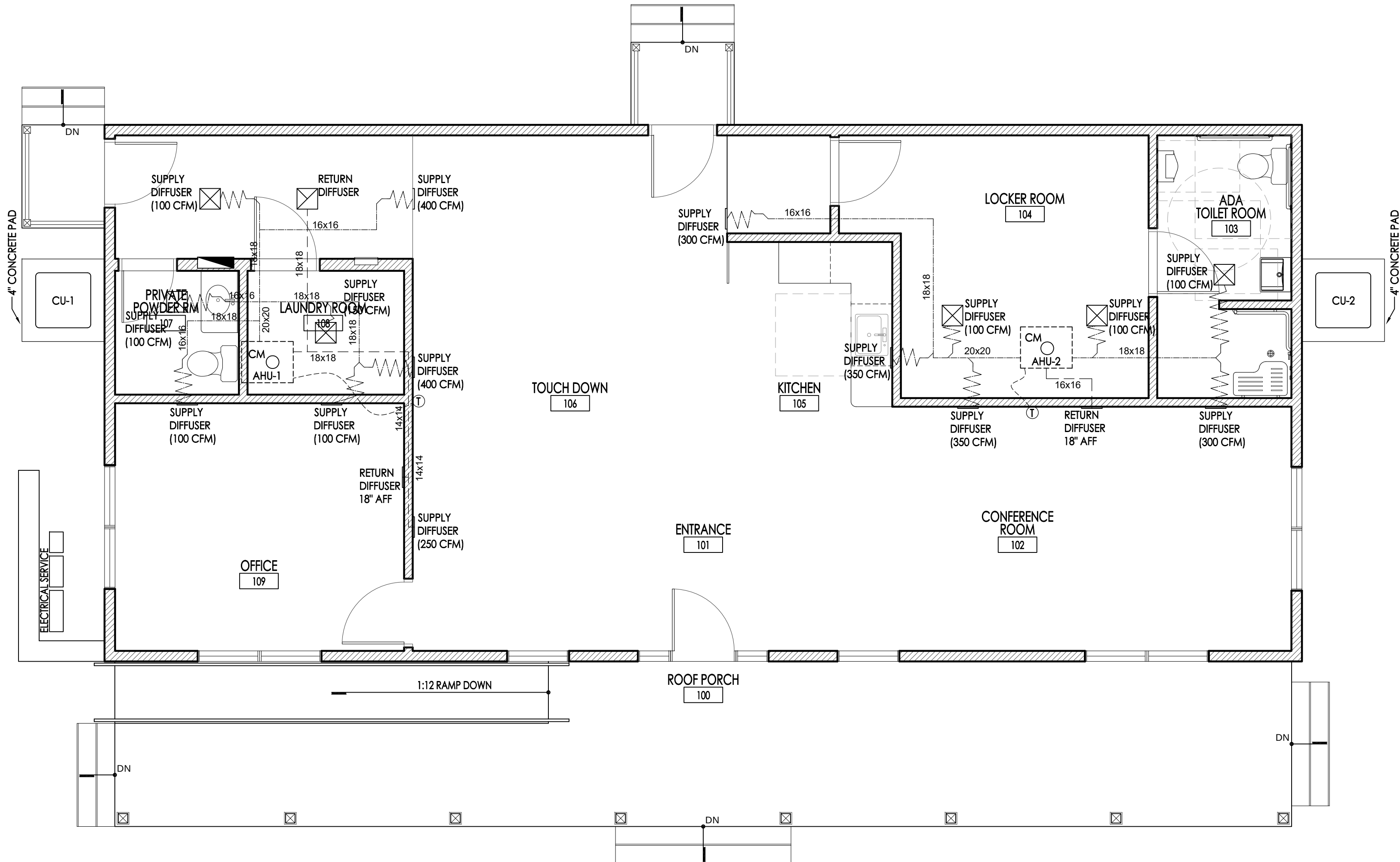
NOTES

1. UNITS SHALL BE SINGLE WALL CONSTRUCTION WITH FOIL FACED INSULATION
2. ALL QUANTITIES TO BE CONFIRMED BY CONTRACTOR PRIOR TO PURCHASING.
3. PROVIDE MATCHING COOLING COIL.
4. PROVIDE FURNACE AND COOLING COIL.
5. PROVIDE VAV DIRECT DRIVE FAN.
6. COORDINATE WITH ROOF / WALL PENETRATION LAYOUT FOR O/A.



2 DUCTWORK DETAILS

NTS



1 ELECTRICAL POWER PLAN

1/4" = 1'-0"

tk
studio

architecture + design

tk studio llc

262 Mullica Hill Road
Mullica Hill NJ 08062
856 845 0132

Kimberly Dechen

KIMBERLY DECHEN, RA

PA REGISTERED ARCHITECT No. RA406246
NJ REGISTERED ARCHITECT No. 19467
DE REGISTERED ARCHITECT No. SS-0007983
NY REGISTERED ARCHITECT No. 044126-01

SEAL:

CLIENT:

Harrison Township

35 Woodland Avenue
Mullica Hill, NJ 08062

THE WORK:

RECONSTRUCT
EXISTING
ONE STORY

35 Woodland Avenue
Mullica Hill, NJ 08062

ALL DOCUMENTS PREPARED BY tk studio, llc ARE INSTRUMENTS OF SERVICE IN RESPECT TO THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN PERMISSION BY tk studio, llc FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO tk studio, llc AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS tk studio, llc FROM CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

REVISIONS		
NO.	DESCRIPTION	DATE
1	ISSUE FOR BID	09.11.26
2	AMENDMENT	09.25.26

SHEET TITLE:

MECHANICAL PLAN
EQUIPMENT SCHEDULE

JOB NO:	DESIGNED BY:
3061-01	TCP
DATE:	DRAWN BY:
08.11.26	AC
SCALE:	CHECKED BY:
AS SHOWN	KD

DRAWING NUMBER:

M101

ELECTRICAL GENERAL NOTES

1.	ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SUPPLYING / INSTALLING ALL ELECTRICAL COMPONENTS NECESSARY TO PROVIDE POWER TO EQUIPMENT. ELECTRICAL CONTRACTOR SHALL ALSO COMPLETE ALL INTERNAL WIRING AND FINAL CONNECTIONS TO EQUIPMENT PER MANUFACTURERS SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO: - PROVIDING CAPS AND CORDS TO APPLICABLE EQUIPMENT - STAINLESS STEEL COVER PLATES WHERE REQUIRED - MAIN BREAKER PANELS, CONTROL PANELS, DISCONNECT SWITCHES, STARTERS, ETC.
2.	ALL ELECTRICAL CONDUIT IS TO BE RUN WITHIN WALL CAVITY AND BOXES AND RECEPTACLES ARE TO BE MOUNTED FLUSH WITH THE WALL SURFACE. SURFACE MOUNTED ELECTRICAL WORK IS NOT TO BE USED UNLESS OTHERWISE SPECIFIED.
3.	ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPER WORKING CONDITION AND MEETING CURRENT LOCAL CODE REQUIREMENTS FOR ANY / ALL EQUIPMENT LISTED ON THESE PLANS AS 'EXISTING'.
4.	ALL ELECTRICAL WORK IS TO BE PERFORMED IN FULL ACCORDANCE WITH ALL LOCAL AND FEDERAL CODES AND REQUIREMENTS.
5.	ALL DIMENSIONS ARE TAKEN FROM FINISHED FLOORS AND FINISHED WALLS OR AS NOTED ON PLAN AND ARE TO CENTERLINE OF ROUGH-INS.
6.	REFER TO ARCHITECTURAL PLANS AND / OR CONSTRUCTION DOCUMENTS FOR ANY ADDITIONAL ELECTRICAL CONNECTIONS OR OUTLETS REQUIRED TO MEET LOCAL CODES.
7.	ELECTRICAL CONTRACTOR TO MAKE SINGLE POINT HARNESS CONNECTION FROM CONDENSING UNIT TO EVAPORATOR AS WELL AS CONNECTING EVAP. PAN
8.	G.C. TO CONNECT PRECHARGED REFRIGERATION LINES FROM CONDENSING UNIT TO EVAPORATOR.
9.	RECOMMEND CONDENSING UNIT TO BE KEPT AT TEMPERATURE OF 90 DEGREES OR LESS.

DRAWING LEGEND:

- NEW INTERIOR PARTITION
- EXISTING WALL TO REMAIN
- NEW DOOR IN NEW WALL
- EXISTING DOOR IN EXISTING WALL
- PARTITION TAG, SEE PARTITION TYPES
- EXIST CMU INT. WALL TO REMAIN
- EXIST. FULL HT. INT. PARTITION TO REMAIN
- DUPLEX OUTLET
- USB OUTLET
- GFI OUTLET
- FLOOR BOX



architecture + design

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PA REGISTERED ARCHITECT No. RA406246
NJ REGISTERED ARCHITECT No. 19467
DE REGISTERED ARCHITECT No. SS-0007983
NY REGISTERED ARCHITECT No. 044126-01
SEAL:

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

CLIENT:

Harrison Township
35 Woodland Avenue
Mullica Hill, NJ 08062

THE WORK:

RECONSTRUCT
EXISTING
ONE STORY
35 Woodland Avenue
Mullica Hill, NJ 08062

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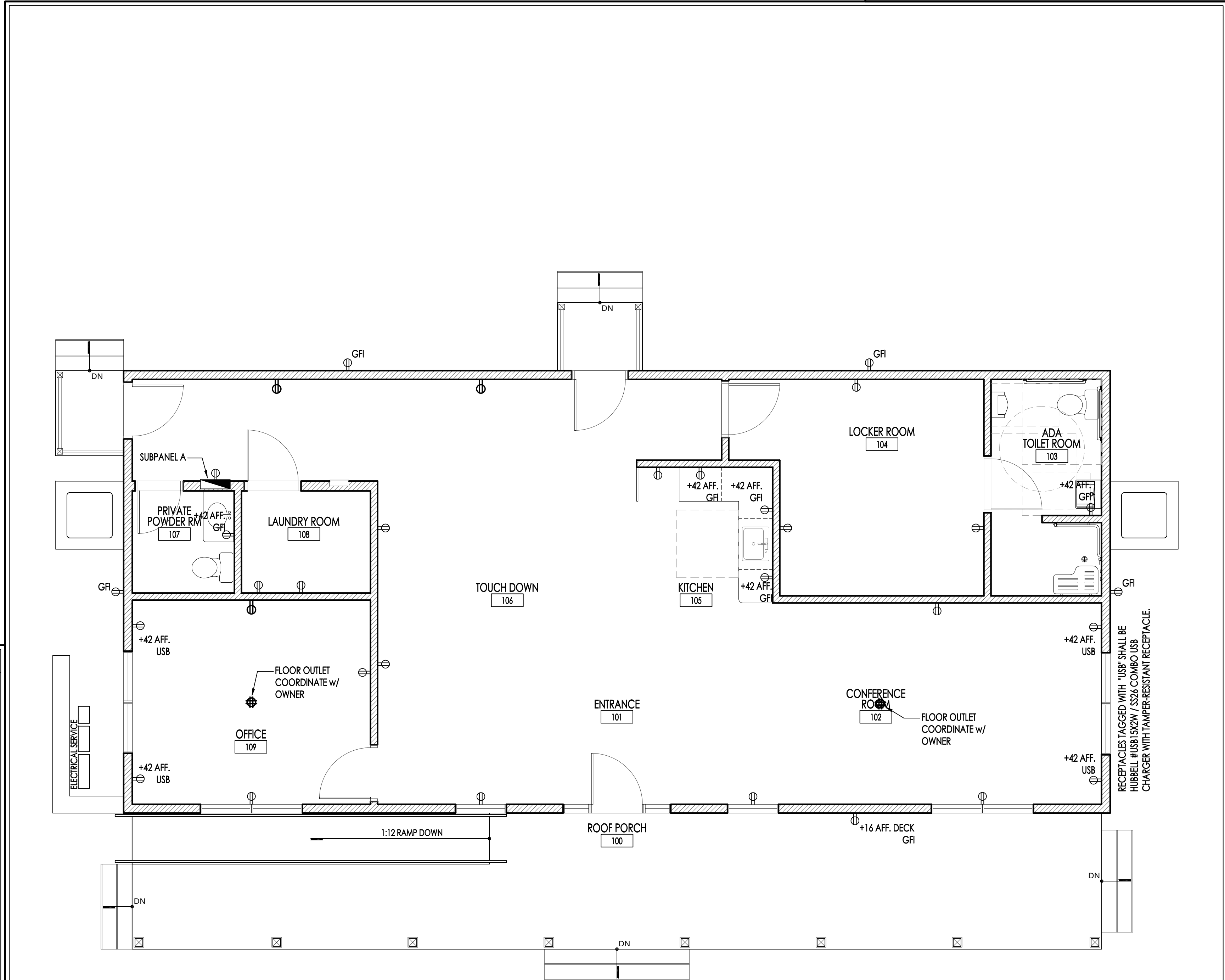
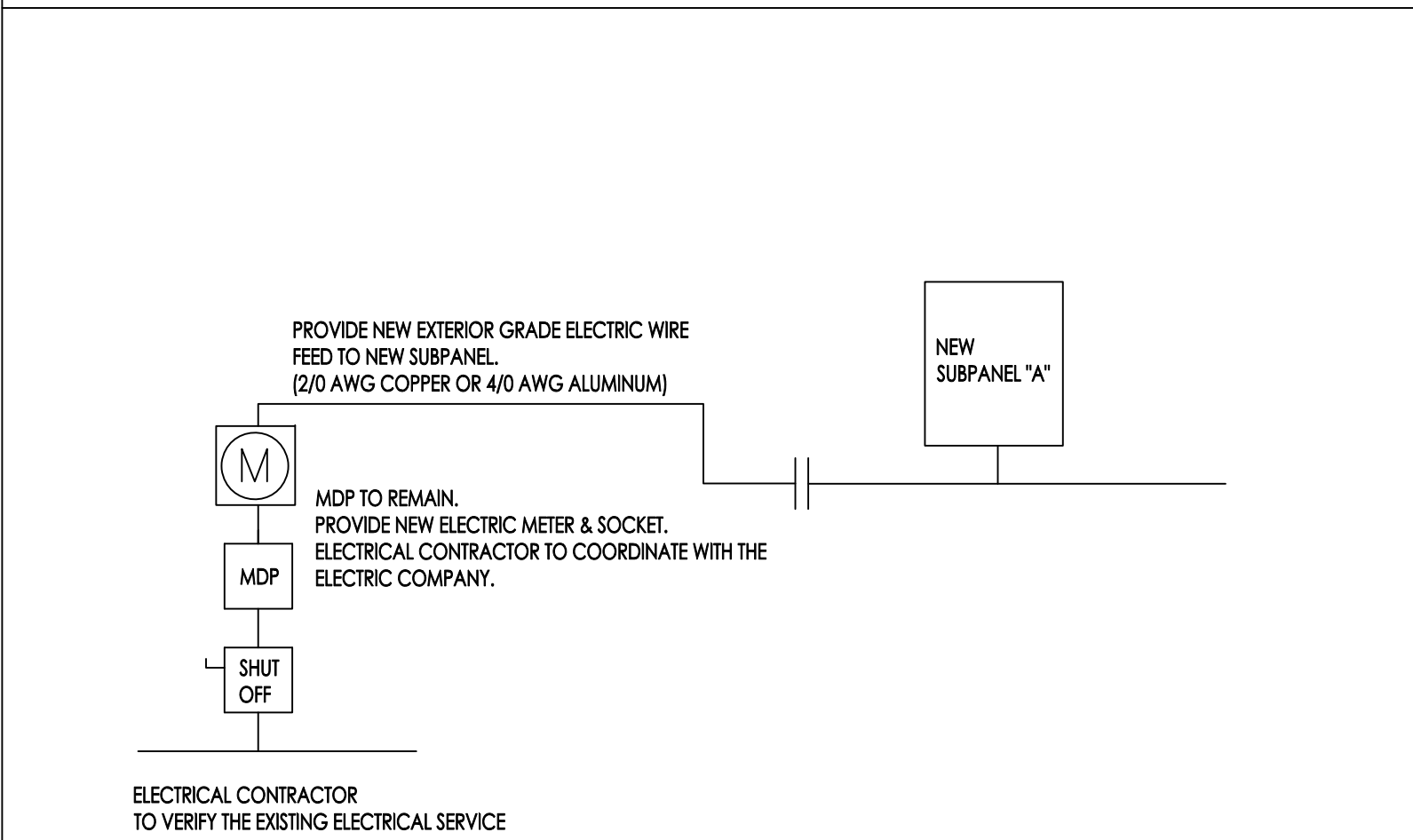
ELECTRICAL
POWER PLAN

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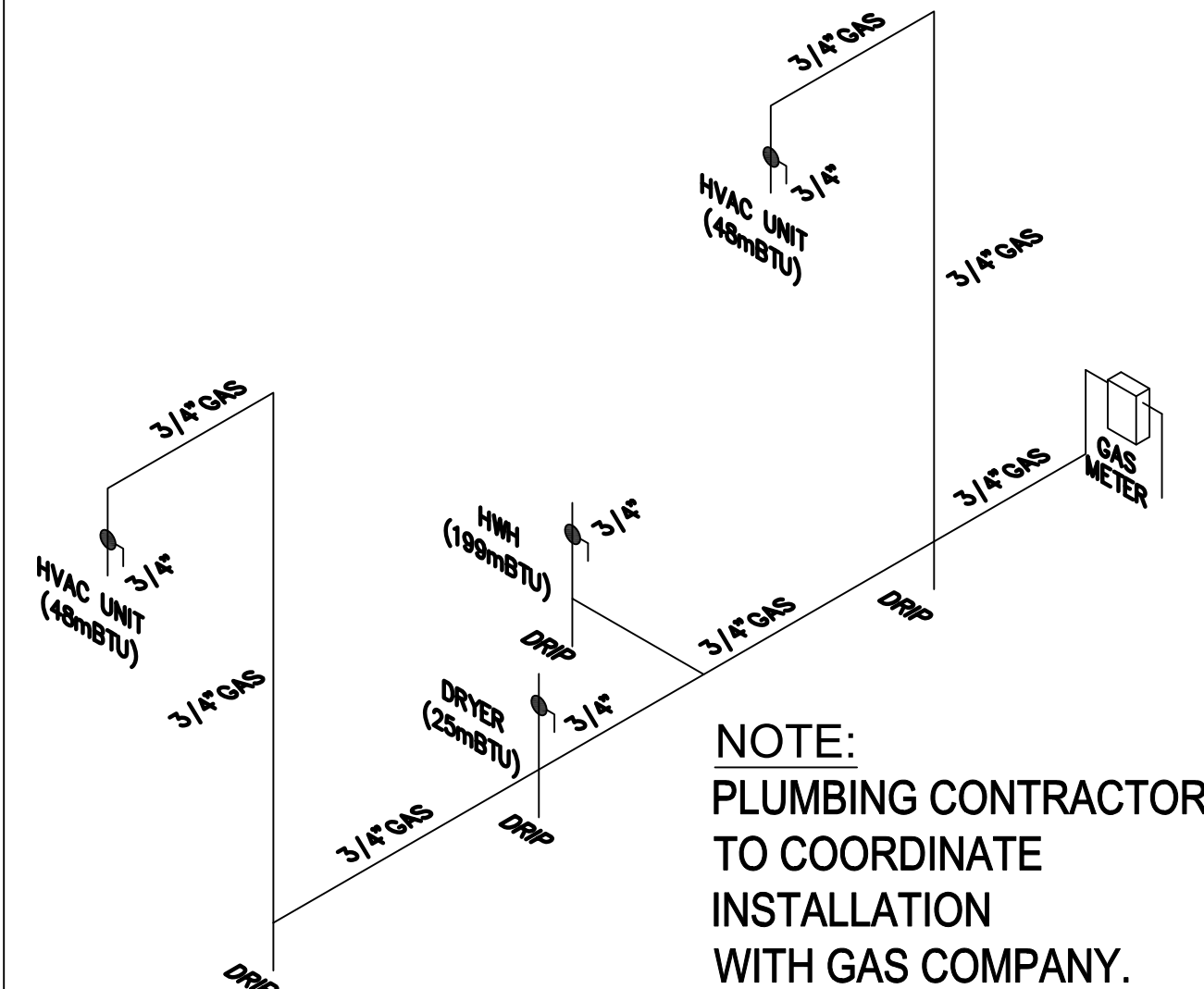
ELECTRICAL RISER DIAGRAM NTS



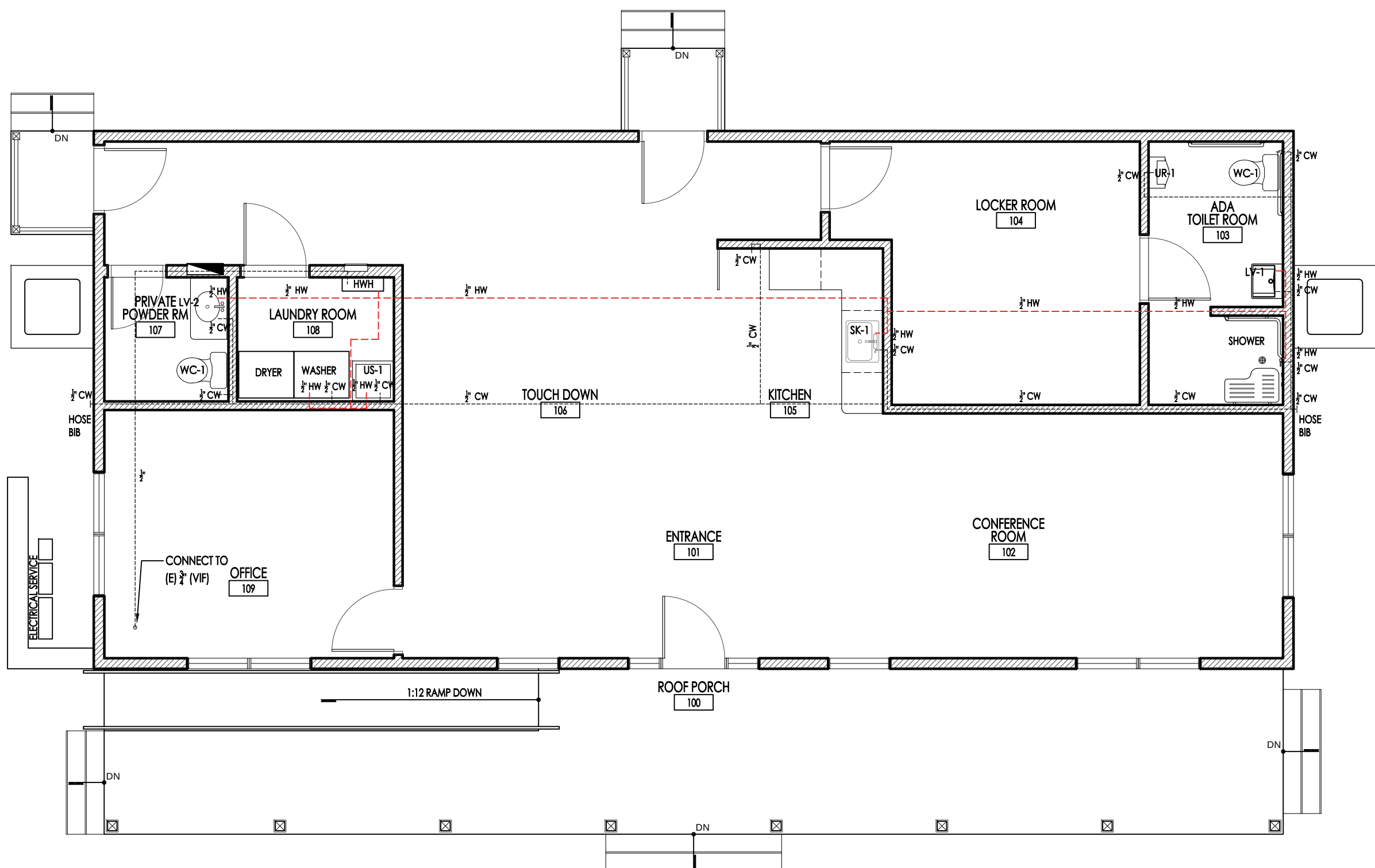
PLUMBING NOTES:

1. THE WORK SHALL INCLUDE ALL LABOR, MATERIALS, AND SERVICES REQUIRED TO COMPLETE THE PLUMBING INSTALLATION.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE UNIFORM CONSTRUCTION CODE AND 2021 NATIONAL STANDARD PLUMBING CODE. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES.
3. CONTRACTOR SHALL SUBMIT CUT SHEETS OF ALL PROPOSED EQUIPMENT HE INTENDS TO USE AND ALL SHOP DRAWINGS OF ALL PROPOSED DUCTWORK AND PIPING LAYOUTS TO THE ENGINEER FOR APPROVAL PRIOR TO PURCHASING ANY MATERIAL OR FABRICATING ANY ASSEMBLIES.
4. PRIOR TO BEGINNING WORK, THE PLUMBING CONTRACTOR SHALL REVIEW APPROVED EQUIPMENT DRAWINGS WITH ALL MECHANICAL AND ELECTRICAL TRADES AND COORDINATE ALL INSTALLATION REQUIREMENTS. ANY COST CREATED BY LACK OF COORDINATION SHALL BE BORNE BY THE CONTRACTOR.
5. ALL LICENSES AND PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR AND PAID FOR BY THE OWNER.
6. ALL SANITARY PIPING SHALL BE SERVICE WEIGHT CAST IRON OR SCHEDULE 40 PVC.
7. ALL VENT PIPING SHALL BE TYPE "DWV" COPPER OR SCHEDULE 40 PVC.
8. ALL CONDENSATE DRAIN PIPING SHALL BE DWV COPPER OR SCHEDULE 40 PVC.
9. ALL DOMESTIC WATER PIPING SHALL BE TYPE "L" COPPER ABOVE GROUND AND TYPE "K" COPPER BELOW GRADE. COPPER PIPING SHALL BE HARD COPPER WITH WROUGHT COPPER FITTINGS, 95/5 LEAD FREE SOLDER JOINTS, AND COPPERIZED CLEVIS HANGERS. ALL NEW DOMESTIC WATER PIPING SYSTEMS SHALL BE TESTED PER NSPC 2021, CHAPTER 15 AND SHALL BE FLUSHED AND DISINFECTED PER NSPC 2021 CHAPTER 10, SECTION 10.9.
10. ALL COLD AND HOT WATER DOMESTIC WATER PIPING AND CONDENSATE DRAIN PIPING SHALL BE INSULATED WITH 1 INCH FIBERGLASS INSULATION WITH ALL SERVICE JACKET.
11. STEEL AND WROUGHT-IRON GAS PIPING SHALL BE AT LEAST OF STANDARD WEIGHT (SCHEDULE 40) BLACK STEEL, ASTM A 254 OR ASTM A 539 WITH MALEABLE IRON FITTINGS AND SHALL COMPLY WITH ONE OF THE FOLLOWING STANDARDS: ASME B 36.10, 10M; ASTM A 53/A 53M; OR ASTM A 106. PIPE AND FITTING THREADS SHALL BE TAPER PIPE THREADS AND SHALL COMPLY WITH ASME B1.20.1. THE COMPLETE INSTALLATION SHALL COMPLY ALL REQUIREMENTS OF THE 2021 INTERNATIONAL FUEL GAS CODE. ALL GAS PIPING EXPOSED TO OUTDOORS SHALL BE PAINTED WITH PROTECTIVE PAINT. ALL PIPING ON ROOF SHALL BE SUPPORTED BY MIRO MODEL "3-RAH", OR EQUIVALENT PIPE SUPPORTS.

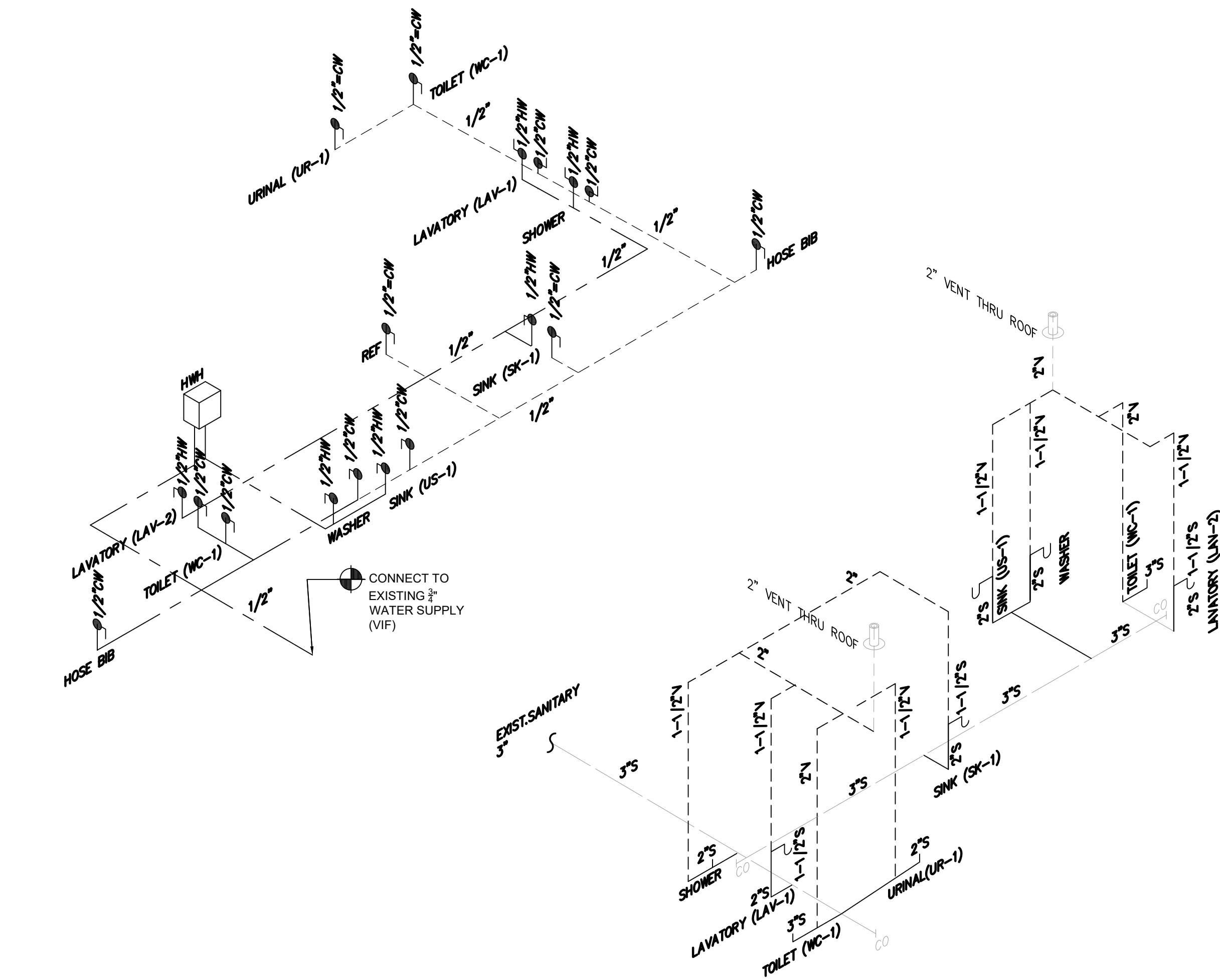
ALL GAS PIPING INSTALLED UNDERGROUND SHALL BE FACTORY COATED WITH A FUSION BONDED EPOXY CONFORMING WITH ISO 21809-2:2007. NO UNPROTECTED PIPING SHALL BE INSTALLED BELOW GRADE AND NO PIPING SHALL BE PLACED IN CONTACT WITH CINDERS. PIPING SHALL BE INSTALLED A MINIMUM OF 12" BELOW GRADE.
12. MAXIMUM DOMESTIC HOT WATER TEMPERATURE AT EACH FIXTURE OUTLET, FOR UTILITY AND KITCHEN USE SHALL NOT EXCEED 140° FAHRENHEIT. FOR NON KITCHEN AND HAND WASHING USE SHALL NOT EXCEED 110°FAHRENHEIT.
13. ALL EQUIPMENT MUST BE LOCATED IN SUCH A WAY AS TO PROVIDE PROPER ACCESS FOR SERVICING. PLUMBING CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO ENSURE THAT NO CONFLICTS EXIST.
14. BALL TYPE SHUT-OFF VALVES SHALL BE PROVIDED ON ALL BRANCH PIPING AND ON ALL SUPPLY PIPING TO INDIVIDUAL FIXTURES AND EQUIPMENT. ADEQUATE ACCESS FOR VALVE OPERATION AND SERVICE SHALL BE PROVIDED.
15. CONTRACTOR SHALL REMOVE CONSTRUCTION DEBRIS FROM PREMISES AT THE END OF EACH DAY. UPON COMPLETION OF THE WORK, CONTRACTOR SHALL BROOM CLEAN AREA OF CONSTRUCTION. ALL DAMAGED SURFACES INCLUDING CEILINGS, WALLS, AND FLOORS SHALL BE REPAIRED, REFINISHED, AND PAINTED TO MATCH ADJACENT SURFACES AT THE END OF CONSTRUCTION PERIOD.



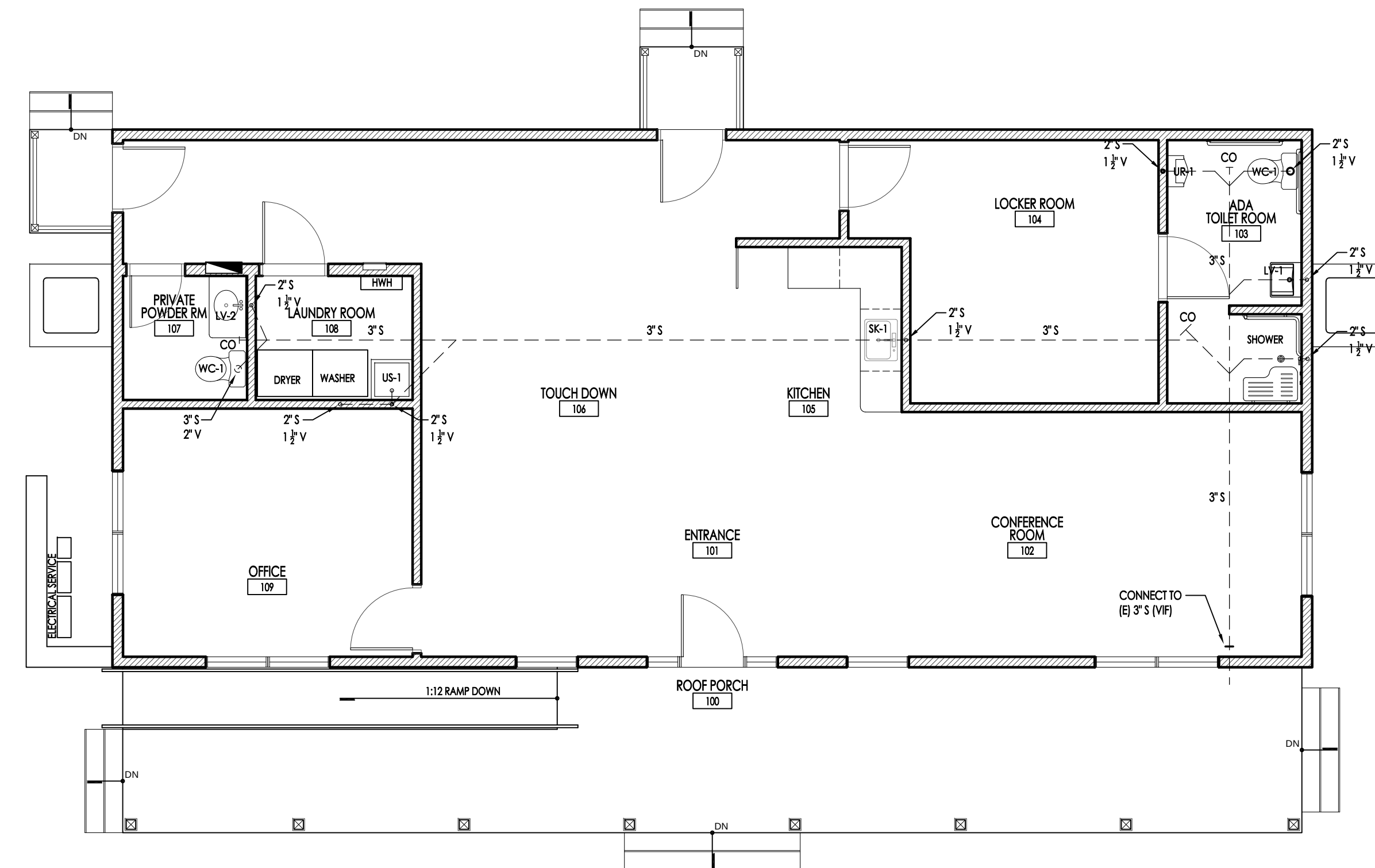
4 GAS ISOMETRIC DIAGRAM



2 DOMESTIC WATER FIRST FLOOR PLAN



3 SANITARY & DOMESTIC WATER ISOMETRIC DIAGRAM



1 SANITARY FIRST FLOOR PLAN

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