

MECHANICAL CODE CHECKING:

Intake Opening Protection. Air intake openings that terminate outdoors shall be protected with corrosion-resistant screens, louvers or grilles. Openings in louvers, grilles and screens shall be sized, in any direction, not less than $\frac{1}{4}$ inch and not larger than $\frac{1}{2}$ inch for residential occupancies, and shall be protected against local weather conditions. Louvers that protect air intake openings in structures located in hurricane-prone regions, as defined in the Florida Building Code, Building, shall comply with AMCA 550. Outdoor air intake openings located in exterior walls shall meet the provisions for exterior wall opening protectives in accordance with the Florida Building Code, Building.

Exhaust Discharge. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a public nuisance and not less than the distances specified in Section 501.3.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic, crawl space, or be directed onto walkways.

Exceptions:

1. Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units having private attics.
2. Commercial cooking recirculating systems.
3. Where installed in accordance with the manufacturer's instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled domestic ductless range hoods shall not be required to discharge to the outdoors.

Location of Exhaust Outlets. The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances: For all environmental air exhaust: 3 feet (914 mm) from property lines; 3 feet (914 mm) from operable openings into buildings for all occupancies other than Group U, and 10 feet (3048 mm) from mechanical air intakes. Such exhaust shall not be considered hazardous or noxious.

Exhaust Opening Protection. Exhaust openings that terminate outdoors shall be protected with corrosion-resistant screens, louvers or grilles. Openings in screens, louvers and grilles shall be sized not less than 1/4 inch (6.4 mm) and not larger than 1/2 inch (12.7 mm). Openings shall be protected against local weather conditions. Louvers that protect exhaust openings in structures located in hurricane-prone regions, as defined in the Florida Building Code, Building, shall comply with AMCA Standard 550. Outdoor openings located in exterior walls shall meet the provisions for exterior wall opening protectives in accordance with the Florida Building Code, Building.

Domestic Clothes Dryer Ducts. Exhaust ducts for domestic clothes dryers shall conform to the requirements of Sections 504.8.1 through 504.8.6.

Material and Size. Exhaust ducts shall have a smooth interior finish and shall be constructed of metal a minimum 0.016 inch (0.4 mm) thick. The exhaust duct size shall be 4 inches (102 mm) nominal in diameter.

Duct Installation. Exhaust ducts shall be supported at 4-foot (1219 mm) intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners that protrude more than 1/8 inch (3.2 mm) into the inside of the duct. Where dryer exhaust ducts are enclosed in wall or ceiling cavities, such cavities shall allow the installation of the duct without deformation.

Transition Ducts. Transition ducts used to connect the dryer to the exhaust duct system shall be a single length that is listed and labeled in accordance with UL 2158A. Transition ducts shall be not greater than 8 feet (2438 mm) in length and shall not be concealed within construction.

Duct Length. The maximum allowable exhaust duct length shall be determined by one of the methods specified in Sections 504.8.4.1 through 504.8.4.3.

Length Identification. Where the exhaust duct equivalent length exceeds 35 feet (10 668 mm), the equivalent length of the exhaust duct shall be identified on a permanent label or tag. The label or tag shall be located within 6 feet (1829 mm) of the exhaust duct connection.

Exhaust Duct Required. Where space for a clothes dryer is provided, an exhaust duct system shall be installed. Where the clothes dryer is not installed at the time of occupancy, the exhaust duct shall be capped at the location of the future dryer.

Exception: Where a listed condensing clothes dryer is installed prior to occupancy of structure.

505 Domestic Kitchen Exhaust Equipment

Domestic Systems. Where domestic range hoods and domestic appliances equipped with downdraft exhaust are provided, such hoods and appliances shall discharge to the outdoors through sheet metal ducts constructed of galvanized steel, stainless steel, aluminum or copper. Such ducts shall have smooth inner walls, shall be air tight, shall be equipped with a backdraft damper, and shall be independent of all other exhaust systems.

Exceptions:

In other than Group I-1 and I-2, where installed in accordance with the manufacturer's instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled ductless range hoods shall not be required to discharge to the outdoors. Ducts for domestic kitchen cooking appliances equipped with downdraft exhaust systems shall be permitted to be constructed of Schedule 40 PVC pipe and fittings provided that the installation complies with all of the following:

- 2.1. The duct shall be installed under a concrete slab poured on grade.
- 2.2. The underfloor trench in which the duct is installed shall be completely backfilled with sand or gravel.
- 2.3. The PVC duct shall extend not more than 1 inch (25 mm) above the indoor concrete floor surface.
- 2.4. The PVC duct shall extend not more than 1 inch (25 mm) above grade outside of the building.
- 2.5. The PVC ducts shall be solvent cemented.

Insulation of Ducts.

General. Duct insulation shall conform to the requirements of Sections 604.2 through 604.13 and the Florida Building Code, Energy Conservation.

Surface Temperature. Ducts that operate at temperatures exceeding 120°F (49°C) shall have sufficient thermal insulation to limit the exposed surface temperature to 120°F (49°C).

Duct Construction and Installation.

General. An air distribution system shall be designed and installed to supply the required distribution of air. The installation of an air distribution system shall not affect the fire protection requirements specified in the Florida Building Code, Building. Ducts shall be constructed, braced, reinforced and installed to provide structural strength and durability.

Duct Sizing. Ducts installed within a single dwelling unit shall be sized in accordance with ACCA Manual D, the appliance manufacturer's installation instructions or other approved methods. Ducts installed within all other buildings shall be sized in accordance with the ASHRAE Handbook of Fundamentals or other equivalent computation procedure.

Duct Classification. Ducts shall be classified based on the maximum operating pressure of the duct at pressures of positive or negative 0.5, 1.0, 2.0, 3.0, 4.0, 6.0 or 10.0 inches (1 inch w.c. = 248.7 Pa) of water column. The pressure classification of ducts shall equal or exceed the design pressure of the air distribution in which the ducts are utilized.

Metallic Ducts. Metallic ducts shall be constructed as specified in the SMACNA HVAC Duct Construction Standards—Metal and Flexible.

Exception: Ducts installed within single dwelling units shall have a minimum thickness as specified in Table 603.4.

Minimum Fasteners. Round metallic ducts shall be mechanically fastened by means of not less than three sheet metal screws or rivets spaced equally around the joint.

Exception: Where a duct connection is made that is partially inaccessible, three screws or rivets shall be equally spaced on the exposed portion so as to prevent a hinge effect.

Nonmetallic Ducts. Nonmetallic ducts shall be constructed with Class 0 or Class 1 duct material and shall comply with UL 181. Fibrous duct construction shall conform to the SMACNA Fibrous Glass Duct Construction Standards or NAIMA Fibrous Glass Duct Construction Standards. The air temperature within nonmetallic ducts shall not exceed 250°F (121°C).

Gypsum Ducts. The use of gypsum boards to form air shafts (ducts) shall be limited to return air systems where the air temperatures do not exceed 125°F (52°C) and the gypsum board surface temperature is maintained above the airstream dew-point temperature. Air ducts formed by gypsum boards shall not be incorporated in air-handling systems utilizing evaporative coolers.

Phenolic Ducts. Nonmetallic phenolic ducts shall be constructed in accordance with the SMACNA Phenolic Duct Construction Standards.

Flexible Air Ducts and Flexible Air Connectors. Flexible air ducts, both metallic and nonmetallic, shall comply with Sections 603.6.1, 603.6.1.1, 603.6.3 and 603.6.4. Flexible air connectors, both metallic and nonmetallic, shall comply with Sections 603.6.2 through 603.6.4.

Flexible Air Ducts. Flexible air ducts, both metallic and nonmetallic, shall be tested in accordance with UL 181. Such ducts shall be listed and labeled as Class 0 or Class 1 flexible air ducts and shall be installed in accordance with Section 304.1.

Duct Length. Flexible air ducts shall not be limited in length.

Flexible Air Connectors. Flexible air connectors, both metallic and nonmetallic, shall be tested in accordance with UL 181. Such connectors shall be listed and labeled as Class 0 or Class 1 flexible air connectors and shall be installed in accordance with Section 304.1.

Connector Length. Flexible air connectors shall be limited in length to 14 feet (4267 mm).

Connector Penetration Limitations. Flexible air connectors shall not pass through any wall, floor or ceiling.

Rigid Duct Penetrations. Duct system penetrations of walls, floors, ceilings and roofs and air transfer openings in such building components shall be protected as required by Section 607. Ducts in a private garage that penetrate a wall or ceiling that separates a dwelling from a private garage shall be continuous, shall be constructed of sheet steel having a thickness of not less than 0.0187 inch (0.4712 mm) (No. 26 gage) or rigid foil-faced fiberglass and shall not have openings into the garage. Fire and smoke dampers are not required in such ducts passing through the wall or ceiling separating a dwelling from a private garage except where required by Chapter 7 of the Florida Building Code, Building.

Joints, Seams and Connections. All longitudinal and transverse joints, seams and connections in metallic and nonmetallic ducts shall be constructed as specified in SMACNA HVAC Duct Construction Standards—Metal and Flexible and NAIMA Fibrous Glass Duct Construction Standards. All joints, longitudinal and transverse seams and connections in ductwork shall be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastic-plus-embedded-fabric systems, liquid sealants or tapes.

Tapes and mastics used to seal fibrous glass ductwork shall be listed and labeled in accordance with UL 181A and shall be marked "181 A-P" for pressure-sensitive tape, "181 A-M" for mastic or "181 A-H" for heat-sensitive tape. Tapes and mastics used to seal metallic and flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked "181 B-FX" for pressure-sensitive tape or "181 B-M" for mastic. Duct connections to flanges of air distribution system equipment shall be sealed and mechanically fastened. Mechanical fasteners for use with flexible nonmetallic air ducts shall comply with UL 181B and shall be marked "181 B-C." Closure systems used to seal all ductwork shall be installed in accordance with the manufacturer's instructions.

Exception: For ducts having a static pressure classification of less than 2 inches of water column (500 Pa), additional closure systems shall not be required for continuously welded joints and seams and locking-type joints and seams of other than the snap-lock and buttonlock types.

Exhaust Fans. Where exhaust fans are installed, additional air shall be provided to replace the exhausted air. [NFPA 54:9.3.6.1]

Louvers, Grilles, and Screens. The required size of openings for combustion, ventilation, and dilution air shall be based on the net free area of each opening. Where the free area through a design of louver, grille, or screen is known, it shall be used in calculating the size opening required to provide the free area specified. Where the louver and grille design and free area are not known, it shall be assumed that wood louvers have 25 percent free area and metal louvers and grilles have 75 percent free area. Nonmotorized louvers and grilles shall be fixed in the open position. [NFPA 54:9.3.7.1]

Minimum Screen Mesh Size. Screens shall be not less than $\frac{1}{4}$ of an inch (6.4 mm) mesh. [NFPA 54:9.3.7.2]

Condensate Disposal. Condensate from cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than 1/8 unit vertical in 12 units horizontal (1-percent slope). Condensate shall not discharge into a street, alley or other areas where it would cause a nuisance.

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REVISIONS

MECHANICAL CODE CHECKING

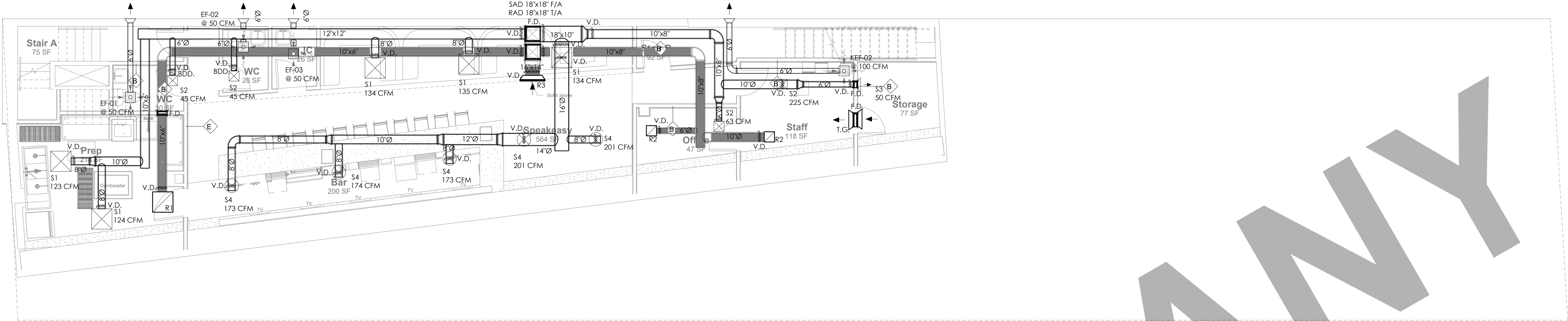
Project Number: 02-021

Date: 02.28.2023

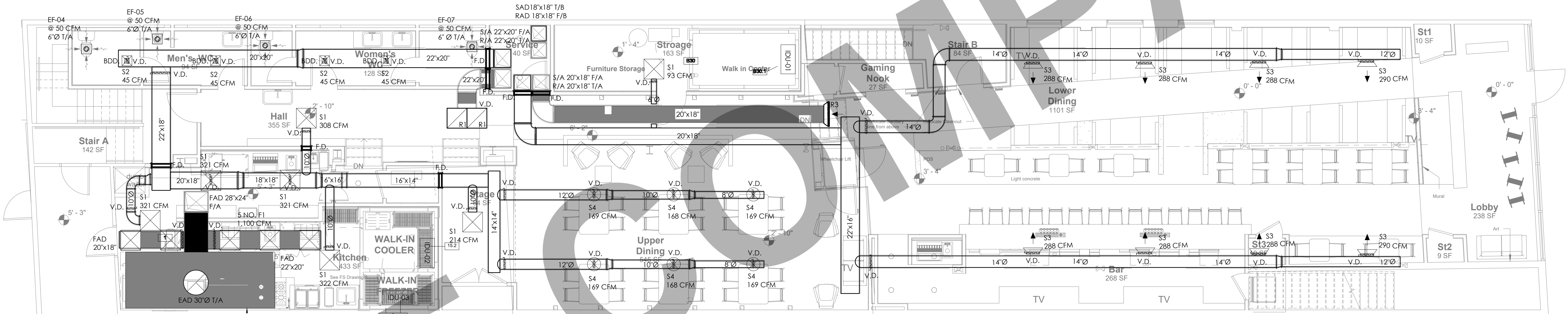
Drawn By: MN

Client: Walter Green, Uncle Willie's

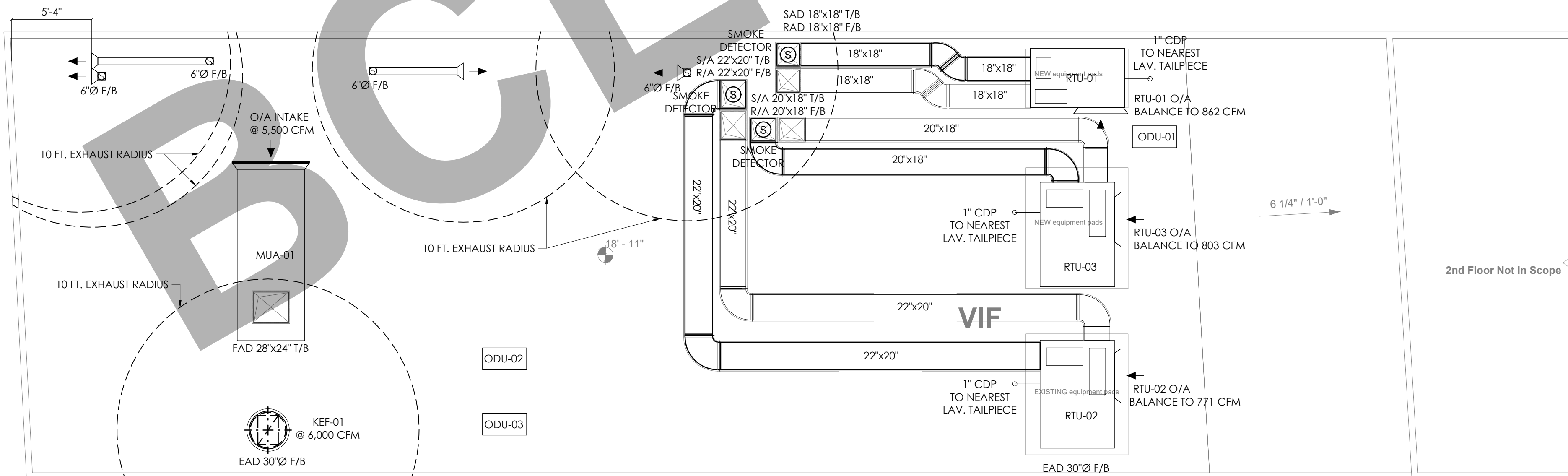
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BASEMENT PLAN



1st FLOOR PLAN



ROOF PLAN

GENERAL NOTES:

- MECHANICAL CONTRACTOR TO COORDINATE ROUTING AND LOCATION OF MECHANICAL COMPONENTS AND EQUIPMENT WITH ALL OTHER TRADES AND EXISTING FIELD CONDITIONS PRIOR TO PERFORMING WORK.
- CONTRACTOR TO CUT AND PATCH AS REQUIRED TO PERFORM THE WORK.
- ACCESS DOORS ARE REQUIRED FOR ANY COMPONENT REQUIRING ACCESS ABOVE HARD LID CEILINGS. COORDINATE SIZE, LOCATION AND FINISH WITH ARCHITECT PRIOR TO PERFORMING WORK.
- REFER TO THE DIAGRAMS THAT APPLY TO THIS SHEET WHICH PROVIDE GENERAL GUIDANCE FOR INSTALLATION THOUGH NOT ALL COMPONENTS AND ACCESSORIES MAY BE SHOWN.
- PRIOR TO INSTALLATION, CONFIRM SPECIFIC LOCATION FOR ALL THERMOSTATS / SENSORS WITH ARCHITECT. MOUNT AT 48" A.F.F. OR IN ACCORDANCE WITH ADA REQUIREMENTS. PROVIDE LOCKING COVERS.
- COORDINATE AND CONFIRM BORDER, FRAME, FINISH, AND LOCATION WITH ARCHITECT PRIOR TO ORDERING.
- ANY PENETRATIONS THROUGH WALL STUDS, FLOOR JOISTS, OR ROOF TO BE IN ACCORDANCE WITH THE LATEST ADOPTED BUILDING CODE.
- DUCT DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS.
- CONTRACTOR TO CONFIRM ADEQUATE RETURN AIR PATH BACK TO MAIN AIR HANDLING UNIT.

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REVISIONS

MECHANICAL LAYOUTS

Project Number: 02-021
Date: 02.28.2023
Drawn By: MN
Client: Walter Green, Uncle Willie's

SCHEDULE No. 1
GAS/ELEC. ROOF-TOP UNITS SCHEDULE

TAG	MANUFACTURER	MODEL	TOTAL COOLING (TONS)	HEATING CAPACITY INP./OUT.(MBH)	AIR FLOW @1.0 "W.G. (CFM)	O/A (CFM)	EER	MCA (A)	MOP (A)	VOLT/PH/HZ
RTU-01	CARRIER	48HC-A06	5	90 / 73.5	2,000	862	12.45	41.0	60.0	208/230-1-60
RTU-02	CARRIER	48HC-D08	7.5	90 / 73 - 180-148	3,000	771	12.0	41.0	50.0	208/230-3-60
RTU-03	CARRIER	48HC-A07	6	82 / 66 - 125/103	2,400	803	12.0	36.0	50.0	208/230-3-60

* RTU-01/RTU-02/RTU-03 WILL BE EQUIPPED WITH ECONOMIZER FOR VENTILATION.

SCHEDULE No. 2
DIRECT GAS FIRED MUA SCHEDULE (or APPROVED EQUAL)

TAG	QTY	BRAND	MODEL #	DESIGN CFM	ESP	GAS TYPE	INPUT (MBH)	RPM	BHP	PHASE	VOLT
MUA-01	1	CAPTIVEAIRE	A2-D	5,500	0.25	NATURAL	600	954	3.57	1	120

SCHEDULE No. 3
HOOD ROOF CURB EXHAUST FAN SCHEDULE (APPROVED EQUAL)

TAG	QTY	BRAND	MODEL #	CFM	ESP	RPM	BHP	VOLT	PHASE	HZ
KEF-01	1	CAPTIVEAIRE	DU240HFA	6,000	0.5	886	1.5	208	3	60

SCHEDULE No. 4
WALK-IN-COOLER/FREEZER INDOOR UNITS SCHEDULE

INDOOR UNIT	IDU-01 & 02	IDU-03
OUTDOOR UNIT	ODU-01 & 02	ODU-03
SERVING	WALK-IN-COOLERS	WALK-IN-FREEZER
MANUFACTURER	BOHN	BOHN
OUTDOOR MODEL	BCH0005MBACZA0000	BCH0022LBACZA0200
POWER SUPPLY	208-230/1/60	208-230/1/60
RLA (A)	5.4 A	12.4 A
MCA (A)	15.0	20.0
MOP (A)	15.0	25.0
NOMINAL CAPACITY (BTU/H)	8,840	10,780

SCHEDULE No. 5
CEILING EXHAUST FANS SCHEDULE

TAG	EF-01 TO 07	KEF-02
LOCATION	BATHROOMS	STAFF ROOM
SELECTED FLOW (CFM)	50	100
ESP (IN. H2O)	0.25"	0.25"
ELECTRICAL (V / PH / HZ)	120 / 1 / 60	120 / 1 / 60
POWER / Amps	25 W	25 W
MOTOR SPEED (RPM)	MULTI SPEED	MULTI SPEED
FAN TYPE	CEILING FANS	CEILING FANS
MANUFACTURER	PANASONIC	PANASONIC
MODEL	WHISPER FV-0511VKS2	WHISPER FV-0511VKS2

NOTES:

1. PROVIDE UL LISTING.
2. PROVIDE ENERGY STAR COMPLIANCE.
3. INTERLOCK WITH WALL SWITCH.
4. PROVIDE MOTOR WITH THERMAL OVERLOADS.

SCHEDULE No. 6
AIR OUTLETS

TAG	DESCRIPTION	MANUFACTURER	MODEL	MOUNTING
S1	SUPPLY DIFFUSER	TITUS	24in. x 24in.	Duct Mounted
S2	SUPPLY DIFFUSER	TITUS	12in. x 12in.	Duct Mounted
S3	SUPPLY DIFFUSER	TITUS	16in. x 8in.	Duct Mounted
S4	SUPPLY DIFFUSER	TITUS	12in.Ø	Duct Mounted
R1	RETURN DIFFUSER	TITUS	24in. x 24in.	Duct Mounted
R2	RETURN DIFFUSER	TITUS	12in. x 12in.	Duct Mounted
R3	RETURN BELLMOUTH	TITUS	24in. x 16in.	Duct Mounted
F1	FRESH AIR DIFFUSER	TITUS	24in. x 24in.	Duct Mounted

NOTES:

1. COORDINATE FINISH, COLOR, BORDER AND EXACT LOCATION WITH OWNER PRIOR TO ORDERING.
2. PROVIDE OPPOSED BLADE DAMPER ACCESSIBLE THROUGH DIFFUSER FACE FOR GYP BD. CEILING INSTALLATIONS.
3. PROVIDE DUCT TRANSITIONS AS REQUIRED.
4. RETURNS R1 ARE PROVIDED WITH PROPER FILTERS.

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REVISIONS

MECHANICAL EQUIPMENT SCHEDULES

Project Number: 02-021
Date: 02.28.2023
Drawn By: MN
Client: Walter Green, Uncle Willie's

Air System Sizing Summary for RTU-01

Project Name: NJ Shaun Restaurant
Prepared by: Dania Itani

02/01/2023
02.17794

Air System Information

Air System NameRTU-01
Equipment ClassPKG ROOF
Air System TypeSZCAV

Number of zones1
Floor Area1302.0 ft²
LocationNewark, New Jersey

Sizing Calculation Information

Calculation MonthsJan to Dec
Sizing DataCalculated

Zone CFM SizingSum of space airflow rates
Space CFM SizingIndividual peak space loads

Central Cooling Coil Sizing Data

Total coil load4.8 Tons
Sensible coil load46.8 MBH
Cooling coil load at 15000 °F66.1 / 71.1 °F
Cooling coil load at 15000 °F66.1 / 71.1 °F
Max block CFM1479 CFM
Sum of peak zone CFM1479 CFM
Sensible heat ratio0.783
CFM/Ton346.0
RTTon317.8
BTU/hr-ft²44.8
Water flow @ 10.0 °F riseN/A

Load occurs atJul 1500
OA DB / WB82.0 / 74.0 °F
Entering DB / WB82.1 / 71.1 °F
Leaving DB / WB66.1 / 58.3 °F
Coil ADP57.8 °F
Bypass Factor0.100
Resulting RH61 %
Design supply temp86.0 °F
Zone T-stat Check1 of 1 OK
Max zone temperature deviation0.0 °F

Central Heating Coil Sizing Data

Max coil load55.8 MBH
Cooling coil load at 1479 CFM
Max coil CFM1479 CFM
Water flow @ 20.0 °F dropN/A

Load occurs atDes Htg
BTU/hr-ft²42.9
Ext. DB / Lvg DB35.0 / 7.0 °F

Supply Fan Sizing Data

Actual max CFM1479 CFM
Standard CFM1477 CFM
Actual max CFM/R1.14 CFM/R

Fan motor BHP0.00 BHP
Fan motor kW0.00 kW
Fan static0.00 in wg

Outdoor Ventilation Air Data

Design airflow CFM862 CFM
CFM/R0.66 CFM/R

CFM/person14.13 CFM/person

Hourly Analysis Program 5.10

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Zone Sizing Summary for RTU-01

Project Name: NJ Shaun Restaurant
Prepared by: Dania Itani

02/01/2023
02.17794

Air System Information

Air System NameRTU-01
Equipment ClassPKG ROOF
Air System TypeSZCAV

Number of zones1
Floor Area1302.0 ft²
LocationNewark, New Jersey

Sizing Calculation Information

Calculation MonthsJan to Dec
Sizing DataCalculated

Zone CFM SizingSum of space airflow rates
Space CFM SizingIndividual peak space loads

Zone Terminal Sizing Data

Zone NameZone 1
Design Supply Airflow (CFM)1479
Minimum Supply Airflow (CFM)1479
Zone CFM/R1.14
Reheat Coil Load (MBH)0.0
Reheat Coil Water gpm @ 20.0 °F0.0
Zone Htg Unit Load (MBH)0.0
Zone Htg Unit Water gpm @ 20.0 °F0.0
Mixing Box Fan Airflow (CFM)0

Zone Peak Sensible Loads

Zone NameZone 1
Zone Cooling Sensible (MBH)25.3
Time of Peak Sensible Cooling LoadJan 2300
Zone Heating Load (MBH)0.0
Zone Floor Area (ft²)1302.0

Space Loads and Airflows

Zone Name / Space NameMult.Cooling Sensible (MBH)Time of Peak Sensible LoadAir Flow (CFM)Heating Load (MBH)Floor Area (ft²)Space CFM/ft²

Zone 1

BAR116.5Jan 23003550.0200.01.77

WC110.4Jan 2300500.030.01.67

WC210.3Jan 2300500.026.01.92

PREP13.1Jan 23001690.0214.00.79

SPEAKEASY110.1Jan 23002600.094.00.97

JC10.4Jan 2300570.026.02.19

OFFICE10.8Jan 2300430.047.00.92

STAFF12.8Jan 23001540.0118.01.30

STORAGE10.9Jan 2300510.077.00.66

Hourly Analysis Program 5.10

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Air System Sizing Summary for RTU-02

Project Name: NJ Shaun Restaurant
Prepared by: Dania Itani

02/01/2023
02.17794

Air System Information

Air System NameRTU-02
Equipment ClassPKG ROOF
Air System TypeSZCAV

Number of zones1
Floor Area1679.0 ft²
LocationNewark, New Jersey

Sizing Calculation Information

Calculation MonthsJan to Dec
Sizing DataCalculated

Zone CFM SizingSum of space airflow rates
Space CFM SizingIndividual peak space loads

Central Cooling Coil Sizing Data

Total coil load6.1 Tons
Sensible coil load73.7 MBH
Cooling coil load at 15000 °F82.1 / 69.0 °F
Cooling coil load at 15000 °F82.1 / 69.0 °F
Max block CFM2207 CFM
Sum of peak zone CFM2207 CFM
Sensible heat ratio0.724
CFM/Ton346.0
RTTon317.8
BTU/hr-ft²44.8
Water flow @ 10.0 °F riseN/A

Load occurs atAug 1400
OA DB / WB82.0 / 74.0 °F
Entering DB / WB82.1 / 69.0 °F
Leaving DB / WB66.1 / 58.3 °F
Coil ADP57.8 °F
Bypass Factor0.100
Resulting RH61 %
Design supply temp86.0 °F
Zone T-stat Check1 of 1 OK
Max zone temperature deviation0.0 °F

Central Heating Coil Sizing Data

Max coil load61.1 MBH
Cooling coil load at 2207 CFM
Max coil CFM2207 CFM
Water flow @ 20.0 °F dropN/A

Load occurs atDes Htg
BTU/hr-ft²38.4
Ext. DB / Lvg DB49.0 / 74.0 °F

Supply Fan Sizing Data

Actual max CFM2207 CFM
Standard CFM2205 CFM
Actual max CFM/R1.31 CFM/R

Fan motor BHP0.00 BHP
Fan motor kW0.00 kW
Fan static0.00 in wg

Outdoor Ventilation Air Data

Design airflow CFM771 CFM
CFM/R0.46 CFM/R

CFM/person13.67 CFM/person

Hourly Analysis Program 5.10

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Zone Sizing Summary for RTU-02

Project Name: NJ Shaun Restaurant
Prepared by: Dania Itani

02/01/2023
02.17794

Air System Information

Air System NameRTU-02
Equipment ClassPKG ROOF
Air System TypeSZCAV

Number of zones1
Floor Area1679.0 ft²
LocationNewark, New Jersey

Sizing Calculation Information

Calculation MonthsJan to Dec
Sizing DataCalculated

Zone CFM SizingSum of space airflow rates
Space CFM SizingIndividual peak space loads

Zone Terminal Sizing Data

Zone NameZone 1
Design Supply Airflow (CFM)2207
Minimum Supply Airflow (CFM)2207
Zone CFM/R1.31
Reheat Coil Load (MBH)0.0
Reheat Coil Water gpm @ 20.0 °F0.0
Zone Htg Unit Load (MBH)0.0
Zone Htg Unit Water gpm @ 20.0 °F0.0
Mixing Box Fan Airflow (CFM)0

Zone Peak Sensible Loads

Zone NameZone 1
Zone Cooling Sensible (MBH)39.7
Time of Peak Sensible Cooling LoadJul 1400
Zone Heating Load (MBH)10.7
Zone Floor Area (ft²)1679.0

Space Loads and Airflows

Zone Name / Space NameMult.Cooling Sensible (MBH)Time of Peak Sensible LoadAir Flow (CFM)Heating Load (MBH)Floor Area (ft²)Space CFM/ft²

Zone 1

HALL14.0Jul 13002170.6355.00.81

KITCHEN116.6Aug 1400892.7433.02.09

MEN'S WC11.4Jul 15001801.034.01.06

SERVICE10.4Jul 1500210.440.00.53

UPPER DINING115.1Aug 14007183.9545.01.31

WOMEN'S WC11.7Jul 15001001.3138.00.78

STAGE12.8Aug 14001510.684.01.80

Hourly Analysis Program 5.10

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Air System Sizing Summary for RTU-03

Project Name: NJ Shaun Restaurant
Prepared by: Dania Itani

01/31/2023
09.43994

Air System Information

Air System NameRTU-03
Equipment ClassPKG ROOF
Air System TypeSZCAV

Number of zones1
Floor Area1797.0 ft²
LocationNewark, New Jersey

Sizing Calculation Information

Calculation MonthsJan to Dec
Sizing DataCalculated

Zone CFM SizingSum of space airflow rates
Space CFM SizingIndividual peak space loads

Central Cooling Coil Sizing Data

Total coil load5.7 Tons
Sensible coil load67.9 MBH
Cooling coil load at 14000 °F82.8 / 69.1 °F
Cooling coil load at 14000 °F82.8 / 69.1 °F
Max block CFM1968 CFM
Sum of peak zone CFM1968 CFM
Sensible heat ratio0.728
CFM/Ton346.0
RTTon317.8
BTU/hr-ft²44.8
Water flow @ 10.0 °F riseN/A

Load occurs atAug 1400
OA DB / WB82.0 / 74.0 °F
Entering DB / WB82.8 / 69.1 °F
Leaving DB / WB66.1 / 58.3 °F
Coil ADP57.8 °F
Bypass Factor0.100
Resulting RH61 %
Design supply temp86.0 °F
Zone T-stat Check1 of 1 OK
Max zone temperature deviation0.0 °F

Central Heating Coil Sizing Data

Max coil load66.5 MBH
Cooling coil load at 1968 CFM
Max coil CFM1968 CFM
Water flow @ 20.0 °F dropN/A

Load occurs atDes Htg
BTU/hr-ft²37.9
Ext. DB / Lvg DB45.4 / 74.7 °F

Supply Fan Sizing Data

Actual max CFM1968 CFM
Standard CFM1966 CFM
Actual max CFM/R1.10 CFM/R

Fan motor BHP0.00 BHP
Fan motor kW0.00 kW
Fan static0.00 in wg

Outdoor Ventilation Air Data

Design airflow CFM862 CFM
CFM/R0.45 CFM/R

CFM/person11.62 CFM/person

Hourly Analysis Program 5.10

Page 1 of 16

Zone Sizing Summary for RTU-03

Project Name: NJ Shaun Restaurant
Prepared by: Dania Itani

01/31/2023
09.43994

Air System Information

Air System NameRTU-03
Equipment ClassPKG ROOF
Air System TypeSZCAV

Number of zones1
Floor Area1797.0 ft²
LocationNewark, New Jersey

Sizing Calculation Information

Calculation MonthsJan to Dec
Sizing DataCalculated

Zone CFM SizingSum of space airflow rates
Space CFM SizingIndividual peak space loads

Zone Terminal Sizing Data

Zone NameZone 1
Design Supply Airflow (CFM)1968
Minimum Supply Airflow (CFM)1968
Zone CFM/R1.10
Reheat Coil Load (MBH)0.0
Reheat Coil Water gpm @ 20.0 °F0.0
Zone Htg Unit Load (MBH)0.0
Zone Htg Unit Water gpm @ 20.0 °F0.0
Mixing Box Fan Airflow (CFM)0

Zone Peak Sensible Loads

Zone NameZone 1
Zone Cooling Sensible (MBH)35.9
Time of Peak Sensible Cooling LoadJul 1400
Zone Heating Load (MBH)14.5
Zone Floor Area (ft²)1797.0

Space Loads and Airflows

Zone Name / Space NameMult.Cooling Sensible (MBH)Time of Peak Sensible LoadAir Flow (CFM)Heating Load (MBH)Floor Area (ft²)Space CFM/ft²

Zone 1

BAR 1ST FLOOR18.4Aug 15004572.5268.01.71

GAMING NOOK11.1Jul 1300600.127.02.34

LOWER DINING118.2Jul 13009906.11101.00.90

LOBBY17.0Jul 10003844.7238.01.61

FURNITURE STORAGE11.4Jul 1400761.1165.00.47

Hourly Analysis Program 5.10

Page 2 of 16

AS PER IMC 2021 TABLE 403.3.1.1: MINIMUM VENTILATION RATES:

S.N.	SPACE NAME	AREA (FT2)	CFM/FT2	CFM-A	# OF OCC. PER 1000 FT2	# OF PERS.	CFM/PERS.	CFM-B	TOTAL CFM
BASEMENT									
1	PREP	214	0.12	26	20	5	7.5	38	63
2	BAR	200	0.18	36	100	20	7.5	150	186
3	SPEAKEASY	564	0.18	102	70	30	7.5	225	327
4	OFFICE	47	0.06	3	5	1	5	5	8
5	STAFF	118	0.06	7	5	1	5	5	112
6	STORAGE	77	0.12	9	-	-	-	0	9
7	JC	26	0.06	2	5	1	5	5	57
8	WC1	30	-	-	-	-	-	-	50
9	WC2	26	-	-	-	-	-	-	50
TOTAL		1,302	-	184	-	58	-	428	862
1ST FLOOR									
1	KITCHEN	433	0.12	52	20	9	7.5	68	119
2	HALL	355	0.06	21	-	-	-	0	21
3	STAGE	84	0.06	5	70	6	10	60	65
4	UPPER DINING	545	0.18	98	70	35	7.5	263	361
5	SERVICE	40	0.12	5	-	-	-	0	5
6	WOMEN'S WC	128	-	-	-	-	-	-	100
7	MEN'S WC	94	-	-	-	-	-	-	100
TOTAL		1,679	-	181	-	-	-	390	771
1ST FLOOR									
8	FURNITURE STORAGE	163	0.12	20	-	-	-	0	20
9	BAR	268	0.18	48	100	20	7.5	150	198
10	LOWER DINING	1,101	0.18	198	-	40	7.5	300	498
11	GAMING NOOK	27	0.18	5	20	1	7.5	8	12
12	LOBBY	238	0.06	14	30	8	7.5	60	74
TOTAL		1,797	-	285	-	-	-	518	803

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REVISIONS

HEAT LOADS CALCULATIONS AND VENTILATIONS

Project Number: 02-021
Date: 02.28.2023
Drawn By: MN
Client: Walter Green, Uncle Willie's

M 3.01

BOHN

EN+H1S1 MARCH 2020
Register October 2019

1/2 - 6 HP AIR-COOLED CONDENSING UNIT

1/2 - 6 HP AIR-COOLED
CONDENSING UNITS

Technical Guide
Now including DOE compliant models

NOMENCLATURE

BRAND	UNIT STYLE	CONDENSING	TEMP RANGE	COMPRESSION	REVISION	FACTORY OPTION
B	H	C	A	L	Z	A0000
PRODUCT IDENTIFIER	UNIT STYLE	CONDENSING	TEMP RANGE	COMPRESSION	REVISION	FACTORY OPTION
B = Bohn	H = Outdoor Horizontal	C = Outdoor Horizontal	L = Low	M = Medium	N = High	O = Super
HP	0005-0006 ~ 1 1/2 hp	0006-0009 ~ 1 1/2 hp	0009 ~ 1 1/2 hp	0010 ~ 2 1/2 hp	0011 ~ 3 1/2 hp	0012 ~ 4 1/2 hp
0013 ~ 5 hp	0014 ~ 6 hp	0015 ~ 6 hp	0016 ~ 6 hp	0017 ~ 6 hp	0018 ~ 6 hp	0019 ~ 6 hp
VOLTAJE	B = 208-230/190V	C = 208-230/190V	D = 460/575V	E = 460/575V	F = 460/575V	G = 460/575V
MANUFACTURER	C = Copeland	D = Copeland	E = Copeland	F = Copeland	G = Copeland	H = Copeland
REVISION	1 = 1st	2 = 2nd	3 = 3rd	4 = 4th	5 = 5th	6 = 6th
FACTORY INSTALLED OPTION	P = Preferred Option CAP = Capillary Tube C = Custom Option A = Custom Option					

PREFERRED OPTION PACKAGES:

Package	Description
A0000	Standard Base
A0100	Free Air
A0200	Free Air
A0300	Free Air
A0400	Free Air
A0500	Free Air
A0600	Free Air
A0700	Free Air
A0800	Free Air
A0900	Free Air
A1000	Free Air
A1100	Free Air
A1200	Free Air
A1300	Free Air
A1400	Free Air
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A2700	Free Air
A2800	Free Air
A2900	Free Air
A3000	Free Air
A3100	Free Air
A3200	Free Air
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A3900	Free Air
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A9000	Free Air
A9100	Free Air
A9200	Free Air
A9300	Free Air
A9400	Free Air
A9500	Free Air
A9600	Free Air
A9700	Free Air
A9800	Free Air
A9900	Free Air
A0000	Free Air

4

AD Series Modular Roof Mount and Inline

Direct Fired Heated Make-Up Air

The AD Series Direct Fired Make-Up Air Unit is designed for use in buildings where the make-up air is required for combustion or process applications. The make-up air is heated by a direct fired burner and the heated air is then distributed to the building through a duct system. The AD Series is a modular unit that can be configured for either roof mount or inline installation. The unit is designed for use in buildings where the make-up air is required for combustion or process applications. The make-up air is heated by a direct fired burner and the heated air is then distributed to the building through a duct system. The AD Series is a modular unit that can be configured for either roof mount or inline installation.

Features & Benefits

- Factory built and tested for reliability
- Direct fired burner for efficient heating
- High efficiency burner for low operating costs
- Durable construction for long life
- Easy installation and maintenance
- Low noise operation
- High efficiency burner for low operating costs
- Durable construction for long life
- Easy installation and maintenance
- Low noise operation

Options

[illegible]


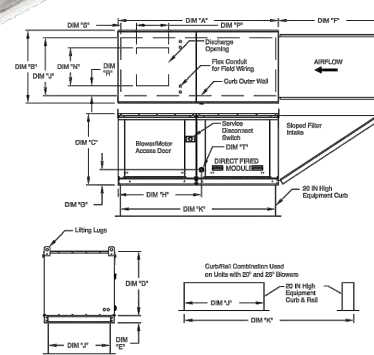
PERFORMANCE DATA – R-404A/R-507A									
Low Temperature Models – Scroll Compressor (Cont)									
Please consult ARIET table on page 23 to confirm CO ₂ compliance per model									
R-404A-507A									
Capacity @104°F in 100% Ambient vs 50°F									
Model	Compressor	0°F	10°F	20°F	30°F	40°F	50°F	60°F	70°F
RC1000A/AC2	2P93FAE	4,790	4,230	3,760	3,300	2,900	2,470	2,100	1,800
RC2000A/AC2	2P04FAE	6,380	5,680	5,040	4,400	3,930	3,470	3,070	2,740
RC3000A/AC2	2P09FAE	7,960	6,940	6,180	5,480	4,790	4,230	3,760	3,300
RC4000A/AC2	2P10FAE	9,030	7,800	6,880	6,060	5,290	4,640	4,070	3,600
RC5000A/AC2	2P09FAE	10,400	9,100	8,060	7,130	6,300	5,500	4,840	4,260
RC1000A/AC2	2P01FAE	6,380	5,680	5,040	4,400	4,020	3,570	3,200	2,790
RC2000A/AC2	2P01FAE	8,530	7,550	6,620	5,830	5,170	4,590	4,060	3,620
RC3000A/AC2	2P01FAE	10,720	9,540	8,360	7,420	6,560	5,800	5,100	4,500
RC4000A/AC2	2P01FAE	12,710	11,300	10,000	8,900	7,980	7,150	6,380	5,620
RC5000A/AC2	2P01FAE	15,260	13,520	12,020	10,670	9,500	8,450	7,500	6,620
R-404A-507A									
Capacity @104°F in 100% Ambient vs 50°F									
Model	Compressor	0°F	10°F	20°F	30°F	40°F	50°F	60°F	70°F
RC1000A/AC2	2P01FAE	4,790	3,940	3,420	3,020	2,670	2,400	2,100	1,800
RC2000A/AC2	2P04FAE	5,760	4,590	4,070	3,590	3,200	2,890	2,490	2,130
RC3000A/AC2	2P09FAE	6,760	5,390	4,760	4,200	3,820	3,410	2,980	2,610
RC4000A/AC2	2P10FAE	7,860	6,190	5,490	4,860	4,400	3,900	3,420	3,010
RC5000A/AC2	2P09FAE	9,030	7,130	6,300	5,490	4,900	4,360	3,860	3,370
RC1000A/AC2	2P01FAE	6,410	5,290	4,600	4,040	3,640	3,200	2,800	2,400
RC2000A/AC2	2P01FAE	8,610	7,170	6,400	5,700	5,140	4,590	4,060	3,600
RC3000A/AC2	2P01FAE	10,860	9,060	8,020	7,100	6,360	5,690	5,060	4,440
RC4000A/AC2	2P01FAE	12,910	10,760	9,500	8,400	7,500	6,700	5,980	5,260
RC5000A/AC2	2P01FAE	15,410	12,810	11,300	9,960	8,860	7,940	7,100	6,300
Type 304 stainless steel with option of Type 304 stainless									
✓ Chrome: Hood corners standard with stainless chamfering top and exterior chamfered on the bottom. ✓ Reduced Weight: Ring single wall and perpendicularly weight.									
200: The COORE Protection System is designed to provide immunity coverage for venting equipment including hoods, ducts, sleeves and flares. ✓ Optimal Heat Recovery (COP): The system is available for use with COORE Protection. A closed air economy can be added to the hood system to recover heat from the exhaust stream. Warm air in the exhaust stream passes over the coil and heats the cold water in the coil, acting as a preheator on the hot water supply line for the restaurant or facility.									
Performance									
AVG. COOKING SURFACE TEMP. (°F)				CONFIGURATION			MIN. EXHAUST CFM / FT.		
400°F				Single Wall Hood 2 Wall Hoods Back-to-Back			150 300		
500°F				Single Wall Hood 2 Wall Hoods Back-to-Back					

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REVISIONS	
MECHANICAL EQUIPMENT DATASHEETS	
Project Number:	02-021
Date:	02.28.2023
Drawn By:	MN
Client:	Walter Green, Uncle Willie's
M 4.01	

AD Series Modular Roof Mount and Inline

Direct Fired Heated Make-Up Air

The AD Series Direct Fired Heated Make-Up Air Unit, tested for use in a dampening mode as per ASHRAE 62.1, actively discharges air to replace air lost due to pressure imbalances. The heater is designed to adjust the air volume to maintain the required pressure. The unit is designed to be installed in a roof or wall. The unit is designed to be installed in a roof or wall. The unit is designed to be installed in a roof or wall.

Features & Benefits

- Plug and play • Fastest set up time • Ductwork made to order • Low maintenance • No need for a dedicated duct • No need for a dedicated duct • No need for a dedicated duct

Options

- Ductwork made to order • Ductwork made to order • Ductwork made to order

Certifications

UL Listed • ETL Listed • ETL Listed

AD Series Modular Roof Mount and Inline

Direct Fired Heated Make-Up Air

Performance Data (Table 1)

Model	Capacity (CFM)	Capacity (m³/min)	Capacity (m³/h)	Capacity (m³/d)	Capacity (m³/yr)	Capacity (m³/mon)	Capacity (m³/week)	Capacity (m³/day)	Capacity (m³/hour)	Capacity (m³/minute)	Capacity (m³/second)
AD-100	100	4.7	141	3384	123012	41004	14300	5917	2467	411	6.85
AD-200	200	9.4	282	6768	246024	82008	28600	11834	4933	822	13.70
AD-300	300	14.1	423	10152	369036	123012	42900	17751	7399	1233	20.55
AD-400	400	18.8	564	13536	492048	164016	57200	23668	9865	1644	27.40
AD-500	500	23.5	705	16920	615060	205020	71400	29585	12331	2055	34.25
AD-600	600	28.2	846	20304	738072	246024	85400	34772	14800	2467	41.10
AD-700	700	32.9	987	23688	851088	282028	97400	39969	16331	2748	45.80
AD-800	800	37.6	1128	27072	964104	321032	110400	45166	18662	3119	51.65
AD-900	900	42.3	1269	30456	1077120	356036	123012	50363	20853	3499	58.30
AD-1000	1000	47.0	1410	33840	1190136	391040	136000	55560	23044	3880	65.00

Measurements

Model: AD-1000

Capacity: 1000 CFM

Capacity: 47.0 m³/min

Capacity: 1410 m³/h

Capacity: 33840 m³/d

Capacity: 1190136 m³/yr

Capacity: 391040 m³/mon

Capacity: 136000 m³/week

Capacity: 55560 m³/day


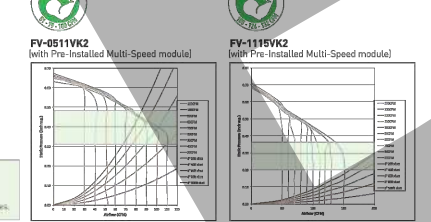
Capacity: 23044 m³/hour

Capacity: 3880 m³/minute

Capacity: 65.00 m³/second

WhisperGreen Select™ Connected Vent and Fan

DU240HFA Performance

Model Selection

Model: DU240HFA

Capacity: 240 CFM

Capacity: 11.0 m³/min

Capacity: 330 m³/h

Capacity: 7920 m³/d

Capacity: 287040 m³/yr

Capacity: 95680 m³/mon

Capacity: 33200 m³/week

Capacity: 13467 m³/day

Capacity: 5611 m³/hour

Capacity: 935 m³/minute

Capacity: 15.58 m³/second

ank You. Build All Dreams

ND-2 Series

Exhaust Only Hood
Cafeteria's Premier Choice

The **ND-2 Series** is a Type I, Wall Canopy Hood as used over 450°F, 600°F and 700°F cooking surface temperatures. The aerodynamic design includes a mechanical filter and performance enhancing lip for exceptional capture and containment.

Fully Integrated Features

Captivated, the hood is a stand alone system designed to incorporate the 1 vehicle ventilator application, or provided part of a FULLY INTEGRATED package designed by Captivated and pre-engineered for optimum performance. The package consists of the hood, an integral undercooled, factory pre-wired intelligent controls, and a sleek full busness system. Other options include a listed exhaust fan, a listed manual air unit and built-in, factory stock perfilters.

Advantages

- Exhaust Flow Rates:** Superior exhaust flow rates, 4-4' hood can operate at 120 CFM/hr or 600 US/h CFM. Available range of both is back adjustable.
- E.T. Listed:** ETL Listed for use over 450°F, 600°F and 700°F cooking surfaces. Ready-to-go hood meets all applicable codes. Reactivity in designing kitchen ventilation systems. ETL Listed to CEI and Canadian safety standards. ETL Sanitation Listed and built in accordance with NFPA 96.
- Capture and Containment:** Insulated double-seal tight hood with pre-engineering design that reduces recirculate heat loss without compromising containment and preventing odors and contaminants collecting. This is accomplished with the signature ND-2 mechanical capture lip that fits the hood's capture area, and the "Captured" design of the hood's capture area. The hood's capture area is built in varying sizes to capture components of electrical currents and outlets per foot from the hood without generating surplus energy or resulting internal chain wear.
- Convenient Design:** Factory mounted lighting is summertime hood opening access is accessible from the bottom of the hood. Pressed with U.S. Listed are wired, commercial lighting and tempered glass globes to hold up to a standard 100 watt bulb. This polished hanging glow on each end of the hood and additional seal provides for hoods longer than 12'.
- Construction:** Polished stainless steel on the interior and exterior of the hood ensures sophisticated, fully welded and polished front corners. Fabricated from
- Genuine Construction:** All hood covers standard with stainless outer baffles flares and a deep groove trough with removable 1/2" flangeless. Captivated hood covers and Captivated Slat Flare are optional. Genuine sheet metal with removable 1/2" slot for easy cleaning. Standard slat extra strength glaze between flares.
- Reduced Load Times and Shipping Costs:** Produced on a volume assembly line one of our manufacturing facilities to reduce load times and shipping costs.
- Chances to Combinations:** Standard built in 3" square standoff or meet NFPA 96 requirements, when installed in a wall application.
- Controls:** Hoods can be equipped with modular utility cabinets and wet stands. Optional stand light and two control panels fully mounted and pre-wired through electrical chain slip.
- Optional Make-Up Air:** Make-up air can be supplied through ductwork and/or supply air through MD-2 Series with PDP or PDP/Accelerator.
- Optional Self-Cleaning Technology:** The Self-Cleaning Hood option adds a spray bar that extends the full length of the hood immediately behind the flares. This option cleans grease from the interior and portion of the duct with hot water spray cycles.
- Optional COCO Protection:** The COCO Fire Protection System is an automatic pre-engineered fire suppression system which is ETL listed to UL Standard

Type 435 stainless steel with option of Type 304 stainless.

- **Charbroiler:** Hood comes standard with structural charbroiler, top and escape charbroiler on the system.
- **Reduced Weight:** Rigid single wall end panels reduce weight.

DOE: The CORE Protection System is designed to provide primary coverage for venting equipment including hoods, ducts, steam and flares.

► **Optical Heat Recovery Coil:** This option is available for hoods with CORE Protection. A heated coil accessory can be added to the hood plenum to recover heat from the exhaust stream. Warm air in the exhaust stream passes over the coil and heats the cold water in the coil, acting as a preheator on the hot water supply line for the restaurant or facility.

Performance

AVG. COOKING SURFACE TEMP. (°F)	CONFIGURATION	MIN. EXHAUST CFM / FT.
400°F	Single Wall Hood 2 Wall Hoods Back-to-Back	150 200
600°F	Single Wall Hood 2 Wall Hoods Back-to-Back	300 400
700°F	Single Wall Hood 2 Wall Hoods Back-to-Back	250 500

Recommended Duct Sizing Exhaust - Based on 1000 FPM

Features

The diagram illustrates a side view of a CORE Protection hood system. It features a main hood body with a sloped front and a rear section. Key components are labeled with red lines pointing to them: a '3" Standoff' at the front left corner, a 'Grease Drain with Removable Cup' on the front panel, 'Baffle-Type Grease Filters' in the rear section, and a 'Mechanical Baffle' at the bottom rear. The hood is shown in a dark grey color, and the background is white.



WhisperGreen® Select* Connected Ventilation Fans

WhisperGreen® Select

Four-Size Models: FV-071HWL2, FV-071HWL3, FV-071HWL4, FV-071HWL5, FV-071HWL6, FV-071HWL7, FV-071HWL8, FV-071HWL9, FV-071HWL12, FV-071HWL16, FV-071HWL24

HEALTHY AIR. HEALTHY HOME

WhisperGreen Select's advanced 4-in-1 design provides powerful, quiet airflow to remove odors and excess humidity from your home.

KEY FEATURES

- Precise, whole-house ventilation solution ideal for use in the bathroom, laundry room, sun room, basement or garage
- Helps ensure good indoor air quality for a healthy home and healthy living
- Operates as a standalone fan or as part of the Panasonic® Healthy Home System through two wireless communications
- Customizable, connected to a 4-in-1 optional LED light combination
- Pick-a-flow volume selector (30-80-110 or 130-135-150 CFM models) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- Smart 4-in-1 flow selector (30-80-110 or 130-135-150 CFM models) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks
- Single-tapped five 2" Fast™ bracket provides flexible, fast and easy installation
- Smart 4-in-1 flow selector (30-80-110 or 130-135-150 CFM models) combined with SmartFlow™ technology simplifies the selection process and ensures optimum performance to meet code and reduce callbacks

ADDITIONAL BENEFITS

- Ideal air solution for green buildings
- Environmentally friendly 20 gauge housing using 20% aluminum-recycled (20% coating)
- EnergyStar® 2, 3, 4, 5 and 6 Star Energy Star certification (models FV-071-2, 3, 4, 5, 6)
- Built-in metal frame provides support for pendant lights (used as an air barrier and avoids the junction in leakage in the building envelope during blower door testing)
- Available for installation - ceiling, wall and on the floor
- Dual-louver fan can operate away in tight spaces
- UL Listed for bathroom enclosures with GFI protection
- UL Listed for use with the Panasonic Ceiling Radiation Barrier (model FV-071-RSCE2)
- 3-year warranty as a GSE (years 1, 2 years or 4, 5, 6 years as parts)

*WhisperGreen Select air processor is a separate add-on option.







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One Connected Fan. Endless Possibilities.

The customizable iAD solution for virtually any space

For over 25 years, Panasonic has developed innovative solutions that promote better indoor air quality and healthy home building. Our mission is to help you build healthy homes. “WhisperDuo® Select” offers a power for automated lighting that delivers healthy indoor air quality for healthy living in any space. Now even more versatile, it operates as a standalone fan or as part of the “iConnect” Healthy Home System through home wireless communication.

WHISPERDUE SELECT™ IS AS EASY AS 1-2-3!

Step 1: Select a Base Fan Model

Select a base model to start building the perfect iAD solution that satisfies your ventilation design requirements.

Fan	FeaTureS
WHISPERDUE SELECT™	PM-0211W02.3D to 110 CFM single speed • LED Light
PM-0511W02.3D to 110 CFM pre-installed multi-speed	PM-0511W02.3D to 110 CFM pre-installed multi-speed • LED Light
PM-1111W02.3D to 110 CFM single speed	PM-1111W02.3D to 110 CFM single speed • LED Light

Pick-A-Flow™ Airflow Technology

Pick-A-Flow™ lets you choose the fan, you choose the CFM. Provides the unique ability to select your required airflow (CFM) from 110 to 200 CFM. Available on the single fan or as a switch.

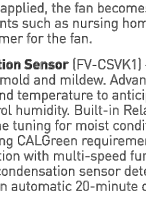

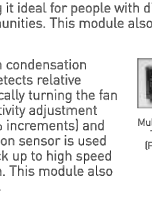
Step 2: Select Your Ideal Feature Set

WhisperDuo Select™ offers a unique set of three patented modules that allow you to further “customize” your fan:

Multi-Speed with Time Delay (TD)™ – Allows you to select the proper CFM settings to satisfy ASHRAE 62.2 continuous ventilation requirements. The low noise operation of a pre-set lower level. Also allows a maximum level of operation when the wall switch is turned on, or when the WhisperDuo® motion sensor or condensation sensor module is activated. A high delay time (user selectable) for the fan to go from low CFM after a period of time set by the user.




SensorWatch™ Motion Sensor (VS)™ – Automatically activates when someone enters the room. Once the settings have been configured, the fan becomes fully automatic, making life easier for people with disabilities and assisting living environments such as nursing homes and retirement communities. This module also activates an automatic 20-minute delay of time for the fan.

Condensation Sensor (CW)™ – Helps control bathroom condensation to prevent mold and mildew. Advanced sensor technology detects moisture humidity and temperature to anticipate dew point, automatically turning the fan on to correct humidity. Built-in Relative Humidity (RH) equipping technology enables fine tuning for most conditions (20% to 85%, in 1% increments) and allows CW to never moisture. When the condensation sensor is used in conjunction with SensorWatch™, the fan will kick to high speed when the condensation sensor detects moisture in the room. This module also activates an automatic 20-minute delay off time for the fan.

		
Multi-Speed with Time Delay (TD)	SensorWatch Motion Sensor (VS)	Condensation Sensor (CW)

Step 3: Install Your Ideal Fan with the New! Fast-2-Install™ Installation System

Integratively designed installation bracket provides flexible, fast and easy installation for all your new construction or renovation projects.

		
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Superior Installed Performance Up to 0.75" and Certified Quiet Operation at 0.25" Static Pressure

Although ASHRAE 62.6/62.2 LEED for homes, and LEED for the industry standard for performance measurement at 0.1" and 0.2" WhisperDuo Select™ fan provides powerful CFM up to 0.75" that is more representative of typical installation. Superior installed performance of 0.25" is possible in most residential, institutional space, as they are quiet under normal and after installation.

WhisperGreen® Select™ Continuous Ventilation Fan

HEALTHY AIR. HEALTHY HOME.
 WhisperGreen Select™ provides continuous ventilation and fresh air to help reduce indoor air pollution, improve indoor air quality, and reduce energy costs.

PS-11002 10" Quiet WhisperGreen Select™ Multi-Speed model

PS-11002Z 10" Quiet WhisperGreen Select™ Multi-Speed model

PS-601002

PS-111002

PS-6011002

PS-11002		PS-11002Z		PS-601002		PS-111002		PS-6011002	
Model	PS-11002	Model	PS-11002Z	Model	PS-601002	Model	PS-111002	Model	PS-6011002
Capacity (cfm)	110	110	110	110	60	110	110	60	110
Speeds	3	3	3	3	3	3	3	3	3
Power (W)	110	110	110	110	60	110	110	60	110
...

ECHO Motor with SmartFlow™ Technology
 WhisperGreen Select™ is designed to operate as quietly as a whisper. When the fan senses static pressure, its speed automatically increases to overcome the static pressure. The result is a fan that automatically adjusts its speed to maintain the proper amount of airflow, so the fan doesn't have to worry about compensating for the fan's performance.

LED Lighting
 Includes a 15 Watt dimmable LED chip powered by WhisperGreen Select™. The fan is compatible for CA Title 24/2008 hours rated average life >15k LED night light.

External Static Pressure (in. w.c.)

3.250
2.750
2.500
2.250
1.750
1.500
1.250
1.000
0.750
0.500
0.250
0.000

2500

600 RPM
600 RPM
600 RPM
600 RPM

nk You. Build All Dreams

pressure and after installation.

LINK 10a. Band All Dreams

MECHANICAL EQUIPMENT DATASHEETS

Project Number: 02-021

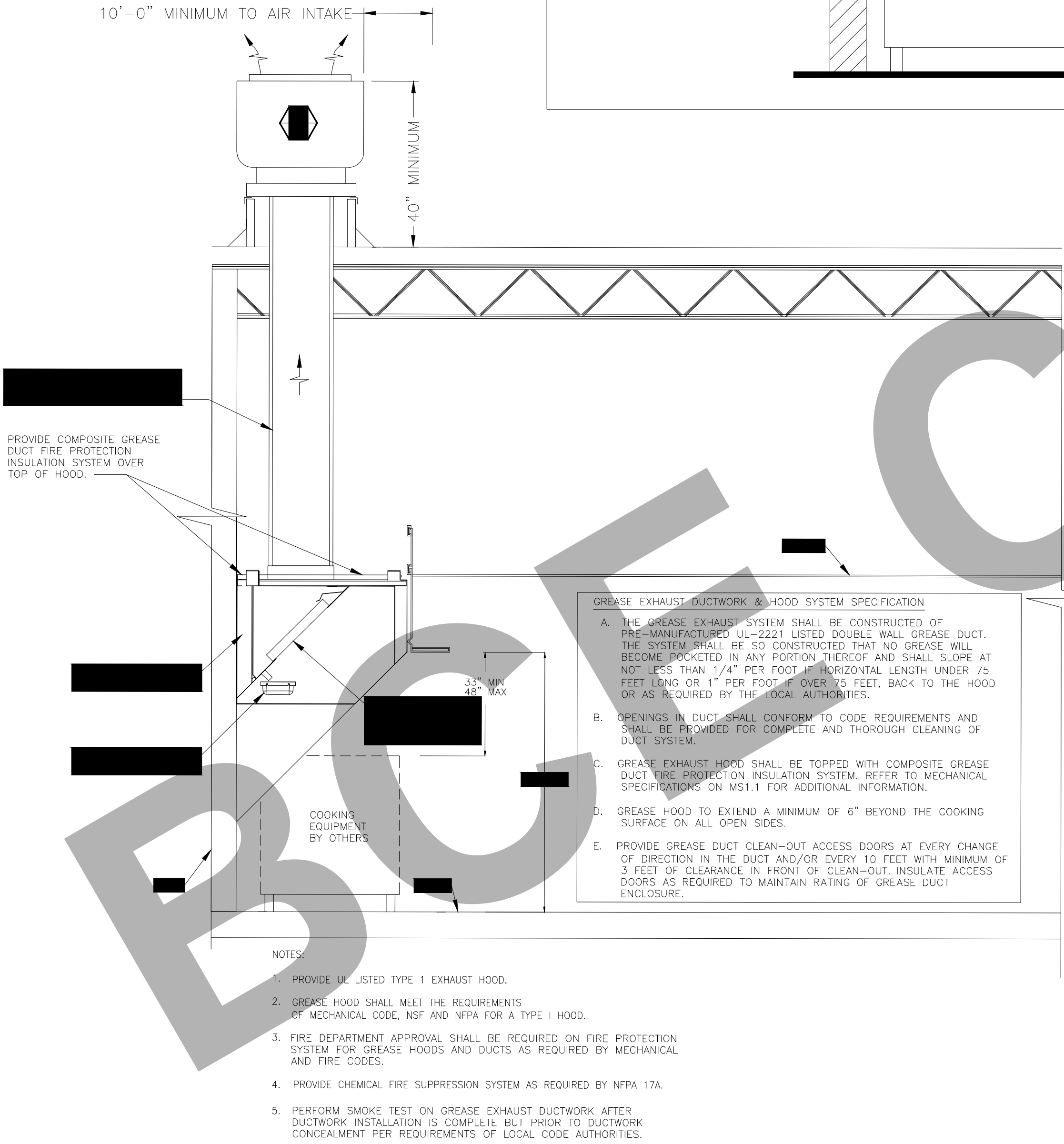
Date: 02.28.2023

Drawn By: MN

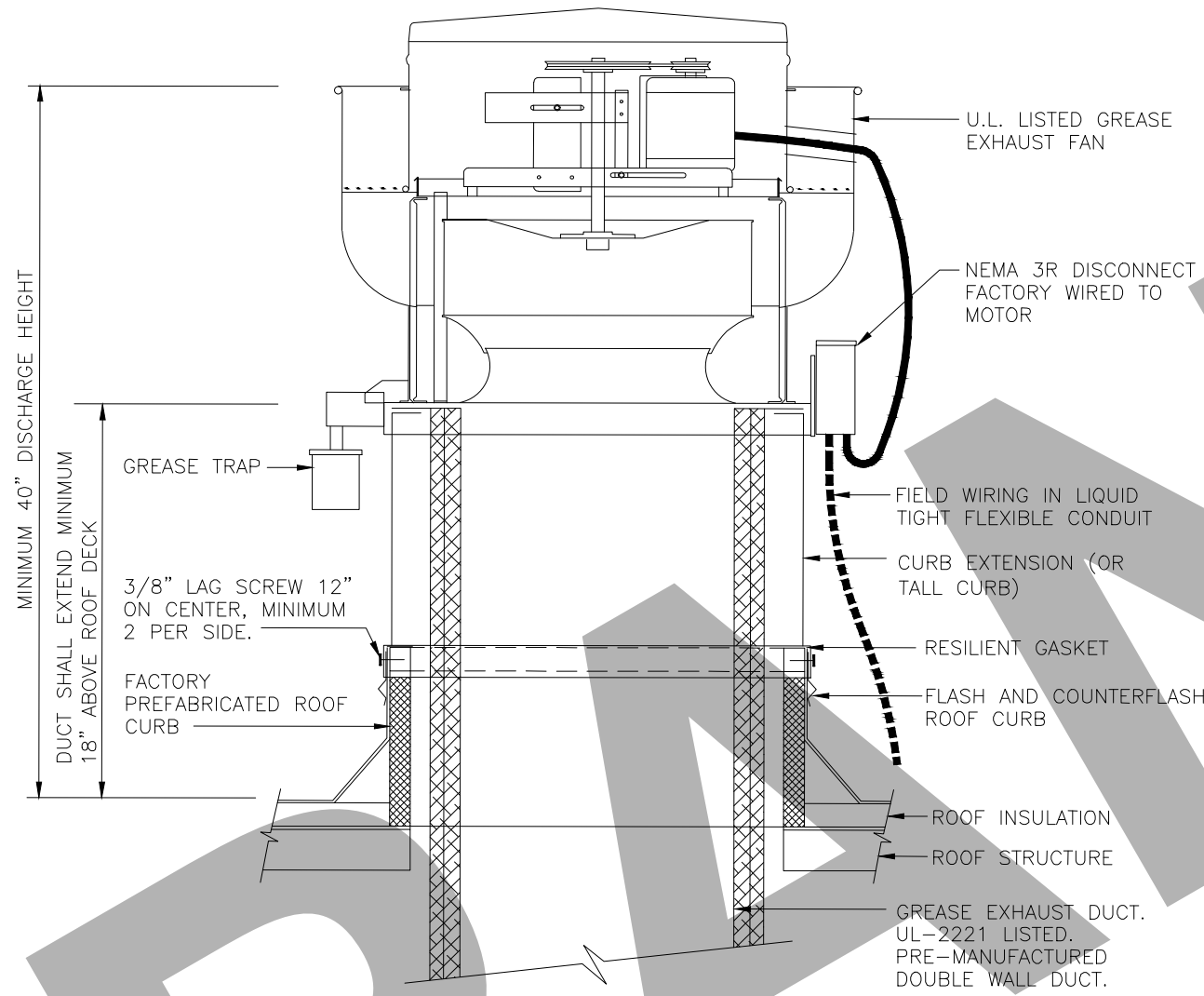
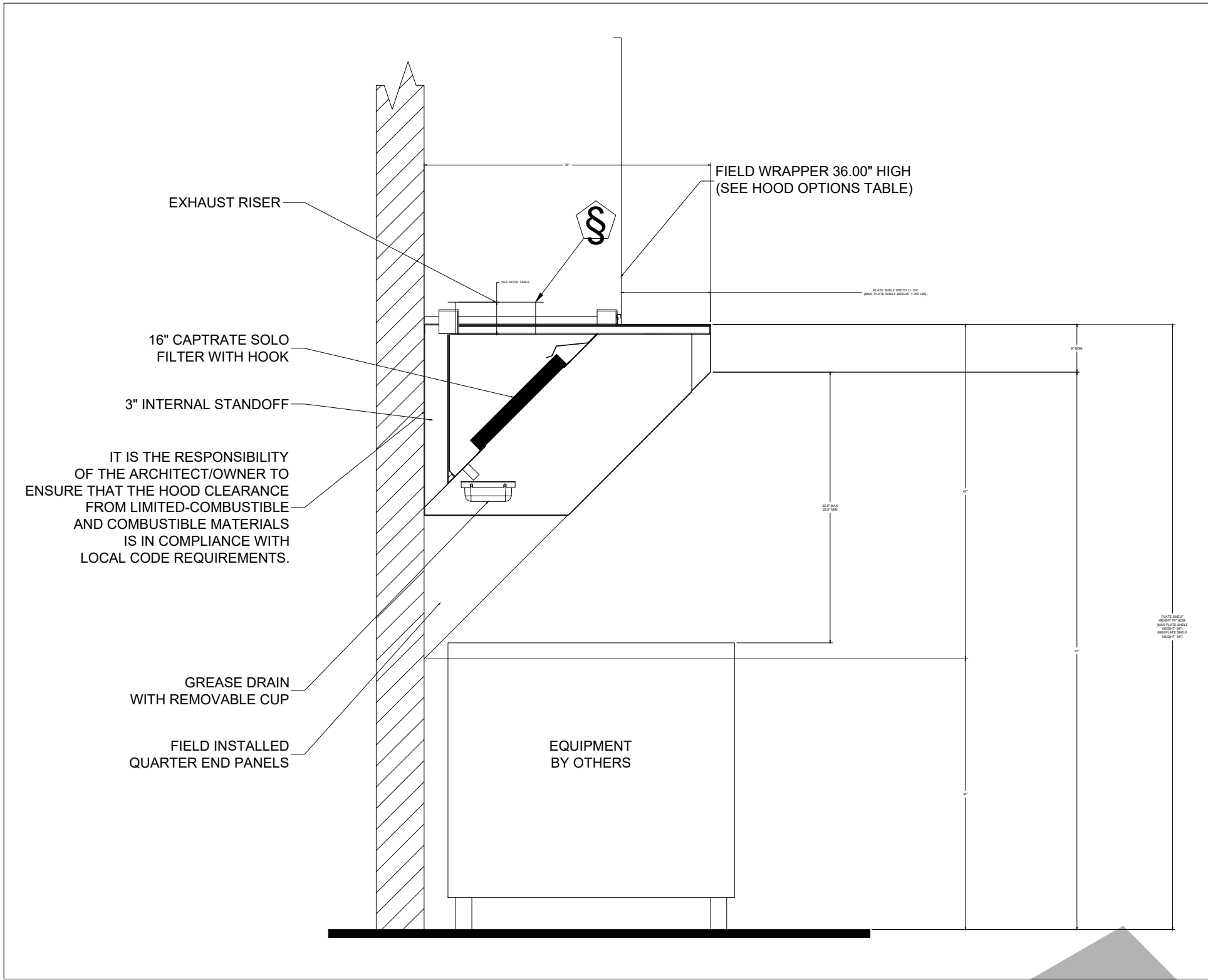
Client: Walter Green,
Uncle Willie's

M 4.01

LINK 10a. Band All Dreams

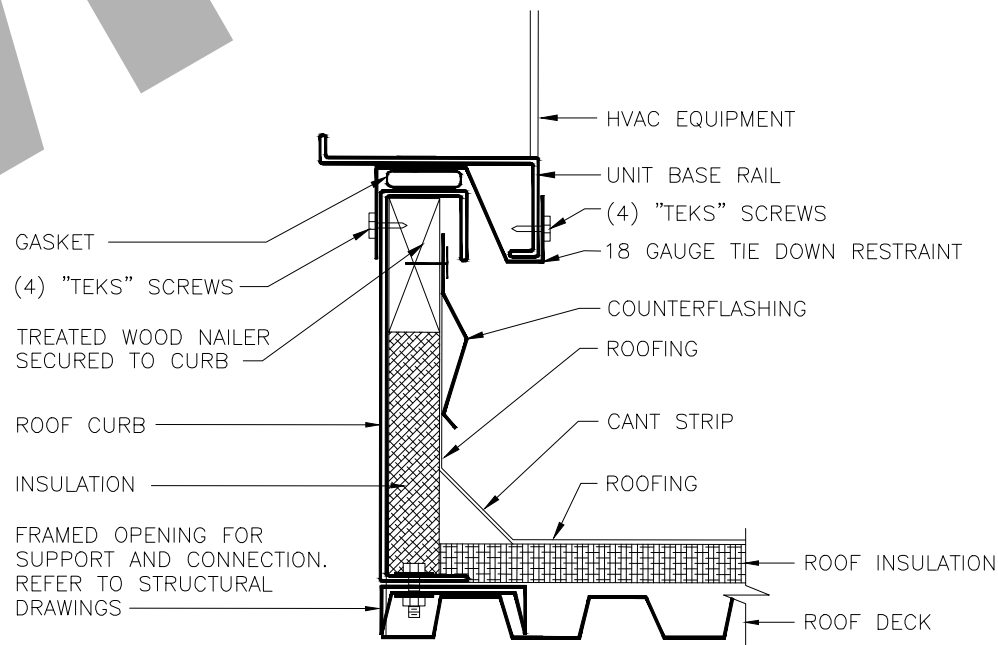


05 KITCHEN HOOD SCHEMATICS
NOT TO SCALE

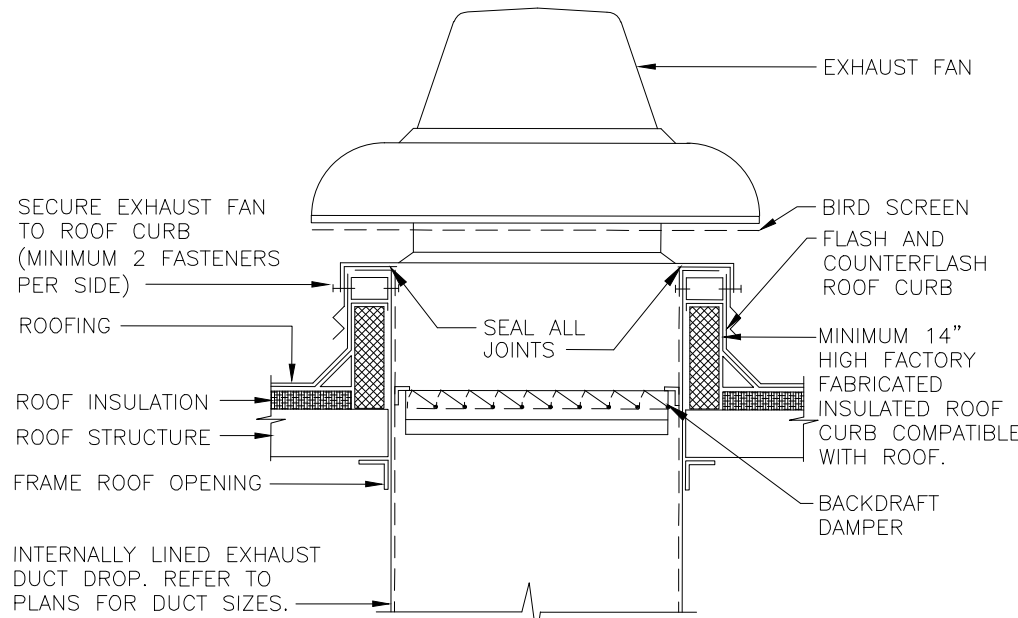


NOTE: INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 96 REQUIREMENTS.

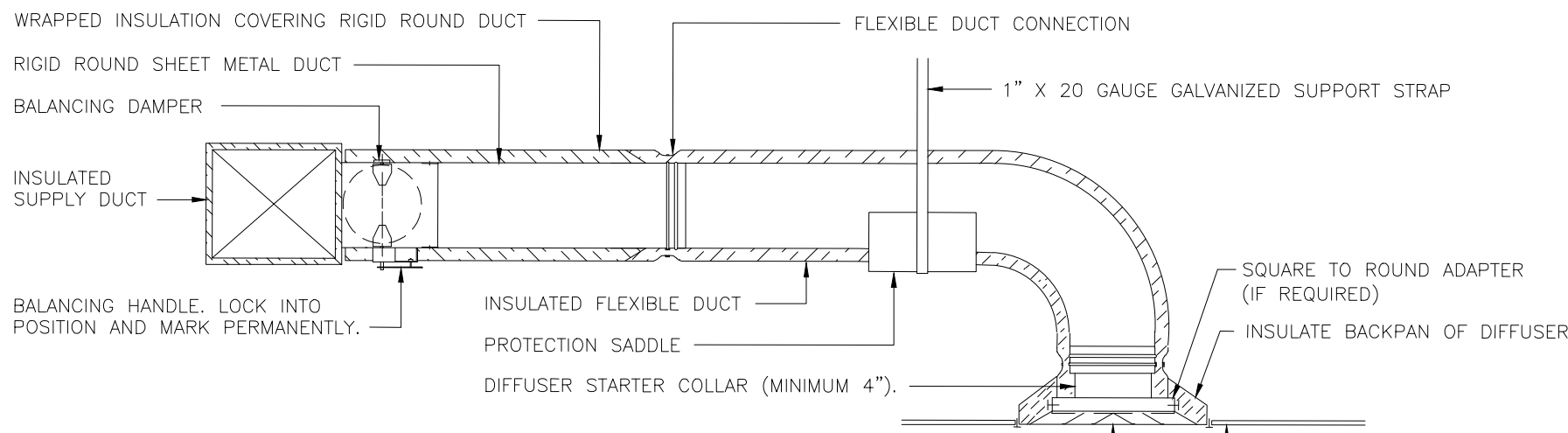
01 ROOF MOUNTED GREASE EXHAUST FAN DETAIL
NOT TO SCALE



03 ROOFTOP UNIT CURB DETAIL
NOT TO SCALE



02 EXHAUST FAN DETAIL
NOT TO SCALE



NOTES:

1. PROVIDE METAL OR "PANDUIT" DRAW BAND AT FLEXIBLE DUCT CONNECTION ON INTERIOR FLEXIBLE DUCT HELIX. SECURE INSULATION OVER DRAW BAND WITH ADDITIONAL DRAW BAND.
2. PROVIDE BEADING ON ROUND METAL DUCT 12" OR LARGER IN DIAMETER.
3. PROVIDE MINIMUM 4" COLLARS FOR ATTACHMENT OF FLEXIBLE DUCT TO ROUND DUCT, DAMPERS AND DIFFUSERS.
4. BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.

04 DIFFUSER CONNECTION DETAIL
NOT TO SCALE

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REVISIONS

MECHANICAL GENERAL DETAILS - 1

Project Number: 02-021

Date: 02.28.2023

Drawn By: MN

Client: Walter Green, Uncle Willie's

M 5.01

GENERAL NOTES

1. MECHANICAL CONTRACTOR SHALL EXAMINE ALL OTHER SPECIFICATIONS, DRAWINGS AND ALL FEATURES OF BUILDING CONSTRUCTION WHICH MAY AFFECT HIS WORK AND SHALL B GOVERNED BY THESE AND OTHER SPECIFICATIONS, INCLUDIN THE GENERAL CONDITIONS AND PARTICULAR INSTRUCTIONS T ALL BIDDER AND SUPPLIERS
2. ALL WORK SHALL BE EXECUTED AND INSPECTED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND/OR STATE CODES, LAWS, ORDINANCES, RULES AND REGULATIONS APPLICABLE TO THIS PARTICULAR CLASS OF WORK. AND EACH CONTRACTOR SHALL INCLUDE IN HIS PRICE ALL APPLICABLE SERVICE CHARGES, FEES, PERMITS, TAXES, AND OTHER SIMILAR COSTS IN CONNECTION THEREWITH
3. PRIOR TO FABRICATION OF DUCTWORK, THE MECHANICAL CONTRACTOR SHALL EXAMINE AND VERIFY ALL CONDITIONS ABOVE AND BELOW THE CEILING WHICH MAY INTERFERE WITH THE DUCT SYSTEM AND NOTIFY THE ARCHITECT OF ANY CONFLICT ENCOUNTERED. CONTRACTOR SHALL PROVIDE ALL OFFSETS, ETC WHICH MAY BE REQUIRED, WITHOUT ADDITIONAL COST TO THE OWNER
4. ALL SHEET METAL DUCT CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH "SMACNA" LOW PRESSURE DUCT CONSTRUCTION STANDARD
5. TURNING VANES SHALL BE INSTALLED IN ALL BENDS IN RECTANGULAR DUCT EXCEEDING 30"
6. ALL DUCTS SHALL BE SUPPORTED WITH 1" WIDE, 16 GAUGE, GALVANIZED STEEL BANDS
7. ALL RECTANGULAR DUCT SHALL BE INSULATED WITH A MIN. OF 1" INTERNAL LINER, 2 LBS. DENSITY R-60. ALL ROUND DUCTS AND DIFFUSER TOPS SHALL HAVE A MIN. 2" THICK OF FOIL BACKED BLANKET TYPE INSULATION R=4-4.2, WITH ALL JOINTS BUTTED AND TAPED
8. ALL DUCT DIMENSIONS SHOWN ON PLANS ARE INTERNAL
9. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF SUPPLY AND RETURN AIR REGISTERS, DUCTS, GRILLES AND DIFFUSERS WITH LIGHTING AND CEILING PATTERNS
10. PROVIDE LATERAL BRACING OF ALL DUCTS AND PIPES AS REQUIRED BY CODE
11. INSULATE AND SEAL ALL DUCTWORK PER CHAPTER 10 OF THE STATE MECHANICAL CODE (T-24, PART 4)
12. MOUNT ALL THERMOSTATS AT 48" ABOVE FINISHED FLOOR
13. ALL BRACING OF DUCTS AND PIPING SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES
14. WHERE BRACING DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT AND THE MECHANICAL ENGINEER
15. DUCT SMOKE DETECTOR SHALL BE INSTALLED BELOW THE ROOF
16. ALL MECHANICAL EQUIPMENT AND SYSTEMS INSTALLED AS PART OF PROJECT SHALL COMPLY WITH ALL REQUIREMENTS OF THE 2013 INTERNATIONAL MECHANICAL CODE AND THE 2013 INTERNATIONAL BUILDING CODE AND THE 2013 INTERNATIONAL BUILDING ENERGY EFFICIENCY STANDARDS
17. OUTSIDE AIR FOR A HEATING OR COOLING SYSTEM SHALL NOT BE TAKEN FROM CLOSER THAN 10 FEET FROM AN APPLIANCE VENT OUTLET, VENT OPENING OF A PLUMBING SYSTEM, OR THE DISCHARGE OUTLET OF EXHAUST FAN, UNLESS THE OUTLET IS 3 FT ABOVE THE OUTSIDE AIR INLET (IMC 314.3)
18. PROVIDE 120 VOLT ELECTRICAL OUTLETS WITHIN 25 FT. OF ALL MECH. EQUIPT. (IMC 309)
19. HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS SHALL BE BALANCED IN ACCORDANCE WITH ONE OF THE FOLLOWING METHODS IN ACCORDANCE WITH IMC 317.1 REQUIREMENTS

A. AABC NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE

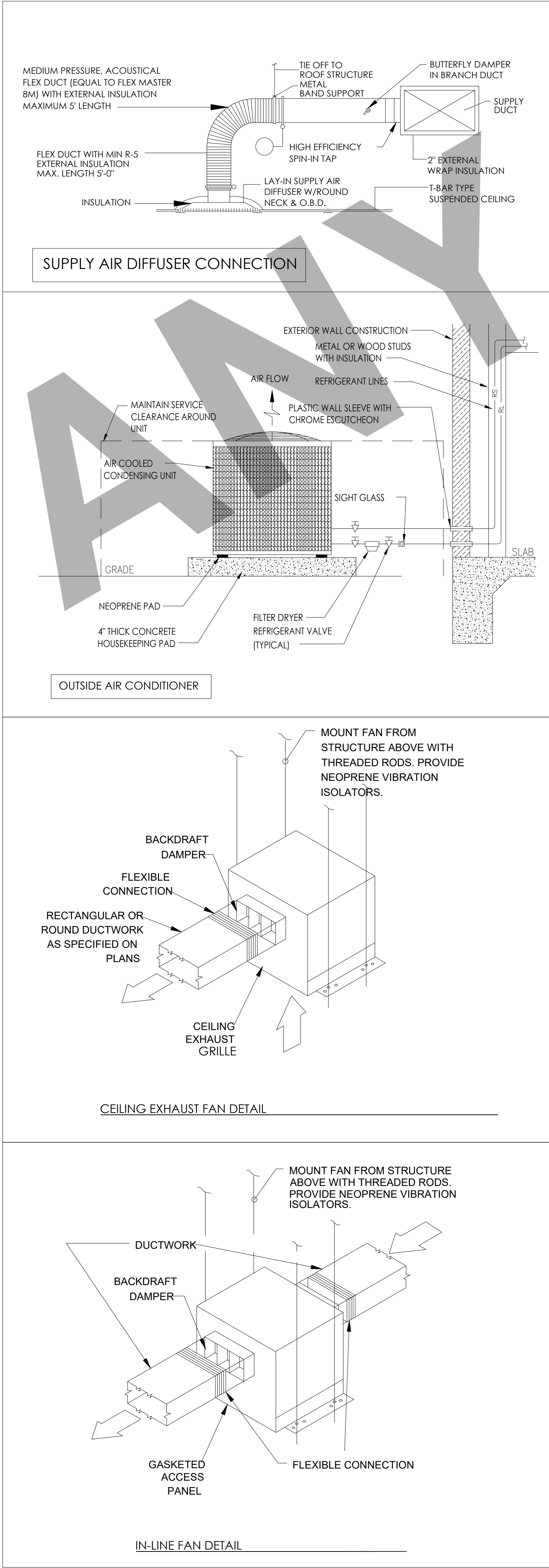
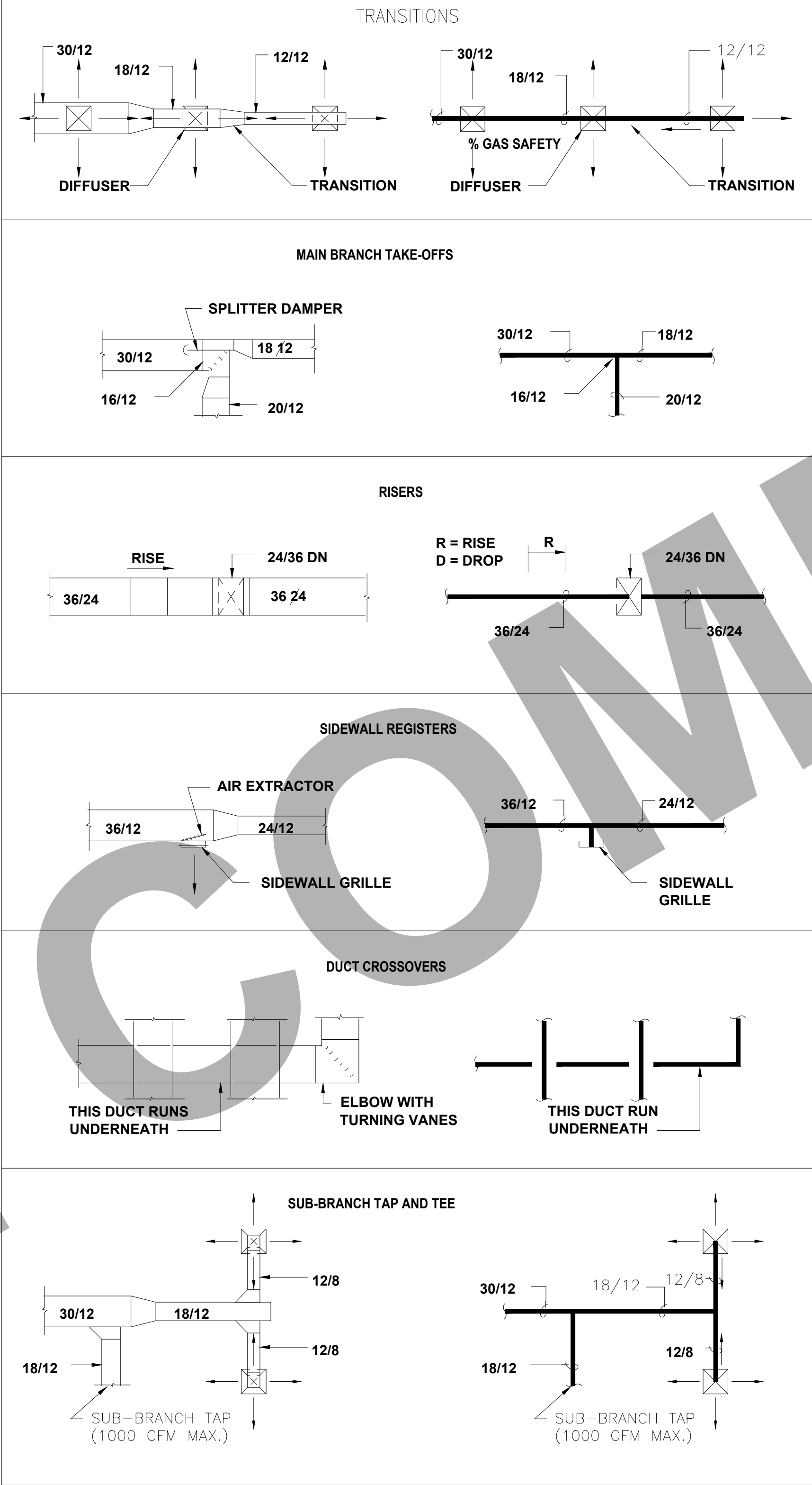
B. ACCA MANUAL B

C. ASHRAE 111

D. NEBB PROCEDURAL STANDARDS FOR TESTING, ADJUSTING, ADJUSTING BALANCING OF ENVIRONMENTAL SYSTEMS

E. SMACNA HVAC TESTING, ADJUSTING, AND BALANCING
20. MATERIALS EXPOSED WITHIN DUCTS OR PLENUMS SHALL BE NON COMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 AND A SMOKE DEVELOPED INDEX NOT TO EXCEED 50 WHERE TESTED AS A COMPOSITE PRODUCT IN ACCORDANCE WITH ASTM E84 OR UL 723

DUCTWORK SYMBOLS LEGEND



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REVISIONS

MECHANICAL GENERAL DETAILS - 2

Project Number: 02-021
Date: 02.28.2023
Drawn By: MN
Client: Walter Green, Uncle Willie's

L. ALL FIXTURE

- L. ALL FIXTURES, DEVICES, CONDUIT, AND EQUIPMENT SHALL BE SECURED WITH APPROVED HANGERS AND ANCHORS AND IN ACCORDANCE WITH APPROVED STANDARDS OF INSTALLATION.
- M. ALL BREAKERS SHOWN IN THE PANELBOARD SCHEDULE SHALL BE RATED AS SHOWN FOR BOTH CIRCUIT CAPACITY AND FAULT CURRENT INTERRUPTING CAPACITY.
- N. ALL PANELBOARDS, DISCONNECT SWITCHES, MOTOR STARTERS, AND CONTACTORS SHALL BE NEMA 1, UNLESS OTHERWISE NOTED.
- O. ELECTRICAL CONTRACTOR MUST BE AVAILABLE AT TIME OF DBS INSPECTION. COORDINATE WITH GENERAL CONTRACTOR.
- P. FIELD VERIFY THE AVAILABLE FAULT CURRENT AT THE LANDLORD'S EXISTING PANEL AND PROVIDE A NEW, FULLY RATED, PANEL TO MATCH EXISTING.
- Q. CONTRACTOR TO MAKE FINAL CONNECTIONS IN EMS PANEL FOR LANDLORD PROVIDED LIGHTING CIRCUITS. 50% OF THE GENERAL LIGHTING CIRCUITS SHOULD BE ROUTED THROUGH THE CUSTOMER CONTROL ZONE .



Equipment in other than dwelling units shall be legible

26	Service equipment in other than dwelling units shall be legibly marked in the field with the maximum available fault current. The field markings shall include the date the fault current calculation was performed and be of sufficient durability to withstand the environment involved. CEC 110.24(A).
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CH AND CONTROL HEIGHTS: (CBC11B-308:)

44	<p>THE REAR WALL.</p> <p>SWITCH AND CONTROL HEIGHTS: (CBC11B-308.)</p> <p>CONTROL OR SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES, ALARMS OR COOLING, HEATING AND VENTILATING EQUIPMENT SHALL BE LOCATED NO MORE THAN 48 INCHES (1219MM) MEASURED FROM THE TOP OF THE OUTLET BOX NOR LESS THAN 15 INCHES (381MM) MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM. IF THE REACH IS OVER A PHYSICAL BARRIER OR AN OBSTRUCTION (FOR EXAMPLE, A KITCHEN BASE CABINET) BETWEEN 20 AND 25 INCHES (508 AND 635MM) IN DEPTH, THE MAXIMUM HEIGHT IS REDUCED TO 48 INCHES (1219MM) FOR FORWARD REACH, OR 46 INCHES (1168MM) FOR SIDE APPROACH, PROVIDED THE OBSTRUCTION IS NO MORE THAN 24 INCHES (610MM) IN DEPTH. PHYSICAL BARRIERS OR OBSTRUCTIONS SHALL NOT EXTEND MORE THAN 25 INCHES (635MM) FROM THE WALL BENEATH A CONTROL.</p>	
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 RACK FOR AUDIOVISUAL EQUIPMENT RACK

ABBREVIATIONS AND TAGS			
ABB.	DESCRIPTION	ABB.	DESCRIPTION
EW H	ELECTRIC WATER HEATER	SD	SMOKE DETECTOR
(E)	EXISTING TO REMAIN	TEL	TELEPHONE
EC	ELECTRICAL CONTRACTOR	TX	TRANSFORMER
FA	FIRE ALARM	TV	TELEVISION
FMT	FLEXIBLE METALLIC TUBING	UAC	UNDER ANOTHER CONTRACT
GC	GENERAL CONTRACTOR	UAS	UNDER ANOTHER SECTION
GFCI	GROUND FAULT INTERRUPTER	UON	UNLESS OTHERWISE NOTED
IG	ISOLATED GROUND	V.D.	VOLTAGE DROP
LL	LANDLORD	W	WIRE
LV	LOW VOLTAGE	WP	WEATHERPROOF
	MECHANICAL UNIT TAG. SEE MECHANICAL DRAWINGS FOR ADDITIONAL DESCRIPTION.		DETAIL TAG. REFER TO DETAIL 4 ON SHEET NUMBER E-4.

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GENERAL NOTES AND ABBREVIATIONS

Project Number: 02-021

Date: 02.28.2023

Drawn By: A.B

Client: Walter Green,
Uncle Willie's

ELECTRICAL SPECIFICATIONS																					
PART 1		GENERAL		PART 2		PRODUCTS		PART 3		EXECUTION											
1.01	SCOPE OF WORK: Furnish and install all materials and equipment and provide all labor, tools, transportation, superintendence and services required and necessary to complete the work shown on the drawings and/or specified herein. Also include all other work and miscellaneous items, not specifically mentioned, but reasonably inferred for a complete installation including all accessories and appurtenances required for testing the system. It is the intent of the drawings and specifications that all systems be complete, and ready for operation.	REGULATORY REQUIREMENTS: Code compliance is mandatory. Nothing in these Drawings and Specification permits work not conforming to these codes. Where work is shown to exceed minimum code requirements, comply with drawings and specifications. All work and materials shall comply with the latest rules, codes and regulations, including, but not limited to the following: 1. Occupational Safety and Health Act Standards (OSHA). 2. NFPA #70: National Electric Code (NEC). 3. NFPA #101: Life Safety Code. 4. State Fire Marshal. 5. Local Utilities Companies.	LICENSE, FEES AND PERMITS: Electrical contractor shall pay for all licenses, permits and inspection fees required by the authority having jurisdiction and shall arrange for all required inspections.	SAFETY AND INDEMNITY: The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of work. This requirement will apply continuously and not be limited to normal working hours. No act, service, drawing review or construction review by the Owner, the Engineers or their Consultants, is intended to include review of the adequacy of the Contractor's safety measures, in, on, or near the construction site.	DRAWINGS AND SPECIFICATIONS: All drawings and all Divisions of these specifications shall be considered as a whole and work of this Division shown anywhere therein shall be furnished under this Division. Drawings are diagrammatic and indicate the general arrangement of equipment and wiring. Most direct routing of conduits and wiring is not assured. Exact requirements shall be governed by conditions of the job. Consult all other drawings in preparation of the bid. Extra lengths of wiring or addition of pull or junction boxes, etc., necessitate by such conditions shall be included in the bid.	CONDITIONS AT SITE: The electrical contractor shall have examined the site and familiarized themselves with all discontinue existing conditions. No extra payment will be allowed for work required because of these conditions, whether specifically mentioned or not.	WORKMANSHIP AND CONTRACTOR'S QUALIFICATIONS: Only quality workmanship will be accepted. Haphazard or poor installation will be cause for rejection of work.	SHOP DRAWINGS AND MATERIALS LISTS: Submit to Owner in a single package six (6) copies of complete shop drawings and materials list, as noted below, for review within fifteen (15) days after award of contract. Submittals required as follows: 1. Wiring devices: switches, receptacles, device plates. 2. Enclosures for utility company metering. 3. Main fused disconnect switch. 4. Panelboards. 5. Disconnect switches. 6. Lighting fixtures, lamps and lighting control equipment.	SUBSTITUTIONS: One or more makes of materials or methods may have been specified to establish the standard of quality, workmanship, finish and design required, but other materials, or methods equal in quality, workmanship, finish, design, and guaranteed performance will be accepted. However, all changes and substitutions shall be requested in letter form and shall be accompanied with a statement of the amount of money to be returned to the contract if the substitution is permitted. No work involving materials submitted for substitution shall proceed until written acceptance is received from the Owner. The Owner is the sole judge of acceptability of preferred substitutions. If a substitution item is permitted, and any re-design effort is thereby necessitated, the required redesign shall be at the Contractor's expense.	COORDINATION: Coordinate work with other trades to avoid conflict and to provide correct rough-in and connection for equipment furnished under other trades that require electrical connections. Inform Contractors of other trades of the required access to and clearances around electrical equipment to maintain service ability and code compliance. Verify equipment dimensions and requirements with provisions specified under this Section. Check actual job conditions before fabricating work. Report necessary changes in time to prevent needless work. Changes or additions, subject to additional compensation, which are made without written authorization and an agreed price, shall be at the Contractor's risk and expense.	CUTTING AND PATCHING: All cutting and patching required for work of this Division is included herein. Coordination with General Contractor and other trades is implied. Contractor shall bear the responsibility for and the added expense of adjusting for improper holes, supports, etc.										
												1.02	1.03	1.04	1.05	1.06	1.07	1.08	1.09	1.10	1.11

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REVISIONS

ELECTRICAL SPECIFICATIONS

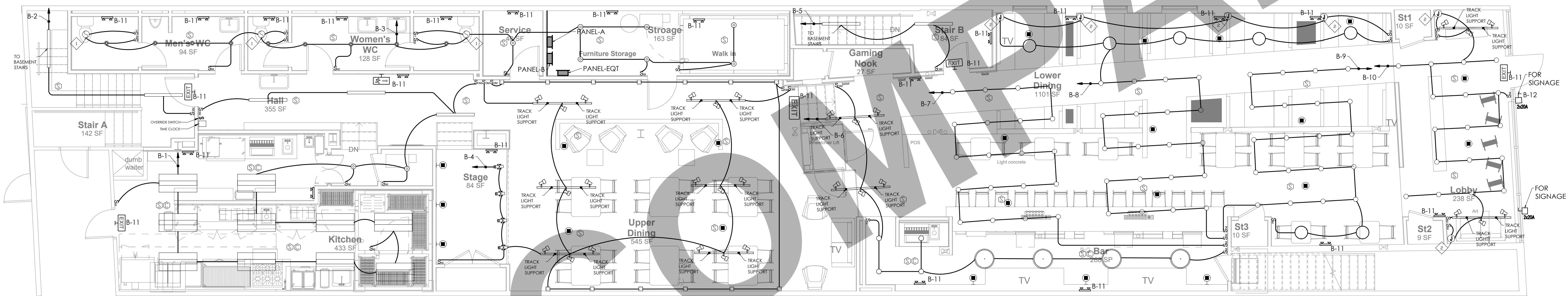
Project Number: 02-021

Date: 02.28.2023

Drawn By: A.B

Client: Walter Green, Uncle Willie's

E1.00



FINAL LOCATION/NUMBER OF SPEAKERS SHALL BE COORDINATED BETWEEN SPECIALIST AND ID

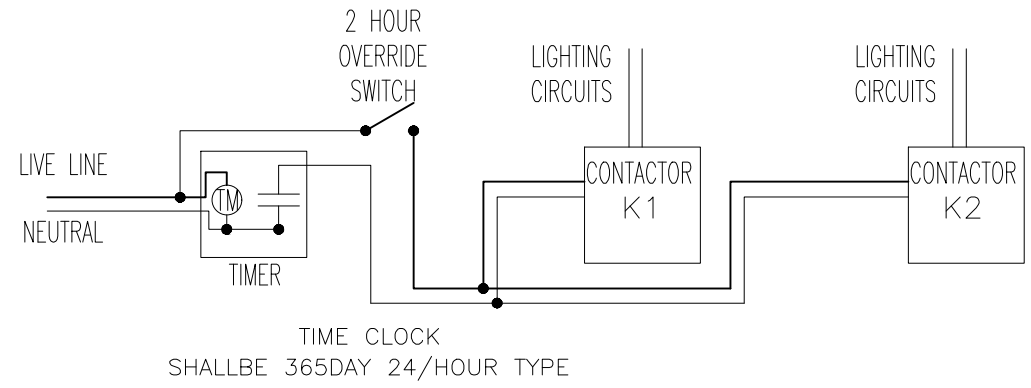
SHEET NOTES:

- 1. PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR EXHAUST FANS THAT TURNS ON WHEN THE TIMER SWITCH OF THIS FAN IS TURNED ON
- 2. PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR COVE LIGHTING
- 3. PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR WALL WASH LIGHT
- 4. PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR CUSTOM LIGHTING FIXTURE

1. Track lighting must be hard wired. Cord connection is not allowed. CEC 410.151.
2. Track lighting must be supported at a minimum of two points and every four feet. CEC 410.154.

"AS Per Section 3-20-1.B of the Zoning Ordinance, screening shall be provided so that materials stored in any outdoor storage area and/or equipment at grade or on the roof area screened from adjacent streets, no matter the street grade, and all properties at the same grade."

CALIFORNIA RETAIL FOOD CODE: In every room and area in which any food is prepared, manufactured, processed, or prepackaged, or in which equipment or utensils are cleaned, sufficient natural or artificial lighting shall be provided. Conduits of all types shall be installed within walls as practicable. Section #: 114252, 114271



THE MAXIMUM SETTING FOR THE OVERRIDE CONTROL SHALL NOT EXCEED 2HOURS.

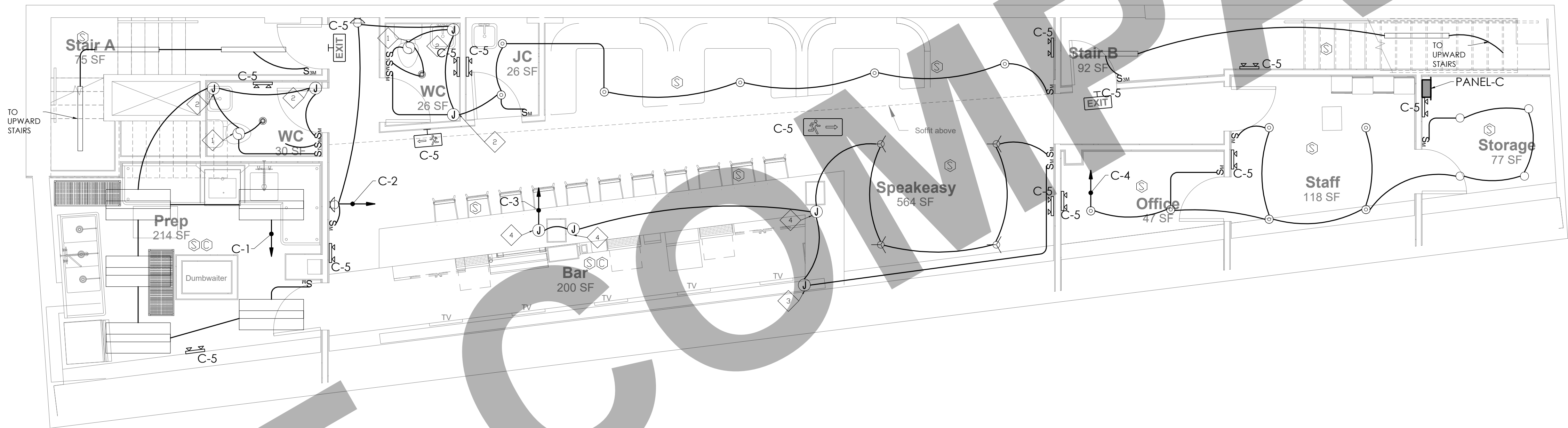
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REVISIONS

FIRST FLOOR LIGHTING LAYOUT

Project Number: 02-021
Date: 02.28.2023
Drawn By: A.B
Client: Walter Green, Uncle Willie's



- SHEET NOTES:**
- 1 PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR EXHAUST FANS THAT TURNS ON WHEN THE TIMER SWITCH OF THIS FAN IS TURNED ON
 - 2 PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR COVE LIGHTING
 - 3 PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR WALL WASH LIGHT
 - 4 PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR CUSTOM LIGHTING FIXTURE

SEAL:

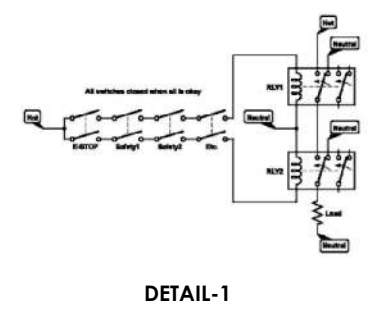
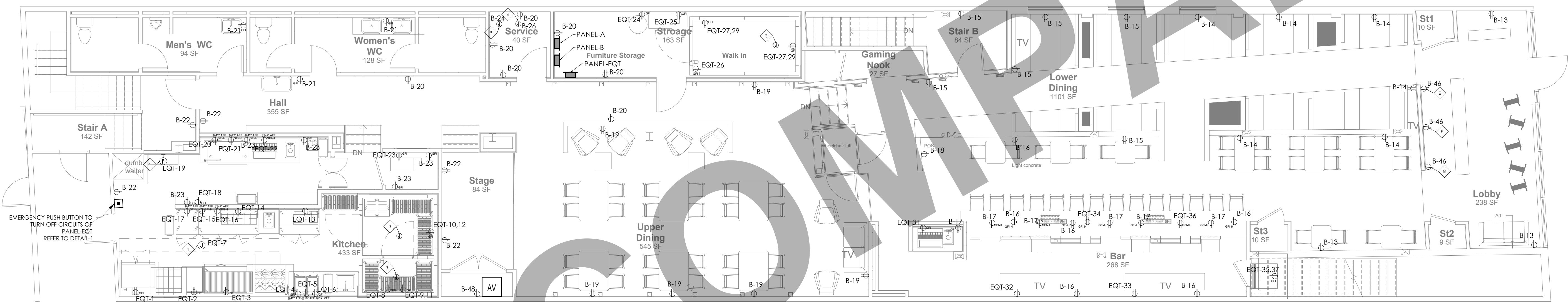
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REVISIONS

BASEMENT FLOOR
LIGHTING LAYOUT

Project Number: 02-021
Date: 02.28.2023
Drawn By: A.B
Client: Walter Green,
Uncle Willie's

E2.10



"AS Per Section 3-20-1.B of the Zoning Ordinance, screening shall be provided so that materials stored in any outdoor storage area and/or equipment at grade or on the roof area screened from adjacent streets, no matter the street grade, and all properties at the same grade."

Per Section 3-20-1.B of the Zoning Ordinance, screening shall be provided so that materials stored in any outdoor storage area and/or equipment at grade or on the roof area screened from adjacent streets, no matter the street grade, and all properties at the same grade.

- SHEET NOTES:
- 1—PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR KEF
 - 2—PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING FOR GWH
 - 3—PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING FOR INDOOR UNIT POWERED FROM OUTDOOR UNIT
 - 4—PROVIDE NEMA 3R DISCONNECT SWITCH FOR MUA
 - 5—PROVIDE NEMA 3R DISCONNECT SWITCH FOR KEF
 - 6—PROVIDE NEMA 3R DISCONNECT SWITCH FOR ODU
 - 7—PROVIDE NEMA 3R DISCONNECT SWITCH FOR RTU
 - 8—OUTLET FOR CHARGING STATIONS

SEAL:

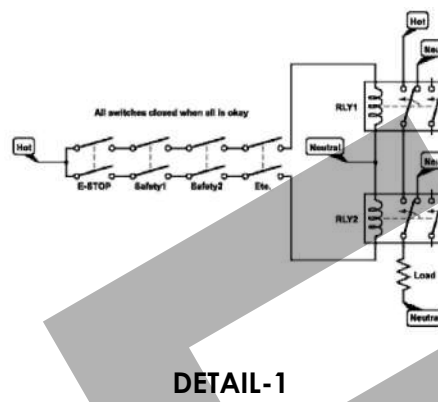
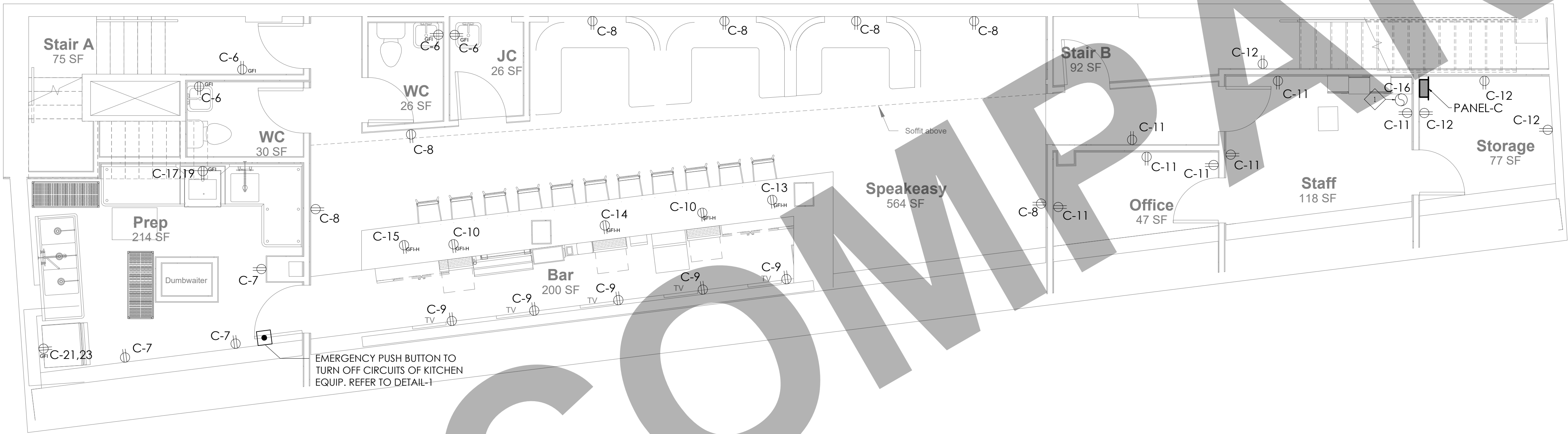
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REVISIONS

FIRST FLOOR
POWER LAYOUT

Project Number: 02-021
Date: 02.28.2023
Drawn By: A.B
Client: Walter Green,
Uncle Willie's

E3.00



"AS Per Section 3-20-1.B of the Zoning Ordinance, screening shall be provided so that materials stored in any outdoor storage area and/or equipment at grade or on the roof area screened from adjacent streets, no matter the street grade, and all properties at the same grade."

Per Section 3-20-1.B of the Zoning Ordinance, screening shall be provided so that materials stored in any outdoor storage area and/or Page 3 of 4 equipment at grade or on the roof area screened from adjacent streets, no matter the street grade, and all properties at the same grade.

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REVISIONS

BASEMENT FLOOR
POWER LAYOUT

Project Number: 02-021
Date: 02.28.2023
Drawn By: A.B
Client: Walter Green, Uncle Willie's



ROOF PLAN

- SHEET NOTES:
- 1—PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING (OR WALL) FOR KEF
 - 2—PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING FOR GWH
 - 3—PROVIDE HEAVY DUTY JUNCTION BOX, FLUSH IN CEILING FOR INDOOR UNIT POWERED FROM OUTDOOR UNIT
 - 4—PROVIDE NEMA 3R DISCONNECT SWITCH FOR MUA
 - 5—PROVIDE NEMA 3R DISCONNECT SWITCH FOR KEF
 - 6—PROVIDE NEMA 3R DISCONNECT SWITCH FOR ODU
 - 7—PROVIDE NEMA 3R DISCONNECT SWITCH FOR RTU

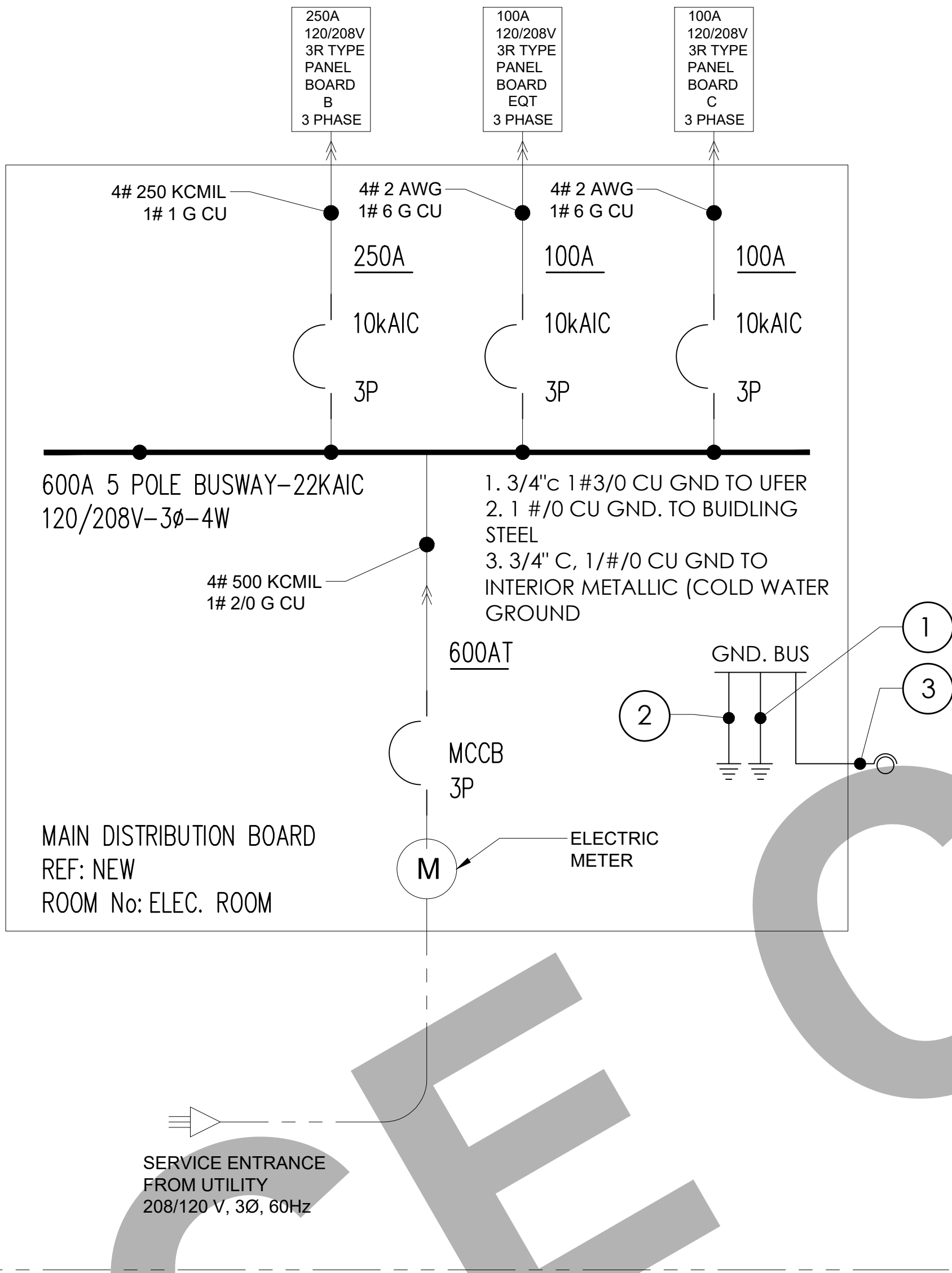
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REVISIONS

ROOF FLOOR
POWER LAYOUT

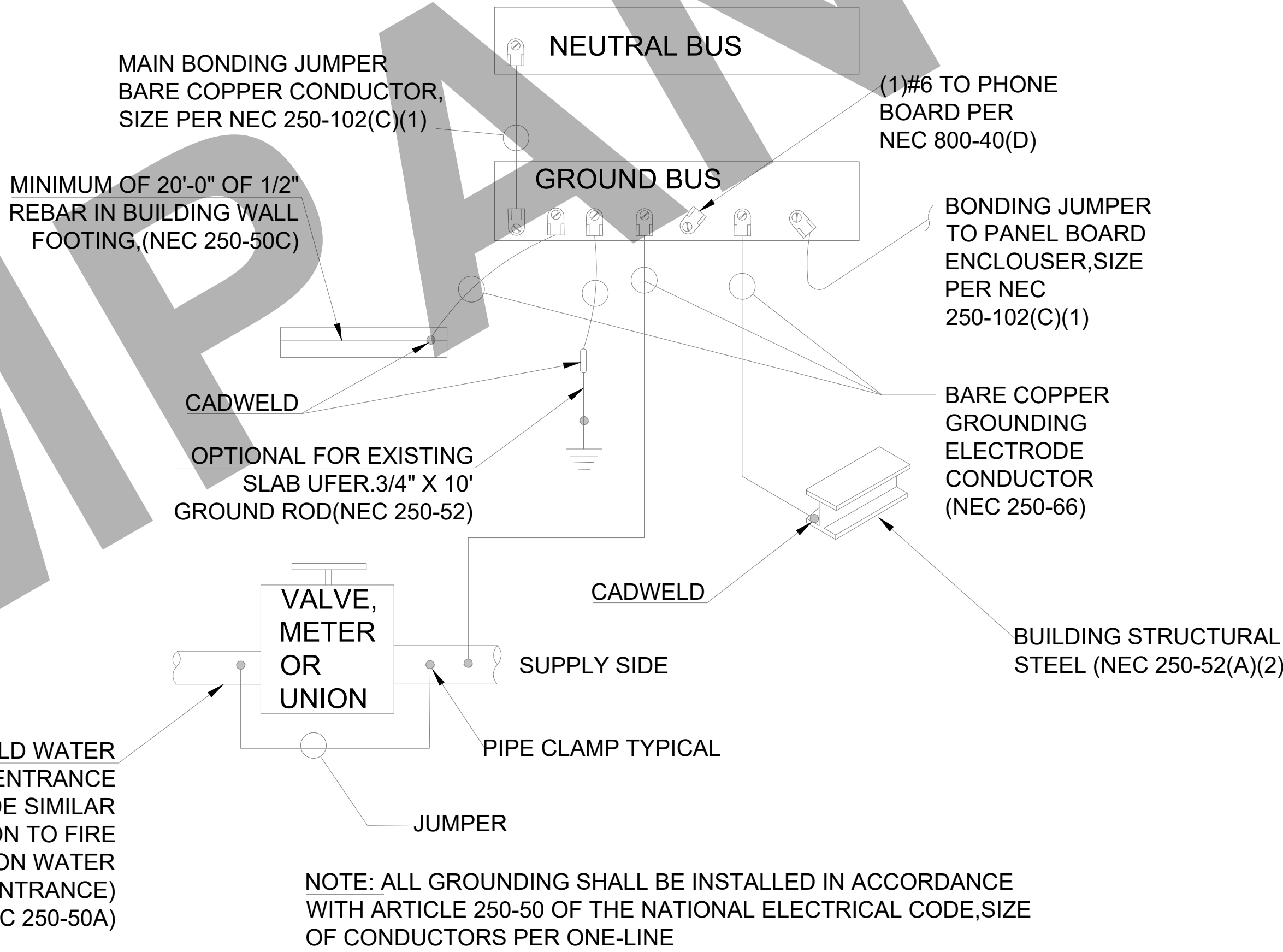
Project Number: 02-021
Date: 02.28.2023
Drawn By: A.B
Client: Walter Green,
Uncle Willie's



2
E-1

POWER RISER DIAGRAM

SCALE NTS



GROUNDING DETAIL

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REVISIONS

SINGLE LINE DIAGRAM & GROUNDING DETAILS

Project Number: 02-021
Date: 02.28.2023
Drawn By: A.B
Client: Walter Green, Uncle Willie's

E4.00

Location: STORAGE				CONNECTED LOAD			DEMAND TOTAL
*	LOAD SUMMARY	CL	DF	A	B	C	
L	Lighting		1.25				
R	Convenience Recept		#DIV/0!				
H	Heating (Space)		1.25				
C	Cooling		1.00				
A	HVAC		1.00				
P	Process		1.00				
O	Other Continuous		1.25				
K	Kitchen		6.00				
N	Noncontinuous	152.10	1.00	50.70	50.70	50.70	152.10
M	Motor		1.00				
	Total	152.10		50.70	50.70	50.70	152.10

Total Demand Load (KVA)	152.10
Total Demand Current (A)	365.90
Min. Feeder Ampacity (A)	457.37

	DESCRIPTION	*	WIRE	GRD	CB	KVA	A	B	KVA	CB	WIRE	GRD	DESCRIPTION	*	
1	DOUBLE-DECK CONVECTION OVEN	K	2x 12 AWG - #12G		20A-1P	1.92	2.04		0.12	20A-1P	2x 12 AWG - #12G		24" GRIDDE	K	2
3	REFRIGERATOR CHEF BASE	K	2x 12 AWG - #12G		20A-1P	0.54		1.98	1.44	20A-1P	2x 12 AWG - #12G		COUNTERTOP HEATED WELLS	K	4
5	DRAWER WARMER	K	2x 12 AWG - #12G		20A-1P	1.36		2.80	1.44	20A-1P	2x 12 AWG - #12G		COUNTERTOP HEATED WELLS	K	6
7	KEF	A	2x 12 AWG - #12G		20A-1P	0.06	0.74		0.68	20A-1P	2x 12 AWG - #12G		WALKIN COOLER - FREEZER WITH FLOOR	K	8
9		K				0.24	0.48		0.24					K	10
11		K	3x 12 AWG - #12G		20A-2P	0.24		0.48	0.24	20A-3P	3x 12 AWG - #12G		EVAPORATOR BLOWER	K	12
13	SOLID DOOR SANDWICH/SALAD UNIT	K	2x 12 AWG - #12G		20A-1P	0.70	1.56		0.86	20A-1P	2x 12 AWG - #12G		REFRIGERATED PREP TABLE	K	14
15	1 INFINITE	K	2x 12 AWG - #12G		20A-1P	1.80		3.60	1.80	20A-1P	2x 12 AWG - #12G		1 INFINITE	K	16
17	WORKTOP SOLID DOOR FREEZER	K	2x 12 AWG - #12G		20A-1P	0.60		2.64	2.04	20A-1P	2x 12 AWG - #12G		FOOD WARMER WITH LIGHTS	K	18
19	KEF	K	2x 12 AWG - #12G		20A-1P	0.36	3.36		3.00	30A-1P	2x 10 AWG - #10G		COFFEE/TEA BREWER	K	20
21	UNDERCOUNTER REFRIGERATOR	K	2x 12 AWG - #12G		20A-1P	0.28		0.64	0.36	20A-1P	2x 12 AWG - #12G		ICE COOLED DROP IN DISPENSER	K	22
23	COCA COLA 28" (2) SHELF BIB SHELVLING W/ CARBONATOR	K	2x 8 AWG - #8G		35A-1P	3.60		4.80	1.20	20A-1P	2x 12 AWG - #12G		CO2 BULK STORAGE TANK	K	24
25	COCA COLA 28" (2) SHELF BIB SHELVLING W/ CARBONATOR	K	2x 8 AWG - #8G		35A-1P	3.60	4.28		0.68	20A-1P	2x 12 AWG - #12G		WALKIN COOLER WITH FLOOR	K	26
27	BEVERAGE COOLING SYSTEM, REMOTE 2 PHASES 9.5A	K				1.14	1.38		0.24					K	28
29		K	3x 12 AWG - #12G		20A-2P	1.14		1.38	0.24	20A-2P	3x 12 AWG - #12G		EVAPORATOR BLOWER	K	30
31	ICE COOLED DROP IN DISPENSER	K	2x 12 AWG - #12G		20A-1P	0.60	1.44		0.84	20A-1P	2x 12 AWG - #12G		BACK BAR PROFILE	K	32
33	BACK BAR PROFILE	K	2x 12 AWG - #12G		20A-1P	0.84	1.44		0.60	20A-1P	2x 12 AWG - #12G		UNDERBAR ALL-IN-ONE STATION	K	34
35	MODULAR CRESCENT CUBER - AIR-COOLED	K				2.16		2.76	0.60	20A-1P	2x 12 AWG - #12G		UNDERBAR ALL-IN-ONE STATION	K	36
37		K	3x 12 AWG - #12G		20A-2P	2.16	2.16						SPACE	K	38
39	SPACE												SPACE	K	40
41	SPACE												SPACE	K	42
			(KVA)												
					Total Connected Load	15.99	0.52	14.86							

E5.00

PLUMBING SPECIFICATIONS

THE WORK INCLUDES MODIFICATION TO THE EXISTING PLUMBING SYSTEM AND PROVIDING NEW MATERIALS, FITTINGS AND ACCESSORIES NECESSARY FOR A COMPLETE FUNCTIONING PLUMBING SYSTEM. THE WORK ALSO INCLUDES ROUGH-IN AND FINAL CONNECTIONS TO FOOD SERVICE EQUIPMENT AND BEVERAGE DISPENSING EQUIPMENT PROVIDED BY OTHERS. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND/OR ORDINANCES AND IS SUBJECT TO INSPECTION. HOOK-UP CHARGES, PERMITS AND ALL OTHER EXPENSES RELATED TO A COMPLETE AND FUNCTIONING PLUMBING SYSTEM ARE INCLUDED AS A PART OF THIS SECTION. WARRANTY: PROVIDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE PARTS AND MATERIALS AS REQUIRED FOR ONE YEAR AFTER SUBSTANTIAL COMPLETION OR OWNER ACCEPTANCE OF THE COMPLETED PROJECT. PROVIDE A SEPARATE LINE ITEM DEDUCT AMOUNT ON THE PROPOSAL FORM TO DELETE WARRANTY SERVICE, AT THE OWNER'S OPTION. THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, FIXTURES AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. REFER TO MANUFACTURER'S STANDARD ROUGH-IN DRAWINGS FOR PLUMBING FIXTURE INSTALLATION REQUIREMENTS. COMPLY WITH ALL APPLICABLE ADA INSTALLATION REQUIREMENTS. COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. PIPING SYSTEMS - GENERAL: ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO ALLOW FOR INSTALLATION OF OTHER WORK SUCH AS DUCTS AND ELECTRICAL CONDUIT. AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING, PROVIDE AN ISOLATING DIALECTIC UNION. ALL HANGERS SHALL BE COMPATIBLE WITH PIPING MATERIAL TO PREVENT CORROSION. PROVIDE ALL FITTINGS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE PLUMBING SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED. FIXTURES/EQUIPMENT FURNISHED BY OTHERS: PLUMBING CONTRACTOR SHALL PROVIDE UTILITY CONNECTIONS REQUIRED SUCH AS WATER, GAS, AIR, SUPPLIES, WASTE OUTLET, TRAPS, ETC. AT ALL PLUMBING TYPE FIXTURES OR EQUIPMENT FURNISHED BY OWNER, GENERAL CONTRACTOR, FOOD SERVICE CONTRACTOR, EQUIPMENT SUPPLIER, ETC. INCLUDED ARE STOP VALVES, ESCUTCHEONS, AND CHROME PLATED BRASS TUBING WITH COMPRESSION FITTINGS. SEWER AND WASTE PIPING: PROVIDE ALL DRAINS AND SEWERS WITHIN THE SPACE WITH CONNECTION TO THE EXISTING DRAINAGE SYSTEMS ON-SITE. SANITARY DRAINAGE PIPING ABOVE FLOOR SHALL BE CO-EXTRUDED PVC DWV (SCHEDULE 40) PIPE, FITTINGS AND CONNECTIONS. SANITARY DRAINAGE PIPING BELOW GRADE SHALL BE CO-EXTRUDED PVC DWV (SCHEDULE 40) PIPE WITH SOLVENT WELD FITTINGS MAY BE USED (WHERE PERMITTED BY CODE/LOCAL AUTHORITIES). ALL DRAINAGE PIPING SHALL BE UNIFORMLY PITCHED, 1/4" PER FOOT UNLESS OTHERWISE REQUIRED BY EXISTING CONDITIONS, OR INDICATED ON THE DRAWINGS. VENTS: PROVIDE A COMPLETE SYSTEM OF STANDARD WEIGHT CAST IRON NO-HUB VENT RISERS WHERE THE CEILING SPACE IS USED AS A RETURN AIR PLENUM OR USE CO-EXTRUDED PVC DWV (SCHEDULE 40) PIPE (WHERE PERMITTED BY CODE/LOCAL AUTHORITIES) WHERE THERE IS A DUCTED RETURN AIR SYSTEM. DO NOT USE PVC PIPE IN RETURN AIR PLENUM SPACES. THE VENT SYSTEM SHALL BE CARRIED THROUGH THE ROOF WITH APPROPRIATE FLASHING. CONDENSATE AND INDIRECT DRAIN PIPING: PIPING ABOVE FLOOR SHALL BE CO-EXTRUDED PVC DWV (SCHEDULE 40) PIPE, FITTINGS AND CONNECTIONS. PIPING BELOW GRADE SHALL BE CO-EXTRUDED PVC DWV (SCHEDULE 40) PIPE WITH SOLVENT WELD FITTINGS. CLEANOUTS: PROVIDE CLEANOUTS AT THE END OF EACH HORIZONTAL RUN, AND AT THE BASE OF ALL VERTICAL WASTE AND DRAIN PIPES. CLEANOUTS SHALL BE OF THE SAME SIZE AS THE PIPES THEY SERVE, CONFORMING TO CODE REQUIREMENTS. PROVIDE SUITABLE WALL OR FLOOR CLEANOUTS WITH ACCESSORIES TO OBSCURE FROM VIEW. WATER DISTRIBUTION PIPING: LAYOUT WATER PIPING SO THAT THE ENTIRE SYSTEM CAN BE DRAINED. HOT AND COLD WATER PIPING SHALL BE 1/2" MIN. CPVC PIPE WITH SOLVENT FITTING. PROVIDE WATER HAMMER ARRESTERS AT EACH FIXTURE OR GROUP OF FIXTURES AS REQUIRED. INSTALL CHROME PLATED BRASS ESCUTCHEON PLATES AT ALL PENETRATIONS THROUGH FINISHED SURFACES (INCLUDING CABINET INTERIORS). PIPE INSULATION: INSULATE (AS ALLOWED BY CODE) ALL LISTED SERVICE PIPING AS FOLLOWS. DOMESTIC COLD/HOT WATER, HOT WATER RETURN, STORM WATER PIPING. PROVIDE 1" PREFORMED FIBERGLASS, ASJ/SS-11, FLAME SPREAD 25, SMOKE DEVELOPED 50, ASTM C-547. FOR CONDENSATE PIPING PROVIDE 1/2" THICK INSULATION OF SAME CHARACTERISTICS AS LISTED FOR 1" ABOVE. WHERE PERMITTED BY LOCAL CODES, PROVIDE 1/2" SELF-ADHESIVE UNICELLULAR FOAM PIPE INSULATION WITH PRE-FORMED PVC FITTING COVERS - EQUAL TO SELF-ADHESIVE ARMSTRONG 2000 WITH K FACTOR OF 0.27 AT 75 DEGREES MEAN TEMPERATURE. INSULATE ANY EXPOSED CONDENSATE PIPING WITH WASTE TEMPERATURE BELOW 60 DEGREES F. SHUTOFF VALVES, WITH UNIONS SHALL BE PROVIDED FOR SERVICE TO EACH PLUMBING FIXTURE, FOOD SERVICE EQUIPMENT ITEM OR OTHER EQUIPMENT ITEM, TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT. VALVES SHALL BE EQUAL TO JENKINS #902-T BALL VALVE, CHROME-FINISHED BRONZE, TEFLON SEATS AND PACKING, 400 LB. W.O.G., SOLDER END. ACCESS PANELS SHALL BE PROVIDED WHERE CONCEALED CONTROL DEVICES, VALVES, ETC. ARE CONCEALED WITHIN WALLS. WHERE ACCESS FOR ADJUSTMENT AND MAINTENANCE IS POSSIBLE THROUGH LAY-IN SUSPENDED CEILINGS, ACCESS PANELS ARE NOT REQUIRED. PIPING SYSTEM- PVC SCHEDULE 40, SCHEDULE 80 AND CPVC PIPE WITH SOLVENT FITTINGS SHALL BE USED WHERE PERMITTED BY CODE/LOCAL AUTHORITIES. INSTALLATION: THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FIXTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. PROCEED AS RAPIDLY AS CONSTRUCTION WILL PERMIT. SET FIXTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SUPPLIES IN PROPER ALIGNMENT WITH FIXTURES. INSTALL SILICONE SEALANT BETWEEN FIXTURES AND ADJACENT MATERIAL, FOR SANITARY JOINT, AND OMIT ESCUTCHEONS. REPAIR EXISTING PLUMBING SYSTEM COMPONENTS DAMAGED BY CONSTRUCTION OPERATIONS AND RESTORE TO ORIGINAL CONDITIONS. TEST WATER SYSTEM UNDER 150 PSIG HYDROSTATIC PRESSURE, FOR FOUR (4) HOURS MINIMUM. WHEN TESTING INDICATES MATERIALS OR WORKMANSHIP IS DEFICIENT, REPLACE OR REPAIR AS REQUIRED, AND REPEAT TEST UNTIL STANDARDS ARE ACHIEVED. ROOF PENETRATIONS SHALL COMPLY WITH "SMACNA" AND "NRCA" STANDARDS, AND WITH THE REQUIREMENTS OF THE EXISTING ROOFING WARRANTY, IF APPLICABLE. DO NOT PERFORM ROOFING PENETRATIONS IN A MANNER WHICH WOULD VOID OR OTHERWISE LIMIT THE EXISTING ROOFING WARRANTY.

GENERAL NOTES

- THE INTENT OF THESE PLANS AND SPECIFICATIONS IS TO INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND SERVICES NECESSARY TO FURNISH, INSTALL, TEST, AND ADJUST A COMPLETE WORKABLE PLUMBING INSTALLATION AS SHOWN, PRESCRIBED, OR REASONABLY IMPLIED BUT NOT LIMITED TO THAT EXPLICITLY INDICATED IN THE CONTRACT DOCUMENTS, BUT NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE INTENT THEREOF.
- THE ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE 2021 INTERNATIONAL PLUMBING CODE, 2021 INTERNATIONAL BUILDING CODE, 2021 INTERNATIONAL ENERGY CONSERVATION CODE AND ALL OTHER APPLICABLE CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION. IN THE EVENT OF CONFLICT BETWEEN SPECIFICATIONS, CODES, AND REGULATIONS, THE MORE RESTRICTIVE SHALL APPLY.
- COORDINATE ENTIRE INSTALLATION OF THE PLUMBING SYSTEM WITH THE WORK OF OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS. REPORT ANY DISCREPANCIES, IN WRITING, TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS WITH ALL CHANGES NOTED THEREON AT THE COMPLETION OF THE PROJECT IN ACCORDANCE WITH THE SPECIFICATIONS. PROVIDE ONE YEAR WARRANTY ON ALL PARTS AND LABOR.
- THE DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW SCOPE. CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES TO PROVIDE THE BEST ARRANGEMENT OF ALL DUCT, PIPE, CONDUIT, ETC.
- ALL CUTTING AND PATCHING OF THE EXISTING STRUCTURE SHALL BE PROVIDED UNDER OTHER SECTIONS OF THE WORK. PROVIDE NECESSARY REQUIREMENTS TO THE PROJECT SUPERINTENDENT.
- ALL HOT WATER PIPING AND RE-CIRCULATION PIPING (EXCEPT RUNOUTS 12 FT. OR SHORTER TO INDIVIDUAL FIXTURES) SHALL BE INSULATED TO MEET THE REQUIREMENTS OF THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE
- CONDENSATE DRAINS SHALL BE PROVIDED FOR EACH AIR CONDITIONING UNIT. HORIZONTAL CONDENSATE DRAINS ABOVE ANY CEILING SHALL BE INSULATED WITH MIN. 3/8" THICK CLOSED CELL INSULATION.
10. PIPING:
 - WASTE, VENT, AND STORM DRAIN PIPING SHALL BE CO-EXTRUDED PVC SCHEDULE 40) PIPE
 - WATER PIPE SHALL BE CPVC PIPE
 - CONDENSATE PIPING SHALL BE CO-EXTRUDED PVC (SCHEDULE 40) PIPE
 - INSIDE GAS PIPING SHALL BE BLACK IRON SCHEDULE 40 WITH MALLEABLE IRON FITTINGS. OUTSIDE SHALL BE GALVANIZED IRON SCHEDULE 40 WITH GALVANIZED FITTINGS. GAS LINE TO BE PAINTED GRAY IN COLOR. A 24 HOUR METERED GAS TEST SHALL BE REQUIRED.
- ALL PIPING NOT ENCLOSED IN CONDITION SPACE OR AT EXTERIOR WALLS SHALL BE INSULATED.
13. PIPING: PVC SCHEDULE 40, SCHEDULE 80 AND CPVC PIPING WITH SOLVENT WELD FITTINGS SHALL BE USED WHERE PERMITTED BY CODE/LOCAL AUTHORITIES
11. ALL VENTS OR EXHAUSTS SHALL BE AT LEAST 10 FT. AWAY OR 3 FT. ABOVE ANY WINDOW, DOOR, OPENING, OR AIR INTAKE.
12. CLEANOUTS SHALL BE INSTALLED PER THE INTERNATIONAL PLUMBING CODE.
13. PROVIDE WATER TIGHT FLASHINGS WHEREVER PIPES PASS THROUGH EXTERIOR WALLS, ROOFS, OR FLOORS.
14. PROVIDE ISOLATION FOR ALL PIPES THAT COME IN CONTACT WITH THE STRUCTURE.
15. LOCATION OF EXISTING UTILITIES AND POINTS OF CONNECTION ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND DEPTHS OF EXISTING UTILITIES AND SERVICES PRIOR TO STARTING WORK OF THIS SECTION. IF INDICATED POINTS OF CONNECTION CANNOT BE MADE TO EXISTING UTILITIES AS FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO INSTALLING ANY WORK WHICH MAY BE AFFECTED.
16. VALVES SHALL BE NIBCO, JENKINS, HAMMOND, RED & WHITE OR APPROVED EQUAL. SERVICE PRESSURE SHALL BE SUITABLE FOR SERVICE INTENDED. THE MAIN WATER SHUT OFF VALVE SHALL BE A FULL PORT BALL TYPE AND APPROVED FOR SERVICE INTENDED.
17. CONTRACTOR SHALL PROVIDE ALL SHUT OFF VALVES AS NECESSARY TO ISOLATE ANY EQUIPMENT, PLUMBING ITEMS, OR FIXTURES, THAT MAY NEED SERVICING OR ARE SUBJECT TO FAILURE WHETHER OR NOT SUCH VALVES ARE SHOWN ON THE DRAWINGS.
18. PROVIDE HANGERS AND SUPPORTS AS REQUIRED. PLUMBERS TAPE AND WIRE ARE NOT ACCEPTABLE.
19. CONTRACTOR IS RESPONSIBLE FOR HIS OWN TRENCHING, BACKFILL, AND COMPACTION OF TRENCHES NECESSARY TO COMPLETE HIS SCOPE OF WORK. BACKFILLED TRENCHES SHALL BE RETURNED TO THEIR ORIGINAL GRADE UNLESS NOTED OTHERWISE.
20. CONTRACTOR SHALL AFFIX A MAINTENANCE LABEL TO ALL EQUIPMENT REQUIRING ROUTINE MAINTENANCE AND SHALL PROVIDE MAINTENANCE AND OPERATIONAL MANUALS IN ACCORDANCE WITH THE SPECIFICATIONS.
21. ALL EQUIPMENT THAT REQUIRES KEYS OR SPECIAL TOOLS TO OPERATE SHALL SUPPLY THE OWNER WITH TWO OF ANY SUCH KEYS OR TOOLS FOR EACH PIECE OF EQUIPMENT THAT REQUIRE THE SAME.
25. ANY CHANGE OR DEVIATION FROM THESE PLANS OR SPECIFICATIONS SHALL REQUIRE THE APPROVAL, IN WRITING, OF THE ENGINEER PRIOR TO COMMENCEMENT OF SUCH WORK.
26. ALL PLUMBING, ELECTRICAL, AND GAS LINES SHALL BE CONCEALED WITHIN THE BUILDING STRUCTURE TO AS GREAT EXTENT AS POSSIBLE. ALL LINES NOT CONCEALED SHALL BE SECURED 6" OFF THE FLOOR AND 3/4" FROM THE WALLS USING STANDOFF BRACKETS
27. AN APPROVED BACKFLOW PREVENTOR SHALL BE PROPERLY INSTALLED UPSTREAM OF ANY POTENTIAL HAZARD BETWEEN THE POTABLE WATER SUPPLY AND SOURCE OF CONTAMINATION.
28. WATER SUPPLY CARBONATORS SHALL BE PROTECTED BY AN APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR. THE RELIEF VALVE SHALL DRAIN IN-DIRECTLY TO A FLOOR SINK WITH A 1" MIN. AIR GAP.

PLUMBING LEGEND		
SYMBOL	ABBRV.	DESCRIPTION
	SS or W	NEW SEWER OR WASTE
	V	NEW VENT
	CW	NEW COLD WATER
	HW	NEW HOT WATER
	G	NEW GAS
	CD	NEW CONDENSATE DRAIN
CA	CA	COMPRESSED AIR
Φ	FCO	FLOOR CLEANOUT
HO	WCO	WALL CLEANOUT
①	FD	FLOOR DRAIN
Ⓜ	FS	FLOOR SINK
Ⓜ	TP	TRAP PRIMER & TRAP PRIMER PIPING
Ⓜ	SOV	SHUT-OFF VALVE
N	CV	CHECK VALVE
Ⓜ	PRV	BACKFLOW PREVENTER W SOV'S
T & P	T & P	
DN	DN	PIPE DOWN
UP	UP	PIPE UP
Ⓜ	POC	POINT OF CONNECTION
Ⓜ	-	PLUMBING NOTE CALL-OUT
	ABV	ABOVE
	AFF	ABOVE FINISH FLOOR
	AP	ACCESS PANEL
	BEL	BELOW
	BLDG	BUILDING
	CLG	CEILING
	CONT	CONTINUATION
	EL	ELEVATION
	FIN	FINISH
	FL	FLOOR
	GR	GRADE
	NTS	NOT TO SCALE
	OC	ON CENTER
	Se %	SLOPE AT A PERCENTAGE
	SHT	SHEET
	TYP	TYPICAL
	VTR	VENT THRU ROOF

PLUMBING / GENERAL NOTES

BATHTUBS AND WHIRLPOOL BATHTUBS. THE MAX. HOT WATER TEMPERATURE DISCHARGING SHALL BE LIMITED TO 120 DEGREES.

BATHTUBS WASTE OPENING IN FLOOR OVER CRAWL SPACES SHALL BE PROTECTED BY A METAL SCREEN NOT EXCEEDING 12" OR SOLID COVER.

SHOWERS AND TUB-SHOWERS COMBINATIONS IN ALL BUILDINGS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION OF BOTH THAT PROVIDE SCALD AND THERMAL SHOCK PROTECTION. VALVES SHALL BE ADJUSTED TO DELIVER A MAXIMUM MIXED WATER SETTING OF 120 DEGREES FAHRENHEIT. THE WATER HEATER THERMOSTAT SHALL NOT BE CONSIDERED A SUITABLE CONTROL FOR MEETING THIS PROVISION. VERIFY AND WHERE WATER PRESSURE EXCEEDS 80 PSI AN APPROVED PRESSURE REGULATOR PRECEDED BY AN ADEQUATE STRAINER SHALL BE INSTALLED 1-INSTALL TEMPERATURE AND PRESSURE RELIEF VALVE WITH MINIMUM 3/4" DRAIN PIPE AND TERMINATE TO THE EXTERIOR OF THE BUILDING OVER WINDOW, DOOR OR VISIBLE LOCATION. DISCHARGE FROM A RELIEF VALVE INTO A WATER HEATER PAN SHALL BE PROHIBITED

2-PROVIDE (ON THE PLANS) A GAS PIPING DIAGRAM OF THE GAS PIPING SYSTEM THAT INCLUDES ALL PIPE SIZES, PIPE LENGTHS AND BTU RATINGS.

3-SUBMIT GAS LOAD CALCULATIONS IN ACCORDANCE WITH IPC TABLE 12-8 TO VERIFY THE PIPE SIZES ARE ADEQUATE FOR THE MAXIMUM DELIVERY CAPACITY OF CUBIC FEET OF GAS PER HOUR. 4- A WHOLE HOUSE HAS TEST IS REQUIRED UPON COMPLETION OF THE INSTALLATION, ALTERATION, OR REPAIR OF ANY GAS PIPING. THE CITY SHALL BE NOTIFIED WHEN GAS PIPING IS READY FOR INSPECTION. 5- 2 GPM SHOWER FIXTURE, MAX.1.5 GPM BATHROOM FAUCET, MAX. 2 GPM KITCHEN FAUCET, AND MAX 1.28 WATER CLOSET TO CONFORM TO CITY GREEN REQUIREMENTS. BATHROOMS: PROVIDE AN EXHAUST FAN (AT LEAST 50 CFM) DUCTED TO THE OUTSIDE (MINIMUM 4" DIAMETER FLEX DUCT WITH A MAXIMUM LENGTH OF 70")WITH A MINIMUM VENTILATION RATE OF 100 CFM, IDENTIFY THE REQUIREMENT FOR A BACKDRAFT DAMPER ON THE DUCT, AN ENERGY STAR COMPLIANT EXHAUST FAN THAT IS CONTROLLED BY A HUMIDITY SENSOR THAT IS CAPABLE OF BEING ADJUSTED BETWEEN ≤ 50-PERCENT TO 80-PERCENT HUMIDITY; AND A SEPARATE SWITCH FROM THE LIGHT UNLESS THE FAN IS ALLOWED TO OPERATE WITH THE LIGHT SWITCHED OFF.

6-NOTE THAT ALL PLUMBING VENTS SHALL TERMINATE NOT LESS THAN 6" ABOVE ROOF NOR LESS THAN 1' FROM ANY VERTICAL SURFACE. VENTS SHALL TERMINATE NOT LESS THAN 10' FROM OR 3' ABOVE ANY WINDOW, DOOR OPENING AIR INTAKE, OR VENT SHAFT NOR 3' FROM LOT LINE. IF WATER PRESSURE EXCEEDS 80 PSI, AND EXPANSION TANK AND AN APPROVED PRESSURE REGULATOR SHALL BE INSTALLED. NON-REMOVABLE BACK FLOW PRE-VENTER OR BIBB-TYPE VACUUM BREAKER WILL BE INSTALLED ON ALL EXTERIOR HOSE BIBS. HOT WATER RE-CIRCULATING SYSTEM IS INSTALLED, THE ENTIRE LENGTH OF HOT WATER PIPES SHALL BE INSULATED.

- NOTES:
- 1-Projects which disturbs less than one acre of soil shall manage storm water drainage during construction by one of the following: A. Retention basins. B. Where storm water is conveyed to a public drainage system, water shall be filtered by use of a barrier system, wattle or other approved method.
 - 2-Site grading or drainage system will manage all surface water flows to keep water from entering buildings (swales, water collection, French drains, etc.). CGC Section 4.106.3. Exception: Additions not altering the drainage path.
 - 3-When a shower is provided with multiple shower heads, the sum of flow to all the heads shall not exceed 1.8 gpm @ 80 psi, or the shower shall be designed so that only one head is on at a time. CGC Section 4.303.1.3.2.
 - 4-Landscape irrigation water use shall have weather or soil based controllers. CGC Section 4.304.1.
 - 5-The plans that a minimum of 65% of construction waste is to be recycled. CGC Section 4.408.1.
 - 6-The contractor shall submit a Construction Waste Management Plan, per CGC Section 4.408.2.
 - 7-The builder is to provide an operation manual (containing information for maintaining appliances, etc.) for the owner at the time of final inspection. CGC Section 4.410.1.
 - 8-The gas fireplace(s) shall be a direct-vent sealed- combustion type. Woodstove or pellet stoves must be US EPA Phase II rated appliances. CGC Section 4.503.1.

WATER SAVING STANDARDS.

THE WATER SAVING PERFORMANCE STANDARDS FOR A PLUMBING FIXTURE ARE THOSE ESTABLISHED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), CURRENT REVISION, OR THE FOLLOWING STANDARDS, WHICHEVER ARE THE MORE RESTRICTIVE 1-THE MAXIMUM FLOW FROM A SINK OR LAVATORY FAUCET OR A FAUCET AERATOR SHALL NOT EXCEED 0.5 GALLONS OF WATER PER MINUTE AT A PRESSURE OF 60 POUNDS PER SQUARE INCH WHEN TESTED IN ACCORDANCE WITH ANSI TESTING PROCEDURES. 2- THE MAXIMUM VOLUME OF WATER PER FLUSH FROM A TOILET SHALL NOT EXCEED AN AVERAGE OF 1.28 GALLONS WHEN TESTED IN ACCORDANCE WITH ANSI TESTING PROCEDURES 3- THE MAXIMUM VOLUME OF WATER PER FLUSH FROM A URINAL AND THE ASSOCIATED FLUSH VALVE, IF ANY, SHALL NOT EXCEED AN AVERAGE OF ONE GALLON WHEN TESTED IN ACCORDANCE WITH ANSI TESTING PROCEDURES

SPECIAL NOTICE TO CONTRACTORS

1. ALL CONTRACTORS (GENERAL CONTRACTOR AND SUB-CONTRACTORS) BIDDING THIS PROJECT ARE REQUIRED TO VISIT THE JOB SITE AND VERIFY THE EXISTING CONDITIONS PRIOR TO SUBMITTING THEIR BID. CONTRACTORS ARE TO CAREFULLY REVIEW ALL CONSTRUCTION DOCUMENTS AND NOTE ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CONDITIONS OBSERVED AT THE JOB SITE PRIOR TO SUBMISSION OF ANY BID. THE BUILDING OWNER REPRESENTATIVE LISTED BELOW MAY BE CONTACTED FOR ACCESS TO THE JOB SITE.
2. CONTRACTORS ARE RESPONSIBLE FOR VERIFYING THE LOCATION AND CONDITION OF ALL POINTS OF CONNECTION, LOCATION AND CONDITION OF ALL BUILDING (ROOF/FLOOR/CEILING) PENETRATIONS, LOCATION AND CONDITION OF ALL UTILITIES AND BUILDING SYSTEMS INCLUDING, BUT NOT LIMITED TO, GAS, WATER, SEWER, VENT, ELECTRICAL, BUILDING MECHANICAL SYSTEMS, DUCT CONNECTIONS, EXHAUST/OUTSIDE AIR CONNECTIONS, SECURITY, FIRE ALARM, DATA, AND PHONE PRIOR TO SUBMISSION OF THEIR BID.
3. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CONDITIONS OBSERVED SHALL BE BROUGHT TO THE ATTENTION, IN WRITING, TO THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

PLUMBING LIST OF DRAWINGS (LoD):

SHEET TAG	TITLE	SCALE
P 0.00	PLUMBING GENERAL NOTES AND SPECIFICATIONS.	NTS
P 0.01	PLUMBING CODE CHECKING.	NTS
P 1.01	WATER SUPPLY LAYOUTS.	3/16"=1'-0"
P 2.01	SANITARY LAYOUTS.	3/16"=1'-0"
P 3.01	GAS LAYOUTS.	3/16"=1'-0"
P 4.01	GAS RISER DIAGRAM, WATER HEATER SIZING & SCHED.	NTS
P 5.01	PLUMBING GENERAL DETAILS - 1	NTS
P 5.02	PLUMBING GENERAL DETAILS -2	NTS
P 6.01	WATER SUPPLY RISER DIAGRAM	NTS
P 6.02	INDIRECT WASTE RISER DIAGRAM	NTS
P 6.03	SEWER RISER DIAGRAM	NTS

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REVISIONS

PLUMBING GENERAL NOTES AND SPECIFICATIONS

Project Number: 02-021

Date: 02.28.2023

Drawn By: MN

Client: Walter Green, Uncle Willie's

PLUMBING CODE CHECKING AND GENERAL SCHEDULES.

Cleanouts are required at the upper most terminals of all horizontal waste lines. Please provide cleanouts location within the floor plan.

ABS/PVC vent terminations up through the roof exposed to sunlight are required to be protected by water based synthetic latex paints.” 906.1

FIXTURE TYPE	MAXIMUM FLOW RATE
Water closets	1.28 gallons/flush
Urinals	0.125/0.5 gallon/flush
Hand-Held Shower Heads	1.8 gpm @ 80 psi
Lavatory, private	1.2 gpm @60 psi
Lavatory, public	0.5 gpm @60 psi
Sink Faucets	2.2 gpm @ 60 psi / 1.8 gpm @ 80 psi

ALL PIPE BELOW 4"Ø PIPE SIZE TO BE SLOPED 2%.
ALL PIPES GREATER THAN 4"Ø PIPE SIZE SHALL BE SLOPED 1%.

Water piping and cooling system line insulation thickness and conductivity Piping shall be insulated to the thickness as follows:
a) All domestic hot water system piping conditions listed below, whether buried or unburied, must be insulated and the insulation thickness shall be selected based on the conductivity range in TABLE 120.3-A and the insulation level shall be selected from the fluid temperature range based on the thickness requirements in TABLE 120.3A
b) The first 5 feet of hot and cold-water pipes from the storage tank.
c) All piping with a nominal diameter of 3/4 inch (19 millimeter) or larger.
d) All piping associated with a domestic hot water recirculation system regardless of the pipe diameter.
e) All hot water piping from the heat source to the kitchen fixtures

“Galvanized malleable iron, galvanized wrought iron, or galvanized steel are prohibited materials for water supply and building water piping both underground and in buildings.”

Each valve needs a hose bibb or other fitting allowing for flushing the water heater when the valves are closed.

WATER CONSERVING PLUMBING FIXTURES AND FITTINGS
425 All Water closets: 1.6 gal/flush. Water closets shall conform to the hydraulic performance requirements of ASME A112.19.2/CSA B45.1. Water closet tanks shall conform to ASME A112.19.2/CSA B45.1, ASME A112.19.3/CSA B45.4 or CSA B45.5/IAPMO Z124.
424 Urinals: 1.0 gal/flush
412.2 Hand-Held Shower Heads: 2.5 gpm @ 80 psi. Hand-held showers shall conform to ASME A112.18.1/CSA B125.1.
412.4 Multiple showerheads: supplied with a single-tempered water supply pipe shall have the water supply for such showers controlled by an approved automatic temperature control mixing valve that conforms to ASSE 1069 or CSA B125.3
419 Private Lavatories: 2.2 gpm @ 60 psi. Lavatories shall conform to ASME A112.19.1/CSA B45.2, ASME A112.19.2/CSA B45.1, ASME A112.19.3/CSA B45.4 or CSA B45.5/IAPMO Z124.
604.4 Metering Faucets: 0.25 gallons per cycle
604.4 Kitchen Faucets: 2.2 gpm @ 60 psi
PLUMBING FIXTURE CERTIFICATION REQUIRED: A plumbing fixture certification must be completed and signed by either a licensed general contractor, or a plumbing subcontractor, or the building owner certifying the flow rate of the fixtures installed. A copy of the certification can be obtained from the development services department.

PLUMBING PIPING MATERIAL SCHEDULE		
PIPING SYSTEM	LOCATION	ACCEPTABLE PIPING MATERIAL
DOMESTIC WATER	BELOW GRADE	ASTM B 88 TYPE K SOLDERED COPPER
	ABOVE GRADE	PEX A COMPRESSION JOINT
WASTE & VENT	BELOW AND ABOVE GRADE	ASTM D 2665 PVC SCHEDULE 40, SOCKET FITTINGS DWV
	FROM SECOND TO FIRST FLOOR	ASTM A 888 CAST IRON, NO HUB SYSTEM

MINIMUM PIPE SIZE PER FIXTURE

FIXTURE UNIT	DR (INCH)	VENT (IN.)
SHOWER	2	2
WATER CLOSET	4	2
LAVATORY	2	2
KITCHEN SINK	2	2
DISHWASHER	2	2
BATHTUB	2	2
LAUNDRY MACHINE	2	2

DOMESTIC WATER PIPE SIZING TABLE																	
BC PLUMBING CODE (2021) SECTION 2.6.3.1 DOMESTIC WATER PIPE SIZING IN ACCORDANCE WITH ASPE PLUMBING ENGINEERING DESIGN HANDBOOK VOL. 2. BC PLUMBING CODE (2021) SECTION 2.6.3.2. THIS TABLE IS TO BE USED IN CONJUNCTION WITH THE HYDRAULIC LOAD REQUIREMENTS FOR EACH FIXTURE. BC PLUMBING CODE (2021) SECTION 2.6.3.5. DOMESTIC WATER PIPE SIZING IN ACCORDANCE WITH THE MAXIMUM PERMITTED WATER VELOCITIES AS RECOMMENDED BY THE PIPE AND FITTING MANUFACTURER. * PEX VALUES ARE BASED UPON UPONOR AQUAPEX.																	
PIPE MATERIAL		PEX*			PEX*			DUCTILE IRON & STAINLESS STEEL			COPPER (TYPE L)			COPPER (TYPE K)			COPPER (TYPE K)
POTABLE WATER SYSTEM		DCW / DHW			DHWR			DCW / DHW			DCW			DHW			DHWR
MAXIMUM ALLOWABLE VELOCITY		2.4 m/s (8 ft/s)			0.6 m/s (8 ft/s)			2.4 m/s (8 ft/s)			1.5 m/s (5 ft/s)			1.2 m/s (4 ft/s)			0.9 m/s (3 ft/s)
[MM]	[INCH]	L/S	GPM	FU	L/S	GPM	L/S	GPM	FU	L/S	GPM	FU	L/S	GPM	FU	L/S	GPM
15 MM	1/2"	0.28	4.4	4.5	0.07	1.1	0.36	5.7	7	0.23	3.6	3.5	0.18	2.9	2.5	0.06	1
20 MM	3/4"	0.55	8.8	11.5	0.14	2.2	0.77	12.2	17	0.48	7.6	9	0.38	6.0	7.5	0.32	5
25 MM	1"	0.92	14.5	20.5	0.23	3.6	1.26	20.0	30	0.81	12.8	18	0.65	10.3	14	0.60	9.5
32 MM	1-1/4"	1.36	21.8	34	0.34	5.4	1.80	28.5	54	1.24	19.7	29	0.99	15.7	22	1.01	16
40 MM	1-1/2"	1.91	30.3	55	0.48	7.5	2.80	44.4	102	1.75	27.7	46	1.40	22.2	34	1.51	24
50 MM	2"	3.27	51.9	138	0.82	12.9	4.92	78.0	265	3.04	48.2	120	2.43	38.5	81	2.59	41

PLUMBING FIXTURE SCHEDULE									
FIXT- ID	DESCRIPTION	MANUFACTURER	MODEL	ROUGH-IN				REMARKS	
				W	V	CW	HW		
3CS-1	3-COMPARTMENT SINK	SELECT BY ARCH/OWNER	-	3"	2"	3/4"	3/4"	SELECTED BY ARCHITECT/OWNER. VERIFY FOR EXACT SPECIFICATION AND MODEL NUMBER OF PLUMBING FIXTURE WITH ARCHITECT AND OWNER PRIOR TO ORDERING AND INSTALLATION	
HS-1	HAND SINK	SELECT BY ARCH/OWNER	-	2"	2"	1/2"	1/2"	SELECTED BY ARCHITECT/OWNER. VERIFY FOR EXACT SPECIFICATION AND MODEL NUMBER OF PLUMBING FIXTURE WITH ARCHITECT AND OWNER PRIOR TO ORDERING AND INSTALLATION	
TP-1	TRAP PRIMER	WATTS	LFTP300-DR	-	-	1/2"	-	WATTS DRAINAGE LFTP300-DR PRESSURE DROP ACTIVATED LEAD FREE*BRASS TRAP PRIMER WITH EPDM SEALS, INTEGRAL AIR GAP, AND 1/2"SWEAT OR NPT THREADED CONNECTIONS. OPERATING PRESSURE 25 PSI – 125 PSI. TESTED AND APPROVED IN CONFORMANCE WITH ASSE STANDARD 1018. SPECIFY MODEL LFTP300-DU-DR FOR DISTRIBUTION UNIT.	
FCO	FLOOR CLEANOUT	WATTS	CO-200-S	PIPE SIZE	-	-	-	WATTS DRAINAGE CO-200-S EPOXY COATED CAST IRON FLOOR CLEANOUT WITH 5"X5" SQUARE ADJUSTABLE GASKETED NICKEL BRONZE TOP, REMOVABLE GAS TIGHT GASKETED BRASS CLEANOUT PLUG, AND NO HUB (STANDARD) OUTLET.	
WCO	WALL CLEANOUT	WATTS	CO-380	PIPE SIZE	-	-	-	WATTS DRAINAGE CO-380 CAST IRON CLEANOUT WITH GASKETED BRASS COUNTERSUNK PLUG, AND NO HUB CONNECTION.	
FS-1	FLOOR SINK	WATTS	FS-780	2"	2"	-	-	WATTS DRAINAGE FS-780 12" SQUARE X 6" DEEP 14 GA. TYPE 304 STAINLESS STEEL SANITARY FLOOR SINK WITH LOOSE SET CAST STAINLESS STEEL GRATE, DOME BOTTOM STRAINER, AND NO HUB (STANDARD) OUTLET.	
FD-1	FLOOR DRAIN	WATTS	FD-320-Y	2"	2"	-	-	WATTS DRAINAGE FD-320-Y EPOXY COATED CAST IRON AREA DRAIN WITH ANCHOR FLANGE, WEEPHOLES, 8"DIAMETER FIXED TOP WITH HEEL PROOF DUCTILE IRON GRATE, AND NO HUB (STANDARD) OUTLET.	
WC-1	WATER CLOSET (ADA APPROVED)			4"	2"	3/4"	-	DELTA MODEL # C41908-WH4.5547(411) TURNER 2-PIECE 1.28 GPF SINGLE FLUSH ROUND FRONT TOILET IN WHITE. TOILET SHALL BE ADA AND ASME A112.19.1 COMPLIANT (OR APPROVED EQUAL).	
LAV-1	LAVATORY (ADA APPROVED)			2"	2"	1/2"	1/2"	*KOHLER* HUDSON MODEL K-2849 WHITE VITREOUS CHINA WALL MOUNTED LAVATORY WITH 4" CENTERS OR APPROVED EQUAL. INCLUDE MODEL K-7401-5A FAUCET WITH STANDARD AERATOR AND WRISTBLADE HANDLES. LAVATORY AND FAUCETS SHALL BE ADA AND ASME A112.19.1M COMPLIANT (OR APPROVED EQUAL).	

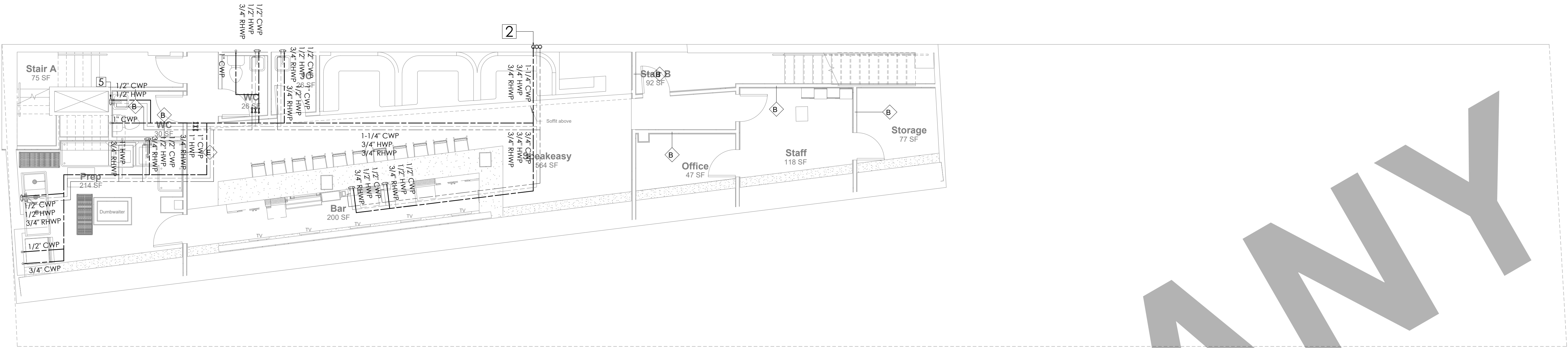
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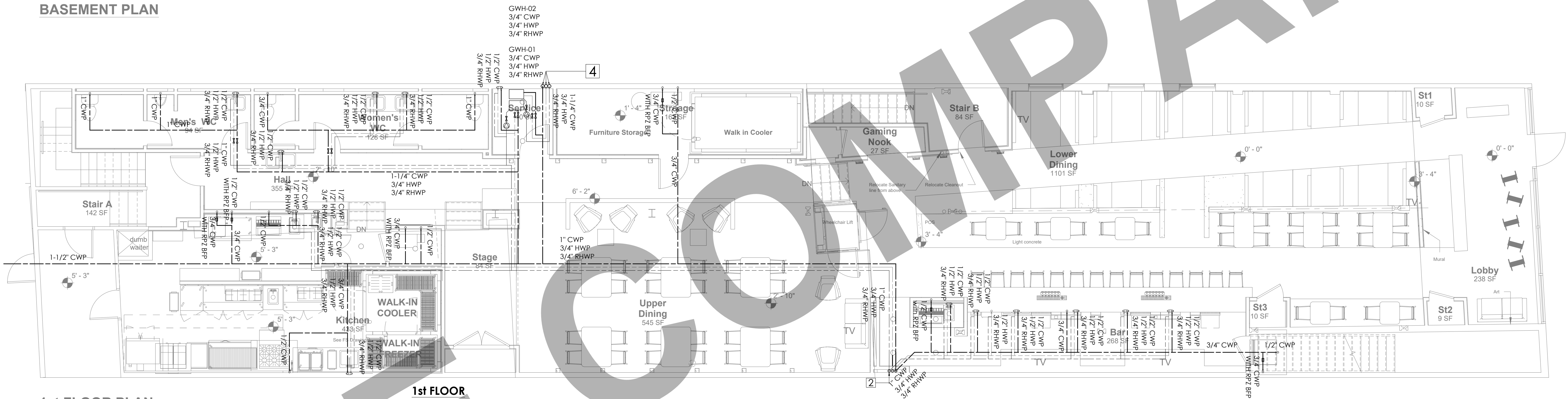
REVISIONS

PLUMBING CODE CHECKING AND GENERAL SCHEDULES

Project Number: 02-021
Date: 02.28.2023
Drawn By: MN
Client: Walter Green, Uncle Willie's



BASEMENT PLAN



1st FLOOR PLAN

BASEMENT
FROM 2021 NSPC- TABLE B.5.2:
WATER SUPPLY FIXTURE UNITS FLOW WSFU:

FIXTURE	COLD	HOT	TOTAL	QTY.	TOTAL WSFU
DISHWASH	0.0	1.5	1.5	1	1.5
SERVICE SINK	2.3	2.3	3.0	1	3.0
3- COMP. SINK	1.1	1.1	1.5	1	1.5
PRERINSE	2.3	2.3	3.0	1	3.0
MIXOLOGY UNIT	0.5	0.5	0.5	1	0.5
HAND SINK	1.1	1.1	1.5	1	2.5
WATER CLOSET	2.5	0.0	2.5	2	5.0
LAVATORY	0.8	0.8	1.0	2	2.0
CUBER-AIR-COOLED	0.5	0.0	0.5	1	0.5
COLD DRINK	0.5	0.0	0.5	1	0.5
TOTAL BUILDING WSFU =					20.0

1st FLOOR
FROM 2021 IPC-GA - TABLE 604.3:
WATER SUPPLY FIXTURE UNITS FLOW WSFU:

FIXTURE	COLD	HOT	TOTAL	QTY.	TOTAL WSFU
CARBUNATOR	0.5	0.0	0.5	2	1.0
DROP-IN SINK	1.1	1.1	1.5	3	4.5
COLD DRINK	0.5	0.0	0.5	4	2.0
DISPENSER	0.5	0.0	0.5	2	1.0
COFFEE BREWER	0.5	0.0	1.5	1	1.5
HAND SINK	1.1	1.1	1.5	3	4.5
WATER CLOSET	2.5	0.0	2.5	3	7.5
LAVATORY	0.8	0.8	1.0	4	4.0
URINAL	4.0	0.0	4.0	1	4.0
MOP SINK	2.3	2.3	3.0	1	3.0
ALL IN ONE STATION	0.5	0.0	0.5	2	1.0
FIXTURE	COLD	HOT	TOTAL	QTY.	TOTAL WSFU
3 COMP SINK	1.1	1.1	1.5	1	1.5
RINSER	1.5	0.0	1.5	2	1.5
SERVICE SINK	2.3	2.3	3.0	1	3.0
TOTAL BUILDING WSFU =					40.0

ITEM	WSFU	SIZE
COLD	47.9	1.5
HOT	29.9	1.5
COMBINED	60.0	1.5

WATER SUPPLY SHEET NOTES:

- 1
- DCW, DHW RISE TO HIGH LEVEL.
- 2
- DCW & DHW DROP IN WALL.
- 3
- DCW FROM BELOW GRADE UP IN WALL.
- 4
- DHW DOWN TO BELOW GRADE.
- 5
- DCW/DHW/RHW TO FIXTURE CONNECTION.

GENERAL NOTES:

1.
- PRIOR TO PERFORMING WORK, CONTRACTOR TO COORDINATE EXACT PIPE SIZES, INVERT ELEVATIONS, PRESSURES FOR LOCATIONS OF ANY SEWER, WATER PIPING AND WATER METER WITH CIVIL UTILITIES DRAWINGS, AND ANY OTHER ENGINEER AS APPLICABLE.
2.
- PRIOR TO PERFORMING WORK, CONTRACTOR TO COORDINATE PIPE ROUTING WITH ALL OTHER TRADES AND EXISTING FIELD CONDITIONS.
3.
- REFER TO MECHANICAL PLANS FOR PLUMBING SPECIFICATION OF MATERIAL, INSULATION AND INSTALLATION REQUIREMENTS.
4.
- CONTRACTOR IS RESPONSIBLE FOR ROUGH-IN COORDINATION AND LOCATIONS. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS AND FIXTURES.
5.
- CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED CUTTING AND PATCHING.
6.
- ALL NOTCHING, BORING, AND CUTTING OF HOLES IN WALL STUDS AND FLOOR JOISTS SHALL BE PERFORMED BASED ON THE LATEST ADOPTED AND APPROVED EDITION OF THE BUILDING CODE.
7.
- ALL PLUMBING FIXTURES SHALL BE OF WATER CONSERVATION TYPE AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
8.
- ALL WATER PIPING SHALL BE INSTALLED ON INTERIOR SIDE OF THE BUILDING WALL INSULATION.
9.
- CONTRACTOR SHALL PROVIDE VALVES LOCATED ABOVE LAY-IN CEILING OR 24"x24" CEILING ACCESS PANEL COORDINATE FINAL LOCATION AND SIZE WITH ARCHITECT. PROVIDE BALANCING VALVES FOR HOT WATER RETURN SYSTEM AS REQUIRED.
10.
- ALL SANITARY DRAINAGE PIPING 4" AND SMALLER SHALL BE SLOPED AT 1/8" PER FOOT. PIPING 4" AND LARGER SHALL BE SLOPED AT 1/4" PER FOOT.
11.
- ALL CONDENSATE DRAIN PIPING SHALL BE SLOPED AT 1/8" PER FOOT AND PROVIDE ACCESSIBLE CLEANOUTS AT ALL CHANGES OF DIRECTION.
12.
- VENTS THAT TERMINATE AT THE ROOF SHALL BE A MINIMUM OF 10' FROM ANY FRESH AIR INTAKE.
13.
- REFER TO THE PLUMBING DIAGRAMS FOR GUIDANCE OF INSTALLATION INTENT. CONTRACTOR IS TO PROVIDE ALL COMPONENTS NECESSARY TO MEET THE DESIGN INTENT, WHETHER SHOWN IN DIAGRAM OR NOT.
14.
- EACH VENT PIPE OR STACK SHALL EXTEND THROUGH ITS FLASHING AND SHALL TERMINATE VERTICALLY NOT LESS THAN 6 INCHES (152 MM) ABOVE THE ROOF NOR LESS THAN 1 FOOT (305 MM) FROM A VERTICAL SURFACE.
15.
- EACH VENT SHALL TERMINATE NOT LESS THAN 10 FEET (3048 MM) FROM, OR NOT LESS THAN 3 FEET (914 MM) ABOVE, AN OPENABLE WINDOW, DOOR, OPENING, AIR INTAKE, OR VENT SHAFT, OR NOT LESS THAN 3 FEET (914 MM) IN EVERY DIRECTION FROM A LOT LINE, ALLEY AND STREET EXCEPTED.

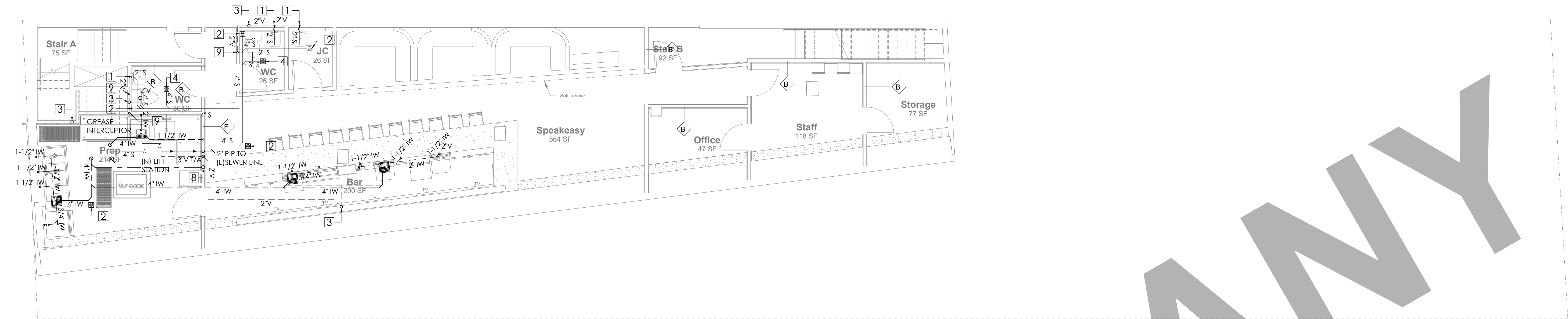
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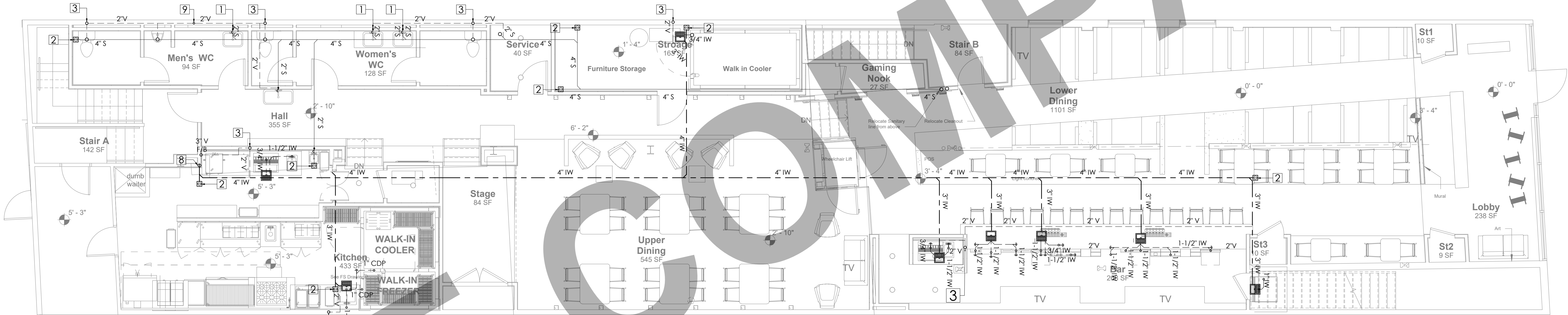
REVISIONS

WATER SUPPLY LAYOUTS

Project Number: 02-021
Date: 02.28.2023
Drawn By: MN
Client: Walter Green, Uncle Willie's



BASEMENT PLAN



1st FLOOR PLAN

BASEMENT

FROM 2021 NSPC - TABLE 11.4.1:

DIRECT WASTE FIXTURE UNIT VALUES (DFU)

FIXTURE	D.F.U	QTY.	TOTAL D.F.U
SERVICE OR MOP SINK	3.0	1	3.0
WATER CLOSET	4.0	2	8.0
LAVATORY	1.0	2	2.0
TOTAL BUILDING DFU =			13.0

1ST FLOOR

FROM 2021 NSPC - TABLE 11.4.1:

DIRECT WASTE FIXTURE UNIT VALUES (DFU)

FIXTURE	D.F.U	QTY.	TOTAL D.F.U
SERVICE OR MOP SINK	3.0	1	3.0
HAND SINK	2.0	1	3.0
WATER CLOSET	4.0	3	12.0
LAVATORY	1.0	3	3.0
URINAL	4.0	1	4.0
TOTAL BUILDING DFU =			22.0

BASEMENT

FROM 2021 NSPC - TABLE 11.4.1:

INDIRECT WASTE FIXTURE UNIT VALUES (DFU)

FIXTURE	D.F.U	QTY.	TOTAL D.F.U
DRAINBOARD CABINET	2.0	3	6.0
ICE BIN	1.0	2	2.0
MIXOLOGY UNIT	2.0	1	2.0
SINGLE HAND SINK	2.0	1	2.0
CUBER-AIR-COOLED	1.0	1	1.0
3-COMP SINK	3.0	1	3.0
PRE-RINSE	2.0	3	6.0
DISHTABLE	2.0	1	2.0
TOTAL BUILDING DFU =			24.0

1ST FLOOR

FROM 2021 NSPC - TABLE 11.4.1:

INDIRECT WASTE FIXTURE UNIT VALUES (DFU)

FIXTURE	D.F.U	QTY.	TOTAL D.F.U
DROP-IN SINK	2.0	2	4.0
EVAPORATOR BLOWER	1.0	3	3.0
DROP-IN DISPENSER	1.0	1	1.0
DRAINBOARD CABINET	2.0	4	8.0
SINGLE HAND SINK	2.0	2	4.0
ALL-IN ONE STATION	2.0	2	4.0
3-COMP SINK	2.0	1	2.0
DRIPTRAY	1.0	2	2.0
DROP-IN SINK	2.0	1	2.0
ICE-COOLED DISPENSER	1.0	1	1.0
CRESCENT CUBER	1.0	1	1.0
ICE STORAGE	1.0	1	1.0
TOTAL BUILDING DFU =			33.0

- SANITARY SHEET NOTES:
- 1

→ WASTE DROP AND 2" VENT RISE.
- 2

→ 4" FLOOR CLEAN-OUT.
- 3

→ 3" VENT STACK TO ABOVE.
- 4

→ 3" FLOOR DRAIN.
- 5

→ 4" SOIL DROP FROM ABOVE.
- 6

→ WASTE DROP
- 7

→ SOIL DROP AND 4" VENT RISE.
- 8

→ INDIRECT WASTE

GREASE INTERCEPTOR SIZING:

- 1ST FLOOR I.W DFU = 33.0

- 2ND FLOOR I.W. DFU = 24.0

- TOTAL I.W. DFU = 57.0

- 1 DFU = 1.0 GPM

- 57.0 DFU = 57.0 GPM

AS PER NEW JERSEY PLUMBING CODE 2021:

SIZING OF G.I. SHALL BE FOR MIN. OF 30 MINUTES.

MIN. GREASE INTERCEPTOR SIZE = 57 x 30 = 1,710

GREASE INTERCEPTOR SIZE = 1,800 GALLONS.

- GENERAL NOTES:
1.

PRIOR TO PERFORMING WORK, CONTRACTOR TO COORDINATE EXACT PIPE SIZES, INVERT ELEVATIONS, PRESSURES FOR LOCATIONS OF ANY SEWER, WATER PIPING AND WATER METER WITH CIVIL UTILITIES DRAWINGS, AND ANY OTHER ENGINEER AS APPLICABLE.
2.

PRIOR TO PERFORMING WORK, CONTRACTOR TO COORDINATE PIPE ROUTING WITH ALL OTHER TRADES AND EXISTING FIELD CONDITIONS.
3.

REFER TO MECHANICAL PLANS FOR PLUMBING SPECIFICATION OF MATERIAL, INSULATION AND INSTALLATION REQUIREMENTS.
4.

CONTRACTOR IS RESPONSIBLE FOR ROUGH-IN COORDINATION AND LOCATIONS. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS AND FIXTURES.
5.

CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED CUTTING AND PATCHING.
6.

ALL NOTCHING, BORING, AND CUTTING OF HOLES IN WALL STUDS AND FLOOR JOISTS SHALL BE PERFORMED BASED ON THE LATEST ADOPTED AND APPROVED EDITION OF THE BUILDING CODE.
7.

ALL PLUMBING FIXTURES SHALL BE OF WATER CONSERVATION TYPE AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
8.

ALL WATER PIPING SHALL BE INSTALLED ON INTERIOR SIDE OF THE BUILDING WALL INSULATION.
9.

CONTRACTOR SHALL PROVIDE VALVES LOCATED ABOVE LAY-IN CEILING OR 24"x24" CEILING ACCESS PANEL COORDINATE FINAL LOCATION AND SIZE WITH ARCHITECT. PROVIDE BALANCING VALVES FOR HOT WATER RETURN SYSTEM AS REQUIRED.
10.

ALL SANITARY DRAINAGE PIPING 4" AND SMALLER SHALL BE SLOPED AT ¼" PER FOOT. PIPING 4" AND LARGER SHALL BE SLOPED AT ⅛" PER FOOT.
11.

ALL CONDENSATE DRAIN PIPING SHALL BE SLOPED AT ⅛" PER FOOT AND PROVIDE ACCESSIBLE CLEANOUTS AT ALL CHANGES OF DIRECTION.
12.

VENTS THAT TERMINATE AT THE ROOF SHALL BE A MINIMUM OF 10' FROM ANY FRESH AIR INTAKE.
13.

REFER TO THE PLUMBING DIAGRAMS FOR GUIDANCE OF INSTALLATION INTENT. CONTRACTOR IS TO PROVIDE ALL COMPONENTS NECESSARY TO MEET THE DESIGN INTENT, WHETHER SHOWN IN DIAGRAM OR NOT.
14.

EACH VENT PIPE OR STACK SHALL EXTEND THROUGH ITS FLASHING AND SHALL TERMINATE VERTICALLY NOT LESS THAN 6 INCHES (152 MM) ABOVE THE ROOF NOR LESS THAN 1 FOOT (305 MM) FROM A VERTICAL SURFACE.
15.

EACH VENT SHALL TERMINATE NOT LESS THAN 10 FEET (3048 MM) FROM, OR NOT LESS THAN 3 FEET (914 MM) ABOVE, AN OPENABLE WINDOW, DOOR, OPENING, AIR INTAKE, OR VENT SHAFT, OR NOT LESS THAN 3 FEET (914 MM) IN EVERY DIRECTION FROM A LOT LINE, ALLEY AND STREET EXCEPTED.

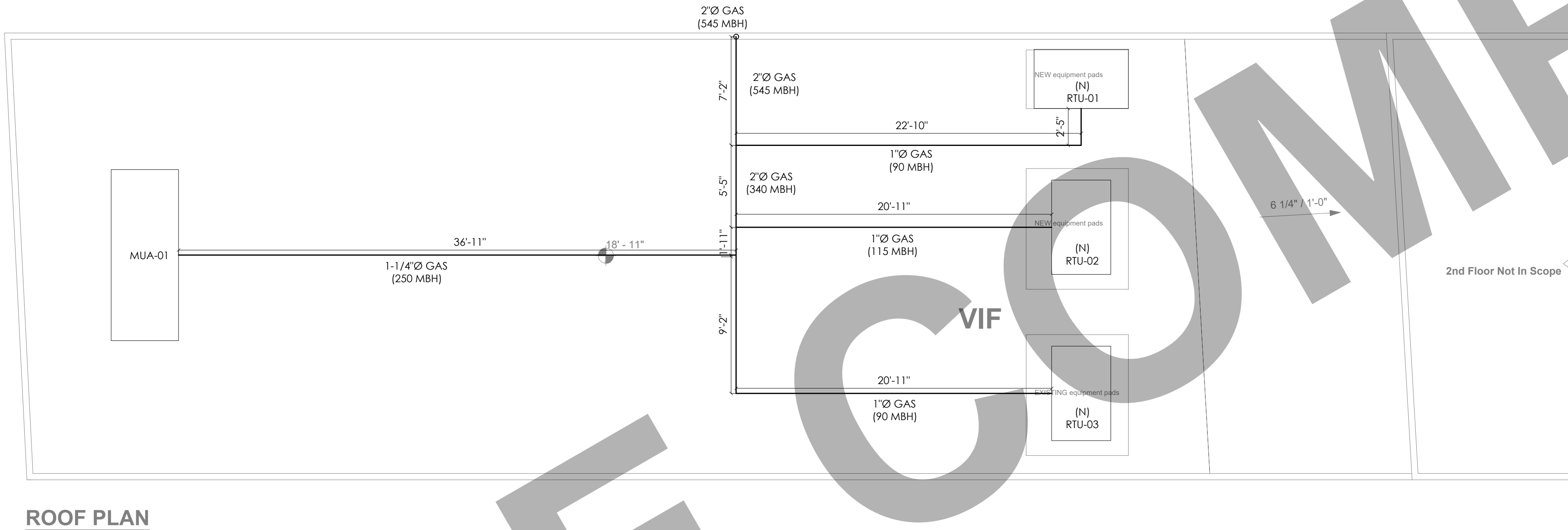
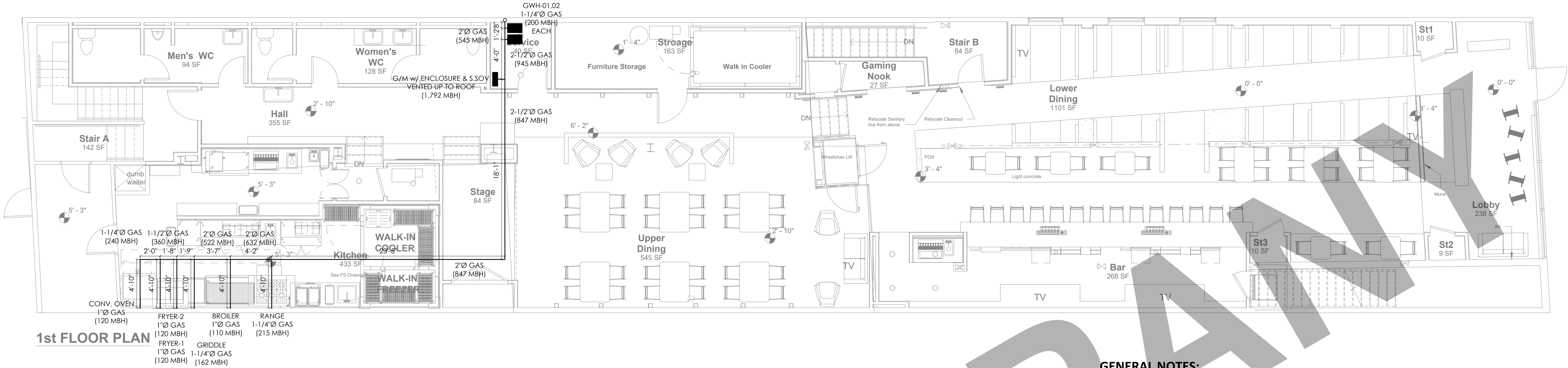
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REVISIONS

SANITARY LAYOUTS.

Project Number: 02-021
Date: 02.28.2023
Drawn By: MN
Client: Walter Green, Uncle Willie's



GENERAL NOTES:

1. PRIOR TO PERFORMING WORK, CONTRACTOR TO COORDINATE EXACT PIPE SIZES, INVERT ELEVATIONS, PRESSURES FOR LOCATIONS OF ANY SEWER, WATER PIPING AND WATER METER WITH CIVIL UTILITIES DRAWINGS, AND ANY OTHER ENGINEER AS APPLICABLE.
2. PRIOR TO PERFORMING WORK, CONTRACTOR TO COORDINATE PIPE ROUTING WITH ALL OTHER TRADES AND EXISTING FIELD CONDITIONS.
3. REFER TO MECHANICAL PLANS FOR PLUMBING SPECIFICATION OF MATERIAL, INSULATION AND INSTALLATION REQUIREMENTS.
4. CONTRACTOR IS RESPONSIBLE FOR ROUGH-IN COORDINATION AND LOCATIONS. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS AND FIXTURES.
5. CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED CUTTING AND PATCHING.
6. ALL NOTCHING, BORING, AND CUTTING OF HOLES IN WALL STUDS AND FLOOR JOISTS SHALL BE PERFORMED BASED ON THE LATEST ADOPTED AND APPROVED EDITION OF THE BUILDING CODE.
7. ALL PLUMBING FIXTURES SHALL BE OF WATER CONSERVATION TYPE AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
8. ALL WATER PIPING SHALL BE INSTALLED ON INTERIOR SIDE OF THE BUILDING WALL INSULATION.
9. CONTRACTOR SHALL PROVIDE VALVES LOCATED ABOVE LAY-IN CEILING OR 24"x24" CEILING ACCESS PANEL COORDINATE FINAL LOCATION AND SIZE WITH ARCHITECT. PROVIDE BALANCING VALVES FOR HOT WATER RETURN SYSTEM AS REQUIRED.
10. ALL SANITARY DRAINAGE PIPING 4" AND SMALLER SHALL BE SLOPED AT $\frac{1}{8}$ " PER FOOT. PIPING 4" AND LARGER SHALL BE SLOPED AT $\frac{1}{8}$ " PER FOOT.
11. ALL CONDENSATE DRAIN PIPING SHALL BE SLOPED AT $\frac{1}{8}$ " PER FOOT AND PROVIDE ACCESSIBLE CLEANOUTS AT ALL CHANGES OF DIRECTION.
12. VENTS THAT TERMINATE AT THE ROOF SHALL BE A MINIMUM OF 10' FROM ANY FRESH AIR INTAKE.
13. REFER TO THE PLUMBING DIAGRAMS FOR GUIDANCE OF INSTALLATION INTENT. CONTRACTOR IS TO PROVIDE ALL COMPONENTS NECESSARY TO MEET THE DESIGN INTENT, WHETHER SHOWN IN DIAGRAM OR NOT.
14. EACH VENT PIPE OR STACK SHALL EXTEND THROUGH ITS FLASHING AND SHALL TERMINATE VERTICALLY NOT LESS THAN 6 INCHES (152 MM) ABOVE THE ROOF NOR LESS THAN 1 FOOT (305 MM) FROM A VERTICAL SURFACE.
15. EACH VENT SHALL TERMINATE NOT LESS THAN 10 FEET (3048 MM) FROM, OR NOT LESS THAN 3 FEET (914 MM) ABOVE, AN OPENABLE WINDOW, DOOR, OPENING, AIR INTAKE, OR VENT SHAFT, OR NOT LESS THAN 3 FEET (914 MM) IN EVERY DIRECTION FROM A LOT LINE, ALLEY AND STREET EXCEPTED.

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REVISIONS

GAS LAYOUTS.

Project Number: 02-021
Date: 02.28.2023
Drawn By: MN
Client: Walter Green, Uncle Willie's

GAS ISOMETRIC RISER DIAGRAM

The diagram illustrates the gas supply system for a kitchen. The main riser is a vertical pipe that branches out to various pieces of equipment. The equipment and its gas requirements are as follows:

- CONV. OVEN:** 1"Ø GAS (120 MBH)
- FRYER-1:** 1"Ø GAS (120 MBH)
- FRYER-2:** 1"Ø GAS (120 MBH)
- GRIDDLE:** 1-1/4"Ø GAS (162 MBH)
- BROILER:** 1"Ø GAS (110 MBH)
- RANGE:** 1-1/4"Ø GAS (215 MBH)
- RTU-01:** 1"Ø GAS (90 MBH)
- RTU-02:** 1"Ø GAS (115 MBH)
- RTU-03:** 3/4"Ø GAS (90 MBH)
- G/M:** 2-1/2"Ø GAS (1792 MBH)
- GWH-01:** 1-1/4"Ø GAS (200 MBH)
- GWH-02:** 1-1/4"Ø GAS (200 MBH)

The diagram shows the following gas line sizes and MBH ratings for the equipment connections:



- CONV. OVEN:** 1"Ø GAS (120 MBH)
- FRYER-1:** 1"Ø GAS (120 MBH)
- FRYER-2:** 1"Ø GAS (120 MBH)
- GRIDDLE:** 1-1/4"Ø GAS (162 MBH)
- BROILER:** 1"Ø GAS (110 MBH)
- RANGE:** 1-1/4"Ø GAS (215 MBH)
- RTU-01:** 1"Ø GAS (90 MBH)
- RTU-02:** 1"Ø GAS (115 MBH)
- RTU-03:** 3/4"Ø GAS (90 MBH)
- G/M:** 2-1/2"Ø GAS (1792 MBH)
- GWH-01:** 1-1/4"Ø GAS (200 MBH)
- GWH-02:** 1-1/4"Ø GAS (200 MBH)

GAS ISOMETRIC RISER DIAGRAM

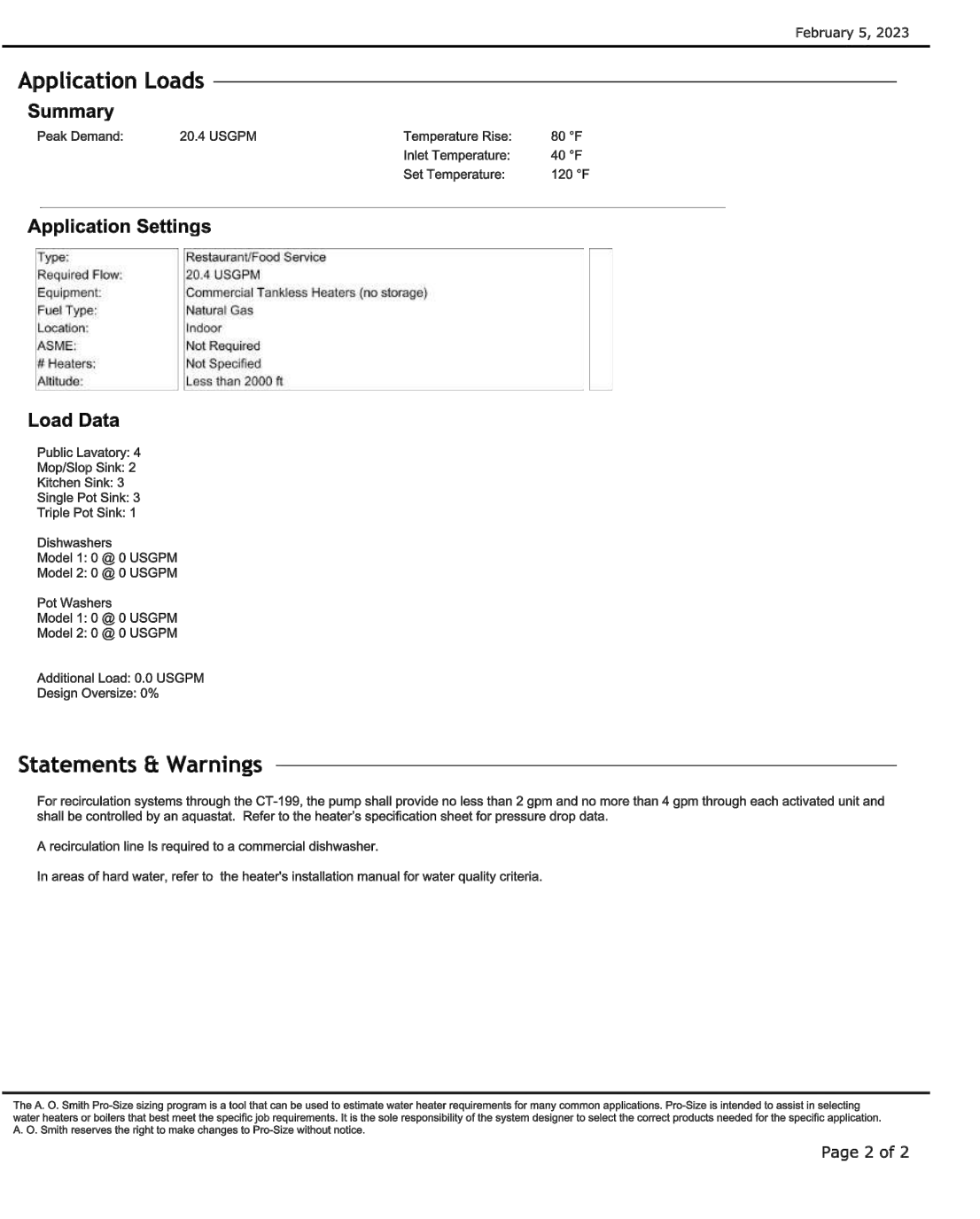
GAS UNITS AND MBH:	
ITEM	MBH
RTU-01	90

GAS PIPE MATERIAL IS METALLIC SCHD. 40
 GAS PIPE LENGTH FROM G/M TO FARTHEST EQUIPMENT IS APPRX 75 FT.

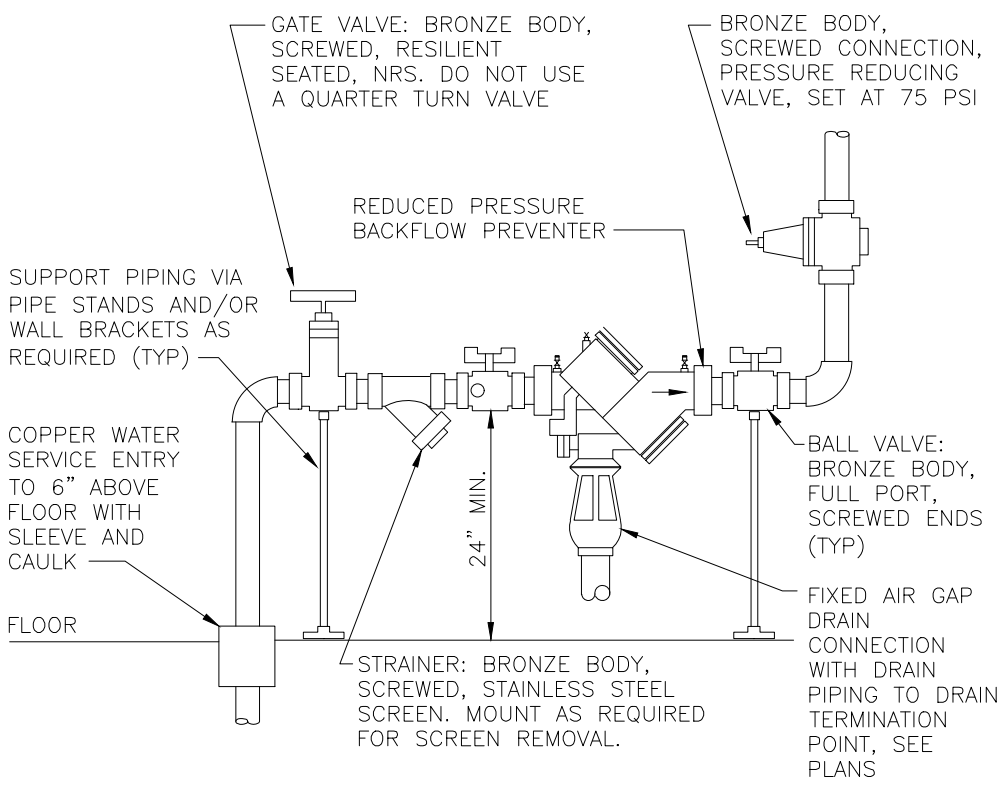
GAS PIPE MATERIAL IS METALLIC SCHD. 40
GAS PIPE LENGTH FROM G/M TO FARTHEST EQUIPMENT IS APPRX 75 FT.

	A. O. Smith Phone: 1.866.362.0828 www.aosmith.com	Pro-Size Selection Report
D. 40		February 5, 2023
THEST ESTIMATION IS APPRX 75 FT.		
	Project Information	
	Product: 2.2-ACT	Prepared for:
	Project Name: SHAUN	
	Location: New Jersey	Prepared by:
	Engineer: BM	
	Contractor:	
	Selected Product	
	ACT-199-N	
	CT-199 Commercial Condensing Indoor Gas Tankless Water Heater	
	# Heaters: 5	
	Model Number: ACTP199-N	
	Input (psi): 150-200 Barite	
	Total Flow: 25.8 USGPM	
	% Demand: 117%	
	<ul style="list-style-type: none">Ultra-Low NOx condensing technology provides up to 0.8% uniform energy factorPrimary heat exchanger constructed of commercial grade copper alloy. Secondary heat exchanger constructed of 316L Stainless SteelContinuous maximum flow rate up to 100 gpmEnergy Star® qualifiedComplies with 8 heaters for up-to 100' foot vent run using inch .40 PVCEasy Link up to 4 heaters with no additional controls. Multi-Link up to 20 heaters with Multi-Link Controller (pin 100112681)	<ul style="list-style-type: none">Complies with Lead Free StandardsThermal Efficiency = 96%5-year limited warranty on the heat exchangers5 year warranty on parts1 year warranty on labor
		
	Required Components	
	Multi-Unit Controller	
	Model #: 100112681	
	When the solution contains more than 4 heaters, a multi-unit controller is required.	
		
	The A. O. Smith Pro-Size using program is a tool that can be used to estimate water heater requirements for many common applications. Pro-Size is intended to assist in selecting water heaters as follows that meet most the specific job requirements. It is the sole responsibility of the system designer to select the correct products needed for the specific application. A. O. Smith reserves the right to make changes to Pro-Size without notice.	
		Page 1 of 2

SCHEDULE No. 1
GAS WATER HEATER SCHEDULE



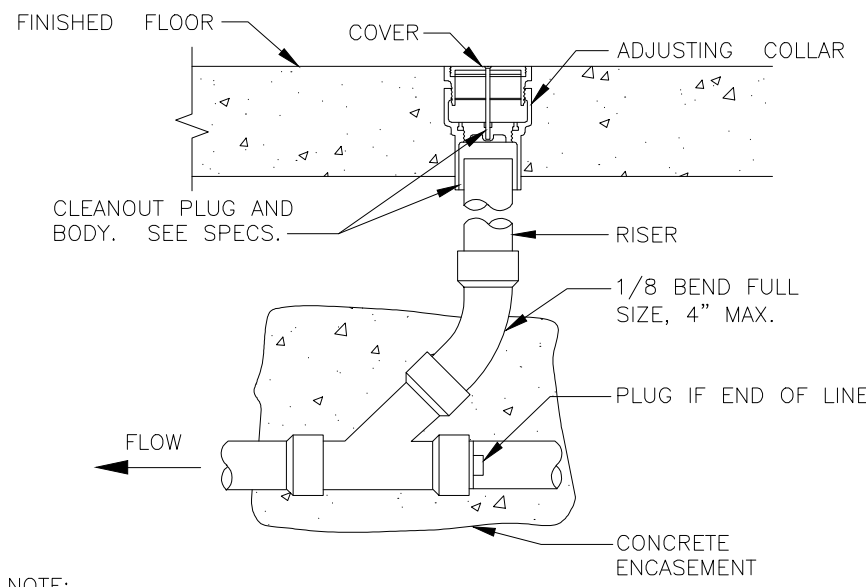
P 4.01



DETAIL SHOWS GENERAL SCHEMATIC REQUIREMENTS. PROVIDE BACKFLOW PREVENTER OF TYPE AND MANUFACTURER APPROVED BY LOCAL AUTHORITIES. PROVIDE PRESSURE REDUCING VALVE ONLY IF PRESSURE EXCEEDS 80 PSI - VERIFY, STRAINER AND REDUCING VALVE MAY BE INSTALLED IN VERTICAL PIPE IF SPACE LIMITATIONS REQUIRE IT. CLEAN STRAINER BEFORE TURNING BUILDING OVER TO OWNER. PROVIDE ANY REQUIRED CERTIFICATION OF TEST OF BACKFLOW PREVENTER TO LOCAL AUTHORITIES.

13 DOMESTIC WATER SERVICE ENTRY

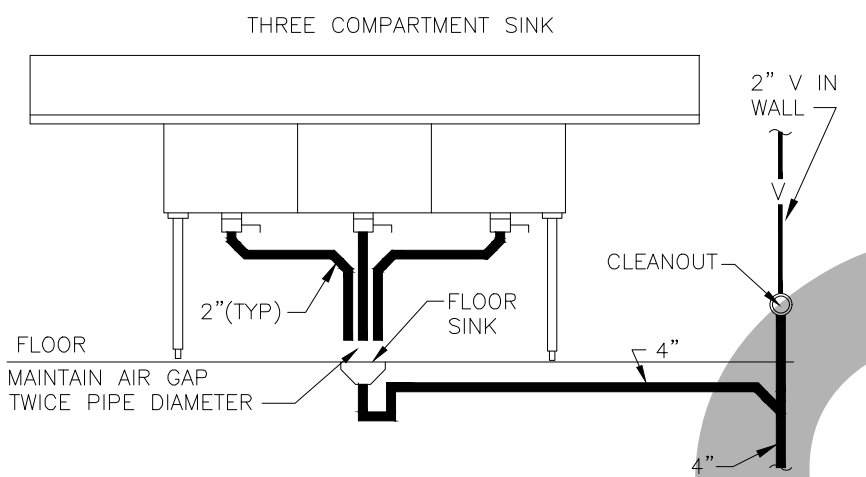
NOT TO SCALE



NOTE: CLEANOUT COVER FLUSH WITH TILE OR FLUSH WITH CONCRETE FLOOR IN AREA WITH NO TILE.

14 FLOOR CLEAN-OUT

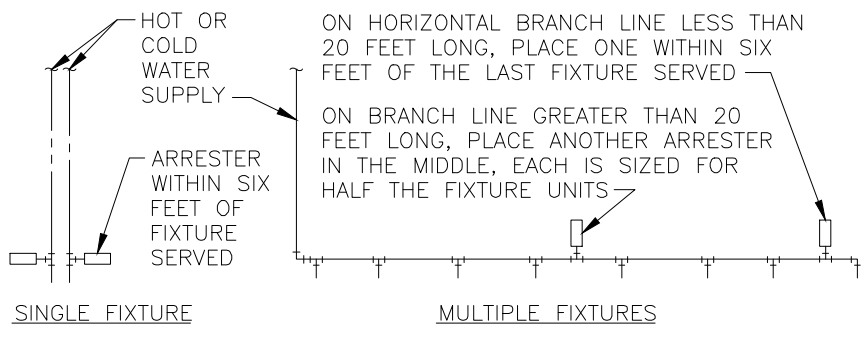
NOT TO SCALE



ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS OR MEET LOCAL CODE REQUIREMENTS. UTILIZE HUBLESS CAST IRON PIPE, FITTINGS AND CONNECTORS FOR SINK CONNECTIONS.

15 3-COMP SINK

NOT TO SCALE

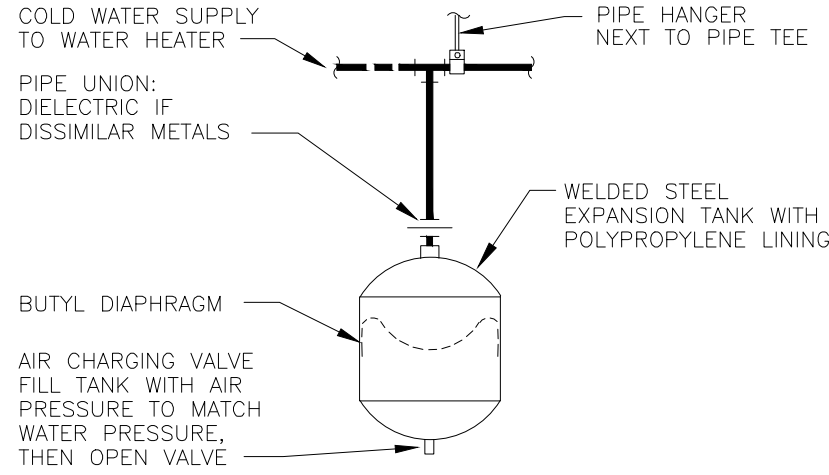


PDI SIZE	FIXTURE UNIT LOAD	FIXTURE	COLD	HOT
AA	1-3	VALVE, WATER CLOSET	10	-
A	4-11	TANK, WATER CLOSET	5	-
B	12-32	URINAL	5	-
C	33-60	LAVATORY	1.5	1.5
D	61-113	SINK	2	2
E	114-154	MOP BASIN	3	3
F	155-330	SHOWER/BATHTUB	2	3
		DRINKING FOUNTAIN	0.5	-

PC TO PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WAITS OR APPROVED EQUIVALENT WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 OR ANSI #A112.26.1M CERTIFICATION. SIZE AND INSTALL PER PDI #WH-201 STANDARD OR MANUFACTURER'S INSTRUCTION. THE TABLES ABOVE ARE BASED ON THE SIOUX CHIEF PRODUCT LINE. IF PRESSURE IS IN EXCESS OF 65 PSIG THEN UPSIZE THE ARRESTER BY ONE (EXAMPLE: AN 'A' ARRESTER WOULD BECOME A 'B' ARRESTER.)

09 WATER HAMMER ARRESTERS

NOT TO SCALE

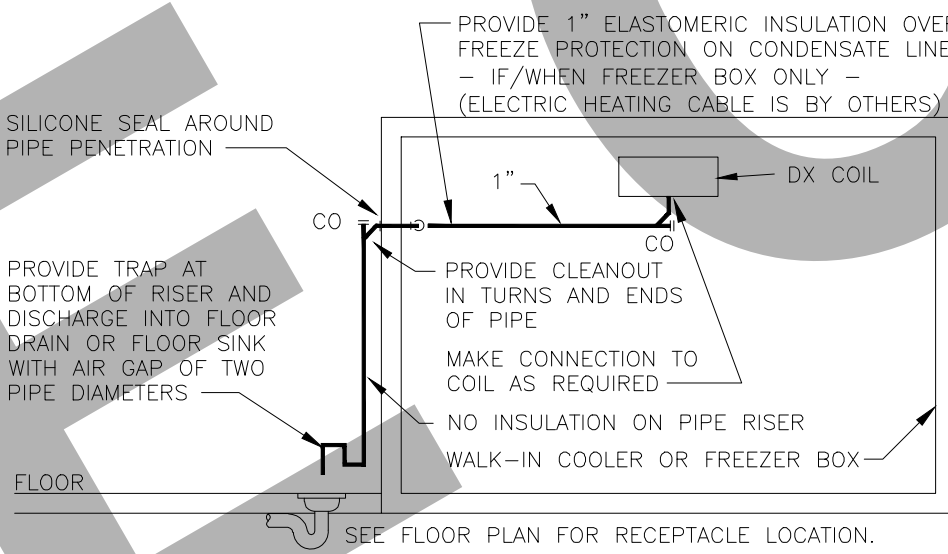


PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. MAKE PIPE SAME SIZE AS TANK FITTING. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION PROCEDURE. VERIFY PROPER OPERATION WHEN INSTALLED.

EXPANSION TANK INSTALLATION SHALL OCCUR ONLY WHEN THERE IS A BACKFLOW PREVENTION DEVICE INSTALLED WITHIN THE TENANT SPACE WATER SYSTEM OR BUILDING WATER SYSTEM.

10 SMALL EXPANSION TANK

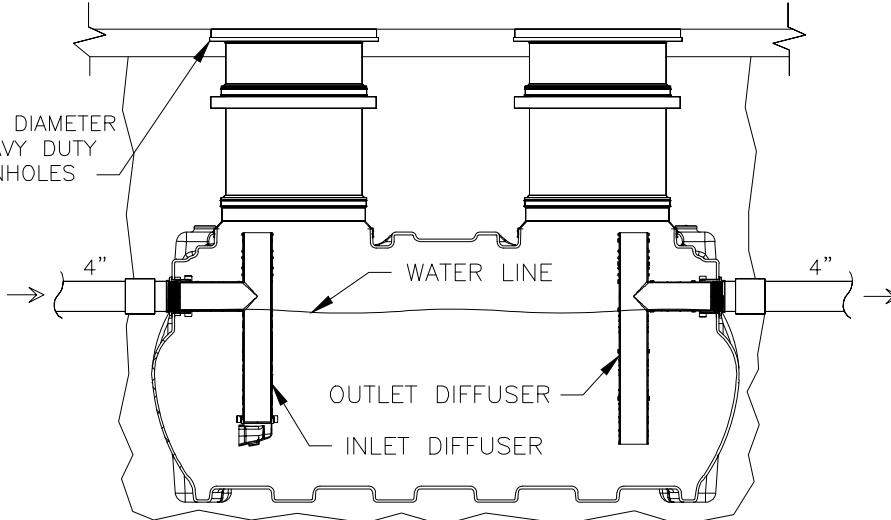
NOT TO SCALE



INSTALL PIPE HIGH AS POSSIBLE, ANCHORED TO WALL OF BOX WITH SUPPORTS AT MAXIMUM SIX FOOT CENTERS. USE TYPE "M" HARD COPPER TUBE AND FITTINGS WITH LEAD-FREE SOLDER JOINTS. SLOPE HORIZONTAL PIPE AT MINIMUM TWO PERCENT. REFER TO LOCAL CODE FOR INDIRECT DRAIN REQUIREMENTS.

11 WALK-IN COOLER/FREEZER DRAIN

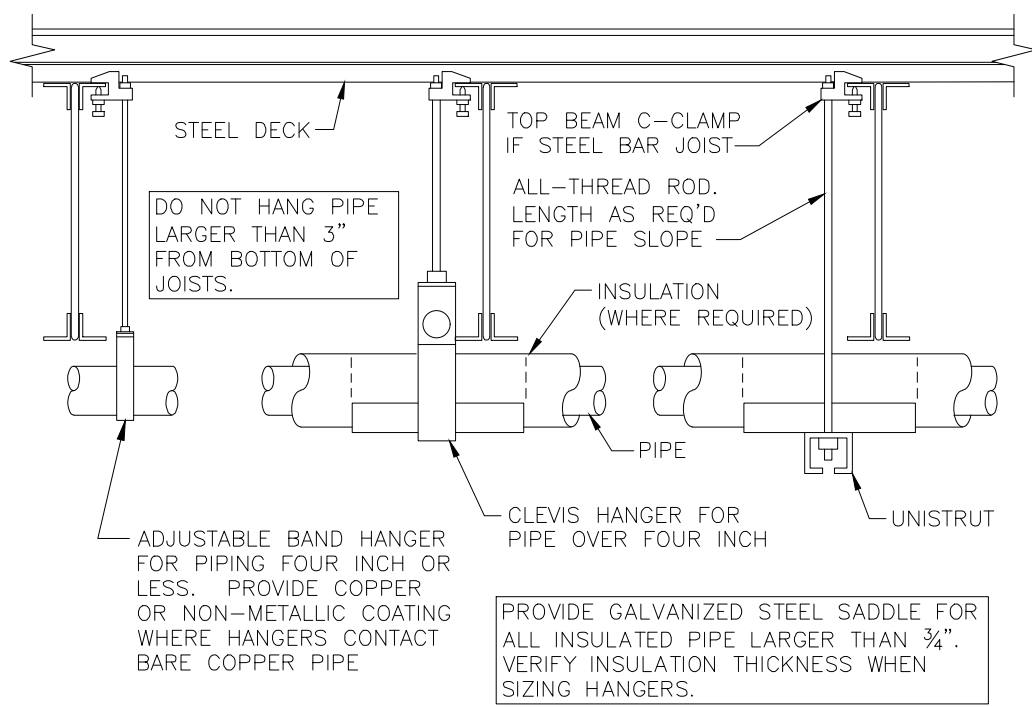
NOT TO SCALE



BED OF UNDISTURBED EARTH OR COMPACTED SAND BACKFILL: 4" - 6" GB-250 - 100 GPM - 277 GALLON CAPACITY. DETAIL SHOWS GENERAL SCHEMATIC REQUIREMENTS. CONTRACTOR SHALL SUBMIT PROPOSED GREASE INTERCEPTOR INSTALLATION PLANS AND SPECIFICATIONS TO LOCAL AUTHORITIES FOR THEIR APPROVAL BEFORE ACQUISITION. SEE MANUFACTURER INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS.

12 GREASE INTERCEPTOR

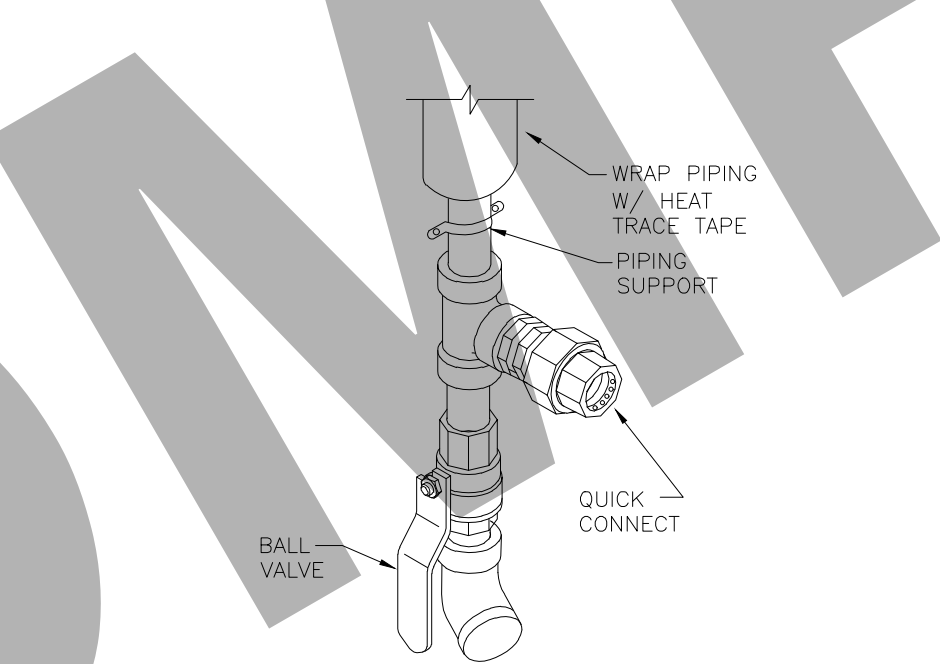
NOT TO SCALE



PROVIDE UPPER ATTACHMENT AS REQUIRED FOR CASES NOT SHOWN HERE. DO NOT INSTALL HANGER INSIDE INSULATION OR OTHERWISE PENETRATE VAPOR BARRIER. DO NOT HANG ONE PIPE FROM ANOTHER EXCEPT IN CHASES. TRAPEZE HANGERS MAY BE USED FOR MULTIPLE PARALLEL PIPES. HANGER SPACING FOR PIPE SIZE: COPPER: 4"=12'-0"; 3"=11'-0"; 2 1/2"=10'-0"; 2"=9'-0"; 1 1/2"=8'-0"; 1 1/4"=7'-0"; 1" & 3/4"=6'-0"; 1/2"=5'-0". CAST IRON: 10'-0" AND ONE NEAR ALL JOINTS. STEEL: 4"=14'-0"; 3"=12'-0"; 2 1/2"=11'-0"; 2"=10'-0"; 1 1/2"=9'-0"; 1"=7'-0"; 3/4"=6'-0"; 1/2"=5'-0". LOCATE HANGERS AS CLOSE AS POSSIBLE TO TURNS AND TEES OF PIPE. PROVIDE SUPPLEMENTARY STEEL STRUTS BETWEEN JOISTS IF REQUIRED. LOCATE HANGERS TO TAKE LOAD OFF OF EQUIPMENT CONNECTIONS. ANCHOR WATER PIPE AGAINST SWAYING DUE TO CHANGES IN WATER VELOCITY. PROVIDE SEISMIC BRACING IF/AS REQUIRED BY LOCAL AUTHORITIES. CHAINS OR PERFORATED STRAP IRON OR STEEL IS NOT ACCEPTABLE. REFER TO CODES FOR FURTHER INFORMATION.

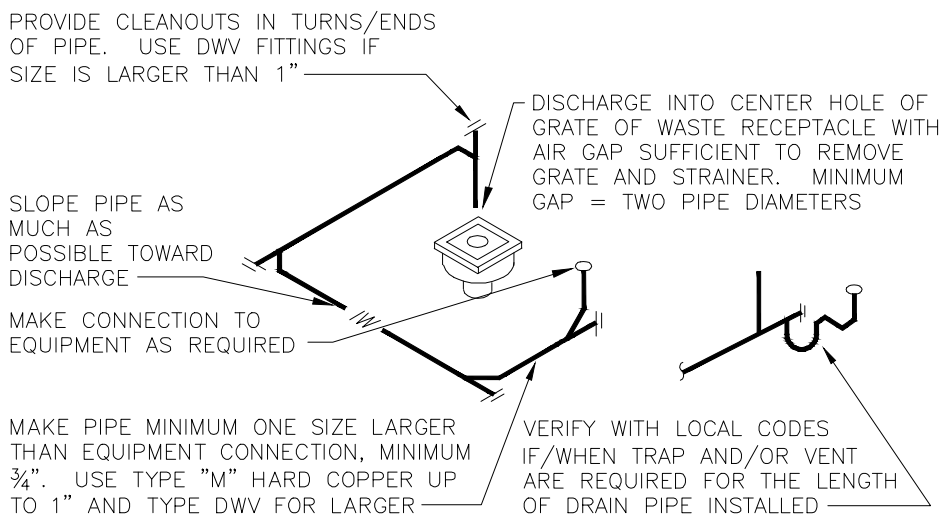
05 PIPE HANGERS

NOT TO SCALE



06 USED COOKING OIL RECOVERY

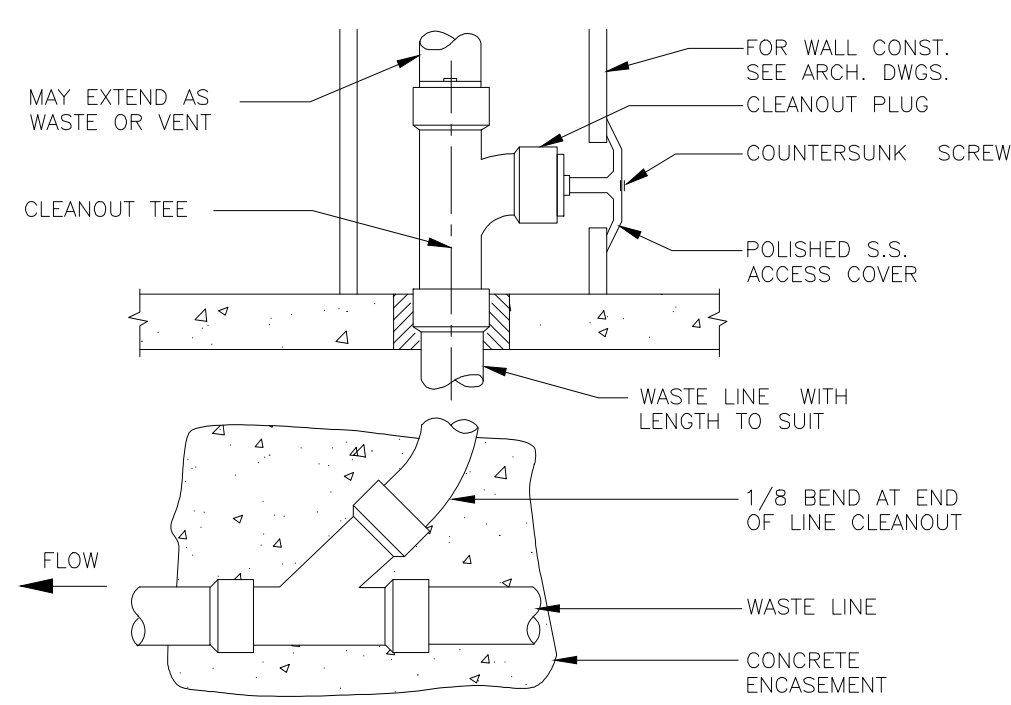
NOT TO SCALE



ROUTE PIPE INCONSPICUOUSLY AND UNOBTUSIVELY. HANG PIPE AS REQUIRED. DO NOT INSULATE INDIRECT DRAIN PIPE WHEN INSTALLED EXPOSED IN FOOD SERVICE FACILITY. REFER TO LOCAL CODES FOR FURTHER INFORMATION.

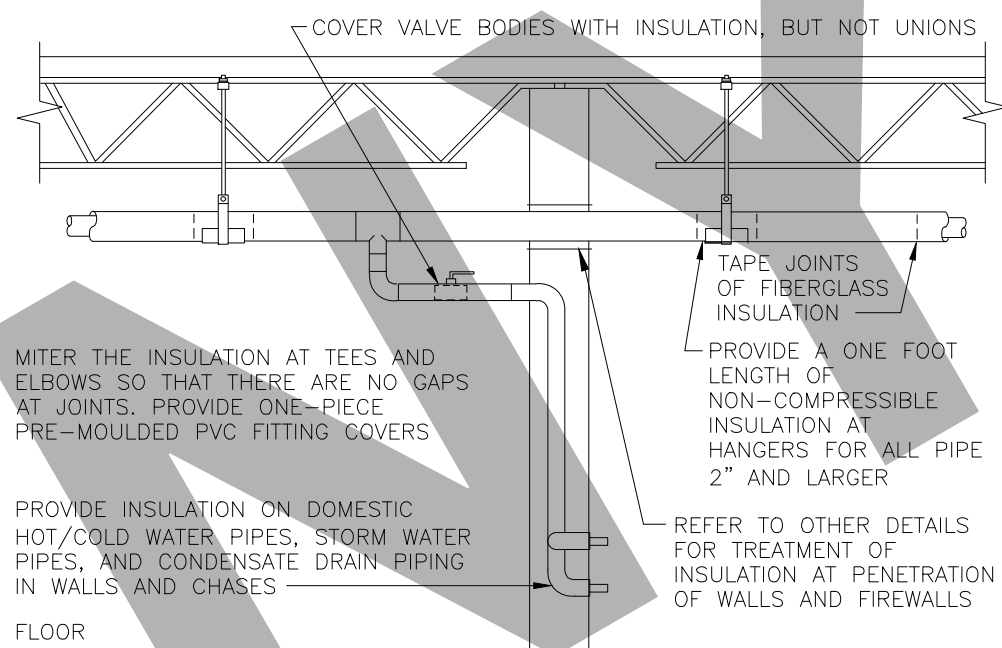
07 INDIRECT DRAIN

NOT TO SCALE



08 WALL CLEAN-OUT

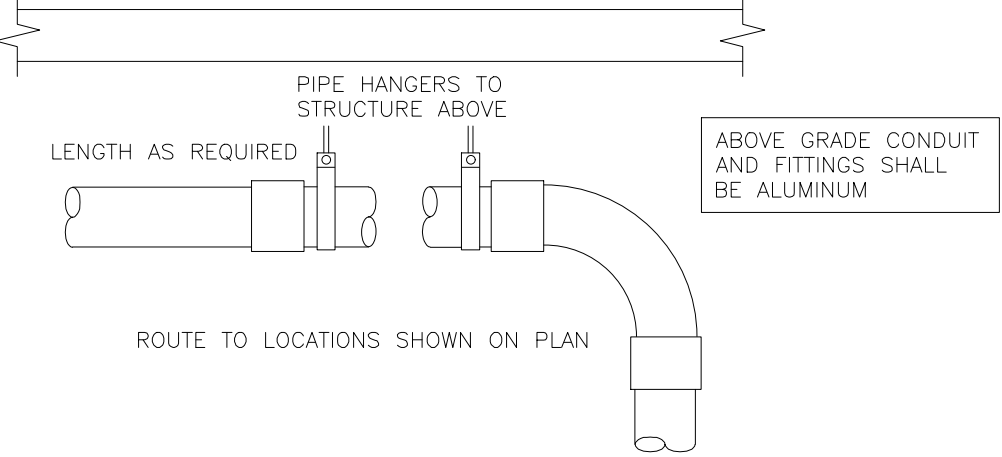
NOT TO SCALE



PROVIDE FIBERGLASS INSULATION WITH ALL-SERVICE JACKET WITH VAPOR BARRIER ON ALL COLD/HOT WATER PIPING AND CONDENSATE DRAIN PIPE. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION REGARDING INSULATION. INSTALL ALL ITEMS PER SPECIFICATIONS AND MANUFACTURERS INSTRUCTIONS. MAINTAIN VAPOR BARRIER ON COLD PIPING BY MEANS OF SEALANT AND TAPE. FLAME-SPREAD AND SMOKE-DEVELOPED INDEXES SHALL NOT EXCEED 25/50. SEAL EXPOSED ENDS OF FIBERGLASS INSULATION WITH ADHESIVE MASTIC.

01 PIPE INSULATION

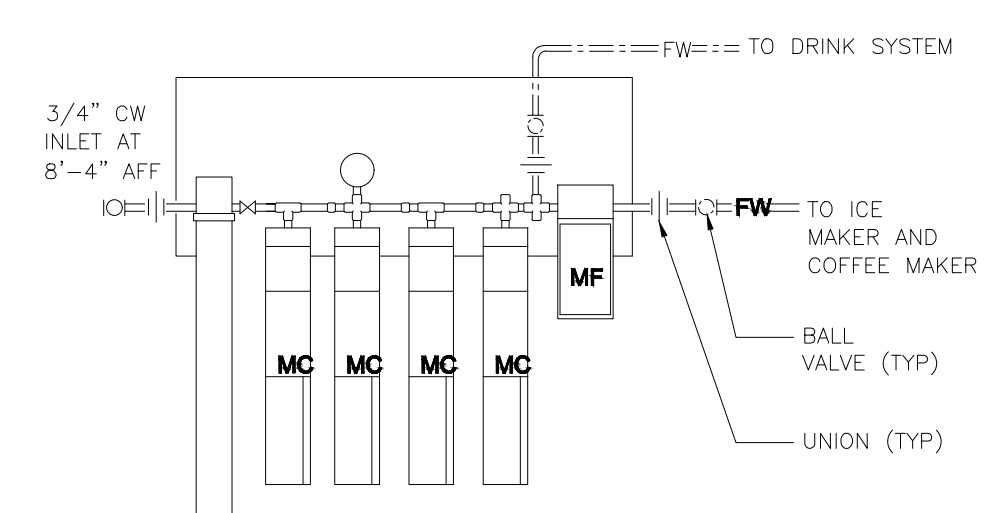
NOT TO SCALE



PROVIDE ALUMINUM BEVERAGE CONDUIT AND FITTINGS EQUAL TO BEVSTREAM SYSTEM (WWW.BEVSTREAM.COM). USE MINIMUM QUANTITY OF FITTINGS WITH LONG SWEEP ELBOWS AT BOTH ENDS WITH A MINIMUM RADIUS OF 30" ON 6" OR SMALLER AND 48" ON 8" OR LARGER, AVOID ELBOWS IN HORIZONTAL RUN IF AT ALL POSSIBLE. GENERAL CONTRACTOR SHALL SEAL ENDS OF CONDUIT WITH FOAM AFTER BEVERAGE LINES ARE INSTALLED IN CONDUIT. COORDINATE WITH FOOD SERVICE DRAWING FOR EXACT SIZE AND LOCATION OF CONDUIT. CUT CONCRETE FLOOR SLAB, BACKFILL, REPAIR VAPOR BARRIER AND PATCH SLAB PER ARCHITECT'S REQUIREMENTS.

02 BEVERAGE CONDUIT - ABOVE SLAB

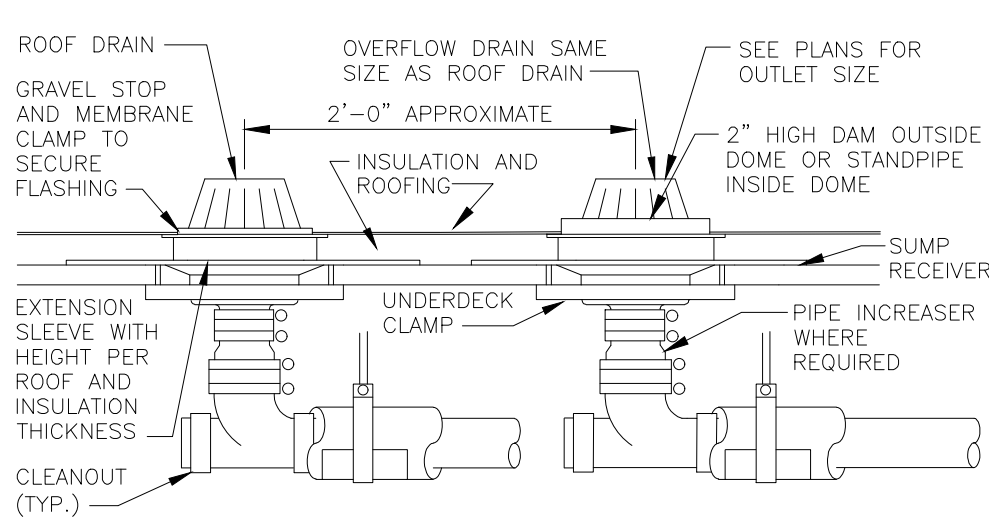
NOT TO SCALE



REFER TO KITCHEN EQUIPMENT DRAWINGS FOR FILTER REQUIREMENTS.

03 WATER FILTER

NOT TO SCALE



INSTALL ROOF DRAINS PER MANUFACTURER'S RECOMMENDATIONS. REFER TO SPECIFICATIONS FOR PIPING MATERIAL. INSULATE ROOF DRAIN BODIES AND PIPE PER SPECIFICATIONS. LOCATE DRAINS WHERE SHOWN ON ARCHITECTURAL PLANS - VERIFY WITH STRUCTURAL PLANS FOR ROOF LOW POINTS. COORDINATE WITH ROOFING CONTRACTOR. REFER TO STRUCTURAL DRAWINGS AND COORDINATE THEREWITH IF REQUIRED FOR SUPPLEMENTARY STEEL AROUND ROOF OPENING. ARRANGEMENT SHOWN IS SCHEMATIC -- ADJUST TO SUIT ACTUAL CONDITIONS.

04 ROOF DRAIN AND OVERFLOW

NOT TO SCALE

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REVISIONS

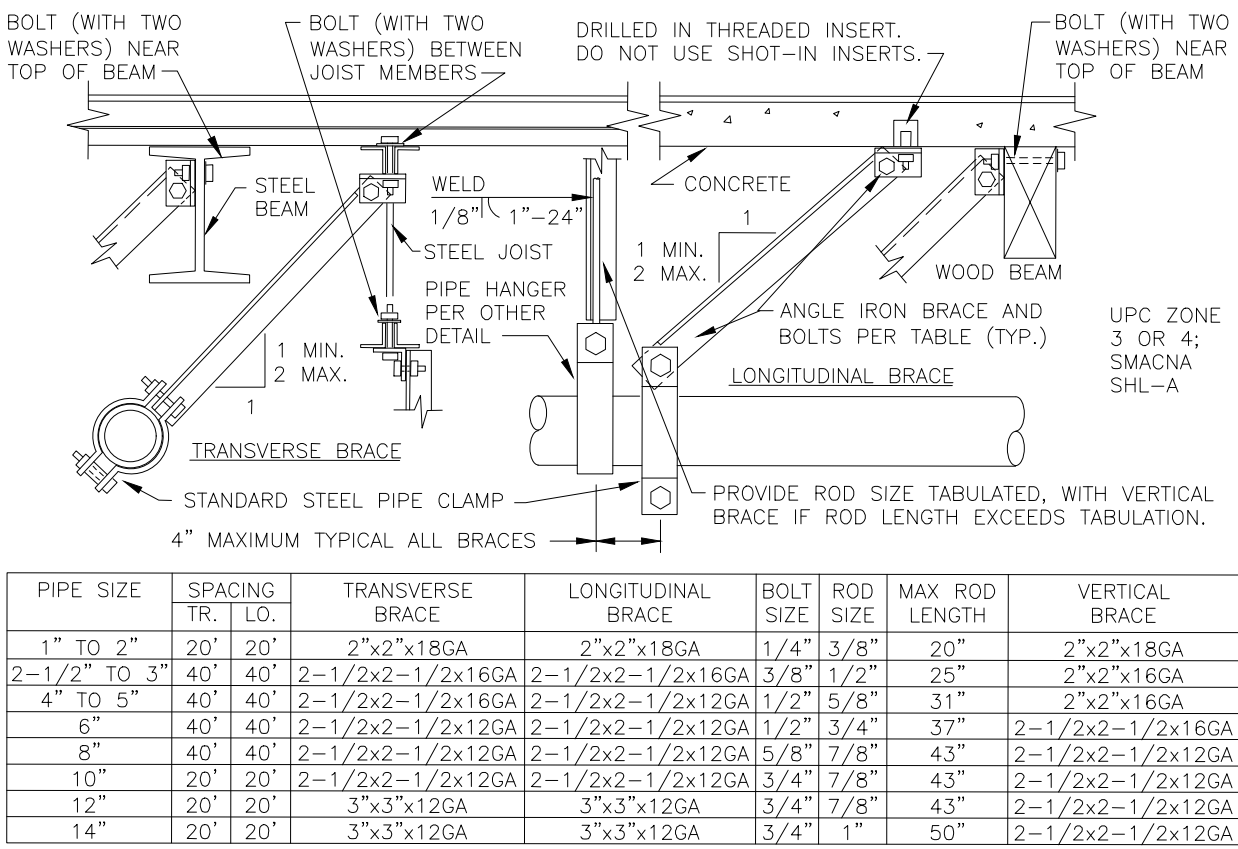
PLUMBING GENERAL DETAILS - 1

Project Number: 02-021

Date: 02.28.2023

Drawn By: MN

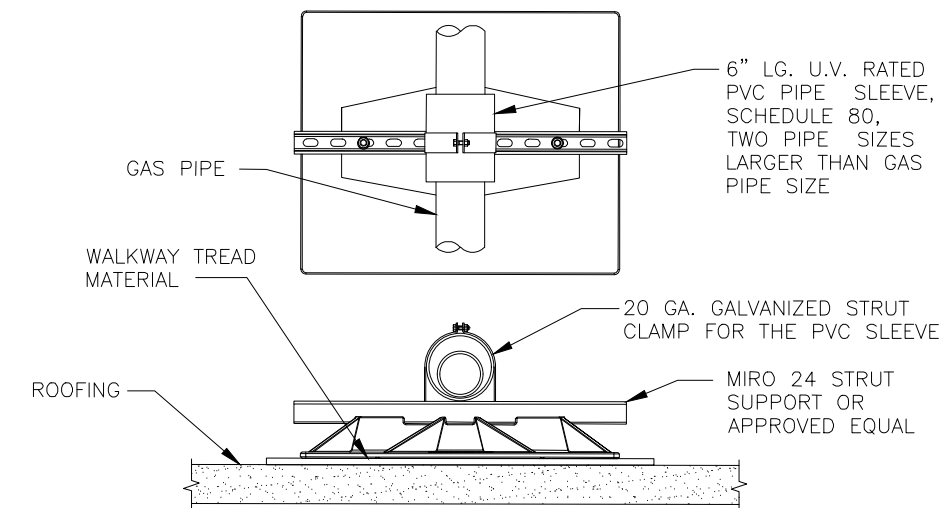
Client: Walter Green, Uncle Willie's



DO NOT BRACE ANY PIPES WHERE TOP OF PIPE TO BOTTOM OF UPPER ATTACHMENT IS LESS THAN 12". BRACE GAS, OIL AND AIR PIPES 1" AND LARGER. BRACE ALL PIPES IN EQUIPMENT ROOMS 1-1/4" AND LARGER. BRACE ALL OTHER PIPE 2-1/2" AND LARGER. BRACE HUBLESS CAST IRON PIPE ON EACH SIDE OF ANY CHANGE IN DIRECTION OF 90 DEGREES OR MORE. MAXIMUM HANGER ROD LENGTH IS 6 FEET. WHERE LENGTH OF RUN EXCEEDS LONGITUDINAL BRACE SPACING, PROVIDE 2 FEET OFFSET IN PIPE AND LOCATE BRACE AT MID RUNS. REFER TO CURRENT EDITION OF SMACNA "SEISMIC RESTRAINT MANUAL" FOR ALTERNATIVE ATTACHMENTS AND ADDITIONAL INFORMATION AND REQUIREMENTS. (THIS DETAIL APPLIES IN THE ABSENCE OF OTHER LOCAL CODE REQUIREMENTS.)

13 SEISMIC BRACING FOR PIPE

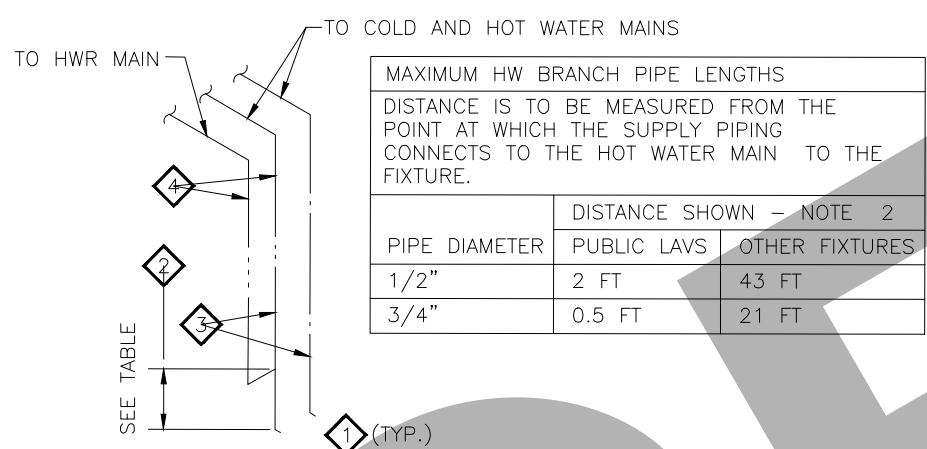
NOT TO SCALE



- NOTES
- SUPPORT REQUIRED 10'-0" O.C. AND AT ALL CHANGES IN DIRECTION.
 - INCREASE IN HEIGHT AS REQUIRED FOR ROUTING ABOVE ROOF MOUNTED ACCESSORIES SUCH AS EXPANSION JOINTS AND TO ACCOMMODATE SLOPE.

14 ROOF GAS PIPE SUPPORT

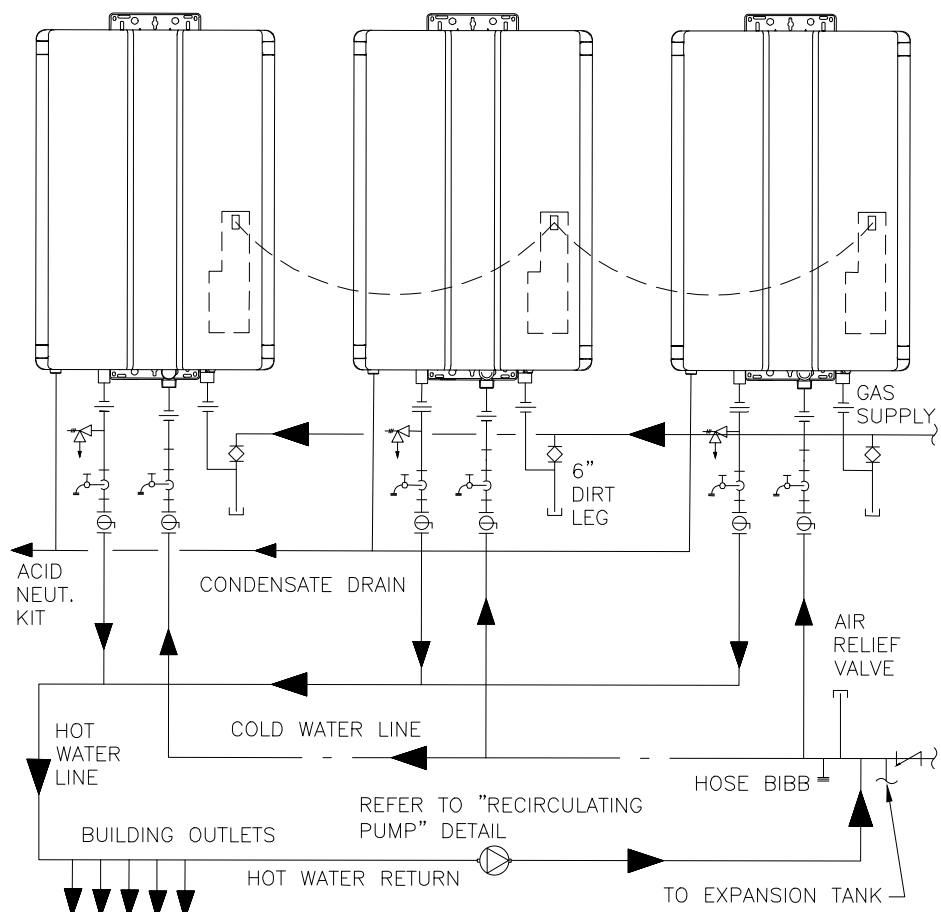
NOT TO SCALE



- KEY NOTES
- HOT WATER PIPING SHOWN ON FLOOR PLANS AND ISOMETRIC IS SHOWN FOR PLAN CLARITY. HOT WATER PIPING SHALL LOOP DOWN INTO WALL AS SHOWN.
 - SEE TABLE FOR MAXIMUM ALLOWED DISTANCE OF PIPING FROM HOT WATER MAIN TO FIXTURE.
 - PIPE SIZE TO FIXTURE PER PLANS.
 - PIPE SIZE FOR HOT WATER DISTRIBUTION PIPING PER PLANS.

15 PUBLIC HANDWASHING RECIRC.

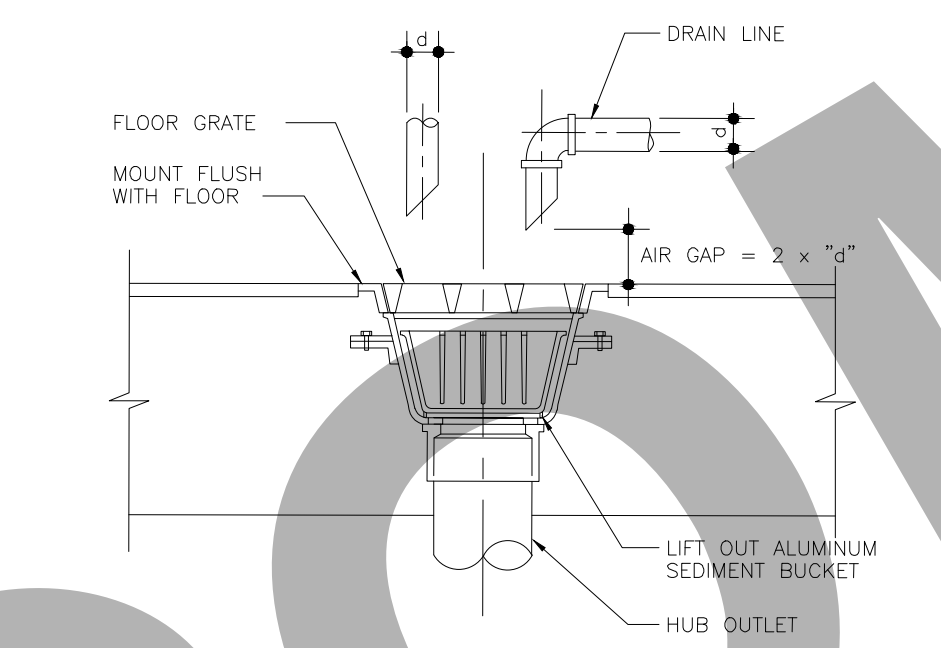
NOT TO SCALE



REFER TO SPECIFICATIONS AND PLUMBING FIXTURE SCHEDULE. PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. REFER TO FLOOR PLAN FOR PIPE SIZES. SET WATER HEATER THERMOSTAT AT 120° FAHRENHEIT. PROVIDE SEISMIC STRAP OR BRACING AND FLEXIBLE CONNECTORS TO WATER AND GAS CONNECTIONS IF/AS REQUIRED BY LOCAL AUTHORITIES.

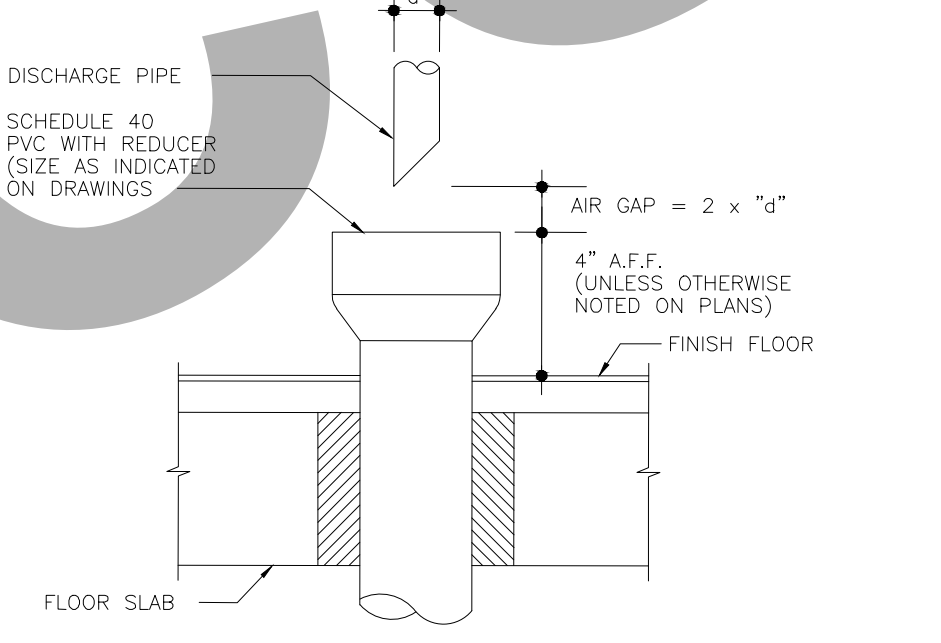
09 TANKLESS GAS WATER HEATERS

NOT TO SCALE



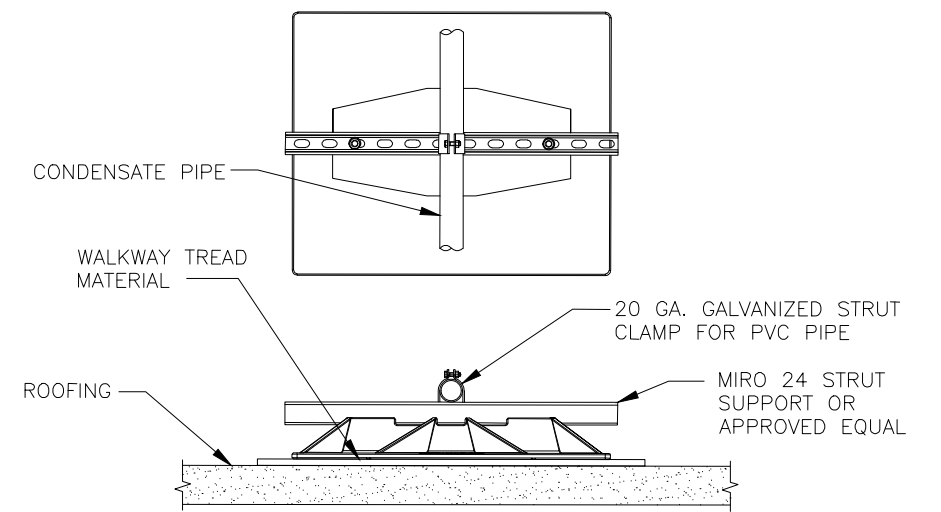
10 FLOOR SINK

NOT TO SCALE



11 HUB DRAIN

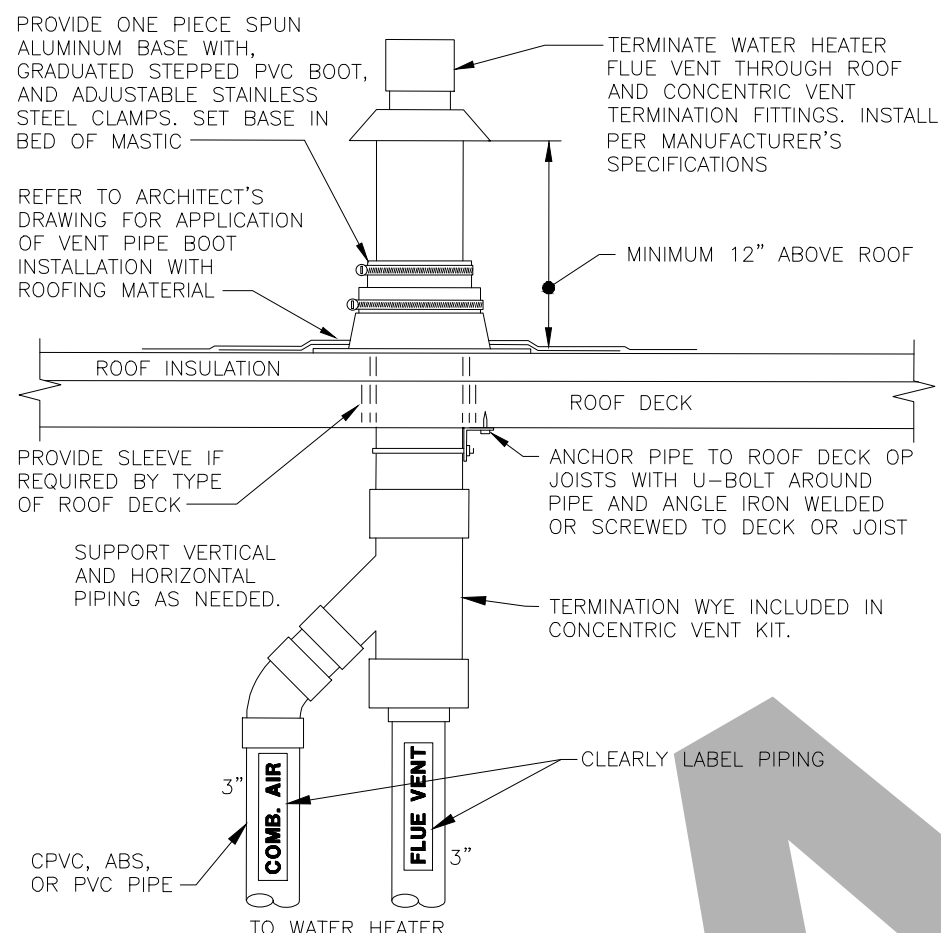
NOT TO SCALE



- NOTES
- SUPPORT REQUIRED 10'-0" O.C. AND AT ALL CHANGES IN DIRECTION.
 - INCREASE IN HEIGHT AS REQUIRED FOR ROUTING ABOVE ROOF MOUNTED ACCESSORIES SUCH AS EXPANSION JOINTS AND TO ACCOMMODATE SLOPE.

12 ROOF CONDENSATE PIPE SUPPORT

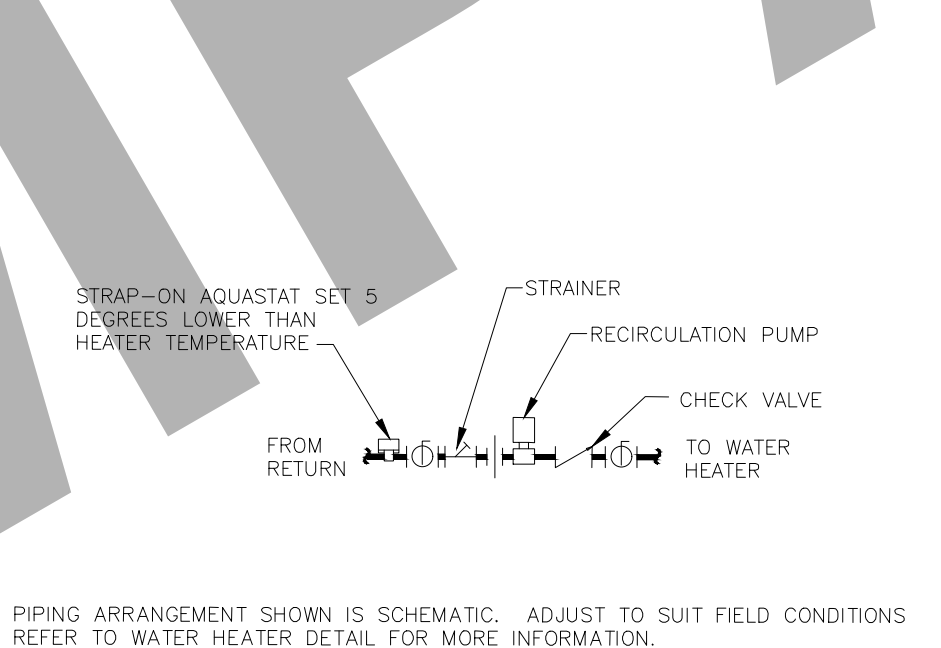
NOT TO SCALE



REFER TO PLANS FOR WATER HEATER FLUE VENT PIPE SIZES AND LOCATIONS. LOCATE CONCENTRIC VENT A MINIMUM OF 10 FEET HORIZONTAL (UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION) AND ONE FOOT FROM ANY VERTICAL SURFACE. VERIFY FLASHING AND COUNTERFLASHING WITH ROOFING CONTRACTOR.

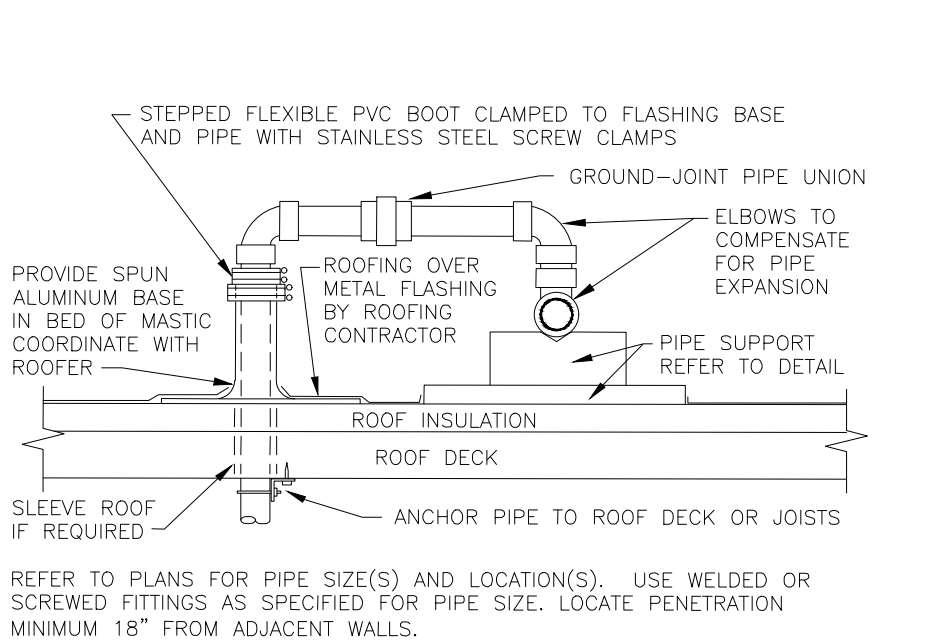
05 CONCENTRIC VENT

NOT TO SCALE



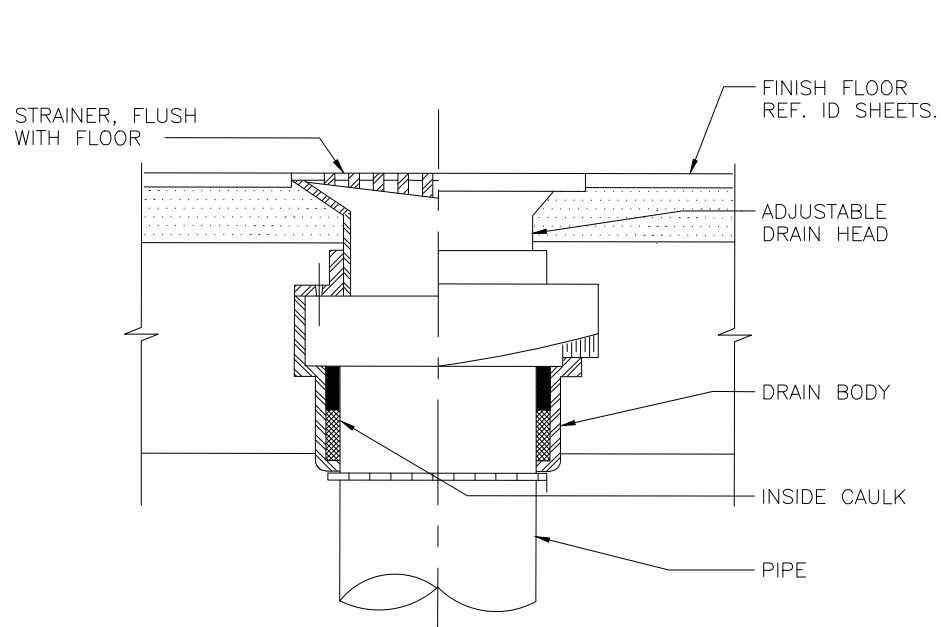
06 RECIRCULATION PUMP

NOT TO SCALE



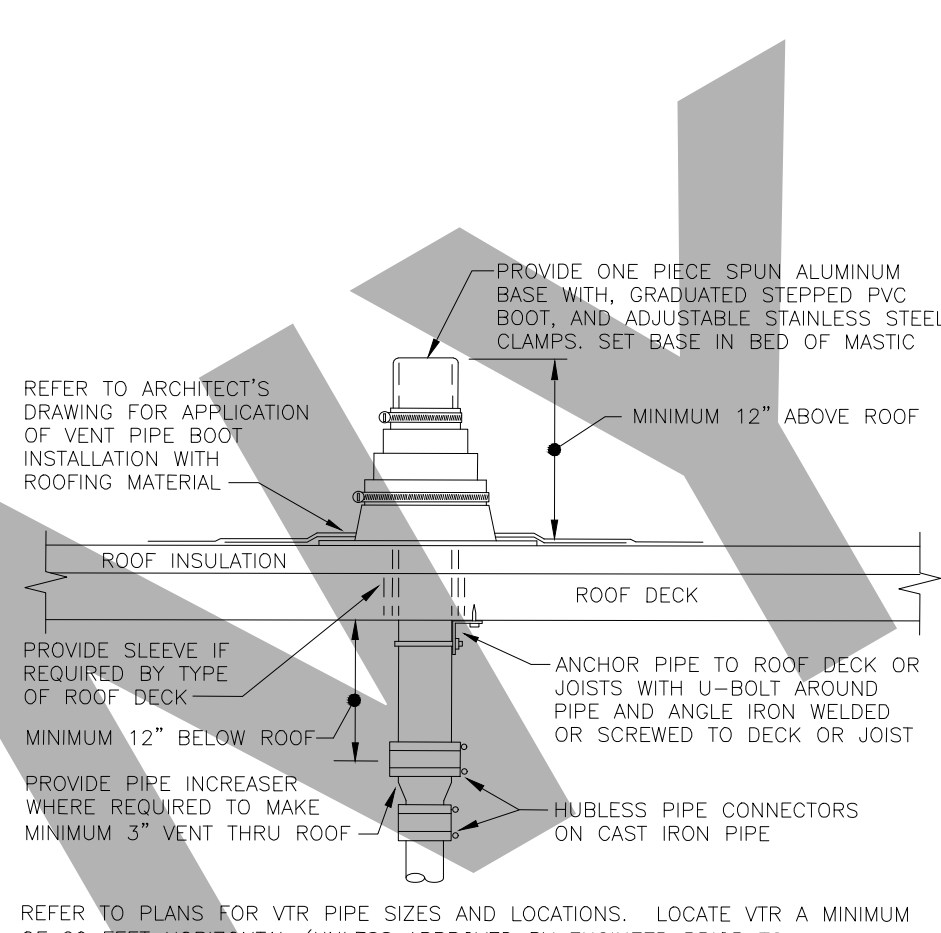
07 ROOF PENETRATION

NOT TO SCALE



08 FLOOR DRAIN

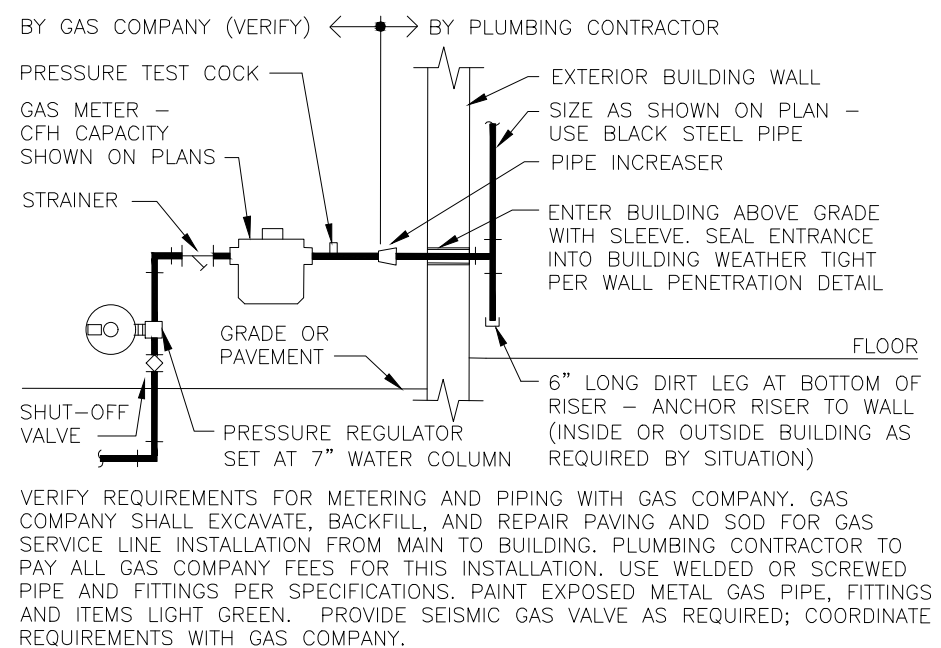
NOT TO SCALE



REFER TO PLANS FOR VTR PIPE SIZES AND LOCATIONS. LOCATE VTR A MINIMUM OF 20 FEET HORIZONTAL (UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION) OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE, AND ONE FOOT FROM ANY VERTICAL SURFACE. PROVIDE 1" FIBERGLASS INSULATION WITH ALL-SERVICE JACKET ON VENT PIPE INSIDE BUILDING WITHIN SIX FEET OF VENT THRU ROOF LOCATION. VERIFY FLASHING AND COUNTERFLASHING WITH ROOFING CONTRACTOR.

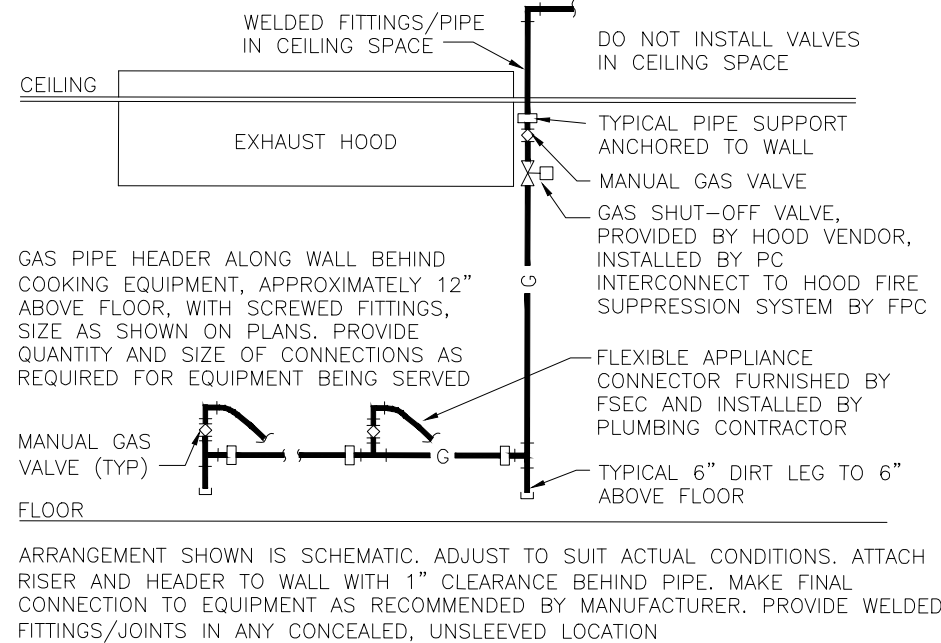
01 VENT THRU ROOF (VTR)

NOT TO SCALE



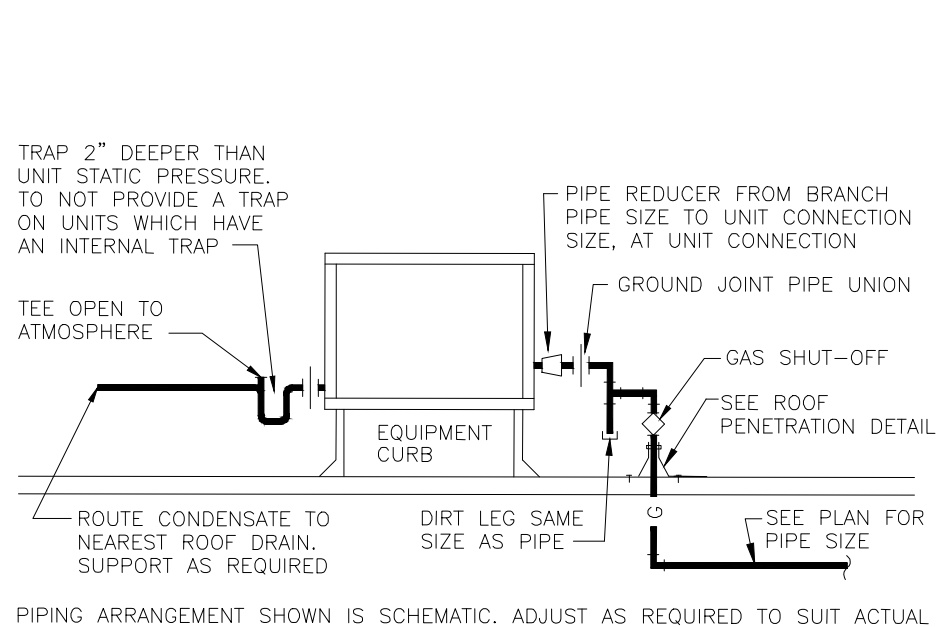
02 GAS SERVICE

NOT TO SCALE



03 COOKING APPLIANCE GAS PIPE

NOT TO SCALE



04 ROOFTOP UNIT CONNECTIONS

NOT TO SCALE

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REVISIONS

PLUMBING GENERAL DETAILS - 2

Project Number: 02-021

Date: 02.28.2023

Drawn By: MN

Client: Walter Green, Uncle Willie's

P 5.02

ROOF LEVEL

MAIN LEVEL

BASEMENT LEVEL

WATER SUPPLY RISER DIAGRAM

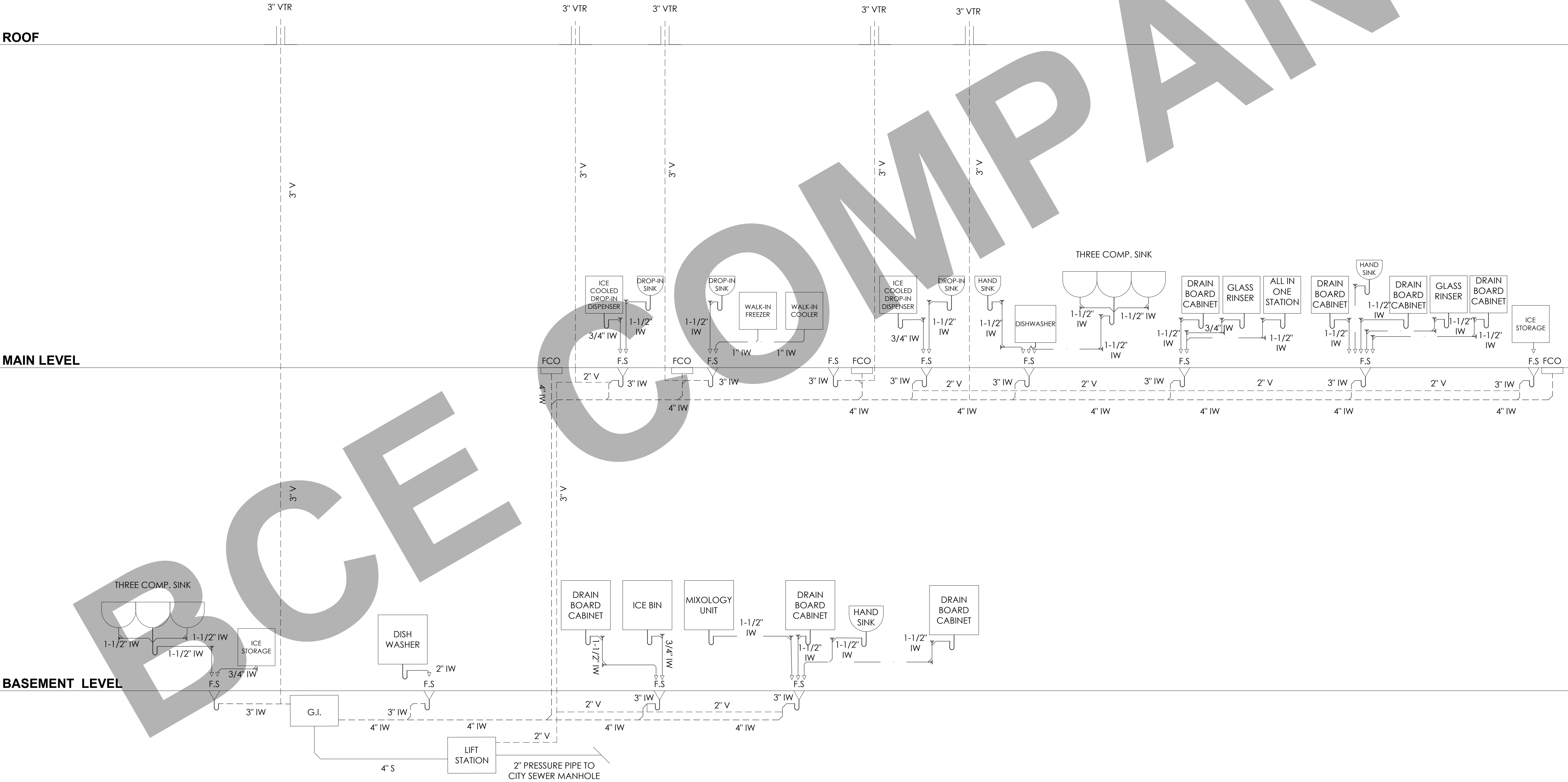
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WATER SUPPLY RISER DIAGRAM

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Drawn By: MN
Client: Walter Green, Uncle Willie's



INDIRECT WASTE RISER DIAGRAM

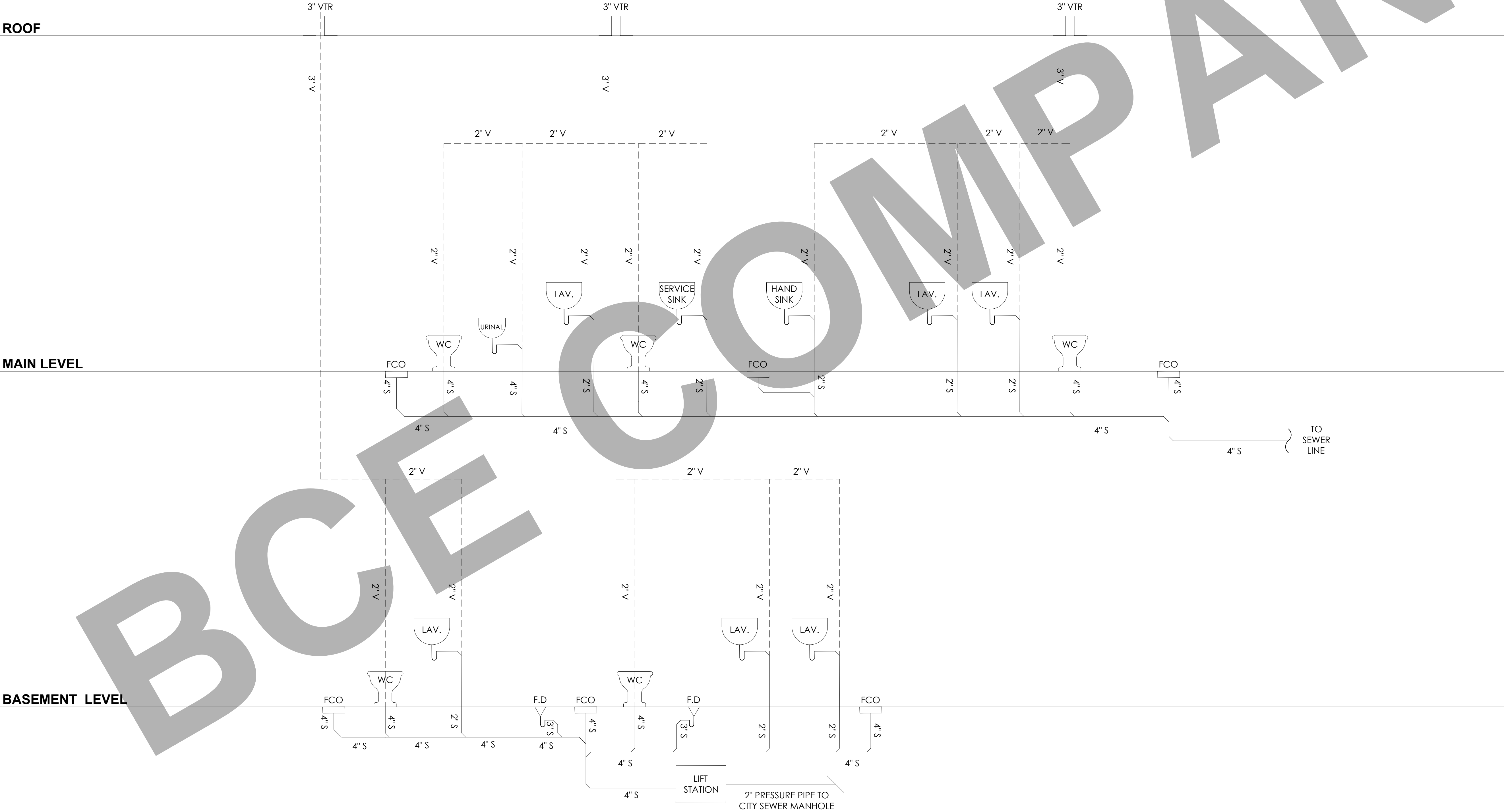
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RISER DIAGRAM
INDIRECT WASTE

Project Number: 02-021
Date: 02.28.2023
Drawn By: MN
Client: Walter Green, Uncle Willie's



SANITARY RISER DIAGRAM

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SANITARY RISER DIAGRAM

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